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REMEDIAL INVESTIGATION ADDENDUM SOIL, GROUNDWATER, AND SOIL VAPOR SITE 1 FORMER DRUM MARSHALLING AREA NWIRP BETHPAGE NY

11/01/2015

TETRA TECH

REMEDIAL INVESTIGATION ADDENDUM - SOIL, GROUNDWATER, AND SOIL-VAPOR

SITE 1 – FORMER DRUM MARSHALLING AREA

Naval Weapons Industrial Reserve Plant
Bethpage, New York

Naval Facilities Engineering Command
Mid-Atlantic

Contract Number N62470-08-D-1001
Contract Task Order WE62

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TETRA TECH

REMEDIAL INVESTIGATION ADDENDUM – SOIL, GROUNDWATER, AND SOIL-VAPOR

SITE 1 – FORMER DRUM MARSHALLING AREA

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ACRONYMS AND ABBREVIATIONS

>	more than
<	less than
π	Pi
°C	Degrees Celsius
°K	Degrees Kelvin
µg/kg	micrograms per kilogram
µg/L	micrograms per liter
µg/m^3	microgram per meters cubed
A	Trench Area
ABS	Absorption Factor
ABS_{GI}	Absorption efficiency in the gastrointestinal tract
ACH	Air Changes per Hour
ADAF	Age Dependent Adjustment Factor
AF	Soil Skin Adherence Factor
AOC	Area of Concern
AT	Average Time
AT-C	Average Time (Cancer)
atm-m^3/mole	atmospheres times cubic meters per mole
ASL	Above Screening Level
AS/SVE	Air Sparge/Soil Vapor Extraction
AST	Aboveground Storage Tank
AT-N	Average Time (Non-cancer)
ATSDR	Agency for Toxic Substances and Disease Registry
B	Dimensionless ratio of the permeability of the stratum corneum relative to the permeability across the viable epidermis
BCF	bioconcentration factor
BCP	Bethpage Community Park
bgs	below ground surface
BSL	Below COPC Screening Level
BTU	British Thermal Unit
BW	Body Weight
BWD	Bethpage Water District
C	Carcinogenic
C_{air}	Exposure Concentration for air
C_{gw}	Exposure Concentration in Groundwater
C_s	Concentration of chemical in soil
C_{soil}	Exposure Concentration for soil
Cal EPA	California Environmental Protection Agency
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CF	Conversion Factor
CFR	Code of Federal Regulations
CLEAN	Comprehensive Long-Term Environmental Action Navy
CMI	Corrective Measures Implementation
CMS	Corrective Measures Study
cm^2	square centimeter
COC	Chemical of Concern
COPC	Chemical of Potential Concern
CSF	Cancer Slope Factor
CSM	Conceptual Site Model
CTE	Central Tendency Exposures
CTO	Contract Task Order
CWA	Clean Water Act
DA_{event}	Absorbed Dose per Event

ACRONYMS AND ABBREVIATIONS

DAD	Dermally Absorbed Dose
DPT	Direct Push Technology
DRO	Diesel Range Organics
ED	Exposure Duration
EE/CA	Engineering Evaluation and Cost Analysis
EF	Exposure Frequency
EPC	Exposure Point Concentration
ER	Environmental Restoration
ET	Exposure Time
EU	Exposure Unit
EV	Event Frequency
F	Fraction of floor through which containment can enter
FI	Fraction Ingestion
FS	Feasibility Study
g/mole	grams per mole
gpm	gallons Per Minute
GRO	Gasoline Range Organics
GWTP	Groundwater Treatment Plant
HEAST	Health Effects Assessment Summary Tables
HHRA	Human Health Risk Assessment
HI	Hazard Index
H_i	Henry's Law Constant
HNUS	Halliburton NUS
HQ	Hazard Quotient
HRS	Hazard Ranking System
HSA	Hollow Stem Auger
IAS	Initial Assessment Study
ILCR	Incremental Lifetime Cancer Risk
IR	Ingestion Rate
IRIS	Integrated Risk Information System
IRM	Interim Remedial Measure
IUR	Inhalation Unit Risk
J	Estimated Value
Kd	distribution coefficient
kG,H_2O	gas-phase mass-transfer coefficient of water vapor
K_i	Contaminant's overall mass-transfer coefficient
k_iG	gas-phase mass transfer coefficient
k_iL	Liquid-phase mass-transfer coefficient
kL,O_2	Liquid-phase mass-transfer coefficient of oxygen
K_p	permeability coefficient from water through skin
kg/mg	kilogram/milligram
KRFG	Republic Airport
L/day	Liters per Day
m^3	cubic meter
MCLs	Maximum Contaminant Levels
MCLG	Maximum Contaminant Level Goal
MGD	Million gallons per day
MI	Mobility Index
mm	millimeter
MSL	Mean Sea Level
MW_i	Molecular weight of component
MWH_2O	Molecular weight of water
MWO_2	Molecular weight of oxygen
N	non-carcinogenic
NAVFAC	Naval Facilities Engineering Command
NCEA	National Center for Environmental Assessment

ACRONYMS AND ABBREVIATIONS

NCP	National Oil and Hazardous Substance Pollution Contingency Plan
NG	Northrop Grumman
NTCR	Non-Time Critical Removal Actions
NTX	No Toxicity Criteria
NUT	Essential Nutrient
NVT	Not Sufficiently Volatile
NWIRP	Naval Weapons Reserve Plant
NYCRR	New York Code, Rules and Regulations
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
OD	Outer Diameter
ONCT	On-site Containment
ONRL	Oak Ridge National Laboratory
OSWER	Office of Solid Waste and Emergency Response
OU	Operable Unit
PA	Preliminary Assessment
PCBs	Polychlorinated Biphenyls
PEF	Particulate Emission Factor
PID	Photoionization Detector
PP	Proposed Plan
PPM	Parts Per Million
PPRTV	Provisional Peer Reviewed Toxicity Value
PRAP	Proposed Remedial Action Plan
R	ideal gas-constant
RAGS	Risk Assessment Guidance for Superfund
RCRA	Resource Conservation and Recovery Act
RDA	Recommended Daily Allowance
RDI	Recommended Daily Intake
RI	Remedial Investigation
RFA	RCRA Facility Assessment
RfC	Reference Concentration
RfD	Reference Dose
RFI	RCRA Facility Investigation
RME	Reasonable Maximum Exposure
ROD	Record of Decision
RSL	Regional Screening Level
S	Solubility
SA	Skin Surface Available for Contact
SDWA	Safe Drinking Water Act
SCOs	Soil Cleanup Objectives
SSD	Sub-Slab Depressurization
SSL	Soil Screening Level
SI	Site Investigation
SVE	Soil Vapor Extraction
SVI	Soil Vapor Intrusion
SVOC	Semi-Volatile Organic Compounds
SVPMs	Soil Vapor Pressure Monitors
T	Average system absolute temperate
t*	time to reach steady-state conditions
Tau	Lag Time
TCLP	toxicity characteristic leaching procedure
TCRA	Time Critical Removal Actions
TEFs	Toxic Equivalency Factors
Tetra Tech	Tetra Tech Inc.
T_{event}	Event Duration
TOC	Total Organic Carbon

ACRONYMS AND ABBREVIATIONS

TPH	Total Petroleum Hydrocarbon
TSD	Treatment, Storage, and Disposal
UCL	Upper 95 Percent Confidence Limit
USC	United States Code
USDA	United States Department of Agriculture
UFP-SAP	Uniform Federal Policy Sampling and Analysis Plan
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
V	Trench Volume
VF	Volatilization Factor
VGAG	Vapor-Phase Granular Activated Carbon
VOCs	Volatile Organic Compounds
VP	Vapor Pressure

1.0 INTRODUCTION

1.1 PURPOSE

This Remedial Investigation (RI) Addendum for Site 1 – Former Drum Marshalling Area at Naval Weapons Industrial Reserve Plant (NWIRP) Bethpage, Nassau County, Long Island, New York (Figures 1-1) was prepared by Tetra Tech Inc. (Tetra Tech) for Naval Facilities Engineering Command (NAVFAC) – Mid-Atlantic under the U.S. Navy's Comprehensive Long-Term Environmental Action Navy (CLEAN) Contract No. N62470-08-D-1001, Contract Task Order (CTO) WE62.

This RI Addendum addresses select impacted media and pathways at the NWIRP Bethpage that could affect human health and were not addressed by the 1995 Operable Unit (OU) 1 Record of Decision (ROD). The select impacted media and pathways consist of deep polychlorinated biphenyl (PCB)-contaminated soil, PCB- and metal-contaminated groundwater, and volatile organic compound (VOC)-contaminated soil vapor at Site 1.

RIs conducted in the early- to mid- 1990s identified human health risks associated with shallow PCB-, shallow metal-, and/or shallow-to-deep VOC-contaminated soil. The shallow PCB- and metal-contaminated soil was estimated to be limited to approximately 7 feet below ground surface and could be readily excavated for offsite disposal. A remedy for this soil was identified in the 1995 Operable Unit (OU) 1 Record of Decision (ROD). From 1997 to 2002, the VOC-contaminated soil was treated to eliminate a continuing VOC impact on groundwater. The OU1 ROD did not identify the presence of PCB- and metal-contaminated groundwater or the presence of VOC-contaminated soil vapor that could migrate and effect human health.

This work is part of the Navy's Installation Restoration Program, which is designated to identify contamination of Navy and Marine Corps lands and facilities resulting from past operations and to institute remedial actions as necessary. There are four distinct stages under CERCLA. Stage 1 is the Preliminary Assessment (PA), which was formerly known as the Initial Assessment Study (IAS). Stage 2 is a Site Investigation (SI) which augments the information collected in the Preliminary Assessment. Stage 3 is the RI/Feasibility Study (FS), which characterizes the contamination at a facility and develops options for remediating the site. Phase 4 is the Remedial Action, which results in the control or cleanup of contamination at sites. This report has been prepared under stage 3.

When NWIRP Bethpage was operational, it was a large quantity generator of hazardous waste, and was classified as a Treatment, Storage, and Disposal (TSD) facility, for storage of hazardous wastes beyond 90 days. Due to this designation, NWIRP Bethpage was issued a permit under the Resource Conservation and Recovery Act (RCRA) [United States Environmental Protection Agency (USEPA) ID NYD002047967] in which the Navy was identified as the property owner and Northrop Grumman was listed as the operator. The 9-acre parcel including Site 4 retains the RCRA permit, with requirements limited to corrective action.

NWIRP Bethpage is also classified as an “Inactive Hazardous Waste Disposal Site” under New York State Department of Environmental Conservation (NYSDEC) 6 New York Code, Rules, and Regulations (NYCRR) Part 375 (Registry No. 1-30-003B). The Part 375 program is a risk-based program and closely parallels the USEPA Superfund Program.

Environmental investigations are also being conducted under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980. The Navy is lead federal agency under the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR Part 300, and Executive Order 12580, as amended by Executive Order 13016, for CERCLA response activities at NWIRP Bethpage. The stages for Navy’s Environmental Restoration Program (ERP) site investigations and actions are managed under the RCRA[1] and CERCLA[2]. A comparison of steps for each program is presented below (Navy, 2006).

Comparison of CERCLA Response Actions and RCRA Corrective Actions at Federal Facilities	
CERCLA Response Action	**RCRA Corrective Action**
Preliminary Assessment/Site Inspection (PA/SI) • Preliminary Assessment (PA), formerly known as the Initial Assessment Study (IAS). • Hazard Ranking System (HRS) Scoring. • Site Inspection (SI).	**RCRA Facility Assessment (RFA)** • Preliminary Review. • Visual Site Inspection. • Sampling Visit.
Removal Action • Emergency Removal Actions. • Time-Critical Removal Actions (TCRAs). • Non-Time-Critical Removal Actions (NTCRAs).	**Interim Measures** • Interim Remediation. • Temporary Fixes. • Alternate Water Supplies.
Remedial Investigation (RI) • Site-Specific Data Collection. • Source Characterization. • Contamination Characterization. • Waste Mixtures, Media Interface Zones. • Hydrogeological and Climate Factors. • Risk Assessment. • Potential Routes of Exposure. • Extent of Migration.	**RCRA Facility Investigation (RFI)** • Background Data Review. • Environmental Setting Investigation. • Sources Characterization. • Contamination Characterization. • Potential Receptors Characterization.

[1] RCRA as amended by the Hazardous and Solid Waste Amendments of 1984, the Federal Facility Compliance Act of 1992, and the Land Disposal Program Flexibility Act of 1996. United States Code (USC) Title 42, Section 6901 (42 USC 6901) et seq. RCRA Subtitle C (Hazardous Waste Regulations; Code of Federal Regulations [CFR] Title 40, Parts 260 through 279 [40 CFR 260-279]) establishes a system for controlling hazardous waste from the time it is generated until its ultimate disposal (from "cradle to grave").

[2] CERCLA as amended by the Superfund Amendments and Reauthorization Act of 1986 and implemented by the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). The NCP (40 CFR 300) was originally established to respond to oil spills. However, following issuance of the Clean Water Act of 1972 (CWA), the NCP was broadened to include actual and potential hazardous substance releases.

Comparison of CERCLA Response Actions and RCRA Corrective Actions at Federal Facilities	
CERCLA Response Action	**RCRA Corrective Action**
Feasibility Study (FS) • Define Objectives and Nature of Response. • Develop Alternatives. • Conduct Detailed Analysis of Alternatives.	**Corrective Measures Study (CMS)** • Identify and Develop Alternatives. • Evaluate Alternatives. • Justify & Recommend Corrective Measure.
Remedy Selection • Select Remedy Which Meets Nine NCP Criteria. • Proposed Plan (PP). • Record of Decision (ROD).	**Remedy Selection** • Select Remedy that Abates Threat to Human Health and the Environment.
Remedial Design/Remedial Action • Design Remedy. • Perform Remedial Action. • Perform Operations and Maintenance and Monitoring.	**Corrective Measures Implementation (CMI)** • Develop Implementation Plan, Program, and Community Relations Plan. • Corrective Measures Design. • Construction and Implementation.

1.2 FACILITY LOCATION

NWIRP Bethpage is located in east-central Nassau County, Long Island, New York, approximately 30 miles east of New York City (Figure 1-1). The boundaries of the NWIRP Bethpage have varied over time. In the 1990s, NWIRP Bethpage was situated on approximately 109 acres in Nassau County in the Hamlet of Bethpage, Town of Oyster Bay, New York (Figure 1-2). The boundaries of the associated Northrop Grumman (NG) property have also varied over time, but in the 1990s, totaled approximately 500 acres. The former NWIRP property was bordered on the north, west, and south by NG facilities, and on the east by a residential neighborhood.

1.3 FACILITY HISTORY

The facility that would later become NWIRP Bethpage was established in 1942. Since its inception, the plant's primary mission has been the research prototyping, testing, design engineering, fabrication, and primary assembly of military aircraft. The facility included four plants used for assembly and prototype testing, a group of quality control laboratories, two warehouse complexes (north and south), a salvage storage area, groundwater recharge basins, the Industrial Wastewater Treatment Plant, and several smaller support buildings.

NWIRP Bethpage was a Government-Owned Contractor Operated facility that was operated by NG. The NWIRP was located within the secure portion of the NG complex. As a result of NG's decision to terminate operations at NWIRP Bethpage, in 1997, the U.S. Congress passed special legislation, PL 105-85 Sec 2852 FY-1998 that was issued as a part of the National Defense Authorization Act of 1998, authorizing conveyance of the Navy's real property at NWIRP Bethpage to Nassau County, New York for economic

redevelopment. NWIRP Bethpage originally included a main parcel of approximately 105 acres and a separate parcel of approximately 4.5 acres located to the north of the main parcel.

In 2002, the Navy transferred the 4.5 acre parcel to Nassau County. On February 26, 2008, the Navy transferred 96 acres of the 105-acre main parcel to Nassau County and is leasing the remaining 9 acres to Nassau County. Two sites located on the parcel that was transferred, Site 2 – Recharge Basins and Site 3- Salvage Storage Area, were determined to not require further environmental investigation or remediation (Figure 1-3). Land use restrictions are in place and these sites are subject to Five-Year Reviews. The 9-acre parcel includes Site 1 – the Former Drum Marshalling Area and Site 4 – Former Underground Storage Tank area. These sites are being retained by the Navy for environmental investigation and remediation. Upon successful remediation of the 9-acre parcel, it will also be transferred to Nassau County. The transfer and lease documents provide land use controls and notifications of areas in which residual contamination is present.

In 2011, Steel-Los III, LP bought 84 acres of the 96-acre property from Nassau County and has been renovating the property to attract new tenants. Nassau County has retained the remaining 12 acres for economic development. The Navy-owned 9-acre parcel was also subleased by Nassau County to Steel-Los III, LP in 2011. Steel-Los III currently utilizes the owned and leased properties for miscellaneous outdoor storage and as a movie production set. The indoor properties are being used for light industrial and commercial activities. Steel-Low III, LP maintains security for the facility.

1.4 SITE BACKGROUND

1.4.1 Site Description

Site 1 – Former Drum Marshalling Area is situated along the eastern boundary of the former NWIRP Bethpage (Figures 1-2 and 1-3). In addition, because of proximity, similarity of chemicals, and potential need for response actions, Site 1 also includes Area of Concern (AOC) 23 - above ground storage tanks (ASTs), AOC 32 - tetrachloroethene underground storage tanks (USTs), and AOC 35 - a sanitary settling tank and associated sludge drying beds. Similarly, Dry Wells 20-08 and 34-07 are being addressed with Site 1.

Site 1 is mostly an open and relatively flat lightly vegetated area with a 4-foot high windrow located along the eastern end of the site. At the northern end of the Site, the grade is mounded in the area of the abandoned sanitary settling tank. Initially, the tank sidewalls used mounded soil as insulation. Later, the top of the tank was collapsed and the remnants were covered with soil. The southern portion of the site is covered in asphalt and gravel and is used to store miscellaneous equipment and for vehicle parking. Except for the asphalt and gravel area modification in 2012, the site is enclosed by a facility perimeter fence on the east and interior fencing on the north, west and south.

In 1998, additional fencing was added to isolate Site 1 from the remainder of the NWIRP facility.

In 2009, 12 soil vapor extractions wells were installed between the windrow and eastern fence line. The extracted vapors from these wells are conveyed to a conex box located south of Site 1 where the individual lines are combined into a header for transport of the vapors to the blowers and treatment system located at Site 4. The Soil Vapor Extraction (SVE) Containment System started operation in 2009 and continues to operate to mitigate vapor migration to the adjacent neighborhood.

In 2009, buildings, tanks, and concrete aprons within the fenced portion of Site 1 were demolished and disposed/recycled offsite.

In 2012, the southern section of the fence was relocated to the north and the unfenced portion of Site 1 was paved with asphalt or gravel. In addition, in 2013 the vegetated windrow in the eastern portion of Site 1 was extended further south. Figure 1-3 provides a site layout and aerial view with the new changes. A photographic log is presented in Appendix A.

1.4.2 Site History

Starting in 1969, hazardous waste management practices for NG facilities on Long Island included marshaling of drummed wastes on the Navy property. Site 1 originally consisted of three former drum marshalling areas located in the center of the site that were used to store drums containing waste materials from operations at Plant 3 and potentially other sources at the facility. Storage first took place on a cinder-covered surface over the cesspool field east of Plant 3. The waste drums reportedly contained chlorinated and non-chlorinated solvents, liquid cadmium and chromium wastes. Transformers and PCB-filled autoclaves were also stored at the site.

In 1978, the collection and marshaling point was moved a few yards south of the original unpaved site, to-an area on a 100- by 100-foot concrete pad. This pad did not have a cover or spill containment. In 1982, drummed waste storage was transferred a third time to the present Drum Marshaling Area, located in the Salvage Storage Area (Site 3). The Drum Marshalling Area consisted of a concrete pad with spill containment; and in 1983, a cover was added. Approximately 200 to 300 drums were stored at each area at any one time. Reportedly, all drums of waste marshaled at the Former Drum Marshaling Areas were taken off-property by a private contractor for treatment or disposal. There are no reports of leaks or spills of drum contents.

Cesspools: Underlying most of Site 1 is approximately 120 abandoned cesspools that were designed to discharge sanitary waste waters from Plant 3. These cesspools were approximately 10 feet in diameter and 16 feet deep. Based on field observations, the cesspools are currently filled with soil. It is possible that non-sanitary wastes may have been discharged into this system.

AOC 23: AOC 23 was used for sanitary waste treatment. Sanitary wastewater from Plant 3 was discharged to AOC 23, which was used to separate solid and liquid wastes. The liquids were discharged into the series of cesspools located throughout Site 1. The solids were collected and dewatered at AOC 35. Based on the distribution of contamination throughout this area, non-sanitary wastes may have also entered these units.

AOC 32: Two USTs, identified as 1090 and 1091, were used at Plant 3 for bulk storage of tetrachloroethene. In the 1980s, when an above ground tank was constructed adjacent to this area to store tetrachloroethene, the two USTs were abandoned in place and AOC 32 was closed by NG. In 2012, the USTs and their contents were removed when they were encountered during construction activities (see Section 1.5.4 for additional detail).

AOC 35: AOC 35 included four sludge drying beds and a sanitary settling tank. The sludge drying beds were closed and backfilled in 1980.

Dry Wells 20-08 and 34-07: Dry Wells 20-08 and 34-07 were part of a storm water management system. The dry-wells functioned as catch basins, which ultimately discharged into the recharge basins. PCB fluids are suspected to have entered the system through floor drains and subsequently, underlying soil through permeable well bottoms. Both Dry Wells are no longer in use and have been abandoned (see Section 1.5.1 for additional detail).

1.4.3 Groundwater Use

In Nassau County, the sole source of water for potable supply and industrial use is groundwater. The Bethpage Water District (BWD) is the nearest supplier of potable water, with four wells located east of the NWIRP (BWD Wells 7, 8, 9, and BGS) and five wells located south of the NWIRP (BWD Wells 4-1, 4-2, 5-1, 6-1, and 6-2) (Figure 1-2). Between 1995 and 1997, these nine wells were used to supply an average of 3.5 million gallons per day (MGD) of drinking water. In addition to the BWD, water supply wells of the Hicksville Water District and Levittown Water District are located side gradient (west and, southwest respectively) of the sites and wells of the South Farmingdale Water District are located downgradient (southeast) of the sites. The NYSDEC and New York State Department of Health (NYSDOH) are not aware of any private wells used for drinking water purposes in the area.

Historically, NG has operated 14 production wells, which are located on both the NG and NWIRP Bethpage properties. In 1993 and 1994, these wells provided an average of 2.2 billion gallons of water per year. The majority of this water was used for non-contact cooling and was then discharged into recharge basins on the NWIRP Site 2 and the basins along the southern and southwestern portion of the NG facility. The balance of the water was used for contact processing and sanitary uses.

Currently, two of the former production wells (GP-1 and GP-3) and three remedial wells (Wells 17, 18, and 19) extract approximately 2 billion gallons per year of VOC-impacted groundwater, treat it, and discharge the majority of it to recharge basins located along the southern and southwestern edges of the former NG property. In 2012, these five wells extracted approximately 1.9 billion gallons of water, recycled approximately 119 million gallons of water, and discharged the remaining water to the recharge basins.

1.4.4 Previous Studies and Decision Documents

Initial Assessment Study: An IAS of NWIRP Bethpage conducted in 1986 indicated that three areas, including Site 1, at the NWIRP Bethpage posed a potential threat to human health and the environment.

Remedial Investigation Study: In August 1991, a Phase 1 RI (Halliburton NUS [HNUS], 1992) was initiated at NWIRP Bethpage to determine the nature and extent of the contamination found during the IAS and how that contamination was related to Site 1.

Based on the conclusions of the Phase 1 RI, it was decided to proceed with a Phase 2 RI (HNUS, 1993). Two of the objectives of this second phase study were to determine the extent of PCB contamination at Site 1 and the extent of the offsite groundwater contamination to the east in the adjacent neighborhood. The RI process identified the natural and delineated the vertical and horizontal extent of VOC, metal, and Polycyclic Aromatic Hydrocarbon contaminated soil and the nearby offsite groundwater contamination. The RI process also refined the extent of PCB contaminated soil.

Feasibility Study: In 1994, an FS was conducted at Site 1 to develop, evaluate, and select potential remedial alternatives that could be implemented and that would protect human health and the environment from risks associated with environmental contamination at the NWIRP Bethpage (HNUS, 1994).

During the RI/FS, an analysis was conducted to estimate the environmental risks that could result if the soil contamination at NWIRP Bethpage was not remediated. The baseline risk assessment concluded that for current and future soil exposure scenarios, there is no indication that adverse non-carcinogenic health effects exist for this site (i.e., the hazard index was less than 1).

Total incremental excess lifetime cancer risks (ICLR) for current soil exposure were calculated to be 2×10^{-4}, with this risk occurring for the adult employee, dermal exposure scenario. PCBs at Site 1 were the major factor in these potential dermal cancer risks. Because of the elevated PCB concentrations at one location, an Interim Action was performed to isolate contaminated soil from potential receptors. A localized soil cover was installed in the area with the highest PCB concentrations to minimize direct contact and to limit soil erosion. With this area isolated, revised total excess cancer risks for current soil exposure range from 4×10^{-7} to 1×10^{-5} ICLR (which is within the USEPA's acceptable risk range of 10^{-4} to 10^{-6} ILCR), with the

highest risk occurring for the adult employee, dermal exposure scenario. Estimated total excess cancer risks for future soil exposure scenarios ranged from 9 $X10^{-11}$ to 9 $X10^{-6}$ ILCR, with the highest risks occurring for the adult resident dust inhalation scenario at Site 1. Arsenic from one sample at Site 1 was primarily responsible for these projected cancer risks.

Proposed Remedial Action Plan (PRAP): Upon finalization of the FS in 1994, a PRAP was developed to summarize the RI and FS, and to present to the public the Navy's and State's proposed action for remediating soil at Site 1. Operable unit (OU) 1 included contaminated soil at Sites 1, 2 and 3, as well as VOC contamination in shallow groundwater closely associated with Site 1 soil. The main contaminants in the soil, which are to be addressed through treatment, are metals in excess of RCRA hazardous waste criteria, VOCs in excess of proposed cleanup levels to protect groundwater, and PCBs at concentrations in excess of 1 (surface) or 10 (subsurface) parts per million (ppm). The main contaminants in groundwater, which are to be address through treatment, are VOCs.

Record of Decision (ROD): In 1995, a ROD addressing OU1's soil and shallow Site 1 groundwater, was signed for Site 1, 2 and 3. The major components of the selected remedy for these sites include further delineation of contaminants, soil excavation, and the construction, operation, and maintenance of an air sparge/soil vapor extraction (AS/SVE) system.

OU2 ROD (Offsite Groundwater): Because of multiple sources of regional groundwater contamination, including non-Navy sources, a separate ROD was developed and the final version was signed in 2003 to address the Navy's portion of onsite and offsite groundwater contamination. The contaminated groundwater plumes emanating from NWIRP Bethpage and adjoining NG aircraft manufacturing facilities are estimated to affect groundwater underlying more than 3,000 acres and extending as much as 700 feet deep.

A risk assessment indicated that a potential human exposure pathway is direct contact with (dermal adsorption), ingestion of, and inhalation of vapors associated with contaminated groundwater through residential or commercial use.

Human exposure could occur by ingesting or coming into direct contact with untreated, contaminated groundwater pumped from a water supply well. Additionally, inhalation of VOCs could occur if contaminated water is used for cooking, cleaning, or bathing. Water from the affected municipal wells is either no longer used or treated to remove contaminants prior to distribution to the community. Routine monitoring of the treated water supplies has demonstrated the effectiveness of these treatment systems in mitigating exposures to groundwater contaminants.

Groundwater Remedial Program components consist of the On-site Containment (ONCT) system (located at the southern boundary of NG Property), GM38 area remedy located down gradient of NG Property and NWIRP Bethpage to treat a VOCs "hotspot" (primarily trichloroethene), the outpost groundwater monitoring program, and the public water supply contingency for well head treatment or comparable alternative measures. These components are presented on Figure 1-2 and detailed in Section 1.5.2.

1.5 RESPONSE ACTIONS

1.5.1 Soil

Response actions at Site 1 have included a partial soil cover, partial excavation of PCB-contaminated soil at Dry Wells 20-08 and 34-07, operation of an AS/SVE system, operation of a SVE containment system, and removal of two underground storage tanks and contents. This section summarizes these activities.

Based on the detection of a relatively high concentration of PCBs in one surface soil sample, in July 1993, NG placed a soil cover over a portion of Site 1 (approximately 0.1 acre) to eliminate potential risk associated with fugitive dust and dermal contact. This location coincided with the observed storage of transformers.

Implementation of the ROD began in 1995 when the post-ROD remedial design studies began to delineate the extent of arsenic and PCB contamination. The results of the December 1995 pre-excavation sampling at Site 1 indicated that the volume and depth of contaminated soil was greater than originally estimated and that additional investigations would be required. Detections of PCBs at the northern portion of Site 1, ranged as high as 3,800,000 microgram per kilogram (µg/kg) and concentrations greater than 10,000 µg/kg were greater than a depth of 16 feet below ground surface (bgs) – the deepest samples collected. In addition, an investigation of the arsenic area, which included the collection and analysis of 22 samples, could not confirm the presence of significant arsenic contamination at the site. As a result of this testing, it was concluded that there were no arsenic-contaminated soil that would require excavation and off site disposal.

Additional pre-excavation sampling was conducted in 1996. PCB contamination above 10,000 µg/kg was detected to a depth of 32 feet bgs – the deepest samples collected.

In June 1998, NG conducted a soil removal action at dry wells 34-07 and 20-08 to a depth of 30 to 32 feet bgs. Confirmation testing found that PCB-impacted soil remains at depth near and below the water table. The confirmation sample concentrations for PCBs at Dry Well 20-08 was 1,800,000 µg/kg and at Dry Well 34-07 at 25,000,000 µg/kg.

Between 1997 and 2002, the AS/SVE system treated VOC-impacted soil and shallow groundwater and removed approximately 4,500 pounds of VOCs. In October 2002, the Navy reported that the objectives of the AS/SVE system had been met and recommended removal of the system. In December 2003, the NYSDEC concurred with this recommendation and operation of the AS/SVE system was discontinued.

Between 1998 and 2002, additional soil samples were collected to help delineate the extent of PCB contaminated soil. Clean end point sample results (i.e., less than 10,000 µg/kg) were not obtained.

In 2006, the existing soil data was evaluated and it was estimated that approximately 78,100 cubic yards of soil would need to be excavated and disposed off site. Based on this volume estimate, it was concluded that the OU1 ROD for Site 1 could not be implemented as originally anticipated.

1.5.2 Groundwater

Shallow groundwater at Site 1 (0 to 15 feet below the water table) was addressed by the operation of the AS/SVE system. The remaining VOC-contaminated groundwater is addressed under the OU 2 ROD - Groundwater. Based on monitoring and modeling results, the operation of production wells located on NWIRP and NG properties limited the horizontal migration of contaminated groundwater. However, the operation of these of these wells promoted the vertical migration of contaminated groundwater to depths of approximately 500 feet. After the startup of the ONCT system in 1998, contaminated groundwater from Site 1 would be captured by the NG ONCT system.

1.5.3 Soil Vapor Intrusion

Response actions for soil vapor intrusion included interim actions in homes adjacent to the NWIRP and the operation of an SVE containment system. This section summarizes the remedial actions for soil vapor.

From 1998 through 2002, the Navy operated an AS/SVE system at Site 1. The objective of the system was to reduce VOC concentrations in soil vapor and subsequently reduce the migration of VOCs to the underlying groundwater.

In January 2008, to evaluate post-response action VOC concentrations in soil vapor, the Navy conducted an investigation along the eastern edge of Site 1, adjacent to the residential neighborhood. The results of this investigation identified several VOCs including trichloroethene and tetrachloroethene that exceeded a bench value (i.e., NYSDOH subslab criteria) for evaluating potential vapor intrusion.

From January through April 2009, sub-slab soil vapor and indoor air samples were collected at these homes and as an interim measure, air purification units were placed in 13 homes. In May 2009, sub-slab depressurization (SSD) systems were installed in six residential homes that had VOC-contamination in sub-slab vapor and indoor air samples.

During this time, the Navy started design of a SVE containment system with the construction of a pilot-scale SVE system and two new soil vapor extraction wells located at the south east corner of Site 1. Based on the data collected, a full scale SVE containment system was designed. In December 2009, construction of the SVE Containment System along the eastern boundary of the Navy property was completed. System start-up activities began in December 2009 and were completed in early January 2010.

By November 2010, the indoor air concentrations were below the NYSDOH air guideline values (NYSDOH, 2006a). Also, based on the comparison of the sub-slab soil vapor and indoor air results to the NYSDOH decision matrices, no further action was necessary to mitigate vapor intrusion for all of the homes with only the SVE Containment System in operation. NYSDOH and NYSDEC concurred with this evaluation in July 2011. The APUs and the SSDs were removed in January 2012.

A Supplemental Off-Site Soil Vapor Intrusion Monitoring Plan for the Soil Vapor Extraction Containment System was prepared was finalized in February 2012 with NYSDOH and NYSDEC concurrence. The plan details the installation of additional Soil Vapor Pressure Monitoring (SVPM)/soil vapor monitoring points to measure the vacuum field and soil vapor monitoring to be conducted in the residential neighborhood east of Site 1 at NWIRP Bethpage. The plan was implemented in January 2013. Evaluation of the monitoring results from 2013 monitoring provides evidence that the soil vapor extraction containment system is achieving its goals and that a vacuum field has been established within the affected area in the residential neighborhood.

1.5.4 Structures

In 2009, a removal action consisting of the demolition of four buildings, seven concrete pads, the upper six feet of a settling tank adjacent to Building 03-12, and the abandonment of 24 AS/SVE wells. The demolition consisted of all roofs, walls, floors, drains, sumps, piping, foundations, and concrete pads associated with the following structures:

- Building 03-13
- Building 03-38
- Building 03-31
- Building 03-33
- Seven concrete pads
- Settling tank adjacent to Building 03-13 (upper six feet)
- Steel Sheet Wall
- Abandonment of 24 AS/SVE Wells

AOC 32: In 2012, the USTs at AOC 32 were uncovered during regrading activities at Plant 3. Two UST manways (each with a missing cover) and two small diameter pipes were partially uncovered. Initial probing of the contents of the southern UST indicated that they were loosely filled with a sandy material and voids were filled with water. In April 2012, a sample of water from one UST contained concentrations of vinyl

chloride at 19,000 µg/L, cis-1, 2-dichloroethene at 22,000 µg/L, trichloroethene at 1,400 µg/L, and tetrachloroethene at 1,300 µg/L. In September 2012, the contents of the two USTs were removed and disposed offsite. The interior of the USTs were pressure washed to remove residual solid and liquid wastes and transported offsite to a recycling facility.

A total of 16 samples were collected on September 14, 2012 to document post-tank removal site conditions (H&S, 2013). Five samples were collected from underneath Tank 1 and four samples were collected under Tank 2. Six samples were collected from side walls at a depth of approximately 4 to 5 feet bgs. The samples were analyzed for VOCs. Chlorinated VOCs were detected in 10 of 16 soil samples collected beside and underneath the USTs. The maximum detected concentrations of tetrachloroethene, trichloroethene, and cis-1,2-dichloroethene were 1,200, 74, and 110 µg/Kg, respectively.

1.6 GENERAL CONCEPTUAL SITE MODEL

A Conceptual Site Model (CSM) facilitates consistent and comprehensive evaluations of potential risks to human health and the environment by creating a framework for identifying the pathways by which human receptors may come in contact with environmental media contaminated by site activities. A CSM depicts the relationships among the following elements, which are necessary for defining complete exposure pathways:

- Site sources of contamination
- Contaminant release mechanisms and transport/migration pathways
- Exposure routes
- Potential receptors

These elements establish the manner and degree to which a potential receptor may be exposed to chemicals presented at the site. The CSM for Site 1 is presented on Figure 1-4. In addition, the site description, site history, and site sources of contamination are described in Section 1-4 and more detail of the CSM with the 2009 to 2013 data is provided in Section 4.0. Contaminant release mechanisms and transporting/migration pathways, exposure routes, and potential receptors are discussed below.

Contaminant Release Mechanisms and Transport/Migration Pathway

Based on the historical investigations conducted at Site 1, PCBs and VOCs represent the primary contaminants of concern. Other site contaminants, including metals, semivolatile organics, and pesticides are also present, but are generally co-located with the PCBs. Except for the hexavalent form of chromium, these other contaminants are relatively immobile, similar to the PCBs.

Based on site history, the contamination resulted from multiple releases during surface storage and maintenance activities conducted at the site. Contamination has also been observed within several of the

Site 1 cesspools and nearby drywells (i.e., Dry Well 20-08, and Dry Well 34-07) indicating that some of the contamination may have resulted from subsurface releases.

As discussed below, migration pathways are contaminant dependent.

PCBs

PCBs are generally considered to be relatively immobile in soil and groundwater. This consideration was the basis for the 1995 ROD for Site 1 that estimated PCB contaminated soil would be limited to a depth of approximately 7 feet bgs and would not impact groundwater. Based on subsequent testing at Site 1, PCBs have been detected in soil at relatively moderate concentrations (greater than 1,000 mg/kg and less than 10,000 mg/kg) throughout the soil column at depths of up to 65 feet below ground surface, which is approximately 15 feet below the current water table. In part, this vertical migration may be partially associated with the coarse grained sands and gravels at the site. However, PCB fluids are typically very viscous at ambient temperatures and even in the presence of coarse grained sands and gravels, pure PCB fluid would not be expected to migrate this deep. In addition, the maximum concentration of PCBs detected was less than 1% and provides further evidence that a pure PCB fluid was not released at the site. As a result, it is suspected that the PCBs migrated down through the soil column via a carrier fluid such as chlorinated solvent (e.g., trichloroethene) or non-chlorinated organic (e.g., fuel or oil). Investigations were conducted in 2009 to 2012 to specifically investigate the possibility that a carrier fluid was present. These investigations did not find evidence of a residual carrier fluid, indicating that if present, the carrier fluid has attenuated.

One finding during the 2009 to 2012 testing was that the migration of PCBs ended 10 to 15 feet below the current water table. Migration below the water table could be explained by either the carrier fluid being denser than water (e.g., chlorinated solvent) or the water table was deeper at the time of the releases. Due to the absence of sufficient residual chlorinated solvent contamination present in the area of the PCB – contaminated soil, it is suspected that the water table may have been lower at some time in the past. A nearby petroleum site has similar contaminant distribution to 10 to 15 feet below the water table and provides additional support for the variable water table scenario.

PCBs can contact water via vertical precipitation infiltration and horizontal groundwater flow. In groundwater, PCBs can migrate with groundwater in either a dissolved or colloidal form.

The theoretical solubility of PCBs (e.g., Aroclor 1254 and 1248) ranges from 31 to 54 micrograms per liter (µg/L) and depends on the type of Aroclor. Therefore, it is possible to find PCBs in the dissolved phase in groundwater. PCBs can also adsorb onto colloidal size particles and /or oils, which would allow PCBs to migrate without interacting with soil. NG used non-solvent-based cleaners at the facility that could provide for the formation of surfactant-stabilized particles.

Erosion of the surface soil into the adjacent storm sewer is possible. The storm sewer discharges into recharge basins located north of Site 1. PCBs have been detected in storm water entering the recharge basins. The use of deep recharge basins (i.e., over 40 feet deep) is a common method for disposal of water in this area. Deep basins allow water from greater distances to be collected via gravity. The depth of a basin is generally limited by the water table (currently at approximately 50 feet deep at the NWIRP).

Although direct contact with soil greater than 15 feet is not common, the potential for deeper excavations and reuse of the soils from NWIRP Bethpage is considered a viable transportation pathway. Deep excavations could result from the construction of additional recharge basins, or because space is limited, a parking garage. Under either of these scenarios, deep contaminated soil could be excavated and re-used off property.

In addition, PCB-impacted soil could migrate via dust formation and migration. Based on past risk assessment estimates and testing conducting in adjacent properties, this pathway does not appear to be significant.

<u>VOCs</u>

The VOCs at the site are generally considered to be relatively mobile in soil, soil vapor, and groundwater. The VOCs are believed to have been released from waste materials stored at the site (e.g., drum marshalling areas) and/or through the sanitary wastewater treatment and discharge system. Once in the soil, the VOCs can migrate downward and impact groundwater or volatilize and impact soil vapors.

For VOCs impacting groundwater, the majority of these VOCs in site soil and shallow groundwater were addressed via an air sparging and soil vapor extraction system, as identified in the OU1 ROD. This work was completed in 2003. In addition, VOCs in groundwater are being addressed via containment at the downgradient edge of the Northrop Grumman facility, approximately 5,000 feet south of Site 1, as identified in the OU2 ROD.

The OU1 ROD did not address VOCs in soil vapor that could migrate from Site 1 to an adjacent residential neighborhood. In 2009, this pathway was found to be complete, and in house response systems were installed to mitigate the pathway. In 2009, an interim soil vapor extraction containment system began operation to prevent ongoing migration and continues to operate effectively. A long term remedy is required for this pathway.

Vapor intrusion into structures north, south, and west of Site 1 is addressed via property transfer documents that identify the need for testing, and if necessary, the operation of subslab depressurization systems. Currently, depressurization systems are operating in Plant 3 to the west.

Exposure Routes

Currently, the primary media at the site through which receptors can be exposed to PCBs include groundwater, soil, and vapor intrusion. Exposure routes include dermal contact, ingestion, and inhalation. Potential exposure pathways at Site 1 include the following:

- Dermal contact with soil and groundwater;
- Inhalation of fugitive dust;
- Ingestion of site soil and groundwater; and
- Inhalation of soil vapors.

Potential Receptors

Current receptors at Site 1 are construction workers that have performed paving, demolished structures, built vegetated windrow, installed fencing, and other activities (e.g. construction of buildings and movie sets) associated with economic redevelopment at NWIRP Bethpage. Future site use is anticipated to be industrial or commercial after completion of remedial actions.

Offsite receptors include residents to the east of Site 1 that may be exposed to soil vapors and dust migration. In addition, offsite receptors include residents that use public water supplies. VOCs, and potentially PCBs and metals, contained in the groundwater would be intercepted by the existing onsite containment system. The VOCs would be removed from the water prior to being reintroduced to the aquifer. PCBs and metals that may be in the water would pass through the onsite containment system. The water would migrate to the south, where it could be intercepted by public water supplies.

In addition, onsite and offsite residents could be exposed to deep contaminated soil that has been excavated and used for fill.

Based on current and potential future land use, the following potential receptors described below and presented on Figure 1-4 may be exposed to contaminated environmental media with the study area:

Construction/Excavation Workers – Construction workers are a plausible on-site receptor under current and future land use. Construction workers could be exposed to surface and subsurface soils (incidental ingestion, dermal contact) as well as airborne contaminants emanating from these media (inhalation). In this area, it is typical for excavations to go as deep as the water table, which is approximately 50 to 65 feet bgs. As an example, recharge basins just north of Site 1 have been excavated to depths of approximately 30 to 40 feet bgs.

Commercial/Industrial Workers – Commercial and industrial workers are plausible receptors under current and future land use. This receptor scenario includes employees from Steel-Los III, LP and tenants, which currently utilizes a portion of Site 1 for miscellaneous outdoor storage and parking and soil that may

have been relocated. These workers are assumed to be exposed surface soil (incidental ingestion, inhalation of fugitive dust, and dermal contact) and potential future groundwater (ingestion and dermal contact). Soil Vapor Intrusion to the west of Site 1 (Plant 3) is being addressed by property transfer documents and Subslab Depressurization Systems, and therefore is an incomplete exposure pathway. Although commercial/industrial worker exposure to subsurface soil is unlikely, exposure to subsurface soil via incidental ingestion, dermal contact, and inhalation is a concern since future construction could potentially bring subsurface soil to the surface.

Adolescent Trespassers – Adolescent trespassers are plausible receptors under current and future land use. This receptor includes trespassers from the residential neighborhood east of the site. This receptor is assumed to be exposed to surface soil (incidental ingestion, dermal contact, and fugitive dust from potential erosion). Trespassers exposure to subsurface soil is unlikely; however, because future construction could potentially bring subsurface soil to the surface, exposure to subsurface soil via incidental ingestion, dermal contact, and inhalation is a concern.

Residents (Child and Adult) – Given the anticipated future land use for Site 1 (commercial and industrial), residents are an unlikely future receptor. However, the hypothetical future residential scenario is typically evaluated for decision-making purposes. For example, the need for deed restrictions at a site may still be required after the site has been transferred to Nassau County depending on what risks remain at the site. It is assumed that a hypothetical resident may be exposed to surface soil (ingestion, dermal contact, and inhalation), groundwater (dermal contact and ingestion), and soil vapor (inhalation). Receptor exposure to subsurface soil would occur if subsurface soil was excavated and deposited on existing surface soil. Excavation of deep subsurface soil (to the water table, which has ranged from approximately 52 to 65 feet bgs) is common in this area. This receptor could also be exposed to subsurface soils if digging occurred (i.e. landscaping and gardening). Although this is an unlikely scenario, it is included in this HHRA for purposes of completeness and to assist the risk managers regarding the need for deed restrictions.

Off Property Residents (Child and Adult) - Off property residents are plausible receptor under current land use. These receptors include residents in the neighborhood east of Site 1 that could be exposed to soil vapor (inhalation of soil vapors) and dust migration. The SVE containment system has been installed to mitigate soil vapor intrusion migrating from Site 1 to the off property neighborhood. The system is operating and monitoring is conducted monthly, quarterly and yearly to evaluate the protectiveness of the interim remedy. In the event that the SVE containment system ceases to operate, these residents could be exposed through vapor intrusion.

1.7 LIMITATION OF PREVIOUS DATA

The limitation of previous data discussion presented in this section is based on evaluation of the data available prior to the start of the RI Addendum activities in July 2010 and is used to explain the basis for data collection in 2010 to 2013.

Soil: Prior to the 2010 to 2013 investigations, the data collected was used to delineate the approximate horizontal extent of PCB-contaminated soil and determined that the vertical extent of PCB-contaminated soil ranged from the ground surface to approximately 65 feet bgs. These investigations did not determine whether PCB-contaminated soil are present deeper than 65 feet bgs. The known vertical extent of PCB-contaminated soil extends below the current water table (approximately 50 feet bgs).

PCBs are generally considered immobile. In the presence of organic solvents, PCBs can dissolve and migrate. A carrier fluid (i.e., fuels or solvents) may have caused PCBs to migrate downward from surficial releases through the vadose zone to the water table, and/or continued to migrate below the water table unattenuated. The finding of PCBs at similar concentrations throughout the soil column provides some evidence of this pathway.

Groundwater: PCBs can migrate via groundwater transport, in either a dissolved or colloidal form. Prior to the RI Addendum activities, it was unknown whether organics (fuel-related or chlorinated solvents) were present at sufficient concentrations to act as a carrier fluid that would promote PCB migration. Historical investigations did not define the deeper PCB contamination currently suspected in groundwater at Site 1.

Previous monitoring wells at Site 1 were installed with hollow stem auger (HSA) techniques, which may have carried PCBs, via soil intrusion, to the depth of the well screens and resulted in false positive detections. In addition, these monitoring wells were not installed at sufficient depths to monitor potential deeper contamination in site soil or groundwater.

Soil Vapor: The existing SVE Containment System was installed to prevent migration of VOCs from Site 1 to offsite areas. Soil vapor samples are collected from 12 SVE wells on a quarterly basis to determine the effectiveness of the remediation activities and monitor the capture of contaminated soil vapor. Data from these sampling events are documented in quarterly operations reports. Additionally, soil vapor samples are collected on an annual basis from 18 SVPMs located in the neighborhood adjacent to Site 1 to evaluate potential residual VOC contamination.

1.8 RI ADDENDUM OBJECTIVES

The primary objective of this RI Addendum soil and groundwater investigation is to further characterize the nature and extent of PCB, VOC, and metal contamination and associated risks to human health and the environment at the NWIRP. The data collected will also be used to identify human health risks and to evaluate potential remedial options.

Objectives for Site 1 soil:

- Evaluate the vertical and horizontal extent of PCB-contaminated soil at Site 1, and Dry Wells 20-08 and 34-07.
- Evaluate whether organics (fuel-related or chlorinated solvents) are present at sufficient concentrations to act as a carrier fluid that would promote PCB migration.
- Evaluate if a potential secondary source of contamination is present upgradient of the Site 1 boundary.
- Evaluate potential risk for exposure to PCB contamination in soil.

Objectives for Site 1 groundwater:

- Evaluate whether PCBs have impacted groundwater down gradient of the Site 1 boundary, and if so, further evaluate the vertical and horizontal extent of PCB contamination.
- Evaluate potential hexavalent chromium contamination in groundwater, and if present, further evaluate potential upgradient source areas (former sludge drying beds and recharge basins).
- Evaluate potential risk for exposure to PCB, VOC, and hexavalent chromium concentrations in on-property groundwater.

Objectives for Site 1 soil vapor:

- Evaluate the effectiveness of an SVE containment system on preventing further off-site migration of VOC contaminated soil vapor into an adjacent neighborhood.
- Evaluate potential risk associated with exposure to soil vapor intrusion at buildings located on- and off-property.

1.9 REPORT ORGANIZATION

This RI addendum provides details of investigation activities at Site 1. The report consists of seven sections. Section 1.0 provides an introduction, background information and objectives. Section 2.0 provides details of the investigation conducted at Site 1. Section 3.0 provides a summary of physical characteristics. Section 4.0 presents the nature and extent of contamination. Section 5.0 details the contaminate fate and transport. Section 6.0 presents the risk assessment. Section 7.0 presents a summary of conclusions and recommendations.

2.0 STUDY AREA INVESTIGATION

Prior to the start of the RI Addendum for Site 1, in May 2009, three soil borings were installed to a depth of approximately 310 feet bgs to evaluate lithology and in particular the depth of potential confining units. The boring locations were installed north, south, and southwest of Site 1 to avoid areas of suspected contamination. A total of 14 soil samples and 25 Hydro Punch™ groundwater samples were collected and analyzed. PCBs and site-related VOCs were not detected in the samples. Clay units were encountered at approximately 100 feet and between 200 and 300 feet bgs. Documentation of this pre-investigation is presented in Appendix B and the results are discussed with RI field program.

This RI field program was conducted from July 2010 to June 2013. The following activities were conducted at Site 1.

- Review of previous contaminant source investigations.
- Collection of 4 sediment samples at 4 locations.
- Collection of 5 surface water samples at 2 locations.
- Collection of 5 gamma logs at 5 locations.
- Collection of 255 subsurface soil samples from 51 soil boring locations.
- Collection of 42 surface soil samples from 42 locations.
- Collection of 8 groundwater grab samples from 2 locations.
- Installation of 38 monitoring wells at 14 locations.
- Collection of groundwater samples from 9 existing monitoring wells and 38 new monitoring wells.
- Collection of 5 rounds of water levels from existing and new monitoring wells.
- Survey of all sampling locations and monitoring wells.

The field forms, survey data, analytical data, and data validation letters for the July and August 2010, November/December 2011, and March 2011 field activities are located in the Interim Data Summary Report and SAP Addendum (Tetra Tech, 2011).

The field forms, gamma logs, survey data, analytical data, and data validation letters for the October/November 2011, and January 2012 field activities are located in the 2012 PCB Interim Data Summary Report, Groundwater (Tetra Tech, 2012a) or the 2013 Groundwater Data Summary Report (Tetra Tech, 2013).

The following appendices are included in this RI Addendum. A photographic log is presented in Appendix A. Pre-RI Soil Borings (BPS1-3001 through -3003) documentation is presented in Appendix B. Sediment, surface and subsurface soil sample and soil boring log sheets are presented in Appendix C. Survey data

is presented in Appendix D. Analytical data tables for all RI samples collected from 2010 to 2013 are presented in Appendix E. August 2012 through June 2013 chain of custody forms, analytical data, and validation letters for soil are presented in Appendix F.

2.1 SURFACE FEATURES

Surveying was conducted in March 2011, January 2012, and April 2013 by BANC3, a New York State licensed surveyor. Each location was surveyed for horizontal position and vertical components including both ground surface and top of casing elevations for each monitoring well location. Horizontal measurements were accurate to 0.1 foot while vertical elevation measurements were accurate to 0.01 foot at each location (Appendix D).

Observations of the general topography by a Tetra Tech geologist were also documented in the field. Locations of recently paved areas and new berms (Figure 1-3) were noted in the field log book and sketched on a site map.

2.2 CONTAMINANT SOURCE INVESTIGATIONS

Contaminant source investigations were initially conducted during the 1992 Phase 1 and 1993 Phase 2 RIs. These reports concluded that the subsurface soil contained VOC concentrations that would effect groundwater in excess of Federal and State drinking water standards if the compounds were to migrate to the water table. Additional groundwater sampling conducted during Phase 2 RI confirmed that Site 1 is a source of VOC contamination. PCB contamination was found to be wide spread over most of Site 1. Similar PCBs and/or VOCs were found during other investigations performed at AOC 23, AOC 32, AOC 35 , and Dry Wells 20-08 and 34-07 conducted in the late 1990s. In addition to the known source areas, this RI Addendum also investigates potential source areas to the north of the Site 1 boundary.

2.3 SURFACE-WATER AND SEDIMENT INVESTIGATIONS

Three recharge basins are situated in the northeastern portion of the facility (Figure 1-3 and 2-1). These recharge basins collect storm water from NWIRP Bethpage and the former NG facility to the north and east, and more recently, treated groundwater from the Bethpage Community Park (BCP) OU3 Interim Remedial Measure treatment system. A series of catch basins and sewers directs most of the NWIRP storm water to one of these three basins. Storm water from Plant 3 and sheet flow from the pavement adjacent to Site 1 enters the southwestern basin. The southeastern basin receives storm water from a parking lot on former NG property to the east. The northwestern basin receives a continuous flow of water from an unknown source on the former NG property to the north, treated groundwater from BCP OU3 treatment system, and storm water from Site 2.

2.3.1 Surface Water Samples

Five surface water samples were collected at the northeastern and southwestern recharge basins. Sampling locations are presented on Figure 2-1. Details of sampling locations for surface water are presented on Table 2-1. The southeastern recharge basin is generally dry and samples could not be collected because insufficient water flowed through the inlet during rain events. Surface water samples were collected at the inlet of the northeastern recharge basin (BPS1-SW01) in February 2011 and twice in March 2011 to investigate if this recharge basin was a potential source of shallow PCB-contamination observed in monitoring wells to the south. Samples were filled directly from the inlet and analyzed for PCBs.

In October 2011, surface water samples were collected again at the inlet of the northeastern recharge basin (BPS1-SW3002) and at the inlet of the southwestern recharge basin (BPS1-SW3001). These samples were collected after a precipitation event (approximately 1.2 inches of rainfall) to investigate whether PCBs can be transported into the basins during storm events. A steady flow of storm water was observed entering the inlet of both recharge basins during this precipitation event. However, soon after the end of the precipitation event, storm water in the southwest recharge basin infiltrated and the basin was again dry. Surface water samples were filled directly from the inlet and were analyzed for VOCs, PCBs, total chromium, and hexavalent chromium.

2.3.2 Sediment Samples

In February 2013, four sediment samples were collected at the southwestern recharge basin (BPS1-SB3066 and –SB3067) and southeastern recharge basin (BPS1-SB3068 and –SB3069) to determine whether PCBs are present. Sampling locations are presented on Figure 2-1. Details of sampling locations for sediment samples are presented on Table 2-2. The samples were collected near the water inlets in each recharge basin and analyzed for PCBs. Due to the continuous discharge of treated groundwater from NG remedial wells, the northwest recharge basin was filled with water during the sediment/subsurface soil investigation at the recharge basins and a sediment sample could not be obtained with a hand auger.

2.4 GEOLOGICAL INVESTIGATIONS

Geology was recorded and interpreted from gamma logs and soil cuttings. Gamma logging was conducted at five monitoring well locations (BPS1-TT-MW305 through –MW309) to determine the presence of coarse-grained sand and fine-grained silt and clay to depths of 280 to 420 feet bgs that may influence horizontal and vertical groundwater flow. Natural gamma logs measure the presence of naturally occurring gamma radiation in units of counts per second through the use of a scintillation crystal (sodium iodide) and a photo-electric tube. The sodium iodide crystal emits light when in the presence of gamma radiation. The light is then converted to an electrical signal by the photo-electric tube. The electrical components measure the number of light flashes per second and digitally record them onto a laptop computer.

Finer grained silty and clayey soils often have higher amounts of natural radioactive materials (e.g., uranium and thorium) as a result of adsorption and ion exchange processes. When the gamma log shows a high response across a zone, it can be interpreted that the zone contains finer grained soils.

Soil cuttings were obtained from hand augers, continuous/discrete macrocores or dual tube sampling methods via Direct Push Technology (DPT), core barrels via rotosonic methods, and split spoon samples via HSA methods. Soil was screened with a photoionization detector (PID), and logged (lithology, visual staining, or odors). DPT was used at soil borings until refusal was encountered. Rotosonic or HSA drilling methods were used for soil borings where depths could not be achieved by DPT.

DPT: DPT consisted of a macrocore measured 5 feet in length and that had an outer diameter (OD) 2.25 inches. Within the macrocore, a 2-inch by 5-feet acetate liner was used to retrieve the samples. Below 15 feet either discrete macrocores or dual tube drilling methods were used. The discrete macrocores utilized the same outer rods and acetate liners as the continuous macrocore but also had inner rods that were advanced with a closed piston point within the cutting shoe. During the sample retrieval process only the inner rods were removed while the outer rods remained in the ground. Different sized tooling was used for dual tube setup: outer rods were either 3.5- or 2.25-inch OD, the inner rods were either 2.25- or 1.5-inch OD, and the acetate liner was either 2- or 1.25-inch OD. During this project, DPT was used for borings extending to a depth of less than approximately 40 feet.

Rotosonic: Rotosonic consisted of a 4-inch core barrel that was advanced into undisturbed soil, thus filling the core barrel with a representative soil sample. After each 4-inch core barrel was advanced, a 6-inch casing was driven over the 4-inch core to depth to maintain the open borehole while retrieving the 4-inch soil cores. An 8-inch override casing was advanced over both the 4- and 6-inch casings for the first 70 feet bgs at boring locations in known source areas to minimize dragging of shallow soil contamination downwards and eliminate cross contaminating deeper soil samples. To recover the soil cores, the 4-inch core barrel was withdrawn and vibrated to release the soil cores into 10 or 20 foot plastic sample bags.

HSA: HSA consisted of 6.25-inch OD augers with a 2-foot long by 2-inch OD split spoon to collect discrete samples. Split spoon samples were taken at 5-foot centers, with the blow counts recorded every six inches. Limited quantities of potable water were added below the water table to control flowing sands.

2.5 SOIL INVESTIGATIONS

2.5.1 Surface Soil

From July 2012 through February 2013, 42 surface soil samples were collected at a depth of 0 to 2 feet bgs within Site 1 (BPS1-SB3013 to -SB3024, -SB3031 to -SB3056, -SB3058, -SB3059, -SB3062 and -SB3063) to further delineate the horizontal extent of PCBs in the shallow soil. Surface soil sample details are presented in Table 2-3 and locations are presented on Figure 2-2. These samples were collected during three events, with results from one event used to help select sample locations for later events. In July 2012,

26 surface soil locations were chosen based on data gaps identified during the review of historical sampling results. Additional samples were collected in August 2012 (10 samples) and February 2013 (6 samples) to further delineate PCBs in soil at this depth.

Soil samples were collected via stainless steel hand auger and were analyzed for PCBs. Vegetation, roots, and twigs were first removed to expose adequate surface soil to accommodate sample volume requirements.

2.5.2 PCB Field Test Kits

During the 2010 subsurface soil investigation, field test kits were used to field screen 254 subsurface soil samples for PCBs. The test kits measured total chloride (converted to Arochlor-1248 equivalents) with the Dexsil L2000DX Analyzer. This field screening method assumes that all chloride present is associated with PCBs. Subsurface soil samples analyzed onsite are detailed in Table 2-4 and the location of subsurface soil samples are presented on Figure 2-3. The results of the test kits are detailed in the 2011 Data Summary Report (Tetra Tech, 2011) and are used in this report to help establish the isoconcentration contours and in particular delineate the vertical extent of contamination.

2.5.3 Subsurface Soil

From May 2009 through June 2013, a total of 255 soil samples ranging in depths from 2 to 250 feet bgs were collected from 51 soil boring locations at Site 1, south of Site 1, Dry Well 20-08, and Dry Well 34-07 and analyzed for PCBs in a laboratory to further evaluate the nature and extent of PCB contamination in soil. In addition, select samples were also analyzed for VOCs, Semi-Volatile Organic Compounds (SVOC), Total Petroleum Hydrocarbon (TPH) Diesel Range Organics (DRO), TPH Gasoline Range Organics (GRO), and Total Organic Carbon (TOC). Subsurface soil sample details are presented in Table 2-5 and locations are presented on Figure 2-3 and Figure 2-4. These investigations were conducted during four events, with the results from one event used to identify locations for subsequent events.

Soil samples were initially collected in July and August 2010 at 9 of the 51 soil borings (BPS1-SB3004 to -SB3007, BPS1-SB3008 in the area of Dry Well 20-08, BPS1-SB3009 in the area of Dry Well 34-07, and BPS1-SB3010 to -SB3012 South of Site 1, at depths up to 250 feet bgs. As discussed in the 2011 Report, this investigation did not find evidence of PCBs at depths below 65 feet. However, some data gaps remained.

From August 2012 through November 2012, 23 soil borings (BPS1-SB3013 to –SB3015, BPS1-SB3020 to -SB3039 and BPS1–SB3044) were installed to address the deeper data gaps identified during the 2011 evaluation. Evaluation of the 2012 data concluded that some data gaps remained.

In February 2013, 13 soil borings (BPS1-SB3054, -SB3055, and -SB3057, and BPS1-SB3060 to –SB3069) were installed to continue addressing Site 1 data gaps and in particular, to further investigate the area of

Dry Well 20-08 and storm sewer line that leads to the southwest recharge basin. Since historically, the storm water could discharge into two recharge basins (the southwest and southeast basin), subsurface soil sampling was conducted at potential depositional areas adjacent to the two basin inlets.

In June 2013, five additional soil borings (BPS1-SB3070 to –SB3074) were installed to further delineate potential PCB contamination along the sewer line adjacent to Dry Well 20-08 and an area down gradient of the southwest recharge basin.

2.6 GROUNDWATER INVESTIGATIONS

2.6.1 Groundwater Grab Samples

In August 2010, eight groundwater grab samples were collected at two rotosonic boring locations (BPS1-SB3010 and -SB3012) to help determine placement of permanent monitoring well clusters. Groundwater grab sample details are presented in Table 2-6 and locations are presented on Figure 2-5. The groundwater grab sampling locations and depths were based on soil PCB concentrations analyzed using field test kits and lithological information from the soil borings.

Groundwater grab samples were collected utilizing a stainless steel screen sampler (Power Probe) and submersible pump (Grundfos RediFlo). A 4-inch core barrel and Power Probe assembly was advanced to approximately 5 feet below the 6-inch casing into the selected depth interval. An ecologically safe biodegradable dye (Rhodamine WT) was added to the drilling water to visually observe if drilling fluid was present in purge water. Before exposing the screen, a water level meter was used to verify the water level within the 4-inch core barrel. The screen was opened, and the Grundfos pump was used to obtain groundwater samples using low-flow sampling techniques. Groundwater grab samples were analyzed for PCBs and VOCs.

2.6.2 Monitoring Well Installation

A total of 38 monitoring wells were installed at 14 locations (BPS1-TT-MW301 through –MW314) consisting of 14 shallow monitoring wells at depths ranging from 40 to 65 feet bgs, 15 intermediate monitoring wells at depths ranging from 95 to 200 feet bgs and 9 deep monitoring wells at depths ranging from 180 to 296 feet bgs. Monitoring well details are presented in Table 2-7 and locations are presented on Figure 2-5.

Monitoring wells were initially installed in October to November 2010, at four monitoring well clusters (BPS1-TT-MW301 through -MW304) in close proximity to Site 1. BPS1-TT-MW301 was installed hydraulically upgradient (north) of Site 1. BPS1-TT-MW302 through -MW304 were installed south of the Site to identify and evaluate any groundwater impacts caused by historical Site activities. These wells were installed using rotosonic drilling methods.

In October to December 2011, five monitoring well clusters (BPS1-TT-MW305 through -MW309) were installed to further delineate the extent of PCB and hexavalent chromium contamination in groundwater. Three clusters (BPS1-TT-MW305 through –MW307) were installed at the southern edge of the NWIRP to evaluate potential migration of PCBs off NWIRP property. Two well clusters (BPS1-TT-MW308 and –MW309) were installed further upgradient of Site 1, and in the area of other potential source areas (former sludge drying beds and recharge basins). These wells were installed using HSA (shallow and intermediate-depth wells) and mud rotary (deep) drilling techniques.

In October and November 2012, three monitoring well pairs (BPS1-TT-MW11, -MW12, and –MW14) and two shallow wells (BPS1-TT-MW10S and BPS1-TT-MW13S) were installed on or near the northern extent of the NWIRP property to investigate potential upgradient sources. These wells were installed using HAS drilling techniques.

Well specific drilling methods are provided in Table 2-7. Each monitoring well was constructed with a 2-inch diameter, 10-foot, 0.010-inch slot, schedule 40 polyvinyl chloride screen and riser pipe. A #1 silica sand pack was installed to a minimum of 3 feet above the screened interval. Above the sand, a bentonite seal was installed to a minimum thickness of three feet. The seal was allowed to hydrate prior to grouting. Bentonite cement grout was then tremied into the borehole while the augers were incrementally pulled up until the grout was two feet bgs. Protective steel stick-up casings were installed at each monitoring well.

Monitoring wells were developed using airlifting and/or submersible pump (Grundfos) methods. During well development, groundwater parameters were measured every 20 minutes and included: pH, specific conductivity, temperature, turbidity, and oxygen reduction potential. Development was concluded after parameter stabilization was achieved and a minimum of approximately 250 gallons of water was purged from each monitoring well.

2.6.3 Monitoring Well Sampling

Sampling of new and existing monitoring wells was conducted in November/December 2010, March 2011, January 2012, November 2012, and February 2013. Monitoring well locations are presented on Figure 2-5. Groundwater analysis for each event is detailed in Table 2-8. A Grundfos RediFlo pump was used for groundwater sample purging and collection activities, in combination with a continuous flow-through cell suitable for taking water quality measurements. Wellhead parameters including pH, temperature, specific conductivity, oxygen reduction potential, turbidity, and dissolved oxygen was collected during sampling and allowed to stabilize prior to sample collection. Turbidity measurements were made using a separate field turbidity meter specifically designated to measure turbidity only. Samples were collected downstream of the flow-through cell where groundwater was retained for field measurement of water quality parameters.

2.6.4 Hexavalent Chromium Groundwater Field Test Kits

Hexavalent chromium field test kits were used with laboratory confirmation samples during the November 2012 and February 2013 sampling events. The sample summary for the hexavalent chromium field test kits are presented in Table 2-9. The hexavalent chromium field test kit followed the HACH Method 8023 (1,5-Diphenylcarbohydrazide Method) using a HACH DR/890 colorimeter and ChromaVer 3 Chromium Reagent. During testing two vials were filled with groundwater, one of which was the blank. The ChromaVer 3 Chromium Reagent was added to the second vial. If the groundwater was turbid (>50 Nephelometric Turbidity Units) an Acid Reagent Powder was added to the blank sample to calibrate the colorimeter. After five minutes the blank sample vial was run to zero out the colorimeter. The second vial with the chromium reagent was then placed into the colorimeter and the final result was recorded.

2.6.5 Water Level Collection

Five rounds of synoptic groundwater elevations were taken on November 29, 2010, March 3, 2011, January 24, 2012, November 6, 2012 and April 8, 2013 from new and existing monitoring wells to better define groundwater flow paths and horizontal and vertical gradients. Water level measurements were recorded to the nearest 0.01 foot and referenced to the top of casing of each monitoring well.

2.7 SOIL VAPOR INTRUSION

The SVE Containment System is an onsite soil vapor extraction system that has been in operation since January 2010, to prevent further off-site migration of VOC contaminated soil vapor into an adjacent neighborhood and to the extent practical, capture contaminated soil vapor with trichloroethene concentrations greater than 250 microgram per meters cubed ($\mu g/m^3$). The system is monitored for effectiveness on a monthly, quarterly, and annual basis. Data from these monitoring events are submitted in quarterly operation reports.

Pressure readings are collected on a quarterly basis from the 12 SVE extraction wells and the 18 off-property SVPMs to monitor the SVE Containment System vacuum field. Readings are measured by dedicated in-line vacuum gauges on SVE wells and portable Magnehelic Differential Pressure gauges on the off-property SVPMs. The pressure readings indicate that soil vapors are contained and the SVE Containment system is effectively mitigating contaminated soil vapors from migrating to the residential neighborhood.

The SVE Containment System consists of 12 SVE wells along the Site 1 fence line and 5 SVE wells south of Plant 3 (Figure 2-6). SVE vapors are conveyed below ground, through a moisture separator, one of two operating blowers, and vapor-phase granular activated carbon (VGAC) unit for removal of chlorinated VOCs prior to discharge. Pre- and post-treatment vapor samples are collected monthly to evaluate mass removal

of VOCs and the effectiveness of the VGAC unit. The vapor samples are collected using 6-liter summa canisters with 30-minute flow regulators and are analyzed for a site-specific Target Compound List VOCs by modified method TO-15.

Vapor monitoring at the 12 SVE Wells is conducted on a quarterly basis to evaluate the horizontal and vertical capture of contaminated soil vapors. In addition to the quarterly events, on an annual basis, vapor samples were also collected at 18 SVPMs to evaluate soil vapor quality in the neighborhood located adjacent to Site 1 (Figure 2-6). Samples are collected by 6-liter summa canisters with 30-minute flow regulators at each location and analyzed for site-specific Target Compound List VOCs by modified TO-15 method. Construction details for the SVE and SVPMs are detailed in Table 2-10.

2.8 ECOLOGICAL INVESTIGATIONS

An ecological investigation was conducted during the 1986 IAS. NWIRP was found to be highly urbanized and did not have any sensitive ecological receptors. The potential current and future ecological receptors at NWIRP Bethpage are reviewed in Section 3.8.

3.0 PHYSICAL CHARACTERISTICS

3.1 SURFACE FEATURES

The NWIRP Bethpage is located on a relatively flat, featureless, glacial outwash plain. The site and nearby vicinity are highly urbanized. Because of this, most of the natural physical features have been reshaped or destroyed. The topography is relatively flat with a gentle slope toward the south. The dominate features at the NWIRP include Plant No. 3 located to the west of Site 1 and three recharge basins located upgradient of Site 1.

The elevation at Site 1 ranges from 130 feet Mean Sea Level (MSL) to the north and 122 feet MSL to the south. A topographic contour map of Site 1 is presented in Figure 3-1. A vegetated wind row (pine) and fence are present along the eastern edge of the site to reduce community visibility. Two berms at an elevation of 130 feet MSL have been documented at the northwest portion of the site and along the eastern side of the site.

3.2 METEOROLOGY

The climate at NWIRP is described as a fairly humid, modified continental climate. The combined influence of prevailing westerly winds and the proximity of the Atlantic Ocean produces a modified continental climate on Long Island. Temperature extremes are mitigated by the Atlantic Ocean and by Long Island Sound. Data from Republic Airport, located in Farmingdale, New York shows that the winter average temperature for Nassau is 33 degrees Fahrenheit, compared to a summer average of 72 degrees Fahrenheit. The total annual precipitation is 42 inches. Of this, 21 inches usually falls in April through September. The average seasonal snowfall is 27 inches.

3.3 SURFACE-WATER HYDROLOGY

As a result of extensive urban development, NWIRP Bethpage does not have surface drainage features or ponds. Before widespread development, the naturally occurring, permeable soils allowed rapid infiltration of rainwater. Currently, groundwater recharge is facilitated by recharge basins incorporated into the storm sewer drainage system. The basins allow rainwater to percolate into the ground.

3.4 GEOLOGY

NWIRP Bethpage is underlain by approximately 1,100 feet of unconsolidated sediments that overlie crystalline bedrock (Isbister, 1966). The unconsolidated sediments consist of four distinct geologic units: (in descending order) Upper Glacial Formation, Magothy Formation, Raritan Clay, and Lloyd Sand Formation. The 30- to 45-foot-thick Upper Glacial Formation consists chiefly of coarse sands and gravels. The Upper Magothy Formation consists primarily of coarse sands to a depth of approximately 100 feet, below which finer sands, silts, and clay predominate. The clay is common but laterally discontinuous; no

individual clay horizon of regional extent underlies the facility in the Magothy. The 100- to 150-foot-thick Raritan Clay underlies the Magothy Formation at a depth of approximately 700 to 800 feet bgs. The underlying Lloyd Sand Formation is approximately 300 feet thick.

The geology encountered in the study area was variable both horizontally and vertically. A cross section location map is presented on Figure 3-2. Cross Section A-A', which runs north to south through Site 1, is presented in Figure 3-3. Cross Sections B-B', which run east to west, is presented in Figure 3-4. Data observed from soil borings from this investigation as well as historical soil borings were used to interpret geology. Medium to course sand and gravel was consistently observed in the upper 30 feet of each boring. Below 30 feet, fine grained silty sands are predominant along with some clay layers that range in thickness from a few inches to one to two feet thick. The majority of the silt and clay units/layers observed above 150 feet bgs appear to be locally discontinuous.

3.5 SOILS

NWIRP Bethpage soil consists of approximately 63% Urban Land expanding over the western portion while the eastern portion includes 37% Urban-Land Riverhead Complex, 0 to 3 percent slopes (UrA), according to United States Department of Agriculture (USDA) soil classification systems (USDA, 1987). In the western portion of the site Urban Land consists of areas where at least 85 percent of the surface is covered with asphalt, concrete, or other impervious building material. These areas are typically parking lots, or industrial parks. Most of the open areas are well drained Riverhead, Hempstead, or Enfield soils or excessively drained Udipsamments. In many areas rapid or very rapid runoff prevents adequate discharge of runoff from intense rainstorms to safe outlets. A few areas are in low spots where seasonal wetness sometimes causes temporary flooding of the surface or frost heaving and subsequent breakup of surface pavements. In the eastern portion the NWIRP, Urban-Land Riverhead Complex, 0 to 3 percent slopes (UrA) consists of urbanized areas and very deep, well drained soils. This unit consists of about 65 percent urbanized areas, 20 percent Riverhead soils, and 15 percent other soils. The urbanized areas are buildings, roads, driveways, parking lots, and other manmade structures. The Riverhead soils typically contain sandy loam from the surface to a depth of approximately 32 inches then alternating to sand to a depth of approximately 52 inches then to gravelly sand to a depth of approximately 60 inches. Included with this unit in mapping are small areas of well drained Enfield soils, excessively drained Plymouth soils, and excessively drained to moderately well drained Udipsamments.

3.6 HYDROGEOLOGY

Most of Long Island is bisected by an east-west-trending regional groundwater divide. NWIRP Bethpage occupies an area of recharge, lying to the south of the divide. Groundwater is in contact with the Upper Glacial and Upper Magothy Formations beneath the facility, and may be considered an unconfined aquifer. The glacial deposits are characterized by a high primary porosity (exceeding 30 percent) and high

permeability. The high permeability of the glacial deposits allows for the rapid recharge of precipitation to the underlying Magothy (Isbister, 1966; McClymonds and Franke, 1972). The number and thickness of clay lenses increase with depth in the Magothy Formation; however, the horizontally discontinuous nature of these units prevents any one of them from functioning as a competent aquitard or confining unit.

Groundwater beneath the facility flows in a general southerly direction toward the Atlantic Ocean. Across the facility, the horizontal hydraulic gradient and groundwater velocity in the unconfined aquifer averages 5.3 feet per mile and 0.3 foot per day, respectively (HNUS, 1993). Subtle vertical hydraulic gradients occur in a downward direction. Groundwater in the deeper portion of the Magothy is the primary source of potable water in Nassau County. Groundwater is encountered at a depth of approximately 50 feet bgs at the facility. Historically, because of pumping and recharge at the facility, groundwater has been measured from depths ranging from 40 to 60 feet bgs.

Prior to 1996, the groundwater flow dynamics beneath the NWIRP and NG were complex. A total of 16 deep production wells (7 on the NWIRP and 9 on NG property) existed and were screened in the Magothy, each yielding approximately 1,200 gallon per minute (gpm). All of the production wells on the Navy's property have been decommissioned. The extracted water was mostly used for non-contact single pass cooling and then discharged into recharge basins located on Navy and NG property. Based on extraction and recharge rates and well locations, groundwater on the Navy property flowed predominately west and southwest. In addition, the production wells extracted groundwater from depths of approximately 500 feet bgs and the water was recharged in nearby surficial recharge basins. The extraction from the production wells and near surface recharge resulted in vertical gradients at the Site. Starting in 1998, the production wells and groundwater containment system operate with a combined flow rate of approximately 3,800 gpm (5.5 MGD).

The Magothy aquifer is highly conductive aquifer. For example, as presented in the 1994 FS for Site 1, the pumping of production well PW-11 located on the Navy's property at nearly 1,000 gpm for 72 hours during pumping test no. 2 produced little or no measurable drawdown in the nearby observation wells or other production wells (HNUS, 1994).

Five rounds of synoptic groundwater elevations were taken on November 29, 2010, March 3, 2011, January 24, 2012, November 6, 2012 and April 8, 2013. The groundwater elevations for these events are presented in Table 3-1. Installation of the new monitoring wells for this RI was completed in October 2012 and the first complete round of water levels at all of the new and existing monitoring wells was collected in April 2013. The April 2013 groundwater potentiometric surface for shallow, intermediate, and deep monitoring wells at Site 1 are presented on Figures 3-5, 3-6, and 3-7, respectively. Groundwater flows to the south, southeast at Site 1 and the elevation ranges from approximately 73 to 70 feet MSL.

3.7 DEMOGRAPHY AND LAND USE

The land use at NWIRP Bethpage remains industrial. Site 1 remains unused and the majority of the site is surrounded by a fence. Operations at the site are currently limited to environmental investigations, control of vegetation, fence repair, security patrols, and fire watch/suppression. Plant 3 located to the west of Site 1, is currently used for commercial and light industrial purposes. Security is present at the facility during the week days and evenings.

With the exception of the residential area east of Site 1, Navy owned land at Bethpage was surrounded by the large NG complex of research and development centers, manufacturing and assembly plants, test facilities, and corporate headquarters. Suburban housing surrounds much of the NG land. Besides the Hamlet of Bethpage, these densely populated communities include Levittown, Hicksville, and Plainedge.

Some commercial and light industrial operations flank the railroad to the west of NWIRP and lie just south of Broadway-Hicksville-Massapequa Road. Route 135, the Seaford-Oyster Bay Expressway, lies one mile east of NWIRP. Bethpage State Park, with its extensive golf courses, abuts the expressway on the opposite side.

3.8 ECOLOGY

Over 90 percent of NWIRP Bethpage is covered by buildings, impermeable parking areas, roadways, and other development. Likewise, the land which lies adjacent to Navy property is also urbanized. The biological communities are therefore highly urbanized and no natural habit exists with the exception of a narrow tree line along part of the northern boundary and scattered, maintained lawn areas around several of the smaller buildings. No natural aquatic habitat exists on the activity. There are no sensitive ecological receptors at Site 1.

4.0 NATURE AND EXTENT OF CONTAMINATION

This section describes the nature and extent of contamination at Site 1 – Former Drum Marshalling Area as determined by the results of sampling and laboratory analyses of soil and groundwater samples collected during the 2010 to 2013 field investigation. Since PCBs were established as a soil chemical of concern in the 1995 OU1 ROD, the 2010 to 2013 field investigation focused on defining the horizontal and vertical extent of the PCB-contaminated soil. As a result, the sampling was not conducted in areas of known contamination and do not necessarily represent the highest concentrations detected at the site.

Although, cadmium and chromium were not identified in the 1995 OU1 ROD as a chemical of concern, they were detected in several field investigations conducted between 1996 to 2002 in site soil at concentrations greater than potential ARAR- or risk-based screening values. Because the data were collected over 10 years ago, evaluation of the data was not included in this RI addendum. However, based on a review of the location of this older data, the elevated cadmium and chromium detections are co-located with PCB-contaminated areas. These metals will be addressed in the forthcoming FS Addendum for the Site.

This RI Addendum also specifically addresses the nature and extent of PCB- and metal-contaminated groundwater associated with Site 1 and other potential sources on or upgradient of the NWIRP. VOCs are considered in this RI Addendum via the vapor intrusion pathway (as is currently being mitigated by the SVE containment system) that was not considered in the 1995 OU1 ROD. Even though VOCs in groundwater are specifically addressed under the 2003 OU2 ROD, they are re-evaluated in this addendum.

The discussion in this section is divided into six areas, as follows:

- Surface water and sediment in the recharge basins.
- Site 1 soil, consisting of the boundaries identified in the 1995 OU1 ROD and AOC 23 - ASTs, AOC 32 – tetrachloroethene USTs, and AOC 35 - a sanitary settling tank and sludge drying beds.
- Dry Well 20-08 soil.
- Dry Well 34-07 soil.
- Facility-wide groundwater.
- Site 1 vapor intrusion.

To aid in the discussion of the nature and extent of contamination, USEPA, NYSDEC, and NYSDOH screening values are provided for comparison. These values include the following:

- direct ingestion and dermal exposure by child and adult receptors (residential screening levels).
- direct ingestion and dermal exposure by adult receptors (industrial screening levels).
- USEPA screening levels for non-carcinogens are based on an Hazard Quotient (HQ) of 1 and for carcinogens are based on a $1x10^{-6}$ incremental lifetime cancer risk (ILCR) (USEPA, 2014a).

- USEPA screening levels for protection of groundwater (USEPA, 2014a)
- Safe Drinking Water Act (SDWA) MCLs
- USEPA Groundwater Volatilization Screening Levels.
- NYSDEC Remedial Program Soil Cleanup Objectives (SCOs) for residential use and protection of groundwater (NYSDEC, 2006).
- NYSDOH MCLs are for the protection of drinking water sources (NYSDOH, 2006b).
- NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York (NYSDOH, 2006a).

4.1 SEDIMENT AND SURFACE WATER

Sediment and surface water samples were collected to evaluate whether PCBs are continuing to be discharged to the former NWIRP Recharge Basins. The southwest basin currently receives storm water from the majority of Plant 3 and runoff from Site 1. Two sediment samples and one surface water samples were collected from this basin. The southeast basin currently receives storm water from the former NG plant east of the basin. It can also receive diverted storm water currently discharged into the southwest basin or waters discharged into the northeast basin. Two sediment samples were collected from this basin. The northeast basin receives water from the north (undefined source), storm water from the west (Site 3), and treated groundwater from the Bethpage Community Park IRM. Four surface water samples were collected from this basin. Only the northeast basin receives continuous inflow. Flow into the other two basins is dependent on precipitation events.

Analytical results for sediment and surface water samples are detailed in Appendix E and are presented on Figure 4-1. The maximum detection, location of maximum detection, frequency of detection, and frequency of exceedance for sediment and surface water screening values are presented in Table 4-1 and Table 4-2, respectively, and are discussed below.

Aroclor 1248 was detected in all four sediment samples and one surface water sample. Concentrations of Aroclor 1248 in sediment exceeded the adjusted USEPA residential soil criteria of 2,200 µg/kg in two of the four samples. The maximum concentration was detected at BPS1-SB3066 at a concentration 4,600J µg/kg.

Aroclor 1248 was also detected in surface water at the southwest recharge basin (BPS1-SW3001), at a concentration of 0.35 J µg/L that exceeded the USEPA tapwater Regional Screening Level (RSL) of 0.034 µg/L. Aroclor 1242 was detected in surface water at the northeast recharge basin (BPS1-SW01) during the two of the three March 2011 sampling events at 0.068 J µg/L and 0.11 J µg/L. These detections exceeded the RSL, but were less than the USEPA and NYSDOH MCL of 0.5 µg/L.

4.2 SOIL

The discussion on soil sampling results is split into three areas: Site 1; Dry Well 20-08; and Dry Well 34-07. In addition, based on potential human contact with soil and leaching to groundwater, each area is

separated into four depth intervals: surface soil (0 to 2 feet bgs); shallow subsurface soil (2 to 15 feet bgs); deep subsurface soil (15 to 50 feet bgs); and saturated subsurface soil (greater than 50 feet bgs). The CSM for PCBs in soil is presented in Figure 4-2. Shallower soils present a higher probability of direct human contact, whereas deeper soils present a higher probability of groundwater impact.

4.2.1 Site 1 Soil Results

Initial Soil Testing

In 2010 and 2011, 254 soil samples were collected and analyzed onsite with field test kits from nine borings with sample depths ranging from 25 to 250 feet bgs. This testing was conducted to determine whether any significant deep (greater than 70 feet bgs) PCB-contaminated soil was present. The results of the field test kits and the associated fixed-based laboratory results for comparison were presented in the Interim Data Summary Report (Tetra Tech, 2011). The analytical results were used in conjunction with historical analytical results to determine where further PCB delineation is needed at Site 1. The report concluded that the vertical extent of PCB-contaminated soil with concentrations greater than 10,000 µg/kg at Site 1 is approximately 65 feet bgs. In addition, although low concentrations of VOCs, TPH-DRO, and TPH-GRO were detected in site soil and groundwater during this investigation, the concentrations were not high enough (less than 0.1 percent) to provide evidence of a residual fuel or solvent that acted as a carrier fluid and promoted PCB migration.

Site 1 - Surface Soil (0 to 2 feet bgs)

A total of 39 surface soil samples were collected from 0 to 2 feet bgs at Site 1 and analyzed for PCBs. Three additional surface soil samples (BPS1-SB3037 through BPS1-SB3039) were collected south of the Site 1 boundary to delineate the southern extent of PCB contamination. Analytical results for these samples are detailed in Appendix E and presented on Figure 4-3. The maximum detection, location of maximum detection, frequency of detection, and frequency of exceedance for direct human contact-type screening values are presented in Table 4-3 and discussed below.

At Site 1, PCBs were detected in all surface soil samples. These detections exceeded the NYSDEC SCO surface soil value of 1,000 µg/kg in 25 of 39 samples and the USEPA RSL for Aroclor 1248 of 220 µg/kg in 33 of 39 samples. The maximum detection of PCBs was 150,000 µg/kg at BPS1-SB3053.

South of Site 1, PCBs were detected in all three surface soil samples. Maximum detection of Aroclor 1248 and Aroclor 1254 were found in sample BPS1-SB3037 at concentrations of 330 J µg/kg and 530 J µg/kg, respectively.

The PCB isoconcentration contour map for Site 1 surface soil is provided in Figure 4-4. This figure is based on all available data, including results from investigations conducted in the 1990s and 2000s. As indicated

on the figure, PCB-contaminated surface soil, with concentrations greater than 1,000 µg/kg (the OU1 ROD cleanup goal for surface soil), encompasses most of Site 1. Because of the presence of asphalt, concrete, and gravel, surface samples were not collected beyond the boundaries shown. The highest concentrations of PCBs were found in the middle portion of the site, consistent with where historic waste storage activities occurred.

Site 1 - Shallow Subsurface Soil (2 to 15 feet bgs)

A total of 53 shallow subsurface soil samples were collected from 2 to 15 feet bgs at Site 1 and analyzed for PCBs. In addition, shallow subsurface samples were collected south of Site 1 (9 samples), and north of Site 1 (21 samples). Analytical results for these samples are detailed in Appendix E and presented on Figures 4-5 and 4-6. The maximum detection, location of maximum detection, frequency of detection, and frequency of exceedance for direct human contact-type screening values are presented in Table 4-4 and are discussed below.

PCBs were detected in 32 of 53 Site 1 samples, at a maximum concentration of 34,000 µg/kg at BPS1-SB3015. These detections exceeded the subsurface NYSDEC SCO of 10,000 µg/kg in 2 of 53 samples, and the USEPA RSL for Aroclor 1248 of 220 µg/kg in 7 of the samples and for Aroclor 1254 of 110 µg/kg in 6 samples. PCBs were also detected in 17 of 30 soil samples collected north and south of Site 1, at a maximum concentration of 520 µg/kg at BPS1-SB3037.

The PCB isoconcentration contour map for shallow subsurface soil is provided in Figure 4-7. This figure uses all available data, including results from investigations conducted in the 1990s and 2000s. Based on this evaluation, PCB-contaminated subsurface soil, with concentrations greater than 10,000 µg/kg (the OU1 ROD cleanup goal for subsurface soil) are found in over 10 discrete areas at Site 1. Each area likely represents a discrete release that occurred at the site. The PCB-contaminated soil at the 2- to 15-foot depth interval is generally consistent with a surface release of PCBs that migrated downward or that were introduced through the cesspools.

Site 1 - Deep Subsurface Soil (15 to 50 feet bgs)

A total of 50 deep subsurface soil samples were collected from 15 to 50 feet bgs at Site 1 and analyzed for PCBs. In addition, deep subsurface soil samples were collected south (5 samples) and north (26 samples) of Site 1. Analytical results for these samples are detailed in Appendix E and presented on Figures 4-8 and 4-9. The maximum detection, location of maximum detection, frequency of detection, and frequency of exceedance for direct human contact- and groundwater protection-type screening values are presented in Table 4-5 and are discussed below.

PCBs were detected in 11 of 50 Site 1 samples, at a maximum concentration of 15,000J µg/kg at BPS1-SB3006. These detections exceeded the NYSDEC SCO of 10,000 µg/kg in 1 of 50 samples. Although

excavations below 15 feet bgs are unlikely, several of these detections would also exceed the RSL for direct contact (if the soil was excavated and used elsewhere) and protection of groundwater. In addition, although PCBs were detected in 9 of 31 samples collected north and south of Site 1, the maximum detected PCB concentration was 19J µg/kg, indicating that the higher subsurface soil concentrations are limited to the boundaries of Site 1.

The PCB isoconcentration contour map for deep subsurface soil is provided in Figure 4-10. This figure is based on all available data, including results from investigations conducted in the 1990s and 2000s. As indicated on the figure, PCB-contaminated subsurface soil, with concentrations greater than 10,000 µg/kg (the OU1 ROD cleanup goal for subsurface soil), are found in approximately six discrete areas. Each area likely represents a release that occurred at the site. The PCB-contaminated soil at the 15- to 50-foot depth interval is generally consistent with the results from the 2- to 15-foot interval.

Select samples (BPS1-SB3004 through –SB3012) were also analyzed for VOCs, SVOCs, TPH DRO, and TOC to determine whether there was evidence of a carrier fluid (e.g., solvents or diesel) that may account for the presence of PCBs at depth. Analytical data tables with results for VOC, SVOCs, DRO, and TOC are presented in Appendix E. Several low-level detections of DRO, TOC, and VOCs were reported in the sample results; however, elevated concentrations (greater than 0.1 percent) of these constituents that would be indicative of a residual carrier fluid were not found.

Site 1 - Saturated Subsurface Soil (Greater than 50 feet bgs)

A total of 35 saturated subsurface soil samples were collected from greater than 50 feet bgs at Site 1 and analyzed for PCBS. In addition, saturated soil samples were collected south of Site 1 (4 samples) and north of Site 1 (4 samples). Analytical results for these samples are detailed in Appendix E and presented on Figures 4-11 and 4-12. The maximum detection, location of maximum detection, frequency of detection, and frequency of exceedance for various direct human contact- and groundwater protection-type screening values are presented in Table 4-6 and discussed below.

PCBs were detected in 11 of 35 Site 1 samples, at a maximum concentration of 160,910J µg/kg. These detections exceeded the NYSDEC SCO of 10,000 µg/kg in 2 of 35 samples. A total of 11 of 35 exceeded one or more of the USEPA RSL for Protection of Groundwater for individual Aroclors. The maximum detection of PCBs (160,910J µg/kg) were found in BPS1-SB3005 at a depth of 54.5 to 55 feet bgs, which is approximately 5 feet below the water table.

Although excavations below 50 feet bgs are very unlikely, several of these detections would also exceed the RSL for direct contact and protection of groundwater. In addition, although PCBs were detected in 4 of 8 samples collected north and south of Site 1, the maximum detected PCB concentration was 17J µg/kg, indicating that the higher subsurface soil concentrations are limited to the boundaries of Site 1.

The PCB isoconcentration contour map for shallow subsurface soil is provided in Figure 4-13. This figure is based on all available data, including results from investigations conducted in the 1990s and 2000s. As indicated on the figure, PCB-contaminated subsurface soil, with concentrations greater than 10,000 µg/kg (the OU1 ROD cleanup goal for subsurface soil), are found in approximately four discrete areas. Although the PCB-contaminated soil at greater than 50 feet bgs are generally consistent with the PCB-contaminated soil at the 15- to 50-foot depth interval, there are some differences. In particular, the PCBs detected in the saturated soil are offset from the deep subsurface soil, indicating some lateral flow of PCBs during downward migration, either as a result of deflection by fine-grained soil or the groundwater table.

4.2.2 Dry Well 20-08 Results

Samples were collected in Dry Well 20-08 area from a depth of 15 to 75 feet bgs during this investigation to identify contaminated soil that was not addressed by the 1998 soil removal action. Post-excavation soil testing found that PCB-contamination remained in soil below 15 feet bgs surrounding the excavation and under the former dry well excavation. The 2010 to 2013 investigation was conducted to delineate the horizontal and vertical extent of the contaminated soil.

Dry Well 20-08 - Deep Subsurface Soil (15 to 50 feet bgs)

A total of 27 deep subsurface soil samples were collected from 15 to 50 feet bgs at Dry Well 20-08 and analyzed for PCBS. Analytical results for these samples are detailed in Appendix E and presented on Figure 4-8. The maximum detection, location of maximum detection, frequency of detection, and frequency of exceedance for direct human contact- and groundwater protection-type screening values are presented in Table 4-5 and are discussed below.

PCBs were detected in 18 of 27 Dry Well samples, at a maximum concentration of 3,000,000 µg/kg at BPS1-SB3072. These detections exceeded the NYSDEC SCO of 10,000 µg/kg in 6 of 27 samples. Although excavations below 15 feet bgs are unlikely, several of these detections would also exceed the RSL for direct contact (if the soil was excavated and used elsewhere) and protection of groundwater.

The PCB isoconcentration contour map for deep subsurface soil is provided in Figure 4-10. This figure is based on all available data, including results from investigations conducted in the 1990s and 2000s, but excludes soil that would have been removed during the excavation. As indicated on this figure, PCB-contaminated subsurface soil, with concentrations greater than 10,000 µg/kg (the OU1 ROD cleanup goal for subsurface soil), are found in one discrete area that is roughly centered around the Dry Well, but appears to be extend outward, particularly to the east and west. The eastern extent of the PCBs is bounded by samples collected northwest of Site 1. But PCBs in the boring closest to Plant 3 (BPS1-SB3070) are not bounded. The building prevented borings from being installed further west. The majority of the PCBs occurred at the 25- to 35-foot bgs depth interval, where a thin layer of finer grained materials were observed

in the borings. These finer grained materials may have caused the horizontal distribution of a PCB-contaminated fluid.

Dry Well 20-08 - Saturated Subsurface Soil (Greater than 50 feet bgs)

A total of 9 saturated subsurface soil samples were collected from greater than 50 feet bgs at Dry Well 20-08 and analyzed for PCBs. Analytical results for these samples are detailed in Appendix E and presented on Figures 4-11. The maximum detection, location of maximum detection, frequency of detection, and frequency of exceedance for direct human contact- and groundwater protection-type screening values are presented in Table 4-6 and discussed below.

PCBs were detected in 5 of 9 Dry Well samples, at a maximum concentration of 8,100 µg/kg. These detections were less than the NYSDEC SCO of 10,000 µg/kg. The maximum detection of PCBs was found in BPS1-SB3026 at a depth of 55 to 65 feet bgs, which is approximately 5 to 15 feet below the water table. Although excavations below 50 feet bgs are very unlikely, several of these detections would also exceed the RSL for direct contact and protection of groundwater.

The PCB isoconcentration contour map for saturated subsurface soil is provided in Figure 4-13. This figure is based on all available data, including results from investigations conducted in the 1990s and 2000s. As indicated on the figure, there are no PCB-contaminated saturated subsurface soil, with concentrations greater than 10,000 µg/kg (the OU1 ROD cleanup goal for subsurface soil), associated with Dry Well 20-08.

4.2.3 Dry Well 34-07 Results

Samples were collected in Dry Well 34-07 area from a depth of 2 to 51.5 feet bgs during this investigation to identify contaminated soil that was not addressed by the 1998 soil removal action. Post-excavation soil testing found that PCB-contamination remained in soil below 2 feet bgs surrounding the excavation and under the former dry well excavation. The 2010 to 2013 investigation was conducted to delineate the horizontal and vertical extent of the contaminated soil.

Dry Well 34-07 - Shallow Subsurface Soil (2 to 15 feet bgs)

Three shallow subsurface soil samples were collected from 2 to 15 feet bgs at Dry Well 34-07 and were analyzed for PCBs. Analytical results for these samples are detailed in Appendix E and presented on Figure 4-6. The maximum detection, location of maximum detection, frequency of detection, and frequency of exceedance for direct human contact-type screening values are presented in Table 4-4. Although PCBs were detected in all three samples, the maximum detection was 238J µg/kg at BPS1-SB3029 and did not exceed NYSDEC SCO of 10,000 µg/kg.

The PCB isoconcentration contour map for saturated subsurface soil is provided in Figure 4-14. This figure is based on all available data, including results from investigations conducted in the 1990s and 2000s. As indicated on the figure, PCB-contaminated shallow subsurface soil, with concentrations greater than 10,000 µg/kg (the OU1 ROD cleanup goal for subsurface soil) remain southeast of Dry Well 34-07.

Dry Well 34-07 - Deep Subsurface Soil (15 to 50 feet bgs)

A total of 10 deep subsurface soil samples were collected from 15 to 50 feet bgs at Dry Well 34-07 and analyzed for PCBs. Analytical results for these samples are detailed in Appendix E and presented on Figure 4-9. The maximum detection, location of maximum detection, frequency of detection, and frequency of exceedance for direct human contact- and groundwater protection-type screening values are presented in Table 4-5 and are discussed below.

PCBs were detected in 7 of 10 Dry Well samples, at a maximum concentration of 28,000 µg/kg. These detections exceeded the NYSDEC SCO of 10,000 µg/kg in 2 of 10 samples. Although excavations below 15 feet bgs are unlikely, several of these detections would also exceed the RSL for direct contact (if the soil was excavated and used elsewhere) and protection of groundwater.

The PCB isoconcentration contour map for deep subsurface soil is provided in Figure 4-15. This figure uses all available data, including results from investigations conducted in the 1990s and 2000s, but excludes samples that would have been removed during the excavation. Based on this evaluation, PCB-contaminated subsurface soil, with concentrations greater than 10,000 µg/kg (the OU1 ROD cleanup goal for subsurface soil), are found as one discrete area that is roughly centered around the Dry Well 34-07.

Dry Well 34-07 - Saturated Subsurface Soil (Greater than 50 feet bgs)

A total of 9 saturated subsurface soil samples were collected from greater than 50 feet bgs at Dry Well 34-07 and analyzed for PCBs. Analytical results for these samples are detailed in Appendix E and presented on Figure 4-12. The maximum detection, location of maximum detection, frequency of detection, and frequency of exceedance for direct human contact- and groundwater protection-type screening values are presented in Table 4-6 and discussed below.

PCBs were detected in 2 of 9 Dry Well samples, at a maximum concentration of 260 J µg/kg at BPS1-SB3009. These detections were less than the NYSDEC SCOs, but exceeded the USEPA RSL for protection of groundwater.

A PCB isoconcentration contour map for saturated subsurface soil was not developed. Based on all available data, including results from investigations conducted in the 1990s and 2000s, there was only one sample (17,000 µg/kg) with concentrations greater than 10,000 µg/kg (the OU1 ROD cleanup goal for subsurface soil) associated with Dry Well 34-07.

4.3 GROUNDWATER

During the 2010 to 2013 groundwater investigations, initial groundwater grab samples were collected to provide a preliminary evaluation of the presence of PCBs and VOCs in groundwater to depths to 204 feet bgs south of Site 1 (Section 4.3.1) . Monitoring wells were then installed to confirm the presence of VOCs, metals, and PCBs in the shallow groundwater (to depths of 67 feet bgs), intermediate-depth groundwater (102 to 200 feet bgs), and deep groundwater (180 to 294 feet bgs). The depth interval descriptions were in part based on the presence of local confining units. In addition, the deeper wells were generally installed south (downgradient) or with wells that had PCBs detected at the intermediate-depth. The CSM for PCBs in groundwater is presented in Figure 4-16. The three depth intervals are discussed separately below.

4.3.1 Initial Groundwater Grab Sampling

A total of 8 groundwater grab samples were collected from the two boring locations (BPS1-SB3010 and SB3012) downgradient of Site 1 and Drywell 34-07. Four groundwater grab samples were collected from each boring at depths of 48 to 204 feet bgs and analyzed for PCBs and VOCs. Analytical results are presented on Figure 4-17. At BPS1-SB3010, Aroclor-1242 was detected in all four sample intervals with a maximum concentration of 0.42 µg/L at 114 to 118 feet bgs, while toluene was detected at 3 of the intervals with a maximum concentration of 0.27 µg/L from 144 to 148 feet bgs. At BPS1-SB3012, Aroclor-1242 was detected at one of the four samples from 144 to 148 feet bgs at 0.24 µg/L along with benzene (0.19 µg/L), cis-1,2-dichloroethene (0.61 µg/L), tetrachloroethene (0.91 µg/L), and trichloroethene (1.4 µg/L). Toluene was detected at one sample interval, 110 to 144 feet bgs, with a maximum concentration of 0.25 µg/L. The detections provided preliminary evidence that PCBs and VOCs have migrated downgradient of Site 1 and Dry Well 34-07.

4.3.2 Groundwater Monitoring

Monitoring wells were installed in three separate phases, with the results from one phase used to selected additional well locations. Samples were collected from monitoring wells during three to five sampling events from December 2010 to February 2013, with the number of events based on when the wells were installed. Laboratory analysis consisted of PCBs and VOCs for all wells and sample events. In addition, VOCs, TOC, TAL metals, iron, cadmium, chromium, and hexavalent chromium were analyzed on some of the groundwater samples. The summary of analysis for each event is presented on Table 2-8. Hexavalent chromium was also analyzed onsite with field test kits. A summary of detections from the field test kits and the associated laboratory results for comparison was presented in the Groundwater Data Summary Report (Tetra Tech, 2013). With the exception of three anomalies in November 2012, hexavalent chromium field test kits correlated well in comparison with samples that were chosen for laboratory analysis. Therefore, field test kit results are included in this discussion. Analytical results were compared to NYSDOH MCLs and USEPA RSLs. The USEPA MCLs for PCBs, tetrachloroethene, trichloroethene, and chromium are the same as the NYSDOH MCLs, whereas the USEPA MCLs for 1,1,1-trichloroethane and cis-1,2-

dichloroethene are less stringent than the NYSDOH MCLs. The following discussion on groundwater results are separated into three sections: shallow; intermediate-depth; and deep wells.

Shallow Monitoring Wells: A total of 20 shallow (water table) monitoring wells (ranging from 41 to 67 feet bgs) were sampled as part of this investigation. Analytical results are detailed in Appendix E and summarized on Figure 4-18. In addition, the maximum detection, location of maximum detection, frequency of detection, and frequency of exceedance for NYSDOH MCLs and USEPA RSL – tap water screening values are presented in Table 4-7 and discussed below.

VOCs: The VOCs, 1,1,1-trichloroethene, cis-1,2-dichloroethene, tetrachloroethene, and trichloroethene, were detected in one or more groundwater monitoring well samples at concentrations greater than the NYSDOH MCL of 5 µg/L. Maximum detections of 1,1,1-trichloroethane (23 µg/L), cis-1,2-dichloroethene (110 µg/L), tetrachloroethene (550 µg/L), and trichloroethene (41 µg/L) were all found in BPS1-FW-MW01 which is located in the southeast corner of Site 1. Trichloroethene was the most frequently detected VOC and found in 11 of the 20 wells. Other VOCs were detected, including methy-tert butyl ether, trans-1,2-dichloroethene, benzene, ethylbenzene, isopropylbenzene, freon 113, and choroform, but at concentrations less than MCLs.

PCBs: PCBs, reported as Aroclor-1242 and -1248, were detected in 13 of 20 monitoring wells. The maximum detected concentration of 14 J µg/L was found in monitoring well BPS1-TT-MW301S, which located at the northern edge of Site 1. The detected PCB concentrations in this well consisted of 0.57J µg/L in December 2010, 14J µg/L in March 2011, 10 µg/L in January 2012, and 9.9 µg/L in November 2012. Other than this monitoring well, the next highest PCB concentration of 2.8 µg/L was detected in monitoring well BPS1-FW-MW03 located in the southwest corner of Site 1. The NYSDOH MCL for PCBs is 0.5 µg/L and the USEPA Tap Water RSL for individual Aroclors is 0.034 µg/L. Additional discussion of PCBs relative to Site 1 and the boundaries of the former NWIRP are discussed below.

Along the northern edge of the former NWIRP (approximately 60 feet north of Site 1), PCBs were detected in 3 of 5 wells at concentrations ranging from 0.17J µg/L to 1.0 µg/L. Between the northern edge of the former NWIRP and Site 1 (excluding BPS1-TT-MW301S), PCBs were detected in both wells at a concentration ranging from 0.15J µg/L to 0.37 µg/L.

Along the southern edge of Site 1, PCBs were detected in all three wells at concentrations ranging from 0.29J µg/L to 2.8 µg/L. Approximately 250 south of Site 1, PCBs were detected in 2 of 3 wells at concentrations ranging from 0.052J µg/L to 0.6J µg/L. At the southern edge of the former NWIRP (approximately 650 feet south of Site 1), PCBs were not detected in the shallow monitoring wells.

Metals: A total of 19 metals were detected in groundwater samples and are discussed in further detail in Section 6. Based on screening levels exceedances, six metals were initially flagged as potential COPCs. These metals were aluminum, arsenic, chromium, cobalt, iron, and thallium. Since chromium and

hexavalent chromium were the only metals detected at a concentration greater than the MCL of 100 µg/L and there is a history of its use at this site, additional discussion of chromium and hexavalent chromium are provided below. For reference, the USEPA Tap Water RSL for hexavalent chromium is 0.031 µg/L.

Chromium was detected in all 20 wells, and the hexavalent valence state was identified in 15 of the wells. The maximum detected total chromium (160 µg/L) and hexavalent chromium (158 µg/L) both occurred in well TT-AOC22-MW10, which is located south of Plant 3 and side-gradient of Site 1. Based on the magnitude of the detection and location, the source of this contamination is not likely to be Site 1. A second well in this area (TT-AOC22-MW11) also had detected concentrations of total chromium (39 to 48 µg/L) and hexavalent chromium (12 to 18.3 µg/L).

For groundwater north of Site 1, total chromium was detected in all 8 wells at a maximum concentration of 36 µg/L. Hexavalent chromium was detected in 5 of 8 wells at a maximum concentration of 9.7 µg/L. For monitoring wells south of Site 1, total chromium was detected in all 9 wells (excluding the AOC 22 area well) at a maximum concentration of 8.5 µg/L. Hexavalent chromium was detected in 6 of the 8 wells at a maximum concentration of 20 µg/L (using a field test kit). The maximum reported detection using a laboratory based method was 0.6J µg/L. The total and hexavalent chromium concentrations north and south of Site 1 are less than the MCL, but are greater than the USEPA Tap Water RSL.

Intermediate-Depth Monitoring Wells: A total of 17 intermediate monitoring wells (ranging from 95 to 200 feet bgs) were sampled as part of this investigation. Analytical results are detailed in Appendix E and summarized on Figure 4-19. In addition, the maximum detection, location of maximum detection, frequency of detection, and frequency of exceedance for NYSDOH MCLs and USEPA RSL – tap water screening values are presented in Table 4-8 and discussed below.

VOCs: The VOCs, 1,1,1-trichloroethene, 1,1-dichloroethane, 1,4-dioxane, cis-1,2-dichloroethene, tetrachloroethene, and trichloroethene, were detected in one or more groundwater monitoring well samples at concentrations greater than the NYSDOH MCL of 5 µg/L. Maximum detections of 1,1,1-trichloroethane (15 µg/L), 1,1-dichloroethane (6.9 µg/L), 1,4-dioxane (81J µg/L), cis-1,2-dichloroethene (85 µg/L), tetrachloroethene (120 µg/L), and trichloroethene (3,900 µg/L) were found in wells BPS1-MW303I1, -MW304I1, and –MW305I, located south or southwest of Site 1. Trichloroethene was the most frequently detected VOC, and found in 12 of the 17 wells. Other VOCs were detected, including carbon tetrachloride, bromomethane, chloromethane, toluene, freons 11 and 113, 1,1-dichloroethene, and chloroform, but at concentrations less than MCLs. VOCs were also detected in 3 of 8 monitoring wells north of Site 1, but not at concentrations greater than MCLs.

PCBs: PCBs, reported as Aroclor-1242 and -1248, were detected in all 17 monitoring wells. The maximum detected concentration of 3.9 µg/L was found in monitoring well BPS1-TT-MW303I1, which is located 150 feet southwest of Site 1. The detected PCB concentrations in this well consisted of 3.9J µg/L in November

2010, 2.8J µg/L in March 2011, 3.9 µg/L in January 2012, and 3 µg/L in November 2012. The NYSDOH MCL for PCBs is 0.5 µg/L and the USEPA Tap Water RSL for individual Aroclors is 0.034 µg/L. Additional discussion of PCBs relative to Site 1 and the boundaries of the former NWIRP are discussed below.

Along the northern edge of the former NWIRP (approximately 600 feet north of Site 1), PCBs were detected in all three wells at concentrations ranging from 0.14J to 0.32J µg/L. Between the northern edge of the former NWIRP and Site 1, PCBs were detected in both wells at a concentration ranging from 0.27J µg/L to 0.79 µg/L.

South of Site 1, PCBs were detected in all seven wells at concentrations ranging from 0.5J µg/L to 3.9 µg/L. At the southern edge of the former NWIRP (approximately 650 south of Site 1), PCBs were detected in all three wells at concentrations ranging from 0.33 to 2.7J µg/L.

Metals: A total of 19 metals were detected in groundwater samples and are discussed in further detail in Section 6. Based on screening levels exceedances, six metals were initially flagged as potential COPCs. These metals were aluminum, arsenic, chromium, cobalt, iron, and thallium. Since chromium and hexavalent chromium were the only metals detected at a concentration greater than the MCL of 100 µg/L and there is a history of its use at this site, additional discussion of chromium and hexavalent chromium are provided below. For reference, the USEPA Tap Water RSL for hexavalent chromium is 0.031 µg/L.

Chromium and hexavalent chromium was detected in all 17 wells. The maximum detected total chromium (61 µg/L) and hexavalent chromium (55.1 µg/L) both occurred in well BPS1-TT309I, which is located at the northern edge of the former NWIRP. Based on the magnitude of the detection and location, the source of this contamination is likely to be upgradient of the former NWIRP.

For groundwater north of Site 1, total chromium was detected in all 6 wells at a maximum concentration of 61 µg/L. Hexavalent chromium was detected in 5 of 6 wells at a maximum concentration of 55.1 µg/L. For monitoring wells south of Site 1, total chromium was detected in all 11 wells at a maximum concentration of 200 µg/L. Hexavalent chromium was detected in 7 of the 11 wells at a maximum concentration of 182 µg/L. Based on the higher concentrations of chromium south of Site 1, Site 1 is a potential source of some of the chromium. The total and hexavalent chromium concentration in 1 of 17 wells south of Site 1 are greater than MCLs. All of the positive detections of hexavalent chromium north and south of Site 1 are greater than the USEPA Tap Water RSL.

Deep Monitoring Wells: A total of 9 deep monitoring wells (ranging from 180 to 296 feet bgs) were sampled as part of this investigation. Analytical results are detailed in Appendix E and summarized on Figure 4-20. In addition, the maximum detection, location of maximum detection, frequency of detection, and frequency of exceedance for NYSDOH MCLs and USEPA RSL – tap water screening values are presented in Table 4-9 and discussed below.

VOCs: Trichloroethene was detected in 2 of 9 groundwater monitoring well samples at concentrations greater than the NYSDOH MCL of 5 µg/L. The maximum detection was 200 µg/L, in BPS1-MW305D, located south and west of Site 1 and at the former NWIRP property line. Other VOCs were detected, including 1,1,1-trichloroethane, tetrachloroethene, cis-1,2-dichloroethene, toluene, freons 11, 12, and 113, 1,1-dichloroethene, 1,1-dichloroethane, and chloroform, but at concentrations less than MCLs. Overall, VOCs were detected in 8 of 9 wells.

PCBs: PCBs, reported as Aroclor-1242 and -1248, were detected in 8 of 9 monitoring wells. The maximum detected concentration of 4.2 µg/L was found in monitoring well BPS1-TT-MW304D, which is located approximately 150 feet south of Site 1. The detected PCB concentrations in this well consisted of 4J µg/L in December 2010, 2.9J µg/L in March 2011, 4.2 µg/L in January 2012, and 3.9 µg/L in November 2012. The NYSDOH MCL for PCBs is 0.5 µg/L and the USEPA Tap Water RSL for individual Aroclors is 0.034 µg/L. Additional discussion of PCBs relative to Site 1 and the boundaries of the former NWIRP are discussed below.

Along the northern edge of the former NWIRP (approximately 600 feet north of Site 1), there is only one well screened at the deep interval, and PCBs were not detected in that well. Between the northern edge of the former NWIRP and Site 1, PCBs were detected in both wells at a concentration ranging from 0.056J µg/L to 0.87J µg/L.

South of Site 1, PCBs were detected in all three wells at concentrations ranging from 0.42 µg/L to 4.2 µg/L. At the southern edge of the former NWIRP (approximately 650 feet south of Site 1), PCBs were detected in all three wells at concentrations ranging from 0.16J to 1.1J µg/L.

Metals: A total of 19 metals were detected in groundwater samples and is discussed in further detail in Section 6. Based on screening levels exceedances, six metals were initially flagged as potential COPCs. These metals were aluminum, arsenic, chromium, cobalt, iron, and thallium. Since chromium and hexavalent chromium were the only metals detected at a concentration greater than the MCL of 100 µg/L at the site (in shallow and intermediate-depth groundwater) and there is a history of its use at this site, additional discussion of chromium and hexavalent chromium are provided below. For reference, the USEPA Tap Water RSL is 0.031 µg/L.

Chromium and hexavalent chromium was detected in all nine wells. The maximum detected total chromium (86 µg/L) and hexavalent chromium (92 µg/L) both occurred in well BPS1-TT301D, which is located at the northern edge of Site 1. Based on the magnitude of the detection, depth, and location, the source of this contamination is likely to be upgradient of the former NWIRP.

For groundwater north of Site 1, total chromium was detected in all three wells at a maximum concentration of 86 µg/L. Hexavalent chromium was detected in two of the wells at a maximum concentration of 92 µg/L. For monitoring wells south of Site 1, total chromium was detected in all six wells at a maximum

concentration of 62 µg/L. Hexavalent chromium was detected in three of the wells at a maximum concentration of 40 µg/L (based on a field test kit). None of the total and hexavalent chromium concentration in the deep groundwater are greater than MCLs. All of the positive detections of hexavalent chromium north and south of Site 1 are greater than the USEPA Tap Water RSL.

4.4 SOIL VAPOR

To support operation of the SVE Containment System Removal Action, vapor samples are currently being collecting on a monthly, quarterly, or annual basis. Representative data from these operations are presented in this RI Addendum.

On a monthly basis, vapor samples of the combined flow from the extraction wells are sampled and analyzed. On a quarterly basis, vapor samples from the 12 individual on-property operating SVE extraction wells are sampled and analyzed; and on an annual basis, vapor samples from the individual 18 off property SVPMs are sampled and analyzed. The SVE containment system extracts 300 to 400 cubic feet per minute of soil vapor from depths of 25 (intermediate-depth wells) or 50 (deep wells) feet bgs at the eastern edge of Site 1. The SVPMs are located in the residential neighborhood and are screened at 8 feet bgs (typical depth of a basement), 25 feet bgs, and 50 feet bgs(water table). These wells are used to confirm the presence of a vacuum field and to monitor soil vapor in the residual neighborhood.

Pressure readings for the SVE wells are recorded from dedicated in-line vacuum gauges and SVPMs are measured using a portable Magnehelic Differential Pressure Gauge 2000-0, with a range of 0 to 0.50 inches of water column.

As identified in the Supplemental Offsite Soil Vapor Intrusion (SVI) Monitoring Plan (Tetra Tech, 2012b), the site-related VOCs consist of 1,1-dichloroethane, 1,1-dichloroethene, 1,1,1-trichloroethane, 1,2-dichloroethane, cis-1,2-dichloroethene, trans-1,2-dichloroethene, trichloroethene, tetrachloroethene, and vinyl chloride. For the RI Addendum, the full TO-15 list of VOCs was considered.

State and Federal criteria have not been developed for soil vapor. Since soil vapor screening values are not available, the vapor sample results are compared to NYSDOH subslab screening values, NYSDEC Ambient Air Guidelines, and USEPA Indoor Air – Residential RSLs. Of these reference values, the NYSDOH subslab screening values are the most applicable to compare to the shallow and intermediate-depth SVPM results and were used in this evaluation. The NYSDEC Ambient Air Guidelines, and USEPA Indoor Air – Residential RSLs apply to indoor air and do not account for attenuation factors between the sample location and potential vapor intrusion. However, these values were included as a reference value to show the most stringent values.

4.4.1 Soil Vapor Extraction Wells

Although data from 2010 through 2013 are available for the soil vapor extraction wells, data from the January 2013 sampling event was selected to be evaluated in this RI. This sample event is the most recent period in which data from the off property SVPMs are also available. Analytical results are detailed in Appendix E and summarized on Figure 4-21. In addition, the maximum detection, location of maximum detection, frequency of detection, and frequency of exceedances of the NYSDOH Subslab screening values, NYSDEC Ambient Air Guidelines, and USEPA Indoor Air – Residential RSLs are presented in Table 4-10 and discussed below.

Several site-related VOCs were detected in one or more of soil vapor well samples at concentrations greater than reference values. Maximum detections of 1,1,1-trichloroethane (3,400 μg/m^3), 1,1-dichloroethane (110 μg/m^3), 1,2-dichloroethane (12J μg/m^3), tetrachloroethene (4,200 μg/m^3), and trichloroethene (8,800 μg/m^3) were found in three different wells (SVE-101I, -104I, and -105I) along the eastern boundary of Site 1. The distribution of contaminants indicates that multiple sources of VOCs may remain at the Site. 1,1,1-Trichloroethane, tetrachloroethene, and trichloroethene were detected at concentrations greater than the NYSDOH subslab screening values of 1,000, 1,000, and 250 μg/m^3, respectively. NYSDOH subslab screening values are not available for the other VOCs. The maximum detection of other VOCs consist of 1,4-dichlorobenzene (0.48J μg/m^3), benzene (3.7 μg/m^3), and carbon tetrachloride (6.3J μg/m^3).

Trichloroethene and tetrachloroethene were the most frequently detected VOCs, and found in 11 of the 12 wells. Other VOCs were detected, including freons, alcohols, ketones, and alkanes, but not at concentrations greater than references values. These other VOCs may not be site-related.

4.4.2 SVE Containment System Influent Soil Vapor

Influent vapor samples are collected monthly from the SVE containment system. Data from August 2012 through August 2013 were selected as being representative of on-property soil vapor quality. If the SVE containment system no longer operated, this vapor could migrate into the residential neighborhood. As a result, this data is also used as the basis for the HHRA screening-level analysis (Section 6.4.4). Analytical results are detailed in Appendix E. In addition, the maximum detection, date of maximum detection, frequency of detection, and frequency of exceedances of the NYSDOH subslab screening values, NYSDEC Ambient Air Guidelines, and USEPA Indoor Air – Residential RSLs are presented in Table 4-11 and discussed below.

Several site-related VOCs were detected during one or more sampling events at concentrations greater than reference values. Maximum detections of 1,1-dichloroethane (24 μg/m^3), 1,2-dichloroethane (1.5 μg/m^3), tetrachloroethene (925 μg/m^3), and trichloroethene (1,350 μg/m^3) were found mostly frequently during the sampling events. Tetrachloroethene, and trichloroethene were detected at concentrations

greater than the NYSDOH subslab screening values of 1,000, and 250 μg/m^3, respectively. NYSDOH subslab screening values are not available for the other frequently detected VOCs. Other VOCs and maximum detections consist of 1,2,4-trichlorobenzene (4.3 μg/m^3), chloroform (7.7 μg/m^3), and carbon tetrachloride (4.6 μg/m^3). Trichloroethene and tetrachloroethene were detected during each of the 13 monthly sampling events.

4.4.3 Off-Property Soil Vapor Pressure Monitors

The off-property SVPM are sampled and analyzed on a yearly basis. Data from a representative recent sampling event (January 2013) is used. Analytical results are detailed in Appendix E and summarized on Figure 4-21. In addition, the maximum detection, location of maximum detection, frequency of detection, and frequency of exceedances of the NYSDOH subslab screening values, NYSDEC Ambient Air Guidelines, and USEPA Indoor Air – Residential RSLs are presented in Table 4-12 and discussed below.

The site-related VOC - trichloroethene was detected in 6 of the 18 wells, at a maximum concentration of 47 μg/m^3, which is less than the subslab screening value of 250 μg/m^3. Other VOCs detected at a concentration greater than reference values included benzene (12 μg/m3), chloroform (39 μg/m^3), and ethylbenzene (1.6J μg/m^3). These other VOCs are not identified as site-related. Other VOCs were detected, including site-related VOCs, freons, alcohols, ketones, and alkanes, but not at concentrations greater than references values.

5.0 CONTAMINANT FATE AND TRANSPORT ANALYSIS

This section discusses the evaluation of contaminant fate and transport to provide an understanding of potential risks from contaminant migration. To support the evaluation, a discussion of the physical and chemical properties of the contaminants associated with Site 1 sources and their potential persistence, migration, dispersion, and degradation pathways are provided.

5.1 PHYSICAL AND CHEMICAL PROPERTIES

The persistence of various classes of contaminants and their chemical and physical properties in soil-water environments are discussed in this section. Several chemical transformation mechanisms affect contaminant persistence, including hydrolysis, biodegradation, photolysis, and oxidation/reduction reactions. The following general classes of contaminants were identified as exceeding human health risk-based screening levels in Section 4.0:

- PCBs
- Metals
- VOCs (tetrachloroethene and trichloroethene)

5.1.1 PCBs

PCBs are generally inert and are relatively insoluble in water. PCBs do not commonly migrate from soil to groundwater due to their affinity to adsorb to soil and sediment (Agency for Toxic Substance and Disease Registry [ATSDR], November 2000).

PCBs are considered to be environmentally persistent organic chemicals. Biodegradation is the major process known to transform PCBs under environmental conditions, and only the lighter isomers are measurably biodegraded (ATSDR, November 2000). Although some microorganisms (e.g., the fungi Phanaerochaete chrysosporium) may biodegrade PCBs, such fungi may not exist in local soil. No abiotic processes are known to significantly degrade PCBs in soil and sediment (ATSDR, November 2000). Base-, acid-, and neutral-promoted hydrolysis are considered to be inconsequential degradation mechanisms for PCBs (USEPA, December 1982).

5.1.2 Metals

The fate and transport of inorganics (metals) are controlled mainly by the mobility of soil particles and dissolution into water present in the immediate environment. Metals do not undergo degradation reactions that most organic chemicals do; therefore, they are considered to be persistent. The major fate mechanisms for metals are adsorption to the soil matrix and bioaccumulation. The mobility of metals is influenced primarily by their physical and chemical properties, in combination with the physical and chemical

characteristics of the soil matrix. Factors that assist in predicting the mobility of inorganic species are the soil/pore water pH, soil/pore water Eh, and cation exchange capacity. The mobility of metals generally increases with decreasing soil pH and cation exchange capacity.

There are some instances where metals are found at such concentrations or in such forms (e.g., oxidation states) that they may migrate in solution. It is possible that industrial activities could saturate all available exchange sites in soil and result in a metal being mobilized. Metals are also more mobile under acidic conditions, which may exist in areas where plating-type activities have occurred. In these cases, it is possible for metals to migrate vertically through the soil column and reach the groundwater. Therefore, the metals detected in groundwater samples may represent the total of dissolved metals and metals adhering to any suspended soil material that may be present in the samples.

5.1.3 VOCs

VOCs are generally more soluble in water than other chemicals and have a low capacity for retention by soil organic carbon. Therefore, VOCs are typically the most frequently detected organic chemicals in groundwater. These types of chemicals may migrate through the soil column after they are released by a spill event or by subsurface waste burial as infiltrating precipitation solubilizes them. Some fraction of these chemicals is retained by the soil, but most will continue migrating downward to the water table. At that time, migration occurs primarily laterally with the hydraulic gradient. Again, some portion of the chemical may be retained by the saturated soil.

6.0 HUMAN HEALTH RISK ASSESSMENT

This section presents the HHRA for Site 1 at NWIRP Bethpage. The objective of the HHRA is to determine whether exposure to chemicals in the study area pose an unacceptable risk to potential human receptors. The risks to human receptors are estimated based on the assumption that no actions are taken to control contaminant releases.

The following current guidance and reports published by the Navy and the USEPA were considered in the preparation of this document:

- Conducting Human Health Risk Assessments Under the Environmental Restoration Program (Navy, 2001).
- U.S. Navy Human Health Risk Assessment Guidance (Navy, 2008).
- Risk Assessment Guidance for Superfund: Volume I, Human Health Evaluation Manual (Part A) (USEPA, 1989).
- Exposure Factors Handbook (USEPA, 1997a).
- Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites (USEPA, 2002).
- Risk Assessment Guidance for Superfund, Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment) (USEPA, 2004).
- Guidelines for Carcinogen Risk Assessment (USEPA, 2005a).
- Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (USEPA, 2005b).
- Risk Assessment Guidance for Superfund, Volume I: Human Health Evaluation Manual (Part F, Supplemental Guidance for Inhalation Risk Assessment) (USEPA, 2009).

The HHRA is structured and reported according to the guidelines of the Risk Assessment Guidance for Superfund (RAGS), Human Health Evaluation Manual, Part D: Standardized Planning, Reporting, and Review of Superfund Risk Assessments (RAGS Part D) (USEPA, 2001).

This HHRA consists of five components: data evaluation, exposure assessment, toxicity assessment, risk characterization, and uncertainty analysis. Sections 6.1 through 6.6 contain detailed discussions of the six components of the HHRA.

Three major aspects of chemical contamination and environmental fate and transport must be considered to evaluate potential risks: (1) contaminants with toxic characteristics must be found in environmental media and must be released by either natural processes or by human action; (2) potential exposure points must exist; and (3) human receptors must be present at the point of exposure. Risk is a function of both toxicity and exposure. If any one of these factors is absent for a site, the exposure pathway is incomplete, and no potential risks are considered to exist for human receptors.

6.1 DATA EVALUATION

Data evaluation, the first component of a baseline HHRA, is a medium-specific task involving the compilation and evaluation of analytical data. The second step (and the main objective) of the data evaluation is to develop a medium-specific list of chemicals of potential concern (COPCs) that will be used to quantitatively and/or qualitatively determine potential human health risks for site media. COPCs are selected primarily based on a risk-based screen (i.e., a comparison of site contaminant concentrations to conservative risk-based screening values).

Soil samples collected during the 2010, 2012, and 2013 investigations and groundwater samples collected in 2010, 2011, 2012, and 2013 were used in this HHRA. A discussion of the analytical results is presented in Section 4. VOCs in groundwater were addressed by the Record of Decision for Operable Unit 2 (USEPA, 2003) and were not evaluated in this HHRA (see Section 1). Samples used in this HHRA are listed on the COPC selection tables and in Appendix G.1.

6.1.1 Selection of Chemicals of Potential Concern

The selection of COPCs is a quantitative screening process used to limit the number of chemicals and exposure routes evaluated in the baseline HHRA to those site-related constituents that dominate overall potential risks. Screening by risk-based concentration (RBC) is used to focus the risk assessment on meaningful chemicals and exposure routes.

In general, a chemical is selected as a COPC and retained for further quantitative risk evaluation if the maximum detection in a sampled medium exceeds the lowest RBC. Chemicals eliminated from further evaluation are assumed to present minimal risks to potential human receptors. Medium-specific tables summarizing the selection of COPCs are included in the risk assessment.

6.1.1.1 Derivation of Screening Criteria

The primary criteria used to identify COPCs are based on USEPA RSLs (2014a). The RSLs are based on exposure pathways for which generally accepted methods, models, and assumptions have been developed (i.e., ingestion, dermal contact, and inhalation) for specific land-use conditions and do not consider impact to groundwater or ecological receptors. The screening concentrations based on the RSLs correspond to a systemic hazard quotient (HQ) of 0.1 for non-carcinogens or an incremental lifetime cancer risk (ILCR) of $1x10^{-6}$ for carcinogens.

The screening levels used in this HHRA are the lower of the carcinogenic and noncarcinogenic RSLs. For example, the carcinogenic RSL for residential exposures in soil to Aroclor-1254 is 240 µg/kg and the noncarcinogenic RSL is 110 µg/kg. Since the noncarcinogenic RSL is less than the carcinogenic RSL, the noncarcinogenic RSL of 110 µg/kg is used as the screening level for residential exposures to Aroclor-1254 in soil.

The COPC screening levels used for each medium in the risk assessment are discussed below.

Screening Levels for Soil

Screening levels based on the following criteria were used to select COPCs for surface soil and subsurface soil:

- RSLs for residential soil (USEPA, 2014a)

The risk-based screening levels used in the COPC selection for soil are presented in Table 6-1.

Screening Levels for Groundwater

Screening levels based on the following criteria were used to select COPCs for groundwater:

- RSLs for tap water (USEPA, 2014a)
- USEPA Maximum Contaminant Levels (MCLs) (2012a)

Risk-based COPC screening levels for tap water ingestion, which are based on daily residential exposure assumptions, were used to select COPCs for groundwater. Migration of site groundwater could be intercepted by public water supply wells.

The risk-based screening levels and health-based standards used in the COPC selection for groundwater are presented in Table 6-2.

Essential Nutrients

Per USEPA guidance (1989) “Chemicals that are (1) essential human nutrients, (2) present at low concentrations (i.e., only slightly elevated above natural occurring levels), and (3) toxic at very high does (i.e., much higher than those that could be associated with contact at the site) need not be considered further in the quantitative risk assessment.” Examples of such chemicals are magnesium, calcium, potassium, and sodium. Based on historical information available for the Site, no unusual use or disposal of these constituents occurred at the Site under investigation.

Determination of Site-Related Chemicals (Background Evaluation)

No background sample data are available for soil or groundwater. Therefore, a background screen (i.e., a comparison of site-data to background data) was not used in the selection of COPCs for these media.

6.1.1.2 Decision Rules for Establishing COPCs

The following decision rules were used to select initial lists of COPCs for the Site:

- A chemical detected in soil was selected as a COPC for soil if any detected chemical concentration exceeded the screening levels for residential exposures to soil.
- A chemical detected in groundwater was selected as a COPC for groundwater if the maximum detected concentration in any on-site monitoring wells exceeded screening levels for tap water.

6.1.2 COPCs Selected for the HHRA

COPCs were selected for surface soil, subsurface soil, and groundwater using the risk based COPC screening levels described in Section 6.1.1. A discussion of the chemicals identified as COPCs and the rationale for COPC selection is provided in the following subsections. A discussion of nature and extent of the chemicals detected in site media is presented in Section 4.0 and is not repeated in this section. COPC selection information for each medium is presented in Tables 6-3 through 6-12. Chemicals retained as COPCs are presented in Table 6-13. RAGS Part D tables for COPC selection are included in Appendix G.2.

6.1.2.1 Site 1 - Surface Soil (0 to 2 feet bgs)

A comparison of maximum detected surface soil concentrations to screening levels based on RSLs for residential exposures is presented in Table 6-3. Aroclor-1248 and -1254 were detected at maximum concentrations exceeding direct contact risk based COPC screening levels and were retained as COPCs for surface soil.

6.1.2.2 Site 1 - Shallow Subsurface Soil (2 to 15 feet bgs)

A comparison of maximum detected shallow subsurface soil concentrations to screening levels based on the RSLs for residential exposure is presented in Table 6-4. Aroclor-1242, -1248, and -1254 were detected at maximum concentrations exceeding direct contact risk based COPC screening levels and were retained as COPCs for shallow subsurface soil at Site 1.

6.1.2.3 Site 1 - Deep Subsurface Soil (15 to 50 feet bgs)

A comparison of maximum detected deep subsurface soil concentrations to screening levels based on the RSLs for residential exposure is presented in Table 6-5. Aroclor-1248 was detected at maximum concentrations exceeding direct contact risk based COPC screening levels and was retained as COPCs for deep subsurface soil at Site 1.

6.1.2.4 Site 1 - Saturated Subsurface Soil (Greater than 50 feet bgs)

A comparison of maximum detected saturated subsurface soil concentrations to screening levels based on the RSLs for residential exposure is presented in Table 6-6. Aroclor-1248 and Aroclor-1260 were detected at maximum concentrations exceeding direct contact risk based COPC screening levels and were retained as COPCs for saturated subsurface soil at Site 1.

6.1.2.5 Groundwater

A comparison of maximum detected groundwater concentrations to screening levels based on RSLs for tap water and USEPA MCLs is presented in Table 6-7. The following chemicals were detected at maximum concentrations exceeding the COPC screening levels and were retained as COPCs for groundwater at the Site:

- PCBs (Aroclor-1242 and Aroclor-1248)
- Metals (Total) [aluminum, arsenic, chromium, cobalt, hexavalent chromium, iron, and thallium]
- Metals (Dissolved) [chromium].

6.1.2.6 Dry Well 20-08 - Deep Subsurface Soil (15 to 50 feet bgs)

A comparison of maximum detected deep subsurface soil concentrations at Dry Well 20-08 to screening levels based on the RSLs for residential exposure is presented in Table 6-8. Aroclor-1248 was detected at a maximum concentration exceeding direct contact risk based COPC screening levels and was retained as a COPC for deep subsurface soil at Dry Well 20-08.

6.1.2.7 Dry Well 20-08 - Saturated Subsurface Soil (Greater than 50 feet bgs)

A comparison of maximum detected saturated subsurface soil concentrations at Dry Well 20-08 to screening levels based on the RSLs for residential exposure is presented in Table 6-9. Aroclor-1248 was detected at a maximum concentration exceeding direct contact risk based COPC screening levels and was retained as a COPC for saturated subsurface soil at Dry Well 20-08.

6.1.2.8 Dry Well 34-07 - Shallow Subsurface Soil (2 to 15 feet bgs)

A comparison of maximum detected shallow subsurface soil concentrations at Dry Well 34-07 to screening levels based on the RSLs for residential exposure is presented in Table 6-10. Aroclor-1248 was detected at a maximum concentration exceeding direct contact risk based COPC screening levels and was retained as a COPC for shallow subsurface soil at Dry Well 34-07.

6.1.2.9 Dry Well 34-07 - Deep Subsurface Soil (15 to 50 feet bgs)

A comparison of maximum detected deep subsurface soil concentrations at Dry Well 34-07 to screening levels based on the RSLs for residential exposure is presented in Table 6-11. Aroclor-1248 was detected at a maximum concentration exceeding direct contact risk based COPC screening levels and was retained as COPCs for deep subsurface soil at Dry Well 34-07.

6.1.2.10 Dry Well 34-07 - Saturated Subsurface Soil (Greater than 50 feet bgs)

A comparison of maximum detected saturated subsurface soil concentrations at Dry Well 34-07 to screening levels based on the RSLs for residential exposure is presented in Table 6-12. Aroclor-1248 was detected at a maximum concentration exceeding direct contact risk based COPC screening levels and was retained as a COPC for saturated subsurface soil at Dry Well 34-07.

6.1.2.11 Summary

Table 6-13 summarizes the chemicals retained as COPCs for surface soil, subsurface soil, and groundwater at the Site. RAGS Part D tables for COPC selection are included in Appendix G.2.

6.2 EXPOSURE ASSESSMENT

The exposure assessment portion of the risk assessment defines and evaluates, quantitatively or qualitatively, the type and magnitude of human exposure to the chemicals present at or migrating from a site. The exposure assessment is designed to depict the physical setting of the site, to identify potentially exposed populations and applicable exposure pathways, to calculate concentrations of COPCs to which receptors might be exposed, and to estimate chemical intakes for potentially complete exposure scenarios.

Actual or potential exposures at Site 1 were determined based on the most likely pathways of contaminant release and transport, as well as human activity patterns. An exposure pathway generally consists of four elements: a source and mechanism of chemical release, a retention or transport mechanism (or media in cases involving media transfer of chemicals), a point of potential human contact with the contaminated medium (referred to as the exposure point), and an exposure route (e.g., ingestion) at the contact point. A medium contaminated as a result of a past release can be a contaminant source for other media (e.g., soil contaminated from a previous spill could be a contaminated source for groundwater or surface water). In some cases, the source itself (i.e., a tank, contaminated soil) is the exposure point without a release to any other medium. In these latter cases, an exposure pathway consists of a source, an exposure point, and an exposure route.

6.2.1 Conceptual Site Model

A CSM facilitates a consistent and comprehensive evaluation of potential risks to human health by creating a framework for identifying the pathways by which human receptors may come in contact with environmental media contaminated by site activities. A CSM depicts the relationships among the following elements, which are necessary for defining complete exposure pathways:

- Site sources of contamination
- Contaminant release mechanisms and transport/migration pathways
- Exposure routes
- Potential receptors

The elements of the CSM (contaminant source, release mechanisms, transport/migration pathways, exposure routes, and potential receptors) establish the manner and degree to which a potential receptor may be exposed to chemicals present at the site. The degree of risk incurred by a potential receptor varies according to the means of exposure, the duration of exposure, and the specific chemical to which the receptor is exposed.

Section 1.6 presents the CSM for the Site. Table 6-14 provides a site-specific summary of the potential receptors evaluated for the Site. A summary of the exposure routes addressed quantitatively for each human receptor is provided in Table 6-15. Figures 1-4, 4-2, 4-16, and 6-1 illustrate the different aspects of the CSM for the Site.

6.2.1.1 Potential Current and Future Receptors of Concern and Exposure Pathways

Land use at the site is currently industrial/commercial and is expected to remain the same in the future. For purposes of completeness, this HHRA considered receptor exposure under residential and industrial land use scenarios or as a consequence of trespass across the site. Based on current and potential future land use, the following potential receptors may be exposed to contaminated environmental media within the study area:

- **Construction Workers** – A plausible on-site receptor under future land use; no construction projects are currently in progress at Site 1. Construction workers could be exposed to surface and shallow subsurface soil (incidental ingestion, dermal contact) and airborne particulates and vapors from surface and subsurface soil (inhalation). In this area, it is typical for excavations to go as deep as the water table, which is approximately 50 feet bgs. As an example, recharge basins just north of Site 1 have been excavated to approximately 30 to 40 feet bgs. Drought conditions, recorded by USGS in the 1960s, have recorded a drop in the water table by as much as 10 feet, which brings the water table at Site 1 down to approximately 60 feet bgs. Construction workers could potentially be exposed to subsurface soils to 60 feet bgs under drought conditions.

- **Industrial Worker** – Receptors under current and future land use. This receptor scenario includes employees from Steel-Los III, LP and tenants, which currently utilizes a portion of Site 1 for miscellaneous outdoor storage and parking and soil that may have been relocated. Portions of the site are currently paved or covered with gravel which would prevent exposures to contaminated soil. In the future the pavement and gravel could be removed thereby potentially exposing receptors to contaminated soil." These workers are assumed to be exposed surface soil (incidental ingestion, inhalation of fugitive dust, and dermal contact) and groundwater (ingestion and dermal contact). Soil Vapor Intrusion to the west of Site 1 (Plant 3) is being mitigated by property transfer documents and Subslab Depressurization Systems, and therefore is an incomplete exposure pathway. Although commercial/industrial worker exposure to subsurface soil is unlikely, because

future construction could potentially bring subsurface soil to the surface, exposure to subsurface soil via incidental ingestion, dermal contact, and inhalation is a concern.

- **Adolescent Trespassers** – A plausible receptor under current and future land use. A trespasser may be exposed to potentially contaminated surface soil (incidental ingestion; dermal contact), and air (inhalation). Trespasser exposure to shallow subsurface soil is unlikely. However, because future construction could potentially bring shallow subsurface soil to the surface, trespassers could be exposure to shallow subsurface soil via incidental ingestion, dermal contact, and inhalation. These exposure routes were evaluated for this receptor to aid in risk management decisions.

- **Hypothetical On-Site Child and Adult Residents** – Given the anticipated future land use for the Site (commercial/industrial), residents are a very unlikely future receptor. However, the hypothetical future residential scenario is typically evaluated in a risk assessment for decision-making purposes. For example, the need for deed restrictions at a site may still be required after the site has been transferred to Nassau County depending on what risks remain at the site. It is assumed that a hypothetical resident may be exposed to surface soil (ingestion; dermal contact; inhalation) and groundwater (ingestion; dermal contact; inhalation). Receptor exposure to subsurface soil would occur if subsurface soil was excavated and deposited on existing surface soil. Excavation of deep subsurface soil (to the water table, which has ranged from approximately 52 to 65 feet bgs) is common in this area. This receptor could also be exposed to subsurface soils if digging occurred (i.e. landscaping and gardening). Although this is an unlikely scenario, it is included in this HHRA for purposes of completeness and to assist the risk managers regarding the need for deed restrictions.

- **Off-Site Child and Adult Residents** – Receptors under current land use. These receptors include residents in the neighborhood east of Site 1 that could be exposed to soil vapor (inhalation of soil vapors) and dust migration. The SVE containment system has been installed to mitigate soil vapor intrusion migrating from Site 1 to the off property neighborhood. The system is currently in operation and monitoring is conducted monthly, quarterly and yearly to evaluate the protectiveness of the interim remedy. In the event that the SVE containment system ceases to operate, these residents could be exposed to soil vapor.

6.2.2 Exposure Point Concentrations

The exposure point concentration (EPC) is an estimate of the chemical concentration within an exposure unit (EU). The EPC is assumed to be the concentration to which the receptor is exposed and is used to estimate exposure intakes. An EU is the area over which receptor activity is expected to occur.

The following guidelines were used to calculate EPCs:

- For surface soil, shallow subsurface soil, and groundwater the 95-percent upper confidence limit (UCL) on the arithmetic mean, which was based on the distribution of the data set, was selected as the EPC. EPCs were calculated following USEPA's Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites (2002a) and using USEPA's ProUCL software Version 5.0.00 (2013). If ProUCL was unable to calculate an UCL then the maximum detected concentration was used as the EPC. The uncertainty associated with using the maximum detected concentration as the EPC is discussed in the uncertainty analysis in Section 6.5.

- The same EPCs were used to evaluate both RME and CTE scenarios.

- Non-detected values were evaluated in accordance with the ProUCL guidance. Duplicates were averaged for purposes of calculating EPCs for COPCs in environmental media. In calculating the averages, if one sample was detected and the other was non-detected then the average was calculated using the detected value and one half the non-detected value.

Table 6-16 summarizes the EPCs used in this HHRA. ProUCL Outputs are included in Appendix G.3. RAGS Part D Tables for the EPCs are presented in Appendix G.2.

6.2.3 Chemical Intake Estimation

The methodologies and techniques used to estimate exposure intakes are presented in this section. Intakes for the identified potential receptor groups were calculated using current USEPA risk assessment guidance and are presented in the risk assessment spreadsheets. Risk assessment results are presented using USEPA RAGS Part D table format. Assumptions regarding exposure are presented in Tables 6-17 and 6-18 for the RME and CTE scenarios, respectively. The exposure assumptions presented in Table 6-17 and 6-18 are based on current USEPA and risk assessment guidance.

Non-carcinogenic intakes were estimated using the concept of an average annual exposure. Carcinogenic intakes were calculated as incremental lifetime exposures, which assume a life expectancy of 70 years. The exposure assumptions reflect current USEPA guidance. The majority of the exposure assumptions used to estimate chemical intakes were based on default assumptions described in several USEPA guidance documents (e.g., USEPA 1989, 2002, 2004, and 2014b) The following paragraphs discuss the non-default receptor-specific exposure assumptions used in the risk assessment.

6.2.3.1 Incidental Ingestion of Soil

Direct physical contact with soil may result in the incidental ingestion of chemicals. Chemical intake for the incidental ingestion of soil is estimated in the following manner (USEPA, 1989):

$$\text{Intake} = \frac{(C_s)(RBA)(IR)(FI)(EF)(ED)(CF)}{(BW)(AT)}$$

where:

Intake	=	intake of chemical from soil (mg/kg/day)
Cs	=	concentration of chemical in soil (mg/kg)
RBA	=	relative bioavailability (unitless)
IR	=	ingestion rate (mg/day)
FI	=	fraction ingested from contaminated source (dimensionless)
EF	=	exposure frequency (days/yr)
ED	=	exposure duration (yr)
CF	=	conversion factor ($1x10^{-6}$ kg/mg)
BW	=	body weight (kg)
AT	=	averaging time (days);
		for non-carcinogens, AT = ED x 365 days/yr
		for carcinogens, AT = 70 yr x 365 days/yr

Most of the exposure assumptions used to estimate chemical intakes from incidental ingestion of soil were based on default assumptions described in standard USEPA guidance and are summarized in Tables 6-17 and 6-18. The following paragraphs briefly discuss the non-default receptor-specific exposure assumptions for incidental ingestion of soil that were used in the HHRA.

The selected exposure frequency assumptions consider anticipated receptor activities at the Site. It is assumed that construction workers assigned to future excavation projects at the Site are exposed to soil for 250 days a year for 1 year under the RME scenario, and 125 days a week for 1 year under the CTE scenario. It is assumed that child and adult trespassers are exposed to soil for 1 day per week during the warmer months (26 days a year) and 1 day every other week during the warmer months under the RME and CTE scenarios, respectively. A value of 0.6 was used for the relative bioavailability (RBA) for arsenic (USEPA, 2012b); a RBA value of 1 was used for all other chemicals.

6.2.3.2 Dermal Contact with Soil

Direct physical contact with soil may result in the dermal absorption of chemicals. Exposure associated with dermal contact with soil is estimated in the following manner (USEPA, 1989):

$$\text{Intake} = \frac{(C_s)(SA)(AF)(ABS)(CF)(EF)(ED)}{(BW)(AT)}$$

where:

Intake	=	amount of chemical absorbed during contact with soil (mg/kg/day)
Cs	=	concentration of chemical in soil (mg/kg)
SA	=	skin surface area available for contact (cm^2/day)

AF	=	skin adherence factor (mg/cm^2)
ABS	=	absorption factor (dimensionless)
CF	=	conversion factor (1×10^{-6} kg/mg)
EF	=	exposure frequency (days/year)
ED	=	exposure duration (year)
BW	=	body weight (kg)
AT	=	averaging time (days);
		for non-carcinogens, AT = ED x 365 days/year
		for carcinogens, AT = 70 years x 365 days/year

Most of the exposure assumptions used to estimate chemical intakes from dermal contact with soil were based on the default assumptions described in standard USEPA guidance and are summarized in Tables 6-17 and 6-18.

The same exposure frequencies and durations recommended for the evaluation of incidental ingestion of soil were used to estimate chemical intakes for dermal contact with soil. The soil adherence factors presented are those listed in Exhibits 3.3 and 3.5 of RAGS Part E. A value of 0.14 was used as the dermal absorption factor for Aroclor-1242, -1248, and -1254 (USEPA 2004).

6.2.3.3 Inhalation of Air Containing Fugitive Dust/Volatiles Emitted from Soil

Intakes of both particulates and vapors/gases are calculated using the same equation, as follows (USEPA, 2009):

$$EC = \frac{(C_{air})(ET)(EF)(ED)}{AT \times 24\,hrs/day}$$

where:

EC	=	exposure concentration (mg/m^3)
C_{air}	=	concentration of chemical in air (mg/m^3)
ET	=	exposure time (hours/day)
EF	=	exposure frequency (days/yr)
ED	=	exposure duration (yr)
AT	=	averaging time (hours);
	=	for non-carcinogens, AT = ED x 365 days/yr
	=	for carcinogens, AT = 70 yr x 365 days/yr

The exposure assumptions used to estimate chemical intakes from inhalation of fugitive dusts/volatile emissions from surface and subsurface soil were based on default assumptions described in standard USEPA guidance and are summarized in Tables 6-17 and 6-18. The same exposure frequencies and

durations used to estimate incidental ingestion of soil intakes were used to estimate exposure via inhalation of fugitive dust/volatile emissions for surface and subsurface soil.

The concentrations of chemicals in air resulting from emissions from soil are developed following procedures presented in USEPA Soil Screening Guidance (2002b). Chemical concentrations in air were calculated as follows:

$$C_{air} = C_{soil} \times \left[\frac{1}{PEF} + \frac{1}{VF} \right]$$

where:

C_{air}	=	chemical concentration in air (mg/m^3)
C_s	=	chemical concentration in soil (mg/kg)
PEF	=	Particulate emission factor (m^3/kg)
VF	=	volatilization factor (m^3/kg)

No volatile chemicals were retained as COPCs in surface and subsurface soil, therefore the above equation reduces to:

$$C_{air} = C_{soil} \times \left[\frac{1}{PEF} \right]$$

The PEF relates the concentration of the chemical in soil to the concentration of dust particles in air. A PEF value of 1.36 x 10+9 m^3/kg was used for this HHRA (USEPA, 2002b). Because air emissions resulting from fugitive dust emissions settings will be different than dust emissions generated during construction activities, a separate PEF was used for construction activities. The PEF for construction workers (1.43x10^{+6} m^3/kg) was calculated using the equations presented in the supplemental SSL guidance document (USEPA, 2002b). Sample calculations showing how the PEFs were calculated are presented in Appendix G.4.

6.2.3.4 Ingestion of Groundwater

Direct ingestion of groundwater is expected to be limited to exposure that would occur under a future hypothetical residential scenario. Intakes associated with ingestion of groundwater were evaluated using the following equation (USEPA, 1989):

$$\text{Intake} = \frac{(C_w)(CF)(IR_w)(EF)(ED)}{(BW)(AT)}$$

where:

Intake	=	intake of chemical from groundwater (mg/kg/day)
C_w	=	concentration of chemical in groundwater (µg/L)

CF	=	conversion factor (0.001 mg/µg)
IR_w	=	ingestion rate for groundwater (L/day)
EF	=	exposure frequency (days/yr)
ED	=	exposure duration (yr)
BW	=	body weight (kg)
AT	=	averaging time (days);
		for non-carcinogens, AT = ED x 365 days/yr
		for carcinogens, AT = 70 yrs x 365 days/yr

USEPA standard default exposure assumptions were used to evaluate residential exposures to groundwater. A summary of the receptor-specific input values used to estimate chemical intakes from ingestion of groundwater are presented in Tables 6-17 and 6-18.

6.2.3.5 Dermal Contact with Groundwater

Hypothetical residential receptors were assumed to use groundwater for domestic purposes (e.g., bathing, showering, and dish washing) that can result in dermal exposure. The following equation was used to assess exposures resulting from dermal contact with groundwater (USEPA, 2004):

$$DAD = \frac{(DA_{event})(EV)(ED)(EF)(SA)}{(BW)(AT)}$$

where:

DAD	=	dermally absorbed dose of chemical from water (mg/kg/day)
DA_{event}	=	dermally absorbed dose per event (mg/cm^2 event)
EV	=	event frequency (events/day)
ED	=	exposure duration (yr)
EF	=	exposure frequency (days/yr)
SA	=	skin surface area available for contact (cm^2)
BW	=	body weight (kg)
AT	=	averaging time (days);
		for non-carcinogens, AT = ED x 365 days/yr
		for carcinogens, AT = 70 yrs x 365 days/yr

Most of the exposure assumptions used to estimate chemical intakes from dermal contact with groundwater were based on default assumptions described in standard USEPA guidance and are summarized in Tables 6-17 and 6-18.

The absorbed dose per event (DA_{event}) was estimated using a non-steady-state approach for organic compounds and a traditional steady-state approach for inorganics. For organics, the following equations apply:

$$\text{If } t_{event} < t^*, \text{ then: } DA_{event} = (2)(K_p)(FA)(C_w)(CF)\left(\sqrt{\frac{6\tau t_{event}}{\pi}}\right)$$

$$\text{If } t_{event} > t^*, \text{ then: } DA_{event} = (K_p)(FA)(C_w)(CF)\left(\frac{t_{event}}{1+B} + 2\tau\left(\frac{1+3B+3B^2}{(1+B)^2}\right)\right)$$

where:

t_{event}	=	duration of event (hour/event)
t*	=	time to reach steady-state conditions (hour)
Kp	=	permeability coefficient from water through skin (cm/hour)
FA	=	chemical-specific fraction absorbed (dimensionless)
C_w	=	concentration of chemical in water (mg/L)
τ	=	lag time (hour)
π	=	Pi (dimensionless; equal to 3.1416)
CF	=	conversion factor (0.001 L/cm^3)
B	=	Dimensionless ratio of the permeability of the stratum corneum relative to the permeability across the viable epidermis (dimensionless)

Values for the chemical-specific parameters (t*, K_p, FA, τ, and B) were obtained from the current dermal guidance (USEPA, 2004, Exhibit B-3) and are presented in Table 6-19. If published values were not available for a particular compound, they were calculated using equations provided in the USEPA dermal guidance. The guidance also recommends that dermal absorption of PCBs in groundwater not be evaluated quantitatively in a HHRA because such evaluations are outside of the effective predictive domain of the model. Therefore, no chemical-specific parameters are included in Table 6-19 for PCBs and dermal exposures to PCBs in groundwater were not evaluated in this HHRA.

The following steady-state equation was used to estimate DA_{event} for inorganics:

$$DA_{event} = (K_p)(C_W)(t_{event})$$

The dermal permeability coefficient (K_p) values recommended in the USEPA dermal guidance (USEPA, 2004) were used to calculate DA_{event} for inorganic COPCs.

6.2.3.6 Inhalation of Volatiles in Groundwater

No VOCs were retained as COPCs in groundwater. Consequently, inhalation of volatiles in groundwater is an incomplete exposure pathway and was not evaluated in this HHRA.

6.2.3.7 Assessing Cancer Risks from Early Life Exposures

USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (USEPA, 2005b) recommends making adjustments to the toxicity of carcinogenic chemicals that act via the mutagenic mode of action when evaluating early-life exposures. The guidance recommends using age-dependent adjustment factors (ADAFs) combined with age-specific exposure estimates when assessing cancer risks. In the absence of chemical-specific data, the supplemental guidance recommends the following default adjustments, which reflect the fact that cancer risks are generally higher from early-life exposures than from similar exposures later in life:

- For exposures before 2 years of age (i.e., spanning a 2-year interval from the first day of birth until a child's second birthday), a 10-fold adjustment.
- For exposures between 2 and 16 years of age (i.e., spanning a 14-year time interval from a child's second birthday until their sixteenth birthday), a three-fold adjustment.
- For exposures after turning 16 years of age, no adjustment.

The adjustments were applied using the same method as that used by Oak Ridge National Laboratory (ORNL) in the development of RSLs. Children were evaluated as two age groups, ages 0 to 2 years and ages 2 to 6 years, and adults were evaluated as two age groups, ages 6 to 16, and ages greater than 16 years old. Using this approach, the intakes for hypothetical residents were calculated as follows:

$$\text{Intake}_{\text{Child}} = \text{Intake}_{(\text{ages } 0 - 2 \text{ years})} \times 10 + \text{Intake}_{(\text{ages } 2 - 6 \text{ years})} \times 3$$

$$\text{Intake}_{\text{Adult}} = \text{Intake}_{(\text{ages } 6 - 16 \text{ years})} \times 3 + \text{Intake}_{(\text{ages} > 16 \text{ years})}$$

The above approach was used only for those chemicals that are identified as mutagenic in the ORNL screening table (e.g., hexavalent chromium). Sample calculations showing how this approach was applied are included in Appendix G.4.

6.2.3.8 Summary of Exposure Parameters

A summary of exposure input parameters for all exposure pathways is presented in Tables 6-17 and 6-18 for the identified potential receptor groups at the Site. In general, standard default parameters (e.g., USEPA, 1989, 2002, 2004, and 2014b), which combine mid-range and upper-end exposure factors, were used to assess RME conditions in this HHRA. CTE conditions were assessed primarily by the use of mid-range exposure factors presented in current risk assessment guidance (USEPA, December 1989 and May 1993).

6.3 TOXICITY ASSESSMENT

The toxicity assessment weighs the evidence regarding the potential for exposure to chemicals to produce adverse effects in exposed receptors and, when possible, the assessment estimates the relationship between the exposure to a chemical and the increased likelihood and/or severity of adverse effects. Quantitative estimates of the relationship between the magnitude and type of exposures and the severity or probability of human health effects are defined for the identified constituents of concern. Quantitative toxicity values determined during this component of the risk assessment are integrated with exposure assessment outputs to characterize the potential occurrence of adverse health effects for each receptor group.

The reference dose (RfD) is the toxicity value used to evaluate noncarcinogenic health effects for ingestion and dermal exposures. The reference concentration (RfC) is used to evaluate noncarcinogenic health effects for inhalation exposures. The RfD and RfC estimate a daily exposure level for a human population that is unlikely to pose an appreciable risk during a portion or for all of a human lifetime. It is based on a review of animal and/or human toxicity data, with adjustments for various data uncertainties. Carcinogenic effects are quantified using the cancer slope factor (CSF) for ingestion and dermal exposures, and using inhalation unit risks (IUR) for inhalation exposure that are plausible upper bound estimates of the probability of the development of cancer per unit intake of the chemical over a lifetime. These are typically based on dose response data from human and/or animal studies.

6.3.1 Toxicity Criteria for Oral and Inhalation Exposures

Oral RfDs and CSFs and inhalation RfCs and IURs used in this HHRA were obtained from the following primary USEPA literature sources (2003):

- Tier 1 - Integrated Risk Information System (IRIS).

- Tier 2 - USEPA Provisional Peer Reviewed Toxicity Values (PPRTVs) – The Office of Research and Development/National Center for Environmental Assessment (NCEA) Superfund Health Risk Technical Support Center develops PPRTVs on a chemical-specific basis when requested by USEPA's Superfund program.

- Tier 3 - Other Toxicity Values – These sources include but are not limited to California Environmental Protection Agency (Cal EPA) toxicity values, Agency for Toxic Substances and Disease Registry (ATSDR) values, and the Annual Health Effects Assessment Summary Tables (HEAST) (USEPA, 1997b).

Although toxicity criteria can be found in several toxicological sources, USEPA's IRIS online database is the preferred source of toxicity values. This database is continuously updated, and the presented values

have been verified by USEPA. The toxicity criteria for the constituents selected as COPCs are presented in Tables 6-20 through 6-23.

6.3.2 Toxicity Criteria for Dermal Exposure

RfDs and CSFs in the scientific literature are typically expressed as "administered" (i.e., not absorbed) doses. Therefore, these values are considered inappropriate for estimating risks associated with dermal exposures. Oral dose response parameters based on administered doses must be adjusted to absorbed doses before they can be compared to estimated dermal exposure intakes.

When oral absorption is essentially complete (i.e., 100 percent), an absorbed dose is equivalent to the administered dose, and therefore no toxicity adjustment is necessary. Conversely, when the gastrointestinal absorption of a chemical is poor (e.g., 1 percent), the absorbed dose is smaller than the administered dose; thus, toxicity factors based on absorbed dose should be adjusted to account for the difference in the absorbed dose relative to the administered dose. USEPA (2004) recommends a 50 percent absorption cut off to reflect the intrinsic variability in analyzing absorption studies. Therefore, the adjustment from administered to absorbed dose was only performed when the chemical specific gastrointestinal absorption efficiency was less than 50 percent. The adjustment from administered to absorbed dose was made using chemical specific gastrointestinal absorption efficiencies published in numerous sources of guidance (e.g., USEPA 2004 [the primary reference], IRIS, ATSDR toxicological profiles, etc.), using the following equations:

$$RfD_{dermal} = (RfD_{oral})\ (ABS_{GI})$$

$$CSF_{dermal} = (CSF_{oral})\ /\ (ABS_{GI})$$

where:

ABS_{GI}	=	absorption efficiency in the gastrointestinal tract
RfD_{dermal}	=	RfD for the dermal route of exposure
RfD_{oral}	=	RfD for the oral route of exposure
CSF_{dermal}	=	CSF for the dermal route of exposure
CSF_{oral}	=	CSF of the oral route of exposure

As noted above, the preceding adjustment of the oral toxicity criteria (e.g., RfDs, CSFs) was necessary to allow quantitative evaluation of the dermal route of exposure in the baseline risk assessment. An explanation of this procedure and the need for this procedure are presented in Appendix A of USEPA RAGS Part A.

6.3.3 Toxicity of Chromium

Toxicity criteria are available for different forms of chromium (trivalent and hexavalent), where the hexavalent form is considered to be more toxic. Hexavalent chromium has carcinogenic and

noncarcinogenic toxicity factors. However, hexavalent chromium is evaluated as a carcinogen that potentially acts via a mutagenic mode of action. USEPA Guidelines for Carcinogen Risk Assessment (2005a) and Supplemental Guidance of Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005b) specify the use of ADAFs for carcinogens that act via a mutagenic mode of action. No chemical-specific ADAF is available for hexavalent chromium; therefore, USEPA's default ADAFs are applied to the carcinogenic toxicity factors for hexavalent chromium. The following default ADAFs should be applied: 10 for ages 0 to 2, 3 for ages 2 to 16, and 1 (no adjustment) for ages 17 to 70. Noncarcinogenic effects are evaluated like all noncarcinogens in accordance with USEPA's risk assessment guidance (1989).

6.3.4 Toxicity of PCBs

The HHRA of PCBs was conducted per the following USEPA guidance document: PCBs: Cancer Dose-Response Assessment and Application to Environmental Mixtures (USEPA, 1996). This guidance presents a tiered approach to the risk assessment of PCBs. A range of CSFs for PCBs is presented for use in HHRA according to criteria that consider the environmental media investigated, type of exposure, and anticipated persistence, bioaccumulation potential, and toxicity of the PCB homologues/congeners detected in the samples.

6.3.5 Toxicity of Thallium

The USEPA RSLs for thallium were derived using a toxicity value reported in the appendix of the PPRTV toxicological profile for thallium. This value is not considered to be a Tier 2 or Tier 3 toxicity value. The oral reference dose presented in the RSL table for thallium was developed for the purposes of screening and is not appropriate for quantifying risks (USEPA, 2012c). Therefore, the oral reference doses thallium was not used in this HHRA.

6.4 RISK CHARACTERIZATION

This section provides a characterization of human health risks associated with potential exposures to COPCs at the Site. Potential risks (non-carcinogenic and carcinogenic) for human receptors resulting from exposures outlined in the exposure assessment were quantitatively determined and are discussed in this section. Sections 6.4.1 and 6.4.2 outline the methods used to quantitatively estimate the type and magnitude of potential risks for human receptors. Summaries of the risk characterization for the Site are provided in Section 6.4.3.

6.4.1 Quantitative Analysis of Chemicals

Quantitative estimates of risk for chemicals were calculated according to risk assessment methods outlined in USEPA guidance (USEPA, December 1989). Lifetime cancer risks are expressed in the form of dimensionless probabilities, referred to as ILCRs, based on CSFs and IURs. Non-carcinogenic risk

estimates are presented in the form of HQs that are determined through a comparison of intakes with published RfDs and RfCs.

ILCR estimates for ingestion and dermal exposures were generated for each COPC using estimated exposure intakes and published CSFs, as follows:

$$ILCR = (Estimated\ Exposure\ Intake)(CSF)$$

ILCRs estimates for inhalation exposures were generated for each COPC using estimated exposure concentrations and published IURs, as follows:

$$ILCR = (IUR)(Exposure\ Concentration)(1000\ \mu g/mg)$$

An ILCR of $1x10^{-6}$ indicates that the exposed receptor has an one in-one million chance of developing cancer under the defined exposure scenario. Alternatively, such a risk may be interpreted as representing one additional case of cancer in an exposed population of one million people.

Non-carcinogenic risks were assessed using the concept of HQs and HIs. The HQ for a COPC is the ratio of the estimated intake to the RfD and is calculated for ingestion and dermal exposures as follows:

$$HQ = (Estimated\ Exposure\ Intake)/(RfD)$$

For inhalation exposures, HQ is calculated as follows:

$$HQ = (Exposure\ Concentration)/(RfC)$$

An HI was generated by summing the individual HQs for all COPCs. The HI is not a mathematical prediction of the severity of toxic effects and therefore is not a true "risk"; it is simply a numerical indicator of the possibility of the occurrence of noncarcinogenic (threshold) effects.

6.4.2 Interpretation of Risk Assessment Results

To interpret the quantitative risk estimates and to aid risk managers in determining the need for remediation, quantitative risk estimates were compared to typical USEPA risk benchmarks. Calculated ILCRs were interpreted using USEPA's target cancer risk range ($1x10^{-4}$ to $1x10^{-6}$). HIs were evaluated against a benchmark value of 1.

USEPA defines the range of $1x10^{-4}$ to $1x10^{-6}$ as the ILCR target range for hazardous waste facilities addressed under the CERCLA and the Resource Conservation Recovery Act (RCRA). Individual or cumulative ILCRs greater than $1x10^{-4}$ are generally considered “unacceptable” by USEPA. Risk management decisions are necessary when the ILCR is within $1x10^{-4}$ to $1x10^{-6}$. USEPA typically does not require remediation when the cumulative ILCR is less than $1x10^{-6}$.

A HI exceeding unity (1) indicates that there may be non-carcinogenic health risks associated with exposure. If a HI exceeds unity, target organ effects associated with exposure to COPCs are considered. Only those HQs for chemicals that affect the same target organ(s) or exhibit similar critical effect(s) are regarded as truly additive. Consequently, it may be possible for the cumulative HI to exceed 1, but no adverse health effects are anticipated if the COPCs do not affect the same target organ or exhibit the same critical effect (i.e., target-organ/critical effect-specific HIs do not exceed 1).

6.4.3 Results of the Risk Characterization

This section contains a summary of the results of the risk characterization for the Site. Quantitative risk estimates for potential human receptors were developed for those chemicals identified as COPCs. The methodology used to calculate the risks presented in this section was discussed in Sections 6.2 and 6.3. Potential risks from direct contact exposures to soil and groundwater are discussed in Sections 6.4.3.1 and 6.4.3.2. Uncertainties associated with the risk estimates are discussed in Section 6.5.

Potential cancer risks and hazard indices were calculated for current/future construction workers, current/future adolescent trespassers, future industrial workers and hypothetical child, adult, and lifelong residents under the RME and CTE scenarios and are summarized in Tables 6-24 and 6-25. Chemicals retained as COCs are summarized in Table 6-26. Sample calculations are presented in Appendix G.4, and the results of the risk assessment in RAGS Part D format are included in Appendix G.2.

6.4.3.1 Non-Carcinogenic Hazards

Reasonable Maximum Exposures

Table 6-24 present the HIs for the RME scenario at the Site. HIs for construction workers, industrial workers, adolescent trespassers, and hypothetical adult residents were less than unity (1), indicating that adverse non-carcinogenic effects are not anticipated for these receptors under the defined exposure conditions.

The HI for hypothetical child residents exposed to Site 1 surface soil was 8. Aroclor-1254 (HQ = 8) was the major contributor to the HI for the hypothetical child resident. The HI for hypothetical child residents exposed to ground water was 2, although as shown below the HIs for the individual target organs were all less than or equal to 1.

Hypothetical Child Residents	
Target Organ	**Hazard Quotient**
Central Nervous System	0.1
Cardiovascular System	0.4
Gastrointestinal System	0.08
None Specified	0.9
Skin	0.4
Thyroid	0.2

HIs for hypothetical child residents exposed to shallow subsurface soil at Site 1 and Dry Well 34-07 were less than unity.

Central Tendency Exposures

Table 6-25 present the HIs for the CTE scenario at the Site. HIs for construction workers, industrial workers, adolescent trespassers, and hypothetical adult residents were less than unity (1), indicating that adverse non-carcinogenic effects are not anticipated for these receptors under the defined exposure conditions.

The HI for hypothetical child residents exposed to Site 1 surface soil was 2. Aroclor-1254 (HQ = 2) was the major contributor to the HI for the hypothetical child resident. HIs for hypothetical child residents exposed to Site 1 shallow subsurface soil and groundwater; and subsurface soil at Dry Well 34-07 were less than unity.

6.4.3.2 Carcinogenic Risks

Reasonable Maximum Exposures

Table 6-24 present the ILCRs for the RME scenario at the Site. ILCRs for exposures to surface soil at Site 1, subsurface soil at Site 1, and shallow subsurface soil at Dry Well 34-07 were within the USEPA's target risk range of 10^{-4} to 10^{-6} with the exception of hypothetical child and lifelong residents. The ILCR of $1x10^{-4}$ for hypothetical child residents exposed to surface soil at Site 1 was equal to the upper bound of USEPA's target risk range. The ILCRs for hypothetical lifelong residents (ILCR = $2x10^{-4}$) exposed to surface soil at Site 1 exceeded USEPA's target risk range. Aroclor-1224 and Aroclor-1254 were the major contributors to the risk for lifelong residents exposed to surface soil at Site 1.

The ILCRs for hypothetical child (ILCR = $6x10^{-4}$), adult (ILCR = $5x10^{-4}$), and lifelong residents (ILCR = $1x10^{-3}$) exposed to groundwater exceeded USEPA's target risk range. Arsenic, hexavalent chromium, and Aroclor-1242, Aroclor-1248, and Aroclor-1248 were the major contributors to the ILCRs for the hypothetical child, adult, and lifelong residents exposed to groundwater.

Central Tendency Exposures

Table 6-24 present the ILCRs for the CTE scenario at the Site. ILCRs for all receptors exposed to surface and subsurface soil at Site 1 and subsurface soil at Dry Well 34-07 were within USEPA's target risk range.

The ILCR for hypothetical adult residents (ILCR = $8x10^{-5}$) exposed to groundwater were within USEPA's target risk range. The ILCRs for hypothetical child (ILCR = $5x10^{-4}$) and lifelong residents (ILCR = $6x10^{-4}$) exceeded USEPA's target risk range. Arsenic and hexavalent chromium were the major contributors to the ILCRs for the hypothetical child and lifelong residents exposed to groundwater.

6.4.4 Vapor Intrusion Screening Risk Analysis

Influent vapor samples are collected monthly from the SVE Containment System (Section 4.4.2). If operation of the SVE Containment System ceases, the soil vapor contaminants could theoretically migrate into the residential neighborhood. Therefore, this monitoring program is conducted to determine whether the operation of the SVE Containment System should continue. To make this determination, a screening level risk analysis of the influent vapor was conducted.

Being that the system is currently operating successfully, it is unlikely that vapor contaminants are migrating into the indoor air of residential dwellings. Therefore, this risk screening analysis associated with potential vapor intrusion was conducted separately from the Site 1 risk assessment presented in previous sections.

Analytical results for the individual SVE and SVPMs are discussed in Section 4.4. For this screening-level risk analysis, it is assumed that the influent data from the vapor extraction system represent potential sub-slab soil vapor concentrations. COPCs were selected by comparing maximum detected influent concentrations to screening levels based on the USEPA RSLs for air. Influent gas data collected from August 2012 through August 2013 were used as the basis for this screening-level analysis (Table 6-27). Risks associated with residential exposure were calculated by comparing predicted indoor air concentrations to residential RSLs for air.

Selection of Contaminants of Potential Concern

To determine indoor air COPCs based on influent data, the influent gas concentrations were compared to screening levels that were derived by applying an attenuation factor (AF) of 0.1 (USEPA 2002c) to the RSLs for residential air (USEPA, 2014a). An AF of 0.1 indicates that there is a ten-fold reduction in the sub-slab soil vapor concentration upon infiltration into the indoor air. Therefore, the selected screening level for a contaminant (corresponding to a cancer risk level of $1x10^{-6}$ or a HQ of 0.1) is multiplied by 10 to account for this attenuation. The selected screening level is the lesser of the carcinogenic RSL and 0.1 times the noncarcinogenic RSL, as in the Site 1 risk assessment.

For example, the residential RSLs for trichloroethene are 0.43 and 2.1 µg/m^3 for carcinogenic and noncarcinogenic effects, respectively. The noncarcinogenic screening level for selection of COPCs is 0.21 µg/m^3 (0.1 x RSL); the carcinogenic screening level is its face value of 0.43 µg/m^3. The lesser of these two screening levels is the adjusted noncarcinogenic value of 0.21 µg/m^3. This selected screening level is multiplied by a factor of 10 to account for the conservative AF of 0.1, resulting in a sub-slab screening level of 2.1 µg/m^3. The maximum detected influent gas concentration of trichloroethene is 1,350 µg/m^3. Because this value exceeds 2.1 µg/m^3, trichloroethene is selected as a COPC for influent gas and its potential to impact indoor air through vapor intrusion.

The COPCs for the influent gas data are: carbon tetrachloride, chloroform, 1,1-dichloroethane, 1,2-dichloroethane, tetrachloroethene, 1,2,4-trichlorobenzene, and trichloroethene. The selection of COPCs for influent gas data is presented in Table 6-28.

Risk Characterization

To calculate risks for these COPCs, a risk-ratio approach was followed using the maximum detected concentrations of the contaminants and the USEPA residential air RSLs.

For the influent gas data, attenuation factors were applied to the maximum and average concentrations to determine predicted indoor air concentrations. Two different attenuation factors were evaluated:

- USEPA's Draft Vapor Intrusion Guidance (2002c) recommended AF of 0.1
- USEPA's recommended AF of 0.03 from the USEPA's Vapor Intrusion Database (2012d)

The predicted sub-slab soil vapor concentrations were multiplied by each AF to calculate the predicted indoor air concentrations. These predicted indoor air concentrations were compared to USEPA's residential RSLs to calculate risks.

The risk calculations are presented in Tables 6-29 and 6-30 for the two AFs presented above.

Using an AF of 0.1, the predicted indoor air concentrations, based on maximum and average influent gas concentrations, resulted in cumulative cancer risks greater than USEPA's target risk range of 10^{-4} to 10^{-6} and cumulative hazard indices greater than 1 (Table 6-29).

Using an AF of 0.03, the predicted indoor air concentrations, based on maximum detected influent gas concentrations, resulted in a cumulative cancer risk equal to the upper end of USEPA's target risk range; the average concentrations resulted in a cumulative cancer risk that is within USEPA's target risk range. The cumulative hazard indices for maximum and average concentrations are greater than 1 (Table 6-30).

Trichloroethene and tetrachloroethene are the primary contaminants in the influent gas data that contribute to the total carcinogenic and noncarcinogenic risk.

6.4.5 Exposures to Soils Below 15 Feet bgs

Since construction activities do not usually take place at depths below 15 feet bgs, risks were not calculated for exposures to soils below 15 feet bgs. As discussed in Section 6.1.2, Aroclor-1248 was detected at concentrations exceeding direct contact screening levels in deep subsurface soil, and Aroclor-1242 and Aroclor-1260 was detected at concentrations exceeding direct contact screening levels in saturated subsurface soil at Site 1. Also Aroclor-1248 was detected at concentrations exceeding direct contact screening levels in deep subsurface soil and saturated subsurface soil at Dry Wells 20-08 and 34-07.

Aroclor-1248 was detected in 9 of 49 deep subsurface soils at Site 1. The maximum detected concentration of 15,000 J µg/kg (Table 6-5) exceeds the carcinogenic screening level for PCBs (220 µg/kg) by less than two orders of magnitude, indicating that cancer risks would be less $1x10^{-4}$ and therefore within USEPA's target risk range (assuming no other contaminants are present).

Aroclor-1242 and Aroclor-1260 were only detected in 2 of 31 saturated subsurface soil samples at Site 1 (Table 6-6). The maximum detected Aroclor-1260 concentration of 910 J µg/kg exceeds the carcinogenic screening level of 220 µg/kg by less than two orders of magnitude, indicating that cancer risks would be less than $1x10^{-4}$ and therefore within USEPA's target risk range. The maximum Aroclor-1242 concentration of 160,000 µg/kg exceeded the carcinogenic screening level of 220 µg/kg by more than two orders of magnitude, indicating that cancer risks would be greater $1x10^{-4}$ and therefore exceed USEPA's target risk range.

At Dry Well 20-08, Aroclor-1248 was detected in 10 of 15 deep subsurface soil samples and 5 of 9 saturated subsurface soil samples. The maximum detected concentration in deep subsurface soil of 2,400,000 µg/kg (Table 6-8) exceeds the carcinogenic screening level of 220 µg/kg by more than two orders of magnitude, indicating that cancer risks would be greater $1x10^{-4}$ and therefore exceed USEPA's target risk range. The maximum detected concentration in saturated subsurface soil of 8,100 µg/kg (Table 6-9) exceeds the carcinogenic screening level by less than two orders of magnitude, indicating that cancer risks would be less $1x10^{-4}$ and therefore within USEPA's target risk range.

At Dry Well 34-07, Aroclor-1248 was detected in 7 of 10 deep subsurface soil samples and 2 of 5 saturated subsurface soil samples. The maximum detected concentration in deep subsurface soil of 28,000 µg/kg (Table 6-11) exceeds the carcinogenic screening level of 220 µg/kg by more than two orders of magnitude, indicating that cancer risks would be greater $1x10^{-4}$ and therefore exceed USEPA's target risk range. The maximum detected concentration in saturated subsurface soil of 260 µg/kg (Table 6-12) exceeds the carcinogenic screening level by less than one order of magnitude, indicating that cancer risks would be less $1x10^{-5}$ and therefore within USEPA's target risk range.

6.4.6 Evaluation of Migration from Soil to Groundwater

The potential for chemicals to migrate from soil to groundwater was evaluated by comparing the maximum detected chemical concentrations in soil to USEPA risk-based soil screening levels (SSLs) for groundwater protection that were designed to be protective of groundwater at most sites. A DAF of 1 is very conservative because it assumes that no dilution occurs. The SSLs for migration from soil to groundwater were not used for the selection of COPCs for direct contact exposure (e.g., incidental ingestion, dermal contact, and inhalation) and for quantifying risks from exposures to soil; however, they do allow qualitative evaluation of the potential for chemical migration from soil to groundwater. Chemicals with concentrations exceeding the SSLs could theoretically migrate from soil to groundwater at levels consistent with risk-based levels and therefore further assessment may be warranted.

A comparison of maximum detected surface soil, shallow subsurface soil, deep subsurface soil, and saturated subsurface soil concentrations to USEPA SSLs for chemical migration from soil to groundwater are presented in Tables 6-31 through 6-39. Table 6-40 presents a summary of chemicals which were detected at concentrations exceeding the SSLs for migration from soil to groundwater. PCBs were detected at concentrations exceeding the SSLs for migration from soil to groundwater in soil at Site 1 and Dry Wells 20-08 and 34-07. Tetrachloroethene was also detected at concentrations exceeding the SSLs in saturated subsurface soil at Site 1.

The SSLs are based on conservative assumptions about the release and transport of chemicals in the environment. A better indicator of the migration of soil contaminants to groundwater is the actual presence of a soil contaminant in groundwater. As discussed in Section 4.9, Aroclor-1242 and Aroclor-1248 were detected in groundwater samples collected from the shallow, intermediate, and deep monitoring wells.

Tetrachloroethene was also detected in groundwater samples collected from shallow, intermediate, and deep monitoring wells. As previously discussed, VOCs in groundwater were addressed by the Record of Decision for Operable Unit 2 (USEPA, 2003) (see Section 1).

6.5 UNCERTAINTY ANALYSIS

This section presents a summary of uncertainties inherent in the risk assessment and includes a discussion of how they may affect the quantitative risk estimates and conclusions of the risk analysis. The baseline HHRA for the Site was performed in accordance with current USEPA guidance; however, there are varying degrees of uncertainty associated with the baseline HHRA. The following sections discuss general uncertainties in risk assessment and uncertainties specific to the risk assessment for the Site.

Uncertainty in the selection of COPCs was related to the current status of the predictive databases; the grouping of samples; the numbers, types, and distributions of samples; data quality; and the procedures used to include or exclude constituents as COPCs. Uncertainty associated with the exposure assessment included the values used as input variables for a given intake route or scenario, the assumptions made to determine EPCs, and the predictions regarding future land use and population characteristics. Uncertainty in the toxicity assessment included the quality of the existing toxicity data needed to support dose response relationships and the weight of evidence used to determine the carcinogenicity of COPCs. Uncertainty in risk characterization is associated with exposure to multiple chemicals and the cumulative uncertainty from combining conservative assumptions made in earlier steps of the risk assessment process.

Whereas there were various sources of random uncertainty and bias, the magnitude of bias and uncertainty and the direction of bias are influenced by the assumptions made throughout the risk assessment including selection of COPCs and selection of values for dose response relationships. Throughout the entire risk assessment, assumptions that consider safety factors were made so that the final calculated risks were overestimated.

Generally, risk assessments include two types of uncertainty, measurement and informational uncertainty. Measurement uncertainty refers to the usual variance that accompanies scientific measurements. For example, this type of uncertainty is associated with analytical data collected for the site. The risk assessment reflects the accumulated variances of the individual values used.

Informational uncertainty stems from inadequate availability of information needed to complete the toxicity and exposure assessments. Often, this gap is significant, such as the absence of information on the effects of human exposure to low doses of a chemical, the biological mechanism of action of a chemical, or the behavior of a chemical in soil.

After the risk assessment is complete, the results must be reviewed and evaluated to identify the type and magnitude of uncertainty involved. Reliance on results from a risk assessment without consideration of uncertainties, limitations, and assumptions inherent in the process can be misleading. For example, to account for uncertainties in the development of exposure assumptions, conservative estimates were made to ensure that the particular assumptions were protective of sensitive subpopulations or the maximum exposed individuals. If a number of conservative assumptions are combined in an exposure model, the resulting calculations can propagate the uncertainties associated with those assumptions, thereby producing a much larger uncertainty for the final results. This uncertainty is biased toward overpredicting both carcinogenic and non-carcinogenic risks. Thus, both the results of the risk assessment and the uncertainties associated with those results must be considered when making risk-management decisions.

This interpretation of uncertainty is especially relevant when the risks exceed the point of departure for defining "acceptable" risk. For example, when risks calculated using a high degree of uncertainty are less than an acceptable risk level (i.e., 10^{-6}), the interpretation of no significant risk is typically straightforward. However, when risks calculated using a high degree of uncertainty exceed an acceptable risk level (i.e., 10^{-4}), a conclusion can be difficult unless uncertainty is considered.

6.5.1 Uncertainty in Selection of COPCs

The most significant issues related to uncertainty in COPC selection at the Site are the COPC screening levels used. The use of risk based screening values based on conservative land-use scenarios (i.e., residential land use for soil and ingestion of tap water for groundwater) corresponding to ILCRs of 10^{-6} and HIs of 0.1 ensured that all the significant contributors to risk from the site were evaluated. The elimination of chemicals present at concentrations that correspond to ILCRs less than 10^{-6} and HIs less than 0.1 should not affect the final conclusions of the risk assessment because those chemicals are not expected to cause a potential health concern at the detected concentrations.

6.5.2 Uncertainty in the Exposure Assessment

Uncertainty in the exposure assessment arose because of the methods used to calculate EPCs, the determination of land-use conditions, the selection of receptors and scenarios, and the selection of exposure parameters. Each of these is discussed below.

Exposure Point Concentrations

Uncertainty is associated with the use of 95-percent UCLs on the mean concentration as EPCs. As a result of using 95-percent UCLs, the estimations of potential risk for the RME scenario were most likely overstated because UCLs represent the upper limit that potential receptors would be exposed to over the entire exposure period.

Land Use

The current land-use patterns at NWIRP Bethpage are well established, thereby limiting the uncertainty associated with land-use assumptions. Future land use is expected to be commercial/industrial. To be conservative, risks to hypothetical residents were also estimated for the Site.

Exposure Routes and Receptor Identification

The determination of various receptor groups and exposure routes of potential concern was based on current land use at the site and anticipated future land use. Therefore, the uncertainty associated with the selection of exposure routes and potential receptors was minimal because they were considered to be well defined. Although residential use of groundwater was evaluated as an exposure scenario at the Site, groundwater is not currently used at the site, nor is it expected to be used in the future. Therefore, the evaluation of direct exposure to groundwater performed in this baseline HHRA was included primarily to aid in risk-management decision making.

Exposure Parameters

Each exposure factor selected for use in the risk assessment had some associated uncertainty. Generally, exposure factors were based on surveys of physiological and lifestyle profiles across the United States. The attributes and activities studied in these surveys generally had a broad distribution. To avoid underestimation of exposure, in most cases, USEPA guidelines on the RME receptor were used, which generally specify the use of the 95th percentile value for most parameters. Therefore, the selected values for the receptors represented an upper bound of the observed or expected habits of the majority of the population.

Generally, the uncertainty can be assessed quantitatively for many assumptions made in determining factors for calculating exposures and intakes. Many of these parameters were determined from statistical analyses on human population characteristics. Often, the database used to summarize a particular

exposure parameter (i.e., body weight) is quite large. Consequently, the values chosen for such variables in the RME scenario have low uncertainty.

Uncertainty Associated with Evaluation of the Dermal Exposures to PCBs in Groundwater

PCBs were retained as COPCs in ground water. However USEPA dermal risk assessment guidance (2004) recommends that dermal absorption of PCBs in water not be evaluated quantitatively in a HHRA because such evaluations are outside of the effective predictive domain of the model. Therefore dermal exposures to PCBs in groundwater were not evaluated in this HHRA. Consequently risks from dermal exposures to groundwater may be underestimated.

6.5.3 Uncertainty in the Toxicological Evaluation

Uncertainties associated with the toxicity assessment (determination of RfDs and CSFs and use of available criteria) are discussed in this section.

Derivation of Toxicity Criteria

Uncertainty associated with the toxicity assessment was associated with hazard assessment and dose response evaluations for the COPCs. The hazard assessment characterized the nature and strength of the evidence of causation or the likelihood that a chemical that induces adverse effects in animals will also induce adverse effects in humans. Hazard assessment of carcinogenicity was evaluated as a weight of evidence determination using USEPA methods. Positive animal cancer test data may suggest that humans contain tissue(s) that may manifest a carcinogenic response; however, the animal data cannot necessarily be used to predict the target tissue in humans. In the hazard assessment of non-cancer effects, however, positive animal data often suggest the nature of the effects (i.e., the target tissues and type of effects) anticipated in humans.

Uncertainty in hazard assessment arose from the nature and quality of the animal and human data. Uncertainty was reduced when similar effects were observed across species, strain, sex, and exposure route; when the magnitude of the response was clearly dose-related; when pharmacokinetic data indicated a similar fate in humans and animals; when postulated mechanisms of toxicity were similar for humans and animals; and when the COPC was structurally similar to other chemicals for which the toxicity is more completely characterized.

Uncertainty in the dose response evaluation included the determination of a CSF for the carcinogenic assessment and derivation of an RfD for the non-carcinogenic assessment. Uncertainty was introduced from interspecies (animal to human) extrapolation, which, in the absence of quantitative pharmacokinetic or mechanistic data, is usually based on consideration of interspecies differences in basal metabolic rate. Uncertainty also resulted from intraspecies variation. Most toxicity experiments are performed with animals that are very similar in age and genotype, so intragroup biological variation is minimal, but the human

population of concern may reflect a great deal of heterogeneity, including unusual sensitivity or tolerance to the COPC. Even toxicity data from human occupational exposure reflect a bias because only those individuals sufficiently healthy to attend work regularly (the "healthy worker effect") and those not unusually sensitive to the chemical are likely to be occupationally exposed. Finally, uncertainty arises from the quality of the key study from which the quantitative estimate was derived and the database used. For cancer effects, the uncertainty associated with dose response factors was mitigated by assuming the 95 percent upper bound for the slope factor. Another source of uncertainty in carcinogenic assessment is the method by which data from high doses in animal studies are extrapolated to the dose range expected for environmentally exposed humans. The linearized multistage model, which is used in nearly all quantitative estimations of human risk from animal data, is based on a nonthreshold assumption of carcinogenesis. Evidence suggests, however, that epigenetic carcinogens, as well as many genotoxic carcinogens, have a threshold below which they are non-carcinogenic. Therefore, the use of the linearized multistage model was conservative for chemicals that exhibited a threshold for carcinogenicity.

For non-cancer effects, additional uncertainty factors may have been applied in the derivation of the RfD to mitigate poor quality of the key study or gaps in the database. Additional uncertainty for non-cancer effects arose from the use of an effect level in the estimation of an RfD, because this estimation was predicated on the assumption of a threshold less than which adverse effects were not expected. Therefore, an uncertainty factor is usually applied to estimate a no effect level. Additional uncertainty arose in estimation of an RfD for chronic exposure from subchronic data. Unless empirical data indicated that effects did not worsen with increasing duration of exposure, an additional uncertainty factor was applied to the no effect level in the subchronic study. Uncertainty in the derivation of RfDs was mitigated by the use of uncertainty and modifying factors that normally ranged between 3 and 10. The resulting combination of uncertainty and modifying factors may have reached 1,000 or more.

The derivation of dermal RfDs and CSFs from oral values may have caused uncertainty. This was particularly the case when no gastrointestinal absorption rates were available in the literature or when only qualitative statements regarding absorption were available.

Uncertainty in the Toxicity Criteria for Thallium

The maximum detected concentration of thallium in groundwater (0.066 J µg/L) exceeded its tap water RSL based on an HQ of 0.1 (0.016 µg/L). As discussed in Section 6.3.5, the oral reference dose presented in the RSL table for thallium was developed for the purposes of screening and is not appropriate for quantifying risks (USEPA, 2012c). Therefore, the oral reference dose was not used in this HHRA and risks for exposures to thallium in groundwater were not evaluated. Consequently this introduces some uncertainty in the risk assessment although the uncertainty is expected to be insignificant because while the maximum detected concentration of thallium in groundwater exceeded the RSL based on an HQ of 0.1 it was less than the RSL based on an HQ of 1 (0.16 µg/L).

Uncertainty with the Use of ADAFs

An Age-Dependent Adjustment Factor (ADAF) is applied as a default safety factor to risk calculations when evaluating cancer risk associated with exposure by children between the ages of birth to 16 years to chemicals that carcinogenic via a mutagenic mode of action. USEPA's *Supplemental Guidance for Assessing Susceptibility from Early-Life Exposures to Carcinogens* (USEPA, 2005b) states that the ADAF should be used when chemical-specific data to evaluate differences between adults and children are unavailable.

Inherent with the use of ADAFs is uncertainty in the evaluation of risk. Specifically, the default ADAFs were derived from studies where exposures were much higher than those typically observed in the environment. Hence, the mutagenic potential of a chemical at typical environmental concentrations may be much less and may be offset by DNA repair mechanisms. Moreover, the default ADAFS were based on results of repeated exposure studies because the lifetime study design had less ability to distinguish potential increased susceptibility from early-life exposures. Finally, cell replication can vary for different tissues, thus making the window of susceptibility different for individual chemicals, depending on target tissues. Hence, using the same ADAF for all chemicals may clearly misrepresent the level of risk associated with exposure.

6.5.4 Uncertainty in the Risk Characterization

Uncertainty in risk characterization resulted from assumptions made regarding additivity of effects from exposure to multiple COPCs from various exposure routes. High uncertainty exists when summing non-cancer risks for several substances across different exposure pathways. This assumes that each substance has a similar effect and/or mode of action. Even when chemicals affect the same target organs, they may have different mechanisms of action or differ in their fate in the body, so additivity may not be an appropriate assumption in all cases. However, the assumption of additivity was considered because in most cases it represented a conservative estimate of risk.

Risks to any individual may also have been overestimated by summing multiple assumed exposure pathway risks for any single receptor. Although every effort was made to develop reasonable scenarios, not all individual receptors may be exposed via all pathways considered.

Finally, the risk characterization did not consider antagonistic or synergistic effects. Little or no information was available to determine the potential for antagonism or synergism for the COPCs. Because chemical specific interactions could not be predicted, the likelihood for risks to be overpredicted or underpredicted could not be defined, but the methodology used was based on current USEPA guidance.

6.6 SUMMARY

The baseline HHRA for Site 1 at NWIRP Bethpage was conducted to characterize the potential risks to likely human receptors under current and potential future land use. Potential receptors under current land use are construction workers, adolescent trespassers, and off-site residents. Potential receptors evaluated in the HHRA for future land use are construction workers, industrial workers, adolescent trespassers, and hypothetical child and adult residents. Although future land use is likely to be the same as current land use, potential future receptors were evaluated in the baseline HHRA, primarily for decision making purposes.

Aroclors were the preliminary chemicals of concern in soils while Aroclors and metals were the preliminary chemicals of concern in groundwater. VOCs in groundwater were addressed by the Record of Decision for Operable Unit 2 (USEPA, 2003) and were not evaluated in this HHRA (see Section 1).

Quantitative estimates of non-carcinogenic and carcinogenic risks (HIs and ILCRs, respectively) were developed for potential human receptors. All receptors were evaluated for exposures to surface soil and subsurface soil. Hypothetical residents were also evaluated for exposures to groundwater. The results of the HHRA are summarized below. Chemicals retained as COCs for direct contact exposures are summarized in Table 6-26.

Quantitative estimates of noncarcinogenic and carcinogenic risks (HIs and ILCRs, respectively) were developed for potential human receptors. With the exception of hypothetical child residents, HIs for all receptors under the RME and CTE scenarios were less than or equal to unity (1), indicating that adverse non-carcinogenic effects are not anticipated for these receptors under the defined exposure conditions. The HI for hypothetical child residents exposed to Site 1 surface soil under the RME and CTE scenarios exceeded 1. Aroclor-1254 was the major contributor to the HI for the hypothetical child resident.

ILCRs under the RME and CTE scenarios for construction workers, industrial workers, and adolescent trespassers were within the USEPA's target risk range of 10^{-4} to 10^{-6}. Under the RME scenario, ILCRs for hypothetical child, adult, and lifelong residents exposed to groundwater exceeded USEPA's target risk range. Arsenic, hexavalent chromium, and Aroclor-1242, Aroclor-1248, and Aroclor-1248 were the major contributors to the ILCRs. Under the CTE scenario, ILCRs for hypothetical child and lifelong residents exceeded USEPA's target risk range. Arsenic and hexavalent chromium were the major contributors to the ILCRs.

Exposures to off-site residents as a consequence of vapor intrusion were conservatively evaluated using the influent concentration data for the vapor extraction system. Cancer risks and hazard indices to off-site residents exposed to chemicals migration from soil through building foundations into indoor air exceeded acceptable levels. Tetrachloroethene and trichloroethene were the major contributors to the unacceptable risks. However, the SVE Containment system is currently in operation and mitigates the unacceptable risks; therefore the exposure pathway is incomplete.

Aroclor-1242, -1248, -1254, -1260, and -1262 were detected in soil at concentrations exceeding screening criteria from migration for soil to groundwater, although only Aroclor-1242 and -1248 have been detected in groundwater samples collected at Site 1.

7.0 CONCLUSIONS AND RECOMMENDATIONS

The following conclusions are based on the results of the RI Addendum at Site 1 – Former Drum Marshalling Area:

Investigation Summary

1. Between 2009 and 2013, the Navy conducted supplemental soil and groundwater investigations to evaluate: the vertical and horizontal extent of PCBs in soil at Site 1, Dry Well 20-08, and Dry Well 34-07; the presence of residual carrier fluid that would promote PCB migration; and the potential for PCBs to migrate from site soil to surface water, sediment, and groundwater. Once the PCBs were confirmed to be present in groundwater, the investigation expanded to determine the horizontal and vertical extent of PCBs in groundwater. In addition, during the study, hexavalent chromium was determined to be present in groundwater. During subsequent rounds of monitoring, the magnitude and extent of hexavalent chromium-contaminated groundwater and other metals were further evaluated.

2. Additional field investigations were not conducted to further evaluate the potential for off-property vapor intrusion. Data collected during the operation of the SVE containment system was used for this evaluation and included analytical results from 13 months of monitoring data of the SVE containment system influent, 12 SVE extraction wells, and 18 off-property SVPMs.

3. During this investigation 38 new monitoring wells were installed in three phases, with the results from one phase used to identify well locations and depths for subsequent phases. The wells were screened from the water table (approximately 50 feet bgs) to a maximum depth of 296 feet bgs. A total of 14 shallow monitoring wells, 15 intermediate-depth monitoring wells, and 9 deep monitoring wells were installed. The investigation also used 7 existing monitoring wells.

4. During this investigation, 4 sediment, 5 surface water, 42 surface soil, 255 subsurface soil, 8 groundwater grab, and 137 groundwater samples from monitoring wells were collected. All of these samples were analyzed for PCBs. In addition, all of the groundwater samples were analyzed for VOCs. Select soil and groundwater samples were also analyzed for iron, chromium, hexavalent chromium, cadmium, and/or TAL metals.

Geology/Hydrogeology

5. Based on soil boring data, sands and gravels are predominant from the ground surface to depths of 30 to 40 feet bgs. Below 40 feet bgs, the formation is a fine to coarse sand, with lens of silty very-fine to fine-sands and clay, clayey silt, or sandy clay of variable horizontal extent.

6. Water level measurements were collected during five field events. Based on these measurements, groundwater flows to the south-southeast and the potentiometric surface elevations range from approximately 73 to 70 feet msl. Vertically, the groundwater gradient is downward, potentially in response to natural gradients and/or a groundwater containment system operating approximately 3,500 feet south and southwest of Site 1.

Surface Water, Sediment, and Soil Results

7. Based on the surface water and sediment results, there is evidence that PCBs are continuing to migrate to the three recharge basins. PCBs were detected in surface water entering both the northeast and southwest basins. The maximum detected concentration was 0.35J µg/L, which is less than the MCL of 0.5 µg/L. PCBs were detected in sediments in both the southeast and southwest basins at a maximum concentration of 2,200 µg/kg. Sediment samples were not collected from the northeast basin because access was limited due to the high water level.

8. PCBs were detected in all surface soil (0 to 2 feet bgs) samples collected at Site 1, with a maximum concentration of 150,000 µg/kg. The higher concentrations were found near the middle of the site, consistent with the location of former waste storage areas. The extent of the surface soil, with more than 1,000 µg/kg of PCBs, covers most of the exposed soil at the site. Paved areas to the east, north, and west bound the extent of PCBs in those directions, and PCB detections were less than 1,000 µg/kg in soil to the south.

9. Subsurface soil results for Site 1, Dry Well 20-08, and Dry Well 34-07 were evaluated using depth intervals of 2 to 15 feet bgs, 15 to 50 feet bgs, and greater than 50 feet bgs. The 2- to 15-foot interval represents soil that can readily be excavated and therefore has a direct human contact exposure pathway. The 15- to 65-foot depth interval represents soil that can be excavated, but with more difficulty; and therefore, is less likely to have a direct human contact exposure pathway. Contaminants in this soil can leach to groundwater, which is encountered at a depth of approximately 50 feet bgs.

10. PCBs were detected in each of the Site 1 subsurface soil intervals, with maximum concentrations of 34,000 µg/kg in the 2- to 15- foot depth interval, 15,000J µg/kg in the 15- to 50-foot interval, and 160,910J µg/kg in the saturated soil interval. The frequencies of detections were relatively low and range from approximately 20 to 50 percent. It should be noted that the relatively low frequency of detections may result from the investigation focusing on delineating the extent of known contamination. The areal extent of PCBs greater than 10,000 µg/kg generally decreased with depth and is bounded by the areal extent of the PCB-contaminated surface soil. The maximum vertical extent of the impacted soils was approximately 65 feet bgs.

11. For Dry Well 20-08, PCBs were detected in the 15- to 50-foot interval at a maximum concentration of 3,000,000 µg/kg (June 2013) and in the saturated soil interval at a maximum concentration of 8,100 µg/kg (November 2012). Using a combination of current and historic data, there is no residual contaminated soil at the 2- to 15-foot interval. At the 15- to 50-foot interval, the areal extent of PCBs greater than 10,000 µg/kg exceeds 10,000 square feet and is not bounded to the west, where further investigation was hindered by Plant 3. Since this area is paved, there is no surface soil for this dry well.

12. For Dry Well 34-07, PCBs were detected in each of the subsurface soil intervals, with maximum concentrations of 238J µg/kg (August 2012) in the 2- to 15- foot depth interval (110,000 µg/kg in previous sample events), 28,000 µg/kg (August 2012) in the 15- to 50-foot interval (5,000,000 µg/kg in the previous sample events), and 260J µg/kg (July 2010) in the saturated soil interval (17,000 µg/kg in the previous sample events). The areal extent of PCBs greater than 10,000 µg/kg was approximately 1,000 square feet. The maximum vertical extent of the impacted soils was approximately 52 feet bgs. Since this area is paved, there is no surface soil for this dry well.

Groundwater Results

13. PCBs were frequently detected in shallow (13 of 20 wells), intermediate-depth (17 of 17 wells), and deep (8 of 9 wells) groundwater wells at the site. Groundwater flow is to the south-southeast. As a result, the following discussions are organized from north to south.

14. The presence of PCBs in shallow groundwater would generally indicate the presence of a local source area. One shallow well located at the northern edge of the former NWIRP had a PCB concentration of 0.19 µg/L, which suggests a possible source of groundwater PCBs upgradient of the facility. For comparison, the MCL for PCBs is 0.5 µg/L. Another well located approximately 150 feet south of the northern edge of the facility had PCB concentration of 1 µg/L, indicating either a source within this area or variability in the PCB concentrations migrating onto the former NWIRP. The maximum concentration of PCBs detected in the groundwater at the facility was in a shallow well in the northern part of Site 1 with a PCB concentration of 14J µg/L. Based on the depth and magnitude of the PCBs, there is a possible source on the former NWIRP between the southwest recharge basin and Site 1. Soil borings installed in this area were unable to identify the source. Along the southern edge of Site 1, PCBs concentrations ranged from approximately 0.3 to 2.8 µg/L. Based on the magnitude of the PCBs in the shallow wells upgradient of Site 1 (14J µg/L), it is unclear as to whether PCBs in Site 1 soils contribute significantly to PCBs in the shallow groundwater. At the downgradient edge of the former NWIRP, PCBs were detected infrequently in shallow groundwater samples (1 of 12 samples) with a maximum concentration of 0.54 µg/L. This decrease could be explained by either attenuation, or downward migration of the PCB-contaminated groundwater.

15. Generally, intermediate-depth groundwater sinks as it migrates to the south. PCBs were detected in all the intermediate-depth wells, with concentrations ranging from approximately 0.3 to 0.5 µg/L along the northern edge of the former NWIRP, 0.5 to 3.4 µg/L north and south of Site 1 and Plant 3, and 0.3 to 2.7J µg/L along the southern edge of the former NWIRP. Based on the general increase in PCB concentrations across the facility, it appears that PCB-contaminated soil on the NWIRP, north of Site 1 and from Site 1 are contributing to the PCBs in groundwater that are migrating onto the NWIRP property from further north. The presence of contamination at the northern (upgradient) edge of the facility, as well as other monitoring wells north of Site 1, provides evidence of an upgradient source(s).

16. PCBs in deep groundwater generally result from migration of shallower (intermediate-depth) groundwater sinking as it migrates to the south. PCBs were detected in most of the deep wells, with concentrations ranging from approximately non detect along the northern edge of the former NWIRP, 0.6 to 0.9 µg/L north of Site 1, 0.9 to 4 µg/L south of Site 1 and Plant 3, and 0.2 to 1.1J µg/L along the southern edge of the former NWIRP.

17. Chromium (all wells) and hexavalent chromium (33 of 45) were frequently detected in shallow, intermediate-depth, and deep groundwater. When total chromium concentrations were reported with values greater than approximately 10 µg/L, it was determined in most cases to be present in the hexavalent valence state. The MCL for chromium is 100 µg/L, whereas the USEPA RSL for hexavalent chromium is 0.031 µg/L. The maximum chromium concentration (200 µg/L) was detected in an intermediate-depth well located approximately 150 feet south of Site 1. Similar to the PCB concentration trends across the facility, chromium was detected in or near the upgradient (northern) monitoring wells for the facility, suggesting a potential upgradient source, generally higher concentrations were observed immediately downgradient of Site 1, and reduced concentrations were identified at the downgradient edge of the former NWIRP.

18. VOCs were generally detected in most of the groundwater samples, but most of the detections were similar to or less than MCLs. Tetrachloroethene, trichloroethene, and cis-1,2-dichloroethene were the most frequently detected compounds and found at the highest concentrations. Except for one intermediate-depth well at the southern edge of the former NWIRP (BPS1-TT-MW305I1 [190 to 200 feet bgs]) with notable concentrations for trichloroethene of 3,300 to 3,900 µg/L and 1,4-dioxane of 70 to 81 µg/L, none of the other monitoring wells had VOC concentrations greater than 1,000 µg/L. In addition, two of the wells (BP-FW-MW01 [48.5 to 63.5 feet bgs] and BPS1-MW303I1 [95 to 105 feet bgs]) located south of Site 1 had VOC concentrations between 100 and 1,000 µg/L.

Vapor Results

19. Trichloroethene (8,800 µg/m^3), tetrachloroethene (4,200 µg/m^3) , and 1,1,1-trichloroethane (3,400 µg/L) were detected in individual SVE wells at concentrations that exceed NYSDOH subslab soil vapor screening values of 250 µg/m^3, 1,000 µg/m^3, and 1,000 µg/m^3, respectively. Concentrations of these VOCs in the influent to the SVE containment system, which represent a composite of the individual wells, were lower, but were similar in concentration to the NYSDOH subslab soil vapor screening values. Based on these concentrations, there is an apparent residual source of VOCs in Site 1 soil or shallow groundwater.

20. VOC concentrations in the off-property soil vapor were consistently less than the NYSDOH subslab screening values, indicating the SVE containment system is effectively controlling off-property migration of VOC-contaminated vapors.

Human Health Risk Assessment

21. The site specific HHRA identified the following risks:

    - For the construction and industrial workers and trespasser exposure to soil and groundwater, under the RME scenario, risks were within the 10^{-4} to 10^{-6} ILCR range. Under the CTE scenario, for the construction worker and trespasser, the risks were less than the 10^{-4} to 10^{-6} ILCR range, whereas for the industrial worker, the risks were within the 10^{-4} to 10^{-6} ILCR range. Primary contributors to these risks were exposure to Aroclor-1248 and -1254 in site soil. The HQs for these receptors and scenarios were 1 or less.

    - For the hypothetical future child, adult, and lifelong resident exposure to soil and groundwater, under the RME and CTE scenarios, risks exceeded the 10^{-4} to 10^{-6} ILCR range. Consumption of hexavalent chromium in groundwater was the primary contributor to risk. Excluding the hexavalent chromium in groundwater exposure, under the RME and CTE scenarios, the risks were within the 10^{-4} to 10^{-6} ILCR range. Exposure to Aroclor-1242, -1248 and -1254 in soil and groundwater and arsenic in groundwater resulted in risks within the 10^{-4} to 10^{-6} ILCR range. Except for hypothetical child resident (HQ equal to 8 [RME] and 2 [CTE]), exposure to Aroclor-1254 in soil, the HQs for these receptors and scenarios were less than one.

22. VOCs, SVOCs, and TPH DRO were detected in subsurface soils at Site 1, but are not identified as a risk in the site specific HHRA.

23. Without the operation of the SVE containment system, the site specific HHRA identified potential risk (greater than 10^{-4} to 10^{-6} ILCR) for exposure to soil vapor based on the maximum concentrations predicted for indoor air (attenuation factor of 0.03 to 0.1) for 7 VOCs (carbon

tetrachloride, chloroform, 1,1-dichloroethane, 1,2-dichloroethane, tetrachloroethene, 1,2,4-trichlorobenzene, and trichloroethene). Also, based on the assumed attenuation factor, the HQs for tetrachloroethene and/or trichloroethene are greater than 1.

Recommendations

The following recommendations are based on the results of this RI Addendum for Site 1 – Former Drum Marshalling Area:

1. Sufficient data has been collected for soil, groundwater, and soil vapor to proceed with an FS.

2. The FS should address the following media and chemicals:
   - Soil – PCBs; and based the OU-1 ROD and previous soil investigations, cadmium, chromium, manganese, PAHs, 1,1,1-trichloroethane, trichloroethene, and tetrachloroethene. Except for the VOCs, these other COCs are co-located with the areas and depths of the PCB-contaminated soil. Remedies that would address the PCBs would address the other COCs. The VOCs would be addressed with the soil vapor.
   - Groundwater - PCBs and hexavalent chromium.
   - Soil Vapor – trichloroethene and tetrachloroethene.

3. Additional investigations will be required to delineate the extent of PCBs in soil north and west of Dry-Well 20-08, to evaluate a potential source of PCBs between Site 1 and the southwest recharge basin, and source of PCBs and hexavalent chromium north of the former NWIRP. The timing of this action would be dependent on the remedy selected.

4. Continue operation of the SVE Containment System to minimize risk of VOC migration to off property soil vapor.

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TABLE 2-1
SURFACE WATER SAMPLE SUMMARY
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

Sampling Location	Sample ID	Sample Date	Collection Method	Analysis
Northeast Recharge Basin	BPS1-SW01-20110228	2/28/2011	Direct Pour	PCBs
	BPS1-SW01-20110301	3/1/2011	Direct Pour	PCBs
	BPS1-SW01-20110303	3/3/2011	Direct Pour	PCBs
	BPS1-SW3002	10/19/2011	Direct Pour	VOCs, PCBs, Total/Hexavalent Chromium
Southwest Recharge Basin	BPS1-SW3001	10/19/2011	Direct Pour	VOCs, PCBs, Total/Hexavalent Chromium

PCB = Polychlorinated Biphenyls.
VOC = Volatile Organic Compounds.

TABLE 2-2
SEDIMENT SAMPLE SUMMARY
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

Sample Location	Sample ID	Sample Interval (feet bgs)	Sample Date	Sampling Method	Analysis
Southwest Recharge Basin	BPS1-SB3066-0002	0-2	2/25/2013	Hand Auger	PCBs
	BPS1-SB3067-0002	0-2	2/25/2013	Hand Auger	PCBs
Southeast Recharge Basin	BPS1-SB3068-0002	0-2	2/25/2013	Hand Auger	PCBs
	BPS1-SB3069-0002	0-2	2/25/2013	Hand Auger	PCBs

bgs = below ground surface.
PCB = Polychlorinated Biphenyls.

TABLE 2-3
SURFACE SOIL PCB SAMPLE SUMMARY
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

Sampling Location	Sample ID	Depth (feet bgs)	Sampling Date	Analysis
BPS1-SB3013	BPS1-SB3013-0002	0 – 2	7/24/2012	PCBs
BPS1-SB3014	BPS1-SB3014-0002	0 - 2	7/24/2012	PCBs
	BPS1-SB3014-0002-D	0 - 2	7/24/2012	PCBs
BPS1-SB3015	BPS1-SB3015-0002	0 - 2	7/24/2012	PCBs
BPS1-SB3016	BPS1-SB3016-0002	0 - 2	7/24/2012	PCBs
BPS1-SB3017	BPS1-SB3017-0002	0 - 2	7/24/2012	PCBs
BPS1-SB3018	BPS1-SB3018-0002	0 - 2	7/24/2012	PCBs
BPS1-SB3019	BPS1-SB3019-0002	0 - 2	7/24/2012	PCBs
	BPS1-SB3019-0002-D	0 - 2	7/24/2012	PCBs
BPS1-SB3020	BPS1-SB3020-0002	0 - 2	7/24/2012	PCBs
BPS1-SB3021	BPS1-SB3021-0002	0 - 2	7/24/2012	PCBs
BPS1-SB3022	BPS1-SB3022-0002	0 - 2	7/24/2012	PCBs
BPS1-SB3023	BPS1-SB3023-0002	0 - 2	7/24/2012	PCBs
BPS1-SB3024	BPS1-SB3024-0002	0 - 2	8/20/2012	PCBs
BPS1-SB3031	BPS1-SB3031-0002	0 - 2	7/24/2012	PCBs
BPS1-SB3032	BPS1-SB3032-0002	0 - 2	7/24/2012	PCBs
BPS1-SB3033	BPS1-SB3033-0002	0 - 2	7/24/2012	PCBs
BPS1-SB3034	BPS1-SB3034-0002	0 - 2	7/24/2012	PCBs
BPS1-SB3035	BPS1-SB3035-0002	0 - 2	7/24/2012	PCBs
	BPS1-SB3035-0002-D	0 - 2	7/24/2012	PCBs
BPS1-SB3036	BPS1-SB3036-0002	0 - 2	7/24/2012	PCBs
BPS1-SB3037	BPS1-SB3037-0002	0 - 2	7/24/2012	PCBs
BPS1-SB3038	BPS1-SB3038-0002	0 - 2	7/24/2012	PCBs
BPS1-SB3039	BPS1-SB3039-0002	0 - 2	7/24/2012	PCBs
BPS1-SB3040	BPS1-SB3040-0002	0 - 2	7/24/2012	PCBs
BPS1-SB3041	BPS1-SB3041-0002	0 - 2	7/24/2012	PCBs
BPS1-SB3042	BPS1-SB3042-0002	0 - 2	7/24/2012	PCBs
BPS1-SB3043	BPS1-SB3043-0002	0 - 2	7/24/2012	PCBs
BPS1-SB3044	BPS1-SB3044-0002	0 - 2	7/24/2012	PCBs
BPS1-SB3045	BPS1-SB3045-0002	0 - 2	8/24/2012	PCBs
BPS1-SB3046	BPS1-SB3046-0002	0 - 2	8/24/2012	PCBs
BPS1-SB3047	BPS1-SB3047-0002	0 - 2	8/24/2012	PCBs
BPS1-SB3048	BPS1-SB3048-0002	0 - 2	8/24/2012	PCBs
BPS1-SB3049	BPS1-SB3049-0002	0 - 2	8/24/2012	PCBs
BPS1-SB3050	BPS1-SB3050-0002	0 - 2	8/24/2012	PCBs
BPS1-SB3051	BPS1-SB3051-0002	0 - 2	8/24/2012	PCBs
BPS1-SB3052	BPS1-SB3052-0002	0 - 2	8/24/2012	PCBs
	BPS1-SB3052-0002-D	0 - 2	8/24/2012	PCBs
BPS1-SB3053	BPS1-SB3053-0002	0 - 2	8/24/2012	PCBs

TABLE 2-3
SURFACE SOIL PCB SAMPLE SUMMARY
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

Sampling Location	Sample ID	Depth (feet bgs)	Sampling Date	Analysis
BPS1-SB3054	BPS1-SB3054-0002	0 - 2	8/24/2012	PCBs
BPS1-SB3055	BPS1-SB3055-0002	0 - 2	2/26/2013	PCBs
BPS1-SB3056	BPS1-SB3056-0002	0 - 2	2/26/2013	PCBs
BPS1-SB3058	BPS1-SB3058-0002	0 - 2	2/26/2013	PCBs
BPS1-SB3059	BPS1-SB3059-0002	0 - 2	2/26/2013	PCBs
	BPS1-SB3059-0002-D	0 - 2	2/26/2013	PCBs
BPS1-SB3062	BPS1-SB3062-0002	0 - 2	2/28/2013	PCBs
BPS1-SB3063	BPS1-SB3063-0002	0 - 2	2/27/2013	PCBs

bgs = below ground surface.
D = Duplicate sample.
PCBs = Polychlorinated biphenyls.

TABLE 2-4
FIELD TEST KIT SOIL SAMPLE SUMMARY
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

Sampling Location	Sample ID	Depth (feet bgs)	Analysis
BPS1-SB3004	BPS1-SB3004-27.528.0	27.5-28.0	PCB
	BPS1-SB3004-34.034.5	34.0-34.5	PCB
	BPS1-SB3004-37.037.5	37.0-37.5	PCB
	BPS1-SB3004-42.042.5	42.0-42.5	PCB
	BPS1-SB3004-47.047.5	47.0-47.5	PCB
	BPS1-SB3004-49.049.5	49.0-49.5	PCB
	BPS1-SB3004-54.054.5	54.0-54.5	PCB
	BPS1-SB3004-61.061.5	61.0-61.5	PCB
	BPS1-SB3004-64.565.0	64.5-65.0	PCB
	BPS1-SB3004-68.068.5	68.0-68.5	PCB
	BPS1-SB3004-71.071.5	71.0-71.5	PCB
	BPS1-SB3004-77.578.0	77.5-78.0	PCB
	BPS1-SB3004-82.082.5	82.0-82.5	PCB
	BPS1-SB3004-86.086.5	86.0-86.5	PCB
	BPS1-SB3004-91.091.5	91.0-91.5	PCB
	BPS1-SB3004-97.097.5	97.0-97.5	PCB
	BPS1-SB3004-101.0101.5	101.0-101.5	PCB
	BPS1-SB3004-106.0106.5	106.0-106.5	PCB
	BPS1-SB3004-111.0111.5	111.0-111.5	PCB
	BPS1-SB3004-116.0116.5	116.0-116.5	PCB
	BPS1-SB3004-120130	120-130	PCB
	BPS1-SB3004-130140	130-140	PCB
	BPS1-SB3004-154.0154.5	154.0-154.5	PCB
	BPS1-SB3004-150160	150-160	PCB
	BPS1-SB3004-160170	160-170	PCB
	BPS1-SB3004-170180	170-180	PCB
	BPS1-SB3004-180190	180-190	PCB
	BPS1-SB3004-190198	190-198	PCB
	BPS1-SB3004-200210	200-210	PCB
	BPS1-SB3004-210220	210-220	PCB
	BPS1-SB3004-220230	220-230	PCB
	BPS1-SB3004-235.0235.5	235.0-235.5	PCB
	BPS1-SB3004-230240	230-240	PCB
	BPS1-SB3004-240250	240-250	PCB
BPS1-SB3005	BPS1-SB3005-008	0-8	PCB
	BPS1-SB3005-27.528.0	27.5-28.0	PCB
	BPS1-SB3005-34.034.5	34.0-34.5	PCB
	BPS1-SB3005-37.538.0	37.5-38.0	PCB
	BPS1-SB3005-43.043.5	43.0-43.5	PCB
	BPS1-SB3005-49.049.5	49.0-49.5	PCB
	BPS1-SB3005-54.555.0	54.5-55.0	PCB

TABLE 2-4
FIELD TEST KIT SOIL SAMPLE SUMMARY
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

Sampling Location	Sample ID	Depth (feet bgs)	Analysis
BPS1-SB3005	BPS1-SB3005-57.558.0	57.5-58.0	PCB
	BPS1-SB3005-61.061.5	61.0-61.5	PCB
	BPS1-SB3005-66.066.5	66.0-66.5	PCB
	BPS1-SB3005-72.072.5	72.0-72.5	PCB
	BPS1-SB3005-77.578.0	77.5-78.0	PCB
	BPS1-SB3005-81.081.5	81.0-81.5	PCB
	BPS1-SB3005-86.086.5	86.0-86.5	PCB
	BPS1-SB3005-94.595.0	94.5-95.0	PCB
	BPS1-SB3005-97.598.0	97.5-98.0	PCB
	BPS1-SB3005-102.0102.5	102.0-102.5	PCB
	BPS1-SB3005-105.5106.0	105.5-106.0	PCB
	BPS1-SB3005-111.0111.5	111.0-111.5	PCB
	BPS1-SB3005-117.0117.5	117.0-117.5	PCB
	BPS1-SB3005-120130	120-130	PCB
	BPS1-SB3005-130138	130-138	PCB
	BPS1-SB3005-145.0145.5	145.0-145.5	PCB
	BPS1-SB3005-140150	140-150	PCB
	BPS1-SB3005-150160	150-160	PCB
	BPS1-SB3005-160170	160-170	PCB
	BPS1-SB3005-170180	170-180	PCB
	BPS1-SB3005-180190	180-190	PCB
	BPS1-SB3005-190200	190-200	PCB
	BPS1-SB3005-200210	200-210	PCB
	BPS1-SB3005-210220	210-220	PCB
	BPS1-SB3005-220230	220-230	PCB
	BPS1-SB3005-232.5233.0	232.5-233.0	PCB
	BPS1-SB3005-230240	230-240	PCB
	BPS1-SB3005-240250	240-250	PCB
BPS1-SB3006	BPS1-SB3006-27.027.5	27.0-27.5	PCB
	BPS1-SB3006-32.032.5	32.0-32.5	PCB
	BPS1-SB3006-36.537.0	36.5-37.0	PCB
	BPS1-SB3006-42.042.5	42.0-42.5	PCB
	BPS1-SB3006-46.547.0	46.5-47.0	PCB
	BPS1-SB3006-53.053.5	53.0-53.5	PCB
	BPS1-SB3006-56.557.0	56.5-57.0	PCB
	BPS1-SB3006-67.067.5	67.0-67.5	PCB
	BPS1-SB3006-72.072.5	72.0-72.5	PCB
	BPS1-SB3006-77.077.5	77.0-77.5	PCB
	BPS1-SB3006-80.581.0	80.5-81.0	PCB
	BPS1-SB3006-86.086.5	86.0-86.5	PCB
	BPS1-SB3006-91.091.5	91.0-91.5	PCB

TABLE 2-4
FIELD TEST KIT SOIL SAMPLE SUMMARY
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

Sampling Location	Sample ID	Depth (feet bgs)	Analysis
BPS1-SB3006	BPS1-SB3006-96.096.5	96.0-96.5	PCB
	BPS1-SB3006-101.0101.5	101.0-101.5	PCB
	BPS1-SB3006-107.0107.5	107.0-107.5	PCB
	BPS1-SB3006-110.0111.5	110.0-111.5	PCB
	BPS1-SB3006-117.0117.5	117.0-117.5	PCB
	BPS1-SB3006-120130	120-130	PCB
	BPS1-SB3006-130140	130-140	PCB
	BPS1-SB3006-140150	140-150	PCB
	BPS1-SB3006-150160	150-160	PCB
	BPS1-SB3006-160170	160-170	PCB
	BPS1-SB3006-170178	170-178	PCB
	BPS1-SB3006-181.0181.5	181.0-181.5	PCB
	BPS1-SB3006-180190	180-190	PCB
	BPS1-SB3006-190200	190-200	PCB
	BPS1-SB3006-200210	200-210	PCB
	BPS1-SB3006-210220	210-220	PCB
	BPS1-SB3006-226.5227.0	226.5-227.0	PCB
	BPS1-SB3006-220230	220-230	PCB
	BPS1-SB3006-230240	230-240	PCB
	BPS1-SB3006-240250	240-250	PCB
BPS1-SB3007	BPS1-SB3007-08.008.5	8.0-8.5	PCB
	BPS1-SB3007-27.027.5	27.0-27.5	PCB
	BPS1-SB3007-30.030.5	30.0-30.5	PCB
	BPS1-SB3007-37.538.0	37.5-38.0	PCB
	BPS1-SB3007-43.544.0	43.5-44.0	PCB
	BPS1-SB3007-47.047.5	47.0-47.5	PCB
	BPS1-SB3007-52.052.5	52.0-52.5	PCB
	BPS1-SB3007-57.057.5	57.0-57.5	PCB
	BPS1-SB3007-64.064.5	64.0-64.5	PCB
	BPS1-SB3007-67.568.0	67.5-68.0	PCB
	BPS1-SB3007-72.573.0	72.5-73.0	PCB
	BPS1-SB3007-77.077.5	77.0-77.5	PCB
	BPS1-SB3007-82.583.0	82.5-83.0	PCB
	BPS1-SB3007-87.087.5	87.0-87.5	PCB
	BPS1-SB3007-90.090.5	90.0-90.5	PCB
	BPS1-SB3007-96.597.0	96.5-97.0	PCB
	BPS1-SB3007-100.0100.5	100.0-100.5	PCB
	BPS1-SB3007-106.0106.5	106.0-106.5	PCB
	BPS1-SB3007-110.0110.5	110.0-110.5	PCB
	BPS1-SB3007-116.0116.5	116.0-116.5	PCB
	BPS1-SB3007-120130	120-130	PCB

TABLE 2-4
FIELD TEST KIT SOIL SAMPLE SUMMARY
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

Sampling Location	Sample ID	Depth (feet bgs)	Analysis
BPS1-SB3007	BPS1-SB3007-133.0133.5	133.0-133.5	PCB
	BPS1-SB3007-130140	130-140	PCB
	BPS1-SB3007-140150	140-150	PCB
	BPS1-SB3007-150160	150-160	PCB
	BPS1-SB3007-160170	160-170	PCB
	BPS1-SB3007-170180	170-180	PCB
	BPS1-SB3007-180190	180-190	PCB
	BPS1-SB3007-190198	190-198	PCB
	BPS1-SB3007-200210	200-210	PCB
	BPS1-SB3007-217.5218.0	217.5-218.0	PCB
	BPS1-SB3007-210220	210-220	PCB
	BPS1-SB3007-220230	220-230	PCB
	BPS1-SB3007-230240	230-240	PCB
	BPS1-SB3007-240250	240-250	PCB
BPS1-SB3008	BPS1-SB3008-0.008.0	0-8	PCB
	BPS1-SB3008-07.025.0	7-25	PCB
	BPS1-SB3008-27.027.5	27.0-27.5	PCB
	BPS1-SB3008-34.034.5	34.0-34.5	PCB
	BPS1-SB3008-37.037.5	37.0-37.5	PCB
	BPS1-SB3008-41.041.5	41.0-41.5	PCB
	BPS1-SB3008-47.047.5	47.0-47.5	PCB
	BPS1-SB3008-52.052.5	52.0-52.5	PCB
	BPS1-SB3008-57.057.5	57.0-57.5	PCB
	BPS1-SB3008-64.064.5	64.0-64.5	PCB
	BPS1-SB3008-67.568.0	67.5-68.0	PCB
	BPS1-SB3008-73.073.5	73.0-73.5	PCB
	BPS1-SB3008-77.077.5	77.0-77.5	PCB
	BPS1-SB3008-83.083.5	83.0-83.5	PCB
	BPS1-SB3008-86.587.0	86.5-87.0	PCB
	BPS1-SB3008-91.592.0	91.5-92.0	PCB
	BPS1-SB3008-97.097.5	97.0-97.5	PCB
	BPS1-SB3008-103.5104.0	103.5-104.0	PCB
	BPS1-SB3008-107.0107.5	107.0-107.5	PCB
	BPS1-SB3008-111.5112.0	111.5-112.0	PCB
	BPS1-SB3008-116.5117.0	116.5-117.0	PCB
	BPS1-SB3008-120130	120-130	PCB
	BPS1-SB3008-130140	130-140	PCB
	BPS1-SB3008-140150	140-150	PCB
	BPS1-SB3008-150160	150-160	PCB
	BPS1-SB3008-161.0161.5	161.0-161.5	PCB
	BPS1-SB3008-160170	160-170	PCB

TABLE 2-4
FIELD TEST KIT SOIL SAMPLE SUMMARY
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

Sampling Location	Sample ID	Depth (feet bgs)	Analysis
BPS1-SB3008	BPS1-SB3008-170180	170-180	PCB
	BPS1-SB3008-180190	180-190	PCB
	BPS1-SB3008-190198	190-198	PCB
	BPS1-SB3008-200210	200-210	PCB
	BPS1-SB3008-210220	210-220	PCB
	BPS1-SB3008-220230	220-230	PCB
	BPS1-SB3008-234.5235.0	234.5-235.0	PCB
	BPS1-SB3008-230238	230-238	PCB
BPS1-SB3009	BPS1-SB3009-08.025.0	8-25	PCB
	BPS1-SB3009-27.027.5	27.0-27.5	PCB
	BPS1-SB3009-30.030.5	30.0-30.5	PCB
	BPS1-SB3009-36.036.5	36.0-36.5	PCB
	BPS1-SB3009-41.041.5	41.0-41.5	PCB
	BPS1-SB3009-46.046.5	46.0-46.5	PCB
	BPS1-SB3009-51.051.5	51.0-51.5	PCB
	BPS1-SB3009-56.056.5	56.0-56.5	PCB
	BPS1-SB3009-62.062.5	62.0-62.5	PCB
	BPS1-SB3009-67.067.5	67.0-67.5	PCB
	BPS1-SB3009-73.574.0	73.5-74.0	PCB
	BPS1-SB3009-77.077.5	77.0-77.5	PCB
	BPS1-SB3009-81.582.0	81.5-82.0	PCB
	BPS1-SB3009-86.587.0	86.5-87.0	PCB
	BPS1-SB3009-90.591.0	90.5-91.0	PCB
	BPS1-SB3009-96.096.5	96.0-96.5	PCB
	BPS1-SB3009-101.0101.5	101.0-101.5	PCB
	BPS1-SB3009-106.0106.5	106.0-106.5	PCB
	BPS1-SB3009-113.5114.0	113.5-114.0	PCB
	BPS1-SB3009-117.0117.5	117.0-117.5	PCB
	BPS1-SB3009-120130	120-130	PCB
	BPS1-SB3009-130140	130-140	PCB
	BPS1-SB3009-140.0140.5	140.0-140.5	PCB
	BPS1-SB3009-140150	140-150	PCB
	BPS1-SB3009-150160	150-160	PCB
	BPS1-SB3009-160170	160-170	PCB
	BPS1-SB3009-170180	170-180	PCB
	BPS1-SB3009-180190	180-190	PCB
	BPS1-SB3009-190198	190-198	PCB
	BPS1-SB3009-209.0209.5	209.0-209.5	PCB
	BPS1-SB3009-200210	200-210	PCB
	BPS1-SB3009-213.0213.5	213.0-213.5	PCB
	BPS1-SB3009-210220	210-220	PCB

TABLE 2-4
FIELD TEST KIT SOIL SAMPLE SUMMARY
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

Sampling Location	Sample ID	Depth (feet bgs)	Analysis
BPS1-SB3009	BPS1-SB3009-220230	220-230	PCB
	BPS1-SB3009-230240	230-240	PCB
	BPS1-SB3009-240250	240-250	PCB
BPS1-SB310	BPS1-SB3010-0008	0-8	PCB
	BPS1-SB3010-0818	8-18	PCB
	BPS1-SB3010-1828	18-28	PCB
	BPS1-SB3010-2838	28-38	PCB
	BPS1-SB3010-3848	38-48	PCB
	BPS1-SB3010-4858	48-58	PCB
	BPS1-SB3010-49.049.5	49.0-49.5	PCB
	BPS1-SB3010-5868	58-68	PCB
	BPS1-SB3010-6878	68-78	PCB
	BPS1-SB3010-7888	78-88	PCB
	BPS1-SB3010-93.594.0	93.5-94.0	PCB
	BPS1-SB3010-8898	88-98	PCB
	BPS1-SB3010-98108	98-108	PCB
	BPS1-SB3010-108118	108-118	PCB
	BPS1-SB3010-118148	118-148	PCB
	BPS1-SB3010-148168	148-168	PCB
	BPS1-SB3010-188.0188.5	188.0-188.5	PCB
	BPS1-SB3010-168198	168-198	PCB
BPS1-SB3011	BPS1-SB3011-0008	0-8	PCB
	BPS1-SB3011- 0818	8-18	PCB
	BPS1-SB3011- 1828	18-28	PCB
	BPS1-SB3011- 2838	28-38	PCB
	BPS1-SB3011- 3848	38-48	PCB
	BPS1-SB3011-48.549.0	48.5-49.0	PCB
	BPS1-SB3011- 4858	48-58	PCB
BPS1-SB3012	BPS1-SB3012-0008	0-8	PCB
	BPS1-SB3012-0818	8-18	PCB
	BPS1-SB3012-1828	18-28	PCB
	BPS1-SB3012-2838	28-38	PCB
	BPS1-SB3012-3848	38-48	PCB
	BPS1-SB3012-4858	48-58	PCB
	BPS1-SB3012-5868	58-68	PCB
	BPS1-SB3012-6878	68-78	PCB
	BPS1-SB3012-7888	78-88	PCB
	BPS1-SB3012-8898	88-98	PCB
	BPS1-SB3012-98108	98-108	PCB
	BPS1-SB3012-112.5113.0	112.5-113.0	PCB
	BPS1-SB3012-108118	108-118	PCB

TABLE 2-4
FIELD TEST KIT SOIL SAMPLE SUMMARY
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

Sampling Location	Sample ID	Depth (feet bgs)	Analysis
BPS1-SB3012	BPS1-SB3012-128138	128-138	PCB
	BPS1-SB3012-138148	138-148	PCB
	BPS1-SB3012-148158	148-158	PCB
	BPS1-SB3012-158168	158-168	PCB
	BPS1-SB3012-168178	168-178	PCB
	BPS1-SB3012-178198	178-198	PCB
	BPS1-SB3012-203.0203.5	203.0-203.5	PCB
	BPS1-SB3012-198208	198-208	PCB

bgs = below ground surface.
PCB = Polychlorinated Biphenyls.

TABLE 2-5
SUBSURFACE SOIL SAMPLING SUMMARY
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

Sampling Location	Sample ID	Depth (feet bgs)	Sampling Date	Analysis
BPS1-SB3004	BPS1-SB3004-27.528.0	27.5 - 28	7/13/10	PCBs
	BPS1-SB3004-34.034.5	34 - 34.5	7/14/10	PCBs
	BPS1-SB3004-37.037.5	37.0 - 37.5	7/14/10	PCBs
	BPS1-SB3004-42.042.5	42 - 42.5	7/14/10	PCBs
	BPS1-SB3004-47.047.5	47 - 47.5	7/14/10	PCBs
	BPS1-SB3004-49.049.5	49 - 49.5	7/14/10	PCBs
	BPS1-SB3004-54.054.5	54 - 54.5	7/14/10	PCBs, VOCs, DRO, GRO, TOC
	BPS1-SB3004-64.565.0	64.5 - 65	7/14/10	PCBs, VOCs, DRO, GRO, TOC
	BPS1-SB3004-116.0116.5	116 - 116.5	7/14/10	PCBs
	BPS1-SB3004-154.0154.5	154 - 154.5	7/14/10	PCBs, VOCs, DRO, GRO, TOC
	BPS1-SB3004-180190	180 - 190	7/15/10	PCBs
	BPS1-SB3004-235.0235.5	235 - 235.5	7/15/10	PCBs, VOCs, DRO, GRO, TOC
BPS1-SB3005	BPS1-SB3005-27.528.0	27.5 - 28	7/16/10	PCBs
	BPS1-SB3005-34.034.5	34 - 34.5	7/16/10	PCBs
	BPS1-SB3005-37.538.0	37.5 - 38	7/16/10	PCBs, VOCs, DRO, GRO, TOC
	BPS1-SB3005-43.043.5	43 - 43.5	7/16/10	PCBs
	BPS1-SB3005-49.049.5	49 - 49.5	7/16/10	PCBs
	BPS1-SB3005-54.555.0	54.5 - 55	7/16/10	PCBs, VOCs, DRO, GRO, TOC
	BPS1-SB3005-57.558.0	57.5 - 58	7/16/10	PCBs
	BPS1-SB3005-94.595.0	94.5 - 95	7/16/10	PCBs
	BPS1-SB3005-145.0145.5	145 - 145.5	7/17/10	PCBs, VOCs, DRO, GRO, TOC
	BPS1-SB3005-145.0145.5-D	145 - 145.5	7/17/10	PCBs, VOCs, DRO, GRO, TOC
	BPS1-SB3005-180190	180 - 190	7/17/10	PCBs
	BPS1-SB3005-232.5233.0	232.5 - 233	7/17/10	PCBs, VOCs, DRO, GRO, TOC
BPS1-SB3006	BPS1-SB3006-32.032.5	32.0-32.5	7/27/10	PCBs
	BPS1-SB3006-32.032.5 D	32.0-32.5	7/27/10	PCBs
	BPS1-SB3006-53.053.5	53.0-53.5	7/27/10	PCBs, VOCs, DRO, GRO, TOC
	BPS1-SB3006-72.072.5	72.0-72.5	7/27/10	PCBs
	BPS1-SB3006-117.0117.5	117.0-117.5	7/27/10	PCBs, VOCs, DRO, GRO, TOC
	BPS1-SB3006-181.0181.5	181.0-181.5	7/28/10	PCBs, VOCs, DRO, GRO, TOC
	BPS1-SB3006-181.0181.5-D	181.0-181.5	7/28/10	PCBs, VOCs, DRO, GRO, TOC
	BPS1-SB3006-226.5227.0	226.5-227.0	7/28/10	PCBs, VOCs, DRO, GRO, TOC
BPS1-SB3007	BPS1-SB3007-37.538.0	37.5-38.0	7/29/10	PCBs, VOCs, DRO, GRO, TOC
	BPS1-SB3007-57.57.5	57.0-57.5	7/29/10	PCBs, VOCs, DRO, GRO, TOC
	BPS1-SB3007-100.0100.5	100.0-100.5	7/29/10	PCBs, VOCs, DRO, GRO, TOC
	BPS1-SB3007-140150	140-150	7/29/10	PCBs
	BPS1-SB3007-217.5218.0	217.5-218.0	7/30/10	PCBs, VOCs, DRO, GRO, TOC
	BPS1-SB3007-240250	240-250	7/30/10	PCBs

TABLE 2-5
SUBSURFACE SOIL SAMPLING SUMMARY
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

Sampling Location	Sample ID	Depth (feet bgs)	Sampling Date	Analysis
BPS1-SB3008	BPS1-SB3008-37.037.5	37.0-37.5	8/2/10	PCBs
	BPS1-SB3008-52.052.5	52.0-52.5	8/2/10	PCBs, VOCs, DRO, GRO, TOC
	BPS1-SB3008-86.587.0	86.5-87.0	8/2/10	PCBs, VOCs, DRO, GRO, TOC
	BPS1-SB3008-161.0161.5	161.0-161.5	8/2/10	PCBs, VOCs, DRO, GRO, TOC
	BPS1-SB3008-200210	200-210	8/3/10	PCBs
	BPS1-SB3008-234.5235.0	234.5-235.0	8/3/10	PCBs, VOCs, DRO, GRO, TOC
BPS1-SB3009	BPS1-SB3009-27.027.5	27.0-27.5	7/31/10	PCBs
	BPS1-SB3009-36.036.5	36.0-36.5	7/31/10	PCBs
	BPS1-SB3009-51.051.5	51.0-51.5	7/31/10	PCBs, VOCs, DRO, GRO, TOC
	BPS1-SB3009-51.051.5-D	51.0-51.5	7/31/10	PCBs, VOCs, DRO, GRO, TOC
	BPS1-SB3009-96.096.5	96.0-96.5	7/31/10	PCBs, VOCs, DRO, GRO, TOC
	BPS1-SB3009-140.0140.5	140.0-140.5	7/31/10	PCBs, VOCs, DRO, GRO, TOC
	BPS1-SB3009-209.0209.5	209.0-209.5	8/1/10	PCBs, VOCs, DRO, GRO, TOC
BPS1-SB3010	BPS1-SB3010-0008	0-8	8/15/10	PCBs
	BPS1-SB3010-49.049.5	49.0-49.5	8/15/10	PCBs, VOCs, DRO, GRO, TOC
	BPS1-SB3010-5868	58-68	8/16/10	PCBs
	BPS1-SB3010-93.594.0	93.5-94.0	8/16/10	PCBs, VOCs, DRO, GRO, TOC
	BPS1-SB3010-118148	118-148	8/16/10	PCBs
	BPS1-SB3010-188.0188.5	188.0-188.5	8/17/10	PCBs, VOCs, DRO, GRO, TOC
BPS1-SB3011	BPS1-SB3011-1828	18-28	8/18/10	PCBs
	BPS1-SB3011-3848	38-48	8/18/10	PCBs
	BPS1-SB3011-48.549.0	48.5-49.0	8/18/10	PCBs, VOCs, DRO, GRO, TOC
BPS1-SB3012	BPS1-SB3012-39.039.5	39.0-39.5	8/9/10	PCBs, VOCs, DRO, GRO, TOC
	BPS1-SB3012-4858	48-58	8/10/10	PCBs
	BPS1-SB3012-5868	58-68	8/10/10	PCBs
	BPS1-SB3012-112.5113.0	112.5-113.0	8/11/10	PCBs, VOCs, DRO, GRO, TOC
	BPS1-SB3012-112.5113.0-D	112.5-113.0	8/11/10	PCBs, VOCs, DRO, GRO, TOC
	BPS1-SB3012-158168	158-168	8/13/10	PCBs
	BPS1-SB3012-203.0203.5	203-203.5	8/14/10	PCBs, VOCs, DRO, GRO, TOC
BPS1-SB3013	*BPS1-SB3013-0510*	*5 - 10*	*8/21/2012*	*PCBs*
	BPS1-SB3013-1015	10 - 15	8/21/2012	PCBs
	BPS1-SB3013-2535	25 - 35	8/21/2012	PCBs
	BPS1-SB3013-3540	35 - 40	8/21/2012	PCBs
BPS1-SB3014	BPS1-SB3014-0205	2 - 5	8/20/2012	PCBs
	BPS1-SB3014-0510	5 - 10	8/20/2012	PCBs
	BPS1-SB3014-1015	10 - 15	8/20/2012	PCBs
BPS1-SB3015	BPS1-SB3015-0205	2 - 5	8/20/2012	PCBs
	BPS1-SB3015-0510	5 - 10	8/20/2012	PCBs
	BPS1-SB3015-1015	10 - 15	8/20/2012	PCBs

TABLE 2-5
SUBSURFACE SOIL SAMPLING SUMMARY
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

Sampling Location	Sample ID	Depth (feet bgs)	Sampling Date	Analysis
BPS1-SB3020	BPS1-SB3020-0205	2 - 5	8/21/2012	PCBs
	BPS1-SB3020-0205-D	2 - 5	8/21/2012	PCBs
	BPS1-SB3020-0510	5 - 10	8/21/2012	PCBs
	BPS1-SB3020-1015	10 - 15	8/21/2012	PCBs
	BPS1-SB3020-1520	15 - 20	8/21/2012	PCBs
	BPS1-SB3020-2025	20 - 25	8/21/2012	PCBs
	BPS1-SB3020-2530	25 - 30	8/21/2012	PCBs
	BPS1-SB3020-3035	30 - 35	8/27/2012	PCBs
	BPS1-SB3020-3545	35 - 45	8/27/2012	PCBs
	BPS1-SB3020-4555	45 - 55	8/27/2012	PCBs
	BPS1-SB3020-5560	55 - 60	8/27/2012	PCBs
BPS1-SB3021	BPS1-SB3021-0205	2 - 5	8/23/2012	PCBs
	BPS1-SB3021-0510	5 - 10	8/23/2012	PCBs
	BPS1-SB3021-0510-D	5 - 10	8/23/2012	PCBs
	BPS1-SB3021-1015	10 - 15	8/23/2012	PCBs
	BPS1-SB3021-1520	15 - 20	8/23/2012	PCBs
	BPS1-SB3021-2025	20 - 25	8/23/2012	PCBs
	BPS1-SB3021-2530	25 - 30	8/23/2012	PCBs
	BPS1-SB3021-3035	30 - 35	8/28/2012	PCBs
	BPS1-SB3021-3035-D	30 - 35	8/28/2012	PCBs
	BPS1-SB3021-3545	35 - 45	8/28/2012	PCBs
	BPS1-SB3021-4555	45 - 55	8/28/2012	PCBs
	BPS1-SB3021-5565	55 - 65	8/28/2012	PCBs
	BPS1-SB3021-7075	70 - 75	8/28/2012	PCBs
BPS1-SB3022	BPS1-SB3022-0205	2 - 5	11/9/2012	PCBs
	BPS1-SB3022-0510	5 - 10	11/9/2012	PCBs
	BPS1-SB3022-1015	10 - 15	11/9/2012	PCBs
	BPS1-SB3022-1520	15 - 20	11/9/2012	PCBs
	BPS1-SB3022-2025	20 - 25	11/9/2012	PCBs
	BPS1-SB3022-2535	25 - 35	11/9/2012	PCBs
	BPS1-SB3022-2535-D	25 - 35	11/9/2012	PCBs
	BPS1-SB3022-3545	35 - 45	11/9/2012	PCBs
	BPS1-SB3022-4555	45 - 55	11/9/2012	PCBs
	BPS1-SB3022-5565	55 - 65	11/9/2012	PCBs
	BPS1-SB3022-6575	65 - 75	11/9/2012	PCBs
BPS1-SB3023	BPS1-SB3023-0205	2 - 5	8/21/2012	PCBs
	BPS1-SB3023-0510	5 - 10	8/21/2012	PCBs
	BPS1-SB3023-1015	10 - 15	8/21/2012	PCBs

TABLE 2-5
SUBSURFACE SOIL SAMPLING SUMMARY
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

Sampling Location	Sample ID	Depth (feet bgs)	Sampling Date	Analysis
BPS1-SB3024	BPS1-SB3024-0205	2 - 5	8/20/2012	PCBs
	BPS1-SB3024-0510	5 - 10	8/20/2012	PCBs
	BPS1-SB3024-1015	10 - 15	8/20/2012	PCBs
	BPS1-SB3024-1520	15 - 20	8/20/2012	PCBs
	BPS1-SB3024-2025	20 - 25	8/20/2012	PCBs
BPS1-SB3025	BPS1-SB3025-2535	25 - 35	11/5/2012	PCBs
	BPS1-SB3025-2535-D	25 - 35	11/5/2012	PCBs
	BPS1-SB3025-3545	35 - 45	11/5/2012	PCBs
	BPS1-SB3025-4555	45 - 55	11/6/2012	PCBs
	BPS1-SB3025-5565	55 - 65	11/6/2012	PCBs
	BPS1-SB3025-6575	65 - 75	11/6/2012	PCBs
BPS1-SB3026	BPS1-SB3026-2535	25 - 35	11/14/2012	PCBs
	BPS1-SB3026-3545	35 - 45	11/14/2012	PCBs
	BPS1-SB3026-4555	45 - 55	11/14/2012	PCBs
	BPS1-SB3026-5565	55 - 65	11/14/2012	PCBs
	BPS1-SB3026-6575	65 - 75	11/14/2012	PCBs
BPS1-SB3027	BPS1-SB3027-2535	25 - 35	11/12/2012	PCBs
	BPS1-SB3027-2535-D	25 - 35	11/12/2012	PCBs
	BPS1-SB3027-3545	35 - 45	11/13/2012	PCBs
	BPS1-SB3027-4555	45 - 55	11/13/2012	PCBs
	BPS1-SB3027-5565	55 - 65	11/13/2012	PCBs
	BPS1-SB3027-6575	65 - 75	11/13/2012	PCBs
BPS1-SB3028	BPS1-SB3028-2535	25 - 35	11/7/2012	PCBs
	BPS1-SB3028-3545	35 - 45	11/7/2012	PCBs
	BPS1-SB3028-4555	45 - 55	11/7/2012	PCBs
	BPS1-SB3028-5565	55 - 65	11/7/2012	PCBs
	BPS1-SB3028-6575	65 - 75	11/7/2012	PCBs
BPS1-SB3029	BPS1-SB3029-0205	2 - 5	8/29/2012	PCBs
	BPS1-SB3029-0510	5 - 10	8/29/2012	PCBs
	BPS1-SB3029-1015	10 - 15	8/29/2012	PCBs
	BPS1-SB3029-1520	15 - 20	8/29/2012	PCBs
	BPS1-SB3029-2025	20 - 25	8/29/2012	PCBs
	BPS1-SB3029-2025-D	20 - 25	8/29/2012	PCBs
	BPS1-SB3029-2535	25 - 35	8/29/2012	PCBs
	BPS1-SB3029-3545	35 - 45	8/29/2012	PCBs
	BPS1-SB3029-4555	45 - 55	8/29/2012	PCBs
	BPS1-SB3029-5565	55 - 65	8/29/2012	PCBs
BPS1-SB3030	BPS1-SB3030-2535	25 - 35	8/30/2012	PCBs
	BPS1-SB3030-3545	35 - 45	8/30/2012	PCBs
	BPS1-SB3030-4555	45 - 55	8/30/2012	PCBs

TABLE 2-5
SUBSURFACE SOIL SAMPLING SUMMARY
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

Sampling Location	Sample ID	Depth (feet bgs)	Sampling Date	Analysis
BPS1-SB3031	BPS1-SB3031-0205	2 - 5	8/20/2012	PCBs
	BPS1-SB3031-0205-D	2 - 5	8/20/2012	PCBs
	BPS1-SB3031-0510	5 - 10	8/20/2012	PCBs
	BPS1-SB3031-1015	10 - 15	8/20/2012	PCBs
BPS1-SB3032	BPS1-SB3032-0206	2 - 6	8/22/2012	PCBs
	BPS1-SB3032-0206-D	2 - 6	8/22/2012	PCBs
	BPS1-SB3032-0610	6 - 10	8/22/2012	PCBs
	BPS1-SB3032-1015	10 - 15	8/22/2012	PCBs
BPS1-SB3033	BPS1-SB3033-0206	2 - 6	8/22/2012	PCBs
	BPS1-SB3033-0610	6 - 10	8/22/2012	PCBs
	BPS1-SB3033-1015	10 - 15	8/22/2012	PCBs
BPS1-SB3034	BPS1-SB3034-0206	2 - 6	8/22/2012	PCBs
	BPS1-SB3034-0610	6 - 10	8/22/2012	PCBs
	BPS1-SB3034-1015	10 - 15	8/22/2012	PCBs
BPS1-SB3035	BPS1-SB3035-0206	2 - 6	8/22/2012	PCBs
	BPS1-SB3035-0610	6 - 10	8/22/2012	PCBs
	BPS1-SB3035-1015	10 - 15	8/22/2012	PCBs
	BPS1-SB3035-1015-D	10 - 15	8/22/2012	PCBs
BPS1-SB3036	BPS1-SB3036-0206	2 - 6	8/22/2012	PCBs
	BPS1-SB3036-0610	6 - 10	8/22/2012	PCBs
	BPS1-SB3036-1015	10 - 15	8/22/2012	PCBs
BPS1-SB3037	BPS1-SB3037-0205	2 - 5	8/22/2012	PCBs
	BPS1-SB3037-0510	5 - 10	8/22/2012	PCBs
	BPS1-SB3037-1015	10 - 15	8/22/2012	PCBs
BPS1-SB3038	BPS1-SB3038-0205	2 - 5	8/23/2012	PCBs
	BPS1-SB3038-0510	5 - 10	8/23/2012	PCBs
	BPS1-SB3038-1015	10 - 15	8/23/2012	PCBs
BPS1-SB3039	BPS1-SB3039-0205	2 - 5	8/23/2012	PCBs
	BPS1-SB3039-0205-D	2 - 5	8/23/2012	PCBs
	BPS1-SB3039-0510	5 - 10	8/23/2012	PCBs
	BPS1-SB3039-1015	10 - 15	8/23/2012	PCBs
BPS1-SB3044	BPS1-SB3044-0205	2 - 5	8/20/2012	PCBs
	BPS1-SB3044-0510	5 - 10	8/20/2012	PCBs
	BPS1-SB3044-0510-D	5 - 10	8/20/2012	PCBs
	BPS1-SB3044-1015	10 - 15	8/20/2012	PCBs
BPS1-SB3054	BPS1-SB3054-0205	2 - 5	2/26/2013	PCBs
	BPS1-SB3054-0205-D	2 - 5	2/26/2013	PCBs
BPS1-SB3055	BPS1-SB3055-0205	2 - 5	2/26/2013	PCBs
BPS1-SB3057	BPS1-SB3057-0205	2 - 5	2/26/2013	PCBs

TABLE 2-5
SUBSURFACE SOIL SAMPLING SUMMARY
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

Sampling Location	Sample ID	Depth (feet bgs)	Sampling Date	Analysis
BPS1-SB3060	BPS1-SB3060-1520	15 - 20	2/28/2013	PCBs
	BPS1-SB3060-2025	20 - 25	2/28/2013	PCBs
	BPS1-SB3060-2535	25 - 35	3/1/2013	PCBs
	BPS1-SB3060-2535-D	25 - 35	3/1/2013	PCBs
	BPS1-SB3060-3540	35 - 40	3/1/2013	PCBs
BPS1-SB3061	BPS1-SB3061-1520	15 - 20	2/28/2013	PCBs
	BPS1-SB3061-2025	20 - 25	2/28/2013	PCBs
	BPS1-SB3061-2535	25 - 35	2/28/2013	PCBs
	BPS1-SB3061-2535-D	25 - 35	2/28/2013	PCBs
	BPS1-SB3061-3540	35 - 40	2/28/2013	PCBs
BPS1-SB3062	BPS1-SB3062-0205	2 - 5	2/28/2013	PCBs
	BPS1-SB3062-0510	5 - 10	2/28/2013	PCBs
	BPS1-SB3062-1015	10 - 15	2/28/2013	PCBs
	BPS1-SB3062-1520	15 - 20	2/28/2013	PCBs
	BPS1-SB3062-2025	20 - 25	2/28/2013	PCBs
	BPS1-SB3062-2535	25 - 35	2/28/2013	PCBs
	BPS1-SB3062-3540	35 - 40	2/28/2013	PCBs
BPS1-SB3063	BPS1-SB3063-0205	2 - 5	2/27/2013	PCBs
	BPS1-SB3063-0510	5 - 10	2/27/2013	PCBs
	BPS1-SB3063-1015	10 - 15	2/27/2013	PCBs
	BPS1-SB3063-1520	15 - 20	2/27/2013	PCBs
	BPS1-SB3063-2025	20 - 25	2/27/2013	PCBs
	BPS1-SB3063-2535	25 - 35	2/27/2013	PCBs
	BPS1-SB3063-3545	35 - 45	2/27/2013	PCBs
	BPS1-SB3063-4550	45 - 50	2/27/2013	PCBs
BPS1-SB3064	BPS1-SB3064-0205	2 - 5	2/26/2013	PCBs
	BPS1-SB3064-0510	5 - 10	2/26/2013	PCBs
	BPS1-SB3064-1015	10 - 15	2/26/2013	PCBs
	BPS1-SB3064-1520	15 - 20	2/26/2013	PCBs
	BPS1-SB3064-2025	20 - 25	2/26/2013	PCBs
	BPS1-SB3064-2535	25 - 35	2/26/2013	PCBs
	BPS1-SB3064-3545	35 - 45	2/27/2013	PCBs
	BPS1-SB3064-3545-D	35 - 45	2/27/2013	PCBs
	BPS1-SB3064-4547	45 - 47	2/27/2013	PCBs

TABLE 2-5
SUBSURFACE SOIL SAMPLING SUMMARY
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

Sampling Location	Sample ID	Depth (feet bgs)	Sampling Date	Analysis
BPS1-SB3065	BPS1-SB3065-0205	2 - 5	2/25/2013	PCBs
	BPS1-SB3065-0510	5 - 10	2/25/2013	PCBs
	BPS1-SB3065-1015	10 - 15	2/25/2013	PCBs
	BPS1-SB3065-1520	15 - 20	2/25/2013	PCBs
	BPS1-SB3065-1520-D	15 - 20	2/25/2013	PCBs
	BPS1-SB3065-2025	20 - 25	2/25/2013	PCBs
	BPS1-SB3065-2535	25 - 35	2/25/2013	PCBs
	BPS1-SB3065-3540	35 - 40	2/26/2013	PCBs
BPS1-SB3066	BPS1-SB3066-0205	2 - 5	2/25/2013	PCBs
	BPS1-SB3066-0510	5 - 10	2/25/2013	PCBs
	BPS1-SB3066-1013	10 - 13	2/25/2013	PCBs
	BPS1-SB3066-1315	13 - 15	2/25/2013	PCBs
	BPS1-SB3066-1520	15 - 20	2/25/2013	PCBs
	BPS1-SB3066-1520-D	15 - 20	2/25/2013	PCBs
	BPS1-SB3066-2025	20 - 25	2/25/2013	PCBs
BPS1-SB3067	BPS1-SB3067-0205	2 - 5	2/25/2013	PCBs
	BPS1-SB3067-0510	5 - 10	2/25/2013	PCBs
	BPS1-SB3067-1015	10 - 15	2/25/2013	PCBs
	BPS1-SB3067-1520	15 - 20	2/25/2013	PCBs
	BPS1-SB3067-2025	20 - 25	2/25/2013	PCBs
BPS1-SB3068	BPS1-SB3068-0205	2 - 5	2/25/2013	PCBs
	BPS1-SB3068-0510	5 - 10	2/25/2013	PCBs
	BPS1-SB3068-1015	10 - 15	2/25/2013	PCBs
	BPS1-SB3068-1520	15 - 20	2/25/2013	PCBs
BPS1-SB3069	BPS1-SB3069-0205	2 - 5	2/25/2013	PCBs
	BPS1-SB3069-0510	5 - 10	2/25/2013	PCBs
	BPS1-SB3069-1015	10 - 15	2/25/2013	PCBs
	BPS1-SB3069-1520	15 - 20	2/25/2013	PCBs
BPS1-SB3070	BPS1-SB3070-2527	25 - 27	6/7/2013	PCBs
	BPS1-SB3070-2830	28 - 30	6/7/2013	PCBs
	BPS1-SB3070-3035	30 - 35	6/7/2013	PCBs
	BPS1-SB3070-3035-D	30 - 35	6/7/2013	PCBs
	BPS1-SB3070-3540	35 - 40	6/7/2013	PCBs
BPS1-SB3071	BPS1-SB3071-2025	20 - 25	6/7/2013	PCBs
	BPS1-SB3071-2530	25 - 30	6/7/2013	PCBs
	BPS1-SB3071-2530-D	25 - 30	6/7/2013	PCBs
	BPS1-SB3071-3035	30 - 35	6/7/2013	PCBs
	BPS1-SB3071-3540	35 - 40	6/7/2013	PCBs

TABLE 2-5
SUBSURFACE SOIL SAMPLING SUMMARY
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

Sampling Location	Sample ID	Depth (feet bgs)	Sampling Date	Analysis
BPS1-SB3072	BPS1-SB3072-2025	20 - 25	6/6/2013	PCBs
	BPS1-SB3072-2530	25 - 30	6/6/2013	PCBs
	BPS1-SB3072-3035	30 - 35	6/6/2013	PCBs
	BPS1-SB3072-3540	35 - 40	6/6/2013	PCBs
BPS1-SB3073	BPS1-SB3073-4045	40 - 45	6/4/2013	PCBs
	BPS1-SB3073-4550	45 - 50	6/4/2013	PCBs
	BPS1-SB3073-5055	50 - 55	6/4/2013	PCBs
	BPS1-SB3073-5560	55 - 60	6/4/2013	PCBs
	BPS1-SB3073-6065	60 - 65	6/4/2013	PCBs
BPS1-SB3074	BPS1-SB3074-4045	40 - 45	6/5/2013	PCBs
	BPS1-SB3074-4550	45 - 50	6/5/2013	PCBs
	BPS1-SB3074-5055	50 - 55	6/5/2013	PCBs
	BPS1-SB3074-5055-D	50 - 55	6/5/2013	PCBs
	BPS1-SB3074-5560	55 - 60	6/5/2013	PCBs
	BPS1-SB3074-6065	60 - 65	6/5/2013	PCBs

bgs = below ground surface.
D = Duplicate sample.
DRO = Diesel Range Organics.
GRO = Gasoline Range Organics.
PCBs = Polychlorinated biphenyls.
TOC = Total Organic Carbon.
VOCs = Volatile Organic Compounds.

TABLE 2-6
GROUNDWATER GRAB SAMPLE SUMMARY
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

Sample Location	Sample ID	Sample Interval (feet bgs)	Sample Date	Analysis
BPS1-SB3010	BPS1-GW3010-5761	57-61	8/16/2010	PCBs and VOCs
	BPS1-GW3010-114118	114-118	8/16/2010	PCBs and VOCs
	BPS1-GW3010-144148	144-148	8/17/2010	PCBs and VOCs
	BPS1-GW3010-144148 DUP	144-148	8/17/2010	PCBs and VOCs
	BPS1-GW3010-196200	196-200	8/17/2010	PCBs and VOCs
BPS1-SB312	BPS1-GW3012-4852	48-52	8/10/2010	PCBs and VOCs
	BPS1-GW3012-110114	110-114	8/12/2010	PCBs and VOCs
	BPS1-GW3012-144148	144-148	8/13/2010	PCBs and VOCs
	BPS1-GW3012-200204	200-204	8/14/2010	PCBs and VOCs

bgs = below ground surface.
DUP = Duplicate.
PCBs = Polychlorinated Biphenyls.
VOCs = Volatile Organic Compounds.

TABLE 2-7
MONITORING WELL CONSTRUCTION DETAILS
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHAPGE, NEW YORK

Monitoring Well ID	Installation Date	Drilling Method	Total Depth (feet bgs)	Screened Interval Depth (feet bgs)	Reference Elevation TOC (PVC) (feet MSL)	Ground Surface Elevation (feet MSL)
BPS1-FW-MW01	NA	HSA	63.5[1]	48.5-63.5[1]	126.10	123.57
BPS1-FW-MW02	NA	HSA	64[1]	49-64[1]	126.85	124.23
BPS1-FW-MW03	NA	HSA	67[1]	52-67[1]	125.46	122.86
BPS1-HN-MW29I	11/26/1991	MR	130.5[2]	120-130[2]	115.37	116.06
BPS1-TT-MW301S	11/10/2010	RS	62	51-61	128.88	126.37
BPS1-TT-MW301I	11/12/2010	RS	141	130-140	128.48	125.95
BPS1-TT-MW301D	10/29/2010	RS	221	210-220	128.9	126.35
BPS1-TT-MW302S	10/30/2010	RS	52	41-51	116.01	116.32
BPS1-TT-MW302I1	10/26/2010	RS	121	110-120	115.91	116.32
BPS1-TT-MW302I2	10/18/2010	RS	151	140-150	115.91	116.33
BPS1-TT-MW302D	10/16/2010	RS	218	203-213	116.08	116.35
BPS1-TT-MW303S	8/18/2010	RS	58	46-56	115.65	116.06
BPS1-TT-MW303I1	10/19/2010	RS	106	95-105	115.83	116.08
BPS1-TT-MW303I2	10/17/2010	RS	157	146-156	115.89	116.15
BPS1-TT-MW303D	10/14/2010	RS	228	208-218	115.94	116.2
BPS1-TT-MW304S	11/13/2010	RS	54	43-53	119.13	116.49
BPS1-TT-MW304I1	11/11/2010	RS	113	102-112	119.27	116.77
BPS1-TT-MW304I2	11/1/2010	RS	151	140-150	119.18	116.7
BPS1-TT-MW304D	10/27/2010	RS	191	180-190	119.19	116.67
BPS1-TT-MW305S	11/22/2011	HSA	50	40-50	116.04	116.52
BPS1-TT-MW305I	11/29/2011	HSA	200	190-200	116.16	116.38
BPS1-TT-MW305D	11/21/2011	MR	296	286-296	115.94	116.25
BPS1-TT-MW306S	12/8/2011	HSA	60	50-60	117.82	115.33
BPS1-TT-MW306I	12/6/2011	HSA	199	189-199	117.76	115.45
BPS1-TT-MW306D	11/28/2011	HSA	294	284-294	118.06	115.59
BPS1-TT-MW307S	11/11/2011	HSA	50.5	40.5-50.5	114.39	114.59

TABLE 2-7
MONITORING WELL CONSTRUCTION DETAILS
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHAPGE, NEW YORK

Monitoring Well ID	Installation Date	Drilling Method	Total Depth (feet bgs)	Screened Interval Depth (feet bgs)	Reference Elevation TOC (PVC) (feet MSL)	Ground Surface Elevation (feet MSL)
BPS1-TT-MW307I	11/18/2011	HSA	198	188-198	114.16	114.67
BPS1-TT-MW307D	11/11/2011	MR	286	276-286	114.42	114.85
BPS1-TT-MW308S	11/14/2011	HSA	64	54-64	131.05	128.586
BPS1-TT-MW308I	11/15/2011	HSA	166	156-166	130.73	128.58
BPS1-TT-MW308D	10/31/2011	MR	260	250-260	130.98	128.78
BPS1-TT-MW309S	11/9/2011	HSA	63	53-63	131.77	129.41
BPS1-TT-MW309I	11/8/2011	HSA	170	160-170	131.83	129.44
BPS1-TT-MW309D	10/20/2011	MR	262	252-262	131.52	129.42
BPS1-TT-MW310S	10/9/2012	HSA	68	57.5-67.5	129.5	127.42
BPS1-TT-MW311S	10/22/2012	HSA	65	55-65	130.23	128.01
BPS1-TT-MW311I	10/18/2012	HSA	170	160-170	130.34	128.23
BPS1-TT-MW312S	10/26/2012	HSA	63	53-63	129.81	127.74
BPS1-TT-MW312I	10/25/2012	HSA	170	160-170	129.95	127.72
BPS1-TT-MW313S	11/1/2012	HSA	63	53-63	129.76	127.48
BPS1-TT-MW314S	10/16/2012	HSA	65	55-65	128.6	126.15
BPS1-TT-MW314I	10/12/2012	HSA	154	144-154	128.69	126.28
BPS4-MW02	NA	HSA	68	58-68	122.152	122.506
BPS4-MW04	NA	HSA	68	58-68	NA	NA

bgs = below ground surface.
MW = Monitoring Well.
MSL = Mean Sea Level.
NA = Not Available.
PVC = Polyvinyl chloride.
TOC = Top of Casing.

[1] = Top of Casing Measurement.
[2] = #1 Morie Sand to 117' bgs.
Masonry Sand to 115' bgs.
Bentonite slurry to 112' bgs.
Bentonite grout to surface.

HSA = hollow stem auger.
MR = Mud rotary.
RS = Rota-Sonic.

TABLE 2-8
GROUNDWATER SAMPLE SUMMARY
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

Well	Screened Interval Depth (feet bgs)	November/ December 2010 Sampling Event Analysis	March 2011 Sampling Event Analysis	January 2012 Sampling Event Analysis	November 2012 Sampling Event Analysis	February 2013 Sampling Event Analysis
BPS1-FW-MW01	48.5-63.5	VOCs and PCBs	VOCs and PCBs	VOCs, PCBs, Total Fe and Cr	VOCs, PCBs, Total Fe and Cr	NS
BPS1-FW-MW02	49-64	VOCs and PCBs	VOCs and PCBs	VOCs, PCBs, Total Fe and Cr	VOCs, PCBs, Total Fe and Cr	NS
BPS1-FW-MW03	52-67	VOCs and PCBs	VOCs and PCBs	VOCs, PCBs, Total Fe and Cr	VOCs, PCBs, Total Fe and Cr	NS
BPS1-HN-MW27I	100-110	NS	NS	NS	VOCs, PCBs, Total Fe and Cr, Cr^{6+}	VOCs, PCBs, Total Fe and Cr, Cr^{6+}
BPS1-HN-MW29I	120-130	VOCs and PCBs	VOCs, PCBs, TAL Metals, and Cr^{6+}	VOCs, PCBs, Total Fe and Cr	VOCs, PCBs, Total Fe and Cr, Cr^{6+}	NS
TTAOC22-MW06	52 - 62	NS	NS[1]	NS	VOCs, PCBs, Total Fe and Cr, Cr^{6+}	VOCs, PCBs, Total Fe and Cr, Cr^{6+}
TTAOC22-MW10	49 - 59	NS	NS[1]	NS	VOCs, PCBs, Total Fe and Cr, Cr^{6+}	VOCs, PCBs, Total Fe and Cr, Cr^{6+}
TTAOC22-MW11	53 - 63	NS	NS[1]	NS	VOCs, PCBs, Total Fe and Cr, Cr^{6+}	VOCs, PCBs, Total Fe and Cr, Cr^{6+}
BPS1-TT-MW301S	51-61	VOCs and PCBs	VOCs and PCBs	VOCs, PCBs, Total Fe and Cr	VOCs, PCBs, Total Fe and Cr, Cr^{6+}	NS
BPS1-TT-MW301I	130-140	VOCs and PCBs	VOCs, PCBs, TAL Metals and Cr^{6+}	VOCs, PCBs, Total Fe and Cr, Cr^{6+}	VOCs, PCBs, Total Fe and Cr, Cr^{6+}	NS
BPS1-TT-MW301D	210-220	VOCs and PCBs	VOCs and PCBs	VOCs, PCBs, Total Fe and Cr, Cr^{6+}	VOCs, PCBs, Total Fe and Cr, Cr^{6+}	VOCs, PCBs, Total Fe and Cr, Cr^{6+}
BPS1-TT-MW302S	41-51	VOCs and PCBs	VOCs, PCBs, TAL Metals and Cr^{6+}	VOCs, PCBs, Total Fe and Cr	VOCs, PCBs, Total Fe and Cr, Cr^{6+}	NS
BPS1-TT-MW302I1	110-120	VOCs and PCBs	VOCs and PCBs	VOCs, PCBs, Total Fe and Cr	VOCs, PCBs, Total Fe and Cr	NS
BPS1-TT-MW302I2	140-150	VOCs and PCBs	VOCs and PCBs	VOCs, PCBs, Total Fe and Cr	VOCs, PCBs, Total Fe and Cr, Cr^{6+}	NS
BPS1-TT-MW302D	203-213	VOCs and PCBs	VOCs and PCBs	VOCs, PCBs, Total Fe and Cr	VOCs, PCBs, Total Fe and Cr	NS

TABLE 2-8
GROUNDWATER SAMPLE SUMMARY
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

Well	Screened Interval Depth (feet bgs)	November/ December 2010 Sampling Event Analysis	March 2011 Sampling Event Analysis	January 2012 Sampling Event Analysis	November 2012 Sampling Event Analysis	February 2013 Sampling Event Analysis
BPS1-TT-MW303S	46-56	VOCs and PCBs	VOCs, PCBs, TAL Metals, and Cr^{6+}	VOCs, PCBs, Total Fe and Cr	VOCs, PCBs, Total Fe and Cr	NS
BPS1-TT-MW303I1	95-105	VOCs and PCBs	VOCs and PCBs	VOCs, PCBs, Total Fe and Cr, Dissolved Fe and Cr	VOCs, PCBs, Total Fe and Cr, Dissolved Fe and Cr, Cr^{6+}	NS
BPS1-TT-MW303I2	146-156	VOCs and PCBs	VOCs and PCBs	VOCs, PCBs, Total Fe and Cr, Cr^{6+}	VOCs, PCBs, Total Fe and Cr, Cr^{6+}	NS
BPS1-TT-MW303D	208-218	VOCs and PCBs	VOCs and PCBs	VOCs, PCBs, Total Fe and Cr	VOCs, PCBs, Total Fe and Cr	NS
BPS1-TT-MW304S	43-53	VOCs and PCBs	VOCs, PCBs, TAL Metals, and Cr^{6+}	VOCs, PCBs, Total Fe and Cr	VOCs, PCBs, Total Fe and Cr	NS
BPS1-TT-MW304I1	102-112	VOCs and PCBs	VOCs, PCBs, TAL Metals, and Cr^{6+}	VOCs, PCBs, Total Fe and Cr, Cr^{6+}	VOCs, PCBs, Total Fe and Cr, Dissolved Fe and Cr, Cr^{6+}	NS
BPS1-TT-MW304I2	140-150	VOCs and PCBs	VOCs, PCBs, TAL Metals, and Cr^{6+}	VOCs, PCBs, Total Fe and Cr, Cr^{6+}	VOCs, PCBs, Total Fe and Cr, Cr^{6+}	NS
BPS1-TT-MW304D	180-190	VOCs and PCBs	VOCs, PCBs, TAL Metals, and Cr^{6+}	VOCs, PCBs, Total Fe and Cr	VOCs, PCBs, Total Fe and Cr	NS
BPS1-TT-MW305S	40-50	NS	NS	VOCs, PCBs, Total Fe and Cr	VOCs, PCBs, Total Fe and Cr	NS
BPS1-TT-MW305I	190-200	NS	NS	VOCs, PCBs, Total Fe and Cr	VOCs, PCBs, Total Fe and Cr, Cr^{6+}	NS
BPS1-TT-MW305D	286-296	NS	NS	VOCs, PCBs, Total Fe and Cr, Cr^{6+}	VOCs, PCBs, Total Fe and Cr, Cr^{6+}	NS
BPS1-TT-MW306S	50-60	NS	NS	VOCs, PCBs, Total Fe, Cr,TOC Cr^{6+} and TOC	VOCs, PCBs, Total Fe and Cr, Dissolved Fe and Cr, Cr^{6+}	NS
BPS1-TT-MW306I	189-199	NS	NS	VOCs, PCBs, Total Fe, Cr,TOC Cr^{6+} and TOC	VOCs, PCBs, Total Fe and Cr, Cr^{6+}	NS

TABLE 2-8
GROUNDWATER SAMPLE SUMMARY
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

Well	Screened Interval Depth (feet bgs)	November/ December 2010 Sampling Event Analysis	March 2011 Sampling Event Analysis	January 2012 Sampling Event Analysis	November 2012 Sampling Event Analysis	February 2013 Sampling Event Analysis
BPS1-TT-MW306D	284-294	NS	NS	VOCs, PCBs, Total Fe, Cr and TOC	VOCs, PCBs, Total Fe and Cr	NS
BPS1-TT-MW307S	40.5-50.5	NS	NS	VOCs, PCBs, Total Fe and Cr	VOCs, PCBs, Total Fe and Cr, Cr^{6+}	NS
BPS1-TT-MW307I	188-198	NS	NS	VOCs, PCBs, Total Fe and Cr, Cr^{6+}	VOCs, PCBs, Total Fe and Cr, Cr^{6+}	NS
BPS1-TT-MW307D	276-286	NS	NS	VOCs, PCBs, Total Fe and Cr	VOCs, PCBs, Total Fe and Cr, Dissolved Fe and Cr	NS
BPS1-TT-MW308S	54-64	NS	NS	VOCs, PCBs, Total Fe and Cr	VOCs, PCBs, Total Fe and Cr, Dissolved Fe and Cr	VOCs, PCBs, Total Fe and Cr
BPS1-TT-MW308I	156-166	NS	NS	VOCs, PCBs, Total Fe and Cr	VOCs, PCBs, Total Fe and Cr	VOCs, PCBs, Total Fe and Cr, Dissolved Fe and Cr
BPS1-TT-MW308D	250-260	NS	NS	VOCs, PCBs, Total Fe and Cr	VOCs, PCBs, Total Fe and Cr	VOCs, PCBs, Total Fe and Cr, Cr^{6}+
BPS1-TT-MW309S	53-63	NS	NS	VOCs, PCBs, Total Fe and Cr, Cr^{6+} and Dissolved Fe and Cr	VOCs, PCBs, Total Fe and Cr	VOCs, PCBs, Total Fe and Cr
BPS1-TT-MW309I	160-170	NS	NS	VOCs, PCBs, Total Fe and Cr, Cr^{6+}	VOCs, PCBs, Total Fe and Cr, Cr^{6+}	VOCs, PCBs, Total Fe and Cr
BPS1-TT-MW309D	252-262	NS	NS	VOCs, PCBs, Total Fe and Cr, Cr^{6+} and Dissolved Fe and Cr	VOCs, PCBs, Total Fe and Cr, Cr^{6+}	VOCs, PCBs, Total Fe and Cr, Cr^{6+}
BPS1-TT-MW310S	57.5-67.5	NS	NS	NS	VOCs, PCBs, Total Fe and Cr, Cr^{6+}	VOCs, PCBs, Total Fe and Cr
BPS1-TT-MW311S	55-65	NS	NS	NS	VOCs, PCBs, Total Fe and Cr, Cr^{6+} and Dissolved Fe and Cr	VOCs, PCBs, Total Fe and Cr

TABLE 2-8
GROUNDWATER SAMPLE SUMMARY
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

Well	Screened Interval Depth (feet bgs)	November/ December 2010 Sampling Event Analysis	March 2011 Sampling Event Analysis	January 2012 Sampling Event Analysis	November 2012 Sampling Event Analysis	February 2013 Sampling Event Analysis
BPS1-TT-MW311I	160-170	NS	NS	NS	VOCs, PCBs, Total Fe and Cr, Cr^{6+}	VOCs, PCBs, Total Fe and Cr
BPS1-TT-MW312S	53-63	NS	NS	NS	VOCs, PCBs, Total Fe and Cr, Cr^{6+}	VOCs, PCBs, Total Fe and Cr, Cr^{6+}
BPS1-TT-MW312I	160-170	NS	NS	NS	VOCs, PCBs, Total Fe and Cr, Cr^{6+}	VOCs, PCBs, Total Fe and Cr, Dissolved Fe and Cr
BPS1-TT-MW313S	53-63	NS	NS	NS	VOCs, PCBs, Total Fe and Cr	VOCs, PCBs, Total Fe and Cr
BPS1-TT-MW314S	55-65	NS	NS	NS	VOCs, PCBs, Total Fe and Cr	VOCs, PCBs, Total Fe and Cr
BPS1-TT-MW314I	144-154	NS	NS	NS	VOCs, PCBs, Total Fe and Cr, Cr^{6+}	VOCs, PCBs, Total Fe and Cr, Cr^{6}+

bgs = below ground surface.
Cr6+ = Hexavalent Chromium.
Fe and Cr = Iron and Chromium.
NS= Not Sampled.
PCBs = Polychlorinated Biphenyls.
TAL = Target Analyte List.
VOCs = Volatile Organic Compounds.
1. Samples were collected for an evaluation of Site 4 groundwater. These results are included in Appendix E and were reviewed for this RI Addendum. It was concluded that these results from this sampling event would not effect the conclusion of this RI Addendum.

TABLE 2-9
HEXAVALENT CHROMIUM FIELD TEST KIT GROUNDWATER SAMPLE SUMMARY
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHAPGE, NEW YORK

Monitoring Well ID	Total Depth (feet bgs)	Screened Interval Depth (feet bgs)	November 2012 Sampling Event	February 2013 Sampling Event
TTAOC22-MW06	62	52 - 62	X	--
BPS1-FW-MW01	63.5	48.5-63.5	X	--
BPS1-FW-MW02	64	49-64	X	--
BPS1-FW-MW03	67	52-67	X	--
BPS1-HN-MW27I	110	100-110	X	--
BPS1-HN-MW29I	130.5	120-130	X	--
BPS1-TT-MW301S	61	51-61	X	--
BPS1-TT-MW301I	140	130-140	X	--
BPS1-TT-MW301D	220	210-220	X	X
BPS1-TT-MW302I1	120	110-120	X	--
BPS1-TT-MW302I2	150	140-150	X	--
BPS1-TT-MW302D	213	203-213	X	--
BPS1-TT-MW303S	56	46-56	X	--
BPS1-TT-MW303I1	105	95-105	X	--
BPS1-TT-MW303I2	156	146-156	X	--
BPS1-TT-MW303D	218	208-218	X	--
BPS1-TT-MW304S	53	43-53	X	--
BPS1-TT-MW304I1	112	102-112	X	--
BPS1-TT-MW304I2	150	140-150	X	--
BPS1-TT-MW304D	190	180-190	X	--
BPS1-TT-MW305S	50	40-50	X	--
BPS1-TT-MW305I	200	190-200	X	--
BPS1-TT-MW306I	199	189-199	X	--
BPS1-TT-MW306D	294	284-294	X	--
BPS1-TT-MW307I	198	188-198	X	--
BPS1-TT-MW307D	286	276-286	X	--
BPS1-TT-MW308S	64	54-64	X	X
BPS1-TT-MW308I	166	156-166	X	X
BPS1-TT-MW308D	260	250-260	X	X
BPS1-TT-MW309S	63	53-63	X	X
BPS1-TT-MW309I	170	160-170	X	X
BPS1-TT-MW309D	262	252-262	X	X
BPS1-TT-MW310S	*68*	57.5-67.5	X	X
BPS1-TT-MW311S	*65*	55-65	X	X
BPS1-TT-MW311I	*170*	160-170	X	X
BPS1-TT-MW312S	*63*	53-63	X	X
BPS1-TT-MW312I	*170*	160-170	X	X
BPS1-TT-MW313S	*63*	53-63	X	X
BPS1-TT-MW314S	*65*	55-65	X	X
BPS1-TT-MW314I	*154*	144-154	X	X

bgs = below ground surface.
-- = Not sampled.
X = Sample was analyzed in the field using a hexavalent chromium test kit (HACH Method 8023).

TABLE 2-10
SVE AND SVPM CONSTRUCTION DETAILS
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHAPGE, NEW YORK

Well ID	Total Depth (feet bgs)	Screened Interval Depth (feet bgs)
SVE-101I	35	25 - 35
SVE-101D	60	40 - 60
SVE-102I	35	25 - 35
SVE-102D	60	40 - 60
SVE-103I	35	25 - 35
SVE-103D	60	40 - 60
SVE-104I	35	25 - 35
SVE-104D	60	40 - 60
SVE-105I	35	25 - 35
SVE-105D	60	40 - 60
SVE-106I	35	25 - 35
SVE-106D	60	40 - 60
SVPM-2001S	10	9.5 - 10
SVPM-2001I	25	24.5 - 25
SVPM-2001D	45	44.5 - 45
SVPM-2002S	10	8 - 10
SVPM-2002I	25	23 - 25
SVPM-2002D	44	42 -44
SVPM-2003S	10	9.5 - 10
SVPM-2003I	25	23 - 25
SVPM-2003D	45	43 - 45
SVPM-2004S	10	9.5 - 10
SVPM-2004I	25.5	23.5 - 25.5
SVPM-2004D	42	40 - 42
SVPM-2006S	10	9.5 - 10
SVPM-2006I	25	24.5 - 25
SVPM-2006D	45	44.5 - 45
SVPM-2007S	10	9.5 - 10
SVPM-2007IR	25	24.5 - 25
SVPM-2007D	42	40 - 42

Deep = Deep.
bgs = below ground surface.
I = Intermediate.
S = Shallow.
SVE = Soil Vapor Extraction.
SVPM = Soil Vapor Pressure Monitor.
R = Reinstalled.

TABLE 3-1
GROUNDWATER ELEVATION SUMMARY
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

Well	Total Depth (feet bgs)	Screened Interval Depth (feet bgs)	Dec. 2010 Water Level (feet BTOC)	Mar. 2011 Water Level (feet BTOC)	Jan. 2012 Water Level (feet BTOC)	Nov. 2012 Water Level (feet BTOC)	April 2013 Water Level (feet BTOC)	Ground Surface Elevation (feet MSL)	Previous TOC Elevation (feet MSL)[2]	Current TOC Elevation (feet MSL)	Dec. 2010 Water Level (feet MSL)	Mar. 2011 Water Level (feet MSL)	Jan. 2012 Water Level (feet MSL)	Nov. 2012 Water Level (feet MSL)	April 2013 Water Level (feet MSL)
BPS1-FW-MW01	63.5	48.5-63.5[1]	53.89	54.52	52.25	54.59	54.49	123.57	--	126.1	72.21	71.58	73.85	71.51	71.61
BPS1-FW-MW02	64	49-64[1]	54.53	55.15	52.89	55.19	55.13	124.23	--	126.85	72.32	71.70	73.96	71.66	71.72
BPS1-FW-MW03	67	52-67[1]	53.02	53.64	51.39	53.66	53.65	122.86	--	125.46	72.44	71.82	74.07	71.80	71.81
BPS1-HN-MW27I	110	100-110	--	--	--	54.45	54.41	124.43	--	126.51	--	--	--	72.06	72.10
BPS1-HN-MW29I	130.5	120-130	43.82	44.34	42.15	44.4	44.39	116.06	--	115.37	71.55	71.03	73.22	70.97	70.98
BPS1-HN-MW29D	220	210-220	44.04	44.53	42.33	--	44.62	116.07	--	115.5	71.46	70.97	73.17	--	70.88
BPS1-TT-MW301S	62	51-61	55.77	56.06	51.24	53.51	53.63	126.38	128.88	126.00	73.11	72.82	74.76	72.49	72.37
BPS1-TT-MW301I	140	130-140	55.71	56.07	51.08	53.45	53.39	126.04	128.48	125.56	72.77	72.41	74.48	72.11	72.17
BPS1-TT-MW301D	220	210-220	56.48	56.91	51.81	54.2	54.08	126.32	128.9	125.93	72.42	71.99	74.12	71.73	71.85
BPS1-TT-MW302S	51	41-51	44	44.61	42.38	44.61	44.7	116.32	--	116.01	72.01	71.40	73.63	71.40	71.31
BPS1-TT-MW302I1	120	110-120	44.07	44.63	42.43	44.63	44.75	116.32	--	115.91	71.84	71.28	73.48	71.28	71.16
BPS1-TT-MW302I2	150	140-150	44.36	44.88	42.69	44.91	45	116.33	--	115.91	71.55	71.03	73.22	71.00	70.91
BPS1-TT-MW302D	213	203-213	44.66	45.18	42.96	45.16	45.28	116.35	--	116.08	71.42	70.90	73.12	70.92	70.80
BPS1-TT-MW303S	58	46-56	43.71	44.36	42.13	--	44.39	116.06	--	115.65	71.94	71.29	73.52	--	71.26
BPS1-TT-MW303I1	105	95-105	44.15	44.74	42.5	44.76	44.78	116.08	--	115.83	71.68	71.09	73.33	71.07	71.05
BPS1-TT-MW303I2	156	146-156	44.53	45.05	42.84	45.11	45.16	116.15	--	115.89	71.36	70.84	73.05	70.78	70.73
BPS1-TT-MW303D	218	208-218	44.71	45.21	43.01	45.26	45.32	116.2	--	115.94	71.23	70.73	72.93	70.68	70.62
BPS1-TT-MW304S	53	43-53	47.66	48.26	46.03	48.33	48.27	116.49	--	119.13	71.47	70.87	73.10	70.80	70.86
BPS1-TT-MW304I1	112	102-112	47.91	48.54	46.26	48.58	48.49	116.77	--	119.27	71.36	70.73	73.01	70.69	70.78
BPS1-TT-MW304I2	150	140-150	48.16	48.72	46.45	48.75	48.7	116.7	--	119.18	71.02	70.46	72.73	70.43	70.48
BPS1-TT-MW304D	190	180-190	48.32	48.86	46.6	48.93	48.87	116.67	--	119.19	70.87	70.33	72.59	70.26	70.32
BPS1-TT-MW305S	50	40-50	--	--	42.96	45.09	45.23	116.52	--	116.04	--	--	73.08	70.95	70.81
BPS1-TT-MW305I	200	190-200	--	--	43.55	45.65	45.85	116.38	--	116.16	--	--	72.61	70.51	70.31
BPS1-TT-MW305D	296	286-296	--	--	43.78	45.94	46.16	116.25	--	115.94	--	--	72.16	70.00	69.78
BPS1-TT-MW306S	60	50-60	--	--	44.9	47.16	47.18	115.33	--	117.82	--	--	72.92	70.66	70.64
BPS1-TT-MW306I	199	189-199	--	--	45.34	44.5	47.64	115.45	--	117.76	--	--	72.42	73.26	70.12
BPS1-TT-MW306D	294	284-294	--	--	46.04	44.95	48.35	115.59	--	118.06	--	--	72.02	73.11	69.71
BPS1-TT-MW307S	50.5	40.5-50.5	--	--	41.81	46.82	44	114.59	--	114.39	--	--	72.58	67.57	70.39
BPS1-TT-MW307I	198	188-198	--	--	42.21	47.53	44.47	114.67	--	114.16	--	--	71.95	66.63	69.69
BPS1-TT-MW307D	286	276-286	--	--	42.66	48.26	44.96	114.85	--	114.42	--	--	71.76	66.16	69.46
BPS1-TT-MW308S	64	54-64	--	--	55.54	58.2	57.91	128.586	--	131.05	--	--	75.51	72.85	73.14
BPS1-TT-MW308I	166	156-166	--	--	55.7	58.16	58.02	128.58	--	130.73	--	--	75.03	72.57	72.71
BPS1-TT-MW308D	260	250-260	--	--	56.27	58.69	58.53	128.78	--	130.98	--	--	74.71	72.29	72.45
BPS1-TT-MW309S	63	53-63	--	--	55.82	58.15	58.18	129.41	--	131.77	--	--	75.95	73.62	73.59
BPS1-TT-MW309I	170	160-170	--	--	56.45	58.93	58.78	129.44	--	131.83	--	--	75.38	72.90	73.05
BPS1-TT-MW309D	262	252-262	--	--	56.39	58.88	58.68	129.42	--	131.52	--	--	75.13	72.64	72.84
BPS1-TT-MW310S	68	57.5-67.5	--	--	--	55.96	55.86	127.42	--	129.5	--	--	--	73.54	73.64

TABLE 3-1
GROUNDWATER ELEVATION SUMMARY
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

Well	Total Depth (feet bgs)	Screened Interval Depth (feet bgs)	Dec. 2010 Water Level (feet BTOC)	Mar. 2011 Water Level (feet BTOC)	Jan. 2012 Water Level (feet BTOC)	Nov. 2012 Water Level (feet BTOC)	April 2013 Water Level (feet BTOC)	Ground Surface Elevation (feet MSL)	Previous TOC Elevation (feet MSL)[2]	Current TOC Elevation (feet MSL)	Dec. 2010 Water Level (feet MSL)	Mar. 2011 Water Level (feet MSL)	Jan. 2012 Water Level (feet MSL)	Nov. 2012 Water Level (feet MSL)	April 2013 Water Level (feet MSL)
BPS1-TT-MW311S	65	55-65	--	--	--	56.93	56.81	128.01	--	130.23	--	--	--	73.30	73.42
BPS1-TT-MW311I	170	160-170	--	--	--	57.23	57.09	128.23	--	130.34	--	--	--	73.11	73.25
BPS1-TT-MW312S	63	53-63	--	--	--	56.14	56.14	127.74	--	129.81	--	--	--	73.67	73.67
BPS1-TT-MW312I	170	160-170	--	--	--	56.91	56.84	127.72	--	129.95	--	--	--	73.04	73.11
BPS1-TT-MW313S	63	53-63	--	--	--	56.39	56.28	127.48	--	129.76	--	--	--	73.37	73.48
BPS1-TT-MW314S	65	55-65	--	--	--	56.89	56.73	126.15	--	128.6	--	--	--	71.71	71.87
BPS1-TT-MW314I	154	144-154	--	--	--	57.8	56.95	126.28	--	128.69	--	--	--	70.89	71.74
BPS1-RA-MW02	68	58-68	49.46	49.93	47.79	--	--	--	--	122.47	73.01	72.54	74.68	--	--
BPS1-RA-MW04	68	58-68	43.34	43.91	--	--	--	--	--	--	--	--	--	--	--

-- = Not collected.
bgs = below ground surface.
BTOC = Below top of casing.
MSL = Mean sea level.
[1] Top of Casing Measurement.
[2] Well was converted from a stick up to a flushmount.

TABLE 4-1
POSITIVE DETECTION
SEDIMENT SAMPLE RESULTS
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

PCB	Maximum Detection (µg/kg)	Location of Maximum Detection	Frequency of Detection	USEPA Resident Sediment RSL[1] (µg/kg)	Frequency of USEPA RSL Exceedance
Aroclor 1248	4,600 J	BPS1-SB3066	4 of 4	2,400	2 of 4

J = estimated.
PCB = Polychlorinated Biphenyls.
RSL = Regional Screening Level.
USEPA = United States Environmental Protection Agency.
µg/kg = micrograms per kilogram.
1. USEPA RSLs for Chemical Contaminants at Superfund Sites, May 2014.
Residential Soil Criteria multiplied by a factor of 10 to account for restricted access.

TABLE 4-2
POSTIVE DETECTION
SURFACE WATER SAMPLE RESULTS
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

PCB	Maximum Detection (µg/L)	Location of Maximum Detection	Frquency of Detection	NYSDOH MCL[1] (µg/L)	Frequency of NYSDOH MCL Exceedance	USEPA Tapwater RSL[2] (µg/L)	Frequency of USEPA Tapwater RSL Exceedance	USEPA MCL[3] (µg/L)	Frequency of USEPA MCL Exceedance
Aroclor 1242	0.11 J	BPS1-SW01	2 of 5	--	--	0.039	2 of 5	--	--
Aroclor 1248	0.35 J	BPS1-SW3001	1 of 5	--	--	0.039	1 of 5	--	--
Total PCBs	0.35 J	BPS1-SW3001	3 of 5	0.5	0 of 5	--	--	0.5	0 of 5

J = estimated.
MCL = Maximum Contaminant Level.
NYSDOH = New York State Department of Health.
PCBs = Polychlorinated Biphenyls.
RSL = Regional Screening Level.
USEPA = United States Environmental Protection Agency.
µg/L = micrograms per liter.
-- = Not Applicable.
1. NYSDOH Part 5, Subpart 5-1 Public Water Systems, Table 3 Organic Chemicals, MCL Determination, March 2010.
2. USEPA RSLs for Chemical Contaminants at Superfund Sites, May 2014.
3. USEPA 2012 Edition of the Drinking Water Standards and Health Advisories, April 2012.

TABLE 4-3
POSITIVE DETECTION
SURFACE SOIL (0 TO 2 FEET BGS) SAMPLE RESULTS
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

PCB	Maximum Detection (µg/kg)	Location of Maximum Detection	Frequency of Detection	NYSDEC Residential SCO[1] (µg/kg)	Frequency of NYSDEC SCO Exceedance	USEPA Resident Soil RSL[2] (µg/kg)	Frequency of USEPA RSL Exceedance
Site 1							
Aroclor 1248	150,000	BPS1-SB3053	39 of 39	--	--	240	33 of 39
Aroclor 1254	28,000	BPS1-SB3044	31 of 39	--	--	240	25 of 39
Aroclor 1262	210	BPS1-SB3047	1 of 39	--	--	240[3]	0 of 39
Total PCBs	150,000	BPS1-SB3053	39 of 39	1,000	25 of 39	--	--
Site 1 - Southern Delineation Samples							
Aroclor 1248	330 J	BPS1-SB3037	1 of 3	--	--	240	1 of 3
Aroclor 1254	530 J	BPS1-SB3037	3 of 3	--	--	240	1 of 3
Total PCBs	860	BPS1-SB3037	3 of 3	1,000	0 of 3	--	--

bgs = below ground surface.
J = estimated.
NYSDEC = New York State Department of Environmental Conservation.
PCBs = Polychlorinated Biphenyls.
RSL = Regional Screening Level.
SCO = Soil Cleanup Objective.
USEPA = United States Environmental Protection Agency.
µg/kg = micrograms per kilogram.
-- = Not Applicable.
1. NYSDEC SCOs for Restricted Residential Use, December 2006. The screening criteria listed is for total PCBs.
2. USEPA RSLs for Chemical Contaminants at Superfund Sites, May 2014.
3. Value is for Aroclor 1260.
Surface samples were not collected at Dry Well 20 08 and Dry Well 34 07.

TABLE 4-4
POSITIVE DETECTION
SHALLOW SUBSURFACE SOIL (2 TO 15 FEET BGS) SAMPLE RESULTS
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

PCBs	Maximum Detection (µg/kg)	Location of Maximum Detection	Depth of Maximum Detection (feet bgs)	Frequency of Detection	NYSDEC Residential SCO[1] (µg/kg)	Frequency of NYSDEC SCO Exceedance	USEPA Resident Soil RSL[2] (µg/kg)	Frequency of USEPA RSL Exceedance
Site 1								
Aroclor 1242	560	BPS1-SB3013	5 to 10	1 of 53	--	--	240	1 of 53
Aroclor 1248	21,000	BPS1-SB3015	2 to 5	28 of 53	--	--	240	7 of 53
Aroclor 1254	13,000	BPS1-SB3015	2 to 5	23 of 53	--	--	240	6 of 53
Total PCBs	34,000	BPS1-SB3015	2 to 5	32 of 53	10,000	2 of 53	--	--
Site 1 - Southern Delineation Samples								
Aroclor 1248	380	BPS1-SB3037	2 to 5	2 of 9	--	--	240	1 of 9
Aroclor 1254	140	BPS1-SB3037	2 to 5	2 of 9	--	--	240	1 of 9
Total PCBs	520	BPS1-SB3037	2 to 5	2 of 9	10,000	0 of 9	--	--
Site 1 - Northern Delineation Samples								
Aroclor 1248	160 J	BPS1-SB3068	5 to 10	12 of 21	--	--	240	0 of 21
Aroclor 1254	7.6 J	BPS1-SB3068	10 to 13	3 of 21	--	--	240	0 of 21
Total PCBs	160 J	BPS1-SB3068	5 to 10	15 of 21	10,000	0 of 21	--	--
Dry Well 34-07								
Aroclor 1248	180 J	BPS1-SB3029	2 to 5	3 of 3	--	--	240	0 of 3
Aroclor 1254	58 J	BPS1-SB3029	2 to 5	2 of 3	--	--	240	0 of 3
Total PCBs	238 J	BPS1-SB3029	2 to 5	3 of 3	10,000	0 of 3	--	--

bgs = below ground surface.
J = estimated.
NYSDEC = New York State Department of Environmental Conservation.
PCBs = Polychlorinated Biphenyls.
RSL = Regional Screening Level.
SCO = Soil Cleanup Objectives.
USEPA = United States Environmental Protection Agency.
µg/kg = micrograms per kilogram.
-- = Not Applicable.
1. NYSDEC SCO for Restricted Residential Use, December 2006. The screening criteria listed is for total PCBs.
2. USEPA RSLs for Chemical Contaminants at Superfund Sites, May 2014.
Shallow subsurface samples were not collected at Dry Well 20-08.

TABLE 4-5
POSITIVE DETECTION
DEEP SUBSURFACE SOIL (15 TO 50 FEET BGS) SAMPLE RESULTS
SITE 1 - FORMER DRUM MARSHALLING AREA
NWRIP BETHPAGE, NEW YORK

PCBs	Maximum Detection (µg/kg)	Location of Maximum Detection	Depth of Maximum Detection (feet bgs)	Frequency of Detection	NYSDEC SCO Residential SCO[1] (µg/kg)	Frequency of NYSDEC Residential SCO Exceedance	NYSDEC SCO Protection of Groundwater[1] (µg/kg)	Frequency of NYSDEC SCO Exceedance	USEPA Resident RSL[2] (µg/kg)	Frequency of USEPA Resident RSL Exceedance	USEPA RSL Protection of Groundwater[2] (µg/kg)	Frequency of USEPA RSL Exceedance
Site 1												
Aroclor 1242	18 J	BPS1-SB3005	43 to 43.5	1 of 50	--	--	--	--	240	0 of 50	6.1	1 of 50
Aroclor 1248	15,000 J	BPS1-SB3006	32 to 32.5	9 of 50	--	--	--	--	240	1 of 50	6	10 of 50
Aroclor 1254	27 J	BPS1-SB3020	25 to 30	3 of 50	--	--	--	--	240	0 of 50	10	3 of 50
Total PCBs	15,000 J	BPS1-SB3006	32 to 32.5	11 of 50	10,000	1 of 50	3,200	1 of 50	--	--	--	--
Site 1 Southern Delineation Samples												
Aroclor 1248	ND	--	--	0 of 5	--	--	--	--	240	0 of 5	6	0 of 5
Aroclor 1254	ND	--	--	0 of 5	--	--	--	--	240	0 of 5	10	0 of 5
Total PCBs	ND	--	--	0 of 5	10,000	0 of 5	3,200	0 of 5	--	--	--	--
Site 1 - Northern Delineation Samples												
Aroclor 1248	19 J	BPS1-SB3062	15 to 20	7 of 25	--	--	--	--	240	0 of 25	6	5 of 25
Aroclor 1254	11 J	BPS1-SB3066	15 to 20	2 of 25	--	--	--	--	240	0 of 25	10	1 of 25
Total PCBs	19 J	BPS1-SB3062	15 to 20	9 of 25	10,000	0 of 25	3,200	0 of 25	--	--	--	--
Dry Well 20-08												
Aroclor 1248	3,000,000	BPS1-SB3072	25 to 30	18 of 27	--	--	--	--	240	12 of 27	6	18 of 27
Total PCBs	3,000,000	BPS1-SB3072	25 to 30	18 of 27	10,000	6 of 27	3,200	7 of 27	--	--	--	--
Dry Well 34-07												
Aroclor 1248	28,000	BPS1-SB3029	25 to 35	7 of 10	--	--	--	--	240	6 of 10	6	7 of 10
Total PCBs	28,000	BPS1-SB3029	25 to 35	7 of 10	10,000	2 of 10	3,200	2 of 10	--	--	--	--

bgs = Below ground surface.
J = estimated.
NYSDEC = New York State Department of Environmental Conservation.
PCBs = Polychlorinated Biphenyls.
RSLs = Regional Screening Levels.
SCOs = Soil Cleanup Objectives.
USEPA = United States Environmental Protection Agency.
µg/kg = micrograms per kilogram.
-- = Not Applicable.
1. NYSDEC SCO for Residentail Use and Protection of groundwater, December 2006. The screening criteria listed is for total PCBs.
2. USEPA RSLs for Chemical Contaminants at Superfund Sites, May 2014.

TABLE 4-6
POSITIVE DETECTION
SATURATED SUBSURFACE SOIL (GREATER THAN 50 FEET BGS) SAMPLE RESULTS
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

PCBs	Maximum Detection (µg/kg)	Location of Maximum Detection	Depth of Maximum Detection (feet bgs)	Frequency of Detection	NYSDEC SCO Residential SCO[1] (µg/kg)	Frequency of NYSDEC Residential SCO Exceedance	NYSDEC SCO Protection of Groundwater[1] (µg/kg)	Frequency of NYSDEC SCO Exceedance	USEPA RSL Protection of Groundwater[2] (µg/kg)	Frequency of USEPA RSL Exceedance
Site 1										
Aroclor 1242	160,000 J	BPS1-SB3005	54.5 to 55	2 of 35	--	--	--	--	6.1	2 of 35
Aroclor 1248	220	BPS1-SB3006	53 to 53.5	9 of 35	--	--	--	--	6	8 of 35
Aroclor 1254	910 J	BPS1-SB3005	54.5 to 55	2 of 35	--	--	--	--	10	2 of 35
Total PCBs	160,910 J	BPS1-SB3005	54.5 to 55	11 of 35	10,000	2 of 35	3,200	2 of 35	--	--
Site 1 -Southern Delineation Samples										
Aroclor 1242	14 J	BPS1-SB3012	203 - 203.5	1 of 4	--	--	--	--	6.1	1 of 4
Total PCBs	14 J	BPS1-SB3012	203 - 203.5	1 of 4	10,000	0 of 4	3,200	0 of 4	--	--
Site 1 - Northern Delineation Samples										
Aroclor 1248	17 J	BPS1-SB3073	60 to 65	3 of 4	--	--	--	--	6	3 of 4
Total PCBs	17 J	BPS1-SB3073	60 to 65	3 of 4	10,000	0 of 4	3,200	0 of 4	--	--
Dry Well 20-08										
Aroclor 1248	8,100	BPS1-SB3026	55 to 65	5 of 9	--	--	--	--	6	5 of 9
Total PCBs	8,100	BPS1-SB3026	55 to 65	5 of 9	10,000	0 of 9	3,200	0 of 9	--	--
Dry Well 34-07										
Aroclor 1248	260 J	BPS1-SB3009	51 to 51.5	2 of 9	--	--	--	--	6	2 of 9
Total PCBs	260 J	BPS1-SB3009	51 to 51.5	2 of 9	10,000	0 of 9	3,200	0 of 9	--	--

bgs = Below ground surface.
J = estimated.
NYSDEC = New York State Department of Environmental Conservation.
PCBs = Polychlorinated Biphenyls.
RSL = Regional Screening Level.
SCO = Soil Cleanup Objective.
USEPA = United States Environmental Protection Agency.
µg/kg = micrograms per kilogram.
-- Not Applicable.
1. NYSDEC SCOs for Protection of groundwater, December 2006. The screening criteria listed is for total PCBs.
2. USEPA RSLs for Chemical Contaminants at Superfund Sites, May 2014

TABLE 4-7
POSITIVE DETECTION
SHALLOW MONITORING WELL SAMPLE RESULTS
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

	Maximum Detection (µg/L)	Location of Maximum Detection	Screen Depth of Maximum Detection (feet bgs)	Frequency of Detection	NYSDOH MCLs[1] (µg/L)	Frequency of Wells with Exceedances of NYSDOH MCL	USEPA Tap Water RSL [2]	Frequency of Wells with Exceedances of USEPA RSLs
VOLATILES								
1,1,1-Trichloroethane	23	BPS1-FW-MW01	48.5 to 63.5	6 of 20	5	1 of 20	8,000	0 of 20
cis-1,2-Dichloroethene	110	BPS1-FW-MW01	48.5 to 63.5	3 of 20	5	1 of 20	36	1 of 20
Tetrachloroethene	550	BPS1-FW-MW01	48.5 to 63.5	9 of 20	5	3 of 20	11	3 of 20
Trichloroethene	41	BPS1-FW-MW01	48.5 to 63.5	11 of 20	5	2 of 20	0.49	8 of 20
PCBS								
Aroclor-1242	14 J	BPS1-TT-MW301S	51 to 61	6 of 20	--	--	0.039	6 of 20
Aroclor-1248	10	BPS1-TT-MW301S	51 to 61	13 of 20	--	--	0.039	12 of 20
Total PCBs	14 J	BPS1-TT-MW301S	51 to 61	13 of 20	0.5	5 of 20	--	--
METALS								
Chromium	160	TT-AOC22-MW10	52 to 62	20 of 20	100	1 of 20	22,000	0 of 20
Hexavalent Chromium	158	TT-AOC22-MW10	52 to 62	15 of 20	100	1 of 20	0.035	15 of 20

bgs = Below ground surface.
J = Estimated Value.
MCL = Maximum Contaminant Level.
NYSDOH = New York State Department of Health.
USEPA = United States Environmental Protection Agency.
µg/L= micrograms per liter.
1. (NYSDOH, 2006) New York Public Supply Regulations, 10 New York Code, Rules and Regulations (NYCRR) Part 5, Subpart 5-1 Public Water Systems, Table 3-Organic Chemicals MCL Determination and Table 9D - Organic Chemicals - Principal Organic Contaminants. Federal MCLs for trichloroethene, tetrachloroethene, PCBs, and chromium are the same as the NYSDOH MCLs, but are less stringent for 1,1,1-trichloroethane and cis-1,2-dichloroethane.
2. USEPA RSLs for Chemical Contaminants at Superfund Sites, May 2014. Incremental lifetime cancer risk of $1x10^{-6}$ or hazard quotient of 1.0.
Other VOCs including methy-tert butyl ether, trans-1,2-dichloroethene, benzene, ethylbenzene, isopropylbenzene, freon 113, and choroform were detected, but at concentrations less than MCLs.

TABLE 4-8
POSITIVE DETECTION SUMMARY
INTERMEDIATE MONITORING WELL EXCEEDANCE
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

	Maximum Detection (µg/L)	Location of Maximum Detection	Screen Depth of Maximum Detection (feet bgs)	Frequency of Detection	NYSDOH MCLs[1] (µg/L)	Frequency of Wells with Exceedances of NYSDOH MCL	USEPA Tap Water RSL [2]	Frequency of Wells with Exceedances of USEPA RSL
VOLATILES								
1,1,1-Trichloroethane	15	BPS1-TT-MW304I1	102 to 112	4 of 17	5	1 of 17	8,000	0 of 17
1,1-Dichloroethane	6.9	BPS1-TT-MW304I1	102 to 112	6 of 17	5	1 of 17	2.7	3 of 17
1,4-Dioxane	81 J	BPS1-TT-MW305I	190 to 200	2 of 17	50	1 of 17	0.78	2 of 17
cis-1,2-Dichloroethene	85	BPS1-TT-MW304I1	102 to 112	4 of 17	5	3 of 17	36	1 of 17
Tetrachloroethene	120	BPS1-TT-MW303I1	95 to 105	8 of 17	5	4 of 17	11	3 of 17
Trichloroethene	3,900	BPS1-TT-MW305I	190 to 200	12 of 17	5	4 of 17	0.49	11 of 17
PCBS								
Aroclor-1242	3.9	BPS1-TT-MW303I1	95 to 105	10 of 17	--	--	0.039	10 of 17
Aroclor-1248	3	BPS1-TT-MW303I1	189 to 199	17 of 17	--	--	0.039	17 of 17
Total PCBs	3.9	BPS1-TT-MW303I1	189 to 199	17 of 17	0.5	13 of 17	--	--
METALS								
Chromium	182	BPS1-TT-MW304I2	140 to 150	17 of 17	100	1 of 17	22,000	0 of 17
Hexavalent Chromium	200	BPS1-TT-MW304I2	140 to 150	13 of 17	100	1 of 17	0.035	14 of 17

bgs = Below ground surface.
J = Estimated Value.
MCL = Maximum Contaminant Level.
NYSDOH = New York State Department of Health.
USEPA = United States Environmental Protection Agency.
µg/L= micrograms per liter.
1. (NYSDOH, 2006) New York Public Supply Regulations, 10 New York Codes, Rules, and Regulations (NYCRR) Part 5, Subpart 5-1 Public Water Systems, Table 3-Organic Chemicals MCL Determination and Table 9D - Organic Chemicals - Principal Organic Contaminants.
2. USEPA RSLs for Chemical Contaminants at Superfund Sites, May 2014. Incremental lifetime cancer risk of $1x10^{-6}$ or hazard quotient of 1.0.
Other VOCs including carbon tetrachloride, bromomethane, chloromethane, toluene, freons 11 and 113, 1,1-dichloroethane, 1,1-dichloroethene, and choroform were detected, but at concentrations less than MCLs.

TABLE 4-9
POSITIVE DETECTION
DEEP MONITORNG WELL SAMPLE RESULTS
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

	Maximum Detection (µg/L)	Location of Maximum Detection	Screen Depth of Maximum Detection (feet bgs)	Frequency of Detection	NYSDOH MCLs [1]	Frequency of Wells with Exceedances of NYSDOH MCL	USEPA Tap Water RSL [2]	Frequency of Wells with Exceedances of USEPA RSL
VOLATILES								
Trichloroethene	200	BPS1-TT-MW305D	286 - 296	7 of 9	5	2 of 9	0.49	7 of 9
PCBS								
Aroclor-1242	4 J	BPS1-TT-MW304D	180 - 190	8 of 9	--	--	0.039	8 of 9
Aroclor-1248	4.2	BPS1-TT-MW304D	180 - 190	7 of 9	--	--	0.039	7 of 9
Total PCBs	4.2	BPS1-TT-MW304D	180 - 190	8 of 9	0.5	6 of 9	--	--
METALS								
Chromium	92	BPS1-TT-MW301D	210 - 220	9 of 9	100	0 of 9	22,000	0 of 9
Hexavalent Chromium	100*	BPS1-TT-MW303D	208 - 218	5 of 9	100	1 of 9	0.035	5 of 9

Other VOCs including 1,1,1-trichlorothane, tetrachloroethene, cis-1,2-dichloroethene, toluene, freons 11, 12, and 113, 1,1-dichloroethane, 1,1-dichloroethene, and choroform were detected, but at concentrations less than MCLs.

* = Result is from a field test kit.
bgs = Below ground surface.
J = Estimated value.
MCL = Maximum Contaminant Level.
NYSDOH = New York State Department of Health.
RSL = Regional Screening Level.
USEPA = United States Protection Agency.
µg/L= micrograms per liter.
1. (NYSDOH, 2006) New York Public Supply Regulations, 10 New York Code, Rules, and Regulations (NYCRR) Part 5, Subpart 5-1 Public Water Systems, Table 3-Organic Chemicals MCL Determination and Table 9D - Organic Chemicals - Principal Organic Contaminants. Federal MCLs for trichloroethene, tetrachloroethene, PCBs, and chromium are the same as the NYSDOH MCLs, but are less stringent for 1,1,1-trichloroethane and cis-1,2-dichloroethane.
2. USEPA RSLs for Chemical Contaminants at Superfund Sites, May 2014. Incremental lifetime cancer risk of $1x10^{-6}$ or hazard quotient of 1.0.

TABLE 4-10
POSITIVE DETECTION
SVE WELL SAMPLE RESULTS
SITE 1- FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

Volatile Organic Compounds	Maximum Detection ($\mu g/m^3$)	Location of Maximum Detection	Frequency of Detection	NYSDOH Subslab Screening Value [1] ($\mu g/m^3$)	Frequency of Exceedance of Subslab NYSDOH Value	NYSDEC Ambient Air Guideline ($\mu g/m^3$)[2]	Frequency of Exceedance of NYSDEC Ambient Air Guideline	USEPA Indoor Air - Residential RSLs[3] ($\mu g/m^3$)	Frequency of Exceedance of USEPA - Residential RSLs
1,1,1•Trichloroethane	3,400	SVE-101I	4 of 12	1,000	1 of 12	--	--	5,200	0 of 12
1,1-Dichloroethane	110	SVE-105D	6 of 12	--	--	0.63	6 of 12	1.8	5 of 12
1,2-Dichloroethane	12 J	SVE-101I	1 of 12	--	--	0.038	1 of 12	0.11	1 of 12
1,4-Dichlorobenzene	0.48 J	SVE-104I	2 of 12	--	--	0.09	2 of 12	0.26	2 of 12
Benzene	3.7	SVE-106D	7 of 12	--	--	0.13	7 of 12	0.36	7 of 12
Carbon Tetrachloride	6.3 J	SVE-105D	2 of 12	250	0 of 12	0.17	2 of 12	0.47	2 of 12
Tetrachloroethene	4,200	SVE-104D	11 of 12	1,000	1 of 12	4	10 of 12	11	6 of 12
Trichloroethene	8,800	SVE-105D	11 of 12	250	3 of 12	0.2	11 of 12	0.48	11 of 12

J = Estimated value.
NYSDOH = New York State Departement of Health.
NYSDEC = New York State Department of Environmental Conservation.
RSL = Regional Screening Levels.
SVE = Soil Vapor Extraction. Data is from the January 2013 monthly sampling event.
USEPA = United States Environmental Protection Agency.
$\mu g/m^3$ = micrograms per cubic meter.
-- = Not Available.
1. Value derived from NYSDOH guidance (2006), Table 3.3 (Matrix 1 and 2).
2 NYSDEC Annual Guideline concentration (AGC), last revised February 28, 2014, Appendix C of DAR-1, Air Toxics Program.
3. USEPA Residential Air Regional Screening Levels, May 2014.

TABLE 4-11
POSITIVE DETECTION
SOIL VAPOR EXTRACTION SYSTEM INFLUENT SAMPLE RESULTS
SITE 1- FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

Volatile Organic Compounds	Maximum Detection ($\mu g/m^3$)	Date of Maximum Detection	Frequency of Detection	NYSDOH Subslab Screening Value [1] ($\mu g/m^3$)	Frequency of Exceedance of Subslab NYSDOH Value	NYSDEC Ambient Air Guideline ($\mu g/m^3$)[2]	Frequency of Exceedance of NYSDEC Ambient Air Guideline	USEPA Indoor Air - Residential RSLs[3] ($\mu g/m^3$)	Frequency of Exceedance of USEPA - Residential RSLs
1,1-Dichloroethane	24	Dec-12	13 of 13	--	--	0.63	13 of 13	1.8	13 of 13
1,2-Dichloroethane	1.5	Oct-12	10 of 13	--	--	0.038	10 of 13	0.11	10 of 13
1,2,4-Trichlorobenzene	4.3	Nov-12	2 of 13	--	--	--	--	2.1	2 of 13
Carbon Tetrachloride	4.6	Mar-13	13 of 13	250	0 of 13	0.17	13 of 13	0.47	13 of 13
Chloroform	7.7	Jul-13	13 of 13	--	--	14.7	0 of 13	0.12	13 of 13
Tetrachloroethene	925	Nov-12	13 of 13	1,000	0 of 13	4	13 of 13	11	13 of 13
Trichloroethene	1,350	Sep-12	13 of 13	250	6 of 13	0.2	13 of 13	0.48	13 of 13

NYSDOH = New York State Departement of Health.
NYSDEC = New York State Department of Environmental Conservation.
RSL = Regional Screening Levels.
SVE = Soil Vapor Extraction Well.
USEPA = United States Environmental Protection Agency.
$\mu g/m^3$ = micrograms per cubic meter.
-- = Not Available.
1. Value derived from NYSDOH guidance (2006), Table 3.3 (Matrix 1 and 2).
2 NYSDEC Annual Guideline concentration (AGC), last revised February 28, 2014, Appendix C of DAR-1, Air Toxics Program.
3. USEPA Residential Air Regional Screening Levels , May 2014.
Influent data from August 2012 through August 2013 was used for this Remedial Investigation Addendum.

TABLE 4-12
POSITIVE DETECTION
SVPM SAMPLE RESULTS
SITE 1- FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

Volatile Organic Compounds	Maximum Detection ($\mu g/m^3$)	Location of Maximum Detection	Frequency of Detection	NYSDOH Subslab Screening Value [1] ($\mu g/m^3$)	Frequency of Exceedance of NYSDOH Value	NYSDEC Ambient Air Guideline ($\mu g/m^3$)[2]	Frequency of Exceedance of NYSDEC Ambient Air Guideline	USEPA Indoor Air - Residential RSLs[3] ($\mu g/m^3$)	Frequency of Exceedance of USEPA - Residential RSLs
Benzene	12	SVPM-2002D	9 of 18	--	--	0.13	9 of 18	0.36	9 of 18
Chloroform	39	SVPM-2003I	6 of 18	--	--	14.7	6 of 18	0.12	6 of 18
Ethylbenzene	1.6 J	SVPM-2003S	3 of 18	--	--	1,000	0 of 18	1.1	2 of 18
Trichloroethene	47	SVPM-2006I	6 of 18	250	0 of 18	0.2	6 of 18	0.48	6 of 18

J = Estimated value.
NYSDOH = New York State Departement of Health.
NYSDEC = New York State Department of Environmental Conservation.
RSL = Regional Screening Levels.
SVPM = Soil Vapor Pressure Monitor.
USEPA = United States Environmental Protection Agency.
$\mu g/m^3$ = micrograms per cubic meter.
-- = Not Available.
1. Value derived from NYSDOH guidance (2006), Table 3.3 (Matrix 1 and 2).
2 NYSDEC Annual Guideline concentration (AGC), last revised February 28, 2014, Appendix C of DAR-1, Air Toxics Program.
3. USEPA Residential Air Regional Screening Levels, May 2014.

TABLE 6-1
SCREENING CRITERIA - SOIL
NWIRP BETHPAGE, NEW YORK

CAS No.	Chemical	USEPA Regional Screening Levels[1]	
		Direct Contact Residential	Protection of Groundwater
Volatile Organic Compounds (ug/kg)			
71-55-6	1,1,1-Trichloroethane	810,000 N	280 N
127-18-4	Tetrachloroethene	8,100 N	1.8 N
PCBs (ug/kg)			
53469-21-9	Aroclor-1242	240 C	6.1 C
12672-29-6	Aroclor-1248	240 C	6.0 C
11097-69-1	Aroclor-1254	110 N	10 C
11096-82-5	Aroclor-1260	240 C	27 C
37324-23-5	Aroclor-1262	240 C[2]	27 C[2]

1 - USEPA Regional Screening Level (RSL), May 2014. Carcinogenic values represent an incremental cancer risk of $1x10^{-6}$. The noncarcinogenic values correspond to a Target Hazard Quotient of 0.1.
2 - Values are for Aroclor-1262.

C - Carcinogenic.
CAS = Chemical Abstracts Service.
N - Noncarcinogenic.
SSL = Soil screening level.
USEPA = United States Environmental Protection Agency.
ug/kg = Micrograms per kilogram.

TABLE 6-2
SCREENING CRITERIA - GROUNDWATER
NWIRP BETHPAGE, NEW YORK

CAS No.	Parameter	USEPA Regional Screening Level[1] Tap Water	USEPA Maximum Contaminant Level[2]
Metals (ug/L)			
7429-90-5	Aluminum	2,000 N	NA
7440-38-2	Arsenic	0.052 C	10
7440-39-3	Barium	380 N	2000
7440-43-9	Cadmium	0.92 N	5
7440-70-2	Calcium	NA	NA
7440-47-3	Chromium	0.035 C[3]	100 [4]
7440-48-4	Cobalt	0.6 N	NA
7440-50-8	Copper	80 N	1300
7439-89-6	Iron	1,400 N	NA
7439-92-1	Lead	15 [5]	15 [5]
7439-95-4	Magnesium	NA	NA
7439-96-5	Manganese	43 N	NA
7440-02-0	Nickel	39 N	NA
7440-09-7	Potassium	NA	NA
7440-22-4	Silver	9.4 N	NA
7440-23-5	Sodium	NA	NA
7440-28-0	Thallium	0.02 N	NA
7440-62-2	Vanadium	8.6 N	NA
7440-66-6	Zinc	600 N	NA
Miscellaneous Parameters (ug/L)			
18540-29-9	Hexavalent Chromium	0.035 C[3]	NA
PCBs (ug/L)			
53469-21-9	Aroclor-1242	0.039 C	0.5
12672-29-6	Aroclor-1248	0.039 C	0.5

1 - USEPA Regional Screening Levels (RSLs) for Chemical Contaminants at Superfund Sites, May, 2014. [Cancer benchmark value = 1E-06, Hazard index (HI) = 0.1].
2 - 2012 Edition of the Drinking Water Standards and Health Advisories (USEPA, April 2012).
3 - Values are for hexavalent chromium.
4 - Value is for total chromium.
5 - The MCL for this parameter is actually a treatment technique. The Safe Drinking Water Act action level (at the tap) has been presented.
C = Carcinogenic.
CAS = Chemical Abstract Service.
N = Noncarcinogenic.
NA = Not available.
ug/L = Microgram per liter.
USEPA = United States Environmental Protection Agency.

TABLE 6-3
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - DIRECT CONTACT WITH SURFACE SOIL (0 - 2 FEET BGS)
NWIRP BETHPAGE, NEW YORK

CAS Number	Chemical	Minimum Concentration(1)	Maximum Concentration(1)	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects(2)	Concentration Used for Screening(3)	Range of Background Concentrations(4)	USEPA RSL Residential Soil(5)	Potential ARAR/TBC	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection(6)
PCBs														
12672-29-6	**Aroclor-1248**	24 J	150,000	ug/kg	BPS1-SB3053-0002	39/39	-	150,000	NA	**240 C**	NA	NA	**Yes**	ASL
11097-69-1	**Aroclor-1254**	11 J	28,000	ug/kg	BPS1-SB3044-0002	29/39	53 - 15000	28,000	NA	**110 N**	NA	NA	**Yes**	ASL
37324-23-5	Aroclor-1262	210 J	210 J	ug/kg	BPS1-SB3047-0002	1/39	13 - 15000	210	NA	240 N(7)	NA	NA	No	BSL

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - No background data is available.
5 - USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, May 2014. The noncarcinogenic values (denoted with a "N" flag) correspond to a target hazard quotient of 0.1. Carcinogenic values represent an incremental cancer risk of 1E-06 (carcinogens denoted with a "C" flag).
6 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level.
7 - Value is for Aroclor-1260.
Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Associated Samples

BPS1-SB3013-0002	BPS1-SB3042-0002
BPS1-SB3014-0002	BPS1-SB3043-0002
BPS1-SB3015-0002	BPS1-SB3044-0002
BPS1-SB3016-0002	BPS1-SB3045-0002
BPS1-SB3017-0002	BPS1-SB3046-0002
BPS1-SB3018-0002	BPS1-SB3047-0002
BPS1-SB3019-0002	BPS1-SB3048-0002
BPS1-SB3020-0002	BPS1-SB3049-0002
BPS1-SB3021-0002	BPS1-SB3050-0002
BPS1-SB3022-0002	BPS1-SB3051-0002
BPS1-SB3023-0002	BPS1-SB3052-0002
BPS1-SB3024-0002	BPS1-SB3053-0002
BPS1-SB3031-0002	BPS1-SB3054-0002
BPS1-SB3032-0002	BPS1-SB3055-0002
BPS1-SB3033-0002	BPS1-SB3056-0002
BPS1-SB3034-0002	BPS1-SB3058-0002
BPS1-SB3035-0002	BPS1-SB3059-0002
BPS1-SB3036-0002	BPS1-SB3062-0002
BPS1-SB3040-0002	BPS1-SB3063-0002
BPS1-SB3041-0002	

Definitions:
ARAR/TBC = Applicable or Relevant and Appropriate Requirements To Be Considered
BGS = Below ground surface
C = Carcinogen
COPC = Chemical Of Potential Concern
J = Estimated value
N = Noncarcinogen
NA = Not Applicable/Not Available

Rationale Codes:
For selection as a COPC:
ASL = Above Screening Level

For elimination as a COPC:
BSL = Below COPC Screening Level

TABLE 6-4
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - DIRECT CONTACT WITH SHALLOW SUBSURFACE SOIL (2 TO 15 FEET BGS)
NWIRP BETHPAGE, NEW YORK

CAS Number	Chemical	Minimum Concentration(1)	Maximum Concentration(1)	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects(2)	Concentration Used for Screening(3)	Range of Background Concentrations(4)	USEPA RSL Residential Soil(5)	Potential ARAR/TBC	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection(6)
PCBs														
53469-21-9	**Aroclor-1242**	560	560	ug/kg	BPS1-SB3013-0510	1/53	13 - 1400	560	NA	**240 C**	NA	NA	**Yes**	ASL
12672-29-6	**Aroclor-1248**	3.8 J	21,000	ug/kg	BPS1-SB3015-0205	28/53	13 - 29	21,000	NA	**240 C**	NA	NA	**Yes**	ASL
11097-69-1	**Aroclor-1254**	3.8 J	13,000	ug/kg	BPS1-SB3015-0205	23/53	13 - 72	13,000	NA	**110 N**	NA	NA	**Yes**	ASL

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - No background data is available.
5 - USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, May 2014. The noncarcinogenic values (denoted with a "N" flag) correspond to a target hazard quotient of 0.1. Carcinogenic values represent an incremental cancer risk of 1E-06 (carcinogens denoted with a "C" flag).
6 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level
Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Associated Samples

BPS1-SB3013-0510	BPS1-SB3023-0510	BPS1-SB3035-0610
BPS1-SB3013-1015	BPS1-SB3023-1015	BPS1-SB3035-1015
BPS1-SB3014-0205	BPS1-SB3024-0205	BPS1-SB3036-0206
BPS1-SB3014-0510	BPS1-SB3024-0510	BPS1-SB3036-0610
BPS1-SB3014-1015	BPS1-SB3024-1015	BPS1-SB3036-1015
BPS1-SB3015-0205	BPS1-SB3031-0205	BPS1-SB3044-0205
BPS1-SB3015-0510	BPS1-SB3031-0510	BPS1-SB3044-0510
BPS1-SB3015-1015	BPS1-SB3031-1015	BPS1-SB3044-1015
BPS1-SB3020-0205	BPS1-SB3032-0206	BPS1-SB3054-0205
BPS1-SB3020-0510	BPS1-SB3032-0610	BPS1-SB3055-0205
BPS1-SB3020-1015	BPS1-SB3032-1015	BPS1-SB3057-0205
BPS1-SB3021-0205	BPS1-SB3033-0206	BPS1-SB3062-0205
BPS1-SB3021-0510	BPS1-SB3033-0610	BPS1-SB3062-0510
BPS1-SB3021-1015	BPS1-SB3033-1015	BPS1-SB3062-1015
BPS1-SB3022-0205	BPS1-SB3034-0206	BPS1-SB3063-0205
BPS1-SB3022-0510	BPS1-SB3034-0610	BPS1-SB3063-0510
BPS1-SB3022-1015	BPS1-SB3034-1015	BPS1-SB3063-1015
BPS1-SB3023-0205	BPS1-SB3035-0206	

Definitions:
ARAR/TBC = Applicable or Relevant and Appropriate Requirements To Be Considered
BGS = Below ground surface
C = Carcinogen
COPC = Chemical Of Potential Concern
J = Estimated value
N = Noncarcinogen
NA = Not Applicable/Not Available

Rationale Codes:
For selection as a COPC:
ASL = Above Screening Level

For elimination as a COPC:
BSL = Below COPC Screening Level

TABLE 6-5
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - DIRECT CONTACT WITH DEEP SUBSURFACE SOIL (15 TO 50 FEET BGS)
NWIRP BETHPAGE, NEW YORK

CAS Number	Chemical	Minimum Concentration(1)	Maximum Concentration(1)	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects(2)	Concentration Used for Screening(3)	Range of Background Concentrations(4)	USEPA RSL Residential Soil(5)	Potential ARAR/TBC	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection(6)
PCBs														
53469-21-9	Aroclor-1242	18 J	18 J	ug/kg	BPS1-SB3005-43.043.5	1/48	13 - 16	18	NA	240 C	NA	NA	No	BSL
12672-29-6	**Aroclor-1248**	15 J	15,000 J	ug/kg	BPS1-SB3006-32.032.5	9/48	7 - 14	15,000	NA	**240 C**	NA	NA	**Yes**	ASL
11097-69-1	Aroclor-1254	5.9 J	27 J	ug/kg	BPS1-SB3020-2530	3/48	13 - 16	27	NA	110 N	NA	NA	No	BSL

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - No background data is available.
5 - USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, May 2014. The noncarcinogenic values (denoted with a "N" flag) correspond to a target hazard quotient of 0.1. Carcinogenic values represent an incremental cancer risk of 1E-06 (carcinogens denoted with a "C" flag).
6 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level
Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Associated Samples

BPS1-SB3004-27.528	BPS1-SB3021-3035
BPS1-SB3004-3434.5	BPS1-SB3021-3545
BPS1-SB3004-3737.5	BPS1-SB3022-1520
BPS1-SB3004-4242.5	BPS1-SB3022-2025
BPS1-SB3004-4747.5	BPS1-SB3022-2535
BPS1-SB3004-4949.5	BPS1-SB3022-3545
BPS1-SB3005-27.528.0	BPS1-SB3022-4555
BPS1-SB3005-34.034.5	BPS1-SB3024-1520
BPS1-SB3005-37.538.0	BPS1-SB3024-2025
BPS1-SB3005-43.043.5	BPS1-SB3025-2535
BPS1-SB3005-49.049.5	BPS1-SB3025-3545
BPS1-SB3006-32.032.5	BPS1-SB3025-4555
BPS1-SB3007-37.538.0	BPS1-SB3028-2535
BPS1-SB3013-2535	BPS1-SB3028-3545
BPS1-SB3013-3540	BPS1-SB3028-4555
BPS1-SB3020-1520	BPS1-SB3062-1520
BPS1-SB3020-2025	BPS1-SB3062-2025
BPS1-SB3020-2530	BPS1-SB3062-2535
BPS1-SB3020-3035	BPS1-SB3062-3540
BPS1-SB3020-3545	BPS1-SB3063-1520
BPS1-SB3020-4555	BPS1-SB3063-2025
BPS1-SB3021-1520	BPS1-SB3063-2535
BPS1-SB3021-2025	BPS1-SB3063-3545
BPS1-SB3021-2530	BPS1-SB3063-4550

Definitions:
ARAR/TBC = Applicable or Relevant and Appropriate Requirements To Be Considered
BGS = Below ground surface
C = Carcinogen
COPC = Chemical Of Potential Concern
J = Estimated value
N = Noncarcinogen
NA = Not Applicable/Not Available

Rationale Codes:
For selection as a COPC:
ASL = Above Screening Level

For elimination as a COPC:
BSL = Below COPC Screening Level

TABLE 6-6
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - DIRECT CONTACT WITH SATURATED SOIL (GREATER THAN 50 FEET BGS)
NWIRP BETHPAGE, NEW YORK

CAS Number	Chemical	Minimum Concentration(1)	Maximum Concentration(1)	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects(2)	Concentration Used for Screening(3)	Range of Background Concentrations(4)	USEPA RSL Residential Soil(5)	Potential ARAR/TBC	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection(6)
Volatile Organic Compounds														
71-55-6	1,1,1-Trichloroethane	26 J	26 J	ug/kg	BPS1-SB3005-54.555.0	1/14	26 - 33	26	NA	810,000 N	NA	NA	No	BSL
127-18-4	Tetrachloroethene	120	120	ug/kg	BPS1-SB3005-54.555.0	1/14	26 - 33	120	NA	8,100 N	NA	NA	No	BSL
PCBs														
53469-21-9	**Aroclor-1242**	110,000 J	160,000 J	ug/kg	BPS1-SB3005-54.555.0	2/31	14 - 17	160,000	NA	**240 C**	NA	NA	**Yes**	ASL
12672-29-6	Aroclor-1248	4 J	22 J	ug/kg	BPS1-SB3006-53.053.5	7/31	7.3 - 16	22	NA	240 C	NA	NA	No	BSL
11096-82-5	**Aroclor-1260**	800 J	910 J	ug/kg	BPS1-SB3005-54.555.0	2/31	14 - 17	910	NA	**240 C**	NA	NA	**Yes**	ASL

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - No background data is available.
5 - USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, May 2014. The noncarcinogenic values (denoted with a "N" flag) correspond to a target hazard quotient of 0.1. Carcinogenic values represent an incremental cancer risk of 1E-06 (carcinogens denoted with a "C" flag).
6 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level
Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Associated Samples

BPS1-SB3004-116.0116.5
BPS1-SB3004-154154.5
BPS1-SB3004-180190
BPS1-SB3004-235.0235.5
BPS1-SB3004-5454.5
BPS1-SB3004-64.565
BPS1-SB3005-145.0145.5
BPS1-SB3005-180190
BPS1-SB3005-232.5233.0
BPS1-SB3005-54.555.0
BPS1-SB3005-57.558.0
BPS1-SB3005-94.595.0
BPS1-SB3006-117.0117.5
BPS1-SB3006-181.0181.5
BPS1-SB3006-226.5227.0
BPS1-SB3006-53.053.5
BPS1-SB3006-72.072.5
BPS1-SB3007-100.0100.5
BPS1-SB3007-140150
BPS1-SB3007-217.5218.0
BPS1-SB3007-240.250
BPS1-SB3007-57.057.5
BPS1-SB3020-5560
BPS1-SB3021-5565
BPS1-SB3021-7075
BPS1-SB3022-5565
BPS1-SB3022-6575
BPS1-SB3025-5565
BPS1-SB3025-6575
BPS1-SB3028-5565
BPS1-SB3028-6575

Definitions:
ARAR/TBC = Applicable or Relevant and Appropriate Requirements To Be Considered
BGS = Below ground surface
C = Carcinogen
COPC = Chemical Of Potential Concern
J = Estimated value
N = Noncarcinogen
NA = Not Applicable/Not Available

Rationale Codes:
For selection as a COPC:
ASL = Above Screening Level

For elimination as a COPC:
BSL = Below COPC Screening Level

TABLE 6-7
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - DIRECT CONTACT WITH GROUNDWATER
NWIRP BETHPAGE, NEW YORK

CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	USEPA RSL Tapwater[5]	USEPA MCL[6]	COPC Flag	Rationale for Contaminant Deletion or Selection[7]
Dissolved Metals													
7440-47-3	**Chromium**	0.23 J	22	ug/L	BPS1-TT-MW304I1-20121106	5/5	-	22	NA	**0.035 C[8]**	100	**Yes**	ASL
7439-89-6	Iron	8.2 J	260	ug/L	BPS1-TT-MW303I1-20121102	5/5	-	260	NA	1,400 N	NA	No	BSL
Metals													
7429-90-5	**Aluminum**	5.7 J	2,800 J	ug/L	BPS1-TT-MW304I1-20110302	7/7	-	2,800	NA	**2,000 N**	NA	**Yes**	ASL
7440-38-2	**Arsenic**	0.3 J	5.2	ug/L	BPS1-TT-MW304I1-20110302	3/7	0.5 - 0.5	5.2	NA	**0.052 C**	10	**Yes**	ASL
7440-39-3	Barium	2.2	43	ug/L	BPS1-HN-MW29I-20110302	7/7	-	43	NA	380 N	2,000	No	BSL
7440-43-9	Cadmium	0.043 J	0.11 J	ug/L	BPS1-TT-MW303S-20110301	4/7	0.1 - 0.1	0.11	NA	0.92 N	5	No	BSL
7440-70-2	Calcium	2,100	25,000	ug/L	BPS1-HN-MW29I-20110302	8/8	-	25,000	NA	NA	NA	No	NUT
7440-47-3	**Chromium**	0.63 J	200	ug/L	BPS1-TT-MW304I2-01182012	59/59	-	200	NA	**0.035 C[8]**	**100**	**Yes**	ASL
7440-48-4	**Cobalt**	0.18 J	1.5	ug/L	BPS1-TT-MW304I1-20110302	7/7	-	1.5	NA	**0.6 N**	NA	**Yes**	ASL
7440-50-8	Copper	0.62 J	4.4	ug/L	BPS1-HN-MW29I-20110302	7/7	-	4.4	NA	80 N	1,300	No	BSL
7439-89-6	**Iron**	10 J	6,000	ug/L	BPS1-TT-MW303I1-01192012	59/59	-	6,000	NA	**1,400 N**	NA	**Yes**	ASL
7439-92-1	Lead	0.34 J	0.8 J	ug/L	BPS1-TT-MW304I1-20110302	3/7	0.5 - 0.5	0.8	NA	15	15	No	BSL
7439-95-4	Magnesium	280 J	1,500	ug/L	BPS1-TT-MW304I1-20110302	7/7	-	1,500	NA	NA	NA	No	NUT
7439-96-5	Manganese	1.1 J	12	ug/L	BPS1-TT-MW302S-20110301	7/7	-	12	NA	43 N	NA	No	BSL
7440-02-0	Nickel	0.86 J	5.8	ug/L	BPS1-TT-MW304D-20110302-D	7/7	-	5.8	NA	39 N	NA	No	BSL
7440-09-7	Potassium	290	1,900	ug/L	BPS1-TT-MW303S-20110301	7/7	-	1,900	NA	NA	NA	No	NUT
7440-22-4	Silver	0.05 J	0.17 J	ug/L	BPS1-TT-MW304I1-20110302	4/7	0.1 - 0.1	0.17	NA	9.4 N	NA	No	BSL
7440-23-5	Sodium	2,100	29,000	ug/L	BPS1-TT-MW304I1-20110302	9/9	-	29,000	NA	NA	NA	No	NUT
7440-28-0	**Thallium**	0.03 J	0.066 J	ug/L	BPS1-TT-MW303S-20110301	2/7	0.1 - 0.1	0.066	NA	**0.02 N**	2	**Yes**	ASL
7440-62-2	Vanadium	0.11 J	4.9	ug/L	BPS1-HN-MW29I-20110302	5/7	0.2 - 1	4.9	NA	8.6 N	NA	No	BSL
7440-66-6	Zinc	4 J	25	ug/L	BPS1-TT-MW304I2-20110303	6/7	4 - 4	25	NA	600 N	NA	No	BSL
Miscellaneous Parameters													
18540-29-9	**Hexavalent Chromium**	0.4 J	182	ug/L	BPS1-TT-MW304I2-01182012-D	13/29	1 - 1	182	NA	**0.035 C**	NA	**Yes**	ASL
PCBs													
53469-21-9	**Aroclor-1242**	0.052 J	4 J	ug/L	BPS1-TT-MW304D-20101130	36/84	0.08 - 0.32	4	NA	**0.039 C**	**0.5**	**Yes**	ASL
12672-29-6	**Aroclor-1248**	0.18 J	4.2	ug/L	BPS1-TT-MW304D-01192012	37/84	0.042 - 0.55	4.2	NA	**0.039 C**	**0.5**	**Yes**	ASL

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - No background data is available.
5- USEPA Regional Screening Levels (RSLs) for Chemical Contaminants at Superfund Sites, May 2014. RSLs for carcinogens correspond to an integrated lifetime cancer risk (ILCR) of 1E-06; adjusted RSLs for noncarcinogens correspond to a hazard quotient (HQ) of 0.1.
6 - 2012 Edition of the Drinking Water Standards and Health Advisories (USEPA, April 2012).
7 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level.
8 - Values are for hexavalent chromium.

Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Definitions:
ARAR/TBC = Applicable or Relevant and Appropriate Requirements To Be Considered
C = Carcinogen
COPC = Chemical Of Potential Concern
J = Estimated value
N = Noncarcinogen
NA = Not Applicable/Not Available

Rationale Codes:
For selection as a COPC:
ASL = Above Screening Level

For elimination as a COPC:
BSL = Below COPC Screening Level
NUT = Essential nutrient

TABLE 6-7
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - DIRECT CONTACT WITH GROUNDWATER
NWIRP BETHPAGE, NEW YORK

Associated Samples

BPS1-HN-29I-20101201	BPS1-TT-MW302I2-01202012	BPS1-TT-MW304I2-01182012
BPS1-HN-MW29I-01192012	BPS1-TT-MW302I2-20101129	BPS1-TT-MW304I2-01182012
BPS1-HN-MW29I-01192012	BPS1-TT-MW302I2-20110301	BPS1-TT-MW304I2-01182012-D
BPS1-HN-MW29I-01192012-D	BPS1-TT-MW302I2-20121105	BPS1-TT-MW304I2-20101130
BPS1-HN-MW29I-20110302	BPS1-TT-MW302S-01202012	BPS1-TT-MW304I2-20110303
BPS1-FW-MW01-01192012	BPS1-TT-MW302S-20101130	BPS1-TT-MW304I2-20121108
BPS1-FW-MW01-20101130	BPS1-TT-MW302S-20110301	BPS1-TT-MW304S-01182012
BPS1-FW-MW01-20110302	BPS1-TT-MW302S-20121115	BPS1-TT-MW304S-20101201
BPS1-FW-MW01-20121114	BPS1-TT-MW303D-01192012	BPS1-TT-MW304S-20110303
BRMW04101	BPS1-TT-MW303D-20101129	BPS1-TT-MW304S-20121106
BRMW1011	BPS1-TT-MW303D-20110301	BPS1-TT-MW305D-01172012
BPS1-FW-MW02-01172012	BPS1-TT-MW303D-20121105	BPS1-TT-MW305D-20121115
BPS1-FW-MW02-20101130	BPS1-TT-MW303I1-01192012	BPS1-TT-MW305I-01172012
BPS1-FW-MW02-20101130	BPS1-TT-MW303I1-20101130	BPS1-TT-MW305I-20121108
BPS1-FW-MW02-20101130-D	BPS1-TT-MW303I1-20110301	BPS1-TT-MW305I-20121108
BPS1-FW-MW02-20110302	BPS1-TT-MW303I1-20121102	BPS1-TT-MW305I-20121108-D
BPS1-FW-MW02-20121114	BPS1-TT-MW303I2-01192012	BPS1-TT-MW305S-01172012
BRMW04102	BPS1-TT-MW303I2-20101129	BPS1-TT-MW305S-01172012
BRMW1021	BPS1-TT-MW303I2-20110301	BPS1-TT-MW305S-01172012-D
BPS1-FW-MW03-01192012	BPS1-TT-MW303I2-20121105	BPS1-TT-MW305S-20121115
BPS1-FW-MW03-20101130	BPS1-TT-MW303S-01232012	BPS1-TT-MW305S-20121115
BPS1-FW-MW03-20110303	BPS1-TT-MW303S-01232012	BPS1-TT-MW305S-20121115-D
BPS1-FW-MW03-20121114	BPS1-TT-MW303S-01232012-D	BPS1-TT-MW306D-01232012
BRMW04103	BPS1-TT-MW303S-20101130	BPS1-TT-MW306D-20121108
BRMW04104	BPS1-TT-MW303S-20101130	BPS1-TT-MW306I-01232012
BRMW1031	BPS1-TT-MW303S-20101130-D	BPS1-TT-MW306I-20121108
BRMW1041	BPS1-TT-MW303S-20110301	BPS1-TT-MW306S-01232012
BPS1-HN-MW27I-20121114	BPS1-TT-MW303S-20121101	BPS1-TT-MW306S-20121116
BPS1-HN-MW27I-20130218	BPS1-TT-MW304D-01192012	BPS1-TT-MW307D-01182012
BPS1-HN-MW29I-20121114	BPS1-TT-MW304D-20101130	BPS1-TT-MW307D-20121106
BPS1-TT-MW302D-01202012	BPS1-TT-MW304D-20110302	BPS1-TT-MW307I-01182012
BPS1-TT-MW302D-20101129	BPS1-TT-MW304D-20110302	BPS1-TT-MW307I-20121106
BPS1-TT-MW302D-20110301	BPS1-TT-MW304D-20110302-D	BPS1-TT-MW307I-20121106
BPS1-TT-MW302D-20121101	BPS1-TT-MW304D-20121109	BPS1-TT-MW307I-20121106-D
BPS1-TT-MW302I1-01202012	BPS1-TT-MW304I1-01182012	BPS1-TT-MW307S-01182012
BPS1-TT-MW302I1-20101130	BPS1-TT-MW304I1-20101201	BPS1-TT-MW307S-20121116
BPS1-TT-MW302I1-20110301	BPS1-TT-MW304I1-20110302	
BPS1-TT-MW302I1-20121101	BPS1-TT-MW304I1-20121106	

TABLE 6-8
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - DIRECT CONTACT WITH DEEP SUBSURFACE SOIL (15 TO 50 FEET BGS) - DRY WELL 20-08
NWIRP BETHPAGE, NEW YORK

CAS Number	Chemical	Minimum Concentration(1)	Maximum Concentration(1)	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects(2)	Concentration Used for Screening(3)	Range of Background Concentrations(4)	USEPA RSL Residential Soil(5)	Potential ARAR/TBC	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection(6)
PCBs														
12672-29-6	**Aroclor-1248**	12 J	2,400,000	ug/kg	BPS1-SB3027-2535	10/15	13 - 14	2,400,000	NA	**240 C**	NA	NA	**Yes**	ASL

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - No background data is available.
5 - USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, May 2014. The noncarcinogenic values (denoted with a "N" flag) correspond to a target hazard quotient of 0.1. Carcinogenic values represent an incremental cancer risk of 1E-06 (carcinogens denoted with a "C" flag).
6 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level
Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Associated Samples
BPS1-SB3008-37.037.5
BPS1-SB3026-2535
BPS1-SB3026-3545
BPS1-SB3026-4555
BPS1-SB3027-2535
BPS1-SB3027-3545
BPS1-SB3027-4555
BPS1-SB3060-1520
BPS1-SB3060-2025
BPS1-SB3060-2535
BPS1-SB3060-3540
BPS1-SB3061-1520
BPS1-SB3061-2025
BPS1-SB3061-2535
BPS1-SB3061-3540

Definitions:
ARAR/TBC = Applicable or Relevant and Appropriate Requirements To Be Considered
BGS = Below ground surface
C = Carcinogen
COPC = Chemical Of Potential Concern
J = Estimated value
N = Noncarcinogen
NA = Not Applicable/Not Available

Rationale Codes:
For selection as a COPC:
ASL = Above Screening Level

For elimination as a COPC:
BSL = Below COPC Screening Level

TABLE 6-9
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - DIRECT CONTACT WITH SATURATED SOIL (GREATER THAN 50 FEET BGS) - DRY WELL 20-08
NWIRP BETHPAGE, NEW YORK

CAS Number	Chemical	Minimum Concentration(1)	Maximum Concentration(1)	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects(2)	Concentration Used for Screening(3)	Range of Background Concentrations(4)	USEPA RSL Residential Soil(5)	Potential ARAR/TBC	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection(6)
PCBs														
12672-29-6	**Aroclor-1248**	210 J	8,100	ug/kg	BPS1-SB3026-5565	5/9	7.9 - 8.3	8,100	NA	**240 C**	NA	NA	**Yes**	ASL

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - No background data is available.
5 - USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, May 2014. The noncarcinogenic values (denoted with a "N" flag) correspond to a target hazard quotient of 0.1. Carcinogenic values represent an incremental cancer risk of 1E-06 (carcinogens denoted with a "C" flag).
6 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level
Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Associated Samples
BPS1-SB3008-161.0161.5
BPS1-SB3008-200210
BPS1-SB3008-234.5235.0
BPS1-SB3008-52.052.5
BPS1-SB3008-86.587.0
BPS1-SB3026-5565
BPS1-SB3026-6575
BPS1-SB3027-5565
BPS1-SB3027-6575

Definitions:
ARAR/TBC = Applicable or Relevant and Appropriate Requirements To Be Considered
BGS = Below ground surface
C = Carcinogen
COPC = Chemical Of Potential Concern
J = Estimated value
N = Noncarcinogen
NA = Not Applicable/Not Available

Rationale Codes:
For selection as a COPC:
ASL = Above Screening Level

For elimination as a COPC:
BSL = Below COPC Screening Level

TABLE 6-10
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - DIRECT CONTACT WITH SHALLOW SUBSURFACE SOIL (2 TO 15 FEET BGS) - DRY WELL 34-07
NWIRP BETHPAGE, NEW YORK

CAS Number	Chemical	Minimum Concentration(1)	Maximum Concentration(1)	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects(2)	Concentration Used for Screening(3)	Range of Background Concentrations(4)	USEPA RSL Residential Soil(5)	Potential ARAR/TBC	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection(6)
PCBs														
12672-29-6	**Aroclor-1248**	120 J	830	ug/kg	BPS1-SB3029-1520	4/4	-	830	NA	**240 C**	NA	NA	**Yes**	ASL
11097-69-1	Aroclor-1254	57 J	58 J	ug/kg	BPS1-SB3029-0205	2/4	13 - 67	58	NA	110 N	NA	NA	No	BSL

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - No background data is available.
5 - USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, May 2014. The noncarcinogenic values (denoted with a "N" flag) correspond to a target hazard quotient of 0.1. Carcinogenic values represent an incremental cancer risk of 1E-06 (carcinogens denoted with a "C" flag).
6 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level
Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Associated Samples
BPS1-SB3029-0205
BPS1-SB3029-0510
BPS1-SB3029-1015
BPS1-SB3029-1520

Definitions:
ARAR/TBC = Applicable or Relevant and Appropriate Requirements To Be Considered
BGS = Below ground surface
C = Carcinogen
COPC = Chemical Of Potential Concern
J = Estimated value
N = Noncarcinogen
NA = Not Applicable/Not Available

Rationale Codes:
For selection as a COPC:
ASL = Above Screening Level

For elimination as a COPC:
BSL = Below COPC Screening Level

TABLE 6-11
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - DIRECT CONTACT WITH DEEP SUBSURFACE SOIL (15 TO 50 FEET BGS) - DRY WELL 34-07
NWIRP BETHPAGE, NEW YORK

CAS Number	Chemical	Minimum Concentration(1)	Maximum Concentration(1)	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects(2)	Concentration Used for Screening(3)	Range of Background Concentrations(4)	USEPA RSL Residential Soil(5)	Potential ARAR/TBC	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection(6)
PCBs														
12672-29-6	**Aroclor-1248**	210 J	28,000	ug/kg	BPS1-SB3029-2535	7/10	14 - 15	28,000	NA	**240 C**	NA	NA	**Yes**	ASL

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - No background data is available.
5 - USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, May 2014. The noncarcinogenic values (denoted with a "N" flag) correspond to a target hazard quotient of 0.1. Carcinogenic values represent an incremental cancer risk of 1E-06 (carcinogens denoted with a "C" flag).
6 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level
Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Associated Samples
BPS1-SB3009-27.027.5
BPS1-SB3009-36.036.5
BPS1-SB3029-1520
BPS1-SB3029-2025
BPS1-SB3029-2535
BPS1-SB3029-3545
BPS1-SB3029-4555
BPS1-SB3030-2535
BPS1-SB3030-3545
BPS1-SB3030-4555

Definitions:
ARAR/TBC = Applicable or Relevant and Appropriate Requirements To Be Considered
BGS = Below ground surface
C = Carcinogen
COPC = Chemical Of Potential Concern
J = Estimated value
N = Noncarcinogen
NA = Not Applicable/Not Available

Rationale Codes:
For selection as a COPC:
ASL = Above Screening Level

For elimination as a COPC:
BSL = Below COPC Screening Level

TABLE 6-12
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - DIRECT CONTACT WITH SATURATED SOIL (GREATER THAN 50 FEET BGS) - DRY WELL 34-07
NWIRP BETHPAGE, NEW YORK

CAS Number	Chemical	Minimum Concentration(1)	Maximum Concentration(1)	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects(2)	Concentration Used for Screening(3)	Range of Background Concentrations(4)	USEPA RSL Residential Soil(5)	Potential ARAR/TBC	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection(6)
PCBs														
12672-29-6	**Aroclor-1248**	23 J	260 J	ug/kg	BPS1-SB3009-51.051.5	2/5	7.6 - 8.9	260	NA	**240 C**	NA	NA	**Yes**	ASL

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - No background data is available.
5 - USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, May 2014. The noncarcinogenic values (denoted with a "N" flag) correspond to a target hazard quotient of 0.1. Carcinogenic values represent an incremental cancer risk of 1E-06 (carcinogens denoted with a "C" flag).
6 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level
Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Associated Samples
BPS1-SB3009-140.0140.5
BPS1-SB3009-209.0209.5
BPS1-SB3009-51.051.5
BPS1-SB3009-96.096.5
BPS1-SB3029-5565

Definitions:
ARAR/TBC = Applicable or Relevant and Appropriate Requirements To Be Considered
BGS = Below ground surface
C = Carcinogen
COPC = Chemical Of Potential Concern
J = Estimated value
N = Noncarcinogen
NA = Not Applicable/Not Available

Rationale Codes:
For selection as a COPC:
ASL = Above Screening Level

For elimination as a COPC:
BSL = Below COPC Screening Level

TABLE 6-13
CHEMICALS RETAINED AS COPCs
NWIRP BETHPAGE, NEW YORK

Chemical	Surface Soil	Shallow Subsurface Soil	Deep Subsurface Soil	Saturated Subsurface Soil	Groundwater
SITE 1 PROPER					
PCBs					
Aroclor-1242		X		X	X
Aroclor-1248	X	X	X		X
Aroclor-1254	X	X			
Aroclor-1260				X	
Metals					
Aluminum					X
Arsenic					X
Chromium					X
Cobalt					X
Iron					X
Thallium					X
Hexavalent Chromium					X
DRY WELL 20-08					
PCBs					
Aroclor-1248			X	X	
DRY WELL 34-07					
PCBs					
Aroclor-1248		X	X	X	

X - Chemical was retained as a chemical of potential concern (COPC).
A blank space indicates a chemical was not retained as a COPC.

TABLE 6-14
SELECTION OF EXPOSURE PATHWAYS
NWIRP BETHPAGE, NEW YORK

Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway
Current/Future	Surface Soil (0 - 2 feet bgs)	Surface Soil	Site 1	Construction Workers	Adult	Ingestion Dermal	Quant Quant	Construction workers may have contact with surface soil during excavation activities.
				Industrial Worker	Adult	Ingestion Dermal	Quant Quant	Industrial workers may contact surface soil during normal work activities.
				Trespassers	Adolescent	Ingestion Dermal	Quant Quant	Trespassers may contact surface soil while at the site.
		Air	Site 1	Construction Workers	Adult	Inhalation	Quant	Construction workers may be exposed to fugitive dust and volatile emissions during construction activities.
				Industrial Worker	Adult	Inhalation	Quant	Industrial workers may be exposed to fugitive dust and volatile emissions during work activities.
				Trespassers	Adolescent	Inhalation	Quant	Trespassers may be exposed to fugitive dust and volatile emissions while at the site.
	Subsurface Soil (2 - 15 feet bgs)	Subsurface Soil	Site 1	Construction Workers	Adult	Ingestion Dermal	Quant Quant	Construction workers may have contact with subsurface soil during excavation activities.
				Industrial Worker	Adult	Ingestion Dermal	Quant Quant	Although exposures to subsurface soil by industrial workers is considered unlikely at the site this scenario is included to aid in future risk management decisions.
				Trespassers	Adolescent	Ingestion Dermal	Quant Quant	Although exposures to subsurface soil by trespassers is considered unlikely at the site this scenario is included to aid in future risk management decisions.
		Air	Site 1	Construction Workers	Adult	Inhalation	Quant	Construction workers may have contact with subsurface soil during excavation activities.
				Industrial Worker	Adult	Inhalation	Quant	Although exposures to subsurface soil by industrial workers is considered unlikely at the site this scenario is included to aid in future risk management decisions.
				Trespassers	Adolescent	Inhalation	Quant	Although exposures to subsurface soil by trespassers is considered unlikely at the site this scenario is included to aid in future risk management decisions.
	Groundwater	Groundwater	Dry Well 34-07	Construction Workers	Adult	Ingestion Dermal	None None	Construction workers may have contact with groundwater during excavation activities.
				Industrial Worker	Adult	Ingestion Dermal	None None	Industrial workers are not exposed to be exposed to COPCs that have volatilized from groundwater.
				Trespassers	Adolescent	Ingestion Dermal	None None	Current trespassers are not exposed to groundwater.
		Air	Site 1	Construction Workers	Adult	Inhalation	Quant	Construction workers may be exposed to chemicals which have volatilized from groundwater.
				Industrial Worker	Adult	Inhalation	None	Industrial workers are not exposed to be exposed to COPCs that have volatilized from groundwater.
				Trespassers	Adolescent	Inhalation	None	Current trespassers are not exposed to groundwater.
			Off-SIte	Off-SIte Residents	Child	Inhalation	Qual	Off-Site Residents may be exposed to COPCs that have volatilized from groundwater and migrated through building foundations into indoor air.
					Adult	Inhalation	Qual	

TABLE 6-14
SELECTION OF EXPOSURE PATHWAYS
NWIRP BETHPAGE, NEW YORK

Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway
Current/Future	Surface Soil (0 - 2 feet bgs)	Surface Soil	Dry Well 34-07	Construction Workers	Adult	Ingestion Dermal	None None	No surface soil samples were collected at Dry Well 34-07.
				Industrial Worker	Adult	Ingestion Dermal	None None	
				Trespassers	Adolescent	Ingestion Dermal	None None	
		Air	Dry Well 34-07	Construction Workers	Adult	Inhalation	None	
				Industrial Worker	Adult	Inhalation	None	
				Trespassers	Adolescent	Inhalation	None	
	Subsurface Soil (2 - 15 feet bgs)	Subsurface Soil	Dry Well 34-07	Construction Workers	Adult	Ingestion Dermal	Quant Quant	Construction workers may have contact with subsurface soil during excavation activities.
				Industrial Worker	Adult	Ingestion Dermal	Quant Quant	Although exposures to subsurface soil by industrial workers is considered unlikely at the site this scenario is included to aid in future risk management decisions.
				Trespassers	Adolescent	Ingestion Dermal	Quant Quant	Although exposures to subsurface soil by trespassers is considered unlikely at the site this scenario is included to aid in future risk management decisions.
		Air	Dry Well 34-07	Construction Workers	Adult	Inhalation	Quant	Construction workers may have contact with subsurface soil during excavation activities.
				Industrial Worker	Adult	Inhalation	Quant	Although exposures to subsurface soil by industrial workers is considered unlikely at the site this scenario is included to aid in future risk management decisions.
				Trespassers	Adolescent	Inhalation	Quant	Although exposures to subsurface soil by trespassers is considered unlikely at the site this scenario is included to aid in future risk management decisions.
Future	Surface Soil	Surface Soil	Site 1	Residents	Child	Ingestion Dermal	Quant Quant	Although a future residential scenario is considered unlikely at the site this scenario is included to aid in future risk management decisions.
					Adult	Ingestion Dermal	Quant Quant	
		Air	Site 1	Residents	Child	Inhalation	Quant	Although a future residential scenario is considered unlikely at the site this scenario is included to aid in future risk management decisions.
					Adult	Inhalation	Quant	
	Subsurface Soil	Subsurface Soil	Site 1	Residents	Child	Ingestion Dermal	Quant Quant	Although a future residential scenario is considered unlikely at the site this scenario is included to aid in future risk management decisions.
					Adult	Ingestion Dermal	Quant Quant	
		Air	Site 1	Residents	Child	Inhalation	Quant	Although a future residential scenario is considered unlikely at the site this scenario is included to aid in future risk management decisions.
					Adult	Inhalation	Quant	

TABLE 6-14
SELECTION OF EXPOSURE PATHWAYS
NWIRP BETHPAGE, NEW YORK

Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway
Future	Groundwater	Groundwater	Site 1	Residents	Child	Ingestion	Quant	Although a future residential scenario is considered unlikely at the site this scenario is included to aid in future risk management decisions.
						Dermal	Quant	
					Adult	Ingestion	Quant	
						Dermal	Quant	
		Air	Site 1	Residents	Child	Inhalation	Quant	Although a future residential scenario is considered unlikely at the site this scenario is included to aid in future risk management decisions.
					Adult	Inhalation	Quant	
			Vapor Intrusion	Residents	Child	Inhalation	Qual	Hypothetical residents could be exposed to COPCs that have volatilized from groundwater and migrated through building foundations and into indoor air.
					Adult	Inhalation	Qual	
	Surface Soil	Surface Soil	Dry Well 34-07	Residents	Child	Ingestion	None	No surface soil samples were collected at Dry Well 34-07.
						Dermal	None	
					Adult	Ingestion	None	
						Dermal	None	
		Air	Dry Well 34-07	Residents	Child	Inhalation	None	
					Adult	Inhalation	None	
	Subsurface Soil	Subsurface Soil	Dry Well 34-07	Residents	Child	Ingestion	Quant	Although a future residential scenario is considered unlikely at the site this scenario is included to aid in future risk management decisions.
						Dermal	Quant	
					Adult	Ingestion	Quant	
						Dermal	Quant	
		Air	Dry Well 34-07	Residents	Child	Inhalation	Quant	Although a future residential scenario is considered unlikely at the site this scenario is included to aid in future risk management decisions.
					Adult	Inhalation	Quant	

Notes:
Qual - Qualitative.
Quant - Quantitative.

TABLE 6-15

RECEPTORS AND EXPOSURE ROUTES FOR QUANTITATIVE EVALUATION
NWIRP BETHPAGE
BETHPAGE, NEW YORK

Receptors	Exposure Routes
Construction Workers (current/future land use)	• Soil incidental ingestion • Soil dermal contact • Inhalation of air/dust emissions
Trespassers (Adolescent) (current/future land use)	• Soil incidental ingestion • Soil dermal contact • Inhalation of air/dust emissions
Industrial Worker (future land use)	• Soil incidental ingestion • Soil dermal contact • Inhalation of air/dust emissions
Hypothetical Residents (Children/Adult) (future land use)	• Soil incidental ingestion • Soil dermal contact • Inhalation of air/dust emissions • Direct ingestion of groundwater • Groundwater dermal contact (showering/bathing)
Off-Site Residents (current/future land use)	• Inhalation of vapors intruding into a building from the groundwater

TABLE 6-16
EXPOSURE POINT CONCENTRATIONS
NWIRP BETHPAGE, NEW YORK

Chemical	Site 1			Dry Well 34-07	
	Surface Soil	Shallow Subsurface Soil	Groundwater	Surface Soil	Shallow Subsurface Soil
PCBs					
Aroclor-1242	NA	0.56	0.913	NA	NA
Aroclor-1248	30	3.41	0.775	NA	0.83
Aroclor-1254	9.12	1.39	NA	NA	NA
Metals					
Aluminum	NA	NA	2,800	NA	NA
Arsenic	NA	NA	2.6	NA	NA
Hexavalent Chromium	NA	NA	38.8	NA	NA
Cobalt	NA	NA	1.11	NA	NA
Iron	NA	NA	1,090	NA	NA
Thallium	NA	NA	0.066	NA	NA

Notes:
The exposure point concentrations (EPCs) were calculated according to USEPA's ProUCL guidance. See the RAGS PART D Table 3s in Appendix I for details concerning the EPCs.
NA - Not applicable. Not a COPC for this media.
Units - Soil results are in milligrams per kilogram and for groundwater results are micrograms per liter.

TABLE 6-17
SUMMARY OF EXPOSURE INPUT PARAMETERS - REASONABLE MAXIMUM EXPOSURES
NWIRP BETHPAGE, NEW YORK

Parameter Code	Exposure Parameter	Construction Worker	Industrial Worker	Adolescent Trespasser	On-Site Child Resident	On-Site Adult Resident
All Exposures						
ED	Exposure Duration (years)	1[1]	25[2]	10[3]	6[2]	20[2]
BW	Body Weight (kg)	80[2]	80[2]	45[4]	15[2]	80[2]
AT-N	Averaging Time (Non-Cancer) (days)	365[4]	9,125[4]	3,650[4]	2,190[4]	7,300[4]
AT-C	Averaging Time (Cancer) (days)	25,550[4]	25,550[4]	25,550[4]	25,550[4]	25,550[4]
Incidental Ingestion/Dermal Contact with Soil						
C_{soil}	Exposure concentration for soil (mg/kg)	95% UCL[5]	95% UCL[5]	95% UCL[5]	95% UCL[5]	95% UCL[5]
IR	Ingestion Rate (mg/day)	330[6]	100[2]	100[2]	200[2]	100[2]
EF	Exposure Frequency (days/year)	250[7]	250[2]	26[8]	350[2]	350[2]
FI	Fraction Ingested (unitless)	1[6]	1[2]	1[2]	1[2]	1[2]
SA	Skin Surface Available for Contact (cm^2)	3,470[2]	3,470[2]	3,750[9]	2,690[2]	6,032[2]
AF	Soil to Skin Adherence Factor (mg/cm^2/event)	0.3[6]	0.12[2]	0.2[2]	0.2[2]	0.07[2]
ABS	Absorption Factor (unitless)	chemical-specific[10]	chemical-specific[10]	chemical-specific[10]	chemical-specific[10]	chemical-specific[10]
CF	Conversion Factor (kg/mg)	1E-06	1E-06	1E-06	1E-06	1E-06
Inhalation Fugitive Dust/Volatile Emissions from Soil						
C_{air}	Exposure concentration for air (mg/m^3)	calculated[6]	calculated[6]	calculated[6]	calculated[6]	calculated[6]
ET	Exposure Time (hours/day)	8[6]	8[6]	4[1]	24[6]	24[6]
EF	Exposure Frequency (days/year)	250[7]	250[2]	26[8]	350[2]	350[2]
PEF	Particulate Emission Factor (m^3/kg)	1.43E+06[6]	1.36E+09[6]	1.36E+09[6]	1.36E+09[6]	1.36E+09[6]
Ingestion/Dermal Contact with Groundwater						
C_{gw}	Exposure concentration for groundwater (ug/L)	NA	NA	NA	95% UCL[11]	95% UCL[11]
IR	Ingestion Rate (L/day)	NA	NA	NA	0.78[2]	2.5[2]
EF	Exposure Frequency (days/year)	NA	NA	NA	350[2]	350[2]
ET/t_{event}	Exposure Time (hours/day)/ Event Duration (hours/event)	NA	NA	NA	0.54[2]	0.71[2]
EV	Event Frequency (events/day)	NA	NA	NA	1[1]	1[1]
SA	Skin Surface Available for Contact (cm^2)	NA	NA	NA	6,378[2]	20,900[2]
	Kp (cm/hour), t* (hour/event), t (hour), and B (unitless)	NA	NA	NA	chemical-specific[10]	chemical-specific[10]

TABLE 6-17
SUMMARY OF EXPOSURE INPUT PARAMETERS - REASONABLE MAXIMUM EXPOSURES
NWIRP BETHPAGE, NEW YORK

Notes:
1 - Professional judgment.
2 - USEPA, 2014: Human Health Evaluation Manual, Supplement Guidance, Update of Standard Default Exposure Factors. OSWER 9200.1-120.
3 - Adolescents ages 7 to 16 years old.
4 - USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A.
5 - USEPA, 2002. Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10.
6 - USEPA, 2002: Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9365.4-24.
7 - Assumes an one year construction project.
8 - Assume one day a week in warm weather months.
9 - Assumes face, forearms, hands, and lower legs are exposed, USEPA, 2011: 2011 Exposure Factors Handbook.
10 - USEPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. PA/540/R/99/005.
11 - USEPA, 2014: Determining Groundwater Exposure Point Concentrations. OSWER 9283.1-42

TABLE 6-18
SUMMARY OF EXPOSURE INPUT PARAMETERS - CENTRAL TENDENCY EXPOSURES
NWIRP BETHPAGE, NEW YORK

Parameter Code	Exposure Parameter	Construction Worker	Industrial Worker	Adolescent Trespasser	On-Site Child Resident	On-Site Adult Resident
All Exposures						
ED	Exposure Duration (years)	1[1]	9[2]	10[3]	2[2]	7[2]
BW	Body Weight (kg)	80[4]	80[4]	45[2]	15[4]	80[4]
AT-N	Averaging Time (Non-Cancer) (days)	365[5]	3,285[5]	3,650[5]	730[5]	2,555[5]
AT-C	Averaging Time (Cancer) (days)	25,550[5]	25,550[5]	25,550[5]	25,550[5]	25,550[5]
Incidental Ingestion/Dermal Contact with Soil						
C_{soil}	Exposure concentration for soil (mg/kg)	95% UCL[6]	95% UCL[6]	95% UCL[6]	95% UCL[6]	95% UCL[6]
IR	Ingestion Rate (mg/day)	165[7]	50[2]	50[2]	100[2]	50[2]
EF	Exposure Frequency (days/year)	75[7]	219[2]	13[8]	234[2]	234[2]
FI	Fraction Ingested (unitless)	1[9]	1[2]	1[2]	1[2]	1[2]
SA	Skin Surface Available for Contact (cm^2)	3,470[4]	3,470[4]	3,750[10]	2,690[4]	6,032[4]
AF	Soil to Skin Adherence Factor (mg/cm^2/event)	0.1[11]	0.02[11]	0.04[11]	0.04[11]	0.01[11]
ABS	Absorption Factor (unitless)	chemical-specific[11]	chemical-specific[11]	chemical-specific[11]	chemical-specific[11]	chemical-specific[11]
CF	Conversion Factor (kg/mg)	1E-06	1E-06	1E-06	1E-06	1E-06
Inhalation Fugitive Dust/Volatile Emissions from Soil						
C_{air}	Exposure concentration for air (mg/m^3)	calculated[9]	calculated[9]	calculated[9]	calculated[9]	calculated[9]
ET	Exposure Time (hours/day)	8[12]	8[12]	2[7]	24[9]	24[9]
EF	Exposure Frequency (days/year)	75[7]	219[2]	13[8]	234[2]	234[2]
PEF	Particulate Emission Factor (m^3/kg)	1.43E+06[9]	1.36E+09[9]	1.36E+09[9]	1.36E+09[9]	1.36E+09[9]
Ingestion/Dermal Contact with Groundwater						
C_{gw}	Exposure concentration for groundwater (ug/L)	NA	NA	NA	95% UCL[6]	95% UCL[6]
IR	Ingestion Rate (L/day)	NA	NA	NA	0.66[13]	1.4[2]
EF	Exposure Frequency (days/year)	NA	NA	NA	234[2]	234[2]
ET/t_{event}	Exposure Time (hours/day)/ Event Duration (hours/event)	NA	NA	NA	0.33[11]	0.25[11]
EV	Event Frequency (events/day)	NA	NA	NA	1[1]	1[1]
SA	Skin Surface Available for Contact (cm^2)	NA	NA	NA	6,378[4]	20,900[4]
	Kp (cm/hour), t* (hour/event), t (hour), and B (unitless)	NA	NA	NA	chemical-specific[11]	chemical-specific[11]

TABLE 6-18
SUMMARY OF EXPOSURE INPUT PARAMETERS - CENTRAL TENDENCY EXPOSURES
NWIRP BETHPAGE, NEW YORK

Notes:
1 - Professional judgment.
2 - USEPA, 1993: Superfund's Standard Default Exposure Factors for the Central Tendency and Reasonable Maximum Exposure.
3 - Adolescents ages 7 to 16 years old.
4 - USEPA, 2014: Human Health Evaluation Manual, Supplement Guidance, Update of Standard Default Exposure Factors. OSWER 9200.1-120.
5 - USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A.
6 - USEPA, 2002. Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10.
7 - Central tendency exposure is assumed to be one-half the reasonable maximum exposure value.
8 - Assume one day every other week in warm weather months.
9 - USEPA, 2002: Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9365.4-24.
10 - Assumes face, forearms, hands, and lower legs are exposed, USEPA, 2011: 2011 Exposure Factors Handbook.
11 - USEPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. PA/540/R/99/005.
12 - Assume an 8-hour work shift.
13 - USEPA, 2011: Exposure Factors Handbook: 2011 Edition. EPA/600/R-090/052F.

TABLE 6-19
INTERMEDIATE VARIABLES FOR CALCULATING DA(EVENT)
NWIRP BETHPAGE, NEW YORK

Chemical of Potential Concern	Media	Dermal Absorption Fraction (soil)	FA	Kp		T(event)		Tau		T*		B
			Value	Value	Units	Value	Units	Value	Units	Value	Units	Value
Volatile Organic Compounds												
Tetrachloroethene	Soil	0	1	3.3E-02	cm/hr	(1)	hr	9.1E-01	hr	2.2E+00	hr	1.7E-01
PCBs												
Aroclor-1242	Soil	0.14	NA(2)	NA(2)	cm/hr	NA(2)	NA(2)	NA(2)	NA(2)	NA(2)	NA(2)	NA(2)
Aroclor-1248	Soil, Groundwater	0.14	NA(2)	NA(2)	cm/hr	NA(2)	NA(2)	NA(2)	NA(2)	NA(2)	NA(2)	NA(2)
Aroclor-1254	Soil, Groundwater	0.14	NA(2)	NA(2)	cm/hr	NA(2)	NA(2)	NA(2)	NA(2)	NA(2)	NA(2)	NA(2)
Aroclor-1260	Soil	0.14	NA(2)	NA(2)	cm/hr	NA(2)	NA(2)	NA(2)	NA(2)	NA(2)	NA(2)	NA(2)
Inorganics												
Aluminum	Groundwater	0	1	1.0E-03	cm/hr	(1)	hr	NA	NA	NA	NA	NA
Arsenic	Groundwater	0.03	1	1.0E-03	cm/hr	(1)	hr	NA	NA	NA	NA	NA
Chromium VI	Groundwater	0	1	2.0E-03	cm/hr	(1)	hr	NA	NA	NA	NA	NA
Cobalt	Groundwater	0	1	4.0E-04	cm/hr	(1)	hr	NA	NA	NA	NA	NA
Iron	Groundwater	0	1	1.0E-03	cm/hr	(1)	hr	NA	NA	NA	NA	NA
Thallium	Groundwater	0	1	1.0E-03	cm/hr	(1)	hr	NA	NA	NA	NA	NA

Notes:
All values from EPA's Risk Assessment Guidance for Superfund Volume 1: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment) Final, July 2004.
1 - T(event) is 1 hour for child residents and 0.58 hours for adult residents under the RME scenario and 0.33 hour for child residents and 0.25 hour for adult residents under the CTE scenario.
2 - RAGS Part E recommends not attempting to quantify risk because contaminants are outside the effective predictive domain of the model.
FA = Fraction Absorbed Water
Kp = Dermal Permeability Coefficient of Compound in Water
T(event) = Event Duration
Tau = Lag Time
T* = Time to Reach Steady-State
B = Dimensionless Ratio of the Permeability Coefficient of a Compound Through the Stratum Corneum Relative to its Permeability Coefficient Across the Viable Epidermis
NA = Not applicable.

TABLE 6-20
NON-CANCER TOXICITY DATA -- ORAL/DERMAL
NWIRP BETHPAGE, NEW YORK

Chemical of Potential Concern	Chronic/ Subchronic	Oral RfD		Oral Absorption Efficiency for Dermal[1]	Absorbed RfD for Dermal[2]		Primary Target Organ(s)	Combined Uncertainty/Modifying Factors	RfD:Target Organ(s)	
		Value	Units		Value	Units			Source(s)	Date(s) (MM/DD/YYYY)
PCBs										
Aroclor-1242	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	Subchronic	3.0E-05	mg/kg/day	1	3.0E-05	mg/kg/day	Central Nervous System	300/1	ATSDR	11/2000
	Chronic	2.0E-05	mg/kg/day	1	2.0E-05	mg/kg/day	Immune System	300/1	IRIS	11/10/2014
Aroclor-1260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics										
Aluminum	Subchronic	1.0E+00	mg/kg/day	1	1.0E+00	mg/kg/day	Central Nervous System	30/1	ATSDR	9/2008
	Chronic	1.0E+00	mg/kg/day	1	1.0E+00	mg/kg/day	Central Nervous System	100	PPRTV	10/23/2006
Arsenic	Chronic	3.0E-04	mg/kg/day	1	3.0E-04	mg/kg/day	Skin, Cardiovascular System	3/1	IRIS	11/10/2014
Chromium[3]	Subchronic	5.0E-03	mg/kg/day	0.025	1.3E-04	mg/kg/day	Kidney	100/1	ATSDR	9/2012
	Chronic	3.0E-03	mg/kg/day	0.025	7.5E-05	mg/kg/day	None Reported	300/3	IRIS	11/10/2014
Cobalt	Subchronic	3.0E-03	mg/kg/day	1	3.0E-03	mg/kg/day	Thyroid	300/1	PPRTV	8/25/2008
	Chronic	3.0E-04	mg/kg/day	1	3.0E-04	mg/kg/day	Thyroid	3000/1	PPRTV	8/25/2008
Iron	Subchronic	7.0E-01	mg/kg/day	1	7.0E-01	mg/kg/day	Gastrointestinal System	1.5	PPRTV	9/11/2006
	Chronic	7.0E-01	mg/kg/day	1	7.0E-01	mg/kg/day	Gastrointestinal System	1.5	PPRTV	9/11/2006
Thallium[4]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

1 - U.S. EPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Interim. EPA/540/R/99/005.

2 - Adjusted dermal RfD = Oral RfD x Oral Absorption Efficiency for Dermal.

3 - Values are for hexavalent chromium.

4 - Toxicity criteria used to derive the RSLs is only suitable for screening and is not to be used for quantifying risks.

Definitions:

ATSDR = Agency for Toxic Substances and Disease Registry.

IRIS = Integrated Risk Information System

NA = Not Available.

PPRTV = Provisional Peer Reviewed Toxicity Value.

TABLE 6-21
NON-CANCER TOXICITY DATA -- INHALATION
NWIRP BETHPAGE, NEW YORK

Chemical of Potential Concern	Chronic/ Subchronic	Inhalation RfC		Extrapolated RfD[1]		Primary Target Organ(s)	Combined Uncertainty/Modifying Factors	RfC : Target Organ(s)	
		Value	Units	Value	Units			Source(s)	Date(s) (MM/DD/YYYY)
PCBs									
Aroclor-1242	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics									
Aluminum	Chronic	5.0E-03	mg/m3	1.4E-03	(mg/kg/day)	Central Nervous System	300/1	PPRTV	10/23/2006
Arsenic	Chronic	1.5E-05	mg/m3	4.3E-06	(mg/kg/day)	Skin, Cardiovascular System	NA	Cal EPA(1)	9/2009
Chromium[2]	Subchronic	3.0E-04	mg/m3	8.6E-05	(mg/kg/day)	Respiratory	30/1	ATSDR	9/2012
	Chronic	1.0E-04	mg/m3	2.9E-05	(mg/kg/day)	Respiratory	300/1	IRIS	11/10/2014
Cobalt	Subchronic	2.0E-05	mg/m3	5.7E-06	(mg/kg/day)	Respiratory	100/1	PPRTV	8/25/2008
	Chronic	6.0E-06	mg/m3	1.7E-06	(mg/kg/day)	Respiratory	300/1	PPRTV	8/25/2008
Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
1 - Extrapolated RfD = RfC *20m^3/day / 70 kg
2 - Values are for hexavalent chromium.

Definitions:
IRIS = Integrated Risk Information System
NA = Not Applicable
ATSDR = Agency for Toxic Substances and Disease Registry.
Cal EPA(1) = California Environmental Protection Agency, Technical Support Document for Describing Available Cancer Slope Factors, September 2009.
PPRTV = Provisional Peer Reviewed Toxicity Value.

TABLE 6-22
CANCER TOXICITY DATA -- ORAL/DERMAL
NWIRP BETHPAGE, NEW YORK

Chemical of Potential Concern	Oral Cancer Slope Factor		Oral Absorption Efficiency for Dermal[1]	Absorbed Cancer Slope Factor for Dermal[2]		Weight of Evidence/ Cancer Guideline Description	Oral CSF	
	Value	Units		Value	Units		Source(s)	Date(s) (MM/DD/YYYY)
PCBs								
Aroclor-1242 (Soil)	2.0E+00	$(mg/kg/day)^{-1}$	1	2.0E+00	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	USEPA(1)	9/1996
Aroclor-1242 (Water)	4.0E-01	$(mg/kg/day)^{-1}$	1	4.0E-01	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	USEPA(1)	9/1996
Aroclor-1248 (Soil)	2.0E+00	$(mg/kg/day)^{-1}$	1	2.0E+00	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	USEPA(1)	9/1996
Aroclor-1248 (Water)	4.0E-01	$(mg/kg/day)^{-1}$	1	4.0E-01	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	USEPA(1)	9/1996
Aroclor-1254	2.0E+00	$(mg/kg/day)^{-1}$	1	2.0E+00	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	USEPA(1)	9/1996
Aroclor-1260	2.0E+00	$(mg/kg/day)^{-1}$	1	2.0E+00	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	USEPA(1)	9/1996
Inorganics								
Aluminum	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	1.5E+00	$(mg/kg/day)^{-1}$	1	1.5E+00	$(mg/kg/day)^{-1}$	A / human carcinogen	IRIS	11/10/2014
Chromium[3,4]	5.0E-01	$(mg/kg/day)^{-1}$	0.025	2.0E+01	$(mg/kg/day)^{-1}$	Carcinogenic potential cannot be determined (Oral route)	NJDEP	4/8/2009
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

1 - USEPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Interim. EPA/540/R/99/005.

2 - Adjusted cancer slope factor for dermal = Oral cancer slope factor / Oral absorption efficiency for dermal.

3 - Values are for hexavalent chromium.

4 - Hexavalent chromium are considered to act via the mutagenic mode of action. These chemicals are evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

IRIS = Integrated Risk Information System.

NA = Not Available.

NJDEP = New Jersey Department of Environmental Protection.

USEPA(1) = USEPA, PCBs: Cancer Dose-Response Assessment and Applications to Environmental Mixtures, September 1996, EPA/600/P-96/001F.

TABLE 6-23
CANCER TOXICITY DATA -- INHALATION
NWIRP BETHPAGE, NEW YORK

Chemical of Potential Concern	Unit Risk		Inhalation Cancer Slope Factor[1]		Weight of Evidence/ Cancer Guideline Description	Unit Risk : Inhalation CSF	
	Value	Units	Value	Units		Source(s)	Date(s) (MM/DD/YYYY)
PCBs							
Aroclor-1242	5.7E-04	$(ug/m^3)^{-1}$	2.0E+00	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	USEPA(1)	9/1996
Aroclor-1248	5.7E-04	$(ug/m^3)^{-1}$	2.0E+00	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	USEPA(1)	9/1996
Aroclor-1254	5.7E-04	$(ug/m^3)^{-1}$	2.0E+00	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	USEPA(1)	9/1996
Aroclor-1260	5.7E-04	$(ug/m^3)^{-1}$	2.0E+00	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	USEPA(1)	9/1996
Inorganics							
Aluminum	NA	NA	NA	NA	NA	NA	NA
Arsenic	4.3E-03	$(ug/m^3)^{-1}$	1.5E+01	$(mg/kg/day)^{-1}$	A / Known human carcinogen	IRIS	11/10/2014
Chromium[2,3]	8.4E-02	$(ug/m^3)^{-1}$	2.9E+02	$(mg/kg/day)^{-1}$	Known/likely human carcinogen (Inhalation route)	IRIS	11/10/2014
Cobalt	9.0E-03	$(ug/m^3)^{-1}$	3.2E+01	$(mg/kg/day)^{-1}$	NA	PPRTV	8/25/2008
Iron	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA

Notes:

1 - Inhalation CSF = Unit Risk * 70 kg / $20m^3$/day.

2 - Values are for hexavalent chromium.

3 - Hexavalent chromium are considered to act via the mutagenic mode of action. These chemicals are evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

Definitions:

IRIS = Integrated Risk Information System.

NA = Not Available.

PPRTV = Provisional Peer Reviewed Toxicity Value.

USEPA(1) = USEPA, PCBs: Cancer Dose-Response Assessment and Applications to Environmental Mixtures, September 1996, EPA/600/P-96/001F.

TABLE 6-24
SUMMARY OF CANCER RISKS AND HAZARD INDICES - REASONABLE MAXIMUM EXPOSURES
NWIRP BETHPAGE, NEW YORK

Receptor	Media	Exposure Route	Cancer Risk	Chemicals with Cancer Risks > 10^{-4}	Chemicals with Cancer Risks > 10^{-5} and ≤ 10^{-4}	Chemicals with Cancer Risks > 10^{-6} and ≤ 10^{-5}	Hazard Index	Chemicals Contributing to an Target Organ HI > 1
Construction Workers	Surface Soil - Site 1	Incidental Ingestion	3E-06	--	--	Aroclor-1248	0.9	--
		Dermal Contact	1E-06	--	--	--	0.4	--
		Inhalation	5E-08	--	--	--	--	--
		Total	5E-06	--	--	Aroclor-1248	1	--
	Subsurface Soil - Site 1	Incidental Ingestion	4E-07	--	--	--	0.1	--
		Dermal Contact	2E-07	--	--	--	0.06	--
		Inhalation	7E-09	--	--	--	--	--
		Total	6E-07	--	--	--	0.2	--
	Subsurface Soil - Dry Well 34-07	Incidental Ingestion	7E-08	--	--	--	--	--
		Dermal Contact	3E-08	--	--	--	--	--
		Inhalation	1E-09	--	--	--	--	--
		Total	1E-07	--	--	--	--	--
Industrial Workers	Surface Soil - Site 1	Incidental Ingestion	2E-05	--	Aroclor-1248	Aroclor-1254	0.4	--
		Dermal Contact	1E-05	--	--	Aroclor-1248, Aroclor-1254	0.2	--
		Inhalation	1E-09	--	--	--	--	--
		Total	4E-05	--	Aroclor-1248	Aroclor-1254	0.6	--
	Subsurface Soil - Site 1	Incidental Ingestion	3E-06	--	--	Aroclor-1248	0.06	--
		Dermal Contact	2E-06	--	--	--	0.03	--
		Inhalation	2E-10	--	--	--	--	--
		Total	5E-06	--	--	Aroclor-1248	0.09	--
	Subsurface Soil - Dry Well 34-07	Incidental Ingestion	5E-07	--	--	--	--	--
		Dermal Contact	3E-07	--	--	--	--	--
		Inhalation	3E-11	--	--	--	--	--
		Total	8E-07	--	--	--	--	--
Adolescent Trespassers	Surface Soil - Site 1	Incidental Ingestion	2E-06	--	--	--	0.07	--
		Dermal Contact	2E-06	--	--	--	0.08	--
		Inhalation	3E-11	--	--	--	--	--
		Total	4E-06	--	--	Aroclor-1248	0.1	--
	Subsurface Soil - Site 1	Incidental Ingestion	2E-07	--	--	--	0.01	--
		Dermal Contact	3E-07	--	--	--	0.01	--
		Inhalation	4E-12	--	--	--	--	--
		Total	5E-07	--	--	--	0.02	--
	Subsurface Soil - Dry Well 34-07	Incidental Ingestion	4E-08	--	--	--	--	--
		Dermal Contact	4E-08	--	--	--	--	--
		Inhalation	6E-13	--	--	--	--	--
		Total	8E-08	--	--	--	--	--
Child Residents	Surface Soil - Site 1	Incidental Ingestion	9E-05	--	Aroclor-1248, Aroclor-1254	--	6	Aroclor-1254
		Dermal Contact	3E-05	--	Aroclor-1248	Aroclor-1254	2	Aroclor-1254
		Inhalation	1E-09	--	--	--	--	--
		Total	1E-04	--	Aroclor-1248, Aroclor-1254	--	8	Aroclor-1254
	Subsurface Soil - Site 1	Incidental Ingestion	1E-05	--	--	Aroclor-1248, Aroclor-1254	0.9	--
		Dermal Contact	4E-06	--	--	Aroclor-1248	0.3	--
		Inhalation	2E-10	--	--	--	--	--
		Total	2E-05	--	--	Aroclor-1242, Aroclor-1248, Aroclor-1254	1	--
	Groundwater	Incidental Ingestion	5E-04	Hexavalent Chromium	Arsenic	Aroclor-1242	1	--
		Dermal Contact	2E-04	Hexavalent Chromium	--	--	0.2	--
		Inhalation	0E+00	--	--	--	--	--
		Total	6E-04	Hexavalent Chromium	Arsenic	Aroclor-1242	2	Target Organs HI < 1
	Subsurface Soil - Dry Well 34-07	Incidental Ingestion	2E-06	--	--	Aroclor-1248	--	--
		Dermal Contact	7E-07	--	--	--	--	--
		Inhalation	3E-11	--	--	--	--	--
		Total	3E-06	--	--	Aroclor-1248	--	--

TABLE 6-24
SUMMARY OF CANCER RISKS AND HAZARD INDICES - REASONABLE MAXIMUM EXPOSURES
NWIRP BETHPAGE, NEW YORK

Receptor	Media	Exposure Route	Cancer Risk	Chemicals with Cancer Risks > 10^{-4}	Chemicals with Cancer Risks > 10^{-5} and ≤ 10^{-4}	Chemicals with Cancer Risks > 10^{-6} and ≤ 10^{-5}	Hazard Index	Chemicals Contributing to an Target Organ HI > 1
Adult Residents	Surface Soil - Site 1	Incidental Ingestion	3E-05	--	Aroclor-1248	Aroclor-1254	0.5	--
		Dermal Contact	2E-05	--	--	Aroclor-1248, Aroclor-1254	0.3	--
		Inhalation	4E-09	--	--	--	--	--
		Total	4E-05	--	Aroclor-1248	Aroclor-1254	0.9	--
	Subsurface Soil - Site 1	Incidental Ingestion	4E-06	--	--	Aroclor-1248	0.08	--
		Dermal Contact	2E-06	--	--	--	0.05	--
		Inhalation	6E-10	--	--	--	--	--
		Total	6E-06	--	--	Aroclor-1248, Aroclor-1254	0.1	--
	Groundwater	Incidental Ingestion	4E-04	Hexavalent Chromium	Arsenic	Aroclor-1242, Aroclor-1248	0.9	--
		Dermal Contact	2E-04	Hexavalent Chromium	--	--	0.2	--
		Inhalation	0E+00	--	--	--	--	--
		Total	5E-04	Hexavalent Chromium	Arsenic	Aroclor-1242, Aroclor-1248	1	--
	Subsurface Soil - Dry Well 34-07	Incidental Ingestion	6E-07	--	--	--	--	--
		Dermal Contact	3E-07	--	--	--	--	--
		Inhalation	1E-10	--	--	--	--	--
		Total	9E-07	--	--	--	--	--
Lifelong (Child and Adult)	Surface Soil - Site 1	Incidental Ingestion	1E-04	--	Aroclor-1248, Aroclor-1254	--	NA	--
		Dermal Contact	5E-05	--	Aroclor-1248	Aroclor-1254	NA	--
		Inhalation	6E-09	--	--	--	NA	--
		Total	2E-04	--	Aroclor-1248, Aroclor-1254	--	NA	--
	Subsurface Soil - Site 1	Incidental Ingestion	2E-05	--	--	Aroclor-1242, Aroclor-1248, Aroclor-1254	NA	--
		Dermal Contact	7E-06	--	--	Aroclor-1248, Aroclor-1254	NA	--
		Inhalation	8E-10	--	--	--	NA	--
		Total	2E-05	--	Aroclor-1248	Aroclor-1242, Aroclor-1254	NA	--
	Groundwater	Incidental Ingestion	8E-04	Hexavalent Chromium	Arsenic	Aroclor-1242, Aroclor-1248	NA	--
		Dermal Contact	3E-04	Hexavalent Chromium	--	--	NA	--
		Inhalation	0E+00	--	--	--	NA	--
		Total	1E-03	Hexavalent Chromium	Arsenic	Aroclor-1242, Aroclor-1248	NA	--
	Subsurface Soil - Dry Well 34-07	Incidental Ingestion	2E-06	--	--	Aroclor-1248	NA	--
		Dermal Contact	1E-06	--	--	--	NA	--
		Inhalation	1E-10	--	--	--	NA	--
		Total	3E-06	--	--	Aroclor-1248	NA	--

- No chemical meet this criterion.

TABLE 6-25
SUMMARY OF CANCER RISKS AND HAZARD INDICES - CENTRAL TENDENCY EXPOSURES
NWIRP BETHPAGE, NEW YORK

Receptor	Media	Exposure Route	Cancer Risk	Chemicals with Cancer Risks > 10^{-4}	Chemicals with Cancer Risks > 10^{-5} and ≤ 10^{-4}	Chemicals with Cancer Risks > 10^{-6} and ≤ 10^{-5}	Hazard Index	Chemicals Contributing to an Target Organ HI > 1
Construction Workers	Surface Soil - Site 1	Incidental Ingestion	9E-07	--	--	--	0.3	--
		Dermal Contact	3E-07	--	--	--	0.08	--
		Inhalation	3E-08	--	--	--	--	--
		Total	1E-06	--	--	--	0.3	--
	Subsurface Soil - Site 1	Incidental Ingestion	1E-07	--	--	--	0.04	--
		Dermal Contact	4E-08	--	--	--	0.01	--
		Inhalation	4E-09	--	--	--	--	--
		Total	2E-07	--	--	--	0.05	--
	Subsurface Soil - Dry Well 34-07	Incidental Ingestion	2E-08	--	--	--	--	--
		Dermal Contact	6E-09	--	--	--	--	--
		Inhalation	6E-10	--	--	--	--	--
		Total	3E-08	--	--	--	--	--
Industrial Workers	Surface Soil - Site 1	Incidental Ingestion	4E-06	--	--	Aroclor-1248	0.2	--
		Dermal Contact	7E-07	--	--	--	0.03	--
		Inhalation	4E-10	--	--	--	--	--
		Total	5E-06	--	--	Aroclor-1248	0.2	--
	Subsurface Soil - Site 1	Incidental Ingestion	5E-07	--	--	--	0.03	--
		Dermal Contact	1E-07	--	--	--	0.005	--
		Inhalation	6E-11	--	--	--	--	--
		Total	6E-07	--	--	--	0.03	--
	Subsurface Soil - Dry Well 34-07	Incidental Ingestion	8E-08	--	--	--	--	--
		Dermal Contact	2E-08	--	--	--	--	--
		Inhalation	9E-12	--	--	--	--	--
		Total	1E-07	--	--	--	--	--
Adolescent Trespassers	Surface Soil - Site 1	Incidental Ingestion	4E-07	--	--	--	0.02	--
		Dermal Contact	2E-07	--	--	--	0.008	--
		Inhalation	7E-12	--	--	--	--	--
		Total	6E-07	--	--	--	0.03	--
	Subsurface Soil - Site 1	Incidental Ingestion	6E-08	--	--	--	0.003	--
		Dermal Contact	3E-08	--	--	--	0.001	--
		Inhalation	1E-12	--	--	--	--	--
		Total	9E-08	--	--	--	0.004	--
	Subsurface Soil - Dry Well 34-07	Incidental Ingestion	9E-09	--	--	--	--	--
		Dermal Contact	4E-09	--	--	--	--	--
		Inhalation	1E-13	--	--	--	--	--
		Total	1E-08	--	--	--	--	--
Child Residents	Surface Soil - Site 1	Incidental Ingestion	1E-05	--	--	Aroclor-1248, Aroclor-1254	2	Aroclor-1254
		Dermal Contact	1E-06	--	--	--	0.3	--
		Inhalation	3E-10	--	--	--	--	--
		Total	1E-05	--	--	Aroclor-1248, Aroclor-1254	2	Aroclor-1254
	Subsurface Soil - Site 1	Incidental Ingestion	1E-06	--	--	--	0.3	--
		Dermal Contact	2E-07	--	--	--	0.04	--
		Inhalation	4E-11	--	--	--	--	--
		Total	2E-06	--	--	--	0.3	--
	Groundwater	Incidental Ingestion	3E-04	Hexavalent Chromium	--	Arsenic	0.8	--
		Dermal Contact	6E-05	--	Hexavalent Chromium	--	0.09	--
		Inhalation	0E+00	--	--	--	--	--
		Total	3E-04	Hexavalent Chromium	--	Arsenic	0.9	--
	Subsurface Soil - Dry Well 34-07	Incidental Ingestion	2E-07	--	--	--	--	--
		Dermal Contact	3E-08	--	--	--	--	--
		Inhalation	6E-12	--	--	--	--	--
		Total	2E-07	--	--	--	--	--

TABLE 6-25
SUMMARY OF CANCER RISKS AND HAZARD INDICES - CENTRAL TENDENCY EXPOSURES
NWIRP BETHPAGE, NEW YORK

Receptor	Media	Exposure Route	Cancer Risk	Chemicals with Cancer Risks > 10^{-4}	Chemicals with Cancer Risks > 10^{-5} and ≤ 10^{-4}	Chemicals with Cancer Risks > 10^{-6} and ≤ 10^{-5}	Hazard Index	Chemicals Contributing to an Target Organ HI > 1
Adult Residents	Surface Soil - Site 1	Incidental Ingestion	3E-06	--	--	Aroclor-1248	0.2	--
		Dermal Contact	5E-07	--	--	--	0.03	--
		Inhalation	1E-09	--	--	--	--	--
		Total	4E-06	--	--	Aroclor-1248	0.2	--
	Subsurface Soil - Site 1	Incidental Ingestion	4E-07	--	--	--	0.03	--
		Dermal Contact	7E-08	--	--	--	0.005	--
		Inhalation	1E-10	--	--	--	--	--
		Total	5E-07	--	--	--	0.03	--
	Groundwater	Incidental Ingestion	4E-05	--	Hexavalent Chromium	Arsenic	0.3	--
		Dermal Contact	1E-05	--	--	Hexavalent Chromium	0.06	--
		Inhalation	0E+00	--	--	--	--	--
		Total	5E-05	--	Hexavalent Chromium	Arsenic	0.4	--
	Subsurface Soil - Dry Well 34-07	Incidental Ingestion	7E-08	--	--	--	--	--
		Dermal Contact	1E-08	--	--	--	--	--
		Inhalation	2E-11	--	--	--	--	--
		Total	8E-08	--	--	--	--	--
Lifelong (Child and Adult)	Surface Soil - Site 1	Incidental Ingestion	1E-05	--	--	Aroclor-1248, Aroclor-1254	NA	--
		Dermal Contact	2E-06	--	--	Aroclor-1248	NA	--
		Inhalation	1E-09	--	--	--	NA	--
		Total	1E-05	--	--	Aroclor-1248, Aroclor-1254	NA	--
	Subsurface Soil - Site 1	Incidental Ingestion	2E-06	--	--	--	NA	--
		Dermal Contact	3E-07	--	--	--	NA	--
		Inhalation	2E-10	--	--	--	NA	--
		Total	2E-06	--	--	--	NA	--
	Groundwater	Incidental Ingestion	3E-04	Hexavalent Chromium	--	Arsenic	NA	--
		Dermal Contact	8E-05	--	Hexavalent Chromium	--	NA	--
		Inhalation	0E+00	--	--	--	NA	--
		Total	4E-04	Hexavalent Chromium	--	Arsenic	NA	--
	Subsurface Soil - Dry Well 34-07	Incidental Ingestion	3E-07	--	--	--	NA	--
		Dermal Contact	4E-08	--	--	--	NA	--
		Inhalation	3E-11	--	--	--	NA	--
		Total	3E-07	--	--	--	NA	--

- No chemical meets this criterion.

TABLE 6-26
CHEMICALS RETAINED AS CHEMICALS OF CONCERN FOR DIRECT CONTACT EXPOSURES
NWIRP BETHPAGE, NEW YORK

Chemical	Receptor					
	Construction Workers	Industrial Workers	Adolescent Trespassers	Child Residents	Adult Residents	Lifelong Residents
Site 1 - Surface Soil						
Aroclor-1248						X
Aroclor-1254				X		X
Aroclor-1262				X		X
Site 1 - Shallow Subsurface Soil.						
No COCs were identified for shallow subsurface soil						
Dry Well 34-07 - Shallow Subsurface Soil.						
No COCs were identified for shallow subsurface soil						
Groundwater						
Aroclor-1242				X	X	X
Aroclor-1248				X	X	X
Arsenic				X	X	X
Hexavalent Chromium				X	X	X
Vapor Intrusion						
Tetrachloroethene				X	X	X
Trichloroethene				X	X	X

X - Chemical is retained as a chemical of concern (COC).
A chemical is retained as a direct contact COC if it contributed to a total cancer risk greater than $1x10^{-4}$ or to a target organ hazard index greater than 1.

TABLE 6-27
AVERAGE INFLUENT CONCENTRATIONS FOR SOIL VAPOR EXTRACTION CONTAINMENT SYSTEM
NWIRP BETHPAGE
BETHPAGE, NEW YORK

Compound	Influent (µg/m^3)												
	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13
Acetone	9.9 J	8.7 J	8.4 J	6.2 J	7.2 J	6 J	6.4 J	15 J	8.3 J	4.8 J	15 J	8.8 J	9.3 J
alpha-Chlorotoluene				0	0.19 J				0.47 J				0.52 J
Benzene	0.35 J	0.2 J		0.46 J		1.8	0		0.24 J	0			0.83 J
Bromomethane											1.6 J		0.75 J
2-Butanone	1.6 J	2.3 J		1.3 J		1.1 J			2.9 J	1.5 J	1.8 J	3.8 J	2.8 J
Carbon Disulfide		2 J	1.4 J	0.7 J	1.7 J	3.5 J	7.6 J	1.6 J	1.5 J	1.6 J	2.9 J	1.7 J	1.7 J
Carbon Tetrachloride	1.3 J	0.9 J	1.5 J	1.7 J	1.8 J	3.5 J	3.8 J	4.6 J	2.3 J	1.9 J	2.2 J	1.9 J	1.2 J
Chlorobenzene				2.2 J					1.5 J	1.7 J		1.4 J	1.5 J
Chloroform	7.1	7.5	6	5.5	3.8 J	3.4 J	2.7 J	2.7 J	2.7 J	3.4 J	3 J	7.7	5.2
Chloromethane		0.9 J								0			
Cumene	43	9.5 J	2.7	2.8	2.7	2.1	1.4 J	2.1 J	2	3.3	7.8	9	18
Cyclohexane					9	8.4	7.3		1.8	0			0
1,2-Dichlorobenzene				1.4 J									0.46 J
1,3-Dichlorobenzene				1.6 J	0.35 J				0.42 J	0.55 J	0.92 J	0.46 J	0.45 J
1,4-Dichlorobenzene				1.9 J	0.75 J				0	1 J	1.2 J		0.5 J
1,1-Dichloroethane	17	18	20	21	24	21	17	17	15	16	12	14	8.1
1,2-Dichloroethane	1.1 J	1.2 J	1.5 J	1.3 J	1.1 J	0.65 J			0.93 J	0.95 J		1.1 J	0.78 J
1,1-Dichloroethene	0.6 J		1.9 J	1.8 J	2.8 J	1.4 J	1.6 J	0.85 J	2.7 J	2.5 J	0.8 J	2.5 J	2.1 J
cis-1,2-Dichloroethene	180	175	185	275	305	295	240	215	190	210	150	160	123
trans-1,2-Dichloroethene	1.2 J	1.2 J	2.1 J	5	4.6	2.9 J	2 J	2.4 J	3.1 J	2.7 J	2.1 J	2.3 J	1.8 J
trans-1,3-Dichloropropene					0.57 J								0.34 J
Ethanol	4.3 J		3.2 J	2.8	1.6 J		3.9	0.36 J		0	10 J		6.4 J
Ethylbenzene				0.48 J		1.8					0.6 J		
4-Ethyltoluene				0.6 J		0.37 J			0.27 J	0.34 J			0.52 J
Freon 11	8	8.5	6.9	4.2	2.8 J	2.9 J	3.1 J	3.4 J	3.4 J	3.7 J	4.8 J	5.8	3.2 J
Freon 12	3.3 J	3.3 J	3.1 J	3.4 J	2.3 J	2.9 J	2.9 J	3.1 J	2.8 J	2.4 J	3.2 J	2.9 J	2.9 J
Freon 113	76	97	101	115	115	87	96	85	56	66	63	58	50
Heptane				0.35 J	0.6 J	0				0	0.55 J	3.2 J	
Hexachlorobutadiene					0								
Hexane	0.46 J		0.6 J	0.98 J	0.95 J	0.33 J	0.6 J			0	0.9 J	11	0.6 J
2-Hexanone	0.49 J											1.1 J	
Methyl-t-butyl Ether													0.48 J
Methylene Chloride	1.8 J	2.1 J	0.84 J	0.44 J	0.29 J	0.49 J	1.5 J		0	0	1 J	0.5 J	1 J
2-Propanol		0				0.9 J				0	1.4 J		0.9 J
Propylbenzene	0.16 J					0.25 J				0			
Styrene									0.15 J	0	0.6 J	0.2 J	
Tetrachloroethene	705	835	800	925	860	825	735	735	565	605	530	575	515
Tetrahydrofuran	4.9	32	3.5	1.3	2.6 J	1.6 J	1 J	0.23 J	1.6 J	2.1 J	1.1 J		3.3
Toluene	1.5 J	0.32 J	1.1 J	2.3 J	1.1 J	18 J	1.3 J	0.31 J	0.6 J	0.92 J	3.1 J	1 J	8.8
1,2,4-Trichlorobenzene				4.3 J	0						2.3 J		
1,1,1-Trichloroethane	280	335	375	355	395	375	330	285	190	215	215	290	185
Trichloroethene	980	1350	1300	1200	1230	1100	1025	870	745	760	645	825	730
1,2,4-Trimethylbenzene	0.64 J			0.8 J		0.6 J						0.49 J	
1,3,5-Trimethylbenzene				0.31 J		0							
2,2,4-Trimethylpentane	1 J	1.9 J	1.9 J	1.6 J	0.89 J	9.9	2.2 J	1.4 J	0.75 J	0.65 J	3.1 J	65	0.76 J
Vinyl Chloride								0.33 J			0.35 J		
m,p-Xylene	0.38 J	0.42 J	0.34 J	1.9 J		8				0	1.6 J	0.46 J	1.4 J
o-Xylene				0.36 J		3				0	0.39 J	0.47 J	0.58 J

Shaded values indicate that the contaminant was not detected during that sampling period.
J - Estimated value

TABLE 6-28
SELECTION OF CONTAMINANTS OF POTENTIAL CONCERN (INFLUENT SOIL VAPOR EXTRACTION DATA)
NWIRP BETHPAGE
BETHPAGE, NEW YORK

Compound	Maximum Influent Concentration (µg/m^3)	Average Influent Concentration (µg/m^3)	Residential Regional Screening Levels[1] (µg/m^3)		COPC Screening[2] Level (µg/m^3)
			Carcinogenic	Noncarcinogenic	
Acetone	15	8.8		32,000	32,000
alpha-Chlorotoluene	0.52	0.1			NA
Benzene	1.8	0.3	0.31	31	3.1
Bromomethane	1.6	0.2		5.2	5.2
2-Butanone	3.8	1.5		5,200	5,200
Carbon Disulfide	7.6	2.1		730	730
Carbon Tetrachloride	**4.6**	2.2	**0.41**	**100**	**4.1**
Chlorobenzene	2.2	0.6		52	52
Chloroform	**7.7**	**4.7**	0.11	100	**1.1**
Chloromethane	0.9	0.1		94	94
Cumene	43	8.2		420	420
Cyclohexane	9	2.0		6,300	6,300
1,2-Dichlorobenzene	1.4	0.1		210	210
1,3-Dichlorobenzene	1.6	0.4			NA
1,4-Dichlorobenzene	1.9	0.4	0.22	830	2.2
1,1-Dichloroethane	**24**	**16.9**	1.5		**15**
1,2-Dichloroethane	**1.5**	0.8	0.094	7.3	**0.94**
1,1-Dichloroethene	2.8	1.7		210	210
cis-1,2-Dichloroethene	305	207.9			NA
trans-1,2-Dichloroethene	5	2.6		260	260
trans-1,3-Dichloropropene	0.57	0.1	0.61	21	6.1
Ethanol	10	2.5			NA
Ethylbenzene	1.8	0.2	0.97	1,000	9.7
4-Ethyltoluene	0.6	0.2			NA
Freon 11	8.5	4.7		730	730
Freon 12	3.4	3.0		100	100
Freon 113	115	81.9		31,000	31,000
Heptane	3.2	0.4			NA
Hexachlorobutadiene	0	0.0	0.11		1.1
Hexane	11	1.3		730	730
2-Hexanone	1.1	0.1		31	31
Methyl-t-butyl Ether	0.48	0.0	9.4	3,100	94
Methylene Chloride	2.1	0.8	96	630	630
2-Propanol	1.4	0.2		7,300	7,300
Propylbenzene	0.25	0.0		1,000	1,000
Styrene	0.6	0.1		1,000	1,000
Tetrachloroethene	**925**	**708.5**	9.4	42	**42**
Tetrahydrofuran	32	4.2		2,100	2,100
Toluene	18	3.1		5,200	5,200
1,2,4-Trichlorobenzene	**4.3**	0.5		2.1	**2.1**
1,1,1-Trichloroethane	395	294.2		5,200	5,200
Trichloroethene	**1350**	**981.5**	0.43	2.1	**2.1**
1,2,4-Trimethylbenzene	0.8	0.2		7.3	7.3
1,3,5-Trimethylbenzene	0.31	0.0			NA
2,2,4-Trimethylpentane	65	6.9			NA
Vinyl Chloride	0.35	0.1	0.16	100	1.6
m,p-Xylene	8	1.1		100	100
o-Xylene	3	0.4		100	100

Shaded cells indicate which contaminant is a COPC and shows which concentration exceeds the COPC Screening Level.
Blank cells indicate that no Regional Screening Level was available.
1 - EPA Residential Regional Screening Levels (May 2013)

2 - COPC Screening Level is lesser of carcinogenic screening level and one-tenth noncarcinogenic screening level with application of an AF of 0.1.

NA - No carcinogenic or noncarcinogenic Regional Screening Level was available for this contaminant.

TABLE 6-29
RISKS BASED ON PREDICTED INDOOR AIR CONCENTRATIONS (ATTENUATION FACTOR = 0.1)
NWIRP BETHPAGE
BETHPAGE, NEW YORK

Compound	Influent Concentration ($\mu g/m^3$)		Residential Regional Screening Levels[1] (µg/m3)		Predicted Indoor Air Concentrations (µg/m3)		Risks (Maximum Concentrations)		Risks (Average Concentrations)	
	Maximum	Average	Carcinogenic	Noncarcinogenic	Maximum	Average	ILCR	HQ	ILCR	HQ
Carbon Tetrachloride	4.6	2.2	0.41	100	0.46	0.2	1E-06	0.005	5E-07	0.002
Chloroform	7.7	4.7	0.11	100	0.77	0.5	7E-06	0.008	4E-06	0.005
1,1-Dichloroethane	24	16.9	1.5	NA	2.4	1.7	2E-06	NA	1E-06	NA
1,2-Dichloroethane	1.5	0.8	0.094	7.3	0.15	0.1	2E-06	0.02	9E-07	0.01
Tetrachloroethene	925	708.5	9.4	42	92.5	70.8	1E-05	2	8E-06	2
1,2,4-Trichlorobenzene	4.3	0.5	NA	2.1	0.43	0.1	NA	0.2	NA	0.02
Trichloroethene	1,350	981.5	0.43	2.1	135	98.2	3E-04	64	2E-04	47
						TOTAL	3E-04	67	2E-04	48

1 - EPA Residential Regional Screening Levels (May 2014)
2 - Predicted Indoor Air Concentration = Influent Concentration x 0.1 (AF = 0.1)
ILCR - Incremental Lifetime Cancer Risk
HQ - Hazard Quotient
NA - Not applicable

TABLE 6-30
RISKS BASED ON PREDICTED INDOOR AIR CONCENTRATIONS (ATTENUATION FACTOR = 0.03)
NWIRP BETHPAGE
BETHPAGE, NEW YORK

Compound	Influent Concentration (µg/m^3)		Residential Regional Screening Levels (µg/m^3)		Predicted Indoor Air Concentrations (µg/m^3)		Risks (Maximum Concentrations)		Risks (Average Concentrations)	
	Maximum	Average	Carcinogenic	Noncarcinogenic	Maximum	Average	ILCR	HQ	ILCR	HQ
Carbon Tetrachloride	4.6	2.2	0.41	100	0.14	0.07	3E-07	0.001	2E-07	0.0007
Chloroform	7.7	4.7	0.11	100	0.23	0.14	2E-06	0.002	1E-06	0.001
1,1-Dichloroethane	24	16.9	1.5	NA	0.72	0.51	5E-07	NA	3E-07	NA
1,2-Dichloroethane	1.5	0.8	0.094	7.3	0.05	0.02	5E-07	0.006	3E-07	0.003
Tetrachloroethene	925	708.5	9.4	42	27.75	21.25	3E-06	0.7	2E-06	0.5
1,2,4-Trichlorobenzene	4.3	0.5	NA	2.1	0.13	0.02	NA	0.06	NA	0.007
Trichloroethene	1350	981.5	0.43	2.1	40.50	29.45	9E-05	19	7E-05	14
						TOTAL	1E-04	20	7E-05	15

[1] EPA Residential Regional Screening Levels (May 2014)
[2] Predicted Indoor Air Concentration = Influent Concentration x 0.03 (AF = 0.03)
ILCR - Incremental Lifetime Cancer Risk
HQ - Hazard Quotient
NA - Not applicable.

TABLE 6-31
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - MIGRATION FROM SURFACE SOIL TO GROUNDWATER (0 - 2 FEET BGS)
NWIRP BETHPAGE, NEW YORK

CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	USEPA RSL Protection of Groundwater[5]	Potential ARAR/TBC	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection[6]
PCBs														
12672-29-6	**Aroclor-1248**	24 J	150,000	ug/kg	BPS1-SB3053-0002	39/39	-	150,000	NA	**6.1 C**	NA	NA	**Yes**	ASL
11097-69-1	**Aroclor-1254**	11 J	28,000	ug/kg	BPS1-SB3044-0002	29/39	53 - 15000	28,000	NA	**6.0 C**	NA	NA	**Yes**	ASL
37324-23-5	**Aroclor-1262**	210 J	210 J	ug/kg	BPS1-SB3047-0002	1/39	13 - 15000	210	NA	**27 C[7]**	NA	NA	**Yes**	ASL

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - No background data is available.
5 - USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, May 2014.
6 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level.
7 - Value is for Aroclor-1260.
Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Associated Samples

BPS1-SB3013-0002	BPS1-SB3042-0002
BPS1-SB3014-0002	BPS1-SB3043-0002
BPS1-SB3015-0002	BPS1-SB3044-0002
BPS1-SB3016-0002	BPS1-SB3045-0002
BPS1-SB3017-0002	BPS1-SB3046-0002
BPS1-SB3018-0002	BPS1-SB3047-0002
BPS1-SB3019-0002	BPS1-SB3048-0002
BPS1-SB3020-0002	BPS1-SB3049-0002
BPS1-SB3021-0002	BPS1-SB3050-0002
BPS1-SB3022-0002	BPS1-SB3051-0002
BPS1-SB3023-0002	BPS1-SB3052-0002
BPS1-SB3024-0002	BPS1-SB3053-0002
BPS1-SB3031-0002	BPS1-SB3054-0002
BPS1-SB3032-0002	BPS1-SB3055-0002
BPS1-SB3033-0002	BPS1-SB3056-0002
BPS1-SB3034-0002	BPS1-SB3058-0002
BPS1-SB3035-0002	BPS1-SB3059-0002
BPS1-SB3036-0002	BPS1-SB3062-0002
BPS1-SB3040-0002	BPS1-SB3063-0002
BPS1-SB3041-0002	

Definitions:
ARAR/TBC = Applicable or Relevant and Appropriate Requirements To Be Considered
BGS = Below ground surface
C = Carcinogenic.
COPC = Chemical Of Potential Concern
J = Estimated value
NA = Not Applicable/Not Available

Rationale Codes:
For selection as a COPC:
ASL = Above Screening Level

For elimination as a COPC:
BSL = Below COPC Screening Level

TABLE 6-32
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - MIGRATION FROM SHALLOW SUBSURFACE SOIL TO GROUNDWATER (2 TO 15 FEET BGS)
NWIRP BETHPAGE, NEW YORK

CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	USEPA RSL Protection of Groundwater[5]	Potential ARAR/TBC	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection[6]
PCBs														
53469-21-9	**Aroclor-1242**	560	560	ug/kg	BPS1-SB3013-0510	1/53	13 - 1400	560	NA	**6.1 C**	NA	NA	**Yes**	ASL
12672-29-6	**Aroclor-1248**	3.8 J	21,000	ug/kg	BPS1-SB3015-0205	28/53	13 - 29	21,000	NA	**6.0 C**	NA	NA	**Yes**	ASL
11097-69-1	**Aroclor-1254**	3.8 J	13,000	ug/kg	BPS1-SB3015-0205	23/53	13 - 72	13,000	NA	**10 C**	NA	NA	**Yes**	ASL

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - No background data is available.
5 - USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, May 2014.
6 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level.
Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Associated Samples

BPS1-SB3013-0510	BPS1-SB3023-0510	BPS1-SB3035-0610
BPS1-SB3013-1015	BPS1-SB3023-1015	BPS1-SB3035-1015
BPS1-SB3014-0205	BPS1-SB3024-0205	BPS1-SB3036-0206
BPS1-SB3014-0510	BPS1-SB3024-0510	BPS1-SB3036-0610
BPS1-SB3014-1015	BPS1-SB3024-1015	BPS1-SB3036-1015
BPS1-SB3015-0205	BPS1-SB3031-0205	BPS1-SB3044-0205
BPS1-SB3015-0510	BPS1-SB3031-0510	BPS1-SB3044-0510
BPS1-SB3015-1015	BPS1-SB3031-1015	BPS1-SB3044-1015
BPS1-SB3020-0205	BPS1-SB3032-0206	BPS1-SB3054-0205
BPS1-SB3020-0510	BPS1-SB3032-0610	BPS1-SB3055-0205
BPS1-SB3020-1015	BPS1-SB3032-1015	BPS1-SB3057-0205
BPS1-SB3021-0205	BPS1-SB3033-0206	BPS1-SB3062-0205
BPS1-SB3021-0510	BPS1-SB3033-0610	BPS1-SB3062-0510
BPS1-SB3021-1015	BPS1-SB3033-1015	BPS1-SB3062-1015
BPS1-SB3022-0205	BPS1-SB3034-0206	BPS1-SB3063-0205
BPS1-SB3022-0510	BPS1-SB3034-0610	BPS1-SB3063-0510
BPS1-SB3022-1015	BPS1-SB3034-1015	BPS1-SB3063-1015
BPS1-SB3023-0205	BPS1-SB3035-0206	

Definitions:
ARAR/TBC = Applicable or Relevant and Appropriate Requirements To Be Considered
BGS = Below ground surface
C = Carcinogenic.
COPC = Chemical Of Potential Concern
J = Estimated value
NA = Not Applicable/Not Available

Rationale Codes:
For selection as a COPC:
ASL = Above Screening Level

For elimination as a COPC:
BSL = Below COPC Screening Level

TABLE 6-33
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - MIGRATION FROM DEEP SUBSURFACE SOIL TO GROUNDWATER (15 TO 50 FEET BGS)
NWIRP BETHPAGE, NEW YORK

CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	USEPA RSL Protection of Groundwater[5]	Potential ARAR/TBC	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection[6]
PCBs														
53469-21-9	**Aroclor-1242**	18 J	18 J	ug/kg	BPS1-SB3005-43.043.5	1/48	13 - 16	18	NA	**6.1 C**	NA	NA	**Yes**	ASL
12672-29-6	**Aroclor-1248**	15 J	15,000 J	ug/kg	BPS1-SB3006-32.032.5	9/48	7 - 14	15,000	NA	**6.0 C**	NA	NA	**Yes**	ASL
11097-69-1	**Aroclor-1254**	5.9 J	27 J	ug/kg	BPS1-SB3020-2530	3/48	13 - 16	27	NA	**10 C**	NA	NA	**Yes**	ASL

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - No background data is available.
5 - USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, May 2014.
6 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level.
Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Associated Samples

BPS1-SB3004-27.528	BPS1-SB3021-3035
BPS1-SB3004-3434.5	BPS1-SB3021-3545
BPS1-SB3004-3737.5	BPS1-SB3022-1520
BPS1-SB3004-4242.5	BPS1-SB3022-2025
BPS1-SB3004-4747.5	BPS1-SB3022-2535
BPS1-SB3004-4949.5	BPS1-SB3022-3545
BPS1-SB3005-27.528.0	BPS1-SB3022-4555
BPS1-SB3005-34.034.5	BPS1-SB3024-1520
BPS1-SB3005-37.538.0	BPS1-SB3024-2025
BPS1-SB3005-43.043.5	BPS1-SB3025-2535
BPS1-SB3005-49.049.5	BPS1-SB3025-3545
BPS1-SB3006-32.032.5	BPS1-SB3025-4555
BPS1-SB3007-37.538.0	BPS1-SB3028-2535
BPS1-SB3013-2535	BPS1-SB3028-3545
BPS1-SB3013-3540	BPS1-SB3028-4555
BPS1-SB3020-1520	BPS1-SB3062-1520
BPS1-SB3020-2025	BPS1-SB3062-2025
BPS1-SB3020-2530	BPS1-SB3062-2535
BPS1-SB3020-3035	BPS1-SB3062-3540
BPS1-SB3020-3545	BPS1-SB3063-1520
BPS1-SB3020-4555	BPS1-SB3063-2025
BPS1-SB3021-1520	BPS1-SB3063-2535
BPS1-SB3021-2025	BPS1-SB3063-3545
BPS1-SB3021-2530	BPS1-SB3063-4550

Definitions:
ARAR/TBC = Applicable or Relevant and Appropriate Requirements To Be Considered
BGS = Below ground surface
C = Carcinogenic.
COPC = Chemical Of Potential Concern
J = Estimated value
NA = Not Applicable/Not Available

Rationale Codes:
For selection as a COPC:
ASL = Above Screening Level

For elimination as a COPC:
BSL = Below COPC Screening Level

TABLE 6-34
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - MIGRATION FROM SATURATED TO GROUNDWATER (GREATER THAN 50 FEET BGS)
NWIRP BETHPAGE, NEW YORK

CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	USEPA RSL Protection of Groundwater[5]	Potential ARAR/TBC	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection[6]
Volatile Organic Compounds														
71-55-6	1,1,1-Trichloroethane	26 J	26 J	ug/kg	BPS1-SB3005-54.555.0	1/14	26 - 33	26	NA	280 N	NA	NA	No	BSL
127-18-4	**Tetrachloroethene**	120	120	ug/kg	BPS1-SB3005-54.555.0	1/14	26 - 33	120	NA	**1.8 N**	NA	NA	**Yes**	ASL
PCBs														
53469-21-9	**Aroclor-1242**	110,000 J	160,000 J	ug/kg	BPS1-SB3005-54.555.0	2/31	14 - 17	160,000	NA	**6.1 C**	NA	NA	**Yes**	ASL
12672-29-6	**Aroclor-1248**	4 J	22 J	ug/kg	BPS1-SB3006-53.053.5	7/31	7.3 - 16	22	NA	**6.0 C**	NA	NA	**Yes**	ASL
11096-82-5	**Aroclor-1260**	800 J	910 J	ug/kg	BPS1-SB3005-54.555.0	2/31	14 - 17	910	NA	**27 C**	NA	NA	**Yes**	ASL

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - No background data is available.
5 - USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, May 2014.
6 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level.
Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

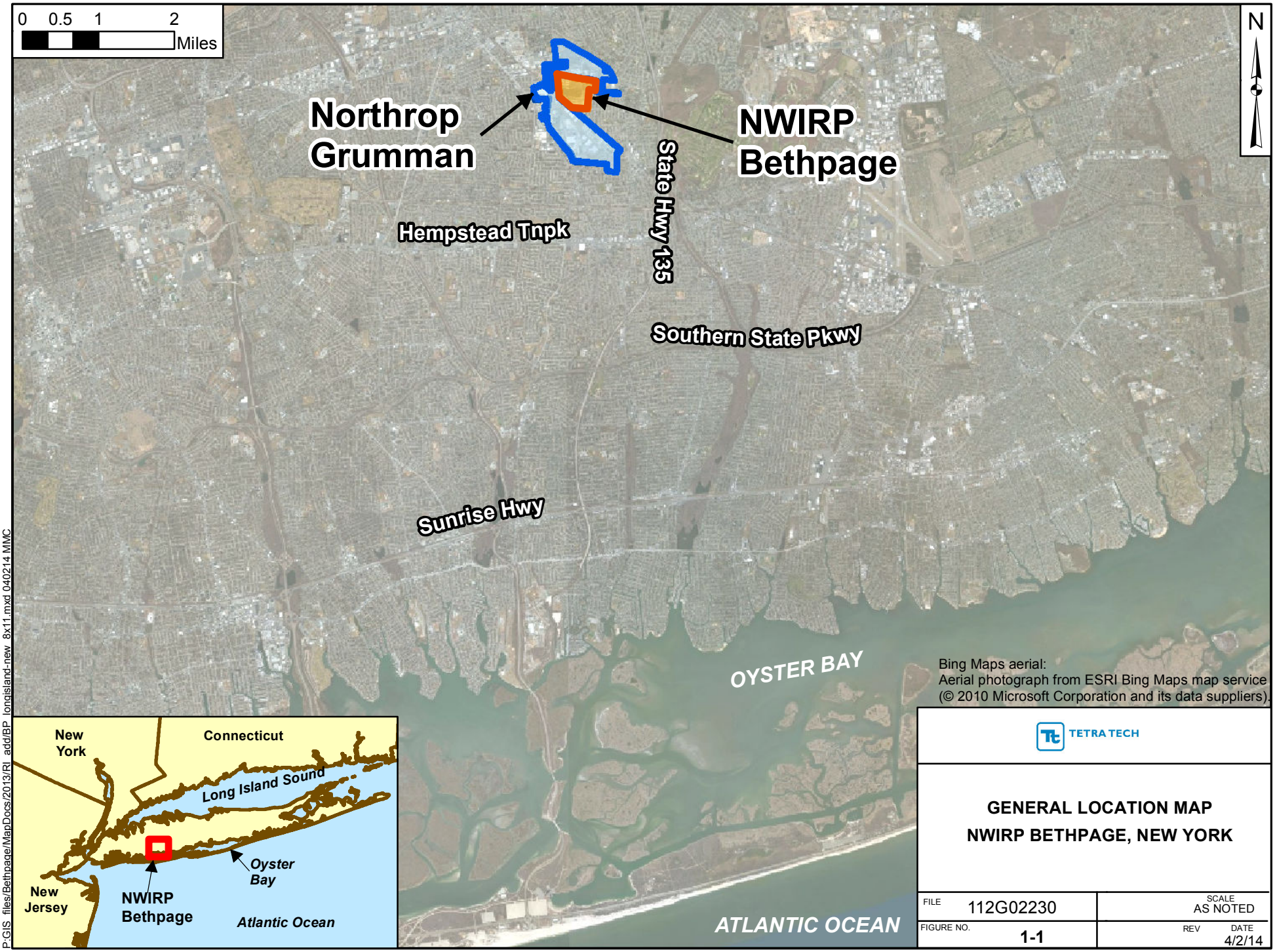
Associated Samples

BPS1-SB3004-116.0116.5
BPS1-SB3004-154154.5
BPS1-SB3004-180190
BPS1-SB3004-235.0235.5
BPS1-SB3004-5454.5
BPS1-SB3004-64.565
BPS1-SB3005-145.0145.5
BPS1-SB3005-180190
BPS1-SB3005-232.5233.0
BPS1-SB3005-54.555.0
BPS1-SB3005-57.558.0
BPS1-SB3005-94.595.0
BPS1-SB3006-117.0117.5
BPS1-SB3006-181.0181.5
BPS1-SB3006-226.5227.0
BPS1-SB3006-53.053.5
BPS1-SB3006-72.072.5
BPS1-SB3007-100.0100.5
BPS1-SB3007-140150
BPS1-SB3007-217.5218.0
BPS1-SB3007-240.250
BPS1-SB3007-57.057.5
BPS1-SB3020-5560
BPS1-SB3021-5565
BPS1-SB3021-7075
BPS1-SB3022-5565
BPS1-SB3022-6575
BPS1-SB3025-5565
BPS1-SB3025-6575
BPS1-SB3028-5565
BPS1-SB3028-6575

Definitions:
ARAR/TBC = Applicable or Relevant and Appropriate Requirements To Be Considered
BGS = Below ground surface
C = Carcinogenic.
COPC = Chemical Of Potential Concern
J = Estimated value
NA = Not Applicable/Not Available
N = Noncarcinogenic.

Rationale Codes:
For selection as a COPC:
ASL = Above Screening Level

For elimination as a COPC:
BSL = Below COPC Screening Level



Bing Maps aerial:
Aerial photograph from ESRI Bing Maps map service
(© 2010 Microsoft Corporation and its data suppliers).

TETRA TECH

GENERAL LOCATION MAP
NWIRP BETHPAGE, NEW YORK

FILE 112G02230	SCALE AS NOTED
FIGURE NO. 1-1	REV / DATE 4/2/14

P:\GIS_files/Bethpage/MapDocs/2013/RI_add/BP_longisland-new_8x11.mxd 040214 MMC

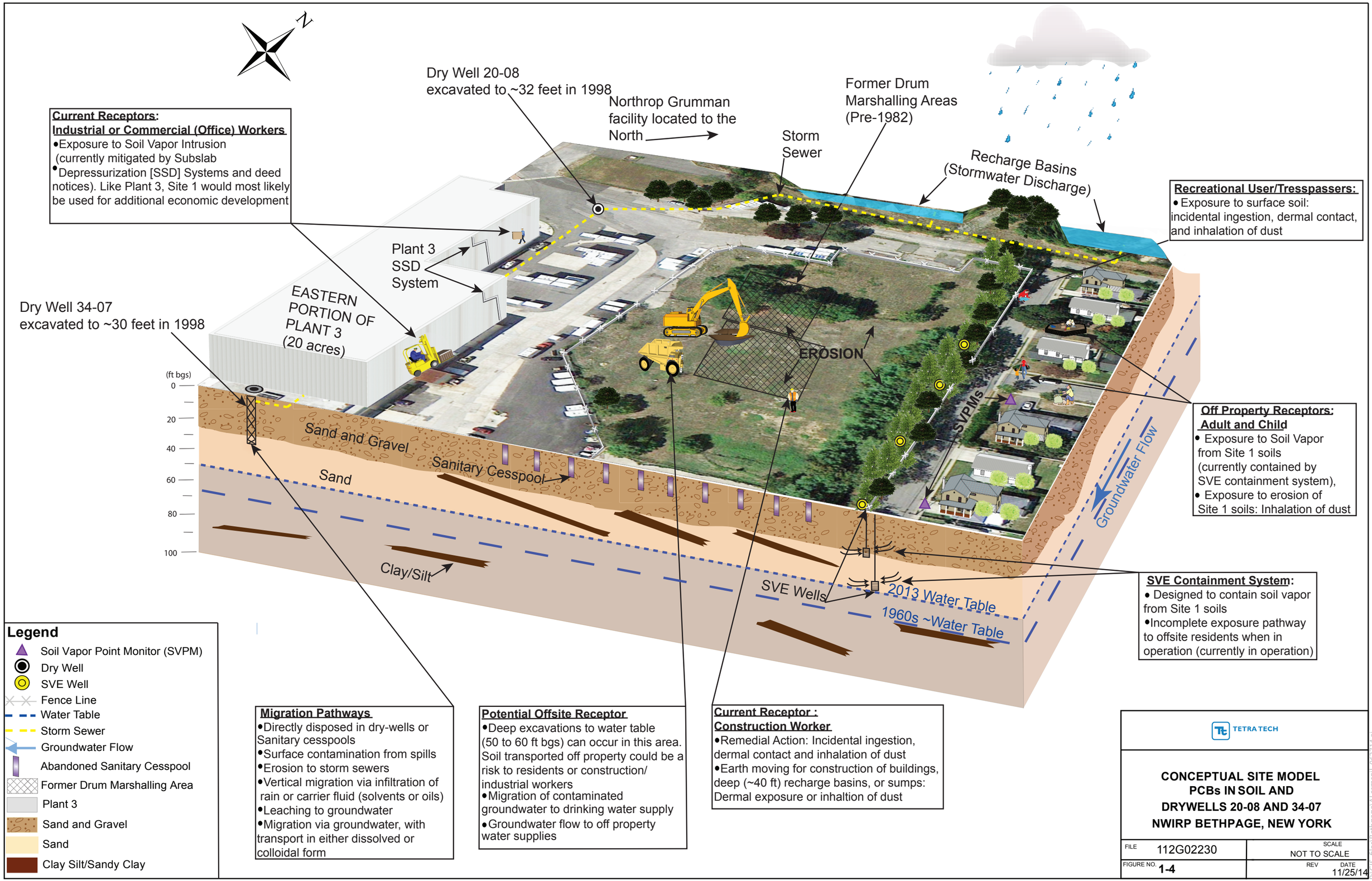
P:\GIS files\Bethpage\MAP DOCS\MXD\2013\BP locmap 101513.mxd MMC 040214

TETRA TECH

SITE 1
FORMER DRUM MARSHALLING AREA
LAYOUT MAP
NWIRP BETHPAGE, NEW YORK

FILE	112G02230	SCALE	AS NOTED
FIGURE NO.	1-3	REV	DATE 4/2/14

P:\GIS_files\Bethpage\MAP_DOCS\MXD\2013\RI_add\SITE1_LAYOUT-021714 MMC 040214


N
Dry Well 20-08
excavated to ~32 feet in 1998
Northrop Grumman
facility located to the
North
Storm
Sewer
Former Drum
Marshalling Areas
(Pre-1982)
Recharge Basins
(Stormwater Discharge)
Current Receptors:
Industrial or Commercial (Office) Workers
•Exposure to Soil Vapor Intrusion
(currently mitigated by Subslab
•Depressurization [SSD] Systems and deed
notices). Like Plant 3, Site 1 would most likely
be used for additional economic development
Recreational User/Tresspassers:
• Exposure to surface soil:
incidental ingestion, dermal contact,
and inhalation of dust
Plant 3
SSD
System
EASTERN
PORTION OF
PLANT 3
(20 acres)
Dry Well 34-07
excavated to ~30 feet in 1998
EROSION
SVPMs
(ft bgs)
0
20
40
60
80
100
Sand and Gravel
Sand
Sanitary Cesspool
Clay/Silt
SVE Wells
2013 Water Table
1960s ~Water Table
Groundwater Flow
Off Property Receptors:
Adult and Child
• Exposure to Soil Vapor
from Site 1 soils
(currently contained by
SVE containment system),
• Exposure to erosion of
Site 1 soils: Inhalation of dust
SVE Containment System:
• Designed to contain soil vapor
from Site 1 soils
•Incomplete exposure pathway
to offsite residents when in
operation (currently in operation)
Legend
Soil Vapor Point Monitor (SVPM)
Dry Well
SVE Well
Fence Line
Water Table
Storm Sewer
Groundwater Flow
Abandoned Sanitary Cesspool
Former Drum Marshalling Area
Plant 3
Sand and Gravel
Sand
Clay Silt/Sandy Clay
Migration Pathways
•Directly disposed in dry-wells or
Sanitary cesspools
•Surface contamination from spills
•Erosion to storm sewers
•Vertical migration via infiltration of
rain or carrier fluid (solvents or oils)
•Leaching to groundwater
•Migration via groundwater, with
transport in either dissolved or
colloidal form
Potential Offsite Receptor
•Deep excavations to water table
(50 to 60 ft bgs) can occur in this area.
Soil transported off property could be a
risk to residents or construction/
industrial workers
•Migration of contaminated
groundwater to drinking water supply
•Groundwater flow to off property
water supplies
Current Receptor :
Construction Worker
•Remedial Action: Incidental ingestion,
dermal contact and inhalation of dust
•Earth moving for construction of buildings,
deep (~40 ft) recharge basins, or sumps:
Dermal exposure or inhaltion of dust
TETRA TECH
CONCEPTUAL SITE MODEL
PCBs IN SOIL AND
DRYWELLS 20-08 AND 34-07
NWIRP BETHPAGE, NEW YORK
FILE 112G02230
SCALE NOT TO SCALE
FIGURE NO. 1-4
REV
DATE 11/25/14

P:\GIS_files\Bethpage\MAP DOCS\MXD\2013\RI add\site1_sdsw_102213.MXD mmc 021814

TETRA TECH

SURFACE WATER AND SEDIMENT SAMPLE LOCATION MAP
NWIRP BETHPAGE, NEW YORK

FILE 112G02230	SCALE AS NOTED
FIGURE NO. 2-1	REV DATE 2/18/14

TETRA TECH

SURFACE SOIL
SAMPLE LOCATION MAP
SITE 1-AND DRY WELL 20-08
NWIRP BETHPAGE, NEW YORK

FILE 112G02230	SCALE AS NOTED
FIGURE NO. 2-2	REV / DATE 2/18/14

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TETRA TECH

SUBSURFACE SOIL BORING
SAMPLE LOCATION MAP
SITE 1-AND DRY WELL 20-08
NWIRP BETHPAGE, NEW YORK

FILE 112G02230	SCALE AS NOTED
FIGURE NO. 2-3	REV DATE 2/18/14

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TETRA TECH

SUBSURFACE SOIL BORING SAMPLE LOCATION MAP SOUTH OF SITE 1-AND DRY WELL 34-07 NWIRP BETHPAGE, NEW YORK

FILE 112G02230	SCALE AS NOTED
FIGURE NO. 2-4	REV / DATE 2/18/14

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MONITORING WELL LOCATION MAP
SITE 1-
FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

FILE	112G02230	SCALE	AS NOTED
FIGURE NO.	FIGURE 2-5	REV	DATE 2/18/14

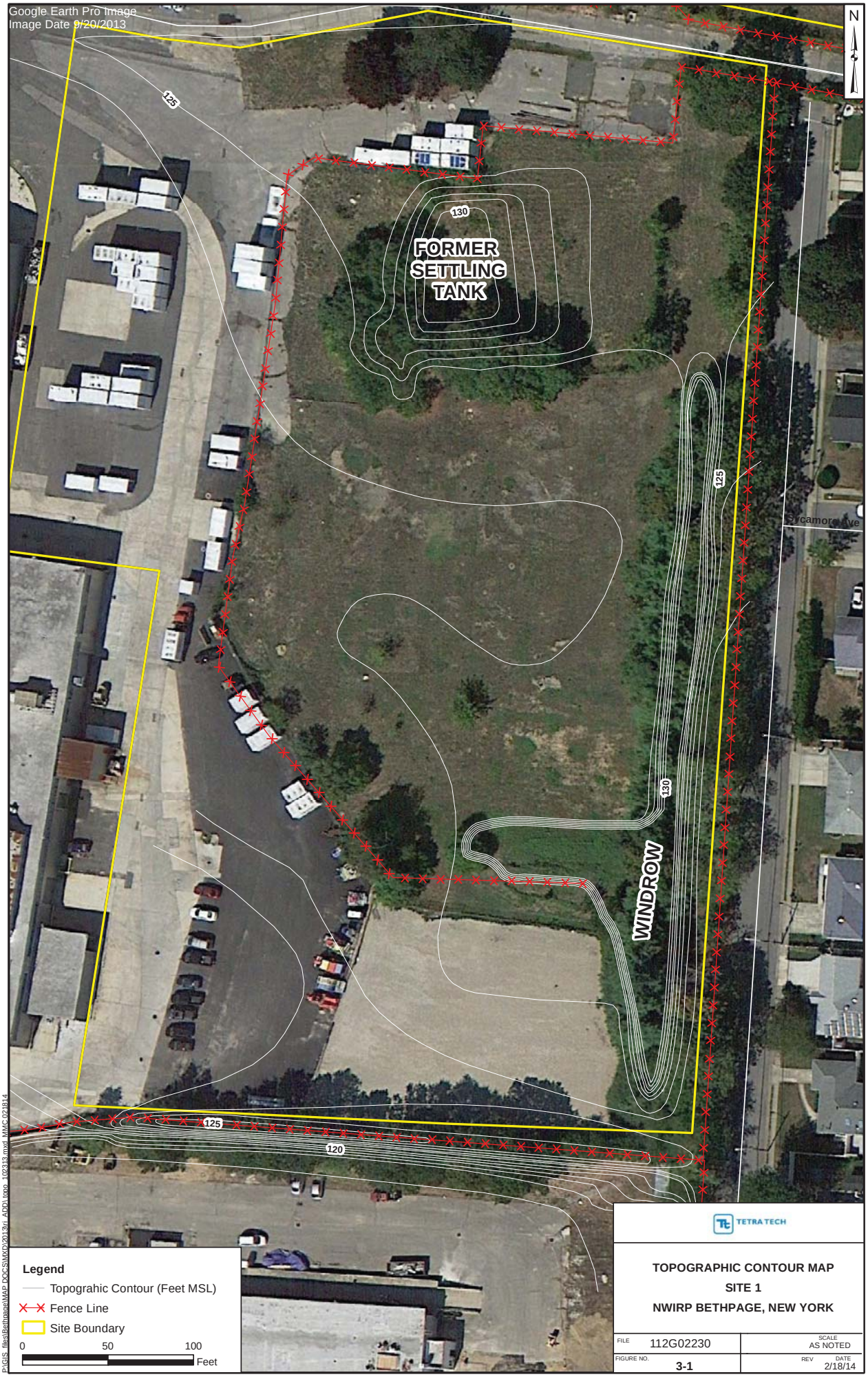
P:\GIS_files\Bethpage\MAP DOCS\MXD\Bethpage_Site1_pcb sample_loc_01062013.mxd MMC 021814

TETRA TECH

SVE AND SVPM
LOCATION MAP
SITE 1-SVE CONTAINMENT SYSTEM
NWIRP BETHPAGE, NEW YORK

FILE	SCALE
112G02230	AS NOTED
FIGURE NO. 2-6	REV / DATE 2/18/14

P:\GIS_files\Bethpage\MAP DOCS\MXD\2013\RI_add\SITE1_sve_locmp_111413.mxd MMC 022814



TETRA TECH

TOPOGRAPHIC CONTOUR MAP

SITE 1

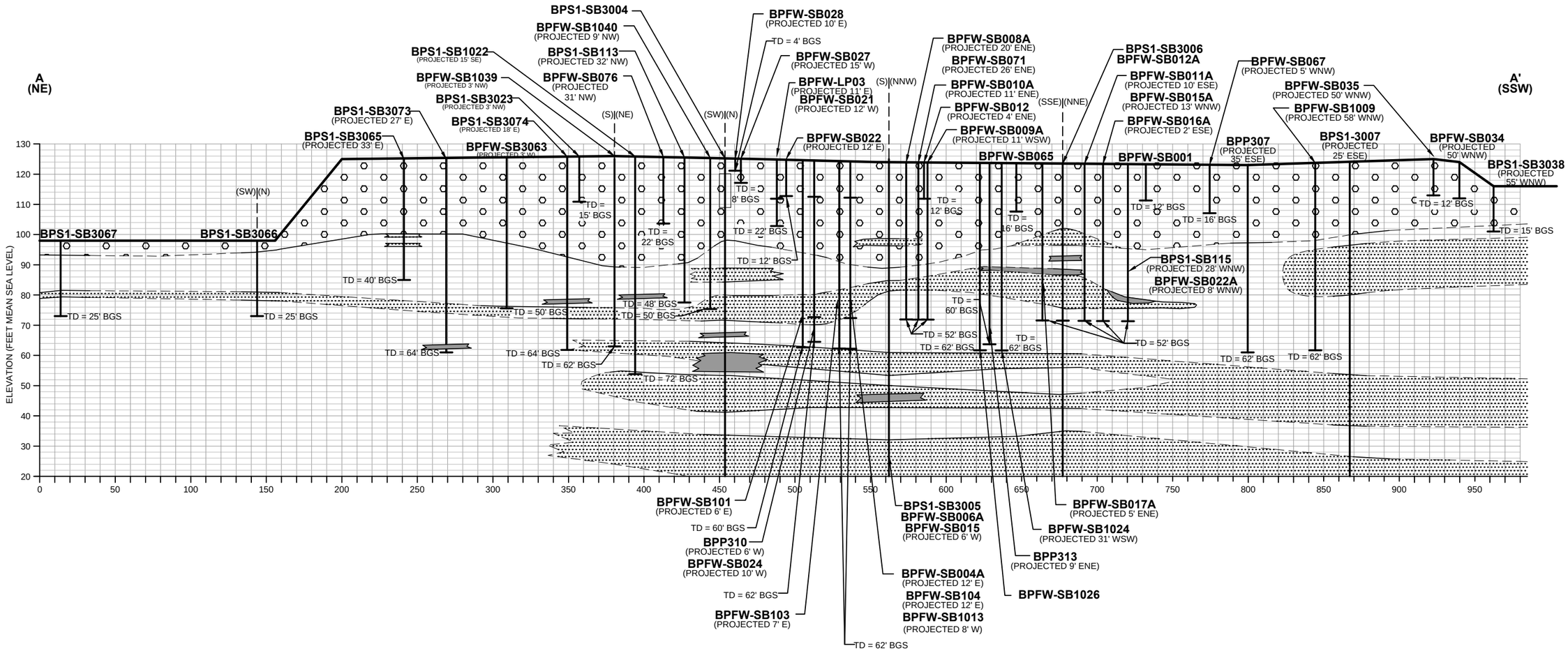
NWIRP BETHPAGE, NEW YORK

FILE 112G02230	SCALE AS NOTED
FIGURE NO. 3-1	REV DATE 2/18/14

P:\GIS_files\Bethpage\MAP DOCS\MXD\2013\1_ADD\topo_102313.mxd MMC 021814

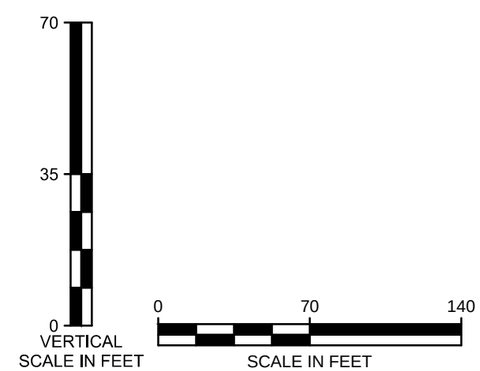
Google Earth Pro Image
Image Date 9/20/2013
N
A
A'
B
B'
BPS1-SB3067
BPS1-SB3069
BPS1-SB3066
BPS1-SB3068
BPS1-SB3065
BPS1-SB3073
BPS1-SB3064
BPS1-SB3062
BPS1-SB3063
BPS1-SB3071
BPS1-SB3074
BPS1-SB3061
BPS1-SB3072
BPS1-SB3070
BPS1-SB3022
BPS1-SB3023S
BPS1-SB3045
BPS1-SB3046
BPS1-SB3026
BPS1-SB3047
BPS1-SB3027
BPS1-SB3013
BPS1-SB3060
BPS1-SB3048
BPS1-SB3031
BPS1-SB3008
BPS1-SB3004
BPS1-SB3024
BPS1-SB3051
BPS1-SB3049
BPS1-SB3050
HN-MW27I
BPS1-SB3028
BPS1-SB3014
BPS1-SB3025
BPS1-SB3053
BPS1-SB3052
BPS1-SB3054
BPS1-SB3005
BPS1-SB3055
BPS1-SB3032
BPS1-SB3044
BPS1-SB3015
BPS1-SB3021
BPS1-SB3056
BPS1-SB3057
BPS1-SB3020
BPS1-SB3006
BPS1-SB3058
BPS1-SB3016
BPS1-SB3033
BPS1-SB3059
BPS1-SB3017
BPS1-SB3034
BPS1-SB3043
BPS1-SB3007
BPS1-SB3042
BPS1-SB3019
BPS1-SB3018
BPS1-SB3035
BPS1-SB3041
BPS1-SB3040
BPS1-SB3001
BPS1-SB3003
BPS1-SB3036
BPS1-SB3039
BPS1-SB3038
BPS1-SB3037
BPS1-SB3012
Sycamore Ave
11th St
Legend
Dry Well
Monitoring Well
2010-2013 Soil Boring
Soil Boring
Fence Line
Site Boundary
0
75
150
Feet
TETRA TECH
CROSS SECTION LOCATION MAP
SITE 1-
FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK
FILE 112G02230
SCALE AS NOTED
FIGURE NO. 3-2
REV
DATE 2/18/14
P:\GIS_files\Bethpage\MAP_DOCS\MXD\Bethpage_Site1_pcb site1_crosssection_071513.MXD mmc 021814

112G02230/MS.TA/112G02230GS01-1.DWG 11/08/13 MKB



LEGEND

	SAND AND GRAVEL
	F-C SAND
	SILTY VF-F SAND
	CLAY, CLAYEY SILT, OR SANDY CLAY
BPFWSISB027	SOIL BORING
(PROJECTED 19' W)	PROJECTED DISTANCE AND DIRECTION
	GROUND SURFACE
	CLAY LENS (FEW INCHES)
TD = 12' BGS	TOTAL DEPTH (BGS) BELOW GROUND SURFACE

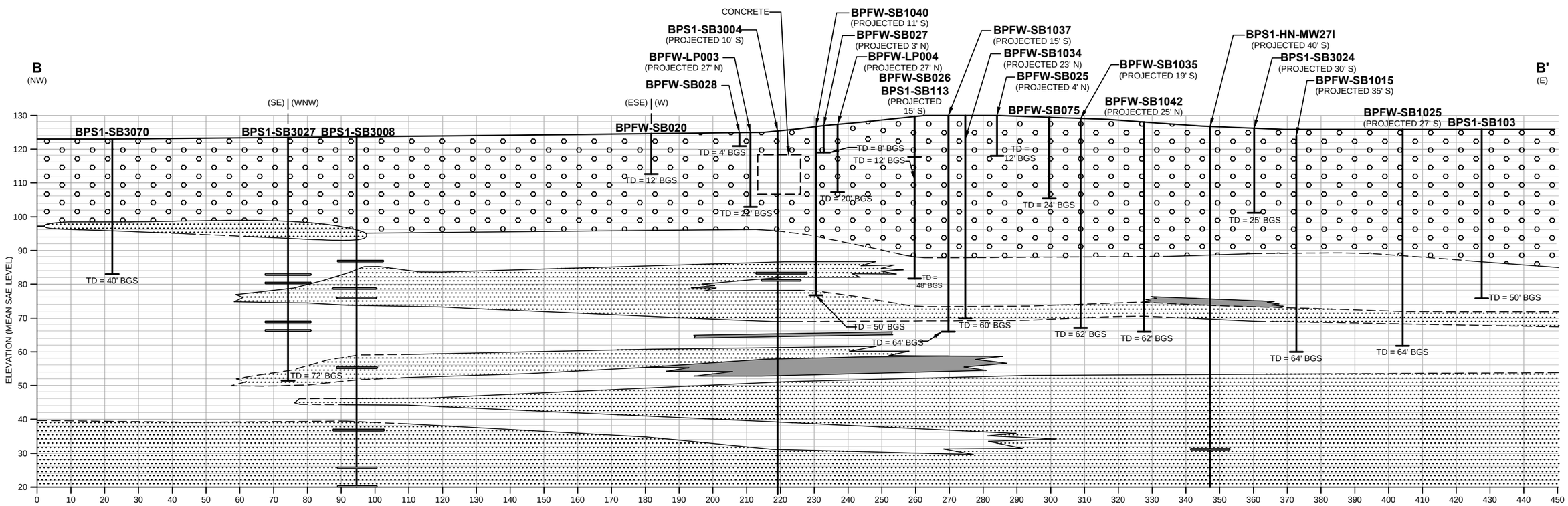


TETRA TECH

GEOLOGIC CROSS SECTION A – A'
SITE 1 – FORMER DRUM
MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

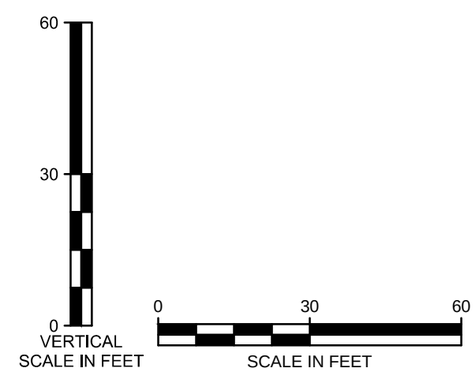
FILE 112G02230GS01-1	SCALE AS NOTED
FIGURE NUMBER FIGURE 3-3	REV 0 / DATE 11/08/13

112G02230/MS.TA/112G02230GS02-1.DWG 11/08/13 MKB



LEGEND

	SAND AND GRAVEL
	F-C SAND
	SILTY VF-F SAND
	CLAY, CLAYEY SILT, OR SANDY CLAY
BPS1-SB113	SOIL BORING
(PROJECTED 25' N)	PROJECTED DISTANCE AND DIRECTION
	GROUND SURFACE
	CLAY LENS (FEW INCHES)
TD = 48' BGS	TOTAL DEPTH (BGS) BELOW GROUND SURFACE



TETRA TECH

GEOLOGIC CROSS SECTION B – B'
SITE 1 – FORMER DRUM
MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

FILE 112G02230GS02-1	SCALE AS NOTED
FIGURE NUMBER FIGURE 3-4	REV 0 / DATE 11/08/13

Google Earth Pro Image
Image Date 9/20/2013
N
Aerospace Blvd
Former Grumman Recharge Basin Area
BPS1-TT-MW310S
73.64
73.5
73.42
BPS1-TT-MW311S,I
BPS1-TT-MW312S,I
73.67
BPS1-TT-MW309 S,I,D
73.59
73.5
73.48
BPS1-TT-MW313S
FORMER SLUDGE DRYING BEDS
Site 3
73.0
73.14
BPS1-TT-MW308 S,I,D
73.0
Site 2
72.5
72.5
72.0
71.87
BPS1-TT-MW314S,I
72.37
BPS1-TT-MW301 S,I,D
BPS1-HN-MW27 I
Plant No. 3
Site 1
Sycamore Ave
BPTT-AOC22-MW11
72.0
71.61
BPS1-FW-02
71.61
BPS1-FW-01
71.5
Site 4
71.81
BPS1-FW-03
BPTT-AOC22-MW10
BPS1-HN-MW29 I,D
BPTT-AOC22-MW06
71.5
71.0
Maple Ave
71.31
BPS1-TT-MW-303 S,I1,I2,D
71.26
BPS1-TT-MW-302 S,I1,I2,D
BPS1-TT-MW-304 S,I1,I2,D
70.86
Plant 17 South
71.0
70.5
BPS1-TT-MW-305 S,I,D
70.81
BPS1-TT-MW306 S,I,D
70.64
BPS1-TTMW307 S,I,D
70.39
70.5
Thomas Ave
Meade Ave
Grumman Rd
Railroad
Legend
Existing Monitoring Well
Groundwater Contour (Feet MSL)
Groundwater Contour Inferred (Feet MSL)
0 125 250 500
Feet
TETRA TECH
SHALLOW (WATER TABLE)
POTENTIOMETRIC SURFACE MAP
APRIL 2013
SITE 1-
FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK
FILE 112G02230
SCALE AS NOTED
FIGURE NO. FIGURE 3-5
REV
DATE 2/18/14
P:\GIS_files\Bethpage\MAP DOCS\MXD\Bethpage_Site1_pot_shallow_043013.mxd MMC 021814

INTERMEDIATE (95 to 200 FEET BGS)
POTENTIOMETRIC SURFACE MAP
APRIL 2013
SITE 1-
FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

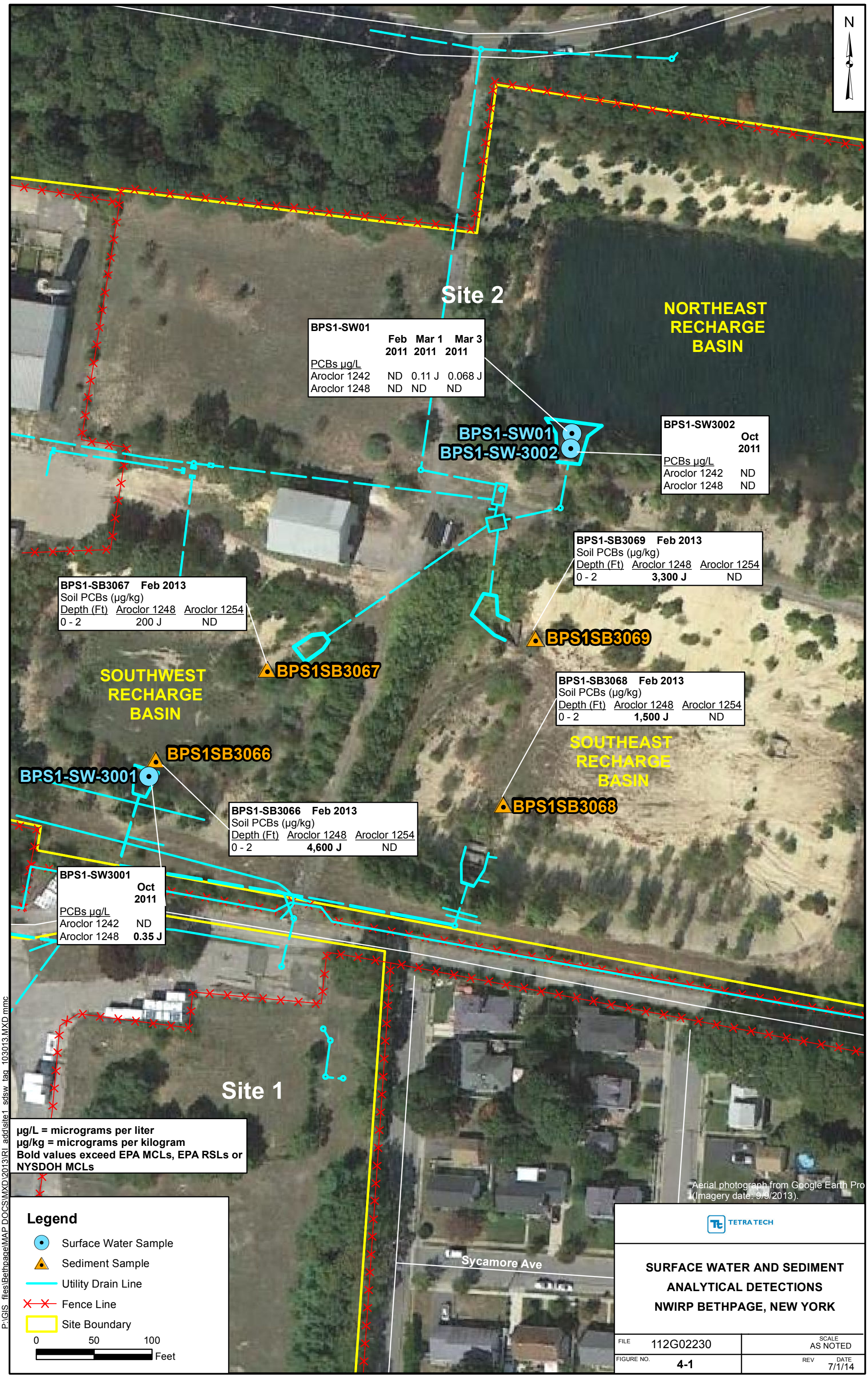
FILE 112G02230	SCALE AS NOTED
FIGURE NO. FIGURE 3-6	REV / DATE 2/18/14

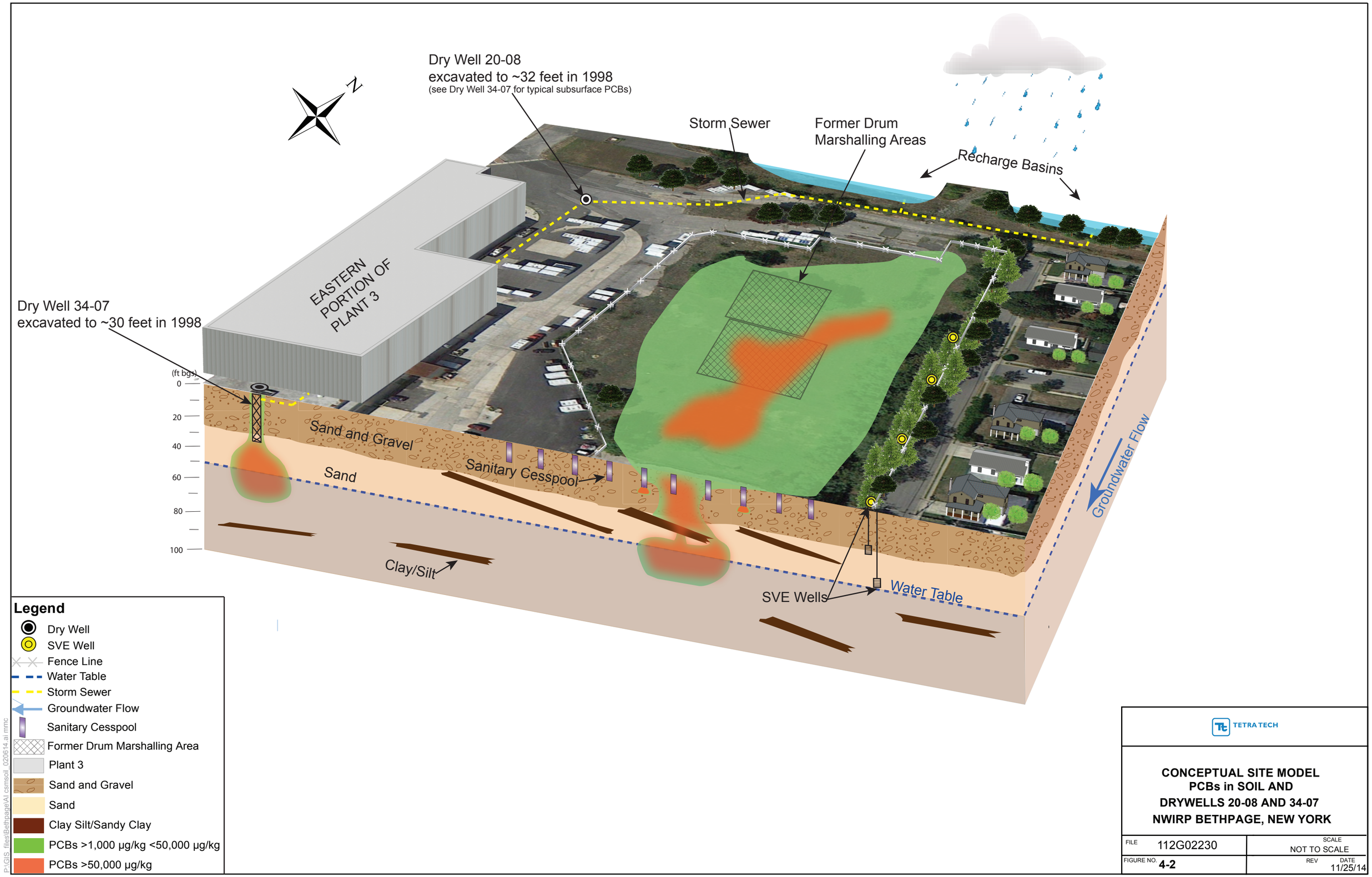
P:\GIS_files\Bethpage\MAP DOCS\MXD\Bethpage_Site1_pcb site1_pot_intermediate_043013.mxd MMC 021814

DEEP (180 to 296 FEET BGS)
POTENTIOMETRIC SURFACE MAP
APRIL 2013
SITE 1-
FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

FILE 112G02230	SCALE AS NOTED
FIGURE NO. FIGURE 3-7	REV / DATE 2/18/14

P:\GIS_files\Bethpage\MAP DOCS\MXD\Bethpage_Site1_peb site1 pot deep 043013.mxd MMC 021814


N
Site 2
NORTHEAST RECHARGE BASIN
BPS1-SW01
Feb 2011 | Mar 1 2011 | Mar 3 2011
PCBs µg/L
Aroclor 1242 ND 0.11 J 0.068 J
Aroclor 1248 ND ND ND
BPS1-SW01
BPS1-SW-3002
BPS1-SW3002
Oct 2011
PCBs µg/L
Aroclor 1242 ND
Aroclor 1248 ND
BPS1-SB3069 Feb 2013
Soil PCBs (µg/kg)
Depth (Ft) Aroclor 1248 Aroclor 1254
0 - 2 3,300 J ND
BPS1-SB3067 Feb 2013
Soil PCBs (µg/kg)
Depth (Ft) Aroclor 1248 Aroclor 1254
0 - 2 200 J ND
BPS1SB3069
BPS1SB3067
SOUTHWEST RECHARGE BASIN
BPS1-SB3068 Feb 2013
Soil PCBs (µg/kg)
Depth (Ft) Aroclor 1248 Aroclor 1254
0 - 2 1,500 J ND
SOUTHEAST RECHARGE BASIN
BPS1SB3066
BPS1-SW-3001
BPS1SB3068
BPS1-SB3066 Feb 2013
Soil PCBs (µg/kg)
Depth (Ft) Aroclor 1248 Aroclor 1254
0 - 2 4,600 J ND
BPS1-SW3001
Oct 2011
PCBs µg/L
Aroclor 1242 ND
Aroclor 1248 0.35 J
Site 1
µg/L = micrograms per liter
µg/kg = micrograms per kilogram
Bold values exceed EPA MCLs, EPA RSLs or NYSDOH MCLs
Legend
Surface Water Sample
Sediment Sample
Utility Drain Line
Fence Line
Site Boundary
0 50 100
Feet
Sycamore Ave
Aerial photograph from Google Earth Pro (Imagery date: 9/9/2013).
TETRA TECH
SURFACE WATER AND SEDIMENT ANALYTICAL DETECTIONS
NWIRP BETHPAGE, NEW YORK
FILE 112G02230
SCALE AS NOTED
FIGURE NO. 4-1
REV
DATE 7/1/14
P:\GIS_files\Bethpage\MAP DOCS\MXD\2013\RI_add\site1_sdsw_tag_103013.MXD mmc


Dry Well 20-08
excavated to ~32 feet in 1998
(see Dry Well 34-07 for typical subsurface PCBs)
N
Storm Sewer
Former Drum
Marshalling Areas
Recharge Basins
EASTERN
PORTION OF
PLANT 3
Dry Well 34-07
excavated to ~30 feet in 1998
(ft bgs)
0
20
40
60
80
100
Sand and Gravel
Sand
Sanitary Cesspool
Clay/Silt
SVE Wells
Water Table
Groundwater Flow
Legend
Dry Well
SVE Well
Fence Line
Water Table
Storm Sewer
Groundwater Flow
Sanitary Cesspool
Former Drum Marshalling Area
Plant 3
Sand and Gravel
Sand
Clay Silt/Sandy Clay
PCBs >1,000 µg/kg <50,000 µg/kg
PCBs >50,000 µg/kg
P:\GIS_files\Bethpage\AI csmsoil_020614.ai mmc
TETRA TECH
CONCEPTUAL SITE MODEL
PCBs in SOIL AND
DRYWELLS 20-08 AND 34-07
NWIRP BETHPAGE, NEW YORK
FILE 112G02230
SCALE NOT TO SCALE
FIGURE NO. 4-2
REV
DATE 11/25/14

Notes:
µg/kg=microgram per kilogram
ND=non detect
J=estimated value

BOLD indicates PCB exceedance of adjusted USEAPA RSLs for Aroclor-1242 of 220 µg/kg, Aroclor-1248- of 220 µg/kg, Aroclor-1254 of 110 µg/kg, and Aroclor-1262 of 220 µg/kg and/or NYSDEC surface soil cleanup level of 1,000 µg/kg

N

BPS1-SB3024 August 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
0 - 2	150 J	ND

BPS1-SB3045 August 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
0 - 2	**2,200**	ND

BPS1-SB3063 February 2013
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
0 - 2	**500 J**	ND

BPS1-SB3046 August 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
0 - 2	**560**	**110 J**

BPS1-SB3023 July 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
0 - 2	**1,000**	**630**

BPS1-SB3048 August 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
0 - 2	**4,800**	**580 J**

BPS1-SB3062 February 2013
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
0 - 2	**1,300 J**	ND

BPS1-SB3022 July 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
0 - 2	100 J	87 J

BPS1-SB3050 August 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
0 - 2	**16,000**	ND

BPS1-SB3049 August 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
0 - 2	24 J	11 J

BPS1-SB3047 August 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor1254	Aroclor 1262
0 - 2	**1,300**	**460**	210 J

BPS1-SB3031 July 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
0 - 2	**58,000**	**4,500**

BPS1-SB3013 July 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
0 - 2	130 J	**150 J**

BPS1-SB3051 August 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
0 - 2	**390**	**150 J**

BPS1-SB3014 July 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
0 - 2	**36,000**	**5,900**

BPS1-SB3053 August 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
0 - 2	**150,000**	ND

BPS1-SB3052 August 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
0 - 2	**3,200**	**4,800**

BPS1-SB3054 August 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
0 - 2	**4,000**	**5,900 J**

BPS1-SB3044 July 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
0 - 2	**60,000**	**28,000**

BPS1-SB3021 July 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
0 - 2	**1,100**	**420**

BPS1-SB3032 July 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
0 - 2	**600**	**370**

BPS1-SB3015 July 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
0 - 2	**7,000**	**3,300**

BPS1-SB3020 July 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
0 - 2	**5,800**	**1,500**

BPS1-SB3055 February 2013
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
0 - 2	**5,100 J**	ND

BPS1-SB3058 February 2013
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
0 - 2	**590 J**	ND

BPS1-SB3056 February 2013
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
0 - 2	**6,300 J**	ND

BPS1-SB3016 July 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
0 - 2	**3,400**	**1,000**

BPS1-SB3059 February 2013
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
0 - 2	**810 J**	ND

BPS1-SB3033 July 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
0 - 2	**1,000**	**380**

BPS1-SB3017 July 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
0 - 2	**2,800**	**1,500**

BPS1-SB3043 July 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
0 - 2	**500**	**170 J**

BPS1-SB3034 July 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
0 - 2	**740**	**340 J**

BPS1-SB3018 July 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
0 - 2	**12,000**	**2,400**

BPS1-SB3042 July 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
0 - 2	**3,300**	**720**

BPS1-SB3041 July 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
0 - 2	120 J	30 J

BPS1-SB3019 July 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
0 - 2	**530 J**	**190 J**

BPS1-SB3035 July 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
0 - 2	78 J	46 J

BPS1-SB3040 July 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
0 - 2	**1,300**	**430**

BPS1-SB3039 July 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1254
0 - 2	15 J

BPS1-SB3038 July 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1254
0 - 2	16 J

BPS1-SB3037 July 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
0 - 2	**330 J**	**530 J**

BPS1-SB3036 July 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
0 - 2	**1,700**	**680**

Aerial photograph from Google Earth Pro (Imagery date: 9/9/2013)

Bing Maps aerial
Aerial photograph from ESRI Bing Maps map service (© 2010 Microsoft Corporation and its data suppliers).

Legend

- Surface Soil
- Fence Line
- Site Boundary

0 25 50 Feet

TETRA TECH

SURFACE SOIL (0-2 feet bgs)
PCB ANALYTICAL RESULTS
SITE 1 AND DRY WELL 20-08
NWIRP BETHPAGE, NEW YORK

FILE	112G02230	SCALE	AS NOTED
FIGURE NO.	4-3	REV / DATE	7/1/14

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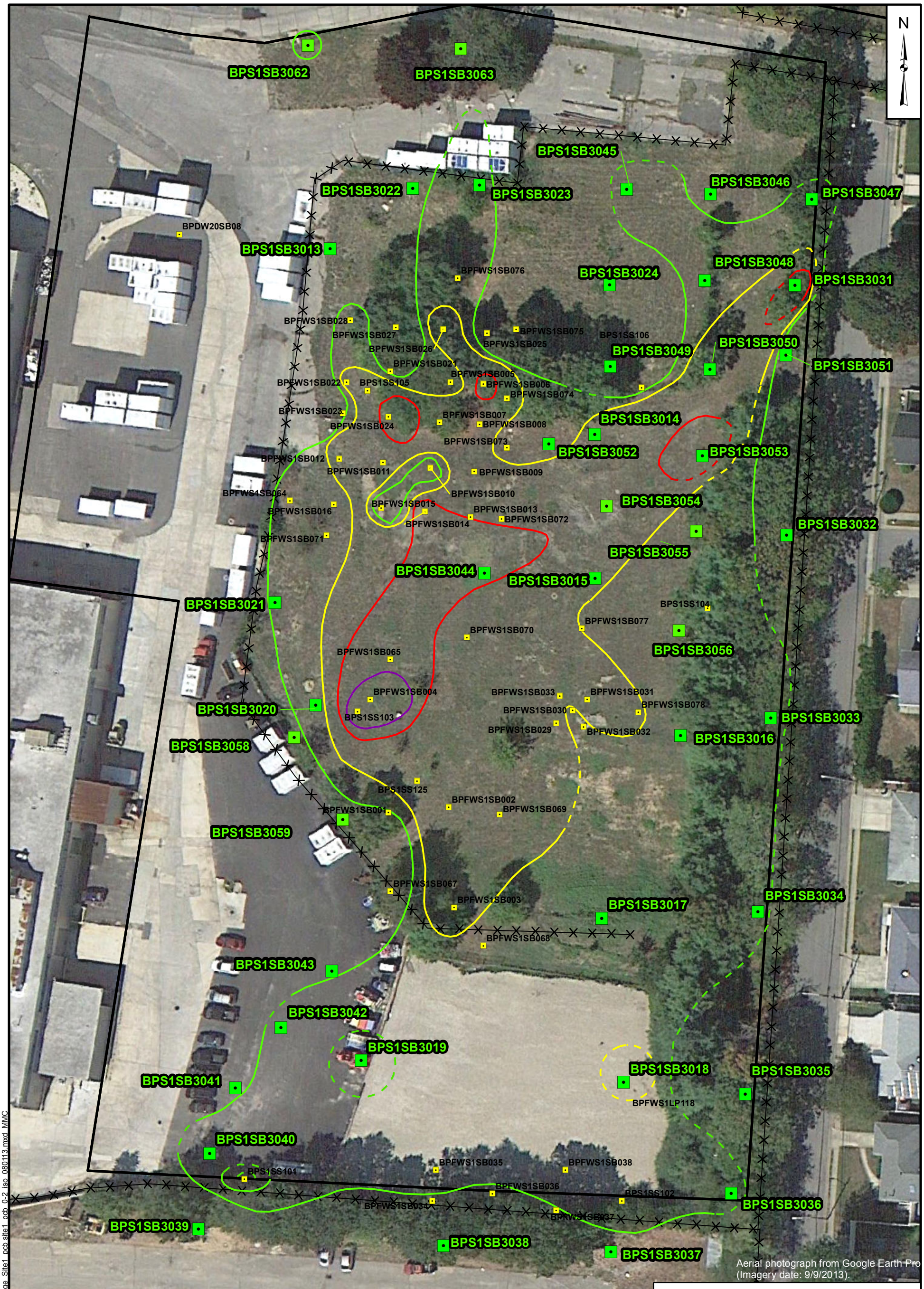

Legend

- Historical Soil Boring
- RI Soil Boring
- Site Boundary
- Fence Line

Total PCB Concentrations 0-2 feet bgs

- >1,000 µg/kg <10,000 µg/kg
- >10,000 µg/kg <50,000 µg/kg
- >50,000 µg/kg <500,000 µg/kg
- >500,000 µg/kg

0 50 100 Feet

Notes:
µg/kg= microgram per kilogram
PCB=polychlorinated biphenyls

Isoline concentrations show exceedance of NYSDEC surface soil criteria of 1,000 µg/kg.
***PCB plume created from historical soil boring data from 1990s, 2000s, and recent 2010 through 2013 sampling results.**
****Dashed lines are inferred**

TETRA TECH

PCB ISOCONCENTRATION MAP
SURFACE SOIL (0 TO 2 FEET BGS)
SITE 1
NWIRP BETHPAGE, NEW YORK

FILE	112G02230	SCALE	AS NOTED
FIGURE NO.	4-4	REV / DATE	7/1/14

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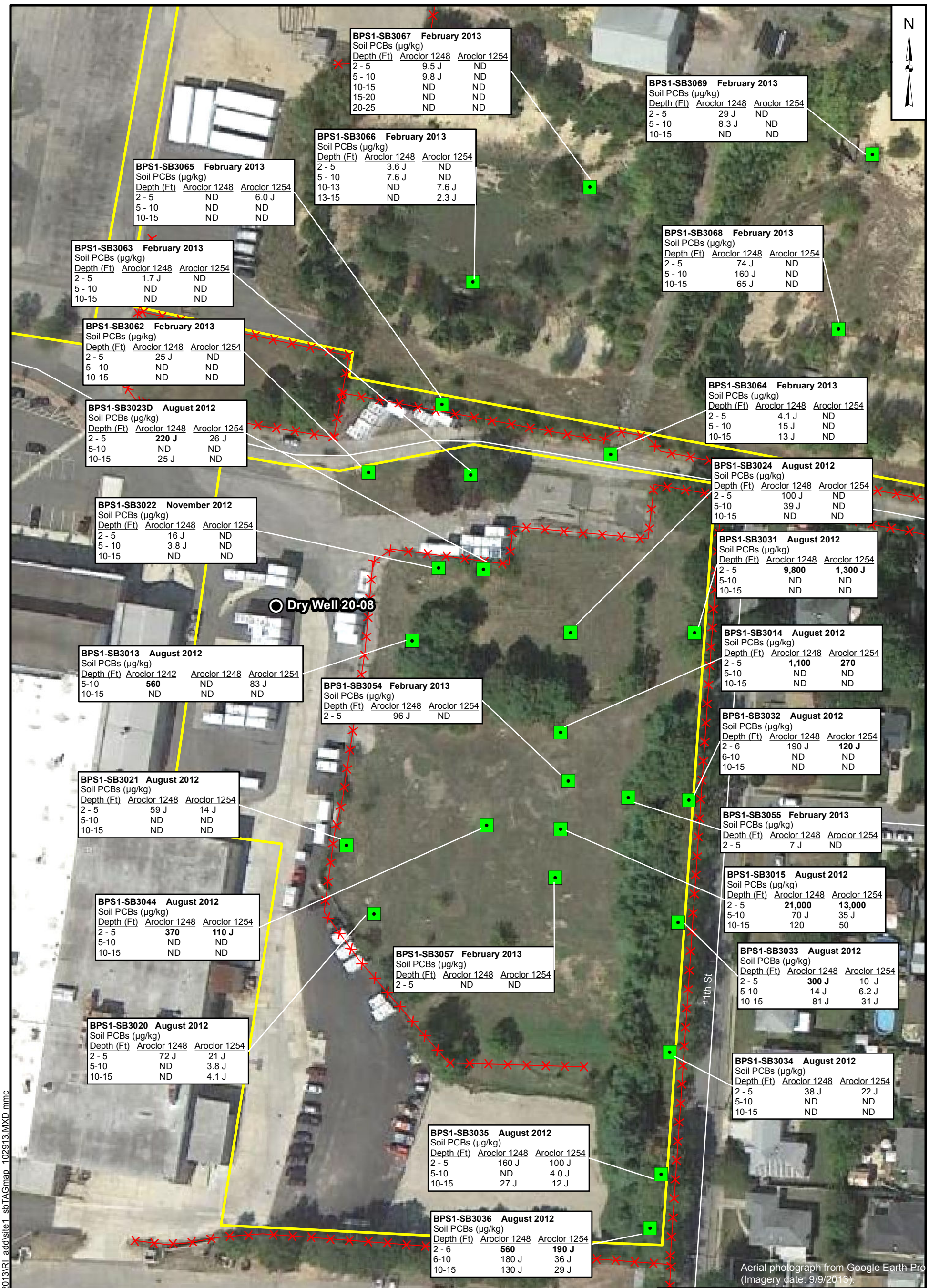

BPS1-SB3067 February 2013
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
2 - 5	9.5 J	ND
5 - 10	9.8 J	ND
10-15	ND	ND
15-20	ND	ND
20-25	ND	ND

BPS1-SB3069 February 2013
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
2 - 5	29 J	ND
5 - 10	8.3 J	ND
10-15	ND	ND

BPS1-SB3066 February 2013
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
2 - 5	3.6 J	ND
5 - 10	7.6 J	ND
10-13	ND	7.6 J
13-15	ND	2.3 J

BPS1-SB3065 February 2013
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
2 - 5	ND	6.0 J
5 - 10	ND	ND
10-15	ND	ND

BPS1-SB3068 February 2013
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
2 - 5	74 J	ND
5 - 10	160 J	ND
10-15	65 J	ND

BPS1-SB3063 February 2013
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
2 - 5	1.7 J	ND
5 - 10	ND	ND
10-15	ND	ND

BPS1-SB3062 February 2013
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
2 - 5	25 J	ND
5 - 10	ND	ND
10-15	ND	ND

BPS1-SB3064 February 2013
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
2 - 5	4.1 J	ND
5 - 10	15 J	ND
10-15	13 J	ND

BPS1-SB3023D August 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
2 - 5	**220 J**	26 J
5-10	ND	ND
10-15	25 J	ND

BPS1-SB3024 August 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
2 - 5	100 J	ND
5-10	39 J	ND
10-15	ND	ND

BPS1-SB3022 November 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
2 - 5	16 J	ND
5 - 10	3.8 J	ND
10-15	ND	ND

BPS1-SB3031 August 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
2 - 5	**9,800**	**1,300 J**
5-10	ND	ND
10-15	ND	ND

BPS1-SB3014 August 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
2 - 5	**1,100**	**270**
5-10	ND	ND
10-15	ND	ND

BPS1-SB3013 August 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1242	Aroclor 1248	Aroclor 1254
5-10	**560**	ND	83 J
10-15	ND	ND	ND

BPS1-SB3054 February 2013
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
2 - 5	96 J	ND

BPS1-SB3032 August 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
2 - 6	190 J	**120 J**
6-10	ND	ND
10-15	ND	ND

BPS1-SB3021 August 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
2 - 5	59 J	14 J
5-10	ND	ND
10-15	ND	ND

BPS1-SB3055 February 2013
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
2 - 5	7 J	ND

BPS1-SB3015 August 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
2 - 5	**21,000**	**13,000**
5-10	70 J	35 J
10-15	120	50

BPS1-SB3044 August 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
2 - 5	**370**	**110 J**
5-10	ND	ND
10-15	ND	ND

BPS1-SB3057 February 2013
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
2 - 5	ND	ND

BPS1-SB3033 August 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
2 - 5	**300 J**	10 J
5-10	14 J	6.2 J
10-15	81 J	31 J

BPS1-SB3020 August 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
2 - 5	72 J	21 J
5-10	ND	3.8 J
10-15	ND	4.1 J

BPS1-SB3034 August 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
2 - 5	38 J	22 J
5-10	ND	ND
10-15	ND	ND

BPS1-SB3035 August 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
2 - 5	160 J	100 J
5-10	ND	4.0 J
10-15	27 J	12 J

BPS1-SB3036 August 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
2 - 6	**560**	**190 J**
6-10	180 J	36 J
10-15	130 J	29 J

Legend

- Dry Well
- Soil Boring
- Fence Line
- Site Boundary

0 50 100 Feet

Notes:
µg/kg=microgram per kilogram
ND=non detect
NS=not sampled
J=estimated value

BOLD indicates PCB exceedance of adjusted USEPA RSLs for Aroclor-1242 of 220 µg/kg, Aroclor-1248- of 220 µg/kg, Aroclor-1254 of 110 µg/kg, and Aroclor-1262 of 220 µg/kg and/or NYSDEC soil cleanup objective for subsurface soil of 10,000 µg/kg

TETRA TECH

SHALLOW SUBSURFACE SOIL
(2 to 15 FEET BGS)
PCB ANALYTICAL RESULTS
SITE 1 AND DRY WELL 20-08
NWIRP BETHPAGE, NEW YORK

FILE	112G02230	SCALE	AS NOTED
FIGURE NO.	4-5	REV / DATE	7/1/14

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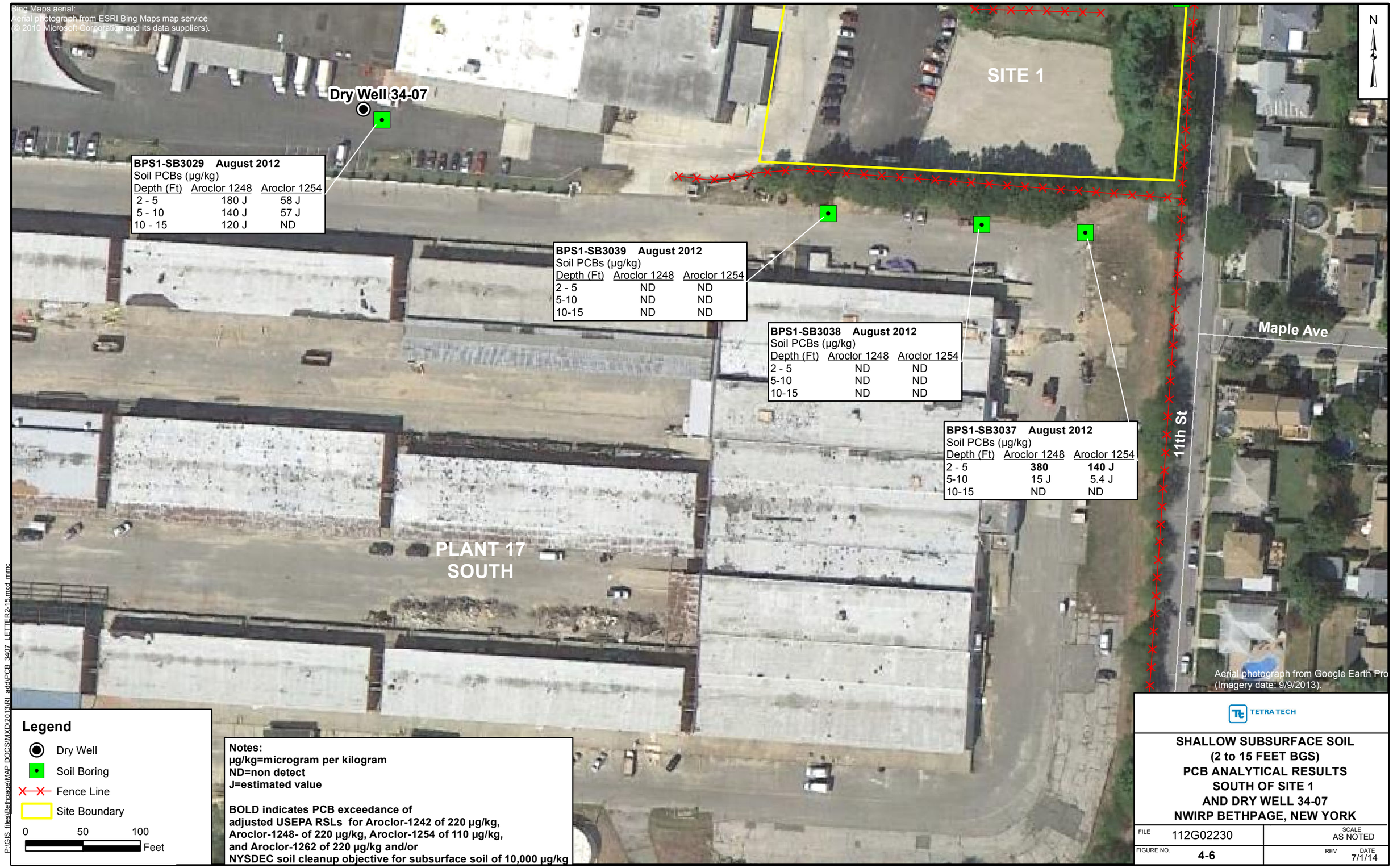

TETRA TECH

SHALLOW SUBSURFACE SOIL
(2 to 15 FEET BGS)
PCB ANALYTICAL RESULTS
SOUTH OF SITE 1
AND DRY WELL 34-07
NWIRP BETHPAGE, NEW YORK

FILE	SCALE
112G02230	AS NOTED
FIGURE NO. 4-6	REV / DATE 7/1/14

Legend

- Dry Well
- Historical Soil Boring
- RI Soil Boring
- Fence Line
- Site Boundary

0 50 100 Feet

Total PCB Concentrations 2 to 15 feet bgs

- >10,000 µg/kg <50,000 µg/kg
- >50,000 µg/kg <500,000 µg/kg
- >500,000 µg/kg

Notes:
µg/kg= microgram per kilogram
PCB=polychlorinated biphenyls

Isoline concentrations show exceedance of NYSDEC surface soil criteria of 10,000 µg/kg.
***PCB plume created from historical soil boring data from 1990s, 2000s, and recent 2010 through 2013 sampling results.**
****Dashed lines are inferred**

TETRA TECH

PCB ISOCONCENTRATION MAP
SHALLOW SUBSURFACE SOIL
(2 TO 15 FEET BGS)
SITE 1
NWIRP BETHPAGE, NEW YORK

FILE	112G02230	SCALE	AS NOTED
FIGURE NO.	4-7	REV	DATE 7/1/14

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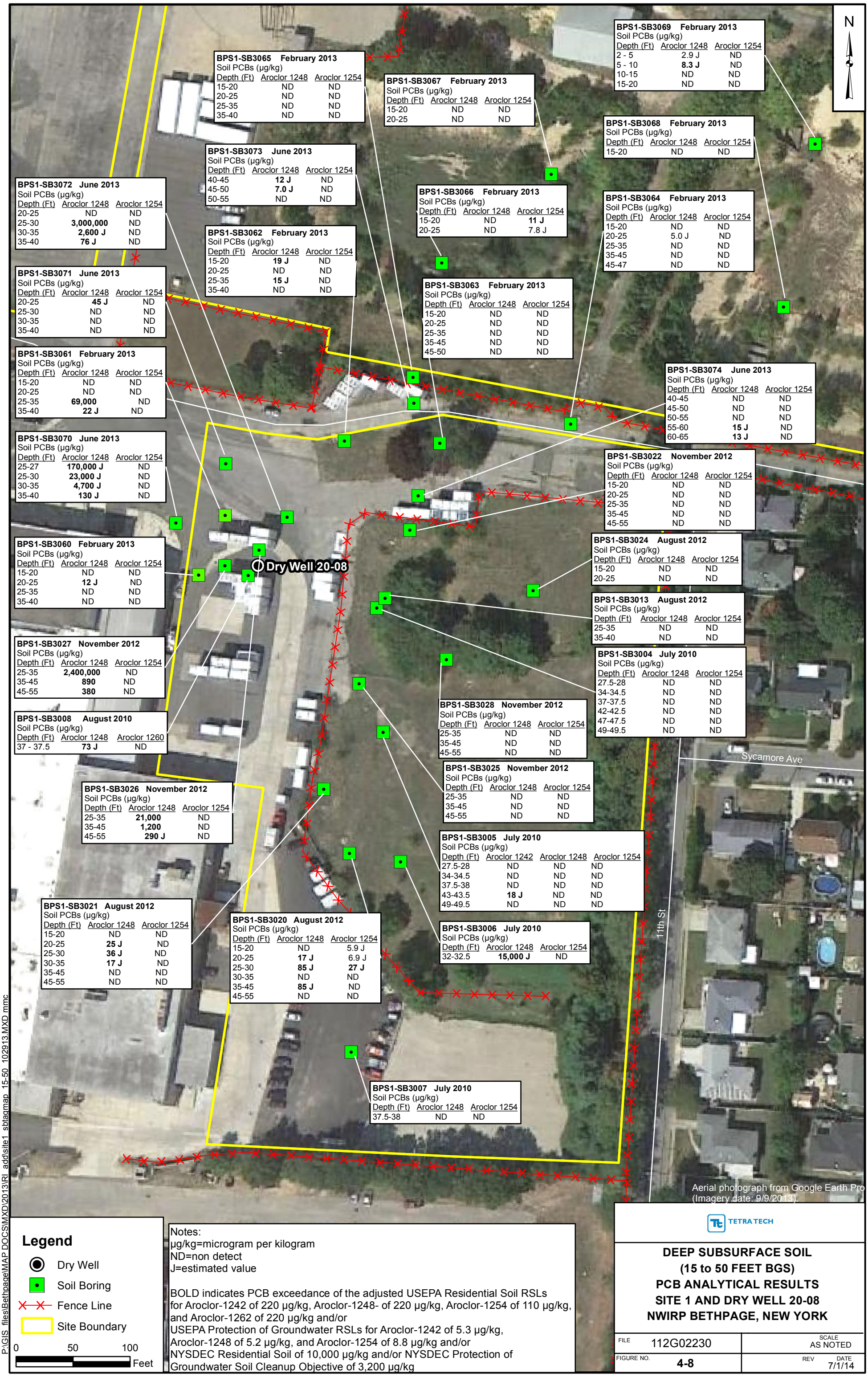


BPS1-SB3065 February 2013
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
15-20	ND	ND
20-25	ND	ND
25-35	ND	ND
35-40	ND	ND

BPS1-SB3067 February 2013
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
15-20	ND	ND
20-25	ND	ND

BPS1-SB3069 February 2013
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
2 - 5	2.9 J	ND
5 - 10	**8.3 J**	ND
10-15	ND	ND
15-20	ND	ND

BPS1-SB3068 February 2013
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
15-20	ND	ND

BPS1-SB3073 June 2013
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
40-45	**12 J**	ND
45-50	**7.0 J**	ND
50-55	ND	ND

BPS1-SB3072 June 2013
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
20-25	ND	ND
25-30	**3,000,000**	ND
30-35	**2,600 J**	ND
35-40	**76 J**	ND

BPS1-SB3066 February 2013
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
15-20	ND	**11 J**
20-25	ND	7.8 J

BPS1-SB3064 February 2013
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
15-20	ND	ND
20-25	5.0 J	ND
25-35	ND	ND
35-45	ND	ND
45-47	ND	ND

BPS1-SB3062 February 2013
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
15-20	**19 J**	ND
20-25	ND	ND
25-35	**15 J**	ND
35-40	ND	ND

BPS1-SB3071 June 2013
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
20-25	**45 J**	ND
25-30	ND	ND
30-35	ND	ND
35-40	ND	ND

BPS1-SB3063 February 2013
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
15-20	ND	ND
20-25	ND	ND
25-35	ND	ND
35-45	ND	ND
45-50	ND	ND

BPS1-SB3061 February 2013
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
15-20	ND	ND
20-25	ND	ND
25-35	**69,000**	ND
35-40	**22 J**	ND

BPS1-SB3074 June 2013
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
40-45	ND	ND
45-50	ND	ND
50-55	ND	ND
55-60	**15 J**	ND
60-65	**13 J**	ND

BPS1-SB3070 June 2013
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
25-27	**170,000 J**	ND
25-30	**23,000 J**	ND
30-35	**4,700 J**	ND
35-40	**130 J**	ND

BPS1-SB3022 November 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
15-20	ND	ND
20-25	ND	ND
25-35	ND	ND
35-45	ND	ND
45-55	ND	ND

BPS1-SB3060 February 2013
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
15-20	ND	ND
20-25	**12 J**	ND
25-35	ND	ND
35-40	ND	ND

BPS1-SB3024 August 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
15-20	ND	ND
20-25	ND	ND

BPS1-SB3013 August 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
25-35	ND	ND
35-40	ND	ND

BPS1-SB3027 November 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
25-35	**2,400,000**	ND
35-45	**890**	ND
45-55	**380**	ND

BPS1-SB3004 July 2010
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
27.5-28	ND	ND
34-34.5	ND	ND
37-37.5	ND	ND
42-42.5	ND	ND
47-47.5	ND	ND
49-49.5	ND	ND

BPS1-SB3008 August 2010
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1260
37 - 37.5	**73 J**	ND

BPS1-SB3028 November 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
25-35	ND	ND
35-45	ND	ND
45-55	ND	ND

BPS1-SB3025 November 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
25-35	ND	ND
35-45	ND	ND
45-55	ND	ND

BPS1-SB3026 November 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
25-35	**21,000**	ND
35-45	**1,200**	ND
45-55	**290 J**	ND

BPS1-SB3005 July 2010
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1242	Aroclor 1248	Aroclor 1254
27.5-28	ND	ND	ND
34-34.5	ND	ND	ND
37.5-38	ND	ND	ND
43-43.5	**18 J**	ND	ND
49-49.5	ND	ND	ND

BPS1-SB3021 August 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
15-20	ND	ND
20-25	**25 J**	ND
25-30	**36 J**	ND
30-35	**17 J**	ND
35-45	ND	ND
45-55	ND	ND

BPS1-SB3020 August 2012
Soil PCBs (µg/kg)

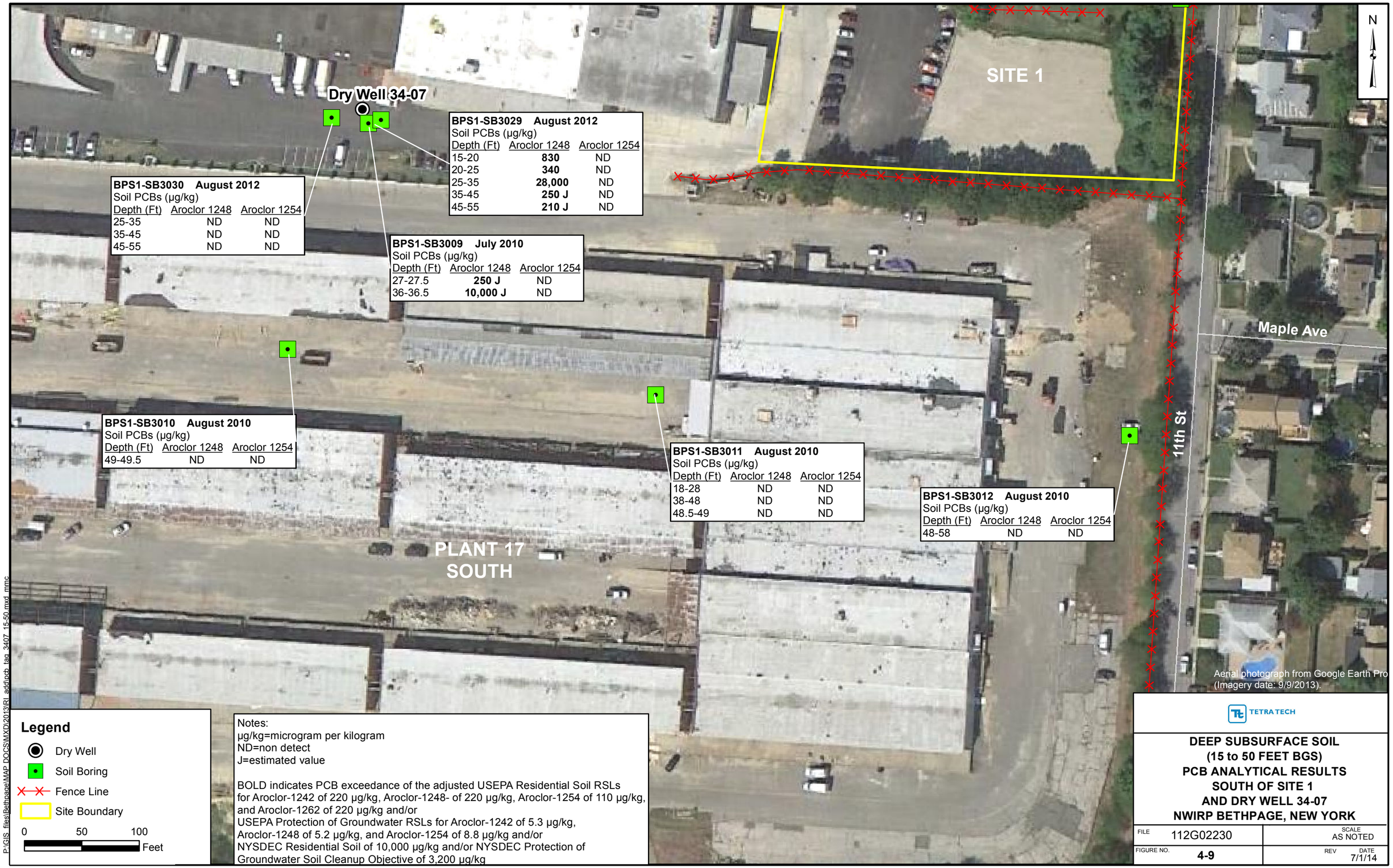
Depth (Ft)	Aroclor 1248	Aroclor 1254
15-20	ND	5.9 J
20-25	**17 J**	6.9 J
25-30	**85 J**	**27 J**
30-35	ND	ND
35-45	**85 J**	ND
45-55	ND	ND

BPS1-SB3006 July 2010
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
32-32.5	**15,000 J**	ND

BPS1-SB3007 July 2010
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
37.5-38	ND	ND



BPS1-SB3029 August 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
15-20	**830**	ND
20-25	**340**	ND
25-35	**28,000**	ND
35-45	**250 J**	ND
45-55	**210 J**	ND

BPS1-SB3030 August 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
25-35	ND	ND
35-45	ND	ND
45-55	ND	ND

BPS1-SB3009 July 2010
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
27-27.5	**250 J**	ND
36-36.5	**10,000 J**	ND

BPS1-SB3010 August 2010
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
49-49.5	ND	ND

BPS1-SB3011 August 2010
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
18-28	ND	ND
38-48	ND	ND
48.5-49	ND	ND

BPS1-SB3012 August 2010
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
48-58	ND	ND

TETRA TECH

Historical Soil Boring
RI Soil Boring
Dry Well
Site Boundary
Fence Line

Total PCB Concentrations 15 - 50 ft bgs

- >10,000 µg/kg <50,000 µg/kg
- >50,000 µg/kg <500,000 µg/kg
- >500,000 µg/kg

0 50 100 Feet

Notes:
µg/kg= microgram per kilogram
PCB=polychlorinated biphenyls

Isoline concentrations show exceedance of NYSDEC surface soil criteria of 10,000 µg/kg.
*PCB plume created from historical soil boring data from 1990s, 2000s, and recent 2010 through 2013 sampling results.
**Dashed lines are inferred

PCB ISOCONCENTRATION MAP
DEEP SUBSURFACE SOIL
(15 TO 50 FEET BGS)
SITE 1 AND DRY WELL 20-08
NWIRP BETHPAGE, NEW YORK

FILE	112G02230	SCALE	AS NOTED
FIGURE NO.	4-10	REV / DATE	7/1/14

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BPS1-SB3073 June 2013
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
45-50	**7.0 J**	ND
50-55	ND	ND
55-60	**11 J**	ND
60-65	**17 J**	ND

BPS1-SB3027 November 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
55-65	**1,400**	ND
65-75	**1,900**	ND

BPS1-SB3074 June 2013
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
45-50	ND	ND
50-55	ND	ND
55-60	**15 J**	ND
60-65	**13 J**	ND

BPS1-SB3026 November 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
55-65	**8,100**	ND
65-75	**860**	ND

BPS1-SB3022 November 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
55-65	**9.5 J**	ND
65-75	**11 J**	ND

BPS1-SB3004 July 2010
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
54-54.5	ND	ND
64.5-65	ND	ND
116-116.5	ND	ND
154-154.5	ND	ND
180-190	ND	ND
235-235.5	ND	ND

BPS1-SB3008 August 2010
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1260
52 - 52.5	**210 J**	ND
86.5-87	ND	ND
161-161.5	ND	ND
200-210	ND	ND
234.5-235	ND	ND

BPS1-SB3028 November 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
55-65	4.0 J	ND
65-75	**9.7 J**	ND

BPS1-SB3025 November 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
55-65	**6.4 J**	ND
65-75	ND	ND

BPS1-SB3005 July 2010
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1242	Aroclor 1248	Aroclor 1254
54.5-55	**160,000 J**	ND	**910 J**
57.5-58	**110,000 J**	ND	**800 J**
94.5-95	ND	**16 J**	ND
145-145.5	ND	ND	ND
180-190	ND	ND	ND
232.5-233	ND	ND	ND

BPS1-SB3021 August 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
55-65	ND	ND
70-75	ND	ND

BPS1-SB3006 July 2010
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
53-53.5	**220**	ND
72-72.5	ND	ND
117-117.5	ND	ND
181-181.5	ND	ND
226.5-227	ND	ND

BPS1-SB3020 August 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
55-60	ND	ND

BPS1-SB3007 July 2010
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
57-57.5	ND	ND
100-100.5	ND	ND
140-150	ND	ND
217.5-218	ND	ND
240-250	ND	ND

BPS1-SB3009 July 2010
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
51-51.5	**260 J**	ND
96-96.5	ND	ND
140-140.5	ND	ND
209-209.5	ND	ND

BPS1-SB3029 August 2012
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
55-65	**23 J**	ND

BPS1-SB3012 August 2010
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1242	Aroclor 1248	Aroclor 1254
48-58	ND	ND	ND
58-68	ND	ND	ND
112.5-113	ND	ND	ND
203-203.5	**14 J**	ND	ND

BPS1-SB3010 August 2010
Soil PCBs (µg/kg)

Depth (Ft)	Aroclor 1248	Aroclor 1254
58-68	ND	ND
93.5-94	ND	ND
118-148	ND	ND
188-188.5	ND	ND

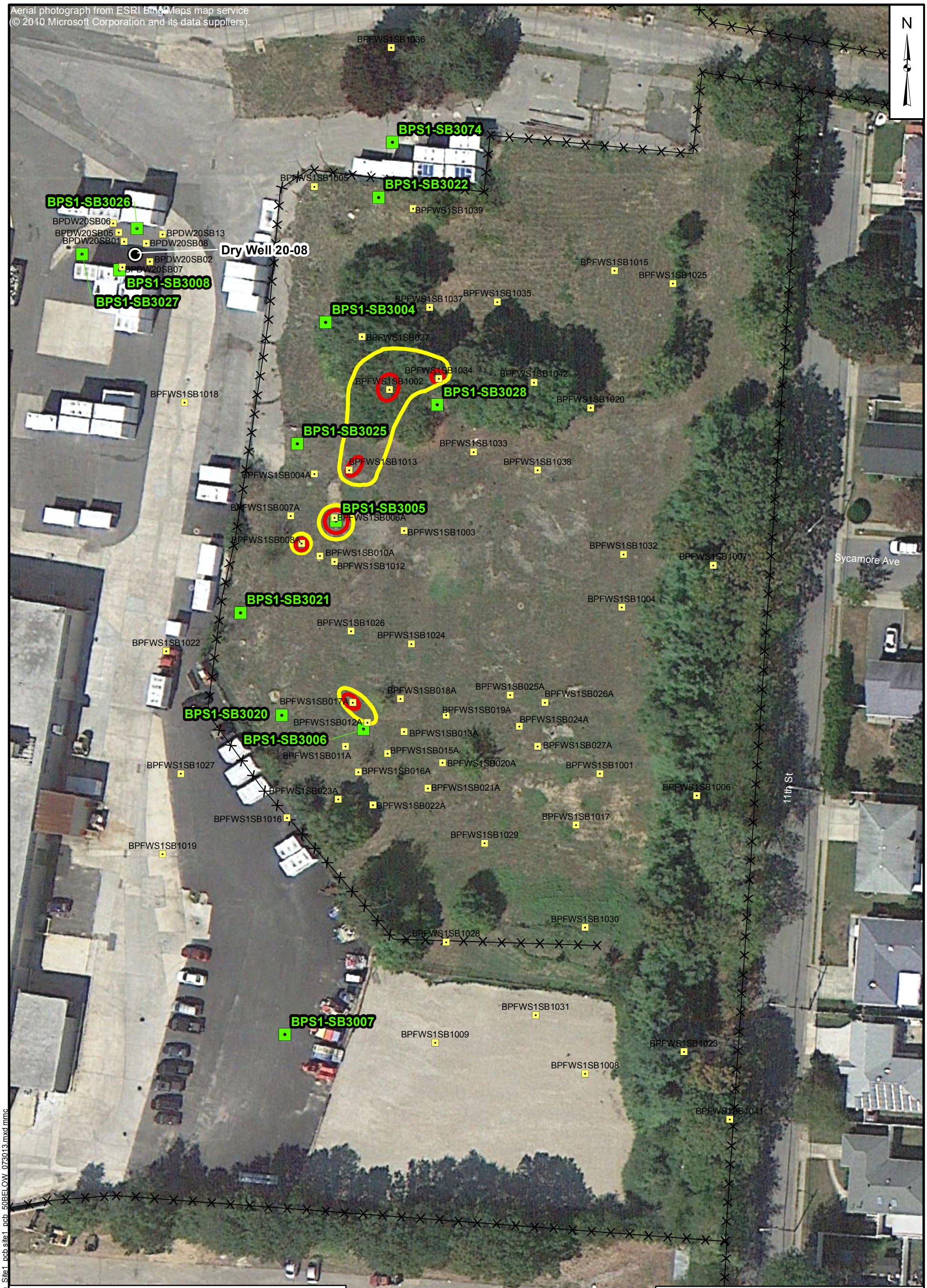
Notes:
µg/kg=microgram per kilogram
ND=non detect
J=estimated value

BOLD indicates PCB exceedance of the adjusted USEPA Protection of Groundwater RSLs for Aroclor-1242 of 5.3 µg/kg, Aroclor-1248 of 5.2 µg/kg, and Aroclor-1254 of 8.8 µg/kg and/or NYSDEC Protection of Groundwater Soil Cleanup Objective of 3,200 µg/kg

TETRA TECH

SATURATED SUBSURFACE SOIL (GREATER TAHN 50 FEET BGS) PCB ANALYTICAL RESULTS SOUTH OF SITE 1 AND DRY WELL 34-07 NWIRP BETHPAGE, NEW YORK

FILE	112G02230	SCALE	AS NOTED
FIGURE NO.	4-12	REV / DATE	7/1/14



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Legend

- Soil Boring
- Soil Boring
- Dry Well
- Fence Line
- Site Boundary

Total PCB Concentrations Greater Than 50 feet bgs

- >10,000 µg/kg <50,000 µg/kg
- >50,000 µg/kg <500,000 µg/kg

0 50 100 Feet

Notes:
µg/kg= microgram per kilogram
PCB=polychlorinated biphenyls

Isoline concentrations show exceedance of NYSDEC surface soil criteria of 10,000 µg/kg.
*PCB plume created from historical soil boring data from 1990s, 2000s, and recent 2010 through 2013 sampling results.
**Dashed lines are inferred

TETRA TECH

PCB ISOCONCENTRATION MAP SATURATED SUBSURFACE SOIL (GREATER THAN 50 FEET BGS) SITE 1 AND DRY WELL 20-08 NWIRP BETHPAGE, NEW YORK

FILE	112G02230	SCALE	AS NOTED
FIGURE NO.	4-13	REV	DATE 7/1/14

N
PLANT 03
Dry Well 34-07
excavated and backfilled
BPDW34SB17
BPDW34SB15
BPDW34SB12
BPDW34SB09
BPDW34SB04
BPDW34SB03
BPDW34SB11
BPS13029
BPDW34SB10
BPS1SB3009
BPDW34SB16
Aerial photograph from Google Earth Pro
(Imagery date: 9/9/2013)
Legend
Dry Well
Soil Boring
Historical Soil Boring
Total PCB Concentrations 2 to 15 feet bgs
>10,000 µg/kg <50,000 µg/kg
>50,000 µg/kg <500,000 µg/kg
Excavated
0 10 20
Feet
Note:
µg/kg= microgram per kilogram
PCB=polychlorinated biphenyl
Isoline concentrations show exceedance of NYSDEC subsurface soil criteria of 10,000 µg/kg.
*PCB plume created from historical soil boring data from the 1990s, 2000s and current data from 2010 to 2013 sample results.
**Dashed lines are inferred
TETRA TECH
PCB ISOCONCENTRATION MAP
SHALLOW SUBSURFACE SOIL
(2 TO 15 FEET BGS)
DRY WELL 34-07
NWIRP BETHPAGE, NEW YORK
FILE 112G02230
SCALE AS NOTED
FIGURE NO. 4-14
REV
DATE 7/1/14
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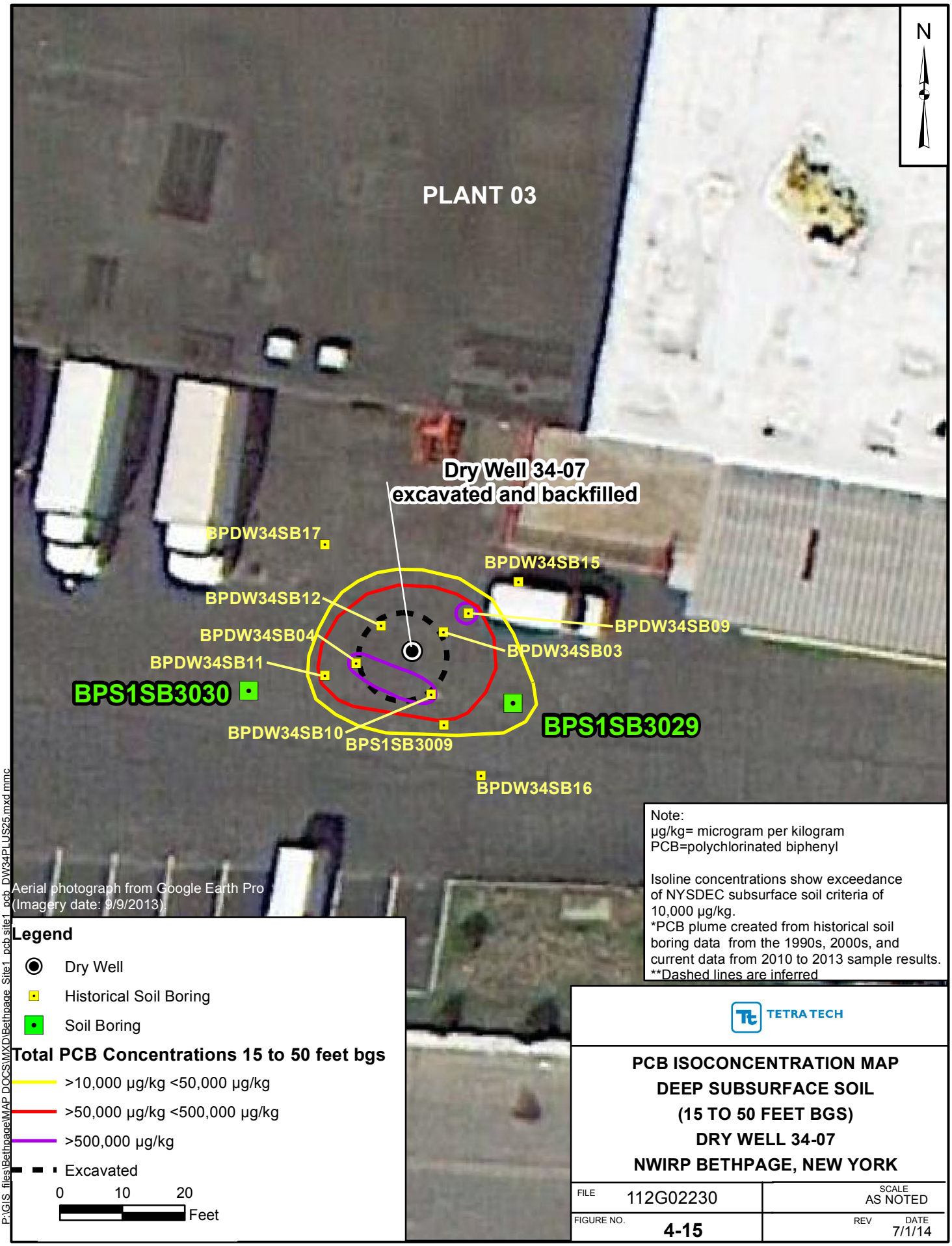
N
PLANT 03
Dry Well 34-07
excavated and backfilled
BPDW34SB17
BPDW34SB15
BPDW34SB12
BPDW34SB09
BPDW34SB04
BPDW34SB03
BPDW34SB11
BPS1SB3030
BPS1SB3029
BPDW34SB10
BPS1SB3009
BPDW34SB16
Aerial photograph from Google Earth Pro
(Imagery date: 9/9/2013).
Legend
Dry Well
Historical Soil Boring
Soil Boring
Total PCB Concentrations 15 to 50 feet bgs
>10,000 µg/kg <50,000 µg/kg
>50,000 µg/kg <500,000 µg/kg
>500,000 µg/kg
Excavated
0 10 20
Feet
Note:
µg/kg= microgram per kilogram
PCB=polychlorinated biphenyl
Isoline concentrations show exceedance of NYSDEC subsurface soil criteria of 10,000 µg/kg.
*PCB plume created from historical soil boring data from the 1990s, 2000s, and current data from 2010 to 2013 sample results.
**Dashed lines are inferred
TETRA TECH
PCB ISOCONCENTRATION MAP
DEEP SUBSURFACE SOIL
(15 TO 50 FEET BGS)
DRY WELL 34-07
NWIRP BETHPAGE, NEW YORK
FILE 112G02230
SCALE AS NOTED
FIGURE NO. 4-15
REV
DATE 7/1/14
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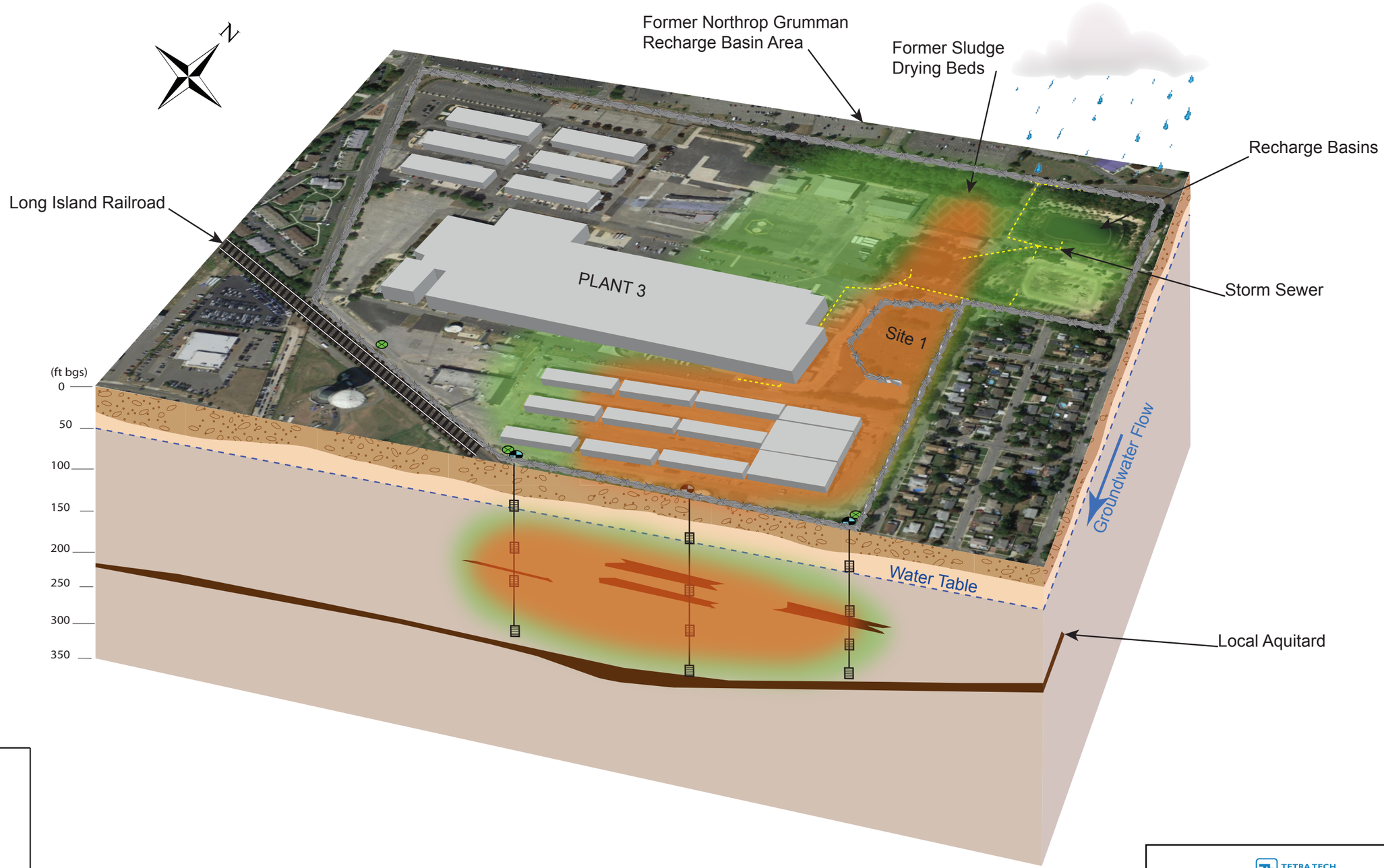

Legend

- Monitoring Well Well
- Vertical Profile Boring
- Fence Line
- Water Table
- Storm Sewer
- Groundwater Flow
- Plant 3
- Sand and Gravel
- Sand
- Clay Silt/Sandy Clay
- PCBs > 0.09 µg/L < 0.5 µg/L
- PCBs > 0.5 µg/L

TETRA TECH

CONCEPTUAL SITE MODEL
PCBs IN SITE 1 GROUNDWATER
NWIRP BETHPAGE, NEW YORK

FILE 112G02230	SCALE NOT TO SCALE
FIGURE NO. **4-16**	REV DATE 11/25/14

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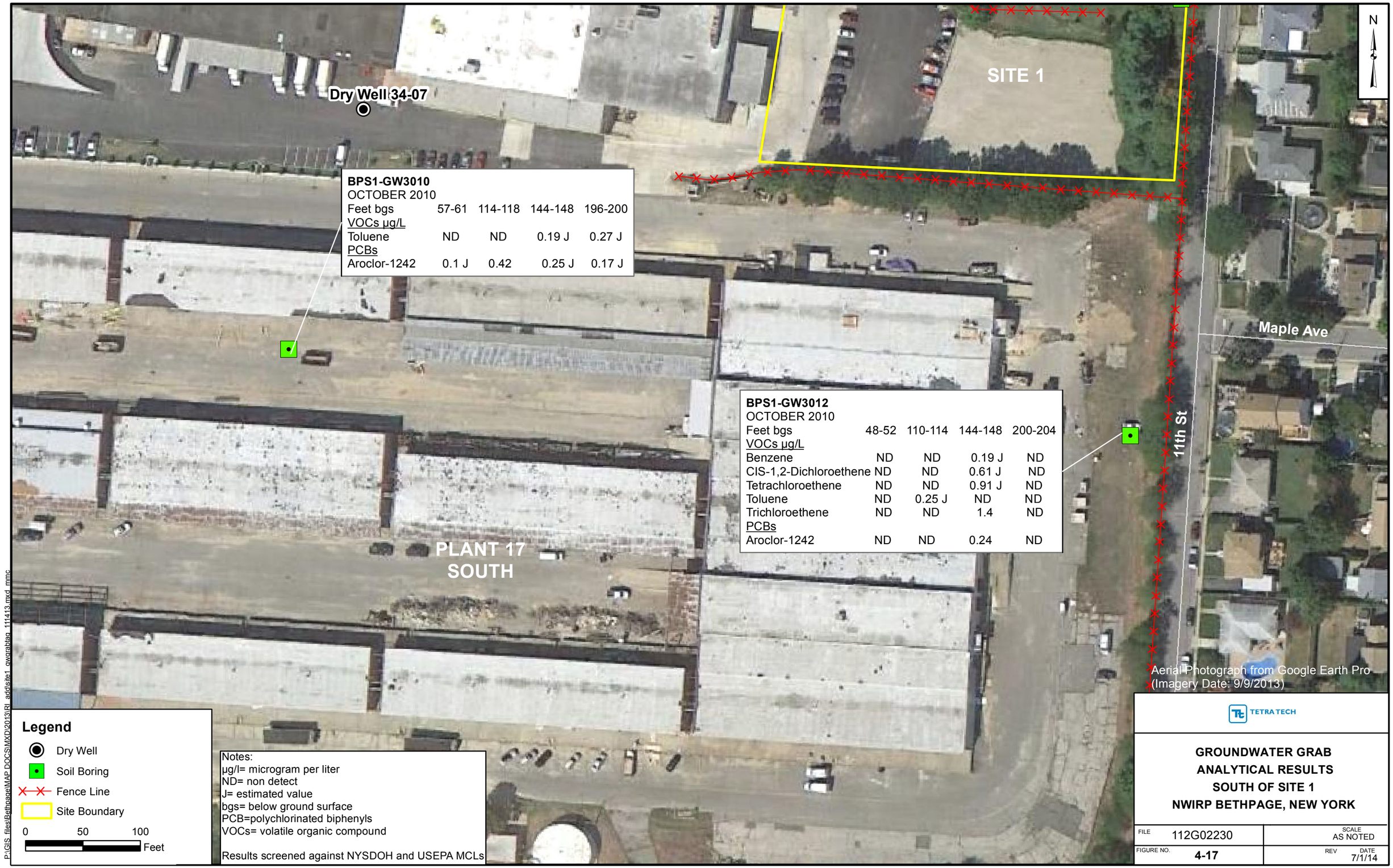

BPS1-GW3010
OCTOBER 2010

Feet bgs	57-61	114-118	144-148	196-200
VOCs µg/L				
Toluene	ND	ND	0.19 J	0.27 J
PCBs				
Aroclor-1242	0.1 J	0.42	0.25 J	0.17 J

BPS1-GW3012
OCTOBER 2010

Feet bgs	48-52	110-114	144-148	200-204
VOCs µg/L				
Benzene	ND	ND	0.19 J	ND
CIS-1,2-Dichloroethene	ND	ND	0.61 J	ND
Tetrachloroethene	ND	ND	0.91 J	ND
Toluene	ND	0.25 J	ND	ND
Trichloroethene	ND	ND	1.4	ND
PCBs				
Aroclor-1242	ND	ND	0.24	ND

BPS1-TT-MW303S (46 - 56 FT)

	Nov 2010	Nov 2010 (DUP)	Mar 2011	Jan 2012	Jan 2012 (DUP)	Nov 2012
VOCs						
PCE	1	1	0.97	1.9	1.8	1.9
TCE	ND	ND	0.76 J	2.7	2.7	1.6
PCBs						
Aroclor-1242	0.052 J	0.056 J	0.13 J	ND	ND	ND
Aroclor-1248	ND	ND	ND	0.21	0.2	0.18 J
Metals						
Hex Chrom	NA	NA	ND	10*	NA	20*
Chromium	NA	NA	5.3	2.7	4.2	3.8

BPS1-TT-MW310S (57.5 - 67.5 FT)

	Nov 2012	Nov 2012 (DUP)	Feb 2013
Metals			
Hex Chromium	ND	0.8 J	10*
Chromium	11	9.4	16

BPS1-TT-MW311S (55 - 65 FT)

	Nov 2012	Feb 2013
PCBs		
Aroclor-1248	0.17 J	0.19 J
Metals		
Hex Chromium	2.6	ND*
Chromium	14	18
Metals Filtered		
Chromium	4.9	NA

BPS1-TT-MW308S (54 - 64 FT)

	Jan 2012	Nov 2012	Feb 2013
VOCs			
TCA	ND	ND	0.21 J
TCE	0.71 J	0.81 J	0.84 J
PCBs			
Aroclor-1248	0.2	0.17 J	0.15 J
Metals			
Hex Chrom	ND*	ND*	ND*
Chromium	10	36	14
Metals Filtered			
Chromium	NA	8.2	NA

BPS1-TT-MW309S (53 - 63 FT)

	Jan 2012	Nov 2012	Feb 2013	Feb 2013 (DUP)
VOCs				
TCE	0.61 J	0.83 J	0.52 J	0.57 J
PCBs				
Aroclor-1248	**1**	**0.9**	**0.82**	**0.80**
Metals				
Hex Chrom	8.9 J	ND*	10*	NA
Chromium	18	6.4	5.3	5.8
Metals Filtered				
Chromium	13	NA	NA	NA

BPS1-TT-MW312S (53 - 63 FT)

	Nov 2012	Feb 2013
Metals		
Hex Chrom	ND	ND
Chromium	21	11

BPS1-TT-MW313S (53 - 63 FT)

	Nov 2012	Feb 2013
Metals		
Hex Chrom	10*	10*
Chromium	9.7	1.8

BPS1-TT-MW302S (41 - 51 FT)

	Nov 2010	Mar 2011	Jan 2012	Nov 2012
VOCs				
PCE	0.32 J	ND	ND	0.37 J
TCE	ND	ND	ND	1.3
PCBs				
Aroclor-1242	**0.6 J**	0.26 J	ND	ND
Aroclor-1248	ND	ND	0.43	0.18 J
Metals				
Hex Chrom	NA	ND	10*	0.4 J
Chromium	NA	1.3	0.63 J	1.1

BPS1-FW-MW03 (52 - 67 FT)

	Nov 2010	Mar 2011	Jan 2012	Nov 2012
VOCs				
TCA	0.29 J	0.39 J	0.25 J	0.2 J
CIS-1,2-DCE	0.34 J	0.45 J	0.49 J	0.22 J
PCE	**67**	**66**	**68**	**77**
TCE	3.8	3.8	3.7	2.8
PCBs				
Aroclor-1242	**2.8 J**	**2.1 J**	ND	ND
Aroclor-1248	ND	ND	**1.9**	**2.3**
Metals				
Hex Chrom	NA	NA	10*	10*
Chromium	NA	NA	4.6	5.7

BPS1-TT-MW301S (51 - 61 FT)

	Dec 2010	Mar 2011	Jan 2012	Nov 2012
PCBs				
Aroclor-1242	**0.57 J**	**14 J**	ND	ND
Aroclor-1248	ND	ND	**10**	**9.9**
Metals				
Hex Chrom	NA	NA	10*	1.2
Chromium	NA	NA	2.5	2.8

BPS1-FW-MW02 (49 - 64 FT)

	Nov 2010	Nov 2010 (DUP)	Mar 2011	Jan 2012	Nov 2012
VOCs					
TCA	0.62 J	0.65 J	0.98 J	0.39 J	0.57 J
Freon 113	ND	ND	0.31 J	0.36 J	ND
CIS-1,2-DCE	ND	ND	0.28 J	ND	0.34 J
MTBE	NA	NA	NA	0.35 J	ND
PCE	**29**	**28**	**41**	**21**	**43**
TCE	2.4	2.2	3.9	2.7	3.7
PCBs					
Aroclor-1242	0.3 J	0.29 J	0.49 J	ND	ND
Aroclor-1248	ND	ND	ND	0.3	ND
Metals					
Hex Chrom	NA	NA	NA	10*	10*
Chromium	NA	NA	NA	8.5	7.8

TT-AOC22-MW10 (52 - 62 FT)

	Nov 2012	Feb 2013
VOCs		
TCA	0.2 J	0.21 J
Chloroform	0.38 J	0.29 J
PCE	0.83 J	1.0
TCE	**86**	**66**
PCBs		
Aroclor-1248	0.48	0.24 J
Metals		
Hex Chrom	**158**	**111 J**
Chromium	**160**	**110 J**

TT-AOC22-MW11 (52 - 62 FT)

	Nov 2012	Feb 2013
VOCs		
TCE	0.94 J	0.64 J
PCE	ND	0.23 J
Metals		
Hex Chrom	18.3	12.0
Chromium	48	39

BPS1-TT-MW314S (55 - 65 FT)

	Nov 2012	Feb 2013
PCBs		
Arcoclor-1248	0.37	0.37
Metals		
Hex Chrom	10*	10*
Chromium	4.2	4.7

BPS1-FW-MW01 (48.5 - 63.5 FT)

	Nov 2010	Mar 2011	Jan 2012	Nov 2012
VOCs				
TCA	**7.9**	**23**	**8.3**	3.2
Freon 113	0.62 J	1.4	1.2	0.9 J
DCA	3.8	4.4	3.1	1.2
DCE	0.46 J	0.59 J	ND	ND
CIS-1,2-DCE	**32**	**110**	**70**	**22**
PCE	**180**	**550**	**200**	**100**
Trans 1,2-DCE	0.51 J	1	0.5 J	ND
TCE	**15**	**41**	**21**	**9.4**
PCBs				
Aroclor-1242	**1 J**	**1 J**	ND	ND
Aroclor-1248	ND	ND	0.46	0.45 J
Metals				
Hex Chrom	NA	NA	10*	ND*
Chromium	NA	NA	4.4	4.2

TT-AOC22-MW06 (52 - 62 FT)

	Nov 2012	Feb 2013
VOCs		
TCA	ND	0.16 J
Benzene	0.39 J	0.24 J
Ethylbenzene	0.7 J	0.26 J
Isopropylbenzene	1.6	1.9
TCE	0.33 J	0.36 J
PCBs		
Aroclor-1248	0.041 J	ND
Metals		
Hex Chromium	ND	ND
Chromium	2.4	1.9

BPS1-TT-MW306S (50 - 60 FT)

	Jan 2012	Nov 2012
VOCs		
PCE	0.4 J	0.32 J
PCBs		
Aroclor-1248	**0.54**	ND
Metals		
Hex Chrom	ND	0.6 J
Chromium	1.3	4.6
Metals Filtered		
Chromium	NA	0.48 J

BPS1-TT-MW307S (40.5 - 50.5 FT)

	Jan 2012	Nov 2012
VOCs		
Chloroform	ND	0.12 J
DCA	0.24 J	ND
PCE	1.3	0.69 J
TCE	0.57 J	0.41 J
Metals		
Hex Chrom	ND*	ND
Chromium	4	1.6

BPS1-TT-MW305S (40 - 50 FT)

	Jan 2012	Jan 2012 (DUP)	Nov 2012	Nov 2012 (DUP)
Metals				
Hex Chrom	ND*	NA	NA	NA
Chromium	2.4	2.6	1.7	1.7

BPS1-TT-MW304S (43 - 53 FT)

	Dec 2010	Mar 2011	Jan 2012	Nov 2012
Metals				
Hex Chrom	NA	ND	ND*	10*
Chromium	NA	1.9	1.4	2.4

Notes:
J- Estimated value
ND- Not Detected
NA- Not Analyzed
PCB- polychlorinated biphenol
VOC- volatile organic compound
PCE- tetrachloroethene
TCA- trichloroethane
TCE- trichloroethene
DCA- dichloroethane
DCE- dichloroethene
All concentrations in micrograms per liter (µg/L)
Acetone and methyl acetate not included due to lab contaminant
*Hexavalent chromium test kit results
Bold indicates exceedances of USEPA MCLs or NYSDOH MCLs

TETRA TECH

GROUNDWATER ANALYTICAL DETECTIONS SHALLOW MONITORING WELLS SITE 1 - FORMER DRUM MARSHALLING AREA BETHPAGE, NEW YORK

FILE	112G02230	SCALE	AS NOTED
FIGURE NO.	4-18	REV	DATE 7/1/14

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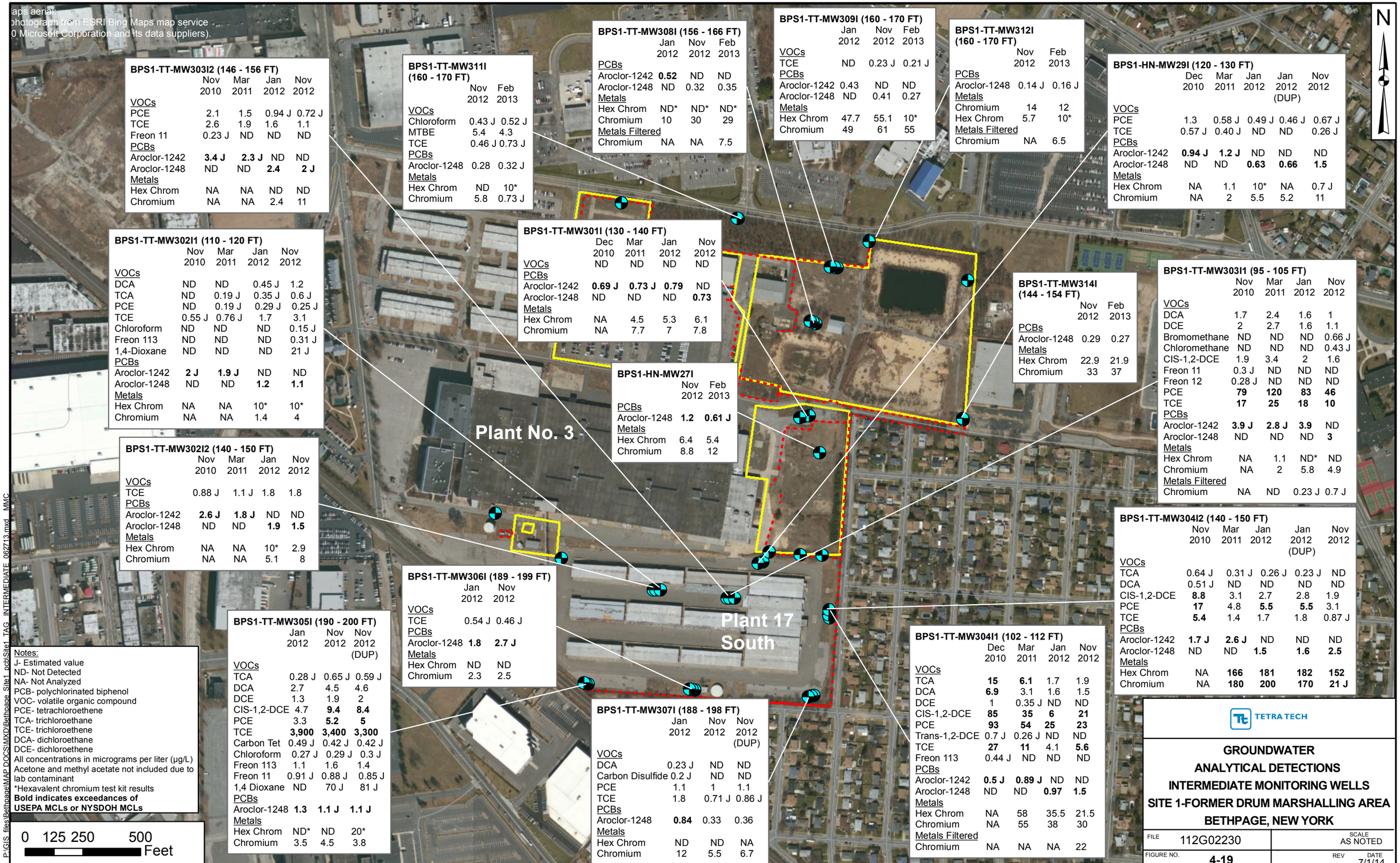

BPS1-TT-MW303I2 (146 - 156 FT)

	Nov 2010	Mar 2011	Jan 2012	Nov 2012
VOCs				
PCE	2.1	1.5	0.94 J	0.72 J
TCE	2.6	1.9	1.6	1.1
Freon 11	0.23 J	ND	ND	ND
PCBs				
Aroclor-1242	**3.4 J**	**2.3 J**	ND	ND
Aroclor-1248	ND	ND	**2.4**	**2 J**
Metals				
Hex Chrom	NA	NA	ND	ND
Chromium	NA	NA	2.4	11

BPS1-TT-MW311I (160 - 170 FT)

	Nov 2012	Feb 2013
VOCs		
Chloroform	0.43 J	0.52 J
MTBE	5.4	4.3
TCE	0.46 J	0.73 J
PCBs		
Aroclor-1248	0.28	0.32 J
Metals		
Hex Chrom	ND	10*
Chromium	5.8	0.73 J

BPS1-TT-MW308I (156 - 166 FT)

	Jan 2012	Nov 2012	Feb 2013
PCBs			
Aroclor-1242	**0.52**	ND	ND
Aroclor-1248	ND	0.32	0.35
Metals			
Hex Chrom	ND*	ND*	ND*
Chromium	10	30	29
Metals Filtered			
Chromium	NA	NA	7.5

BPS1-TT-MW309I (160 - 170 FT)

	Jan 2012	Nov 2012	Feb 2013
VOCs			
TCE	ND	0.23 J	0.21 J
PCBs			
Aroclor-1242	0.43	ND	ND
Aroclor-1248	ND	0.41	0.27
Metals			
Hex Chrom	47.7	55.1	10*
Chromium	49	61	55

BPS1-TT-MW312I (160 - 170 FT)

	Nov 2012	Feb 2013
PCBs		
Aroclor-1248	0.14 J	0.16 J
Metals		
Chromium	14	12
Hex Chrom	5.7	10*
Metals Filtered		
Chromium	NA	6.5

BPS1-HN-MW29I (120 - 130 FT)

	Dec 2010	Mar 2011	Jan 2012	Jan 2012 (DUP)	Nov 2012
VOCs					
PCE	1.3	0.58 J	0.49 J	0.46 J	0.67 J
TCE	0.57 J	0.40 J	ND	ND	0.26 J
PCBs					
Aroclor-1242	**0.94 J**	**1.2 J**	ND	ND	ND
Aroclor-1248	ND	ND	**0.63**	**0.66**	**1.5**
Metals					
Hex Chrom	NA	1.1	10*	NA	0.7 J
Chromium	NA	2	5.5	5.2	11

BPS1-TT-MW302I1 (110 - 120 FT)

	Nov 2010	Mar 2011	Jan 2012	Nov 2012
VOCs				
DCA	ND	ND	0.45 J	1.2
TCA	ND	0.19 J	0.35 J	0.6 J
PCE	ND	0.19 J	0.29 J	0.25 J
TCE	0.55 J	0.76 J	1.7	3.1
Chloroform	ND	ND	ND	0.15 J
Freon 113	ND	ND	ND	0.31 J
1,4-Dioxane	ND	ND	ND	21 J
PCBs				
Aroclor-1242	**2 J**	**1.9 J**	ND	ND
Aroclor-1248	ND	ND	**1.2**	**1.1**
Metals				
Hex Chrom	NA	NA	10*	10*
Chromium	NA	NA	1.4	4

BPS1-TT-MW301I (130 - 140 FT)

	Dec 2010	Mar 2011	Jan 2012	Nov 2012
VOCs	ND	ND	ND	ND
PCBs				
Aroclor-1242	**0.69 J**	**0.73 J**	**0.79**	ND
Aroclor-1248	ND	ND	ND	**0.73**
Metals				
Hex Chrom	NA	4.5	5.3	6.1
Chromium	NA	7.7	7	7.8

BPS1-TT-MW314I (144 - 154 FT)

	Nov 2012	Feb 2013
PCBs		
Aroclor-1248	0.29	0.27
Metals		
Hex Chrom	22.9	21.9
Chromium	33	37

BPS1-HN-MW27I

	Nov 2012	Feb 2013
PCBs		
Aroclor-1248	**1.2**	**0.61 J**
Metals		
Hex Chrom	6.4	5.4
Chromium	8.8	12

BPS1-TT-MW303I1 (95 - 105 FT)

	Nov 2010	Mar 2011	Jan 2012	Nov 2012
VOCs				
DCA	1.7	2.4	1.6	1
DCE	2	2.7	1.6	1.1
Bromomethane	ND	ND	ND	0.66 J
Chloromethane	ND	ND	ND	0.43 J
CIS-1,2-DCE	1.9	3.4	2	1.6
Freon 11	0.3 J	ND	ND	ND
Freon 12	0.28 J	ND	ND	ND
PCE	**79**	**120**	**83**	**46**
TCE	**17**	**25**	**18**	**10**
PCBs				
Aroclor-1242	**3.9 J**	**2.8 J**	**3.9**	ND
Aroclor-1248	ND	ND	ND	**3**
Metals				
Hex Chrom	NA	1.1	ND*	ND
Chromium	NA	2	5.8	4.9
Metals Filtered				
Chromium	NA	ND	0.23 J	0.7 J

BPS1-TT-MW302I2 (140 - 150 FT)

	Nov 2010	Mar 2011	Jan 2012	Nov 2012
VOCs				
TCE	0.88 J	1.1 J	1.8	1.8
PCBs				
Aroclor-1242	**2.6 J**	**1.8 J**	ND	ND
Aroclor-1248	ND	ND	**1.9**	**1.5**
Metals				
Hex Chrom	NA	NA	10*	2.9
Chromium	NA	NA	5.1	8

BPS1-TT-MW304I2 (140 - 150 FT)

	Nov 2010	Mar 2011	Jan 2012	Jan 2012 (DUP)	Nov 2012
VOCs					
TCA	0.64 J	0.31 J	0.26 J	0.23 J	ND
DCA	0.51 J	ND	ND	ND	ND
CIS-1,2-DCE	**8.8**	3.1	2.7	2.8	1.9
PCE	**17**	4.8	**5.5**	**5.5**	3.1
TCE	**5.4**	1.4	1.7	1.8	0.87 J
PCBs					
Aroclor-1242	**1.7 J**	**2.6 J**	ND	ND	ND
Aroclor-1248	ND	ND	**1.5**	**1.6**	**2.5**
Metals					
Hex Chrom	NA	**166**	**181**	**182**	**152**
Chromium	NA	**180**	**200**	**170**	**21 J**

BPS1-TT-MW306I (189 - 199 FT)

	Jan 2012	Nov 2012
VOCs		
TCE	0.54 J	0.46 J
PCBs		
Aroclor-1248	**1.8**	**2.7 J**
Metals		
Hex Chrom	ND	ND
Chromium	2.3	2.5

BPS1-TT-MW305I (190 - 200 FT)

	Jan 2012	Nov 2012	Nov 2012 (DUP)
VOCs			
TCA	0.28 J	0.65 J	0.59 J
DCA	2.7	4.5	4.6
DCE	1.3	1.9	2
CIS-1,2-DCE	4.7	**9.4**	**8.4**
PCE	3.3	**5.2**	**5**
TCE	**3,900**	**3,400**	**3,300**
Carbon Tet	0.49 J	0.42 J	0.42 J
Chloroform	0.27 J	0.29 J	0.3 J
Freon 113	1.1	1.6	1.4
Freon 11	0.91 J	0.88 J	0.85 J
1,4 Dioxane	ND	70 J	81 J
PCBs			
Aroclor-1248	**1.3**	**1.1 J**	**1.1 J**
Metals			
Hex Chrom	ND*	ND	20*
Chromium	3.5	4.5	3.8

BPS1-TT-MW307I (188 - 198 FT)

	Jan 2012	Nov 2012	Nov 2012 (DUP)
VOCs			
DCA	0.23 J	ND	ND
Carbon Disulfide	0.2 J	ND	ND
PCE	1.1	1	1.1
TCE	1.8	0.71 J	0.86 J
PCBs			
Aroclor-1248	**0.84**	0.33	0.36
Metals			
Hex Chrom	ND	ND	NA
Chromium	12	5.5	6.7

BPS1-TT-MW304I1 (102 - 112 FT)

	Dec 2010	Mar 2011	Jan 2012	Nov 2012
VOCs				
TCA	**15**	**6.1**	1.7	1.9
DCA	**6.9**	3.1	1.6	1.5
DCE	1	0.35 J	ND	ND
CIS-1,2-DCE	**85**	**35**	**6**	**21**
PCE	**93**	**54**	**25**	**23**
Trans-1,2-DCE	0.7 J	0.26 J	ND	ND
TCE	**27**	**11**	4.1	**5.6**
Freon 113	0.44 J	ND	ND	ND
PCBs				
Aroclor-1242	**0.5 J**	**0.89 J**	ND	ND
Aroclor-1248	ND	ND	**0.97**	**1.5**
Metals				
Hex Chrom	NA	58	35.5	21.5
Chromium	NA	55	38	30
Metals Filtered				
Chromium	NA	NA	NA	22

Notes:
J- Estimated value
ND- Not Detected
NA- Not Analyzed
PCB- polychlorinated biphenol
VOC- volatile organic compound
PCE- tetrachloroethene
TCA- trichloroethane
TCE- trichloroethene
DCA- dichloroethane
DCE- dichloroethene
All concentrations in micrograms per liter (µg/L)
Acetone and methyl acetate not included due to lab contaminant
*Hexavalent chromium test kit results
Bold indicates exceedances of USEPA MCLs or NYSDOH MCLs

TETRA TECH

GROUNDWATER ANALYTICAL DETECTIONS INTERMEDIATE MONITORING WELLS SITE 1-FORMER DRUM MARSHALLING AREA BETHPAGE, NEW YORK

FILE	112G02230	SCALE	AS NOTED
FIGURE NO.	4-19	REV	DATE 7/1/14

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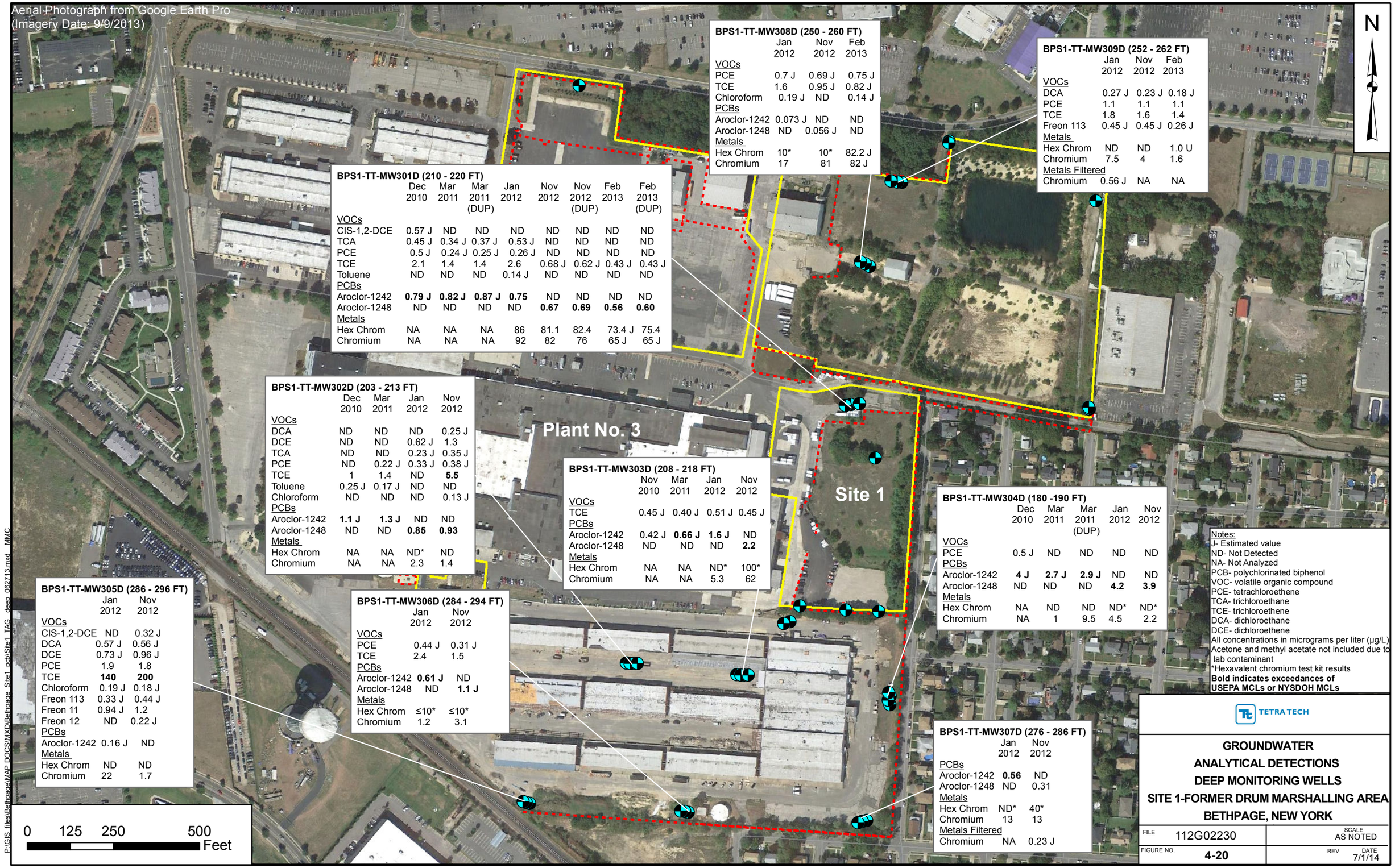


BPS1-TT-MW308D (250 - 260 FT)

	Jan 2012	Nov 2012	Feb 2013
VOCs			
PCE	0.7 J	0.69 J	0.75 J
TCE	1.6	0.95 J	0.82 J
Chloroform	0.19 J	ND	0.14 J
PCBs			
Aroclor-1242	0.073 J	ND	ND
Aroclor-1248	ND	0.056 J	ND
Metals			
Hex Chrom	10*	10*	82.2 J
Chromium	17	81	82 J

BPS1-TT-MW309D (252 - 262 FT)

	Jan 2012	Nov 2012	Feb 2013
VOCs			
DCA	0.27 J	0.23 J	0.18 J
PCE	1.1	1.1	1.1
TCE	1.8	1.6	1.4
Freon 113	0.45 J	0.45 J	0.26 J
Metals			
Hex Chrom	ND	ND	1.0 U
Chromium	7.5	4	1.6
Metals Filtered			
Chromium	0.56 J	NA	NA

BPS1-TT-MW301D (210 - 220 FT)

	Dec 2010	Mar 2011	Mar 2011 (DUP)	Jan 2012	Nov 2012	Nov 2012 (DUP)	Feb 2013	Feb 2013 (DUP)
VOCs								
CIS-1,2-DCE	0.57 J	ND	ND	ND	ND	ND	ND	ND
TCA	0.45 J	0.34 J	0.37 J	0.53 J	ND	ND	ND	ND
PCE	0.5 J	0.24 J	0.25 J	0.26 J	ND	ND	ND	ND
TCE	2.1	1.4	1.4	2.6	0.68 J	0.62 J	0.43 J	0.43 J
Toluene	ND	ND	ND	0.14 J	ND	ND	ND	ND
PCBs								
Aroclor-1242	**0.79 J**	**0.82 J**	**0.87 J**	**0.75**	ND	ND	ND	ND
Aroclor-1248	ND	ND	ND	ND	**0.67**	**0.69**	**0.56**	**0.60**
Metals								
Hex Chrom	NA	NA	NA	86	81.1	82.4	73.4 J	75.4
Chromium	NA	NA	NA	92	82	76	65 J	65 J

BPS1-TT-MW302D (203 - 213 FT)

	Dec 2010	Mar 2011	Jan 2012	Nov 2012
VOCs				
DCA	ND	ND	ND	0.25 J
DCE	ND	ND	0.62 J	1.3
TCA	ND	ND	0.23 J	0.35 J
PCE	ND	0.22 J	0.33 J	0.38 J
TCE	1	1.4	ND	**5.5**
Toluene	0.25 J	0.17 J	ND	ND
Chloroform	ND	ND	ND	0.13 J
PCBs				
Aroclor-1242	**1.1 J**	**1.3 J**	ND	ND
Aroclor-1248	ND	ND	**0.85**	**0.93**
Metals				
Hex Chrom	NA	NA	ND*	ND
Chromium	NA	NA	2.3	1.4

BPS1-TT-MW303D (208 - 218 FT)

	Nov 2010	Mar 2011	Jan 2012	Nov 2012
VOCs				
TCE	0.45 J	0.40 J	0.51 J	0.45 J
PCBs				
Aroclor-1242	0.42 J	**0.66 J**	**1.6 J**	ND
Aroclor-1248	ND	ND	ND	**2.2**
Metals				
Hex Chrom	NA	NA	ND*	100*
Chromium	NA	NA	5.3	62

BPS1-TT-MW304D (180 -190 FT)

	Dec 2010	Mar 2011	Mar 2011 (DUP)	Jan 2012	Nov 2012
VOCs					
PCE	0.5 J	ND	ND	ND	ND
PCBs					
Aroclor-1242	**4 J**	**2.7 J**	**2.9 J**	ND	ND
Aroclor-1248	ND	ND	ND	**4.2**	**3.9**
Metals					
Hex Chrom	NA	ND	ND	ND*	ND*
Chromium	NA	1	9.5	4.5	2.2

BPS1-TT-MW305D (286 - 296 FT)

	Jan 2012	Nov 2012
VOCs		
CIS-1,2-DCE	ND	0.32 J
DCA	0.57 J	0.56 J
DCE	0.73 J	0.96 J
PCE	1.9	1.8
TCE	**140**	**200**
Chloroform	0.19 J	0.18 J
Freon 113	0.33 J	0.44 J
Freon 11	0.94 J	1.2
Freon 12	ND	0.22 J
PCBs		
Aroclor-1242	0.16 J	ND
Metals		
Hex Chrom	ND	ND
Chromium	22	1.7

BPS1-TT-MW306D (284 - 294 FT)

	Jan 2012	Nov 2012
VOCs		
PCE	0.44 J	0.31 J
TCE	2.4	1.5
PCBs		
Aroclor-1242	**0.61 J**	ND
Aroclor-1248	ND	**1.1 J**
Metals		
Hex Chrom	≤10*	≤10*
Chromium	1.2	3.1

BPS1-TT-MW307D (276 - 286 FT)

	Jan 2012	Nov 2012
PCBs		
Aroclor-1242	**0.56**	ND
Aroclor-1248	ND	0.31
Metals		
Hex Chrom	ND*	40*
Chromium	13	13
Metals Filtered		
Chromium	NA	0.23 J

Notes:
J- Estimated value
ND- Not Detected
NA- Not Analyzed
PCB- polychlorinated biphenol
VOC- volatile organic compound
PCE- tetrachloroethene
TCA- trichloroethane
TCE- trichloroethene
DCA- dichloroethane
DCE- dichloroethene
All concentrations in micrograms per liter (µg/L)
Acetone and methyl acetate not included due to lab contaminant
*Hexavalent chromium test kit results
Bold indicates exceedances of USEPA MCLs or NYSDOH MCLs

TETRA TECH

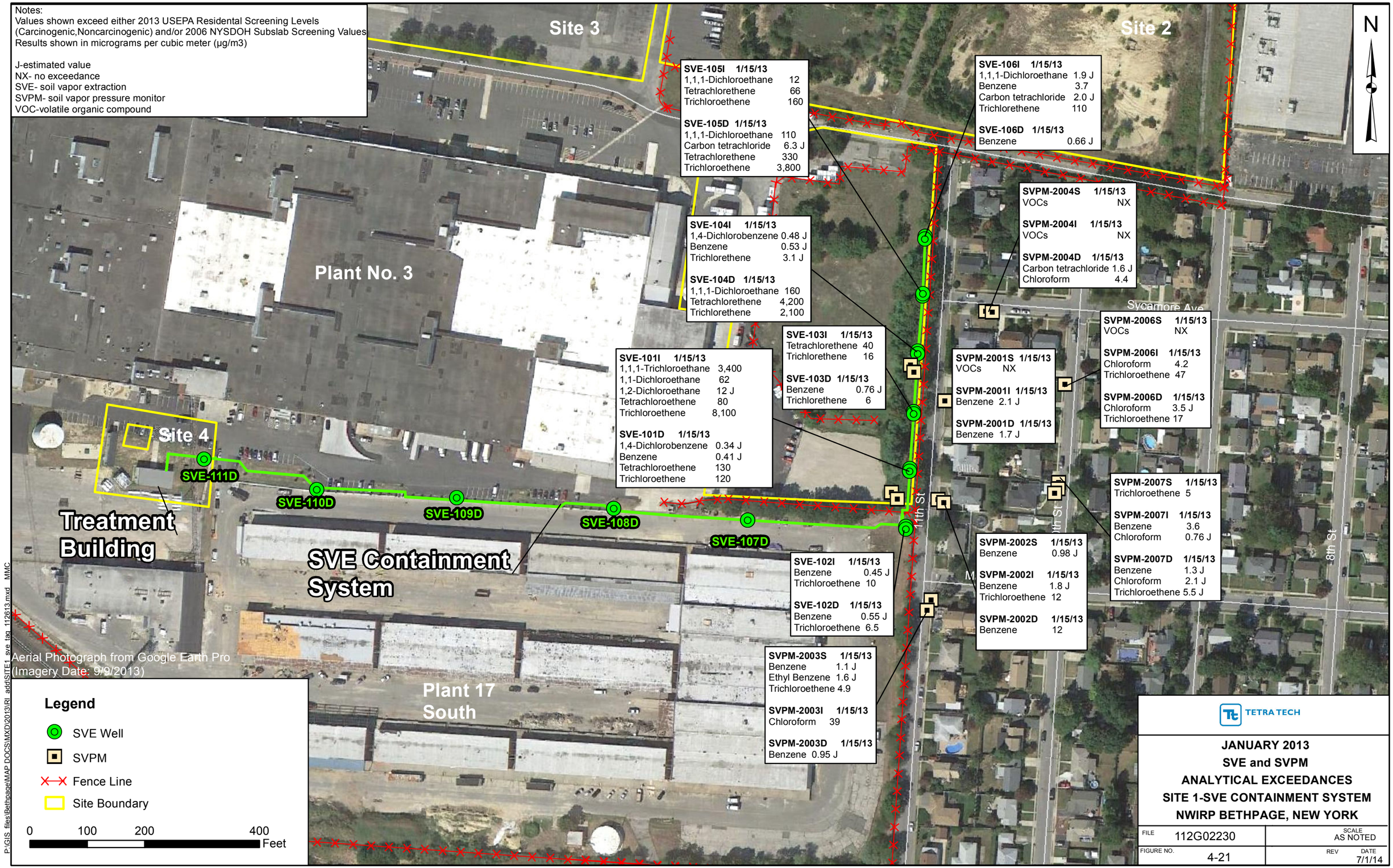
GROUNDWATER ANALYTICAL DETECTIONS DEEP MONITORING WELLS SITE 1-FORMER DRUM MARSHALLING AREA BETHPAGE, NEW YORK

FILE	112G02230	SCALE	AS NOTED
FIGURE NO.	4-20	REV	DATE 7/1/14

P:\GIS_files\Bethpage\MAP DOCS\MXD\Bethpage_Site1_pdb\Site1_TAG_deep_062713.mxd MMC

Notes:
Values shown exceed either 2013 USEPA Residental Screening Levels (Carcinogenic,Noncarcinogenic) and/or 2006 NYSDOH Subslab Screening Values
Results shown in micrograms per cubic meter (µg/m3)

J-estimated value
NX- no exceedance
SVE- soil vapor extraction
SVPM- soil vapor pressure monitor
VOC-volatile organic compound



TETRA TECH

JANUARY 2013
SVE and SVPM
ANALYTICAL EXCEEDANCES
SITE 1-SVE CONTAINMENT SYSTEM
NWIRP BETHPAGE, NEW YORK

FILE	112G02230	SCALE	AS NOTED
FIGURE NO.	4-21	REV	DATE 7/1/14

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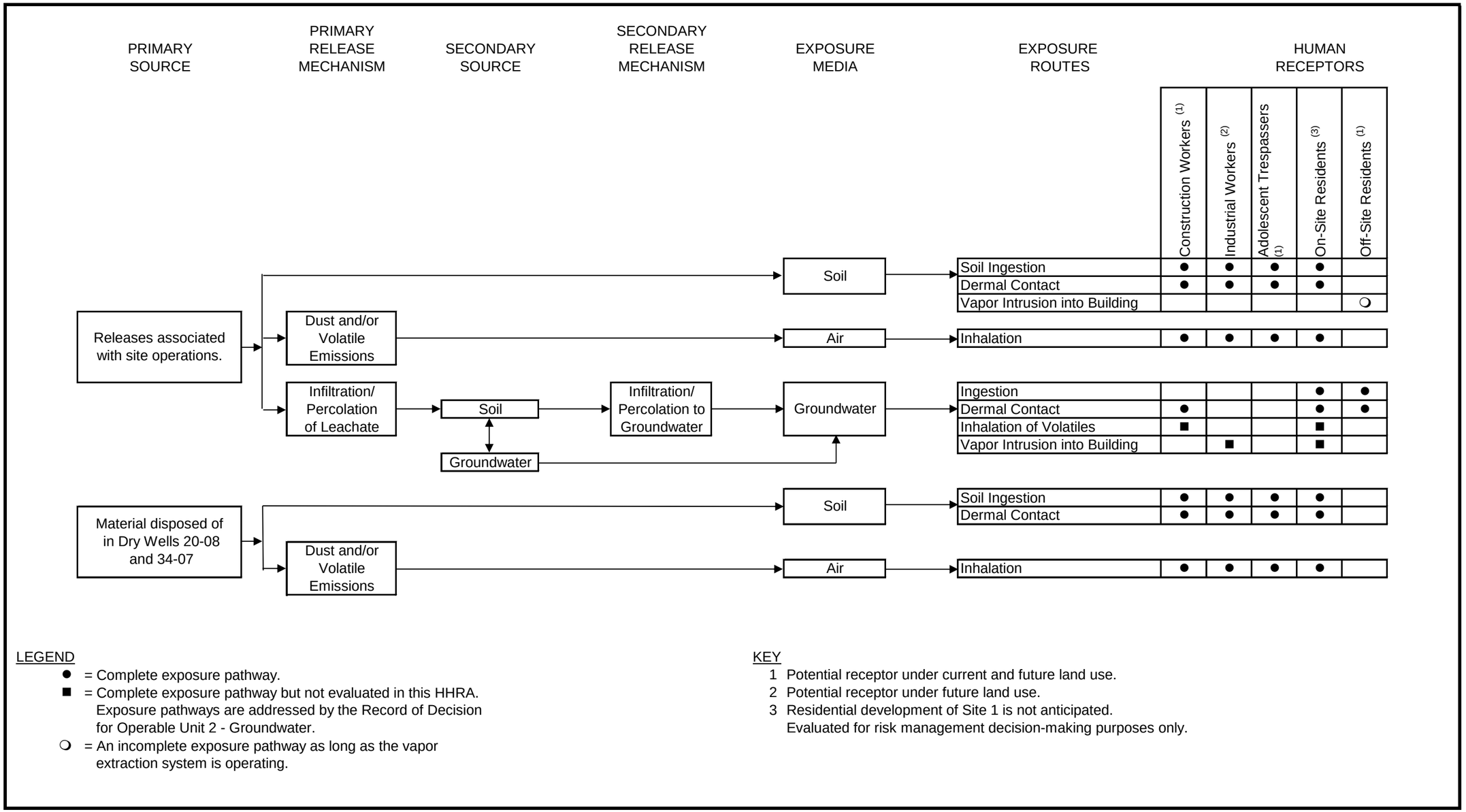
FIGURE 6-1

CONCEPTUAL SITE MODEL
NWIRP BETHPAGE, NEW YORK



APPENDIX A

PHOTOGRAPHIC LOG

NWIRP Bethpage Site 1
Photo Log

Photo 1: View of southeast recharge basin looking northeast.

Photo 2: View of southwest recharge basin and main storm water outfall from Site 1 looking south.

NWIRP Bethpage Site 1
Photo Log

Photo 3: At BPS1-TT-MW309 well cluster looking southeast across grass field which used to the Former Sludge Drying Beds.

Photo 4: Standing north of the BPS1-TT-MW301 monitoring well cluster looking southwest towards Plant 3 and the Dry Well 20-08 study area (located adjacent to PODS).

NWIRP Bethpage Site 1
Photo Log

Photo 5: At BPS1-SB3060 looking northeast across the Dry Well 20-08 study area toward BPS1-SB3027. Note the storm sewer drain that runs northwest and directs water to recharge basins on the far side of the PODs in the center top of picture. Also the area was paved over so the location of Dry Well 20-08 is no longer visible.

Photo 6: In the south-central portion of Site 1 looking north across the grassy area where drums and transformers were stored.

NWIRP Bethpage Site 1
Photo Log

Photo 7: In northeast corner of Site 1 looking south across grass field which used to be AOC 35 – Sludge Drying Beds.

Photo 8: In south-western portion of Site 1 looking northwest across newly laid gravel lot towards Plant three. Ongoing site restoration took down the fence in this area and closed the northern portion of the Site 1 off with a new fence.

NWIRP Bethpage Site 1
Photo Log

Photo 9: In the southwestern portion of Site 1 looking towards the tree lined southern boundary of Site 1 proper.

Photo 10: In the southwestern portion of Site 1 looking west along tree line southern boundary towards Plant 3 with BPS1-FW-MW01 and BPS1-FW-MW02 in view.

NWIRP Bethpage Site 1
Photo Log

Photo 11: Standing along eastern boundary of Site 1 looking south down path between windrow and facility fence with SVE-104I and 104D in view.

NWIRP Bethpage Site 1
Photo Log

Photo 12: Standing just south of tree lined southern boundary of Site 1 looking east towards facility fence and neighborhood with southern warehouses on right. BPS1-HN-MW29D (flush mount) and BPS1-SB3029 (white paint) are also visible.

Photo 13: At BPS1-TT-MW304 monitoring well cluster looking north at Site 1 southern boundary. The shipping container on right is part of the SVE system.

NWIRP Bethpage Site 1
Photo Log

Photo 14: Looking northeast at the area around Dry Well 34-07 (no longer visible) that was recently repaved. White paint on asphalt marks BPS1-SB3030.

Photo 15: At southern end of the facility looking southwest with BPS1-MW306 monitoring well cluster in view (in distance between building and tree). Ongoing facility renovation has workers stockpiling material in area.

APPENDIX B

PRELIMINARY ASSESSMENT – SB3001 THROUGH SB3003

B.1 BPS1-3001
B.2 BPS1-3002
B.3 BPS1-3003

B.1 BPS1-3001

GAMMA LOG

BORING LOG

SAMPLE LOG SHEETS LONG ISLAND ANALYTICAL

SAMPLE LOG SHEETS MITKEM LABORATORY

CHAIN OF CUSTODY LONG ISLAND ANALYTICAL

CHAIN OF CUSTODY MITKEM LABORATORY

ANALYTICAL RESULTS LONG ISLAND ANALYTICAL

VALIDATION LETTER AND RESULTS MITKEM LABORATORY

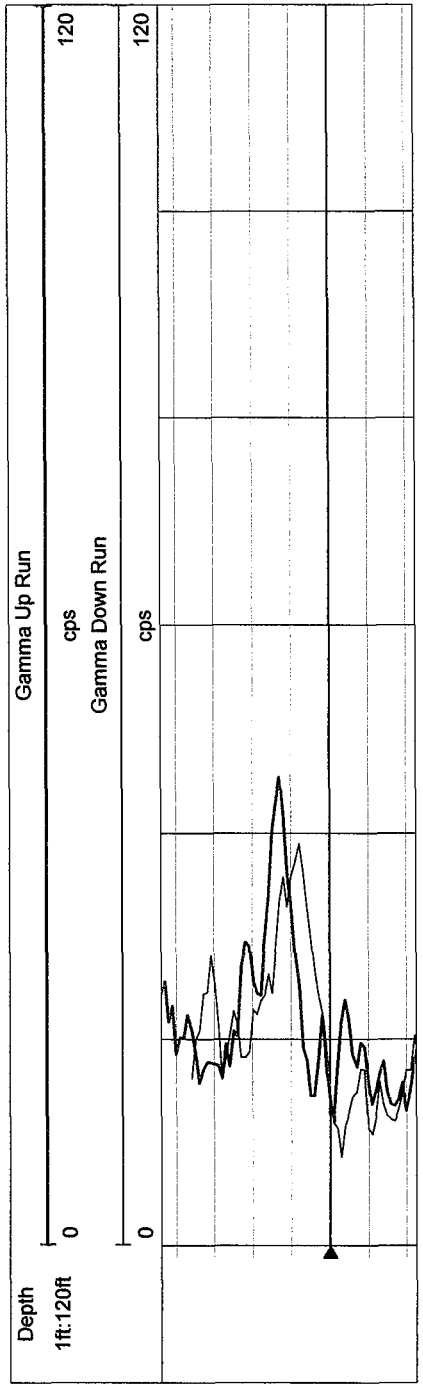
GAMMA LOGS

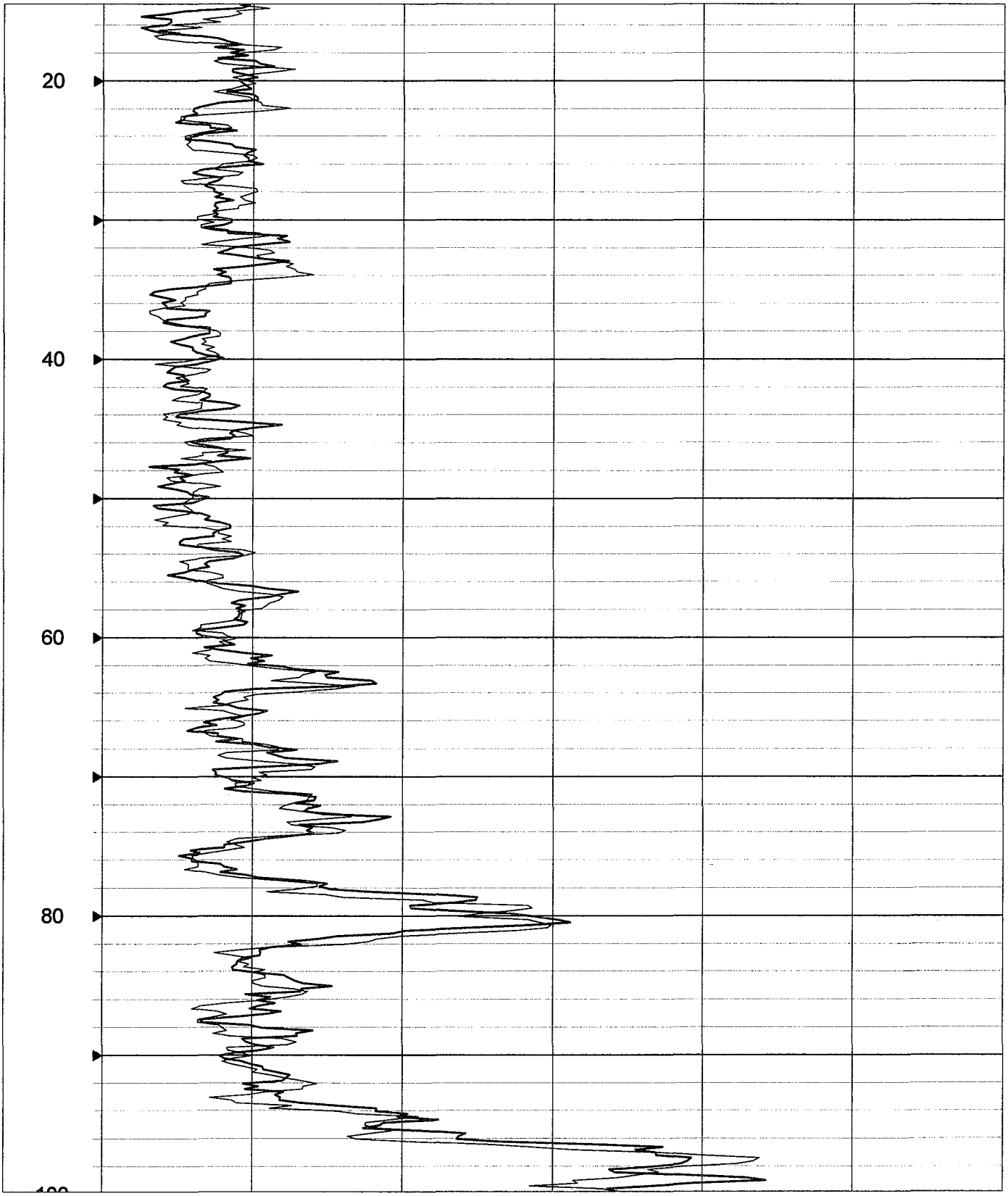
AQUA TERRA GEOPHYSICS INC.
13 Station Court, Bellport NY 11713
631.286.7699

COMPANY	UNI TECH DRILLING
WELL ID	VPS1 - 3001
FIELD	
COUNTRY	STATE
LOCATION NWIRP	OTHER SERVICES
CO / WELL / FLD / CTY / STE / FILING No	SEC TWP RGE
PERMANENT DATUM	ELEVATION K.B.
LOG MEAS. FROM	GROUND SURFACE ABOVE PERM. DATUM D.F.
DRILLING MEAS. FROM	G.L.

DATE	MAY 12, 2009	TYPE FLUID IN HOLE	BENTONITE
RUN No		SALINITY	
TYPE LOG		DENSITY	
DEPTH-DRILLER	310 FEET	LEVEL	
DEPTH-LOGGER	309 FEET	MAX. REC. TEMP.	
BTM LOGGED INTERVAL			
TOP LOGGED INTERVAL			
OPERATING RIG TIME			
RECORDED BY	BENJAMIN RICE		
WITNESSED BY	STAN CONTI		

RUN	BOREHOLE RECORD			CASING RECORD			
NO.	BIT	FROM	TO	SIZE	WGT.	FROM	TO
	6 INCH		TD	2 7/8	DRILL PIPE	0	TD

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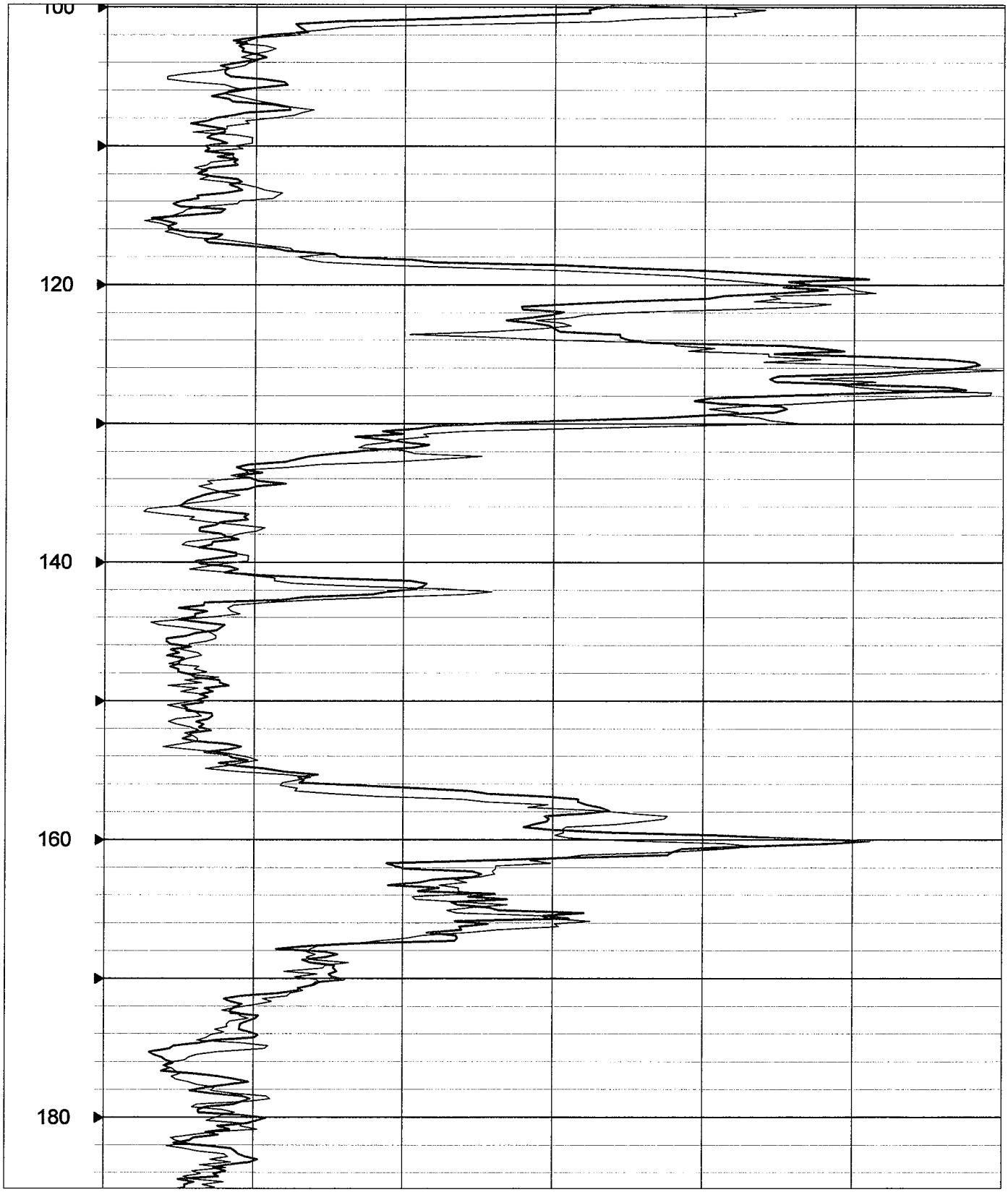
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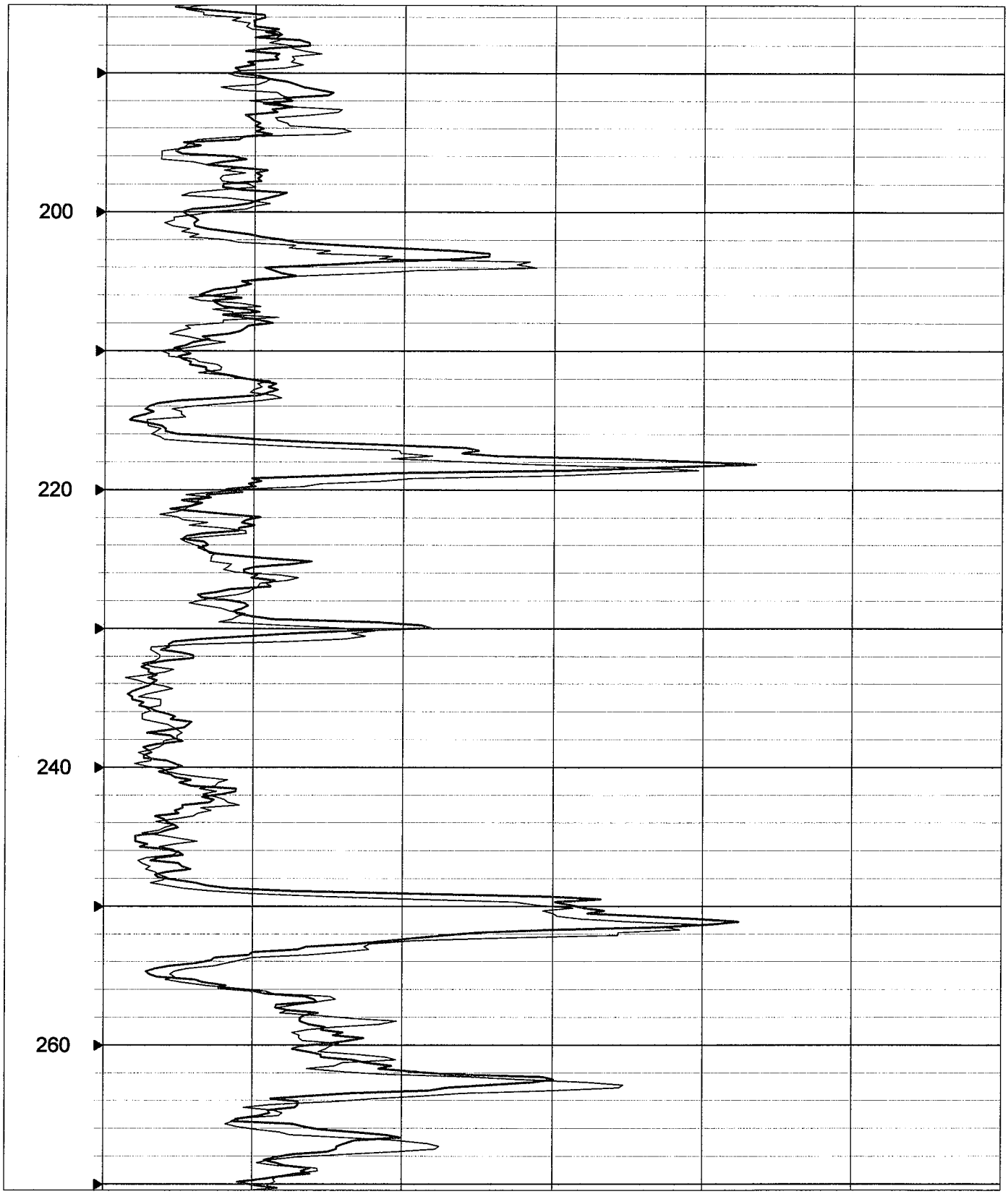
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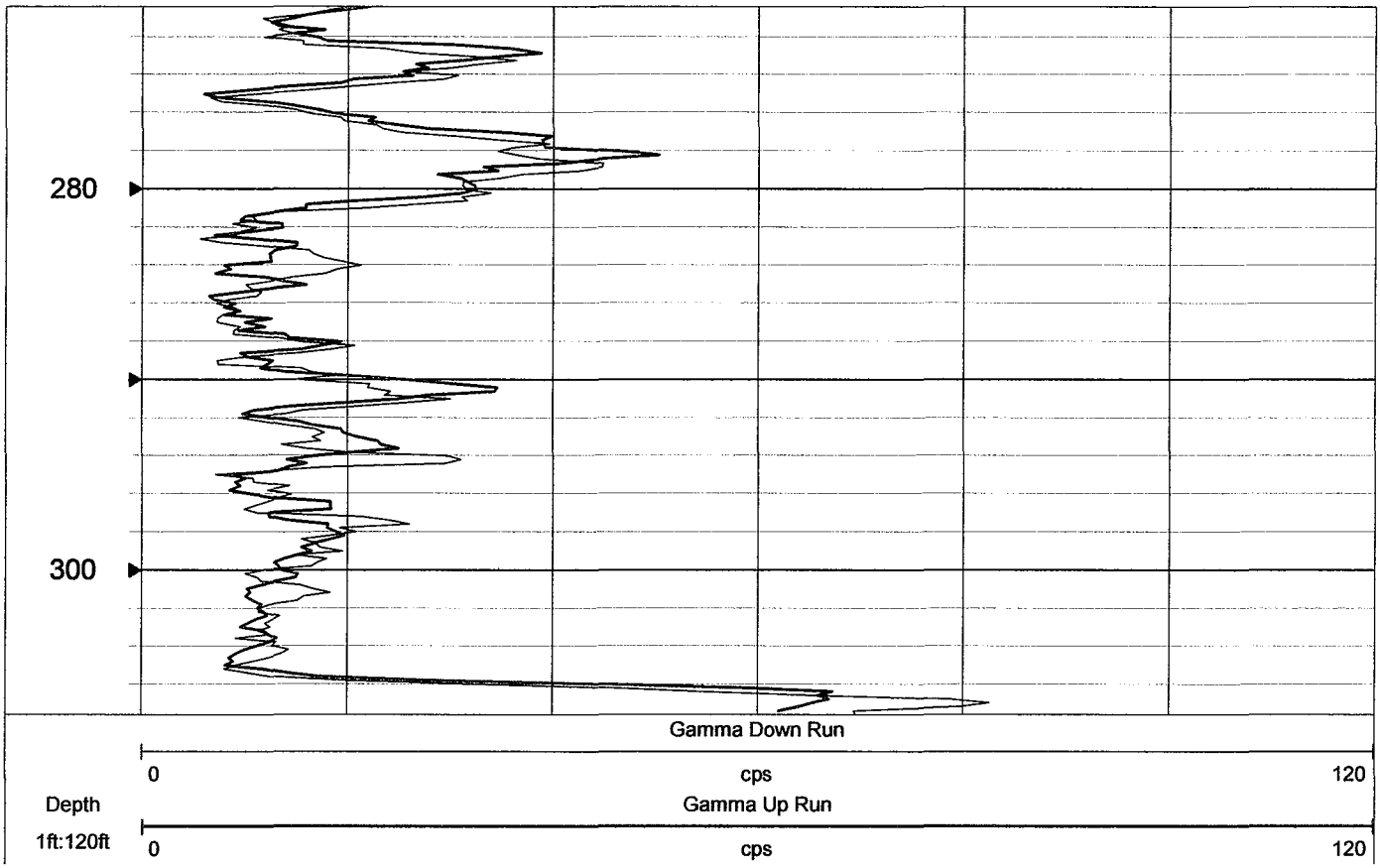

280
300
Gamma Down Run
0
cps
120
Depth
1ft:120ft
Gamma Up Run
0
cps
120

BORING LOGS

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP BETHPAGE GM-75
PROJECT NUMBER: 112G00622
DRILLING COMPANY: UNITECH DRILLING
DRILLING RIG: MUD ROTARY

BORING No.: BPS1-3001
DATE: 5/6/09
GEOLOGIST: Conti
DRILLER: Evans, D.

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	0				DENSE	YELLOW BRN	SAND - SOME GRAVEL	SW			0		
	10						SAME				0		
	20						SAME				0		
	30						SAME				0		
SS1 @ 1320	40 / 41.5	16 16 12	1/1.5	■	M DENSE	YELLOW BRN	GRAVEL - SOME SAND	GW	TOOK BPS1-3001-SB-041	0	0		
SS2 @ 1345	45 / 46.5	18 19 21	1/1.5	■	DENSE	ORANG BRN	SAND - SOME GRAVEL	SW	MITKEM VOCs, PCBs BPS1-3001-SB WET 046	0	0		
	50												

* When rock coring, enter rock brokeness.

SOIL SAMPLE ■

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks:

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP BETHPAGE GM-75
PROJECT NUMBER: 112G00622
DRILLING COMPANY: UNITECH DRILLING
DRILLING RIG: MUD ROTARY

BORING No.: BPS1-3001
DATE: 5/6/09
GEOLOGIST: Conti
DRILLER: Evans, D.

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
SS3	50												
@ 1415	51.5	16/26/18	1/1.5	■	DENSE	BRN	SAND (F/C) SOME GRAVEL	SW	WET - TOOK BPS1-3001-SB 051	0	0		
SS4 @ 1445	55 56.5	18/25/30	.8/1.5		DENSE	TAN	GRAVEL - SOME SAND	GW	- WET - DID NOT TAKE SAMPLE FOR MITKEM HERE	0	0		
SS5 @ 1500	60 61.5	16/18/21	0.8/1.5	■	DENSE	BRN	SAND (F/C) TR TO SOME GRAVEL	SW	WET - TOOK BPS1-3001-SB-061 VOCs ONLY	0	0		
S1 @ 1640	70 71			●			SAME		TOOK BPS1-3001-GW-071		0		
	80						SAME				0		
S2 @ 0915	90 91			●			SAME - MORE SILT		TOOK BPS1-3001-GW-091		0		
SS6 @ 0935	100	25/30/50	1.5/1.5 ■	98 CLAY	V STIFF	DARK GRAY	LAMINATED SILTY CLAY - CLAYEY SILT	CL	TOOK BPS1-3001-SB-009 MOIST	0	0		

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP BETHPAGE GM-75
PROJECT NUMBER: 112G00622
DRILLING COMPANY: UNITECH DRILLING
DRILLING RIG: MUD ROTARY

BORING No.: BPS1-3001
DATE: 5/7/09
GEOLOGIST: Conti
DRILLER: Evans, D.

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	100												
				CLAY	V STIFF	D GRAY	SILTY CLAY	CL	MOIST	0	0		
				103									
					DENSE	BRN	SILTY F/M SAND	SM	WET				
						GRAY		SP					
S-3	110								TOOK				
1110	111								BPS1-3001-GW-111		0		
	120			~120			SAME						
					M STIFF	TAN	SILTY CLAY/	CL	MOIST	0	0		
				C	TO		CLAYEY						
				L	STIFF		SILT						
				A			POSSIBLE		DRILLER NOTES CLAY ~130				
SS 7	130	20/18	1.5/1.5	Y					TOOK				
	131.5	24		132	STIFF	TAN	SILTY CLAY	CL	BPS1-3001-SB-131	0	0		
				±	DENSE	TAN BRN	SAND (F/M)	SP/SM					
	140										0		
							SAME						
	150										0		

* When rock coring, enter rock brokeness.

■ SOIL SAMPLE

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks:

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP BETHPAGE GM-75
PROJECT NUMBER: 112G00622
DRILLING COMPANY: UNITECH DRILLING
DRILLING RIG: MUD ROTARY

BORING No.: BPS1-3001
DATE: 5/7/09
GEOLOGIST: Conti
DRILLER: Evans, D.

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
S4	150												
@ 1315	151				DENSE	BRN	SILTY F SAND — TR CLAY?	SM	TOOK BPS1-3001-GW-151		0		
									1 VIAL ONLY				
	160						SAME - TR CLAY →		DRILLER NOTES		0		
S5	170	18/12/17	1/1			PINK							
5/7 @ 1450	171 172				M DENSE	ORANG GRAY BRN	SILTY F SAND - TR CLAY	SM	WET TOOK BPS1-3001-GW — 172	0	0		
									1 VIAL				
	180						SAME						
											0		
S6	190					TAN BRN	F/M SAND	SM	TOOK				
1100	191								BPS1-3001-GW-191		0		
									ALSO TO MITICEM				
	200												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks:

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP BETHPAGE GM-75
PROJECT NUMBER: 112G00622
DRILLING COMPANY: UNITECH DRILLING
DRILLING RIG: MUD ROTARY

BORING No.: BPS1-3001
DATE: 5/11/09
GEOLOGIST: Conti
DRILLER: Evans, D.

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	200				DENSE	TAN BRN	F/M SAND	SM			0		
S7	210						SAME		TOOK		0		
1230	211								BPS1-3001-GW-211				
				218 ±			CLAY? SEE GAMMA LOG.						
	220						SAME				0		
S8	230						SAME		TOOK		0		
@ 1400	231								BPS1-3001-GW-231				
	240						SAME				0		
	250										0		

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP BETHPAGE GM-75
PROJECT NUMBER: 112G00622
DRILLING COMPANY: UNITECH DRILLING
DRILLING RIG: MUD ROTARY

BORING No.: BPS1-3001
DATE: 5/11/09
GEOLOGIST: Conti
DRILLER: Evans, D.

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
S9	250												
1545	251				DENSE	BRN	F/M SAND TR CLAY	SM	TOOK BPS1-3001-GW 251.		0		
	260						SAME				0		
S10	270						SAME		TOOK		0		
0915	271								BPS1-3001-GW-271				
	280										0		
							SAME						
S11	290								TAKE		0		
1040	291						SAME		BPS1-3001-GW-291				
	300										0		

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks:

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP BETHPAGE GM-75
PROJECT NUMBER: 112G00622
DRILLING COMPANY: UNITECH DRILLING
DRILLING RIG: MUD ROTARY

BORING No.: BPS1-3001
DATE: 5|12|09
GEOLOGIST: Conti
DRILLER: Evans, D.

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	300				DENSE	BRN	F/M SAND	SM/SP			0		
							~ 309						
512	310						SAME - TR CLAY		TOOK				
1230	311								BPS1-3001-GW-311		0		
							TD @ 310		→ SEE GAMMA LOG				
							Gamma Log on 5|12|09						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

SAMPLE LOG SHEETS
LONG ISLAND ANALYTICAL

Tetra Tech NUS, Inc.

QA SAMPLE LOG SHEET

Project Site Name: NWIRP BETHPAGE GM-75
Project Number: 112G00622
Sample Location: BPS1-3001
QA Sample Type:

Sample ID No.: BPS1-TB-050609 ~~BP-VPB~~
Sampled By: SJC
C.O.C. Number: 27232

[X] Trip Blank
[] Source Water Blank
[] Rinsate Blank
[] Other Blank

SAMPLING DATA:

Date: 516109
Time: 1530
Method: LAB

WATER SOURCE:

[X] Laboratory Prepared
[] Purchased
[] Other
[] Tap
[] Fire Hydrant

PURCHASED WATER INFORMATION (If Applicable as Source or Rinsate Water):

Product Name:
Supplier:
Manufacturer:
Order Number:
Lot Number:
Expiration Date:

RINSATE INFORMATION (If Applicable):

Media Type:
Equipment Used:
Equipment Type:
[] Dedicated
[] Reusable

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	Cool 4°C & HCl	2-40 ml Vials	YES / NO

OBSERVATIONS / NOTES:

Signature(s): SJ Conti

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP BETHPAGE GM-75
Project No.: 112G00622
PRE-DESIGN FIELD INVES

Sample ID No.: BPS1-3001-GW- 071
Sample Location: BPS1-3001
Sampled By: SJC

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 27232
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Date: 5/6/09	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Time: 1640								
Method: Hydropunch	BRN GRAY	7→8						

PURGE DATA:

Date:								
Method:								
Monitor Reading (ppm):		SEE LOW FLOW PURGE DATA SHEET, Page 2						
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	2- 40ml vials	✓
		ALSO FOR MITKEM	

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. [✓]

Used pH paper instead of water quality meter
Check box if used pH paper. [✓]

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): SJ Conti

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP BETHPAGE GM-75
Project No.: 112G00622
PRE-DESIGN FIELD INVES

Sample ID No.: BPS1-3001-GW- 091
Sample Location: BPS1-3001
Sampled By: SJC

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 27232
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Date: 5/7/09	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Time: 0915								
Method: Hydropunch	BRN	9.36	1.46	15.41	>800	—	230	—

PURGE DATA:

Date:								
Method:								
Monitor Reading (ppm):		SEE LOW FLOW PURGE DATA SHEET, Page 2						
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	2- 40ml vials	✓

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. [ ]

Used pH paper instead of water quality meter
Check box if used pH paper. [ ]

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): SJ Conti

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP BETHPAGE GM-75
Project No.: 112G00622
PRE-DESIGN FIELD INVES

Sample ID No.: BPS1-3001-GW- 111
Sample Location: BPS1-3001
Sampled By: SJC

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 27232
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Date: 5/7/09	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Time: 1110								
Method: Hydropunch	GRAY BRN	9.76	1.26	16.50	>800	—	159	—

PURGE DATA:

Date:								
Method:								
Monitor Reading (ppm):		SEE LOW FLOW PURGE DATA SHEET, Page 2						
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	2- 40ml vials	✓

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. [ ]

Used pH paper instead of water quality meter
Check box if used pH paper. [ ]

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): SJ Conti

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP BETHPAGE GM-75
Project No.: 112G00622
PRE-DESIGN FIELD INVES

Sample ID No.: BPS1-3001-GW- 151
Sample Location: BPS1-3001
Sampled By: SJC

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 27232
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

Date: 5/7/09	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Time: 1315	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Method: Hydropunch	BRN	8→9	—	—	>800	—	—	—

PURGE DATA:

Date:								
Method:								
Monitor Reading (ppm):		SEE LOW FLOW PURGE DATA SHEET, Page 2						
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	~~2~~ 40ml vials	✓
		1	

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. [✓]

Used pH paper instead of water quality meter
Check box if used pH paper. [✓]

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): Conti

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP BETHPAGE GM-75
Project No.: 112G00622
PRE-DESIGN FIELD INVES

Sample ID No.: BPS1-3001-GW- 172
Sample Location: BPS1-3001
Sampled By: SJC

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 27232
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Date: 5/7/09	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Time: 1450								
Method: Hydropunch	LT GRY	7-8	—	—	—	—	—	—

PURGE DATA:

Date:								
Method:								
Monitor Reading (ppm):		SEE LOW FLOW PURGE DATA SHEET, Page 2						
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	2- 40ml vials	

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. [✓]

Used pH paper instead of water quality meter
Check box if used pH paper. [✓]

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): SJ Conte

Tetra Tech NUS, Inc.

QA SAMPLE LOG SHEET

Project Site Name: NWIRP BETHPAGE GM-75
Project Number: 112G00622
Sample Location:
QA Sample Type:

Sample ID No.: ~~BP-VPB~~ BPSI-TB-051109
Sampled By: SJC
C.O.C. Number: 27234

[X] Trip Blank
[] Source Water Blank
[] Rinsate Blank
[] Other Blank

SAMPLING DATA:

Date: 5/11/09
Time: 1030
Method: LAB

WATER SOURCE:

[X] Laboratory Prepared
[] Purchased
[] Other
[] Tap
[] Fire Hydrant

PURCHASED WATER INFORMATION (If Applicable as Source or Rinsate Water):

Product Name:
Supplier:
Manufacturer:
Order Number:
Lot Number:
Expiration Date:

RINSATE INFORMATION (If Applicable):

Media Type:
Equipment Used:
Equipment Type:
[] Dedicated
[] Reusable

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	Cool 4°C & HCl	2-40 ml Vials	YES / NO

OBSERVATIONS / NOTES:

Signature(s): S. Conte

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP BETHPAGE GM-75
Project No.: 112G00622
PRE-DESIGN FIELD INVES

Sample ID No.: BPS1-3001-GW- 191
Sample Location: BPS1-3001
Sampled By: SJC

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 27234
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Date: 5/11/09	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Time: 1100								
Method: Hydropunch	TAN	9→10	—	—	—	—	—	—

PURGE DATA:

Date:								
Method:								
Monitor Reading (ppm):	SEE LOW FLOW PURGE DATA SHEET, Page 2							
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	(2)-40ml vials	✓
		2 vials to Mitkem also	✓

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. [✓]

Used pH paper instead of water quality meter
Check box if used pH paper. [✓]

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): SJ Conte

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP BETHPAGE GM-75
Project No.: 112G00622
PRE-DESIGN FIELD INVES

Sample ID No.: BPS1-3001-GW- 211
Sample Location: BPS1-3001
Sampled By: SJC

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 27234
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Date: 5/11/09	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Time: 1230								
Method: Hydropunch	BRN	7	–	–	–	–	–	–

PURGE DATA:

Date:								
Method:								
Monitor Reading (ppm):		SEE LOW FLOW PURGE DATA SHEET, Page 2						
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	2- 40ml vials	✓

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. [✓]

Used pH paper instead of water quality meter
Check box if used pH paper. [✓]

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s): SJ Conti

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP BETHPAGE GM-75
Project No.: 112G00622
PRE-DESIGN FIELD INVES

Sample ID No.: BPS1-3001-GW-231
Sample Location: BPS1-3001
Sampled By: SJC

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 27234
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Date: 5/11/09	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Time: 1400								
Method: Hydropunch	BRN	7.95	1.18	18.63	>800	—	216	—

PURGE DATA:

Date:								
Method:								
Monitor Reading (ppm):	SEE LOW FLOW PURGE DATA SHEET, Page 2							
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	2-40ml vials	✓

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. [ ]

Used pH paper instead of water quality meter
Check box if used pH paper. [ ]

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): SJ Conti

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP BETHPAGE GM-75
Project No.: 112G00622
PRE-DESIGN FIELD INVES

Sample ID No.: BPS1-3001-GW- 251
Sample Location: BPS1-3001
Sampled By: SJC

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 27234
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Date: 5/11/09	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Time: 1545								
Method: Hydropunch	BRN	7→8	—	—	—	—	—	—

PURGE DATA:

Date:								
Method:								
Monitor Reading (ppm):	SEE LOW FLOW PURGE DATA SHEET, Page 2							
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	2- 40ml vials	✓

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. [✓]

Used pH paper instead of water quality meter
Check box if used pH paper. [✓]

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): SJ Conti

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP BETHPAGE GM-75
Project No.: 112G00622
PRE-DESIGN FIELD INVES

Sample ID No.: BPS1-3001-GW- 271
Sample Location: BPS1-3001
Sampled By: SJC

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 27234
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Date: 5/12/09	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Time: 0915								
Method: Hydropunch	BRN	7→8	—	—	—	—	—	—

PURGE DATA:

Date:								
Method:								
Monitor Reading (ppm):	SEE LOW FLOW PURGE DATA SHEET, Page 2							
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	~~2~~ 1- 40ml vials	✓

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. ☑

Used pH paper instead of water quality meter
Check box if used pH paper. ☑

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): SJ Conti

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP BETHPAGE GM-75
Project No.: 112G00622
PRE-DESIGN FIELD INVES

Sample ID No.: BPS1-3001-GW-291
Sample Location: BPS1-3001
Sampled By: SJC

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 27234
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Date: 5/12/09	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Time: 1040								
Method: Hydropunch	BRN	7.81	.444	16.77	672	—	493	—

PURGE DATA:

Date:								
Method:								
Monitor Reading (ppm):		SEE LOW FLOW PURGE DATA SHEET, Page 2						
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	2- 40ml vials	✓

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. [ ]

Used pH paper instead of water quality meter
Check box if used pH paper. [ ]

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): SJ Conta.

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP BETHPAGE GM-75
Project No.: 112G00622
PRE-DESIGN FIELD INVES

Sample ID No.: BPS1-3001-GW- 311
Sample Location: BPS1-3001
Sampled By: SJC

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 27234
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Date: 5/12/09	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Time: 1230								
Method: Hydropunch	BRN	9.73	1.05	17.56	> 800	—	18	—

PURGE DATA:

Date:								
Method:								
Monitor Reading (ppm):		SEE LOW FLOW PURGE DATA SHEET, Page 2						
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	2- 40ml vials	✓

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. [ ]

Used pH paper instead of water quality meter
Check box if used pH paper. [ ]

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): SJ Conte

SAMPLE LOG SHEETS
MITKEM LABORATORY

Tetra Tech NUS, Inc.

QA SAMPLE LOG SHEET

Project Site Name: NWIRP BETHPAGE GM-75
Project Number: 112G00622
Sample Location:
QA Sample Type:

Sample ID No.: BPS1-TB-050609 M ~~BP-VPB-~~
Sampled By: SJC
C.O.C. Number: 27231

[X] Trip Blank
[] Source Water Blank
[] Rinsate Blank
[] Other Blank

SAMPLING DATA:

Date: 5/6/09
Time: 1130
Method: LAB

WATER SOURCE:

[X] Laboratory Prepared
[] Purchased
[] Other
[] Tap
[] Fire Hydrant

PURCHASED WATER INFORMATION (If Applicable as Source or Rinsate Water):

Product Name:
Supplier:
Manufacturer:
Order Number:
Lot Number:
Expiration Date:

RINSATE INFORMATION (If Applicable):

Media Type:
Equipment Used:
Equipment Type:
[] Dedicated
[] Reusable

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	Cool 4°C & HCl	2-40 ml Vials	YES / NO

OBSERVATIONS / NOTES:

Signature(s): S. Conte

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP BETHPAGE GM-75
Project No.: 112G00622

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1- 3001 - SB- 041M
Sample Location: BPS1- 3001
Sampled By: SJC
C.O.C. No.: 27231

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 5/6/09 Time: 1320 Method: SPLIT-SPOON Monitor Reading (ppm):	40-41.5	YELLOW BRN	GRAVEL- SOME SAND

COMPOSITE SAMPLE DATA:

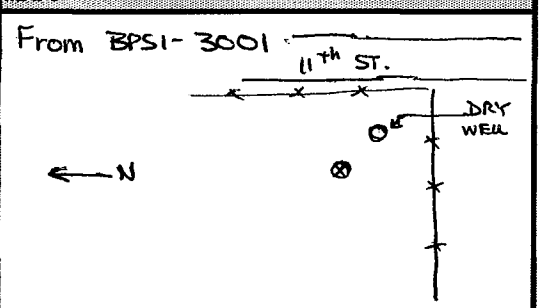
	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:				
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements		Collected	Other
VOCs	2 OZ GLASS	4 DEG C	✓	
TOC	4 OZ GLASS	4 DEG C		
PCBs	4 OZ GLASS	4 DEG C	✓	

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s): SJ Conte

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP BETHPAGE GM-75
Project No.: 112G00622

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-3001-SB-046M
Sample Location: BPS1- 3001
Sampled By: SJC
C.O.C. No.: 27231

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 5/6/09 Time: 1345 Method: Monitor Reading (ppm):	45-46.5	ORANG BRN	SAND-SOME GRAVEL-WET

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings				
(Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements		Collected	Other
VOCs	2 OZ GLASS	4 DEG C	✓	
TOC	4 OZ GLASS	4 DEG C		
PCBs	4 OZ GLASS	4 DEG C	✓	

OBSERVATIONS / NOTES:

MAP:

BPS1-3001

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

SJ Conte

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP BETHPAGE GM-75
Project No.: 112G00622

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-3001-SB-051M
Sample Location: BPS1-3001
Sampled By: SJC
C.O.C. No.: 27231

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 5/6/09 Time: 1415 Method: Monitor Reading (ppm):	50-51.5	BRN	SAND (F/C) - SOME GRAVEL WET

COMPOSITE SAMPLE DATA:

	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:				
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements		Collected	Other
VOCs	2 OZ GLASS	4 DEG C	✓	
TOC	4 OZ GLASS	4 DEG C		
PCBs	4 OZ GLASS	4 DEG C	✓	

OBSERVATIONS / NOTES:

MAP:

BPS1-3001

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

SJ Conti

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP BETHPAGE GM-75
Project No.: 112G00622

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-3001-SB-061M
Sample Location: BPS1-3001
Sampled By: SJC
C.O.C. No.: 27231

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 5/6/09 Time: 1300 Method: Monitor Reading (ppm):	60-61.5	BRN	SAND F/C - TR TO SOME GRAVEL

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements		Collected	Other
VOCs	2 OZ GLASS	4 DEG C	✓	
TOC	4 OZ GLASS	4 DEG C		
PCBs	4 OZ GLASS	4 DEG C	—	

OBSERVATIONS / NOTES:

MAP:

BPS1-3001

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

SJ Conti

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP BETHPAGE GM-75
Project No.: 112G00622

[] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-3001-SB-099M
Sample Location: BPS1-3001
Sampled By: SJC
C.O.C. No.: 27231

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 5/7/09 Time: 0935 Method: SPLIT SPOON Monitor Reading (ppm): 0	98-99.5	DARK GRAY	V. STIFF SILTY CLAY/CLAYEY SILT MOIST

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements		Collected	Other
VOCs	2 OZ GLASS	4 DEG C	✓	
TOC	4 OZ GLASS	4 DEG C		
PCBs	4 OZ GLASS	4 DEG C	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s): SJ Conte

CHAIN OF CUSTODY
LONG ISLAND ANALYTICAL

TETRA TECH NUS, INC. | CHAIN OF CUSTODY | NUMBER 27232 | PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G00622	NWIRP - GM 75	D BRAYACK		LONG ISLAND ANALYTICAL
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
SJ Conti		S CONTI	412 551 2629	
		CARRIER/WAYBILL NUMBER		CITY, STATE
		PICKED UP BY L.I.A.		

STANDARD TAT ☐
RUSH TAT ☐
☐ 24 hr. ☒ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G)
PRESERVATIVE USED

DATE YEAR 2009	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: VOCs (40ml)								COMMENTS
5/6	1530	BPSI-TB-050609	TB	—	—	QC	G	2	2								
5/6	1640	BPSI-3001-GW-071	BPSI 3001	70	71	GW	G	2	2								
5/7	0915	BPSI-3001-GW-091	"	90	91	GW	G	2	2								
5/7	1110	BPSI-3001-GW-111	"	110	111	GW	G	2	2								
5/7	1315	BPSI-3001-GW-151	"	150	151	GW	G	1	1								
5/7	1450	BPSI-3001-GW-172	"	171	172	GW	G	1	1								

1. RELINQUISHED BY SJ Conti	DATE 5/8/09	TIME 1200	1. RECEIVED BY LONG IS ANALYTICAL	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY Chris Ortiz	DATE 5/8/09	TIME 9:38 Am
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

TETRA TECH NUS, INC. | CHAIN OF CUSTODY | NUMBER 27234 | PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G00622	NWIRP - GM75	D BRAYACK		LONG IS ANALYTICAL
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
S Conti		S CONTI	412 551 2629	
		CARRIER/WAYBILL NUMBER		CITY, STATE
		PICK UP BY CHRIS (LONG IS)		

STANDARD TAT ☐
RUSH TAT ☐
☐ 24 hr. ☒ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G
PRESERVATIVE USED: 4°C HCL

DATE YEAR 2009	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: VOCs (40ml)								COMMENTS
5/11	1030	BPSI-TB-051109	TB	—	—	QC	G	2	2								
5/11	1100	BPSI-3001-GW-191	BPSI 3001	190	191	GW	G	2	2								ALSO SENT 2 VIALS TO MITKEM
5/11	1230	BPSI-3001-GW-211	"	210	211	GW	G	2	2								
5/11	1400	BPSI-3001-GW-231	"	230	231	GW	G	2	2								
5/11	1545	BPSI-3001-GW-251	"	250	251	GW	G	2	2								
5/12	0915	BPSI-3001-GW-271	"	270	271	GW	G	1	1								
5/12	1040	BPSI-3001-GW-291	"	290	291	GW	G	2	2								
5/12	1230	BPSI-3001-GW-311	"	310	311	GW	G	2	2								

1. RELINQUISHED BY S Conti	DATE 5/13/09	TIME 1200	1. RECEIVED BY LONG IS. ANALYTICAL	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE 5/13/09	TIME 8:56 AM
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

CHAIN OF CUSTODY
MITKEM LABORATORY

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER 27231 | PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G00622	NWIRP- GM-75	D. BRAYACK	757 461 3824	MITKEM / LAWLER OR NG.
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
SJ Conti		S CONTI	412 551 2629	175 METRO CENTER BLVD
		CARRIER/WAYBILL NUMBER		CITY, STATE
		FED EX # 8631 3888 0697		WARWICK, RI 02886

STANDARD TAT ☐
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G G
PRESERVATIVE USED: 4°C 4°C 4°C/HCL

DATE YEAR 2009	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	VOCs (2 oz)	PCBs (4 oz)	VOCs (40 ml)						COMMENTS
5/6	1130	BPS1-TB-050609M	TB	—	—	QC	G	2			2						
5/6	1320	BPS1-3001-SB-041M	BPS1 3001	40	41.5	SO	G	2	1	1							VERY GRAVELLY - DO THE BEST YOU CAN
5/6	1345	BPS1-3001-SB-046M	"	45	46.5	"	G	2	1	1							NOT AS MUCH GRAVEL BUT F/C SAND
5/6	1415	BPS1-3001-SB-051M	"	50	51.5	"	G	2	1	1							" "
5/6	1500	BPS1-3001-SB-061M	"	60	61.5	"	G	1	1								VOCS ONLY GRAVELLY AGAIN - MOSTLY SAND
5/6	1640	BPS1-3001-GW-071M	"	70	71	GW	G	2			2						
5/7	0935	BPS1-3001-SB-099M	"	98	99.5	SO	G	2	1	1							GRAY CLAY
5/7	1130	BPS1-3001-SB-131M	"	130	131.5	SO	G	2	1	1							TAN CLAY

1. RELINQUISHED BY SJ Conti	DATE 5/7/09	TIME 1700	1. RECEIVED BY FED EX	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

TETRA TECH NUS, INC. | CHAIN OF CUSTODY | NUMBER 27235 | PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G00622	NWIRP- GM75	D BRAYACK	757 461 3824	MITKEM / LAWLER OR NG
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
SJ Conti		S CONTI	412 551 2629	175 METRO CENTER BLVD
		CARRIER/WAYBILL NUMBER		CITY, STATE
		FED EX # 8631 3888 0723		WARWICK, RI, 02886

STANDARD TAT ☐
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

DATE YEAR 2009	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: VOCs (40ml)	TYPE OF ANALYSIS: PCBs 4 oz							COMMENTS
CONTAINER TYPE PLASTIC (P) or GLASS (G)									G	G							
PRESERVATIVE USED									4°C HCL	4°C							
5/11	1100	BPSI-3001-GW-191M	BPSI 3001	190	191	GW	G	2	2								TURBID
5/11	1300	BP-GM75-IDW-01	ROW OFF	0	1	SO	G	1		1							RE-DO OF PCBs PREVIOUS COC 26654 ON 4/9/09

1. RELINQUISHED BY	DATE	TIME	1. RECEIVED BY	DATE	TIME
SJ Conti	5/11/09	1030	FED EX		
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
		1330			
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP BETHPAGE GM-75
Project No.: 112G00622

[] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1- 3001-SB-131 M
Sample Location: BPS1- 3001
Sampled By: SJC
C.O.C. No.: 27231

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 5/7/09 Time: 1130 Method: SPLIT SPOON Monitor Reading (ppm):	130-131.5	TAN	STIFF TAN SILTY CLAY- MOIST

COMPOSITE SAMPLE DATA:

	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:				
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements		Collected	Other
VOCs	2 OZ GLASS	4 DEG C	✓	
TOC	4 OZ GLASS	4 DEG C		
PCBs	4 OZ GLASS	4 DEG C	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s): SJ Conte

ANALYTICAL RESULTS LONG ISLAND ANALYTICAL

LONG
ISLAND
ANALYTICAL
LABORATORIES INC.

NYSDOH ELAP# 11693
USEPA# NY01273
CTDOH# PH-0284
AIHA# 164456
NJDEP# NY012
PADEP# 68-2943

"TOMORROWS ANALYTICAL SOLUTIONS TODAY"

LONG ISLAND ANALYTICAL LABORATORIES, INC.
DATA REPORTING FLAGS

For reporting results, the following "Flags" are used:

A: Time not supplied by client, may have exceeded holding time
B: Holding time exceeded, results cannot be used for regulatory purposes
C: Minimum detection limit raised due to matrix interference
D: Minimum detection limit raised due to target compound interference
E: Minimum detection limit raised due to non-target compound interference
F: Minimum detection limit raised due to insufficient sample volume
G: Sample received in incorrect container
H: Sample not preserved, corrected upon receipt
I: Dilution Water does not meet QC Criteria
J: Estimated concentration, exceeds calibration range
K: Target compound found in blank
L: Subcontractor ELAP #11398
M: Subcontractor ELAP #10320
N: Subcontractor NVLAP #102047.0
O: Subcontractor AIHA #103005
P: Subcontractor A2LA 2004-01
Q: Subcontractor ELAP #11026
R: Subcontractor ELAP #10155
S: Subcontractor ELAP #11501
T: Subcontractor CTC
U: Subcontractor ELAP #11685
V: QC affected by matrix
W: Subcontractor ELAP #10248
X: QC does not meet acceptance criteria
Y: Sample container received with head space
Z: Insufficient sample volume received
AA: Preliminary results, cannot be used for regulatory purposes.
BB: Spike recovery does not meet QC criteria due to high target concentration
CC: Data reported below the lower limit of quantitation and should be considered to have an increased quantitative uncertainty.
DD: Sampling information not supplied and/or sample not taken by qualified technician, therefore verifiability of the report is limited to results only. Report cannot be used for regulatory purposes.
EE: Subcontractor ELAP : #11777
FF: Unable to verify that the wipe samples submitted conform to ASTM E1792 or specifications issued by the EPA.
GG: Level found exceeds the maximum contaminant level (MCL) as set by local, state or federal agencies.
HH: Subcontractor ELAP #10750
II: Subcontractor ELAP #10145
JJ: Subcontractor ELAP #11838
KK: Cassette received without tap(s)
LL: Spike duplicate recovery out of range due to matrix inconsistency
MM: Estimated value, result is less than the sample quantitation limit but greater than zero.

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LONG
ISLAND
ANALYTICAL
LABORATORIES INC.

NYSDOH ELAP# 11693
USEPA# NY01273
CTDOH# PH-0284
AIHA# 164456
NJDEP# NY012
PADEP# 68-2943

"TOMORROWS ANALYTICAL SOLUTIONS TODAY"

May 11, 2009

LIAL #1176731

Tetra Tech NUS, Inc.
Dave Breyack
600 Clark Avenue, Suite 3
King of Prussia, PA 19406-1433

Re: NWIRP GW-75

Dear Mr. Breyack:

Enclosed please find the Laboratory Analysis Report(s) for sample(s) received on May 8, 2009. Long Island Analytical Laboratories analyzed the samples on May , 2009 for the following:

CLIENT ID	ANALYSIS
BPS1-TB-050609	EPA 8260
BPS1-3001-GW-071	EPA 8260
BPS1-3001-GW-091	EPA 8260
BPS1-3001-GW-111	EPA 8260
BPS1-3001-GW-151	EPA 8260
BPS1-3001-GW-172	EPA 8260

Samples received at 4°C.

If you have any questions or require further information, please call at your convenience. Long Island Analytical Laboratories Inc. is a NELAP accredited laboratory. All reported results meet the requirements of the NELAP standards unless noted with the appropriate flag. Report shall not be reproduced except in full, without the written approval of the laboratory. Results relate only to items tested. Long Island Analytical Laboratories would like to thank you for the opportunity to be of service to you.

Best Regards,

Long Island Analytical Laboratories, Inc.

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Client: Tetra Tech NUS, Inc.	Client ID: NWIRP –GM-75 (BPS1-TB-050609)
Date received: 5/8/09	Laboratory ID: 1176731
Date extracted: 5/9/09	Matrix: Liquid
Date analyzed: 5/9/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
DICHLORODIFLUOROMETHANE	75-71-8	5 ug/L	<5	
CHLOROMETHANE	74-87-3	5 ug/L	<5	
VINYL CHLORIDE	75-01-4	5 ug/L	<5	
BROMOMETHANE	74-83-9	5 ug/L	<5	
CHLOROETHANE	75-00-3	5 ug/L	<5	
TRICHLOROFLUOROMETHANE	75-69-4	5 ug/L	<5	
1,1-DICHLOROETHENE	75-35-4	5 ug/L	<5	
METHYLENE CHLORIDE	75-09-2	5 ug/L	<5	
trans-1,2-DICHLOROETHENE	156-60-5	5 ug/L	<5	
1,1-DICHLOROETHANE	75-34-3	5 ug/L	<5	
2,2-DICHLOROPROPANE	594-20-7	5 ug/L	<5	
cis-1,2-DICHLOROETHENE	156-59-2	5 ug/L	<5	
BROMOCHLOROMETHANE	74-97-5	5 ug/L	<5	
CHLOROFORM	67-66-3	5 ug/L	<5	
1,1,1-TRICHLOROETHANE	71-55-6	5 ug/L	<5	
CARBON TETRACHLORIDE	56-23-5	5 ug/L	<5	
1,1-DICHLOROPROPENE	563-58-6	5 ug/L	<5	
BENZENE	71-43-2	0.7 ug/L	<0.7	CC
1,2-DICHLOROETHANE	107-06-2	5 ug/L	<5	
TRICHLOROETHENE	79-01-6	5 ug/L	<5	
1,2-DICHLOROPROPANE	78-87-5	5 ug/L	<5	
DIBROMOMETHANE	74-95-3	5 ug/L	<5	
BROMODICHLOROMETHANE	75-27-4	5 ug/L	<5	
cis-1,3-DICHLOROPROPENE	10061-01-5	5 ug/L	<5	
TOLUENE	108-88-3	5 ug/L	<5	
trans-1,3-DICHLOROPROPENE	10061-02-6	5 ug/L	<5	
1,1,2-TRICHLOROETHANE	79-00-5	5 ug/L	<5	
TETRACHLOROETHYLENE	127-18-4	5 ug/L	<5	
1,3-DICHLOROPROPANE	142-28-9	5 ug/L	<5	
DIBROMOCHLOROMETHANE	124-48-1	5 ug/L	<5	
1,2-DIBROMOETHANE	106-93-4	5 ug/L	<5	
CHLOROBENZENE	108-90-7	5 ug/L	<5	
1,1,1,2-TETRACHLOROETHANE	630-20-6	5 ug/L	<5	
ETHYLBENZENE	100-41-4	5 ug/L	<5	
STYRENE	100-42-5	5 ug/L	<5	
BROMOFORM	75-25-2	5 ug/L	<5	

MDL = Minimum Detection Limit.

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Client: Tetra Tech NUS, Inc.	Client ID: NWIRP –GM-75 (BPS1-TB-050609)
Date received: 5/8/09	Laboratory ID: 1176731
Date extracted: 5/9/09	Matrix: Liquid
Date analyzed: 5/9/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
ISOPROPYLBENZENE	98-82-8	5 ug/L	<5	
BROMOBENZENE	108-86-1	5 ug/L	<5	
1,1,2,2-TETRACHLOROETHANE	79-34-5	5 ug/L	<5	
1,2,3-TRICHLOROPROPANE	96-18-4	5 ug/L	<5	
n-PROPYLBENZENE	103-65-1	5 ug/L	<5	
2-CHLOROTOLUENE	95-49-8	5 ug/L	<5	
4-CHLOROTOLUENE	106-43-4	5 ug/L	<5	
1,3,5-TRIMETHYLBENZENE	108-67-8	5 ug/L	<5	
tert-BUTYLBENZENE	98-06-6	5 ug/L	<5	
1,2,4-TRIMETHYLBENZENE	95-63-6	5 ug/L	<5	
sec-BUTYLBENZENE	135-98-8	5 ug/L	<5	
1,3-DICHLOROBENZENE	541-73-1	5 ug/L	<5	
P-ISOPROPYLTOLUENE	99-87-6	5 ug/L	<5	
1,4-DICHLOROBENZENE	106-46-7	5 ug/L	<5	
1,2-DICHLOROBENZENE	95-50-1	5 ug/L	<5	
n-BUTYLBENZENE	104-51-8	5 ug/L	<5	
1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	5 ug/L	<5	
1,2,4-TRICHLOROBENZENE	120-82-1	5 ug/L	<5	
HEXACHLOROBUTADIENE	87-68-3	5 ug/L	<5	
NAPHTHALENE	91-20-3	5 ug/L	<5	
1,2,3-TRICHLOROBENZENE	87-61-6	5 ug/L	<5	
2-CHLOROETHYLVINYL ETHER	110-75-8	5 ug/L	<5	
ACETONE	67-64-1	50 ug/L	<50	
METHYL ETHYL KETONE	78-93-3	10 ug/L	<10	
METHYL ISOBUTYL KETONE	108-10-1	5 ug/L	<5	
p & m-XYLENES	1330-20-7	10 ug/L	<10	
o-XYLENE	1330-20-7	5 ug/L	<5	
CARBON DISULFIDE	751-15-0	5 ug/L	<5	
MTBE	1634-04-4	5 ug/L	<5	
VINYL ACETATE	108-05-4	5 ug/L	<5	
2-HEXANONE	591-78-6	5 ug/L	<5	

MDL = Minimum Detection Limit.

Michael Veraldi

Michael Veraldi-Laboratory Director

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Client: Tetra Tech NUS, Inc.	Client ID: NWIRP –GM-75 (BPS1-3001-GW-071)
Date received: 5/8/09	Laboratory ID: 1176732
Date extracted: 5/9/09	Matrix: Liquid
Date analyzed: 5/9/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
DICHLOROD FLUOROMETHANE	75-71-8	5 ug/L	<5	
CHLOROMETHANE	74-87-3	5 ug/L	<5	
VINYL CHLORIDE	75-01-4	5 ug/L	<5	
BROMOMETHANE	74-83-9	5 ug/L	<5	
CHLCROETHANE	75-00-3	5 ug/L	<5	
TRICHLOROFLUOROMETHANE	75-69-4	5 ug/L	<5	
1,1-DICHLOROETHENE	75-35-4	5 ug/L	<5	
METHYLENE CHLORIDE	75-09-2	5 ug/L	<5	
trans-1,2-DICHLOROETHENE	156-60-5	5 ug/L	<5	
1,1-DICHLOROETHANE	75-34-3	5 ug/L	<5	
2,2-DICHLOROPROPANE	594-20-7	5 ug/L	<5	
cis-1,2-DICHLOROETHENE	156-59-2	5 ug/L	<5	
BROMOCHLOROMETHANE	74-97-5	5 ug/L	<5	
CHLOROFORM	67-66-3	5 ug/L	<5	
1,1,1-TRICHLOROETHANE	71-55-6	5 ug/L	<5	
CARBON TETRACHLORIDE	56-23-5	5 ug/L	<5	
1,1-DICHLOROPROPENE	563-58-6	5 ug/L	<5	
BENZENE	71-43-2	0.7 ug/L	<0.7	CC
1,2-DICHLOROETHANE	107-06-2	5 ug/L	<5	
TRICHLOROETHENE	79-01-6	5 ug/L	<5	
1,2-DICHLOROPROPANE	78-87-5	5 ug/L	<5	
DIBROMOMETHANE	74-95-3	5 ug/L	<5	
BROMODICHLOROMETHANE	75-27-4	5 ug/L	<5	
cis-1,3-DICHLOROPROPENE	10061-01-5	5 ug/L	<5	
TOLUENE	108-88-3	5 ug/L	<5	
trans-1,3-DICHLOROPROPENE	10061-02-6	5 ug/L	<5	
1,1,2-TRICHLOROETHANE	79-00-5	5 ug/L	<5	
TETRACHLOROETHYLENE	127-18-4	5 ug/L	<5	
1,3-DICHLOROPROPANE	142-28-9	5 ug/L	<5	
DIBROMOCHLOROMETHANE	124-48-1	5 ug/L	<5	
1,2-DIBROMOETHANE	106-93-4	5 ug/L	<5	
CHLOROBENZENE	108-90-7	5 ug/L	<5	
1,1,1,2-TETRACHLOROETHANE	630-20-6	5 ug/L	<5	
ETHYLBENZENE	100-41-4	5 ug/L	<5	
STYRENE	100-42-5	5 ug/L	<5	
BROMOFORM	75-25-2	5 ug/L	<5	

MDL = Minimum Detection Limit.

Client: Tetra Tech NUS, Inc.	Client ID: NWIRP –GM-75 (BPS1-3001-GW-J71)
Date received: 5/8/09	Laboratory ID: 1176732
Date extracted: 5/9/09	Matrix: Liquid
Date analyzed: 5/9/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
ISOPROPYLBENZENE	98-82-8	5 ug/L	<5	
BROMOBENZENE	108-86-1	5 ug/L	<5	
1,1,2,2-TETRACHLOROETHANE	79-34-5	5 ug/L	<5	
1,2,3-TRICHLOROPROPANE	96-18-4	5 ug/L	<5	
n-PROPYLBENZENE	103-65-1	5 ug/L	<5	
2-CHLOROTOLUENE	95-49-8	5 ug/L	<5	
4-CHLOROTOLUENE	106-43-4	5 ug/L	<5	
1,3,5-TRIMETHYLBENZENE	108-67-8	5 ug/L	<5	
tert-BUTYLBENZENE	98-06-6	5 ug/L	<5	
1,2,4-TRIMETHYLBENZENE	95-63-6	5 ug/L	<5	
sec-BUTYLBENZENE	135-98-8	5 ug/L	<5	
1,3-DICHLOROBENZENE	541-73-1	5 ug/L	<5	
P-ISOPROPYLTOLUENE	99-87-6	5 ug/L	<5	
1,4-DICHLOROBENZENE	106-46-7	5 ug/L	<5	
1,2-DICHLOROBENZENE	95-50-1	5 ug/L	<5	
n-BUTYLBENZENE	104-51-8	5 ug/L	<5	
1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	5 ug/L	<5	
1,2,4-TRICHLOROBENZENE	120-82-1	5 ug/L	<5	
HEXACHLOROBUTADIENE	87-68-3	5 ug/L	<5	
NAPHTHALENE	91-20-3	5 ug/L	<5	
1,2,3-TRICHLOROBENZENE	87-61-6	5 ug/L	<5	
2-CHLOROETHYLVINYL ETHER	110-75-8	5 ug/L	<5	
ACETONE	67-64-1	50 ug/L	<50	
METHYL ETHYL KETONE	78-93-3	10 ug/L	<10	
METHYL ISOBUTYL KETONE	108-10-1	5 ug/L	<5	
p & m-XYLENES	1330-20-7	10 ug/L	<10	
o-XYLENE	1330-20-7	5 ug/L	<5	
CARBON DISULFIDE	751-15-0	5 ug/L	<5	
MTBE	1634-04-4	5 ug/L	<5	
VINYL ACETATE	108-05-4	5 ug/L	<5	
2-HEXANONE	591-78-6	5 ug/L	<5	

MDL = Minimum Detection Limit.

Michael Veraldi

Michael Veraldi-Laboratory Director

LONG ISLAND ANALYTICAL LABORATORIES INC.
"TOMORROWS ANALYTICAL SOLUTIONS TODAY"
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Phone (631) 472-3400 • Fax (631) 472-8505 • Email: LIAL@lialinc.com

Client: Tetra Tech NUS, Inc.	Client ID: NWIRP –GM-75 (BPS1-3001-GW-091)
Date received: 5/8/09	Laboratory ID: 1176733
Date extracted: 5/9/09	Matrix: Liquid
Date analyzed: 5/9/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
DICHLORODIFLUOROMETHANE	75-71-8	5 ug/L	<5	
CHLOROMETHANE	74-87-3	5 ug/L	<5	
VINYL CHLORIDE	75-01-4	5 ug/L	<5	
BROMOMETHANE	74-83-9	5 ug/L	<5	
CHLOROETHANE	75-00-3	5 ug/L	<5	
TRICHLOROFLUOROMETHANE	75-69-4	5 ug/L	<5	
1,1-DICHLOROETHENE	75-35-4	5 ug/L	<5	
METHYLENE CHLORIDE	75-09-2	5 ug/L	<5	
trans-1,2-DICHLOROETHENE	156-60-5	5 ug/L	<5	
1,1-DICHLOROETHANE	75-34-3	5 ug/L	<5	
2,2-DICHLOROPROPANE	594-20-7	5 ug/L	<5	
cis-1,2-DICHLOROETHENE	156-59-2	5 ug/L	<5	
BROMOCHLOROMETHANE	74-97-5	5 ug/L	<5	
CHLOROFORM	67-66-3	5 ug/L	<5	
1,1,1-TRICHLOROETHANE	71-55-6	5 ug/L	<5	
CARBON TETRACHLORIDE	56-23-5	5 ug/L	<5	
1,1-DICHLOROPROPENE	563-58-6	5 ug/L	<5	
BENZENE	71-43-2	0.7 ug/L	<0.7	CC
1,2-DICHLOROETHANE	107-06-2	5 ug/L	<5	
TRICHLOROETHENE	79-01-6	5 ug/L	<5	
1,2-DICHLOROPROPANE	78-87-5	5 ug/L	<5	
DIBROMOMETHANE	74-95-3	5 ug/L	<5	
BROMODICHLOROMETHANE	75-27-4	5 ug/L	<5	
cis-1,3-DICHLOROPROPENE	10061-01-5	5 ug/L	<5	
TOLUENE	108-88-3	5 ug/L	<5	
trans-1,3-DICHLOROPROPENE	10061-02-6	5 ug/L	<5	
1,1,2-TRICHLOROETHANE	79-00-5	5 ug/L	<5	
TETRACHLOROETHYLENE	127-18-4	5 ug/L	<5	
1,3-DICHLOROPROPANE	142-28-9	5 ug/L	<5	
DIBROMOCHLOROMETHANE	124-48-1	5 ug/L	<5	
1,2-DIBROMOETHANE	106-93-4	5 ug/L	<5	
CHLOROBENZENE	108-90-7	5 ug/L	<5	
1,1,1,2-TETRACHLOROETHANE	630-20-6	5 ug/L	<5	
ETHYLBENZENE	100-41-4	5 ug/L	<5	
STYRENE	100-42-5	5 ug/L	<5	
BROMOFORM	75-25-2	5 ug/L	<5	

MDL = Minimum Detection Limit.

Client: Tetra Tech NUS, Inc.	Client ID: NWIRP –GM-75 (BPS1-3001-GW-091)
Date received: 5/8/09	Laboratory ID: 1176733
Date extracted: 5/9/09	Matrix: Liquid
Date analyzed: 5/9/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
ISOPROPYLBENZENE	98-82-8	5 ug/L	<5	
BROMOBENZENE	108-86-1	5 ug/L	<5	
1,1,2,2-TETRACHLOROETHANE	79-34-5	5 ug/L	<5	
1,2,3-TRICHLOROPROPANE	96-18-4	5 ug/L	<5	
n-PRCPYLBENZENE	103-65-1	5 ug/L	<5	
2-CHLOROTOLUENE	95-49-8	5 ug/L	<5	
4-CHLOROTOLUENE	106-43-4	5 ug/L	<5	
1,3,5-TRIMETHYLBENZENE	108-67-8	5 ug/L	<5	
tert-BUTYLBENZENE	98-06-6	5 ug/L	<5	
1,2,4-TRIMETHYLBENZENE	95-63-6	5 ug/L	<5	
sec-BUTYLBENZENE	135-98-8	5 ug/L	<5	
1,3-DICHLOROBENZENE	541-73-1	5 ug/L	<5	
P-ISOPROPYLTOLUENE	99-87-6	5 ug/L	<5	
1,4-DICHLOROBENZENE	106-46-7	5 ug/L	<5	
1,2-DICHLOROBENZENE	95-50-1	5 ug/L	<5	
n-BUTYLBENZENE	104-51-8	5 ug/L	<5	
1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	5 ug/L	<5	
1,2,4-TRICHLOROBENZENE	120-82-1	5 ug/L	<5	
HEXACHLOROBUTADIENE	87-68-3	5 ug/L	<5	
NAPHTHALENE	91-20-3	5 ug/L	<5	
1,2,3-TRICHLOROBENZENE	87-61-6	5 ug/L	<5	
2-CHLOROETHYLVINYL ETHER	110-75-8	5 ug/L	<5	
ACETONE	67-64-1	50 ug/L	<50	
METHYL ETHYL KETONE	78-93-3	10 ug/L	<10	
METHYL ISOBUTYL KETONE	108-10-1	5 ug/L	<5	
p & m-XYLENES	1330-20-7	10 ug/L	<10	
o-XYLENE	1330-20-7	5 ug/L	<5	
CARBON DISULFIDE	751-15-0	5 ug/L	<5	
MTBE	1634-04-4	5 ug/L	<5	
VINYL ACETATE	108-05-4	5 ug/L	<5	
2-HEXANONE	591-78-6	5 ug/L	<5	

MDL = Minimum Detection Limit.

Michael Veraldi

Michael Veraldi-Laboratory Director

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Client: Tetra Tech NUS, Inc.	Client ID: NWIRP –GM-75 (BPS1-3001-GW-111)
Date received: 5/8/09	Laboratory ID: 1176734
Date extracted: 5/9/09	Matrix: Liquid
Date analyzed: 5/9/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
DICHLORODIFLUOROMETHANE	75-71-8	5 ug/L	<5	
CHLOROMETHANE	74-87-3	5 ug/L	<5	
VINYL CHLORIDE	75-01-4	5 ug/L	<5	
BROMOMETHANE	74-83-9	5 ug/L	<5	
CHLOROETHANE	75-00-3	5 ug/L	<5	
TRICHLOROFLUOROMETHANE	75-69-4	5 ug/L	<5	
1,1-DICHLOROETHENE	75-35-4	5 ug/L	<5	
METHYLENE CHLORIDE	75-09-2	5 ug/L	<5	
trans-1,2-DICHLOROETHENE	156-60-5	5 ug/L	<5	
1,1-DICHLOROETHANE	75-34-3	5 ug/L	<5	
2,2-DICHLOROPROPANE	594-20-7	5 ug/L	<5	
cis-1,2-DICHLOROETHENE	156-59-2	5 ug/L	<5	
BROMOCHLOROMETHANE	74-97-5	5 ug/L	<5	
CHLOROFORM	67-66-3	5 ug/L	<5	
1,1,1-TRICHLOROETHANE	71-55-6	5 ug/L	<5	
CARBON TETRACHLORIDE	56-23-5	5 ug/L	<5	
1,1-DICHLOROPROPENE	563-58-6	5 ug/L	<5	
BENZENE	71-43-2	0.7 ug/L	<0.7	CC
1,2-DICHLOROETHANE	107-06-2	5 ug/L	<5	
TRICHLOROETHENE	79-01-6	5 ug/L	<5	
1,2-DICHLOROPROPANE	78-87-5	5 ug/L	<5	
DIBROMOMETHANE	74-95-3	5 ug/L	<5	
BROMODICHLOROMETHANE	75-27-4	5 ug/L	<5	
cis-1,3-DICHLOROPROPENE	10061-01-5	5 ug/L	<5	
TOLUENE	108-88-3	5 ug/L	<5	
trans-1,3-DICHLOROPROPENE	10061-02-6	5 ug/L	<5	
1,1,2-TRICHLOROETHANE	79-00-5	5 ug/L	<5	
TETRACHLOROETHYLENE	127-18-4	5 ug/L	<5	
1,3-DICHLOROPROPANE	142-28-9	5 ug/L	<5	
DIBROMOCHLOROMETHANE	124-48-1	5 ug/L	<5	
1,2-DIBROMOETHANE	106-93-4	5 ug/L	<5	
CHLOROBENZENE	108-90-7	5 ug/L	<5	
1,1,1,2-TETRACHLOROETHANE	630-20-6	5 ug/L	<5	
ETHYLBENZENE	100-41-4	5 ug/L	<5	
STYRENE	100-42-5	5 ug/L	<5	
BROMOFORM	75-25-2	5 ug/L	<5	

MDL = Minimum Detection Limit.

Client: Tetra Tech NUS, Inc.	Client ID: NWIRP –GM-75 (BPS1-3001-GW-111)
Date received: 5/8/09	Laboratory ID: 1176734
Date extracted: 5/9/09	Matrix: Liquid
Date analyzed: 5/9/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
ISOPROPYLBENZENE	98-82-8	5 ug/L	<5	
BROMOBENZENE	108-86-1	5 ug/L	<5	
1,1,2,2-TETRACHLOROETHANE	79-34-5	5 ug/L	<5	
1,2,3-TRICHLOROPROPANE	96-18-4	5 ug/L	<5	
n-PROPYLBENZENE	103-65-1	5 ug/L	<5	
2-CHLOROTOLUENE	95-49-8	5 ug/L	<5	
4-CHLOROTOLUENE	106-43-4	5 ug/L	<5	
1,3,5-TRIMETHYLBENZENE	108-67-8	5 ug/L	<5	
tert-BUTYLBENZENE	98-06-6	5 ug/L	<5	
1,2,4-TRIMETHYLBENZENE	95-63-6	5 ug/L	<5	
sec-BUTYLBENZENE	135-98-8	5 ug/L	<5	
1,3-DICHLOROBENZENE	541-73-1	5 ug/L	<5	
P-ISOPROPYLTOLUENE	99-87-6	5 ug/L	<5	
1,4-DICHLOROBENZENE	106-46-7	5 ug/L	<5	
1,2-DICHLOROBENZENE	95-50-1	5 ug/L	<5	
n-BUTYLBENZENE	104-51-8	5 ug/L	<5	
1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	5 ug/L	<5	
1,2,4-TRICHLOROBENZENE	120-82-1	5 ug/L	<5	
HEXACHLOROBUTADIENE	87-68-3	5 ug/L	<5	
NAPHTHALENE	91-20-3	5 ug/L	<5	
1,2,3-TRICHLOROBENZENE	87-61-6	5 ug/L	<5	
2-CHLOROETHYLVINYL ETHER	110-75-8	5 ug/L	<5	
ACETONE	67-64-1	50 ug/L	<50	
METHYL ETHYL KETONE	78-93-3	10 ug/L	<10	
METHYL ISOBUTYL KETONE	108-10-1	5 ug/L	<5	
p & m-XYLENES	1330-20-7	10 ug/L	<10	
c-XYLENE	1330-20-7	5 ug/L	<5	
CARBON DISULFIDE	751-15-0	5 ug/L	<5	
MTBE	1634-04-4	5 ug/L	<5	
VINYL ACETATE	108-05-4	5 ug/L	<5	
2-HEXANONE	591-78-6	5 ug/L	<5	

MDL = Minimum Detection Limit.

Michael Veraldi

Michael Veraldi-Laboratory Director

LONG ISLAND ANALYTICAL LABORATORIES INC.
"TOMORROWS ANALYTICAL SOLUTIONS TODAY"
110 Colin Drive • Holbrook, New York 11741
Phone (631) 472-3400 • Fax (631) 472-8505 • Email: LIAL@lialinc.com

Client: Tetra Tech NUS, Inc.	Client ID: NWIRP –GM-75 (BPS1-3001-GW-151)
Date received: 5/8/09	Laboratory ID: 1176735
Date extracted: 5/9/09	Matrix: Liquid
Date analyzed: 5/9/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
DICHLORODIFLUOROMETHANE	75-71-8	5 ug/L	<5	
CHLOROMETHANE	74-87-3	5 ug/L	<5	
VINYL CHLORIDE	75-01-4	5 ug/L	<5	
BROMOMETHANE	74-83-9	5 ug/L	<5	
CHLOROETHANE	75-00-3	5 ug/L	<5	
TRICHLOROFLUOROMETHANE	75-69-4	5 ug/L	<5	
1,1-DICHLOROETHENE	75-35-4	5 ug/L	<5	
METHYLENE CHLORIDE	75-09-2	5 ug/L	<5	
trans-1,2-DICHLOROETHENE	156-60-5	5 ug/L	<5	
1,1-DICHLOROETHANE	75-34-3	5 ug/L	<5	
2,2-DICHLOROPROPANE	594-20-7	5 ug/L	<5	
cis-1,2-DICHLOROETHENE	156-59-2	5 ug/L	<5	
BROMOCHLOROMETHANE	74-97-5	5 ug/L	<5	
CHLOROFORM	67-66-3	5 ug/L	<5	
1,1,1-TRICHLOROETHANE	71-55-6	5 ug/L	<5	
CARBON TETRACHLORIDE	56-23-5	5 ug/L	<5	
1,1-DICHLOROPROPENE	563-58-6	5 ug/L	<5	
BENZENE	71-43-2	0.7 ug/L	<0.7	CC
1,2-DICHLOROETHANE	107-06-2	5 ug/L	<5	
TRICHLOROETHENE	79-01-6	5 ug/L	<5	
1,2-DICHLOROPROPANE	78-87-5	5 ug/L	<5	
DIBROMOMETHANE	74-95-3	5 ug/L	<5	
BROMODICHLOROMETHANE	75-27-4	5 ug/L	<5	
cis-1,3-DICHLOROPROPENE	10061-01-5	5 ug/L	<5	
TOLUENE	108-88-3	5 ug/L	<5	
trans-1,3-DICHLOROPROPENE	10061-02-6	5 ug/L	<5	
1,1,2-TRICHLOROETHANE	79-00-5	5 ug/L	<5	
TETRACHLOROETHYLENE	127-18-4	5 ug/L	<5	
1,3-DICHLOROPROPANE	142-28-9	5 ug/L	<5	
DIBROMOCHLOROMETHANE	124-48-1	5 ug/L	<5	
1,2-DIBROMOETHANE	106-93-4	5 ug/L	<5	
CHLOROBENZENE	108-90-7	5 ug/L	<5	
1,1,1,2-TETRACHLOROETHANE	630-20-6	5 ug/L	<5	
ETHYLBENZENE	100-41-4	5 ug/L	<5	
STYRENE	100-42-5	5 ug/L	<5	
BROMOFORM	75-25-2	5 ug/L	<5	

MDL = Minimum Detection Limit.

Client: Tetra Tech NUS, Inc.	Client ID: NWIRP –GM-75 (BPS1-3001-GW-151)
Date received: 5/8/09	Laboratory ID: 1176735
Date extracted: 5/9/09	Matrix: Liquid
Date analyzed: 5/9/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
ISOPROPYLBENZENE	98-82-8	5 ug/L	<5	
BROMOBENZENE	108-86-1	5 ug/L	<5	
1,1,2,2-TETRACHLOROETHANE	79-34-5	5 ug/L	<5	
1,2,3-TRICHLOROPROPANE	96-18-4	5 ug/L	<5	
n-PROPYLBENZENE	103-65-1	5 ug/L	<5	
2-CHLOROTOLUENE	95-49-8	5 ug/L	<5	
4-CHLOROTOLUENE	106-43-4	5 ug/L	<5	
1,3,5-TRIMETHYLBENZENE	108-67-8	5 ug/L	<5	
tert-BUTYLBENZENE	98-06-6	5 ug/L	<5	
1,2,4-TRIMETHYLBENZENE	95-63-6	5 ug/L	<5	
sec-BUTYLBENZENE	135-98-8	5 ug/L	<5	
1,3-DICHLOROBENZENE	541-73-1	5 ug/L	<5	
P-ISOPROPYLTOLUENE	99-87-6	5 ug/L	<5	
1,4-DICHLOROBENZENE	106-46-7	5 ug/L	<5	
1,2-DICHLOROBENZENE	95-50-1	5 ug/L	<5	
n-BUTYLBENZENE	104-51-8	5 ug/L	<5	
1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	5 ug/L	<5	
1,2,4-TRICHLOROBENZENE	120-82-1	5 ug/L	<5	
HEXACHLOROBUTADIENE	87-68-3	5 ug/L	<5	
NAPHTHALENE	91-20-3	5 ug/L	<5	
1,2,3-TRICHLOROBENZENE	87-61-6	5 ug/L	<5	
2-CHLOROETHYLVINYL ETHER	110-75-8	5 ug/L	<5	
ACETONE	67-64-1	50 ug/L	<50	
METHYL ETHYL KETONE	78-93-3	10 ug/L	2.3	MM
METHYL ISOBUTYL KETONE	108-10-1	5 ug/L	<5	
p & m-XYLENES	1330-20-7	10 ug/L	<10	
o-XYLENE	1330-20-7	5 ug/L	<5	
CARBON DISULFIDE	751-15-0	5 ug/L	<5	
MTBE	1634-04-4	5 ug/L	<5	
VINYL ACETATE	108-05-4	5 ug/L	<5	
2-HEXANONE	591-78-6	5 ug/L	<5	

MDL = Minimum Detection Limit.

Michael Veraldi

Michael Veraldi-Laboratory Director

LONG ISLAND ANALYTICAL LABORATORIES INC.
"TOMORROWS ANALYTICAL SOLUTIONS TODAY"
110 Colin Drive • Holbrook, New York 11741
Phone (631) 472-3400 • Fax (631) 472-8505 • Email: LIAL@lialinc.com

Client: Tetra Tech NUS, Inc.	Client ID: NWIRP –GM-75 (BPS1-3001-GW-172)
Date received: 5/8/09	Laboratory ID: 1176736
Date extracted: 5/9/09	Matrix: Liquid
Date analyzed: 5/9/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
DICHLORODIFLUOROMETHANE	75-71-8	5 ug/L	<5	
CHLOROMETHANE	74-87-3	5 ug/L	<5	
VINYL CHLORIDE	75-01-4	5 ug/L	<5	
BROMOMETHANE	74-83-9	5 ug/L	<5	
CHLOROETHANE	75-00-3	5 ug/L	<5	
TRICHLOROFLUOROMETHANE	75-69-4	5 ug/L	<5	
1,1-DICHLOROETHENE	75-35-4	5 ug/L	<5	
METHYLENE CHLORIDE	75-09-2	5 ug/L	<5	
trans-1,2-DICHLOROETHENE	156-60-5	5 ug/L	<5	
1,1-DICHLOROETHANE	75-34-3	5 ug/L	<5	
2,2-DICHLOROPROPANE	594-20-7	5 ug/L	<5	
cis-1,2-DICHLOROETHENE	156-59-2	5 ug/L	<5	
BROMOCHLOROMETHANE	74-97-5	5 ug/L	<5	
CHLOROFORM	67-66-3	5 ug/L	<5	
1,1,1-TRICHLOROETHANE	71-55-6	5 ug/L	<5	
CARBON TETRACHLORIDE	56-23-5	5 ug/L	<5	
1,1-DICHLOROPROPENE	563-58-6	5 ug/L	<5	
BENZENE	71-43-2	0.7 ug/L	<0.7	CC
1,2-DICHLOROETHANE	107-06-2	5 ug/L	<5	
TRICHLOROETHENE	79-01-6	5 ug/L	<5	
1,2-DICHLOROPROPANE	78-87-5	5 ug/L	<5	
DIBROMOMETHANE	74-95-3	5 ug/L	<5	
BROMODICHLOROMETHANE	75-27-4	5 ug/L	<5	
cis-1,3-DICHLOROPROPENE	10061-01-5	5 ug/L	<5	
TOLUENE	108-88-3	5 ug/L	<5	
trans-1,3-DICHLOROPROPENE	10061-02-6	5 ug/L	<5	
1,1,2-TRICHLOROETHANE	79-00-5	5 ug/L	<5	
TETRACHLOROETHYLENE	127-18-4	5 ug/L	<5	
1,3-DICHLOROPROPANE	142-28-9	5 ug/L	<5	
DIBROMOCHLOROMETHANE	124-48-1	5 ug/L	<5	
1,2-DIBROMOETHANE	106-93-4	5 ug/L	<5	
CHLOROBENZENE	108-90-7	5 ug/L	<5	
1,1,1,2-TETRACHLOROETHANE	630-20-6	5 ug/L	<5	
ETHYLBENZENE	100-41-4	5 ug/L	<5	
STYRENE	100-42-5	5 ug/L	<5	
BROMOFORM	75-25-2	5 ug/L	<5	

MDL = Minimum Detection Limit.

Client: Tetra Tech NUS, Inc.	Client ID: NWIRP –GM-75 (BPS1-3001-GW-172)
Date received: 5/8/09	Laboratory ID: 1176736
Date extracted: 5/9/09	Matrix: Liquid
Date analyzed: 5/9/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
ISOPROPYLBENZENE	98-82-8	5 ug/L	<5	
BROMOBENZENE	108-86-1	5 ug/L	<5	
1,1,2,2-TETRACHLOROETHANE	79-34-5	5 ug/L	<5	
1,2,3-TRICHLOROPROPANE	96-18-4	5 ug/L	<5	
n-PROPYLBENZENE	103-65-1	5 ug/L	<5	
2-CHLOROTOLUENE	95-49-8	5 ug/L	<5	
4-CHLOROTOLUENE	106-43-4	5 ug/L	<5	
1,3,5-TRIMETHYLBENZENE	108-67-8	5 ug/L	<5	
tert-BUTYLBENZENE	98-06-6	5 ug/L	<5	
1,2,4-TRIMETHYLBENZENE	95-63-6	5 ug/L	<5	
sec-BUTYLBENZENE	135-98-8	5 ug/L	<5	
1,3-DICHLOROBENZENE	541-73-1	5 ug/L	<5	
P-ISOPROPYLTOLUENE	99-87-6	5 ug/L	<5	
1,4-DICHLOROBENZENE	106-46-7	5 ug/L	<5	
1,2-DICHLOROBENZENE	95-50-1	5 ug/L	<5	
n-BUTYLBENZENE	104-51-8	5 ug/L	<5	
1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	5 ug/L	<5	
1,2,4-TRICHLOROBENZENE	120-82-1	5 ug/L	<5	
HEXACHLOROBUTADIENE	87-68-3	5 ug/L	<5	
NAPHTHALENE	91-20-3	5 ug/L	1.5	MM
1,2,3-TRICHLOROBENZENE	87-61-6	5 ug/L	<5	
2-CHLOROETHYLVINYL ETHER	110-75-8	5 ug/L	<5	
ACETONE	67-64-1	50 ug/L	<50	
METHYL ETHYL KETONE	78-93-3	10 ug/L	5.3	MM
METHYL ISOBUTYL KETONE	108-10-1	5 ug/L	<5	
p & m-XYLENES	1330-20-7	10 ug/L	<10	
o-XYLENE	1330-20-7	5 ug/L	<5	
CARBON DISULFIDE	751-15-0	5 ug/L	1.3	MM
MTBE	1634-04-4	5 ug/L	<5	
VINYL ACETATE	108-05-4	5 ug/L	<5	
2-HEXANONE	591-78-6	5 ug/L	<5	

MDL = Minimum Detection Limit.

Michael Veraldi

Michael Veraldi-Laboratory Director

LONG ISLAND ANALYTICAL LABORATORIES INC.
"TOMORROWS ANALYTICAL SOLUTIONS TODAY"
110 Colin Drive • Holbrook, New York 11741
Phone (631) 472-3400 • Fax (631) 472-8505 • Email: LIAL@lialinc.com

TETRA TECH NUS, INC. CHAIN OF CUSTODY NUMBER 27232 PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G00622	NWIRP - GM 75	D BRAYACK		LONG ISLAND ANALYTICAL
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
SJ Conti		S CONTI	412 551 2629	0044434
		CARRIER/WAYBILL NUMBER		CITY, STATE
		PICKED UP BY L.I.A.		

STANDARD TAT ☐
RUSH TAT ☐
☐ 24 hr. ☒ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G)

PRESERVATIVE USED

TYPE OF ANALYSIS: VOCs (40ml)

DATE YEAR 2009	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	VOCs (40ml)	COMMENTS
5/6	1530	BPSI-TB-050609	TB	—	—	QC	G	2	2	1176731
5/6	1640	BPSI-3001-GW-071	BPSI 3001	70	71	GW	G	2	2	1176732
5/7	0915	BPSI-3001-GW-091	"	90	91	GW	G	2	2	1176733
5/7	1110	BPSI-3001-GW-111	"	110	111	GW	G	2	2	1176734
5/7	1315	BPSI-3001-GW-151	"	150	151	GW	G	1	1	1176735
5/7	1450	BPSI-3001-GW-172	"	171	172	GW	G	1	1	1176736

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY SJ Conti	5/8/09	1200	1. RECEIVED BY LONG ISLAND ANALYTICAL		
2. RELINQUISHED BY			2. RECEIVED BY	5/8/09	9:35 AM
3. RELINQUISHED BY			3. RECEIVED BY	5/9/09	3:30

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TINUS-001

LONG
ISLAND
ANALYTICAL
LABORATORIES INC.

NYSDOH ELAP# 11693
USEPA# NY01273
CTDOH# PH-0284
AIHA# 184456
NJDEP# NY012
PADEP# 68-2943

"TOMORROWS ANALYTICAL SOLUTIONS TODAY"

LONG ISLAND ANALYTICAL LABORATORIES, INC.
DATA REPORTING FLAGS

For reporting results, the following "Flags" are used:

A: Time not supplied by client, may have exceeded holding time
B: Holding time exceeded, results cannot be used for regulatory purposes
C: Minimum detection limit raised due to matrix interference
D: Minimum detection limit raised due to target compound interference
E: Minimum detection limit raised due to non-target compound interference
F: Minimum detection limit raised due to insufficient sample volume
G: Sample received in incorrect container
H: Sample not preserved, corrected upon receipt
I: Dilution Water does not meet QC Criteria
J: Estimated concentration, exceeds calibration range
K: Target compound found in blank
L: Subcontractor ELAP #11398
M: Subcontractor ELAP #10320
N: Subcontractor NVLAP #102047.0
O: Subcontractor AIHA #103005
P: Subcontractor A2LA 2004-01
Q: Subcontractor ELAP #11026
R: Subcontractor ELAP #10155
S: Subcontractor ELAP #11501
T: Subcontractor CTC
U: Subcontractor ELAP #11685
V: QC affected by matrix
W: Subcontractor ELAP #10248
X: QC does not meet acceptance criteria
Y: Sample container received with head space
Z: Insufficient sample volume received
AA: Preliminary results, cannot be used for regulatory purposes.
BB: Spike recovery does not meet QC criteria due to high target concentration
CC: Data reported below the lower limit of quantitation and should be considered to have an increased quantitative uncertainty.
DD: Sampling information not supplied and/or sample not taken by qualified technician, therefore verifiability of the report is limited to results only. Report cannot be used for regulatory purposes.
EE: Subcontractor ELAP : #11777
FF: Unable to verify that the wipe samples submitted conform to ASTM E1792 or specifications issued by the EPA.
GG: Level found exceeds the maximum contaminant level (MCL) as set by local, state or federal agencies
HH: Subcontractor ELAP #10750
II: Subcontractor ELAP #10145
JJ: Subcontractor ELAP #11838
KK: Cassette received without tap(s)
LL: Spike duplicate recovery out of range due to matrix inconsistency
MM: Estimated value, result is less than the sample quantitation limit but greater than zero.

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LONG
ISLAND
ANALYTICAL
LABORATORIES INC.

"TOMORROWS ANALYTICAL SOLUTIONS TODAY"

NYSDOH ELAP# 11693
USEPA# NY01273
CTDOH# PH-0284
ARA# 164456
NJDEP# NY012
PADEP# 68-2943

May 15, 2009

Tetra Tech NUS, Inc.
Dave Breyack
600 Clark Avenue, Suite 3
King of Prussia, PA 19406-1433

LIAL #1176959

Re: NWIRP GW-75

Dear Mr. Breyack:

Enclosed please find the Laboratory Analysis Report(s) for sample(s) received on May 13, 2009. Long Island Analytical Laboratories analyzed the samples on May 14, 2009 for the following:

CLIENT ID	ANALYSIS
BPSI-TB-051109	EPA 8260
BPSI-3001-GW-191	EPA 8260
BPSI-3001-GW-211	EPA 8260
BPSI-3001-GW-231	EPA 8260
BPSI-3001-GW-251	EPA 8260
BPSI-3001-GW-271	EPA 8260
BPSI-3001-GW-291	EPA 8260
BPSI-3001-GW-311	EPA 8260

Samples received at 4°C.

If you have any questions or require further information, please call at your convenience. Long Island Analytical Laboratories Inc. is a NELAP accredited laboratory. All reported results meet the requirements of the NELAP standards unless noted with the appropriate flag. Report shall not be reproduced except in full, without the written approval of the laboratory. Results relate only to items tested. Long Island Analytica Laboratories would like to thank you for the opportunity to be of service to you.

Best Regards,

Long Island Analytical Laboratories, Inc.

110 Colin Drive • Holbrook, New York 11741
Phone (631) 472-3400 • Fax (631) 472-8505 • Email: LIAL@lialinc.com

Client: Tetra Tech NUS, Inc.	Client ID: NWIRP-GM-75 (BPSI-TB-051109)
Date received: 5/13/09	Laboratory ID: 1176959
Date extracted: 5/14/09	Matrix: Liquid
Date analyzed: 5/14/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
DICHLORODIFLUOROMETHANE	75-71-8	5 ug/L	<5	
CHLOROMETHANE	74-87-3	5 ug/L	<5	
VINYL CHLORIDE	75-01-4	5 ug/L	<5	
BROMOMETHANE	74-83-9	5 ug/L	<5	
CHLOROETHANE	75-00-3	5 ug/L	<5	
TRICHLOROFLUOROMETHANE	75-69-4	5 ug/L	<5	
1,1-DICHLOROETHENE	75-35-4	5 ug/L	<5	
METHYLENE CHLORIDE	75-09-2	5 ug/L	<5	
trans-1,2-DICHLOROETHENE	156-60-5	5 ug/L	<5	
1,1-DICHLOROETHANE	75-34-3	5 ug/L	<5	
2,2-DICHLOROPROPANE	594-20-7	5 ug/L	<5	
cis-1,2-DICHLOROETHENE	156-59-2	5 ug/L	<5	
BROMOCHLOROMETHANE	74-97-5	5 ug/L	<5	
CHLOROFORM	67-66-3	5 ug/L	<5	
1,1,1-TRICHLOROETHANE	71-55-6	5 ug/L	<5	
CARBON TETRACHLORIDE	56-23-5	5 ug/L	<5	
1,1-DICHLOROPROPENE	563-58-6	5 ug/L	<5	
BENZENE	71-43-2	0.7 ug/L	<0.7	CC
1,2-DICHLOROETHANE	107-06-2	5 ug/L	<5	
TRICHLOROETHENE	79-01-6	5 ug/L	<5	
1,2-DICHLOROPROPANE	78-87-5	5 ug/L	<5	
DIBROMOMETHANE	74-95-3	5 ug/L	<5	
BROMODICHLOROMETHANE	75-27-4	5 ug/L	<5	
cis-1,3-DICHLOROPROPENE	10061-01-5	5 ug/L	<5	
TOLUENE	108-88-3	5 ug/L	<5	
trans-1,3-DICHLOROPROPENE	10061-02-6	5 ug/L	<5	
1,1,2-TRICHLOROETHANE	79-00-5	5 ug/L	<5	
TETRACHLOROETHYLENE	127-18-4	5 ug/L	<5	
1,3-DICHLOROPROPANE	142-28-9	5 ug/L	<5	
DIBROMOCHLOROMETHANE	124-48-1	5 ug/L	<5	
1,2-DIBROMOETHANE	106-93-4	5 ug/L	<5	
CHLOROBENZENE	108-90-7	5 ug/L	<5	
1,1,1,2-TETRACHLOROETHANE	630-20-6	5 ug/L	<5	
ETHYLBENZENE	100-41-4	5 ug/L	<5	
STYRENE	100-42-5	5 ug/L	<5	
BROMOFORM	75-25-2	5 ug/L	<5	

MDL = Minimum Detection Limit.

Client: Tetra Tech NUS, Inc.	Client ID: NWIRP-GM-75 (BPSI-TB-051109)
Date received: 5/13/09	Laboratory ID: 1176959
Date extracted: 5/14/09	Matrix: Liquid
Date analyzed: 5/14/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
ISOPROPYLBENZENE	98-82-8	5 ug/L	<5	
BROMOBENZENE	108-86-1	5 ug/L	<5	
1,1,2,2-TETRACHLOROETHANE	79-34-5	5 ug/L	<5	
1,2,3-TRICHLOROPROPANE	96-18-4	5 ug/L	<5	
n-PROPYLBENZENE	103-65-1	5 ug/L	<5	
2-CHLOROTOLUENE	95-49-8	5 ug/L	<5	
4-CHLOROTOLUENE	106-43-4	5 ug/L	<5	
1,3,5-TRIMETHYLBENZENE	108-67-8	5 ug/L	<5	
tert-BUTYLBENZENE	98-06-6	5 ug/L	<5	
1,2,4-TRIMETHYLBENZENE	95-63-6	5 ug/L	<5	
sec-BUTYLBENZENE	135-98-8	5 ug/L	<5	
1,3-DICHLOROBENZENE	541-73-1	5 ug/L	<5	
P-ISOPROPYLTOLUENE	99-87-6	5 ug/L	<5	
1,4-DICHLOROBENZENE	106-46-7	5 ug/L	<5	
1,2-DICHLOROBENZENE	95-50-1	5 ug/L	<5	
n-BUTYLBENZENE	104-51-8	5 ug/L	<5	
1,2-DIBROMC-3-CHLOROPROPANE	96-12-8	5 ug/L	<5	
1,2,4-TRICHLOROBENZENE	120-82-1	5 ug/L	<5	
HEXACH_OROBUTADIENE	87-68-3	5 ug/L	<5	
NAPHTHALENE	91-20-3	5 ug/L	<5	
1,2,3-TRICHLOROBENZENE	87-61-6	5 ug/L	<5	
2-CHLOROETHYLVINYL ETHER	110-75-8	5 ug/L	<5	
ACETONE	67-64-1	50 ug/L	<50	
METHYL ETHYL KETONE	78-93-3	10 ug/L	<10	
METHYL ISOBUTYL KETONE	108-10-1	5 ug/L	<5	
p & m-XYLENES	1330-20-7	10 ug/L	<10	
o-XYLENE	1330-20-7	5 ug/L	<5	
CARBON DISULFIDE	751-15-0	5 ug/L	<5	
MTBE	1634-04-4	5 ug/L	<5	
VINYL ACETATE	108-05-4	5 ug/L	<5	
2-HEXANONE	591-78-6	5 ug/L	<5	

MDL = Minimum Detection Limit

Michael Veraldi

Michael Veraldi-Labcratory Director

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Client: Tetra Tech NUS, Inc.	Client ID: NWIRP-GM-75 (BPSI-3001-GW-191)
Date received: 5/13/09	Laboratory ID: 1176960
Date extracted: 5/14/09	Matrix: Liquid
Date analyzed: 5/14/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
DICHLORODIFLUOROMETHANE	75-71-8	5 ug/L	<5	
CHLOROMETHANE	74-87-3	5 ug/L	<5	
VINYL CHLORIDE	75-01-4	5 ug/L	<5	
BROMOMETHANE	74-83-9	5 ug/L	<5	
CHLOROETHANE	75-00-3	5 ug/L	<5	
TRICHLOROFLUOROMETHANE	75-69-4	5 ug/L	<5	
1,1-DICHLOROETHENE	75-35-4	5 ug/L	<5	
METHYLENE CHLORIDE	75-09-2	5 ug/L	<5	
trans-1,2-DICHLOROETHENE	156-60-5	5 ug/L	<5	
1,1-DICHLOROETHANE	75-34-3	5 ug/L	<5	
2,2-DICHLOROPROPANE	594-20-7	5 ug/L	<5	
cis-1,2-DICHLOROETHENE	156-59-2	5 ug/L	<5	
BROMOCHLOROMETHANE	74-97-5	5 ug/L	<5	
CHLOROFORM	67-66-3	5 ug/L	<5	
1,1,1-TRICHLOROETHANE	71-55-6	5 ug/L	<5	
CARBON TETRACHLORIDE	56-23-5	5 ug/L	<5	
1,1-DICHLOROPROPENE	563-58-6	5 ug/L	<5	
BENZENE	71-43-2	0.7 ug/L	<0.7	CC
1,2-DICHLOROETHANE	107-06-2	5 ug/L	<5	
TRICHLOROETHENE	79-01-6	5 ug/L	<5	
1,2-DICHLOROPROPANE	78-87-5	5 ug/L	<5	
DIBROMOMETHANE	74-95-3	5 ug/L	<5	
BROMODICHLOROMETHANE	75-27-4	5 ug/L	<5	
cis-1,3-DICHLOROPROPENE	10061-01-5	5 ug/L	<5	
TOLUENE	108-88-3	5 ug/L	<5	
trans-1,3-DICHLOROPROPENE	10061-02-6	5 ug/L	<5	
1,1,2-TRICHLOROETHANE	79-00-5	5 ug/L	<5	
TETRACHLOROETHYLENE	127-18-4	5 ug/L	<5	
1,3-DICHLOROPROPANE	142-28-9	5 ug/L	<5	
DIBROMOCHLOROMETHANE	124-48-1	5 ug/L	<5	
1,2-DIBROMOETHANE	106-93-4	5 ug/L	<5	
CHLOROBENZENE	108-90-7	5 ug/L	<5	
1,1,1,2-TETRACHLOROETHANE	630-20-6	5 ug/L	<5	
ETHYLBENZENE	100-41-4	5 ug/L	<5	
STYRENE	100-42-5	5 ug/L	<5	
BROMOFORM	75-25-2	5 ug/L	<5	

MDL = Minimum Detection Limit.

Client: Tetra Tech NUS, Inc.	Client ID: NWIRP-GM-75 (BPSI-3001-GW-191)
Date received: 5/13/09	Laboratory ID: 1176960
Date extracted: 5/14/09	Matrix: Liquid
Date analyzed: 5/14/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
ISOPROPYLBENZENE	98-82-8	5 ug/L	<5	
BROMOBENZENE	108-86-1	5 ug/L	<5	
1,1,2,2-TETRACHLOROETHANE	79-34-5	5 ug/L	<5	
1,2,3-TRICHLOROPROPANE	96-18-4	5 ug/L	<5	
n-PROPYLBENZENE	103-65-1	5 ug/L	<5	
2-CHLOROTOLUENE	95-49-8	5 ug/L	<5	
4-CHLOROTOLUENE	106-43-4	5 ug/L	<5	
1,3,5-TRIMETHYLBENZENE	108-67-8	5 ug/L	<5	
tert-BUTYLBENZENE	98-06-6	5 ug/L	<5	
1,2,4-TRIMETHYLBENZENE	95-63-6	5 ug/L	<5	
sec-BUTYLBENZENE	135-98-8	5 ug/L	<5	
1,3-DICHLOROBENZENE	541-73-1	5 ug/L	<5	
P-ISOPROPYLTOLUENE	99-87-6	5 ug/L	<5	
1,4-DICHLOROBENZENE	106-46-7	5 ug/L	<5	
1,2-DICHLOROBENZENE	95-50-1	5 ug/L	<5	
n-BUTYLBENZENE	104-51-8	5 ug/L	<5	
1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	5 ug/L	<5	
1,2,4-TRICHLOROBENZENE	120-82-1	5 ug/L	<5	
HEXACHLOROBUTADIENE	87-68-3	5 ug/L	<5	
NAPHTHALENE	91-20-3	5 ug/L	<5	
1,2,3-TRICHLOROBENZENE	87-61-6	5 ug/L	<5	
2-CHLOROETHYLVINYL ETHER	110-75-8	5 ug/L	<5	
ACETONE	67-64-1	50 ug/L	11	MM
METHYL ETHYL KETONE	78-93-3	10 ug/L	<10	
METHYL ISOBUTYL KETONE	108-10-1	5 ug/L	<5	
p & m-XYLENES	1330-20-7	10 ug/L	<10	
o-XYLENE	1330-20-7	5 ug/L	<5	
CARBON DISULFIDE	751-15-0	5 ug/L	<5	
MTBE	1634-04-4	5 ug/L	<5	
VINYL ACETATE	108-05-4	5 ug/L	<5	
2-HEXANONE	591-78-6	5 ug/L	<5	

MDL = Minimum Detection Limit.

Michael Veraldi

Michael Veraldi-Laboratory Director

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Client: Tetra Tech NUS, Inc.	Client ID: NWIRP-GM-75 (BPSI-3001-GW-211)
Date received: 5/13/09	Laboratory ID: 1176961
Date extracted: 5/14/09	Matrix: Liquid
Date analyzed: 5/14/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
DICHLORODIFLUOROMETHANE	75-71-8	5 ug/L	<5	
CHLOROMETHANE	74-87-3	5 ug/L	<5	
VINYL CHLORIDE	75-01-4	5 ug/L	<5	
BROMOMETHANE	74-83-9	5 ug/L	<5	
CHLOROETHANE	75-00-3	5 ug/L	<5	
TRICHLOROFLUOROMETHANE	75-69-4	5 ug/L	<5	
1,1-DICHLOROETHENE	75-35-4	5 ug/L	<5	
METHYLENE CHLORIDE	75-09-2	5 ug/L	<5	
trans-1,2-DICHLOROETHENE	156-60-5	5 ug/L	<5	
1,1-DICHLOROETHANE	75-34-3	5 ug/L	<5	
2,2-DICHLOROPROPANE	594-20-7	5 ug/L	<5	
cis-1,2-DICHLOROETHENE	156-59-2	5 ug/L	<5	
BROMOCHLOROMETHANE	74-97-5	5 ug/L	<5	
CHLOROFORM	67-66-3	5 ug/L	<5	
1,1,1-TRICHLOROETHANE	71-55-6	5 ug/L	<5	
CARBON TETRACHLORIDE	56-23-5	5 ug/L	<5	
1,1-DICHLOROPROPENE	563-58-6	5 ug/L	<5	
BENZENE	71-43-2	0.7 ug/L	<0.7	CC
1,2-DICHLOROETHANE	107-06-2	5 ug/L	<5	
TRICHLOROETHENE	79-01-6	5 ug/L	<5	
1,2-DICHLOROPROPANE	78-87-5	5 ug/L	<5	
DIBROMOMETHANE	74-95-3	5 ug/L	<5	
BROMODICHLOROMETHANE	75-27-4	5 ug/L	<5	
cis-1,3-DICHLOROPROPENE	10061-01-5	5 ug/L	<5	
TOLUENE	108-88-3	5 ug/L	<5	
trans-1,3-DICHLOROPROPENE	10061-02-6	5 ug/L	<5	
1,1,2-TRICHLOROETHANE	79-00-5	5 ug/L	<5	
TETRACHLOROETHYLENE	127-18-4	5 ug/L	<5	
1,3-DICHLOROPROPANE	142-28-9	5 ug/L	<5	
DIBROMOCHLOROMETHANE	124-48-1	5 ug/L	<5	
1,2-DIBROMOETHANE	106-93-4	5 ug/L	<5	
CHLOROBENZENE	108-90-7	5 ug/L	<5	
1,1,1,2-TETRACHLOROETHANE	630-20-6	5 ug/L	<5	
ETHYLBENZENE	100-41-4	5 ug/L	<5	
STYRENE	100-42-5	5 ug/L	<5	
BROMOFORM	75-25-2	5 ug/L	<5	

MDL = Minimum Detection Limit.

Client: Tetra Tech NUS, Inc.	Client ID: NWIRP-GM-75 (BPSI-3001-GW-211)
Date received: 5/13/09	Laboratory ID: 1176961
Date extracted: 5/14/09	Matrix: Liquid
Date analyzed: 5/14/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
ISOPROPYLBENZENE	98-82-8	5 ug/L	<5	
BROMOBENZENE	108-86-1	5 ug/L	<5	
1,1,2,2-TETRACHLOROETHANE	79-34-5	5 ug/L	<5	
1,2,3-TRICHLOROPROPANE	96-18-4	5 ug/L	<5	
n-PROPYLBENZENE	103-65-1	5 ug/L	<5	
2-CHLOROTOLUENE	95-49-8	5 ug/L	<5	
4-CHLOROTOLUENE	106-43-4	5 ug/L	<5	
1,3,5-TRIMETHYLBENZENE	108-67-8	5 ug/L	<5	
tert-BUTYLBENZENE	98-06-6	5 ug/L	<5	
1,2,4-TRIMETHYLBENZENE	95-63-6	5 ug/L	<5	
sec-BUTYLBENZENE	135-98-8	5 ug/L	<5	
1,3-DICHLOROBENZENE	541-73-1	5 ug/L	<5	
P-ISOPROPYLTOLUENE	99-87-6	5 ug/L	<5	
1,4-DICHLOROBENZENE	106-46-7	5 ug/L	<5	
1,2-DICHLOROBENZENE	95-50-1	5 ug/L	<5	
n-BUTYLBENZENE	104-51-8	5 ug/L	<5	
1,2-DIBROMC-3-CHLOROPROPANE	96-12-8	5 ug/L	<5	
1,2,4-TRICHLOROBENZENE	120-82-1	5 ug/L	<5	
HEXACH_OROBUTADIENE	87-68-3	5 ug/L	<5	
NAPHTHALENE	91-20-3	5 ug/L	<5	
1,2,3-TRICHLOROBENZENE	87-61-6	5 ug/L	<5	
2-CHLOROETHYLVINYL ETHER	110-75-8	5 ug/L	<5	
ACETONE	67-64-1	50 ug/L	<50	
METHYL ETHYL KETONE	78-93-3	10 ug/L	<10	
METHYL ISOBUTYL KETONE	108-10-1	5 ug/L	<5	
p & m-XYLENES	1330-20-7	10 ug/L	<10	
o-XYLENE	1330-20-7	5 ug/L	<5	
CARBON DISULFIDE	751-15-0	5 ug/L	<5	
MTBE	1634-04-4	5 ug/L	<5	
VINYL ACETATE	108-05-4	5 ug/L	<5	
2-HEXANONE	591-78-6	5 ug/L	<5	

MDL = Minimum Detection Limit.

Michael Veraldi

Michael Veraldi-Laboratory Director

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Client: Tetra Tech NUS, Inc.	Client ID: NWIRP-GM-75 (BPSI-3001-GW-231)
Date received: 5/13/09	Laboratory ID: 1176962
Date extracted: 5/14/09	Matrix: Liquid
Date analyzed: 5/14/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
DICHLORODIFLUOROMETHANE	75-71-8	5 ug/L	<5	
CHLOROMETHANE	74-87-3	5 ug/L	<5	
VINYL CHLORIDE	75-01-4	5 ug/L	<5	
BROMOMETHANE	74-83-9	5 ug/L	<5	
CHLOROETHANE	75-00-3	5 ug/L	<5	
TRICHLOROFLUOROMETHANE	75-69-4	5 ug/L	<5	
1,1-DICHLOROETHENE	75-35-4	5 ug/L	<5	
METHYLENE CHLORIDE	75-09-2	5 ug/L	<5	
trans-1,2-DICHLOROETHENE	156-60-5	5 ug/L	<5	
1,1-DICHLOROETHANE	75-34-3	5 ug/L	<5	
2,2-DICHLOROPROPANE	594-20-7	5 ug/L	<5	
cis-1,2-DICHLOROETHENE	156-59-2	5 ug/L	<5	
BROMOCHLOROMETHANE	74-97-5	5 ug/L	<5	
CHLOROFORM	67-66-3	5 ug/L	<5	
1,1,1-TRICHLOROETHANE	71-55-6	5 ug/L	<5	
CARBON TETRACHLORIDE	56-23-5	5 ug/L	<5	
1,1-DICHLOROPROPENE	563-58-6	5 ug/L	<5	
BENZENE	71-43-2	0.7 ug/L	<0.7	CC
1,2-DICHLOROETHANE	107-06-2	5 ug/L	<5	
TRICHLOROETHENE	79-01-6	5 ug/L	<5	
1,2-DICHLOROPROPANE	78-87-5	5 ug/L	<5	
DIBROMOMETHANE	74-95-3	5 ug/L	<5	
BROMODICHLOROMETHANE	75-27-4	5 ug/L	<5	
cis-1,3-DICHLOROPROPENE	10061-01-5	5 ug/L	<5	
TOLUENE	108-88-3	5 ug/L	<5	
trans-1,3-DICHLOROPROPENE	10061-02-6	5 ug/L	<5	
1,1,2-TRICHLOROETHANE	79-00-5	5 ug/L	<5	
TETRACHLOROETHYLENE	127-18-4	5 ug/L	<5	
1,3-DICHLOROPROPANE	142-28-9	5 ug/L	<5	
DIBROMOCHLOROMETHANE	124-48-1	5 ug/L	<5	
1,2-DIBROMOETHANE	106-93-4	5 ug/L	<5	
CHLOROBENZENE	108-90-7	5 ug/L	<5	
1,1,1,2-TETRACHLOROETHANE	630-20-6	5 ug/L	<5	
ETHYLBENZENE	100-41-4	5 ug/L	<5	
STYRENE	100-42-5	5 ug/L	<5	
BROMOFORM	75-25-2	5 ug/L	<5	

MDL = Minimum Detection Limit.

Client: Tetra Tech NUS, Inc.	Client ID: NWIRP-GM-75 (BPSI-3001-GW-231)
Date received: 5/13/09	Laboratory ID: 1176962
Date extracted: 5/14/09	Matrix: Liquid
Date analyzed: 5/14/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
ISOPROPYLBENZENE	98-82-8	5 ug/L	<5	
BRCMOBENZENE	108-86-1	5 ug/L	<5	
1,1,2,2-TETRACHLOROETHANE	79-34-5	5 ug/L	<5	
1,2,3-TRICHLOROPROPANE	96-18-4	5 ug/L	<5	
n-PROPYLBENZENE	103-65-1	5 ug/L	<5	
2-CHLOROTOLUENE	95-49-8	5 ug/L	<5	
4-CHLOROTOLUENE	106-43-4	5 ug/L	<5	
1,3,5-TRIMETHYLBENZENE	108-67-8	5 ug/L	<5	
tert-BUTYLBENZENE	98-06-6	5 ug/L	<5	
1,2,4-TRIMETHYLBENZENE	95-63-6	5 ug/L	<5	
sec-BUTYLBENZENE	135-98-8	5 ug/L	<5	
1,3-DICHLOROBENZENE	541-73-1	5 ug/L	<5	
P-ISOPROPYLTOLUENE	99-87-6	5 ug/L	<5	
1,4-DICHLOROBENZENE	106-46-7	5 ug/L	<5	
1,2-DICHLOROBENZENE	95-50-1	5 ug/L	<5	
n-BUTYLBENZENE	104-51-8	5 ug/L	<5	
1,2-DIBROMC-3-CHLOROPROPANE	96-12-8	5 ug/L	<5	
1,2,4-TRICHLOROBENZENE	120-82-1	5 ug/L	<5	
HEXACH_OROBUTADIENE	87-68-3	5 ug/L	<5	
NAPHTHALENE	91-20-3	5 ug/L	<5	
1,2,3-TRICHLOROBENZENE	87-61-6	5 ug/L	<5	
2-CHLOROETHYLVINYL ETHER	110-75-8	5 ug/L	<5	
ACETONE	67-64-1	50 ug/L	<50	
METHYL ETHYL KETONE	78-93-3	10 ug/L	<10	
METHYL ISOBUTYL KETONE	108-10-1	5 ug/L	<5	
p & m-XYLENES	1330-20-7	10 ug/L	<10	
o-XYLENE	1330-20-7	5 ug/L	<5	
CARBON DISULFIDE	751-15-0	5 ug/L	<5	
MTBE	1634-04-4	5 ug/L	<5	
VINYL ACETATE	108-05-4	5 ug/L	<5	
2-HEXANONE	591-78-6	5 ug/L	<5	

MDL = Minimum Detection Limit

Michael Veraldi

Michael Veraldi-Labcratory Director

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Client: Tetra Tech NUS, Inc.	Client ID: NWIRP-GM-75 (BPSI-3001-GW-251)
Date received: 5/13/09	Laboratory ID: 1176963
Date extracted: 5/14/09	Matrix: Liquid
Date analyzed: 5/14/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
DICHLORODIFLUOROMETHANE	75-71-8	5 ug/L	<5	
CHLOROMETHANE	74-87-3	5 ug/L	<5	
VINYL CHLORIDE	75-01-4	5 ug/L	<5	
BROMOMETHANE	74-83-9	5 ug/L	<5	
CHLOROETHANE	75-00-3	5 ug/L	<5	
TRICHLOROFLUOROMETHANE	75-69-4	5 ug/L	<5	
1,1-DICHLOROETHENE	75-35-4	5 ug/L	<5	
METHYLENE CHLORIDE	75-09-2	5 ug/L	<5	
trans-1,2-DICHLOROETHENE	156-60-5	5 ug/L	<5	
1,1-DICHLOROETHANE	75-34-3	5 ug/L	<5	
2,2-DICHLOROPROPANE	594-20-7	5 ug/L	<5	
cis-1,2-DICHLOROETHENE	156-59-2	5 ug/L	<5	
BROMOCHLOROMETHANE	74-97-5	5 ug/L	<5	
CHLOROFORM	67-66-3	5 ug/L	<5	
1,1,1-TRICHLOROETHANE	71-55-6	5 ug/L	<5	
CARBON TETRACHLORIDE	56-23-5	5 ug/L	<5	
1,1-DICHLOROPROPENE	563-58-6	5 ug/L	<5	
BENZENE	71-43-2	0.7 ug/L	<0.7	CC
1,2-DICHLOROETHANE	107-06-2	5 ug/L	<5	
TRICHLOROETHENE	79-01-6	5 ug/L	<5	
1,2-DICHLOROPROPANE	78-87-5	5 ug/L	<5	
DIBROMOMETHANE	74-95-3	5 ug/L	<5	
BROMODICHLOROMETHANE	75-27-4	5 ug/L	<5	
cis-1,3-DICHLOROPROPENE	10061-01-5	5 ug/L	<5	
TOLUENE	108-88-3	5 ug/L	<5	
trans-1,3-DICHLOROPROPENE	10061-02-6	5 ug/L	<5	
1,1,2-TRICHLOROETHANE	79-00-5	5 ug/L	<5	
TETRACHLOROETHYLENE	127-18-4	5 ug/L	<5	
1,3-DICHLOROPROPANE	142-28-9	5 ug/L	<5	
DIBROMOCHLOROMETHANE	124-48-1	5 ug/L	<5	
1,2-DIBROMOETHANE	106-93-4	5 ug/L	<5	
CHLOROBENZENE	108-90-7	5 ug/L	<5	
1,1,1,2-TETRACHLOROETHANE	630-20-6	5 ug/L	<5	
ETHYLBENZENE	100-41-4	5 ug/L	<5	
STYRENE	100-42-5	5 ug/L	<5	
BROMOFORM	75-25-2	5 ug/L	<5	

MDL = Minimum Detection Limit

Client: Tetra Tech NUS, Inc.	Client ID: NWIRP-GM-75 (BPSI-3001-GW-251)
Date received: 5/13/09	Laboratory ID: 1176963
Date extracted: 5/14/09	Matrix: Liquid
Date analyzed: 5/14/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
ISOPROPYLBENZENE	98-82-8	5 ug/L	<5	
BROMOBENZENE	108-86-1	5 ug/L	<5	
1,1,2,2-TETRACHLOROETHANE	79-34-5	5 ug/L	<5	
1,2,3-TRICHLOROPROPANE	96-18-4	5 ug/L	<5	
n-PROPYLBENZENE	103-65-1	5 ug/L	<5	
2-CHLOROTOLUENE	95-49-8	5 ug/L	<5	
4-CHLOROTOLUENE	106-43-4	5 ug/L	<5	
1,3,5-TRIMETHYLBENZENE	108-67-8	5 ug/L	<5	
tert-BUTYLBENZENE	98-06-6	5 ug/L	<5	
1,2,4-TRIMETHYLBENZENE	95-63-6	5 ug/L	<5	
sec-BUTYLBENZENE	135-98-8	5 ug/L	<5	
1,3-DICHLOROBENZENE	541-73-1	5 ug/L	<5	
P-ISOPROPYLTOLUENE	99-87-6	5 ug/L	<5	
1,4-DICHLOROBENZENE	106-46-7	5 ug/L	<5	
1,2-DICHLOROBENZENE	95-50-1	5 ug/L	<5	
n-BUTYLBENZENE	104-51-8	5 ug/L	<5	
1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	5 ug/L	<5	
1,2,4-TRICHLOROBENZENE	120-82-1	5 ug/L	<5	
HEXACHLOROBUTADIENE	87-68-3	5 ug/L	<5	
NAPHTHALENE	91-20-3	5 ug/L	<5	
1,2,3-TRICHLOROBENZENE	87-61-6	5 ug/L	<5	
2-CHLOROETHYLVINYL ETHER	110-75-8	5 ug/L	<5	
ACETONE	67-64-1	50 ug/L	<50	
METHYL ETHYL KETONE	78-93-3	10 ug/L	<10	
METHYL ISOBUTYL KETONE	108-10-1	5 ug/L	<5	
p & m-XYLENES	1330-20-7	10 ug/L	<10	
o-XYLENE	1330-20-7	5 ug/L	<5	
CARBON DISULFIDE	751-15-0	5 ug/L	<5	
MTBE	1634-04-4	5 ug/L	<5	
VINYL ACETATE	108-05-4	5 ug/L	<5	
2-HEXANONE	591-78-6	5 ug/L	<5	

MDL = Minimum Detection Limit.

Michael Veraldi

Michael Veraldi-Laboratory Director

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Client: Tetra Tech NUS, Inc.	Client ID: NWIRP-GM-75 (BPSI-3001-GW-271)
Date received: 5/13/09	Laboratory ID: 1176964
Date extracted: 5/14/09	Matrix: Liquid
Date analyzed: 5/14/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
DICHLORODIFLUOROMETHANE	75-71-8	5 ug/L	<5	
CHLOROMETHANE	74-87-3	5 ug/L	<5	
VINY_ CHLORIDE	75-01-4	5 ug/L	<5	
BROMOMETHANE	74-83-9	5 ug/L	<5	
CHLOROETHANE	75-00-3	5 ug/L	<5	
TRICHLORCFLUOROMETHANE	75-69-4	5 ug/L	<5	
1,1-DICHLOROETHENE	75-35-4	5 ug/L	<5	
METHYLENE CHLORIDE	75-09-2	5 ug/L	<5	
trans-1,2-DICHLOROETHENE	156-60-5	5 ug/L	<5	
1,1-DICHLOROETHANE	75-34-3	5 ug/L	<5	
2,2-DICHLOROPROPANE	594-20-7	5 ug/L	<5	
cis-1,2-DICHLOROETHENE	156-59-2	5 ug/L	<5	
BROMOCHLOROMETHANE	74-97-5	5 ug/L	<5	
CHLOROFORM	67-66-3	5 ug/L	<5	
1,1,1-TRICHLOROETHANE	71-55-6	5 ug/L	<5	
CARBON TETRACHLORIDE	56-23-5	5 ug/L	<5	
1,1-DICHLOROPROPENE	563-58-6	5 ug/L	<5	
BENZENE	71-43-2	0.7 ug/L	<0.7	CC
1,2-DICHLOROETHANE	107-06-2	5 ug/L	<5	
TRICHLOROETHENE	79-01-6	5 ug/L	<5	
1,2-DICHLOROPROPANE	78-87-5	5 ug/L	<5	
DIBROMOMETHANE	74-95-3	5 ug/L	<5	
BROMODICHLOROMETHANE	75-27-4	5 ug/L	<5	
cis-1,3-DICHLOROPROPENE	10061-01-5	5 ug/L	<5	
TOLUENE	108-88-3	5 ug/L	<5	
trans-1,3-DICHLOROPROPENE	10061-02-6	5 ug/L	<5	
1,1,2-TRICHLOROETHANE	79-00-5	5 ug/L	<5	
TETRACHLOROETHYLENE	127-18-4	5 ug/L	<5	
1,3-DICHLOROPROPANE	142-28-9	5 ug/L	<5	
DIBROMOCHLOROMETHANE	124-48-1	5 ug/L	<5	
1,2-DIBROMOETHANE	106-93-4	5 ug/L	<5	
CHLOROBENZENE	108-90-7	5 ug/L	<5	
1,1,1,2-TETRACHLOROETHANE	630-20-6	5 ug/L	<5	
ETHYLBENZENE	100-41-4	5 ug/L	<5	
STYRENE	100-42-5	5 ug/L	<5	
BROMOFORM	75-25-2	5 ug/L	<5	

MDL = Minimum Detection Limit.

Client: Tetra Tech NUS, Inc.	Client ID: NWIRP-GM-75 (BPSI-3001-GW-271)
Date received: 5/13/09	Laboratory ID: 1176964
Date extracted: 5/14/09	Matrix: Liquid
Date analyzed: 5/14/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
ISOPROPYLBENZENE	98-82-8	5 ug/L	<5	
BROMOBENZENE	108-86-1	5 ug/L	<5	
1,1,2,2-TETRACHLOROETHANE	79-34-5	5 ug/L	<5	
1,2,3-TRICHLOROPROPANE	96-18-4	5 ug/L	<5	
n-PROPYLBENZENE	103-65-1	5 ug/L	<5	
2-CHLOROTOLUENE	95-49-8	5 ug/L	<5	
4-CHLOROTOLUENE	106-43-4	5 ug/L	<5	
1,3,5-TRIMETHYLBENZENE	108-67-8	5 ug/L	<5	
tert-BUTYLBENZENE	98-06-6	5 ug/L	<5	
1,2,4-TRIMETHYLBENZENE	95-63-6	5 ug/L	<5	
sec-BUTYLBENZENE	135-98-8	5 ug/L	<5	
1,3-DICHLOROBENZENE	541-73-1	5 ug/L	<5	
P-ISOPROPYLTOLUENE	99-87-6	5 ug/L	<5	
1,4-DICHLOROBENZENE	106-46-7	5 ug/L	<5	
1,2-DICHLOROBENZENE	95-50-1	5 ug/L	<5	
n-BUTYLBENZENE	104-51-8	5 ug/L	<5	
1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	5 ug/L	<5	
1,2,4-TRICHLOROBENZENE	120-82-1	5 ug/L	<5	
HEXACHLOROBUTADIENE	87-68-3	5 ug/L	<5	
NAPHTHALENE	91-20-3	5 ug/L	<5	
1,2,3-TRICHLOROBENZENE	87-61-6	5 ug/L	<5	
2-CHLOROETHYLVINYL ETHER	110-75-8	5 ug/L	<5	
ACETONE	67-64-1	50 ug/L	<50	
METHYL ETHYL KETONE	78-93-3	10 ug/L	<10	
METHYL ISOBUTYL KETONE	108-10-1	5 ug/L	<5	
p & m-XYLENES	1330-20-7	10 ug/L	<10	
o-XYLENE	1330-20-7	5 ug/L	<5	
CARBON DISULFIDE	751-15-0	5 ug/L	<5	
MTBE	1634-04-4	5 ug/L	<5	
VINYL ACETATE	108-05-4	5 ug/L	<5	
2-HEXANONE	591-78-6	5 ug/L	<5	

MDL = Minimum Detection Limit.

Michael Veraldi

Michael Veraldi-Laboratory Director

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Client: Tetra Tech NUS, Inc.	Client ID: NWIRP-GM-75 (BPSI-3001-GW-291)
Date received: 5/13/09	Laboratory ID: 1176965
Date extracted: 5/14/09	Matrix: Liquid
Date analyzed: 5/14/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
DICHLORODIFLUOROMETHANE	75-71-8	5 ug/L	<5	
CHLOROMETHANE	74-87-3	5 ug/L	<5	
VINYL CHLORIDE	75-01-4	5 ug/L	<5	
BROMOMETHANE	74-83-9	5 ug/L	<5	
CHLOROETHANE	75-00-3	5 ug/L	<5	
TRICHLOROFLUOROMETHANE	75-69-4	5 ug/L	<5	
1,1-DICHLOROETHENE	75-35-4	5 ug/L	<5	
METHYLENE CHLORIDE	75-09-2	5 ug/L	<5	
trans-1,2-DICHLOROETHENE	156-60-5	5 ug/L	<5	
1,1-DICHLOROETHANE	75-34-3	5 ug/L	<5	
2,2-DICHLOROPROPANE	594-20-7	5 ug/L	<5	
cis-1,2-DICHLOROETHENE	156-59-2	5 ug/L	<5	
BROMOCHLOROMETHANE	74-97-5	5 ug/L	<5	
CHLOROFORM	67-66-3	5 ug/L	<5	
1,1,1-TRICHLOROETHANE	71-55-6	5 ug/L	<5	
CARBON TETRACHLORIDE	56-23-5	5 ug/L	<5	
1,1-DICHLOROPROPENE	563-58-6	5 ug/L	<5	
BENZENE	71-43-2	0.7 ug/L	<0.7	CC
1,2-DICHLOROETHANE	107-06-2	5 ug/L	<5	
TRICHLOROETHENE	79-01-6	5 ug/L	<5	
1,2-DICHLOROPROPANE	78-87-5	5 ug/L	<5	
DIBROMOMETHANE	74-95-3	5 ug/L	<5	
BROMODICHLOROMETHANE	75-27-4	5 ug/L	<5	
cis-1,3-DICHLOROPROPENE	10061-01-5	5 ug/L	<5	
TOLUENE	108-88-3	5 ug/L	<5	
trans-1,3-DICHLOROPROPENE	10061-02-6	5 ug/L	<5	
1,1,2-TRICHLOROETHANE	79-00-5	5 ug/L	<5	
TETRACHLOROETHYLENE	127-18-4	5 ug/L	<5	
1,3-DICHLOROPROPANE	142-28-9	5 ug/L	<5	
DIBROMOCHLOROMETHANE	124-48-1	5 ug/L	<5	
1,2-DIBROMOETHANE	106-93-4	5 ug/L	<5	
CHLOROBENZENE	108-90-7	5 ug/L	<5	
1,1,1,2-TETRACHLOROETHANE	630-20-6	5 ug/L	<5	
ETHYLBENZENE	100-41-4	5 ug/L	<5	
STYRENE	100-42-5	5 ug/L	<5	
BROMOFORM	75-25-2	5 ug/L	<5	

MDL = Minimum Detection Limit.

Client: Tetra Tech NUS, Inc.	Client ID: NWIRP-GM-75 (BPSI-3001-GW-291)
Date received: 5/13/09	Laboratory ID: 1176965
Date extracted: 5/14/09	Matrix: Liquid
Date analyzed: 5/14/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
ISOPROPYLBENZENE	98-82-8	5 ug/L	<5	
BROMOBENZENE	108-86-1	5 ug/L	<5	
1,1,2,2-TETRACHLOROETHANE	79-34-5	5 ug/L	<5	
1,2,3-TRICHLOROPROPANE	96-18-4	5 ug/L	<5	
n-PROPYLBENZENE	103-65-1	5 ug/L	<5	
2-CHLOROTOLUENE	95-49-8	5 ug/L	<5	
4-CHLOROTOLUENE	106-43-4	5 ug/L	<5	
1,3,5-TRIMETHYLBENZENE	108-67-8	5 ug/L	<5	
tert-BUTYLBENZENE	98-06-6	5 ug/L	<5	
1,2,4-TRIMETHYLBENZENE	95-63-6	5 ug/L	<5	
sec-BUTYLBENZENE	135-98-8	5 ug/L	<5	
1,3-DICHLOROBENZENE	541-73-1	5 ug/L	<5	
P-ISOPROPYLTOLUENE	99-87-6	5 ug/L	<5	
1,4-DICHLOROBENZENE	106-46-7	5 ug/L	<5	
1,2-DICHLOROBENZENE	95-50-1	5 ug/L	<5	
n-BUTYLBENZENE	104-51-8	5 ug/L	<5	
1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	5 ug/L	<5	
1,2,4-TRICHLOROBENZENE	120-82-1	5 ug/L	<5	
HEXACHLOROBUTADIENE	87-68-3	5 ug/L	<5	
NAPHTHALENE	91-20-3	5 ug/L	<5	
1,2,3-TRICHLOROBENZENE	87-61-6	5 ug/L	<5	
2-CHLOROETHYLVINYL ETHER	110-75-8	5 ug/L	<5	
ACETONE	67-64-1	50 ug/L	<50	
METHYL ETHYL KETONE	78-93-3	10 ug/L	<10	
METHYL ISOBUTYL KETONE	108-10-1	5 ug/L	<5	
p & m-XYLENES	1330-20-7	10 ug/L	<10	
o-XYLENE	1330-20-7	5 ug/L	<5	
CARBON DISULFIDE	751-15-0	5 ug/L	<5	
MTBE	1634-04-4	5 ug/L	<5	
VINYL ACETATE	108-05-4	5 ug/L	<5	
2-HEXANONE	591-78-6	5 ug/L	<5	

MDL = Minimum Detection Limit.

Michael Veraldi

Michael Veraldi-Laboratory Director

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Client: Tetra Tech NUS, Inc.	Client ID: NWIRP-GM-75 (BPSI-3001-GW-311)
Date received: 5/13/09	Laboratory ID: 1176966
Date extracted: 5/14/09	Matrix: Liquid
Date analyzed: 5/14/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
DICHLORODIFLUOROMETHANE	75-71-8	5 ug/L	<5	
CHLOROMETHANE	74-87-3	5 ug/L	<5	
VINYL CHLORIDE	75-01-4	5 ug/L	<5	
BROMOMETHANE	74-83-9	5 ug/L	<5	
CHLOROETHANE	75-00-3	5 ug/L	<5	
TRICHLOROFLUOROMETHANE	75-69-4	5 ug/L	<5	
1,1-DICHLOROETHENE	75-35-4	5 ug/L	<5	
METHYLENE CHLORIDE	75-09-2	5 ug/L	<5	
trans-1,2-DICHLOROETHENE	156-60-5	5 ug/L	<5	
1,1-DICHLOROETHANE	75-34-3	5 ug/L	<5	
2,2-DICHLOROPROPANE	594-20-7	5 ug/L	<5	
cis-1,2-DICHLOROETHENE	156-59-2	5 ug/L	<5	
BROMOCHLOROMETHANE	74-97-5	5 ug/L	<5	
CHLOROFORM	67-66-3	5 ug/L	<5	
1,1,1-TRICHLOROETHANE	71-55-6	5 ug/L	<5	
CARBON TETRACHLORIDE	56-23-5	5 ug/L	<5	
1,1-DICHLOROPROPENE	563-58-6	5 ug/L	<5	
BENZENE	71-43-2	0.7 ug/L	<0.7	CC
1,2-DICHLOROETHANE	107-06-2	5 ug/L	<5	
TRICHLOROETHENE	79-01-6	5 ug/L	<5	
1,2-DICHLOROPROPANE	78-87-5	5 ug/L	<5	
DIBROMOMETHANE	74-95-3	5 ug/L	<5	
BROMODICHLOROMETHANE	75-27-4	5 ug/L	<5	
cis-1,3-DICHLOROPROPENE	10061-01-5	5 ug/L	<5	
TOLUENE	108-88-3	5 ug/L	<5	
trans-1,3-DICHLOROPROPENE	10061-02-6	5 ug/L	<5	
1,1,2-TRICHLOROETHANE	79-00-5	5 ug/L	<5	
TETRACHLOROETHYLENE	127-18-4	5 ug/L	<5	
1,3-DICHLOROPROPANE	142-28-9	5 ug/L	<5	
DIBROMOCHLOROMETHANE	124-48-1	5 ug/L	<5	
1,2-DIBROMOETHANE	106-93-4	5 ug/L	<5	
CHLOROBENZENE	108-90-7	5 ug/L	<5	
1,1,1,2-TETRACHLOROETHANE	630-20-6	5 ug/L	<5	
ETHYLBENZENE	100-41-4	5 ug/L	<5	
STYRENE	100-42-5	5 ug/L	<5	
BROMOFORM	75-25-2	5 ug/L	<5	

MDL = Minimum Detection Limit.

Client: Tetra Tech NUS, Inc.	Client ID: NWIRP-GM-75 (BPSI-3001-GW-311)
Date received: 5/13/09	Laboratory ID: 1176966
Date extracted: 5/14/09	Matrix: Liquid
Date analyzed: 5/14/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
ISOPROPYLBENZENE	98-82-8	5 ug/L	<5	
BROMOBENZENE	108-86-1	5 ug/L	<5	
1,1,2,2-TETRACHLOROETHANE	79-34-5	5 ug/L	<5	
1,2,3-TRICHLOROPROPANE	96-18-4	5 ug/L	<5	
n-PROPYLBENZENE	103-65-1	5 ug/L	<5	
2-CHLOROTOLUENE	95-49-8	5 ug/L	<5	
4-CHLOROTOLUENE	106-43-4	5 ug/L	<5	
1,3,5-TRIMETHYLBENZENE	108-67-8	5 ug/L	<5	
tert-BUTYLBENZENE	98-06-6	5 ug/L	<5	
1,2,4-TRIMETHYLBENZENE	95-63-6	5 ug/L	<5	
sec-BUTYLBENZENE	135-98-8	5 ug/L	<5	
1,3-DICHLOROBENZENE	541-73-1	5 ug/L	<5	
P-ISOPROPYLTOLUENE	99-87-6	5 ug/L	<5	
1,4-DICHLOROBENZENE	106-46-7	5 ug/L	<5	
1,2-DICHLOROBENZENE	95-50-1	5 ug/L	<5	
n-BUTYLBENZENE	104-51-8	5 ug/L	<5	
1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	5 ug/L	<5	
1,2,4-TRICHLOROBENZENE	120-82-1	5 ug/L	<5	
HEXACHLOROBUTADIENE	87-68-3	5 ug/L	<5	
NAPHTHALENE	91-20-3	5 ug/L	<5	
1,2,3-TRICHLOROBENZENE	87-61-6	5 ug/L	<5	
2-CHLOROETHYLVINYL ETHER	110-75-8	5 ug/L	<5	
ACETONE	67-64-1	50 ug/L	<50	
METHYL ETHYL KETONE	78-93-3	10 ug/L	<10	
METHYL ISOBUTYL KETONE	108-10-1	5 ug/L	<5	
p & m-XYLENES	1330-20-7	10 ug/L	<10	
o-XYLENE	1330-20-7	5 ug/L	<5	
CARBON DISULFIDE	751-15-0	5 ug/L	<5	
MTBE	1634-04-4	5 ug/L	<5	
VINYL ACETATE	108-05-4	5 ug/L	<5	
2-HEXANONE	591-78-6	5 ug/L	<5	

MDL = Minimum Detection Limit.

Michael Veraldi

Michael Veraldi-Laboratory Director

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TETRA TECH NUS, INC.

CHAIN OF CUSTODY | NUMBER 27234 | PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G00622	NWIRP - GM75	D BRAYACK		LONG IS ANALYTICAL
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
SJ Conti		S CONTI	412 551 2629	
		CARRIER/WAYBILL NUMBER		CITY, STATE
		PICK UP BY ORIS (LONG IS)		

0044506

STANDARD TAT ☐
RUSH TAT ☐
☐ 24 hr. ☒ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G
PRESERVATIVE USED: 40C HCL

DATE YEAR 2009	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: VOCs (40ml)	COMMENTS
5/11	1030	BPSI-TB-051109	TB	—	—	QC	G	2	2	1176959
5/11	1100	BPSI-3001-GW-191	BPSI 3001	190	191	GW	G	2	2	1176960
5/11	1230	BPSI-3001-GW-211	"	210	211	GW	G	2	2	1176961
5/11	1400	BPSI-3001-GW-231	"	230	231	GW	G	2	2	1176962
5/11	1545	BPSI-3001-GW-251	"	250	251	GW	G	2	2	1176963
5/12	0915	BPSI-3001-GW-271	"	270	271	GW	G	1	1	1176964
5/12	1040	BPSI-3001-GW-291	"	290	291	GW	G	2	2	1176965
5/12	1230	BPSI-3001-GW-311	"	310	311	GW	G	2	2	1176966

1. RELINQUISHED BY: SJ Conti	DATE: 5/13/09	TIME: 1200	1. RECEIVED BY: LONG IS ANALYTICAL	DATE:	TIME:
2. RELINQUISHED BY:	DATE:	TIME:	2. RECEIVED BY:	DATE: 5/13/09	TIME: 8:56 AM
3. RELINQUISHED BY:	DATE:	TIME:	3. RECEIVED BY:	DATE: 5-13-09	TIME: 3737

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

VALIDATION LETTER AND RESULTS MITKEM LABORATORY

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO:	**D. BRAYAK**	**DATE:**	**AUGUST 19, 2009**
FROM:	**JOSEPH KALINYAK**	**COPIES:**	**DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC/PCB**
NWIRP BETHPAGE CTO 066
SDG H0802

SAMPLES: 1 / Aqueous / VOC

BPS1-TB-050609M

2 / Sediment (Ground Water) / VOC

BPS1-3001-GW-071M BPS1-3001-GW-191M

6 / Soil / VOC

BPS1-3001-SB-041M BPS1-3001-SB-046M BPS1-3001-SB-051M
BPS1-3001-SB-061M BPS1-3001-SB-099M BPS1-3001-SB-131M

5 / Soil / PCB

BPS1-3001-SB-041M BPS1-3001-SB-046M BPS1-3001-SB-051M
BPS1-3001-SB-099M BPS1-3001-SB-131M

Overview

The sample set for NWIRP Bethpage, SDG H0802 consists of six (6) soil environmental samples, two (2) sediment environmental samples, and one (1) aqueous trip blank. The samples were analyzed for volatile organic compounds (VOC) and polychlorinated biphenyls (PCB) as listed above. There were no field duplicate pairs associated with this sample delivery group (SDG). The two (2) sediment samples were originally collected as ground water samples, but due to the relatively high solids content the laboratory analyzed them as sediments and reported the results in µg/kg on a wet weight basis.

The samples were collected by Tetra Tech on May 6, 7, and 11, 2009 and analyzed by Mitkem Laboratories. All analyses were conducted in accordance with EPA Method SW-846 8260C and 8082 analytical and reporting protocols. The data contained in this SDG were validated with regard to the following parameters:

*	•	Data Completeness
*	•	Holding Times
*	•	GC/MS Tuning
	•	Initial and Continuing Calibration
*	•	Laboratory Blank Analyses
	•	System Monitoring Compound/Surrogate Recovery
*	•	Blank Spike Results
*	•	Internal Standard Recoveries
*	•	Compound Quantitation
*	•	Compound Identification
*	•	Detection Limits

The symbol (*) indicates that all quality control criteria were met for this parameter. Qualified analytical results are presented in Appendix A, results as reported by the laboratory are presented in Appendix B, Region II data validation forms are presented in Appendix C, and documentation supporting these findings is presented in Appendix D.

Volatile (VOC)

Per the laboratory narrative, two samples contained significant sediment although they were listed on the chain of custody (COC) as aqueous (GW for ground water). Based on the evaluation of the samples, the laboratory determined that the samples would not be successfully analyzed using the aqueous sample procedure. These samples were analyzed as wet sediments and the results were reported on a wet weight basis in µg/kg (PPB) to be directly comparable to other sample aqueous results. The samples have been listed as sediments rather than as aqueous in this report.

The initial calibration relative retention factor (RRF) was less than 0.05 the quality control limit for acetone and 2-butanone for instrument V2 on 05/04/09 affecting the trip blank analysis for BPS1-TB-050609M. The continuing calibration RRFs were also less than 0.05 the quality control limit for acetone and 2-butanone for instrument V2 on 05/11/09 @ 12:15 affecting sample BPS1-TB-050609M. The non-detected results for acetone and 2-butanone were qualified rejected, (UR), for BPS1-TB-050609M.

The initial calibration relative standard deviation (RSD) was greater than the 20% (and <90%) quality control limit for bromomethane, chloroethane, and trichlorofluoromethane for instrument V6 on 05/13/09 affecting all SDG samples excluding the trip blank. No validation actions were necessary as all results were non-detected.

The continuing calibration % difference (D) was greater than the quality control limit of 20% (and <90%) for acetone, carbon disulfide, 4-methyl-2-pentanone, 1,1,2,2-tetrachloroethane, 1,2-dibromo-3-chloropropane, and methyl acetate for instrument V2 on 05/11/09 @ 12:15 affecting sample BPS1-TB-050609M. The non-detected results for the aforementioned compounds were qualified estimated, (UJ), for BPS1-TB-050609M with the exception of acetone since the result was qualified rejected due to RRF non-compliance.

The continuing calibration %D was greater than the quality control limit of 20% (and <90%) for chloromethane, vinyl chloride, bromomethane, chloroethane, and trichlorofluoromethane for instrument V6 on 05/13/09 @ 13:05 affecting samples BPS1-3001-GW-071M, BPS1-3001-GW-191M, BPS1-3001-SB-041M, BPS1-3001-SB-046M, BPS1-3001-SB-051M, and BPS1-3001-SB-061M. The non-detected results chloromethane, vinyl chloride, bromomethane, chloroethane, and trichlorofluoromethane were qualified estimated, (UJ), for the aforementioned samples.

The continuing calibration %D was greater than the quality control limit of 25% (and <50%) for acetone for instrument V6 on 05/14/09 @ 05:01 affecting samples BPS1-3001-SB-099M and BPS1-3001-SB-131M. The positive and non-detected results for acetone were qualified estimated, (J) and (UJ), respectively, for samples BPS1-3001-SB-099M and BPS1-3001-SB-131M.

Polychlorinated Biphenyls (PCB)

The % recovery was less than the quality control limit and >10% for the surrogate decachlorobiphenyl (DCB) on both the CLPPestI and the CLPPestII gas chromatography columns for sample BPS1-3001-SB-099M. There was no re-analysis of the sample. The non-detected PCB results were qualified estimated, (UJ), for sample BPS1-3001-SB-099M.

Additional Comments

Positive results below the Reporting Limit (RL) and above the detection limit were qualified as estimated, (J), due to uncertainty near the detection limit.

EXECUTIVE SUMMARY

Laboratory Performance Issues: Initial calibration RRFs less than the quality control limit for acetone and 2-butanone resulted in data qualification. Continuing calibration %Ds greater than the QC limit for several analytes resulted in data qualification for positive and non-detected sample results. A low surrogate % recovery for DCB resulted in the qualification of non-detected PCB results for sample BPS1-3001-SB-099M.

Other Factors Affecting Data Quality: Two samples collected as ground water samples contained significant sediment and were analyzed by the laboratory as wet sediments. Results were reported for these two samples in units of µg/kg reported on a wet basis.

The data for these analyses were reviewed with reference to the Organic Data Validation (10/99), USEPA Region II Standard Operating Procedures for Validating Volatile Organic Compounds by SW-846 Method 8260B (October 2006), validating PCB compounds by SW-846 Method 8082A (Oct. 2006), and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (January 2006).

TetraTech NUS
Joseph Kalinyak
Chemist/Data Validator

TetraTech NUS
Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:
1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as Reported by the Laboratory
3. Appendix C – Region II Data Validation Forms
4. Appendix D - Support Documentation

Appendix A

Qualified Analytical Results

Value Qualifier Key (Val Qual)

J – Positive result is considered estimated, "J", as a result of technical non-compliances.

UJ – Non-detected result is considered estimated, "UJ", as a result of technical non-compliances.

U - Value is a non-detect as reported by the laboratory.

UR – Non-detected result is considered rejected, (UR), as a result of technical non-compliances.

DATA QUALIFICATION CODE (QUAL CODE)

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's r < 0.995 / ICP PDS Recovery Noncompliance
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 00622	NSAMPLE	BPS1-3001-GW-071M			BPS1-3001-GW-191M		
SDG: H0802	LAB_ID	H0802-06A			H0802-09A		
FRACTION: OV	SAMP_DATE	5/6/2009			5/11/2009		
MEDIA: SEDIMENT	QC_TYPE	NM			NM		
	UNITS	UG/KG			UG/KG		
	PCT_SOLIDS						
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		5	U		4.7	U	
1,1,2,2-TETRACHLOROETHANE		5	U		4.7	U	
1,1,2-TRICHLOROETHANE		5	U		4.7	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		5	U		4.7	U	
1,1-DICHLOROETHANE		5	U		4.7	U	
1,1-DICHLOROETHENE		5	U		4.7	U	
1,2,4-TRICHLOROBENZENE		5	U		4.7	U	
1,2-DIBROMO-3-CHLOROPROPANE		5	U		4.7	U	
1,2-DIBROMOETHANE		5	U		4.7	U	
1,2-DICHLOROBENZENE		5	U		4.7	U	
1,2-DICHLOROETHANE		5	U		4.7	U	
1,2-DICHLOROPROPANE		5	U		4.7	U	
1,3-DICHLOROBENZENE		5	U		4.7	U	
1,4-DICHLOROBENZENE		5	U		4.7	U	
2-BUTANONE		5	U		4.7	U	
2-HEXANONE		5	U		4.7	U	
4-METHYL-2-PENTANONE		5	U		4.7	U	
ACETONE		4.2	J	P	6		
BENZENE		5	U		4.7	U	
BROMODICHLOROMETHANE		5	U		4.7	U	
BROMOFORM		5	U		4.7	U	
BROMOMETHANE		5	UJ	C	4.7	UJ	C
CARBON DISULFIDE		5	U		4.7	U	
CARBON TETRACHLORIDE		5	U		4.7	U	
CHLOROBENZENE		5	U		4.7	U	
CHLORODIBROMOMETHANE		5	U		4.7	U	
CHLOROETHANE		5	UJ	C	4.7	UJ	C
CHLOROFORM		5	U		4.7	U	
CHLOROMETHANE		5	UJ	C	4.7	UJ	C
CIS-1,2-DICHLOROETHENE		5	U		4.7	U	
CIS-1,3-DICHLOROPROPENE		5	U		4.7	U	
CYCLOHEXANE		5	U		4.7	U	
DICHLORODIFLUOROMETHANE		5	U		4.7	U	
ETHYLBENZENE		5	U		4.7	U	
ISOPROPYLBENZENE		5	U		4.7	U	
METHYL ACETATE		5	U		4.7	U	

PROJ_NO: 00622 SDG: H0802 FRACTION: OV MEDIA: SEDIMENT	NSAMPLE	BPS1-3001-GW-071M			BPS1-3001-GW-191M		
	LAB_ID	H0802-06A			H0802-09A		
	SAMP_DATE	5/6/2009			5/11/2009		
	QC_TYPE	NM			NM		
	UNITS	UG/KG			UG/KG		
	PCT_SOLIDS						
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL CYCLOHEXANE		5	U		4.7	U	
METHYL TERT-BUTYL ETHER		5	U		4.7	U	
METHYLENE CHLORIDE		5	U		4.7	U	
STYRENE		5	U		4.7	U	
TETRACHLOROETHENE		5	U		4.7	U	
TOLUENE		5	U		4.7	U	
TOTAL XYLENES		5	U		4.7	U	
TRANS-1,2-DICHLOROETHENE		5	U		4.7	U	
TRANS-1,3-DICHLOROPROPENE		5	U		4.7	U	
TRICHLOROETHENE		5	U		4.7	U	
TRICHLOROFLUOROMETHANE		5	UJ	C	4.7	UJ	C
VINYL CHLORIDE		5	UJ	C	4.7	UJ	C

PROJ_NO: 00622	NSAMPLE	BPS1-3001-SB-041M			BPS1-3001-SB-046M			BPS1-3001-SB-051M			BPS1-3001-SB-061M		
SDG: H0802	LAB_ID	H0802-02B			H0802-03B			H0802-04B			H0802-05A		
FRACTION: OV	SAMP_DATE	5/6/2009			5/6/2009			5/6/2009			5/6/2009		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	84.0			80.0			87.0			83.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		6	U		5.9	U		5.6	U		5.7	U	
1,1,2,2-TETRACHLOROETHANE		6	U		5.9	U		5.6	U		5.7	U	
1,1,2-TRICHLOROETHANE		6	U		5.9	U		5.6	U		5.7	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		6	U		5.9	U		5.6	U		5.7	U	
1,1-DICHLOROETHANE		6	U		5.9	U		5.6	U		5.7	U	
1,1-DICHLOROETHENE		6	U		5.9	U		5.6	U		5.7	U	
1,2,4-TRICHLOROBENZENE		6	U		5.9	U		5.6	U		5.7	U	
1,2-DIBROMO-3-CHLOROPROPANE		6	U		5.9	U		5.6	U		5.7	U	
1,2-DIBROMOETHANE		6	U		5.9	U		5.6	U		5.7	U	
1,2-DICHLOROBENZENE		6	U		5.9	U		5.6	U		5.7	U	
1,2-DICHLOROETHANE		6	U		5.9	U		5.6	U		5.7	U	
1,2-DICHLOROPROPANE		6	U		5.9	U		5.6	U		5.7	U	
1,3-DICHLOROBENZENE		6	U		5.9	U		5.6	U		5.7	U	
1,4-DICHLOROBENZENE		6	U		5.9	U		5.6	U		5.7	U	
2-BUTANONE		6	U		5.9	U		5.6	U		5.7	U	
2-HEXANONE		6	U		5.9	U		5.6	U		5.7	U	
4-METHYL-2-PENTANONE		6	U		5.9	U		5.6	U		5.7	U	
ACETONE		5.6	J	P	3.6	J	P	3.7	J	P	2.8	J	P
BENZENE		6	U		5.9	U		5.6	U		5.7	U	
BROMODICHLOROMETHANE		6	U		5.9	U		5.6	U		5.7	U	
BROMOFORM		6	U		5.9	U		5.6	U		5.7	U	
BROMOMETHANE		6	UJ	C	5.9	UJ	C	5.6	UJ	C	5.7	UJ	C
CARBON DISULFIDE		6	U		5.9	U		5.6	U		5.7	U	
CARBON TETRACHLORIDE		6	U		5.9	U		5.6	U		5.7	U	
CHLOROBENZENE		6	U		5.9	U		5.6	U		5.7	U	
CHLORODIBROMOMETHANE		6	U		5.9	U		5.6	U		5.7	U	
CHLOROETHANE		6	UJ	C	5.9	UJ	C	5.6	UJ	C	5.7	UJ	C
CHLOROFORM		6	U		5.9	U		5.6	U		5.7	U	
CHLOROMETHANE		6	UJ	C	5.9	UJ	C	5.6	UJ	C	5.7	UJ	C
CIS-1,2-DICHLOROETHENE		6	U		5.9	U		5.6	U		5.7	U	
CIS-1,3-DICHLOROPROPENE		6	U		5.9	U		5.6	U		5.7	U	
CYCLOHEXANE		6	U		5.9	U		5.6	U		5.7	U	
DICHLORODIFLUOROMETHANE		6	U		5.9	U		5.6	U		5.7	U	
ETHYLBENZENE		6	U		5.9	U		5.6	U		5.7	U	
ISOPROPYLBENZENE		6	U		5.9	U		5.6	U		5.7	U	
METHYL ACETATE		6	U		5.9	U		5.6	U		5.7	U	

PROJ_NO: 00622	NSAMPLE	BPS1-3001-SB-099M			BPS1-3001-SB-131M		
SDG: H0802	LAB_ID	H0802-07B			H0802-08B		
FRACTION: OV	SAMP_DATE	5/7/2009			5/7/2009		
MEDIA: SOIL	QC_TYPE	NM			NM		
	UNITS	UG/KG			UG/KG		
	PCT_SOLIDS	78.0			80.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		5.8	U		5.8	U	
1,1,2,2-TETRACHLOROETHANE		5.8	U		5.8	U	
1,1,2-TRICHLOROETHANE		5.8	U		5.8	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		5.8	U		5.8	U	
1,1-DICHLOROETHANE		5.8	U		5.8	U	
1,1-DICHLOROETHENE		5.8	U		5.8	U	
1,2,4-TRICHLOROBENZENE		5.8	U		5.8	U	
1,2-DIBROMO-3-CHLOROPROPANE		5.8	U		5.8	U	
1,2-DIBROMOETHANE		5.8	U		5.8	U	
1,2-DICHLOROBENZENE		5.8	U		5.8	U	
1,2-DICHLOROETHANE		5.8	U		5.8	U	
1,2-DICHLOROPROPANE		5.8	U		5.8	U	
1,3-DICHLOROBENZENE		5.8	U		5.8	U	
1,4-DICHLOROBENZENE		5.8	U		5.8	U	
2-BUTANONE		5.8	U		5.8	U	
2-HEXANONE		5.8	U		5.8	U	
4-METHYL-2-PENTANONE		5.8	U		5.8	U	
ACETONE		26	J	C	5.8	UJ	C
BENZENE		5.8	U		5.8	U	
BROMODICHLOROMETHANE		5.8	U		5.8	U	
BROMOFORM		5.8	U		5.8	U	
BROMOMETHANE		5.8	U		5.8	U	
CARBON DISULFIDE		3.7	J	P	5.8	U	
CARBON TETRACHLORIDE		5.8	U		5.8	U	
CHLOROBENZENE		5.8	U		5.8	U	
CHLORODIBROMOMETHANE		5.8	U		5.8	U	
CHLOROETHANE		5.8	U		5.8	U	
CHLOROFORM		5.8	U		5.8	U	
CHLOROMETHANE		5.8	U		5.8	U	
CIS-1,2-DICHLOROETHENE		5.8	U		5.8	U	
CIS-1,3-DICHLOROPROPENE		5.8	U		5.8	U	
CYCLOHEXANE		5.8	U		5.8	U	
DICHLORODIFLUOROMETHANE		5.8	U		5.8	U	
ETHYLBENZENE		5.8	U		5.8	U	
ISOPROPYLBENZENE		5.8	U		5.8	U	
METHYL ACETATE		5.8	U		5.8	U	

PROJ_NO: 00622	NSAMPLE	BPS1-3001-SB-041M			BPS1-3001-SB-046M			BPS1-3001-SB-051M			BPS1-3001-SB-061M		
SDG: H0802	LAB_ID	H0802-02B			H0802-03B			H0802-04B			H0802-05A		
FRACTION: OV	SAMP_DATE	5/6/2009			5/6/2009			5/6/2009			5/6/2009		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	84.0			80.0			87.0			83.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL CYCLOHEXANE		6	U		5.9	U		5.6	U		5.7	U	
METHYL TERT-BUTYL ETHER		6	U		5.9	U		5.6	U		5.7	U	
METHYLENE CHLORIDE		6	U		2.8	J	P	2.4	J	P	2.7	J	P
STYRENE		6	U		5.9	U		5.6	U		5.7	U	
TETRACHLOROETHENE		6	U		5.9	U		5.6	U		5.7	U	
TOLUENE		6	U		5.9	U		5.6	U		5.7	U	
TOTAL XYLENES		6	U		5.9	U		5.6	U		5.7	U	
TRANS-1,2-DICHLOROETHENE		6	U		5.9	U		5.6	U		5.7	U	
TRANS-1,3-DICHLOROPROPENE		6	U		5.9	U		5.6	U		5.7	U	
TRICHLOROETHENE		6	U		5.9	U		5.6	U		5.7	U	
TRICHLOROFLUOROMETHANE		6	UJ	C	5.9	UJ	C	5.6	UJ	C	5.7	UJ	C
VINYL CHLORIDE		6	UJ	C	5.9	UJ	C	5.6	UJ	C	5.7	UJ	C

PROJ_NO: 00622	NSAMPLE	BPS1-3001-SB-099M			BPS1-3001-SB-131M		
SDG: H0802	LAB_ID	H0802-07B			H0802-08B		
FRACTION: OV	SAMP_DATE	5/7/2009			5/7/2009		
MEDIA: SOIL	QC_TYPE	NM			NM		
	UNITS	UG/KG			UG/KG		
	PCT_SOLIDS	78.0			80.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL CYCLOHEXANE		5.8	U		5.8	U	
METHYL TERT-BUTYL ETHER		5.8	U		5.8	U	
METHYLENE CHLORIDE		5.8	U		5.8	U	
STYRENE		5.8	U		5.8	U	
TETRACHLOROETHENE		5.8	U		5.8	U	
TOLUENE		5.8	U		5.8	U	
TOTAL XYLENES		5.8	U		5.8	U	
TRANS-1,2-DICHLOROETHENE		5.8	U		5.8	U	
TRANS-1,3-DICHLOROPROPENE		5.8	U		5.8	U	
TRICHLOROETHENE		5.8	U		5.8	U	
TRICHLOROFLUOROMETHANE		5.8	U		5.8	U	
VINYL CHLORIDE		5.8	U		5.8	U	

PROJ_NO: 00622	NSAMPLE	BPS1-TB-050609M
SDG: H0802	LAB_ID	H0802-01A
FRACTION: OV	SAMP_DATE	5/6/2009
MEDIA: WATER	QC_TYPE	NM
	UNITS	UG/L
	PCT_SOLIDS	
	DUP_OF	

PARAMETER	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE	5	U	
1,1,2,2-TETRACHLOROETHANE	5	UJ	C
1,1,2-TRICHLOROETHANE	5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	5	U	
1,1-DICHLOROETHANE	5	U	
1,1-DICHLOROETHENE	5	U	
1,2,4-TRICHLOROBENZENE	5	U	
1,2-DIBROMO-3-CHLOROPROPANE	5	UJ	C
1,2-DIBROMOETHANE	5	U	
1,2-DICHLOROBENZENE	5	U	
1,2-DICHLOROETHANE	5	U	
1,2-DICHLOROPROPANE	5	U	
1,3-DICHLOROBENZENE	5	U	
1,4-DICHLOROBENZENE	5	U	
2-BUTANONE	5	UR	C
2-HEXANONE	5	U	
4-METHYL-2-PENTANONE	5	UJ	C
ACETONE	5	UR	C
BENZENE	5	U	
BROMODICHLOROMETHANE	5	U	
BROMOFORM	5	U	
BROMOMETHANE	5	U	
CARBON DISULFIDE	5	UJ	C
CARBON TETRACHLORIDE	5	U	
CHLOROBENZENE	5	U	
CHLORODIBROMOMETHANE	5	U	
CHLOROETHANE	5	U	
CHLOROFORM	5	U	
CHLOROMETHANE	5	U	
CIS-1,2-DICHLOROETHENE	5	U	
CIS-1,3-DICHLOROPROPENE	5	U	
CYCLOHEXANE	5	U	
DICHLORODIFLUOROMETHANE	5	U	
ETHYLBENZENE	5	U	
ISOPROPYLBENZENE	5	U	
METHYL ACETATE	5	UJ	C

PROJ_NO: 00622	NSAMPLE	BPS1-TB-050609M
SDG: H0802	LAB_ID	H0802-01A
FRACTION: OV	SAMP_DATE	5/6/2009
MEDIA: WATER	QC_TYPE	NM
	UNITS	UG/L
	PCT_SOLIDS	
	DUP_OF	

PARAMETER	RESULT	VQL	QLCD
METHYL CYCLOHEXANE	5	U	
METHYL TERT-BUTYL ETHER	5	U	
METHYLENE CHLORIDE	5	U	
STYRENE	5	U	
TETRACHLOROETHENE	5	U	
TOLUENE	5	U	
TOTAL XYLENES	5	U	
TRANS-1,2-DICHLOROETHENE	5	U	
TRANS-1,3-DICHLOROPROPENE	5	U	
TRICHLOROETHENE	5	U	
TRICHLOROFLUOROMETHANE	5	U	
VINYL CHLORIDE	5	U	

PROJ_NO: 00622	NSAMPLE	BPS1-3001-SB-041M			BPS1-3001-SB-046M			BPS1-3001-SB-051M			BPS1-3001-SB-099M		
SDG: H0802	LAB_ID	H0802-02A			H0802-03A			H0802-04A			H0802-07A		
FRACTION: PEST/PCB	SAMP_DATE	5/6/2009			5/6/2009			5/6/2009			5/7/2009		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	84.0			80.0			87.0			78.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		39	U		41	U		38	U		42	UJ	R
AROCLOR-1221		39	U		41	U		38	U		42	UJ	R
AROCLOR-1232		39	U		41	U		38	U		42	UJ	R
AROCLOR-1242		39	U		41	U		38	U		42	UJ	R
AROCLOR-1248		39	U		41	U		38	U		42	UJ	R
AROCLOR-1254		39	U		41	U		38	U		42	UJ	R
AROCLOR-1260		39	U		41	U		38	U		42	UJ	R

PROJ_NO: 00622	NSAMPLE	BPS1-3001-SB-131M		
SDG: H0802	LAB_ID	H0802-08A		
FRACTION: PEST/PCB	SAMP_DATE	5/7/2009		
MEDIA: SOIL	QC_TYPE	NM		
	UNITS	UG/KG		
	PCT_SOLIDS	80.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
AROCLOR-1016		41	U	
AROCLOR-1221		41	U	
AROCLOR-1232		41	U	
AROCLOR-1242		41	U	
AROCLOR-1248		41	U	
AROCLOR-1254		41	U	
AROCLOR-1260		41	U	

Appendix B

Results as Reported by the Laboratory

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

BPS1-3001-GW-071 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0802-06A

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V6G6820.D

Level: (TRACE/LOW/MED) LOW Date Received: 05/08/2009

% Moisture: not dec. Date Analyzed: 05/13/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
67-64-1	Acetone	4.2	J
75-15-0	Carbon disulfide	5.0	U
75-09-2	Methylene chloride	5.0	U
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-butyl ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
78-93-3	2-Butanone	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
67-66-3	Chloroform	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
71-43-2	Benzene	5.0	U
79-01-6	Trichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
1330-20-7	Xylene (Total)	5.0	U

SW846

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

BPS1-3001-GW-071 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0802-06A

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V6G6820.D

Level: (TRACE/LOW/MED) LOW Date Received: 05/08/2009

% Moisture: not dec. Date Analyzed: 05/13/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U
110-82-7	Cyclohexane	5.0	U
79-20-9	Methyl acetate	5.0	U
108-87-2	Methylcyclohexane	5.0	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.
BPS1-3001-GW-071
M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0802-06A

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V6G6820.D

Level: (TRACE or LOW/MED) LOW Date Received: 05/08/2009

% Moisture: not dec. Date Analyzed: 05/13/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Purge Volume: 10.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01	2613-76-5	1H-Indene, 2,3-dihydro-1,1,3	17.015	9.1	NJ
02		Unknown-01	17.574	19	J
	E966796[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

SW846

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

BPS1-3001-SB-099 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0802-07B

Sample wt/vol: 5.50 (g/mL) G Lab File ID: V6G6851.D

Level: (TRACE/LOW/MED) LOW Date Received: 05/08/2009

% Moisture: not dec. 22 Date Analyzed: 05/14/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	5.8	U
74-87-3	Chloromethane	5.8	U
75-01-4	Vinyl chloride	5.8	U
74-83-9	Bromomethane	5.8	U
75-00-3	Chloroethane	5.8	U
75-69-4	Trichlorofluoromethane	5.8	U
75-35-4	1,1-Dichloroethene	5.8	U
67-64-1	Acetone	26	
75-15-0	Carbon disulfide	3.7	J
75-09-2	Methylene chloride	5.8	U
156-60-5	trans-1,2-Dichloroethene	5.8	U
1634-04-4	Methyl tert-butyl ether	5.8	U
75-34-3	1,1-Dichloroethane	5.8	U
78-93-3	2-Butanone	5.8	U
156-59-2	cis-1,2-Dichloroethene	5.8	U
67-66-3	Chloroform	5.8	U
71-55-6	1,1,1-Trichloroethane	5.8	U
56-23-5	Carbon tetrachloride	5.8	U
107-06-2	1,2-Dichloroethane	5.8	U
71-43-2	Benzene	5.8	U
79-01-6	Trichloroethene	5.8	U
78-87-5	1,2-Dichloropropane	5.8	U
75-27-4	Bromodichloromethane	5.8	U
10061-01-5	cis-1,3-Dichloropropene	5.8	U
108-10-1	4-Methyl-2-pentanone	5.8	U
108-88-3	Toluene	5.8	U
10061-02-6	trans-1,3-Dichloropropene	5.8	U
79-00-5	1,1,2-Trichloroethane	5.8	U
127-18-4	Tetrachloroethene	5.8	U
591-78-6	2-Hexanone	5.8	U
124-48-1	Dibromochloromethane	5.8	U
106-93-4	1,2-Dibromoethane	5.8	U
108-90-7	Chlorobenzene	5.8	U
100-41-4	Ethylbenzene	5.8	U
1330-20-7	Xylene (Total)	5.8	U

SW846

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

BPS1-3001-GW-191 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0802-09A

Sample wt/vol: 5.30 (g/mL) G Lab File ID: V6G6821.D

Level: (TRACE/LOW/MED) LOW Date Received: 05/12/2009

% Moisture: not dec. Date Analyzed: 05/13/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	4.7	U
74-87-3	Chloromethane	4.7	U
75-01-4	Vinyl chloride	4.7	U
74-83-9	Bromomethane	4.7	U
75-00-3	Chloroethane	4.7	U
75-69-4	Trichlorofluoromethane	4.7	U
75-35-4	1,1-Dichloroethene	4.7	U
67-64-1	Acetone	6.0	
75-15-0	Carbon disulfide	4.7	U
75-09-2	Methylene chloride	4.7	U
156-60-5	trans-1,2-Dichloroethene	4.7	U
1634-04-4	Methyl tert-butyl ether	4.7	U
75-34-3	1,1-Dichloroethane	4.7	U
78-93-3	2-Butanone	4.7	U
156-59-2	cis-1,2-Dichloroethene	4.7	U
67-66-3	Chloroform	4.7	U
71-55-6	1,1,1-Trichloroethane	4.7	U
56-23-5	Carbon tetrachloride	4.7	U
107-06-2	1,2-Dichloroethane	4.7	U
71-43-2	Benzene	4.7	U
79-01-6	Trichloroethene	4.7	U
78-87-5	1,2-Dichloropropane	4.7	U
75-27-4	Bromodichloromethane	4.7	U
10061-01-5	cis-1,3-Dichloropropene	4.7	U
108-10-1	4-Methyl-2-pentanone	4.7	U
108-88-3	Toluene	4.7	U
10061-02-6	trans-1,3-Dichloropropene	4.7	U
79-00-5	1,1,2-Trichloroethane	4.7	U
127-18-4	Tetrachloroethene	4.7	U
591-78-6	2-Hexanone	4.7	U
124-48-1	Dibromochloromethane	4.7	U
106-93-4	1,2-Dibromoethane	4.7	U
108-90-7	Chlorobenzene	4.7	U
100-41-4	Ethylbenzene	4.7	U
1330-20-7	Xylene (Total)	4.7	U

SW846

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

BPS1-3001-GW-191 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0802-09A

Sample wt/vol: 5.30 (g/mL) G Lab File ID: V6G6821.D

Level: (TRACE/LOW/MED) LOW Date Received: 05/12/2009

% Moisture: not dec. Date Analyzed: 05/13/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-42-5	Styrene	4.7	U
75-25-2	Bromoform	4.7	U
98-82-8	Isopropylbenzene	4.7	U
79-34-5	1,1,2,2-Tetrachloroethane	4.7	U
541-73-1	1,3-Dichlorobenzene	4.7	U
106-46-7	1,4-Dichlorobenzene	4.7	U
95-50-1	1,2-Dichlorobenzene	4.7	U
96-12-8	1,2-Dibromo-3-chloropropane	4.7	U
120-82-1	1,2,4-Trichlorobenzene	4.7	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	4.7	U
110-82-7	Cyclohexane	4.7	U
79-20-9	Methyl acetate	4.7	U
108-87-2	Methylcyclohexane	4.7	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.
BPS1-3001-GW-191
M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0802-09A

Sample wt/vol: 5.30 (g/mL) G Lab File ID: V6G6821.D

Level: (TRACE or LOW/MED) LOW Date Received: 05/12/2009

% Moisture: not dec. Date Analyzed: 05/13/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Purge Volume: 10.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	11.501	17	J
	E966796[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

SW846

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

BPS1-3001-SB-041 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0802-02B

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V6G6816.D

Level: (TRACE/LOW/MED) LOW Date Received: 05/08/2009

% Moisture: not dec. 16 Date Analyzed: 05/13/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	6.0	U
74-87-3	Chloromethane	6.0	U
75-01-4	Vinyl chloride	6.0	U
74-83-9	Bromomethane	6.0	U
75-00-3	Chloroethane	6.0	U
75-69-4	Trichlorofluoromethane	6.0	U
75-35-4	1,1-Dichloroethene	6.0	U
67-64-1	Acetone	5.6	J
75-15-0	Carbon disulfide	6.0	U
75-09-2	Methylene chloride	6.0	U
156-60-5	trans-1,2-Dichloroethene	6.0	U
1634-04-4	Methyl tert-butyl ether	6.0	U
75-34-3	1,1-Dichloroethane	6.0	U
78-93-3	2-Butanone	6.0	U
156-59-2	cis-1,2-Dichloroethene	6.0	U
67-66-3	Chloroform	6.0	U
71-55-6	1,1,1-Trichloroethane	6.0	U
56-23-5	Carbon tetrachloride	6.0	U
107-06-2	1,2-Dichloroethane	6.0	U
71-43-2	Benzene	6.0	U
79-01-6	Trichloroethene	6.0	U
78-87-5	1,2-Dichloropropane	6.0	U
75-27-4	Bromodichloromethane	6.0	U
10061-01-5	cis-1,3-Dichloropropene	6.0	U
108-10-1	4-Methyl-2-pentanone	6.0	U
108-88-3	Toluene	6.0	U
10061-02-6	trans-1,3-Dichloropropene	6.0	U
79-00-5	1,1,2-Trichloroethane	6.0	U
127-18-4	Tetrachloroethene	6.0	U
591-78-6	2-Hexanone	6.0	U
124-48-1	Dibromochloromethane	6.0	U
106-93-4	1,2-Dibromoethane	6.0	U
108-90-7	Chlorobenzene	6.0	U
100-41-4	Ethylbenzene	6.0	U
1330-20-7	Xylene (Total)	6.0	U

SW846

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

BPS1-3001-SB-041 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0802-02B

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V6G6816.D

Level: (TRACE/LOW/MED) LOW Date Received: 05/08/2009

% Moisture: not dec. 16 Date Analyzed: 05/13/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-42-5	Styrene	6.0	U
75-25-2	Bromoform	6.0	U
98-82-8	Isopropylbenzene	6.0	U
79-34-5	1,1,2,2-Tetrachloroethane	6.0	U
541-73-1	1,3-Dichlorobenzene	6.0	U
106-46-7	1,4-Dichlorobenzene	6.0	U
95-50-1	1,2-Dichlorobenzene	6.0	U
96-12-8	1,2-Dibromo-3-chloropropane	6.0	U
120-82-1	1,2,4-Trichlorobenzene	6.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	6.0	U
110-82-7	Cyclohexane	6.0	U
79-20-9	Methyl acetate	6.0	U
108-87-2	Methylcyclohexane	6.0	U

SW846

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.
BPS1-3001-SB-041 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0802-02B

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V6G6816.D

Level: (TRACE or LOW/MED) LOW Date Received: 05/08/2009

% Moisture: not dec. 16 Date Analyzed: 05/13/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Purge Volume: 10.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01	90-12-0	Naphthalene, 1-methyl-	16.461	7.6	NJ
02	582-16-1	Naphthalene, 2,7-dimethyl-	17.392	6.6	NJ
03	575-41-7	Naphthalene, 1,3-dimethyl-	17.569	12	NJ
	E966796[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

SW846

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

BPS1-3001-SB-046 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0802-03B

Sample wt/vol: 5.30 (g/mL) G Lab File ID: V6G6817.D

Level: (TRACE/LOW/MED) LOW Date Received: 05/08/2009

% Moisture: not dec. 20 Date Analyzed: 05/13/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	5.9	U
74-87-3	Chloromethane	5.9	U
75-01-4	Vinyl chloride	5.9	U
74-83-9	Bromomethane	5.9	U
75-00-3	Chloroethane	5.9	U
75-69-4	Trichlorofluoromethane	5.9	U
75-35-4	1,1-Dichloroethene	5.9	U
67-64-1	Acetone	3.6	J
75-15-0	Carbon disulfide	5.9	U
75-09-2	Methylene chloride	2.8	J
156-60-5	trans-1,2-Dichloroethene	5.9	U
1634-04-4	Methyl tert-butyl ether	5.9	U
75-34-3	1,1-Dichloroethane	5.9	U
78-93-3	2-Butanone	5.9	U
156-59-2	cis-1,2-Dichloroethene	5.9	U
67-66-3	Chloroform	5.9	U
71-55-6	1,1,1-Trichloroethane	5.9	U
56-23-5	Carbon tetrachloride	5.9	U
107-06-2	1,2-Dichloroethane	5.9	U
71-43-2	Benzene	5.9	U
79-01-6	Trichloroethene	5.9	U
78-87-5	1,2-Dichloropropane	5.9	U
75-27-4	Bromodichloromethane	5.9	U
10061-01-5	cis-1,3-Dichloropropene	5.9	U
108-10-1	4-Methyl-2-pentanone	5.9	U
108-88-3	Toluene	5.9	U
10061-02-6	trans-1,3-Dichloropropene	5.9	U
79-00-5	1,1,2-Trichloroethane	5.9	U
127-18-4	Tetrachloroethene	5.9	U
591-78-6	2-Hexanone	5.9	U
124-48-1	Dibromochloromethane	5.9	U
106-93-4	1,2-Dibromoethane	5.9	U
108-90-7	Chlorobenzene	5.9	U
100-41-4	Ethylbenzene	5.9	U
1330-20-7	Xylene (Total)	5.9	U

SW846

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

BPS1-3001-SB-046 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0802-03B

Sample wt/vol: 5.30 (g/mL) G Lab File ID: V6G6817.D

Level: (TRACE/LOW/MED) LOW Date Received: 05/08/2009

% Moisture: not dec. 20 Date Analyzed: 05/13/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-42-5	Styrene	5.9	U
75-25-2	Bromoform	5.9	U
98-82-8	Isopropylbenzene	5.9	U
79-34-5	1,1,2,2-Tetrachloroethane	5.9	U
541-73-1	1,3-Dichlorobenzene	5.9	U
106-46-7	1,4-Dichlorobenzene	5.9	U
95-50-1	1,2-Dichlorobenzene	5.9	U
96-12-8	1,2-Dibromo-3-chloropropane	5.9	U
120-82-1	1,2,4-Trichlorobenzene	5.9	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.9	U
110-82-7	Cyclohexane	5.9	U
79-20-9	Methyl acetate	5.9	U
108-87-2	Methylcyclohexane	5.9	U

SW846

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.
BPS1-3001-SB-046
M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0802-03B

Sample wt/vol: 5.30 (g/mL) G Lab File ID: V6G6817.D

Level: (TRACE or LOW/MED) LOW Date Received: 05/08/2009

% Moisture: not dec. 20 Date Analyzed: 05/13/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Purge Volume: 10.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	16.464	10	J
02	575-41-7	Naphthalene, 1,3-dimethyl-	17.572	9.6	NJ
	E966796[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

SW846

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

BPS1-3001-SB-051 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0802-04B

Sample wt/vol: 5.10 (g/mL) G Lab File ID: V6G6818.D

Level: (TRACE/LOW/MED) LOW Date Received: 05/08/2009

% Moisture: not dec. 13 Date Analyzed: 05/13/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	5.6	U
74-87-3	Chloromethane	5.6	U
75-01-4	Vinyl chloride	5.6	U
74-83-9	Bromomethane	5.6	U
75-00-3	Chloroethane	5.6	U
75-69-4	Trichlorofluoromethane	5.6	U
75-35-4	1,1-Dichloroethene	5.6	U
67-64-1	Acetone	3.7	J
75-15-0	Carbon disulfide	5.6	U
75-09-2	Methylene chloride	2.4	J
156-60-5	trans-1,2-Dichloroethene	5.6	U
1634-04-4	Methyl tert-butyl ether	5.6	U
75-34-3	1,1-Dichloroethane	5.6	U
78-93-3	2-Butanone	5.6	U
156-59-2	cis-1,2-Dichloroethene	5.6	U
67-66-3	Chloroform	5.6	U
71-55-6	1,1,1-Trichloroethane	5.6	U
56-23-5	Carbon tetrachloride	5.6	U
107-06-2	1,2-Dichloroethane	5.6	U
71-43-2	Benzene	5.6	U
79-01-6	Trichloroethene	5.6	U
78-87-5	1,2-Dichloropropane	5.6	U
75-27-4	Bromodichloromethane	5.6	U
10061-01-5	cis-1,3-Dichloropropene	5.6	U
108-10-1	4-Methyl-2-pentanone	5.6	U
108-88-3	Toluene	5.6	U
10061-02-6	trans-1,3-Dichloropropene	5.6	U
79-00-5	1,1,2-Trichloroethane	5.6	U
127-18-4	Tetrachloroethene	5.6	U
591-78-6	2-Hexanone	5.6	U
124-48-1	Dibromochloromethane	5.6	U
106-93-4	1,2-Dibromoethane	5.6	U
108-90-7	Chlorobenzene	5.6	U
100-41-4	Ethylbenzene	5.6	U
1330-20-7	Xylene (Total)	5.6	U

SW846

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

BPS1-3001-SB-051 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0802-04B

Sample wt/vol: 5.10 (g/mL) G Lab File ID: V6G6818.D

Level: (TRACE/LOW/MED) LOW Date Received: 05/08/2009

% Moisture: not dec. 13 Date Analyzed: 05/13/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-42-5	Styrene	5.6	U
75-25-2	Bromoform	5.6	U
98-82-8	Isopropylbenzene	5.6	U
79-34-5	1,1,2,2-Tetrachloroethane	5.6	U
541-73-1	1,3-Dichlorobenzene	5.6	U
106-46-7	1,4-Dichlorobenzene	5.6	U
95-50-1	1,2-Dichlorobenzene	5.6	U
96-12-8	1,2-Dibromo-3-chloropropane	5.6	U
120-82-1	1,2,4-Trichlorobenzene	5.6	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.6	U
110-82-7	Cyclohexane	5.6	U
79-20-9	Methyl acetate	5.6	U
108-87-2	Methylcyclohexane	5.6	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.
BPS1-3001-SB-051 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0802-04B

Sample wt/vol: 5.10 (g/mL) G Lab File ID: V6G6818.D

Level: (TRACE or LOW/MED) LOW Date Received: 05/08/2009

% Moisture: not dec. 13 Date Analyzed: 05/13/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796 [1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

SW846

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

BPS1-3001-SB-061 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0802-05A

Sample wt/vol: 5.30 (g/mL) G Lab File ID: V6G6819.D

Level: (TRACE/LOW/MED) LOW Date Received: 05/08/2009

% Moisture: not dec. 17 Date Analyzed: 05/13/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	5.7	U
74-87-3	Chloromethane	5.7	U
75-01-4	Vinyl chloride	5.7	U
74-83-9	Bromomethane	5.7	U
75-00-3	Chloroethane	5.7	U
75-69-4	Trichlorofluoromethane	5.7	U
75-35-4	1,1-Dichloroethene	5.7	U
67-64-1	Acetone	2.8	J
75-15-0	Carbon disulfide	5.7	U
75-09-2	Methylene chloride	2.7	J
156-60-5	trans-1,2-Dichloroethene	5.7	U
1634-04-4	Methyl tert-butyl ether	5.7	U
75-34-3	1,1-Dichloroethane	5.7	U
78-93-3	2-Butanone	5.7	U
156-59-2	cis-1,2-Dichloroethene	5.7	U
67-66-3	Chloroform	5.7	U
71-55-6	1,1,1-Trichloroethane	5.7	U
56-23-5	Carbon tetrachloride	5.7	U
107-06-2	1,2-Dichloroethane	5.7	U
71-43-2	Benzene	5.7	U
79-01-6	Trichloroethene	5.7	U
78-87-5	1,2-Dichloropropane	5.7	U
75-27-4	Bromodichloromethane	5.7	U
10061-01-5	cis-1,3-Dichloropropene	5.7	U
108-10-1	4-Methyl-2-pentanone	5.7	U
108-88-3	Toluene	5.7	U
10061-02-6	trans-1,3-Dichloropropene	5.7	U
79-00-5	1,1,2-Trichloroethane	5.7	U
127-18-4	Tetrachloroethene	5.7	U
591-78-6	2-Hexanone	5.7	U
124-48-1	Dibromochloromethane	5.7	U
106-93-4	1,2-Dibromoethane	5.7	U
108-90-7	Chlorobenzene	5.7	U
100-41-4	Ethylbenzene	5.7	U
1330-20-7	Xylene (Total)	5.7	U

SW846

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

BPS1-3001-SB-061 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0802-05A

Sample wt/vol: 5.30 (g/mL) G Lab File ID: V6G6819.D

Level: (TRACE/LOW/MED) LOW Date Received: 05/08/2009

% Moisture: not dec. 17 Date Analyzed: 05/13/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-42-5	Styrene	5.7	U
75-25-2	Bromoform	5.7	U
98-82-8	Isopropylbenzene	5.7	U
79-34-5	1,1,2,2-Tetrachloroethane	5.7	U
541-73-1	1,3-Dichlorobenzene	5.7	U
106-46-7	1,4-Dichlorobenzene	5.7	U
95-50-1	1,2-Dichlorobenzene	5.7	U
96-12-8	1,2-Dibromo-3-chloropropane	5.7	U
120-82-1	1,2,4-Trichlorobenzene	5.7	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.7	U
110-82-7	Cyclohexane	5.7	U
79-20-9	Methyl acetate	5.7	U
108-87-2	Methylcyclohexane	5.7	U

SW846

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.
BPS1-3001-SB-061
M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0802-05A

Sample wt/vol: 5.30 (g/mL) G Lab File ID: V6G6819.D

Level: (TRACE or LOW/MED) LOW Date Received: 05/08/2009

% Moisture: not dec. 17 Date Analyzed: 05/13/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796 [1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

SW846

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

BPS1-3001-SB-099 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0802-07B

Sample wt/vol: 5.50 (g/mL) G Lab File ID: V6G6851.D

Level: (TRACE/LOW/MED) LOW Date Received: 05/08/2009

% Moisture: not dec. 22 Date Analyzed: 05/14/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-42-5	Styrene	5.8	U
75-25-2	Bromoform	5.8	U
98-82-8	Isopropylbenzene	5.8	U
79-34-5	1,1,2,2-Tetrachloroethane	5.8	U
541-73-1	1,3-Dichlorobenzene	5.8	U
106-46-7	1,4-Dichlorobenzene	5.8	U
95-50-1	1,2-Dichlorobenzene	5.8	U
96-12-8	1,2-Dibromo-3-chloropropane	5.8	U
120-82-1	1,2,4-Trichlorobenzene	5.8	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.8	U
110-82-7	Cyclohexane	5.8	U
79-20-9	Methyl acetate	5.8	U
108-87-2	Methylcyclohexane	5.8	U

SW846

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.
BPS1-3001-SB-099
M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0802-07B

Sample wt/vol: 5.50 (g/mL) G Lab File ID: V6G6851.D

Level: (TRACE or LOW/MED) LOW Date Received: 05/08/2009

% Moisture: not dec. 22 Date Analyzed: 05/14/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Purge Volume: 10.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	1.800	41	J
	E966796[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

SW846

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

BPS1-3001-SB-131 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0802-08B

Sample wt/vol: 5.40 (g/mL) G Lab File ID: V6G6852.D

Level: (TRACE/LOW/MED) LOW Date Received: 05/08/2009

% Moisture: not dec. 20 Date Analyzed: 05/14/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	5.8	U
74-87-3	Chloromethane	5.8	U
75-01-4	Vinyl chloride	5.8	U
74-83-9	Bromomethane	5.8	U
75-00-3	Chloroethane	5.8	U
75-69-4	Trichlorofluoromethane	5.8	U
75-35-4	1,1-Dichloroethene	5.8	U
67-64-1	Acetone	5.8	U
75-15-0	Carbon disulfide	5.8	U
75-09-2	Methylene chloride	5.8	U
156-60-5	trans-1,2-Dichloroethene	5.8	U
1634-04-4	Methyl tert-butyl ether	5.8	U
75-34-3	1,1-Dichloroethane	5.8	U
78-93-3	2-Butanone	5.8	U
156-59-2	cis-1,2-Dichloroethene	5.8	U
67-66-3	Chloroform	5.8	U
71-55-6	1,1,1-Trichloroethane	5.8	U
56-23-5	Carbon tetrachloride	5.8	U
107-06-2	1,2-Dichloroethane	5.8	U
71-43-2	Benzene	5.8	U
79-01-6	Trichloroethene	5.8	U
78-87-5	1,2-Dichloropropane	5.8	U
75-27-4	Bromodichloromethane	5.8	U
10061-01-5	cis-1,3-Dichloropropene	5.8	U
108-10-1	4-Methyl-2-pentanone	5.8	U
108-88-3	Toluene	5.8	U
10061-02-6	trans-1,3-Dichloropropene	5.8	U
79-00-5	1,1,2-Trichloroethane	5.8	U
127-18-4	Tetrachloroethene	5.8	U
591-78-6	2-Hexanone	5.8	U
124-48-1	Dibromochloromethane	5.8	U
106-93-4	1,2-Dibromoethane	5.8	U
108-90-7	Chlorobenzene	5.8	U
100-41-4	Ethylbenzene	5.8	U
1330-20-7	Xylene (Total)	5.8	U

SW846

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

BPS1-3001-SB-131 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0802-08B

Sample wt/vol: 5.40 (g/mL) G Lab File ID: V6G6852.D

Level: (TRACE/LOW/MED) LOW Date Received: 05/08/2009

% Moisture: not dec. 20 Date Analyzed: 05/14/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-42-5	Styrene	5.8	U
75-25-2	Bromoform	5.8	U
98-82-8	Isopropylbenzene	5.8	U
79-34-5	1,1,2,2-Tetrachloroethane	5.8	U
541-73-1	1,3-Dichlorobenzene	5.8	U
106-46-7	1,4-Dichlorobenzene	5.8	U
95-50-1	1,2-Dichlorobenzene	5.8	U
96-12-8	1,2-Dibromo-3-chloropropane	5.8	U
120-82-1	1,2,4-Trichlorobenzene	5.8	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.8	U
110-82-7	Cyclohexane	5.8	U
79-20-9	Methyl acetate	5.8	U
108-87-2	Methylcyclohexane	5.8	U

SW846

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.
BPS1-3001-SB-131 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0802-08B

Sample wt/vol: 5.40 (g/mL) G Lab File ID: V6G6852.D

Level: (TRACE or LOW/MED) LOW Date Received: 05/08/2009

% Moisture: not dec. 20 Date Analyzed: 05/14/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796 [1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

SW846

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

BPS1-TB-050609M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: H0802-01A

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V2K8482.D

Level: (TRACE/LOW/MED) LOW Date Received: 05/08/2009

% Moisture: not dec. Date Analyzed: 05/11/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	5.0	U
75-09-2	Methylene chloride	5.0	U
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-butyl ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
78-93-3	2-Butanone	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
67-66-3	Chloroform	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
71-43-2	Benzene	5.0	U
79-01-6	Trichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
1330-20-7	Xylene (Total)	5.0	U

SW846

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

BPS1-TB-050609M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: H0802-01A

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V2K8482.D

Level: (TRACE/LOW/MED) LOW Date Received: 05/08/2009

% Moisture: not dec. Date Analyzed: 05/11/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U
110-82-7	Cyclohexane	5.0	U
79-20-9	Methyl acetate	5.0	U
108-87-2	Methylcyclohexane	5.0	U

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

BPS1-TB-050609M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: H0802-01A

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V2K8482.D

Level: (TRACE or LOW/MED) LOW Date Received: 05/08/2009

% Moisture: not dec. Date Analyzed: 05/11/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Purge Volume: 5.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

SW846

1H - FORM I ARO

AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BPS1-3001-SB-041 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0802-02A

Sample wt/vol: 30.5 (g/mL) G Lab File ID: E1H5954F.D/E1H5954R.D

% Moisture: 16 Decanted: (Y/N) N Date Received: 05/08/2009

Extraction: (Type) SONC Date Extracted: 05/11/2009

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 05/12/2009

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) Y

Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	39	U
11104-28-2	Aroclor-1221	39	U
11141-16-5	Aroclor-1232	39	U
53469-21-9	Aroclor-1242	39	U
12672-29-6	Aroclor-1248	39	U
11097-69-1	Aroclor-1254	39	U
11096-82-5	Aroclor-1260	39	U

SW846

1H - FORM I ARO

AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BPS1-3001-SB-046 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0802-03A

Sample wt/vol: 30.3 (g/mL) G Lab File ID: E1H5955F.D/E1H5955R.D

% Moisture: 20 Decanted: (Y/N) N Date Received: 05/08/2009

Extraction: (Type) SONC Date Extracted: 05/11/2009

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 05/12/2009

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) Y

Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	41	U
11104-28-2	Aroclor-1221	41	U
11141-16-5	Aroclor-1232	41	U
53469-21-9	Aroclor-1242	41	U
12672-29-6	Aroclor-1248	41	U
11097-69-1	Aroclor-1254	41	U
11096-82-5	Aroclor-1260	41	U

SW846

1H - FORM I ARO

AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BPS1-3001-SB-051 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0802-04A

Sample wt/vol: 30.3 (g/mL) G Lab File ID: E1H5956F.D/E1H5956R.D

% Moisture: 13 Decanted: (Y/N) N Date Received: 05/08/2009

Extraction: (Type) SONC Date Extracted: 05/11/2009

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 05/12/2009

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) Y

Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	38	U
11104-28-2	Aroclor-1221	38	U
11141-16-5	Aroclor-1232	38	U
53469-21-9	Aroclor-1242	38	U
12672-29-6	Aroclor-1248	38	U
11097-69-1	Aroclor-1254	38	U
11096-82-5	Aroclor-1260	38	U

SW846

1H - FORM I ARO

AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BPS1-3001-SB-099 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0802-07A

Sample wt/vol: 30.4 (g/mL) G Lab File ID: E1H5957F.D/E1H5957R.D

% Moisture: 22 Decanted: (Y/N) N Date Received: 05/08/2009

Extraction: (Type) SONC Date Extracted: 05/11/2009

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 05/12/2009

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) Y

Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	42	U
11104-28-2	Aroclor-1221	42	U
11141-16-5	Aroclor-1232	42	U
53469-21-9	Aroclor-1242	42	U
12672-29-6	Aroclor-1248	42	U
11097-69-1	Aroclor-1254	42	U
11096-82-5	Aroclor-1260	42	U

SW846

1H - FORM I ARO

AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BPS1-3001-SB-131 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0802-08A

Sample wt/vol: 30.1 (g/mL) G Lab File ID: E1H5958F.D/E1H5958R.D

% Moisture: 20 Decanted: (Y/N) N Date Received: 05/08/2009

Extraction: (Type) SONC Date Extracted: 05/11/2009

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 05/12/2009

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) Y

Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	41	U
11104-28-2	Aroclor-1221	41	U
11141-16-5	Aroclor-1232	41	U
53469-21-9	Aroclor-1242	41	U
12672-29-6	Aroclor-1248	41	U
11097-69-1	Aroclor-1254	41	U
11096-82-5	Aroclor-1260	41	U

SW846

Appendix C

Region II Data Validation Forms

YES NO N/A

I. PACKAGE COMPLETENESS AND DELIVERABLES

CASE NUMBER: CTO 066 Proj. 00622 LAB: MitKem Lab

SITE NAME: NWIRP Bethpage SDG H0802

1.0 Data Completeness and Deliverables

1.1 Has all data been submitted in CLP deliverable format or CLP Forms Equivalent? [✓] ___ ___

ACTION: If not, note the effect on review of the data in the Data Assessment narrative.

2.0 Cover Letter, SDG Narrative

2.1 Is a laboratory narrative, and/or cover letter signed release present? [✓] ___ ___

2.2 Are case number and SDG number(s) contained in the narrative or cover letter? [✓] ___ ___

ACTION: If not, note the effect on review of the data in the Data Assessment narrative.

II. VOLATILE ANALYSES

1.0 Traffic Reports and Laboratory Narrative

1.1 Are the Traffic Reports, and/or Chain of Custodies from the field samplers present for all samples sign release present? [✓] ___ ___

ACTION: If no, contact the laboratory/sampling team for replacement of missing or illegible copies.

1.2 Is a sampling trip report present (if required)? [ ] ___ ✓

1.3 Sample Conditions/Problems

YES NO N/A

1.3.1 Do the Traffic Reports, Chain of Custodies, or Lab Narrative indicate any problems with sample receipt, condition of samples, analytical problems or special notations affecting the quality of the data? See DV Report ✓ [ ] ___
aqueous/water samples treated as sediments

ACTION: If all the VOA vials for a sample have air bubbles or the VOA vial analyzed had air bubbles, flag all positive results "J" and all non-detects "R".

ACTION: If any sample analyzed as a soil, other than TCLP, contains 50%-90% water, all data should be flagged as estimated ("J"). If a soil sample, other than TCLP, contains more than 90% water, flag all positive results "J" and all non-detects "R".

ACTION: If samples were not iced or if the ice was melted upon receipt at the laboratory and the temperature of the cooler was elevated (>10°C), flag all positive results "J" and all non-detects non"UJ".

2.0 Holding Times

2.1 Have any volatile holding times, determined from date of collection to date of analysis, been exceeded? ___ [✓] ___

The maximum holding time for aqueous samples is 14 days.

The maximum holding time for soils non aqueous samples is 14 days.

NOTE: If unpreserved, aqueous samples maintained at 4°C for aromatic hydrocarbons analysis must be analyzed within 7 days. If preserved with HCL acid to a pH<2 and stored at 4°C,then aqueous samples must be analyzed within 14 days from time of collection. For non-aqueous samples for volatile components that are frozen (less than 7°C) or are properly cooled (4°C ± 2°C) and perserved with $NaHSO_4$, the maximum holding time is 14 days from sample collection. If

YES NO N/A

uncertain about preservation, contact the laboratory /sampling team to determine whether or not samples were preserved.

ACTION: Qualify sample results according to Table 1:

Table 1. Holding Time Actions for Trace Volatile Analysis

Matrix	Preserved	Criteria	Action	
			Detected Associated Compounds	Non-Detected Associated Compounds
Aqueous	No	≤7 days	No qualifications	
	No	> 7 days	J	R
	Yes	≤14 days	No qualifications	
	Yes	> 14 days	J	R
Non Aqueous	No	≤ 14 days	J	R
	Yes	≤ 14 days	No qualifications	
	Yes/No	> 14 days	J	R

3.0 Surrogate Recovery (CLP Form II Equivalent)

3.1 Have the volatile surrogate recoveries been listed on Surrogate Recovery forms for each of the following matrices:

a. Water [✓] ___ ___

b. Soil [✓] ___ ___

3.2 If so, are all the samples listed on the appropriate Surrogate Recovery forms for each matrix:

a. Water [✓] ___ ___

b. Soil [✓] ___ ___

ACTION: If large errors exist, deliverables are unavailable or information is missing, document the effect(s) in Data

YES NO N/A

Assessments and contact the laboratory/project officer/appropriate official for an explanation /resubmittal,make any necessary corrections and document effect in the Data Assessment.

3.3 Were the surrogate recovery limits followed per Table 2. If Table 2 criteria were not followed, the laboratory may use in-house performance criteria (per SW-846, Method 8000C, sectiom 9.7). Other compounds may be used as surrogates, depending upon the analysis requirements. [ ] ✓ ___

In-house limits used

Table 2. Surrogate Spike Recovery Limits for Water and Soil/Sediments

DMC	Recovery Limits (%)Water	Recovery Limits Soil/Sediment
4-Bromofluorobenzene	80-120	70-130
Dibromofluoromethane	80-120	70-130
Toluene-d_8	80-120	70-130
Dichloroethane-d_4	80-120	70-130

Note: Use above table if laboratory did not provide in house recovery criteria.

Note: Other compounds may be used as surrogated depending upon the analysis requirements.

3.4 Were outliers marked correctly with an asterisk? [ ] ___ ✓

ACTION: Circle all outliers with a red pencil.

3.5 Were one or more volatile surrogate recoveries out of specification for any sample or method blank. Table 2. [ ] ✓ ___

If yes, were samples reanalyzed? [ ] ___ ✓

Were method blanks reanalyzed? [ ] ___ ✓

YES NO N/A

ACTION: If all surrogate recoveries are > 10% but 1 or more compounds do not meet method specifications:

1. Flag all positive results as estimated ("J").
2. Flag all non-detects as estimated detection limits ("UJ") when recoveries are less than the lower acceptance limit.
3. If recoveries are greater than the upper acceptance limit, do not qualify non-detects, but qualify positive results as estimated "J".

If any surrogate has a recovery of < 10%:

1. Positive results are qualified with ("J").
2. Non-detects for that should be qualified as unusable ("R").

NOTE: Professional judgement should be used to qualify data that have method blank surrogate recoveries out of specification in both original and reanalyses. The basic concern is whether the blank problems represent an isolated problem with the blank alone or whether there is a fundamental problem with the analytical process. If one or more samples in the batch show acceptable surrogate recoveries, the reviewer may choose the blank problem to be an isolated occurrence.

3.6 Are there any transcription/calculation errors between raw data and reported data? [ ] ✓ ___

ACTION: If large errors exist, take action as specified in section 3.2 above.

4.0 Laboratory Control Sample(Form III/Equivalent)

4.1 Is the LCS prepared, extracted, analyzed, and reported once for every 20 field samples of a similar matrix, per SDG. [✓] ___ ___

YES NO N/A

Note: LCS consists of an aliquot of a clean (control) matrix similar to the sample matrix and of the same weight or volume.

ACTION: If any Laboratory Control Sample data are missing, call the lab for explanation /resubmittals. Make note in the data assessment.

4.2 Were the Laboratory Control Samples analyzed at the required frequency for each of the following matrices:

A. Water [✓] ___ ___

B. Soil [✓] ___ ___

C. Med Soil [✓] ___ ___

Note: The LCS is spiked with the same analytes at the same concentrations as the matrix spike (SW-846 8000C, Section 9.5). If different make note in data assessment. Matrix/LCS spiking standards should be prepared from volatile organic compounds which are representative of the compounds being investigating. At a minimum, the matrix spike should include 1,1-dichloroethene, trichloroethene, chlorobenzene, toluene, and benzene.

ACTION: If any MS/MD, MS/MSD or replicate data are missing, take the action specified in 3.2 above.

4.3 Have in house LCS recovery limits been developed (Method 8000C, Sect 9.7). [✓] ___ ___

4.4 If in house limits are not developed, are LCS acceptance recovery limits between 70 - 130% (Method 8000c Sect 9.5)? [✓] ___ ___

4.5 Were one or more of the volatile LCS recoveries outside the in house laboratory recovery criteria for spiked analytes? If in house limits are not present use 70 - 130% recovery limits.
[ ] [✓] ___

YES NO N/A

Table 3. LCS Actions for Volatile Analysis

Criteria	Action	
	Detected Spiked Compounds	**Non-Detected Spiked Compounds**
%R > Upper Acceptance Limit	J	No Qualifiers
%R < Lower Acceptance Limit	J	UJ
Lower Acceptance Limit ≤ %R	No Qualifications	

5.0 Matrix Spikes(Form III or equivalent)

5.1 Are all data for matrix spike and matrix duplicate or matrix spike duplicate (MS/MD or MS/MSD) present and complete for each matrix? [ ] ___ ✓

NOTE: The laboratory should use one matrix spike and a duplicate analysis of an unspiked field sample if target analytes are expected in the sample. If the sample is not expected to contain target analytes, a MS/MSD should be analyzed (SW-846, Method 8260B, Sect 8.4.2).

5.2 Have MS/MD or MS/MSD results been summarized on modified CLP Form III? [ ] ___ ✓

ACTION: If any data are missing take action as specified in section 3.2 above.

5.3 Were matrix spikes analyzed at the required frequency for each of the following matrices? (One MS/MD, MS/MSD or laboratory replicate must be performed for every 20 samples

YES NO N/A

of similar matrix or concentration level. Laboratories analyzing one to ten samples per month are required to analyze at least one MS per month [page 8000C, section 9.5.])

a. Water [ ] ___ ✓

b. Waste [ ] ___ ✓

c. Soil/Solid [ ] ___ ✓

Note: The LCS is spiked with the same analytes at the same concentrations as the matrix spike (SW-846 8000C, Section 9.5). If different make note in data assessment. Matrix/LCS spiking standards should be prepared from volatile organic compounds which are representative of the compounds being investigating. At a minimum, the matrix spike should include 1,1-dichloroethene, trichloroethene, chlorobenzene, toluene, and benzene. The concentration of the LCS should be determined as described SW-Method 8000C Section 9.5.

ACTION: If any MS/MD, MS/MSD or replicate data are missing, take the action specified in 3.2 above.

5.4 Have in house MS recovery limits been developed (Method 8000C, Sect 9.7) for each matrix. [ ] ___ ✓

5.5 Were one or more of the volatile MS/MSD recoveries outside of the in-house laboratory recovery criteria for spiked analytes? If none are present, then use 70-130% recovery as per SW-846, 8000C, Sect. 9.5.4. [ ] ___ ✓

ACTION: Circle all outliers with a red pencil.

NOTE: If any individual % recovery in the MS (or MSD) falls outside the designated range for recovery the reviewer should determine if there is a matrix effect. A matrix effect is indicated if the LCS data are within limits but the MS data exceeds the limits.

YES NO N/A

NOTE: No qualification of data is necessary on MS and MSD data alone. However, using informed professional judgement, the data reviewer may use MS and MSD resuts in conjunction with other QC criteria to determine the need for some qualificatios.

Note: The data reviewer should first try to determine to what extent the results of the MS and MSD affect the associated data. This determination should be made with regard to he MS and MSD sample itself, as welll as specific analytes for all samples associated with the MS and MSD.

Note: In those instances where it can be determned that the results of the MS and MSD affect only the sample spiked, limit qualification to this sample only. However, it may be determined through the MS and MSD results that a laboratory is having a systematic problem in the analysis of one or more analytes that affect all associated samples, and the reviewer must use professional judgement to qualify the data from all associated samples.

Note: The reviewer must use professional judgement to determine the need for qualification of non-spiked compounds.

ACTION: Follow criteria in Table 4 when professional judgement deems qualification of sample.

Table 4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Actions for Volatile Analysis

Criteria	Action	
	Detected Spiked Compounds	**Non-Detected Spiked Compounds**
%R > Upper Acceptance Limit	J	No Qualifiers
%R < Lower Acceptance Limit	J	UJ
Lower Acceptance Limit ≤ %R	No Qualifications	

	YES	NO	N/A
6.0 Blank (CLP Form IV Equivalent)			
6.1 Is the Method Blank Summary form present?	[✓]		
6.2 Frequency of Analysis: Has a method blank been analyzed for every 20 (or less) samples of similar matrix or concentration or each extraction batch?	[✓]		
6.3 Has a method blank been analyzed for each GC/MS system used ?	[✓]		

ACTION: If any blank data are missing, take action as specified above (section 3.2). If blank data is not available, reject (R) all associated positive data. However, using professional judgement, the data reviewer may substitute field blank data for missing method blank data.

	YES	NO	N/A
6.4 Chromatography: review the blank raw data - chromatograms, quant reports or data system printouts.			
Is the chromatographic performance (baseline stability) for each instrument acceptable for volatile organic compounds?	[✓]		

7.0 Contamination

NOTE: "Water blanks", "drill blanks" and "distilled water blanks" are validated like any other sample and are not used to qualify the data. Do not confuse them with the other QC blanks discussed below.

	YES	NO	N/A
7.1 Do any method/instrument/reagent blanks have positive results for target analytes and/or TICs? When applied as described below, the contaminant concentration in these blanks are multiplied by the sample dilution factor and corrected for percent moisture where necessary.	[ ]	✓	

	YES	NO	N/A
7.2 Do any field/rinse blanks have positive volatile organic compound results?	___	[✓]	___

ACTION: Prepare a list of the samples associated with each of the contaminated blanks. (Attach a separate sheet.)

NOTE: All field blank results associated to a particular group of samples (may exceed one per case or one per day) may be used to qualify data. Blanks may not be qualified because of contamination in another blank. Field blanks must be qualified forsurrogate, or calibration QC problems.

ACTION: Follow the directions in Table 5 below to qualify sample results due to contamination. Use the largest value from all the associated blanks.

Table 5. Volatile Organic Analysis Blank Contamination Criteria

Blank Type	Blank Result	Sample Result	Action for Samples
Method, Storage, Field, Trip, Instrument**	Detects	Not detected	No qualification
	< CRQL*	< CRQL	Report CRQL value with a U
		≥ CRQL	Use professional judgement
	> CRQL*	< CRQL	Report CRQL value with a U
		≥ CRQL and < blank contamination	Report the concentration for the sample with a U, or quanity the data as unusable R
		≥ CRQL and ≥ blank contamination	Use professional judgement
	= CRQL*	< CRQL	Report CRQL value with a U
		≥ CRQL	Use professional judgement
	Gross contam-ination	Detects	Qualify results as unusable R

* 2x the CRQL for methylene chloride, 2-butanone, and acetone

** Qualifications based on instrument blank results affect only the sample analyzed immediately after the sample that has target compounds that exceed the calibration range or non-target compounds that exceed 100 ug/L.

NOTE: If gross blank contamination exists(e.g., saturated peaks, "hump-o-grams," "junk" peaks), all affected positive compounds in the associated samples should be qualified as unusable "R", due to interference. Non-detected volatile organic target compounds do not require qualification unless the contamination is so high that it interferes with the analyses of non-detected compounds.

YES NO N/A

7.3 Are there field/rinse/equipment blanks associated with every sample? Trip Blank [✓] ___ ___

ACTION: For low level samples, note in data assessment that there is no associated field/rinse/equipment blank. Exception: samples taken from a drinking water tap do not have associated field blanks.

8.0 GC/MS Apparatus and Materials

8.1 Did the lab use the proper gas chromatographic column(s) for analysis of volatiles by Method 8260B? Check raw data, instrument logs or contact the lab to determine what type of column(s) was (were) used [✓] ___ ___

NOTE: For the analysis of volatiles, the method requires requires the use of 60 m. x 0.75 mm capillary column, coated with VOCOL(Supelco) or equivalent column. (see SW-846, page 8260B-7, section 4.9.2)

ACTION: If the specified column, or equivalent, was not used, document the effects in the Data Assessment. Use professional judgement to determine the acceptability of the data.

9.0 GC/MS Instrument Performance Check (CLP Form V Equivalent)

9.1 Are the GC/MS Instrument Performance Check forms present for Bromofluorobenzene (BFB), and do these forms list the associated samples with date/time analyzed? [✓] ___ ___

9.2 Are the enhanced bar graph spectrum and mass/charge (m/z) listing for the BFB provided for each twelve hour shift? [✓] ___ ___

9.3 Has an instrument performance check solution (BFB)

YES NO N/A

been analyzed for every twelve hours of sample analysis per instrument?(see Table 4, SW-846, page 8260B-36) [✓] ___ ___

ACTION: List date, time, instrument ID, and sample analyses for which no associated GC/MS GC/MS tuning data are available.

ACTION: If the laboratory/project officer cannot provide missing data, reject ("R") all data generated outside an acceptable twelve hour calibration interval.

ACTION: If mass assignment is in error, flag all associated sample data as unusable, "R".

9.4 Have the ion abundances been normalized to m/z 95? [✓] ___ ___

9.5 Have the ion abundance criteria been met for each instrument used? [✓] ___ ___

ACTION: List all data which do not meet ion abundance criteria (attach a separate sheet).

ACTION: If ion abundance criteria are not met, take action as specified in section 3.2.

9.6 Are there any transcription/calculation errors between mass lists and reported values? (Check at least two values but if errors are found, check more.) ___ [✓] ___

9.7 Have the appropriate number of significant figures (two) been reported? [✓] ___ ___

ACTION: If large errors exist, take action as specified in section 3.2.

9.8 Are the spectra of the mass calibration compounds acceptable. [✓] ___ ___

ACTION: Use professional judgement to determine wheather associated data should be accepted, qualified, or rejected.

	YES	NO	N/A
10.0 Target Analytes (CLP Form I Equivalent)			
10.1 Are the Organic Analysis reporting forms present with required header information on each page, for each of the following:			
a. Samples and/or fractions as appropriate	✓		
b. Matrix spikes and matrix spike duplicates			✓
c. Blanks	✓		
d. Laboratory Control Samples	✓		
10.2 Are the reconstructed Ion Chromatograms, mass spectra for the identified compounds, and the data system printouts (Quant Reports) included in the sample package for each of the following?			
a. Samples and/or fractions as appropriate	✓		
b. Matrix spikes and matrix spike duplicates (Mass spectra not required)			✓
c. Blanks	✓		
d. Laboratory Control Samples	✓		

ACTION: If any data are missing, take action specified in 3.2 above.

	YES	NO	N/A
10.3 Is chromatographic performance acceptable with respect to:			
Baseline stability?	✓		

	YES	NO	N/A
Resolution?	[✓]	___	___
Peak shape?	[✓]	___	___
Full-scale graph (attenuation)?	[✓]	___	___

Other:_____

ACTION: Use professional judgement to determine the acceptability of the data.

10.4 Are the lab-generated standard mass spectra of identified volatile compounds present for each sample? [✓] ___ ___

ACTION: If any mass spectra are missing, take action specified in 3.2 above. If the lab does not generate their own standard spectra, make a note in the Data Assessment. If spectra are missing, contact the lab.

10.5 Is the RRT of each reported compound within 0.06 RRT units of the standard RRT in the continuing calibration? [✓] ___ ___

10.6 Are all ions present in the standard mass spectrum at a relative intensity greater than 10% (of the most abundant ion) also present in the sample mass spectrum? [✓] ___ ___

10.7 Do the relative intensities of the characteristic ions in the sample agree within ± 30% of the corresponding relative intensities in the reference spectrum? [✓] ___ ___

ACTION: Use professional judgement to determine acceptability of data. If it is determined that incorrect identifications were made, all such data should be rejected ("R"), flagged ("N") - Presumptive evidence of the presence of the compound) or changed to non detected ("U") at the calculated detection limit. In order to be

YES NO N/A

positively identified, the data must comply with the criteria listed in 9.6, 9.7, and 9.8.

ACTION: When sample carry-over is a possibility, professional judgement should be used to determine if instrument cross-contamination has affected any positive compound identification.

11.0 Tentatively Identified Compounds (TIC) (CLP Form I/TIC Equivalent)

11.1 If Tentatively Identified Compound were required for this project, are all Tentatively Identified Compound reporting forms present; and do listed TICs include scan number or retention time, estimated concentration and a qualifier? [ ] ___ ✓

NOTE: Add "N" qualifier to all TICs which have CAS number, if missing.

NOTE: Have the project officer/appropriate official check the project plan to determine if lab was required to identify non-target analytes (SW-846, page 8260B-23, Sect. 7.6.2).

11.2 Are the mass spectra for the tentatively identified compounds and associated "best match" spectra included in the sample package for each of the following:

a. Samples and/or fractions as appropriate [ ] ___ ✓

b. Blanks [ ] ___ ✓

ACTION: If any TIC data are missing, take action specified in 3.2 above.

ACTION: Add "JN" qualifier only to analytes identified by a CAS#.

NOTE: If TICs are present in the associated blanks take action as specified in section 3.2 above.

YES NO N/A

11.3 Are any priority pollutants listed as TIC compounds (i.e., an BNA compound listed as a VOA TIC)? [ ] ___ ✓

ACTION: 1. Flag with "R" any target compound listed as a TIC.

2. Make sure all rejected compounds are properly reported if they are target compounds.

11.4 Are all ions present in the reference mass spectrum with a relative intensity greater than 10% (of the most abundant ion) also present in the sample mass spectrum? [ ] ___ ✓

11.5 Do TIC and "best match" standard relative ion intensities agree within ± 20%? [ ] ___ ✓

ACTION: Use professional judgement to determine acceptability of TIC identifications. If it is determined that an incorrect identification was made, change the identification to "unknown" or to some less specific identification (example: "C3 substituted benzene") as appropriate. Also, when a compound is not found in any blank, but is a suspected artifact of a common laboratory contaminant, the result should be qualified as unusable, "R". (Common lab contaminants: CO_2(M/E 44), Siloxanes (M/E 73), Hexane, Aldol Condensation Products, Solvent Preservatives, and related byproducts).

12.0 Compound Quantitation and Reported Detection Limits

12.1 Are there any transcription/calculation errors in organic analysis reporting form results? Check at least two positive values. Verify that the correct internal standard, quantitation ion, and average initial RRF/CF were used to calculate organic analysis reporting form result. Were any errors found? [ ] ✓ ___

NOTE: Structural isomers with similar mass spectra, but insufficient GC resolution (i.e. percent valley between the two peaks > 25%) should be

YES NO N/A

reported as isomeric pairs. The reviewer should check the raw data to ensure that all such isomers were included in the quantitation (i.e., add the areas of the two coeluting peaks to calculate the total concentration).

12.2 Are the method CRQL's adjusted to reflect sample dilutions and, for soils, sample moisture? [✓] ___ ___

ACTION: If errors are large, take action as specified in section 3.2 above.

ACTION: When a sample is analyzed at more than one dilution, the lowest detection limits are used (unless a QC exceedance dictates the use of the higher detection limit from the diluted sample data). Replace concentrations that exceed the calibration range in the original analysis by crossing out the "E" and it's associated value on the original reporting form (if present) and substituting the data from the analysis of the diluted sample. Specify which organic analysis reporting form is to be used, then draw a red "X" across the entire page of all reporting forms that should not be used, including any in the summary package.

13.0 Standards Data (GC/MS)

13.1 Are the Reconstructed Ion Chromatograms, and data system printouts (Quant Reports) present for initial and continuing calibration? [✓] ___ ___

ACTION: If any calibration standard data are missing, take action specified in section 3.2 above.

14.0 GC/MS Initial Calibration (CLP Form VI Equivalent)

	YES	NO	N/A
14.1 Are the Initial Calibration reporting forms present and complete for the volatile fraction?	[✓]	___	___

ACTION: If any calibration forms or standard raw data are missing, take action specified in section 3.2 above.

ACTION: If the percent relative standard deviation (% RSD) is > 20%, (8000C-39) qualify positive results for that analyte "J". When % RSD > 90%,. Qualify all positive results for that analyte "J" and all non-detects results for that analyte "R".

See DV Report

14.2 Are all average RRFs > 0.050?	[ ]	✓	___

NOTE: (Method Requirement) For SPCC compounds, the individual RRF values must be ≥ the values in the following list. If individual RRF values reported are below the listed values document in the Data Assessment.

Chloromethane	0.10
1,1-Dichloroethane	0.10
Bromoform	0.10
Chlorobenzene	0.30
1,1,2,2-Tetrachloroethane	0.30

ACTION: Circle all outliers with red pencil.

ACTION: For any target analyte with average RRF < 0.05, or for the requirements for the 5 compounds in 14.2 above, qualify all positive results for that analyte "J" and all non-detect results for that analyte "R".

14.3 Are response factors stable over the concentration range of the calibration.	[ ]	✓	___

NOTE: (Method Requirement) For the following CCC compounds, the %RSD values must be ≤ 30.0%. If %RSD values reported are > 30.0% document in the Data Assessment.

YES NO N/A

1,1-Dichloroethene
Chloroform
1,2-Dichloropropane
Toluene
Ethylbenzene
Vinyl chloride

ACTION: Circle all outliers with a red pencil.

ACTION: If the % RSD is > 20.0%, or > 30% for the 6 compounds in 14.3 above, qualify positive results for that analyte "J" and non-detects using professional judgement. When RSD > 90%, qualify all positive results for that analyte "J" and all non-detect results for that analyte "R".

NOTE: The above data qualification action applies regardless of method requirements.

NOTE: Analytes previously qualified "U" due to blank contamination are still considered as "hits" when qualifying for calibration criteria.

14.4 Was the % RSD determined using RRF or CF? [✓] ___ ___

If no, what method was used to determine the linearity of the initial calibration? Document any effects to the case in the Data Assessment.

14.5 Are there any transcription/calculation errors in the reporting of RRF or % RSD? (Check at least two values but if errors are found, check more.) [ ] ___ ___

ACTION: Circle errors with a red pencil.

ACTION: If errors are large, take action as specified in section 3.2 above.

15.0 <u>GC/MS Calibration Verification (CLP Form VII Equivalent)</u>

YES NO N/A

15.1 Are the Calibration Verification reporting forms present and complete for all compounds of interest? [✓] ___ ___

15.2 Has a calibration verification standard been analyzed for every twelve hours of sample analysis per instrument? [✓] ___ ___

ACTION: List below all sample analyses that were not within twelve hours of a calibration verification analysis for each instrument used.

_____

ACTION: If any forms are missing or no calibration verification standard has been analyzed twelve hours prior to sample analysis, take action as specified in section 3.2 above. If calibration verification data are not available, flag all associated sample data as unusable ("R").

15.3 Was the % D determined from the calibration verification determined using RRF or CF? [✓] ___ ___

If no, what method was used to determine the calibration verification? Document any effects to the case in the Data Assessment.

15.4 Do any volatile compounds have a % D (difference or drift) between the initial and continuing RRF or CF which exceeds 20% (SW-846, page 8260B-19, section 7.4.5.2). [✓] ___ ___

NOTE: (Method Requirement) For the following CCC compounds, the %D values must be ≤ 20.0%. If %D values reported are > 20.0% document in the Data Assessment.

1,1-Dichloroethene
Chloroform
1,2-Dichloropropane
Toluene
Ethylbenzene
Vinyl chloride

YES NO N/A

ACTION: Circle all outliers with a red pencil.

ACTION: Qualify both positive results and non-detects for the outlier compound(s) as estimated, "J". When %D is above 90%, qualify all positive results for that analyte "J" and all non-detect results for that analyte "R".

NOTE: The above data qualification action applies regardless of method requirements.

15.5 Do any volatile compounds have a RRF < 0.05? [✓] ___ ___

acetone & 2-butanone; See DV Report

NOTE: (Method Requirement) For SPCC compounds, the individual RRF values must be ≥ the values in the following list for each calibration verification. If average RRF values reported are below the listed values document in the data assessment.

Chloromethane	0.10
1,1-Dichloroethane	0.10
Bromoform	0.10
Chlorobenzene	0.30
1,1,2,2-Tetrachloroethane	0.30

ACTION: Circle all outliers with a red pencil.

ACTION: If RRF < 0.05, or < the the requirements for the 5 compounds is section 15.5 above, qualify all positive results for that analyte "J" and all non-detect results for that analyte "R".

NOTE: The above data qualification action applies regardless of method requirements.

16.0 Internal Standards (CLP Form VIII Equivalent)

16.1 Are the internal standard (IS) areas on the internal standard reporting forms of every sample and blank within the upper and lower limits (-50% to + 100%) for each initial mid-point calibration (SW-846, 8260B-20, Sect. 7.4.7)? [✓] ___ ___

YES NO N/A

ACTION: If errors are large or information is missing, take action as specified in section 3.2 above.

ACTION: List each outlying internal standard below.

Sample ID	IS #	Area Lower Limit	Area Upper Limit

(Attach additional sheets if necessary.)

ACTION: 1. If the internal standard area count is outside the upper or lower limit, flag with "J" all positive results quantitated with this internal standard.

2. Do not qualify non-detects when the associated IS are counts area > + 100%.

3. If the IS area is below the lower limit (< -50%), qualify all associated non-detects (U-values) "J".

4. If extremely low area counts are reported (< -25%) or if performance exhibits a major abrupt drop off, flag all associated non-detects as unusable "R" and positive results as estimated "J".

16.2 Are the retention times of all internal standards within 30 seconds of the associated initial mid-point calibration standard (SW-846, 8260B-20, Sect. 7.4.6)? [✓] ___ ___

ACTION: Professional judgement should be used to qualify data if the retention times differ by more than 30 seconds.

YES NO N/A

17.0 Field Duplicates

17.1 Were any field duplicates submitted for volatile analysis? [ ] ✓ ___

ACTION: Compare the reported results for field duplicates and calculate the relative percent difference.

ACTION: Any gross variation between field duplicate results must be addressed in the Data Assessment. However, if large differences exist, take action specified in section 3.2 above.

PACKAGE COMPLETENESS AND DELIVERABLES

CASE NUMBER: CTO 066 SDG# H0802
LAB: MitKem Lab SITE: NWTRP Bethpage

1.0 Data Completeness and Deliverables	YES	NO	N/A
1.1 Has all the data been submitted in CLP deliverable format?	[✓]		
1.2 Have any missing deliverables been received and added to the data package?	[ ]		✓

ACTION: Call lab for explanation/resubmittal of any missing deliverables. If lab cannot provide them, note the effect on review of the data in the reviewer narrative.

2.0 Cover Letter, SDG Narrative			
2.1 Is a laboratory narrative or cover letter present?	[✓]		
2.2 Are the case number and/or SDG number contained in the narrative or cover letter?	[✓]		

3.0 Data Validation Checklist			
3.1 Does this data package contain:			
Water data?	[ ]		✓
Waste data?	[ ]		✓
Soil/solid data?	[✓]		

ORGANOCHLORINE PESTICIDE

	YES	NO	N/A
1.0 Traffic Reports and Laboratory Narrative			
1.1 Are traffic report and chain-of-custody forms present for all samples?	✓		
ACTION: If no, contact lab for replacement of missing or illegible copies.			
1.2 Do the traffic reports, chain-of-custody forms or SDG narrative indicate any problems with sample receipt, condition of the samples, analytical problems or special circumstances affecting the quality of the data?		✓	
ACTION: If any sample analyzed as a soil, other than than TCLP, contains 50%-90% water, all data should be qualified as estimated, "J." If a soil sample, other than TCLP, contains more than 90% water, all non detects are qualified as unusable, "R", and positive results flagged "J".			
ACTION: If samples were not iced or if the ice was melted upon arrival at the laboratory and the temperature of the cooler was elevated (> 10° C), flag all positive results "J" and all non-detects "UJ".			
2.0 Holding Times			
2.1 Have any organochlorine pesticide technical holding times, determined from date of collection to date of extraction, been exceeded?		✓	

Water and waste samples for organochlorine pesticide analysis must be extracted within 7 days of the date of collection. Extracts must be analyzed within 40 days of the date of extraction Soils and solid samples must be extracted within 14 days of collection and analyzed within 40 days of extraction.

ACTION: Qualify sample results according to Table 1.

Table 1. Holding Time Criteria

Matrix	Preserved	Criteria	Action	
			Detected compounds	Non-detected compounds
Aqueous	No	≤ 7 days(extraction) ≤ 40 days(analysis)	J*	UJ*
	No	> 7 days(extraction) > 40 days(analysis)	J*	UJ
	Yes	≤ 7 days(extraction) ≤ 40 days(analysis)	No qualification	
	Yes	> 7 days(extraction) > 40 days(analysis)	J	UJ
	Yes/No	> 28 days (gross exceedance)	J	R
Non-aqueous	No	≤ 14days(extraction) ≤ 40 days (analysis)	J*	UJ*
	No	> 14days(extraction) >40 days(analysis)	J	UJ
	Yes	≤ 14days(extraction) ≤ 40 days(analysis)	No qualification	
	Yes	> 14days(extraction) > 40 days(analysis)	J	UJ
	Yes/No	> 28 days (gross exceedance)	J	R

* only if cooler temperature exceeds 10°C; no action required if cooler temperature < 10°C.

YES NO N/A

3.0 Surrogate Recovery (Form II/Equivalent)

3.1 Were the recoveries of tetrachloro-m-xylene (TCMX) and decachlorobiphenyl (DCB) presented on CLP Surrogate Recovery Summary forms (Form II), or equivalent, for each of the following matrices?

a. Water/Waste [✓] ___ ___

b. Soil/Solid [✓] ___ ___

3.2 Are all the pesticide samples listed on the appropriate surrogate recovery form for each of the following matrices?

a. Water [ ] ___ ✓

b. Waste [ ] ___ ✓

c. Soil/Solid [✓] ___ ___

ACTION: Call lab for explanation/resubmittals. If missing deliverables are unavailable, document the effect in the data assessment.

3.3 Are all recovery limits for the surrogates TCMX and DCB between 30-150% for all samples, including MS and MSDs, LCSs and all blanks? [ ] ✓ ___

Note: Reviewer shall use lab in-house recover limits if available. In-house criteria should be examined for reasonableness.

ACTION: Circle all outliers in red. Follow surrogate action Table 2.

3.5 Were surrogate retention times (RT) within the windows established during the initial 5-point analysis? [✓] ___ ___

ACTION: Follow surrogate action, Table 2 below.

YES NO N/A

Table 2. Surrogate Recovery Criteria

Criteria	Action	
	Detected Target Compounds	**Non-detected Target Compounds**
%R > 200%	J	Use professional judgement
150% < %R ≤ 200%	J	No qualification
30% ≤ %R ≤ 150%	No qualification	
10% ≤ %R < 30%	J	UJ
%R < 10% (sample dilution not a factor)	J	R
%R < 10% (sample dilution is a factor)	Use professional judgement	
RT out of RT window	Use professional judgement	
RT within RT window	No qualification	

3.6 Are there any transcription/calculation errors between raw data and Form II? [ ] ✓ ___

ACTION: If large errors exist, call lab for explanation/resubmittal. Make any necessary corrections and document the effect in data assessments.

4.0 Laboratory Control Sample(LCS)

4.1 Is the LCS prepared, extracted, analyzed, and reported once for every 20 field samples. [✓] ___ ___

ACTION: If any Laboratory Control Sample data are missing, call the lab for explanation /resubmittals. Make note in the data assessment.

YES NO N/A

4.2 Were Laboratory Control Samples analyzed at the required concentration for all analytes of interest as specified in Table 3 below. [✓] ___ ___

Note: Use lab in-house criteria, if available.

Table 3. LCS Spiking Criteria

LCS Spike Compound	Spiking solution ug/l	Amount spiked to 100ml aqueous sample or 30g soil sample ml	Recovery Limits (%)
gamma-BHC	0.05	1	50-120
Heptachor epoxide	0.05	1	50-120
Dieldrin	0.01	1	30-130
4,4'-DDE	0.01	1	50-150
Endrin	0.01	1	50-120
Endosulfan sulfate	0.01	1	50-120
gamma-Chloradane	0.05	1	30-130
Tetrachloro-m-xylene(surrogate)	0.20	3	30-150
Decachlorobiphenyl (surrogate)	0.40	3	30-150

Note: The LCS might be spiked with the same analytes at the same concentration as the matrix spike.

ACTION: If Laboratory Control Samples were not analyzed at the required concentration or the required frequency, make note in the data assessment and use professional judgement to determined the affect on the data.

4.3 Do average recovery for each analyte meet the corresponding QC acceptance criteria listed in table above? [✓] ___ ___

YES NO N/A

ACTION: For LCS % recovery not meeting the required recovery, follow the required action in Table 4 below.

Table 4. LCS Recovery Criteria

Criteria	Action	
	Detected Associated Compounds	**Non-Detected Compounds**
%R > Upper Acceptance Limit	J	No qualification
%R < Upper Acceptance Limit	J	R
Lower Acceptance Limit ≤ %R ≤ Upper Acceptance Limit	No qualifications	

5.0 Matrix Spikes (Form III/Equivalent)

5.1 Are all data for matrix spike and matrix duplicate or matrix spike duplicate (MS/MD or MS/MSD) present and complete for each matrix? [ ] ___ ___

NOTE: For soil and waste samples showing detectable amounts of organics, the lab may substitute replicate samples in place of the matrix spike (see page 8000B-40, section 8.5.3).

5.2 Have MS/MD or MS/MSD results been summarized on Form III/Equivalent? [ ] ___ ___

ACTION: If any data are missing take action as specified in section 3.2 above.

5.3 Were matrix spikes analyzed at the required frequency for each of the following matrices? (One MS/MD, MS/MSD or laboratory replicate must be performed for every 20 samples of similar matrix or concentration level. Laboratories analyzing one to ten samples per month are required to analyze at least one MS per month [page 8000B-39, section 8.5.])

	YES	NO	N/A
a. Water	[ ]	___	✓
b. Waste	[ ]	___	✓
c. Soil/Solid	[ ]	___	✓

ACTION: If any MS/MD, MS/MSD or replicate data are missing, take the action specified in 3.2 above.

5.4 We Were Matrix Spike Samples analyzed at the required concentration for all analytes of interest as specified in Table 5 below. [ ] ___ ✓

Note: Spiking analytes may differ from those in Table 5. Check QA project plan or task order.

Table 5. Matrix Spiking Criteria

Matrix Spike Compound	Spiking solution ug/l	Amount spiked to 100ml aqueous sample or 30g soil sample ml
gamma-BHC	0.05	1
Heptachor	0.05	1
Aldrin	0.05	1
Dieldrin	1.0	1
Endrin	1.0	1
4,4'-DDT	1.0	1

Note: For aqueous organic extractable, the spike concentration should be:

1) For regulatory compliance monitoring - the regulatory concentration limit or 1 to 5 times the expected background concentration, whichever is higher;

2) For all other aqueous samples - the larger of either 1 to 5 x times the expected background

YES NO N/A

concentration, or the same as the QC check sample concentration (see section 4 above);

3) For soil/solid and waste samples - the recommended concentration is 20 times the estimated quantitation limit (EQL).

No action is taken based on MS or replicate data alone. However, using informed professional judgement, the data reviewer may use the matrix spike or laboratory replicate results in conjunction with other QC criteria and determine the need for some qualification of the data. In some instances it may be determined that only the replicate or spiked samples are affected. Alternatively, the data may suggest that the laboratory is having a systematic problem with one or more analytes, thereby affecting all associated samples.

5.5 Do average recovery for each analyte meet the corresponding QC acceptance criteria listed in Table 6 below. [ ] ___ ✓

Note: Use lab in-house criteria, if available.

Table 6. Matrix Spike Recovery Criteria

Compound	% Recovery Water	RPD Water	% Recovery Soil	RPD Soil
gamma-BHC	56-123	0-15	46-127	0-50
Heptachor	40-13	0-20	35-130	0-31
Aldrin	40-120	0-22	34-132	0-43
Dieldrin	52-126	0-18	31-134	0-38
Endrin	56-121	0-21	42-139	0-45
4,4'-DDT	38-127	0-27	23-134	0-50

NOTE: The actual number of MS analytes depends on the number analytes being measured (e.g., total number of MS plus MSD compounds). If only chlordane or toxaphene are the analytes of

YES NO N/A

interest, the spiked sample should contain the most representative multi-component analyte.

ACTION: Follow the matrix spike actions (Table 7) for pesticide analyses.

Table 7. Matrix Spike Qualifying Criteria

Criteria	Action	
	Detected Associated Compounds	**Non-Detected Compounds**
%R or RPD > Upper Acceptance Limit	J	No qualification
20% R ≤ %R < Lower Acceptance Limit	J	UJ
%R < 20%	J	Use professional judgement
Lower Acceptance Limit ≤ %R; RPD ≤ Upper Acceptance Limit	No qualifications	

Note: When the results of the matrix spike analyses indicates a potential problem due to the sample matrix itself, the LCS results are used to verify the laboratory can perform analyses in a clean matrix.

6.0 Blanks (Form IV/Equivalent)

6.1 Was reagent blank data reported on Method Blank Summary form(s) (Form IV)?

6.2 Frequency of Analysis: Has a reagent blank been analyzed for every 20 (or less) samples of similar matrix or concentration or each extraction batch? [✓] ___ ___

Note: Method blank should be analyzed, either after the calibration standard or at any other time during the analytical shift.

YES NO N/A

ACTION: If any blank data are missing, take action as specified above (section 3.2). If blank data is not available, reject (R) all associated positive data. However, using professional judgement, the data reviewer may substitute field blank data for missing method blank data.

6.3 Chromatography: review the blank raw data - chromatograms, quant reports or data system printouts.

Is the chromatographic performance (baseline stability) for each instrument acceptable for pesticides? [✓] ___ ___

ACTION: Use professional judgement to determine the effect on the data.

7.0 Contamination

NOTE: "Water blanks", "distilled water blanks" and "drilling water blanks" are validated like any other sample and are not used to qualify the data. Do not confuse them with the other QC blanks discussed below.

7.1 Do any method/instrument/reagent/cleanup blanks have positive results for organochlorine pesticides? When applied as described below, the contaminant concentration in these blanks are multiplied by the sample Dilution Factor and corrected for % moisture when necessary. ___ [✓] ___

7.2 Do any field/rinse blanks have positive organochlorine pesticide results? ___ [✓] ___

ACTION: Prepare a list of the samples associated with each of the contaminated blanks. (Attach a separate sheet.)

NOTE: All field blank results associated to a particular group of samples (may exceed one per case or one per day) may be used to qualify data. Blanks may not be qualified because of contamination in

YES NO N/A

another blank. Field blanks must be qualified for surrogate, or calibration QC problems.

ACTION: Follow the directions in Table 8 below to qualify sample results due to contamination. Use the largest value from all the associated blanks.

Table 8. Blank Contamination Criteria

Blank Type	Blank Result	Sample Result	Action for Samples
Method, Clean up, Instrument, Field	Detects	Not detected	No qualification
	< CRQL	< CRQL	Report CRQL value with a U
		≥ CRQL	No qualification
	> CRQL	< CRQL	Report CRQL value with a U
		≥ CRQL and < blank contamination	Report the concentration for the sample with a U
		≥ CRQL and ≥ blank contamination	No qualification
	= CRQL	< CRQL	Report CRQL value with a U
		≥ CRQL	No qualification
	Gross contamination	Detects	Qualify results as unusable R

Note: Analytes qualified "U" for blank contamination are treated as "hits" when qualifying the calibration criteria.

Note: When applied as described in Table 8 above, the contaminant concentration in the blank is multiplied by the sample dilution factor.

NOTE: If gross blank contamination exists(e.g., saturated peaks, "hump-o-grams", "junk peaks"), all affected positive compounds in the associated samples should be qualified as unusable "R", due to interference.

YES NO N/A

Non-detected pesticide target compounds do not require qualification unless the contamination is so high that it interferes with the analyses of non-detected compounds.

7.3 Are there field/rinse/equipment blanks associated with every sample? [ ] ___ ✓

ACTION: For low level samples, note in data assessment that there is no associated field/rinse/equipment blank. Exception: samples taken from a drinking water tap do not have associated field blanks.

8.0 Gas Chromatography with Electron Capture Detector (GC/ECD) Instrument Performance Check (CLP Form VI and Form VII Equivalent)

8.1 Was the proper gas chromatographic column used for the analysis of organochlorine pesticides? Check raw data, instrument logs, or contact the lab to determine what type of columns were used. (See Method 8081B-8, section 4.2) [ ] ___ ✓

8.2 If capillary columns were used, were they both wide bore (.53 mm ID) fused silica GC columns, such as DB-608 and DB-1701 or equivalent. Indicate the specific type of column used for:

column 1: _____

column 2: _____

ACTION: Note any changes to the suggested materials in section 8.1 above in the data assessment. Also note the impact (positive or negative) such changes have on the analytical results.

9.0 Calibration and GC Performance

9.1 Are the following Gas Chromatograms and Data Systems Printouts for both columns present for all samples, blanks, MS, replicates?

a. DDT/endrin breakdown check [✓] ___ ___

	YES	NO	N/A
b. toxaphene	[✓]	___	___
c. technical chlordane	[✓]	___	___
d. 5 pt. initial calibration standards	[✓]	___	___
e. calibration verification standards	[✓]	___	___
f. LCS	[✓]	___	___
g. Method blanks	[✓]	___	___

ACTION: If no, take action specified in 3.2 above.

9.2 Has a DDT/endrin breakdown check standard (at the mid-concentration level) been analyzed at the beginning of each analytical sequence on both columns (page 8081B-24, section 8.2.3)?	[✓]	___	___

ACTION: If no, take action as specified in 3.2 above.

9.3 Has the individual % breakdown exceeded 20.0% on either column for:

- 4,4' - DDT?	___	[✓]	___
- endrin?	___	[✓]	___

ACTION: If any % breakdown has failed the QC criteria in the breakdown check standard, qualify all sample analyses in the entire analytical sequence as described below.

a. If 4,4'-DDT breakdown is greater than 20.%:

i. Qualify all positive results for DDT with 'J". If DDT was not detected, but DDD and DDE are positive, then qualify the quantitation limit for DDT as unusable ("R").

ii. Qualify positive results for DDD and DDE as presumptively present at an approximated quantity ("NJ").

YES NO N/A

b. If endrin breakdown is greater than 20.0%:

i. Qualify all positive results for endrin with "J". If endrin was not detected, but endrin aldehyde and endrin ketone are positive, then qualify the quantitation limit for endrin as unusable ("R").

ii. Qualify positive results for endrin ketone and endrin aldehyde as presumptively present at an approximated quantity ("NJ").

9.4 Are data summary forms (containing calibration factors or response factors) for the initial 5 pt. calibration and daily calibration verification standards present and complete for each column and each analytical sequence? [✓] ___ ___

NOTE: If internal standard calibration procedure is used (page 8000B-16, section 7.4.2.2), then response factors must be used for %RSD calculations and compound quantitation. If, external standard calibration procedures are used (page 8000B-16, section 7.4.2.1), then calibration factors must be used.

ACTION: If any data are missing or it cannot be determined how the laboratory calculated calibration factors or response factors, contact the lab for explanation/resubmittals. Make necessary corrections and note any problems in the data assessment.

9.5 Are there any transcription/calculation errors between raw data and data summary forms. ___ [✓] ___

ACTION: If large errors exist, call lab for explanation/resubmittal, make necessary corrections and document the effect in data assessments.

9.6 Are standard retention time (RT) windows for each analyte of interest presented on modified CLP summary forms? [✓] ___ ___

YES NO N/A

ACTION: If any data are missing, or it cannot be determined how RT windows were calculated, call the lab for explanation/resubmittals. Note any problems in the data assessment.

NOTE: Retention time windows for all pesticides are established using retention times from three calibration standards analyzed during the entire analytical sequence (page 8081B-15, section 7.4.6).

A 72 hr. sequence is not required with this method, however, the method states that best results are obtained using retention times which span the entire sequence; i.e., using the mid level from the 5 pt. calibration, one of the mid-concentration standards analyzed during mid-sequence and one analyzed at the end.

9.7 Were RT windows on the confirmation column established using three standards as described above? [/] ___ ___

NOTE: RT windows for the confirmation column should be established using a 3 pt. calibration, preferably spanning the entire analytical sequence as described in 9.6 above. If RT windows on one column are tighter than the other, this may result in false negatives when attempting to identify compounds in the samples.

ACTION: Note potential problems, if any, in the data assessment.

9.8 Do all standard retention times in each level of the initial 5 pt. calibrations for pesticides fall within the windows established during the initial calibration sequence? [/] ___ ___

ACTION: i. If no, all samples in the entire analytical sequence are potentially affected. Check to see if three standards, spanning the entire sequence were used to obtained RT windows. If the lab used three standards from the 5 pt., RT windows

YES NO N/A

may be too tight. If so, RT windows should be recalculated as per page 8081B-15, section 7.4.6.2

ii. Alternatively, check to see if the chromatograms contain peaks within an expanded window surrounding the expected retention times.

If no peaks are found and the surrogates are visible, non-detects are valid. If peaks are present but cannot be discerned through pattern recognition or by using revised RT windows, qualify all positive results and non-detects as unusable, "R".

ACTION: For toxaphene and chlordane, the RT may be outside the RT window, but these analytes may still be identified from their individual patterns.

9.9 Has the linearity criteria for the initial calibration standards been satisfied for both columns? (% RSD must be < allowable limits* for all analytes). [/] ___ ___

ACTION: If no, follow the actions in Table 9 below.

Table 9. Initial Calibration Linearity Criteria

Criteria	Criteria	
	Detected Associated Compounds	**Non-Detected Associated Compounds**
% RSD exceeds allowable limits*	J	No qualification
% RSD within allowable limits*	NO qualifications	

* %RSD ≤ 20% for single component compounds except alpha-BHC and delta-BHC.
%RSD ≤ 25% for alpha-BHC and delta-BHC
%RSD ≤ 30% for Toxaphene peaks
%RSD ≤ 30% for surrogates(tetrachloro-m-xylene and decachlorobiphenyl).

9.10 Has a calibration verification standard containing all analytes of interest been analyzed on each

	YES	NO	N/A
working day, prior to sample analyses (pages 8081B-15, sections 7.5.2)?	[✓]		
9.11 Has a calibration verification standard also been analyzed after every 10 samples and at the end of each analytical sequence (page 8081B-15, section 7.5.2)?	[✓]		

ACTION: If no, take action as specified in section 3.2 above.

9.12 Has no more than 12 hours elapsed from the injection of the opening CCV and the end of the analytical sequence (closing CCV). Has no more than 72 hours elapsed from the injection of the sample with a Toxaphene detection and the Toxaphene CCV?	[✓]		

ACTION: See Table 10 below.

9.13 Has the percent difference (%D) exceeded ± 20% for any organochlorine pesticide analyte in any calibration verification standard?		[✓]	
9.14 Has a new 5 pt. calibration curve been generated for those analytes which failed in the calibration verification standard (page 8081B-16, section 7.5.2.2), and all samples which followed the out-of-control standard (page 8081B-16, section 7.5.2.3)reinjected?	[✓]		

ACTION: If the %D for any analyte exceeded the ± 20% criterion and the instrument was not recalibrated for those analytes, see table below.

9.15 Have <u>daily</u> retention time windows been properly calculated for each analyte of interest (page 8081B-16, section 7.5.3)), using RTs from the associated mid concentration standard and standard deviation from the initial calibration)?	[✓]		

YES NO N/A

ACTION: If no, take action specified in section 3.2 above or recalculate RT windows using the procedure outlined in method 8081B-16, section 7.5.3.

9.16 Do all standard retention times for each mid concentration standard fall within the windows established during the initial calibration sequence? [✓] ___ ___

9.17 Do all standard retention times for each mid-concentration standard (analyzed after every 10 samples) fall within the <u>daily</u> RT windows (page 8081B-16, section 7.5.3)? [✓] ___ ___

ACTION: If the answer to either 9.15 or 9.16 above is no, check the chromatograms of all samples which followed the last in-control standard. All samples analyzed after the last in-control standard must be re-injected, if initial analysis indicated the presence of the specific analyte that exceeded the retention time criteria (page 8081B-18, section 7.5.7.). If samples were not re-analyzed, document under Contract Non-compliance in the Data Assessment.

Reviewer has two options to determine how to qualify questionable sample data. First option is to determine if possible peaks are present within daily retention time window. If no possible peaks are found, non-detects are valid. If possible peaks are found (or interference), qualify positive hits as presumptively present "NJ" and non-detects are rejected "R". Second option is to use the ratio of the retention time of the analyte over the retention time of either surrogate. The passing criteria is ± 0.06 RRT units of the RRT of the standard component. Reject "R" all questionable analytes exceeding criteria, and "NJ" all other positive hits.

For any multi-response analytes, retention time windows should be used but analyst and reviewer should rely primarily on pattern recognition or use option 2 specified in paragraph above.

YES NO N/A

See Table 10 below.

Table 10. CCV Criteria

Criteria	Action	
	Detected Associated Compounds	**Non-Detected Associated Compounds**
RT out of RT window	Use professional judgement	
%D not within +/- 20%	J	UJ
Time elapsed greater than section 9.12 criteria.	R	
%D, time elapsed, RT are all within acceptable limits.	No qualifications	

9.18 Are there any transcription/calculation errors between raw data and data summary forms? ___ [✓] ___

ACTION: If large errors exists, call lab for explanation/resubmittal, make any necessary corrections and document the effect in data assessments under "Conclusions".

10.0 Analytical Sequence Check (Form VIII-PEST/Equivalent)

10.1 Have all samples been listed on CLP Form VIII or equivalent, and are separate forms present for each column? [✓] ___ ___

ACTION: If no, take action specified in 3.2 above.

10.2 Was the proper analytical sequence followed for each initial calibration and subsequent analyses? [✓] ___ ___

ACTION: If no, use professional judgement to determine the severity of the effect on the data and qualify it

YES NO N/A

accordingly. Generally, the effect is negligible unless the sequence was grossly altered or the calibration was also out of limits.

11.0 Extraction Method Cleanup Efficiency Verification (Form IX/Equivalent)

11.1 Method 8081B permits a variety of extraction techniques to be used for sample preparation. Which extraction procedure was used?

1. Aqueous samples:

   1. Separatory funnel (Method 3510) _____
   2. Continuous liquid-liquid extraction (Method 3520) _____
   3. Solid phase extraction (Method 3535) _____
   4. Other _____

2. Solid samples:

   1. Soxhlet (Method 3540) _____
   2. Automated Soxhlet (Method 3541) _____
   3. Pressurized fluid (Method 3545) _____
   4. Microwave extraction (Method 3546) _____
   5. Ultrasonic extraction (Method 3550) ✓
   6. Supercritical fluid (Method 3562) _____
   7. Other _____

11.2 Is Form IX - Pest-1/Equivalent present and complete for each lot of Florisil/Cartridges used? (Florisil Cleanup, Method 3620A, is required for all organochlorine pesticide extracts.) [ ] ✓ ___ ___

YES NO N/A

ACTION: If no, take action specified in 3.2 above. If data suggests that florisil cleanup was not performed, make note in the reviewer narrative.

NOTE: Method 3620A uses Florisil, while the SOW/CLP allows for Florisil cartridges. Method 3620A does not list which pesticides and surrogate(s) to use to verify column efficiency. The reviewer must check project plan to verify method used as well as the correct pesticide list. If not stated or available, use the CLP listing or accept what the laboratory used.

11.3 Are all samples listed on modified CLP Pesticide Florisil/Cartridge Check Form? [ ] ___ ✓

ACTION: If no, take action specified in 3.2 above.

11.4 If GPC Cleanup was performed, is Form IX - Pest-2/ Equivalent present? [ ] ___ ✓

ACTION: If GPC was not performed and sample results indicate significant sulfur interference, make note in the data assessment.

NOTE: GPC cleanup is not required and is optional. The reviewer should check Project Plan to verify requirement.

11.5 Were the same compounds on Form IX used to check the efficiency of the cleanup procedures? [ ] ___ ✓

11.6 Are percent recoveries (% R) of the pesticide and surrogate compounds used to check the efficiency of the cleanup procedures within QC limits listed on Form IX:

80-120% for florisil cartridge check? [ ] ___ ✓

80-110% for GPC calibration? [ ] ___ ✓

YES NO N/A

Qualify only the analyte(s) which fail the recovery criteria as follows:

ACTION: If % R are < 80%, qualify positive results "J" and quantitation limits "UJ". Non-detects should be qualified "R" if zero %R was obtained for pesticide compounds. Qualify positive results "J" (estimated).

NOTE: If 2,4,5-trichlorophenol was used to measure the efficiency of the Florisil cleanup and the recovery was > 5%, sample data should be evaluated for potential interferences.

12.0 Pesticide Identification

12.1 Has CLP Form X, showing retention time data for positive results on the two GC columns, been completed for every sample in which a pesticide was detected? [ ] ___ ✓

ACTION: If no, take action specified in 3.2 above, or compile a list comparing the retention times for all sample hits on the two columns.

12.2 Are there any transcription/calculation errors between raw data and data summary forms (initial calibration summaries, calibration verification summaries, analytical sequence summaries, GPC and Florisil cleanup verification forms)? ___ [ ] ✓

ACTION: If large errors exist, call lab for explanation/resubmittal, make necessary corrections and note error in the data assessment.

12.3 Are retention times (RT) of sample compounds within the established RT windows for both analyses? [ ] ___ ✓

Note: Confirmation can be supported by other qualitative techniques such as GC/MS (Method 8270), or GC/AED (Method 8085) if sensitivity permits.

YES NO N/A

ACTION: Qualify as unusable (R) all positive results which were not confirmed by second GC column analysis. Also qualify "R", unusable, all positive results not within RT windows unless associated standard compounds are similarly biased. The reviewer should use professional judgement to assign an appropriate quantitation limit.

12.4 Check chromatograms for false negatives, especially if RT windows on each column were established differently (see section 9.7 above). Also check for false negatives among the multiple peak compounds toxaphene and chlordane. Were there any false negatives? ___ [✓] ___

ACTION: Use professional judgement to decide if the compound should be reported. If there is reason to believe that peaks outside retention RT windows should be reported, make corrections to data summary forms (Form I) and note in data assessment.

12.5 Was GC/MS confirmation used as the second column Confirmation? (This is not required). [ ] ___ ✓

12.6 Is the percent difference (%D) calculated for the positive sample results on the two GC columns <25.0%? [ ] ___ ✓

NOTE: The method 8081B requires quantitation from one column. The second column is to confirm the presence of an analyte. Calibration for the Confirmation column is a one point calibration. It is the reviewer's responsibility to verify from the project plan what the lab was required to report. If the lab was required to report concentrations from both columns, continue with validation for % Difference. If required, but not reported, either contact the lab for results or calculate the concentrations from the calibration. If not required, skip this section. Document actions in Data Assessment.

YES NO N/A

ACTION: If the reviewer finds neither column shows interference for the positive hits, the data should be qualified as follows:

% Difference	Qualifier
0-25%	none
26-70%	"J"
71-100%	"NJ"
101-200% (No Interference)	"R"
101-200% (Interference detected) "NJ"	
>50% (Pesticide vale is <CRQL)	"U"
>201%	"R"

Note: The lower of the two values is reported on Form I. If using professional judgement,the reviewer determines that the higher result was more acceptable, the reviewer should replace the value and indicate the reason for the change in the data assessment.

13.0 Compound Quantitation and Reported Detection Limits

13.1 Are there any transcription/calculation errors in Form I results? Check at least two positive values. Were any errors found? ___ [/] ___

NOTE: Single-peak pesticide results can be checked for rough agreement between quantitative results obtained on the two GC columns. The reviewer should use professional judgement to decide whether a much larger concentration obtained on one column versus the other indicates the presence of an interfering compound. If an interference is suspected, the lower of the two values should be reported and qualified according to section 12.6 above. This necessitates a determination of an estimated concentration on the confirmation column. The narrative should indicate that the presence of interferences has led to the quantitation of the second column confirmation results.

YES NO N/A

13.2 Are the EDLs (Estimated Detection Limits) adjusted to reflect sample dilutions and, for soils, % moisture? [✓] ___ ___

ACTION: If errors are large, call lab for explanation/resubmittal, make any necessary corrections and document effect in data assessments.

ACTION: When a sample is analyzed at more than one dilution, the lowest EDLs are used (unless a QC exceedance dictates the use of the higher EDL data from the diluted sample analysis). Replace concentrations that exceed the calibration range in the original analysis by crossing out the value on the original Form I and substituting it with data from the analysis of diluted sample. Specify which Form I is to be used, then draw a red "X" across the entire page of all Form I's that should not be used, including any in the summary package.

ACTION: EDLs affected by large, off-scale peaks should be qualified as unusable, "R". If the interference is on-scale, the reviewer can provide a modified EDL flagged "UJ" for each affected compound.

14.0 Chromatogram Quality

14.1 Were baselines stable? [✓] ___ ___

14.2 Were any electropositive displacement (negative peaks) or unusual peaks seen? ___ [✓] ___

ACTION: Note all system performance problems in the data assessment.

15.0 Field Duplicates

15.1 Were any field duplicates submitted for organochlorine pesticide analysis? [ ] ___ ✓

ACTION: Compare the reported results for field duplicates and calculate the relative percent difference.

ACTION: Any gross variation between field duplicate results must be addressed in the reviewer narrative. However, if large differences exist, the identity of the field duplicates is questionable. An attempt should be made to determine the proper identification of field duplicates.

Appendix D

Support Documentation

HOLDTIME

SDG H0802

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	%	BPS1-3001-GW-191M	H0802-09A	NM	5/11/2009	5/13/2009	5/13/2009	2	0	2
OV	%	BPS1-3001-SB-041M	H0802-02B	NM	5/6/2009	5/13/2009	5/13/2009	7	0	7
OV	%	BPS1-3001-SB-046M	H0802-03B	NM	5/6/2009	5/13/2009	5/13/2009	7	0	7
OV	%	BPS1-3001-SB-051M	H0802-04B	NM	5/6/2009	5/13/2009	5/13/2009	7	0	7
OV	%	BPS1-3001-SB-061M	H0802-05A	NM	5/6/2009	5/13/2009	5/13/2009	7	0	7
OV	%	BPS1-3001-SB-099M	H0802-07B	NM	5/7/2009	5/13/2009	5/14/2009	6	1	7
OV	%	BPS1-3001-SB-131M	H0802-08B	NM	5/7/2009	5/13/2009	5/14/2009	6	1	7
OV	%	BPS1-TB-050609M	H0802-01A	NM	5/6/2009	5/11/2009	5/11/2009	5	0	5
OV	%	BPS1-3001-GW-071M	H0802-06A	NM	5/6/2009	5/13/2009	5/13/2009	7	0	7
OV	UG/KG	BPS1-3001-SB-061M	H0802-05A	NM	5/6/2009	5/13/2009	5/13/2009	7	0	7
OV	UG/KG	BPS1-3001-GW-071M	H0802-06A	NM	5/6/2009	5/13/2009	5/13/2009	7	0	7
OV	UG/KG	BPS1-3001-GW-191M	H0802-09A	NM	5/11/2009	5/13/2009	5/13/2009	2	0	2
OV	UG/KG	BPS1-3001-SB-041M	H0802-02B	NM	5/6/2009	5/13/2009	5/13/2009	7	0	7
OV	UG/KG	BPS1-3001-SB-051M	H0802-04B	NM	5/6/2009	5/13/2009	5/13/2009	7	0	7
OV	UG/KG	BPS1-3001-SB-099M	H0802-07B	NM	5/7/2009	5/13/2009	5/14/2009	6	1	7

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	UG/KG	BPS1-3001-SB-131M	H0802-08B	NM	5/7/2009	5/13/2009	5/14/2009	6	1	7
OV	UG/KG	BPS1-3001-SB-046M	H0802-03B	NM	5/6/2009	5/13/2009	5/13/2009	7	0	7
OV	UG/L	BPS1-TB-050609M	H0802-01A	NM	5/6/2009	5/11/2009	5/11/2009	5	0	5
PCB	%	BPS1-3001-SB-041M	H0802-02A	NM	5/6/2009	5/11/2009	5/12/2009	5	1	6
PCB	%	BPS1-3001-SB-046M	H0802-03A	NM	5/6/2009	5/11/2009	5/12/2009	5	1	6
PCB	%	BPS1-3001-SB-051M	H0802-04A	NM	5/6/2009	5/11/2009	5/12/2009	5	1	6
PCB	%	BPS1-3001-SB-099M	H0802-07A	NM	5/7/2009	5/11/2009	5/12/2009	4	1	5
PCB	%	BPS1-3001-SB-131M	H0802-08A	NM	5/7/2009	5/11/2009	5/12/2009	4	1	5
PCB	UG/KG	BPS1-3001-SB-131M	H0802-08A	NM	5/7/2009	5/11/2009	5/12/2009	4	1	5
PCB	UG/KG	BPS1-3001-SB-041M	H0802-02A	NM	5/6/2009	5/11/2009	5/12/2009	5	1	6
PCB	UG/KG	BPS1-3001-SB-046M	H0802-03A	NM	5/6/2009	5/11/2009	5/12/2009	5	1	6
PCB	UG/KG	BPS1-3001-SB-051M	H0802-04A	NM	5/6/2009	5/11/2009	5/12/2009	5	1	6
PCB	UG/KG	BPS1-3001-SB-099M	H0802-07A	NM	5/7/2009	5/11/2009	5/12/2009	4	1	5

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER 27231 | PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G00622	NWIRP- GM-75	D. BRAYACK	757 461 3824	MITKEM / LAWLER OR NG.
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
SJ Conti		S CONTI	412 551 2629	175 METRO CENTER BLVD
		CARRIER/WAYBILL NUMBER		CITY, STATE
		FED EX # 8631 3888 0697		WARWICK, RI 02886

STANDARD TAT ☐
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G G
PRESERVATIVE USED: 4°C 4°C 4°C/HCL

	DATE YEAR 2009	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	VOCs (2oz)	PCBs (4oz)	VOCs (40ml)						COMMENTS
01	5/6	1130	BPS1-TB-050609M	TB	—	—	QC	G	2			2						
02	5/6	1320	BPS1-3001-SB-041M	BPS1 3001	40	41.5	SO	G	2	1	1							VERY GRAVELLY - DO THE BEST YOU CAN
03	5/6	1375	BPS1-3001-SB-046M	"	45	46.5	"	G	2	1	1							NOT AS MUCH GRAVEL BUT F/C SAND
04	5/6	1415	BPS1-3001-SB-051M	"	50	51.5	"	G	2	1	1							" "
05	5/6	1500	BPS1-3001-SB-061M	"	60	61.5	"	G	1	1								VOCS ONLY GRAVELLY AGAIN - MOSTLY SAND
06	5/6	1640	BPS1-3001-GW-071M	"	70	71	GW	G	2			2						
07	5/7	0935	BPS1-3001-SB-099M	"	98	99.5	SO	G	2	1	1							GRAY CLAY
08	5/7	1130	BPS1-3001-SB-131M	"	130	131.5	SO	G	2	1	1							TAN CLAY

1. RELINQUISHED BY SJ Conti	DATE 5/7/09	TIME 1700	1. RECEIVED BY FED EX	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE 5/8/09	TIME 9:05
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4°C

4/02R
FORM NO. TtNUS-001

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER 27235 | PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G00622	NWIRP- GM75	D BRAYACK	757 461 3824	MITKEM / LAWLER OR NG
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
SJ Conti		S CONTI	412 551 2629	175 METRO CENTER BLVD
		CARRIER/WAYBILL NUMBER		CITY, STATE
		FED EX # 8631 3888 0723		WARWICK, RI, 02886

STANDARD TAT ☐
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G
PRESERVATIVE USED: 4°C HCL 4°C

DATE YEAR 2009	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: VOCs (40ml)	PCBs 4 oz	COMMENTS
5/11	1100	BPSI-3001-GW-191M	BPSI 3001	190	191	GW	G	2	2		TURBID
5/11	1300	BP-GM75-IDW-01	ROW OFF	0	1	SO	G	1		1	RE-DO OF PCBs PREVIOUS COC 26634 ON 4/9/09

1. RELINQUISHED BY	DATE	TIME	1. RECEIVED BY	DATE	TIME
SJ Conti	5/11/09	1630	FED EX		
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
		1330		5/12/09	8:45
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

3°C

4/02R
FORM NO. TtNUS-001

Analytical Data Package for Tetra Tech NUS, Inc.

Client Project: CTO-066, NWIRP Bethpage, NY, GM-75 Sampling, 112G00622

SDG# SH0802

Mitkem Workorder ID: H0802

May 22, 2009

Prepared For:

Tetra Tech NUS, Inc.
661 Andersen Drive
Pittsburgh, PA 15220
Attn: Ms. Tobrena Skeen

Prepared By:

Mitkem Laboratories
175 Metro Center Boulevard
Warwick, RI 02886
(401) 732-3400

SDG Narrative

Mitkem Laboratories submits the enclosed data package in response to Tetra Tech NUS Inc.'s CTO-066, NWIRP Bethpage, NY, GM-75 project. Under this deliverable, analysis results are presented for nine samples that were received at Mitkem on May 8 and 12, 2009. Samples were analyzed per instructions in the chain of custody form.

The analyses were performed according to EPA SW-846 methods and reported in CLP-type format for Level 4 deliverable.

The following observation and/or deviations are observed for the following analyses:

1. Overall Observation:

Where needed, manual integrations were performed to improve data quality. The corrections were reviewed and associated hardcopies generated and reported as required. Manual integrations are coded to provide the data reviewer justification for such action. The codes are labeled on the ion chromatogram signal (GC/MS signal) and chromatogram for GC based analysis as follows:

- M1 peak tailing or fronting.
- M2 peak co-elution.
- M3 rising or falling baseline.
- M4 retention time shift.
- M5 miscellaneous – under this category, the justification is explained.
- M6 software did not integrate peak
- M7 partial peak integration

The enclosed report includes the originals of all data with the exception of logbook pages and certain initial calibrations. Photocopies of logbook pages are included, with the originals maintained on file at the laboratory. The originals of initial calibrations that are shared among several cases are maintained on file at the laboratory, with photocopies included in the data package.

2. Volatile Analysis:

Samples were analyzed by Method SW846 8260C. Several samples contained significant sediment. Based on evaluation of these samples, the laboratory determined that they would not be able to be successfully analyzed using the aqueous sample procedure. Instead they were analyzed as wet sediments, by analysis of a 5gram aliquot of the water/sediment mix from the sample container. Results for these samples are reported in ug/Kg (ppb) on a wet weight basis to be directly comparable to the other aqueous sample results.

Surrogate recovery: surrogate recoveries were within the QC limits.

Lab control sample: spike recoveries were within the QC limits.

Sample analysis: no unusual occurrences were noted during sample analysis.

3. PCB Aroclor Analysis:

Samples were analyzed by Method SW846 8082.

Surrogate recovery: surrogate recoveries were within the QC limits with the exception of low recovery for DCB on both GC columns in sample BPS1-3001-SB-099M

Lab control sample: spike recoveries were within the QC limits on both GC columns.

Sample analysis: no unusual occurrences were noted during sample analysis.

I certify that this data package is in compliance, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Edward A. Lawler
Laboratory Operations Manager
05/22/09

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

CLIENT SAMPLE NO.

BFB2P

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Lab File ID: V2K8446.D BFB Injection Date: 05/04/2009

Instrument ID: V2 BFB Injection Time: 10:59

GC Column: DB-624 ID: 0.25 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.9
75	30.0 - 60.0% of mass 95	44.6
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 100.0% of mass 95	81.7
175	5.0 - 9.0% of mass 174	6.2 (7.6)1
176	95.0 - 101.0% of mass 174	79.1 (96.8)1
177	5.0 - 9.0% of mass 176	5.0 (6.3)2

1 - Value is % mass 174 2 - Value is % mass 176

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0052P	VSTD0052P	V2K8448.D	05/04/2009	11:38
02	VSTD0202P	VSTD0202P	V2K8449.D	05/04/2009	12:03
03	VSTD1002P	VSTD1002P	V2K8451.D	05/04/2009	12:54
04	VSTD2002P	VSTD2002P	V2K8452.D	05/04/2009	13:19
05	VSTD0502P	VSTD0502P	V2K8455.D	05/04/2009	15:11
06	VICV0502P	VICV0502P	V2K8456.D	05/04/2009	15:37

6B - FORM VI VOA-2

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Instrument ID: V2 Calibration Date(s): 05/04/2009 05/04/2009

Heated Purge: (Y/N) N Calibration Time(s): 11:38 15:11

Purge Volume: 5.0 (mL)

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID: RRF005 = V2K8448.D RRF020 = V2K8449.D

RRF050 = V2K8455.D RRF100 = V2K8451.D RRF200 = V2K8452.D

COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF200	$\overline{RRF}$	%RSD
Dichlorodifluoromethane	0.123	0.156	0.143	0.180	0.140	0.148	14.2
Chloromethane	0.287	0.325	0.294	0.368	0.276	0.310	12.0
Vinyl chloride	0.226	0.279	0.242	0.311	0.234	0.258	13.8
Bromomethane	0.240	0.243	0.209	0.252	0.181	0.225	13.0
Chloroethane	0.148	0.170	0.147	0.183	0.137	0.157	11.9
Trichlorofluoromethane	0.355	0.412	0.377	0.478	0.371	0.399	12.3
1,1-Dichloroethene	0.222	0.255	0.230	0.284	0.217	0.241	11.5
Acetone	0.019	0.025	0.030	0.036	0.027	0.027	23.6
Carbon disulfide	0.822	0.914	0.798	1.017	0.792	0.869	11.1
Methylene chloride	0.284	0.287	0.255	0.310	0.238	0.275	10.3
trans-1,2-Dichloroethene	0.243	0.273	0.237	0.289	0.228	0.254	10.2
Methyl tert-butyl ether	0.616	0.650	0.588	0.691	0.553	0.620	8.6
1,1-Dichloroethane	0.430	0.469	0.417	0.510	0.398	0.445	10.0
2-Butanone	0.021	0.024	0.025	0.029	0.024	0.025	10.6
cis-1,2-Dichloroethene	0.248	0.276	0.243	0.298	0.235	0.260	10.1
Chloroform	0.418	0.465	0.409	0.496	0.383	0.434	10.4
1,1,1-Trichloroethane	0.350	0.416	0.365	0.455	0.346	0.387	12.2
Carbon tetrachloride	0.338	0.394	0.345	0.431	0.333	0.368	11.6
1,2-Dichloroethane	0.338	0.355	0.314	0.380	0.297	0.337	9.8
Benzene	0.780	0.857	0.734	0.891	0.712	0.795	9.7
Trichloroethene	0.234	0.260	0.232	0.286	0.222	0.247	10.6
1,2-Dichloropropane	0.222	0.236	0.204	0.251	0.200	0.223	9.5
Bromodichloromethane	0.304	0.346	0.306	0.384	0.293	0.327	11.6
cis-1,3-Dichloropropene	0.347	0.379	0.343	0.429	0.340	0.368	10.3
4-Methyl-2-pentanone	0.192	0.203	0.190	0.225	0.187	0.200	7.8
Toluene	0.850	0.937	0.801	1.004	0.784	0.875	10.7
trans-1,3-Dichloropropene	0.304	0.355	0.321	0.390	0.309	0.336	10.7
1,1,2-Trichloroethane	0.194	0.204	0.182	0.224	0.177	0.196	9.5
Tetrachloroethene	0.382	0.428	0.398	0.487	0.392	0.417	10.2
2-Hexanone	0.212	0.203	0.237	0.287	0.239	0.236	13.8
Dibromochloromethane	0.340	0.385	0.371	0.471	0.392	0.392	12.4
1,2-Dibromoethane	0.323	0.345	0.318	0.399	0.340	0.345	9.3
Chlorobenzene	0.808	0.894	0.830	1.050	0.873	0.891	10.7
Ethylbenzene	0.406	0.456	0.418	0.534	0.446	0.452	11.0
Xylene (Total)	0.502	0.550	0.509	0.637	0.516	0.543	10.3
Styrene	0.817	0.911	0.856	1.062	0.872	0.904	10.5
Bromoform	0.279	0.314	0.300	0.369	0.317	0.316	10.5
Isopropylbenzene	1.117	1.290	1.169	1.484	1.219	1.256	11.4
1,1,2,2-Tetrachloroethane	0.481	0.490	0.446	0.487	0.414	0.464	7.1

SW846

6C - FORM VI VOA-3

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Instrument ID: V2 Calibration Date(s): 05/04/2009 05/04/2009

Heated Purge: (Y/N) N Calibration Time(s): 11:38 15:11

Purge Volume: 5.0 (mL)

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID: RRF005 = V2K8448.D RRF020 = V2K8449.D

RRF050 = V2K8455.D RRF100 = V2K8451.D RRF200 = V2K8452.D

COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF200	$\overline{RRF}$	%RSD
1,3-Dichlorobenzene	1.195	1.302	1.153	1.371	1.082	1.221	9.5
1,4-Dichlorobenzene	1.195	1.286	1.146	1.398	1.095	1.224	9.8
1,2-Dichlorobenzene	1.101	1.192	1.056	1.291	1.015	1.131	9.8
1,2-Dibromo-3-chloropropane	0.088	0.081	0.079	0.091	0.078	0.083	6.9
1,2,4-Trichlorobenzene	0.819	0.945	0.857	0.991	0.773	0.877	10.2
1,1,2-Trichloro-1,2,2-trifluoroethane	0.269	0.311	0.273	0.348	0.262	0.293	12.4
Cyclohexane	0.378	0.434	0.382	0.482	0.383	0.412	11.0
Methyl acetate	0.173	0.172	0.149	0.177	0.146	0.164	9.0
Methylcyclohexane	0.351	0.411	0.357	0.457	0.359	0.387	11.9

Report 1,4-Dioxane-d8 for Low-Medium VOA analysis only SW846

6C - FORM VI VOA-3

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Instrument ID: V2 Calibration Date(s): 05/04/2009 05/04/2009

Heated Purge: (Y/N) N Calibration Time(s): 11:38 15:11

Purge Volume: 5.0 (mL)

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID: RRF005 = V2K8448.D RRF020 = V2K8449.D

RRF050 = V2K8455.D RRF100 = V2K8451.D RRF200 = V2K8452.D

COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF200	$\overline{RRF}$	%RSD
Dibromofluoromethane	0.340	0.347	0.345	0.341	0.322	0.339	3.0
1,2-Dichloroethane-d4	0.066	0.066	0.067	0.066	0.063	0.065	2.6
Toluene-d8	1.255	1.260	1.334	1.347	1.446	1.328	5.8
Bromofluorobenzene	0.521	0.538	0.561	0.575	0.620	0.563	6.8

Report 1,4-Dioxane-d8 for Low-Medium VOA analysis only SW846

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

CLIENT SAMPLE NO.

BFB2R

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Lab File ID: V2K8471.D BFB Injection Date: 05/11/2009

Instrument ID: V2 BFB Injection Time: 10:59

GC Column: DB-624 ID: 0.25 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	25.7
75	30.0 - 60.0% of mass 95	43.8
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.7
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 100.0% of mass 95	66.4
175	5.0 - 9.0% of mass 174	4.9 (7.4)1
176	95.0 - 101.0% of mass 174	65.7 (98.9)1
177	5.0 - 9.0% of mass 176	4.3 (6.5)2

1 - Value is % mass 174 2 - Value is % mass 176

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0502R	VSTD0502R	V2K8473.D	05/11/2009	12:15
02	VBLK2R	MB-43512	V2K8475.D	05/11/2009	13:23
03	V2RLCS	LCS-43512	V2K8476.D	05/11/2009	13:48
04	V2RLCSD	LCSD-43512	V2K8477.D	05/11/2009	14:14
05	BPS1-TB-0506 09M	H0802-01A	V2K8482.D	05/11/2009	17:21

7B - FORM VII VOA-2

VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Instrument ID: V2 Calibration Date: 05/11/2009 Time: 12:15

Lab File ID: V2K8473.D Init. Calib. Date(s): 05/04/2009 05/04/2009

EPA Sample No.(VSTD#####): VSTD0502R Init. Calib. Time(s): 11:38 15:11

Heated Purge: (Y/N) N GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 5.0 (mL)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.148	0.147	0.100	-0.9	20.0
Chloromethane	0.310	0.297	0.010	-4.2	20.0
Vinyl chloride	0.258	0.257	0.010	-0.6	20.0
Bromomethane	0.225	0.183	0.010	-18.6	20.0
Chloroethane	0.157	0.133	0.010	-15.6	20.0
Trichlorofluoromethane	0.399	0.378	0.010	-5.0	20.0
1,1-Dichloroethene	0.241	0.266	0.100	10.0	20.0
Acetone	0.027	0.034	0.010	23.0	20.0
Carbon disulfide	0.869	1.106	0.010	27.3	20.0
Methylene chloride	0.275	0.300	0.010	9.1	20.0
trans-1,2-Dichloroethene	0.254	0.280	0.010	10.3	20.0
Methyl tert-butyl ether	0.620	0.696	0.010	12.3	20.0
1,1-Dichloroethane	0.445	0.484	0.010	8.9	20.0
2-Butanone	0.025	0.028	0.010	14.7	20.0
cis-1,2-Dichloroethene	0.260	0.289	0.010	11.0	20.0
Chloroform	0.434	0.438	0.010	0.7	20.0
1,1,1-Trichloroethane	0.387	0.381	0.010	-1.4	20.0
Carbon tetrachloride	0.368	0.360	0.010	-2.1	20.0
1,2-Dichloroethane	0.337	0.320	0.010	-5.0	20.0
Benzene	0.795	0.885	0.010	11.4	20.0
Trichloroethene	0.247	0.269	0.010	9.0	20.0
1,2-Dichloropropane	0.223	0.248	0.010	11.6	20.0
Bromodichloromethane	0.327	0.329	0.010	0.6	20.0
cis-1,3-Dichloropropene	0.368	0.399	0.010	8.5	20.0
4-Methyl-2-pentanone	0.200	0.252	0.010	26.3	20.0
Toluene	0.875	0.926	0.010	5.8	20.0
trans-1,3-Dichloropropene	0.336	0.359	0.010	7.0	20.0
1,1,2-Trichloroethane	0.196	0.220	0.010	12.2	20.0
Tetrachloroethene	0.417	0.414	0.010	-0.8	20.0
2-Hexanone	0.236	0.273	0.010	16.0	20.0
Dibromochloromethane	0.392	0.417	0.010	6.5	20.0
1,2-Dibromoethane	0.345	0.373	0.010	8.3	20.0
Chlorobenzene	0.891	0.960	0.010	7.8	20.0
Ethylbenzene	0.452	0.485	0.010	7.4	20.0
Xylene (Total)	0.543	0.590	0.010	8.6	20.0
Styrene	0.904	0.975	0.010	7.9	20.0
Bromoform	0.316	0.339	0.010	7.3	20.0
Isopropylbenzene	1.256	1.305	0.300	3.9	20.0
1,1,2,2-Tetrachloroethane	0.464	0.600	0.300	29.5	20.0
1,3-Dichlorobenzene	1.221	1.327	0.010	8.7	20.0

SW846

7C - FORM VII VOA-3

VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Instrument ID: V2 Calibration Date: 05/11/2009 Time: 12:15

Lab File ID: V2K8473.D Init. Calib. Date(s): 05/04/2009 05/04/2009

EPA Sample No.(VSTD#####): VSTD0502R Init. Calib. Time(s): 11:38 15:11

Heated Purge: (Y/N) N GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 5.0 (mL)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX %D
1,4-Dichlorobenzene	1.224	1.341	0.010	9.5	20.0
1,2-Dichlorobenzene	1.131	1.253	0.010	10.8	20.0
1,2-Dibromo-3-chloropropane	0.083	0.102	0.010	22.4	20.0
1,2,4-Trichlorobenzene	0.877	0.999	0.010	13.9	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	0.293	0.316	0.010	8.1	20.0
Cyclohexane	0.412	0.482	0.010	17.1	20.0
Methyl acetate	0.164	0.223	0.010	36.5	20.0
Methylcyclohexane	0.387	0.436	0.010	12.6	20.0

Report 1,4-Dioxane-d8 for Low-Medium VOA analysis only SW846

7C - FORM VII VOA-3

VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Instrument ID: V2 Calibration Date: 05/11/2009 Time: 12:15

Lab File ID: V2K8473.D Init. Calib. Date(s): 05/04/2009 05/04/2009

EPA Sample No.(VSTD#####): VSTD0502R Init. Calib. Time(s): 11:38 15:11

Heated Purge: (Y/N) N GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 5.0 (mL)

COMPOUND	$\overline{RRF}$	RRF050	MIN RRF	%D	MAX %D
Dibromofluoromethane	0.339	0.324	0.010	-4.6	20.0
1,2-Dichloroethane-d4	0.065	0.069	0.010	4.8	20.0
Toluene-d8	1.328	1.311	0.010	-1.3	20.0
Bromofluorobenzene	0.563	0.530	0.010	-5.8	20.0

Report 1,4-Dioxane-d8 for Low-Medium VOA analysis only SW846

4A - FORM IV VOA

VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

VBLK2R

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Lab File ID: V2K8475.D Lab Sample ID: MB-43512

Instrument ID: V2

Matrix: (SOIL/SED/WATER) WATER Date Analyzed: 05/11/2009

Level: (TRACE or LOW/MED) LOW Time Analyzed: 13:23

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	V2RLCS	LCS-43512	V2K8476.D	13:48
02	V2RLCSD	LCSD-43512	V2K8477.D	14:14
03	BPS1-TB-0506 09M	H0802-01A	V2K8482.D	17:21

COMMENTS:

SW846

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLK2R

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: MB-43512

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V2K8475.D

Level: (TRACE/LOW/MED) LOW Date Received:

% Moisture: not dec. Date Analyzed: 05/11/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	5.0	U
75-09-2	Methylene chloride	5.0	U
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-butyl ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
78-93-3	2-Butanone	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
67-66-3	Chloroform	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
71-43-2	Benzene	5.0	U
79-01-6	Trichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
1330-20-7	Xylene (Total)	5.0	U

SW846

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLK2R

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: MB-43512

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V2K8475.D

Level: (TRACE/LOW/MED) LOW Date Received:

% Moisture: not dec. Date Analyzed: 05/11/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U
110-82-7	Cyclohexane	5.0	U
79-20-9	Methyl acetate	5.0	U
108-87-2	Methylcyclohexane	5.0	U

SW846

3 - FORM III
WATER LABORATORY CONTROL
SAMPLE RECOVERY

CLIENT SAMPLE NO.

V2RLCS

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Lab Sample ID: LCS-43512 LCS Lot No.:

Date Extracted: 05/11/2009 Date Analyzed (1): 05/11/2009

COMPOUND	SPIKE ADDED	SAMPLE CONCENTRATION	LCS CONCENTRATION	LCS %REC	#	QC. LIMITS REC.
Dichlorodifluoromethane	50.0000	0.0000	47.5918	95		30 - 155
Chloromethane	50.0000	0.0000	48.4002	97		40 - 125
Vinyl chloride	50.0000	0.0000	50.0416	100		50 - 145
Bromomethane	50.0000	0.0000	47.9855	96		30 - 145
Chloroethane	50.0000	0.0000	48.3269	97		60 - 135
Trichlorofluoromethane	50.0000	0.0000	48.0891	96		60 - 145
1,1-Dichloroethene	50.0000	0.0000	52.7478	105		70 - 130
Acetone	50.0000	0.0000	64.9488	130		40 - 140
Carbon disulfide	50.0000	0.0000	51.7590	104		35 - 160
Methylene chloride	50.0000	0.0000	51.1672	102		55 - 140
trans-1,2-Dichloroethene	50.0000	0.0000	52.0919	104		60 - 140
Methyl tert-butyl ether	50.0000	0.0000	52.5056	105		65 - 125
1,1-Dichloroethane	50.0000	0.0000	50.9642	102		70 - 135
2-Butanone	50.0000	0.0000	60.1158	120		30 - 150
cis-1,2-Dichloroethene	50.0000	0.0000	52.3618	105		70 - 125
Chloroform	50.0000	0.0000	49.2855	99		65 - 135
1,1,1-Trichloroethane	50.0000	0.0000	48.0492	96		65 - 130
Carbon tetrachloride	50.0000	0.0000	48.7413	97		65 - 140
1,2-Dichloroethane	50.0000	0.0000	47.4915	95		70 - 130
Benzene	50.0000	0.0000	52.1173	104		80 - 120
Trichloroethene	50.0000	0.0000	53.9091	108		70 - 125
1,2-Dichloropropane	50.0000	0.0000	53.5726	107		75 - 125
Bromodichloromethane	50.0000	0.0000	49.5787	99		75 - 120
cis-1,3-Dichloropropene	50.0000	0.0000	52.1393	104		70 - 130
4-Methyl-2-pentanone	50.0000	0.0000	58.9718	118		60 - 135
Toluene	50.0000	0.0000	51.3903	103		75 - 120
trans-1,3-Dichloropropene	50.0000	0.0000	53.0470	106		55 - 140
1,1,2-Trichloroethane	50.0000	0.0000	54.5056	109		75 - 125
Tetrachloroethene	50.0000	0.0000	49.5207	99		45 - 150
2-Hexanone	50.0000	0.0000	59.2904	119		55 - 130
Dibromochloromethane	50.0000	0.0000	51.0754	102		60 - 135
1,2-Dibromoethane	50.0000	0.0000	51.7451	103		80 - 120
Chlorobenzene	50.0000	0.0000	51.1320	102		80 - 120
Ethylbenzene	50.0000	0.0000	51.5488	103		75 - 125
Xylene (Total)	150.0000	0.0000	155.3660	104		81 - 121
Styrene	50.0000	0.0000	51.4762	103		65 - 135
Bromoform	50.0000	0.0000	51.4059	103		70 - 130
Isopropylbenzene	50.0000	0.0000	49.8453	100		75 - 125
1,1,2,2-Tetrachloroethane	50.0000	0.0000	58.4529	117		65 - 130
1,3-Dichlorobenzene	50.0000	0.0000	53.2266	106		75 - 125
1,4-Dichlorobenzene	50.0000	0.0000	51.9197	104		75 - 125
1,2-Dichlorobenzene	50.0000	0.0000	53.2198	106		70 - 120
1,2-Dibromo-3-chloropropan	50.0000	0.0000	57.8564	116		50 - 130
1,2,4-Trichlorobenzene	50.0000	0.0000	54.2146	108		65 - 135

SW846

3 - FORM III
WATER LABORATORY CONTROL
SAMPLE RECOVERY

CLIENT SAMPLE NO.

V2RLCS

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Lab Sample ID: LCS-43512 LCS Lot No.:

Date Extracted: 05/11/2009 Date Analyzed (1): 05/11/2009

COMPOUND	SPIKE ADDED	SAMPLE CONCENTRATION	LCS CONCENTRATION	LCS %REC	#	QC. LIMITS REC.
1,1,2-Trichloro-1,2,2-trif	50.0000	0.0000	51.8944	104		70 - 130
Cyclohexane	50.0000	0.0000	54.5153	109		70 - 130
Methyl acetate	50.0000	0.0000	59.1316	118		70 - 130
Methylcyclohexane	50.0000	0.0000	54.3408	109		70 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 48 outside limits

COMMENTS:

SW846

3 - FORM III
WATER LABORATORY CONTROL
SAMPLE DUPLICATE RECOVERY

EPA SAMPLE NO.

V2RLCSD

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Lab Sample ID: LCSD-43512 LCS Lot No.:

COMPOUND	SPIKE ADDED	LCSD CONCENTRATION	LCSD %REC	#	%RPD	#	QC LIMITS RPD	QC LIMITS REC.
Dichlorodifluoromethane	50.0000	49.1387	98		3		40	30 - 155
Chloromethane	50.0000	47.3070	95		2		40	40 - 125
Vinyl chloride	50.0000	52.6469	105		5		40	50 - 145
Bromomethane	50.0000	48.8198	98		2		40	30 - 145
Chloroethane	50.0000	50.1109	100		3		40	60 - 135
Trichlorofluoromethane	50.0000	49.4498	99		3		40	60 - 145
1,1-Dichloroethene	50.0000	54.2596	109		4		40	70 - 130
Acetone	50.0000	54.3736	109		18		40	40 - 140
Carbon disulfide	50.0000	53.0788	106		2		40	35 - 160
Methylene chloride	50.0000	52.4870	105		3		40	55 - 140
trans-1,2-Dichloroethene	50.0000	53.8990	108		4		40	60 - 140
Methyl tert-butyl ether	50.0000	54.9296	110		5		40	65 - 125
1,1-Dichloroethane	50.0000	51.7552	104		2		40	70 - 135
2-Butanone	50.0000	54.1458	108		11		40	30 - 150
cis-1,2-Dichloroethene	50.0000	52.7931	106		1		40	70 - 125
Chloroform	50.0000	50.3541	101		2		40	65 - 135
1,1,1-Trichloroethane	50.0000	49.7478	99		3		40	65 - 130
Carbon tetrachloride	50.0000	49.0519	98		1		40	65 - 140
1,2-Dichloroethane	50.0000	48.2876	97		2		40	70 - 130
Benzene	50.0000	53.6297	107		3		40	80 - 120
Trichloroethene	50.0000	54.0217	108		0		40	70 - 125
1,2-Dichloropropane	50.0000	54.0035	108		1		40	75 - 125
Bromodichloromethane	50.0000	50.0299	100		1		40	75 - 120
cis-1,3-Dichloropropene	50.0000	53.3794	107		3		40	70 - 130
4-Methyl-2-pentanone	50.0000	57.5594	115		3		40	60 - 135
Toluene	50.0000	52.3954	105		2		40	75 - 120
trans-1,3-Dichloropropene	50.0000	52.3018	105		1		40	55 - 140
1,1,2-Trichloroethane	50.0000	53.3471	107		2		40	75 - 125
Tetrachloroethene	50.0000	49.3291	99		0		40	45 - 150
2-Hexanone	50.0000	51.7091	103		14		40	55 - 130
Dibromochloromethane	50.0000	50.1528	100		2		40	60 - 135
1,2-Dibromoethane	50.0000	50.9946	102		1		40	80 - 120
Chlorobenzene	50.0000	51.5150	103		1		40	80 - 120
Ethylbenzene	50.0000	51.2013	102		1		40	75 - 125
Xylene (Total)	150.0000	155.4013	104		0		40	81 - 121
Styrene	50.0000	51.5984	103		0		40	65 - 135
Bromoform	50.0000	50.6095	101		2		40	70 - 130
Isopropylbenzene	50.0000	49.8833	100		0		40	75 - 125
1,1,2,2-Tetrachloroethane	50.0000	58.7273	117		0		40	65 - 130
1,3-Dichlorobenzene	50.0000	52.4545	105		1		40	75 - 125
1,4-Dichlorobenzene	50.0000	52.2281	104		0		40	75 - 125
1,2-Dichlorobenzene	50.0000	53.5027	107		1		40	70 - 120
1,2-Dibromo-3-chloropropan	50.0000	55.1064	110		5		40	50 - 130
1,2,4-Trichlorobenzene	50.0000	55.0544	110		2		40	65 - 135
1,1,2-Trichloro-1,2,2-trif	50.0000	53.6661	107		3		40	70 - 130
Cyclohexane	50.0000	57.1221	114		4		40	70 - 130

SW846

3 - FORM III
WATER LABORATORY CONTROL
SAMPLE DUPLICATE RECOVERY

EPA SAMPLE NO.

V2RLCSD

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Lab Sample ID: LCSD-43512 LCS Lot No.:

COMPOUND	SPIKE ADDED	LCSD CONCENTRATION	LCSD %REC	#	%RPD	#	QC LIMITS RPD	QC LIMITS REC.
Methyl acetate	50.0000	56.6435	113		4		40	70 - 130
Methylcyclohexane	50.0000	54.5701	109		0		40	70 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 48 outside limits

Spike Recovery: 0 out of 48 outside limits

COMMENTS:

SW846

2B - FORM II VOA-2

WATER VOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Level: (TRACE or LOW) LOW

	CLIENT SAMPLE NO.	VDMC1 (DBFM) #	VDMC2 (DCE) #	VDMC3 (TOL) #	VDMC4 (BFB) #				TOT OUT
01	VBLK2R	98	100	95	92				0
02	V2RLCS	99	103	97	96				0
03	V2RLCSD	99	103	99	94				0
04	BPS1-TB-0506 09M	101	101	94	91				0

Inst. V2 Aqueous

		QC LIMITS
VDMC1	(DBFM) Dibromofluoromethane	(85-115)
VDMC2	(DCE) =1,2-Dichloroethane-d4	(70-120)
VDMC3	(TOL) =Toluene-d8	(85-120)
VDMC4	(BFB) =Bromofluorobenzene	(75-120)

Column to be used to flag recovery values

* Values outside of contract required QC limits

8A - FORM VIII VOA

VOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

GC Column: DB-624 ID: 0.25 (mm) Init. Calib. Date(s): 05/04/2009 05/04/2009

EPA Sample No.(VSTD#####): VSTD0502R Date Analyzed: 05/11/2009

Lab File ID (Standard): V2K8473.D Time Analyzed: 12:15

Instrument ID: V2 Heated Purge: (Y/N) N

		IS1 (S1) AREA #	RT #	IS2 (S2) AREA #	RT #	IS3 (S3) AREA #	RT #
	12 HOUR STD	750158	6.849	497945	10.577	322212	13.415
	UPPER LIMIT	1500316	7.349	995890	11.077	644424	13.915
	LOWER LIMIT	375079	6.349	248973	10.077	161106	12.915
	SAMPLE NO.						
01	VBLK2R	670063	6.848	472521	10.576	302113	13.404
02	V2RLCS	636771	6.848	438006	10.567	291542	13.405
03	V2RLCSD	610430	6.837	424043	10.566	280807	13.404
04	BPS1-TB-0506 09M	585177	6.848	413433	10.577	267815	13.415

IS1 () = Fluorobenzene

IS2 () = Chlorobenzene-d5

IS3 () = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = 200% (Low-Medium Volatiles) and 140% (Trace Volatiles) of internal standard area

AREA LOWER LIMIT = 50% (Low-Medium Volatiles) and 60% (Trace Volatiles) of internal standard area

RT UPPER LIMIT = +0.50 (Low-Medium Volatiles) and +0.33 (Trace Volatiles) minutes of internal standard RT

RT LOWER LIMIT = -0.50 (Low-Medium Volatiles) and -0.33 (Trace Volatiles) minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

CLIENT SAMPLE NO.

BFB6G

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Lab File ID: V6G6790.D BFB Injection Date: 05/13/2009

Instrument ID: V6 BFB Injection Time: 7:31

GC Column: DB-624 ID: 0.25 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.4
75	30.0 - 60.0% of mass 95	43.4
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.2 (0.2)1
174	50.0 - 100.0% of mass 95	69.3
175	5.0 - 9.0% of mass 174	5.0 (7.2)1
176	95.0 - 101.0% of mass 174	66.3 (95.7)1
177	5.0 - 9.0% of mass 176	4.2 (6.4)2

1 - Value is % mass 174 2 - Value is % mass 176

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0506G	VSTD0506G	V6G6791.D	05/13/2009	8:02
02	VSTD0206G	VSTD0206G	V6G6792.D	05/13/2009	8:46
03	VSTD0056G	VSTD0056G	V6G6794.D	05/13/2009	9:47
04	VSTD2006G	VSTD2006G	V6G6795.D	05/13/2009	10:17
05	VSTD1006G	VSTD1006G	V6G6796.D	05/13/2009	10:48
06	VICV0506G	VICV0506G	V6G6797.D	05/13/2009	11:29

6A - FORM VI VOA-1

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Instrument ID: V6 Calibration Date(s): 05/13/2009 05/13/2009

Heated Purge: (Y/N) Y Calibration Time(s): 8:02 10:48

Purge Volume: 5.0 (mL)

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID: RRF005 = V6G6794.D RRF020 = V6G6792.D

RRF050 = V6G6791.D RRF100 = V6G6796.D RRF200 = V6G6795.D

COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF200	$\overline{RRF}$	%RSD
Dichlorodifluoromethane	0.310	0.308	0.237	0.253	0.208	0.263	17.1
Chloromethane	0.748	0.736	0.748	0.567	0.623	0.684	12.3
Vinyl chloride	0.722	0.681	0.667	0.496	0.560	0.625	15.0
Bromomethane	0.485	0.409	0.436	0.228	0.203	0.352	36.3
Chloroethane	0.307	0.399	0.420	0.245	0.237	0.322	26.4
Trichlorofluoromethane	0.747	0.987	0.643	0.517	0.570	0.693	26.8
1,1-Dichloroethene	0.563	0.559	0.466	0.548	0.490	0.525	8.4
Acetone	0.112	0.096	0.104	0.090	0.073	0.095	15.6
Carbon disulfide	2.336	2.175	1.896	2.000	1.755	2.032	11.3
Methylene chloride	0.790	0.654	0.557	0.594	0.525	0.624	16.8
trans-1,2-Dichloroethene	0.640	0.608	0.548	0.589	0.531	0.583	7.6
Methyl tert-butyl ether	1.330	1.378	1.248	1.476	1.237	1.334	7.4
1,1-Dichloroethane	1.083	1.026	0.953	1.063	0.917	1.008	7.1
2-Butanone	0.073	0.085	0.092	0.082	0.071	0.080	11.0
cis-1,2-Dichloroethene	0.632	0.636	0.600	0.621	0.574	0.613	4.2
Chloroform	1.002	0.953	0.887	0.919	0.848	0.922	6.4
1,1,1-Trichloroethane	0.743	0.764	0.692	0.751	0.706	0.731	4.2
Carbon tetrachloride	0.646	0.697	0.655	0.723	0.693	0.683	4.6
1,2-Dichloroethane	0.692	0.656	0.629	0.662	0.625	0.653	4.2
Benzene	2.489	2.401	2.339	2.340	2.234	2.361	4.0
Trichloroethene	0.610	0.602	0.573	0.605	0.583	0.595	2.7
1,2-Dichloropropane	0.663	0.642	0.636	0.640	0.615	0.639	2.7
Bromodichloromethane	0.690	0.678	0.657	0.684	0.652	0.672	2.5
cis-1,3-Dichloropropene	0.835	0.868	0.873	0.930	0.894	0.880	4.0
4-Methyl-2-pentanone	0.470	0.547	0.507	0.602	0.539	0.533	9.2
Toluene	2.570	2.547	2.489	2.469	2.466	2.508	1.9
trans-1,3-Dichloropropene	0.627	0.713	0.729	0.793	0.766	0.726	8.7
1,1,2-Trichloroethane	0.506	0.516	0.491	0.484	0.467	0.493	3.9
Tetrachloroethene	0.552	0.526	0.483	0.516	0.478	0.511	6.0
2-Hexanone	0.310	0.417	0.484	0.493	0.433	0.427	17.2
Dibromochloromethane	0.597	0.618	0.566	0.615	0.574	0.594	3.9
1,2-Dibromoethane	0.584	0.584	0.532	0.575	0.525	0.560	5.2
Chlorobenzene	2.041	1.939	1.847	1.749	1.553	1.826	10.2
Ethylbenzene	1.047	1.017	0.955	0.941	0.915	0.975	5.7
Xylene (Total)	1.269	1.279	1.240	1.194	1.117	1.220	5.4
Styrene	1.784	2.005	1.996	1.949	1.834	1.914	5.2
Bromoform	0.316	0.359	0.340	0.357	0.351	0.345	5.1
Isopropylbenzene	2.435	2.741	2.657	2.546	2.547	2.585	4.5
1,1,2,2-Tetrachloroethane	1.677	1.679	1.327	1.564	1.322	1.514	11.8

Report 1,4-Dioxane for Low-Medium VOA analysis only SW846

6B - FORM VI VOA-2

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Instrument ID: V6 Calibration Date(s): 05/13/2009 05/13/2009

Heated Purge: (Y/N) Y Calibration Time(s): 8:02 10:48

Purge Volume: 5.0 (mL)

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID: RRF005 = V6G6794.D RRF020 = V6G6792.D

RRF050 = V6G6791.D RRF100 = V6G6796.D RRF200 = V6G6795.D

COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF200	$\overline{RRF}$	%RSD
1,3-Dichlorobenzene	2.872	3.032	2.621	2.724	2.518	2.754	7.4
1,4-Dichlorobenzene	3.024	3.169	2.623	2.724	2.512	2.811	9.8
1,2-Dichlorobenzene	2.868	3.022	2.604	2.650	2.287	2.686	10.4
1,2-Dibromo-3-chloropropane	0.236	0.232	0.203	0.251	0.227	0.230	7.5
1,2,4-Trichlorobenzene	1.462	1.704	1.563	1.660	1.465	1.571	7.0
1,1,2-Trichloro-1,2,2-trifluoroethane	0.670	0.691	0.581	0.644	0.579	0.633	8.1
Cyclohexane	1.184	1.226	1.182	1.232	1.157	1.196	2.7
Methyl acetate	0.442	0.417	0.409	0.467	0.382	0.423	7.6
Methylcyclohexane	1.040	1.127	1.088	1.145	1.128	1.105	3.8

6C - FORM VI VOA-3

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Instrument ID: V6 Calibration Date(s): 05/13/2009 05/13/2009

Heated Purge: (Y/N) Y Calibration Time(s): 8:02 10:48

Purge Volume: 5.0 (mL)

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID: RRF005 = V6G6794.D RRF020 = V6G6792.D

RRF050 = V6G6791.D RRF100 = V6G6796.D RRF200 = V6G6795.D

COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF200	$\overline{RRF}$	%RSD
Dibromofluoromethane	0.249	0.266	0.265	0.252	0.239	0.254	4.5
1,2-Dichloroethane-d4	0.058	0.058	0.060	0.053	0.051	0.056	7.1
Toluene-d8	1.208	1.135	1.081	1.146	1.103	1.135	4.3
Bromofluorobenzene	0.470	0.481	0.496	0.482	0.494	0.484	2.2

Report 1,4-Dioxane-d8 for Low-Medium VOA analysis only SW846

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

CLIENT SAMPLE NO.

BFB6H

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Lab File ID: V6G6800A.D BFB Injection Date: 05/13/2009

Instrument ID: V6 BFB Injection Time: 12:47

GC Column: DB-624 ID: 0.25 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.7
75	30.0 - 60.0% of mass 95	44.2
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.9
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 100.0% of mass 95	59.2
175	5.0 - 9.0% of mass 174	4.9 (8.3)1
176	95.0 - 101.0% of mass 174	56.8 (95.9)1
177	5.0 - 9.0% of mass 176	3.8 (6.7)2

1 - Value is % mass 174 2 - Value is % mass 176

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0506H	VSTD0506H	V6G6801A.D	05/13/2009	13:05
02	VBLK6H	MB-43552	V6G6803.D	05/13/2009	14:17
03	V6HLCS	LCS-43552	V6G6804.D	05/13/2009	14:47
04	BPS1-3001-SB -041M	H0802-02B	V6G6816.D	05/13/2009	20:53
05	BPS1-3001-SB -046M	H0802-03B	V6G6817.D	05/13/2009	21:23
06	BPS1-3001-SB -051M	H0802-04B	V6G6818.D	05/13/2009	21:53
07	BPS1-3001-SB -061M	H0802-05A	V6G6819.D	05/13/2009	22:24
08	BPS1-3001-GW -071M	H0802-06A	V6G6820.D	05/13/2009	22:55
09	BPS1-3001-GW -191M	H0802-09A	V6G6821.D	05/13/2009	23:25
10	V6HLCSD	LCSD-43552	V6G6823.D	05/14/2009	0:26

7A - FORM VII VOA-1

VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: ~~SDG No.:~~ SH0802

Instrument ID: V6 Calibration Date: 05/13/2009 Time: 13:05

Lab File ID: V6G6801A.D Init. Calib. Date(s): 05/13/2009 05/13/2009

EPA Sample No.(VSTD#####): VSTD0506H Init. Calib. Time(s): 8:02 10:48

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 5.0 (mL)

COMPOUND	$\overline{RRF}$	RRF050	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.263	0.226	0.100	-14.0	20.0
Chloromethane	0.684	0.513	0.010	-25.0	20.0
Vinyl chloride	0.625	0.449	0.010	-28.2	20.0
Bromomethane	0.352	0.260	0.010	-26.3	20.0
Chloroethane	0.322	0.247	0.010	-23.2	20.0
Trichlorofluoromethane	0.693	0.466	0.010	-32.8	20.0
1,1-Dichloroethene	0.525	0.473	0.100	-9.9	20.0
Acetone	0.095	0.092	0.010	-3.7	20.0
Carbon disulfide	2.032	1.782	0.010	-12.3	20.0
Methylene chloride	0.624	0.541	0.010	-13.4	20.0
trans-1,2-Dichloroethene	0.583	0.524	0.010	-10.1	20.0
Methyl tert-butyl ether	1.334	1.347	0.010	1.0	20.0
1,1-Dichloroethane	1.008	0.957	0.010	-5.1	20.0
2-Butanone	0.080	0.073	0.010	-9.7	20.0
cis-1,2-Dichloroethene	0.613	0.569	0.010	-7.1	20.0
Chloroform	0.922	0.848	0.010	-8.0	20.0
1,1,1-Trichloroethane	0.731	0.684	0.010	-6.5	20.0
Carbon tetrachloride	0.683	0.654	0.010	-4.2	20.0
1,2-Dichloroethane	0.653	0.629	0.010	-3.7	20.0
Benzene	2.361	2.138	0.010	-9.4	20.0
Trichloroethene	0.595	0.543	0.010	-8.8	20.0
1,2-Dichloropropane	0.639	0.595	0.010	-6.9	20.0
Bromodichloromethane	0.672	0.630	0.010	-6.3	20.0
cis-1,3-Dichloropropene	0.880	0.846	0.010	-3.8	20.0
4-Methyl-2-pentanone	0.533	0.537	0.010	0.8	20.0
Toluene	2.508	2.246	0.010	-10.4	20.0
trans-1,3-Dichloropropene	0.726	0.715	0.010	-1.4	20.0
1,1,2-Trichloroethane	0.493	0.445	0.010	-9.8	20.0
Tetrachloroethene	0.511	0.466	0.010	-8.8	20.0
2-Hexanone	0.427	0.446	0.010	4.3	20.0
Dibromochloromethane	0.594	0.559	0.010	-5.9	20.0
1,2-Dibromoethane	0.560	0.527	0.010	-5.9	20.0
Chlorobenzene	1.826	1.673	0.010	-8.4	20.0
Ethylbenzene	0.975	0.881	0.010	-9.7	20.0
Xylene (Total)	1.220	1.093	0.010	-10.4	20.0
Styrene	1.914	1.774	0.010	-7.3	20.0
Bromoform	0.345	0.324	0.010	-6.1	20.0
Isopropylbenzene	2.585	2.299	0.300	-11.1	20.0
1,1,2,2-Tetrachloroethane	1.514	1.480	0.300	-2.3	20.0
1,3-Dichlorobenzene	2.754	2.545	0.010	-7.6	20.0

Report 1,4-Dioxane for Low-Medium VOA analysis only SW846

7B - FORM VII VOA-2

VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Instrument ID: V6 Calibration Date: 05/13/2009 Time: 13:05

Lab File ID: V6G6801A.D Init. Calib. Date(s): 05/13/2009 05/13/2009

EPA Sample No.(VSTD#####): VSTD0506H Init. Calib. Time(s): 8:02 10:48

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 5.0 (mL)

COMPOUND	$\overline{RRF}$	RRF050	MIN RRF	%D	MAX %D
1,4-Dichlorobenzene	2.811	2.567	0.010	-8.7	20.0
1,2-Dichlorobenzene	2.686	2.508	0.010	-6.6	20.0
1,2-Dibromo-3-chloropropane	0.230	0.229	0.010	-0.2	20.0
1,2,4-Trichlorobenzene	1.571	1.484	0.010	-5.5	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	0.633	0.566	0.010	-10.6	20.0
Cyclohexane	1.196	1.119	0.010	-6.5	20.0
Methyl acetate	0.423	0.417	0.010	-1.6	20.0
Methylcyclohexane	1.105	1.032	0.010	-6.6	20.0

7C - FORM VII VOA-3

VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Instrument ID: V6 Calibration Date: 05/13/2009 Time: 13:05

Lab File ID: V6G6801A.D Init. Calib. Date(s): 05/13/2009 05/13/2009

EPA Sample No.(VSTD#####): VSTD0506H Init. Calib. Time(s): 8:02 10:48

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 5.0 (mL)

COMPOUND	$\overline{RRF}$	RRF050	MIN RRF	%D	MAX %D
Dibromofluoromethane	0.254	0.256	0.010	0.7	20.0
1,2-Dichloroethane-d4	0.056	0.056	0.010	-0.1	20.0
Toluene-d8	1.135	1.166	0.010	2.8	20.0
Bromofluorobenzene	0.484	0.480	0.010	-1.0	20.0

Report 1,4-Dioxane-d8 for Low-Medium VOA analysis only SW846

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

CLIENT SAMPLE NO.

BFB6I

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Lab File ID: V6G6840.D BFB Injection Date: 05/14/2009

Instrument ID: V6 BFB Injection Time: 4:30

GC Column: DB-624 ID: 0.25 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.9
75	30.0 - 60.0% of mass 95	43.3
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.2
173	Less than 2.0% of mass 174	0.2 (0.3)1
174	50.0 - 100.0% of mass 95	63.3
175	5.0 - 9.0% of mass 174	5.1 (8.1)1
176	95.0 - 101.0% of mass 174	61.5 (97.2)1
177	5.0 - 9.0% of mass 176	4.2 (6.8)2

1 - Value is % mass 174 2 - Value is % mass 176

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0506I	VSTD0506I	V6G6841.D	05/14/2009	5:01
02	VBLK6I	MB-43569	V6G6844.D	05/14/2009	6:33
03	V6ILCS	LCS-43569	V6G6845.D	05/14/2009	7:03
04	V6ILCSD	LCSD-43569	V6G6846.D	05/14/2009	7:34
05	BPS1-3001-SB-099M	H0802-07B	V6G6851.D	05/14/2009	10:54
06	BPS1-3001-SB-131M	H0802-08B	V6G6852.D	05/14/2009	11:24

SW846

7A - FORM VII VOA-1

VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Instrument ID: V6 Calibration Date: 05/14/2009 Time: 5:01

Lab File ID: V6G6841.D Init. Calib. Date(s): 05/13/2009 05/13/2009

EPA Sample No.(VSTD#####): VSTD0506I Init. Calib. Time(s): 8:02 10:48

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 5.0 (mL)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.263	0.236	0.100	-10.3	20.0
Chloromethane	0.684	0.684	0.010	0.0	20.0
Vinyl chloride	0.625	0.616	0.010	-1.5	20.0
Bromomethane	0.352	0.374	0.010	6.3	20.0
Chloroethane	0.322	0.349	0.010	8.6	20.0
Trichlorofluoromethane	0.693	0.631	0.010	-9.0	20.0
1,1-Dichloroethene	0.525	0.529	0.100	0.8	20.0
Acetone	0.095	0.064	0.010	-33.2	20.0
Carbon disulfide	2.032	1.989	0.010	-2.1	20.0
Methylene chloride	0.624	0.625	0.010	0.2	20.0
trans-1,2-Dichloroethene	0.583	0.584	0.010	0.2	20.0
Methyl tert-butyl ether	1.334	1.471	0.010	10.3	20.0
1,1-Dichloroethane	1.008	1.062	0.010	5.4	20.0
2-Butanone	0.080	0.068	0.010	-15.7	20.0
cis-1,2-Dichloroethene	0.613	0.646	0.010	5.4	20.0
Chloroform	0.922	0.957	0.010	3.8	20.0
1,1,1-Trichloroethane	0.731	0.745	0.010	1.9	20.0
Carbon tetrachloride	0.683	0.713	0.010	4.4	20.0
1,2-Dichloroethane	0.653	0.698	0.010	6.9	20.0
Benzene	2.361	2.413	0.010	2.2	20.0
Trichloroethene	0.595	0.600	0.010	0.9	20.0
1,2-Dichloropropane	0.639	0.653	0.010	2.1	20.0
Bromodichloromethane	0.672	0.709	0.010	5.4	20.0
cis-1,3-Dichloropropene	0.880	0.894	0.010	1.6	20.0
4-Methyl-2-pentanone	0.533	0.604	0.010	13.3	20.0
Toluene	2.508	2.514	0.010	0.2	20.0
trans-1,3-Dichloropropene	0.726	0.743	0.010	2.4	20.0
1,1,2-Trichloroethane	0.493	0.518	0.010	5.2	20.0
Tetrachloroethene	0.511	0.577	0.010	12.9	20.0
2-Hexanone	0.427	0.446	0.010	4.3	20.0
Dibromochloromethane	0.594	0.639	0.010	7.6	20.0
1,2-Dibromoethane	0.560	0.611	0.010	9.2	20.0
Chlorobenzene	1.826	1.864	0.010	2.1	20.0
Ethylbenzene	0.975	0.982	0.010	0.7	20.0
Xylene (Total)	1.220	1.241	0.010	1.7	20.0
Styrene	1.914	2.038	0.010	6.5	20.0
Bromoform	0.345	0.382	0.010	10.9	20.0
Isopropylbenzene	2.585	2.706	0.300	4.7	20.0
1,1,2,2-Tetrachloroethane	1.514	1.643	0.300	8.5	20.0
1,3-Dichlorobenzene	2.754	2.671	0.010	-3.0	20.0

Report 1,4-Dioxane for Low-Medium VOA analysis only SW846

7B - FORM VII VOA-2

VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Instrument ID: V6 Calibration Date: 05/14/2009 Time: 5:01

Lab File ID: V6G6841.D Init. Calib. Date(s): 05/13/2009 05/13/2009

EPA Sample No.(VSTD#####): VSTD0506I Init. Calib. Time(s): 8:02 10:48

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 5.0 (mL)

COMPOUND	$\overline{RRF}$	RRF050	MIN RRF	%D	MAX %D
1,4-Dichlorobenzene	2.811	2.700	0.010	-3.9	20.0
1,2-Dichlorobenzene	2.686	2.740	0.010	2.0	20.0
1,2-Dibromo-3-chloropropane	0.230	0.264	0.010	14.8	20.0
1,2,4-Trichlorobenzene	1.571	1.465	0.010	-6.7	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	0.633	0.640	0.010	1.0	20.0
Cyclohexane	1.196	1.210	0.010	1.1	20.0
Methyl acetate	0.423	0.493	0.010	16.4	20.0
Methylcyclohexane	1.105	1.134	0.010	2.6	20.0

SW846

7C - FORM VII VOA-3

VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Instrument ID: V6 Calibration Date: 05/14/2009 Time: 5:01

Lab File ID: V6G6841.D Init. Calib. Date(s): 05/13/2009 05/13/2009

EPA Sample No.(VSTD#####): VSTD0506I Init. Calib. Time(s): 8:02 10:48

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 5.0 (mL)

COMPOUND	$\overline{RRF}$	RRF050	MIN RRF	%D	MAX %D
Dibromofluoromethane	0.254	0.250	0.010	-1.4	20.0
1,2-Dichloroethane-d4	0.056	0.056	0.010	0.4	20.0
Toluene-d8	1.135	1.144	0.010	0.8	20.0
Bromofluorobenzene	0.484	0.493	0.010	1.8	20.0

Report 1,4-Dioxane-d8 for Low-Medium VOA analysis only SW846

4A - FORM IV VOA

VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

VBLK6H

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Lab File ID: V6G6803.D Lab Sample ID: MB-43552

Instrument ID: V6

Matrix: (SOIL/SED/WATER) SOIL Date Analyzed: 05/13/2009

Level: (TRACE or LOW/MED) LOW Time Analyzed: 14:17

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	V6HLCS	LCS-43552	V6G6804.D	14:47
02	BPS1-3001-SB -041M	H0802-02B	V6G6816.D	20:53
03	BPS1-3001-SB -046M	H0802-03B	V6G6817.D	21:23
04	BPS1-3001-SB -051M	H0802-04B	V6G6818.D	21:53
05	BPS1-3001-SB -061M	H0802-05A	V6G6819.D	22:24
06	BPS1-3001-GW -071M	H0802-06A	V6G6820.D	22:55
07	BPS1-3001-GW -191M	H0802-09A	V6G6821.D	23:25
08	V6HLCSD	LCSD-43552	V6G6823.D	0:26

COMMENTS:

SW846

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLK6H

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: MB-43552

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V6G6803.D

Level: (TRACE/LOW/MED) LOW Date Received:

% Moisture: not dec. 0.0 Date Analyzed: 05/13/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	5.0	U
75-09-2	Methylene chloride	5.0	U
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-butyl ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
78-93-3	2-Butanone	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
67-66-3	Chloroform	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
71-43-2	Benzene	5.0	U
79-01-6	Trichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
1330-20-7	Xylene (Total)	5.0	U

SW846

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK6H

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: MB-43552

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V6G6803.D

Level: (TRACE/LOW/MED) LOW Date Received:

% Moisture: not dec. 0.0 Date Analyzed: 05/13/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U
110-82-7	Cyclohexane	5.0	U
79-20-9	Methyl acetate	5.0	U
108-87-2	Methylcyclohexane	5.0	U

SW846

4A - FORM IV VOA

VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

VBLK6I

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Lab File ID: V6G6844.D Lab Sample ID: MB-43569

Instrument ID: V6

Matrix: (SOIL/SED/WATER) SOIL Date Analyzed: 05/14/2009

Level: (TRACE or LOW/MED) LOW Time Analyzed: 6:33

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	V6ILCS	LCS-43569	V6G6845.D	7:03
02	V6ILCSD	LCSD-43569	V6G6846.D	7:34
03	BPS1-3001-SB-099M	H0802-07B	V6G6851.D	10:54
04	BPS1-3001-SB-131M	H0802-08B	V6G6852.D	11:24

COMMENTS:

SW846

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLK6I

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: MB-43569

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V6G6844.D

Level: (TRACE/LOW/MED) LOW Date Received:

% Moisture: not dec. 0.0 Date Analyzed: 05/14/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	5.0	U
75-09-2	Methylene chloride	5.0	U
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-butyl ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
78-93-3	2-Butanone	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
67-66-3	Chloroform	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
71-43-2	Benzene	5.0	U
79-01-6	Trichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
1330-20-7	Xylene (Total)	5.0	U

SW846

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

VBLK6I

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: MB-43569

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V6G6844.D

Level: (TRACE/LOW/MED) LOW Date Received:

% Moisture: not dec. 0.0 Date Analyzed: 05/14/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U
110-82-7	Cyclohexane	5.0	U
79-20-9	Methyl acetate	5.0	U
108-87-2	Methylcyclohexane	5.0	U

3 - FORM III
SOIL LABORATORY CONTROL
SAMPLE RECOVERY

EPA SAMPLE NO.

V6HLCS

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Lab Sample ID: LCS-43552 LCS Lot No.:

Date Extracted: 05/13/2009 Date Analyzed (1): 05/13/2009

COMPOUND	SPIKE ADDED	SAMPLE CONCENTRATION	LCS CONCENTRATION	LCS %REC	#	QC. LIMITS REC.
Dichlorodifluoromethane	50.0000	0.0000	39.0829	78		35 - 135
Chloromethane	50.0000	0.0000	39.7307	79		50 - 130
Vinyl chloride	50.0000	0.0000	39.2023	78		60 - 125
Bromomethane	50.0000	0.0000	37.8957	76		30 - 160
Chloroethane	50.0000	0.0000	43.0699	86		40 - 155
Trichlorofluoromethane	50.0000	0.0000	41.1988	82		25 - 185
1,1-Dichloroethene	50.0000	0.0000	42.7262	85		65 - 135
Acetone	50.0000	0.0000	37.5167	75		20 - 160
Carbon disulfide	50.0000	0.0000	41.4515	83		45 - 160
Methylene chloride	50.0000	0.0000	41.2905	83		55 - 140
trans-1,2-Dichloroethene	50.0000	0.0000	42.5046	85		65 - 135
Methyl tert-butyl ether	50.0000	0.0000	46.0742	92		75 - 126
1,1-Dichloroethane	50.0000	0.0000	43.5547	87		75 - 125
2-Butanone	50.0000	0.0000	38.1091	76		30 - 160
cis-1,2-Dichloroethene	50.0000	0.0000	43.0511	86		65 - 125
Chloroform	50.0000	0.0000	42.6626	85		70 - 125
1,1,1-Trichloroethane	50.0000	0.0000	42.3309	85		70 - 135
Carbon tetrachloride	50.0000	0.0000	43.2544	87		65 - 135
1,2-Dichloroethane	50.0000	0.0000	43.3577	87		70 - 135
Benzene	50.0000	0.0000	41.7076	83		75 - 125
Trichloroethene	50.0000	0.0000	42.3155	85		75 - 125
1,2-Dichloropropane	50.0000	0.0000	41.9935	84		70 - 120
Bromodichloromethane	50.0000	0.0000	42.8242	86		70 - 130
cis-1,3-Dichloropropene	50.0000	0.0000	43.4977	87		70 - 125
4-Methyl-2-pentanone	50.0000	0.0000	47.2774	95		45 - 145
Toluene	50.0000	0.0000	41.3530	83		70 - 125
trans-1,3-Dichloropropene	50.0000	0.0000	43.6602	87		65 - 125
1,1,2-Trichloroethane	50.0000	0.0000	43.4198	87		60 - 125
Tetrachloroethene	50.0000	0.0000	43.6656	87		65 - 140
2-Hexanone	50.0000	0.0000	45.6824	91		45 - 145
Dibromochloromethane	50.0000	0.0000	43.5327	87		65 - 130
1,2-Dibromoethane	50.0000	0.0000	45.1573	90		70 - 125
Chlorobenzene	50.0000	0.0000	42.4414	85		75 - 125
Ethylbenzene	50.0000	0.0000	42.4613	85		75 - 125
Xylene (Total)	150.0000	0.0000	125.3799	84		83 - 125
Styrene	50.0000	0.0000	42.5884	85		75 - 125
Bromoform	50.0000	0.0000	44.2431	88		55 - 135
Isopropylbenzene	50.0000	0.0000	42.4565	85		75 - 130
1,1,2,2-Tetrachloroethane	50.0000	0.0000	45.2529	91		55 - 130
1,3-Dichlorobenzene	50.0000	0.0000	42.8087	86		70 - 125
1,4-Dichlorobenzene	50.0000	0.0000	42.1858	84		70 - 125
1,2-Dichlorobenzene	50.0000	0.0000	43.5468	87		75 - 120
1,2-Dibromo-3-chloropropan	50.0000	0.0000	47.1730	94		40 - 135
1,2,4-Trichlorobenzene	50.0000	0.0000	43.6808	87		65 - 130

SW846

3 - FORM III
SOIL LABORATORY CONTROL
SAMPLE RECOVERY

EPA SAMPLE NO.

V6HLCS

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Lab Sample ID: LCS-43552 LCS Lot No.:

Date Extracted: 05/13/2009 Date Analyzed (1): 05/13/2009

COMPOUND	SPIKE ADDED	SAMPLE CONCENTRATION	LCS CONCENTRATION	LCS %REC	#	QC. LIMITS REC.
1,1,2-Trichloro-1,2,2-trif	50.0000	0.0000	42.4713	85		70 - 130
Cyclohexane	50.0000	0.0000	42.2215	84		70 - 130
Methyl acetate	50.0000	0.0000	48.9303	98		70 - 130
Methylcyclohexane	50.0000	0.0000	42.9302	86		70 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 48 outside limits

COMMENTS:

SW846

3 - FORM III
SOIL LABORATORY CONTROL
SAMPLE DUPLICATE RECOVERY

EPA SAMPLE NO.

V6HLCSD

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Lab Sample ID: LCSD-43552 LCS Lot No.:

COMPOUND	SPIKE ADDED	LCSD CONCENTRATION	LCSD %REC	#	%RPD	#	QC LIMITS RPD	QC LIMITS REC.
Dichlorodifluoromethane	50.0000	46.0092	92		16		40	35 - 135
Chloromethane	50.0000	34.0489	68		15		40	50 - 130
Vinyl chloride	50.0000	32.7589	66		17		40	60 - 125
Bromomethane	50.0000	34.3118	69		10		40	30 - 160
Chloroethane	50.0000	33.8982	68		23		40	40 - 155
Trichlorofluoromethane	50.0000	33.8115	68		19		40	25 - 185
1,1-Dichloroethene	50.0000	51.9887	104		20		40	65 - 135
Acetone	50.0000	26.9662	54		33		40	20 - 160
Carbon disulfide	50.0000	50.7997	102		21		40	45 - 160
Methylene chloride	50.0000	49.8413	100		19		40	55 - 140
trans-1,2-Dichloroethene	50.0000	50.5821	101		17		40	65 - 135
Methyl tert-butyl ether	50.0000	54.7240	109		17		40	75 - 126
1,1-Dichloroethane	50.0000	54.7599	110		23		40	75 - 125
2-Butanone	50.0000	37.0404	74		3		40	30 - 160
cis-1,2-Dichloroethene	50.0000	51.3721	103		18		40	65 - 125
Chloroform	50.0000	52.3789	105		21		40	70 - 125
1,1,1-Trichloroethane	50.0000	53.3851	107		23		40	70 - 135
Carbon tetrachloride	50.0000	53.6180	107		21		40	65 - 135
1,2-Dichloroethane	50.0000	51.3033	103		17		40	70 - 135
Benzene	50.0000	49.6708	99		18		40	75 - 125
Trichloroethene	50.0000	50.7330	101		17		40	75 - 125
1,2-Dichloropropane	50.0000	50.1485	100		17		40	70 - 120
Bromodichloromethane	50.0000	51.5465	103		18		40	70 - 130
cis-1,3-Dichloropropene	50.0000	52.4006	105		19		40	70 - 125
4-Methyl-2-pentanone	50.0000	49.0661	98		3		40	45 - 145
Toluene	50.0000	49.4043	99		18		40	70 - 125
trans-1,3-Dichloropropene	50.0000	52.5649	105		19		40	65 - 125
1,1,2-Trichloroethane	50.0000	47.3913	95		9		40	60 - 125
Tetrachloroethene	50.0000	53.1538	106		20		40	65 - 140
2-Hexanone	50.0000	46.6918	93		2		40	45 - 145
Dibromochloromethane	50.0000	52.8731	106		20		40	65 - 130
1,2-Dibromoethane	50.0000	51.8183	104		14		40	70 - 125
Chlorobenzene	50.0000	49.0769	98		14		40	75 - 125
Ethylbenzene	50.0000	50.9799	102		18		40	75 - 125
Xylene (Total)	150.0000	146.9699	98		15		40	83 - 125
Styrene	50.0000	49.9984	100		16		40	75 - 125
Bromoform	50.0000	49.6768	99		12		40	55 - 135
Isopropylbenzene	50.0000	49.9945	100		16		40	75 - 130
1,1,2,2-Tetrachloroethane	50.0000	50.1811	100		9		40	55 - 130
1,3-Dichlorobenzene	50.0000	48.9678	98		13		40	70 - 125
1,4-Dichlorobenzene	50.0000	48.2459	96		13		40	70 - 125
1,2-Dichlorobenzene	50.0000	48.3193	97		11		40	75 - 120
1,2-Dibromo-3-chloropropan	50.0000	52.7563	106		12		40	40 - 135
1,2,4-Trichlorobenzene	50.0000	47.9428	96		10		40	65 - 130
1,1,2-Trichloro-1,2,2-trif	50.0000	48.4658	97		13		40	70 - 130
Cyclohexane	50.0000	51.8791	104		21		40	70 - 130

SW846

3 - FORM III
SOIL LABORATORY CONTROL
SAMPLE DUPLICATE RECOVERY

EPA SAMPLE NO.

V6HLCSD

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Lab Sample ID: LCSD-43552 LCS Lot No.:

COMPOUND	SPIKE ADDED	LCSD CONCENTRATION	LCSD %REC	#	%RPD	#	QC LIMITS RPD	QC LIMITS REC.
Methyl acetate	50.0000	49.7052	99		1		40	70 - 130
Methylcyclohexane	50.0000	51.4239	103		18		40	70 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 48 outside limits

Spike Recovery: 0 out of 48 outside limits

COMMENTS:

SW846

3 - FORM III
SOIL LABORATORY CONTROL
SAMPLE RECOVERY

CLIENT SAMPLE NO.

V6ILCS

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Lab Sample ID: LCS-43569 LCS Lot No.:

Date Extracted: 05/13/2009 Date Analyzed (1): 05/14/2009

COMPOUND	SPIKE ADDED	SAMPLE CONCENTRATION	LCS CONCENTRATION	LCS %REC	#	QC. LIMITS REC.
Dichlorodifluoromethane	50.0000	0.0000	44.7596	90		35 - 135
Chloromethane	50.0000	0.0000	52.5109	105		50 - 130
Vinyl chloride	50.0000	0.0000	49.9835	100		60 - 125
Bromomethane	50.0000	0.0000	54.6481	109		30 - 160
Chloroethane	50.0000	0.0000	55.7664	112		40 - 155
Trichlorofluoromethane	50.0000	0.0000	48.8685	98		25 - 185
1,1-Dichloroethene	50.0000	0.0000	49.8136	100		65 - 135
Acetone	50.0000	0.0000	27.8638	56		20 - 160
Carbon disulfide	50.0000	0.0000	48.1783	96		45 - 160
Methylene chloride	50.0000	0.0000	49.3082	99		55 - 140
trans-1,2-Dichloroethene	50.0000	0.0000	48.9856	98		65 - 135
Methyl tert-butyl ether	50.0000	0.0000	51.5053	103		75 - 126
1,1-Dichloroethane	50.0000	0.0000	51.1364	102		75 - 125
2-Butanone	50.0000	0.0000	38.2609	77		30 - 160
cis-1,2-Dichloroethene	50.0000	0.0000	50.9581	102		65 - 125
Chloroform	50.0000	0.0000	49.8477	100		70 - 125
1,1,1-Trichloroethane	50.0000	0.0000	49.9001	100		70 - 135
Carbon tetrachloride	50.0000	0.0000	51.5152	103		65 - 135
1,2-Dichloroethane	50.0000	0.0000	50.6135	101		70 - 135
Benzene	50.0000	0.0000	49.3842	99		75 - 125
Trichloroethene	50.0000	0.0000	50.4289	101		75 - 125
1,2-Dichloropropane	50.0000	0.0000	48.9982	98		70 - 120
Bromodichloromethane	50.0000	0.0000	50.8947	102		70 - 130
cis-1,3-Dichloropropene	50.0000	0.0000	49.4407	99		70 - 125
4-Methyl-2-pentanone	50.0000	0.0000	53.7209	107		45 - 145
Toluene	50.0000	0.0000	49.6376	99		70 - 125
trans-1,3-Dichloropropene	50.0000	0.0000	49.0683	98		65 - 125
1,1,2-Trichloroethane	50.0000	0.0000	50.3686	101		60 - 125
Tetrachloroethene	50.0000	0.0000	53.7419	107		65 - 140
2-Hexanone	50.0000	0.0000	48.5494	97		45 - 145
Dibromochloromethane	50.0000	0.0000	50.8076	102		65 - 130
1,2-Dibromoethane	50.0000	0.0000	51.0955	102		70 - 125
Chlorobenzene	50.0000	0.0000	49.8537	100		75 - 125
Ethylbenzene	50.0000	0.0000	49.9475	100		75 - 125
Xylene (Total)	150.0000	0.0000	147.9198	99		83 - 125
Styrene	50.0000	0.0000	51.7658	104		75 - 125
Bromoform	50.0000	0.0000	51.6857	103		55 - 135
Isopropylbenzene	50.0000	0.0000	50.9059	102		75 - 130
1,1,2,2-Tetrachloroethane	50.0000	0.0000	50.3200	101		55 - 130
1,3-Dichlorobenzene	50.0000	0.0000	48.1336	96		70 - 125
1,4-Dichlorobenzene	50.0000	0.0000	47.5123	95		70 - 125
1,2-Dichlorobenzene	50.0000	0.0000	50.1188	100		75 - 120
1,2-Dibromo-3-chloropropan	50.0000	0.0000	52.0613	104		40 - 135
1,2,4-Trichlorobenzene	50.0000	0.0000	46.4434	93		65 - 130

SW846

3 - FORM III
SOIL LABORATORY CONTROL
SAMPLE RECOVERY

CLIENT SAMPLE NO.

V6ILCS

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Lab Sample ID: LCS-43569 LCS Lot No.:

Date Extracted: 05/13/2009 Date Analyzed (1): 05/14/2009

COMPOUND	SPIKE ADDED	SAMPLE CONCENTRATION	LCS CONCENTRATION	LCS %REC	#	QC. LIMITS REC.
1,1,2-Trichloro-1,2,2-trif	50.0000	0.0000	44.4763	89		70 - 130
Cyclohexane	50.0000	0.0000	49.9659	100		70 - 130
Methyl acetate	50.0000	0.0000	53.9069	108		70 - 130
Methylcyclohexane	50.0000	0.0000	50.2311	100		70 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 48 outside limits

COMMENTS:

SW846

3 - FORM III
SOIL LABORATORY CONTROL
SAMPLE DUPLICATE RECOVERY

EPA SAMPLE NO.

V6ILCSD

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Lab Sample ID: LCSD-43569 LCS Lot No.:

COMPOUND	SPIKE ADDED	LCSD CONCENTRATION	LCSD %REC	#	%RPD	#	QC LIMITS RPD	QC LIMITS REC.
Dichlorodifluoromethane	50.0000	50.4291	101		12		40	35 - 135
Chloromethane	50.0000	50.5219	101		4		40	50 - 130
Vinyl chloride	50.0000	48.7953	98		2		40	60 - 125
Bromomethane	50.0000	50.7770	102		7		40	30 - 160
Chloroethane	50.0000	53.9127	108		4		40	40 - 155
Trichlorofluoromethane	50.0000	49.7312	99		1		40	25 - 185
1,1-Dichloroethene	50.0000	52.7705	106		6		40	65 - 135
Acetone	50.0000	25.2685	51		9		40	20 - 160
Carbon disulfide	50.0000	49.6953	99		3		40	45 - 160
Methylene chloride	50.0000	50.2253	100		1		40	55 - 140
trans-1,2-Dichloroethene	50.0000	51.2193	102		4		40	65 - 135
Methyl tert-butyl ether	50.0000	52.8448	106		3		40	75 - 126
1,1-Dichloroethane	50.0000	52.8683	106		4		40	75 - 125
2-Butanone	50.0000	36.0287	72		7		40	30 - 160
cis-1,2-Dichloroethene	50.0000	51.9708	104		2		40	65 - 125
Chloroform	50.0000	51.8054	104		4		40	70 - 125
1,1,1-Trichloroethane	50.0000	51.4518	103		3		40	70 - 135
Carbon tetrachloride	50.0000	53.2020	106		3		40	65 - 135
1,2-Dichloroethane	50.0000	50.6920	101		0		40	70 - 135
Benzene	50.0000	50.6100	101		2		40	75 - 125
Trichloroethene	50.0000	50.8108	102		1		40	75 - 125
1,2-Dichloropropane	50.0000	50.6762	101		3		40	70 - 120
Bromodichloromethane	50.0000	51.3998	103		1		40	70 - 130
cis-1,3-Dichloropropene	50.0000	50.1401	100		1		40	70 - 125
4-Methyl-2-pentanone	50.0000	50.4053	101		6		40	45 - 145
Toluene	50.0000	50.9384	102		3		40	70 - 125
trans-1,3-Dichloropropene	50.0000	50.1688	100		2		40	65 - 125
1,1,2-Trichloroethane	50.0000	49.9103	100		1		40	60 - 125
Tetrachloroethene	50.0000	55.1050	110		3		40	65 - 140
2-Hexanone	50.0000	44.2095	88		10		40	45 - 145
Dibromochloromethane	50.0000	51.8577	104		2		40	65 - 130
1,2-Dibromoethane	50.0000	50.7758	102		0		40	70 - 125
Chlorobenzene	50.0000	50.5105	101		1		40	75 - 125
Ethylbenzene	50.0000	50.2743	101		1		40	75 - 125
Xylene (Total)	150.0000	150.0504	100		1		40	83 - 125
Styrene	50.0000	51.9383	104		0		40	75 - 125
Bromoform	50.0000	50.9840	102		1		40	55 - 135
Isopropylbenzene	50.0000	51.2726	103		1		40	75 - 130
1,1,2,2-Tetrachloroethane	50.0000	51.1937	102		1		40	55 - 130
1,3-Dichlorobenzene	50.0000	48.5829	97		1		40	70 - 125
1,4-Dichlorobenzene	50.0000	47.4512	95		0		40	70 - 125
1,2-Dichlorobenzene	50.0000	51.2809	103		3		40	75 - 120
1,2-Dibromo-3-chloropropan	50.0000	51.8297	104		0		40	40 - 135
1,2,4-Trichlorobenzene	50.0000	45.7966	92		1		40	65 - 130
1,1,2-Trichloro-1,2,2-trif	50.0000	51.7590	104		16		40	70 - 130
Cyclohexane	50.0000	51.4550	103		3		40	70 - 130

SW846

3 - FORM III
SOIL LABORATORY CONTROL
SAMPLE DUPLICATE RECOVERY

EPA SAMPLE NO.

V6ILCSD

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Lab Sample ID: LCSD-43569 LCS Lot No.:

COMPOUND	SPIKE ADDED	LCSD CONCENTRATION	LCSD %REC	#	%RPD	#	QC LIMITS RPD	QC LIMITS REC.
Methyl acetate	50.0000	50.8489	102		6		40	70 - 130
Methylcyclohexane	50.0000	51.5839	103		3		40	70 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 48 outside limits

Spike Recovery: 0 out of 48 outside limits

COMMENTS:

SW846

2D - FORM II VOA-4

SOIL VOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Level: (LOW/MED) LOW

	CLIENT SAMPLE NO.	VDMC1 (DBFM) #	VDMC2 (DCE) #	VDMC3 (TOL) #	VDMC4 (BFB) #				TOT OUT
01	VBLK6H	101	96	105	92				0
02	V6HLCS	99	100	100	98				0
03	BPS1-3001-SB -041M	97	97	105	100				0
04	BPS1-3001-SB -046M	99	103	105	100				0
05	BPS1-3001-SB -051M	97	97	104	100				0
06	BPS1-3001-SB -061M	103	99	104	99				0
07	BPS1-3001-GW -071M	103	102	103	97				0
08	BPS1-3001-GW -191M	104	98	103	95				0
09	V6HLCSD	100	96	106	104				0
10	VBLK6I	101	99	103	90				0
11	V6ILCS	98	100	99	101				0
12	V6ILCSD	101	102	101	102				0
13	BPS1-3001-SB -099M	105	107	103	91				0
14	BPS1-3001-SB -131M	102	103	102	93				0

Inst. V6 Sediments

		QC LIMITS
VDMC1	(DBFM) Dibromofluoromethane	(65-132)
VDMC2	(DCE) = 1,2-Dichloroethane-d4	(65-128)
VDMC3	(TOL) = Toluene-d8	(85-115)
VDMC4	(BFB) = Bromofluorobenzene	(77-111)

Column to be used to flag recovery values

* Values outside of contract required QC limits

8A - FORM VIII VOA

VOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

GC Column: DB-624 ID: 0.25 (mm) Init. Calib. Date(s): 05/13/2009 05/13/2009

EPA Sample No.(VSTD#####): VSTD0506H Date Analyzed: 05/13/2009

Lab File ID (Standard): V6G6801A.D Time Analyzed: 13:05

Instrument ID: V6 Heated Purge: (Y/N) Y

		IS1 (S1) AREA #	RT #	IS2 (S2) AREA #	RT #	IS3 (S3) AREA #	RT #
	12 HOUR STD	444190	5.966	394519	9.616	196954	12.554
	UPPER LIMIT	888380	6.466	789038	10.116	393908	13.054
	LOWER LIMIT	222095	5.466	197260	9.116	98477	12.054
	SAMPLE NO.						
01	VBLK6H	384866	5.966	317607	9.616	139699	12.554
02	V6HLCS	373312	5.964	334758	9.614	172540	12.553
03	BPS1-3001-SB -041M	561232	5.967	471663	9.618	219906	12.556
04	BPS1-3001-SB -046M	519631	5.964	431765	9.614	203516	12.553
05	BPS1-3001-SB -051M	531594	5.965	439839	9.615	200749	12.559
06	BPS1-3001-SB -061M	492015	5.968	412178	9.618	189472	12.557
07	BPS1-3001-GW -071M	504056	5.967	429920	9.617	193531	12.555
08	BPS1-3001-GW -191M	468802	5.965	404827	9.621	178854	12.553
09	V6HLCSD	513192	5.965	441160	9.615	218408	12.553

IS1 () = Fluorobenzene

IS2 () = Chlorobenzene-d5

IS3 () = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = 200% (Low-Medium Volatiles) and 140% (Trace Volatiles) of internal standard area

AREA LOWER LIMIT = 50% (Low-Medium Volatiles) and 60% (Trace Volatiles) of internal standard area

RT UPPER LIMIT = +0.50 (Low-Medium Volatiles) and +0.33 (Trace Volatiles) minutes of internal standard RT

RT LOWER LIMIT = -0.50 (Low-Medium Volatiles) and -0.33 (Trace Volatiles) minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

8A - FORM VIII VOA

VOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

GC Column: DB-624 ID: 0.25 (mm) Init. Calib. Date(s): 05/13/2009 05/13/2009

EPA Sample No.(VSTD#####): VSTD0506I Date Analyzed: 05/14/2009

Lab File ID (Standard): V6G6841.D Time Analyzed: 5:01

Instrument ID: V6 Heated Purge: (Y/N) Y

		IS1 (S1) AREA #	RT #	IS2 (S2) AREA #	RT #	IS3 (S3) AREA #	RT #
	12 HOUR STD	313168	5.964	279434	9.62	150627	12.553
	UPPER LIMIT	626336	6.464	558868	10.12	301254	13.053
	LOWER LIMIT	156584	5.464	139717	9.12	75314	12.053
	SAMPLE NO.						
01	VBLK6I	316453	5.967	267514	9.617	114994	12.555
02	V6ILCS	336759	5.965	304738	9.615	165882	12.554
03	V6ILCSD	353168	5.965	315193	9.615	165901	12.553
04	BPS1-3001-SB -099M	308014	5.968	262748	9.618	108505	12.556
05	BPS1-3001-SB -131M	274421	5.966	238738	9.616	105919	12.555

IS1 () = Fluorobenzene

IS2 () = Chlorobenzene-d5

IS3 () = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = 200% (Low-Medium Volatiles) and 140% (Trace Volatiles) of internal standard area

AREA LOWER LIMIT = 50% (Low-Medium Volatiles) and 60% (Trace Volatiles) of internal standard area

RT UPPER LIMIT = +0.50 (Low-Medium Volatiles) and +0.33 (Trace Volatiles) minutes of internal standard RT

RT LOWER LIMIT = -0.50 (Low-Medium Volatiles) and -0.33 (Trace Volatiles) minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

8H - FORM VIII ARO

AROCLOR ANALYTICAL SEQUENCE

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: ~~SDG No.:~~ SH0802

GC Column: CLPPest ID: 0.53 (mm) Init. Calib. Date(s): 05/07/2009 05/07/2009

Instrument ID: E1

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs, AND LCSs IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION

TCX: 3.167 DCB: 8.787

	EPA SAMPLE NO.	LAB File ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01	AR12213I1	E1H5858F.D	5/7/2009	13:33	3.177	8.800
02	AR12323I1	E1H5859F.D	5/7/2009	13:48	3.173	8.797
03	AR12426I1	E1H5860F.D	5/7/2009	14:02	3.173	8.793
04	AR12421I1	E1H5861F.D	5/7/2009	14:16	3.173	8.797
05	AR12422I1	E1H5862F.D	5/7/2009	14:31	3.173	8.793
06	AR12423I1	E1H5863F.D	5/7/2009	14:45	3.170	8.793
07	AR12424I1	E1H5864F.D	5/7/2009	14:59	3.173	8.793
08	AR12425I1	E1H5865F.D	5/7/2009	15:14	3.170	8.793
09	AR12486I1	E1H5866F.D	5/7/2009	15:28	3.173	8.793
10	AR12481I1	E1H5867F.D	5/7/2009	15:42	3.170	8.793
11	AR12482I1	E1H5868F.D	5/7/2009	15:57	3.170	8.793
12	AR12483I1	E1H5869F.D	5/7/2009	16:11	3.170	8.793
13	AR12484I1	E1H5870F.D	5/7/2009	16:25	3.173	8.793
14	AR12485I1	E1H5871F.D	5/7/2009	16:40	3.170	8.793
15	AR12546I1	E1H5872F.D	5/7/2009	16:54	3.173	8.793
16	AR12541I1	E1H5873F.D	5/7/2009	17:08	3.173	8.793
17	AR12542I1	E1H5874F.D	5/7/2009	17:23	3.173	8.793
18	AR12543I1	E1H5875F.D	5/7/2009	17:37	3.173	8.793
19	AR12544I1	E1H5876F.D	5/7/2009	17:52	3.173	8.793
20	AR12545I1	E1H5877F.D	5/7/2009	18:06	3.170	8.793
21	AR16606I1	E1H5880F.D	5/7/2009	18:49	3.167	8.787
22	AR16601I1	E1H5881F.D	5/7/2009	19:03	3.167	8.787
23	AR16602I1	E1H5882F.D	5/7/2009	19:18	3.167	8.787
24	AR16603I1	E1H5883F.D	5/7/2009	19:32	3.167	8.787
25	AR16604I1	E1H5884F.D	5/7/2009	19:46	3.167	8.787
26	AR16605I1	E1H5885F.D	5/7/2009	20:01	3.167	8.787
27	AR16603IE	E1H5947F.D	5/12/2009	11:18	3.173	8.787

QC LIMITS

TCX = Tetrachloro-m-xylene (± 0.05 MINUTES)

DCB = Decachlorobiphenyl (± 0.10 MINUTES)

Column used to flag RT values with an asterisk.

8H - FORM VIII ARO

AROCLOR ANALYTICAL SEQUENCE

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

GC Column: CLPPest ID: 0.53 (mm) Init. Calib. Date(s): 05/07/2009 05/07/2009

Instrument ID: E1

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs, AND LCSs IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION

TCX: 3.167 DCB: 8.787

	EPA SAMPLE NO.	LAB File ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
28	ABLK1F	E1H5951F.D	5/12/2009	14:10	3.197	8.810
29	ALCS1F	E1H5952F.D	5/12/2009	14:25	3.183	8.800
30	ALCSD1F	E1H5953F.D	5/12/2009	14:39	3.180	8.797
31	BPS1-3001-SB -041M	E1H5954F.D	5/12/2009	14:53	3.180	8.793
32	BPS1-3001-SB -046M	E1H5955F.D	5/12/2009	15:08	3.177	8.790
33	BPS1-3001-SB -051M	E1H5956F.D	5/12/2009	15:22	3.177	8.790
34	BPS1-3001-SB -099M	E1H5957F.D	5/12/2009	15:36	3.177	8.790
35	BPS1-3001-SB -131M	E1H5958F.D	5/12/2009	15:51	3.173	8.787
36	ARI6603IF	E1H5968F.D	5/12/2009	18:14	3.177	8.790

	QC LIMITS
TCX = Tetrachloro-m-xylene	(± 0.05 MINUTES)
DCB = Decachlorobiphenyl	(± 0.10 MINUTES)

Column used to flag RT values with an asterisk.

6P - FORM VI ARO-2

AROCLOR INITIAL CALIBRATION (MULTIPOINT)

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Instrument ID: E1 Date(s) Analyzed: 05/07/2009 05/07/2009

GC Column: CLPPest ID: 0.53 (mm)

Level (x CS1): CS1 1.0 CS2 2.0 CS3 4.0 CS4 8.0 CS5 16.0 CS6 16.0 CS7 16.0 CS8 16.0 CS9 16.0

COMPOUND	PEAK [1]	CALIBRATION FACTORS (CFs)									
		CS1	CS2	CS3	CS4	CS5	CS6	CS7	CS8	CS9	% RSD
AR1016	1	37650	35570	32780	28754	24800	38280				16.1
	2	38790	35920	34293	30320	26188	41080				15.9
	3	47700	43760	40110	34250	32819	51340				17.6
AR1260	1	96760	91460	87205	75739	69738	104100				14.7
	2	159070	150755	144795	131519	120525	169020				12.2
	3	70880	70610	69380	62239	58039	74340				9.1
AR1242	1	79720	72965	66873	59089	53110	80420				16.2
	2	40060	37160	34083	29653	26138	40260				16.6
	3	36290	34160	31880	29690	26613	39540				14.1
AR1248	1	40570	38745	40405	34815	31364	42680				11.1
	2	80130	74760	76710	65503	58979	85200				13.1
	3	57830	53810	55798	47778	43017	60360				12.3
AR1254	1	98330	90305	87473	77573	69591	104280				14.6
	2	70470	65710	67855	61096	56463	72620				9.2
	3	73490	65895	66035	58348	52509	74560				13.1
TCX (A)		1863800	1756100	1565700	1400200	1249250					16.0
DCB (A)		3218100	3175100	3004375	2894488	2832281					5.6

[1]At least three peaks for each column are required for identification of Aroclors.

TCX = Tetrachloro-m-xylene
DCB = Decachlorobiphenyl

6N - FORM VI ARO-1

AROCLORS INITIAL CALIBRATION (MULTIPOINT)

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Instrument ID: E1

Level (x CS1): CS1 1.0 CS2 2.0 CS3 4.0 CS4 8.0 CS5 16.0 CS6 CS7 CS8 CS9

GC Column: CLPPest ID: 0.53 (mm) Date(s) Analyzed (1): 05/07/2009 05/07/2009

COMPOUND	PEAK*	RT OF STANDARDS										RT WINDOW **	
		CS1	CS2	CS3	CS4	CS5	CS6	CS7	CS8	CS9	RT	FROM	TO
AR1016	1	4.213	4.213	4.213	4.213	4.213	4.213				4.213	4.143	4.283
	2	4.700	4.700	4.700	4.700	4.700	4.700				4.700	4.630	4.770
	3	5.063	5.063	5.063	5.063	5.063	5.063				5.063	4.993	5.133
AR1260	1	6.820	6.817	6.817	6.817	6.817	6.820				6.818	6.748	6.888
	2	7.457	7.457	7.453	7.453	7.453	7.457				7.455	7.385	7.525
	3	7.727	7.727	7.727	7.727	7.727	7.727				7.727	7.657	7.797
AR1242	1	4.500	4.500	4.497	4.500	4.497	4.500				4.499	4.429	4.569
	2	4.643	4.643	4.640	4.640	4.640	4.643				4.642	4.572	4.712
	3	5.067	5.067	5.067	5.067	5.067	5.070				5.067	4.997	5.137
AR1248	1	5.153	5.153	5.150	5.153	5.153	5.153				5.153	5.083	5.223
	2	5.517	5.517	5.513	5.517	5.517	5.517				5.516	5.446	5.586
	3	5.713	5.713	5.713	5.713	5.713	5.717				5.714	5.644	5.784
AR1254	1	6.103	6.103	6.103	6.103	6.100	6.103				6.103	6.033	6.173
	2	6.377	6.377	6.373	6.373	6.373	6.377				6.375	6.305	6.445
	3	6.553	6.553	6.553	6.553	6.550	6.553				6.553	6.483	6.623
TCX (A)		3.167	3.167	3.167	3.167	3.167					3.167	3.117	3.217
DCB (A)		8.787	8.787	8.787	8.787	8.787					8.787	8.687	8.887

* At least three peaks for each column are required for identification of Aroclors.

**Retention Time windows are ± 0.07 minutes for each Aroclor peak; 0.05 minutes for tetrachloro-m-xylene; ± 0.10 minutes for decachlorobiphenyl.

TCX = Tetrachloro-m-xylene
DCB = Decachlorobiphenyl

6Q - FORM VI ARO-3

AROCLOR INITIAL CALIBRATION (SINGLE POINT)

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Instrument ID: E1 Date(s) Analyzed: 05/07/2009 05/07/2009

GC Column: CLPPest ID: 0.53 (mm)

COMPOUND	AMOUNT (ng)	PEAK [1]	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Aroclor-1221	0.4	1	2.58	2.51	2.65	11110
		2	3.39	3.32	3.46	16570
		3	3.61	3.54	3.68	36048
		4				
		5				
Aroclor-1232	0.4	1	3.60	3.53	3.67	31628
		2	4.00	3.93	4.07	23015
		3	4.50	4.43	4.57	34683
		4				
		5				

[1] At least three peaks for each column are required for identification of multicomponent analytes.

7N - FORM VII ARO

AROCLOR CALIBRATION VERIFICATION SUMMARY

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

GC Column: CLPPest ID: 0.53 (mm) Calibration Date(s): 05/07/2009 05/07/2009

EPA Sample No. (AR####3##): AR16603IE Date Analyzed: 05/12/2009

Lab Sample ID: AR16603IE Time Analyzed: 11:18

EPA Sample No. (AR####3##): Date Analyzed:

Lab Sample ID: Time Analyzed:

EPA Sample No. (AR####3##): Date Analyzed:

Lab Sample ID: Time Analyzed:

EPA Sample No. (AR####3##): Date Analyzed:

Lab Sample ID: Time Analyzed:

AROCLOR COMPOUND	PEAK	RETENTION RT	RT WINDOW FROM	RT WINDOW TO	$\overline{CF}$	CF	%D
AR1016	1	4.213	4.143	4.283	32972.29167	32430	-1.6
	2	4.700	4.630	4.770	34431.66667	33832.5	-1.7
	3	5.063	4.993	5.133	41663.22917	40040	-3.9
AR1260	1	6.817	6.748	6.888	87500.3125	79587.5	-9.0
	2	7.453	7.385	7.525	145947.2917	139712.5	-4.3
	3	7.723	7.657	7.797	67581.35417	67277.5	-0.4
TCX		3.173	3.117	3.217	1567010	1558700	-0.5
DCB		8.787	8.687	8.887	3024868.75	2909175	-3.8

TCX = Tetrachloro-m-xylene
DCB = Decachlorobiphenyl

7N - FORM VII ARO

AROCLOR CALIBRATION VERIFICATION SUMMARY

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

GC Column: CLPPest ID: 0.53 (mm) Calibration Date(s): 05/07/2009 05/07/2009

EPA Sample No. (AR####3##): AR16603IF Date Analyzed: 05/12/2009

Lab Sample ID: AR16603IF Time Analyzed: 18:14

EPA Sample No. (AR####3##): Date Analyzed:

Lab Sample ID: Time Analyzed:

EPA Sample No. (AR####3##): Date Analyzed:

Lab Sample ID: Time Analyzed:

EPA Sample No. (AR####3##): Date Analyzed:

Lab Sample ID: Time Analyzed:

AROCLOR COMPOUND	PEAK	RETENTION RT	RT WINDOW FROM	RT WINDOW TO	$\overline{CF}$	CF	%D
AR1016	1	4.217	4.143	4.283	32972.29167	32310	-2.0
	2	4.703	4.630	4.770	34431.66667	33512.5	-2.7
	3	5.067	4.993	5.133	41663.22917	38775	-6.9
AR1260	1	6.820	6.748	6.888	87500.3125	79570	-9.1
	2	7.457	7.385	7.525	145947.2917	138045	-5.4
	3	7.730	7.657	7.797	67581.35417	66145	-2.1
TCX		3.177	3.117	3.217	1567010	1541650	-1.6
DCB		8.790	8.687	8.887	3024868.75	3135525	3.7

TCX = Tetrachloro-m-xylene
DCB = Decachlorobiphenyl

8H - FORM VIII ARO

AROCLOR ANALYTICAL SEQUENCE

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

GC Column: CLPPestII ID: 0.53 (mm) Init. Calib. Date(s): 05/07/2009 05/07/2009

Instrument ID: E1

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs, AND LCSs IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION

TCX: 3.703 DCB: 10.167

	EPA SAMPLE NO.	LAB File ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01	AR12213I1	E1H5858R.D	5/7/2009	13:33	3.713	10.187
02	AR12323I1	E1H5859R.D	5/7/2009	13:48	3.710	10.183
03	AR12426I1	E1H5860R.D	5/7/2009	14:02	3.710	10.180
04	AR12421I1	E1H5861R.D	5/7/2009	14:16	3.710	10.180
05	AR12422I1	E1H5862R.D	5/7/2009	14:31	3.707	10.177
06	AR12423I1	E1H5863R.D	5/7/2009	14:45	3.707	10.177
07	AR12424I1	E1H5864R.D	5/7/2009	14:59	3.707	10.177
08	AR12425I1	E1H5865R.D	5/7/2009	15:14	3.707	10.177
09	AR12486I1	E1H5866R.D	5/7/2009	15:28	3.710	10.177
10	AR12481I1	E1H5867R.D	5/7/2009	15:42	3.707	10.177
11	AR12482I1	E1H5868R.D	5/7/2009	15:57	3.707	10.177
12	AR12483I1	E1H5869R.D	5/7/2009	16:11	3.707	10.177
13	AR12484I1	E1H5870R.D	5/7/2009	16:25	3.707	10.177
14	AR12485I1	E1H5871R.D	5/7/2009	16:40	3.707	10.177
15	AR12546I1	E1H5872R.D	5/7/2009	16:54	3.707	10.177
16	AR12541I1	E1H5873R.D	5/7/2009	17:08	3.707	10.177
17	AR12542I1	E1H5874R.D	5/7/2009	17:23	3.707	10.177
18	AR12543I1	E1H5875R.D	5/7/2009	17:37	3.707	10.177
19	AR12544I1	E1H5876R.D	5/7/2009	17:52	3.707	10.177
20	AR12545I1	E1H5877R.D	5/7/2009	18:06	3.707	10.173
21	AR16606I1	E1H5880R.D	5/7/2009	18:49	3.703	10.170
22	AR16601I1	E1H5881R.D	5/7/2009	19:03	3.703	10.167
23	AR16602I1	E1H5882R.D	5/7/2009	19:18	3.703	10.170
24	AR16603I1	E1H5883R.D	5/7/2009	19:32	3.703	10.167
25	AR16604I1	E1H5884R.D	5/7/2009	19:46	3.700	10.167
26	AR16605I1	E1H5885R.D	5/7/2009	20:01	3.703	10.167
27	AR16603IE	E1H5947R.D	5/12/2009	11:18	3.707	10.163

QC LIMITS

TCX = Tetrachloro-m-xylene (± 0.05 MINUTES)

DCB = Decachlorobiphenyl (± 0.10 MINUTES)

Column used to flag RT values with an asterisk.

8H - FORM VIII ARO

AROCLOR ANALYTICAL SEQUENCE

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

GC Column: CLPPestII ID: 0.53 (mm) Init. Calib. Date(s): 05/07/2009 05/07/2009

Instrument ID: E1

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs, AND LCSs IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION

TCX: 3.703 DCB: 10.167

	EPA SAMPLE NO.	LAB File ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
28	ABLK1F	E1H5951R.D	5/12/2009	14:10	3.720	10.193
29	ALCS1F	E1H5952R.D	5/12/2009	14:25	3.717	10.187
30	ALCSD1F	E1H5953R.D	5/12/2009	14:39	3.713	10.180
31	BPS1-3001-SB -041M	E1H5954R.D	5/12/2009	14:53	3.713	10.177
32	BPS1-3001-SB -046M	E1H5955R.D	5/12/2009	15:08	3.710	10.173
33	BPS1-3001-SB -051M	E1H5956R.D	5/12/2009	15:22	3.710	10.170
34	BPS1-3001-SB -099M	E1H5957R.D	5/12/2009	15:36	3.707	10.170
35	BPS1-3001-SB -131M	E1H5958R.D	5/12/2009	15:51	3.707	10.170
36	AR16603IF	E1H5968R.D	5/12/2009	18:14	3.707	10.170

QC LIMITS

TCX = Tetrachloro-m-xylene (± 0.05 MINUTES)

DCB = Decachlorobiphenyl (± 0.10 MINUTES)

Column used to flag RT values with an asterisk.

6P - FORM VI ARO-2

AROCLOR INITIAL CALIBRATION (MULTIPOINT)

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Instrument ID: E1 Date(s) Analyzed: 05/07/2009 05/07/2009

GC Column: CLPPestII ID: 0.53 (mm)

Level (x CS1): CS1 1.0 CS2 2.0 CS3 4.0 CS4 8.0 CS5 16.0 CS6 16.0 CS7 16.0 CS8 16.0 CS9 16.0

COMPOUND	PEAK [1]	CALIBRATION FACTORS (CFs)									
		CS1	CS2	CS3	CS4	CS5	CS6	CS7	CS8	CS9	% RSD
AR1016	1	30390	28780	26948	24250	21356	32380				14.8
	2	18680	18210	17610	16661	15103	20100				9.7
	3	14330	14125	13940	13554	12526	15420				6.8
AR1260	1	41060	41080	41175	39010	36301	41460				5.1
	2	68390	67435	67313	62573	58339	70800				6.9
	3	40320	39940	40638	38581	36475	41480				4.5
AR1242	1	37130	35660	34725	32165	29913	37220				8.4
	2	17940	17190	16970	16039	15061	17600				6.4
	3	12100	12315	13048	12694	12467	12180				2.8
AR1248	1	27500	26545	27510	24109	22198	28000				8.9
	2	33090	32060	33210	29428	27849	33800				7.6
	3	23080	22710	24560	22390	21733	23440				4.2
AR1254	1	22240	22205	22338	21453	20671	22760				3.4
	2	43210	42360	41788	38835	36228	44800				7.6
	3	34000	34250	33928	32561	30770	35040				4.6
TCX (A)		789400	808000	779450	745600	703213					5.4
DCB (A)		515300	495100	457175	419850	391913					11.2

[1]At least three peaks for each column are required for identification of Aroclors.

TCX = Tetrachloro-m-xylene
DCB = Decachlorobiphenyl

6N - FORM VI ARO-1

AROCLORS INITIAL CALIBRATION (MULTIPOINT)

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Instrument ID: E1

Level (x CS1): CS1 1.0 CS2 2.0 CS3 4.0 CS4 8.0 CS5 16.0 CS6 CS7 CS8 CS9

GC Column: CLPPestII ID: 0.53 (mm) Date(s) Analyzed (1): 05/07/2009 05/07/2009

COMPOUND	PEAK*	RT OF STANDARDS										RT WINDOW **	
		CS1	CS2	CS3	CS4	CS5	CS6	CS7	CS8	CS9	RT	FROM	TO
AR1016	1	4.760	4.757	4.757	4.757	4.757	4.760				4.758	4.688	4.828
	2	5.643	5.643	5.643	5.643	5.640	5.643				5.643	5.573	5.713
	3	5.677	5.680	5.677	5.677	5.677	5.680				5.678	5.608	5.748
AR1260	1	7.680	7.680	7.677	7.677	7.677	7.680				7.678	7.608	7.748
	2	8.290	8.290	8.290	8.290	8.290	8.290				8.290	8.220	8.360
	3	8.657	8.657	8.657	8.657	8.657	8.657				8.657	8.587	8.727
AR1242	1	5.250	5.250	5.250	5.250	5.247	5.253				5.250	5.180	5.320
	2	5.397	5.397	5.393	5.393	5.393	5.397				5.395	5.325	5.465
	3	6.007	6.007	6.003	6.003	6.003	6.007				6.005	5.935	6.075
AR1248	1	5.880	5.880	5.877	5.877	5.877	5.880				5.878	5.808	5.948
	2	6.307	6.307	6.303	6.307	6.303	6.307				6.306	6.236	6.376
	3	6.540	6.537	6.537	6.537	6.533	6.540				6.537	6.467	6.607
AR1254	1	6.833	6.833	6.833	6.830	6.830	6.833				6.832	6.762	6.902
	2	6.947	6.947	6.947	6.947	6.943	6.947				6.946	6.876	7.016
	3	7.167	7.167	7.163	7.163	7.163	7.167				7.165	7.095	7.235
TCX (A)		3.703	3.703	3.703	3.700	3.703					3.703	3.653	3.753
DCB (A)		10.167	10.170	10.167	10.167	10.167					10.167	10.067	10.267

* At least three peaks for each column are required for identification of Aroclors.

**Retention Time windows are ± 0.07 minutes for each Aroclor peak; 0.05 minutes for tetrachloro-m-xylene; ± 0.10 minutes for decachlorobiphenyl.

TCX = Tetrachloro-m-xylene
DCB = Decachlorobiphenyl

6Q - FORM VI ARO-3

AROCLOR INITIAL CALIBRATION (SINGLE POINT)

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Instrument ID: E1 Date(s) Analyzed: 05/07/2009 05/07/2009

GC Column: CLPPestII ID: 0.53 (mm)

COMPOUND	AMOUNT (ng)	PEAK [1]	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Aroclor-1221	0.4	1	3.15	3.08	3.22	5470
		2	4.07	4.00	4.14	7393
		3	4.30	4.23	4.37	15860
		4				
		5				
Aroclor-1232	0.4	1	4.30	4.23	4.37	13833
		2	4.77	4.70	4.84	10488
		3	5.40	5.33	5.47	8238
		4				
		5				

[1] At least three peaks for each column are required for identification of multicomponent analytes.

7N - FORM VII ARO

AROCLOR CALIBRATION VERIFICATION SUMMARY

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

GC Column: CLPPestII ID: 0.53 (mm) Calibration Date(s): 05/07/2009 05/07/2009

EPA Sample No. (AR####3##): AR16603IE Date Analyzed: 05/12/2009

Lab Sample ID: AR16603IE Time Analyzed: 11:18

EPA Sample No. (AR####3##): Date Analyzed:

Lab Sample ID: Time Analyzed:

EPA Sample No. (AR####3##): Date Analyzed:

Lab Sample ID: Time Analyzed:

EPA Sample No. (AR####3##): Date Analyzed:

Lab Sample ID: Time Analyzed:

AROCLOR COMPOUND	PEAK	RETENTION RT	RT WINDOW FROM	RT WINDOW TO	$\overline{CF}$	CF	%D
AR1016	1	4.757	4.688	4.828	27350.52083	26425	-3.4
	2	5.643	5.573	5.713	17727.39583	17222.5	-2.8
	3	5.677	5.608	5.748	13982.5	13637.5	-2.5
AR1260	1	7.677	7.608	7.748	40014.27083	40115	0.3
	2	8.287	8.220	8.360	65808.22917	65752.5	-0.1
	3	8.653	8.587	8.727	39572.29167	39525	-0.1
TCX		3.707	3.653	3.753	765132.5	768900	0.5
DCB		10.163	10.067	10.267	455867.5	450675	-1.1

TCX = Tetrachloro-m-xylene
DCB = Decachlorobiphenyl

SW846

7N - FORM VII ARO

AROCLOR CALIBRATION VERIFICATION SUMMARY

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

GC Column: CLPPestII ID: 0.53 (mm) Calibration Date(s): 05/07/2009 05/07/2009

EPA Sample No. (AR####3##): AR16603IF Date Analyzed: 05/12/2009

Lab Sample ID: AR16603IF Time Analyzed: 18:14

EPA Sample No. (AR####3##): Date Analyzed:

Lab Sample ID: Time Analyzed:

EPA Sample No. (AR####3##): Date Analyzed:

Lab Sample ID: Time Analyzed:

EPA Sample No. (AR####3##): Date Analyzed:

Lab Sample ID: Time Analyzed:

AROCLOR COMPOUND	PEAK	RETENTION RT	RT WINDOW FROM	RT WINDOW TO	$\overline{CF}$	CF	%D
AR1016	1	4.760	4.688	4.828	27350.52083	26715	-2.3
	2	5.647	5.573	5.713	17727.39583	17572.5	-0.9
	3	5.680	5.608	5.748	13982.5	14135	1.1
AR1260	1	7.680	7.608	7.748	40014.27083	41690	4.2
	2	8.293	8.220	8.360	65808.22917	67672.5	2.8
	3	8.660	8.587	8.727	39572.29167	41065	3.8
TCX		3.707	3.653	3.753	765132.5	765050	0.0
DCB		10.170	10.067	10.267	455867.5	458150	0.5

TCX = Tetrachloro-m-xylene
DCB = Decachlorobiphenyl

SW846

4F - FORM IV ARO

AROCLOR METHOD BLANK SUMMARY

EPA SAMPLE NO.

ABLK1F

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Lab File ID: E1H5951F.D / E1H5951R.D Lab Sample ID: MB-43503

Matrix: (SOIL/SED/WATER) SOIL Extraction: (Type) SONC Date Extracted: 05/11/2009

Sulfur Cleanup: (Y/N) Y GPC Cleanup: (Y/N) N

Acid Cleanup: (Y/N Y

Date Analyzed (1): 05/12/2009 Date Analyzed (2): 05/12/2009

Time Analyzed (1): 14:10 Time Analyzed (2): 14:10

Instrument ID (1): E1 Instrument ID (2): E1

GC Column(1): CLPPest ID: 0.53 (mm) GC Column(2): CLPPestII ID: 0.53 (mm)

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED (1)	DATE ANALYZED (2)
01	ALCS1F	LCS-43503	05/12/2009	05/12/2009
02	ALCSD1F	LCSD-43503	05/12/2009	05/12/2009
03	BPS1-3001-SB -041M	H0802-02A	05/12/2009	05/12/2009
04	BPS1-3001-SB -046M	H0802-03A	05/12/2009	05/12/2009
05	BPS1-3001-SB -051M	H0802-04A	05/12/2009	05/12/2009
06	BPS1-3001-SB -099M	H0802-07A	05/12/2009	05/12/2009
07	BPS1-3001-SB -131M	H0802-08A	05/12/2009	05/12/2009

COMMENTS:

SW846

1H - FORM I ARO

AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ABLK1F

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: MB-43503

Sample wt/vol: 30.0 (g/mL) G Lab File ID: E1H5951F.D/E1H5951R.D

% Moisture: Decanted: (Y/N) Date Received:

Extraction: (Type) SONC Date Extracted: 05/11/2009

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 05/12/2009

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) Y

Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	33	U
11104-28-2	Aroclor-1221	33	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	33	U

SW846

3P - FORM III ARO-4
SOIL AROCLOR LABORATORY CONTROL
SAMPLE RECOVERY

EPA SAMPLE NO.

ALCS1F

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Lab Sample ID: LCS-43503 LCS Lot No.:

Date Extracted: 05/11/2009 Date Analyzed (1): 05/12/2009

Instrument ID (1): E1 GC Column(1): CLPPest ID: 0.53 (mm)

COMPOUND	AMOUNT ADDED (UG/KG)	AMOUNT RECOVERED (UG/KG)	%REC	#	QC LIMITS
Aroclor-1016	133.3330	98.5155	74		40-140
Aroclor-1260	133.3330	111.8895	84		60-130

Instrument ID (2): E1 GC Column(2): CLPPestII ID: 0.53 (mm)

Date Analyzed (2): 05/12/2009

COMPOUND	AMOUNT ADDED (UG/KG)	AMOUNT RECOVERED (UG/KG)	%REC	#	QC LIMITS
Aroclor-1016	133.3330	96.2637	72		40-140
Aroclor-1260	133.3330	115.4675	87		60-130

Column to be used to flag recovery values with an asterisk
* Values outside of QC limits

LCS Recovery: 0 out of 4 outside limits.

COMMENTS:

SW846

3P - FORM III ARO-4
SOIL AROCLOR LABORATORY CONTROL
SAMPLE RECOVERY

EPA SAMPLE NO.

ALCSD1F

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Lab Sample ID: LCSD-43503 LCS Lot No.:

Date Extracted: 05/11/2009 Date Analyzed (1): 05/12/2009

Instrument ID (1): E1 GC Column(1): CLPPest ID: 0.53 (mm)

COMPOUND	AMOUNT ADDED (UG/KG)	AMOUNT RECOVERED (UG/KG)	%REC	#	QC LIMITS
Aroclor-1016	133.3330	95.1193	71		40-140
Aroclor-1260	133.3330	115.1673	86		60-130

Instrument ID (2): E1 GC Column(2): CLPPestII ID: 0.53 (mm)

Date Analyzed (2): 05/12/2009

COMPOUND	AMOUNT ADDED (UG/KG)	AMOUNT RECOVERED (UG/KG)	%REC	#	QC LIMITS
Aroclor-1016	133.3330	94.3373	71		40-140
Aroclor-1260	133.3330	120.7962	91		60-130

Column to be used to flag recovery values with an asterisk
* Values outside of QC limits

LCS Recovery: 0 out of 4 outside limits.

COMMENTS:

SW846

2R - FORM II ARO-2

SOIL AROCLOR SURROGATE RECOVERY

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

GC Column(1): CLPPest ID: 0.53 (mm) GC Column(2): CLPPestII ID: 0.53 (mm)

	EPA SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	ABLK1F	54	60	72	81			0
02	ALCS1F	51	55	77	80			0
03	ALCSD1F	52	57	84	84			0
04	BPS1-3001-SB -041M	53	58	77	76			0
05	BPS1-3001-SB -046M	52	56	77	76			0
06	BPS1-3001-SB -051M	56	61	79	77			0
07	BPS1-3001-SB -099M	45	49	55 *	54 *			2
08	BPS1-3001-SB -131M	50	53	68	65			0

	QC LIMITS
TCX = Tetrachloro-m-xylene	(27-120)
DCB = Decachlorobiphenyl	(60-125)

Column to be used to flag recovery values

* Values outside of QC limits

D Surrogate diluted out

10C - FORM X ARO
IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

ALCS1F

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Lab Sample ID: LCS-43503 Date(s) Analyzed: 05/12/2009 05/12/2009

Instrument ID (1): E1 Instrument ID (2): E1

GC Column(1): CLPPest ID: 0.53 (mm) GC Column(2): CLPPestII ID: 0.53 (MM)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION PEAK	CONCENTRATION MEAN	%D
Aroclor-1016	1	4.227	4.143	4.283	93.6140		
	2	4.713	4.630	4.770	96.6358		
COLUMN 1	3	5.073	4.993	5.133	105.2967		
	4						
	5					98.515497	
	1	4.770	4.688	4.828	87.7619		
	2	5.653	5.573	5.713	101.5002		
COLUMN 2	3	5.690	5.608	5.748	99.5292		
	4						
	5					96.263737	2.3
Aroclor-1260	1	6.830	6.748	6.888	105.1996		
	2	7.467	7.385	7.525	112.1866		
COLUMN 1	3	7.737	7.657	7.797	118.2821		
	4						
	5					111.889459	
	1	7.690	7.608	7.748	115.6254		
	2	8.300	8.220	8.360	115.8062		
COLUMN 2	3	8.670	8.587	8.727	114.9710		
	4						
	5					115.467540	3.2

At least 3 peaks for each column are required for identification of multicomponent analytes

SW846

10C - FORM X ARO
IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.
ALCSD1F

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Lab Sample ID: LCSD-43503 Date(s) Analyzed: 05/12/2009 05/12/2009

Instrument ID (1): E1 Instrument ID (2): E1

GC Column(1): CLPPest ID: 0.53 (mm) GC Column(2): CLPPestII ID: 0.53 (MM)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION PEAK	CONCENTRATION MEAN	%D
Aroclor-1016 COLUMN 1	1	4.223	4.143	4.283	91.1573		
	2	4.710	4.630	4.770	92.7441		
	3	5.073	4.993	5.133	101.4564		
	4						
	5					95.119267	
COLUMN 2	1	4.767	4.688	4.828	86.2628		
	2	5.650	5.573	5.713	99.4130		
	3	5.687	5.608	5.748	97.3360		
	4						
	5					94.337257	0.8
Aroclor-1260 COLUMN 1	1	6.827	6.748	6.888	105.9577		
	2	7.463	7.385	7.525	116.8230		
	3	7.733	7.657	7.797	122.7212		
	4						
	5					115.167313	
COLUMN 2	1	7.687	7.608	7.748	119.1325		
	2	8.297	8.220	8.360	121.4033		
	3	8.667	8.587	8.727	121.8529		
	4						
	5					120.796231	4.9

At least 3 peaks for each column are required for identification of multicomponent analytes

TETRA TECH NUS, INC. **CALCULATION WORKSHEET** PAGE 1 OF 1

CLIENT NWIRP Bethpage	JOB NUMBER 00622
SUBJECT Calc. Check SDG H0802	
BASED ON	DRAWING NUMBER
BY J. Kaliyak / CHECKED BY	APPROVED BY / DATE 06/03/09

VOC – methylene chloride Sample – BP51-3001-SB-046M

$$\frac{15212 \times 50 \times 5}{519631 \times 0.624 \times 0.80 \times 5.3} \simeq 2.78\ \mu g/kg$$

PCB – Aroclor-1016 Sample – LCSD

$$\left(\frac{\frac{9017}{32972.3} + \frac{9580}{34431.7} + \frac{12681}{41663.2}}{3}\right) \times \frac{10{,}000}{30\,g} \simeq 95.1\ \mu g/kg$$

Data File: \\Avogadro\Organics\V6.i\090513A.B\V6G6817.D
Report Date: 14-May-2009 10:45

Mitkem Laboratories

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V6.i\090513A.B\V6G6817.D
Lab Smp Id: H0802-03B Client Smp ID: BPS1-3001-SB-046M
Inj Date : 13-MAY-2009 21:23
Operator : SZ SRC: LIMS Inst ID: V6.i
Smp Info : 5ML,H0802-03B,,43552
Misc Info :
Comment :
Method : \\Avogadro\Organics\V6.i\090513A.B\v68260GH.m
Meth Date : 14-May-2009 09:29 V6.i Quant Type: ISTD
Cal Date : 13-MAY-2009 10:48 Cal File: V6G6796.D
Als bottle: 24
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: OLM_VOA.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.300	Weight of sample (g)
M	20.000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
11 Acetone	58	2.983	2.978	(0.500)	3053	3.08802	4(aQ)
16 Methylene Chloride	84	3.427	3.422	(0.575)	15212	2.34549	3(a)
$ 32 Dibromofluoromethane	113	5.228	5.229	(0.877)	130406	49.3929	58
$ 37 1,2-Dichloroethane-d4	102	5.587	5.582	(0.937)	29902	51.2990	60
* 41 Fluorobenzene	96	5.964	5.965	(1.000)	519631	50.0000	
$ 51 Toluene-d8	98	7.795	7.796	(0.811)	514445	52.5031	62
* 60 Chlorobenzene-d5	117	9.614	9.615	(1.000)	431765	50.0000	
$ 70 Bromofluorobenzene	95	11.153	11.148	(1.160)	209296	50.0325	59
* 84 1,4-Dichlorobenzene-d4	152	12.552	12.554	(1.000)	203516	50.0000	(Q)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

5/14/09

6A - FORM VI VOA-1

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

Instrument ID: V6 Calibration Date(s): 05/13/2009 05/13/2009

Heated Purge: (Y/N) Y Calibration Time(s): 8:02 10:48

Purge Volume: 5.0 (mL)

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID: RRF005 = V6G6794.D RRF020 = V6G6792.D

RRF050 = V6G6791.D RRF100 = V6G6796.D RRF200 = V6G6795.D

COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF200	$\overline{RRF}$	%RSD
Dichlorodifluoromethane	0.310	0.308	0.237	0.253	0.208	0.263	17.1
Chloromethane	0.748	0.736	0.748	0.567	0.623	0.684	12.3
Vinyl chloride	0.722	0.681	0.667	0.496	0.560	0.625	15.0
Bromomethane	0.485	0.409	0.436	0.228	0.203	0.352	36.3
Chloroethane	0.307	0.399	0.420	0.245	0.237	0.322	26.4
Trichlorofluoromethane	0.747	0.987	0.643	0.517	0.570	0.693	26.8
1,1-Dichloroethene	0.563	0.559	0.466	0.548	0.490	0.525	8.4
Acetone	0.112	0.096	0.104	0.090	0.073	0.095	15.6
Carbon disulfide	2.336	2.175	1.896	2.000	1.755	2.032	11.3
Methylene chloride	0.790	0.654	0.557	0.594	0.525	0.624	16.8
trans-1,2-Dichloroethene	0.640	0.608	0.548	0.589	0.531	0.583	7.6
Methyl tert-butyl ether	1.330	1.378	1.248	1.476	1.237	1.334	7.4
1,1-Dichloroethane	1.083	1.026	0.953	1.063	0.917	1.008	7.1
2-Butanone	0.073	0.085	0.092	0.082	0.071	0.080	11.0
cis-1,2-Dichloroethene	0.632	0.636	0.600	0.621	0.574	0.613	4.2
Chloroform	1.002	0.953	0.887	0.919	0.848	0.922	6.4
1,1,1-Trichloroethane	0.743	0.764	0.692	0.751	0.706	0.731	4.2
Carbon tetrachloride	0.646	0.697	0.655	0.723	0.693	0.683	4.6
1,2-Dichloroethane	0.692	0.656	0.629	0.662	0.625	0.653	4.2
Benzene	2.489	2.401	2.339	2.340	2.234	2.361	4.0
Trichloroethene	0.610	0.602	0.573	0.605	0.583	0.595	2.7
1,2-Dichloropropane	0.663	0.642	0.636	0.640	0.615	0.639	2.7
Bromodichloromethane	0.690	0.678	0.657	0.684	0.652	0.672	2.5
cis-1,3-Dichloropropene	0.835	0.868	0.873	0.930	0.894	0.880	4.0
4-Methyl-2-pentanone	0.470	0.547	0.507	0.602	0.539	0.533	9.2
Toluene	2.570	2.547	2.489	2.469	2.466	2.508	1.9
trans-1,3-Dichloropropene	0.627	0.713	0.729	0.793	0.766	0.726	8.7
1,1,2-Trichloroethane	0.506	0.516	0.491	0.484	0.467	0.493	3.9
Tetrachloroethene	0.552	0.526	0.483	0.516	0.478	0.511	6.0
2-Hexanone	0.310	0.417	0.484	0.493	0.433	0.427	17.2
Dibromochloromethane	0.597	0.618	0.566	0.615	0.574	0.594	3.9
1,2-Dibromoethane	0.584	0.584	0.532	0.575	0.525	0.560	5.2
Chlorobenzene	2.041	1.939	1.847	1.749	1.553	1.826	10.2
Ethylbenzene	1.047	1.017	0.955	0.941	0.915	0.975	5.7
Xylene (Total)	1.269	1.279	1.240	1.194	1.117	1.220	5.4
Styrene	1.784	2.005	1.996	1.949	1.834	1.914	5.2
Bromoform	0.316	0.359	0.340	0.357	0.351	0.345	5.1
Isopropylbenzene	2.435	2.741	2.657	2.546	2.547	2.585	4.5
1,1,2,2-Tetrachloroethane	1.677	1.679	1.327	1.564	1.322	1.514	11.8

Report 1,4-Dioxane for Low-Medium VOA analysis only SW846

Data File: \\Avogadro\Organics\E1.i\090512F.B\E1H5953F.D
Report Date: 14-May-2009 11:39

Mitkem Laboratories

8080 PCB Quantitation Report

Data file : \\Avogadro\Organics\E1.i\090512F.B\E1H5953F.D
Lab Smp Id: LCSD-43503 Client Smp ID: ALCSD1F
Inj Date : 12-MAY-2009 14:39
Operator : KB SRC: LIMS Inst ID: E1.i
Smp Info : LCSD-43503,ALCSD1F,43503,8082G.sub,,
Misc Info :
Comment :
Method : \\AVOGADRO\ORGANICS\E1.i\090512F.B\E1_LL_PCB_F.m
Meth Date : 13-May-2009 10:39 E1.i Quant Type: ESTD
Cal Date : 07-MAY-2009 20:01 Cal File: E1H5885F.D
Als bottle: 11 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8082G.sub
Target Version: 4.14 Sample Matrix: SOIL
Processing Host: TARGET114

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVa

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	30.000	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

LCSD

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 Tetrachloro-m-xylene					CAS #: 877-09-8		
3.180	3.166	0.014	48437	0.03091	10		
5 Aroclor-1016					CAS #: 12674-11-2		
4.223	4.213	0.010	9017	0.27347	91	80.00- 120.00	100.00
4.710	4.700	0.010	9580	0.27823	93	83.56- 123.56	106.24
5.073	5.063	0.010	12681	0.30437	~~100~~	99.88- 139.88	140.63
		Average of Peak Concentrations =			95		
9 Aroclor-1260					CAS #: 11096-82-5		
6.826	6.816	0.010	27814	0.31787	100	80.00- 120.00	100.00
7.463	7.453	0.010	51150	0.35047	120	145.93- 185.93	183.90
7.733	7.726	0.007	24881	0.36816	120	59.42- 99.42	89.45
		Average of Peak Concentrations =			120		
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
8.796	8.786	0.010	305917	0.10113	34		

5/14/09 KB

7N - FORM VII ARO

AROCLOR CALIBRATION VERIFICATION SUMMARY

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0802 Mod. Ref No.: SDG No.: SH0802

GC Column: CLPPest ID: 0.53 (mm) Calibration Date(s): 05/07/2009 05/07/2009

EPA Sample No. (AR####3##): AR16603IF Date Analyzed: 05/12/2009

Lab Sample ID: AR16603IF Time Analyzed: 18:14

EPA Sample No. (AR####3##): Date Analyzed:

Lab Sample ID: Time Analyzed:

EPA Sample No. (AR####3##): Date Analyzed:

Lab Sample ID: Time Analyzed:

EPA Sample No. (AR####3##): Date Analyzed:

Lab Sample ID: Time Analyzed:

AROCLOR COMPOUND	PEAK	RETENTION RT	RT WINDOW FROM	RT WINDOW TO	CF	CF	%D
AR1016	1	4.217	4.143	4.283	32972.29167	32310	-2.0
	2	4.703	4.630	4.770	34431.66667	33512.5	-2.7
	3	5.067	4.993	5.133	41663.22917	38775	-6.9
AR1260	1	6.820	6.748	6.888	87500.3125	79570	-9.1
	2	7.457	7.385	7.525	145947.2917	138045	-5.4
	3	7.730	7.657	7.797	67581.35417	66145	-2.1
TCX		3.177	3.117	3.217	1567010	1541650	-1.6
DCB		8.790	8.687	8.887	3024868.75	3135525	3.7

TCX = Tetrachloro-m-xylene
DCB = Decachlorobiphenyl

SW846

B.2 BPS1-3002

GAMMA LOG

BORING LOG

GAMMA LOGS

AQUA TERRA GEOPHYSICS INC.
13 Station Court, Bellport NY 11713
631.286.7699

COMPANY	UNI TECH DRILLING
WELL ID	BPS1 - 3002
FIELD	
COUNTRY	NASSAU
STATE	NEW YORK

CO
WELL
FLD
CTY
STE
FILING No

LOCATION
NWIRP

SEC TWP RGE

OTHER SERVICES

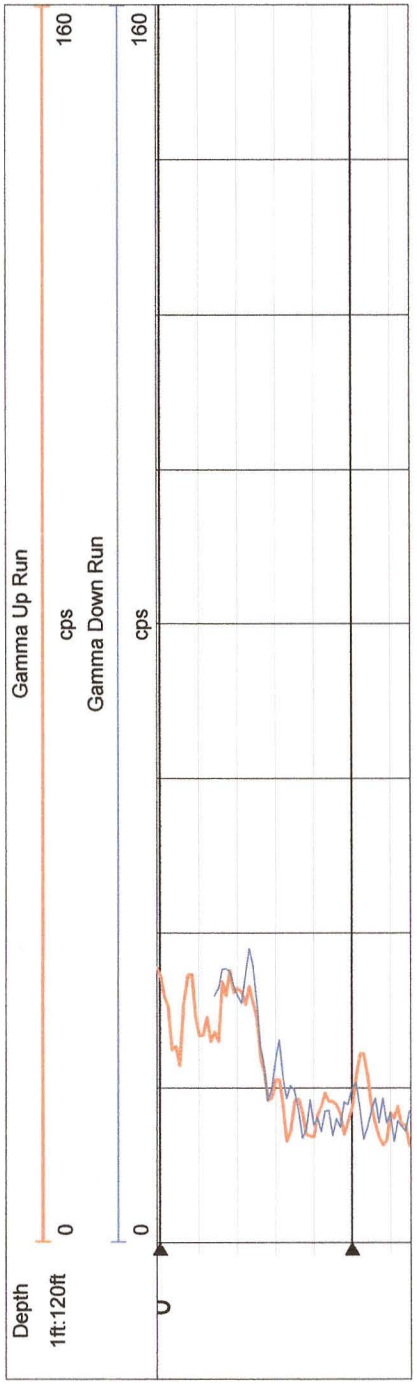
PERMANENT DATUM ELEVATION K.B.

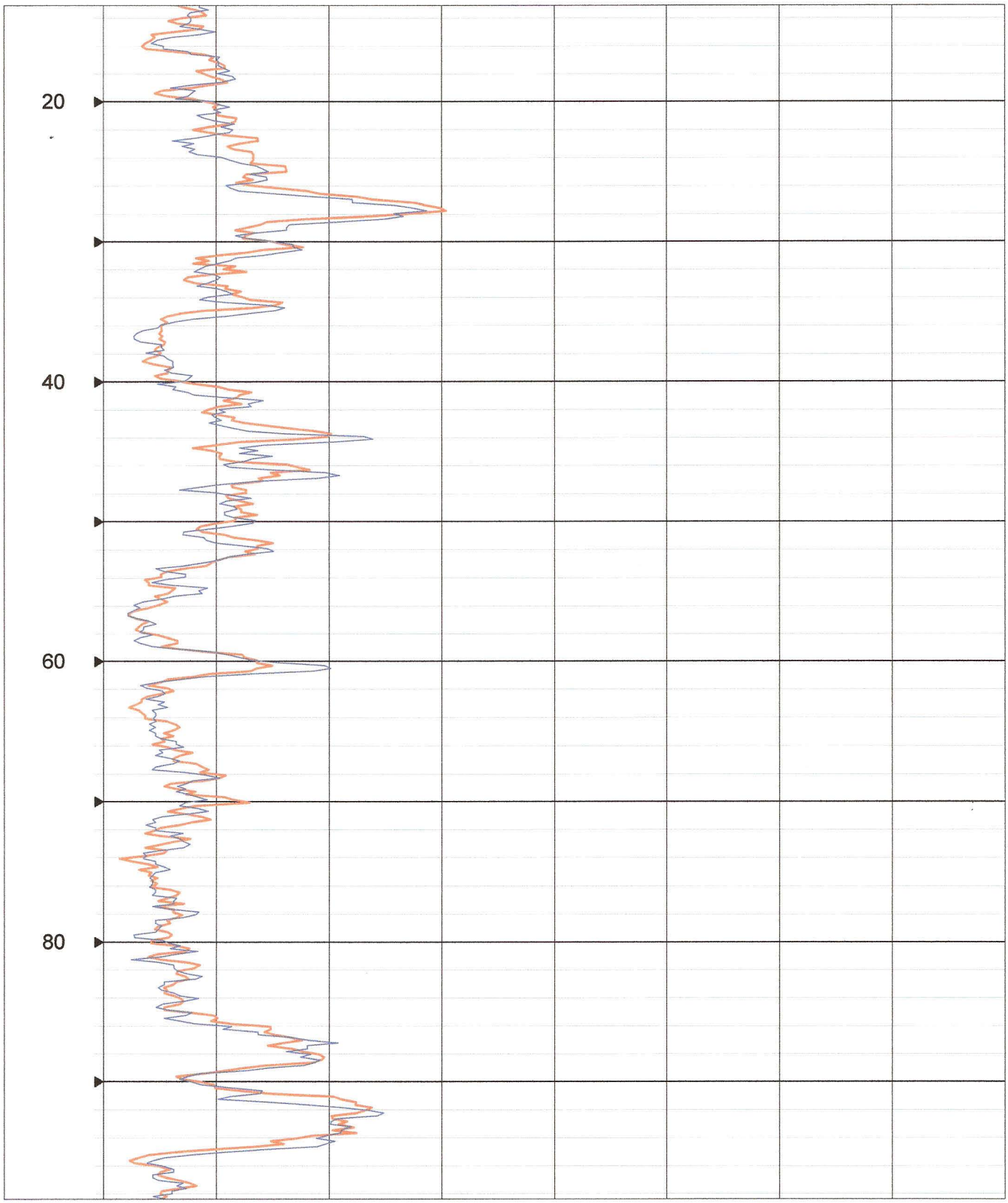
LOG MEAS. FROM GROUND SURFACE ABOVE PERM. DATUM D.F.

DRILLING MEAS. FROM G.L.

DATE	MAY 5, 2009	TYPE FLUID IN HOLE	BENTONITE
RUN No		SALINITY	
TYPE LOG		DENSITY	
DEPTH-DRILLER	310 FEET	LEVEL	
DEPTH-LOGGER	308 FEET	MAX. REC. TEMP.	
BTM LOGGED INTERVAL			
TOP LOGGED INTERVAL			
OPERATING RIG TIME			
RECORDED BY	BENJAMIN RICE		
WITNESSED BY	STAN CONTI		

RUN	BOREHOLE RECORD			CASING RECORD			
NO.	BIT	FROM	TO	SIZE	WGT.	FROM	TO
	6 INCH		TOTAL DEPTH	2 7/8	DRILL PIPE	0	300 FEET

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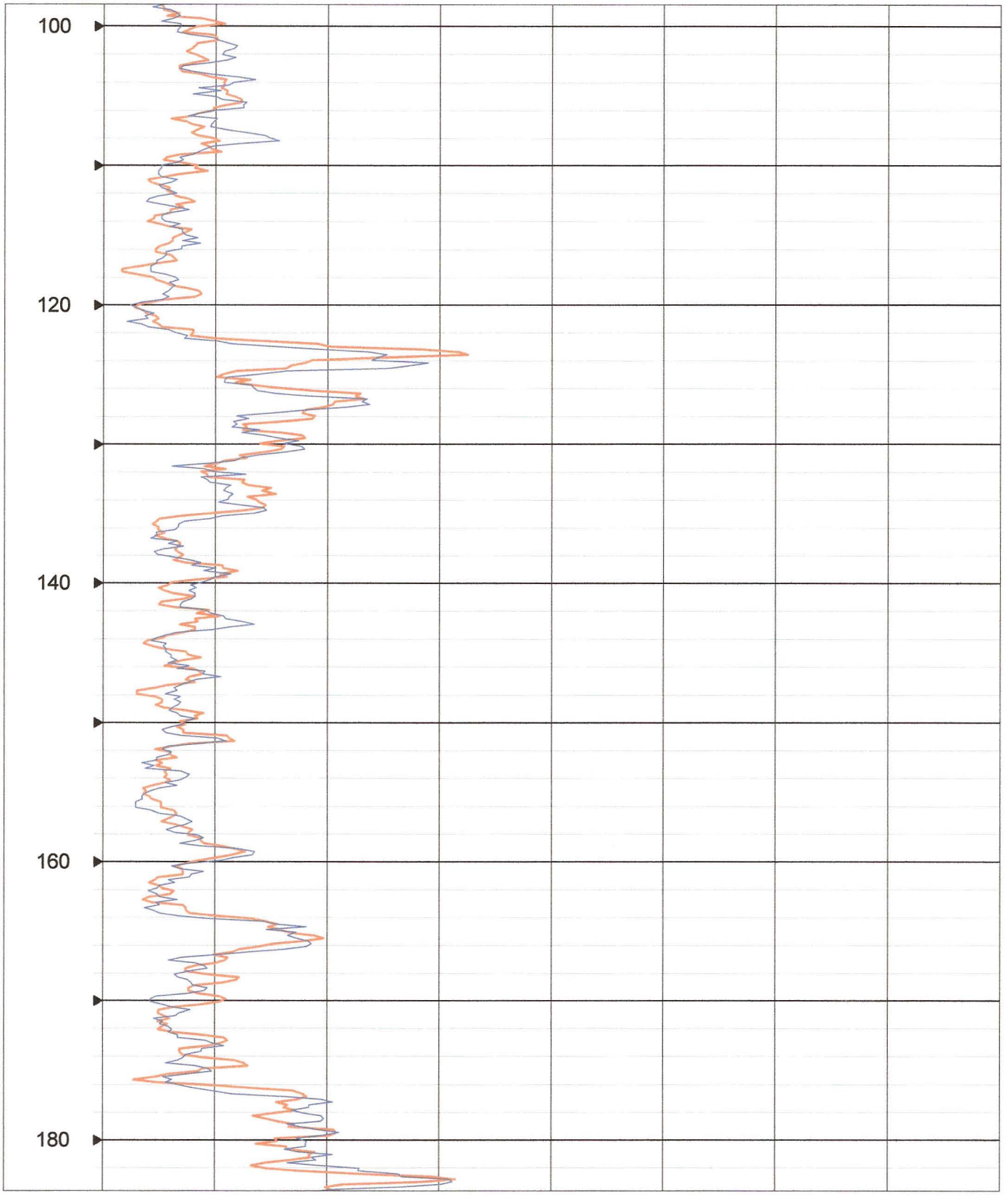
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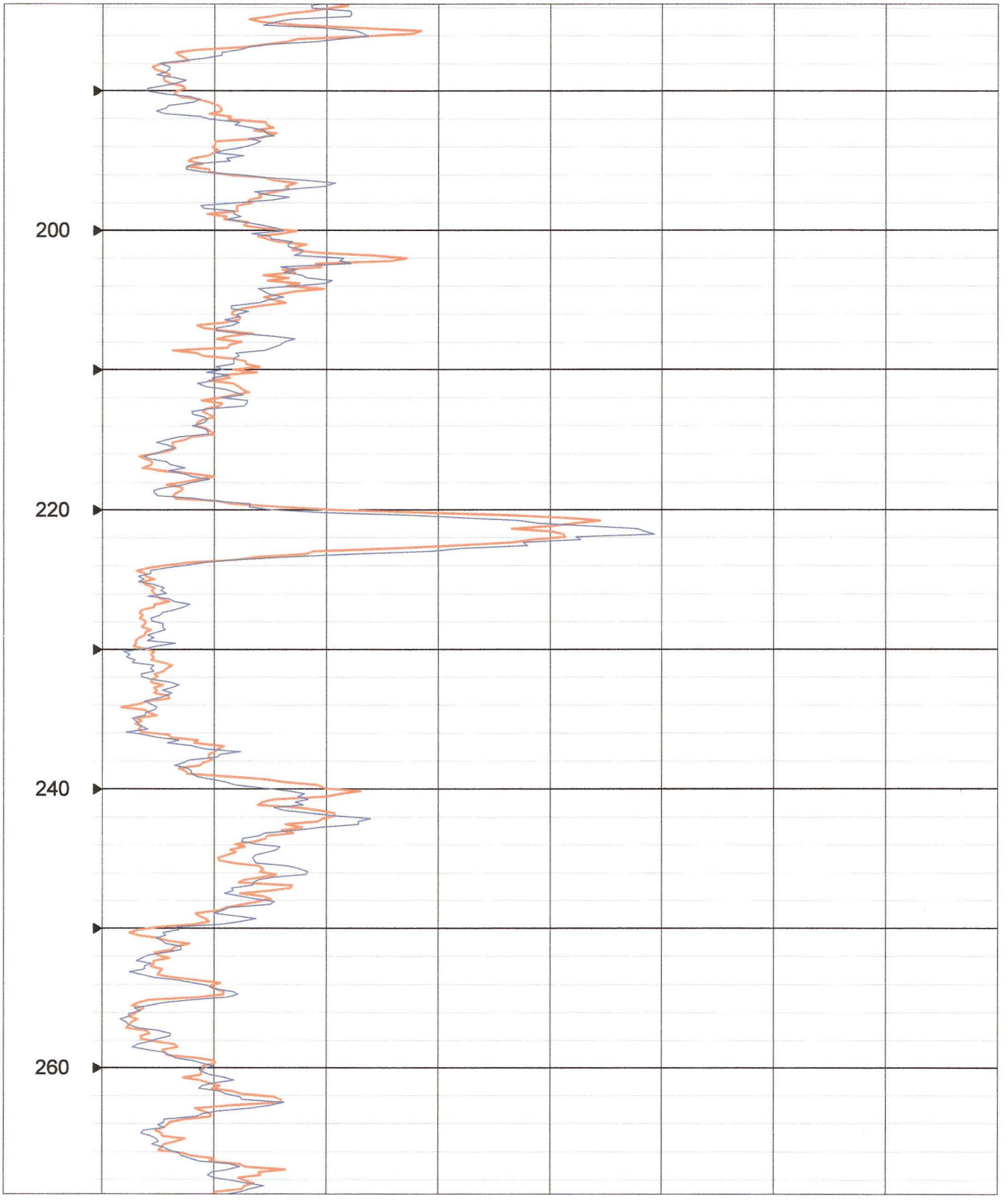
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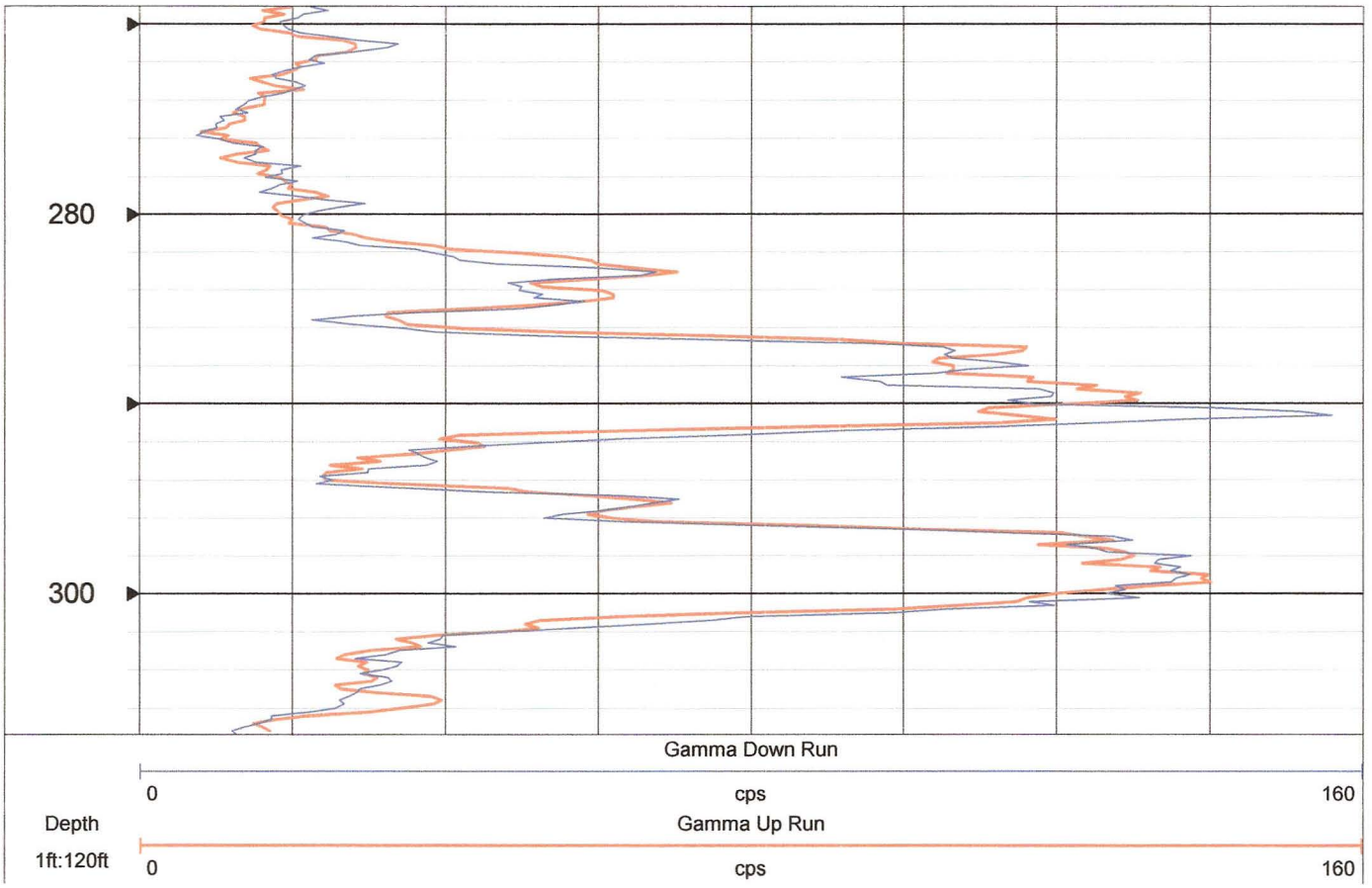

280
300
Gamma Down Run
0
cps
160
Depth
1ft:120ft
Gamma Up Run
0
cps
160

BORING LOGS

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP BETHPAGE GM-75
PROJECT NUMBER: 112G00622
DRILLING COMPANY: UNITECH DRILLING
DRILLING RIG: MUD ROTARY

BORING No.: BPS1-3002
DATE: 5/4/09
GEOLOGIST: Conti
DRILLER: Evans, D.

	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
1000		0				DENSE	YELLO BRN	SAND-SOME GRAVEL	SW GW			0		
		10					TO	SAME				0		
							BRN							
		20						SAME				0		
		30						SAME				0		
		40						SAME - TR CLAY				0		
1300		50						SAME				0		

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: 6" MUD ROTARY
NO CASING
NO SAMPLES - GAMMA LOG ONLY.

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP BETHPAGE GM-75
PROJECT NUMBER: 112G00622
DRILLING COMPANY: UNITECH DRILLING
DRILLING RIG: MUD ROTARY

BORING No.: BPS1-3002
DATE: 5/4/09
GEOLOGIST: Conti
DRILLER: Evans, D.

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	50												
					DENSE	BRN GRAY	SAND - TR GRAVEL	SM SW			0		
	60						SAME				0		
	70						SAME				0		
	80						SAME				0		
	90						SAME				0		
1400	100						SAME				0		

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP BETHPAGE GM-75
PROJECT NUMBER: 112G00622
DRILLING COMPANY: UNITECH DRILLING
DRILLING RIG: MUD ROTARY

BORING No.: BPS1-3002
DATE: 5/4/09
GEOLOGIST: Conti
DRILLER: Evans, D.

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	100												
					DENSE	GRAY	F/M SAND - TR	SM			0		
							GRAVEL	SP					
	110						SAME				0		
	120						SAME				0		
	130						SAME				0		
	140						SAME				0		
1500	150						SAME				0		

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks:

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP BETHPAGE GM-75
PROJECT NUMBER: 112G00622
DRILLING COMPANY: UNITECH DRILLING
DRILLING RIG: MUD ROTARY

BORING No.: BPS1-3002
DATE: 5/5/09
GEOLOGIST: Conti
DRILLER: Evans, D.

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	150				DENSE	GRAY	F/M SAND				0		
	160						SAME				0		
	170						SAME				0		
	180						SAME				0		
	190						SAME				0		
	200						SAME				0		

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP BETHPAGE GM-75
PROJECT NUMBER: 112G00622
DRILLING COMPANY: UNITECH DRILLING
DRILLING RIG: MUD ROTARY

BORING No.: BPS1-3002
DATE: 5/5/09
GEOLOGIST: Conti
DRILLER: Evans, D.

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	200			220									
				TR CLAY	DENSE	GRAY	F/M SAND-TR	SM/			0		
				224			CLAY	SP					
	210						SAME				0		
	220						SAME				0		
	230						SAME				0		
	240						SAME				0		
	250						SAME				0		

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks:

Converted to Well: Yes ____ No 0 Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP BETHPAGE GM-75
PROJECT NUMBER: 112G00622
DRILLING COMPANY: UNITECH DRILLING
DRILLING RIG: MUD ROTARY

BORING No.: BPS1-3002
DATE: 5/5/09
GEOLOGIST: Conti
DRILLER: Evans, D.

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	250				LOOSE	BRN	F/M SAND	SP			0		
						GRAY		SW					
	260						SAME				0		
	270												
							SAME				0		
	280										0		
				286±									
				CLAY	STIFF	GRAY	CLAY (SANDY)		SEE GAMMA				
	290								LOG		0		
				292±									
				SAND			SAND						
				296±									
				CLAY			CLAY						
	300			302±							0		

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP BETHPAGE GM-75
PROJECT NUMBER: 112G00622
DRILLING COMPANY: UNITECH DRILLING
DRILLING RIG: MUD ROTARY

BORING No.: BPS1-3002
DATE: 5/5/09
GEOLOGIST: Conti
DRILLER: Evans, D.

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	300												
					DENSE	GRAY	SAND-TR CLAY				0		
	310										0		
				BOT @ 310									
							BOTM @ 310						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

B.3 BPS1-3003

GAMMA LOG

BORING LOG

SAMPLE LOG SHEETS LONG ISLAND ANALYTICAL

SAMPLE LOG SHEETS MITKEM LABORATORY

CHAIN OF CUSTODY LONG ISLAND ANALYTICAL

CHAIN OF CUSTODY MITKEM LABORATORY

ANALYTICAL RESULTS LONG ISLAND ANALYTICAL

VALIDATION LETTER AND RESULTS MITKEM LABORATORY

GAMMA LOGS

AQUA TERRA GEOPHYSICS INC.
13 Station Court, Bellport NY 11713
631.286.7699

COMPANY	UNI-TECH DRILLING
WELL ID	BPS1 - 3003
FIELD	BETHPAGE GM-75
COUNTRY	NASSAU STATE NEW YORK

CO WELL FLD CTY STE FILING No

LOCATION
NWIRP

SEC TWP RGE

OTHER SERVICES

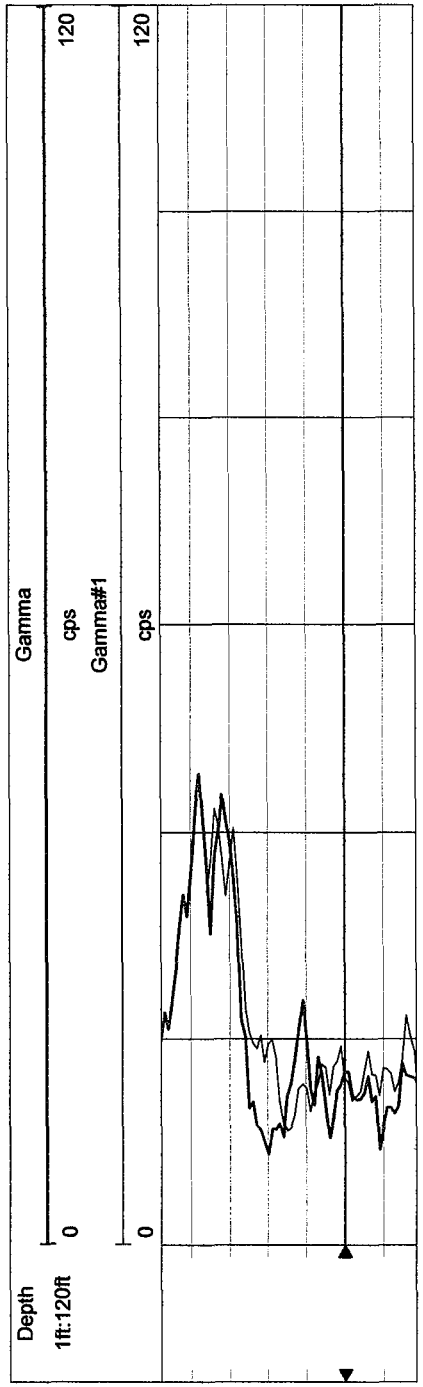
PERMANENT DATUM ELEVATION K.B.

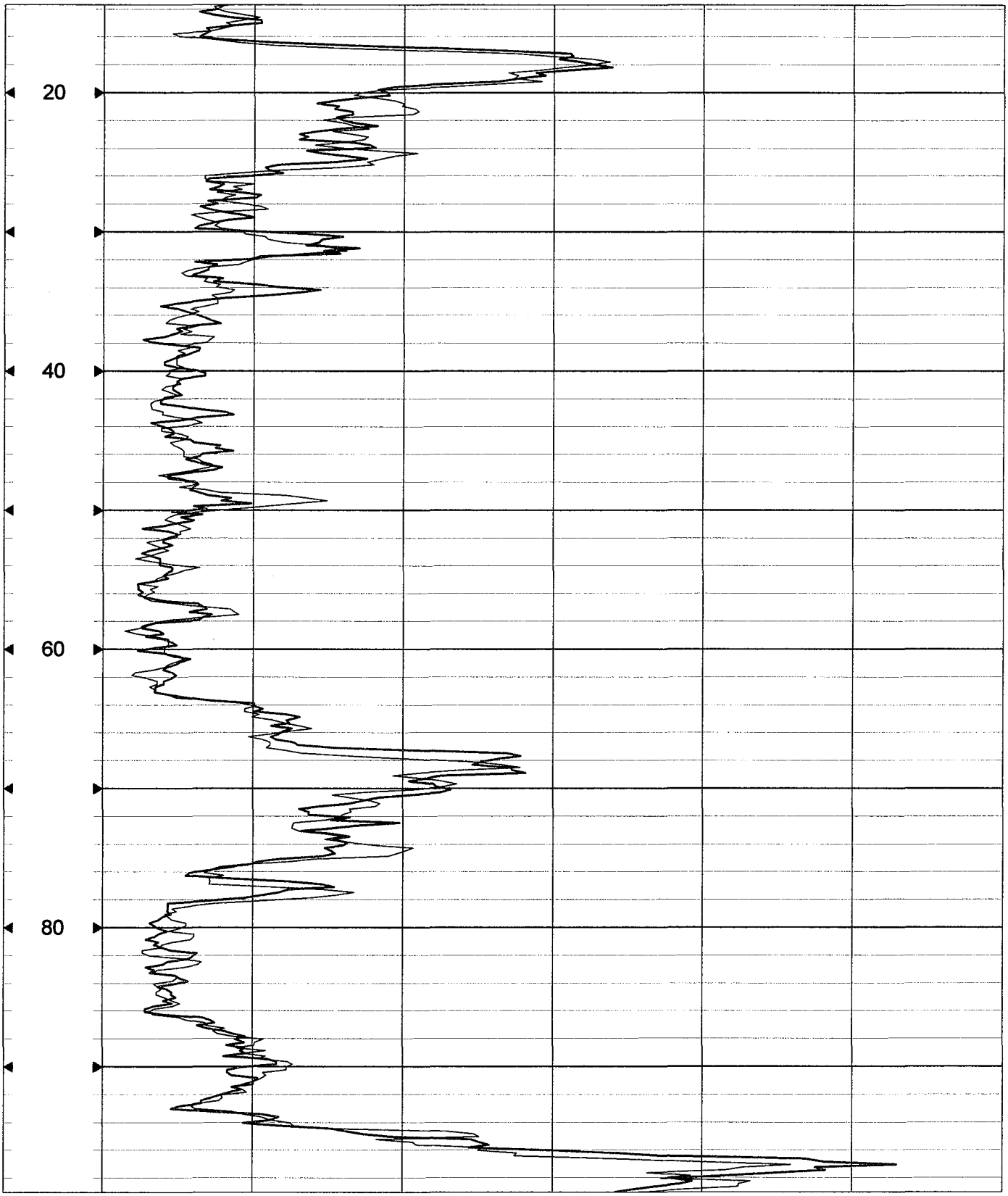
LOG MEAS. FROM GROUND SURFACE ABOVE PERM. DATUM D.F.

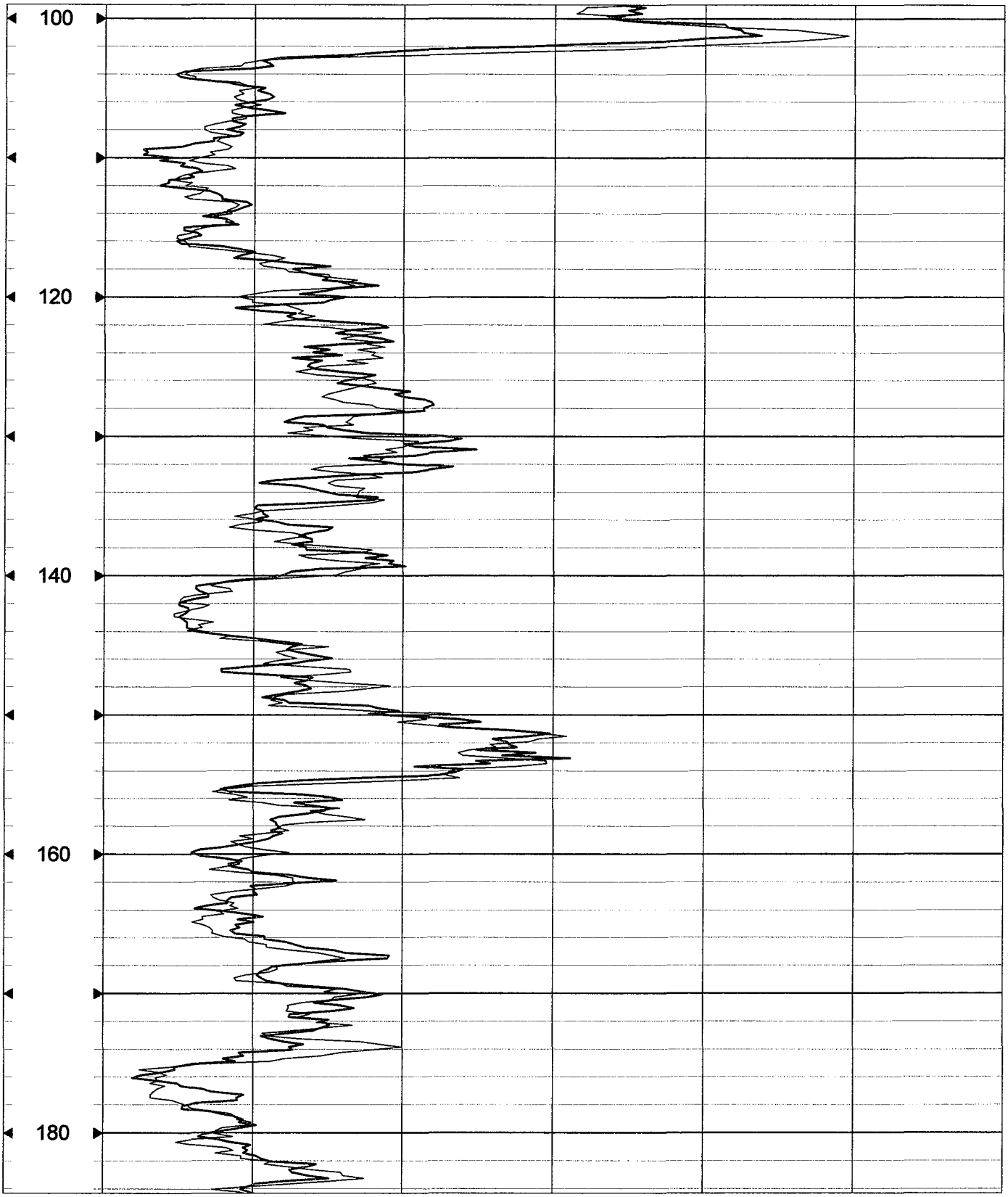
DRILLING MEAS. FROM G.L.

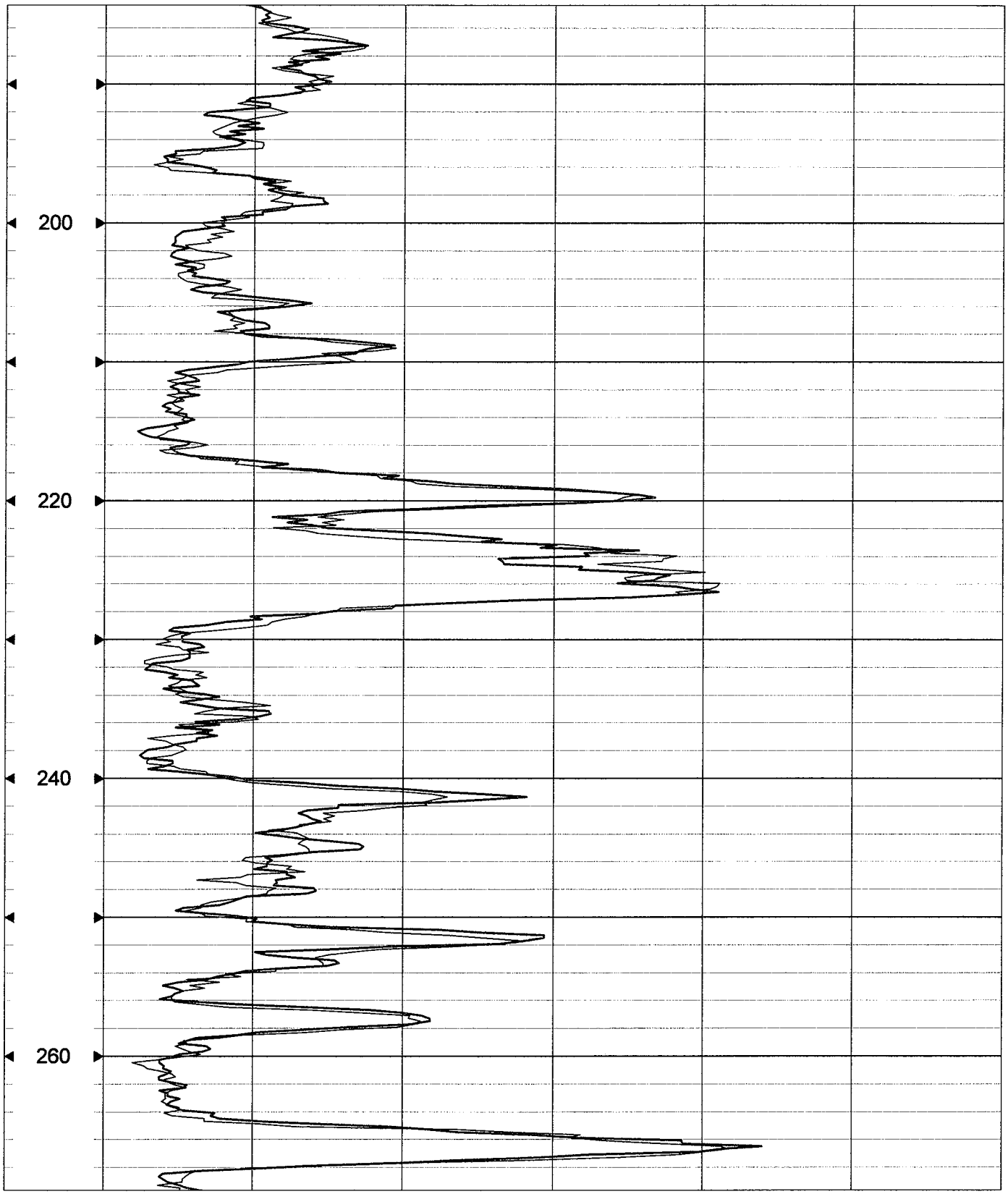
DATE	MAY 20, 2009	TYPE FLUID IN HOLE	BENTONITE
RUN No		SALINITY	
TYPE LOG		DENSITY	
DEPTH-DRILLER	310 FEET	LEVEL	
DEPTH-LOGGER	309 FEET	MAX. REC. TEMP.	
BTM LOGGED INTERVAL			
TOP LOGGED INTERVAL			
OPERATING RIG TIME			
RECORDED BY	BENJAMIN RICE		
WITNESSED BY	STAN CONTI		

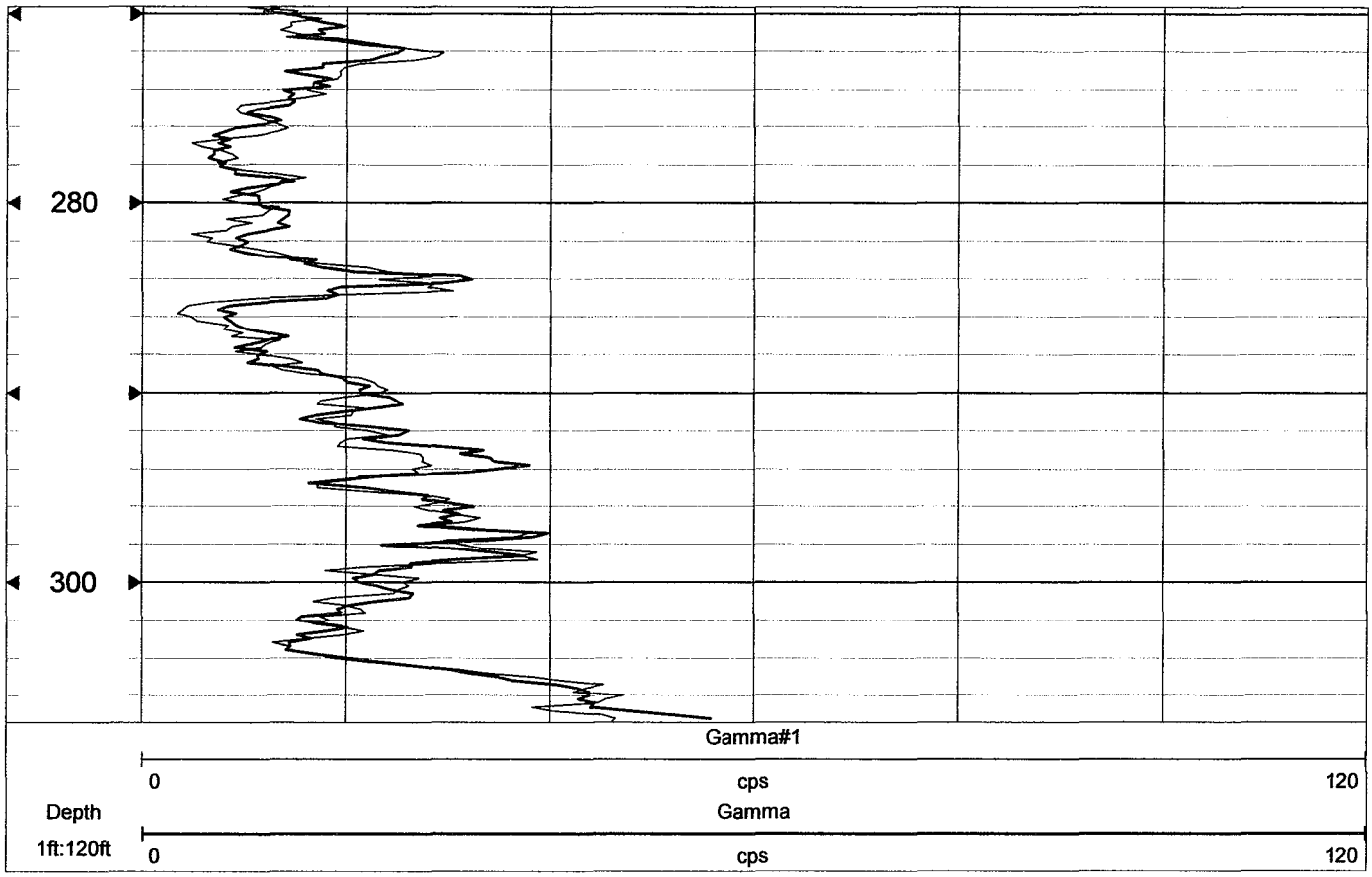
RUN	BOREHOLE RECORD			CASING RECORD			
NO.	BIT	FROM	TO	SIZE	WGT.	FROM	TO
	6 INCH		TD	2 7/8	DRILL PIPE	0	TD




20
40
60
80


100
120
140
160
180


200
220
240
260


280
300
Gamma#1
0
cps
120
Depth
Gamma
1ft:120ft
0
cps
120

BORING LOGS

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP BETHPAGE GM-75
PROJECT NUMBER: 112G00622
DRILLING COMPANY: UNITECH DRILLING
DRILLING RIG: MUD ROTARY

BORING No.: BPS1-3003
DATE: 5/18/09
GEOLOGIST: Conti
DRILLER: EVANS, J

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	0												
					DENSE	BRN	4" ASPHALT SAND - SOME GRAVEL	SW	MOIST		0		
	10						SAME				0		
	20						SAME				0		
	30						SAME				0		
SS1 @ 1350	40 41	45/50	1/1	■	VERY DENSE	TAN BRN	F/M SAND	SM/SP	MOIST TOOK BPS1-3003-SB 041	0	0		
SS2 @ 1405	45 46	40/50	3/1	■			F/C SAND-TR F GRAVEL	SW	WET BPS1-3003-SB 046	0	0		
	50												

* When rock coring, enter rock brokeness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

■ SOIL SAMPLE (MITCEM)

Drilling Area Background (ppm): 0

Remarks:

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP BETHPAGE GM-75
PROJECT NUMBER: 112G00622
DRILLING COMPANY: UNITECH DRILLING
DRILLING RIG: MUD ROTARY

BORING No.: BPS1-3003
DATE: 5/18/09
GEOLOGIST: Conti
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
SS3 1415	50 51	41/50	.4/1		VERY DENSE	TAN BRN	F/C SAND - TR F- GRAVEL	SW	WET TOOK	0	0		
SS4 @ 1430	55 56	45/50	.3/1		VERY DENSE		SAME	SW	BPS1-3003-SB-051 WET BPS1-3003-SB 056	0	0		
SS5 @ 1445	60 61	38/50	.5/1		VERY DENSE		SAME	SW	WET TOOK BPS1-3003-SB 061	0	0		
S1 @ 1545	70 71					BRN	SAME		TOOK BPS1-3003-GW-071		0		
	80						SAME				0		
S2 @ 1700	90 91						SAME		TOOK BPS1-3003-GW-091		0		
				96' CLAY			NO CLAY NOTED FROM 90 TO 110 VIA DRILLING		HIT CLAY @98' IN BPS1-3001. CLAY ~96 TO 102 BASED ON GAMMA LOG.				
	100			102							0		

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP BETHPAGE GM-75
PROJECT NUMBER: 112G00622
DRILLING COMPANY: UNITECH DRILLING
DRILLING RIG: MUD ROTARY

BORING No.: BPS1-3003
DATE: 5/19/09
GEOLOGIST: Conti
DRILLER: EVANS, J

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
	100												
					DENSE	BRN	F/M SAND - TR	SM			0		
							F GRAVEL	/SP					
SS6	110	30/50	1/1	■	V DENSE	BRN GRAY	F/M SAND	SM /SP	WET				
@ 0940 (S-3 0945)	111 112			●					TOOK BPS1-3003-SB-111	0	0		
SS7 @ 0950	115 116	35/50	1/1	■	V DENSE	TAN BRN	SILTY F/M SAND	SM /SP	WET BPS1-3003-SB-116	0	0		
									ALSO BPS1-3003-GW-112				
SS8 @ 1000	120 121	38/50		■	V DENSE	TAN BRN	SILTY F/M SAND	SM SP	TOOK BPS1-3003-SB 121	0	0		
S4 @ 1110	130 131			●			SAME		TOOK BPS1-3003-GW-131		0		
	140						SAME				0		
	150						SAME				0		

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks:

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP BETHPAGE GM-75
PROJECT NUMBER: 112G00622
DRILLING COMPANY: UNITECH DRILLING
DRILLING RIG: MUD ROTARY

BORING No.: BPS1-3003
DATE: 5/19/09
GEOLOGIST: Conti
DRILLER: EVANS, J

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
S5 @ 1215	150 151			•	DENSE	BRN	F/M SAND	SM/SP	TOOK BPS1-3003-GW 151		0		
	160						SAME				0		
S6 @ 1330	170 171			•			SAME		TOOK BPS1-3003-GW-171 1-VIAL ONLY		0		
	180						SAME				0		
S7 @ 1450	190 191			•			SAME		TOOK BPS1-3003-GW 191		0		
	200										0		

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks:

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP BETHPAGE GM-75
PROJECT NUMBER: 112G00622
DRILLING COMPANY: UNITECH DRILLING
DRILLING RIG: MUD ROTARY

BORING No.: BPS1-3003
DATE: 5/19/09
GEOLOGIST: Conti
DRILLER: EVANS, J.

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	200												
					DENSE	LT BRN	SAND - F/M	SM/SP			0		
S8	210						SAME		TOOK		0		
@ 1615	211								BPS1-3003-GW-211				
									219 ↓ LENS CLAY				
	220			219			CLAY LENS		220		0		
				220			SAND		224 MORE CLAY				
							↓		↓				
				224			CLAY		228				
				CLAY 228			↓						
S9	230						SAND - TR GRAVEL		TOOK		0		
@ 1730	231								BPS1-3003-GW 231				
	240						SAME				0		
	250										0		

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks:

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP BETHPAGE GM-75
PROJECT NUMBER: 112G00622
DRILLING COMPANY: UNITECH DRILLING
DRILLING RIG: MUD ROTARY

BORING No.: BPS1-3003
DATE: 5/20/09
GEOLOGIST: Conti
DRILLER: EVANS, J

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
S10	250												
@ 0915	251			•	DENSE	BRN	SAND (F/M)	SM/SP	TOOK BPS1-3003-GW 251		0		
	260						SAME				0		
									266 ↓ 269 SILT-MORE FINES				
S11	270						SAME - SEE		BACK IN SAND ~270 WILL TAKE S-11		0		
@ 1050	271			•					BPS1-3003-GW -271				
	280						SAND / F-M				0		
S12	290						SAME		TOOK		0		
@ 1200	291			•					BPS1-3003-GW-291				
	300										0		

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP BETHPAGE GM-75
PROJECT NUMBER: 112G00622
DRILLING COMPANY: UNITECH DRILLING
DRILLING RIG: MUD ROTARY

BORING No.: BPS1-3003
DATE: 5/20/09
GEOLOGIST: Conti
DRILLER: EVANS, J.

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	300												
					DENSE	BRN	SAND (F/M)	SM/SP			0		
S-13	310			310					TOOK		0		
@ 1330	311		●	TD					BPS1-3003-GW 311				
							BOTM @ 310						
							MUD ROTARY						
							RODS LEFT IN						
							TO GAMMA LOG						
							TO 309'						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

SAMPLE LOG SHEETS
LONG ISLAND ANALYTICAL

Tetra Tech NUS, Inc.

QA SAMPLE LOG SHEET

Project Site Name: NWIRP BETHPAGE GM-75
Project Number: 112G00622
Sample Location: BPS1-3003
QA Sample Type:

Sample ID No.: BPS1-TB-051809 ~~BP-VPB~~
Sampled By: SJC
C.O.C. Number: 27236

[X] Trip Blank
[] Source Water Blank
[] Rinsate Blank
[] Other Blank

SAMPLING DATA:

Date: 5/18/09
Time: 1300
Method: LAB

WATER SOURCE:

[X] Laboratory Prepared
[] Purchased
[] Other
[] Tap
[] Fire Hydrant

PURCHASED WATER INFORMATION (If Applicable as Source or Rinsate Water):

Product Name:
Supplier:
Manufacturer:
Order Number:
Lot Number:
Expiration Date:

RINSATE INFORMATION (If Applicable):

Media Type:
Equipment Used:
Equipment Type:
[] Dedicated
[] Reusable

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	Cool 4°C & HCl	2-40 ml Vials	YES / NO

OBSERVATIONS / NOTES:

Signature(s): SJConte

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP BETHPAGE GM-75
Project No.: 112G00622
PRE-DESIGN FIELD INVES

Sample ID No.: BPS1-3003-GW-071
Sample Location: BPS1-3003
Sampled By: SJC

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 27236
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Date: 5/18/09	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Time: 1545								
Method: Hydropunch	BRN	7	—	—	—	—	—	—

PURGE DATA:

Date:								
Method:								
Monitor Reading (ppm):		SEE LOW FLOW PURGE DATA SHEET, Page 2						
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	~~2~~ 1- 40ml vials	✓

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. [✓]

Used pH paper instead of water quality meter
Check box if used pH paper. [✓]

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): SJ Conti

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP BETHPAGE GM-75
Project No.: 112G00622
PRE-DESIGN FIELD INVES

Sample ID No.: BPS1-3003-GW- 091
Sample Location: BPS1-3003
Sampled By: SJC

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 27236
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Date: 5/18/09	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Time: 1700								
Method: Hydropunch	ORANG BRN	~~4.84~~ 5.65 SJC	.138	17.04	584	—	201	—

PURGE DATA:

Date:								
Method:								
Monitor Reading (ppm):		SEE LOW FLOW PURGE DATA SHEET, Page 2						
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	(2)- 40ml vials	✓
		2 vials to Mitkem	✓

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

pH = 6.0 (ph paper)

Not enough volume for water quality parameters
Check box if not enough volume. ☐

Used pH paper instead of water quality meter
Check box if used pH paper. ☐

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s): SJ Conca

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP BETHPAGE GM-75
Project No.: 112G00622
PRE-DESIGN FIELD INVES

Sample ID No.: BPS1-3003-GW- 112
Sample Location: BPS1-3003
Sampled By: SJC

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 27236
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Date: 5/19/09	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Time: 0945								
Method: Hydropunch	TAN BRN	8.88	.241	13.52	>800	—	-63	—

PURGE DATA:

Date:								
Method:								
Monitor Reading (ppm):		SEE LOW FLOW PURGE DATA SHEET, Page 2						
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	2-40ml vials	✓

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. [ ]

Used pH paper instead of water quality meter
Check box if used pH paper. [ ]

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s): SJ Conti

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP BETHPAGE GM-75
Project No.: 112G00622
PRE-DESIGN FIELD INVES

Sample ID No.: BPS1-3003-GW-131
Sample Location: BPS1-3003
Sampled By: SJC

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 27236
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Date: 5/19/09	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Time: 1110								
Method: Hydropunch	TAN	8.47	.146	15.25	650	—	-66	—

PURGE DATA:

Date:								
Method:								
Monitor Reading (ppm):		SEE LOW FLOW PURGE DATA SHEET, Page 2						
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	2- 40ml vials	✓
		ALSO 2-VIALS MITKEM	

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water qualify parameters
Check box if not enough volume. [ ]

Used pH paper instead of water quality meter
Check box if used pH paper. [ ]

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s): SJ Conti

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP BETHPAGE GM-75
Project No.: 112G00622
PRE-DESIGN FIELD INVES

Sample ID No.: BPS1-3003-GW- 151
Sample Location: BPS1-3003
Sampled By: SJC

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 27236
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Date: 5/19/09	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Time: 1215								
Method: Hydropunch	LT BRN	7.65	.199	16.82	> 800	—	10	—

PURGE DATA:

Date:								
Method:								
Monitor Reading (ppm):		SEE LOW FLOW PURGE DATA SHEET, Page 2						
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	2-40ml vials	✓

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. ☐

Used pH paper instead of water quality meter
Check box if used pH paper. ☐

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s): SJ Conte

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP BETHPAGE GM-75
Project No.: 112G00622
PRE-DESIGN FIELD INVES

Sample ID No.: BPS1-3003-GW- 171
Sample Location: BPS1-3003
Sampled By: SJC

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 27236
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Date: 5/19/09	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Time: 1330								
Method: Hydropunch	BRN	8	—	—	—	—	—	—

PURGE DATA:

Date:								
Method:								
Monitor Reading (ppm):		SEE LOW FLOW PURGE DATA SHEET, Page 2						
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	~~2~~ 40ml vials	
		1 VIAL	✓

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. [✓]

Used pH paper instead of water quality meter
Check box if used pH paper. [✓]

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): SJ Conti

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP BETHPAGE GM-75
Project No.: 112G00622
PRE-DESIGN FIELD INVES

Sample ID No.: BPS1-3003-GW- 191
Sample Location: BPS1-3003
Sampled By: SJC

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 27236
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Date: 5/19/09	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Time:								
Method: Hydropunch	LT BRN	7.59	.157	20.25	576	—	-63	—

PURGE DATA:

Date:								
Method:								
Monitor Reading (ppm):		SEE LOW FLOW PURGE DATA SHEET, Page 2						
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	2- 40ml vials	✓

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. [ ]

Used pH paper instead of water quality meter
Check box if used pH paper. [ ]

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s): SJ Conte

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP BETHPAGE GM-75
Project No.: 112G00622
PRE-DESIGN FIELD INVES

Sample ID No.: BPS1-3003-GW- 211
Sample Location: BPS1-3003
Sampled By: SJC

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 27236
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Date: 5/19/09	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Time: 1615								
Method: Hydropunch	LT. BRN	7→8	—	—	—	—	—	—

PURGE DATA:

Date:								
Method:								
Monitor Reading (ppm):		SEE LOW FLOW PURGE DATA SHEET, Page 2						
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	2- 40ml vials	✓

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. [✓]

Used pH paper instead of water quality meter
Check box if used pH paper. [✓]

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): Conti

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP BETHPAGE GM-75
Project No.: 112G00622
PRE-DESIGN FIELD INVES

Sample ID No.: BPS1-3003-GW-231
Sample Location: BPS1-3003
Sampled By: SJC

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 27236
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Date: 5/19/09	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Time: 1730								
Method: Hydropunch	BRN	7.86	.208	18.85	>800	—	-38	—

PURGE DATA:

Date:								
Method:								
Monitor Reading (ppm):		SEE LOW FLOW PURGE DATA SHEET, Page 2						
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	2- 40ml vials	✓

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. ☐

Used pH paper instead of water quality meter
Check box if used pH paper. ☐

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): S. Conte

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP BETHPAGE GM-75
Project No.: 112G00622
PRE-DESIGN FIELD INVES

Sample ID No.: BPS1-3003-GW- 251
Sample Location: BPS1-3003
Sampled By: SJC

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 27236
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Date: 5/20/09	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Time: 0915								
Method: Hydropunch	BRN	7→8	—	—	—	—	—	—

PURGE DATA:

Date:								
Method:								
Monitor Reading (ppm):		SEE LOW FLOW PURGE DATA SHEET, Page 2						
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	2- 40ml vials	✓

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. [✓]

Used pH paper instead of water quality meter
Check box if used pH paper. [✓]

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): SJ Conti

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP BETHPAGE GM-75
Project No.: 112G00622
PRE-DESIGN FIELD INVES

Sample ID No.: BPS1-3003-GW-271
Sample Location: BPS1-3003
Sampled By: SJC

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 27236
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Date: 5/20/09	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Time: 1050								
Method: Hydropunch	BRN	8.74	.414	20.84	—	—	65	—

PURGE DATA:

Date:								
Method:								
Monitor Reading (ppm):		SEE LOW FLOW PURGE DATA SHEET, Page 2						
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	2-40ml vials	✓

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. ☐

Used pH paper instead of water quality meter
Check box if used pH paper. ☐

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): J Conte

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP BETHPAGE GM-75
Project No.: 112G00622
PRE-DESIGN FIELD INVES

Sample ID No.: BPS1-3003-GW-291
Sample Location: BPS1-3003
Sampled By: SJC

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 27236
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Date: 5/20/09	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Time: 1200								
Method: Hydropunch	BRN	7→8	—	—	—	—	—	—

PURGE DATA:

Date:								
Method:								
Monitor Reading (ppm):		SEE LOW FLOW PURGE DATA SHEET, Page 2						
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	2- 40ml vials	✓

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. [✓]

Used pH paper instead of water quality meter
Check box if used pH paper. [✓]

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): SJConte

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP BETHPAGE GM-75
Project No.: 112G00622
PRE-DESIGN FIELD INVES

Sample ID No.: BPS1-3003-GW-311
Sample Location: BPS1-3003
Sampled By: SJC

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 27236
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Date: 5/20/09	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Time: 1330								
Method: Hydropunch	BRN	9.26	.752	20.94	>800	–	165	–

PURGE DATA: *

Date:								
Method:								
Monitor Reading (ppm):	SEE LOW FLOW PURGE DATA SHEET, Page 2							
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	2-40ml vials	✓

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. ☐

pH Paper = 8 → 9 *

Used pH paper instead of water quality meter
Check box if used pH paper. ☐

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s): SJConte

SAMPLE LOG SHEETS
MITKEM LABORATORY

Tetra Tech NUS, Inc.

QA SAMPLE LOG SHEET

Project Site Name: NWIRP BETHPAGE GM-75
Project Number: 112G00622
Sample Location: BPS1-3003
QA Sample Type:

Sample ID No.: BPS1-TB-051809 M ~~BP-VPB~~
Sampled By: SJC
C.O.C. Number: 27237

[X] Trip Blank
[] Source Water Blank
[] Rinsate Blank
[] Other Blank

SAMPLING DATA:

Date: 5/18/09
Time: 1300
Method: LAB

WATER SOURCE:

[X] Laboratory Prepared
[] Purchased
[] Other
[] Tap
[] Fire Hydrant

PURCHASED WATER INFORMATION (If Applicable as Source or Rinsate Water):

Product Name:
Supplier:
Manufacturer:
Order Number:
Lot Number:
Expiration Date:

RINSATE INFORMATION (If Applicable):

Media Type:
Equipment Used:
Equipment Type:
[] Dedicated
[] Reusable

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	Cool 4°C & HCl	2-40 ml Vials	YES / NO

OBSERVATIONS / NOTES:

Signature(s): S. Conti

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP BETHPAGE GM-75
Project No.: 112G00622

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-3003-SB-041M
Sample Location: BPS1-3003
Sampled By: SJC
C.O.C. No.: 27237

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 5/18/09 Time: 1350 Method: Split Spoon Monitor Reading (ppm): 0	40-41	TAN BRN	F/M SAND- MOIST

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings				
(Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements		Collected	Other
VOCs	2 OZ GLASS	4 DEG C	✓	
TOC	4 OZ GLASS	4 DEG C		
PCBs	4 OZ GLASS	4 DEG C	✓	

OBSERVATIONS / NOTES:

MAP:

BPS1- 3003

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

SJ Conti

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP BETHPAGE GM-75
Project No.: 112G00622

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-3003-SB-046M
Sample Location: BPS1-3003
Sampled By: SJC
C.O.C. No.: 27237

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 5/18/09 Time: 1405 Method: Split Spoon Monitor Reading (ppm): 0	45-46	TAN BRN	F/C SAND-TR F GRAVEL WET

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements		Collected	Other
VOCs	2 OZ GLASS	4 DEG C	✓	
TOC	4 OZ GLASS	4 DEG C		
PCBs	4 OZ GLASS	4 DEG C		

OBSERVATIONS / NOTES:

MAP:

BPS1-3003
ONLY ENOUGH FOR VOCS

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

SJ Conta

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP BETHPAGE GM-75
Project No.: 112G00622

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-3003-SB-051M
Sample Location: BPS1-3003
Sampled By: SJC
C.O.C. No.: 27237

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 5/18/09 Time: 1415 Method: Split Spoon Monitor Reading (ppm): 0	50-51	TAN BRN	F/C SAND - TR F. GRAVEL WET

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements		Collected	Other
VOCs	2 OZ GLASS	4 DEG C	✓	
TOC	4 OZ GLASS	4 DEG C		
PCBs	4 OZ GLASS	4 DEG C	✓	

OBSERVATIONS / NOTES:

MAP:

BPS1-3003

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

SJ Conti

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP BETHPAGE GM-75
Project No.: 112G00622

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-3003-SB-056 M
Sample Location: BPS1-3003
Sampled By: SJC
C.O.C. No.: 27237

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 5/18/09 Time: 1430 Method: Split Spoon Monitor Reading (ppm): 0	55-56	TAN BRN	F/C SAND - TR F GRAVEL WET

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements		Collected	Other
VOCs	2 OZ GLASS	4 DEG C	✓	
TOC	4 OZ GLASS	4 DEG C		
PCBs	4 OZ GLASS	4 DEG C		

OBSERVATIONS / NOTES:

MAP:

BPS1-3003

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

SJ Conti

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP BETHPAGE GM-75
Project No.: 112G00622

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-3003-SB-061 M
Sample Location: BPS1-3003
Sampled By: SJC
C.O.C. No.: 27237

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 5/18/09 Time: 1445 Method: Split Spoon Monitor Reading (ppm): 0	60-61	ORANG TAN BRN	F/C SAND - TR F GRAVEL

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements		Collected	Other
VOCs	2 OZ GLASS	4 DEG C	✓	
TOC	4 OZ GLASS	4 DEG C		
PCBs	4 OZ GLASS	4 DEG C	✓	

OBSERVATIONS / NOTES:

MAP:

BPS1-3003

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

S. Conti

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP BETHPAGE GM-75
Project No.: 112G00622

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-3003-SB-111 M
Sample Location: BPS1-3003
Sampled By: SJC
C.O.C. No.: 27237

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 5/19/09 Time: 0840 Method: Split Spoon Monitor Reading (ppm): 0	110-111	BRN TAN GRAY	F/M SAND - WET

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings				
(Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements		Collected	Other
VOCs	2 OZ GLASS	4 DEG C	✓	
TOC	4 OZ GLASS	4 DEG C		
PCBs	4 OZ GLASS	4 DEG C	✓	

OBSERVATIONS / NOTES:

MAP:

BPS1-3003

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

S. Conte

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP BETHPAGE GM-75
Project No.: 112G00622

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-3003-SB-116M
Sample Location: BPS1-3003
Sampled By: SJC
C.O.C. No.: 27237

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 5/19/09 Time: 0950 Method: Split Spoon Monitor Reading (ppm):	115-116	TAN BRN	SILTY F/M SAND - WET

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements		Collected	Other
VOCs	2 OZ GLASS	4 DEG C	✓	
TOC	4 OZ GLASS	4 DEG C		
PCBs	4 OZ GLASS	4 DEG C	✓	

OBSERVATIONS / NOTES:

MAP:

BPS1-3003

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

SJ Conte

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP BETHPAGE GM-75
Project No.: 112G00622

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-3003-SB-121M
Sample Location: BPS1-3003
Sampled By: SJC
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 5/19/09 Time: 1000 Method: Split Spoon Monitor Reading (ppm): 0	120-121	TAN BRN	SILTY F/M SAND - WET

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements		Collected	Other
VOCs	2 OZ GLASS	4 DEG C	✓	
TOC	4 OZ GLASS	4 DEG C		
PCBs	4 OZ GLASS	4 DEG C	✓	

OBSERVATIONS / NOTES:

MAP:

BPS1-3003

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

S. Conte

CHAIN OF CUSTODY
LONG ISLAND ANALYTICAL

TETRA TECH NUS, INC. CHAIN OF CUSTODY NUMBER 27236 PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G00622	NWIRP - GM75	D. BRAYACK		LONG IS. ANALYTICAL
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
S Conti		S CONTI	412 551 2629	
		CARRIER/WAYBILL NUMBER		CITY, STATE
		PICK UP BY CHRIS		

STANDARD TAT ☐
RUSH TAT ☐
☐ 24 hr. ☒ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G
PRESERVATIVE USED: 4°C HCL

DATE YEAR 2009	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: VOCs 40ml	COMMENTS
5/18	1300	BPSI-TB-051809	TB	—	—	QC	G	2	2	
5/18	1545	BPSI-3003-GW-071	BPSI 3003	70	71	GW	G	1	1	
5/18	1700	BPSI-3003-GW-091	"	90	91	GW	G	2	2	ALSO TO MITKEM.
5/19	0945	BPSI-3003-GW-112	"	111	112	GW	G	2	2	
5/19	1110	BPSI-3003-GW-131	"	130	131	GW	G	2	2	ALSO TO MITKEM
5/19	1215	BPSI-3003-GW-151	"	150	151	GW	G	2	2	
5/19	1330	BPSI-3003-GW-171	"	170	171	GW	G	1	1	
5/19	1450	BPSI-3003-GW-191	"	190	191	GW	G	2	2	
5/19	1615	BPSI-3003-GW-211	"	210	211	GW	G	2	2	
5/19	1730	BPSI-3003-GW-231	"	230	231	GW	G	2	2	
5/20	0915	BPSI-3003-GW-251	"	250	251	GW	G	2	2	
5/20	1050	BPSI-3003-GW-271	"	270	271	GW	G	2	2	
5/20	1200	BPSI-3003-GW-291	"	290	291	GW	G	2	2	
5/20	1330	BPSI-3003-GW-311	"	310	311	GW	G	2	2	

1. RELINQUISHED BY: S Conti	DATE: 5/21/09	TIME: 1200	1. RECEIVED BY: LONG IS. ANALYTICAL	DATE: 5/21/09	TIME: 11:40
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

TETRA TECH NUS, INC. CHAIN OF CUSTODY NUMBER 27236 PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G00622	NWIRP - GM75	D. BRAYACK		LONG IS. ANALYTICAL
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
S Conti		S CONTI	412 551 2629	
		CARRIER/WAYBILL NUMBER		CITY, STATE
		PICK UP BY CHRIS		

STANDARD TAT ☐
RUSH TAT ☐
☐ 24 hr. ☒ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G
PRESERVATIVE USED: 4°C HCL

DATE YEAR 2009	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: VOCs 40ml	COMMENTS
5/18	1300	BPSI-TB-051809	TB	—	—	QC	G	2	2	
5/18	1545	BPSI-3003-GW-071	BPSI 3003	70	71	GW	G	1	1	
5/18	1700	BPSI-3003-GW-091	"	90	91	GW	G	2	2	ALSO TO MITKEM.
5/19	0945	BPSI-3003-GW-112	"	111	112	GW	G	2	2	
5/19	1110	BPSI-3003-GW-131	"	130	131	GW	G	2	2	ALSO TO MITKEM
5/19	1215	BPSI-3003-GW-151	"	150	151	GW	G	2	2	
5/19	1330	BPSI-3003-GW-171	"	170	171	GW	G	1	1	
5/19	1450	BPSI-3003-GW-191	"	190	191	GW	G	2	2	
5/19	1615	BPSI-3003-GW-211	"	210	211	GW	G	2	2	
5/19	1730	BPSI-3003-GW-231	"	230	231	GW	G	2	2	
5/20	0915	BPSI-3003-GW-251	"	250	251	GW	G	2	2	
5/20	1050	BPSI-3003-GW-271	"	270	271	GW	G	2	2	
5/20	1200	BPSI-3003-GW-291	"	290	291	GW	G	2	2	
5/20	1330	BPSI-3003-GW-311	"	310	311	GW	G	2	2	

1. RELINQUISHED BY: S Conti	DATE: 5/21/09	TIME: 1200	1. RECEIVED BY: LONG IS. ANALYTICAL	DATE: 5/21/09	TIME: 11:40
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

CHAIN OF CUSTODY
MITKEM LABORATORY

TETRA TECH NUS, INC. | CHAIN OF CUSTODY | NUMBER 27237 | PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G00622	NWIRP-GM75	D BRAYACK	757 461 3824	MITKEM / LANLER OR NG
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
S Conti		S CONTI	412 551 2629	175 METRO CENTER BLVD
		CARRIER/WAYBILL NUMBER		CITY, STATE
		FED EX AB # 8631 3888 0734		WARWICK, RI, 02886

STANDARD TAT ☐
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G G
PRESERVATIVE USED: 4°C 4°C 4°C HCL

DATE YEAR 2009	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: VOCs 20 ml	PCBs 40 ml	VOCs 40 ml						COMMENTS
5/18	1300	BPS1-TB-051809M	TB	—	—	QC	G	2	—	—	2						
5/18	1350	BPS1-3003-SB-041M	BPS1 3003	40	41	SO	G	2	1	1							
5/18	1405	BPS1-3003-SB-046M	"	45	46	SO	G	1	1	—							
5/18	1415	BPS1-3003-SB-051M	"	50	51	SO	G	2	1	1							
5/18	1430	BPS1-3003-SB-056M	"	55	56	SO	G	1	1	—							
5/18	1445	BPS1-3003-SB-061M	"	60	61	SO	G	2	1	1							
5/18	1700	BPS1-3003-GW-091M	"	90	91	GW	G	2	~~2~~ 1		2						
5/19	0840	BPS1-3003-SB-111M	"	110	111	SO	G	2	1	1							
5/19	0950	BPS1-3003-SB-116M	"	115	116	SO	G	2	1	1							
5/19	1000	BPS1-3003-SB-121M	"	120	121	SO	G	2	1	1							
5/19	1110	BPS1-3003-GW-131M	"	130	131	GW	G	2			2						

1. RELINQUISHED BY S Conti	DATE 5/19/09	TIME 1730	1. RECEIVED BY FED EX	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

ANALYTICAL RESULTS LONG ISLAND ANALYTICAL

LONG ISLAND ANALYTICAL LABORATORIES INC.
"TOMORROWS ANALYTICAL SOLUTIONS TODAY"

NYSDOH ELAP# 11693
USEPA# NY01273
CTDOH# PH-0284
AIHA# 164456
NJDEP# NY012
PADEP# 68-2943

LONG ISLAND ANALYTICAL LABORATORIES, INC.
DATA REPORTING FLAGS

For reporting results, the following "Flags" are used:

A: Time not supplied by client, may have exceeded holding time
B: Holding time exceeded, results cannot be used for regulatory purposes
C: Minimum detection limit raised due to matrix interference
D: Minimum detection limit raised due to target compound interference
E: Minimum detection limit raised due to non-target compound interference
F: Minimum detection limit raised due to insufficient sample volume
G: Sample received in incorrect container
H: Sample not preserved, corrected upon receipt
I: Dilution Water does not meet QC Criteria
J: Estimated concentration, exceeds calibration range
K: Target compound found in blank
L: Subcontractor ELAP #11398
M: Subcontractor ELAP #10320
N: Subcontractor NVLAP #102047.0
O: Subcontractor AIHA #103005
P: Subcontractor A2LA 2004-01
Q: Subcontractor ELAP #11026
R: Subcontractor ELAP #10155
S: Subcontractor ELAP #11501
T: Subcontractor CTC
U: Subcontractor ELAP #11685
V: QC affected by matrix
W: Subcontractor ELAP #10248
X: QC does not meet acceptance criteria
Y: Sample container received with head space
Z: Insufficient sample volume received
AA: Preliminary results, cannot be used for regulatory purposes.
BB: Spike recovery does not meet QC criteria due to high target concentration
CC: Data reported below the lower limit of quantitation and should be considered to have an increased quantitative uncertainty.
DD: Sampling information not supplied and/or sample not taken by qualified technician, therefore verifiability of the report is limited to results only. Report cannot be used for regulatory purposes.
EE: Subcontractor ELAP : #11777
FF: Unable to verify that the wipe samples submitted conform to ASTM E1792 or specifications issued by the EPA.
GG: Level found exceeds the maximum contaminant level (MCL) as set by local, state or federal agencies.
HH: Subcontractor ELAP #10750
II: Subcontractor ELAP #10145
JJ: Subcontractor ELAP #11838
KK: Cassette received without tap(s)
LL: Spike duplicate recovery out of range due to matrix inconsistency
MM: Estimated value, result is less than the sample quantitation limit but greater than zero.

110 Colin Drive • Holbrook, New York 11741
Phone (631) 472-3400 • Fax (631) 472-8505 • Email: LIAL@lialinc.com

LONG ISLAND ANALYTICAL LABORATORIES INC.
"TOMORROWS ANALYTICAL SOLUTIONS TODAY"

NYSDOH ELAP# 11693
USEPA# NY01273
CTDOH# PH-0284
AIHA# 164456
NJDEP# NY012
PADEP# 68-2943

May 27, 2009

Tetra Tech NUS, Inc.
Dave Breyack
600 Clark Avenue, Suite 3
King of Prussia, PA 19406-1433

LIAL #1177403

Re: NWIRP GW-75

Dear Mr. Breyack:

Enclosed please find the Laboratory Analysis Report(s) for sample(s) received on May 22, 2009. Long Island Analytical Laboratories analyzed the samples on May 26, 2009 for the following:

CLIENT ID	ANALYSIS
BPSI-TB-051809	EPA 8260
BPSI-3003-GW-071	EPA 8260
BPSI-3003-GW-091	EPA 8260
BPSI-3003-GW-112	EPA 8260
BPSI-3003-GW-131	EPA 8260
BPSI-3003-GW-151	EPA 8260
BPSI-3003-GW-171	EPA 8260
BPSI-3003-GW-191	EPA 8260
BPSI-3003-GW-211	EPA 8260
BPSI-3003-GW-231	EPA 8260
BPSI-3003-GW-251	EPA 8260
BPSI-3003-GW-271	EPA 8260
BPSI-3003-GW-291	EPA 8260
BPSI-3003-GW-311	EPA 8260

Samples received at 4°C.

If you have any questions or require further information, please call at your convenience. Long Island Analytical Laboratories Inc. is a NELAP accredited laboratory. All reported results meet the requirements of the NELAP standards unless noted with the appropriate flag. Report shall not be reproduced except in full, without the written approval of the laboratory. Results relate only to items tested. Long Island Analytica Laboratories would like to thank you for the opportunity to be of service to you.

Best Regards,

110 Colin Drive • Holbrook, New York 11741
Phone (631) 472-3400 • Fax (631) 472-8505 • Email: LIAL@lialinc.com

Client: Tetra Tech NUS, Inc.	Client ID: NWIRP –GM-75 (BPSI-TB-051809)
Date received: 5/22/09	Laboratory ID: 1177403
Date extracted: 5/22/09	Matrix: Liquid
Date analyzed: 5/22/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
DICHLORODIFLUOROMETHANE	75-71-8	5 ug/L	<5	
CHLOROMETHANE	74-87-3	5 ug/L	<5	
VINYL CHLORIDE	75-01-4	5 ug/L	<5	
BROMOMETHANE	74-83-9	5 ug/L	<5	
CHLOROETHANE	75-00-3	5 ug/L	<5	
TRICHLOROFLUOROMETHANE	75-69-4	5 ug/L	<5	
1,1-DICHLOROETHENE	75-35-4	5 ug/L	<5	
METHYLENE CHLORIDE	75-09-2	5 ug/L	<5	
trans-1,2-DICHLOROETHENE	156-60-5	5 ug/L	<5	
1,1-DICHLOROETHANE	75-34-3	5 ug/L	<5	
2,2-DICHLOROPROPANE	594-20-7	5 ug/L	<5	
cis-1,2-DICHLOROETHENE	156-59-2	5 ug/L	<5	
BROMOCHLOROMETHANE	74-97-5	5 ug/L	<5	
CHLOROFORM	67-66-3	5 ug/L	<5	
1,1,1-TRICHLOROETHANE	71-55-6	5 ug/L	<5	
CARBON TETRACHLORIDE	56-23-5	5 ug/L	<5	
1,1-DICHLOROPROPENE	563-58-6	5 ug/L	<5	
BENZENE	71-43-2	0.7 ug/L	<0.7	CC
1,2-DICHLOROETHANE	107-06-2	5 ug/L	<5	
TRICHLOROETHENE	79-01-6	5 ug/L	<5	
1,2-DICHLOROPROPANE	78-87-5	5 ug/L	<5	
DIBROMOMETHANE	74-95-3	5 ug/L	<5	
BROMODICHLOROMETHANE	75-27-4	5 ug/L	<5	
cis-1,3-DICHLOROPROPENE	10061-01-5	5 ug/L	<5	
TOLUENE	108-88-3	5 ug/L	<5	
trans-1,3-DICHLOROPROPENE	10061-02-6	5 ug/L	<5	
1,1,2-TRICHLOROETHANE	79-00-5	5 ug/L	<5	
TETRACHLOROETHYLENE	127-18-4	5 ug/L	<5	
1,3-DICHLOROPROPANE	142-28-9	5 ug/L	<5	
DIBROMOCHLOROMETHANE	124-48-1	5 ug/L	<5	
1,2-DIBROMOETHANE	106-93-4	5 ug/L	<5	
CHLOROBENZENE	108-90-7	5 ug/L	<5	
1,1,1,2-TETRACHLOROETHANE	630-20-6	5 ug/L	<5	
ETHYLBENZENE	100-41-4	5 ug/L	<5	
STYRENE	100-42-5	5 ug/L	<5	
BROMOFORM	75-25-2	5 ug/L	<5	

MDL = Minimum Detection Limit.

Client: Tetra Tech NUS, Inc.	Client ID: NWIRP –GM-75 (BPSI-TB-051809)
Date received: 5/22/09	Laboratory ID: 1177403
Date extracted: 5/22/09	Matrix: Liquid
Date analyzed: 5/22/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
ISOPROPYLBENZENE	98-82-8	5 ug/L	<5	
BROMOBENZENE	108-86-1	5 ug/L	<5	
1,1,2,2-TETRACHLOROETHANE	79-34-5	5 ug/L	<5	
1,2,3-TRICHLOROPROPANE	96-18-4	5 ug/L	<5	
n-PROPYLBENZENE	103-65-1	5 ug/L	<5	
2-CHLOROTOLUENE	95-49-8	5 ug/L	<5	
4-CHLOROTOLUENE	106-43-4	5 ug/L	<5	
1,3,5-TRIMETHYLBENZENE	108-67-8	5 ug/L	<5	
tert-BUTYLBENZENE	98-06-6	5 ug/L	<5	
1,2,4-TRIMETHYLBENZENE	95-63-6	5 ug/L	<5	
sec-BUTYLBENZENE	135-98-8	5 ug/L	<5	
1,3-DICHLOROBENZENE	541-73-1	5 ug/L	<5	
P-ISOPROPYLTOLUENE	99-87-6	5 ug/L	<5	
1,4-DICHLOROBENZENE	106-46-7	5 ug/L	<5	
1,2-DICHLOROBENZENE	95-50-1	5 ug/L	<5	
n-BUTYLBENZENE	104-51-8	5 ug/L	<5	
1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	5 ug/L	<5	
1,2,4-TRICHLOROBENZENE	120-82-1	5 ug/L	<5	
HEXACHLOROBUTADIENE	87-68-3	5 ug/L	<5	
NAPHTHALENE	91-20-3	5 ug/L	<5	
1,2,3-TRICHLOROBENZENE	87-61-6	5 ug/L	<5	
2-CHLOROETHYLVINYL ETHER	110-75-8	5 ug/L	<5	
ACETONE	67-64-1	50 ug/L	<50	
METHYL ETHYL KETONE	78-93-3	10 ug/L	<10	
METHYL ISOBUTYL KETONE	108-10-1	5 ug/L	<5	
p & m-XYLENES	1330-20-7	10 ug/L	<10	
o-XYLENE	1330-20-7	5 ug/L	<5	
CARBON DISULFIDE	751-15-0	5 ug/L	<5	
MTBE	1634-04-4	5 ug/L	<5	
VINYL ACETATE	108-05-4	5 ug/L	<5	
2-HEXANONE	591-78-6	5 ug/L	<5	

MDL = Minimum Detection Limit

Michael Veraldi

Michael Veraldi-Laboratory Director

LONG ISLAND ANALYTICAL LABORATORIES INC.
"TOMORROWS ANALYTICAL SOLUTIONS TODAY"
110 Colin Drive • Holbrook, New York 11741
Phone (631) 472-3400 • Fax (631) 472-8505 • Email: LIAL@lialinc.com

Client: Tetra Tech NUS, Inc.	Client ID: NWIRP –GM-75 (BPSI-3003-GW-071)
Date received: 5/22/09	Laboratory ID: 1177404
Date extracted: 5/22/09	Matrix: Liquid
Date analyzed: 5/22/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
DICHLORODIFLUOROMETHANE	75-71-8	5 ug/L	<5	
CHLOROMETHANE	74-87-3	5 ug/L	<5	
VINYL CHLORIDE	75-01-4	5 ug/L	<5	
BROMOMETHANE	74-83-9	5 ug/L	<5	
CHLOROETHANE	75-00-3	5 ug/L	<5	
TRICHLOROFLUOROMETHANE	75-69-4	5 ug/L	<5	
1,1-DICHLOROETHENE	75-35-4	5 ug/L	<5	
METHYLENE CHLORIDE	75-09-2	5 ug/L	<5	
trans-1,2-DICHLOROETHENE	156-60-5	5 ug/L	<5	
1,1-DICHLOROETHANE	75-34-3	5 ug/L	<5	
2,2-DICHLOROPROPANE	594-20-7	5 ug/L	<5	
cis-1,2-DICHLOROETHENE	156-59-2	5 ug/L	<5	
BROMOCHLOROMETHANE	74-97-5	5 ug/L	<5	
CHLOROFORM	67-66-3	5 ug/L	<5	
1,1,1-TRICHLOROETHANE	71-55-6	5 ug/L	<5	
CARBON TETRACHLORIDE	56-23-5	5 ug/L	<5	
1,1-DICHLOROPROPENE	563-58-6	5 ug/L	<5	
BENZENE	71-43-2	0.7 ug/L	<0.7	CC
1,2-DICHLOROETHANE	107-06-2	5 ug/L	<5	
TRICHLOROETHENE	79-01-6	5 ug/L	<5	
1,2-DICHLOROPROPANE	78-87-5	5 ug/L	<5	
DIBROMOMETHANE	74-95-3	5 ug/L	<5	
BROMODICHLOROMETHANE	75-27-4	5 ug/L	<5	
cis-1,3-DICHLOROPROPENE	10061-01-5	5 ug/L	<5	
TOLUENE	108-88-3	5 ug/L	<5	
trans-1,3-DICHLOROPROPENE	10061-02-6	5 ug/L	<5	
1,1,2-TRICHLOROETHANE	79-00-5	5 ug/L	<5	
TETRACHLOROETHYLENE	127-18-4	5 ug/L	<5	
1,3-DICHLOROPROPANE	142-28-9	5 ug/L	<5	
DIBROMOCHLOROMETHANE	124-48-1	5 ug/L	<5	
1,2-DIBROMOETHANE	106-93-4	5 ug/L	<5	
CHLOROBENZENE	108-90-7	5 ug/L	<5	
1,1,1,2-TETRACHLOROETHANE	630-20-6	5 ug/L	<5	
ETHYLBENZENE	100-41-4	5 ug/L	<5	
STYRENE	100-42-5	5 ug/L	<5	
BROMOFORM	75-25-2	5 ug/L	<5	

MDL = Minimum Detection Limit.

Client: Tetra Tech NUS, Inc.	Client ID: NWIRP –GM-75 (BPSI-3003-GW-071)
Date received: 5/22/09	Laboratory ID: 1177404
Date extracted: 5/22/09	Matrix: Liquid
Date analyzed: 5/22/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
ISOPROPYLBENZENE	98-82-8	5 ug/L	<5	
BROMOBENZENE	108-86-1	5 ug/L	<5	
1,1,2,2-TETRACHLOROETHANE	79-34-5	5 ug/L	<5	
1,2,3-TRICHLOROPROPANE	96-18-4	5 ug/L	<5	
n-PROPYLBENZENE	103-65-1	5 ug/L	<5	
2-CHLOROTOLUENE	95-49-8	5 ug/L	<5	
4-CHLOROTOLUENE	106-43-4	5 ug/L	<5	
1,3,5-TRIMETHYLBENZENE	108-67-8	5 ug/L	<5	
tert-BUTYLBENZENE	98-06-6	5 ug/L	<5	
1,2,4-TRIMETHYLBENZENE	95-63-6	5 ug/L	<5	
sec-BUTYLBENZENE	135-98-8	5 ug/L	<5	
1,3-DICHLOROBENZENE	541-73-1	5 ug/L	<5	
P-ISOPROPYLTOLUENE	99-87-6	5 ug/L	<5	
1,4-DICHLOROBENZENE	106-46-7	5 ug/L	<5	
1,2-DICHLOROBENZENE	95-50-1	5 ug/L	<5	
n-BUTYLBENZENE	104-51-8	5 ug/L	<5	
1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	5 ug/L	<5	
1,2,4-TRICHLOROBENZENE	120-82-1	5 ug/L	<5	
HEXACHLOROBUTADIENE	87-68-3	5 ug/L	<5	
NAPHTHALENE	91-20-3	5 ug/L	<5	
1,2,3-TRICHLOROBENZENE	87-61-6	5 ug/L	<5	
2-CHLOROETHYLVINYL ETHER	110-75-8	5 ug/L	<5	
ACETONE	67-64-1	50 ug/L	<50	
METHYL ETHYL KETONE	78-93-3	10 ug/L	<10	
METHYL ISOBUTYL KETONE	108-10-1	5 ug/L	<5	
p & m-XYLENES	1330-20-7	10 ug/L	<10	
o-XYLENE	1330-20-7	5 ug/L	<5	
CARBON DISULFIDE	751-15-0	5 ug/L	<5	
MTBE	1634-04-4	5 ug/L	<5	
VINYL ACETATE	108-05-4	5 ug/L	<5	
2-HEXANONE	591-78-6	5 ug/L	<5	

MDL = Minimum Detection Limit.

Michael Veraldi

Michael Veraldi-Laboratory Director

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Client: Tetra Tech NUS, Inc.	Client ID: NWIRP –GM-75 (BPSI-3003-GW-091)
Date received: 5/22/09	Laboratory ID: 1177405
Date extracted: 5/22/09	Matrix: Liquid
Date analyzed: 5/22/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
DICHLORODIFLUOROMETHANE	75-71-8	5 ug/L	<5	
CHLOROMETHANE	74-87-3	5 ug/L	<5	
VINYL CHLORIDE	75-01-4	5 ug/L	<5	
BROMOMETHANE	74-83-9	5 ug/L	<5	
CHLOROETHANE	75-00-3	5 ug/L	<5	
TRICHLOROFLUOROMETHANE	75-69-4	5 ug/L	<5	
1,1-DICHLOROETHENE	75-35-4	5 ug/L	<5	
METHYLENE CHLORIDE	75-09-2	5 ug/L	<5	
trans-1,2-DICHLOROETHENE	156-60-5	5 ug/L	<5	
1,1-DICHLOROETHANE	75-34-3	5 ug/L	<5	
2,2-DICHLOROPROPANE	594-20-7	5 ug/L	<5	
cis-1,2-DICHLOROETHENE	156-59-2	5 ug/L	<5	
BROMOCHLOROMETHANE	74-97-5	5 ug/L	<5	
CHLOROFORM	67-66-3	5 ug/L	<5	
1,1,1-TRICHLOROETHANE	71-55-6	5 ug/L	<5	
CARBON TETRACHLORIDE	56-23-5	5 ug/L	<5	
1,1-DICHLOROPROPENE	563-58-6	5 ug/L	<5	
BENZENE	71-43-2	0.7 ug/L	<0.7	CC
1,2-DICHLOROETHANE	107-06-2	5 ug/L	<5	
TRICHLOROETHENE	79-01-6	5 ug/L	<5	
1,2-DICHLOROPROPANE	78-87-5	5 ug/L	<5	
DIBROMOMETHANE	74-95-3	5 ug/L	<5	
BROMODICHLOROMETHANE	75-27-4	5 ug/L	<5	
cis-1,3-DICHLOROPROPENE	10061-01-5	5 ug/L	<5	
TOLUENE	108-88-3	5 ug/L	<5	
trans-1,3-DICHLOROPROPENE	10061-02-6	5 ug/L	<5	
1,1,2-TRICHLOROETHANE	79-00-5	5 ug/L	<5	
TETRACHLOROETHYLENE	127-18-4	5 ug/L	<5	
1,3-DICHLOROPROPANE	142-28-9	5 ug/L	<5	
DIBROMOCHLOROMETHANE	124-48-1	5 ug/L	<5	
1,2-DIBROMOETHANE	106-93-4	5 ug/L	<5	
CHLOROBENZENE	108-90-7	5 ug/L	<5	
1,1,1,2-TETRACHLOROETHANE	630-20-6	5 ug/L	<5	
ETHYLBENZENE	100-41-4	5 ug/L	<5	
STYRENE	100-42-5	5 ug/L	<5	
BROMOFORM	75-25-2	5 ug/L	<5	

MDL = Minimum Detection Limit.

Client: Tetra Tech NUS, Inc.	Client ID: NWIRP –GM-75 (BPSI-3003-GW-091)
Date received: 5/22/09	Laboratory ID: 1177405
Date extracted: 5/22/09	Matrix: Liquid
Date analyzed: 5/22/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
ISOPROPYLBENZENE	98-82-8	5 ug/L	<5	
BROMOBENZENE	108-86-1	5 ug/L	<5	
1,1,2,2-TETRACHLOROETHANE	79-34-5	5 ug/L	<5	
1,2,3-TRICHLOROPROPANE	96-18-4	5 ug/L	<5	
n-PROPYLBENZENE	103-65-1	5 ug/L	<5	
2-CHLOROTOLUENE	95-49-8	5 ug/L	<5	
4-CHLOROTOLUENE	106-43-4	5 ug/L	<5	
1,3,5-TRIMETHYLBENZENE	108-67-8	5 ug/L	<5	
tert-BUTYLBENZENE	98-06-6	5 ug/L	<5	
1,2,4-TRIMETHYLBENZENE	95-63-6	5 ug/L	<5	
sec-BUTYLBENZENE	135-98-8	5 ug/L	<5	
1,3-DICHLOROBENZENE	541-73-1	5 ug/L	<5	
P-ISOPROPYLTOLUENE	99-87-6	5 ug/L	<5	
1,4-DICHLOROBENZENE	106-46-7	5 ug/L	<5	
1,2-DICHLOROBENZENE	95-50-1	5 ug/L	<5	
n-BUTYLBENZENE	104-51-8	5 ug/L	<5	
1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	5 ug/L	<5	
1,2,4-TRICHLOROBENZENE	120-82-1	5 ug/L	<5	
HEXACHLOROBUTADIENE	87-68-3	5 ug/L	<5	
NAPHTHALENE	91-20-3	5 ug/L	<5	
1,2,3-TRICHLOROBENZENE	87-61-6	5 ug/L	<5	
2-CHLOROETHYLVINYL ETHER	110-75-8	5 ug/L	<5	
ACETONE	67-64-1	50 ug/L	<50	
METHYL ETHYL KETONE	78-93-3	10 ug/L	10	MM
METHYL ISOBUTYL KETONE	108-10-1	5 ug/L	<5	
p & m-XYLENES	1330-20-7	10 ug/L	<10	
o-XYLENE	1330-20-7	5 ug/L	<5	
CARBON DISULFIDE	751-15-0	5 ug/L	<5	
MTBE	1634-04-4	5 ug/L	<5	
VINYL ACETATE	108-05-4	5 ug/L	<5	
2-HEXANONE	591-78-6	5 ug/L	<5	

MDL = Minimum Detection Limit.

Michael Veraldi

Michael Veraldi-Laboratory Director

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"TOMORROWS ANALYTICAL SOLUTIONS TODAY"
110 Colin Drive • Holbrook, New York 11741
Phone (631) 472-3400 • Fax (631) 472-8505 • Email: LIAL@lialinc.com

Client: Tetra Tech NUS, Inc.	Client ID: NWIRP –GM-75 (BPSI-3003-GW-112)
Date received: 5/22/09	Laboratory ID: 1177406
Date extracted: 5/26/09	Matrix: Liquid
Date analyzed: 5/26/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
DICHLORODIFLUOROMETHANE	75-71-8	5 ug/L	<5	
CHLOROMETHANE	74-87-3	5 ug/L	<5	
VINYL CHLORIDE	75-01-4	5 ug/L	<5	
BROMOMETHANE	74-83-9	5 ug/L	<5	
CHLOROETHANE	75-00-3	5 ug/L	<5	
TRICHLOROFLUOROMETHANE	75-69-4	5 ug/L	<5	
1,1-DICHLOROETHENE	75-35-4	5 ug/L	<5	
METHYLENE CHLORIDE	75-09-2	5 ug/L	<5	
trans-1,2-DICHLOROETHENE	156-60-5	5 ug/L	<5	
1,1-DICHLOROETHANE	75-34-3	5 ug/L	<5	
2,2-DICHLOROPROPANE	594-20-7	5 ug/L	<5	
cis-1,2-DICHLOROETHENE	156-59-2	5 ug/L	<5	
BROMOCHLOROMETHANE	74-97-5	5 ug/L	<5	
CHLOROFORM	67-66-3	5 ug/L	<5	
1,1,1-TRICHLOROETHANE	71-55-6	5 ug/L	<5	
CARBON TETRACHLORIDE	56-23-5	5 ug/L	<5	
1,1-DICHLOROPROPENE	563-58-6	5 ug/L	<5	
BENZENE	71-43-2	0.7 ug/L	<0.7	CC
1,2-DICHLOROETHANE	107-06-2	5 ug/L	<5	
TRICHLOROETHENE	79-01-6	5 ug/L	<5	
1,2-DICHLOROPROPANE	78-87-5	5 ug/L	<5	
DIBROMOMETHANE	74-95-3	5 ug/L	<5	
BROMODICHLOROMETHANE	75-27-4	5 ug/L	<5	
cis-1,3-DICHLOROPROPENE	10061-01-5	5 ug/L	<5	
TOLUENE	108-88-3	5 ug/L	<5	
trans-1,3-DICHLOROPROPENE	10061-02-6	5 ug/L	<5	
1,1,2-TRICHLOROETHANE	79-00-5	5 ug/L	<5	
TETRACHLOROETHYLENE	127-18-4	5 ug/L	<5	
1,3-DICHLOROPROPANE	142-28-9	5 ug/L	<5	
DIBROMOCHLOROMETHANE	124-48-1	5 ug/L	<5	
1,2-DIBROMOETHANE	106-93-4	5 ug/L	<5	
CHLOROBENZENE	108-90-7	5 ug/L	<5	
1,1,1,2-TETRACHLOROETHANE	630-20-6	5 ug/L	<5	
ETHYLBENZENE	100-41-4	5 ug/L	<5	
STYRENE	100-42-5	5 ug/L	<5	
BROMOFORM	75-25-2	5 ug/L	<5	

MDL = Minimum Detection Limit

Client: Tetra Tech NUS, Inc.	Client ID: NWIRP –GM-75 (BPSI-3003-GW-112)
Date received: 5/22/09	Laboratory ID: 1177406
Date extracted: 5/26/09	Matrix: Liquid
Date analyzed: 5/26/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
ISOPROPYLBENZENE	98-82-8	5 ug/L	<5	
BROMOBENZENE	108-86-1	5 ug/L	<5	
1,1,2,2-TETRACHLOROETHANE	79-34-5	5 ug/L	<5	
1,2,3-TRICHLOROPROPANE	96-18-4	5 ug/L	<5	
n-PROPYLBENZENE	103-65-1	5 ug/L	<5	
2-CHLOROTOLUENE	95-49-8	5 ug/L	<5	
4-CHLOROTOLUENE	106-43-4	5 ug/L	<5	
1,3,5-TRIMETHYLBENZENE	108-67-8	5 ug/L	<5	
tert-BUTYLBENZENE	98-06-6	5 ug/L	<5	
1,2,4-TRIMETHYLBENZENE	95-63-6	5 ug/L	<5	
sec-BUTYLBENZENE	135-98-8	5 ug/L	<5	
1,3-DICHLOROBENZENE	541-73-1	5 ug/L	<5	
P-ISOPROPYLTOLUENE	99-87-6	5 ug/L	<5	
1,4-DICHLOROBENZENE	106-46-7	5 ug/L	<5	
1,2-DICHLOROBENZENE	95-50-1	5 ug/L	<5	
n-BUTYLBENZENE	104-51-8	5 ug/L	<5	
1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	5 ug/L	<5	
1,2,4-TRICHLOROBENZENE	120-82-1	5 ug/L	<5	
HEXACHLOROBUTADIENE	87-68-3	5 ug/L	<5	
NAPHTHALENE	91-20-3	5 ug/L	<5	
1,2,3-TRICHLOROBENZENE	87-61-6	5 ug/L	<5	
2-CHLOROETHYLVINYL ETHER	110-75-8	5 ug/L	<5	
ACETONE	67-64-1	50 ug/L	<50	
METHYL ETHYL KETONE	78-93-3	10 ug/L	<10	
METHYL ISOBUTYL KETONE	108-10-1	5 ug/L	<5	
p & m-XYLENES	1330-20-7	10 ug/L	<10	
o-XYLENE	1330-20-7	5 ug/L	<5	
CARBON DISULFIDE	751-15-0	5 ug/L	<5	
MTBE	1634-04-4	5 ug/L	<5	
VINYL ACETATE	108-05-4	5 ug/L	<5	
2-HEXANONE	591-78-6	5 ug/L	<5	

MDL = Minimum Detection Limit.

Michael Veraldi

Michael Veraldi-Laboratory Director

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Phone (631) 472-3400 • Fax (631) 472-8505 • Email: LIAL@lialinc.com

Client: Tetra Tech NUS, Inc.	Client ID: NWIRP –GM-75 (BPSI-3003-GW-131)
Date received: 5/22/09	Laboratory ID: 1177407
Date extracted: 5/26/09	Matrix: Liquid
Date analyzed: 5/26/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
DICHLORODIFLUOROMETHANE	75-71-8	5 ug/L	<5	
CHLOROMETHANE	74-87-3	5 ug/L	<5	
VINYL CHLORIDE	75-01-4	5 ug/L	<5	
BROMOMETHANE	74-83-9	5 ug/L	<5	
CHLOROETHANE	75-00-3	5 ug/L	<5	
TRICHLOROFLUOROMETHANE	75-69-4	5 ug/L	<5	
1,1-DICHLOROETHENE	75-35-4	5 ug/L	<5	
METHYLENE CHLORIDE	75-09-2	5 ug/L	<5	
trans-1,2-DICHLOROETHENE	156-60-5	5 ug/L	<5	
1,1-DICHLOROETHANE	75-34-3	5 ug/L	<5	
2,2-DICHLOROPROPANE	594-20-7	5 ug/L	<5	
cis-1,2-DICHLOROETHENE	156-59-2	5 ug/L	<5	
BROMOCHLOROMETHANE	74-97-5	5 ug/L	<5	
CHLOROFORM	67-66-3	5 ug/L	<5	
1,1,1-TRICHLOROETHANE	71-55-6	5 ug/L	<5	
CARBON TETRACHLORIDE	56-23-5	5 ug/L	<5	
1,1-DICHLOROPROPENE	563-58-6	5 ug/L	<5	
BENZENE	71-43-2	0.7 ug/L	<0.7	CC
1,2-DICHLOROETHANE	107-06-2	5 ug/L	<5	
TRICHLOROETHENE	79-01-6	5 ug/L	<5	
1,2-DICHLOROPROPANE	78-87-5	5 ug/L	<5	
DIBROMOMETHANE	74-95-3	5 ug/L	<5	
BROMODICHLOROMETHANE	75-27-4	5 ug/L	<5	
cis-1,3-DICHLOROPROPENE	10061-01-5	5 ug/L	<5	
TOLUENE	108-88-3	5 ug/L	<5	
trans-1,3-DICHLOROPROPENE	10061-02-6	5 ug/L	<5	
1,1,2-TRICHLOROETHANE	79-00-5	5 ug/L	<5	
TETRACHLOROETHYLENE	127-18-4	5 ug/L	<5	
1,3-DICHLOROPROPANE	142-28-9	5 ug/L	<5	
DIBROMOCHLOROMETHANE	124-48-1	5 ug/L	<5	
1,2-DIBROMOETHANE	106-93-4	5 ug/L	<5	
CHLOROBENZENE	108-90-7	5 ug/L	<5	
1,1,1,2-TETRACHLOROETHANE	630-20-6	5 ug/L	<5	
ETHYLBENZENE	100-41-4	5 ug/L	<5	
STYRENE	100-42-5	5 ug/L	<5	
BROMOFORM	75-25-2	5 ug/L	<5	

MDL = Minimum Detection Limit

Client: Tetra Tech NUS, Inc.	Client ID: NWIRP –GM-75 (BPSI-3003-GW-131)
Date received: 5/22/09	Laboratory ID: 1177407
Date extracted: 5/26/09	Matrix: Liquid
Date analyzed: 5/26/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
ISOPROPYLBENZENE	98-82-8	5 ug/L	<5	
BRCMOBENZENE	108-86-1	5 ug/L	<5	
1,1,2,2-TETRACHLOROETHANE	79-34-5	5 ug/L	<5	
1,2,3-TRICHLOROPROPANE	96-18-4	5 ug/L	<5	
n-PROPYLBENZENE	103-65-1	5 ug/L	<5	
2-CHLOROTOLUENE	95-49-8	5 ug/L	<5	
4-CHLOROTOLUENE	106-43-4	5 ug/L	<5	
1,3,5-TRIMETHYLBENZENE	108-67-8	5 ug/L	<5	
tert-BUTYLBENZENE	98-06-6	5 ug/L	<5	
1,2,4-TRIMETHYLBENZENE	95-63-6	5 ug/L	<5	
sec-BUTYLBENZENE	135-98-8	5 ug/L	<5	
1,3-DICHLOROBENZENE	541-73-1	5 ug/L	<5	
P-ISOPROPYLTOLUENE	99-87-6	5 ug/L	<5	
1,4-DICHLOROBENZENE	106-46-7	5 ug/L	<5	
1,2-DICHLOROBENZENE	95-50-1	5 ug/L	<5	
n-BUTYLBENZENE	104-51-8	5 ug/L	<5	
1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	5 ug/L	<5	
1,2,4-TRICHLOROBENZENE	120-82-1	5 ug/L	<5	
HEXACHLOROBUTADIENE	87-68-3	5 ug/L	<5	
NAPHTHALENE	91-20-3	5 ug/L	<5	
1,2,3-TRICHLOROBENZENE	87-61-6	5 ug/L	<5	
2-CHLOROETHYLVINYL ETHER	110-75-8	5 ug/L	<5	
ACETONE	67-64-1	50 ug/L	<50	
METHYL ETHYL KETONE	78-93-3	10 ug/L	<10	
METHYL ISOBUTYL KETONE	108-10-1	5 ug/L	<5	
p & m-XYLENES	1330-20-7	10 ug/L	<10	
o-XYLENE	1330-20-7	5 ug/L	<5	
CARBON DISULFIDE	751-15-0	5 ug/L	<5	
MTBE	1634-04-4	5 ug/L	<5	
VINYL ACETATE	108-05-4	5 ug/L	<5	
2-HEXANONE	591-78-6	5 ug/L	<5	

MDL = Minimum Detection Limit.

Michael Veraldi

Michael Veraldi-Laboratory Director

LONG ISLAND ANALYTICAL LABORATORIES INC.
"TOMORROWS ANALYTICAL SOLUTIONS TODAY"
110 Colin Drive • Holbrook, New York 11741
Phone (631) 472-3400 • Fax (631) 472-8505 • Email: LIAL@lialinc.com

Client: Tetra Tech NUS, Inc.	Client ID: NWIRP –GM-75 (BPSI-3003-GW-151)
Date received: 5/22/09	Laboratory ID: 1177408
Date extracted: 5/26/09	Matrix: Liquid
Date analyzed: 5/26/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
DICHLORODIFLUOROMETHANE	75-71-8	5 ug/L	<5	
CHLOROMETHANE	74-87-3	5 ug/L	<5	
VINYL CHLORIDE	75-01-4	5 ug/L	<5	
BROMOMETHANE	74-83-9	5 ug/L	<5	
CHLOROETHANE	75-00-3	5 ug/L	<5	
TRICHLOROFLUOROMETHANE	75-69-4	5 ug/L	<5	
1,1-DICHLOROETHENE	75-35-4	5 ug/L	<5	
METHYLENE CHLORIDE	75-09-2	5 ug/L	<5	
trans-1,2-DICHLOROETHENE	156-60-5	5 ug/L	<5	
1,1-DICHLOROETHANE	75-34-3	5 ug/L	<5	
2,2-DICHLOROPROPANE	594-20-7	5 ug/L	<5	
cis-1,2-DICHLOROETHENE	156-59-2	5 ug/L	<5	
BROMOCHLOROMETHANE	74-97-5	5 ug/L	<5	
CHLOROFORM	67-66-3	5 ug/L	<5	
1,1,1-TRICHLOROETHANE	71-55-6	5 ug/L	<5	
CARBON TETRACHLORIDE	56-23-5	5 ug/L	<5	
1,1-DICHLOROPROPENE	563-58-6	5 ug/L	<5	
BENZENE	71-43-2	0.7 ug/L	<0.7	CC
1,2-DICHLOROETHANE	107-06-2	5 ug/L	<5	
TRICHLOROETHENE	79-01-6	5 ug/L	<5	
1,2-DICHLOROPROPANE	78-87-5	5 ug/L	<5	
DIBROMOMETHANE	74-95-3	5 ug/L	<5	
BROMODICHLOROMETHANE	75-27-4	5 ug/L	<5	
cis-1,3-DICHLOROPROPENE	10061-01-5	5 ug/L	<5	
TOLUENE	108-88-3	5 ug/L	<5	
trans-1,3-DICHLOROPROPENE	10061-02-6	5 ug/L	<5	
1,1,2-TRICHLOROETHANE	79-00-5	5 ug/L	<5	
TETRACHLOROETHYLENE	127-18-4	5 ug/L	<5	
1,3-DICHLOROPROPANE	142-28-9	5 ug/L	<5	
DIBROMOCHLOROMETHANE	124-48-1	5 ug/L	<5	
1,2-DIBROMOETHANE	106-93-4	5 ug/L	<5	
CHLOROBENZENE	108-90-7	5 ug/L	<5	
1,1,1,2-TETRACHLOROETHANE	630-20-6	5 ug/L	<5	
ETHYLBENZENE	100-41-4	5 ug/L	<5	
STYRENE	100-42-5	5 ug/L	<5	
BROMOFORM	75-25-2	5 ug/L	<5	

MDL = Minimum Detection Limit.

Client: Tetra Tech NUS, Inc.	Client ID: NWIRP –GM-75 (BPSI-3003-GW-151)
Date received: 5/22/09	Laboratory ID: 1177408
Date extracted: 5/26/09	Matrix: Liquid
Date analyzed: 5/26/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
ISOPROPYLBENZENE	98-82-8	5 ug/L	<5	
BROMOBENZENE	108-86-1	5 ug/L	<5	
1,1,2,2-TETRACHLOROETHANE	79-34-5	5 ug/L	<5	
1,2,3-TRICHLOROPROPANE	96-18-4	5 ug/L	<5	
n-PROPYLBENZENE	103-65-1	5 ug/L	<5	
2-CHLOROTOLUENE	95-49-8	5 ug/L	<5	
4-CHLOROTOLUENE	106-43-4	5 ug/L	<5	
1,3,5-TRIMETHYLBENZENE	108-67-8	5 ug/L	<5	
tert-BUTYLBENZENE	98-06-6	5 ug/L	<5	
1,2,4-TRIMETHYLBENZENE	95-63-6	5 ug/L	<5	
sec-BUTYLBENZENE	135-98-8	5 ug/L	<5	
1,3-DICHLOROBENZENE	541-73-1	5 ug/L	<5	
P-ISOPROPYLTOLUENE	99-87-6	5 ug/L	<5	
1,4-DICHLOROBENZENE	106-46-7	5 ug/L	<5	
1,2-DICHLOROBENZENE	95-50-1	5 ug/L	<5	
n-BUTYLBENZENE	104-51-8	5 ug/L	<5	
1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	5 ug/L	<5	
1,2,4-TRICHLOROBENZENE	120-82-1	5 ug/L	<5	
HEXACHLOROBUTADIENE	87-68-3	5 ug/L	<5	
NAPHTHALENE	91-20-3	5 ug/L	<5	
1,2,3-TRICHLOROBENZENE	87-61-6	5 ug/L	<5	
2-CHLOROETHYLVINYL ETHER	110-75-8	5 ug/L	<5	
ACETONE	67-64-1	50 ug/L	<50	
METHYL ETHYL KETONE	78-93-3	10 ug/L	<10	
METHYL ISOBUTYL KETONE	108-10-1	5 ug/L	<5	
p & m-XYLENES	1330-20-7	10 ug/L	<10	
o-XYLENE	1330-20-7	5 ug/L	<5	
CARBON DISULFIDE	751-15-0	5 ug/L	<5	
MTBE	1634-04-4	5 ug/L	<5	
VINYL ACETATE	108-05-4	5 ug/L	<5	
2-HEXANONE	591-78-6	5 ug/L	<5	

MDL = Minimum Detection Limit

Michael Veraldi

Michael Veraldi-Laboratory Director

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"TOMORROWS ANALYTICAL SOLUTIONS TODAY"
110 Colin Drive • Holbrook, New York 11741
Phone (631) 472-3400 • Fax (631) 472-8505 • Email: LIAL@lialinc.com

Client: Tetra Tech NUS, Inc.	Client ID: NWIRP –GM-75 (BPSI-3003-GW-171)
Date received: 5/22/09	Laboratory ID: 1177409
Date extracted: 5/26/09	Matrix: Liquid
Date analyzed: 5/26/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
DICHLORODIFLUOROMETHANE	75-71-8	5 ug/L	<5	
CHLOROMETHANE	74-87-3	5 ug/L	<5	
VINYL CHLORIDE	75-01-4	5 ug/L	<5	
BROMOMETHANE	74-83-9	5 ug/L	<5	
CHLOROETHANE	75-00-3	5 ug/L	<5	
TRICHLOROFLUOROMETHANE	75-69-4	5 ug/L	<5	
1,1-DICHLOROETHENE	75-35-4	5 ug/L	<5	
METHYLENE CHLORIDE	75-09-2	5 ug/L	<5	
trans-1,2-DICHLOROETHENE	156-60-5	5 ug/L	<5	
1,1-DICHLOROETHANE	75-34-3	5 ug/L	<5	
2,2-DICHLOROPROPANE	594-20-7	5 ug/L	<5	
cis-1,2-DICHLOROETHENE	156-59-2	5 ug/L	<5	
BROMOCHLOROMETHANE	74-97-5	5 ug/L	<5	
CHLOROFORM	67-66-3	5 ug/L	<5	
1,1,1-TRICHLOROETHANE	71-55-6	5 ug/L	<5	
CARBON TETRACHLORIDE	56-23-5	5 ug/L	<5	
1,1-DICHLOROPROPENE	563-58-6	5 ug/L	<5	
BENZENE	71-43-2	0.7 ug/L	<0.7	CC
1,2-DICHLOROETHANE	107-06-2	5 ug/L	<5	
TRICHLOROETHENE	79-01-6	5 ug/L	<5	
1,2-DICHLOROPROPANE	78-87-5	5 ug/L	<5	
DIBROMOMETHANE	74-95-3	5 ug/L	<5	
BROMODICHLOROMETHANE	75-27-4	5 ug/L	<5	
cis-1,3-DICHLOROPROPENE	10061-01-5	5 ug/L	<5	
TOLUENE	108-88-3	5 ug/L	<5	
trans-1,3-DICHLOROPROPENE	10061-02-6	5 ug/L	<5	
1,1,2-TRICHLOROETHANE	79-00-5	5 ug/L	<5	
TETRACHLOROETHYLENE	127-18-4	5 ug/L	<5	
1,3-DICHLOROPROPANE	142-28-9	5 ug/L	<5	
DIBROMOCHLOROMETHANE	124-48-1	5 ug/L	<5	
1,2-DIBROMOETHANE	106-93-4	5 ug/L	<5	
CHLOROBENZENE	108-90-7	5 ug/L	<5	
1,1,1,2-TETRACHLOROETHANE	630-20-6	5 ug/L	<5	
ETHYLBENZENE	100-41-4	5 ug/L	<5	
STYRENE	100-42-5	5 ug/L	<5	
BROMOFORM	75-25-2	5 ug/L	<5	

MDL = Minimum Detection Limit.

Client: Tetra Tech NUS, Inc.	Client ID: NWIRP –GM-75 (BPSI-3003-GW-171)
Date received: 5/22/09	Laboratory ID: 1177409
Date extracted: 5/26/09	Matrix: Liquid
Date analyzed: 5/26/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
ISOPROPYLBENZENE	98-82-8	5 ug/L	<5	
BROMOBENZENE	108-86-1	5 ug/L	<5	
1,1,2,2-TETRACHLOROETHANE	79-34-5	5 ug/L	<5	
1,2,3-TRICHLOROPROPANE	96-18-4	5 ug/L	<5	
n-PROPYLBENZENE	103-65-1	5 ug/L	<5	
2-CHLOROTOLUENE	95-49-8	5 ug/L	<5	
4-CHLOROTOLUENE	106-43-4	5 ug/L	<5	
1,3,5-TRIMETHYLBENZENE	108-67-8	5 ug/L	<5	
tert-BUTYLBENZENE	98-06-6	5 ug/L	<5	
1,2,4-TRIMETHYLBENZENE	95-63-6	5 ug/L	<5	
sec-BUTYLBENZENE	135-98-8	5 ug/L	<5	
1,3-DICHLOROBENZENE	541-73-1	5 ug/L	<5	
P-ISOPROPYLTOLUENE	99-87-6	5 ug/L	<5	
1,4-DICHLOROBENZENE	106-46-7	5 ug/L	<5	
1,2-DICHLOROBENZENE	95-50-1	5 ug/L	<5	
n-BUTYLBENZENE	104-51-8	5 ug/L	<5	
1,2-DIBROMC-3-CHLOROPROPANE	96-12-8	5 ug/L	<5	
1,2,4-TRICHLOROBENZENE	120-82-1	5 ug/L	<5	
HEXACH_OROBUTADIENE	87-68-3	5 ug/L	<5	
NAPHTHALENE	91-20-3	5 ug/L	<5	
1,2,3-TRICHLOROBENZENE	87-61-6	5 ug/L	<5	
2-CHLOROETHYLVINYL ETHER	110-75-8	5 ug/L	<5	
ACETONE	67-64-1	50 ug/L	<50	
METHYL ETHYL KETONE	78-93-3	10 ug/L	<10	
METHYL ISOBUTYL KETONE	108-10-1	5 ug/L	<5	
p & m-XYLENES	1330-20-7	10 ug/L	<10	
o-XYLENE	1330-20-7	5 ug/L	<5	
CARBON DISULFIDE	751-15-0	5 ug/L	<5	
MTBE	1634-04-4	5 ug/L	<5	
VINYL ACETATE	108-05-4	5 ug/L	<5	
2-HEXANONE	591-78-6	5 ug/L	<5	

MDL = Minimum Detection Limit

Michael Veraldi

Michael Veraldi-Laboratory Director

LONG ISLAND ANALYTICAL LABORATORIES INC.
"TOMORROWS ANALYTICAL SOLUTIONS TODAY"
110 Colin Drive • Holbrook, New York 11741
Phone (631) 472-3400 • Fax (631) 472-8505 • Email: LIAL@lialinc.com

Client: Tetra Tech NUS, Inc.	Client ID: NWIRP –GM-75 (BPSI-3003-GW-191)
Date received: 5/22/09	Laboratory ID: 1177410
Date extracted: 5/26/09	Matrix: Liquid
Date analyzed: 5/26/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
DICHLORODIFLUOROMETHANE	75-71-8	5 ug/L	<5	
CHLOROMETHANE	74-87-3	5 ug/L	<5	
VINYL CHLORIDE	75-01-4	5 ug/L	<5	
BROMOMETHANE	74-83-9	5 ug/L	<5	
CHLOROETHANE	75-00-3	5 ug/L	<5	
TRICHLOROFLUOROMETHANE	75-69-4	5 ug/L	<5	
1,1-DICHLOROETHENE	75-35-4	5 ug/L	<5	
METHYLENE CHLORIDE	75-09-2	5 ug/L	<5	
trans-1,2-DICHLOROETHENE	156-60-5	5 ug/L	<5	
1,1-DICHLOROETHANE	75-34-3	5 ug/L	<5	
2,2-DICHLOROPROPANE	594-20-7	5 ug/L	<5	
cis-1,2-DICHLOROETHENE	156-59-2	5 ug/L	<5	
BROMOCHLOROMETHANE	74-97-5	5 ug/L	<5	
CHLOROFORM	67-66-3	5 ug/L	<5	
1,1,1-TRICHLOROETHANE	71-55-6	5 ug/L	<5	
CARBON TETRACHLORIDE	56-23-5	5 ug/L	<5	
1,1-DICHLOROPROPENE	563-58-6	5 ug/L	<5	
BENZENE	71-43-2	0.7 ug/L	<0.7	CC
1,2-DICHLOROETHANE	107-06-2	5 ug/L	<5	
TRICHLOROETHENE	79-01-6	5 ug/L	<5	
1,2-DICHLOROPROPANE	78-87-5	5 ug/L	<5	
DIBROMOMETHANE	74-95-3	5 ug/L	<5	
BROMODICHLOROMETHANE	75-27-4	5 ug/L	<5	
cis-1,3-DICHLOROPROPENE	10061-01-5	5 ug/L	<5	
TOLUENE	108-88-3	5 ug/L	<5	
trans-1,3-DICHLOROPROPENE	10061-02-6	5 ug/L	<5	
1,1,2-TRICHLOROETHANE	79-00-5	5 ug/L	<5	
TETRACHLOROETHYLENE	127-18-4	5 ug/L	<5	
1,3-DICHLOROPROPANE	142-28-9	5 ug/L	<5	
DIBROMOCHLOROMETHANE	124-48-1	5 ug/L	<5	
1,2-DIBROMOETHANE	106-93-4	5 ug/L	<5	
CHLOROBENZENE	108-90-7	5 ug/L	<5	
1,1,1,2-TETRACHLOROETHANE	630-20-6	5 ug/L	<5	
ETHYLBENZENE	100-41-4	5 ug/L	<5	
STYRENE	100-42-5	5 ug/L	<5	
BROMOFORM	75-25-2	5 ug/L	<5	

MDL = Minimum Detection Limit.

Client: Tetra Tech NUS, Inc.	Client ID: NWIRP –GM-75 (BPSI-3003-GW-191)
Date received: 5/22/09	Laboratory ID: 1177410
Date extracted: 5/26/09	Matrix: Liquid
Date analyzed: 5/26/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
ISOPROPYLBENZENE	98-82-8	5 ug/L	<5	
BROMOBENZENE	108-86-1	5 ug/L	<5	
1,1,2,2-TETRACHLOROETHANE	79-34-5	5 ug/L	<5	
1,2,3-TRICHLOROPROPANE	96-18-4	5 ug/L	<5	
n-PROPYLBENZENE	103-65-1	5 ug/L	<5	
2-CHLOROTOLUENE	95-49-8	5 ug/L	<5	
4-CHLOROTOLUENE	106-43-4	5 ug/L	<5	
1,3,5-TRIMETHYLBENZENE	108-67-8	5 ug/L	<5	
tert-BUTYLBENZENE	98-06-6	5 ug/L	<5	
1,2,4-TRIMETHYLBENZENE	95-63-6	5 ug/L	<5	
sec-BUTYLBENZENE	135-98-8	5 ug/L	<5	
1,3-DICHLOROBENZENE	541-73-1	5 ug/L	<5	
P-ISOPROPYLTOLUENE	99-87-6	5 ug/L	<5	
1,4-DICHLOROBENZENE	106-46-7	5 ug/L	<5	
1,2-DICHLOROBENZENE	95-50-1	5 ug/L	<5	
n-BUTYLBENZENE	104-51-8	5 ug/L	<5	
1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	5 ug/L	<5	
1,2,4-TRICHLOROBENZENE	120-82-1	5 ug/L	<5	
HEXACHLOROBUTADIENE	87-68-3	5 ug/L	<5	
NAPHTHALENE	91-20-3	5 ug/L	<5	
1,2,3-TRICHLOROBENZENE	87-61-6	5 ug/L	<5	
2-CHLOROETHYLVINYL ETHER	110-75-8	5 ug/L	<5	
ACETONE	67-64-1	50 ug/L	12	MM
METHYL ETHYL KETONE	78-93-3	10 ug/L	<10	
METHYL ISOBUTYL KETONE	108-10-1	5 ug/L	<5	
p & m-XYLENES	1330-20-7	10 ug/L	<10	
o-XYLENE	1330-20-7	5 ug/L	<5	
CARBON DISULFIDE	751-15-0	5 ug/L	1.8	MM
MTBE	1634-04-4	5 ug/L	<5	
VINYL ACETATE	108-05-4	5 ug/L	<5	
2-HEXANONE	591-78-6	5 ug/L	<5	

MDL = Minimum Detection Limit.

Michael Veraldi

Michael Veraldi-Laboratory Director

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Phone (631) 472-3400 • Fax (631) 472-8505 • Email: LIAL@lialinc.com

Client: Tetra Tech NUS, Inc.	Client ID: NWIRP –GM-75 (BPSI-3003-GW-211)
Date received: 5/22/09	Laboratory ID: 1177411
Date extracted: 5/26/09	Matrix: Liquid
Date analyzed: 5/26/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
DICHLORODIFLUOROMETHANE	75-71-8	5 ug/L	<5	
CHLOROMETHANE	74-87-3	5 ug/L	<5	
VINYL CHLORIDE	75-01-4	5 ug/L	<5	
BROMOMETHANE	74-83-9	5 ug/L	<5	
CHLOROETHANE	75-00-3	5 ug/L	<5	
TRICHLOROFLUOROMETHANE	75-69-4	5 ug/L	<5	
1,1-DICHLOROETHENE	75-35-4	5 ug/L	<5	
METHYLENE CHLORIDE	75-09-2	5 ug/L	<5	
trans-1,2-DICHLOROETHENE	156-60-5	5 ug/L	<5	
1,1-DICHLOROETHANE	75-34-3	5 ug/L	<5	
2,2-DICHLOROPROPANE	594-20-7	5 ug/L	<5	
cis-1,2-DICHLOROETHENE	156-59-2	5 ug/L	<5	
BROMOCHLOROMETHANE	74-97-5	5 ug/L	<5	
CHLOROFORM	67-66-3	5 ug/L	<5	
1,1,1-TRICHLOROETHANE	71-55-6	5 ug/L	<5	
CARBON TETRACHLORIDE	56-23-5	5 ug/L	<5	
1,1-DICHLOROPROPENE	563-58-6	5 ug/L	<5	
BENZENE	71-43-2	0.7 ug/L	<0.7	CC
1,2-DICHLOROETHANE	107-06-2	5 ug/L	<5	
TRICHLOROETHENE	79-01-6	5 ug/L	<5	
1,2-DICHLOROPROPANE	78-87-5	5 ug/L	<5	
DIBROMOMETHANE	74-95-3	5 ug/L	<5	
BROMODICHLOROMETHANE	75-27-4	5 ug/L	<5	
cis-1,3-DICHLOROPROPENE	10061-01-5	5 ug/L	<5	
TOLUENE	108-88-3	5 ug/L	<5	
trans-1,3-DICHLOROPROPENE	10061-02-6	5 ug/L	<5	
1,1,2-TRICHLOROETHANE	79-00-5	5 ug/L	<5	
TETRACHLOROETHYLENE	127-18-4	5 ug/L	<5	
1,3-DICHLOROPROPANE	142-28-9	5 ug/L	<5	
DIBROMOCHLOROMETHANE	124-48-1	5 ug/L	<5	
1,2-DIBROMOETHANE	106-93-4	5 ug/L	<5	
CHLOROBENZENE	108-90-7	5 ug/L	<5	
1,1,1,2-TETRACHLOROETHANE	630-20-6	5 ug/L	<5	
ETHYLBENZENE	100-41-4	5 ug/L	<5	
STYRENE	100-42-5	5 ug/L	<5	
BROMOFORM	75-25-2	5 ug/L	<5	

MDL = Minimum Detection Limit

Client: Tetra Tech NUS, Inc.	Client ID: NWIRP –GM-75 (BPSI-3003-GW-211)
Date received: 5/22/09	Laboratory ID: 1177411
Date extracted: 5/26/09	Matrix: Liquid
Date analyzed: 5/26/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
ISOPROPYLBENZENE	98-82-8	5 ug/L	<5	
BRCMOBENZENE	108-86-1	5 ug/L	<5	
1,1,2,2-TETRACHLOROETHANE	79-34-5	5 ug/L	<5	
1,2,3-TRICHLOROPROPANE	96-18-4	5 ug/L	<5	
n-PROPYLBENZENE	103-65-1	5 ug/L	<5	
2-CHLOROTOLUENE	95-49-8	5 ug/L	<5	
4-CHLOROTOLUENE	106-43-4	5 ug/L	<5	
1,3,5-TRIMETHYLBENZENE	108-67-8	5 ug/L	<5	
tert-BUTYLBENZENE	98-06-6	5 ug/L	<5	
1,2,4-TRIMETHYLBENZENE	95-63-6	5 ug/L	<5	
sec-BUTYLBENZENE	135-98-8	5 ug/L	<5	
1,3-DICHLOROBENZENE	541-73-1	5 ug/L	<5	
P-ISOPROPYLTOLUENE	99-87-6	5 ug/L	<5	
1,4-DICHLOROBENZENE	106-46-7	5 ug/L	<5	
1,2-DICHLOROBENZENE	95-50-1	5 ug/L	<5	
n-BUTYLBENZENE	104-51-8	5 ug/L	<5	
1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	5 ug/L	<5	
1,2,4-TRICHLOROBENZENE	120-82-1	5 ug/L	<5	
HEXACHLOROBUTADIENE	87-68-3	5 ug/L	<5	
NAPHTHALENE	91-20-3	5 ug/L	<5	
1,2,3-TRICHLOROBENZENE	87-61-6	5 ug/L	<5	
2-CHLOROETHYLVINYL ETHER	110-75-8	5 ug/L	<5	
ACETONE	67-64-1	50 ug/L	<50	
METHYL ETHYL KETONE	78-93-3	10 ug/L	<10	
METHYL ISOBUTYL KETONE	108-10-1	5 ug/L	<5	
p & m-XYLENES	1330-20-7	10 ug/L	<10	
o-XYLENE	1330-20-7	5 ug/L	<5	
CARBON DISULFIDE	751-15-0	5 ug/L	<5	
MTBE	1634-04-4	5 ug/L	<5	
VINYL ACETATE	108-05-4	5 ug/L	<5	
2-HEXANONE	591-78-6	5 ug/L	<5	

MDL = Minimum Detection Limit.

Michael Veraldi

Michael Veraldi-Laboratory Director

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Client: Tetra Tech NUS, Inc.	Client ID: NWIRP –GM-75 (BPSI-3003-GW-231)
Date received: 5/22/09	Laboratory ID: 1177412
Date extracted: 5/26/09	Matrix: Liquid
Date analyzed: 5/26/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
DICHLORODIFLUOROMETHANE	75-71-8	5 ug/L	<5	
CHLOROMETHANE	74-87-3	5 ug/L	<5	
VINYL CHLORIDE	75-01-4	5 ug/L	<5	
BROMOMETHANE	74-83-9	5 ug/L	<5	
CHLOROETHANE	75-00-3	5 ug/L	<5	
TRICHLOROFLUOROMETHANE	75-69-4	5 ug/L	<5	
1,1-DICHLOROETHENE	75-35-4	5 ug/L	<5	
METHYLENE CHLORIDE	75-09-2	5 ug/L	<5	
trans-1,2-DICHLOROETHENE	156-60-5	5 ug/L	<5	
1,1-DICHLOROETHANE	75-34-3	5 ug/L	<5	
2,2-DICHLOROPROPANE	594-20-7	5 ug/L	<5	
cis-1,2-DICHLOROETHENE	156-59-2	5 ug/L	<5	
BROMOCHLOROMETHANE	74-97-5	5 ug/L	<5	
CHLOROFORM	67-66-3	5 ug/L	<5	
1,1,1-TRICHLOROETHANE	71-55-6	5 ug/L	<5	
CARBON TETRACHLORIDE	56-23-5	5 ug/L	<5	
1,1-DICHLOROPROPENE	563-58-6	5 ug/L	<5	
BENZENE	71-43-2	0.7 ug/L	<0.7	CC
1,2-DICHLOROETHANE	107-06-2	5 ug/L	<5	
TRICHLOROETHENE	79-01-6	5 ug/L	<5	
1,2-DICHLOROPROPANE	78-87-5	5 ug/L	<5	
DIBROMOMETHANE	74-95-3	5 ug/L	<5	
BROMODICHLOROMETHANE	75-27-4	5 ug/L	<5	
cis-1,3-DICHLOROPROPENE	10061-01-5	5 ug/L	<5	
TOLUENE	108-88-3	5 ug/L	<5	
trans-1,3-DICHLOROPROPENE	10061-02-6	5 ug/L	<5	
1,1,2-TRICHLOROETHANE	79-00-5	5 ug/L	<5	
TETRACHLOROETHYLENE	127-18-4	5 ug/L	<5	
1,3-DICHLOROPROPANE	142-28-9	5 ug/L	<5	
DIBROMOCHLOROMETHANE	124-48-1	5 ug/L	<5	
1,2-DIBROMOETHANE	106-93-4	5 ug/L	<5	
CHLOROBENZENE	108-90-7	5 ug/L	<5	
1,1,1,2-TETRACHLOROETHANE	630-20-6	5 ug/L	<5	
ETHYLBENZENE	100-41-4	5 ug/L	<5	
STYRENE	100-42-5	5 ug/L	<5	
BROMOFORM	75-25-2	5 ug/L	<5	

MDL = Minimum Detection Limit.

Client: Tetra Tech NUS, Inc.	Client ID: NWIRP –GM-75 (BPSI-3003-GW-231)
Date received: 5/22/09	Laboratory ID: 1177412
Date extracted: 5/26/09	Matrix: Liquid
Date analyzed: 5/26/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
ISOPROPYLBENZENE	98-82-8	5 ug/L	<5	
BROMOBENZENE	108-86-1	5 ug/L	<5	
1,1,2,2-TETRACHLOROETHANE	79-34-5	5 ug/L	<5	
1,2,3-TRICHLOROPROPANE	96-18-4	5 ug/L	<5	
n-PROPYLBENZENE	103-65-1	5 ug/L	<5	
2-CHLOROTOLUENE	95-49-8	5 ug/L	<5	
4-CHLOROTOLUENE	106-43-4	5 ug/L	<5	
1,3,5-TRIMETHYLBENZENE	108-67-8	5 ug/L	<5	
tert-BUTYLBENZENE	98-06-6	5 ug/L	<5	
1,2,4-TRIMETHYLBENZENE	95-63-6	5 ug/L	<5	
sec-BUTYLBENZENE	135-98-8	5 ug/L	<5	
1,3-DICHLOROBENZENE	541-73-1	5 ug/L	<5	
P-ISOPROPYLTOLUENE	99-87-6	5 ug/L	<5	
1,4-DICHLOROBENZENE	106-46-7	5 ug/L	<5	
1,2-DICHLOROBENZENE	95-50-1	5 ug/L	<5	
n-BUTYLBENZENE	104-51-8	5 ug/L	<5	
1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	5 ug/L	<5	
1,2,4-TRICHLOROBENZENE	120-82-1	5 ug/L	<5	
HEXACHLOROBUTADIENE	87-68-3	5 ug/L	<5	
NAPHTHALENE	91-20-3	5 ug/L	<5	
1,2,3-TRICHLOROBENZENE	87-61-6	5 ug/L	<5	
2-CHLOROETHYLVINYL ETHER	110-75-8	5 ug/L	<5	
ACETONE	67-64-1	50 ug/L	<50	
METHYL ETHYL KETONE	78-93-3	10 ug/L	<10	
METHYL ISOBUTYL KETONE	108-10-1	5 ug/L	<5	
p & m-XYLENES	1330-20-7	10 ug/L	<10	
o-XYLENE	1330-20-7	5 ug/L	<5	
CARBON DISULFIDE	751-15-0	5 ug/L	1.6	MM
MTBE	1634-04-4	5 ug/L	<5	
VINYL ACETATE	108-05-4	5 ug/L	<5	
2-HEXANONE	591-78-6	5 ug/L	<5	

MDL = Minimum Detection Limit.

Michael Veraldi

Michael Veraldi-Laboratory Director

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Client: Tetra Tech NUS, Inc.	Client ID: NWIRP –GM-75 (BPSI-3003-GW-251)
Date received: 5/22/09	Laboratory ID: 1177413
Date extracted: 5/26/09	Matrix: Liquid
Date analyzed: 5/26/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
DICHLORODIFLUOROMETHANE	75-71-8	5 ug/L	<5	
CHLOROMETHANE	74-87-3	5 ug/L	<5	
VINYL CHLORIDE	75-01-4	5 ug/L	<5	
BROMOMETHANE	74-83-9	5 ug/L	<5	
CHLOROETHANE	75-00-3	5 ug/L	<5	
TRICHLOROFLUOROMETHANE	75-69-4	5 ug/L	<5	
1,1-DICHLOROETHENE	75-35-4	5 ug/L	<5	
METHYLENE CHLORIDE	75-09-2	5 ug/L	<5	
trans-1,2-DICHLOROETHENE	156-60-5	5 ug/L	<5	
1,1-DICHLOROETHANE	75-34-3	5 ug/L	<5	
2,2-DICHLOROPROPANE	594-20-7	5 ug/L	<5	
cis-1,2-DICHLOROETHENE	156-59-2	5 ug/L	<5	
BROMOCHLOROMETHANE	74-97-5	5 ug/L	<5	
CHLOROFORM	67-66-3	5 ug/L	<5	
1,1,1-TRICHLOROETHANE	71-55-6	5 ug/L	<5	
CARBON TETRACHLORIDE	56-23-5	5 ug/L	<5	
1,1-DICHLOROPROPENE	563-58-6	5 ug/L	<5	
BENZENE	71-43-2	0.7 ug/L	<0.7	CC
1,2-DICHLOROETHANE	107-06-2	5 ug/L	<5	
TRICHLOROETHENE	79-01-6	5 ug/L	<5	
1,2-DICHLOROPROPANE	78-87-5	5 ug/L	<5	
DIBROMOMETHANE	74-95-3	5 ug/L	<5	
BROMODICHLOROMETHANE	75-27-4	5 ug/L	<5	
cis-1,3-DICHLOROPROPENE	10061-01-5	5 ug/L	<5	
TOLUENE	108-88-3	5 ug/L	<5	
trans-1,3-DICHLOROPROPENE	10061-02-6	5 ug/L	<5	
1,1,2-TRICHLOROETHANE	79-00-5	5 ug/L	<5	
TETRACHLOROETHYLENE	127-18-4	5 ug/L	<5	
1,3-DICHLOROPROPANE	142-28-9	5 ug/L	<5	
DIBROMOCHLOROMETHANE	124-48-1	5 ug/L	<5	
1,2-DIBROMOETHANE	106-93-4	5 ug/L	<5	
CHLOROBENZENE	108-90-7	5 ug/L	<5	
1,1,1,2-TETRACHLOROETHANE	630-20-6	5 ug/L	<5	
ETHYLBENZENE	100-41-4	5 ug/L	<5	
STYRENE	100-42-5	5 ug/L	<5	
BROMOFORM	75-25-2	5 ug/L	<5	

MDL = Minimum Detection Limit.

Client: Tetra Tech NUS, Inc.	Client ID: NWIRP –GM-75 (BPSI-3003-GW-251)
Date received: 5/22/09	Laboratory ID: 1177413
Date extracted: 5/26/09	Matrix: Liquid
Date analyzed: 5/26/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
ISOPROPYLBENZENE	98-82-8	5 ug/L	<5	
BROMOBENZENE	108-86-1	5 ug/L	<5	
1,1,2,2-TETRACHLOROETHANE	79-34-5	5 ug/L	<5	
1,2,3-TRICHLOROPROPANE	96-18-4	5 ug/L	<5	
n-PROPYLBENZENE	103-65-1	5 ug/L	<5	
2-CHLOROTOLUENE	95-49-8	5 ug/L	<5	
4-CHLOROTOLUENE	106-43-4	5 ug/L	<5	
1,3,5-TRIMETHYLBENZENE	108-67-8	5 ug/L	<5	
tert-BUTYLBENZENE	98-06-6	5 ug/L	<5	
1,2,4-TRIMETHYLBENZENE	95-63-6	5 ug/L	<5	
sec-BUTYLBENZENE	135-98-8	5 ug/L	<5	
1,3-DICHLOROBENZENE	541-73-1	5 ug/L	<5	
P-ISOPROPYLTOLUENE	99-87-6	5 ug/L	<5	
1,4-DICHLOROBENZENE	106-46-7	5 ug/L	<5	
1,2-DICHLOROBENZENE	95-50-1	5 ug/L	<5	
n-BUTYLBENZENE	104-51-8	5 ug/L	<5	
1,2-DIBROMC-3-CHLOROPROPANE	96-12-8	5 ug/L	<5	
1,2,4-TRICHLOROBENZENE	120-82-1	5 ug/L	<5	
HEXACH_OROBUTADIENE	87-68-3	5 ug/L	<5	
NAPHTHALENE	91-20-3	5 ug/L	<5	
1,2,3-TRICHLOROBENZENE	87-61-6	5 ug/L	<5	
2-CHLOROETHYLVINYL ETHER	110-75-8	5 ug/L	<5	
ACETONE	67-64-1	50 ug/L	<50	
METHYL ETHYL KETONE	78-93-3	10 ug/L	<10	
METHYL ISOBUTYL KETONE	108-10-1	5 ug/L	<5	
p & m-XYLENES	1330-20-7	10 ug/L	<10	
o-XYLENE	1330-20-7	5 ug/L	<5	
CARBON DISULFIDE	751-15-0	5 ug/L	2.6	MM
MTBE	1634-04-4	5 ug/L	<5	
VINYL ACETATE	108-05-4	5 ug/L	<5	
2-HEXANONE	591-78-6	5 ug/L	<5	

MDL = Minimum Detection Limit.

Michael Veraldi

Michael Veraldi-Laboratory Director

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Phone (631) 472-3400 • Fax (631) 472-8505 • Email: LIAL@lialinc.com

Client: Tetra Tech NUS, Inc.	Client ID: NWIRP –GM-75 (BPSI-3003-GW-271)
Date received: 5/22/09	Laboratory ID: 1177414
Date extracted: 5/26/09	Matrix: Liquid
Date analyzed: 5/26/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
DICHLORODIFLUOROMETHANE	75-71-8	5 ug/L	<5	
CHLOROMETHANE	74-87-3	5 ug/L	<5	
VINYL CHLORIDE	75-01-4	5 ug/L	<5	
BROMOMETHANE	74-83-9	5 ug/L	<5	
CHLOROETHANE	75-00-3	5 ug/L	<5	
TRICHLOROFLUOROMETHANE	75-69-4	5 ug/L	<5	
1,1-DICHLOROETHENE	75-35-4	5 ug/L	<5	
METHYLENE CHLORIDE	75-09-2	5 ug/L	<5	
trans-1,2-DICHLOROETHENE	156-60-5	5 ug/L	<5	
1,1-DICHLOROETHANE	75-34-3	5 ug/L	<5	
2,2-DICHLOROPROPANE	594-20-7	5 ug/L	<5	
cis-1,2-DICHLOROETHENE	156-59-2	5 ug/L	<5	
BROMOCHLOROMETHANE	74-97-5	5 ug/L	<5	
CHLOROFORM	67-66-3	5 ug/L	<5	
1,1,1-TRICHLOROETHANE	71-55-6	5 ug/L	<5	
CARBON TETRACHLORIDE	56-23-5	5 ug/L	<5	
1,1-DICHLOROPROPENE	563-58-6	5 ug/L	<5	
BENZENE	71-43-2	0.7 ug/L	<0.7	CC
1,2-DICHLOROETHANE	107-06-2	5 ug/L	<5	
TRICHLOROETHENE	79-01-6	5 ug/L	<5	
1,2-DICHLOROPROPANE	78-87-5	5 ug/L	<5	
DIBROMOMETHANE	74-95-3	5 ug/L	<5	
BROMODICHLOROMETHANE	75-27-4	5 ug/L	<5	
cis-1,3-DICHLOROPROPENE	10061-01-5	5 ug/L	<5	
TOLUENE	108-88-3	5 ug/L	<5	
trans-1,3-DICHLOROPROPENE	10061-02-6	5 ug/L	<5	
1,1,2-TRICHLOROETHANE	79-00-5	5 ug/L	<5	
TETRACHLOROETHYLENE	127-18-4	5 ug/L	<5	
1,3-DICHLOROPROPANE	142-28-9	5 ug/L	<5	
DIBROMOCHLOROMETHANE	124-48-1	5 ug/L	<5	
1,2-DIBROMOETHANE	106-93-4	5 ug/L	<5	
CHLOROBENZENE	108-90-7	5 ug/L	<5	
1,1,1,2-TETRACHLOROETHANE	630-20-6	5 ug/L	<5	
ETHYLBENZENE	100-41-4	5 ug/L	<5	
STYRENE	100-42-5	5 ug/L	<5	
BROMOFORM	75-25-2	5 ug/L	<5	

MDL = Minimum Detection Limit.

Client: Tetra Tech NUS, Inc.	Client ID: NWIRP –GM-75 (BPSI-3003-GW-271)
Date received: 5/22/09	Laboratory ID: 1177414
Date extracted: 5/26/09	Matrix: Liquid
Date analyzed: 5/26/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
ISOPROPYLBENZENE	98-82-8	5 ug/L	<5	
BROMOBENZENE	108-86-1	5 ug/L	<5	
1,1,2,2-TETRACHLOROETHANE	79-34-5	5 ug/L	<5	
1,2,3-TRICHLOROPROPANE	96-18-4	5 ug/L	<5	
n-PROPYLBENZENE	103-65-1	5 ug/L	<5	
2-CHLOROTOLUENE	95-49-8	5 ug/L	<5	
4-CHLOROTOLUENE	106-43-4	5 ug/L	<5	
1,3,5-TRIMETHYLBENZENE	108-67-8	5 ug/L	<5	
tert-BUTYLBENZENE	98-06-6	5 ug/L	<5	
1,2,4-TRIMETHYLBENZENE	95-63-6	5 ug/L	<5	
sec-BUTYLBENZENE	135-98-8	5 ug/L	<5	
1,3-DICHLOROBENZENE	541-73-1	5 ug/L	<5	
P-ISOPROPYLTOLUENE	99-87-6	5 ug/L	<5	
1,4-DICHLOROBENZENE	106-46-7	5 ug/L	<5	
1,2-DICHLOROBENZENE	95-50-1	5 ug/L	<5	
n-BUTYLBENZENE	104-51-8	5 ug/L	<5	
1,2-DIBROMC-3-CHLOROPROPANE	96-12-8	5 ug/L	<5	
1,2,4-TRICHLOROBENZENE	120-82-1	5 ug/L	<5	
HEXACHLOROBUTADIENE	87-68-3	5 ug/L	<5	
NAPHTHALENE	91-20-3	5 ug/L	<5	
1,2,3-TRICHLOROBENZENE	87-61-6	5 ug/L	<5	
2-CHLOROETHYLVINYL ETHER	110-75-8	5 ug/L	<5	
ACETONE	67-64-1	50 ug/L	<50	
METHYL ETHYL KETONE	78-93-3	10 ug/L	<10	
METHYL ISOBUTYL KETONE	108-10-1	5 ug/L	<5	
p & m-XYLENES	1330-20-7	10 ug/L	<10	
o-XYLENE	1330-20-7	5 ug/L	<5	
CARBON DISULFIDE	751-15-0	5 ug/L	<5	
MTBE	1634-04-4	5 ug/L	<5	
VINYL ACETATE	108-05-4	5 ug/L	<5	
2-HEXANONE	591-78-6	5 ug/L	<5	

MDL = Minimum Detection Limit.

Michael Veraldi

Michael Veraldi-Laboratory Director

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Client: Tetra Tech NUS, Inc.	Client ID: NWIRP –GM-75 (BPSI-3003-GW-291)
Date received: 5/22/09	Laboratory ID: 1177415
Date extracted: 5/26/09	Matrix: Liquid
Date analyzed: 5/26/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
DICHLORODIFLUOROMETHANE	75-71-8	5 ug/L	<5	
CHLOROMETHANE	74-87-3	5 ug/L	<5	
VINYL CHLORIDE	75-01-4	5 ug/L	<5	
BROMOMETHANE	74-83-9	5 ug/L	<5	
CHLOROETHANE	75-00-3	5 ug/L	<5	
TRICHLOROFLUOROMETHANE	75-69-4	5 ug/L	<5	
1,1-DICHLOROETHENE	75-35-4	5 ug/L	<5	
METHYLENE CHLORIDE	75-09-2	5 ug/L	<5	
trans-1,2-DICHLOROETHENE	156-60-5	5 ug/L	<5	
1,1-DICHLOROETHANE	75-34-3	5 ug/L	<5	
2,2-DICHLOROPROPANE	594-20-7	5 ug/L	<5	
cis-1,2-DICHLOROETHENE	156-59-2	5 ug/L	<5	
BROMOCHLOROMETHANE	74-97-5	5 ug/L	<5	
CHLOROFORM	67-66-3	5 ug/L	<5	
1,1,1-TRICHLOROETHANE	71-55-6	5 ug/L	<5	
CARBON TETRACHLORIDE	56-23-5	5 ug/L	<5	
1,1-DICHLOROPROPENE	563-58-6	5 ug/L	<5	
BENZENE	71-43-2	0.7 ug/L	<0.7	CC
1,2-DICHLOROETHANE	107-06-2	5 ug/L	<5	
TRICHLOROETHENE	79-01-6	5 ug/L	<5	
1,2-DICHLOROPROPANE	78-87-5	5 ug/L	<5	
DIBROMOMETHANE	74-95-3	5 ug/L	<5	
BROMODICHLOROMETHANE	75-27-4	5 ug/L	<5	
cis-1,3-DICHLOROPROPENE	10061-01-5	5 ug/L	<5	
TOLUENE	108-88-3	5 ug/L	<5	
trans-1,3-DICHLOROPROPENE	10061-02-6	5 ug/L	<5	
1,1,2-TRICHLOROETHANE	79-00-5	5 ug/L	<5	
TETRACHLOROETHYLENE	127-18-4	5 ug/L	<5	
1,3-DICHLOROPROPANE	142-28-9	5 ug/L	<5	
DIBROMOCHLOROMETHANE	124-48-1	5 ug/L	<5	
1,2-DIBROMOETHANE	106-93-4	5 ug/L	<5	
CHLOROBENZENE	108-90-7	5 ug/L	<5	
1,1,1,2-TETRACHLOROETHANE	630-20-6	5 ug/L	<5	
ETHYLBENZENE	100-41-4	5 ug/L	<5	
STYRENE	100-42-5	5 ug/L	<5	
BROMOFORM	75-25-2	5 ug/L	<5	

MDL = Minimum Detection Limit.

Client: Tetra Tech NUS, Inc.	Client ID: NWIRP –GM-75 (BPSI-3003-GW-291)
Date received: 5/22/09	Laboratory ID: 1177415
Date extracted: 5/26/09	Matrix: Liquid
Date analyzed: 5/26/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
ISOPROPYLBENZENE	98-82-8	5 ug/L	<5	
BROMOBENZENE	108-86-1	5 ug/L	<5	
1,1,2,2-TETRACHLOROETHANE	79-34-5	5 ug/L	<5	
1,2,3-TRICHLOROPROPANE	96-18-4	5 ug/L	<5	
n-PROPYLBENZENE	103-65-1	5 ug/L	<5	
2-CHLOROTOLUENE	95-49-8	5 ug/L	<5	
4-CHLOROTOLUENE	106-43-4	5 ug/L	<5	
1,3,5-TRIMETHYLBENZENE	108-67-8	5 ug/L	<5	
tert-BUTYLBENZENE	98-06-6	5 ug/L	<5	
1,2,4-TRIMETHYLBENZENE	95-63-6	5 ug/L	<5	
sec-BUTYLBENZENE	135-98-8	5 ug/L	<5	
1,3-DICHLOROBENZENE	541-73-1	5 ug/L	<5	
P-ISOPROPYLTOLUENE	99-87-6	5 ug/L	<5	
1,4-DICHLOROBENZENE	106-46-7	5 ug/L	<5	
1,2-DICHLOROBENZENE	95-50-1	5 ug/L	<5	
n-BUTYLBENZENE	104-51-8	5 ug/L	<5	
1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	5 ug/L	<5	
1,2,4-TRICHLOROBENZENE	120-82-1	5 ug/L	<5	
HEXACHLOROBUTADIENE	87-68-3	5 ug/L	<5	
NAPHTHALENE	91-20-3	5 ug/L	<5	
1,2,3-TRICHLOROBENZENE	87-61-6	5 ug/L	<5	
2-CHLOROETHYLVINYL ETHER	110-75-8	5 ug/L	<5	
ACETONE	67-64-1	50 ug/L	<50	
METHYL ETHYL KETONE	78-93-3	10 ug/L	<10	
METHYL ISOBUTYL KETONE	108-10-1	5 ug/L	<5	
p & m-XYLENES	1330-20-7	10 ug/L	<10	
o-XYLENE	1330-20-7	5 ug/L	<5	
CARBON DISULFIDE	751-15-0	5 ug/L	<5	
MTBE	1634-04-4	5 ug/L	<5	
VINYL ACETATE	108-05-4	5 ug/L	<5	
2-HEXANONE	591-78-6	5 ug/L	<5	

MDL = Minimum Detection Limit.

Michael Veraldi

Michael Veraldi-Laboratory Director

LONG ISLAND ANALYTICAL LABORATORIES INC.
"TOMORROWS ANALYTICAL SOLUTIONS TODAY"
110 Colin Drive • Holbrook, New York 11741
Phone (631) 472-3400 • Fax (631) 472-8505 • Email: LIAL@lialinc.com

Client: Tetra Tech NUS, Inc.	Client ID: NWIRP –GM-75 (BPSI-3003-GW-311)
Date received: 5/22/09	Laboratory ID: 1177416
Date extracted: 5/26/09	Matrix: Liquid
Date analyzed: 5/26/09	ELAP #: 11693

EPA METHOD 8260B

PARAMETER	CAS No.	MDL	RESULTS ug/L	Flag
ISOPROPYLBENZENE	98-82-8	5 ug/L	<5	
BROMOBENZENE	108-86-1	5 ug/L	<5	
1,1,2,2-TETRACHLOROETHANE	79-34-5	5 ug/L	<5	
1,2,3-TRICHLOROPROPANE	96-18-4	5 ug/L	<5	
n-PROPYLBENZENE	103-65-1	5 ug/L	<5	
2-CHLOROTOLUENE	95-49-8	5 ug/L	<5	
4-CHLOROTOLUENE	106-43-4	5 ug/L	<5	
1,3,5-TRIMETHYLBENZENE	108-67-8	5 ug/L	<5	
tert-BUTYLBENZENE	98-06-6	5 ug/L	<5	
1,2,4-TRIMETHYLBENZENE	95-63-6	5 ug/L	<5	
sec-BUTYLBENZENE	135-98-8	5 ug/L	<5	
1,3-DICHLOROBENZENE	541-73-1	5 ug/L	<5	
P-ISOPROPYLTOLUENE	99-87-6	5 ug/L	<5	
1,4-DICHLOROBENZENE	106-46-7	5 ug/L	<5	
1,2-DICHLOROBENZENE	95-50-1	5 ug/L	<5	
n-BUTYLBENZENE	104-51-8	5 ug/L	<5	
1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	5 ug/L	<5	
1,2,4-TRICHLOROBENZENE	120-82-1	5 ug/L	<5	
HEXACHLOROBUTADIENE	87-68-3	5 ug/L	<5	
NAPHTHALENE	91-20-3	5 ug/L	<5	
1,2,3-TRICHLOROBENZENE	87-61-6	5 ug/L	<5	
2-CHLOROETHYLVINYL ETHER	110-75-8	5 ug/L	<5	
ACETONE	67-64-1	50 ug/L	<50	
METHYL ETHYL KETONE	78-93-3	10 ug/L	<10	
METHYL ISOBUTYL KETONE	108-10-1	5 ug/L	<5	
p & m-XYLENES	1330-20-7	10 ug/L	<10	
o-XYLENE	1330-20-7	5 ug/L	<5	
CARBON DISULFIDE	751-15-0	5 ug/L	<5	
MTBE	1634-04-4	5 ug/L	<5	
VINYL ACETATE	108-05-4	5 ug/L	<5	
2-HEXANONE	591-78-6	5 ug/L	<5	

MDL = Minimum Detection Limit

Michael Veraldi

Michael Veraldi-Laboratory Director

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TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER 27236 (27) PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G00622	NWIRP- GM75	D. BRAYACK		LONG IS ANALYTICAL
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
SJ Conti		S CONTI	412 551 2629	
		CARRIER/WAYBILL NUMBER		CITY, STATE
		PICK UP BY CHRIS		

0044646

STANDARD TAT ☐
RUSH TAT ☐
☐ 24 hr. ☒ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G
PRESERVATIVE USED: 4oz HCL

DATE YEAR 2009	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, CC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: VOCs 40ml	COMMENTS
5/18	1300	BPSI-TB-051809	TB	—	—	QC	G	2	2	1177403
5/18	1545	BPSI-3003-GW-071	BPSI 3003	70	71	GW	G	1	1	1177404
5/18	1700	BPSI-3003-GW-091	"	90	91	GW	G	2	2	1177405
5/19	0945	BPSI-3003-GW-112	"	111	112	GW	G	2	2	1177406
5/19	1110	BPSI-3003-GW-131	"	130	131	GW	G	2	2	1177407
5/19	1215	BPSI-3003-GW-151	"	150	151	GW	G	2	2	1177408
5/19	1330	BPSI-3003-GW-171	"	170	171	GW	G	1	1	1177409
5/19	1450	BPSI-3003-GW-191	"	190	191	GW	G	2	2	1177410
5/19	1615	BPSI-3003-GW-211	"	210	211	GW	G	2	2	1177411
5/19	1730	BPSI-3003-GW-231	"	230	231	GW	G	2	2	1177412
5/20	0915	BPSI-3003-GW-251	"	250	251	GW	G	2	2	1177413
5/20	1050	BPSI-3003-GW-271	"	270	271	GW	G	2	2	1177414
5/20	1205	BPSI-3003-GW-291	"	290	291	GW	G	2	2	1177415
5/20	1330	BPSI-3003-GW-311	"	310	311	GW	G	2	2	1177416

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY: SJ Conti	5/21/09	1200	1. RECEIVED BY: LONG IS ANALYTICAL	5/21/09	11:40
2. RELINQUISHED BY			2. RECEIVED BY		
3. RELINQUISHED BY			3. RECEIVED BY: [signature]	5-22-09	1230 AM

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TINUS-001

VALIDATION LETTER AND RESULTS MITKEM LABORATORY

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO:	**D. BRAYAK**	**DATE:**	**AUGUST 14, 2009**
FROM:	**ANN COGNETTI**	**COPIES:**	**DV FILE**
SUBJECT:	**ORGANIC DATA VALIDATION – VOA AND PCB NWIRP BETHPAGE CTO 066 SDG H0885**		

SAMPLES: 3/ Aqueous/ VOA

BPS1-3003-GW-091M	BPS1-3003-GW-131M	BPS1-TB-051809M

8/ Soil /VOA

BPS1-3003-SB-041M	BPS1-3003-SB-046M	BPS1-3003-SB-051M
BPS1-3003-SB-056M	BPS1-3003-SB-061M	BPS1-3003-SB-111M
BPS1- 3003-SB-116M	BPS1-3003-SB-121M	

6/ Soil/PCB

BPS1-3003-SB-041M	BPS1-3003-SB-051M	BPS1-3003-SB-061M
BPS1-3003-SB-111M	BPS1-3003-SB-116M	BPS1-3003-SB-121M

Overview

The sample set for NWIRP BETHPAGE, SDG H0885 consists of three (3) aqueous and eight (8) soil environmental samples evaluated for volatile organic compounds. Also, six of the eight soil samples were evaluated for polychlorinated biphenyls (PCBs). The trip blank for this sample set is BPS1-TB-051809M.

The samples were collected by Tetra Tech on May 18 and 19, 2009 and analyzed by Mitkem Laboratories. All organic volatile analyses were conducted in accordance with EPA Method SW-846 8260C analytical and reporting protocols. PCB analyses were conducted using SW-846 method 8082.

These data were evaluated based on the following parameters:

* • Data Completeness
* • Holding Times
• Initial and Continuing Calibrations
* • Laboratory Method Blank Analyses
* • Surrogate Recoveries
* • Laboratory Control Sample Results
* • Matrix Spike / Matrix Spike Duplicate Results
* • Detection Limits
* • Analyte Quantitation

* - All quality control criteria were met for this parameter.

The symbol (*) indicates that all quality control criteria were met for this parameter. Qualified analytical results are presented in Appendix A, results as reported by the laboratory are presented in Appendix B, Region II data validation forms are presented in Appendix C, and documentation supporting these findings is presented in Appendix D.

Volatile (VOA)

The initial calibration relative retention factors (RRFs) were less than 0.05 for acetone and 2-butanone on instrument V6 on May 21, 2009 affecting samples BPS1-3003-GW-091M, BPS1-3003-GW-131M and BPS1-TB-051809M. Non-detected results for acetone and 2-butanone were qualified as rejected (UR).

The percent Relative Standard Deviation (%RSD) was greater than 20% for acetone on May 21, 2009 for instrument V6. No action was taken since there were no positive detections in the aqueous samples.

The initial calibration relative retention factors (RRFs) were less than 0.05 for acetone and 2-butanone on instrument V1 on May 19, 2009 affecting samples BPS1-3003-SB-041M, BPS1-3003-SB-046M, BPS1-3003-SB-051M, BPS1-3003-SB-056M, BPS1-3003-SB-061M, BPS1-3003-SB-111M, BPS1-3003-SB-116M and BPS1-3003-SB-121M. Non-detected results for acetone and 2-butanone were qualified as rejected (UR).

The continuing calibration for instrument V6 on May 21, 2009 @ 19:34 had RRFs less than 0.05 for acetone and 2-butanone. Samples BPS1-3003-GW-091M, BPS1-3003-GW-131M and BPS1-TB-051809M were affected by this noncompliance. All nondetected results were qualified rejected (UR).

The initial calibration percent Relative Standard Deviation (%RSD) was greater than 20% for 4-methyl-2-pentanone and 2-hexanone on May 19, 2009 for instrument V1. No action was taken since there were no positive detections in the affected soil samples.

The continuing calibration percent difference (%D) was greater than the quality control limit of 20% for chloroethane and acetone for instrument V1 on May 22, 2009 @ 8:00 affecting samples BPS1-3003-SB-041M, BPS1-3003-SB-046M, BPS1-3003-SB-051M, and BPS1-3003-SB-056M. The non-detected sample results for chloroethane were qualified estimated, (UJ). The nondetected results reported for acetone were already rejected as a result of a more severe noncompliance.

The %D reported for 4-methyl-2-pentanone was greater than the quality control limit of 20% for instrument V1 on May 22, 2009 at 23:14. The non-detected sample results for 4-methyl-2-pentanone were qualified (UJ). This qualification affects samples BPS1-3003-SB-061M, BPS1-3003-SB-111M, BPS1-3003-SB-116M and BPS1-3003-SB-121M.

In the continuing calibrations for instrument V1 on May 22, 2009 @8:00 and 23:14, the mean RRFs were less than 0.05 for acetone and 2-butanone. This noncompliance affects samples BPS1-3003-SB-041M, BPS1-3003-SB-046M, BPS1-3003-SB-051M, BPS1-3003-SB-056M, BPS1-3003-SB-061M, BPS1-3003-SB-111M, BPS1-3003-SB-116M and BPS1-3003-SB-121M. Non-detected results for acetone and 2-butanone were qualified as rejected (UR).

EXECUTIVE SUMMARY

Laboratory Performance Issues: Volatile organic sample results for acetone and 2-butanone were qualified due to calibration relative retention factors below the QC limit. Several sample volatile organic results were qualified due to continuing calibration %Ds greater than the QC limit for acetone, 2-butanone and chloroethane.

Other Factors Affecting Data Quality: None.

The data for these analyses were reviewed with reference to the EPA Functional Guidelines for Organic Data Validation (10/99), USEPA Region II Hazardous Waste Support Branch Standard Operating Procedures for the Validation of Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260B (October 2006) and the USEPA Region II Hazardous Waste Support Branch document Standard Operating Procedure for the Validation of PCB Compounds by Gas Chromatography SW-846 Method 8082A, SOP # HW-45, (December 2006).

Ann Cognetti

TetraTech NUS
Ann Cognetti
Chemist/Data Validator

TetraTech NUS
Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:

1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as Reported by the Laboratory
3. Appendix C – Region II Data Validation Forms
4. Appendix D - Support Documentation

Appendix A

Qualified Analytical Results

Data Validation Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can be any number of issues; e.g. poor chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 00622	NSAMPLE	BPS1-3003-GW-091M			BPS1-3003-GW-131M			BPS1-TB-051809M		
SDG: H0885	LAB_ID	H0885-07A			H0885-11A			H0885-01A		
FRACTION: OV	SAMP_DATE	5/18/2009			5/19/2009			5/18/2009		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS									
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		5	U		5	U		5	U	
1,1,2,2-TETRACHLOROETHANE		5	U		5	U		5	U	
1,1,2-TRICHLOROETHANE		5	U		5	U		5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		5	U		5	U		5	U	
1,1-DICHLOROETHANE		5	U		5	U		5	U	
1,1-DICHLOROETHENE		5	U		5	U		5	U	
1,2,4-TRICHLOROBENZENE		5	U		5	U		5	U	
1,2-DIBROMO-3-CHLOROPROPANE		5	U		5	U		5	U	
1,2-DIBROMOETHANE		5	U		5	U		5	U	
1,2-DICHLOROBENZENE		5	U		5	U		5	U	
1,2-DICHLOROETHANE		5	U		5	U		5	U	
1,2-DICHLOROPROPANE		5	U		5	U		5	U	
1,3-DICHLOROBENZENE		5	U		5	U		5	U	
1,4-DICHLOROBENZENE		5	U		5	U		5	U	
2-BUTANONE		5	UR	C	5	UR	C	5	UR	C
2-HEXANONE		5	U		5	U		5	U	
4-METHYL-2-PENTANONE		5	U		5	U		5	U	
ACETONE		5	UR	C	5	UR	C	5	UR	C
BENZENE		5	U		5	U		5	U	
BROMODICHLOROMETHANE		5	U		5	U		5	U	
BROMOFORM		5	U		5	U		5	U	
BROMOMETHANE		5	U		5	U		5	U	
CARBON DISULFIDE		5	U		5	U		5	U	
CARBON TETRACHLORIDE		5	U		5	U		5	U	
CHLOROBENZENE		5	U		5	U		5	U	
CHLORODIBROMOMETHANE		5	U		5	U		5	U	
CHLOROETHANE		5	U		5	U		5	U	
CHLOROFORM		5	U		5	U		5	U	
CHLOROMETHANE		5	U		5	U		5	U	
CIS-1,2-DICHLOROETHENE		5	U		5	U		5	U	
CIS-1,3-DICHLOROPROPENE		5	U		5	U		5	U	
CYCLOHEXANE		5	U		5	U		5	U	
DICHLORODIFLUOROMETHANE		5	U		5	U		5	U	
ETHYLBENZENE		5	U		5	U		5	U	
ISOPROPYLBENZENE		5	U		5	U		5	U	
METHYL ACETATE		5	U		5	U		5	U	

PROJ_NO: 00622	NSAMPLE	BPS1-3003-GW-091M			BPS1-3003-GW-131M			BPS1-TB-051809M		
SDG: H0885	LAB_ID	H0885-07A			H0885-11A			H0885-01A		
FRACTION: OV	SAMP_DATE	5/18/2009			5/19/2009			5/18/2009		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS									
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL CYCLOHEXANE		5	U		5	U		5	U	
METHYL TERT-BUTYL ETHER		5	U		5	U		5	U	
METHYLENE CHLORIDE		5	U		5	U		5	U	
STYRENE		5	U		5	U		5	U	
TETRACHLOROETHENE		5	U		5	U		5	U	
TOLUENE		5	U		5	U		5	U	
TOTAL XYLENES		5	U		5	U		5	U	
TRANS-1,2-DICHLOROETHENE		5	U		5	U		5	U	
TRANS-1,3-DICHLOROPROPENE		5	U		5	U		5	U	
TRICHLOROETHENE		5	U		5	U		5	U	
TRICHLOROFLUOROMETHANE		5	U		5	U		5	U	
VINYL CHLORIDE		5	U		5	U		5	U	

PROJ_NO: 00622	NSAMPLE	BPS1-3003-SB-041M			BPS1-3003-SB-046M			BPS1-3003-SB-051M			BPS1-3003-SB-056M		
SDG: H0885	LAB_ID	H0885-02B			H0885-03A			H0885-04B			H0885-05A		
FRACTION: OV	SAMP_DATE	5/18/2009			5/18/2009			5/18/2009			5/18/2009		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	83.0			80.0			87.0			88.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		5.9	U		6.1	U		5.6	U		5.6	U	
1,1,2,2-TETRACHLOROETHANE		5.9	U		6.1	U		5.6	U		5.6	U	
1,1,2-TRICHLOROETHANE		5.9	U		6.1	U		5.6	U		5.6	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		5.9	U		6.1	U		5.6	U		5.6	U	
1,1-DICHLOROETHANE		5.9	U		6.1	U		5.6	U		5.6	U	
1,1-DICHLOROETHENE		5.9	U		6.1	U		5.6	U		5.6	U	
1,2,4-TRICHLOROBENZENE		5.9	U		6.1	U		5.6	U		5.6	U	
1,2-DIBROMO-3-CHLOROPROPANE		5.9	U		6.1	U		5.6	U		5.6	U	
1,2-DIBROMOETHANE		5.9	U		6.1	U		5.6	U		5.6	U	
1,2-DICHLOROBENZENE		5.9	U		6.1	U		5.6	U		5.6	U	
1,2-DICHLOROETHANE		5.9	U		6.1	U		5.6	U		5.6	U	
1,2-DICHLOROPROPANE		5.9	U		6.1	U		5.6	U		5.6	U	
1,3-DICHLOROBENZENE		5.9	U		6.1	U		5.6	U		5.6	U	
1,4-DICHLOROBENZENE		5.9	U		6.1	U		5.6	U		5.6	U	
2-BUTANONE		5.9	UR	C	6.1	UR	C	5.6	UR	C	5.6	UR	C
2-HEXANONE		5.9	U		6.1	U		5.6	U		5.6	U	
4-METHYL-2-PENTANONE		5.9	U		6.1	U		5.6	U		5.6	U	
ACETONE		5.9	UR	C	6.1	UR	C	5.6	UR	C	5.6	UR	C
BENZENE		5.9	U		6.1	U		5.6	U		5.6	U	
BROMODICHLOROMETHANE		5.9	U		6.1	U		5.6	U		5.6	U	
BROMOFORM		5.9	U		6.1	U		5.6	U		5.6	U	
BROMOMETHANE		5.9	U		6.1	U		5.6	U		5.6	U	
CARBON DISULFIDE		5.9	U		6.1	U		5.6	U		5.6	U	
CARBON TETRACHLORIDE		5.9	U		6.1	U		5.6	U		5.6	U	
CHLOROBENZENE		5.9	U		6.1	U		5.6	U		5.6	U	
CHLORODIBROMOMETHANE		5.9	U		6.1	U		5.6	U		5.6	U	
CHLOROETHANE		5.9	UJ	C	6.1	UJ	C	5.6	UJ	C	5.6	UJ	C
CHLOROFORM		5.9	U		6.1	U		5.6	U		5.6	U	
CHLOROMETHANE		5.9	U		6.1	U		5.6	U		5.6	U	
CIS-1,2-DICHLOROETHENE		5.9	U		6.1	U		5.6	U		5.6	U	
CIS-1,3-DICHLOROPROPENE		5.9	U		6.1	U		5.6	U		5.6	U	
CYCLOHEXANE		5.9	U		6.1	U		5.6	U		5.6	U	
DICHLORODIFLUOROMETHANE		5.9	U		6.1	U		5.6	U		5.6	U	
ETHYLBENZENE		5.9	U		6.1	U		5.6	U		5.6	U	
ISOPROPYLBENZENE		5.9	U		6.1	U		5.6	U		5.6	U	
METHYL ACETATE		5.9	U		6.1	U		5.6	U		5.6	U	

PROJ_NO: 00622	NSAMPLE	BPS1-3003-SB-041M			BPS1-3003-SB-046M			BPS1-3003-SB-051M			BPS1-3003-SB-056M		
SDG: H0885	LAB_ID	H0885-02B			H0885-03A			H0885-04B			H0885-05A		
FRACTION: OV	SAMP_DATE	5/18/2009			5/18/2009			5/18/2009			5/18/2009		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	83.0			80.0			87.0			88.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL CYCLOHEXANE		5.9	U		6.1	U		5.6	U		5.6	U	
METHYL TERT-BUTYL ETHER		5.9	U		6.1	U		5.6	U		5.6	U	
METHYLENE CHLORIDE		5.9	U		6.1	U		5.6	U		5.6	U	
STYRENE		5.9	U		6.1	U		5.6	U		5.6	U	
TETRACHLOROETHENE		5.9	U		6.1	U		5.6	U		5.6	U	
TOLUENE		5.9	U		6.1	U		5.6	U		5.6	U	
TOTAL XYLENES		5.9	U		6.1	U		5.6	U		5.6	U	
TRANS-1,2-DICHLOROETHENE		5.9	U		6.1	U		5.6	U		5.6	U	
TRANS-1,3-DICHLOROPROPENE		5.9	U		6.1	U		5.6	U		5.6	U	
TRICHLOROETHENE		5.9	U		6.1	U		5.6	U		5.6	U	
TRICHLOROFLUOROMETHANE		5.9	U		6.1	U		5.6	U		5.6	U	
VINYL CHLORIDE		5.9	U		6.1	U		5.6	U		5.6	U	

PROJ_NO: 00622	NSAMPLE	BPS1-3003-SB-061M			BPS1-3003-SB-111M			BPS1-3003-SB-116M			BPS1-3003-SB-121M		
SDG: H0885	LAB_ID	H0885-06B			H0885-08B			H0885-09B			H0885-10B		
FRACTION: OV	SAMP_DATE	5/18/2009			5/19/2009			5/19/2009			5/19/2009		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	85.0			81.0			79.0			81.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		5.9	U		6.2	U		6.3	U		5.9	U	
1,1,2,2-TETRACHLOROETHANE		5.9	U		6.2	U		6.3	U		5.9	U	
1,1,2-TRICHLOROETHANE		5.9	U		6.2	U		6.3	U		5.9	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		5.9	U		6.2	U		6.3	U		5.9	U	
1,1-DICHLOROETHANE		5.9	U		6.2	U		6.3	U		5.9	U	
1,1-DICHLOROETHENE		5.9	U		6.2	U		6.3	U		5.9	U	
1,2,4-TRICHLOROBENZENE		5.9	U		6.2	U		6.3	U		5.9	U	
1,2-DIBROMO-3-CHLOROPROPANE		5.9	U		6.2	U		6.3	U		5.9	U	
1,2-DIBROMOETHANE		5.9	U		6.2	U		6.3	U		5.9	U	
1,2-DICHLOROBENZENE		5.9	U		6.2	U		6.3	U		5.9	U	
1,2-DICHLOROETHANE		5.9	U		6.2	U		6.3	U		5.9	U	
1,2-DICHLOROPROPANE		5.9	U		6.2	U		6.3	U		5.9	U	
1,3-DICHLOROBENZENE		5.9	U		6.2	U		6.3	U		5.9	U	
1,4-DICHLOROBENZENE		5.9	U		6.2	U		6.3	U		5.9	U	
2-BUTANONE		5.9	UR	C	6.2	UR	C	6.3	UR	C	5.9	UR	C
2-HEXANONE		5.9	U		6.2	U		6.3	U		5.9	U	
4-METHYL-2-PENTANONE		5.9	UJ	C	6.2	UJ	C	6.3	UJ	C	5.9	UJ	C
ACETONE		5.9	UR	C	6.2	UR	C	6.3	UR	C	5.9	UR	C
BENZENE		5.9	U		6.2	U		6.3	U		5.9	U	
BROMODICHLOROMETHANE		5.9	U		6.2	U		6.3	U		5.9	U	
BROMOFORM		5.9	U		6.2	U		6.3	U		5.9	U	
BROMOMETHANE		5.9	U		6.2	U		6.3	U		5.9	U	
CARBON DISULFIDE		5.9	U		6.2	U		6.3	U		5.9	U	
CARBON TETRACHLORIDE		5.9	U		6.2	U		6.3	U		5.9	U	
CHLOROBENZENE		5.9	U		6.2	U		6.3	U		5.9	U	
CHLORODIBROMOMETHANE		5.9	U		6.2	U		6.3	U		5.9	U	
CHLOROETHANE		5.9	U		6.2	U		6.3	U		5.9	U	
CHLOROFORM		5.9	U		6.2	U		6.3	U		5.9	U	
CHLOROMETHANE		5.9	U		6.2	U		6.3	U		5.9	U	
CIS-1,2-DICHLOROETHENE		5.9	U		6.2	U		6.3	U		5.9	U	
CIS-1,3-DICHLOROPROPENE		5.9	U		6.2	U		6.3	U		5.9	U	
CYCLOHEXANE		5.9	U		6.2	U		6.3	U		5.9	U	
DICHLORODIFLUOROMETHANE		5.9	U		6.2	U		6.3	U		5.9	U	
ETHYLBENZENE		5.9	U		6.2	U		6.3	U		5.9	U	
ISOPROPYLBENZENE		5.9	U		6.2	U		6.3	U		5.9	U	
METHYL ACETATE		5.9	U		6.2	U		6.3	U		5.9	U	

PROJ_NO: 00622	NSAMPLE	BPS1-3003-SB-061M			BPS1-3003-SB-111M			BPS1-3003-SB-116M			BPS1-3003-SB-121M		
SDG: H0885	LAB_ID	H0885-06B			H0885-08B			H0885-09B			H0885-10B		
FRACTION: OV	SAMP_DATE	5/18/2009			5/19/2009			5/19/2009			5/19/2009		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	85.0			81.0			79.0			81.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL CYCLOHEXANE		5.9	U		6.2	U		6.3	U		5.9	U	
METHYL TERT-BUTYL ETHER		5.9	U		6.2	U		6.3	U		5.9	U	
METHYLENE CHLORIDE		5.9	U		6.2	U		6.3	U		5.9	U	
STYRENE		5.9	U		6.2	U		6.3	U		5.9	U	
TETRACHLOROETHENE		5.9	U		6.2	U		6.3	U		5.9	U	
TOLUENE		5.9	U		6.2	U		6.3	U		5.9	U	
TOTAL XYLENES		5.9	U		6.2	U		6.3	U		5.9	U	
TRANS-1,2-DICHLOROETHENE		5.9	U		6.2	U		6.3	U		5.9	U	
TRANS-1,3-DICHLOROPROPENE		5.9	U		6.2	U		6.3	U		5.9	U	
TRICHLOROETHENE		5.9	U		6.2	U		6.3	U		5.9	U	
TRICHLOROFLUOROMETHANE		5.9	U		6.2	U		6.3	U		5.9	U	
VINYL CHLORIDE		5.9	U		6.2	U		6.3	U		5.9	U	

PROJ_NO: 00622	NSAMPLE	BPS1-3003-SB-041M			BPS1-3003-SB-051M			BPS1-3003-SB-061M			BPS1-3003-SB-111M		
SDG: H0885	LAB_ID	H0885-02A			H0885-04A			H0885-06A			H0885-08A		
FRACTION: PEST/PCB	SAMP_DATE	5/18/2009			5/18/2009			5/18/2009			5/19/2009		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	83.0			87.0			85.0			81.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		39	U		38	U		38	U		40	U	
AROCLOR-1221		39	U		38	U		38	U		40	U	
AROCLOR-1232		39	U		38	U		38	U		40	U	
AROCLOR-1242		39	U		38	U		38	U		40	U	
AROCLOR-1248		39	U		38	U		38	U		40	U	
AROCLOR-1254		39	U		38	U		38	U		40	U	
AROCLOR-1260		39	U		38	U		38	U		40	U	

PROJ_NO: 00622	NSAMPLE	BPS1-3003-SB-116M			BPS1-3003-SB-121M		
SDG: H0885	LAB_ID	H0885-09A			H0885-10A		
FRACTION: PEST/PCB	SAMP_DATE	5/19/2009			5/19/2009		
MEDIA: SOIL	QC_TYPE	NM			NM		
	UNITS	UG/KG			UG/KG		
	PCT_SOLIDS	79.0			81.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		41	U		41	U	
AROCLOR-1221		41	U		41	U	
AROCLOR-1232		41	U		41	U	
AROCLOR-1242		41	U		41	U	
AROCLOR-1248		41	U		41	U	
AROCLOR-1254		41	U		41	U	
AROCLOR-1260		41	U		41	U	

Appendix B

Results as Reported by the Laboratory

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BPS1-3003-GW-091 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: H0885-07A

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V6G6978.D

Level: (TRACE/LOW/MED) LOW Date Received: 05/20/2009

% Moisture: not dec. Date Analyzed: 05/22/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	5.0	U
75-09-2	Methylene chloride	5.0	U
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-butyl ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
78-93-3	2-Butanone	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
67-66-3	Chloroform	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
71-43-2	Benzene	5.0	U
79-01-6	Trichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
1330-20-7	Xylene (Total)	5.0	U

SW846

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BPS1-3003-GW-091 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: H0885-07A

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V6G6978.D

Level: (TRACE/LOW/MED) LOW Date Received: 05/20/2009

% Moisture: not dec. Date Analyzed: 05/22/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U
110-82-7	Cyclohexane	5.0	U
79-20-9	Methyl acetate	5.0	U
108-87-2	Methylcyclohexane	5.0	U

SW846

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
BPS1-3003-GW-091 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: H0885-07A

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V6G6978.D

Level: (TRACE or LOW/MED) LOW Date Received: 05/20/2009

% Moisture: not dec. Date Analyzed: 05/22/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Purge Volume: 5.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

SW846

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BPS1-3003-GW-131 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: H0885-11A

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V6G6979.D

Level: (TRACE/LOW/MED) LOW Date Received: 05/20/2009

% Moisture: not dec. Date Analyzed: 05/22/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	5.0	U
75-09-2	Methylene chloride	5.0	U
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-butyl ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
78-93-3	2-Butanone	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
67-66-3	Chloroform	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
71-43-2	Benzene	5.0	U
79-01-6	Trichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
1330-20-7	Xylene (Total)	5.0	U

SW846

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BPS1-3003-GW-131 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: H0885-11A

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V6G6979.D

Level: (TRACE/LOW/MED) LOW Date Received: 05/20/2009

% Moisture: not dec. Date Analyzed: 05/22/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U
110-82-7	Cyclohexane	5.0	U
79-20-9	Methyl acetate	5.0	U
108-87-2	Methylcyclohexane	5.0	U

SW846

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
BPS1-3003-GW-131 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: H0885-11A

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V6G6979.D

Level: (TRACE or LOW/MED) LOW Date Received: 05/20/2009

% Moisture: not dec. Date Analyzed: 05/22/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Purge Volume: 5.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796 [1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

SW846

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BPS1-TB-051809M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: H0885-01A

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V6G6977.D

Level: (TRACE/LOW/MED) LOW Date Received: 05/20/2009

% Moisture: not dec. Date Analyzed: 05/22/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	5.0	U
75-09-2	Methylene chloride	5.0	U
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-butyl ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
78-93-3	2-Butanone	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
67-66-3	Chloroform	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
71-43-2	Benzene	5.0	U
79-01-6	Trichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
1330-20-7	Xylene (Total)	5.0	U

SW846

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BPS1-TB-051809M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: H0885-01A

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V6G6977.D

Level: (TRACE/LOW/MED) LOW Date Received: 05/20/2009

% Moisture: not dec. Date Analyzed: 05/22/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U
110-82-7	Cyclohexane	5.0	U
79-20-9	Methyl acetate	5.0	U
108-87-2	Methylcyclohexane	5.0	U

SW846

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BPS1-TB-051809M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: H0885-01A

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V6G6977.D

Level: (TRACE or LOW/MED) LOW Date Received: 05/20/2009

% Moisture: not dec. Date Analyzed: 05/22/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Purge Volume: 5.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BPS1-3003-SB-041 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0885-02B

Sample wt/vol: 5.10 (g/mL) G Lab File ID: V1K6888.D

Level: (TRACE/LOW/MED) LOW Date Received: 05/20/2009

% Moisture: not dec. 17 Date Analyzed: 05/22/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	5.9	U
74-87-3	Chloromethane	5.9	U
75-01-4	Vinyl chloride	5.9	U
74-83-9	Bromomethane	5.9	U
75-00-3	Chloroethane	5.9	U
75-69-4	Trichlorofluoromethane	5.9	U
75-35-4	1,1-Dichloroethene	5.9	U
67-64-1	Acetone	5.9	U
75-15-0	Carbon disulfide	5.9	U
75-09-2	Methylene chloride	5.9	U
156-60-5	trans-1,2-Dichloroethene	5.9	U
1634-04-4	Methyl tert-butyl ether	5.9	U
75-34-3	1,1-Dichloroethane	5.9	U
78-93-3	2-Butanone	5.9	U
156-59-2	cis-1,2-Dichloroethene	5.9	U
67-66-3	Chloroform	5.9	U
71-55-6	1,1,1-Trichloroethane	5.9	U
56-23-5	Carbon tetrachloride	5.9	U
107-06-2	1,2-Dichloroethane	5.9	U
71-43-2	Benzene	5.9	U
79-01-6	Trichloroethene	5.9	U
78-87-5	1,2-Dichloropropane	5.9	U
75-27-4	Bromodichloromethane	5.9	U
10061-01-5	cis-1,3-Dichloropropene	5.9	U
108-10-1	4-Methyl-2-pentanone	5.9	U
108-88-3	Toluene	5.9	U
10061-02-6	trans-1,3-Dichloropropene	5.9	U
79-00-5	1,1,2-Trichloroethane	5.9	U
127-18-4	Tetrachloroethene	5.9	U
591-78-6	2-Hexanone	5.9	U
124-48-1	Dibromochloromethane	5.9	U
106-93-4	1,2-Dibromoethane	5.9	U
108-90-7	Chlorobenzene	5.9	U
100-41-4	Ethylbenzene	5.9	U
1330-20-7	Xylene (Total)	5.9	U

SW846

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BPS1-3003-SB-041 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0885-02B

Sample wt/vol: 5.10 (g/mL) G Lab File ID: V1K6888.D

Level: (TRACE/LOW/MED) LOW Date Received: 05/20/2009

% Moisture: not dec. 17 Date Analyzed: 05/22/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-42-5	Styrene	5.9	U
75-25-2	Bromoform	5.9	U
98-82-8	Isopropylbenzene	5.9	U
79-34-5	1,1,2,2-Tetrachloroethane	5.9	U
541-73-1	1,3-Dichlorobenzene	5.9	U
106-46-7	1,4-Dichlorobenzene	5.9	U
95-50-1	1,2-Dichlorobenzene	5.9	U
96-12-8	1,2-Dibromo-3-chloropropane	5.9	U
120-82-1	1,2,4-Trichlorobenzene	5.9	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.9	U
110-82-7	Cyclohexane	5.9	U
79-20-9	Methyl acetate	5.9	U
108-87-2	Methylcyclohexane	5.9	U

SW846

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
BPS1-3003-SB-041 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0885-02B

Sample wt/vol: 5.10 (g/mL) G Lab File ID: V1K6888.D

Level: (TRACE or LOW/MED) LOW Date Received: 05/20/2009

% Moisture: not dec. 17 Date Analyzed: 05/22/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

SW846

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BPS1-3003-SB-046 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0885-03A

Sample wt/vol: 5.10 (g/mL) G Lab File ID: V1K6889.D

Level: (TRACE/LOW/MED) LOW Date Received: 05/20/2009

% Moisture: not dec. 20 Date Analyzed: 05/22/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	6.1	U
74-87-3	Chloromethane	6.1	U
75-01-4	Vinyl chloride	6.1	U
74-83-9	Bromomethane	6.1	U
75-00-3	Chloroethane	6.1	U
75-69-4	Trichlorofluoromethane	6.1	U
75-35-4	1,1-Dichloroethene	6.1	U
67-64-1	Acetone	6.1	U
75-15-0	Carbon disulfide	6.1	U
75-09-2	Methylene chloride	6.1	U
156-60-5	trans-1,2-Dichloroethene	6.1	U
1634-04-4	Methyl tert-butyl ether	6.1	U
75-34-3	1,1-Dichloroethane	6.1	U
78-93-3	2-Butanone	6.1	U
156-59-2	cis-1,2-Dichloroethene	6.1	U
67-66-3	Chloroform	6.1	U
71-55-6	1,1,1-Trichloroethane	6.1	U
56-23-5	Carbon tetrachloride	6.1	U
107-06-2	1,2-Dichloroethane	6.1	U
71-43-2	Benzene	6.1	U
79-01-6	Trichloroethene	6.1	U
78-87-5	1,2-Dichloropropane	6.1	U
75-27-4	Bromodichloromethane	6.1	U
10061-01-5	cis-1,3-Dichloropropene	6.1	U
108-10-1	4-Methyl-2-pentanone	6.1	U
108-88-3	Toluene	6.1	U
10061-02-6	trans-1,3-Dichloropropene	6.1	U
79-00-5	1,1,2-Trichloroethane	6.1	U
127-18-4	Tetrachloroethene	6.1	U
591-78-6	2-Hexanone	6.1	U
124-48-1	Dibromochloromethane	6.1	U
106-93-4	1,2-Dibromoethane	6.1	U
108-90-7	Chlorobenzene	6.1	U
100-41-4	Ethylbenzene	6.1	U
1330-20-7	Xylene (Total)	6.1	U

SW846

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BPS1-3003-SB-046 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0885-03A

Sample wt/vol: 5.10 (g/mL) G Lab File ID: V1K6889.D

Level: (TRACE/LOW/MED) LOW Date Received: 05/20/2009

% Moisture: not dec. 20 Date Analyzed: 05/22/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-42-5	Styrene	6.1	U
75-25-2	Bromoform	6.1	U
98-82-8	Isopropylbenzene	6.1	U
79-34-5	1,1,2,2-Tetrachloroethane	6.1	U
541-73-1	1,3-Dichlorobenzene	6.1	U
106-46-7	1,4-Dichlorobenzene	6.1	U
95-50-1	1,2-Dichlorobenzene	6.1	U
96-12-8	1,2-Dibromo-3-chloropropane	6.1	U
120-82-1	1,2,4-Trichlorobenzene	6.1	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	6.1	U
110-82-7	Cyclohexane	6.1	U
79-20-9	Methyl acetate	6.1	U
108-87-2	Methylcyclohexane	6.1	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
BPS1-3003-SB-046
M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0885-03A

Sample wt/vol: 5.10 (g/mL) G Lab File ID: V1K6889.D

Level: (TRACE or LOW/MED) LOW Date Received: 05/20/2009

% Moisture: not dec. 20 Date Analyzed: 05/22/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

SW846

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BPS1-3003-SB-051 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0885-04B

Sample wt/vol: 5.10 (g/mL) G Lab File ID: V1K6890.D

Level: (TRACE/LOW/MED) LOW Date Received: 05/20/2009

% Moisture: not dec. 13 Date Analyzed: 05/22/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	5.6	U
74-87-3	Chloromethane	5.6	U
75-01-4	Vinyl chloride	5.6	U
74-83-9	Bromomethane	5.6	U
75-00-3	Chloroethane	5.6	U
75-69-4	Trichlorofluoromethane	5.6	U
75-35-4	1,1-Dichloroethene	5.6	U
67-64-1	Acetone	5.6	U
75-15-0	Carbon disulfide	5.6	U
75-09-2	Methylene chloride	5.6	U
156-60-5	trans-1,2-Dichloroethene	5.6	U
1634-04-4	Methyl tert-butyl ether	5.6	U
75-34-3	1,1-Dichloroethane	5.6	U
78-93-3	2-Butanone	5.6	U
156-59-2	cis-1,2-Dichloroethene	5.6	U
67-66-3	Chloroform	5.6	U
71-55-6	1,1,1-Trichloroethane	5.6	U
56-23-5	Carbon tetrachloride	5.6	U
107-06-2	1,2-Dichloroethane	5.6	U
71-43-2	Benzene	5.6	U
79-01-6	Trichloroethene	5.6	U
78-87-5	1,2-Dichloropropane	5.6	U
75-27-4	Bromodichloromethane	5.6	U
10061-01-5	cis-1,3-Dichloropropene	5.6	U
108-10-1	4-Methyl-2-pentanone	5.6	U
108-88-3	Toluene	5.6	U
10061-02-6	trans-1,3-Dichloropropene	5.6	U
79-00-5	1,1,2-Trichloroethane	5.6	U
127-18-4	Tetrachloroethene	5.6	U
591-78-6	2-Hexanone	5.6	U
124-48-1	Dibromochloromethane	5.6	U
106-93-4	1,2-Dibromoethane	5.6	U
108-90-7	Chlorobenzene	5.6	U
100-41-4	Ethylbenzene	5.6	U
1330-20-7	Xylene (Total)	5.6	U

SW846

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BPS1-3003-SB-051 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0885-04B

Sample wt/vol: 5.10 (g/mL) G Lab File ID: V1K6890.D

Level: (TRACE/LOW/MED) LOW Date Received: 05/20/2009

% Moisture: not dec. 13 Date Analyzed: 05/22/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-42-5	Styrene	5.6	U
75-25-2	Bromoform	5.6	U
98-82-8	Isopropylbenzene	5.6	U
79-34-5	1,1,2,2-Tetrachloroethane	5.6	U
541-73-1	1,3-Dichlorobenzene	5.6	U
106-46-7	1,4-Dichlorobenzene	5.6	U
95-50-1	1,2-Dichlorobenzene	5.6	U
96-12-8	1,2-Dibromo-3-chloropropane	5.6	U
120-82-1	1,2,4-Trichlorobenzene	5.6	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.6	U
110-82-7	Cyclohexane	5.6	U
79-20-9	Methyl acetate	5.6	U
108-87-2	Methylcyclohexane	5.6	U

SW846

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
BPS1-3003-SB-051 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0885-04B

Sample wt/vol: 5.10 (g/mL) G Lab File ID: V1K6890.D

Level: (TRACE or LOW/MED) LOW Date Received: 05/20/2009

% Moisture: not dec. 13 Date Analyzed: 05/22/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Purge Volume: 10.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01	629-59-4	Tetradecane	16.307	19	NJ
02		Unknown-01	16.750	6.6	J
03	3892-00-0	Pentadecane, 2,6,10-trimethy	16.898	8.1	NJ
04		Unknown-02	16.977	5.6	J
05	629-62-9	Pentadecane	17.243	12	NJ
	E966796[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BPS1-3003-SB-056 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0885-05A

Sample wt/vol: 5.10 (g/mL) G Lab File ID: V1K6891.D

Level: (TRACE/LOW/MED) LOW Date Received: 05/20/2009

% Moisture: not dec. 12 Date Analyzed: 05/22/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	5.6	U
74-87-3	Chloromethane	5.6	U
75-01-4	Vinyl chloride	5.6	U
74-83-9	Bromomethane	5.6	U
75-00-3	Chloroethane	5.6	U
75-69-4	Trichlorofluoromethane	5.6	U
75-35-4	1,1-Dichloroethene	5.6	U
67-64-1	Acetone	5.6	U
75-15-0	Carbon disulfide	5.6	U
75-09-2	Methylene chloride	5.6	U
156-60-5	trans-1,2-Dichloroethene	5.6	U
1634-04-4	Methyl tert-butyl ether	5.6	U
75-34-3	1,1-Dichloroethane	5.6	U
78-93-3	2-Butanone	5.6	U
156-59-2	cis-1,2-Dichloroethene	5.6	U
67-66-3	Chloroform	5.6	U
71-55-6	1,1,1-Trichloroethane	5.6	U
56-23-5	Carbon tetrachloride	5.6	U
107-06-2	1,2-Dichloroethane	5.6	U
71-43-2	Benzene	5.6	U
79-01-6	Trichloroethene	5.6	U
78-87-5	1,2-Dichloropropane	5.6	U
75-27-4	Bromodichloromethane	5.6	U
10061-01-5	cis-1,3-Dichloropropene	5.6	U
108-10-1	4-Methyl-2-pentanone	5.6	U
108-88-3	Toluene	5.6	U
10061-02-6	trans-1,3-Dichloropropene	5.6	U
79-00-5	1,1,2-Trichloroethane	5.6	U
127-18-4	Tetrachloroethene	5.6	U
591-78-6	2-Hexanone	5.6	U
124-48-1	Dibromochloromethane	5.6	U
106-93-4	1,2-Dibromoethane	5.6	U
108-90-7	Chlorobenzene	5.6	U
100-41-4	Ethylbenzene	5.6	U
1330-20-7	Xylene (Total)	5.6	U

SW846

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BPS1-3003-SB-056 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0885-05A

Sample wt/vol: 5.10 (g/mL) G Lab File ID: V1K6891.D

Level: (TRACE/LOW/MED) LOW Date Received: 05/20/2009

% Moisture: not dec. 12 Date Analyzed: 05/22/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-42-5	Styrene	5.6	U
75-25-2	Bromoform	5.6	U
98-82-8	Isopropylbenzene	5.6	U
79-34-5	1,1,2,2-Tetrachloroethane	5.6	U
541-73-1	1,3-Dichlorobenzene	5.6	U
106-46-7	1,4-Dichlorobenzene	5.6	U
95-50-1	1,2-Dichlorobenzene	5.6	U
96-12-8	1,2-Dibromo-3-chloropropane	5.6	U
120-82-1	1,2,4-Trichlorobenzene	5.6	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.6	U
110-82-7	Cyclohexane	5.6	U
79-20-9	Methyl acetate	5.6	U
108-87-2	Methylcyclohexane	5.6	U

SW846

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
BPS1-3003-SB-056 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0885-05A

Sample wt/vol: 5.10 (g/mL) G Lab File ID: V1K6891.D

Level: (TRACE or LOW/MED) LOW Date Received: 05/20/2009

% Moisture: not dec. 12 Date Analyzed: 05/22/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

SW846

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BPS1-3003-SB-061 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0885-06B

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V1K6918.D

Level: (TRACE/LOW/MED) LOW Date Received: 05/20/2009

% Moisture: not dec. 15 Date Analyzed: 05/23/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	5.9	U
74-87-3	Chloromethane	5.9	U
75-01-4	Vinyl chloride	5.9	U
74-83-9	Bromomethane	5.9	U
75-00-3	Chloroethane	5.9	U
75-69-4	Trichlorofluoromethane	5.9	U
75-35-4	1,1-Dichloroethene	5.9	U
67-64-1	Acetone	5.9	U
75-15-0	Carbon disulfide	5.9	U
75-09-2	Methylene chloride	5.9	U
156-60-5	trans-1,2-Dichloroethene	5.9	U
1634-04-4	Methyl tert-butyl ether	5.9	U
75-34-3	1,1-Dichloroethane	5.9	U
78-93-3	2-Butanone	5.9	U
156-59-2	cis-1,2-Dichloroethene	5.9	U
67-66-3	Chloroform	5.9	U
71-55-6	1,1,1-Trichloroethane	5.9	U
56-23-5	Carbon tetrachloride	5.9	U
107-06-2	1,2-Dichloroethane	5.9	U
71-43-2	Benzene	5.9	U
79-01-6	Trichloroethene	5.9	U
78-87-5	1,2-Dichloropropane	5.9	U
75-27-4	Bromodichloromethane	5.9	U
10061-01-5	cis-1,3-Dichloropropene	5.9	U
108-10-1	4-Methyl-2-pentanone	5.9	U
108-88-3	Toluene	5.9	U
10061-02-6	trans-1,3-Dichloropropene	5.9	U
79-00-5	1,1,2-Trichloroethane	5.9	U
127-18-4	Tetrachloroethene	5.9	U
591-78-6	2-Hexanone	5.9	U
124-48-1	Dibromochloromethane	5.9	U
106-93-4	1,2-Dibromoethane	5.9	U
108-90-7	Chlorobenzene	5.9	U
100-41-4	Ethylbenzene	5.9	U
1330-20-7	Xylene (Total)	5.9	U

SW846

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BPS1-3003-SB-061 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0885-06B

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V1K6918.D

Level: (TRACE/LOW/MED) LOW Date Received: 05/20/2009

% Moisture: not dec. 15 Date Analyzed: 05/23/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-42-5	Styrene	5.9	U
75-25-2	Bromoform	5.9	U
98-82-8	Isopropylbenzene	5.9	U
79-34-5	1,1,2,2-Tetrachloroethane	5.9	U
541-73-1	1,3-Dichlorobenzene	5.9	U
106-46-7	1,4-Dichlorobenzene	5.9	U
95-50-1	1,2-Dichlorobenzene	5.9	U
96-12-8	1,2-Dibromo-3-chloropropane	5.9	U
120-82-1	1,2,4-Trichlorobenzene	5.9	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.9	U
110-82-7	Cyclohexane	5.9	U
79-20-9	Methyl acetate	5.9	U
108-87-2	Methylcyclohexane	5.9	U

SW846

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
BPS1-3003-SB-061 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0885-06B

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V1K6918.D

Level: (TRACE or LOW/MED) LOW Date Received: 05/20/2009

% Moisture: not dec. 15 Date Analyzed: 05/23/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796 [1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

SW846

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BPS1-3003-SB-111 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0885-08B

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V1K6919.D

Level: (TRACE/LOW/MED) LOW Date Received: 05/20/2009

% Moisture: not dec. 19 Date Analyzed: 05/23/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	6.2	U
74-87-3	Chloromethane	6.2	U
75-01-4	Vinyl chloride	6.2	U
74-83-9	Bromomethane	6.2	U
75-00-3	Chloroethane	6.2	U
75-69-4	Trichlorofluoromethane	6.2	U
75-35-4	1,1-Dichloroethene	6.2	U
67-64-1	Acetone	6.2	U
75-15-0	Carbon disulfide	6.2	U
75-09-2	Methylene chloride	6.2	U
156-60-5	trans-1,2-Dichloroethene	6.2	U
1634-04-4	Methyl tert-butyl ether	6.2	U
75-34-3	1,1-Dichloroethane	6.2	U
78-93-3	2-Butanone	6.2	U
156-59-2	cis-1,2-Dichloroethene	6.2	U
67-66-3	Chloroform	6.2	U
71-55-6	1,1,1-Trichloroethane	6.2	U
56-23-5	Carbon tetrachloride	6.2	U
107-06-2	1,2-Dichloroethane	6.2	U
71-43-2	Benzene	6.2	U
79-01-6	Trichloroethene	6.2	U
78-87-5	1,2-Dichloropropane	6.2	U
75-27-4	Bromodichloromethane	6.2	U
10061-01-5	cis-1,3-Dichloropropene	6.2	U
108-10-1	4-Methyl-2-pentanone	6.2	U
108-88-3	Toluene	6.2	U
10061-02-6	trans-1,3-Dichloropropene	6.2	U
79-00-5	1,1,2-Trichloroethane	6.2	U
127-18-4	Tetrachloroethene	6.2	U
591-78-6	2-Hexanone	6.2	U
124-48-1	Dibromochloromethane	6.2	U
106-93-4	1,2-Dibromoethane	6.2	U
108-90-7	Chlorobenzene	6.2	U
100-41-4	Ethylbenzene	6.2	U
1330-20-7	Xylene (Total)	6.2	U

SW846

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BPS1-3003-SB-111 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0885-08B

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V1K6919.D

Level: (TRACE/LOW/MED) LOW Date Received: 05/20/2009

% Moisture: not dec. 19 Date Analyzed: 05/23/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-42-5	Styrene	6.2	U
75-25-2	Bromoform	6.2	U
98-82-8	Isopropylbenzene	6.2	U
79-34-5	1,1,2,2-Tetrachloroethane	6.2	U
541-73-1	1,3-Dichlorobenzene	6.2	U
106-46-7	1,4-Dichlorobenzene	6.2	U
95-50-1	1,2-Dichlorobenzene	6.2	U
96-12-8	1,2-Dibromo-3-chloropropane	6.2	U
120-82-1	1,2,4-Trichlorobenzene	6.2	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	6.2	U
110-82-7	Cyclohexane	6.2	U
79-20-9	Methyl acetate	6.2	U
108-87-2	Methylcyclohexane	6.2	U

SW846

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
BPS1-3003-SB-111 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0885-08B

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V1K6919.D

Level: (TRACE or LOW/MED) LOW Date Received: 05/20/2009

% Moisture: not dec. 19 Date Analyzed: 05/23/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796 [1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

SW846

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BPS1-3003-SB-116 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0885-09B

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V1K6920.D

Level: (TRACE/LOW/MED) LOW Date Received: 05/20/2009

% Moisture: not dec. 21 Date Analyzed: 05/23/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	6.3	U
74-87-3	Chloromethane	6.3	U
75-01-4	Vinyl chloride	6.3	U
74-83-9	Bromomethane	6.3	U
75-00-3	Chloroethane	6.3	U
75-69-4	Trichlorofluoromethane	6.3	U
75-35-4	1,1-Dichloroethene	6.3	U
67-64-1	Acetone	6.3	U
75-15-0	Carbon disulfide	6.3	U
75-09-2	Methylene chloride	6.3	U
156-60-5	trans-1,2-Dichloroethene	6.3	U
1634-04-4	Methyl tert-butyl ether	6.3	U
75-34-3	1,1-Dichloroethane	6.3	U
78-93-3	2-Butanone	6.3	U
156-59-2	cis-1,2-Dichloroethene	6.3	U
67-66-3	Chloroform	6.3	U
71-55-6	1,1,1-Trichloroethane	6.3	U
56-23-5	Carbon tetrachloride	6.3	U
107-06-2	1,2-Dichloroethane	6.3	U
71-43-2	Benzene	6.3	U
79-01-6	Trichloroethene	6.3	U
78-87-5	1,2-Dichloropropane	6.3	U
75-27-4	Bromodichloromethane	6.3	U
10061-01-5	cis-1,3-Dichloropropene	6.3	U
108-10-1	4-Methyl-2-pentanone	6.3	U
108-88-3	Toluene	6.3	U
10061-02-6	trans-1,3-Dichloropropene	6.3	U
79-00-5	1,1,2-Trichloroethane	6.3	U
127-18-4	Tetrachloroethene	6.3	U
591-78-6	2-Hexanone	6.3	U
124-48-1	Dibromochloromethane	6.3	U
106-93-4	1,2-Dibromoethane	6.3	U
108-90-7	Chlorobenzene	6.3	U
100-41-4	Ethylbenzene	6.3	U
1330-20-7	Xylene (Total)	6.3	U

SW846

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BPS1-3003-SB-116 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0885-09B

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V1K6920.D

Level: (TRACE/LOW/MED) LOW Date Received: 05/20/2009

% Moisture: not dec. 21 Date Analyzed: 05/23/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-42-5	Styrene	6.3	U
75-25-2	Bromoform	6.3	U
98-82-8	Isopropylbenzene	6.3	U
79-34-5	1,1,2,2-Tetrachloroethane	6.3	U
541-73-1	1,3-Dichlorobenzene	6.3	U
106-46-7	1,4-Dichlorobenzene	6.3	U
95-50-1	1,2-Dichlorobenzene	6.3	U
96-12-8	1,2-Dibromo-3-chloropropane	6.3	U
120-82-1	1,2,4-Trichlorobenzene	6.3	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	6.3	U
110-82-7	Cyclohexane	6.3	U
79-20-9	Methyl acetate	6.3	U
108-87-2	Methylcyclohexane	6.3	U

SW846

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
BPS1-3003-SB-116 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0885-09B

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V1K6920.D

Level: (TRACE or LOW/MED) LOW Date Received: 05/20/2009

% Moisture: not dec. 21 Date Analyzed: 05/23/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

SW846

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BPS1-3003-SB-121 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0885-10B

Sample wt/vol: 5.20 (g/mL) G Lab File ID: V1K6921.D

Level: (TRACE/LOW/MED) LOW Date Received: 05/20/2009

% Moisture: not dec. 19 Date Analyzed: 05/23/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	5.9	U
74-87-3	Chloromethane	5.9	U
75-01-4	Vinyl chloride	5.9	U
74-83-9	Bromomethane	5.9	U
75-00-3	Chloroethane	5.9	U
75-69-4	Trichlorofluoromethane	5.9	U
75-35-4	1,1-Dichloroethene	5.9	U
67-64-1	Acetone	5.9	U
75-15-0	Carbon disulfide	5.9	U
75-09-2	Methylene chloride	5.9	U
156-60-5	trans-1,2-Dichloroethene	5.9	U
1634-04-4	Methyl tert-butyl ether	5.9	U
75-34-3	1,1-Dichloroethane	5.9	U
78-93-3	2-Butanone	5.9	U
156-59-2	cis-1,2-Dichloroethene	5.9	U
67-66-3	Chloroform	5.9	U
71-55-6	1,1,1-Trichloroethane	5.9	U
56-23-5	Carbon tetrachloride	5.9	U
107-06-2	1,2-Dichloroethane	5.9	U
71-43-2	Benzene	5.9	U
79-01-6	Trichloroethene	5.9	U
78-87-5	1,2-Dichloropropane	5.9	U
75-27-4	Bromodichloromethane	5.9	U
10061-01-5	cis-1,3-Dichloropropene	5.9	U
108-10-1	4-Methyl-2-pentanone	5.9	U
108-88-3	Toluene	5.9	U
10061-02-6	trans-1,3-Dichloropropene	5.9	U
79-00-5	1,1,2-Trichloroethane	5.9	U
127-18-4	Tetrachloroethene	5.9	U
591-78-6	2-Hexanone	5.9	U
124-48-1	Dibromochloromethane	5.9	U
106-93-4	1,2-Dibromoethane	5.9	U
108-90-7	Chlorobenzene	5.9	U
100-41-4	Ethylbenzene	5.9	U
1330-20-7	Xylene (Total)	5.9	U

SW846

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BPS1-3003-SB-121 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0885-10B

Sample wt/vol: 5.20 (g/mL) G Lab File ID: V1K6921.D

Level: (TRACE/LOW/MED) LOW Date Received: 05/20/2009

% Moisture: not dec. 19 Date Analyzed: 05/23/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-42-5	Styrene	5.9	U
75-25-2	Bromoform	5.9	U
98-82-8	Isopropylbenzene	5.9	U
79-34-5	1,1,2,2-Tetrachloroethane	5.9	U
541-73-1	1,3-Dichlorobenzene	5.9	U
106-46-7	1,4-Dichlorobenzene	5.9	U
95-50-1	1,2-Dichlorobenzene	5.9	U
96-12-8	1,2-Dibromo-3-chloropropane	5.9	U
120-82-1	1,2,4-Trichlorobenzene	5.9	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.9	U
110-82-7	Cyclohexane	5.9	U
79-20-9	Methyl acetate	5.9	U
108-87-2	Methylcyclohexane	5.9	U

SW846

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
BPS1-3003-SB-121 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0885-10B

Sample wt/vol: 5.20 (g/mL) G Lab File ID: V1K6921.D

Level: (TRACE or LOW/MED) LOW Date Received: 05/20/2009

% Moisture: not dec. 19 Date Analyzed: 05/23/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

SW846

1H - FORM I ARO

AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BPS1-3003-SB-041 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0885-02A

Sample wt/vol: 30.5 (g/mL) G Lab File ID: E1H6166F.D/E1H6166R.D

% Moisture: 17 Decanted: (Y/N) N Date Received: 05/20/2009

Extraction: (Type) SONC Date Extracted: 05/21/2009

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 05/26/2009

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) Y

Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	39	U
11104-28-2	Aroclor-1221	39	U
11141-16-5	Aroclor-1232	39	U
53469-21-9	Aroclor-1242	39	U
12672-29-6	Aroclor-1248	39	U
11097-69-1	Aroclor-1254	39	U
11096-82-5	Aroclor-1260	39	U

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1H - FORM I ARO

AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BPS1-3003-SB-051 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0885-04A

Sample wt/vol: 30.2 (g/mL) G Lab File ID: E1H6167F.D/E1H6167R.D

% Moisture: 13 Decanted: (Y/N) N Date Received: 05/20/2009

Extraction: (Type) SONC Date Extracted: 05/21/2009

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 05/26/2009

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) Y

Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	38	U
11104-28-2	Aroclor-1221	38	U
11141-16-5	Aroclor-1232	38	U
53469-21-9	Aroclor-1242	38	U
12672-29-6	Aroclor-1248	38	U
11097-69-1	Aroclor-1254	38	U
11096-82-5	Aroclor-1260	38	U

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1H - FORM I ARO

AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BPS1-3003-SB-061 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0885-06A

Sample wt/vol: 30.3 (g/mL) G Lab File ID: E1H6168F.D/E1H6168R.D

% Moisture: 15 Decanted: (Y/N) N Date Received: 05/20/2009

Extraction: (Type) SONC Date Extracted: 05/21/2009

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 05/26/2009

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) Y

Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	38	U
11104-28-2	Aroclor-1221	38	U
11141-16-5	Aroclor-1232	38	U
53469-21-9	Aroclor-1242	38	U
12672-29-6	Aroclor-1248	38	U
11097-69-1	Aroclor-1254	38	U
11096-82-5	Aroclor-1260	38	U

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1H - FORM I ARO

AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BPS1-3003-SB-111 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0885-08A

Sample wt/vol: 30.5 (g/mL) G Lab File ID: E1H6169F.D/E1H6169R.D

% Moisture: 19 Decanted: (Y/N) N Date Received: 05/20/2009

Extraction: (Type) SONC Date Extracted: 05/21/2009

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 05/26/2009

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) Y

Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	40	U
11104-28-2	Aroclor-1221	40	U
11141-16-5	Aroclor-1232	40	U
53469-21-9	Aroclor-1242	40	U
12672-29-6	Aroclor-1248	40	U
11097-69-1	Aroclor-1254	40	U
11096-82-5	Aroclor-1260	40	U

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1H - FORM I ARO

AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BPS1-3003-SB-116 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0885-09A

Sample wt/vol: 30.4 (g/mL) G Lab File ID: E1H6170F.D/E1H6170R.D

% Moisture: 21 Decanted: (Y/N) N Date Received: 05/20/2009

Extraction: (Type) SONC Date Extracted: 05/21/2009

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 05/26/2009

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) Y

Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	41	U
11104-28-2	Aroclor-1221	41	U
11141-16-5	Aroclor-1232	41	U
53469-21-9	Aroclor-1242	41	U
12672-29-6	Aroclor-1248	41	U
11097-69-1	Aroclor-1254	41	U
11096-82-5	Aroclor-1260	41	U

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1H - FORM I ARO

AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BPS1-3003-SB-121 M

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: H0885-10A

Sample wt/vol: 30.1 (g/mL) G Lab File ID: E1H6171F.D/E1H6171R.D

% Moisture: 19 Decanted: (Y/N) N Date Received: 05/20/2009

Extraction: (Type) SONC Date Extracted: 05/21/2009

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 05/26/2009

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) Y

Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	41	U
11104-28-2	Aroclor-1221	41	U
11141-16-5	Aroclor-1232	41	U
53469-21-9	Aroclor-1242	41	U
12672-29-6	Aroclor-1248	41	U
11097-69-1	Aroclor-1254	41	U
11096-82-5	Aroclor-1260	41	U

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Appendix C

Region II Data Validation Forms

USEPA
Hazardous Waste Support Branch
Validating Volatile Organic Compounds
By Gas Chromatography/Mass Spectrometry
SW-846 Method 8260B

Prepared by: _____ Date: 12/8/06
George Karras, Chemist
Hazardous Waste Support Section

Prepared by: _____ Date: 12/8/06
Russell Amone, Chemist
Hazardous Waste Support Section

Concurred by: _____ Date: 12/8/06
Linda Mauel, Chief
Hazardous Waste Support Section

Approved by: _____ Date: 12/11/06
Robert Runyon, Chief
Hazardous Waste Support Branch

Annual Review

Reviewed by: Ann Cognetti Date: June 17, 2009
Name

Reviewed by: _____ Date: _____
Name

Scope and Applicability

This SOP offers detailed guidance in evaluating laboratory data generated according to the USEPA SW-846, Method 8260B December 1996. The validation methods and actions discussed in this document are based on the requirements set forth in USEPA SW-846, Method 8260B and Method 8000C, Rev 3, March 2003; and "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review," January, 2005. This document covers technical as well as method specific problems; however situations may arise where data limitations must be assessed based on the reviewer's own professional judgement.

Summary

To ensure a thorough evaluation of each result in a data case, the reviewer must complete the checklist within this SOP, answering specific questions while performing the prescribed "ACTIONS" in each section. Qualifiers (or flags) are applied to questionable or unusable results as instructed. The data qualifiers discussed in this document are defined on page 4.

The reviewer must prepare a detailed data assessment to be submitted along with the complete SOP checklist. The Data Assessment must list all data qualifications, reasons for qualifications, instances of missing data, and contract non-compliance.

DEFINITIONS

Acronyms

BNA - base neutral acid(another name for Semi Volatiles)
CLP - Contract Laboratory Program
CRQL - Contract Required Quantitation Limit
CF - calibration factor
%D - percent difference
DCB -decachlorobiphenyl
DDD - dichlorodiphenyldichloroethane
DDE - dichlorodiphenylethane
DDT - dichlorodiphenyltrichloroethane
DoC - Date of Collection
GC - gas chromatography
GC/ECD - gas chromatograph/electron capture detector
GC/MS - gas chromatograph/mass spectrometer
GPC - gel permeation chromatography
IS - internal standard
kg - kilogram
µg - microgram
MS - matrix spike
MSD - matrix spike duplicate
ℓ - liter
mℓ - milliliter
PCB - Polychlorinated biphenyl
PE - performance evaluation
PEM - Performance Evaluation Mixture
QC - quality control
RAS - Routine Analytical Services
RIC - reconstructed ion chromatogram
RPD - relative percent difference
RRF - relative response factor
RRF - average relative response factor (from initial calibration)
RRT - relative retention time
RSD - relative standard deviation
RT - retention time
RSCC - Regional Sample Control Center
SDG - sample delivery group
SMC - system monitoring compound
SOP - standard operating procedure
SOW - Statement of Work
SVOA - semivolatile organic acid
TCL - Target Compound List
TCLP - Toxicity Characteristics Leachate Procedure
TCX -tetrachloro-m-xylene
TIC - tentatively identified compound

TOPO - Task Order Project Officer
TPO - Technical Project Officer
VOA - Volatile organic
VTSR - Validated Time of Sample Receipt

Data Qualifiers

U -The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

J -The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

N -The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."

JN -The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

UJ -The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R -The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

LAB QUALIFIERS:

D - The positive value is the result of an analysis at a secondary dilution factor.

B - The analyte is present in the associated method blank as well as in the sample. This qualifier has a different meaning when validating inorganic data.

E - The concentration of this analyte exceeds the calibration range of the instrument.

A - Indicates a Tentatively Identified Compound (TIC) is a suspected adol-condensation product.

X,Y,Z- Laboratory defined flags. The data reviewer must change these qualifiers during validation so that the data user may understand their impact on the data.

YES NO N/A

I. PACKAGE COMPLETENESS AND DELIVERABLES

CASE NUMBER: 00622 SDG H0885 CT0066 LAB: Mitkem Laboratories

SITE NAME: NWIRP BETHPAGE

1.0 Data Completeness and Deliverables

1.1 Has all data been submitted in CLP deliverable format or CLP Forms Equivalent? [✓] ___ ___

ACTION: If not, note the effect on review of the data in the Data Assessment narrative.

2.0 Cover Letter, SDG Narrative

2.1 Is a laboratory narrative, and/or cover letter signed release present? [✓] ___ ___

2.2 Are case number and SDG number(s) contained in the narrative or cover letter? [✓] ___ ___

ACTION: If not, note the effect on review of the data in the Data Assessment narrative.

II. VOLATILE ANALYSES

1.0 Traffic Reports and Laboratory Narrative

1.1 Are the Traffic Reports, and/or Chain of Custodies from the field samplers present for all samples sign release present? [✓] ___ ___

ACTION: If no, contact the laboratory/sampling team for replacement of missing or illegible copies.

1.2 Is a sampling trip report present (if required)? [ ] ___ ✓

1.3 Sample Conditions/Problems

YES NO N/A

1.3.1 Do the Traffic Reports, Chain of Custodies, or Lab Narrative indicate any problems with sample receipt, condition of samples, analytical problems or special notations affecting the quality of the data? ___ [✓] ___

ACTION: If all the VOA vials for a sample have air bubbles or the VOA vial analyzed had air bubbles, flag all positive results "J" and all non-detects "R".

ACTION: If any sample analyzed as a soil, other than TCLP, contains 50%-90% water, all data should be flagged as estimated ("J"). If a soil sample, other than TCLP, contains more than 90% water, flag all positive results "J" and all non-detects "R".

ACTION: If samples were not iced or if the ice was melted upon receipt at the laboratory and the temperature of the cooler was elevated (>10°C), flag all positive results "J" and all non-detects non"UJ".

2.0 Holding Times

2.1 Have any volatile holding times, determined from date of collection to date of analysis, been exceeded? ___ [✓] ___

The maximum holding time for aqueous samples is 14 days.

The maximum holding time for soils non aqueous samples is 14 days.

NOTE: If unpreserved, aqueous samples maintained at 4°C for aromatic hydrocarbons analysis must be analyzed within 7 days. If preserved with HCL acid to a pH<2 and stored at 4°C,then aqueous samples must be analyzed within 14 days from time of collection. For non-aqueous samples for volatile components that are frozen (less than 7°C) or are properly cooled (4°C ± 2°C) and perserved with $NaHSO_4$, the maximum holding time is 14 days from sample collection. If

YES NO N/A

uncertain about preservation, contact the laboratory /sampling team to determine whether or not samples were preserved.

ACTION: Qualify sample results according to Table 1:

Table 1. Holding Time Actions for Trace Volatile Analysis

Matrix	Preserved	Criteria	Action	
			Detected Associated Compounds	Non-Detected Associated Compounds
Aqueous	No	≤7 days	No qualifications	
	No	> 7 days	J	R
	Yes	≤14 days	No qualifications	
	Yes	> 14 days	J	R
Non Aqueous	No	≤ 14 days	J	R
	Yes	≤ 14 days	No qualifications	
	Yes/No	> 14 days	J	R

3.0 Surrogate Recovery (CLP Form II Equivalent)

3.1 Have the volatile surrogate recoveries been listed on Surrogate Recovery forms for each of the following matrices:

a. Water [✓] ___ ___

b. Soil [✓] ___ ___

3.2 If so, are all the samples listed on the appropriate Surrogate Recovery forms for each matrix:

a. Water [✓] ___ ___

b. Soil [✓] ___ ___

ACTION: If large errors exist, deliverables are unavailable or information is missing, document the effect(s) in Data

YES NO N/A

Assessments and contact the laboratory/project officer/appropriate official for an explanation /resubmittal,make any necessary corrections and document effect in the Data Assessment.

3.3 Were the surrogate recovery limits followed per Table 2. If Table 2 criteria were not followed, the laboratory may use in-house performance criteria (per SW-846, Method 8000C, sectiom 9.7). Other compounds may be used as surrogates, depending upon the analysis requirements. [✓] ___ ___

Table 2. Surrogate Spike Recovery Limits for Water and Soil/Sediments

DMC	Recovery Limits (%)Water	Recovery Limits Soil/Sediment
4-Bromofluorobenzene	80-120	70-130
Dibromofluoromethane	80-120	70-130
Toluene-d_8	80-120	70-130
Dichloroethane-d_4	80-120	70-130

Note: Use above table if laboratory did not provide in house recovery criteria.

Note: Other compounds may be used as surrogated depending upon the analysis requirements.

3.4 Were outliers marked correctly with an asterisk? [ ] ___ [✓]

ACTION: Circle all outliers with a red pencil.

3.5 Were one or more volatile surrogate recoveries out of specification for any sample or method blank. Table 2. [ ] [✓] ___

If yes, were samples reanalyzed? [ ] ___ ___

Were method blanks reanalyzed? [ ] ___ ___

YES NO N/A

ACTION: If all surrogate recoveries are > 10% but 1 or more compounds do not meet method specifications:

1. Flag all positive results as estimated ("J").
2. Flag all non-detects as estimated detection limits ("UJ") when recoveries are less than the lower acceptance limit.
3. If recoveries are greater than the upper acceptance limit, do not qualify non-detects, but qualify positive results as estimated "J".

If any surrogate has a recovery of < 10%:

1. Positive results are qualified with ("J").
2. Non-detects for that should be qualified as unusable ("R").

NOTE: Professional judgement should be used to qualify data that have method blank surrogate recoveries out of specification in both original and reanalyses. The basic concern is whether the blank problems represent an isolated problem with the blank alone or whether there is a fundamental problem with the analytical process. If one or more samples in the batch show acceptable surrogate recoveries, the reviewer may choose the blank problem to be an isolated occurrence.

3.6 Are there any transcription/calculation errors between raw data and reported data? [ ] [✓] ___

ACTION: If large errors exist, take action as specified in section 3.2 above.

4.0 <u>Laboratory Control Sample(Form III/Equivalent)</u>

4.1 Is the LCS prepared, extracted, analyzed, and reported once for every 20 field samples of a similar matrix, per SDG. [✓] ___ ___

YES NO N/A

Note: LCS consists of an aliquot of a clean (control) matrix similar to the sample matrix and of the same weight or volume.

ACTION: If any Laboratory Control Sample data are missing, call the lab for explanation /resubmittals. Make note in the data assessment.

4.2 Were the Laboratory Control Samples analyzed at the required frequency for each of the following matrices:

A. Water [✓] ___ ___

B. Soil [✓] ___ ___

C. Med Soil [ ] ___ ___

Note: The LCS is spiked with the same analytes at the same concentrations as the matrix spike (SW-846 8000C, Section 9.5). If different make note in data assessment. Matrix/LCS spiking standards should be prepared from volatile organic compounds which are representative of the compounds being investigating. At a minimum, the matrix spike should include 1,1-dichloroethene, trichloroethene, chlorobenzene, toluene, and benzene.

ACTION: If any MS/MD, MS/MSD or replicate data are missing, take the action specified in 3.2 above.

4.3 Have in house LCS recovery limits been developed (Method 8000C, Sect 9.7). [✓] ___ ___

4.4 If in house limits are not developed, are LCS acceptance recovery limits between 70 - 130% (Method 8000c Sect 9.5)? [ ] ___ ___

4.5 Were one or more of the volatile LCS recoveries outside the in house laboratory recovery criteria for spiked analytes? If in house limits are not present use 70 - 130% recovery limits. [ ] [✓] ___

YES NO N/A

Table 3. LCS Actions for Volatile Analysis

Criteria	Action	
	Detected Spiked Compounds	**Non-Detected Spiked Compounds**
%R > Upper Acceptance Limit	J	No Qualifiers
%R < Lower Acceptance Limit	J	UJ
Lower Acceptance Limit ≤ %R	No Qualifications	

5.0 Matrix Spikes(Form III or equivalent)

5.1 Are all data for matrix spike and matrix duplicate or matrix spike duplicate (MS/MD or MS/MSD) present and complete for each matrix? [✓] ___ ___

NOTE: The laboratory should use one matrix spike and a duplicate analysis of an unspiked field sample if target analytes are expected in the sample. If the sample is not expected to contain target analytes, a MS/MSD should be analyzed (SW-846, Method 8260B, Sect 8.4.2).

5.2 Have MS/MD or MS/MSD results been summarized on modified CLP Form III? [✓] ___ ___

ACTION: If any data are missing take action as specified in section 3.2 above.

5.3 Were matrix spikes analyzed at the required frequency for each of the following matrices? (One MS/MD, MS/MSD or laboratory replicate must be performed for every 20 samples

YES NO N/A

of similar matrix or concentration level. Laboratories analyzing one to ten samples per month are required to analyze at least one MS per month [page 8000C, section 9.5.])

a. Water [✓] ___ ___

b. Waste [ ] ___ ✓

c. Soil/Solid [✓] ___ ___

Note: The LCS is spiked with the same analytes at the same concentrations as the matrix spike (SW-846 8000C, Section 9.5). If different make note in data assessment. Matrix/LCS spiking standards should be prepared from volatile organic compounds which are representative of the compounds being investigating. At a minimum, the matrix spike should include 1,1-dichloroethene, trichloroethene, chlorobenzene, toluene, and benzene. The concentration of the LCS should be determined as described SW-Method 8000C Section 9.5.

ACTION: If any MS/MD, MS/MSD or replicate data are missing, take the action specified in 3.2 above.

5.4 Have in house MS recovery limits been developed (Method 8000C, Sect 9.7) for each matrix. [✓] ___ ___

5.5 Were one or more of the volatile MS/MSD recoveries outside of the in-house laboratory recovery criteria for spiked analytes? If none are present, then use 70-130% recovery as per SW-846, 8000C, Sect. 9.5.4. [ ] ✓ ___

ACTION: Circle all outliers with a red pencil.

NOTE: If any individual % recovery in the MS (or MSD) falls outside the designated range for recovery the reviewer should determine if there is a matrix effect. A matrix effect is indicated if the LCS data are within limits but the MS data exceeds the limits.

YES NO N/A

NOTE: No qualification of data is necessary on MS and MSD data alone. However, using informed professional judgement, the data reviewer may use MS and MSD resuts in conjunction with other QC criteria to determine the need for some qualificatios.

Note: The data reviewer should first try to determine to what extent the results of the MS and MSD affect the associated data. This determination should be made with regard to he MS and MSD sample itself, as welll as specific analytes for all samples associated with the MS and MSD.

Note: In those instances where it can be determned that the results of the MS and MSD affect only the sample spiked, limit qualification to this sample only. However, it may be determined through the MS and MSD results that a laboratory is having a systematic problem in the analysis of one or more analytes that affect all associated samples, and the reviewer must use professional judgement to qualify the data from all associated samples.

Note: The reviewer must use professional judgement to determine the need for qualification of non-spiked compounds.

ACTION: Follow criteria in Table 4 when professional judgement deems qualification of sample.

Table 4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Actions for Volatile Analysis

Criteria	Action	
	Detected Spiked Compounds	**Non-Detected Spiked Compounds**
%R > Upper Acceptance Limit	J	No Qualifiers
%R < Lower Acceptance Limit	J	UJ
Lower Acceptance Limit ≤ %R	No Qualifications	

YES NO N/A

6.0 Blank (CLP Form IV Equivalent)

6.1 Is the Method Blank Summary form present? [✓] ___ ___

6.2 Frequency of Analysis: Has a method blank been analyzed for every 20 (or less) samples of similar matrix or concentration or each extraction batch? [✓] ___ ___

6.3 Has a method blank been analyzed for each GC/MS system used ? [✓] ___ ___

ACTION: If any blank data are missing, take action as specified above (section 3.2). If blank data is not available, reject (R) all associated positive data. However, using professional judgement, the data reviewer may substitute field blank data for missing method blank data.

6.4 Chromatography: review the blank raw data - chromatograms, quant reports or data system printouts.

Is the chromatographic performance (baseline stability) for each instrument acceptable for volatile organic compounds? [✓] ___ ___

7.0 Contamination

NOTE: "Water blanks", "drill blanks" and "distilled water blanks" are validated like any other sample and are not used to qualify the data. Do not confuse them with the other QC blanks discussed below.

7.1 Do any method/instrument/reagent blanks have positive results for target analytes and/or TICs? When applied as described below, the contaminant concentration in these blanks are multiplied by the sample dilution factor and corrected for percent moisture where necessary.

[ ] ✓ ___

	YES	NO	N/A
7.2 Do any field/rinse blanks have positive volatile organic compound results?	___	[✓]	___

ACTION: Prepare a list of the samples associated with each of the contaminated blanks. (Attach a separate sheet.)

NOTE: All field blank results associated to a particular group of samples (may exceed one per case or one per day) may be used to qualify data. Blanks may not be qualified because of contamination in another blank. Field blanks must be qualified forsurrogate, or calibration QC problems.

ACTION: Follow the directions in Table 5 below to qualify sample results due to contamination. Use the largest value from all the associated blanks.

Table 5. Volatile Organic Analysis Blank Contamination Criteria

Blank Type	Blank Result	Sample Result	Action for Samples
Method, Storage, Field, Trip, Instrument**	Detects	Not detected	No qualification
	< CRQL*	< CRQL	Report CRQL value with a U
		≥ CRQL	Use professional judgement
	> CRQL*	< CRQL	Report CRQL value with a U
		≥ CRQL and < blank contamination	Report the concentration for the sample with a U, or quanity the data as unusable R
		≥ CRQL and ≥ blank contamination	Use professional judgement
	= CRQL*	< CRQL	Report CRQL value with a U
		≥ CRQL	Use professional judgement
	Gross contam-ination	Detects	Qualify results as unusable R

* 2x the CRQL for methylene chloride, 2-butanone, and acetone

** Qualifications based on instrument blank results affect only the sample analyzed immediately after the sample that has target compounds that exceed the calibration range or non-target compounds that exceed 100 ug/L.

NOTE: If gross blank contamination exists(e.g., saturated peaks, "hump-o-grams," "junk" peaks), all affected positive compounds in the associated samples should be qualified as unusable "R", due to interference. Non-detected volatile organic target compounds do not require qualification unless the contamination is so high that it interferes with the analyses of non-detected compounds.

YES NO N/A

7.3 Are there field/rinse/equipment blanks associated with every sample? [✓] ___ ___

ACTION: For low level samples, note in data assessment that there is no associated field/rinse/equipment blank. Exception: samples taken from a drinking water tap do not have associated field blanks.

8.0 GC/MS Apparatus and Materials

8.1 Did the lab use the proper gas chromatographic column(s) for analysis of volatiles by Method 8260B? Check raw data, instrument logs or contact the lab to determine what type of column(s) was (were) used. [✓] ___ ___

NOTE: For the analysis of volatiles, the method requires requires the use of 60 m. x 0.75 mm capillary column, coated with VOCOL(Supelco) or equivalent column. (see SW-846, page 8260B-7, section 4.9.2)

ACTION: If the specified column, or equivalent, was not used, document the effects in the Data Assessment. Use professional judgement to determine the acceptability of the data.

9.0 GC/MS Instrument Performance Check (CLP Form V Equivalent)

9.1 Are the GC/MS Instrument Performance Check forms present for Bromofluorobenzene (BFB), and do these forms list the associated samples with date/time analyzed? [✓] ___ ___

9.2 Are the enhanced bar graph spectrum and mass/charge (m/z) listing for the BFB provided for each twelve hour shift? [✓] ___ ___

9.3 Has an instrument performance check solution (BFB)

YES NO N/A

been analyzed for every twelve hours of sample analysis per instrument?(see Table 4, SW-846, page 8260B-36) [✓] ___ ___

ACTION: List date, time, instrument ID, and sample analyses for which no associated GC/MS GC/MS tuning data are available.

ACTION: If the laboratory/project officer cannot provide missing data, reject ("R") all data generated outside an acceptable twelve hour calibration interval.

ACTION: If mass assignment is in error, flag all associated sample data as unusable, "R".

9.4 Have the ion abundances been normalized to m/z 95? [✓] ___ ___

9.5 Have the ion abundance criteria been met for each instrument used? [✓] ___ ___

ACTION: List all data which do not meet ion abundance criteria (attach a separate sheet).

ACTION: If ion abundance criteria are not met, take action as specified in section 3.2.

9.6 Are there any transcription/calculation errors between mass lists and reported values? (Check at least two values but if errors are found, check more.) ___ [✓] ___

9.7 Have the appropriate number of significant figures (two) been reported? [✓] ___ ___

ACTION: If large errors exist, take action as specified in section 3.2.

9.8 Are the spectra of the mass calibration compounds acceptable. [✓] ___ ___

ACTION: Use professional judgement to determine wheather associated data should be accepted, qualified, or rejected.

YES NO N/A

10.0 Target Analytes (CLP Form I Equivalent)

10.1 Are the Organic Analysis reporting forms present with required header information on each page, for each of the following:

		YES	NO	N/A
a.	Samples and/or fractions as appropriate	[✓]	___	___
b.	Matrix spikes and matrix spike duplicates	[✓]	___	___
c.	Blanks	[✓]	___	___
d.	Laboratory Control Samples	[✓]	___	___

10.2 Are the reconstructed Ion Chromatograms, mass spectra for the identified compounds, and the data system printouts (Quant Reports) included in the sample package for each of the following?

		YES	NO	N/A
a.	Samples and/or fractions as appropriate	[✓]	___	___
b.	Matrix spikes and matrix spike duplicates (Mass spectra not required)	[✓]	___	___
c.	Blanks	[✓]	___	___
d.	Laboratory Control Samples	[✓]	___	___

ACTION: If any data are missing, take action specified in 3.2 above.

10.3 Is chromatographic performance acceptable with respect to:

	YES	NO	N/A
Baseline stability?	[✓]	___	___

	YES	NO	N/A
Resolution?	[✓]	___	___
Peak shape?	[✓]	___	___
Full-scale graph (attenuation)?	[✓]	___	___

Other:_____

ACTION: Use professional judgement to determine the acceptability of the data.

10.4 Are the lab-generated standard mass spectra of identified volatile compounds present for each sample? [✓] ___ ___

ACTION: If any mass spectra are missing, take action specified in 3.2 above. If the lab does not generate their own standard spectra, make a note in the Data Assessment. If spectra are missing, contact the lab.

10.5 Is the RRT of each reported compound within 0.06 RRT units of the standard RRT in the continuing calibration? [✓] ___ ___

10.6 Are all ions present in the standard mass spectrum at a relative intensity greater than 10% (of the most abundant ion) also present in the sample mass spectrum? [✓] ___ ___

10.7 Do the relative intensities of the characteristic ions in the sample agree within ± 30% of the corresponding relative intensities in the reference spectrum? [✓] ___ ___

ACTION: Use professional judgement to determine acceptability of data. If it is determined that incorrect identifications were made, all such data should be rejected ("R"), flagged ("N") - Presumptive evidence of the presence of the compound) or changed to non detected ("U") at the calculated detection limit. In order to be

YES NO N/A

positively identified, the data must comply with the criteria listed in 9.6, 9.7, and 9.8.

ACTION: When sample carry-over is a possibility, professional judgement should be used to determine if instrument cross-contamination has affected any positive compound identification.

11.0 Tentatively Identified Compounds (TIC) (CLP Form I/TIC Equivalent)

11.1 If Tentatively Identified Compound were required for this project, are all Tentatively Identified Compound reporting forms present; and do listed TICs include scan number or retention time, estimated concentration and a qualifier? [ ] ___ ✓

NOTE: Add "N" qualifier to all TICs which have CAS number, if missing.

NOTE: Have the project officer/appropriate official check the project plan to determine if lab was required to identify non-target analytes (SW-846, page 8260B-23, Sect. 7.6.2).

11.2 Are the mass spectra for the tentatively identified compounds and associated "best match" spectra included in the sample package for each of the following:

a. Samples and/or fractions as appropriate [ ] ___ ✓

b. Blanks [ ] ___ ✓

ACTION: If any TIC data are missing, take action specified in 3.2 above.

ACTION: Add "JN" qualifier only to analytes identified by a CAS#.

NOTE: If TICs are present in the associated blanks take action as specified in section 3.2 above.

YES NO N/A

11.3 Are any priority pollutants listed as TIC compounds (i.e., an BNA compound listed as a VOA TIC)? [ ] ___ ✓

ACTION: 1. Flag with "R" any target compound listed as a TIC.

2. Make sure all rejected compounds are properly reported if they are target compounds.

11.4 Are all ions present in the reference mass spectrum with a relative intensity greater than 10% (of the most abundant ion) also present in the sample mass spectrum? [✓] ___ ___

11.5 Do TIC and "best match" standard relative ion intensities agree within ± 20%? [ ] ___ ✓

ACTION: Use professional judgement to determine acceptability of TIC identifications. If it is determined that an incorrect identification was made, change the identification to "unknown" or to some less specific identification (example: "C3 substituted benzene") as appropriate. Also, when a compound is not found in any blank, but is a suspected artifact of a common laboratory contaminant, the result should be qualified as unusable, "R". (Common lab contaminants: CO_2(M/E 44), Siloxanes (M/E 73), Hexane, Aldol Condensation Products, Solvent Preservatives, and related byproducts).

12.0 Compound Quantitation and Reported Detection Limits

12.1 Are there any transcription/calculation errors in organic analysis reporting form results? Check at least two positive values. Verify that the correct internal standard, quantitation ion, and average initial RRF/CF were used to calculate organic analysis reporting form result. Were any errors found? [ ] ✓ ___

NOTE: Structural isomers with similar mass spectra, but insufficient GC resolution (i.e. percent valley between the two peaks > 25%) should be

YES NO N/A

reported as isomeric pairs. The reviewer should check the raw data to ensure that all such isomers were included in the quantitation (i.e., add the areas of the two coeluting peaks to calculate the total concentration).

12.2 Are the method CRQL's adjusted to reflect sample dilutions and, for soils, sample moisture? [✓] ___ ___

ACTION: If errors are large, take action as specified in section 3.2 above.

ACTION: When a sample is analyzed at more than one dilution, the lowest detection limits are used (unless a QC exceedance dictates the use of the higher detection limit from the diluted sample data). Replace concentrations that exceed the calibration range in the original analysis by crossing out the "E" and it's associated value on the original reporting form (if present) and substituting the data from the analysis of the diluted sample. Specify which organic analysis reporting form is to be used, then draw a red "X" across the entire page of all reporting forms that should not be used, including any in the summary package.

13.0 Standards Data (GC/MS)

13.1 Are the Reconstructed Ion Chromatograms, and data system printouts (Quant Reports) present for initial and continuing calibration? [✓] ___ ___

ACTION: If any calibration standard data are missing, take action specified in section 3.2 above.

14.0 GC/MS Initial Calibration (CLP Form VI Equivalent)

YES NO N/A

14.1 Are the Initial Calibration reporting forms present and complete for the volatile fraction? [✓] ___ ___

ACTION: If any calibration forms or standard raw data are missing, take action specified in section 3.2 above.

ACTION: If the percent relative standard deviation (% RSD) is > 20%, (8000C-39)qualify positive results for that analyte "J". When % RSD > 90%,. Qualify all positive results for that analyte "J" and all non-detects results for that analyte "R".

14.2 Are all average RRFs > 0.050? [ ] [✓] ___

NOTE: (Method Requirement) For SPCC compounds, the individual RRF values must be ≥ the values in the following list. If individual RRF values reported are below the listed values document in the Data Assessment.

Chloromethane	0.10
1,1-Dichloroethane	0.10
Bromoform	0.10
Chlorobenzene	0.30
1,1,2,2-Tetrachloroethane	0.30

ACTION: Circle all outliers with red pencil.

ACTION: For any target analyte with average RRF < 0.05, or for the requirements for the 5 compounds in 14.2 above, qualify all positive results for that analyte "J" and all non-detect results for that analyte "R".

14.3 Are response factors stable over the concentration range of the calibration. [✓] ___ ___

NOTE: (Method Requirement) For the following CCC compounds, the %RSD values must be ≤ 30.0%. If %RSD values reported are > 30.0% document in the Data Assessment.

YES NO N/A

1,1-Dichloroethene
Chloroform
1,2-Dichloropropane
Toluene
Ethylbenzene
Vinyl chloride

ACTION: Circle all outliers with a red pencil.

ACTION: If the % RSD is > 20.0%, or > 30% for the 6 compounds in 14.3 above, qualify positive results for that analyte "J" and non-detects using professional judgement. When RSD > 90%, qualify all positive results for that analyte "J" and all non-detect results for that analyte "R".

NOTE: The above data qualification action applies regardless of method requirements.

NOTE: Analytes previously qualified "U" due to blank contamination are still considered as "hits" when qualifying for calibration criteria.

14.4 Was the % RSD determined using RRF or CF? [✓] ___ ___

If no, what method was used to determine the linearity of the initial calibration? Document any effects to the case in the Data Assessment.

14.5 Are there any transcription/calculation errors in the reporting of RRF or % RSD? (Check at least two values but if errors are found, check more.) [ ] ✓ ___

ACTION: Circle errors with a red pencil.

ACTION: If errors are large, take action as specified in section 3.2 above.

15.0 GC/MS Calibration Verification (CLP Form VII Equivalent)

YES NO N/A

15.1 Are the Calibration Verification reporting forms present and complete for all compounds of interest? [✓] ___ ___

15.2 Has a calibration verification standard been analyzed for every twelve hours of sample analysis per instrument? [✓] ___ ___

ACTION: List below all sample analyses that were not within twelve hours of a calibration verification analysis for each instrument used.

_____

ACTION: If any forms are missing or no calibration verification standard has been analyzed twelve hours prior to sample analysis, take action as specified in section 3.2 above. If calibration verification data are not available, flag all associated sample data as unusable ("R").

15.3 Was the % D determined from the calibration verification determined using RRF or CF? [✓] ___ ___

If no, what method was used to determine the calibration verification? Document any effects to the case in the Data Assessment.

15.4 Do any volatile compounds have a % D (difference or drift) between the initial and continuing RRF or CF which exceeds 20% (SW-846, page 8260B-19, section 7.4.5.2). [✓] ___ ___

NOTE: (Method Requirement) For the following CCC compounds, the %D values must be ≤ 20.0%. If %D values reported are > 20.0% document in the Data Assessment.

1,1-Dichloroethene
Chloroform
1,2-Dichloropropane
Toluene
Ethylbenzene
Vinyl chloride

YES NO N/A

ACTION: Circle all outliers with a red pencil.

ACTION: Qualify both positive results and non-detects for the outlier compound(s) as estimated, "J". When %D is above 90%, qualify all positive results for that analyte "J" and all non-detect results for that analyte "R".

NOTE: The above data qualification action applies regardless of method requirements.

15.5 Do any volatile compounds have a RRF < 0.05? [✓] ___ ___

NOTE: (Method Requirement) For SPCC compounds, the individual RRF values must be ≥ the values in the following list for each calibration verification. If average RRF values reported are below the listed values document in the data assessment.

Chloromethane	0.10
1,1-Dichloroethane	0.10
Bromoform	0.10
Chlorobenzene	0.30
1,1,2,2-Tetrachloroethane	0.30

ACTION: Circle all outliers with a red pencil.

ACTION: If RRF < 0.05, or < the the requirements for the 5 compounds is section 15.5 above, qualify all positive results for that analyte "J" and all non-detect results for that analyte "R".

NOTE: The above data qualification action applies regardless of method requirements.

16.0 Internal Standards (CLP Form VIII Equivalent)

16.1 Are the internal standard (IS) areas on the internal standard reporting forms of every sample and blank within the upper and lower limits (-50% to + 100%) for each initial mid-point calibration (SW-846, 8260B-20, Sect. 7.4.7)? [✓] ___ ___

YES NO N/A

ACTION: If errors are large or information is missing, take action as specified in section 3.2 above.

ACTION: List each outlying internal standard below.

Sample ID	IS #	Area Lower Limit	Area Upper Limit

(Attach additional sheets if necessary.)

ACTION:

1. If the internal standard area count is outside the upper or lower limit, flag with "J" all positive results quantitated with this internal standard.

2. Do not qualify non-detects when the associated IS are counts area > + 100%.

3. If the IS area is below the lower limit (< -50%), qualify all associated non-detects (U-values) "J".

4. If extremely low area counts are reported (< -25%) or if performance exhibits a major abrupt drop off, flag all associated non-detects as unusable "R" and positive results as estimated "J".

16.2 Are the retention times of all internal standards within 30 seconds of the associated initial mid-point calibration standard (SW-846, 8260B-20, Sect. 7.4.6)? [✓] ___ ___

ACTION: Professional judgement should be used to qualify data if the retention times differ by more than 30 seconds.

YES NO N/A

17.0 Field Duplicates

17.1 Were any field duplicates submitted for volatile analysis? [ ] ✓ ___

ACTION: Compare the reported results for field duplicates and calculate the relative percent difference.

ACTION: Any gross variation between field duplicate results must be addressed in the Data Assessment. However, if large differences exist, take action specified in section 3.2 above.

USEPA
Hazardous Waste Support Branch
Validating PCB Compounds
PCBs By Gas Chromatography SW-846 Method 8082A

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Prepared by: Russell Amone Date: 12-8-06
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Concurred by: Linda Mauel Date: 12/11/06
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Approved by: Robert M. Runyon Date: 12/11/06
Robert Runyon, Chief
Hazardous Waste Support Branch

Annual Review

Reviewed by: John Cognetti Date: June 17, 2009
Name

Reviewed by: _____ Date: _____
Name

Yes NO N/A

INTRODUCTION

Scope and Applicability

This SOP offers detailed guidance in evaluating laboratory data generated according to "SW846-Method 8082A" November 2000. Method 8082A is used to determine the concentration of PCB compounds in extracts prepared from many types of solid waste matrices, soils, and water samples. The validation methods and actions discussed in this document are based on the requirements set forth in SW846 Method 8082A, Method 8000C and the "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review," January 2005. This document covers technical problems specific to each fraction and sample matrix; however, situations may arise where data limitations must be assessed based on the reviewer's professional judgement.

Summary of Method

To ensure a thorough evaluation of each result in a data case, the reviewer must complete the checklist within this SOP, answering specific questions while performing the prescribed "ACTIONS" in each section. Qualifiers (or flags) are applied to questionable or unusable results as instructed. The data qualifiers discussed in this document are defined on page 4.

The reviewer must prepare a detailed data assessment to be submitted along with the completed SOP checklist. The Data Assessment must list all data qualifications, reasons for qualifications, instances of missing data and contract non-compliance.

Reviewer Qualifications

Data reviewers must possess a working knowledge of SW846 Analytical Methods and National Functional Guidelines mentioned above.

Yes NO N/A

DEFINITIONS

Acronyms

BNA - base neutral acid(another name for Semi Volatiles)
CLP - Contract Laboratory Program
CRQL - Contract Required Quantitation Limit
%D - percent difference
DCB -decachlorobiphenyl
DoC - Date of Collection
GC - gas chromatography
GC/ECD - gas chromatograph/electron capture detector
GC/MS - gas chromatograph/mass spectrometer
GPC - gel permeation chromatography
IS - internal standard
kg - kilogram
µg - microgram
MS - matrix spike
MSD - matrix spike duplicate
ℓ - liter
mℓ - milliliter
PCB - Polychlorinated biphenyl
PE - performance evaluation
PEM - Performance Evaluation Mixture
QC - quality control
RAS - Routine Analytical Services
RIC - reconstructed ion chromatogram
RPD - relative percent difference
RRF - relative response factor
RRF - average relative response factor (from initial calibration)
RRT - relative retention time
RSD - relative standard deviation
RT - retention time
RSCC - Regional Sample Control Center
SDG - sample delivery group
SMC - system monitoring compound
SOP - standard operating procedure
SOW - Statement of Work
SVOA - semivolatile organic acid
TCL - Target Compound List
TCLP - Toxicity Characteristics Leachate Procedure ___
TCMX -tetrachloro-m-xylene
TIC - tentatively identified compound
TOPO - Task Order Project Officer
TPO - Technical Project Officer
VOA - Volatile organic

Yes NO N/A

VTSR - Validated Time of Sample Receipt

Data Qualifiers

U- The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

J- The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

- The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."

JN- The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

UJ- The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R- The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

LAB QUALIFIERS:

D- The positive value is the result of an analysis at a secondary dilution factor.

B- The analyte is present in the associated method blank as well as in the sample. This qualifier has a different meaning when validating inorganic data.

E- The concentration of this analyte exceeds the calibration range of the instrument.

A- Indicates a Tentatively Identified Compound (TIC) is a suspected adol-condensation product.

X,Y,Z- Laboratory defined flags. The data reviewer must change these qualifiers during validation so that the data user may understand their impact on the data.

Yes NO N/A

PACKAGE COMPLETENESS AND DELIVERABLES

CASE NUMBER: 00622, CTO 066 SDG# H0885

LAB: Mitkem SITE: NWIRP BETHPAGE

1.0 Data Completeness and Deliverables

1.1 Has all the data been submitted in CLP deliverable format? [✓] ___ ___

1.2 Have any missing deliverables been received and added to the data package? [ ] ___ ✓

ACTION: Call lab for explanation/resubmittal of any missing deliverables. If lab cannot provide them, note the effect on review of the data in the reviewer narrative.

2.0 Cover Letter, SDG Narrative

2.1 Is a laboratory narrative or cover letter present? [✓] ___ ___

2.2 Are the case number and/or SDG number contained in the narrative or cover letter? [✓] ___ ___

3.0 Data Validation Checklist

3.1 Does this data package contain:

Water data? ___ ___

Waste data? ___ ___

Soil/solid data? ✓ ___

POLYCHLORINATED BIPHENYLS

1.0 Traffic Reports and Laboratory Narrative

1.1 Are traffic report and chain-of-custody forms present for all samples? [✓] ___ ___

Yes NO N/A

ACTION: If no, contact lab for replacement of missing or illegible copies.

1.2 Do the traffic reports, chain-of-custody forms or SDG narrative indicate any problems with sample receipt, condition of the samples, analytical problems or special circumstances affecting the quality of the data? ___ [✓] ___

ACTION: If any sample analyzed as a soil, other than TCLP, contains 50%-90% water, all data should be qualified as estimated, "J." If a soil sample, other than TCLP, contains more than 90% water, non detects shall be qualified as unusable, "R."

ACTION: If samples were not iced or if the ice was melted upon arrival at the laboratory and the temperature of the cooler was elevated (> 10° C), flag all positive results "J" and all non-detects "UJ".

2.0 Holding Times

2.1 Have any PCB technical holding times, determined from date of collection to date of extraction, been exceeded? ___ [✓] ___

Water and waste samples for PCB analysis must be extracted within 7 days of the date of collection. Extracts must be analyzed within 40 days of the date of extraction. Soils and solid samples must be extracted within 14 days of collection and analyzed within 40 days of extraction.

ACTION: If technical holding times are exceeded, flag all positive results as estimated, "J," and sample quantitation limits "UJ" and document in the narrative that holding times were exceeded. If analyses were done more than 14 days beyond holding time, either on the first analysis or upon re-analysis, the reviewer must use professional judgement to determine the reliability of the data and the effects of additional storage on the sample results. At a minimum, all the data should at least be

Yes NO N/A

qualified "J", but the reviewer may determine that non-detects are unusable,"R." (Table 1)

Table 1. Holding Time Criteria

Matrix	Preserved	Criteria	Action	
			Detected compounds	Non-detected compounds
Aqueous	No	≤ 7 days(extraction) ≤ 40 days(analysis)	J*	UJ*
	No	> 7 days(extraction) > 40 days(analysis)	J	UJ
	Yes	≤ 7 days(extraction) ≤ 40 days(analysis)	No qualification	
	Yes	> 7 days(extraction) > 40 days(analysis)	J	UJ
	Yes/No	> 28 days (gross exceedance)	J	R
Non-aqueous	No	≤ 14days(extraction) ≤ 40 days (analysis)	J*	UJ*
	No	> 14days(extraction) >40 days(analysis)	J	UJ
	Yes	≤ 14days(extraction) ≤ 40 days(analysis)	No qualification	
	Yes	> 14days(extraction) > 40 days(analysis)	J	UJ
	Yes/No	> 28 days(gross exceedance)	J	R

* only if cooler temperature exceeds 10°C; no action required if cooler temperature < 10°C.

3.0 Surrogate Recovery (Form II/Equivalent)

3.1 Were the recoveries of tetrachloro-m-xylene (TCMX) and decachlorobiphenyl (DCB) presented on CLP Surrogate Recovery Summary forms (Form II), or equivalent, for each of the following matrices?

a. Water/Waste [ ] ___ ✓

	Yes	NO	N/A
b. Soil/Solid	[✓]	___	___

3.2 Are all the PCB samples listed on the appropriate surrogate recovery form for each of the following matrices?

a. Water	[ ]	___	✓
b. Waste	[ ]	___	✓
c. Soil/Solid	[✓]	___	___

ACTION: Call lab for explanation/resubmittals. If missing deliverables are unavailable, document the effect in the data assessment.

3.3 Are all recovery limits for the surrogates TCMX and DCB between 30-150% for all samples, including MS and MSDs, LCSs and all blanks? [✓] ___ ___

Note: Reviewer shall use lab in-house recovery limits, if available. In-house criteria should be examined for reasonableness.

ACTION: Circle all outliers in red. Follow surrogate criteria, Table 2.

Note: DCB is used when PCBs are determined as Aroclors. DCB is the internal standard when determining PCB congeners and TCMX the surrogate.

3.4 Were surrogate retention times (RT) within the windows established during the initial 5-point analysis? [✓] ___ ___

ACTION: Follow surrogate criteria, Table 2.

Table 2. Surrogate Recovery Criteria

Criteria	Action	
	Detected Target Compounds	Non-detected Target Compounds
%R > 200%	J	Use professional judgement

Yes NO N/A

150% < %R ≤ 200%	J	No qualification
30% ≤ %R ≤ 150%	No qualification	
10% ≤ %R < 30%	J	UJ
%R < 10% (sample dilution not a factor)	J	R
%R < 10% (sample dilution is a factor)	Use professional judgement	
RT out of RT window	Use professional judgement	
RT within RT window	No qualification	

3.6 Are there any transcription/calculation errors between raw data and Form II? [ ] [✓] ___

ACTION: If large errors exist, call lab for explanation/resubmittal. Make any necessary corrections and document the effect in data assessments.

4.0 Laboratory Control Sample (LCS)

4.1 Are raw data and percent recoveries present for all Laboratory Control samples as required by Method 8000B (section 8.5) and Method 8082A (section 8.4.2)? [✓] ___ ___

Verify that QC check samples were extracted and analyzed by the same procedures used for the actual samples.

ACTION: If any Laboratory Control Sample data are missing, call the lab for explanation/ resubmittals. Make note in the data assessment.

NOTE: For aqueous samples, an additional QC check sample must be prepared and analyzed when any analyte in a matrix spike fails the required acceptance criteria (see section 5.3 below).

Yes NO N/A

The additional QC check sample must contain each analyte that failed in the MS analysis.

Note: When the results for matrix spike analysis indicates a problem due to sample matrix effects, the LCS results are used to verify the laboratory can perform the analysis in a clean sample.

4.2 Were Laboratory Control Samples analyzed at the required concentration as specified in Method 8000B(sec 8.5) for all analytes as specified in Table 3. [✓] ___ ___

Note: Use lab in-house criteria, if available.

ACTION: If Laboratory Control Samples were not analyzed at the required concentration or the required frequency, make note in the data assessment and use professional judgement to determined the affect on the data.

4.3 Were the LCS recoveries within the percent recoveries as specified in Table 3. [✓] ___ ___

Table 3. LCS Criteria

Compound	% Recovery
Aroclor 1016	50-150
Aroclor 1260	50-150
Tetrachloro-m-xylene (surrogate)	30-150
decachlorobiphenyl (surrogate)	30-150

4.4 If no, were Laboratory Control Samples re-analyzed? [ ] ___ ✓

ACTION: If QC check samples were not re-analyzed, or a general system problem is indicated by repeated failure to meet the QC acceptance criteria specified in the method, make note in the data assessment and use Table 4 recovery actions criteria.

Yes NO N/A

Table 4. LCS Recovery Actions

Criteria	Action	
	Detected Associated Compounds	**Non-Detected Compounds**
%R > Upper Acceptance Limit	J	No qualification
%R < Lower Acceptance Limit	J	R
Lower Acceptance Limit ≤ %R ≤ Upper Acceptance Limit	No qualifications	

5.0 Matrix Spikes (Form III/Equivalent)

5.1 Are all data for one matrix spike and matrix duplicate (unspiked) pair (MS/Dup) or matrix spike/matric spike duplicate (MS/MSD)present and complete for each matrix (Method 8082A Section 8.4.1)? [✓] ___ ___

NOTE: For soil and waste samples showing detectable amounts of target analytes, the lab may substitute replicate samples in place of the matrix spike (see Method 8000B-40, section 8.5.3).

5.2 Have MS/Dup or MS/MSD results been summarized on modified CLP Form III? [✓] ___ ___

ACTION: If any data are missing take action as specified in section 3.2 above.

5.3 Were matrix spikes analyzed at the required frequency for each of the following matrices? (One MS/Dup, MS/MSD must be performed for every 20 samples of similar matrix or concentration level. Laboratories analyzing one to ten samples per month are required to analyze at least one MS per month (Method 8000B-39 (section 8.5)).

a. Water [ ] ___ [✓]

	Yes	NO	N/A
b. Waste	[ ]	___	✓
c. Soil/Solid	[✓]	___	___

ACTION: If any MS/Dup or MS/MSD data are missing, take the action specified in 3.2 above.

5.4 Were Laboratory Control Samples analyzed for all analytes as specified in Table 5, or did the lab use the optional QC acceptance criteria i.e., in-house criteria? [✓] ___ ___

List the criteria used and make note in data assessment.

Criteria used _____

Table 5. MS/MSD Criteria

Compound	Percent Recovery QC Limits	RPD
Aroclor 1016	29-135	0-15
Aroclor 1260	29-135	0-20

5.5 Was the matrix spike prepared at the proper spike concentration? (Method 8000B, section 8.5.1-8.5.2) [✓] ___ ___

For aqueous organic extractable, the spike concentration should be prepared according options in: Method 8000B-40, (section 8.5.1 and 8.5.2).

5.6 Were the matrix spike and matrix spike duplicate recovery and RPD limits met as specified in Table 5. Note: No qualification of the data is necessary on MS and MSD data alone. Use professional judgement to use the MS and MSD results in conjunction with other QC criteria to determine the need for some qualification of the data. If any MS and MSD, percent recovery, or RPD results in the Arcolor fraction is out of specification (Table 5), qualify data to include the consideration of the existence interference in the raw data. In some instances it may be determined that only the replicate or spiked samples are affected. Alternatively, the data may suggest that the laboratory is having a systematic problem with one or more analytes, thereby affecting all associated samples. Use professional judgement to determine the need for qualifications of detects of non-spiked compounds.

Yes NO N/A

[✓] ___ ___

Table 6. MS/MSD Actions for Analysis

Criteria	Action	
	Detected Associated Compounds	**Non-Detected Compounds**
%R or RPD > Upper Acceptance Limit	J	No qualification
20% ≤ %R < Lower Acceptance Limit	J	UJ
%R < 20%	J	Use professional judgement
Lower Acceptance Limit ≤ %R ≤ Upper Acceptance Limit	No qualifications	

6.0 Blanks (Form IV/Equivalent)

6.1 Was reagent blank data reported on CLP equivalent Method Blank Summary form(s) (Form IV)? [✓] ___ ___

6.2 Frequency of Analysis: Has a reagent blank been analyzed for every 20 (or less) samples of similar matrix or concentration or each extraction batch? [✓] ___ ___

Note: Method blank should be analyzed, either after the calibration standard or at any time during the analytical shift.

ACTION: If any blank data are missing, take action as specified above (section 3.2) . If blank data is not available, reject (R) all associated positive data. However, using professional judgement, the data reviewer may substitute field blank data for missing method blank data.

6.3 Chromatography: review the blank raw data - chromatograms, quant reports or data system

Yes NO N/A

printouts.

Is the chromatographic performance (baseline stability) for each instrument acceptable for PCBs? [✓] ___ ___

7.0 Contamination

NOTE: "Water blanks", "distilled water blanks" and "drilling water blanks" are validated like any other sample and are not used to qualify the data. Do not confuse them with the other QC blanks discussed below.

7.1 Do any method/instrument/reagent/cleanup blanks have positive results for PCBs? When applied as described below, the contaminant concentration in these blanks are multiplied by the sample Dilution Factor and corrected for % moisture when necessary. ___ [✓] ___

7.2 Do any field/rinse blanks have positive PCB results? ___ [✓] ___

ACTION: Prepare a list of the samples associated with each of the contaminated blanks. (Attach a separate sheet.)

NOTE: All field blank results associated to a particular group of samples (may exceed one per case or one per day) may be used to qualify data. Blanks may not be qualified because of contamination in another blank. Field blanks must be qualified for surrogate, or calibration QC problems.

ACTION: Follow the directions in Table 7 below to qualify sample results due to contamination. Use the largest value from all the associated blanks.

Table 7. Blank Contamination Criteria

Blank Type	Blank Result	Sample Result	Action for Samples

Yes NO N/A

Method, Clean up, Instrument, Field	Detects	Not detected	No qualification
	< CRQL	< CRQL	Report CRQL value with a U
		≥ CRQL	No qualification
	> CRQL	< CRQL	Report CRQL value with a U
		≥ CRQL and < blank contamination	Report the concentration for the sample with a U
		≥ CRQL and ≥ blank contamination	No qualification
	= CRQL	< CRQL	Report CRQL value with a U
		≥ CRQL	No qualification
	Gross contamination	Detects	Qualify results as unusable R

Note: Analytes qualified "U" for blank contamination are treated as "hits" when qualifying for calibration criteria.

Note: When applied as described in Table 7 above, the contaminant concentration in the blank is multiplied by the sample dilution factor.

NOTE: If gross blank contamination exists(e.g., saturated peaks, "hump-o-grams," "junk" peaks), all affected positive compounds in the associated samples should be qualified as unusable "R", due to interference. Non-detected pesticide target compounds do not require qualification unless the contamination is so high that it interferes with the analyses of non-detected compounds.

7.3 Are there field/rinse/equipment blanks associated with every sample? [✓] ___ ___

ACTION: For low level samples, note in data assessment that there is no associated field/rinse/equipment blank. Exception: samples taken from a drinking water tap do not have associated field blanks.

Yes NO N/A

8.0 Gas Chromatography with Electron Capture Detector (GC/ECD) Instrument Performance Check (CLP Form VI and Form VII Equivalent)

8.1 Was the proper gas chromatographic capillary column used for the analysis of PCBs? [✓] ___ ___

Action: Check raw data, instrument logs, or contact the lab to determine what type of columns were used. (Method 8082, section 4.2)

8.2 Indicate the specific type of narrow bore or wide bore (.53 mm ID, fused silica GC columns, such as DB-608 and DB-1701 or equivalent).

column 1: 0.53 mm ID,

column 2: 0.53 mm ID

ACTION: Note any changes to the suggested materials in section 8.1 above in the data assessment. Also note the impact (positive or negative) such changes have on the analytical results.

9.0 Calibration and GC Performance

9.1 Are the following Gas Chromatograms and Data Systems Printouts for both columns present for all samples, blanks, MS, replicates?

a. Samples [✓] ___ ___

b. All blanks [✓] ___ ___

c. Matrix spike samples [✓] ___ ___

d. 5 pt. initial calibration standards [✓] ___ ___

e. calibration verification standards [✓] ___ ___

f. Laboratory Control samples (LCS) [✓] ___ ___

ACTION: If no, take action specified in 3.2 above.

9.2 Are data summary forms (containing calibration factors or response factors) for the initial 5

Yes NO N/A

pt. calibration and daily calibration verification standards present and complete for each column and each analytical sequence? [✓] ___ ___

Note: Calibration Aroclor mixtures other than 1016/1260 may be used (as per approved project QA plan)

NOTE: If internal standard calibration procedure is used (Method 8000B-15(section 7.4.2.2)), then response factors must be used for %RSD calculations and compound quantitation. If, external standard calibration procedures are used (Method 8000B-16 (section 7.4.2.1)), then calibration factors must be used. The internal standard approach is highly recommended for PCB congener analysis.

ACTION: If any data are missing or it cannot be determined how the laboratory calculated calibration factors or response factors, contact the lab for explanation/resubmittals. Make necessary corrections and note any problems in the data assessment.

9.3 Are there any transcription/calculation errors between raw data and data summary forms? ___ [✓] ___

ACTION: If large errors exist, call lab for explanation/resubmittal, make necessary corrections and document the effect in data assessments.

9.4 Are standard retention time (RT) windows for each PCB peak of interest presented on modified CLP summary forms? [✓] ___ ___

ACTION: If any data are missing, or it cannot be determined how RT windows were calculated, call the lab for explanation/resubmittals. Note any problems in the data assessment.

NOTE: Retention time windows for all PCBs are established using retention times from three calibration standards analyzed during the entire analytical sequence (Method 8000B, section 7.6). Best results are obtained

Yes NO N/A

using retention times which span the entire sequence; i.e., using the calibration verification/continuing calibration standards analyzed every 12 hours.

9.5 Were RT windows on the confirmation column established using three standards as described above? ☑ ___ ___

NOTE: RT windows for the confirmation column should be established using a 3 pt. calibration, preferably spanning the entire analytical sequence as described in 9.4 above. If RT windows on one column are tighter than the other, this may result in false negatives when attempting to identify compounds in the samples.

ACTION: Note potential problems, if any, in the data assessment.

9.6 Do all standard retention times in each level of the initial 5 pt. calibrations for PCBs fall within the windows established during the initial calibration sequence? ☑ ___ ___

ACTION i: If no, all samples in the entire analytical sequence are potentially affected. Check to see if three standard spanning the entire sequence were used to obtained RT windows. If the lab used three standards from the 5 pt., RT windows may be too tight. If so, RT windows should be recalculated as per Method 8081B-15 (section 7.4.6).

ii. Alternatively, check to see if the chromatograms contain peaks within an expanded window surrounding the expected retention times.

If no peaks are found and the surrogates are visible, non-detects are valid. If peaks are present but cannot be discerned through pattern recognition or by using revised RT windows, qualify all positive results and non-detects as unusable, "R".

9.7 Has the linearity criteria for the initial calibration standards been satisfied for both

Yes NO N/A

columns? (% RSD for the calibration factors (CFs) for the three to five major peaks of each of the Aroclor compounds must be < 20.0%). [✓] ___ ___

ACTION: If no, follow Table 8 criteria.

Table 8. Initial Calibration CF Action for Aroclor Analysis

Criteria	Action	
	Detected Associated Compounds	**Non-Detected Associated Compounds**
% RSD > 20%	J	UJ
% RSD within allowable limits	No qualifications	

9.8 Does the calibration verification/continuing calibration standard contain the PCB peaks of interest, analyzed on each working day, prior to sample analyses (Method 8082, sections 7.6.2)? [✓] ___ ___

9.9 Has a calibration verification/continuing calibration standard been analyzed after every 10 samples and at the end of each analytical sequence (Method 8082A, section 7.6.2). [✓] ___ ___

ACTION: If no, take action as specified in section 3.2 above.

9.10 Has the percent difference (%D) between the Calibration Factor (CF) of each of the three to five peaks used to identify the Aroclor in the CCV and the CF from these peaks in the initial calibration exceeded ± 15%. ___ [✓] ___

9.11 Has a new 5 pt. initial calibration curve been generated for those PCB analytes which failed in the calibration verification/continuing calibration standard (8000B, section 7.7.3), and all samples which followed the out-of-control

	Yes	NO	N/A
calibration verification/standard continuing calibration Standard?	[ ]	___	✓

ACTION: If the %D for any analyte exceeded the ± 15% criterion and the instrument was not recalibrated for those analytes, qualify positive results for all associated samples (those which followed the out-of-control standard) "J" and sample quantitation limits "UJ". (see Table 9)

9.12 Have retention time (RT) windows been properly calculated for each analyte of interest (Method 8000B, section 7.6), using RTs from the associated calibration verification/continuing standard?	[✓]	___	___

ACTION: If no, take action specified in section 3.2 above

9.13 Do all standard retention times for each calibration verification/continuing calibration standard fall within the windows established during the initial calibration sequence?	[✓]	___	___
9.14 Do all standard retention times for each mid-concentration standard (analyzed after every 10 samples) fall within the <u>daily</u> RT windows.	[✓]	___	___

ACTION: For any multi-response analytes, retention time windows should be used but analyst and reviewer should rely primarily on pattern recognition or use paragraph B below. If the answer to either 9.13 or 9.14 above is no, check the chromatograms of all samples which followed the last in-control standard. If samples were not re-analyzed, all samples analyzed after the last in-control standard must be evaluated using professional judgement.

(A) For non-detected target compounds, check to see if the sample chromatograms contain any peaks that are close to the expected RT window of the Arcolor of interest. If no peaks are present, no qualification of data is necessary. If peaks are present close th RT window of the Aroclor of interest, qualify the non-detected values as presumptively present "N".

Yes NO N/A

(B) For detected compounds in the affected samples, if peaks within the RT window, no qualification necessary. If peaks are close to the expected RT window of the Aroclor of interest, the reviewer can examine the data package for the presence of three or more standards the Aroclor of interest that were run within the analytical sequence during which the sample was analyzed. If three or more such standards are present, the RT window can be reevaluated using the Mean Retention Times of the standards. If the peaks in the affectd sample fall within the revised window, qualify the detected target compounds "NJ". If the reviewer cannot do anything with the data to resolve the problem of concern, qualify all non-detects as unusable "R". (Table 9)

9.15 Has no more than 12 hours elapsed from the injection of the opening CCV and the end of the analytical sequence sequence (closing CCV). (Table 9) [ ] [✓] ___

Table 9. CCV Criteria

Criteria	Action	
	Detected Associated Compounds	**Non-Detected Associated Compounds**
RT out of RT window	Use professional judgement (Sec 9.14)	
%D not within +/- 15%	J	UJ
Time elapsed greater than section 9.15 criteria.	R	
%D, time elapsed, RT are all within acceptable limits.	No qualifications	

9.16 Are there any transcription/calculation errors between raw data and data summary forms? ___ [✓] ___

ACTION: If large errors exists, call lab for explanation/resubmittal, make any necessary corrections and document the effect in data assessments under "Conclusions".

10.0 <u>Analytical Sequence Check (Form VIII-PEST/Equivalent)</u>

10.1 Have all samples been listed on CLP Form VIII or equivalent, and are separate forms present for each column? [✓] ___ ___

Yes NO N/A

ACTION: If no, take action specified in 3.2 above.

10.2 Was the proper analytical sequence followed for each initial calibration and subsequent analyses? [✓] ___ ___

ACTION: If no, use professional judgement to determine the severity of the effect on the data and qualify it accordingly. Generally, the effect is negligible unless the sequence was grossly altered or the calibration was also out of limits.

10.3 Were the TCMX/DCB surrogate RTs for the samples within the mean surrogate RT from the initial calibration? [✓] ___ ___

Action: If no, see "Action" in section 9.14 above

11.0 Extraction Techniques for Sample Preparation

Method 8082A permits a variety of extraction techniques to be used for sample preparation. Check which extraction procedure was used?

1. Aqueous samples:

   1. Separatory funnel (Method 3510) [ ] ___ ___
   2. Continuous liquid-liquid extraction (Method 3520) [ ] ___ ___
   3. Solid phase extraction (Method 3535) [ ] ___ ___
   4. Other [ ] ___ ___

2. Solid samples:

   1. Soxhlet (Method 3540) [ ] ___ ___
   2. Automated Soxhlet (Method 3541) [ ] ___ ___
   3. Pressurized fluid (Method 3545) [ ] ___ ___
   4. Microwave extraction (Method 3546) [ ] ___ ___
   5. Ultrasonic extraction (Method 3550) [✓] ___ ___

Yes NO N/A

6. Supercritical fluid (Method 3562) [ ] ___ ___

7. Other [ ] ___ ___

11.1 Extract Cleanup - Efficiency Verification (Form IX/Equivalent)

11.1.1 Method 8082 (section 7.2) references method 3660 (sulfur) and 3665A (sulfuric acid) to use for cleaning extracts. Were one or both method used? [✓] ___ ___

ACTION: If no, take action specified in 3.2 above. If data suggests cleanup was not performed, make note in the data assessment.

NOTE: Method 3620A, Florisil, may be used per approved project QA plan. The method does not list which analytes and surrogate(s) to use to verify column efficiency. The reviewer must check project plan to verify method used as well as the correct PCB list. If not stated or available, use the CLP listing or accept what the laboratory used.

11.2 Are all samples listed on modified CLP PCBs Florisil/Cartridge Check Form? [ ] ___ ✓

ACTION: If no, take action specified in 3.2 above.

11.3 Was GPC Cleanup (method 3640A) performed? [✓] ___ ___

NOTE: GPC cleanup is not required and is optional. The reviewer should check Project Plan to verify requirement.

11.4 Were the same PCB analytes used in calibration used to check the efficiency of the cleanup procedures? [✓] ___ ___

11.5 Are percent recoveries (% R) of the PCBs and surrogate compounds used to check the efficiency of the cleanup procedures within lab's in-house QC limits (use 70-130% if not available). [✓] ___ ___

	Yes	NO	N/A
70-130% for GPC calibration?	[✓]	___	___

Qualify only the analyte(s) which fail the recovery criteria as follows:

ACTION: If % R are < 70%, qualify positive results "J" and quantitation limits "UJ". Non-detects should be qualified "R" if zero %R was obtained for PCBs. Use professional judgement to qualify positive results if recoveries are greater than the upper limit.

12.0 PCB Identification

12.1 Has CLP Form X or equivalent, showing retention time data for positive results on the two GC columns, been completed for every sample in which a PCB was detected?	[ ]	___	✓

ACTION: If no, take action specified in 3.2 above, or compile a list comparing the retention times for all sample hits on the two columns.

12.2 Are there any transcription/calculation errors between raw data and data summary forms (initial calibration summaries, calibration verification summaries, analytical sequence summaries, GPC and cleanup verification forms)?	___	[✓]	___

ACTION: If large errors exist, call lab for explanation/resubmittal, make necessary corrections and note error in the data assessment.

12.3 Are retention times (RT) of sample compounds within the established RT windows for both columns/analyses?	[✓]	___	___

ACTION: Qualify as unusable (R) all positive results which were not confirmed by second GC column analysis. Also qualify "R", unusable, all positive results not within RT windows unless associated standard compounds are similarly biased. The reviewer should use professional judgement to assign an appropriate quantitation limit.

Yes NO N/A

12.4 Check chromatograms for false negatives, especially if RT windows on each column were established differently.
Were there any false negatives? ___ [✓] ___

ACTION: Use professional judgement to decide if the compound should be reported. If there is reason to believe that peaks outside retention RT windows should be reported, make corrections to data summary forms (Form I) and note in data assessment.

12.5 Was GC/MS confirmation provided when sample concentration was sufficient (> 10 ug/ml) in the final extract? [✓] ___ ___

ACTION: Indicate with red pencil which Form I results were confirmed by GC/MS and also note in data assessment. GC/MS confirmation is an option, see section 7.10 of Method 8082A-20. If GC/MS confirmation is not available, follow action in section 3.2.

12.6 Is the percent difference (%D) calculated for the positive sample results on the two GC columns <25.0%? [✓] ___ ___

NOTE: The method requires quantitation from one column. The second column is to confirm the presence of an analyte. It is the reviewer's responsibility to verify from the project plan what the lab was required to report. If the lab was required to report concentrations from both columns, continue with validation for % Difference. If required, but not reported, either contact the lab for results or calculate the concentrations from the calibration. If not required, skip this section. Document actions in Data Assessment.

ACTION: If the reviewer finds neither column shows interference for the positive hits, the data should be qualified as follows:

% Difference	Qualifier

Yes NO N/A

0-25%	none
26-70%	"J"
71-100%	"NJ"
101-200% (No Interference)	"R"
101-200% (Interference detected)	"NJ"
>50% (PCBs value is <CRQL)	"U"
>200%	"R"

Note: The lower of the two values is reported on Form I. If using professional judgement,the reviewer determines that he higher result was more acceptable, the reviewer should replace the value and indicate the reason for the change in the data assessment.

13.0 Compound Quantitation and Reported Detection Limits

13.1 Are there any transcription/calculation errors in Form I results? Check at least two positive values. Were any errors found? ___ [✓] ___

NOTE: Single-peak PCBs results can be checked for rough agreement between quantitative results obtained on the two GC columns. The reviewer should use professional judgement to decide whether a much larger concentration obtained on one column versus the other indicates the presence of an interfering compound. If an interference is suspected, the lower of the two values should be reported and qualified according to section 12.6 above. This necessitates a determination of an estimated concentration on the confirmation column. The narrative should indicate that the presence of interferences has led to the quantitation of the second column confirmation results.

13.2 Are the EDLs (Estimated Detection Limits) adjusted to reflect sample dilutions and, for soils, % moisture? [✓] ___ ___

ACTION: If errors are large, call lab for explanation/resubmittal, make any necessary corrections and document effect in data assessments.

Yes NO N/A

ACTION: When a sample is analyzed at more than one dilution, the lowest EDLs are used (unless a QC exceedance dictates the use of the higher EDL data from the diluted sample analysis). Replace concentrations that exceed the calibration range in the original analysis by crossing out the value on the original Form I and substituting it with data from the analysis of diluted sample. Specify which Form I is to be used, then draw a red "X" across the entire page of all Form I's that should not be used, including any in the summary package.

ACTION: EDLs affected by large, off-scale peaks should be qualified as unusable, "R". If the interference is on-scale, the reviewer can provide a modified EDL flagged "UJ" for each affected compound.

14.0 Chromatogram Quality

14.1 Were baselines stable? [✓] ___ ___

14.2 Were any electropositive displacement (negative peaks) or unusual peaks seen? ___ [✓] ___

ACTION: Note all system performance problems in the data assessment.

15.0 Field Duplicates

15.1 Were any field duplicates submitted for PCB analysis? [ ] ✓ ___

ACTION: Compare the reported results for field duplicates and calculate the relative percent difference.

ACTION: Any gross variation between field duplicate results must be addressed in the reviewer narrative. However, if large differences exist, the identity of the field duplicates is questionable. An attempt should be made

Yes NO N/A

to determine the proper identification of field duplicates.

Appendix D

Support Documentation

SDG Narrative

Mitkem Laboratories submits the enclosed data package in response to Tetra Tech NUS Inc.'s CTO-066, NWIRP Bethpage, NY, GM-75 project. Under this deliverable, analysis results are presented for eleven samples that were received at Mitkem on May 20, 2009. Samples were analyzed per instructions in the chain of custody form.

The analyses were performed according to EPA SW-846 methods and reported in CLP-type format for Level 4 deliverable.

The following observation and/or deviations are observed for the following analyses:

1. Overall Observation:

Where needed, manual integrations were performed to improve data quality. The corrections were reviewed and associated hardcopies generated and reported as required. Manual integrations are coded to provide the data reviewer justification for such action. The codes are labeled on the ion chromatogram signal (GC/MS signal) and chromatogram for GC based analysis as follows:

- M1 peak tailing or fronting.
- M2 peak co-elution.
- M3 rising or falling baseline.
- M4 retention time shift.
- M5 miscellaneous – under this category, the justification is explained.
- M6 software did not integrate peak
- M7 partial peak integration

The enclosed report includes the originals of all data with the exception of logbook pages and certain initial calibrations. Photocopies of logbook pages are included, with the originals maintained on file at the laboratory. The originals of initial calibrations that are shared among several cases are maintained on file at the laboratory, with photocopies included in the data package.

2. Volatile Analysis:

Samples were analyzed by Method SW846 8260C. Several samples contained significant sediment. Based on evaluation of these samples, the laboratory determined that they would not be able to be successfully analyzed using the aqueous sample procedure. Instead they were analyzed as wet sediments, by analysis of a 5gram aliquot of the water/sediment mix from the sample container. Results for these samples are reported in ug/Kg (ppb) on a wet weight basis to be directly comparable to the other aqueous sample results.

Surrogate recovery: surrogate recoveries were within the QC limits.

Lab control sample: spike recoveries were within the QC limits.

Sample analysis: no unusual occurrences were noted during sample analysis.

3. PCB Aroclor Analysis:

Samples were analyzed by Method SW846 8082.

Surrogate recovery: surrogate recoveries were within the QC limits.

Lab control sample: spike recoveries were within the QC limits on both GC columns.

Sample analysis: no unusual occurrences were noted during sample analysis.

I certify that this data package is in compliance, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Edward A. Lawler
Laboratory Operations Manager
05/29/09

TETRA TECH NUS, INC. | CHAIN OF CUSTODY | NUMBER 27237 | PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G00622	NWIRP-GM75	D BRAYACK	757 461 3824	MITKEM / LANCER OR NG
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
SJ Conti		S CONTI	412 551 2629	175 METRO CENTER BLVD
		CARRIER/WAYBILL NUMBER		CITY, STATE
		FED EX AB# 8631 3888 0734		WARWICK, RI, 02886

STANDARD TAT ☐
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G G
PRESERVATIVE USED: 4°C 4°C 4°C HCL

	DATE YEAR 2009	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: VOCs 20 oz	PCBs 40 oz	VOCs 40 ml						COMMENTS
01	5/18	1300	BPS1-TB-051809M	TB	—	—	QC	G	2	—	—	2						
02	5/18	1350	BPS1-3003-SB-041M	BPS1 3003	40	41	SO	G	2	1	1							
03	5/18	1405	BPS1-3003-SB-046M	"	45	46	SO	G	1	1	—							
04	5/18	1415	BPS1-3003-SB-051M	"	50	51	SO	G	2	1	1							
05	5/18	1430	BPS1-3003-SB-056M	"	55	56	SO	G	1	1	—							
06	5/18	1445	BPS1-3003-SB-061M	"	60	61	SO	G	2	1	1							
07	5/18	1700	BPS1-3003-GW-091M	"	90	91	GW	G	2	~~2~~ 1		2						
08	5/19	0840	BPS1-3003-SB-111M	"	110	111	SO	G	2	1	1							
09	5/19	0950	BPS1-3003-SB-116M	"	115	116	SO	G	2	1	1							
10	5/19	1000	BPS1-3003-SB-121M	"	120	121	SO	G	2	1	1							
11	5/19	1110	BPS1-3003-GW-131M	"	130	131	GW	G	2			2						

1. RELINQUISHED BY SJ Conti	DATE 5/19/09	TIME 1730	1. RECEIVED BY FED EX	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY Usmir Huntley	DATE 5/20/09	TIME 8:55
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS 2°C

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

HOLDTIME

SDG H0885

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	%	BPS1-3003-SB-111M	H0885-08B	NM	5/19/2009	5/22/2009	5/23/2009	3	1	4
OV	%	BPS1-3003-GW-091M	H0885-07A	NM	5/18/2009	5/21/2009	5/22/2009	3	1	4
OV	%	BPS1-TB-051809M	H0885-01A	NM	5/18/2009	5/21/2009	5/22/2009	3	1	4
OV	%	BPS1-3003-SB-116M	H0885-09B	NM	5/19/2009	5/22/2009	5/23/2009	3	1	4
OV	%	BPS1-3003-SB-061M	H0885-06B	NM	5/18/2009	5/22/2009	5/23/2009	4	1	5
OV	%	BPS1-3003-SB-056M	H0885-05A	NM	5/18/2009	5/22/2009	5/22/2009	4	0	4
OV	%	BPS1-3003-SB-051M	H0885-04B	NM	5/18/2009	5/22/2009	5/22/2009	4	0	4
OV	%	BPS1-3003-SB-046M	H0885-03A	NM	5/18/2009	5/22/2009	5/22/2009	4	0	4
OV	%	BPS1-3003-SB-041M	H0885-02B	NM	5/18/2009	5/22/2009	5/22/2009	4	0	4
OV	%	BPS1-3003-GW-131M	H0885-11A	NM	5/19/2009	5/21/2009	5/22/2009	2	1	3
OV	%	BPS1-3003-SB-121M	H0885-10B	NM	5/19/2009	5/22/2009	5/23/2009	3	1	4
OV	UG/KG	BPS1-3003-SB-116M	H0885-09B	NM	5/19/2009	5/22/2009	5/23/2009	3	1	4
OV	UG/KG	BPS1-3003-SB-111M	H0885-08B	NM	5/19/2009	5/22/2009	5/23/2009	3	1	4
OV	UG/KG	BPS1-3003-SB-041M	H0885-02B	NM	5/18/2009	5/22/2009	5/22/2009	4	0	4
OV	UG/KG	BPS1-3003-SB-046M	H0885-03A	NM	5/18/2009	5/22/2009	5/22/2009	4	0	4

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	UG/KG	BPS1-3003-SB-051M	H0885-04B	NM	5/18/2009	5/22/2009	5/22/2009	4	0	4
OV	UG/KG	BPS1-3003-SB-056M	H0885-05A	NM	5/18/2009	5/22/2009	5/22/2009	4	0	4
OV	UG/KG	BPS1-3003-SB-121M	H0885-10B	NM	5/19/2009	5/22/2009	5/23/2009	3	1	4
OV	UG/KG	BPS1-3003-SB-061M	H0885-06B	NM	5/18/2009	5/22/2009	5/23/2009	4	1	5
OV	UG/L	BPS1-3003-GW-091M	H0885-07A	NM	5/18/2009	5/21/2009	5/22/2009	3	1	4
OV	UG/L	BPS1-3003-GW-131M	H0885-11A	NM	5/19/2009	5/21/2009	5/22/2009	2	1	3
OV	UG/L	BPS1-TB-051809M	H0885-01A	NM	5/18/2009	5/21/2009	5/22/2009	3	1	4
PCB	%	BPS1-3003-SB-061M	H0885-06A	NM	5/18/2009	5/21/2009	5/26/2009	3	5	8
PCB	%	BPS1-3003-SB-121M	H0885-10A	NM	5/19/2009	5/21/2009	5/26/2009	2	5	7
PCB	%	BPS1-3003-SB-111M	H0885-08A	NM	5/19/2009	5/21/2009	5/26/2009	2	5	7
PCB	%	BPS1-3003-SB-051M	H0885-04A	NM	5/18/2009	5/21/2009	5/26/2009	3	5	8
PCB	%	BPS1-3003-SB-041M	H0885-02A	NM	5/18/2009	5/21/2009	5/26/2009	3	5	8
PCB	%	BPS1-3003-SB-116M	H0885-09A	NM	5/19/2009	5/21/2009	5/26/2009	2	5	7
PCB	UG/KG	BPS1-3003-SB-121M	H0885-10A	NM	5/19/2009	5/21/2009	5/26/2009	2	5	7
PCB	UG/KG	BPS1-3003-SB-041M	H0885-02A	NM	5/18/2009	5/21/2009	5/26/2009	3	5	8
PCB	UG/KG	BPS1-3003-SB-051M	H0885-04A	NM	5/18/2009	5/21/2009	5/26/2009	3	5	8
PCB	UG/KG	BPS1-3003-SB-061M	H0885-06A	NM	5/18/2009	5/21/2009	5/26/2009	3	5	8
PCB	UG/KG	BPS1-3003-SB-111M	H0885-08A	NM	5/19/2009	5/21/2009	5/26/2009	2	5	7

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
PCB	UG/KG	BPS1-3003-SB-116M	H0885-09A	NM	5/19/2009	5/21/2009	5/26/2009	2	5	7

4A - FORM IV VOA

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK6P

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Lab File ID: V6G6964.D Lab Sample ID: MB-43737

Instrument ID: V6

Matrix: (SOIL/SED/WATER) WATER Date Analyzed: 05/21/2009

Level: (TRACE or LOW/MED) LOW Time Analyzed: 20:32

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	V6PLCS	LCS-43737	V6G6965.D	21:01
02	V6PLCSD	LCSD-43737	V6G6966.D	21:29
03	BPS1-TB-051809M	H0885-01A	V6G6977.D	02:39
04	BPS1-3003-GW-091M	H0885-07A	V6G6978.D	03:07
05	BPS1-3003-GW-131M	H0885-11A	V6G6979.D	03:34

COMMENTS:

SW846

0084

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK6P

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: MB-43737

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V6G6964.D

Level: (TRACE/LOW/MED) LOW Date Received:

% Moisture: not dec. Date Analyzed: 05/21/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	5.0	U
75-09-2	Methylene chloride	5.0	U
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-butyl ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
78-93-3	2-Butanone	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
67-66-3	Chloroform	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
71-43-2	Benzene	5.0	U
79-01-6	Trichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
1330-20-7	Xylene (Total)	5.0	U

SW846

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK6P

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: MB-43737

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V6G6964.D

Level: (TRACE/LOW/MED) LOW Date Received:

% Moisture: not dec. Date Analyzed: 05/21/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U
110-82-7	Cyclohexane	5.0	U
79-20-9	Methyl acetate	5.0	U
108-87-2	Methylcyclohexane	5.0	U

SW846

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
VBLK6P

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: MB-43737

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V6G6964.D

Level: (TRACE or LOW/MED) LOW Date Received:

% Moisture: not dec. Date Analyzed: 05/21/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Purge Volume: 5.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

SW846

3 - FORM III
WATER LABORATORY CONTROL
SAMPLE RECOVERY

EPA SAMPLE NO.

V6PLCS

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Lab Sample ID: LCS-43737 LCS Lot No.:

Date Extracted: 05/21/2009 Date Analyzed (1): 05/21/2009

COMPOUND	SPIKE ADDED	SAMPLE CONCENTRATION	LCS CONCENTRATION	LCS %REC	#	QC. LIMITS REC.
Dichlorodifluoromethane	50.0000	0.0000	47.8703	96		30 - 155
Chloromethane	50.0000	0.0000	49.9012	100		40 - 125
Vinyl chloride	50.0000	0.0000	53.1863	106		50 - 145
Bromomethane	50.0000	0.0000	52.7845	106		30 - 145
Chloroethane	50.0000	0.0000	52.8020	106		60 - 135
Trichlorofluoromethane	50.0000	0.0000	59.9885	120		60 - 145
1,1-Dichloroethene	50.0000	0.0000	51.9086	104		70 - 130
Acetone	50.0000	0.0000	42.0633	84		40 - 140
Carbon disulfide	50.0000	0.0000	53.8058	108		35 - 160
Methylene chloride	50.0000	0.0000	52.7846	106		55 - 140
trans-1,2-Dichloroethene	50.0000	0.0000	54.7458	109		60 - 140
Methyl tert-butyl ether	50.0000	0.0000	49.6838	99		65 - 125
1,1-Dichloroethane	50.0000	0.0000	55.3004	111		70 - 135
2-Butanone	50.0000	0.0000	43.9872	88		30 - 150
cis-1,2-Dichloroethene	50.0000	0.0000	54.0323	108		70 - 125
Chloroform	50.0000	0.0000	55.0383	110		65 - 135
1,1,1-Trichloroethane	50.0000	0.0000	53.6584	107		65 - 130
Carbon tetrachloride	50.0000	0.0000	51.2387	102		65 - 140
1,2-Dichloroethane	50.0000	0.0000	50.9542	102		70 - 130
Benzene	50.0000	0.0000	54.0523	108		80 - 120
Trichloroethene	50.0000	0.0000	54.7188	109		70 - 125
1,2-Dichloropropane	50.0000	0.0000	54.2328	108		75 - 125
Bromodichloromethane	50.0000	0.0000	52.2069	104		75 - 120
cis-1,3-Dichloropropene	50.0000	0.0000	50.2156	100		70 - 130
4-Methyl-2-pentanone	50.0000	0.0000	43.1318	86		60 - 135
Toluene	50.0000	0.0000	52.7410	105		75 - 120
trans-1,3-Dichloropropene	50.0000	0.0000	49.5510	99		55 - 140
1,1,2-Trichloroethane	50.0000	0.0000	48.9772	98		75 - 125
Tetrachloroethene	50.0000	0.0000	59.8402	120		45 - 150
2-Hexanone	50.0000	0.0000	43.7549	88		55 - 130
Dibromochloromethane	50.0000	0.0000	49.1968	98		60 - 135
1,2-Dibromoethane	50.0000	0.0000	48.9190	98		80 - 120
Chlorobenzene	50.0000	0.0000	54.1020	108		80 - 120
Ethylbenzene	50.0000	0.0000	54.2151	108		75 - 125
Xylene (Total)	150.0000	0.0000	163.2976	109		81 - 121
Styrene	50.0000	0.0000	52.3930	105		65 - 135
Bromoform	50.0000	0.0000	43.7554	88		70 - 130
Isopropylbenzene	50.0000	0.0000	53.6822	107		75 - 125
1,1,2,2-Tetrachloroethane	50.0000	0.0000	47.2537	95		65 - 130
1,3-Dichlorobenzene	50.0000	0.0000	52.4036	105		75 - 125
1,4-Dichlorobenzene	50.0000	0.0000	51.7311	103		75 - 125
1,2-Dichlorobenzene	50.0000	0.0000	52.3913	105		70 - 120
1,2-Dibromo-3-chloropropan	50.0000	0.0000	40.4254	81		50 - 130
1,2,4-Trichlorobenzene	50.0000	0.0000	47.1398	94		65 - 135

SW846

3 - FORM III
WATER LABORATORY CONTROL
SAMPLE RECOVERY

EPA SAMPLE NO.

V6PLCS

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Lab Sample ID: LCS-43737 LCS Lot No.:

Date Extracted: 05/21/2009 Date Analyzed (1): 05/21/2009

COMPOUND	SPIKE ADDED	SAMPLE CONCENTRATION	LCS CONCENTRATION	LCS %REC	#	QC. LIMITS REC.
1,1,2-Trichloro-1,2,2-trif	50.0000	0.0000	53.0323	106		70 - 130
Cyclohexane	50.0000	0.0000	53.0968	106		70 - 130
Methyl acetate	50.0000	0.0000	40.6621	81		70 - 130
Methylcyclohexane	50.0000	0.0000	51.9787	104		70 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 48 outside limits

COMMENTS:

SW846

3 - FORM III
WATER LABORATORY CONTROL
SAMPLE DUPLICATE RECOVERY

EPA SAMPLE NO.

V6PLCSD

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Lab Sample ID: LCSD-43737 LCS Lot No.:

COMPOUND	SPIKE ADDED	LCSD CONCENTRATION	LCSD %REC	#	%RPD	#	QC LIMITS RPD	QC LIMITS REC.
Dichlorodifluoromethane	50.0000	48.0035	96		0		40	30 - 155
Chloromethane	50.0000	52.0077	104		4		40	40 - 125
Vinyl chloride	50.0000	53.1015	106		0		40	50 - 145
Bromomethane	50.0000	52.9772	106		0		40	30 - 145
Chloroethane	50.0000	55.7747	112		6		40	60 - 135
Trichlorofluoromethane	50.0000	59.5301	119		1		40	60 - 145
1,1-Dichloroethene	50.0000	51.3472	103		1		40	70 - 130
Acetone	50.0000	46.1456	92		9		40	40 - 140
Carbon disulfide	50.0000	52.9704	106		2		40	35 - 160
Methylene chloride	50.0000	52.7612	106		0		40	55 - 140
trans-1,2-Dichloroethene	50.0000	54.8111	110		1		40	60 - 140
Methyl tert-butyl ether	50.0000	49.2984	99		0		40	65 - 125
1,1-Dichloroethane	50.0000	53.6249	107		4		40	70 - 135
2-Butanone	50.0000	42.8989	86		2		40	30 - 150
cis-1,2-Dichloroethene	50.0000	54.1900	108		0		40	70 - 125
Chloroform	50.0000	53.9679	108		2		40	65 - 135
1,1,1-Trichloroethane	50.0000	52.7561	106		1		40	65 - 130
Carbon tetrachloride	50.0000	50.2191	100		2		40	65 - 140
1,2-Dichloroethane	50.0000	50.4235	101		1		40	70 - 130
Benzene	50.0000	54.1235	108		0		40	80 - 120
Trichloroethene	50.0000	55.2473	110		1		40	70 - 125
1,2-Dichloropropane	50.0000	53.8095	108		0		40	75 - 125
Bromodichloromethane	50.0000	51.2071	102		2		40	75 - 120
cis-1,3-Dichloropropene	50.0000	50.0882	100		0		40	70 - 130
4-Methyl-2-pentanone	50.0000	42.4676	85		1		40	60 - 135
Toluene	50.0000	52.7372	105		0		40	75 - 120
trans-1,3-Dichloropropene	50.0000	49.2175	98		1		40	55 - 140
1,1,2-Trichloroethane	50.0000	47.5817	95		3		40	75 - 125
Tetrachloroethene	50.0000	58.8506	118		2		40	45 - 150
2-Hexanone	50.0000	39.1567	78		12		40	55 - 130
Dibromochloromethane	50.0000	48.5655	97		1		40	60 - 135
1,2-Dibromoethane	50.0000	47.0191	94		4		40	80 - 120
Chlorobenzene	50.0000	52.9531	106		2		40	80 - 120
Ethylbenzene	50.0000	52.5573	105		3		40	75 - 125
Xylene (Total)	150.0000	160.4304	107		2		40	81 - 121
Styrene	50.0000	51.2698	103		2		40	65 - 135
Bromoform	50.0000	42.1312	84		5		40	70 - 130
Isopropylbenzene	50.0000	52.4053	105		2		40	75 - 125
1,1,2,2-Tetrachloroethane	50.0000	47.0120	94		1		40	65 - 130
1,3-Dichlorobenzene	50.0000	52.3487	105		0		40	75 - 125
1,4-Dichlorobenzene	50.0000	51.9394	104		1		40	75 - 125
1,2-Dichlorobenzene	50.0000	51.9439	104		1		40	70 - 120
1,2-Dibromo-3-chloropropan	50.0000	39.7130	79		3		40	50 - 130
1,2,4-Trichlorobenzene	50.0000	46.8162	94		0		40	65 - 135
1,1,2-Trichloro-1,2,2-trif	50.0000	51.1694	102		4		40	70 - 130
Cyclohexane	50.0000	51.1945	102		4		40	70 - 130

SW846

3 - FORM III
WATER LABORATORY CONTROL
SAMPLE DUPLICATE RECOVERY

EPA SAMPLE NO.

V6PLCSD

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Lab Sample ID: LCSD-43737 LCS Lot No.:

COMPOUND	SPIKE ADDED	LCSD CONCENTRATION	LCSD %REC	#	%RPD	#	QC LIMITS RPD	QC LIMITS REC.
Methyl acetate	50.0000	40.2573	81		0		40	70 - 130
Methylcyclohexane	50.0000	50.6168	101		3		40	70 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 48 outside limits

Spike Recovery: 0 out of 48 outside limits

COMMENTS:

SW846

2B - FORM II VOA-2

WATER VOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Level: (TRACE or LOW) LOW

	EPA SAMPLE NO.	VDMC1 (DBFM) #	VDMC2 (DCE) #	VDMC3 (TOL) #	VDMC4 (BFB) #				TOT OUT
01	VBLK6P	101	91	100	94				0
02	V6PLCS	102	91	100	100				0
03	V6PLCSD	104	100	99	99				0
04	BPS1-TB-0518 09M	99	88	101	88				0
05	BPS1-3003-GW -091M	97	89	102	89				0
06	BPS1-3003-GW -131M	99	86	102	88				0

		QC LIMITS
VDMC1	(DBFM) Dibromofluoromethane	(85-115)
VDMC2	(DCE) = 1,2-Dichloroethane-d4	(70-120)
VDMC3	(TOL) = Toluene-d8	(85-120)
VDMC4	(BFB) = Bromofluorobenzene	(75-120)

Column to be used to flag recovery values

* Values outside of contract required QC limits

SW846

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

EPA SAMPLE NO.

BFB60

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Lab File ID: V6G6941A.D BFB Injection Date: 05/21/2009

Instrument ID: V6 BFB Injection Time: 10:06

GC Column: DB-624 ID: 0.25 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.4
75	30.0 - 60.0% of mass 95	40.6
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	0.4 (0.5)1
174	50.0 - 100.0% of mass 95	73.5
175	5.0 - 9.0% of mass 174	5.2 (7.1)1
176	95.0 - 101.0% of mass 174	70.2 (95.6)1
177	5.0 - 9.0% of mass 176	4.8 (6.9)2

1 - Value is % mass 174 2 - Value is % mass 176

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0506O	VSTD0506O	V6G6942.D	05/21/2009	10:41
02	VSTD0206O	VSTD0206O	V6G6943.D	05/21/2009	11:09
03	VSTD0056O	VSTD0056O	V6G6944.D	05/21/2009	11:36
04	VSTD2006O	VSTD2006O	V6G6946.D	05/21/2009	12:56
05	VSTD1006O	VSTD1006O	V6G6947.D	05/21/2009	13:23
06	VICV0506O	VICV0506O	V6G6948.D	05/21/2009	14:04

SW846

6A - FORM VI VOA-1

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Instrument ID: V6 Calibration Date(s): 05/21/2009 05/21/2009

Heated Purge: (Y/N) N Calibration Time(s): 10:41 13:23

Purge Volume: 5.0 (mL)

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID: RRF005 = V6G6944.D RRF020 = V6G6943.D

RRF050 = V6G6942.D RRF100 = V6G6947.D RRF200 = V6G6946.D

COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF200	$\overline{RRF}$	%RSD
Dichlorodifluoromethane	0.184	0.190	0.169	0.185	0.178	0.181	4.4
Chloromethane	0.326	0.326	0.269	0.322	0.306	0.310	7.8
Vinyl chloride	0.247	0.253	0.225	0.237	0.225	0.238	5.4
Bromomethane	0.167	0.142	0.124	0.128	0.110	0.134	16.1
Chloroethane	0.124	0.120	0.106	0.114	0.102	0.113	8.2
Trichlorofluoromethane	0.249	0.236	0.232	0.243	0.233	0.239	3.1
1,1-Dichloroethene	0.266	0.264	0.234	0.255	0.230	0.250	6.9
Acetone	0.039	0.031	0.024	0.028	0.024	0.029	20.7
Carbon disulfide	0.920	0.907	0.790	0.906	0.790	0.863	7.7
Methylene chloride	0.290	0.286	0.253	0.280	0.248	0.271	7.3
trans-1,2-Dichloroethene	0.277	0.285	0.263	0.288	0.251	0.273	5.7
Methyl tert-butyl ether	0.713	0.741	0.667	0.729	0.641	0.698	6.1
1,1-Dichloroethane	0.515	0.525	0.484	0.547	0.490	0.512	5.1
2-Butanone	0.028	0.029	0.027	0.030	0.026	0.028	5.1
cis-1,2-Dichloroethene	0.308	0.288	0.275	0.300	0.262	0.287	6.5
Chloroform	0.434	0.435	0.391	0.436	0.390	0.417	5.8
1,1,1-Trichloroethane	0.385	0.399	0.356	0.401	0.358	0.380	5.7
Carbon tetrachloride	0.335	0.339	0.309	0.344	0.309	0.327	5.1
1,2-Dichloroethane	0.336	0.350	0.317	0.346	0.306	0.331	5.6
Benzene	1.137	1.117	0.981	1.090	0.946	1.054	8.1
Trichloroethene	0.305	0.310	0.269	0.312	0.270	0.293	7.4
1,2-Dichloropropane	0.316	0.308	0.283	0.310	0.271	0.298	6.5
Bromodichloromethane	0.318	0.314	0.292	0.328	0.297	0.310	4.8
cis-1,3-Dichloropropene	0.393	0.419	0.393	0.442	0.396	0.409	5.3
4-Methyl-2-pentanone	0.274	0.302	0.280	0.296	0.269	0.284	5.0
Toluene	1.216	1.195	1.086	1.213	1.056	1.153	6.6
trans-1,3-Dichloropropene	0.277	0.350	0.335	0.376	0.341	0.336	10.8
1,1,2-Trichloroethane	0.241	0.235	0.215	0.239	0.213	0.229	5.9
Tetrachloroethene	0.434	0.397	0.308	0.372	0.300	0.362	15.8
2-Hexanone	0.226	0.222	0.201	0.251	0.247	0.229	8.9
Dibromochloromethane	0.319	0.340	0.311	0.363	0.340	0.335	6.1
1,2-Dibromoethane	0.287	0.333	0.295	0.333	0.311	0.312	6.7
Chlorobenzene	1.099	1.101	0.949	1.056	0.910	1.023	8.6
Ethylbenzene	0.564	0.571	0.495	0.576	0.507	0.543	7.0
Xylene (Total)	0.682	0.696	0.608	0.683	0.594	0.653	7.3
Styrene	0.854	0.946	0.906	1.094	0.972	0.955	9.4
Bromoform	0.172	0.202	0.188	0.215	0.208	0.197	8.6
Isopropylbenzene	1.418	1.454	1.292	1.470	1.328	1.393	5.7
1,1,2,2-Tetrachloroethane	0.865	0.876	0.790	0.836	0.767	0.827	5.7

Report 1,4-Dioxane for Low-Medium VOA analysis only SW846

6B - FORM VI VOA-2

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Instrument ID: V6 Calibration Date(s): 05/21/2009 05/21/2009

Heated Purge: (Y/N) N Calibration Time(s): 10:41 13:23

Purge Volume: 5.0 (mL)

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID: RRF005 = V6G6944.D RRF020 = V6G6943.D

RRF050 = V6G6942.D RRF100 = V6G6947.D RRF200 = V6G6946.D

COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF200	$\overline{RRF}$	%RSD
1,3-Dichlorobenzene	1.626	1.649	1.495	1.710	1.588	1.614	5.0
1,4-Dichlorobenzene	1.695	1.666	1.512	1.712	1.574	1.632	5.2
1,2-Dichlorobenzene	1.586	1.615	1.456	1.622	1.452	1.546	5.5
1,2-Dibromo-3-chloropropane	0.108	0.130	0.128	0.142	0.141	0.130	10.6
1,2,4-Trichlorobenzene	0.716	0.799	0.783	0.924	0.896	0.824	10.4
1,1,2-Trichloro-1,2,2-trifluoroethane	0.249	0.245	0.232	0.258	0.230	0.243	4.9
Cyclohexane	0.579	0.587	0.527	0.586	0.519	0.560	6.0
Methyl acetate	0.273	0.264	0.221	0.235	0.202	0.239	12.3
Methylcyclohexane	0.454	0.454	0.416	0.457	0.397	0.436	6.3

SW846

6C - FORM VI VOA-3

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Instrument ID: V6 Calibration Date(s): 05/21/2009 05/21/2009

Heated Purge: (Y/N) N Calibration Time(s): 10:41 13:23

Purge Volume: 5.0 (mL)

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID: RRF005 = V6G6944.D RRF020 = V6G6943.D

RRF050 = V6G6942.D RRF100 = V6G6947.D RRF200 = V6G6946.D

COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF200	$\overline{RRF}$	%RSD
Dibromofluoromethane	0.236	0.233	0.230	0.236	0.230	0.233	1.3
1,2-Dichloroethane-d4	0.059	0.057	0.053	0.054	0.054	0.055	4.3
Toluene-d8	1.300	1.312	1.316	1.321	1.370	1.324	2.0
Bromofluorobenzene	0.476	0.487	0.493	0.505	0.504	0.493	2.5

Report 1,4-Dioxane-d8 for Low-Medium VOA analysis only SW846

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

EPA SAMPLE NO.

BFB6P

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Lab File ID: V6G6960.D BFB Injection Date: 05/21/2009

Instrument ID: V6 BFB Injection Time: 18:36

GC Column: DB-624 ID: 0.25 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.0
75	30.0 - 60.0% of mass 95	39.9
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.0
173	Less than 2.0% of mass 174	0.4 (0.5)1
174	50.0 - 100.0% of mass 95	74.7
175	5.0 - 9.0% of mass 174	5.6 (7.5)1
176	95.0 - 101.0% of mass 174	71.5 (95.7)1
177	5.0 - 9.0% of mass 176	4.6 (6.4)2

1 - Value is % mass 174 2 - Value is % mass 176

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0506P	VSTD0506P	V6G6962.D	05/21/2009	19:34
02	VBLK6P	MB-43737	V6G6964.D	05/21/2009	20:32
03	V6PLCS	LCS-43737	V6G6965.D	05/21/2009	21:01
04	V6PLCSD	LCSD-43737	V6G6966.D	05/21/2009	21:29
05	BPS1-TB-0518 09M	H0885-01A	V6G6977.D	05/22/2009	02:39
06	BPS1-3003-GW -091M	H0885-07A	V6G6978.D	05/22/2009	03:07
07	BPS1-3003-GW -131M	H0885-11A	V6G6979.D	05/22/2009	03:34

SW846

7A - FORM VII VOA-1

VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Instrument ID: V6 Calibration Date: 05/21/2009 Time: 19:34

Lab File ID: V6G6962.D Init. Calib. Date(s): 05/21/2009 05/21/2009

EPA Sample No.(VSTD#####): VSTD0506P Init. Calib. Time(s): 10:41 13:23

Heated Purge: (Y/N) N GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 5.0 (mL)

COMPOUND	$\overline{RRF}$	RRF050	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.181	0.177	0.100	-2.2	20.0
Chloromethane	0.310	0.326	0.010	5.3	20.0
Vinyl chloride	0.238	0.259	0.010	9.1	20.0
Bromomethane	0.134	0.143	0.010	6.6	20.0
Chloroethane	0.113	0.127	0.010	11.8	20.0
Trichlorofluoromethane	0.239	0.269	0.010	12.8	20.0
1,1-Dichloroethene	0.250	0.259	0.100	3.6	20.0
Acetone	0.029	0.026	0.010	-10.1	20.0
Carbon disulfide	0.863	0.918	0.010	6.4	20.0
Methylene chloride	0.271	0.291	0.010	7.3	20.0
trans-1,2-Dichloroethene	0.273	0.293	0.010	7.5	20.0
Methyl tert-butyl ether	0.698	0.702	0.010	0.6	20.0
1,1-Dichloroethane	0.512	0.568	0.010	10.8	20.0
2-Butanone	0.028	0.027	0.010	-4.2	20.0
cis-1,2-Dichloroethene	0.287	0.309	0.010	8.0	20.0
Chloroform	0.417	0.461	0.010	10.6	20.0
1,1,1-Trichloroethane	0.380	0.408	0.010	7.5	20.0
Carbon tetrachloride	0.327	0.343	0.010	4.9	20.0
1,2-Dichloroethane	0.331	0.343	0.010	3.5	20.0
Benzene	1.054	1.126	0.010	6.8	20.0
Trichloroethene	0.293	0.324	0.010	10.7	20.0
1,2-Dichloropropane	0.298	0.324	0.010	8.7	20.0
Bromodichloromethane	0.310	0.329	0.010	6.1	20.0
cis-1,3-Dichloropropene	0.409	0.426	0.010	4.2	20.0
4-Methyl-2-pentanone	0.284	0.259	0.010	-8.9	20.0
Toluene	1.153	1.225	0.010	6.2	20.0
trans-1,3-Dichloropropene	0.336	0.345	0.010	2.6	20.0
1,1,2-Trichloroethane	0.229	0.227	0.010	-0.8	20.0
Tetrachloroethene	0.362	0.428	0.010	18.3	20.0
2-Hexanone	0.229	0.197	0.010	-14.2	20.0
Dibromochloromethane	0.335	0.330	0.010	-1.3	20.0
1,2-Dibromoethane	0.312	0.311	0.010	-0.2	20.0
Chlorobenzene	1.023	1.120	0.010	9.5	20.0
Ethylbenzene	0.543	0.588	0.010	8.4	20.0
Xylene (Total)	0.653	0.710	0.010	8.8	20.0
Styrene	0.955	1.038	0.010	8.8	20.0
Bromoform	0.197	0.178	0.010	-9.8	20.0
Isopropylbenzene	1.393	1.482	0.300	6.4	20.0
1,1,2,2-Tetrachloroethane	0.827	0.818	0.300	-1.0	20.0
1,3-Dichlorobenzene	1.614	1.749	0.010	8.4	20.0

Report 1,4-Dioxane for Low-Medium VOA analysis only SW846

7B - FORM VII VOA-2

VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Instrument ID: V6 Calibration Date: 05/21/2009 Time: 19:34

Lab File ID: V6G6962.D Init. Calib. Date(s): 05/21/2009 05/21/2009

EPA Sample No.(VSTD#####): VSTD0506P Init. Calib. Time(s): 10:41 13:23

Heated Purge: (Y/N) N GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 5.0 (mL)

COMPOUND	$\overline{RRF}$	RRF050	MIN RRF	%D	MAX %D
1,4-Dichlorobenzene	1.632	1.730	0.010	6.0	20.0
1,2-Dichlorobenzene	1.546	1.651	0.010	6.8	20.0
1,2-Dibromo-3-chloropropane	0.130	0.115	0.010	-11.2	20.0
1,2,4-Trichlorobenzene	0.824	0.831	0.010	0.9	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	0.243	0.253	0.010	4.2	20.0
Cyclohexane	0.560	0.587	0.010	5.0	20.0
Methyl acetate	0.239	0.203	0.010	-15.2	20.0
Methylcyclohexane	0.436	0.451	0.010	3.6	20.0

7C - FORM VII VOA-3

VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Instrument ID: V6 Calibration Date: 05/21/2009 Time: 19:34

Lab File ID: V6G6962.D Init. Calib. Date(s): 05/21/2009 05/21/2009

EPA Sample No.(VSTD#####): VSTD0506P Init. Calib. Time(s): 10:41 13:23

Heated Purge: (Y/N) N GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 5.0 (mL)

COMPOUND	$\overline{RRF}$	RRF050	MIN RRF	%D	MAX %D
Dibromofluoromethane	0.233	0.239	0.010	2.5	20.0
1,2-Dichloroethane-d4	0.055	0.053	0.010	-3.5	20.0
Toluene-d8	1.324	1.313	0.010	-0.8	20.0
Bromofluorobenzene	0.493	0.490	0.010	-0.6	20.0

Report 1,4-Dioxane-d8 for Low-Medium VOA analysis only SW846

8A - FORM VIII VOA

VOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

GC Column: DB-624 ID: 0.25 (mm) Init. Calib. Date(s): 05/21/2009 05/21/2009

EPA Sample No.(VSTD#####): VSTD0506P Date Analyzed: 05/21/2009

Lab File ID (Standard): V6G6962.D Time Analyzed: 19:34

Instrument ID: V6 Heated Purge: (Y/N) N

		IS1 (S1) AREA #	RT #	IS2 (S2) AREA #	RT #	IS3 (S3) AREA #	RT #
	12 HOUR STD	499165	5.967	361924	9.617	170603	12.555
	UPPER LIMIT	998330	6.467	723848	10.117	341206	13.055
	LOWER LIMIT	249583	5.467	180962	9.117	85302	12.055
	EPA SAMPLE NO.						
01	VBLK6P	489230	5.967	345580	9.623	144033	12.562
02	V6PLCS	502623	5.972	360086	9.622	171416	12.554
03	V6PLCSD	495347	5.965	359956	9.621	169698	12.553
04	BPS1-TB-0518 09M	529381	5.971	358517	9.621	124681	12.560
05	BPS1-3003-GW -091M	519993	5.967	350297	9.623	121347	12.561
06	BPS1-3003-GW -131M	514179	5.965	343386	9.621	118578	12.560

IS1 () = Fluorobenzene

IS2 () = Chlorobenzene-d5

IS3 () = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = 200% (Low-Medium Volatiles) and 140% (Trace Volatiles) of internal standard area

AREA LOWER LIMIT = 50% (Low-Medium Volatiles) and 60% (Trace Volatiles) of internal standard area

RT UPPER LIMIT = +0.50 (Low-Medium Volatiles) and +0.33 (Trace Volatiles) minutes of internal standard RT

RT LOWER LIMIT = -0.50 (Low-Medium Volatiles) and -0.33 (Trace Volatiles) minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

4A - FORM IV VOA

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK1Y

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Lab File ID: V1K6914.D Lab Sample ID: MB-43777

Instrument ID: V1

Matrix: (SOIL/SED/WATER) SOIL Date Analyzed: 05/23/2009

Level: (TRACE or LOW/MED) LOW Time Analyzed: 00:43

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	V1YLCS	LCS-43777	V1K6915.D	01:11
02	V1YLCSD	LCSD-43777	V1K6916.D	01:40
03	BPS1-3003-SB -061M	H0885-06B	V1K6918.D	02:38
04	BPS1-3003-SB -111M	H0885-08B	V1K6919.D	03:07
05	BPS1-3003-SB -116M	H0885-09B	V1K6920.D	03:36
06	BPS1-3003-SB -121M	H0885-10B	V1K6921.D	04:05

COMMENTS:

SW846

0080

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK1Y

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: MB-43777

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V1K6914.D

Level: (TRACE/LOW/MED) LOW Date Received:

% Moisture: not dec. 0.0 Date Analyzed: 05/23/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	5.0	U
75-09-2	Methylene chloride	5.0	U
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-butyl ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
78-93-3	2-Butanone	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
67-66-3	Chloroform	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
71-43-2	Benzene	5.0	U
79-01-6	Trichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
1330-20-7	Xylene (Total)	5.0	U

SW846

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK1Y

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: MB-43777

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V1K6914.D

Level: (TRACE/LOW/MED) LOW Date Received:

% Moisture: not dec. 0.0 Date Analyzed: 05/23/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U
110-82-7	Cyclohexane	5.0	U
79-20-9	Methyl acetate	5.0	U
108-87-2	Methylcyclohexane	5.0	U

SW846

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
VBLK1Y

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: MB-43777

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V1K6914.D

Level: (TRACE or LOW/MED) LOW Date Received:

% Moisture: not dec. Date Analyzed: 05/23/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

SW846

3 - FORM III
SOIL LABORATORY CONTROL
SAMPLE RECOVERY

EPA SAMPLE NO.

V1YLCS

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Lab Sample ID: LCS-43777 LCS Lot No.:

Date Extracted: 05/22/2009 Date Analyzed (1): 05/23/2009

COMPOUND	SPIKE ADDED	SAMPLE CONCENTRATION	LCS CONCENTRATION	LCS %REC	#	QC. LIMITS REC.
Dichlorodifluoromethane	50.0000	0.0000	43.6568	87		35 - 135
Chloromethane	50.0000	0.0000	39.8167	80		50 - 130
Vinyl chloride	50.0000	0.0000	50.8068	102		60 - 125
Bromomethane	50.0000	0.0000	50.6642	101		30 - 160
Chloroethane	50.0000	0.0000	40.4202	81		40 - 155
Trichlorofluoromethane	50.0000	0.0000	44.1796	88		25 - 185
1,1-Dichloroethene	50.0000	0.0000	42.4017	85		65 - 135
Acetone	50.0000	0.0000	38.6300	77		20 - 160
Carbon disulfide	50.0000	0.0000	47.7601	96		45 - 160
Methylene chloride	50.0000	0.0000	48.8159	98		55 - 140
trans-1,2-Dichloroethene	50.0000	0.0000	45.8067	92		65 - 135
Methyl tert-butyl ether	50.0000	0.0000	45.6436	91		75 - 126
1,1-Dichloroethane	50.0000	0.0000	46.2992	93		75 - 125
2-Butanone	50.0000	0.0000	45.2296	90		30 - 160
cis-1,2-Dichloroethene	50.0000	0.0000	48.8337	98		65 - 125
Chloroform	50.0000	0.0000	48.8255	98		70 - 125
1,1,1-Trichloroethane	50.0000	0.0000	50.0110	100		70 - 135
Carbon tetrachloride	50.0000	0.0000	52.2517	105		65 - 135
1,2-Dichloroethane	50.0000	0.0000	49.9641	100		70 - 135
Benzene	50.0000	0.0000	49.1685	98		75 - 125
Trichloroethene	50.0000	0.0000	50.2536	101		75 - 125
1,2-Dichloropropane	50.0000	0.0000	46.7389	93		70 - 120
Bromodichloromethane	50.0000	0.0000	51.1871	102		70 - 130
cis-1,3-Dichloropropene	50.0000	0.0000	47.2502	95		70 - 125
4-Methyl-2-pentanone	50.0000	0.0000	58.7695	118		45 - 145
Toluene	50.0000	0.0000	46.5091	93		70 - 125
trans-1,3-Dichloropropene	50.0000	0.0000	47.1389	94		65 - 125
1,1,2-Trichloroethane	50.0000	0.0000	49.8071	100		60 - 125
Tetrachloroethene	50.0000	0.0000	49.1041	98		65 - 140
2-Hexanone	50.0000	0.0000	47.2377	94		45 - 145
Dibromochloromethane	50.0000	0.0000	49.1030	98		65 - 130
1,2-Dibromoethane	50.0000	0.0000	48.3959	97		70 - 125
Chlorobenzene	50.0000	0.0000	46.3057	93		75 - 125
Ethylbenzene	50.0000	0.0000	44.6964	89		75 - 125
Xylene (Total)	150.0000	0.0000	135.6271	90		83 - 125
Styrene	50.0000	0.0000	46.6400	93		75 - 125
Bromoform	50.0000	0.0000	50.1862	100		55 - 135
Isopropylbenzene	50.0000	0.0000	44.3527	89		75 - 130
1,1,2,2-Tetrachloroethane	50.0000	0.0000	46.2356	92		55 - 130
1,3-Dichlorobenzene	50.0000	0.0000	44.9699	90		70 - 125
1,4-Dichlorobenzene	50.0000	0.0000	44.5206	89		70 - 125
1,2-Dichlorobenzene	50.0000	0.0000	45.9412	92		75 - 120
1,2-Dibromo-3-chloropropan	50.0000	0.0000	49.9078	100		40 - 135
1,2,4-Trichlorobenzene	50.0000	0.0000	44.9976	90		65 - 130

SW846

3 - FORM III
SOIL LABORATORY CONTROL
SAMPLE RECOVERY

EPA SAMPLE NO.

V1YLCS

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Lab Sample ID: LCS-43777 LCS Lot No.:

Date Extracted: 05/22/2009 Date Analyzed (1): 05/23/2009

COMPOUND	SPIKE ADDED	SAMPLE CONCENTRATION	LCS CONCENTRATION	LCS %REC	#	QC. LIMITS REC.
1,1,2-Trichloro-1,2,2-trif	50.0000	0.0000	43.5659	87		70 - 130
Cyclohexane	50.0000	0.0000	51.4546	103		70 - 130
Methyl acetate	50.0000	0.0000	49.8757	100		70 - 130
Methylcyclohexane	50.0000	0.0000	52.3131	105		70 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 48 outside limits

COMMENTS:

SW846

3 - FORM III
SOIL LABORATORY CONTROL
SAMPLE DUPLICATE RECOVERY

EPA SAMPLE NO.

V1YLCSD

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Lab Sample ID: LCSD-43777 LCS Lot No.:

COMPOUND	SPIKE ADDED	LCSD CONCENTRATION	LCSD %REC	#	%RPD	#	QC LIMITS RPD	QC LIMITS REC.
Dichlorodifluoromethane	50.0000	41.0777	82		6		40	35 - 135
Chloromethane	50.0000	40.1866	80		0		40	50 - 130
Vinyl chloride	50.0000	52.5480	105		3		40	60 - 125
Bromomethane	50.0000	48.8616	98		3		40	30 - 160
Chloroethane	50.0000	43.9312	88		8		40	40 - 155
Trichlorofluoromethane	50.0000	47.2565	95		8		40	25 - 185
1,1-Dichloroethene	50.0000	45.7302	91		7		40	65 - 135
Acetone	50.0000	43.4668	87		12		40	20 - 160
Carbon disulfide	50.0000	49.6420	99		3		40	45 - 160
Methylene chloride	50.0000	54.5237	109		11		40	55 - 140
trans-1,2-Dichloroethene	50.0000	45.9514	92		0		40	65 - 135
Methyl tert-butyl ether	50.0000	48.5944	97		6		40	75 - 126
1,1-Dichloroethane	50.0000	51.0013	102		9		40	75 - 125
2-Butanone	50.0000	45.5282	91		1		40	30 - 160
cis-1,2-Dichloroethene	50.0000	48.1481	96		2		40	65 - 125
Chloroform	50.0000	52.1016	104		6		40	70 - 125
1,1,1-Trichloroethane	50.0000	51.5878	103		3		40	70 - 135
Carbon tetrachloride	50.0000	54.1800	108		3		40	65 - 135
1,2-Dichloroethane	50.0000	53.6423	107		7		40	70 - 135
Benzene	50.0000	51.3697	103		5		40	75 - 125
Trichloroethene	50.0000	52.0650	104		3		40	75 - 125
1,2-Dichloropropane	50.0000	53.0212	106		13		40	70 - 120
Bromodichloromethane	50.0000	54.3124	109		7		40	70 - 130
cis-1,3-Dichloropropene	50.0000	50.3372	101		6		40	70 - 125
4-Methyl-2-pentanone	50.0000	60.3648	121		3		40	45 - 145
Toluene	50.0000	49.7783	100		7		40	70 - 125
trans-1,3-Dichloropropene	50.0000	52.2754	105		11		40	65 - 125
1,1,2-Trichloroethane	50.0000	53.5376	107		7		40	60 - 125
Tetrachloroethene	50.0000	52.5951	105		7		40	65 - 140
2-Hexanone	50.0000	56.4978	113		18		40	45 - 145
Dibromochloromethane	50.0000	52.5262	105		7		40	65 - 130
1,2-Dibromoethane	50.0000	51.0387	102		5		40	70 - 125
Chlorobenzene	50.0000	48.8440	98		5		40	75 - 125
Ethylbenzene	50.0000	47.1943	94		5		40	75 - 125
Xylene (Total)	150.0000	141.8019	95		5		40	83 - 125
Styrene	50.0000	49.7450	99		6		40	75 - 125
Bromoform	50.0000	53.6644	107		7		40	55 - 135
Isopropylbenzene	50.0000	46.7931	94		5		40	75 - 130
1,1,2,2-Tetrachloroethane	50.0000	50.1653	100		8		40	55 - 130
1,3-Dichlorobenzene	50.0000	48.7165	97		7		40	70 - 125
1,4-Dichlorobenzene	50.0000	49.1664	98		10		40	70 - 125
1,2-Dichlorobenzene	50.0000	49.6163	99		7		40	75 - 120
1,2-Dibromo-3-chloropropan	50.0000	53.3085	107		7		40	40 - 135
1,2,4-Trichlorobenzene	50.0000	48.0677	96		6		40	65 - 130
1,1,2-Trichloro-1,2,2-trif	50.0000	52.8850	106		20		40	70 - 130
Cyclohexane	50.0000	53.6943	107		4		40	70 - 130

SW846

3 - FORM III
SOIL LABORATORY CONTROL
SAMPLE DUPLICATE RECOVERY

EPA SAMPLE NO.

V1YLCSD

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Lab Sample ID: LCSD-43777 LCS Lot No.:

COMPOUND	SPIKE ADDED	LCSD CONCENTRATION	LCSD %REC	#	%RPD	#	QC LIMITS RPD	QC LIMITS REC.
Methyl acetate	50.0000	55.9485	112		11		40	70 - 130
Methylcyclohexane	50.0000	53.1173	106		1		40	70 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 48 outside limits

Spike Recovery: 0 out of 48 outside limits

COMMENTS:

SW846

2D - FORM II VOA-4

SOIL VOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Level: (LOW/MED) LOW

	EPA SAMPLE NO.	VDMC1 (DBFM) #	VDMC2 (DCE) #	VDMC3 (TOL) #	VDMC4 (BFB) #				TOT OUT
01	VBLK1X	105	100	99	99				0
02	V1XLCS	111	107	96	101				0
03	V1XLCSD	112	108	96	102				0
04	BPS1-3003-SB -041M	108	98	99	94				0
05	BPS1-3003-SB -046M	103	97	100	97				0
06	BPS1-3003-SB -051M	104	98	98	96				0
07	BPS1-3003-SB -056M	109	101	97	95				0
08	VBLK1Y	110	94	95	95				0
09	V1YLCS	102	109	97	101				0
10	V1YLCSD	103	111	96	101				0
11	BPS1-3003-SB -061M	103	97	98	96				0
12	BPS1-3003-SB -111M	104	100	100	100				0
13	BPS1-3003-SB -116M	111	96	100	96				0
14	BPS1-3003-SB -121M	106	101	98	97				0

		QC LIMITS
VDMC1	(DBFM) Dibromofluoromethane	(65-132)
VDMC2	(DCE) = 1,2-Dichloroethane-d4	(65-128)
VDMC3	(TOL) = Toluene-d8	(85-115)
VDMC4	(BFB) = Bromofluorobenzene	(77-111)

Column to be used to flag recovery values

* Values outside of contract required QC limits

4A - FORM IV VOA

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK1X

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Lab File ID: V1K6874.D Lab Sample ID: MB-43766

Instrument ID: V1

Matrix: (SOIL/SED/WATER) SOIL Date Analyzed: 05/22/2009

Level: (TRACE or LOW/MED) LOW Time Analyzed: 09:14

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	V1XLCS	LCS-43766	V1K6875.D	09:56
02	V1XLCSD	LCSD-43766	V1K6876.D	10:25
03	BPS1-3003-SB-041M	H0885-02B	V1K6888.D	16:15
04	BPS1-3003-SB-046M	H0885-03A	V1K6889.D	16:45
05	BPS1-3003-SB-051M	H0885-04B	V1K6890.D	17:14
06	BPS1-3003-SB-056M	H0885-05A	V1K6891.D	17:45

COMMENTS:

SW846

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK1X

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: MB-43766

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V1K6874.D

Level: (TRACE/LOW/MED) LOW Date Received:

% Moisture: not dec. 0.0 Date Analyzed: 05/22/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	5.0	U
75-09-2	Methylene chloride	5.0	U
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-butyl ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
78-93-3	2-Butanone	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
67-66-3	Chloroform	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
71-43-2	Benzene	5.0	U
79-01-6	Trichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
1330-20-7	Xylene (Total)	5.0	U

SW846

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK1X

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: MB-43766

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V1K6874.D

Level: (TRACE/LOW/MED) LOW Date Received:

% Moisture: not dec. 0.0 Date Analyzed: 05/22/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U
110-82-7	Cyclohexane	5.0	U
79-20-9	Methyl acetate	5.0	U
108-87-2	Methylcyclohexane	5.0	U

SW846

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
VBLK1X

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: MB-43766

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V1K6874.D

Level: (TRACE or LOW/MED) LOW Date Received:

% Moisture: not dec. Date Analyzed: 05/22/2009

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Purge Volume: 10.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1] EPA-designated Registry Number.

SW846

3 - FORM III
SOIL LABORATORY CONTROL
SAMPLE RECOVERY

EPA SAMPLE NO.

V1XLCS

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Lab Sample ID: LCS-43766 LCS Lot No.:

Date Extracted: 05/22/2009 Date Analyzed (1): 05/22/2009

COMPOUND	SPIKE ADDED	SAMPLE CONCENTRATION	LCS CONCENTRATION	LCS %REC	#	QC. LIMITS REC.
Dichlorodifluoromethane	50.0000	0.0000	48.4479	97		35 - 135
Chloromethane	50.0000	0.0000	50.5113	101		50 - 130
Vinyl chloride	50.0000	0.0000	55.1459	110		60 - 125
Bromomethane	50.0000	0.0000	56.4336	113		30 - 160
Chloroethane	50.0000	0.0000	53.2634	107		40 - 155
Trichlorofluoromethane	50.0000	0.0000	53.7624	108		25 - 185
1,1-Dichloroethene	50.0000	0.0000	56.0428	112		65 - 135
Acetone	50.0000	0.0000	57.3315	115		20 - 160
Carbon disulfide	50.0000	0.0000	50.4322	101		45 - 160
Methylene chloride	50.0000	0.0000	55.5661	111		55 - 140
trans-1,2-Dichloroethene	50.0000	0.0000	47.1706	94		65 - 135
Methyl tert-butyl ether	50.0000	0.0000	48.1476	96		75 - 126
1,1-Dichloroethane	50.0000	0.0000	49.2285	98		75 - 125
2-Butanone	50.0000	0.0000	52.2035	104		30 - 160
cis-1,2-Dichloroethene	50.0000	0.0000	52.3010	105		65 - 125
Chloroform	50.0000	0.0000	47.7818	96		70 - 125
1,1,1-Trichloroethane	50.0000	0.0000	51.9329	104		70 - 135
Carbon tetrachloride	50.0000	0.0000	55.8232	112		65 - 135
1,2-Dichloroethane	50.0000	0.0000	49.1660	98		70 - 135
Benzene	50.0000	0.0000	52.1753	104		75 - 125
Trichloroethene	50.0000	0.0000	53.2823	107		75 - 125
1,2-Dichloropropane	50.0000	0.0000	52.0401	104		70 - 120
Bromodichloromethane	50.0000	0.0000	54.0817	108		70 - 130
cis-1,3-Dichloropropene	50.0000	0.0000	53.1393	106		70 - 125
4-Methyl-2-pentanone	50.0000	0.0000	55.1002	110		45 - 145
Toluene	50.0000	0.0000	50.2749	101		70 - 125
trans-1,3-Dichloropropene	50.0000	0.0000	53.6361	107		65 - 125
1,1,2-Trichloroethane	50.0000	0.0000	52.4754	105		60 - 125
Tetrachloroethene	50.0000	0.0000	49.1026	98		65 - 140
2-Hexanone	50.0000	0.0000	61.7906	124		45 - 145
Dibromochloromethane	50.0000	0.0000	52.2976	105		65 - 130
1,2-Dibromoethane	50.0000	0.0000	51.7690	104		70 - 125
Chlorobenzene	50.0000	0.0000	50.9885	102		75 - 125
Ethylbenzene	50.0000	0.0000	51.0984	102		75 - 125
Xylene (Total)	150.0000	0.0000	151.8352	101		83 - 125
Styrene	50.0000	0.0000	52.2383	104		75 - 125
Bromoform	50.0000	0.0000	53.5565	107		55 - 135
Isopropylbenzene	50.0000	0.0000	50.1401	100		75 - 130
1,1,2,2-Tetrachloroethane	50.0000	0.0000	48.5143	97		55 - 130
1,3-Dichlorobenzene	50.0000	0.0000	51.7915	104		70 - 125
1,4-Dichlorobenzene	50.0000	0.0000	51.2138	102		70 - 125
1,2-Dichlorobenzene	50.0000	0.0000	51.7417	103		75 - 120
1,2-Dibromo-3-chloropropan	50.0000	0.0000	49.1249	98		40 - 135
1,2,4-Trichlorobenzene	50.0000	0.0000	53.0607	106		65 - 130

SW846

3 - FORM III
SOIL LABORATORY CONTROL
SAMPLE RECOVERY

EPA SAMPLE NO.

V1XLCS

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Lab Sample ID: LCS-43766 LCS Lot No.:

Date Extracted: 05/22/2009 Date Analyzed (1): 05/22/2009

COMPOUND	SPIKE ADDED	SAMPLE CONCENTRATION	LCS CONCENTRATION	LCS %REC	#	QC. LIMITS REC.
1,1,2-Trichloro-1,2,2-trif	50.0000	0.0000	51.9454	104		70 - 130
Cyclohexane	50.0000	0.0000	52.4399	105		70 - 130
Methyl acetate	50.0000	0.0000	46.3408	93		70 - 130
Methylcyclohexane	50.0000	0.0000	50.3075	101		70 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 48 outside limits

COMMENTS:

SW846

3 - FORM III
SOIL LABORATORY CONTROL
SAMPLE DUPLICATE RECOVERY

EPA SAMPLE NO.

V1XLCSD

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Lab Sample ID: LCSD-43766 LCS Lot No.:

COMPOUND	SPIKE ADDED	LCSD CONCENTRATION	LCSD %REC	#	%RPD	#	QC LIMITS RPD	QC LIMITS REC.
Dichlorodifluoromethane	50.0000	45.2311	90		7		40	35 - 135
Chloromethane	50.0000	49.6939	99		2		40	50 - 130
Vinyl chloride	50.0000	55.9723	112		2		40	60 - 125
Bromomethane	50.0000	54.8486	110		3		40	30 - 160
Chloroethane	50.0000	59.1152	118		10		40	40 - 155
Trichlorofluoromethane	50.0000	54.9089	110		2		40	25 - 185
1,1-Dichloroethene	50.0000	56.7009	113		1		40	65 - 135
Acetone	50.0000	66.3500	133		15		40	20 - 160
Carbon disulfide	50.0000	51.7953	104		3		40	45 - 160
Methylene chloride	50.0000	54.4343	109		2		40	55 - 140
trans-1,2-Dichloroethene	50.0000	46.5726	93		1		40	65 - 135
Methyl tert-butyl ether	50.0000	50.5020	101		5		40	75 - 126
1,1-Dichloroethane	50.0000	53.7860	108		10		40	75 - 125
2-Butanone	50.0000	55.0236	110		6		40	30 - 160
cis-1,2-Dichloroethene	50.0000	50.4959	101		4		40	65 - 125
Chloroform	50.0000	52.7612	106		10		40	70 - 125
1,1,1-Trichloroethane	50.0000	53.5240	107		3		40	70 - 135
Carbon tetrachloride	50.0000	58.9268	118		5		40	65 - 135
1,2-Dichloroethane	50.0000	52.8073	106		8		40	70 - 135
Benzene	50.0000	52.8772	106		2		40	75 - 125
Trichloroethene	50.0000	53.5782	107		0		40	75 - 125
1,2-Dichloropropane	50.0000	55.1819	110		6		40	70 - 120
Bromodichloromethane	50.0000	56.8314	114		5		40	70 - 130
cis-1,3-Dichloropropene	50.0000	54.6575	109		3		40	70 - 125
4-Methyl-2-pentanone	50.0000	62.5594	125		13		40	45 - 145
Toluene	50.0000	51.6471	103		2		40	70 - 125
trans-1,3-Dichloropropene	50.0000	57.4337	115		7		40	65 - 125
1,1,2-Trichloroethane	50.0000	54.1406	108		3		40	60 - 125
Tetrachloroethene	50.0000	47.9475	96		2		40	65 - 140
2-Hexanone	50.0000	64.1123	128		3		40	45 - 145
Dibromochloromethane	50.0000	56.7129	113		7		40	65 - 130
1,2-Dibromoethane	50.0000	54.3459	109		5		40	70 - 125
Chlorobenzene	50.0000	53.0610	106		4		40	75 - 125
Ethylbenzene	50.0000	52.1742	104		2		40	75 - 125
Xylene (Total)	150.0000	155.4860	104		3		40	83 - 125
Styrene	50.0000	54.6077	109		5		40	75 - 125
Bromoform	50.0000	58.5390	117		9		40	55 - 135
Isopropylbenzene	50.0000	52.0448	104		4		40	75 - 130
1,1,2,2-Tetrachloroethane	50.0000	51.7313	103		6		40	55 - 130
1,3-Dichlorobenzene	50.0000	53.1039	106		2		40	70 - 125
1,4-Dichlorobenzene	50.0000	53.2386	106		4		40	70 - 125
1,2-Dichlorobenzene	50.0000	54.9747	110		7		40	75 - 120
1,2-Dibromo-3-chloropropan	50.0000	53.3895	107		9		40	40 - 135
1,2,4-Trichlorobenzene	50.0000	56.6924	113		6		40	65 - 130
1,1,2-Trichloro-1,2,2-trif	50.0000	53.1406	106		2		40	70 - 130
Cyclohexane	50.0000	56.4099	113		7		40	70 - 130

SW846

3 - FORM III
SOIL LABORATORY CONTROL
SAMPLE DUPLICATE RECOVERY

EPA SAMPLE NO.

V1XLCSD

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Lab Sample ID: LCSD-43766 LCS Lot No.:

COMPOUND	SPIKE ADDED	LCSD CONCENTRATION	LCSD %REC	#	%RPD	#	QC LIMITS RPD	QC LIMITS REC.
Methyl acetate	50.0000	51.0529	102		9		40	70 - 130
Methylcyclohexane	50.0000	55.6661	111		9		40	70 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 48 outside limits

Spike Recovery: 0 out of 48 outside limits

COMMENTS:

SW846

2D - FORM II VOA-4

SOIL VOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Level: (LOW/MED) LOW

	EPA SAMPLE NO.	VDMC1 (DBFM) #	VDMC2 (DCE) #	VDMC3 (TOL) #	VDMC4 (BFB) #				TOT OUT
01	VBLK1X	105	100	99	99				0
02	V1XLCS	111	107	96	101				0
03	V1XLCSD	112	108	96	102				0
04	BPS1-3003-SB -041M	108	98	99	94				0
05	BPS1-3003-SB -046M	103	97	100	97				0
06	BPS1-3003-SB -051M	104	98	98	96				0
07	BPS1-3003-SB -056M	109	101	97	95				0
08	VBLK1Y	110	94	95	95				0
09	V1YLCS	102	109	97	101				0
10	V1YLCSD	103	111	96	101				0
11	BPS1-3003-SB -061M	103	97	98	96				0
12	BPS1-3003-SB -111M	104	100	100	100				0
13	BPS1-3003-SB -116M	111	96	100	96				0
14	BPS1-3003-SB -121M	106	101	98	97				0

		QC LIMITS
VDMC1	(DBFM) Dibromofluoromethane	(65-132)
VDMC2	(DCE) = 1,2-Dichloroethane-d4	(65-128)
VDMC3	(TOL) = Toluene-d8	(85-115)
VDMC4	(BFB) = Bromofluorobenzene	(77-111)

Column to be used to flag recovery values

* Values outside of contract required QC limits

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

EPA SAMPLE NO.

BFB1T

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Lab File ID: V1K6789.D BFB Injection Date: 05/19/2009

Instrument ID: V1 BFB Injection Time: 17:44

GC Column: DB-624 ID: 0.25 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.1
75	30.0 - 60.0% of mass 95	38.0
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 100.0% of mass 95	78.6
175	5.0 - 9.0% of mass 174	5.4 (6.9)1
176	95.0 - 101.0% of mass 174	76.6 (97.5)1
177	5.0 - 9.0% of mass 176	5.1 (6.7)2

1 - Value is % mass 174 2 - Value is % mass 176

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0501T	VSTD0501T	V1K6790.D	05/19/2009	18:12
02	VSTD0201T	VSTD0201T	V1K6791.D	05/19/2009	18:41
03	VSTD0051T	VSTD0051T	V1K6792.D	05/19/2009	19:10
04	VSTD2001T	VSTD2001T	V1K6793.D	05/19/2009	19:38
05	VSTD1001T	VSTD1001T	V1K6794.D	05/19/2009	20:06
06	VICV0501T	VICV0501T	V1K6795.D	05/19/2009	20:35

SW846

6A - FORM VI VOA-1

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Instrument ID: V1 Calibration Date(s): 05/19/2009 05/19/2009

Heated Purge: (Y/N) Y Calibration Time(s): 18:12 20:06

Purge Volume: 5.0 (mL)

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID: RRF005 = V1K6792.D RRF020 = V1K6791.D

RRF050 = V1K6790.D RRF100 = V1K6794.D RRF200 = V1K6793.D

COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF200	$\overline{RRF}$	%RSD
Dichlorodifluoromethane	0.163	0.133	0.149	0.148	0.129	0.144	9.5
Chloromethane	0.370	0.462	0.000	0.474	0.388	0.424	12.3
Vinyl chloride	0.212	0.275	0.282	0.311	0.244	0.265	14.4
Bromomethane	0.214	0.216	0.202	0.196	0.141	0.194	15.8
Chloroethane	0.108	0.127	0.139	0.143	0.106	0.125	13.7
Trichlorofluoromethane	0.152	0.161	0.169	0.230	0.185	0.180	17.1
1,1-Dichloroethene	0.188	0.187	0.258	0.251	0.207	0.218	15.6
Acetone	0.032	0.039	0.041	0.045	0.035	0.038	13.2
Carbon disulfide	0.761	0.698	0.726	0.741	0.605	0.706	8.7
Methylene chloride	0.218	0.299	0.314	0.313	0.265	0.282	14.4
trans-1,2-Dichloroethene	0.236	0.222	0.235	0.219	0.192	0.221	8.0
Methyl tert-butyl ether	0.689	0.655	0.675	0.753	0.571	0.669	9.8
1,1-Dichloroethane	0.387	0.393	0.427	0.442	0.353	0.401	8.7
2-Butanone	0.038	0.023	0.031	0.036	0.030	0.032	18.2
cis-1,2-Dichloroethene	0.230	0.238	0.243	0.270	0.232	0.243	6.6
Chloroform	0.311	0.341	0.383	0.369	0.304	0.342	10.1
1,1,1-Trichloroethane	0.199	0.175	0.189	0.205	0.165	0.186	8.8
Carbon tetrachloride	0.153	0.145	0.156	0.170	0.137	0.152	8.2
1,2-Dichloroethane	0.214	0.223	0.244	0.252	0.210	0.228	8.1
Benzene	0.921	0.925	0.957	0.992	0.785	0.916	8.6
Trichloroethene	0.200	0.169	0.209	0.213	0.174	0.193	10.7
1,2-Dichloropropane	0.241	0.250	0.265	0.287	0.221	0.253	9.9
Bromodichloromethane	0.228	0.237	0.262	0.282	0.227	0.247	9.7
cis-1,3-Dichloropropene	0.331	0.340	0.354	0.384	0.308	0.343	8.2
4-Methyl-2-pentanone	0.243	0.277	0.313	0.411	0.322	0.313	20.1
Toluene	0.922	0.830	0.858	0.888	0.725	0.845	8.9
trans-1,3-Dichloropropene	0.240	0.257	0.277	0.301	0.244	0.264	9.6
1,1,2-Trichloroethane	0.184	0.190	0.204	0.205	0.168	0.190	8.0
Tetrachloroethene	0.337	0.303	0.333	0.331	0.269	0.315	9.3
2-Hexanone	0.083	0.269	0.292	0.370	0.330	0.269	41.3
Dibromochloromethane	0.273	0.302	0.319	0.350	0.277	0.304	10.5
1,2-Dibromoethane	0.310	0.332	0.379	0.371	0.302	0.339	10.3
Chlorobenzene	0.885	0.827	0.897	0.896	0.725	0.846	8.7
Ethylbenzene	0.450	0.405	0.453	0.453	0.370	0.426	8.8
Xylene (Total)	0.601	0.527	0.573	0.561	0.461	0.545	9.9
Styrene	0.928	0.896	0.986	0.970	0.811	0.918	7.6
Bromoform	0.205	0.229	0.248	0.264	0.218	0.233	10.1
Isopropylbenzene	1.175	0.979	1.090	1.084	0.892	1.044	10.5
1,1,2,2-Tetrachloroethane	1.177	1.092	1.149	1.150	0.912	1.096	9.8

Report 1,4-Dioxane for Low-Medium VOA analysis only SW846

6B - FORM VI VOA-2

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Instrument ID: V1 Calibration Date(s): 05/19/2009 05/19/2009

Heated Purge: (Y/N) Y Calibration Time(s): 18:12 20:06

Purge Volume: 5.0 (mL)

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID: RRF005 = V1K6792.D RRF020 = V1K6791.D

RRF050 = V1K6790.D RRF100 = V1K6794.D RRF200 = V1K6793.D

COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF200	$\overline{RRF}$	%RSD
1,3-Dichlorobenzene	1.381	1.184	1.287	1.337	1.098	1.257	9.2
1,4-Dichlorobenzene	1.449	1.246	1.331	1.371	1.110	1.301	10.0
1,2-Dichlorobenzene	1.352	1.154	1.269	1.292	1.053	1.224	9.8
1,2-Dibromo-3-chloropropane	0.119	0.124	0.135	0.147	0.118	0.129	9.6
1,2,4-Trichlorobenzene	1.061	0.831	0.924	0.896	0.754	0.893	12.8
1,1,2-Trichloro-1,2,2-trifluoroethane	0.158	0.135	0.157	0.164	0.131	0.149	9.9
Cyclohexane	0.398	0.330	0.401	0.436	0.353	0.384	11.0
Methyl acetate	0.326	0.288	0.291	0.340	0.245	0.298	12.4
Methylcyclohexane	0.304	0.264	0.282	0.319	0.252	0.284	9.8

6C - FORM VI VOA-3

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Instrument ID: V1 Calibration Date(s): 05/19/2009 05/19/2009

Heated Purge: (Y/N) Y Calibration Time(s): 18:12 20:06

Purge Volume: 5.0 (mL)

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID: RRF005 = V1K6792.D RRF020 = V1K6791.D

RRF050 = V1K6790.D RRF100 = V1K6794.D RRF200 = V1K6793.D

COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF200	$\overline{RRF}$	%RSD
Dibromofluoromethane	0.236	0.254	0.232	0.231	0.223	0.235	4.8
1,2-Dichloroethane-d4	0.055	0.054	0.049	0.052	0.065	0.055	11.1
Toluene-d8	1.463	1.441	1.443	1.454	1.417	1.444	1.2
Bromofluorobenzene	0.527	0.518	0.530	0.527	0.528	0.526	0.9

Report 1,4-Dioxane-d8 for Low-Medium VOA analysis only SW846

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

EPA SAMPLE NO.

BFB1X

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Lab File ID: V1K6871.D BFB Injection Date: 05/22/2009

Instrument ID: V1 BFB Injection Time: 07:32

GC Column: DB-624 ID: 0.25 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.4
75	30.0 - 60.0% of mass 95	38.3
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.0
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 100.0% of mass 95	79.3
175	5.0 - 9.0% of mass 174	5.4 (6.9)1
176	95.0 - 101.0% of mass 174	76.8 (96.9)1
177	5.0 - 9.0% of mass 176	4.8 (6.2)2

1 - Value is % mass 174 2 - Value is % mass 176

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0501X	VSTD0501X	V1K6872.D	05/22/2009	08:00
02	VBLK1X	MB-43766	V1K6874.D	05/22/2009	09:14
03	V1XLCS	LCS-43766	V1K6875.D	05/22/2009	09:56
04	V1XLCSD	LCSD-43766	V1K6876.D	05/22/2009	10:25
05	BPS1-3003-SB -041M	H0885-02B	V1K6888.D	05/22/2009	16:15
06	BPS1-3003-SB -046M	H0885-03A	V1K6889.D	05/22/2009	16:45
07	BPS1-3003-SB -051M	H0885-04B	V1K6890.D	05/22/2009	17:14
08	BPS1-3003-SB -056M	H0885-05A	V1K6891.D	05/22/2009	17:45

7A - FORM VII VOA-1

VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Instrument ID: V1 Calibration Date: 05/22/2009 Time: 08:00

Lab File ID: V1K6872.D Init. Calib. Date(s): 05/19/2009 05/19/2009

EPA Sample No.(VSTD#####): VSTD0501X Init. Calib. Time(s): 18:12 20:06

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 5.0 (mL)

COMPOUND	$\overline{RRF}$	RRF050	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.144	0.135	0.100	-6.5	20.0
Chloromethane	0.424	0.345	0.010	-18.6	20.0
Vinyl chloride	0.265	0.280	0.010	5.8	20.0
Bromomethane	0.194	0.158	0.010	-18.3	20.0
Chloroethane	0.125	0.096	0.010	-23.3	20.0
Trichlorofluoromethane	0.180	0.156	0.010	-13.4	20.0
1,1-Dichloroethene	0.218	0.241	0.100	10.7	20.0
Acetone	0.038	0.047	0.010	22.8	20.0
Carbon disulfide	0.706	0.667	0.010	-5.6	20.0
Methylene chloride	0.282	0.297	0.010	5.4	20.0
trans-1,2-Dichloroethene	0.221	0.193	0.010	-12.6	20.0
Methyl tert-butyl ether	0.669	0.596	0.010	-10.8	20.0
1,1-Dichloroethane	0.401	0.398	0.010	-0.5	20.0
2-Butanone	0.032	0.031	0.010	-2.7	20.0
cis-1,2-Dichloroethene	0.243	0.250	0.010	2.9	20.0
Chloroform	0.342	0.314	0.010	-8.1	20.0
1,1,1-Trichloroethane	0.186	0.170	0.010	-8.6	20.0
Carbon tetrachloride	0.152	0.156	0.010	2.7	20.0
1,2-Dichloroethane	0.228	0.223	0.010	-2.5	20.0
Benzene	0.916	0.883	0.010	-3.6	20.0
Trichloroethene	0.193	0.194	0.010	0.6	20.0
1,2-Dichloropropane	0.253	0.245	0.010	-3.2	20.0
Bromodichloromethane	0.247	0.247	0.010	0.0	20.0
cis-1,3-Dichloropropene	0.343	0.339	0.010	-1.4	20.0
4-Methyl-2-pentanone	0.313	0.327	0.010	4.5	20.0
Toluene	0.845	0.806	0.010	-4.6	20.0
trans-1,3-Dichloropropene	0.264	0.261	0.010	-1.2	20.0
1,1,2-Trichloroethane	0.190	0.185	0.010	-3.0	20.0
Tetrachloroethene	0.315	0.273	0.010	-13.1	20.0
2-Hexanone	0.269	0.271	0.010	0.9	20.0
Dibromochloromethane	0.304	0.304	0.010	0.0	20.0
1,2-Dibromoethane	0.339	0.328	0.010	-3.3	20.0
Chlorobenzene	0.846	0.816	0.010	-3.5	20.0
Ethylbenzene	0.426	0.409	0.010	-4.0	20.0
Xylene (Total)	0.545	0.522	0.010	-4.2	20.0
Styrene	0.918	0.903	0.010	-1.7	20.0
Bromoform	0.233	0.237	0.010	1.6	20.0
Isopropylbenzene	1.044	0.987	0.300	-5.5	20.0
1,1,2,2-Tetrachloroethane	1.096	0.993	0.300	-9.4	20.0
1,3-Dichlorobenzene	1.257	1.216	0.010	-3.3	20.0

Report 1,4-Dioxane for Low-Medium VOA analysis only SW846

7B - FORM VII VOA-2

VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Instrument ID: V1 Calibration Date: 05/22/2009 Time: 08:00

Lab File ID: V1K6872.D Init. Calib. Date(s): 05/19/2009 05/19/2009

EPA Sample No.(VSTD#####): VSTD0501X Init. Calib. Time(s): 18:12 20:06

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 5.0 (mL)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX %D
1,4-Dichlorobenzene	1.301	1.262	0.010	-3.0	20.0
1,2-Dichlorobenzene	1.224	1.178	0.010	-3.8	20.0
1,2-Dibromo-3-chloropropane	0.129	0.114	0.010	-11.3	20.0
1,2,4-Trichlorobenzene	0.893	0.885	0.010	-1.0	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	0.149	0.138	0.010	-7.1	20.0
Cyclohexane	0.384	0.369	0.010	-3.8	20.0
Methyl acetate	0.298	0.272	0.010	-8.6	20.0
Methylcyclohexane	0.284	0.283	0.010	-0.5	20.0

7C - FORM VII VOA-3

VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Instrument ID: V1 Calibration Date: 05/22/2009 Time: 08:00

Lab File ID: V1K6872.D Init. Calib. Date(s): 05/19/2009 05/19/2009

EPA Sample No.(VSTD#####): VSTD0501X Init. Calib. Time(s): 18:12 20:06

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 5.0 (mL)

COMPOUND	$\overline{RRF}$	RRF050	MIN RRF	%D	MAX %D
Dibromofluoromethane	0.235	0.260	0.010	10.6	20.0
1,2-Dichloroethane-d4	0.055	0.058	0.010	5.8	20.0
Toluene-d8	1.444	1.417	0.010	-1.9	20.0
Bromofluorobenzene	0.526	0.529	0.010	0.6	20.0

Report 1,4-Dioxane-d8 for Low-Medium VOA analysis only SW846

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

EPA SAMPLE NO.

BFB1Y

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Lab File ID: V1K6910.D BFB Injection Date: 05/22/2009

Instrument ID: V1 BFB Injection Time: 22:45

GC Column: DB-624 ID: 0.25 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.6
75	30.0 - 60.0% of mass 95	40.2
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 100.0% of mass 95	76.3
175	5.0 - 9.0% of mass 174	5.7 (7.5)1
176	95.0 - 101.0% of mass 174	76.2 (99.8)1
177	5.0 - 9.0% of mass 176	4.9 (6.4)2

1 - Value is % mass 174 2 - Value is % mass 176

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0501Y	VSTD0501Y	V1K6911.D	05/22/2009	23:14
02	VBLK1Y	MB-43777	V1K6914.D	05/23/2009	00:43
03	V1YLCS	LCS-43777	V1K6915.D	05/23/2009	01:11
04	V1YLCSD	LCSD-43777	V1K6916.D	05/23/2009	01:40
05	BPS1-3003-SB -061M	H0885-06B	V1K6918.D	05/23/2009	02:38
06	BPS1-3003-SB -111M	H0885-08B	V1K6919.D	05/23/2009	03:07
07	BPS1-3003-SB -116M	H0885-09B	V1K6920.D	05/23/2009	03:36
08	BPS1-3003-SB -121M	H0885-10B	V1K6921.D	05/23/2009	04:05

SW846

7A - FORM VII VOA-1

VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Instrument ID: V1 Calibration Date: 05/22/2009 Time: 23:14

Lab File ID: V1K6911.D Init. Calib. Date(s): 05/19/2009 05/19/2009

EPA Sample No.(VSTD#####): VSTD0501Y Init. Calib. Time(s): 18:12 20:06

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 5.0 (mL)

COMPOUND	$\overline{RRF}$	RRF050	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.144	0.138	0.100	-4.4	20.0
Chloromethane	0.424	0.350	0.010	-17.4	20.0
Vinyl chloride	0.265	0.297	0.010	12.2	20.0
Bromomethane	0.194	0.223	0.010	14.9	20.0
Chloroethane	0.125	0.138	0.010	10.5	20.0
Trichlorofluoromethane	0.180	0.167	0.010	-7.3	20.0
1,1-Dichloroethene	0.218	0.252	0.100	15.7	20.0
Acetone	0.038	0.035	0.010	-8.0	20.0
Carbon disulfide	0.706	0.726	0.010	2.8	20.0
Methylene chloride	0.282	0.318	0.010	13.0	20.0
trans-1,2-Dichloroethene	0.221	0.198	0.010	-10.4	20.0
Methyl tert-butyl ether	0.669	0.651	0.010	-2.6	20.0
1,1-Dichloroethane	0.401	0.438	0.010	9.3	20.0
2-Butanone	0.032	0.030	0.010	-5.1	20.0
cis-1,2-Dichloroethene	0.243	0.283	0.010	16.5	20.0
Chloroform	0.342	0.368	0.010	7.6	20.0
1,1,1-Trichloroethane	0.186	0.197	0.010	5.5	20.0
Carbon tetrachloride	0.152	0.172	0.010	12.9	20.0
1,2-Dichloroethane	0.228	0.250	0.010	9.6	20.0
Benzene	0.916	0.982	0.010	7.2	20.0
Trichloroethene	0.193	0.213	0.010	10.7	20.0
1,2-Dichloropropane	0.253	0.278	0.010	9.9	20.0
Bromodichloromethane	0.247	0.268	0.010	8.7	20.0
cis-1,3-Dichloropropene	0.343	0.356	0.010	3.7	20.0
4-Methyl-2-pentanone	0.313	0.379	0.010	21.0	20.0
Toluene	0.845	0.856	0.010	1.4	20.0
trans-1,3-Dichloropropene	0.264	0.279	0.010	5.8	20.0
1,1,2-Trichloroethane	0.190	0.206	0.010	8.2	20.0
Tetrachloroethene	0.315	0.341	0.010	8.3	20.0
2-Hexanone	0.269	0.294	0.010	9.5	20.0
Dibromochloromethane	0.304	0.335	0.010	10.1	20.0
1,2-Dibromoethane	0.339	0.347	0.010	2.5	20.0
Chlorobenzene	0.846	0.861	0.010	1.7	20.0
Ethylbenzene	0.426	0.419	0.010	-1.6	20.0
Xylene (Total)	0.545	0.535	0.010	-1.8	20.0
Styrene	0.918	0.949	0.010	3.3	20.0
Bromoform	0.233	0.255	0.010	9.5	20.0
Isopropylbenzene	1.044	1.024	0.300	-1.9	20.0
1,1,2,2-Tetrachloroethane	1.096	1.124	0.300	2.6	20.0
1,3-Dichlorobenzene	1.257	1.259	0.010	0.2	20.0

Report 1,4-Dioxane for Low-Medium VOA analysis only SW846

7B - FORM VII VOA-2

VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Instrument ID: V1 Calibration Date: 05/22/2009 Time: 23:14

Lab File ID: V1K6911.D Init. Calib. Date(s): 05/19/2009 05/19/2009

EPA Sample No.(VSTD#####): VSTD0501Y Init. Calib. Time(s): 18:12 20:06

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 5.0 (mL)

COMPOUND	$\overline{RRF}$	RRF050	MIN RRF	%D	MAX %D
1,4-Dichlorobenzene	1.301	1.336	0.010	2.7	20.0
1,2-Dichlorobenzene	1.224	1.254	0.010	2.5	20.0
1,2-Dibromo-3-chloropropane	0.129	0.133	0.010	3.0	20.0
1,2,4-Trichlorobenzene	0.893	0.882	0.010	-1.2	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	0.149	0.155	0.010	4.2	20.0
Cyclohexane	0.384	0.430	0.010	11.9	20.0
Methyl acetate	0.298	0.315	0.010	5.6	20.0
Methylcyclohexane	0.284	0.320	0.010	12.6	20.0

SW846

7C - FORM VII VOA-3

VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

Instrument ID: V1 Calibration Date: 05/22/2009 Time: 23:14

Lab File ID: V1K6911.D Init. Calib. Date(s): 05/19/2009 05/19/2009

EPA Sample No.(VSTD#####): VSTD0501Y Init. Calib. Time(s): 18:12 20:06

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 5.0 (mL)

COMPOUND	$\overline{RRF}$	RRF050	MIN RRF	%D	MAX %D
Dibromofluoromethane	0.235	0.271	0.010	15.3	20.0
1,2-Dichloroethane-d4	0.055	0.060	0.010	8.6	20.0
Toluene-d8	1.444	1.396	0.010	-3.3	20.0
Bromofluorobenzene	0.526	0.532	0.010	1.1	20.0

Report 1,4-Dioxane-d8 for Low-Medium VOA analysis only SW846

8A - FORM VIII VOA

VOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

GC Column: DB-624 ID: 0.25 (mm) Init. Calib. Date(s): 05/19/2009 05/19/2009

EPA Sample No.(VSTD#####): VSTD0501Y Date Analyzed: 05/22/2009

Lab File ID (Standard): V1K6911.D Time Analyzed: 23:14

Instrument ID: V1 Heated Purge: (Y/N) Y

		IS1 (S1) AREA #	RT #	IS2 (S2) AREA #	RT #	IS3 (S3) AREA #	RT #
	12 HOUR STD	253763	5.897	153918	9.495	73880	12.422
	UPPER LIMIT	507526	6.397	307836	9.995	147760	12.922
	LOWER LIMIT	126882	5.397	76959	8.995	36940	11.922
	EPA SAMPLE NO.						
01	VBLK1Y	265094	5.898	162336	9.505	73485	12.433
02	V1YLCS	255037	5.888	154464	9.495	76272	12.422
03	V1YLCSD	253712	5.888	155139	9.496	75098	12.423
04	BPS1-3003-SB -061M	272283	5.891	164748	9.498	74630	12.426
05	BPS1-3003-SB -111M	278292	5.888	164507	9.505	77886	12.422
06	BPS1-3003-SB -116M	265480	5.889	159954	9.496	74572	12.423
07	BPS1-3003-SB -121M	273643	5.898	164075	9.496	76074	12.423

IS1 () = Fluorobenzene

IS2 () = Chlorobenzene-d5

IS3 () = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = 200% (Low-Medium Volatiles) and 140% (Trace Volatiles) of internal standard area

AREA LOWER LIMIT = 50% (Low-Medium Volatiles) and 60% (Trace Volatiles) of internal standard area

RT UPPER LIMIT = +0.50 (Low-Medium Volatiles) and +0.33 (Trace Volatiles) minutes of internal standard RT

RT LOWER LIMIT = -0.50 (Low-Medium Volatiles) and -0.33 (Trace Volatiles) minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

8A - FORM VIII VOA

VOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: H0885 Mod. Ref No.: SDG No.: SH0885

GC Column: DB-624 ID: 0.25 (mm) Init. Calib. Date(s): 05/19/2009 05/19/2009

EPA Sample No.(VSTD#####): VSTD0501X Date Analyzed: 05/22/2009

Lab File ID (Standard): V1K6872.D Time Analyzed: 08:00

Instrument ID: V1 Heated Purge: (Y/N) Y

		IS1 (S1) AREA #	RT #	IS2 (S2) AREA #	RT #	IS3 (S3) AREA #	RT #
	12 HOUR STD	264684	5.89	156319	9.488	76251	12.415
	UPPER LIMIT	529368	6.39	312638	9.988	152502	12.915
	LOWER LIMIT	132342	5.39	78160	8.988	38126	11.915
	EPA SAMPLE NO.						
01	VBLK1X	280991	5.882	166557	9.490	75681	12.417
02	V1XLCS	273224	5.893	162574	9.501	79052	12.428
03	V1XLCSD	275431	5.889	163633	9.497	79317	12.424
04	BPS1-3003-SB -041M	265466	5.898	159648	9.505	73457	12.432
05	BPS1-3003-SB -046M	257399	5.889	154767	9.496	72986	12.433
06	BPS1-3003-SB -051M	275191	5.888	166657	9.496	74870	12.423
07	BPS1-3003-SB -056M	272264	5.898	164158	9.506	75466	12.433

IS1 () = Fluorobenzene

IS2 () = Chlorobenzene-d5

IS3 () = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = 200% (Low-Medium Volatiles) and 140% (Trace Volatiles) of internal standard area

AREA LOWER LIMIT = 50% (Low-Medium Volatiles) and 60% (Trace Volatiles) of internal standard area

RT UPPER LIMIT = +0.50 (Low-Medium Volatiles) and +0.33 (Trace Volatiles) minutes of internal standard RT

RT LOWER LIMIT = -0.50 (Low-Medium Volatiles) and -0.33 (Trace Volatiles) minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

4F - FORM IV ARO
AROCLOR METHOD BLANK SUMMARY

EPA SAMPLE NO.

ABLK1Q

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: SH0885

Lab File ID: E1H6162F.D / E1H6162R.D Lab Sample ID: MB-43732

Matrix: (SOIL/SED/WATER) SOIL Extraction: (Type) SONC Date Extracted: 05/21/2009

Sulfur Cleanup: (Y/N) Y GPC Cleanup: (Y/N) N

Acid Cleanup: (Y/N Y

Date Analyzed (1): 05/26/2009 Date Analyzed (2): 05/26/2009

Time Analyzed (1): 16:57 Time Analyzed (2): 16:57

Instrument ID (1): E1 Instrument ID (2): E1

GC Column(1): CLPPest ID: 0.53 (mm) GC Column(2): CLPPestII ID: 0.53 (mm)

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED (1)	DATE ANALYZED (2)
01	ALCS1Q	LCS-43732	05/26/2009	05/26/2009
02	ALCSD1Q	LCSD-43732	05/26/2009	05/26/2009
03	BPS1-3003-SB -041M	H0885-02A	05/26/2009	05/26/2009
04	BPS1-3003-SB -051M	H0885-04A	05/26/2009	05/26/2009
05	BPS1-3003-SB -061M	H0885-06A	05/26/2009	05/26/2009
06	BPS1-3003-SB -111M	H0885-08A	05/26/2009	05/26/2009
07	BPS1-3003-SB -116M	H0885-09A	05/26/2009	05/26/2009
08	BPS1-3003-SB -121M	H0885-10A	05/26/2009	05/26/2009

COMMENTS:

SW846

1H - FORM I ARO

AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ABLK1Q

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: MB-43732

Sample wt/vol: 30.0 (g/mL) G Lab File ID: E1H6162F.D/E1H6162R.D

% Moisture: Decanted: (Y/N) Date Received:

Extraction: (Type) SONC Date Extracted: 05/21/2009

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 05/26/2009

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) Y

Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	33	U
11104-28-2	Aroclor-1221	33	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	33	U

SW846

1H - FORM I PEST

AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ALCS1Q(1)

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: LCS-43732

Sample wt/vol: 30 (g/mL) G Lab File ID: E1H6163F.D

% Moisture: Decanted: (Y/N) Date Received:

Extraction: (Type) SONC Date Extracted: 05/21/2009

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 05/26/2009

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) Y

Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	100	
11104-28-2	Aroclor-1221	33	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	110	

SW846

1H - FORM I PEST

AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ALCS1Q(2)

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: LCS-43732

Sample wt/vol: 30 (g/mL) G Lab File ID: E1H6163R.D

% Moisture: Decanted: (Y/N) Date Received:

Extraction: (Type) SONC Date Extracted: 05/21/2009

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 05/26/2009

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) Y

Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	97	
11104-28-2	Aroclor-1221	33	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	120	

SW846

1H - FORM I PEST

AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ALCSD1Q(1)

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: LCSD-43732

Sample wt/vol: 30 (g/mL) G Lab File ID: E1H6164F.D

% Moisture: Decanted: (Y/N) Date Received:

Extraction: (Type) SONC Date Extracted: 05/21/2009

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 05/26/2009

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) Y

Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	100	
11104-28-2	Aroclor-1221	33	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	120	

SW846

1H - FORM I PEST

AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ALCSD1Q(2)

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: SH0885

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: LCSD-43732

Sample wt/vol: 30 (g/mL) G Lab File ID: E1H6164R.D

% Moisture: Decanted: (Y/N) Date Received:

Extraction: (Type) SONC Date Extracted: 05/21/2009

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 05/26/2009

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) Y

Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	95	
11104-28-2	Aroclor-1221	33	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	120	

SW846

3P - FORM III ARO-4
SOIL AROCLOR LABORATORY CONTROL
SAMPLE RECOVERY

EPA SAMPLE NO.

ALCS1Q

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: SH0885

Lab Sample ID: LCS-43732 LCS Lot No.:

Date Extracted: 05/21/2009 Date Analyzed (1): 05/26/2009

Instrument ID (1): E1 GC Column(1): CLPPest ID: 0.53 (mm)

COMPOUND	AMOUNT ADDED (UG/KG)	AMOUNT RECOVERED (UG/KG)	%REC	#	QC LIMITS
Aroclor-1016	133.3330	100.7020	76		40-140
Aroclor-1260	133.3330	111.3668	84		60-130

Instrument ID (2): E1 GC Column(2): CLPPestII ID: 0.53 (mm)

Date Analyzed (2): 05/26/2009

COMPOUND	AMOUNT ADDED (UG/KG)	AMOUNT RECOVERED (UG/KG)	%REC	#	QC LIMITS
Aroclor-1016	133.3330	97.0356	73		40-140
Aroclor-1260	133.3330	119.3697	90		60-130

Column to be used to flag recovery values with an asterisk
* Values outside of QC limits

LCS Recovery: 0 out of 4 outside limits.

COMMENTS:

SW846

3P - FORM III ARO-4
SOIL AROCLOR LABORATORY CONTROL
SAMPLE RECOVERY

EPA SAMPLE NO.

ALCSD1Q

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: SH0885

Lab Sample ID: LCSD-43732 LCS Lot No.:

Date Extracted: 05/21/2009 Date Analyzed (1): 05/26/2009

Instrument ID (1): E1 GC Column(1): CLPPest ID: 0.53 (mm)

COMPOUND	AMOUNT ADDED (UG/KG)	AMOUNT RECOVERED (UG/KG)	%REC	#	QC LIMITS
Aroclor-1016	133.3330	102.5793	77		40-140
Aroclor-1260	133.3330	115.7349	87		60-130

Instrument ID (2): E1 GC Column(2): CLPPestII ID: 0.53 (mm)

Date Analyzed (2): 05/26/2009

COMPOUND	AMOUNT ADDED (UG/KG)	AMOUNT RECOVERED (UG/KG)	%REC	#	QC LIMITS
Aroclor-1016	133.3330	94.7426	71		40-140
Aroclor-1260	133.3330	118.6526	89		60-130

Column to be used to flag recovery values with an asterisk
* Values outside of QC limits

LCS Recovery: 0 out of 4 outside limits.

COMMENTS:

SW846

2R - FORM II ARO-2

SOIL AROCLOR SURROGATE RECOVERY

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: SH0885

GC Column(1): CLPPest ID: 0.53 (mm) GC Column(2): CLPPestII ID: 0.53 (mm)

	EPA SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	ABLK1Q	61	65	83	85			0
02	ALCS1Q	64	69	84	84			0
03	ALCSD1Q	60	65	84	82			0
04	BPS1-3003-SB -041M	54	57	78	74			0
05	BPS1-3003-SB -051M	55	59	78	76			0
06	BPS1-3003-SB -061M	59	65	84	76			0
07	BPS1-3003-SB -111M	50	54	68	67			0
08	BPS1-3003-SB -116M	51	55	77	73			0
09	BPS1-3003-SB -121M	57	63	79	74			0

	QC LIMITS
TCX = Tetrachloro-m-xylene	(27-120)
DCB = Decachlorobiphenyl	(60-125)

Column to be used to flag recovery values

* Values outside of QC limits

D Surrogate diluted out

6N - FORM VI ARO-1

AROCLORS INITIAL CALIBRATION (MULTIPOINT)

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: SH0885

Instrument ID: E1

Level (x CS1): CS1 1.0 CS2 2.0 CS3 4.0 CS4 8.0 CS5 16.0 CS6 CS7 CS8 CS9

GC Column: CLPPest ID: 0.53 (mm) Date(s) Analyzed (1): 05/07/2009 05/07/2009

COMPOUND	PEAK*	RT OF STANDARDS										RT WINDOW **	
		CS1	CS2	CS3	CS4	CS5	CS6	CS7	CS8	CS9	RT	FROM	TO
AR1016	1	4.213	4.213	4.213	4.213	4.213	4.213				4.213	4.143	4.283
	2	4.700	4.700	4.700	4.700	4.700	4.700				4.700	4.630	4.770
	3	5.063	5.063	5.063	5.063	5.063	5.063				5.063	4.993	5.133
AR1260	1	6.820	6.817	6.817	6.817	6.817	6.820				6.818	6.748	6.888
	2	7.457	7.457	7.453	7.453	7.453	7.457				7.455	7.385	7.525
	3	7.727	7.727	7.727	7.727	7.727	7.727				7.727	7.657	7.797
AR1242	1	4.500	4.500	4.497	4.500	4.497	4.500				4.499	4.429	4.569
	2	4.643	4.643	4.640	4.640	4.640	4.643				4.642	4.572	4.712
	3	5.067	5.067	5.067	5.067	5.067	5.070				5.067	4.997	5.137
AR1248	1	5.153	5.153	5.150	5.153	5.153	5.153				5.153	5.083	5.223
	2	5.517	5.517	5.513	5.517	5.517	5.517				5.516	5.446	5.586
	3	5.713	5.713	5.713	5.713	5.713	5.717				5.714	5.644	5.784
AR1254	1	6.103	6.103	6.103	6.103	6.100	6.103				6.103	6.033	6.173
	2	6.377	6.377	6.373	6.373	6.373	6.377				6.375	6.305	6.445
	3	6.553	6.553	6.553	6.553	6.550	6.553				6.553	6.483	6.623
TCX (A)		3.167	3.167	3.167	3.167	3.167					3.167	3.117	3.217
DCB (A)		8.787	8.787	8.787	8.787	8.787					8.787	8.687	8.887

* At least three peaks for each column are required for identification of Aroclors.

**Retention Time windows are ± 0.07 minutes for each Aroclor peak; 0.05 minutes for tetrachloro-m-xylene; ± 0.10 minutes for decachlorobiphenyl.

TCX = Tetrachloro-m-xylene
DCB = Decachlorobiphenyl

6N - FORM VI ARO-1

AROCLORS INITIAL CALIBRATION (MULTIPOINT)

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: SH0885

Instrument ID: E1

Level (x CS1): CS1 1.0 CS2 2.0 CS3 4.0 CS4 8.0 CS5 16.0 CS6 CS7 CS8 CS9

GC Column: CLPPestII ID: 0.53 (mm) Date(s) Analyzed (1): 05/07/2009 05/07/2009

COMPOUND	PEAK*	RT OF STANDARDS										RT WINDOW **	
		CS1	CS2	CS3	CS4	CS5	CS6	CS7	CS8	CS9	RT	FROM	TO
AR1016	1	4.760	4.757	4.757	4.757	4.757	4.760				4.758	4.688	4.828
	2	5.643	5.643	5.643	5.643	5.640	5.643				5.643	5.573	5.713
	3	5.677	5.680	5.677	5.677	5.677	5.680				5.678	5.608	5.748
AR1260	1	7.680	7.680	7.677	7.677	7.677	7.680				7.678	7.608	7.748
	2	8.290	8.290	8.290	8.290	8.290	8.290				8.290	8.220	8.360
	3	8.657	8.657	8.657	8.657	8.657	8.657				8.657	8.587	8.727
AR1242	1	5.250	5.250	5.250	5.250	5.247	5.253				5.250	5.180	5.320
	2	5.397	5.397	5.393	5.393	5.393	5.397				5.395	5.325	5.465
	3	6.007	6.007	6.003	6.003	6.003	6.007				6.005	5.935	6.075
AR1248	1	5.880	5.880	5.877	5.877	5.877	5.880				5.878	5.808	5.948
	2	6.307	6.307	6.303	6.307	6.303	6.307				6.306	6.236	6.376
	3	6.540	6.537	6.537	6.537	6.533	6.540				6.537	6.467	6.607
AR1254	1	6.833	6.833	6.833	6.830	6.830	6.833				6.832	6.762	6.902
	2	6.947	6.947	6.947	6.947	6.943	6.947				6.946	6.876	7.016
	3	7.167	7.167	7.163	7.163	7.163	7.167				7.165	7.095	7.235
TCX (A)		3.703	3.703	3.703	3.700	3.703					3.703	3.653	3.753
DCB (A)		10.167	10.170	10.167	10.167	10.167					10.167	10.067	10.267

* At least three peaks for each column are required for identification of Aroclors.

**Retention Time windows are ± 0.07 minutes for each Aroclor peak; 0.05 minutes for tetrachloro-m-xylene; ± 0.10 minutes for decachlorobiphenyl.

TCX = Tetrachloro-m-xylene
DCB = Decachlorobiphenyl

6P - FORM VI ARO-2

AROCLOR INITIAL CALIBRATION (MULTIPOINT)

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: SH0885

Instrument ID: E1 Date(s) Analyzed: 05/07/2009 05/07/2009

GC Column: CLPPest ID: 0.53 (mm)

Level (x CS1): CS1 1.0 CS2 2.0 CS3 4.0 CS4 8.0 CS5 16.0 CS6 16.0 CS7 16.0 CS8 16.0 CS9 16.0

COMPOUND	PEAK [1]	CALIBRATION FACTORS (CFs)									
		CS1	CS2	CS3	CS4	CS5	CS6	CS7	CS8	CS9	% RSD
AR1016	1	37650	35570	32780	28754	24800	38280				16.1
	2	38790	35920	34293	30320	26188	41080				15.9
	3	47700	43760	40110	34250	32819	51340				17.6
AR1260	1	96760	91460	87205	75739	69738	104100				14.7
	2	159070	150755	144795	131519	120525	169020				12.2
	3	70880	70610	69380	62239	58039	74340				9.1
AR1242	1	79720	72965	66873	59089	53110	80420				16.2
	2	40060	37160	34083	29653	26138	40260				16.6
	3	36290	34160	31880	29690	26613	39540				14.1
AR1248	1	40570	38745	40405	34815	31364	42680				11.1
	2	80130	74760	76710	65503	58979	85200				13.1
	3	57830	53810	55798	47778	43017	60360				12.3
AR1254	1	98330	90305	87473	77573	69591	104280				14.6
	2	70470	65710	67855	61096	56463	72620				9.2
	3	73490	65895	66035	58348	52509	74560				13.1
TCX (A)		1863800	1756100	1565700	1400200	1249250					16.0
DCB (A)		3218100	3175100	3004375	2894488	2832281					5.6

[1]At least three peaks for each column are required for identification of Aroclors.

TCX = Tetrachloro-m-xylene
DCB = Decachlorobiphenyl

6P - FORM VI ARO-2

AROCLOR INITIAL CALIBRATION (MULTIPOINT)

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: SH0885

Instrument ID: E1 Date(s) Analyzed: 05/07/2009 05/07/2009

GC Column: CLPPestII ID: 0.53 (mm)

Level (x CS1): CS1 1.0 CS2 2.0 CS3 4.0 CS4 8.0 CS5 16.0 CS6 16.0 CS7 16.0 CS8 16.0 CS9 16.0

COMPOUND	PEAK [1]	CALIBRATION FACTORS (CFs)									
		CS1	CS2	CS3	CS4	CS5	CS6	CS7	CS8	CS9	% RSD
AR1016	1	30390	28780	26948	24250	21356	32380				14.8
	2	18680	18210	17610	16661	15103	20100				9.7
	3	14330	14125	13940	13554	12526	15420				6.8
AR1260	1	41060	41080	41175	39010	36301	41460				5.1
	2	68390	67435	67313	62573	58339	70800				6.9
	3	40320	39940	40638	38581	36475	41480				4.5
AR1242	1	37130	35660	34725	32165	29913	37220				8.4
	2	17940	17190	16970	16039	15061	17600				6.4
	3	12100	12315	13048	12694	12467	12180				2.8
AR1248	1	27500	26545	27510	24109	22198	28000				8.9
	2	33090	32060	33210	29428	27849	33800				7.6
	3	23080	22710	24560	22390	21733	23440				4.2
AR1254	1	22240	22205	22338	21453	20671	22760				3.4
	2	43210	42360	41788	38835	36228	44800				7.6
	3	34000	34250	33928	32561	30770	35040				4.6
TCX (A)		789400	808000	779450	745600	703213					5.4
DCB (A)		515300	495100	457175	419850	391913					11.2

[1]At least three peaks for each column are required for identification of Aroclors.

TCX = Tetrachloro-m-xylene
DCB = Decachlorobiphenyl

6Q - FORM VI ARO-3

AROCLOR INITIAL CALIBRATION (SINGLE POINT)

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: SH0885

Instrument ID: E1 Date(s) Analyzed: 05/07/2009 05/07/2009

GC Column: CLPPest ID: 0.53 (mm)

COMPOUND	AMOUNT (ng)	PEAK [1]	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Aroclor-1221	0.4	1	2.58	2.51	2.65	11110
		2	3.39	3.32	3.46	16570
		3	3.61	3.54	3.68	36048
		4				
		5				
Aroclor-1232	0.4	1	3.60	3.53	3.67	31628
		2	4.00	3.93	4.07	23015
		3	4.50	4.43	4.57	34683
		4				
		5				

[1] At least three peaks for each column are required for identification of multicomponent analytes.

6Q - FORM VI ARO-3

AROCLOR INITIAL CALIBRATION (SINGLE POINT)

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: SH0885

Instrument ID: E1 Date(s) Analyzed: 05/07/2009 05/07/2009

GC Column: CLPPestII ID: 0.53 (mm)

COMPOUND	AMOUNT (ng)	PEAK [1]	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Aroclor-1221	0.4	1	3.15	3.08	3.22	5470
		2	4.07	4.00	4.14	7393
		3	4.30	4.23	4.37	15860
		4				
		5				
Aroclor-1232	0.4	1	4.30	4.23	4.37	13833
		2	4.77	4.70	4.84	10488
		3	5.40	5.33	5.47	8238
		4				
		5				

[1] At least three peaks for each column are required for identification of multicomponent analytes.

7N - FORM VII ARO

AROCLOR CALIBRATION VERIFICATION SUMMARY

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: SH0885

GC Column: CLPPest ID: 0.53 (mm) Calibration Date(s): 05/07/2009 05/07/2009

EPA Sample No. (AR####3##): AR16603IT Date Analyzed: 05/26/2009

Lab Sample ID: AR16603IT Time Analyzed: 16:00

EPA Sample No. (AR####3##): Date Analyzed:

Lab Sample ID: Time Analyzed:

EPA Sample No. (AR####3##): Date Analyzed:

Lab Sample ID: Time Analyzed:

EPA Sample No. (AR####3##): Date Analyzed:

Lab Sample ID: Time Analyzed:

AROCLOR COMPOUND	PEAK	RETENTION RT	RT WINDOW FROM	RT WINDOW TO	$\overline{CF}$	CF	%D
AR1016	1	4.213	4.143	4.283	32972.29167	29650	-10.1
	2	4.700	4.630	4.770	34431.66667	31807.5	-7.6
	3	5.063	4.993	5.133	41663.22917	37982.5	-8.8
AR1260	1	6.813	6.748	6.888	87500.3125	78460	-10.3
	2	7.453	7.385	7.525	145947.2917	131582.5	-9.8
	3	7.723	7.657	7.797	67581.35417	62552.5	-7.4
TCX		3.170	3.117	3.217	1567010	1503200	-4.1
DCB		8.787	8.687	8.887	3024868.75	2373750	-21.5

TCX = Tetrachloro-m-xylene
DCB = Decachlorobiphenyl

7N - FORM VII ARO

AROCLOR CALIBRATION VERIFICATION SUMMARY

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: SH0885

GC Column: CLPPestII ID: 0.53 (mm) Calibration Date(s): 05/07/2009 05/07/2009

EPA Sample No. (AR####3##): AR16603IT Date Analyzed: 05/26/2009

Lab Sample ID: AR16603IT Time Analyzed: 16:00

EPA Sample No. (AR####3##): Date Analyzed:

Lab Sample ID: Time Analyzed:

EPA Sample No. (AR####3##): Date Analyzed:

Lab Sample ID: Time Analyzed:

EPA Sample No. (AR####3##): Date Analyzed:

Lab Sample ID: Time Analyzed:

AROCLOR COMPOUND	PEAK	RETENTION RT	RT WINDOW FROM	RT WINDOW TO	$\overline{CF}$	CF	%D
AR1016	1	4.757	4.688	4.828	27350.52083	24155	-11.7
	2	5.643	5.573	5.713	17727.39583	15202.5	-14.2
	3	5.677	5.608	5.748	13982.5	11760	-15.9
AR1260	1	7.677	7.608	7.748	40014.27083	36002.5	-10.0
	2	8.287	8.220	8.360	65808.22917	60252.5	-8.4
	3	8.657	8.587	8.727	39572.29167	35755	-9.6
TCX		3.703	3.653	3.753	765132.5	728550	-4.8
DCB		10.167	10.067	10.267	455867.5	410550	-9.9

TCX = Tetrachloro-m-xylene
DCB = Decachlorobiphenyl

SW846

7N - FORM VII ARO

AROCLOR CALIBRATION VERIFICATION SUMMARY

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: SH0885

GC Column: CLPPest ID: 0.53 (mm) Calibration Date(s): 05/07/2009 05/07/2009

EPA Sample No. (AR####3##): AR16603IU Date Analyzed: 05/26/2009

Lab Sample ID: AR16603IU Time Analyzed: 19:49

EPA Sample No. (AR####3##): Date Analyzed:

Lab Sample ID: Time Analyzed:

EPA Sample No. (AR####3##): Date Analyzed:

Lab Sample ID: Time Analyzed:

EPA Sample No. (AR####3##): Date Analyzed:

Lab Sample ID: Time Analyzed:

AROCLOR COMPOUND	PEAK	RETENTION RT	RT WINDOW FROM	RT WINDOW TO	$\overline{CF}$	CF	%D
AR1016	1	4.213	4.143	4.283	32972.29167	32547.5	-1.3
	2	4.700	4.630	4.770	34431.66667	35920	4.3
	3	5.063	4.993	5.133	41663.22917	39952.5	-4.1
AR1260	1	6.817	6.748	6.888	87500.3125	81845	-6.5
	2	7.453	7.385	7.525	145947.2917	137587.5	-5.7
	3	7.727	7.657	7.797	67581.35417	65867.5	-2.5
TCX		3.170	3.117	3.217	1567010	1520200	-3.0
DCB		8.783	8.687	8.887	3024868.75	2929075	-3.2

TCX = Tetrachloro-m-xylene
DCB = Decachlorobiphenyl

SW846

7N - FORM VII ARO

AROCLOR CALIBRATION VERIFICATION SUMMARY

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: SH0885

GC Column: CLPPestII ID: 0.53 (mm) Calibration Date(s): 05/07/2009 05/07/2009

EPA Sample No. (AR####3##): AR16603IU Date Analyzed: 05/26/2009

Lab Sample ID: AR16603IU Time Analyzed: 19:49

EPA Sample No. (AR####3##): Date Analyzed:

Lab Sample ID: Time Analyzed:

EPA Sample No. (AR####3##): Date Analyzed:

Lab Sample ID: Time Analyzed:

EPA Sample No. (AR####3##): Date Analyzed:

Lab Sample ID: Time Analyzed:

AROCLOR COMPOUND	PEAK	RETENTION RT	RT WINDOW FROM	RT WINDOW TO	$\overline{CF}$	CF	%D
AR1016	1	4.757	4.688	4.828	27350.52083	26032.5	-4.8
	2	5.640	5.573	5.713	17727.39583	16737.5	-5.6
	3	5.677	5.608	5.748	13982.5	13295	-4.9
AR1260	1	7.677	7.608	7.748	40014.27083	39795	-0.5
	2	8.287	8.220	8.360	65808.22917	65832.5	0.0
	3	8.653	8.587	8.727	39572.29167	39525	-0.1
TCX		3.703	3.653	3.753	765132.5	748050	-2.2
DCB		10.163	10.067	10.267	455867.5	447725	-1.8

TCX = Tetrachloro-m-xylene
DCB = Decachlorobiphenyl

8H - FORM VIII ARO

AROCLOR ANALYTICAL SEQUENCE

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: SH0885

GC Column: CLPPest ID: 0.53 (mm) Init. Calib. Date(s): 05/07/2009 05/07/2009

Instrument ID: E1

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs, AND LCSs IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION

TCX: 3.167 DCB: 8.787

	EPA SAMPLE NO.	LAB File ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01	AR12213I1	E1H5858F.D	5/7/2009	13:33	3.177	8.800
02	AR12323I1	E1H5859F.D	5/7/2009	13:48	3.173	8.797
03	AR12426I1	E1H5860F.D	5/7/2009	14:02	3.173	8.793
04	AR12421I1	E1H5861F.D	5/7/2009	14:16	3.173	8.797
05	AR12422I1	E1H5862F.D	5/7/2009	14:31	3.173	8.793
06	AR12423I1	E1H5863F.D	5/7/2009	14:45	3.170	8.793
07	AR12424I1	E1H5864F.D	5/7/2009	14:59	3.173	8.793
08	AR12425I1	E1H5865F.D	5/7/2009	15:14	3.170	8.793
09	AR12486I1	E1H5866F.D	5/7/2009	15:28	3.173	8.793
10	AR12481I1	E1H5867F.D	5/7/2009	15:42	3.170	8.793
11	AR12482I1	E1H5868F.D	5/7/2009	15:57	3.170	8.793
12	AR12483I1	E1H5869F.D	5/7/2009	16:11	3.170	8.793
13	AR12484I1	E1H5870F.D	5/7/2009	16:25	3.173	8.793
14	AR12485I1	E1H5871F.D	5/7/2009	16:40	3.170	8.793
15	AR12546I1	E1H5872F.D	5/7/2009	16:54	3.173	8.793
16	AR12541I1	E1H5873F.D	5/7/2009	17:08	3.173	8.793
17	AR12542I1	E1H5874F.D	5/7/2009	17:23	3.173	8.793
18	AR12543I1	E1H5875F.D	5/7/2009	17:37	3.173	8.793
19	AR12544I1	E1H5876F.D	5/7/2009	17:52	3.173	8.793
20	AR12545I1	E1H5877F.D	5/7/2009	18:06	3.170	8.793
21	AR16606I1	E1H5880F.D	5/7/2009	18:49	3.167	8.787
22	AR16601I1	E1H5881F.D	5/7/2009	19:03	3.167	8.787
23	AR16602I1	E1H5882F.D	5/7/2009	19:18	3.167	8.787
24	AR16603I1	E1H5883F.D	5/7/2009	19:32	3.167	8.787
25	AR16604I1	E1H5884F.D	5/7/2009	19:46	3.167	8.787
26	AR16605I1	E1H5885F.D	5/7/2009	20:01	3.167	8.787
27	AR16603IT	E1H6158F.D	5/26/2009	16:00	3.170	8.787

QC LIMITS

TCX = Tetrachloro-m-xylene (± 0.05 MINUTES)

DCB = Decachlorobiphenyl (± 0.10 MINUTES)

Column used to flag RT values with an asterisk.

8H - FORM VIII ARO

AROCLOR ANALYTICAL SEQUENCE

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: SH0885

GC Column: CLPPest ID: 0.53 (mm) Init. Calib. Date(s): 05/07/2009 05/07/2009

Instrument ID: E1

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs, AND LCSs IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION

TCX: 3.167 DCB: 8.787

	EPA SAMPLE NO.	LAB File ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
28	ABLK1Q	E1H6162F.D	5/26/2009	16:57	3.170	8.783
29	ALCS1Q	E1H6163F.D	5/26/2009	17:11	3.170	8.783
30	ALCSD1Q	E1H6164F.D	5/26/2009	17:26	3.170	8.783
31	BPS1-3003-SB-041M	E1H6166F.D	5/26/2009	17:55	3.173	8.787
32	BPS1-3003-SB-051M	E1H6167F.D	5/26/2009	18:09	3.173	8.787
33	BPS1-3003-SB-061M	E1H6168F.D	5/26/2009	18:23	3.173	8.787
34	BPS1-3003-SB-111M	E1H6169F.D	5/26/2009	18:38	3.173	8.787
35	BPS1-3003-SB-116M	E1H6170F.D	5/26/2009	18:52	3.170	8.787
36	BPS1-3003-SB-121M	E1H6171F.D	5/26/2009	19:06	3.173	8.787
37	AR16603IU	E1H6174F.D	5/26/2009	19:49	3.170	8.783

QC LIMITS

TCX = Tetrachloro-m-xylene (± 0.05 MINUTES)

DCB = Decachlorobiphenyl (± 0.10 MINUTES)

Column used to flag RT values with an asterisk.

8H - FORM VIII ARO

AROCLOR ANALYTICAL SEQUENCE

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: SH0885

GC Column: CLPPestII ID: 0.53 (mm) Init. Calib. Date(s): 05/07/2009 05/07/2009

Instrument ID: E1

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs, AND LCSs IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION

TCX: 3.703 DCB: 10.167

	EPA SAMPLE NO.	LAB File ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01	AR12213I1	E1H5858R.D	5/7/2009	13:33	3.713	10.187
02	AR12323I1	E1H5859R.D	5/7/2009	13:48	3.710	10.183
03	AR12426I1	E1H5860R.D	5/7/2009	14:02	3.710	10.180
04	AR12421I1	E1H5861R.D	5/7/2009	14:16	3.710	10.180
05	AR12422I1	E1H5862R.D	5/7/2009	14:31	3.707	10.177
06	AR12423I1	E1H5863R.D	5/7/2009	14:45	3.707	10.177
07	AR12424I1	E1H5864R.D	5/7/2009	14:59	3.707	10.177
08	AR12425I1	E1H5865R.D	5/7/2009	15:14	3.707	10.177
09	AR12486I1	E1H5866R.D	5/7/2009	15:28	3.710	10.177
10	AR12481I1	E1H5867R.D	5/7/2009	15:42	3.707	10.177
11	AR12482I1	E1H5868R.D	5/7/2009	15:57	3.707	10.177
12	AR12483I1	E1H5869R.D	5/7/2009	16:11	3.707	10.177
13	AR12484I1	E1H5870R.D	5/7/2009	16:25	3.707	10.177
14	AR12485I1	E1H5871R.D	5/7/2009	16:40	3.707	10.177
15	AR12546I1	E1H5872R.D	5/7/2009	16:54	3.707	10.177
16	AR12541I1	E1H5873R.D	5/7/2009	17:08	3.707	10.177
17	AR12542I1	E1H5874R.D	5/7/2009	17:23	3.707	10.177
18	AR12543I1	E1H5875R.D	5/7/2009	17:37	3.707	10.177
19	AR12544I1	E1H5876R.D	5/7/2009	17:52	3.707	10.177
20	AR12545I1	E1H5877R.D	5/7/2009	18:06	3.707	10.173
21	AR16606I1	E1H5880R.D	5/7/2009	18:49	3.703	10.170
22	AR16601I1	E1H5881R.D	5/7/2009	19:03	3.703	10.167
23	AR16602I1	E1H5882R.D	5/7/2009	19:18	3.703	10.170
24	AR16603I1	E1H5883R.D	5/7/2009	19:32	3.703	10.167
25	AR16604I1	E1H5884R.D	5/7/2009	19:46	3.700	10.167
26	AR16605I1	E1H5885R.D	5/7/2009	20:01	3.703	10.167
27	AR16603IT	E1H6158R.D	5/26/2009	16:00	3.703	10.167

QC LIMITS

TCX = Tetrachloro-m-xylene (± 0.05 MINUTES)

DCB = Decachlorobiphenyl (± 0.10 MINUTES)

Column used to flag RT values with an asterisk.

8H - FORM VIII ARO

AROCLOR ANALYTICAL SEQUENCE

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: SH0885

GC Column: CLPPestII ID: 0.53 (mm) Init. Calib. Date(s): 05/07/2009 05/07/2009

Instrument ID: E1

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs, AND LCSs IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION

TCX: 3.703 DCB: 10.167

	EPA SAMPLE NO.	LAB File ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
28	ABLK1Q	E1H6162R.D	5/26/2009	16:57	3.703	10.160
29	ALCS1Q	E1H6163R.D	5/26/2009	17:11	3.703	10.163
30	ALCSD1Q	E1H6164R.D	5/26/2009	17:26	3.703	10.163
31	BPS1-3003-SB -041M	E1H6166R.D	5/26/2009	17:55	3.703	10.163
32	BPS1-3003-SB -051M	E1H6167R.D	5/26/2009	18:09	3.703	10.167
33	BPS1-3003-SB -061M	E1H6168R.D	5/26/2009	18:23	3.703	10.167
34	BPS1-3003-SB -111M	E1H6169R.D	5/26/2009	18:38	3.703	10.167
35	BPS1-3003-SB -116M	E1H6170R.D	5/26/2009	18:52	3.703	10.167
36	BPS1-3003-SB -121M	E1H6171R.D	5/26/2009	19:06	3.707	10.167
37	AR16603IU	E1H6174R.D	5/26/2009	19:49	3.703	10.163

QC LIMITS

TCX = Tetrachloro-m-xylene (± 0.05 MINUTES)

DCB = Decachlorobiphenyl (± 0.10 MINUTES)

Column used to flag RT values with an asterisk.

10C - FORM X ARO
IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

ALCS1Q

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: SH0885

Lab Sample ID: LCS-43732 Date(s) Analyzed: 05/26/2009 05/26/2009

Instrument ID (1): E1 Instrument ID (2): E1

GC Column(1): CLPPest ID: 0.53 (mm) GC Column(2): CLPPestII ID: 0.53 (MM)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION PEAK	CONCENTRATION MEAN	%D
Aroclor-1016 COLUMN 1	1	4.213	4.143	4.283	98.5777		
	2	4.697	4.630	4.770	102.4638		
	3	5.060	4.993	5.133	101.0643		
	4						
	5					100.701958	
COLUMN 2	1	4.757	4.688	4.828	93.2828		
	2	5.640	5.573	5.713	99.5822		
	3	5.677	5.608	5.748	98.2418		
	4						
	5					97.035624	3.8
Aroclor-1260 COLUMN 1	1	6.813	6.748	6.888	105.4472		
	2	7.453	7.385	7.525	112.1615		
	3	7.723	7.657	7.797	116.4917		
	4						
	5					111.366812	
COLUMN 2	1	7.677	7.608	7.748	117.5914		
	2	8.287	8.220	8.360	120.1977		
	3	8.653	8.587	8.727	120.3199		
	4						
	5					119.369664	7.2

At least 3 peaks for each column are required for identification of multicomponent analytes

SW846

10C - FORM X ARO
IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

ALCSD1Q

Lab Name: MITKEM LABORATORIES Contract:

Lab Code: MITKEM Case No.: Mod. Ref No.: SDG No.: SH0885

Lab Sample ID: LCSD-43732 Date(s) Analyzed: 05/26/2009 05/26/2009

Instrument ID (1): E1 Instrument ID (2): E1

GC Column(1): CLPPest ID: 0.53 (mm) GC Column(2): CLPPestII ID: 0.53 (MM)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION PEAK	CONCENTRATION MEAN	%D
Aroclor-1016 COLUMN 1	1	4.213	4.143	4.283	96.5356		
	2	4.700	4.630	4.770	107.0817		
	3	5.060	4.993	5.133	104.1206		
	4						
	5					102.579284	
COLUMN 2	1	4.757	4.688	4.828	90.5406		
	2	5.640	5.573	5.713	97.1378		
	3	5.677	5.608	5.748	96.5493		
	4						
	5					94.742558	8.3
Aroclor-1260 COLUMN 1	1	6.813	6.748	6.888	113.1501		
	2	7.450	7.385	7.525	115.4915		
	3	7.723	7.657	7.797	118.5633		
	4						
	5					115.734938	
COLUMN 2	1	7.677	7.608	7.748	117.0249		
	2	8.287	8.220	8.360	119.7165		
	3	8.653	8.587	8.727	119.2164		
	4						
	5					118.652622	2.5

At least 3 peaks for each column are required for identification of multicomponent analytes

APPENDIX C

SURFACE WATER AND SEDIMENT/SOIL SAMPLE AND BORING LOGS

C.1 SAMPLE REFERENCE TABLE

C.2 SURFACE WATER SAMPLE LOG SHEETS

C.3 SOIL & SEDIMENT SAMPLE LOG SHEETS

C.4 BORING LOGS

C.1 SAMPLE REFERENCE TABLE

APPENDIC C.1 SAMPLE REFERENCE TABLE
MONITORING WELL SAMPLING

Well	Total Depth (feet bgs)	Screened Interval Depth (feet bgs)	COCS	Sample Log sheets	Low Flow Purge Data Sheet	MW Construction Sheets	Boring Log	MW Development Sheet	Validation data	Gamma Logs	Survey Data
December 2010 Sampling Event											
BPS1-FW-MW01	63.5	48.5-63.5	2011-July Report	2011-July Report	2011-July Report				2011-July Report		
BPS1-FW-MW02	64	49-64	2011-July Report	2011-July Report	2011-July Report				2011-July Report		
BPS1-FW-MW03	67	52-67	2011-July Report	2011-July Report	2011-July Report				2011-July Report		
BPS1-HN-MW29I	130.5	120-130	2011-July Report	2011-July Report	2011-July Report				2011-July Report		
BPS1-TT-MW301S	62	51-61	2011-July Report	2011-July Report	2011-July Report	2011-July Report		2011-July Report	2011-July Report		
BPS1-TT-MW301I	140	130-140	2011-July Report	2011-July Report	2011-July Report	2011-July Report		2011-July Report	2011-July Report		
BPS1-TT-MW301D	220	210-220	2011-July Report	2011-July Report	2011-July Report	2011-July Report		2011-July Report	2011-July Report		
BPS1-TT-MW302S	51	41-51	2011-July Report	2011-July Report	2011-July Report	2011-July Report		2011-July Report	2011-July Report		
BPS1-TT-MW302I1	120	110-120	2011-July Report	2011-July Report	2011-July Report	2011-July Report		2011-July Report	2011-July Report		
BPS1-TT-MW302I2	150	140-150	2011-July Report	2011-July Report	2011-July Report	2011-July Report		2011-July Report	2011-July Report		
BPS1-TT-MW302D	213	203-213	2011-July Report	2011-July Report	2011-July Report	2011-July Report		2011-July Report	2011-July Report		
BPS1-TT-MW303S	58	46-56	2011-July Report	2011-July Report	2011-July Report	2011-July Report		2011-July Report	2011-July Report		
BPS1-TT-MW303I1	105	95-105	2011-July Report	2011-July Report	2011-July Report	2011-July Report		2011-July Report	2011-July Report		
BPS1-TT-MW303I2	156	146-156	2011-July Report	2011-July Report	2011-July Report	2011-July Report		2011-July Report	2011-July Report		
BPS1-TT-MW303D	218	208-218	2011-July Report	2011-July Report	2011-July Report	2011-July Report		2011-July Report	2011-July Report		
BPS1-TT-MW304S	53	43-53	2011-July Report	2011-July Report	2011-July Report	2011-July Report		2011-July Report	2011-July Report		
BPS1-TT-MW304I1	112	102-112	2011-July Report	2011-July Report	2011-July Report	2011-July Report		2011-July Report	2011-July Report		
BPS1-TT-MW304I2	150	140-150	2011-July Report	2011-July Report	2011-July Report	2011-July Report		2011-July Report	2011-July Report		
BPS1-TT-MW304D	190	180-190	2011-July Report	2011-July Report	2011-July Report	2011-July Report		2011-July Report	2011-July Report		
March 2011 Sampling Event											
BPS1-FW-MW01	63.5	48.5-63.5	2011-July Report	2011-July Report	2011-July Report				2011-July Report		2011-July Report
BPS1-FW-MW02	64	49-64	2011-July Report	2011-July Report	2011-July Report				2011-July Report		2011-July Report
BPS1-FW-MW03	67	52-67	2011-July Report	2011-July Report	2011-July Report				2011-July Report		2011-July Report
BPS1-HN-MW29I	130.5	120-130	2011-July Report	2011-July Report	2011-July Report				2011-July Report		2011-July Report
BPS1-TT-MW301S	62	51-61	2011-July Report	2011-July Report	2011-July Report				2011-July Report		2011-July Report
BPS1-TT-MW301I	140	130-140	2011-July Report	2011-July Report	2011-July Report				2011-July Report		2011-July Report
BPS1-TT-MW301D	220	210-220	2011-July Report	2011-July Report	2011-July Report				2011-July Report		2011-July Report
BPS1-TT-MW302S	51	41-51	2011-July Report	2011-July Report	2011-July Report				2011-July Report		2011-July Report
BPS1-TT-MW302I1	120	110-120	2011-July Report	2011-July Report	2011-July Report				2011-July Report		2011-July Report
BPS1-TT-MW302I2	150	140-150	2011-July Report	2011-July Report	2011-July Report				2011-July Report		2011-July Report
BPS1-TT-MW302D	213	203-213	2011-July Report	2011-July Report	2011-July Report				2011-July Report		2011-July Report
BPS1-TT-MW303S	58	46-56	2011-July Report	2011-July Report	2011-July Report				2011-July Report		2011-July Report
BPS1-TT-MW303I1	105	95-105	2011-July Report	2011-July Report	2011-July Report				2011-July Report		2011-July Report
BPS1-TT-MW303I2	156	146-156	2011-July Report	2011-July Report	2011-July Report				2011-July Report		2011-July Report
BPS1-TT-MW303D	218	208-218	2011-July Report	2011-July Report	2011-July Report				2011-July Report		2011-July Report
BPS1-TT-MW304S	53	43-53	2011-July Report	2011-July Report	2011-July Report				2011-July Report		2011-July Report
BPS1-TT-MW304I1	112	102-112	2011-July Report	2011-July Report	2011-July Report				2011-July Report		2011-July Report
BPS1-TT-MW304I2	150	140-150	2011-July Report	2011-July Report	2011-July Report				2011-July Report		2011-July Report
BPS1-TT-MW304D	190	180-190	2011-July Report	2011-July Report	2011-July Report				2011-July Report		2011-July Report
January 2012 Sampling Event											
BPS1-FW-MW01	63.5	48.5-63.5	2012-Sept Report	2012-Sept Report	2012-Sept Report				2012-Sept Report		
BPS1-FW-MW02	64	49-64	2012-Sept Report	2012-Sept Report	2012-Sept Report				2012-Sept Report		
BPS1-FW-MW03	67	52-67	2012-Sept Report	2012-Sept Report	2012-Sept Report				2012-Sept Report		

Well	Total Depth (feet bgs)	Screened Interval Depth (feet bgs)	COCS	Sample Log sheets	Low Flow Purge Data Sheet	MW Construction Sheets	Boring Log	MW Development Sheet	Validation data	Gamma Logs	Survey Data
BPS1-HN-MW29I	130.5	120-130	2012-Sept Report	2012-Sept Report	2012-Sept Report				2012-Sept Report		
BPS1-TT-MW301S	62	51-61	2012-Sept Report	2012-Sept Report	2012-Sept Report				2012-Sept Report		2012-Sept Report
BPS1-TT-MW301I	140	130-140	2012-Sept Report	2012-Sept Report	2012-Sept Report				2012-Sept Report		2012-Sept Report
BPS1-TT-MW301D	220	210-220	2012-Sept Report	2012-Sept Report	2012-Sept Report				2012-Sept Report		2012-Sept Report
BPS1-TT-MW302S	51	41-51	2012-Sept Report	2012-Sept Report	2012-Sept Report				2012-Sept Report		
BPS1-TT-MW302I1	120	110-120	2012-Sept Report	2012-Sept Report	2012-Sept Report				2012-Sept Report		
BPS1-TT-MW302I2	150	140-150	2012-Sept Report	2012-Sept Report	2012-Sept Report				2012-Sept Report		
BPS1-TT-MW302D	213	203-213	2012-Sept Report	2012-Sept Report	2012-Sept Report				2012-Sept Report		
BPS1-TT-MW303S	58	46-56	2012-Sept Report	2012-Sept Report	2012-Sept Report				2012-Sept Report		
BPS1-TT-MW303I1	105	95-105	2012-Sept Report	2012-Sept Report	2012-Sept Report				2012-Sept Report		
BPS1-TT-MW303I2	156	146-156	2012-Sept Report	2012-Sept Report	2012-Sept Report				2012-Sept Report		
BPS1-TT-MW303D	218	208-218	2012-Sept Report	2012-Sept Report	2012-Sept Report				2012-Sept Report		
BPS1-TT-MW304S	53	43-53	2012-Sept Report	2012-Sept Report	2012-Sept Report				2012-Sept Report		
BPS1-TT-MW304I1	112	102-112	2012-Sept Report	2012-Sept Report	2012-Sept Report				2012-Sept Report		
BPS1-TT-MW304I2	150	140-150	2012-Sept Report	2012-Sept Report	2012-Sept Report				2012-Sept Report		
BPS1-TT-MW304D	190	180-190	2012-Sept Report	2012-Sept Report	2012-Sept Report				2012-Sept Report		
BPS1-TT-MW305S	50	40-50	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report		2012-Sept Report	2012-Sept Report		2012-Sept Report
BPS1-TT-MW305I	200	190-200	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report		2012-Sept Report	2012-Sept Report		2012-Sept Report
BPS1-TT-MW305D	296	286-296	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report
BPS1-TT-MW306S	60	50-60	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report		2012-Sept Report	2012-Sept Report		2012-Sept Report
BPS1-TT-MW306I	199	189-199	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report		2012-Sept Report	2012-Sept Report		2012-Sept Report
BPS1-TT-MW306D	294	284-294	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report
BPS1-TT-MW307S	50.5	40.5-50.5	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report		2012-Sept Report	2012-Sept Report		2012-Sept Report
BPS1-TT-MW307I	198	188-198	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report		2012-Sept Report	2012-Sept Report		2012-Sept Report
BPS1-TT-MW307D	286	276-286	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report
BPS1-TT-MW308S	64	54-64	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report		2012-Sept Report
BPS1-TT-MW308I	166	156-166	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report		2012-Sept Report	2012-Sept Report		2012-Sept Report
BPS1-TT-MW308D	260	250-260	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report
BPS1-TT-MW309S	63	53-63	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report		2012-Sept Report
BPS1-TT-MW309I	170	160-170	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report		2012-Sept Report
BPS1-TT-MW309D	262	252-262	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report	2012-Sept Report
November 2012 Sampling Event											
TTAOC22-MW06	62	52 - 62	2013-July Report	2013-July Report	2013-July Report				2013-July Report		
TTAOC22-MW10	60	49 - 59	2013-July Report	2013-July Report	2013-July Report				2013-July Report		
TTAOC22-MW11	64	53 - 63	2013-July Report	2013-July Report	2013-July Report				2013-July Report		
BPS1-FW-MW01	63.5	48.5-63.5	2013-July Report	2013-July Report	2013-July Report				2013-July Report		
BPS1-FW-MW02	64	49-64	2013-July Report	2013-July Report	2013-July Report				2013-July Report		
BPS1-FW-MW03	67	52-67	2013-July Report	2013-July Report	2013-July Report				2013-July Report		
BPS1-HN-MW27I	110	100-110	2013-July Report	2013-July Report	2013-July Report			2013-July Report	2013-July Report		
BPS1-HN-MW29I	130.5	120-130	2013-July Report	2013-July Report	2013-July Report				2013-July Report		
BPS1-TT-MW301S	62	51-61	2013-July Report	2013-July Report	2013-July Report				2013-July Report		
BPS1-TT-MW301I	140	130-140	2013-July Report	2013-July Report	2013-July Report				2013-July Report		
BPS1-TT-MW301D	220	210-220	2013-July Report	2013-July Report	2013-July Report				2013-July Report		
BPS1-TT-MW302S	51	41-51	2013-July Report	2013-July Report	2013-July Report			2013-July Report	2013-July Report		

Well	Total Depth (feet bgs)	Screened Interval Depth (feet bgs)	COCS	Sample Log sheets	Low Flow Purge Data Sheet	MW Construction Sheets	Boring Log	MW Development Sheet	Validation data	Gamma Logs	Survey Data
BPS1-TT-MW302I1	120	110-120	2013-July Report	2013-July Report	2013-July Report				2013-July Report		
BPS1-TT-MW302I2	150	140-150	2013-July Report	2013-July Report	2013-July Report				2013-July Report		
BPS1-TT-MW302D	213	203-213	2013-July Report	2013-July Report	2013-July Report				2013-July Report		
BPS1-TT-MW303S	58	46-56	2013-July Report	2013-July Report	2013-July Report				2013-July Report		
BPS1-TT-MW303I1	105	95-105	2013-July Report	2013-July Report	2013-July Report				2013-July Report		
BPS1-TT-MW303I2	156	146-156	2013-July Report	2013-July Report	2013-July Report				2013-July Report		
BPS1-TT-MW303D	218	208-218	2013-July Report	2013-July Report	2013-July Report				2013-July Report		
BPS1-TT-MW304S	53	43-53	2013-July Report	2013-July Report	2013-July Report				2013-July Report		
BPS1-TT-MW304I1	112	102-112	2013-July Report	2013-July Report	2013-July Report				2013-July Report		
BPS1-TT-MW304I2	150	140-150	2013-July Report	2013-July Report	2013-July Report				2013-July Report		
BPS1-TT-MW304D	190	180-190	2013-July Report	2013-July Report	2013-July Report				2013-July Report		
BPS1-TT-MW305S	50	40-50	2013-July Report	2013-July Report	2013-July Report				2013-July Report		
BPS1-TT-MW305I	200	190-200	2013-July Report	2013-July Report	2013-July Report				2013-July Report		
BPS1-TT-MW305D	296	286-296	2013-July Report	2013-July Report	2013-July Report				2013-July Report		
BPS1-TT-MW306S	60	50-60	2013-July Report	2013-July Report	2013-July Report			2013-July Report	2013-July Report		
BPS1-TT-MW306I	199	189-199	2013-July Report	2013-July Report	2013-July Report				2013-July Report		
BPS1-TT-MW306D	294	284-294	2013-July Report	2013-July Report	2013-July Report				2013-July Report		
BPS1-TT-MW307S	50.5	40.5-50.5	2013-July Report	2013-July Report	2013-July Report			2013-July Report	2013-July Report		
BPS1-TT-MW307I	198	188-198	2013-July Report	2013-July Report	2013-July Report				2013-July Report		
BPS1-TT-MW307D	286	276-286	2013-July Report	2013-July Report	2013-July Report				2013-July Report		
BPS1-TT-MW308S	64	54-64	2013-July Report	2013-July Report	2013-July Report				2013-July Report		
BPS1-TT-MW308I	166	156-166	2013-July Report	2013-July Report	2013-July Report				2013-July Report		
BPS1-TT-MW308D	260	250-260	2013-July Report	2013-July Report	2013-July Report				2013-July Report		
BPS1-TT-MW309S	63	53-63	2013-July Report	2013-July Report	2013-July Report				2013-July Report		
BPS1-TT-MW309I	170	160-170	2013-July Report	2013-July Report	2013-July Report				2013-July Report		
BPS1-TT-MW309D	262	252-262	2013-July Report	2013-July Report	2013-July Report				2013-July Report		
BPS1-TT-MW310S	68	57.5-67.5	2013-July Report	2013-July Report	2013-July Report	July-2013 Report	July-2013 Report	2013-July Report	2013-July Report	July-2013 Report	
BPS1-TT-MW311S	65	55-65	2013-July Report	2013-July Report	2013-July Report	July-2013 Report	July-2013 Report	2013-July Report	2013-July Report	July-2013 Report	
BPS1-TT-MW311I	170	160-170	2013-July Report	2013-July Report	2013-July Report	July-2013 Report	July-2013 Report	2013-July Report	2013-July Report	July-2013 Report	
BPS1-TT-MW312S	63	53-63	2013-July Report	2013-July Report	2013-July Report	July-2013 Report	July-2013 Report	2013-July Report	2013-July Report	July-2013 Report	
BPS1-TT-MW312I	170	160-170	2013-July Report	2013-July Report	2013-July Report	July-2013 Report	July-2013 Report	2013-July Report	2013-July Report	July-2013 Report	
BPS1-TT-MW313S	63	53-63	2013-July Report	2013-July Report	2013-July Report	July-2013 Report	July-2013 Report	2013-July Report	2013-July Report	July-2013 Report	
BPS1-TT-MW314S	65	55-65	2013-July Report	2013-July Report	2013-July Report	July-2013 Report	July-2013 Report	2013-July Report	2013-July Report	July-2013 Report	
BPS1-TT-MW314I	154	144-154	2013-July Report	2013-July Report	2013-July Report	July-2013 Report	July-2013 Report	2013-July Report	2013-July Report	July-2013 Report	
February 2013 Sampling Event											
TTAOC22-MW06	62	52 - 62	2013-July Report	2013-July Report	2013-July Report				2013-July Report		
TTAOC22-MW10	60	49 - 59	2013-July Report	2013-July Report	2013-July Report				2013-July Report		
TTAOC22-MW11	64	53 - 63	2013-July Report	2013-July Report	2013-July Report				2013-July Report		
BPS1-HN-MW27I	110	100-110	2013-July Report	2013-July Report	2013-July Report				2013-July Report		
BPS1-TT-MW301D	220	210-220	2013-July Report	2013-July Report	2013-July Report				2013-July Report		
BPS1-TT-MW308S	64	54-64	2013-July Report	2013-July Report	2013-July Report				2013-July Report		
BPS1-TT-MW308I	166	156-166	2013-July Report	2013-July Report	2013-July Report				2013-July Report		
BPS1-TT-MW308D	260	250-260	2013-July Report	2013-July Report	2013-July Report				2013-July Report		

Well	Total Depth (feet bgs)	Screened Interval Depth (feet bgs)	COCS	Sample Log sheets	Low Flow Purge Data Sheet	MW Construction Sheets	Boring Log	MW Development Sheet	Validation data	Gamma Logs	Survey Data
BPS1-TT-MW309S	63	53-63	2013-July Report	2013-July Report	2013-July Report				2013-July Report		
BPS1-TT-MW309I	170	160-170	2013-July Report	2013-July Report	2013-July Report				2013-July Report		
BPS1-TT-MW309D	262	252-262	2013-July Report	2013-July Report	2013-July Report				2013-July Report		
BPS1-TT-MW310S	68	57.5-67.5	2013-July Report	2013-July Report	2013-July Report				2013-July Report		2013-July Report
BPS1-TT-MW311S	65	55-65	2013-July Report	2013-July Report	2013-July Report				2013-July Report		2013-July Report
BPS1-TT-MW311I	170	160-170	2013-July Report	2013-July Report	2013-July Report				2013-July Report		2013-July Report
BPS1-TT-MW312S	63	53-63	2013-July Report	2013-July Report	2013-July Report				2013-July Report		2013-July Report
BPS1-TT-MW312I	170	160-170	2013-July Report	2013-July Report	2013-July Report				2013-July Report		2013-July Report
BPS1-TT-MW313S	63	53-63	2013-July Report	2013-July Report	2013-July Report				2013-July Report		2013-July Report
BPS1-TT-MW314S	65	55-65	2013-July Report	2013-July Report	2013-July Report				2013-July Report		2013-July Report
BPS1-TT-MW314I	154	144-154	2013-July Report	2013-July Report	2013-July Report				2013-July Report		2013-July Report

NOTES:

2011-July Report - (Tetra Tech, 2011) Interim Data Summary Report and SAP Addendum PCB Investigation at Site 1- Former Drum Marshalling Area NWIRP Bethpage, New York (July).

2012-Sept Report - (Tetra Tech, 2012) Interim Data Summary Report Groundwater PCB Investigation at Site 1- Former Drum Marshalling Area NWIRP Bethpage, New York (September).

2013- July Report- (Tetra Tech, 2013) Interim Data Summary Report Groundwater PCB Investigation at Site 1- Former Drum Marshalling Area NWIRP Bethpage, New York (July).

2013-RI ADDENDUM - (Tetra Tech, 2013) 2013 Soil, Groundwater, and Soil Vapor Remedial Investigation Addendum Site 1- Former Drum Marshalling Area, NWIRP Bethpage, New York (December).

Blank cells indicate monitoring well was not sampled or installed at time of sampling or specific data was not collected .

Well	Groundwater Level Measurement Sheet	Groundwater Level Measurement Sheet	Groundwater Level Measurement Sheet	Groundwater Level Measurement Sheet	Groundwater Level Measurement Sheet
TTAOC22-MW06				2013-July Report (11/16/12)	2013-July Report (4/8/13)
TTAOC22-MW10				2013-July Report (11/16/12)	
TTAOC22-MW11				2013-July Report (11/16/12)	
BPS1-FW-MW01	2011-July Report (11/29/2010)	2011-July Report (3/3/2011)	2012-Sept Report (1/24/12)	2013-July Report (11/16/12)	2013-July Report (4/8/13)
BPS1-FW-MW02	2011-July Report (11/29/2010)	2011-July Report (3/3/2011)	2012-Sept Report (1/24/12)	2013-July Report (11/16/12)	2013-July Report (4/8/13)
BPS1-FW-MW03	2011-July Report (11/29/2010)	2011-July Report (3/3/2011)	2012-Sept Report (1/24/12)	2013-July Report (11/16/12)	2013-July Report (4/8/13)
BPS1-HN-MW27I				2013-July Report (11/16/12)	2013-July Report (4/8/13)
BPS1-HN-MW29I	2011-July Report (11/29/2010)	2011-July Report (3/3/2011)	2012-Sept Report (1/24/12)	2013-July Report (11/16/12)	2013-July Report (4/8/13)
BPS1-HN-MW29D	2011-July Report (11/29/2010)	2011-July Report (3/3/2011)	2012-Sept Report (1/24/12)		2013-July Report (4/8/13)
BPS1-TT-MW301S	2011-July Report (11/29/2010)	2011-July Report (3/3/2011)	2012-Sept Report (1/24/12)	2013-July Report (11/16/12)	2013-July Report (4/8/13)
BPS1-TT-MW301I	2011-July Report (11/29/2010)	2011-July Report (3/3/2011)	2012-Sept Report (1/24/12)	2013-July Report (11/16/12)	2013-July Report (4/8/13)
BPS1-TT-MW301D	2011-July Report (11/29/2010)	2011-July Report (3/3/2011)	2012-Sept Report (1/24/12)	2013-July Report (11/16/12)	2013-July Report (4/8/13)
BPS1-TT-MW302S	2011-July Report (11/29/2010)	2011-July Report (3/3/2011)	2012-Sept Report (1/24/12)	2013-July Report (11/16/12)	2013-July Report (4/8/13)
BPS1-TT-MW302I1	2011-July Report (11/29/2010)	2011-July Report (3/3/2011)	2012-Sept Report (1/24/12)	2013-July Report (11/16/12)	2013-July Report (4/8/13)
BPS1-TT-MW302I2	2011-July Report (11/29/2010)	2011-July Report (3/3/2011)	2012-Sept Report (1/24/12)	2013-July Report (11/16/12)	2013-July Report (4/8/13)
BPS1-TT-MW302D	2011-July Report (11/29/2010)	2011-July Report (3/3/2011)	2012-Sept Report (1/24/12)	2013-July Report (11/16/12)	2013-July Report (4/8/13)
BPS1-TT-MW303S	2011-July Report (11/29/2010)	2011-July Report (3/3/2011)	2012-Sept Report (1/24/12)	2013-July Report (11/16/12)	2013-July Report (4/8/13)
BPS1-TT-MW303I1	2011-July Report (11/29/2010)	2011-July Report (3/3/2011)	2012-Sept Report (1/24/12)	2013-July Report (11/16/12)	2013-July Report (4/8/13)
BPS1-TT-MW303I2	2011-July Report (11/29/2010)	2011-July Report (3/3/2011)	2012-Sept Report (1/24/12)	2013-July Report (11/16/12)	2013-July Report (4/8/13)
BPS1-TT-MW303D	2011-July Report (11/29/2010)	2011-July Report (3/3/2011)	2012-Sept Report (1/24/12)	2013-July Report (11/16/12)	2013-July Report (4/8/13)
BPS1-TT-MW304S	2011-July Report (11/29/2010)	2011-July Report (3/3/2011)	2012-Sept Report (1/24/12)	2013-July Report (11/16/12)	2013-July Report (4/8/13)
BPS1-TT-MW304I1	2011-July Report (11/29/2010)	2011-July Report (3/3/2011)	2012-Sept Report (1/24/12)	2013-July Report (11/16/12)	2013-July Report (4/8/13)
BPS1-TT-MW304I2	2011-July Report (11/29/2010)	2011-July Report (3/3/2011)	2012-Sept Report (1/24/12)	2013-July Report (11/16/12)	2013-July Report (4/8/13)
BPS1-TT-MW304D	2011-July Report (11/29/2010)	2011-July Report (3/3/2011)	2012-Sept Report (1/24/12)	2013-July Report (11/16/12)	2013-July Report (4/8/13)
BPS1-TT-MW305S			2012-Sept Report (1/24/12)	2013-July Report (11/16/12)	2013-July Report (4/8/13)
BPS1-TT-MW305I			2012-Sept Report (1/24/12)	2013-July Report (11/16/12)	2013-July Report (4/8/13)
BPS1-TT-MW305D			2012-Sept Report (1/24/12)	2013-July Report (11/16/12)	2013-July Report (4/8/13)
BPS1-TT-MW306S			2012-Sept Report (1/24/12)	2013-July Report (11/16/12)	2013-July Report (4/8/13)
BPS1-TT-MW306I			2012-Sept Report (1/24/12)	2013-July Report (11/16/12)	2013-July Report (4/8/13)
BPS1-TT-MW306D			2012-Sept Report (1/24/12)	2013-July Report (11/16/12)	2013-July Report (4/8/13)
BPS1-TT-MW307S			2012-Sept Report (1/24/12)	2013-July Report (11/16/12)	2013-July Report (4/8/13)
BPS1-TT-MW307I			2012-Sept Report (1/24/12)	2013-July Report (11/16/12)	2013-July Report (4/8/13)
BPS1-TT-MW307D			2012-Sept Report (1/24/12)	2013-July Report (11/16/12)	2013-July Report (4/8/13)
BPS1-TT-MW308S			2012-Sept Report (1/24/12)	2013-July Report (11/16/12)	2013-July Report (4/8/13)
BPS1-TT-MW308I			2012-Sept Report (1/24/12)	2013-July Report (11/16/12)	2013-July Report (4/8/13)
BPS1-TT-MW308D			2012-Sept Report (1/24/12)	2013-July Report (11/16/12)	2013-July Report (4/8/13)
BPS1-TT-MW309S			2012-Sept Report (1/24/12)	2013-July Report (11/16/12)	2013-July Report (4/8/13)
BPS1-TT-MW309I			2012-Sept Report (1/24/12)	2013-July Report (11/16/12)	2013-July Report (4/8/13)
BPS1-TT-MW309D			2012-Sept Report (1/24/12)	2013-July Report (11/16/12)	2013-July Report (4/8/13)
BPS1-TT-MW310S				2013-July Report (11/16/12)	2013-July Report (4/8/13)
BPS1-TT-MW311S				2013-July Report (11/16/12)	2013-July Report (4/8/13)
BPS1-TT-MW311I				2013-July Report (11/16/12)	2013-July Report (4/8/13)
BPS1-TT-MW312S				2013-July Report (11/16/12)	2013-July Report (4/8/13)
BPS1-TT-MW312I				2013-July Report (11/16/12)	2013-July Report (4/8/13)
BPS1-TT-MW313S				2013-July Report (11/16/12)	2013-July Report (4/8/13)
BPS1-TT-MW314S				2013-July Report (11/16/12)	2013-July Report (4/8/13)
BPS1-TT-MW314I				2013-July Report (11/16/12)	2013-July Report (4/8/13)
BPS1-RA-MW02	2011-July Report (11/29/2010)	2011-July Report (3/3/2011)	2012-Sept Report (1/24/12)	Paved over summer 2012	
BPS1-RA-MW04	2011-July Report (11/29/2010)	2011-July Report (3/3/2011)	Covered with sloughing dirt fall 2011		

NOTES:

2011-July Report - (Tetra Tech, 2011) Interim Data Summary Report and SAP Addendum PCB Investigation at Site 1- Former Drum Marshalling Area NWIRP Bethpage, New York (July).

2012-Sept Report - (Tetra Tech, 2012) Interim Data Summary Report Groundwater PCB Investigation at Site 1- Former Drum Marshalling Area NWIRP Bethpage, New York (September).

2013- July Report- (Tetra Tech, 2013) Interim Data Summary Report Groundwater PCB Investigation at Site 1- Former Drum Marshalling Area NWIRP Bethpage, New York (July).

Blank cells indicate groundwater level measurement was not recorded or the monitoring well had not been installed at the time.

APPENDIC C.1 SAMPLE REFERENCE TABLE
SURFACE WATER SAMPLING

Sample	Date	COCS	Sample Log sheets	Validation data
BPS1-SW01-20110228	2/28/2011	2011-July Report	2013-RI ADDENDUM	2011-July Report
BPS1-SW01-20110301	3/1/2011	2011-July Report	2013-RI ADDENDUM	2011-July Report
BPS1-SW01-20110303	3/3/2011	2011-July Report	2013-RI ADDENDUM	2011-July Report
BPS1-SW3001	10/19/2011	2012-Sept Report	2012-Sept Report	2012-Sept Report
BPS1-SW3002	10/19/2011	2012-Sept Report	2012-Sept Report	2012-Sept Report

NOTES:

2011-July Report - (Tetra Tech, 2011) Interim Data Summary Report and SAP Addendum PCB Investigation at Site 1- Former Drum Marshalling Area NWIRP Bethpage, New York (July).

2012-Sept Report - (Tetra Tech, 2012) Interim Data Summary Report Groundwater PCB Investigation at Site 1- Former Drum Marshalling Area NWIRP Bethpage, New York (September).

2013-RI ADDENDUM - (Tetra Tech, 2013) 2013 Soil, Groundwater, and Soil Vapor Remedial Investigation Addendum Site 1- Former Drum Marshalling Area, NWIRP Bethpage, New York (December).

Blank cells indicate monitoring well was not sampled or installed at time of sampling.

Sample ID	Sample Interval (feet bgs)	Date	COCS	Sample Log sheets	Low Flow Purge Data Sheet	MW Development Record	Validation data
BPS1-GW3010-5761	57-61	8/16/2010	2011-July Report	2011-July Report			2011-July Report
BPS1-GW3010-114118	114-118	8/16/2010	2011-July Report	2011-July Report	2011-July Report		2011-July Report
BPS1-GW3010-144148	144-148	8/18/2010	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report
BPS1-GW3010-144148 DUP	144-148	8/18/2010	2011-July Report	2011-July Report			2011-July Report
BPS1-GW3010-196200	196-200	8/18/2010	2011-July Report	2011-July Report			2011-July Report
BPS1-GW3012-4852	48-52	8/11/2010	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report
BPS1-GW3012-110114	110-114	8/13/2010	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report
BPS1-GW3012-144148	144-148	8/13/2010	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report
BPS1-GW3012-200204	200-204	8/16/2010	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report
BPS1-SB3001-GW-071M	71	5/6/2009	2013-RI ADDENDUM	2013-RI ADDENDUM			
BPS1-SB3001-GW-091	91	5/7/2009	2013-RI ADDENDUM	2013-RI ADDENDUM			
BPS1-SB3001-GW-111	111	5/7/2009	2013-RI ADDENDUM	2013-RI ADDENDUM			
BPS1-SB3001-GW-151	151	5/7/2009	2013-RI ADDENDUM	2013-RI ADDENDUM			
BPS1-SB3001-GW-172	172	5/7/2009	2013-RI ADDENDUM	2013-RI ADDENDUM			
BPS1-SB3001-GW-191	191	5/11/2009	2013-RI ADDENDUM	2013-RI ADDENDUM			
BPS1-SB3001-GW-211	211	5/11/2009	2013-RI ADDENDUM	2013-RI ADDENDUM			
BPS1-SB3001-GW-231	231	5/11/2009	2013-RI ADDENDUM	2013-RI ADDENDUM			
BPS1-SB3001-GW-251	251	5/11/2009	2013-RI ADDENDUM	2013-RI ADDENDUM			
BPS1-SB3001-GW-271	271	5/12/2009	2013-RI ADDENDUM	2013-RI ADDENDUM			
BPS1-SB3001-GW-291	291	5/12/2009	2013-RI ADDENDUM	2013-RI ADDENDUM			
BPS1-SB3001-GW-311	311	5/11/2009	2013-RI ADDENDUM	2013-RI ADDENDUM			
BPS1-SB3003-GW-071	71	5/18/2009	2013-RI ADDENDUM	2013-RI ADDENDUM			
BPS1-SB3003-GW-091	91	5/18/2009	2013-RI ADDENDUM	2013-RI ADDENDUM			
BPS1-SB3003-GW-112	112	5/19/2009	2013-RI ADDENDUM	2013-RI ADDENDUM			
BPS1-SB3003-GW-131	131	5/19/2009	2013-RI ADDENDUM	2013-RI ADDENDUM			
BPS1-SB3003-GW-151	151	5/19/2009	2013-RI ADDENDUM	2013-RI ADDENDUM			
BPS1-SB3003-GW-171	171	5/19/2009	2013-RI ADDENDUM	2013-RI ADDENDUM			
BPS1-SB3003-GW-191	191	5/19/2009	2013-RI ADDENDUM	2013-RI ADDENDUM			
BPS1-SB3003-GW-211	211	5/19/2009	2013-RI ADDENDUM	2013-RI ADDENDUM			
BPS1-SB3003-GW-231	231	5/19/2009	2013-RI ADDENDUM	2013-RI ADDENDUM			
BPS1-SB3003-GW-251	251	5/20/2009	2013-RI ADDENDUM	2013-RI ADDENDUM			
BPS1-SB3003-GW-271	271	5/20/2009	2013-RI ADDENDUM	2013-RI ADDENDUM			
BPS1-SB3003-GW-291	291	5/20/2009	2013-RI ADDENDUM	2013-RI ADDENDUM			
BPS1-SB3003-GW-311	311	5/20/2009	2013-RI ADDENDUM	2013-RI ADDENDUM			

NOTES:

2011-July Report - (Tetra Tech, 2011) Interim Data Summary Report and SAP Addendum PCB Investigation at Site 1- Former Drum Marshalling Area NWIRP Bethpage, New York (July).

2013-RI ADDENDUM - (Tetra Tech, 2013) 2013 Soil, Groundwater, and Soil Vapor Remedial Investigation Addendum Site 1- Former Drum Marshalling Area, NWIRP Bethpage, New York (December).

Blank cells indicate information is not available.

Sampling Location	Sample ID	Depth (feet bgs)	Sampling Date	COCS	Soil Boring Logs	Sample Log sheets	Field Test Kit	Validation data	Survey Data
BPS1-SB3004	BPS1-SB3004-27.528.0	27.5 - 28	7/13/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3004-34.034.5	34 - 34.5	7/14/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3004-37.037.5	37.0 - 37.5	7/14/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3004-42.042.5	42 - 42.5	7/14/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3004-47.047.5	47 - 47.5	7/14/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3004-49.049.5	49 - 49.5	7/14/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3004-54.054.5	54 - 54.5	7/14/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3004-64.565.0	64.5 - 65	7/14/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3004-116.0116.5	116 - 116.5	7/14/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3004-154.0154.5	154 - 154.5	7/14/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3004-180190	180 - 190	7/15/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3004-235.0235.5	235 - 235.5	7/15/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report
BPS1-SB3005	BPS1-SB3005-27.528.0	27.5 - 28	7/16/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3005-34.034.5	34 - 34.5	7/16/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3005-37.538.0	37.5 - 38	7/16/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3005-43.043.5	43 - 43.5	7/16/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3005-49.049.5	49 - 49.5	7/16/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3005-54.555.0	54.5 - 55	7/16/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3005-57.558.0	57.5 - 58	7/16/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3005-94.595.0	94.5 - 95	7/16/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3005-145.0145.5	145 - 145.5	7/17/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3005-145.0145.5-D	145 - 145.5	7/17/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3005-180190	180 - 190	7/17/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3005-232.5233.0	232.5 - 233	7/17/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report
BPS1-SB3006	BPS1-SB3006-32.032.5	32 - 32.5	7/27/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3006-32.032.5-D	32 - 32.5	7/27/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3006-53.053.5	53 - 53.5	7/27/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3006-72.072.5	72 - 72.5	7/27/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3006-117.0117.5	117 - 117.5	7/27/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3006-181.0181.5	181 - 181.5	7/28/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3006-181.0181.5-D	181 - 181.5	7/28/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3006-226.5227.0	226.5 - 227	7/28/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report
BPS1-SB3007	BPS1-SB3007-37.538.0	37.5 - 38	7/29/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3007-57.057.5	57 - 57.5	7/29/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3007-100.0100.5	100 - 100.5	7/29/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3007-140150	140 - 150	7/29/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3007-217.5218.0	217.5 - 218	7/30/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3007-240250	240 - 250	7/30/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report
BPS1-SB3008	BPS1-SB3008-37.037.5	37 - 37.5	8/2/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3008-52.052.5	52 - 52.5	8/2/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3008-86.587.0	86.5 - 87	8/2/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3008-161.0161.5	161 - 161.5	8/2/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3008-200210	200 - 210	8/3/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3008-234.5235.0	234.5 - 235	8/3/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report
BPS1-SB3009	BPS1-SB3009-27.027.5	27 - 27.5	7/31/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3009-36.036.5	36 - 36.5	7/31/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3009-51.051.5	51 - 51.5	7/31/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3009-51.051.5-D	51 - 51.5	7/31/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3009-96.096.5	96 - 96.5	7/31/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3009-140.0140.5	140 - 140.5	7/31/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3009-209.0209.5	209 - 209.5	8/1/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report
BPS1-SB3010	BPS1-SB3010-0008	0 - 8	8/15/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3010-49.049.5	49 - 49.5	8/15/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3010-5868	58 - 68	8/16/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3010-93.594.0	93.5 - 94	8/16/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3010-118148	118 - 148	8/16/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3010-188.0188.5	188 - 188.5	8/17/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report
BPS1-SB3011	BPS1-SB3011-1828	18 - 28	8/18/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3011-3848	38 - 48	8/18/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3011-48.549.0	48.5 - 49	8/18/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
BPS1-SB3012	BPS1-SB3012-39.39.5	39-39.5	8/10/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3012-4858	48 - 58	8/10/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3012-5868	58 - 68	8/10/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3012-112.5113.0	112.5 - 113	8/11/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3012-112.5113.0-D	112.5 - 113	8/11/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3012-158168	158 - 168	8/13/10		2011-July Report	2011-July Report	2011-July Report	2011-July Report	
	BPS1-SB3012-203.0203.5	203 - 203.5	8/14/10	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report	2011-July Report
BPS1-SB3013	BPS1-SB3013-0510	5 - 10	8/21/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	2013-RI ADDENDUM
	BPS1-SB3013-1015	10 - 15	8/21/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3013-2535	25 - 35	8/21/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3013-3540	35 - 40	8/21/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
BPS1-SB3014	BPS1-SB3014-0205	2 - 5	8/20/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	2013-RI ADDENDUM
	BPS1-SB3014-0510	5 - 10	8/20/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3014-1015	10 - 15	8/20/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
BPS1-SB3015	BPS1-SB3015-0205	2 - 5	8/20/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	2013-RI ADDENDUM
	BPS1-SB3015-0510	5 - 10	8/20/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3015-1015	10 - 15	8/20/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3020-0205	2 - 5	8/21/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	2013-RI ADDENDUM
	BPS1-SB3020-0205-D	2 - 5	8/21/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3020-0510	5 - 10	8/21/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3020-1015	10 - 15	8/21/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	

Sampling Location	Sample ID	Depth (feet bgs)	Sampling Date	COCS	Soil Boring Logs	Sample Log sheets	Field Test Kit	Validation data	Survey Data
BPS1-SB3020	BPS1-SB3020-1520	15 - 20	8/21/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3020-2025	20 - 25	8/21/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3020-2530	25 - 30	8/21/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3020-3035	30 - 35	8/27/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3020-3545	35 - 45	8/27/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3020-4555	45 - 55	8/27/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3020-5560	55 - 60	8/27/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
BPS1-SB3021	BPS1-SB3021-0205	2 - 5	8/23/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	2013-RI ADDENDUM
	BPS1-SB3021-0510	5 - 10	8/23/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3021-0510-D	5 - 10	8/23/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3021-1015	10 - 15	8/23/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3021-1520	15 - 20	8/23/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3021-2025	20 - 25	8/23/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3021-2530	25 - 30	8/23/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3021-3035	30 - 35	8/28/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3021-3035-D	30 - 35	8/28/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3021-3545	35 - 45	8/28/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3021-4555	45 - 55	8/28/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3021-5565	55 - 65	8/28/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3021-7075	70 - 75	8/28/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
BPS1-SB3022	BPS1-SB3022-0205	2 - 5	11/9/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	2013-RI ADDENDUM
	BPS1-SB3022-0510	5 - 10	11/9/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3022-1015	10 - 15	11/9/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3022-1520	15 - 20	11/9/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3022-2025	20 - 25	11/9/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3022-2535	25 - 35	11/9/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3022-2535-D	25 - 35	11/9/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3022-3545	35 - 45	11/9/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3022-4555	45 - 55	11/9/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3022-5565	55 - 65	11/9/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3022-6575	65 - 75	11/9/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
BPS1-SB3023	BPS1-SB3023-0205	2 - 5	8/21/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	2013-RI ADDENDUM
	BPS1-SB3023-0510	5 - 10	8/21/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3023-1015	10 - 15	8/21/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
BPS1-SB3024	BPS1-SB3024-0205	2 - 5	8/20/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	2013-RI ADDENDUM
	BPS1-SB3024-0510	5 - 10	8/20/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3024-1015	10 - 15	8/20/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3024-1520	15 - 20	8/20/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3024-2025	20 - 25	8/20/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
BPS1-SB3025	BPS1-SB3025-2535	25 - 35	11/5/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	2013-RI ADDENDUM
	BPS1-SB3025-2535-D	25 - 35	11/5/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3025-3545	35 - 45	11/5/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3025-4555	45 - 55	11/6/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3025-5565	55 - 65	11/6/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3025-6575	65 - 75	11/6/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
BPS1-SB3026	BPS1-SB3026-2535	25 - 35	11/14/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3026-3545	35 - 45	11/14/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3026-4555	45 - 55	11/14/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3026-5565	55 - 65	11/14/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3026-6575	65 - 75	11/14/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
BPS1-SB3027	BPS1-SB3027-2535	25 - 35	11/12/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3027-2535-D	25 - 35	11/12/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3027-3545	35 - 45	11/13/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3027-4555	45 - 55	11/13/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3027-5565	55 - 65	11/13/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3027-6575	65 - 75	11/13/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
BPS1-SB3028	BPS1-SB3028-2535	25 - 35	11/7/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	2013-RI ADDENDUM
	BPS1-SB3028-3545	35 - 45	11/7/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3028-4555	45 - 55	11/7/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3028-5565	55 - 65	11/7/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3028-6575	65 - 75	11/7/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
BPS1-SB3029	BPS1-SB3029-0205	2 - 5	8/29/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3029-0510	5 - 10	8/29/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3029-1015	10 - 15	8/29/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3029-1520	15 - 20	8/29/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3029-2025	20 - 25	8/29/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3029-2025-D	20 - 25	8/29/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3029-2535	25 - 35	8/29/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3029-3545	35 - 45	8/29/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3029-4555	45 - 55	8/29/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3029-5565	55 - 65	8/29/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
BPS1-SB3030	BPS1-SB3030-2535	25 - 35	8/30/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3030-3545	35 - 45	8/30/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3030-4555	45 - 55	8/30/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
BPS1-SB3031	BPS1-SB3031-0205	2 - 5	8/20/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	2013-RI ADDENDUM
	BPS1-SB3031-0205-D	2 - 5	8/20/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3031-0510	5 - 10	8/20/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3031-1015	10 - 15	8/20/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
BPS1-SB3032	BPS1-SB3032-0206	2 - 6	8/22/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	2013-RI ADDENDUM
	BPS1-SB3032-0206-D	2 - 6	8/22/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3032-0610	6 - 10	8/22/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3032-1015	10 - 15	8/22/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	

Sampling Location	Sample ID	Depth (feet bgs)	Sampling Date	COCS	Soil Boring Logs	Sample Log sheets	Field Test Kit	Validation data	Survey Data
BPS1-SB3033	BPS1-SB3033-0206	2 - 6	8/22/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	2013-RI ADDENDUM
	BPS1-SB3033-0610	6 - 10	8/22/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3033-1015	10 - 15	8/22/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
BPS1-SB3034	BPS1-SB3034-0206	2 - 6	8/22/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	2013-RI ADDENDUM
	BPS1-SB3034-0610	6 - 10	8/22/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3034-1015	10 - 15	8/22/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
BPS1-SB3035	BPS1-SB3035-0206	2 - 6	8/22/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	2013-RI ADDENDUM
	BPS1-SB3035-0610	6 - 10	8/22/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3035-1015	10 - 15	8/22/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3035-1015-D	10 - 15	8/22/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
BPS1-SB3036	BPS1-SB3036-0206	2 - 6	8/22/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	2013-RI ADDENDUM
	BPS1-SB3036-0610	6 - 10	8/22/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3036-1015	10 - 15	8/22/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
BPS1-SB3037	BPS1-SB3037-0205	2 - 5	8/22/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	2013-RI ADDENDUM
	BPS1-SB3037-0510	5 - 10	8/22/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3037-1015	10 - 15	8/22/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
BPS1-SB3038	BPS1-SB3038-0205	2 - 5	8/23/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	2013-RI ADDENDUM
	BPS1-SB3038-0510	5 - 10	8/23/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3038-1015	10 - 15	8/23/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
BPS1-SB3039	BPS1-SB3039-0205	2 - 5	8/23/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	2013-RI ADDENDUM
	BPS1-SB3039-0205-D	2 - 5	8/23/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3039-0510	5 - 10	8/23/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3039-1015	10 - 15	8/23/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
BPS1-SB3044	BPS1-SB3044-0205	2 - 5	8/20/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	2013-RI ADDENDUM
	BPS1-SB3044-0510	5 - 10	8/20/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3044-0510-D	5 - 10	8/20/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3044-1015	10 - 15	8/20/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
BPS1-SB3054	BPS1-SB3054-0205	2 - 5	2/26/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	2013-RI ADDENDUM
	BPS1-SB3054-0205-D	2 - 5	2/26/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
BPS1-SB3055	BPS1-SB3055-0205	2 - 5	2/26/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	2013-RI ADDENDUM
BPS1-SB3057	BPS1-SB3057-0205	2 - 5	2/26/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	2013-RI ADDENDUM
BPS1-SB3060	BPS1-SB3060-1520	15 - 20	2/28/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3060-2025	20 - 25	2/28/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3060-2535	25 - 35	3/1/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3060-2535-D	25 - 35	3/1/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3060-3540	35 - 40	3/1/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
BPS1-SB3061	BPS1-SB3061-1520	15 - 20	2/28/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3061-2025	20 - 25	2/28/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3061-2535	25 - 35	2/28/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3061-2535-D	25 - 35	2/28/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3061-3540	35 - 40	2/28/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
BPS1-SB3062	BPS1-SB3062-0205	2 - 5	2/28/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	2013-RI ADDENDUM
	BPS1-SB3062-0510	5 - 10	2/28/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3062-1015	10 - 15	2/28/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3062-1520	15 - 20	2/28/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3062-2025	20 - 25	2/28/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3062-2535	25 - 35	2/28/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3062-3540	35 - 40	2/28/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
BPS1-SB3063	BPS1-SB3063-0205	2 - 5	2/27/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	2013-RI ADDENDUM
	BPS1-SB3063-0510	5 - 10	2/27/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3063-1015	10 - 15	2/27/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3063-1520	15 - 20	2/27/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3063-2025	20 - 25	2/27/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3063-2535	25 - 35	2/27/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3063-3545	35 - 45	2/27/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3063-4550	45 - 50	2/27/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
BPS1-SB3064	BPS1-SB3064-0205	2 - 5	2/26/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	2013-RI ADDENDUM
	BPS1-SB3064-0510	5 - 10	2/26/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3064-1015	10 - 15	2/26/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3064-1520	15 - 20	2/26/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3064-2025	20 - 25	2/26/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3064-2535	25 - 35	2/26/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3064-3545	35 - 45	2/27/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3064-3545-D	35 - 45	2/27/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3064-4547	45 - 47	2/27/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
BPS1-SB3065	BPS1-SB3065-0205	2 - 5	2/25/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	2013-RI ADDENDUM
	BPS1-SB3065-0510	5 - 10	2/25/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3065-1015	10 - 15	2/25/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3065-1520	15 - 20	2/25/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3065-1520-D	15 - 20	2/25/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3065-2025	20 - 25	2/25/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3065-2535	25 - 35	2/25/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3065-3540	35 - 40	2/26/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
BPS1-SB3066	BPS1-SB3066-0205	2 - 5	2/25/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3066-0510	5 - 10	2/25/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3066-1013	10 - 13	2/25/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3066-1315	13 - 15	2/25/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3066-1520	15 - 20	2/25/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3066-1520-D	15 - 20	2/25/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3066-2025	20 - 25	2/25/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	

Sampling Location	Sample ID	Depth (feet bgs)	Sampling Date	COCS	Soil Boring Logs	Sample Log sheets	Field Test Kit	Validation data	Survey Data
BPS1-SB3067	BPS1-SB3067-0205	2 - 5	2/25/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3067-0510	5 - 10	2/25/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3067-1015	10 - 15	2/25/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3067-1520	15 - 20	2/25/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3067-2025	20 - 25	2/25/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
BPS1-SB3068	BPS1-SB3068-0205	2 - 5	2/25/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3068-0510	5 - 10	2/25/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3068-1015	10 - 15	2/25/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3068-1520	15 - 20	2/25/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
BPS1-SB3069	BPS1-SB3069-0205	2 - 5	2/25/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3069-0510	5 - 10	2/25/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3069-1015	10 - 15	2/25/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3069-1520	15 - 20	2/25/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
BPS1-SB3070	BPS1-SB3070-2527	25 - 27	6/7/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3070-2830	28 - 30	6/7/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3070-3035	30 - 35	6/7/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3070-3035-D	30 - 35	6/7/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3070-3540	35 - 40	6/7/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
BPS1-SB3071	BPS1-SB3071-2025	20 - 25	6/7/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3071-2530	25 - 30	6/7/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3071-2530-D	25 - 30	6/7/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3071-3035	30 - 35	6/7/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3071-3540	35 - 40	6/7/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
BPS1-SB3072	BPS1-SB3072-2025	20 - 25	6/6/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3072-2530	25 - 30	6/6/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3072-3035	30 - 35	6/6/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3072-3540	35 - 40	6/6/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
BPS1-SB3073	BPS1-SB3073-4045	40 - 45	6/4/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3073-4550	45 - 50	6/4/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3073-5055	50 - 55	6/4/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3073-5560	55 - 60	6/4/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3073-6065	60 - 65	6/4/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
BPS1-SB3074	BPS1-SB3074-4045	40 - 45	6/5/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3074-4550	45 - 50	6/5/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3074-5055	50 - 55	6/5/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3074-5055-D	50 - 55	6/5/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3074-5560	55 - 60	6/5/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	
	BPS1-SB3074-6065	60 - 65	6/5/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM		2013-RI ADDENDUM	

NOTES:

2011-July Report - (Tetra Tech, 2011) Interim Data Summary Report and SAP Addendum PCB Investigation at Site 1- Former Drum Marshalling Area NWIRP Bethpage, New York (July).

2012-Sept Report - (Tetra Tech, 2012) Interim Data Summary Report Groundwater PCB Investigation at Site 1- Former Drum Marshalling Area NWIRP Bethpage, New York (September).

2013- July Report- (Tetra Tech, 2013) Interim Data Summary Report Groundwater PCB Investigation at Site 1- Former Drum Marshalling Area NWIRP Bethpage, New York (July).

2013-RI ADDENDUM - (Tetra Tech, 2013) 2013 Soil, Groundwater, and Soil Vapor Remedial Investigation Addendum Site 1- Former Drum Marshalling Area, NWIRP Bethpage, New York (December).

Blank cells indicate monitoring well was not sampled or installed at time of sampling.

Sampling Location	Sample ID	Depth (feet bgs)	Sampling Date	COCS	Sample Log sheets	Validation data	Survey Data
Site 1							
BPS1-SB3013	**BPS1-SB3013-0002**	0 – 2	7/24/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM
BPS1-SB3014	**BPS1-SB3014-0002**	0 - 2	7/24/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM
	BPS1-SB3014-0002-D	0 - 2	7/24/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM
BPS1-SB3015	**BPS1-SB3015-0002**	0 - 2	7/24/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM
BPS1-SB3016	**BPS1-SB3016-0002**	0 - 2	7/24/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM
BPS1-SB3017	**BPS1-SB3017-0002**	0 - 2	7/24/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	
BPS1-SB3018	**BPS1-SB3018-0002**	0 - 2	7/24/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	
BPS1-SB3019	**BPS1-SB3019-0002**	0 - 2	7/24/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	
	BPS1-SB3019-0002-D	0 - 2	7/24/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	
BPS1-SB3020	**BPS1-SB3020-0002**	0 - 2	7/24/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM
BPS1-SB3021	**BPS1-SB3021-0002**	0 - 2	7/24/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM
BPS1-SB3022	**BPS1-SB3022-0002**	0 - 2	7/24/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM
BPS1-SB3023	**BPS1-SB3023-0002**	0 - 2	7/24/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM
BPS1-SB3024	**BPS1-SB3024-0002**	0 - 2	8/20/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM
BPS1-SB3031	**BPS1-SB3031-0002**	0 - 2	7/24/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM
BPS1-SB3032	**BPS1-SB3032-0002**	0 - 2	7/24/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM
BPS1-SB3033	**BPS1-SB3033-0002**	0 - 2	7/24/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM
BPS1-SB3034	**BPS1-SB3034-0002**	0 - 2	7/24/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM
BPS1-SB3035	**BPS1-SB3035-0002**	0 - 2	7/24/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM
	BPS1-SB3035-0002-D	0 - 2	7/24/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM
BPS1-SB3036	**BPS1-SB3036-0002**	0 - 2	7/24/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM
BPS1-SB3037	**BPS1-SB3037-0002**	0 - 2	7/24/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM
BPS1-SB3038	**BPS1-SB3038-0002**	0 - 2	7/24/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM
BPS1-SB3039	**BPS1-SB3039-0002**	0 - 2	7/24/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM
BPS1-SB3040	**BPS1-SB3040-0002**	0 - 2	7/24/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	
BPS1-SB3041	**BPS1-SB3041-0002**	0 - 2	7/24/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	
BPS1-SB3042	**BPS1-SB3042-0002**	0 - 2	7/24/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	
BPS1-SB3043	**BPS1-SB3043-0002**	0 - 2	7/24/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	
BPS1-SB3044	**BPS1-SB3044-0002**	0 - 2	7/24/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM
BPS1-SB3045	**BPS1-SB3045-0002**	0 - 2	8/24/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM
BPS1-SB3046	**BPS1-SB3046-0002**	0 - 2	8/24/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM
BPS1-SB3047	**BPS1-SB3047-0002**	0 - 2	8/24/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM
BPS1-SB3048	**BPS1-SB3048-0002**	0 - 2	8/24/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM
BPS1-SB3049	**BPS1-SB3049-0002**	0 - 2	8/24/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM
BPS1-SB3050	**BPS1-SB3050-0002**	0 - 2	8/24/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM
BPS1-SB3051	**BPS1-SB3051-0002**	0 - 2	8/24/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM
BPS1-SB3052	**BPS1-SB3052-0002**	0 - 2	8/24/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM
	BPS1-SB3052-0002-D	0 - 2	8/24/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM
BPS1-SB3053	**BPS1-SB3053-0002**	0 - 2	8/24/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM
BPS1-SB3054	**BPS1-SB3054-0002**	0 - 2	8/24/2012	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM
BPS1-SB3055	**BPS1-SB3055-0002**	0 - 2	2/26/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM
BPS1-SB3056	**BPS1-SB3056-0002**	0 - 2	2/26/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM
BPS1-SB3058	**BPS1-SB3058-0002**	0 - 2	2/26/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM
BPS1-SB3059	**BPS1-SB3059-0002**	0 - 2	2/26/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM
	BPS1-SB3059-0002-D	0 - 2	2/26/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM
BPS1-SB3062	**BPS1-SB3062-0002**	0 - 2	2/28/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM
BPS1-SB3063	**BPS1-SB3063-0002**	0 - 2	2/27/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM

NOTES:

2013-RI ADDENDUM - (Tetra Tech, 2013) 2013 Soil, Groundwater, and Soil Vapor Remedial Investigation Addendum Site 1- Former Drum Marshalling Area, NWIRP Bethpage, New York (December).

Blank cells indicate information is not available and location was not surveyed.

Sampling Location	Sample ID	Depth (feet bgs)	Sampling Date	COCS	Sample Log sheets	Validation data	Survey Data
BPS1-SB3066	**BPS1-SB3066-0002**	0 - 2	2/25/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM
BPS1-SB3067	**BPS1-SB3067-0002**	0 - 2	2/25/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM
BPS1-SB3068	**BPS1-SB3068-0002**	0 - 2	2/25/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM
BPS1-SB3069	**BPS1-SB3069-0002**	0 - 2	2/25/2013	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM	2013-RI ADDENDUM

NOTES:

2013-RI ADDENDUM - (Tetra Tech, 2013) 2013 Soil, Groundwater, and Soil Vapor Remedial Investigation Addendum Site 1-Former Drum Marshalling Area, NWIRP Bethpage, New York (December).

C.2 SURFACE WATER SAMPLE LOG SHEETS

Tetra Tech NUS, Inc.

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Inflow to Drainage Basin
[] QA Sample Type:

Sample ID No.: BPSI-SW01-20110228
Sample Location: NE Drainage Basin
Sampled By: VAS / JR
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (^{0}C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 2-28-11								
Time: 1248								
Depth: —	Clear	NA	—				—	→
Method: (see below)								

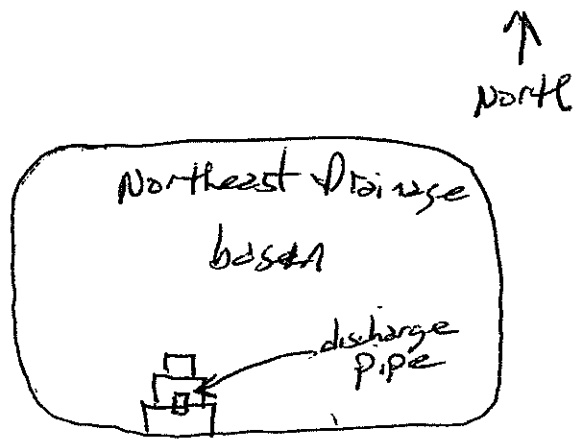
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
PCBs	4°C	2 x 1 liter Amber	yes

OBSERVATIONS / NOTES:

- water collected using extendable Teflon lined sampling cup.
- collected from inflow pipe at Southwest corner of Northeast Drainage basin

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Inflow to Drainage Basin
[] QA Sample Type:

Sample ID No.: BPSI-SW01-20110301
Sample Location: NE Drainage basin
Sampled By: VAS / JB
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 3-1-11								
Time: 1640								
Depth: –	Clear	NA						→
Method: (see below)								

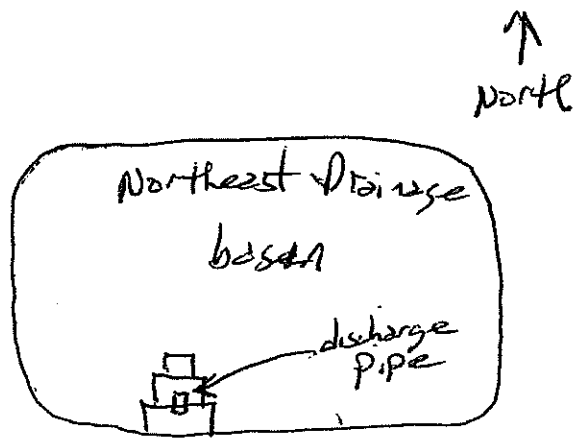
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
PCBs	4°C	2 x 1 Liter Amber	yes

OBSERVATIONS / NOTES:

- water collected using extendable Teflon lined sampling cup.
- Collected from inflow pipe at Southwest corner of Northeast Drainage basin

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:
–	–

Signature(s):

Tetra Tech NUS, Inc.

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Inflow to Drainage Basin
[] QA Sample Type:

Sample ID No.: BPSI-SW01-20110303
Sample Location: NE drainage basin
Sampled By: VAS / JB
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 3-3-11								
Time: 0835								
Depth: –	Clear	NA						→
Method: (see below)								

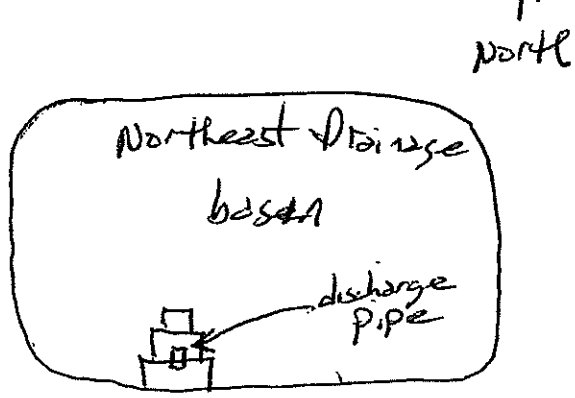
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
PCBs	4°C	2 x 1 Liter Amber	yes

OBSERVATIONS / NOTES:

- water collected using extendable Teflon lined sampling cup.
- collected from inflow pipe at Southwest corner of Northeast Drainage basin

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:
–	–

Signature(s): [signature]

C.3 SOIL & SEDIMENT SAMPLE LOG SHEETS

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPSI-SB3013-0002
Sample Location: Site 1
Sampled By: vince shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 7-24-12 Time: 1349 Method: Hand Auger/Trowel Monitor Reading (ppm): 0.0	0' to 2'	Dark Brown To Brown	Silty Sand and gravel (dry to damp)

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
~~VOCs~~ PCBs MC 11/12/13	1 X 250 ml clear glass	1	

OBSERVATIONS / NOTES:

Hand auger to sample depth
mixed soil with disposable Trowel prior to sampling

MAP:

Circle if Applicable:

MS/MSD —

Duplicate ID No.: VAS ~~BPSI-DUP02~~

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3013-0510
Sample Location: BPS1-SB3013
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-21-12	0850	5-10'	gray	Concrete (Crushed) Dry
Method:				
Mix in Plastic Bag				
Monitor Readings				
(Range in ppm):				
0.1 - 0.3				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3013-1015
Sample Location: BPS1-SB 3013
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date: 8-21-12	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-21-12	0945	~~10-15'~~ 8-21-12	Tan	
Method: 8-21-12		10-10.75'	light brown	F-M sand and gravel
Mix in Plastic Bag		10.75-11.25	Blk	F-M sand tr. pebbles
Monitor Readings		11.25-15	lt brn-tan	F-M sand and gravel
(Range in ppm):				
0.2-0.3				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD 8-21-12 yes NO

Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3013-2535
Sample Location: BPS1-SB 3013
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-21-12	1039	25-35' bgs	tan - brown	F-M sand tr to some pebbles and silt
Method:				light iron staining in area
Mix in Plastic Bag				
Monitor Readings				
(Range in ppm):				
0-0.4				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3013-3540
Sample Location: BPS1-SB 3013
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-21-12	1045	35-36.5	light Brn	F-C sand tr. pebbles and silt
Method:		36.5-37	Brn	F-M sand some sm. gravel
Mix in Plastic Bag		37-38	org brn	F-M sand tr. silt
Monitor Readings		38-40	tan	F-M sand some pebbles and grav
(Range in ppm):				
0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: **NWIRP Bethpage**
Project No.: 112G02230

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPSI-SB3014-0002
Sample Location: Site 1
Sampled By: vince shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 7-24-12 Time: 1359 Method: Hand Auger/Trowel Monitor Reading (ppm): 0.0	0' to 2'	Dark Brown To Brown	Silty Sand and Gravel (dry to damp)

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
~~VOCs~~ PCBs MC 11/12/13	1 X 250 ml clear glass	✓	—

OBSERVATIONS / NOTES:

Hand auger to sample depth
mixed soil with disposable Trowel prior to sampling

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	BPSI-DUP02

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3014-0205
Sample Location: BPS1-SB 3014
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-20-12	1505	2-3.25	Dk brn	VF-F Sand and F organics some gravel
Method:		3.25-5	Dk brn	F-M Sand some gravel
Mix in Plastic Bag				
Monitor Readings				
(Range in ppm):				
0,0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	Yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3014-0516
Sample Location: BPS1-SB3014
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-20-12	1515	5-6	lt brn	F-M sand some gravel
Method:		6-7	brn	Silty VF sand tr. gravel
Mix in Plastic Bag		7-9.25	lt brn	F-M sand some gravel
Monitor Readings		9.25-10	org-lt brn	F-M sand tr. C sand and pebbles
(Range in ppm):				
0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3014-1015
Sample Location: BPS1-SB 3014
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date: 8-20-12	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
	1525	10-11	org lt brn	F-M sand some pebbles tr. gravel
Method:		11-11.5	lt gray	Crushed Rock
Mix in Plastic Bag		11.5-14.25	org lt brn	F-M sand tr. pebbles few gravel
Monitor Readings		14.25-15	lt brn	VF-F sand some M. sand
(Range in ppm):				
0.1-0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: **NWIRP Bethpage**
Project No.: 112G02230

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3015-0002
Sample Location: Site 1
Sampled By: vince shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 7-24-12 Time: 1418 Method: Hand Auger / Trowel Monitor Reading (ppm): 0.0	0' to 2'	Dark Brown To Orange	Silty Sand and Gravel (damp)

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
~~VOCs~~ PCBs MC 11/12/13	1 X 250 ml clear glass	1	—

OBSERVATIONS / NOTES:

Hand auger to sample depth
Mixed soil with disposable Trowel prior to sampling

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3015-0205
Sample Location: BPS1-SB3015
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-20-12	1400	2-5' bgs	Dk brn	F-M Sand some gravel and fine organics
Method:				
Mix in Plastic Bag				
Monitor Readings				
(Range in ppm):				
0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3015-0516
Sample Location: BPS1-SB 3015
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-20-12	1425	5-6.5	brn/gray	F-C sand and gravel wet
Method:		6.5-9.5	light brn	F-C sand tr to some pebbles tr. gravel moist
Mix in Plastic Bag		9.5-16	Brn	F sand some pebbles
Monitor Readings				
(Range in ppm):				
0,0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

Rain water pooled in old borehole

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3015-1015
Sample Location: BPS1-SB 3015
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-20-12	1437	10-11.25	Brn	Gravely F-C sand
Method:		11.25-13.75	lt brn	F-M sand some gravel and C. sand
Mix in Plastic Bag		13.75-15	lt brn	F-M sand some pebbles
Monitor Readings				
(Range in ppm):				
~~1437~~ 8/20/12				
0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: **NWIRP Bethpage**
Project No.: 112G02230

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3016-0002
Sample Location: Site 1
Sampled By: vince shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 7-24-12 Time: 1521 Method: Hand Auger/Trowel Monitor Reading (ppm): 0.0	0' to 2'	Dark Brown To Brown	Silty Sand and Gravel Trace Concrete Frags (dry to damp)

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
~~VOCs~~ PCBs MC 11/12/13	1 X 250 ml clear glass	1	—

OBSERVATIONS / NOTES:

Hand auger to sample depth
mixed soil with disposable Trowel prior to sampling

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: **NWIRP Bethpage**
Project No.: 112G02230

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPSI-SB3017-0002
Sample Location: Site 1
Sampled By: vince shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 7-24-12 Time: 1533 Method: Hand Auger/Trowel Monitor Reading (ppm): 0.0	0' to 2'	Dark Brown To Brown	Silty Sand and Gravel Trace Asphalt/concrete Frags (dry to damp)

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
~~VOCs~~ PCBs MC 11/12/13	1 X 250 ml clear glass	/	—

OBSERVATIONS / NOTES:

Hand auger to sample depth
mixed soil with disposable Trowel
prior to sampling

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3018-0002
Sample Location: Site 1
Sampled By: vince shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 7-24-12 Time: 1700 Method: Hand Auger / Trowel Monitor Reading (ppm): 0.0	0' to 2'	Dark Brown TO orange Brown	Silty Sand and Gravel (dry to damp)

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
~~VOCs~~ PCBs MC 11/12/13	1 X 250 ml clear glass	/	–

OBSERVATIONS / NOTES:

Hand auger to sample depth
mixed soil with hand Trowel (disposable) prior to sampling

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: **NWIRP Bethpage**
Project No.: 112G02230

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3019-0002
Sample Location: Site 1
Sampled By: vince shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 7-24-12 Time: 1630 Method: Hand Auger/Trowel Monitor Reading (ppm): 0.0	0' to 2'	Dark Brown TO Brown	Silty Sand and Gravel (damp)

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
~~VOCs~~ PCBs MC 11/12/13	1 X 250 ml clear glass	2	—

OBSERVATIONS / NOTES:

Hand auger to sample depth
mixed soil with disposable Trowel prior to sampling

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	BPS1-DUP03

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3020-0002
Sample Location: Site 1
Sampled By: vince shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 7-24-12 Time: 1458 Method: Hand Auger / Trowel Monitor Reading (ppm): 0.0	0' to 2'	Dark Brown To Brown	Silty Sand and Gravel Trace Ash. (dry to damp)

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
~~VOCs~~ PCBs MC 11/12/13	1 X 250 ml clear glass	/	—

OBSERVATIONS / NOTES:

Hand auger to sample depth
mixed soil with disposable Trowel
prior to sampling

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3020-0205
Sample Location: BPS1-SB 3020
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-21-12	1242	2-2.75	Brn	Silty F. Sand some gravel
Method:		2.75-4.75	light brn	Clayey VF sand tr. pebbles very few gravel
Mix in Plastic Bag		4.75 – 5	tan	F-C sand some pebbles tr. gravel
Monitor Readings				
(Range in ppm):				
4.4-6				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.: BPS1-Dup06-20120821

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3020-0510
Sample Location: BPS1-SB 3020
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-21-12	1253	0-7.25	tan	F-C sand some pebbles tr. gravel
Method:		7.25-10	brn/blk and tan	F-C sand some gravel
Mix in Plastic Bag				
Monitor Readings				
(Range in ppm):				
6.3-8.4				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3020-1615
Sample Location: BPS1-SB 3020
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-21-12	1258	10-15	lt brn - tan	F-C sand some gravel
Method:				
Mix in Plastic Bag				
Monitor Readings				
(Range in ppm):				
4.4-8.6				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
yes	

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3020-1520
Sample Location: BPS1-SB 3020
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-21-12	1302	15-20'	tan	F-M sand some gravel tr. C. sand
Method:				
Mix in Plastic Bag				
Monitor Readings				
(Range in ppm):				
5.6				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

Note: less than half the 8 oz jar filled (poor recovery)

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3020-2025
Sample Location: BPS1-SB3020
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-21-12	1332	20-25	lt brn	F-C Sand some silt and pebbles tr. gravel
Method:				
Mix in Plastic Bag				
Monitor Readings				
(Range in ppm):				
1.1-2.7				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

1st attempt the acetate liner was smashed
bc a gravel piece lodged into sampler (no recovery)
Pull out dual tube and reattempt interval in same hole
2nd attempt successful

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3020-2530
Sample Location: BPS1-SB 3020
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-21-12	1417	25-30'	brn to lt brn	F-M sand tr. to some pebbles
Method:				Very Few small gravel
Mix in Plastic Bag				
Monitor Readings				
(Range in ppm):				
1.5-3.2				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

Liner broke off in outer casing

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: **NWIRP Bethpage**
Project No.: 112G02230

[ ] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3020-3035
Sample Location: Site 1
Sampled By: vince shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: NA	NA		
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-27-12	1055	30' to 35'	Tan-Brn	F-M Sand Trace to some Pebbles
Method: Geoprobe				(moist)
Monitor Readings (Range in ppm): 0.3				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 X 250 ml clear glass	YES	–

OBSERVATIONS / NOTES:

Sample mixed in poly Zip-Lock bag prior to collection.

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
–	–

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: **NWIRP Bethpage**
Project No.: 112G02230

[ ] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPSI-SB3020-3545
Sample Location: Site 1
Sampled By: vince shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: NA	NA		
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-27-12	1140	35' to 45'	Tan-Gry-Brn	F. Sand with some clayey silt (very moist to wet)
Method: Geoprobe				
Monitor Readings (Range in ppm): 0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 X 250 ml clear glass	yes	

OBSERVATIONS / NOTES:

Sample mixed in poly Zip-lock bag prior to collection

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: **NWIRP Bethpage**
Project No.: 112G02230

[ ] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3020-4555
Sample Location: Site 1
Sampled By: vince shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: NA			
Time:			
Method:	NA		
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-27-12	1235	45' to 55'	Gry-Tan-Brn	F-M Sand with some silt
Method:				and little clay
Geoprobe				(very moist to wet)
Monitor Readings				
(Range in ppm):				
0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 X 250 ml clear glass	yes	-

OBSERVATIONS / NOTES:

Sample mixed in poly Zip-lock bag prior to collection

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: **NWIRP Bethpage**
Project No.: 112G02230

[ ] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3020-5560
Sample Location: Site 1
Sampled By: vince shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: NA			
Time:			
Method:	NA		
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-27-12	1605	55' to 60' BGS	Tan-Brown	F-C sand Trace silt (wet)
Method: Geoprobe				
Monitor Readings (Range in ppm): 0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 X 250 ml clear glass	yes	—

OBSERVATIONS / NOTES:

Sample mixed in poly Zip-lock bag prior to collection

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: **NWIRP Bethpage**
Project No.: 112G02230

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3021-0002
Sample Location: Site 1
Sampled By: vince shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 7-24-12 Time: 1443 Method: Hand Auger / Trowel Monitor Reading (ppm): 0.0	0' to 2'	Dark Brown To Brown	Silty Sand and Gravel (dry to damp)

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
~~VOCs~~ PCBs MC 11/12/13	1 X 250 ml clear glass	1	—

OBSERVATIONS / NOTES:

Hand auger to sample depth
mixed soil with disposable Trowel
prior to sampling

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3021-0205
Sample Location: BPS1-SB 3021
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-23-12	1333	2-3.75	Brn	Silty F-M sand some gravel
Method:		3.75-5	lt Brn	F-M sand some silt and gravel
Mix in Plastic Bag				
Monitor Readings				
(Range in ppm):				
0.1				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3021-0510
Sample Location: BPS1-SB 3021
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-23-12	1344	5-6	tan	F-M sand tr. C. sand
Method:		6-8.5	lt brn	F-M sand some gravel
Mix in Plastic Bag		8.5-9	lt brn	F-M sand tr. pebbles
Monitor Readings		9-10	lt brown	F-C sand some pebbles tr. gravel
(Range in ppm):				
0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.: 1200
—	BPS1-Dupl1-20120823

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3021-1015
Sample Location: BPS1-SB 3021
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-23-12	1355	10-12.25	lt brn-tan	F-C sand some gravel
Method:		12.25-15	tan - brn	F-C sand some pebbles tr gravel
Mix in Plastic Bag				
Monitor Readings				
(Range in ppm):				
0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3021-1520
Sample Location: BPS1-SB3021
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-23-12	1401	15-20	tan-brn	F-C sand some gravel tr to some pebbles
Method:				
Mix in Plastic Bag				
Monitor Readings				
(Range in ppm):				
0.2-0.7				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3021-2025
Sample Location: BPS1-SB 3021
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-23-12	1412	20-22.5	lt brn	F-C sand some gravel
Method:		22.5-25	tan	F-M sand some pebbles tr. gravel
Mix in Plastic Bag				
Monitor Readings				
(Range in ppm):				
0-0.4				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3021-2530
Sample Location: BPS1-SB 3021
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-23-12	1427	25-26	lt brn	Sand and gravel
Method:		26-28	lt brn	F-M sand tr. pebbles
Mix in Plastic Bag		28-28.5	brn	F-M sand tr. pebbles and silt
Monitor Readings		28.5-30	lt brn	F-M sand tr. pebbles
(Range in ppm):				
0-0.2				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: **NWIRP Bethpage**
Project No.: 112G02230

[ ] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3021-3035
Sample Location: Site 1
Sampled By: vince shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: NA			
Time:	NA		
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-28-12	0905	30' to 35' BGS	Red Brn	F-M Sand Trace C Sand
Method:				and pebbles (very moist)
Geoprobe				
Monitor Readings				
(Range in ppm):				
0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 X 250 ml clear glass	yes (2)	–

OBSERVATIONS / NOTES:

Sample mixed in poly zip-lock bag prior to collection

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
–	BPS1-DUP12-20120828

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: **NWIRP Bethpage**
Project No.: 112G02230

[ ] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3021-3545
Sample Location: Site 1
Sampled By: vince shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: NA			
Time:			
Method:	NA		
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-28-12	1010	35' to 45' BGS	Gry-Red-Brn	F sand - some silt - Tr. clay (very moist)
Method: Geoprobe				
Monitor Readings (Range in ppm): 0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 X 250 ml clear glass	yes	—

OBSERVATIONS / NOTES:

sample mixed in poly Zip-lock bag prior to collection

MAP:

Circle if Applicable:

MS/MSD (yes)

Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[ ] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3021-4555
Sample Location: Site 1
Sampled By: vince shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: NA			
Time:			
Method:			
Monitor Reading (ppm): 0.0			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-28-12	1140	45' to 55' BGS	Brown	Silty F. Sand
Method:				Tr. F. pebbles (wet)
Geoprobe				
Monitor Readings				
(Range in ppm):				
0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 X 250 ml clear glass	yes	—

OBSERVATIONS / NOTES:

Sample mixed in poly Zip-lock bag prior to collection

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: **NWIRP Bethpage**
Project No.: 112G02230

[ ] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3021-5565
Sample Location: Site 1
Sampled By: vince shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: NA			
Time:	NA		
Method:			
Monitor Reading (ppm): 0.0			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-28-12	1340	55' to 65' BGS	Brown	F-M Sand - some silt
Method:				Trace fine pebbles (wet)
Geoprobe				
Monitor Readings				
(Range in ppm):				
0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 X 250 ml clear glass	yes	—

OBSERVATIONS / NOTES:

Sample mixed in poly Zip-lock bag prior to collection.

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[ ] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPSI-SB3021-7075
Sample Location: Site 1
Sampled By: vince shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: NA			
Time:			
Method:			
Monitor Reading (ppm): 0.0			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-28-12	1715	70' to 75' BGS	Orange-Brown	Silty Sand (wet)
Method: Geoprobe				
Monitor Readings (Range in ppm): 0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 X 250 ml clear glass	yes	—

OBSERVATIONS / NOTES:

- sample mixed in poly zip-lock bag prior to collection

No recovery from 65-70' bgs

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: **NWIRP Bethpage**
Project No.: 112G02230

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3022-0002
Sample Location: Site 1
Sampled By: vince shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 7-24-12 Time: 1340 Method: Hand Auger/Trowel Monitor Reading (ppm): 0.0	0' to 2'	Dark Brown To Brown	Silty Sand and Gravel (dry to damp)

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
~~VOCs~~ PCBs MC 11/12/13	1 X 250 ml clear glass	✓	—

OBSERVATIONS / NOTES:

Hand auger to sample depth
mixed soil with disposable Trowel prior to sampling

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3022-0205
Sample Location: BPS1-SB 3022
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
11-9-12	1020	2-2.5	Brn	F-C sand and gravel moist
Method: ~~Split Spoon~~ Post Hole Digger		2.5-5	Dk Brn	Organic rich sand moist to wet
Monitor Readings (Range in ppm): 0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM jar	yes	

OBSERVATIONS / NOTES:

Composite sample intervval in plastic bag and used a disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3022-0510
Sample Location: BPS1-SB 3022
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
11-8-12	1035	5-5.75'	Dk Brn	organic rich sand moist
Method: Split Spoon		5.75-7'	Brn	F-C sand some pebbles tr. gravel moist
Monitor Readings (Range in ppm): 0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM jar	yes	

OBSERVATIONS / NOTES:

Composite sample intervval in plastic bag and used a disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3022-1015
Sample Location: BPS1-SB 3022
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
11-9-12	1055	10-12'	light brown	F-C sand some pebbles and gravel (crush rock) moist
Method: Split Spoon				
Monitor Readings (Range in ppm): 0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM jar	Yes	

OBSERVATIONS / NOTES:

Composite sample intervval in plastic bag and used a disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3022-15-20
Sample Location: BPS1-SB 3022
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
11-9-12	1110	15-16.25'	light brown	F-M sand some pebbles tr. gravel moist
Method: Split Spoon		16.25-17	light brown	VF-F sand tr. M. sand moist
Monitor Readings				
(Range in ppm):				
0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM jar	yes	

OBSERVATIONS / NOTES:

Composite sample intervval in plastic bag and used a disposable trowel

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3022-2025
Sample Location: BPS1-SB 3022
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
11-9-12	1115	20-22'	tan - light brn	F-M sand and pebbles some fn-mod gravel moist
Method: Split Spoon				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM jar	yes	

OBSERVATIONS / NOTES:

Composite sample intervval in plastic bag and used a disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3022-2535
Sample Location: BPS1-SB 3022
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
11-9-12	1135	25-25.5'	light brown	F-M sand some gravel moist
Method: Split Spoon		25.5-27'	tan and light brn	F-M sand very few gravel moist
		30-32'	tan	F-M sand tr. pebbles very few gravel moist
Monitor Readings (Range in ppm): 0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM jar	yes	

OBSERVATIONS / NOTES:

Composite sample intervval in plastic bag and used a disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.: 0900
—	BPS1-Dup-20121109

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3022-3545
Sample Location: BPS1-SB 3022
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
11-9-12	1315	35-37'	tan	F sand tr. pebbles very few gravel moist
Method: Split Spoon		40-41.75'	light brn and tan	F-C sand tr. pebbles moist
		41.75-42'	light brn and tan	F-M sand some clay moist
Monitor Readings (Range in ppm):				
0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM jar	yes	

OBSERVATIONS / NOTES:

Composite sample intervval in plastic bag and used a disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3022-4555
Sample Location: BPS1-SB 3022
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
11-9-12	1335	45-45.75	tan	F-M sand tr. C sand and silt moist
Method: Split Spoon		45.75-46	Gray	Clay moist
		46-47	light tan	F-M sand moist
Monitor Readings		50-51.25	tan	F-M sand moist
(Range in ppm):		51.25-51.5	light tan	F-M sand some clay moist
0		51.5-52	tan	F-M sand moist

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	28-ounce WM jar	yes	

OBSERVATIONS / NOTES:

Composite sample intervval in plastic bag and used a disposable trowel

MAP:

Circle if Applicable:

MS/MSD: yes

Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3022-5565
Sample Location: BPS1-SB 3022
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
11-9-12	1355	55-57'	tan	F-M Sand some C. sand tr. pebbles wet
Method: Split Spoon		60-61'	light brn	F-M sand tr. C. sand and pebbles wet
		61-62'	light brn	F-M sand wet
Monitor Readings (Range in ppm):				
0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM jar	yes	

OBSERVATIONS / NOTES:

Composite sample intervval in plastic bag and used a disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3022-6575
Sample Location: BPS1-SB 3022
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
11-9-12	1415	65-66.25'	tan	F-M sand wet
Method: Split Spoon		66.25-66.75'	light brn	F sand some silt and M. sand wet
		66.75-67'	tan	VF-F sand some M. sand wet
Monitor Readings		70-70.75'	tan	F-M sand tr. silt
(Range in ppm):		70.75-72'	tan	VF-F sand tr. silt
0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM jar	Yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used a disposable trowel

few thin clay lenses from 70-72'

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: **NWIRP Bethpage**
Project No.: 112G02230

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPSI-SB3023-0002
Sample Location: Site 1
Sampled By: vince shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 7-24-12	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1329 Method: Hand Auger/Trowel Monitor Reading (ppm): 0.0	0' to 2'	Brown	Silty Sand and Gravel (dry to damp)

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
~~VOCs~~ PCBs MC 11/12/13	1 X 250 ml clear glass	/	—

OBSERVATIONS / NOTES:

Hand auger to sample depth
mixed soil with disposable Trowel prior to sampling

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3023-0205
Sample Location: BPS1-SB 3023
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-21-12	1519	2-2.75	Blk	VF-F Sand some gravel and F organics
Method:		2.75-4.75	DK Brn	F-M Sand some gravel
Mix in Plastic Bag		4.75-5	lt brn	Clay F-M Sand
Monitor Readings				
(Range in ppm):				
0-0.2				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3023-0510
Sample Location: BPS1-SB 3023
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-21-12	1523	5-7	light brown	Silty F-M sand tr. gravel
Method:		7-8	tan	Silty Clay tr. VF-F sand
Mix in Plastic Bag		8-8.25	brn	F-M sand tr. C. sand
Monitor Readings		8.25-9	tan	Silty Clay tr. VF sand
(Range in ppm):		9-10	brn-tan	F-C sand some pebbles tr. gravel
0.3-1.7				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3023-1015
Sample Location: BPS1-SB3023
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-21-12	1536	10-15' bgs	tan - light brn	F-M sand some gravel
Method:				
Mix in Plastic Bag				
Monitor Readings				
(Range in ppm):				
4.1 - 4.8				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[X] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3024-0002
Sample Location: BPS1-SB3024
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 8-20-12 Time: 1056 Method: Plastic Bag and Plastic Trowel Monitor Reading (ppm): 0.0	0-2' bgs	DK Brn	F-C sand some Fine organics and silt tr. to some gravel Moist

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Mix in Plastic Bag				
Monitor Readings				
(Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3024-0205
Sample Location: BPS1-SB 3024
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-20-12	1103	2-5' bgs	Dk brown	F-M sand some organics and sm-large gravel moist
Method:				
Mix in Plastic Bag				
Monitor Readings				
(Range in ppm):				
0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3024-0510
Sample Location: BPS1-SB 3024
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-20-12	1119	5- 5.75	Dk Brn	Silty sand some gravel
Method:		5.75-6.75	Blk	Gravely F-C sand some silt
Mix in Plastic Bag		6.75-7	Brn	Silty F-M sand some gravel
Monitor Readings		7-7.75	Blk	Silty F sand some M-C sand tr. gravel
(Range in ppm):		7.75-8.5	Brn	Clayey F-M sand some pebbles
0.0		8.5-9.25	Brn	F-M sand some gravel
		9.25-9.5	light brown	F-M sand some C. sand tr. pebbles
		9.5-10	light brown-tan	Gravel F-M sand some pebbles

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3024-615
Sample Location: BPS1-SB 3024
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-20-12	1128	10 - 10.25	lt brn - tan	Gravely sand some pebbles
Method:		10.25 - 13	light brown	F-C sand some small-large gravel
Mix in Plastic Bag		13 - 15	light brown-tan	F-M sand some pebbles tr. gravel
Monitor Readings				
(Range in ppm):				
0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3024-1520
Sample Location: BPS1-SB 3024
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date: 8-20-12	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
	1138	15-16.25	lt brn - tan	F-M sand some pebbles fr. gravel
Method:		16.25-17.75	tan	F-M sand fr. C. sand
Mix in Plastic Bag		17.75-20	tan	F-M sand some gravel and pebbles
Monitor Readings				
(Range in ppm):				
0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3024-2025
Sample Location: BPS1-SB 3024
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-20-12	1150	15-20	tan	Gravely M-C sand some F. sand
Method:				
Mix in Plastic Bag				
Monitor Readings				
(Range in ppm):				
0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
yes	

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3025-2535
Sample Location: BPS1-SB 3025
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
11-5-12	1312	25-25.5'	lt brn	M-C sand very few pebbles moist
Method: Split Spoon		25.5-27'	tan	F-M sand tr. C. sand moist
		30-31.25'	~~speckled~~ lt brn	F-M sand tr. C. sand moist
Monitor Readings		31.25-31.5'	Brn	F-M sand some pebbles tr. gravel moist
(Range in ppm):		31.5-32'	tan	F-M sand moist
0-4.6				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM jar	yes	

OBSERVATIONS / NOTES:

Composite sample intervval in plastic bag and used a disposable trowel

MAP:

Circle if Applicable:

MS/MSD: —

Duplicate ID No.: 1200
BPS1-Dup-20121105

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3025-3545
Sample Location: BPS1-SB 3025
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date: 11-5-12	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method: Split Spoon	1415	35-37'	speckled tan+lt bro	F-M sand some pebbles tr. gravel moist
		40-40.5'	lt brown	F-M sand some pebbles moist
		40.5-42'	tan	F-M sand tr. pebbles moist
Monitor Readings (Range in ppm): 0-2.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM jar	yes	

OBSERVATIONS / NOTES:

Composite sample intervval in plastic bag and used a disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
yes	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3025-4555
Sample Location: BPS1-SB 3025
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
11-6-12	0810	45-47'	lt brn and tan	F-M sand tr. C. sand moist to wet
Method: Split Spoon		50-52'	lt brn and tan	F-M sand tr. silt moist
Monitor Readings (Range in ppm):				
0-0.6				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM jar	yes	

OBSERVATIONS / NOTES:

Composite sample intervval in plastic bag and used a disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3025-5565
Sample Location: BPS1-SB3025
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date: 11-5-12	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method: Split Spoon	0857	55-57	lt brown	F-M sand Tr. silt wet
		60-62	lt brn and tan	Few thin clay (gray) lenses at 55.75 and 56.25'
				F-C sand
Monitor Readings (Range in ppm): 0				thin clay (gray) lens at 60.5' bgs

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM jar	yes	

OBSERVATIONS / NOTES:

Composite sample intervval in plastic bag and used a disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3025-6575
Sample Location: BPS1-SB 3025
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
11-5-12	0930	65-67'	tan + light brown	F-C sand tr. pebbles wet
Method: Split Spoon		70-72'	tan + light brown	F-C sand tr. pebbles and silt wet
Monitor Readings (Range in ppm): 0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM jar	yes	

OBSERVATIONS / NOTES:

Composite sample intervval in plastic bag and used a disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
X[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3026-2535
Sample Location: BPS1-SB 3026
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
11-14-12	0815	25-25.75'	lt brn	F-C sand tr. silt moist
Method:		25.75-26'	brn	VF-F sandy silt
Hand Trowl/		26-27'	lt brn	F-M sand some C. sand
Plastic Bag		30-31.1'	lt brn	F-M sand some C. sand tr. pebbles
Monitor Readings		31.1-32'	tan + brn (speckled)	F-M sand some pebbles tr. gravel
(Range in ppm):				
0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8 oz glass jar	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
X[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3026-3545
Sample Location: BPS1-SB 3026
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
11-14-12	0840	35-37'	speckled tan brn	F-M sand some pebbles/gr, gravel moist
Method:		40-40.6'	tan and ltbrn	F sand some silt
Hand Trowl/ Plastic Bag		46.6-42'	tan	F-M sand
Monitor Readings (Range in ppm): 0-0.3				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8 oz glass jar	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
X[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3026-4555
Sample Location: BPS1-SB 3026
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
11-14-12	0905	45-47	tan	F-M sand moist
Method:		50-52	tan	F-M sand tr to some C. sand ↓
Hand Trowl/ Plastic Bag				
Monitor Readings (Range in ppm): 0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8 oz glass jar	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
X[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3026-5565
Sample Location: BPS1-SB 3026
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
11-18-12	1045	55-57	tan	F-M Sand tr. silt wet
Method:		60-62	tan to lt brn	F-M sand w/ mica ↓
Hand Trowl/ Plastic Bag				
Monitor Readings (Range in ppm):				
0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8 oz glass jar	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
X[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3026-6575
Sample Location: BPS1-SB 3026
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
11-14-12	1110	65-67'	tan to lt brn	F-M sand wet
Method:		70-71.25'	tan, gray, pink	Silty F-M sand
Hand Trowl/ Plastic Bag		71.25-72'	gray + pink	Silt some VF sand
Monitor Readings (Range in ppm): 0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8 oz glass jar	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
X[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3027-2535
Sample Location: BPS1-SB 3027
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
11-13-12	1510	25-25.5'	tan	F-M sand moist
Method:		25.5-25.75'	light brown	Silt some VF sand
Hand Trowl/ Plastic Bag		25.75-26'	tan	F-M sand some sm. pebbles
Monitor Readings		26-26.75'	light brn	Silty VF sand
(Range in ppm):		26.75-27	light brn and red	VF-F sand
		30-31'	light brn red	F-M sand some C. sand tr. pebbles
0.2-2.2		31-31.5'	lt brn red	F-M sand some pebbles tr. gravel
		31.5-32	lt brn red	F-M sand

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8 oz glass jar	Yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	BPS1-Dup-20121113 1200

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
X[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3027-3545
Sample Location: BPS1-SB 3027
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
11-13-12	0800	35-36.5'	Brn	F-C sand some pebbles tr. gravel moist
Method:		36.5-37'	tan	F-M sand moist
Hand Trowl/ Plastic Bag		40-40.2'	tan	F-M sand tr. C. sand
Monitor Readings		40.2-40.4'	gray	Clay
(Range in ppm):		40.4-41.4'	tan	F-M sand tr. C. sand
0		41.4-41.5'	gray	VF Sandy Silt
		41.5-41.8'	tan	F-M sand
		41.8-41.9'	gray	Clay
		41.9-42'	tan	F-M sand tr. C. sand

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8 oz glass jar	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
X[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3027-4555
Sample Location: BPS1-SB 3027
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
11-13-12	0825	45-45.3'	light brn	F-M sand tr. silt moist
Method:		45.3-46.1'	tan	F-M sand
Hand Trowl/ Plastic Bag		46.1-46.5'	lt brn	Silty F-M sand
Monitor Readings		46.5-47'	dk gray, tan/white	F-M sand
(Range in ppm):		50-51.25'	dk gray, tan, brn	F-C sand some pebbles wet
0-1.4		51.25-52'	dk gray, lt brn, tan	F-M sand wet

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8 oz glass jar	Yes	

OBSERVATIONS / NOTES:

possible staining

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
X[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3027-5565
Sample Location: BPS1-SB 3027
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
11-13-12	0850	55-55.4'	lt brn	F-M sand tr. silt wet
Method:		55.4-55.6'	gray	Clay
Hand Trowl/ Plastic Bag		55.6-56.2'	lt brn	F-M sand tr. C. sand + silt
Monitor Readings		56.2'-56.4	gray	Clay
(Range in ppm):		56.4-56.7'	lt brn	F-M sand
		56.7-56.8'	gray	Clay
0		56.8-57'	lt brn	F-M sand
		60-61.25	lt brn	M-C sand
		61.25-62'	tan	F-M sand

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8 oz glass jar	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
X[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3027-6575
Sample Location: BPS1-SB 3027
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
11-13-12	0920	65-67'	tan	F-M sand some C. sand tr. pebbles wet
Method:		70-71.5'	tan	F-M sand tr. C. sand
Hand Trowl/ Plastic Bag		71.5-71.75'	tan	VF-F sand tr. M sand
Monitor Readings		71.75-72'	light brn	F-M sand tr-SH
(Range in ppm):				
0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8 oz glass jar	yes	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD (Yes)

Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3028 - 2535
Sample Location: BPS1-SB 3028
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 11-7-12	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date: 11-7-12	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
	0820	25-27'	tan and lightbrn	F-M sand tr. to some sm-med pebbles tr. sm gravel moist
Method: Split Spoon		30-32'	tan	F-M sand tr. to some pebbles tr. gravel moist
Monitor Readings (Range in ppm): 0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM jar	yes	

OBSERVATIONS / NOTES:

Composite sample intervval in plastic bag and used a disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3028-3545
Sample Location: BPS1-SB 3028
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date: 11-7-12	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
	0840	35-36.25	light brn and tan	F-M sand tr. C. sand moist
Method: Split Spoon		36.25-36.75	~~Brown~~ iron stained	F-M sand some gravel and pebbles moist
		36.75-37	light tan	F-M sand tr. C. sand moist
Monitor Readings		40-40.25	light brn	F-C sand tr. pebbles moist
(Range in ppm):		40.25-41.25	tan	F-M sand tr. pebbles
0		41.25-42	tan	F sand w/mica

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM jar	yes	

OBSERVATIONS / NOTES:

Composite sample intervval in plastic bag and used a disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3028-4555
Sample Location: BPS1-SB 3028
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date: 11-7-12	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
	0905	45-45.75	tan and light brn	F-M sand some C. sand moist
Method: Split Spoon		45.75-47	tan and light brn	F-M sand moist
		50-50.75	light brown	F-M sand tr. C. sand moist
Monitor Readings		50.75-51.75	white and tan	F-M sand moist
(Range in ppm):		51.75-52	light brown and tan	F-M sand tr. silt moist
0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM jar	yes	

OBSERVATIONS / NOTES:

Composite sample intervval in plastic bag and used a disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3028-5565
Sample Location: BPS1-SB 3028
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date: 11-7-12	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
	0930	55-56.5	light brown	F-C sand wet
Method: Split Spoon		56.5-57	tan	F-M sand wet
		60-60.25	tan	F-M sand
Monitor Readings		60.25-60.5	light brown	F-M sand some clay (gray)
(Range in ppm):		60.5-62	light brown	F-C sand some pebbles tr. silt
0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM jar	yes	

OBSERVATIONS / NOTES:

Composite sample intervval in plastic bag and used a disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3028-6575
Sample Location: BPS1-SB 3028
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
11-7-12	0950	65-66.5	tan	F-M sand some C. sand tr. pebbles wet
Method: Split Spoon		66.5-67	tan	VF-F sand tr. C. sand and pebbles wet
		70-72	tan/gray	VF-F sand tr. silt wet
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM jar	yes	

OBSERVATIONS / NOTES:

Composite sample intervval in plastic bag and used a disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: **NWIRP Bethpage**
Project No.: 112G02230

[ ] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3029-0205
Sample Location: Site 1
Sampled By: vince shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: NA			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-29-12	0920	2' to 5' BGS	Brn-Tan	F-M Sand with some C Sand and Pebbles (very moist)
Method: Hand Auger				
Monitor Readings (Range in ppm): 0.5				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 X 250 ml clear glass	yes	

OBSERVATIONS / NOTES:

- Sample mixed in poly Zip-lock bag prior to collection

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[ ] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPSI-SB3029-0510
Sample Location: Site 1
Sampled By: vince shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: NA	NA		
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-29-12	1015	5' to 10' BGS	Brown	F-C sand with F-M pebbles (very moist)
Method: Geoprobe				
Monitor Readings (Range in ppm): 0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 X 250 ml clear glass	yes	—

OBSERVATIONS / NOTES:

- sample mixed in poly zip-lock bag prior to collection

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: **NWIRP Bethpage**
Project No.: 112G02230

[ ] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3029-10'5
Sample Location: Site 1
Sampled By: vince shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: NA			
Time:	NA		
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-29-12	1020	10' to 15' BGS	Brown	F-C sand with F-M pebbles
Method:				(very moist)
Geoprobe				
Monitor Readings				
(Range in ppm):				
0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 X 250 ml clear glass	yes	

OBSERVATIONS / NOTES:

Sample mixed in poly Zip-lock bag prior to collection

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: **NWIRP Bethpage**
Project No.: 112G02230

[ ] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3029-1520
Sample Location: Site 1
Sampled By: vince shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: NA			
Time:			
Method:	NA		
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-29-12	1028	15' to 20' BGS	Brown	F-C Sand with F-M pebbles (very moist)
Method: Geoprobe				
Monitor Readings (Range in ppm): 0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 X 250 ml clear glass	yes	

OBSERVATIONS / NOTES:

Sample mixed in poly Zip-lock bag prior to collection

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: **NWIRP Bethpage**
Project No.: 112G02230

[ ] Surface Soil
[ ] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3029-2025
Sample Location: Site 1
Sampled By: vince shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: NA	NA		
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-29-12	1040	20' to 25' bgs	Red-Brown	Silty F-C Sand, some F pebbles (very moist)
Method: Geoprobe				
Monitor Readings (Range in ppm): 0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 X 250 ml clear glass	Yes (2)	—

OBSERVATIONS / NOTES:

- Sample mixed in poly Zip-lock bag prior to collection

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	BPS1-DUP13-20120829 (1200)

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: **NWIRP Bethpage**
Project No.: 112G02230

[ ] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3029-2535
Sample Location: Site 1
Sampled By: vince shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: NA			
Time:	NA		
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-29-12	1059	25' to 35' BGS	Red-Tan-Brn	Silty F-M Sand. Tr. pebbles (very moist)
Method: Geoprobe				
Monitor Readings (Range in ppm): 0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 X 250 ml clear glass	yes	—

OBSERVATIONS / NOTES:

Sample mixed in poly zip-lock bag prior to collection

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: **NWIRP Bethpage**
Project No.: 112G02230

[ ] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3029-3545
Sample Location: Site 1
Sampled By: vince shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: NA			
Time:			
Method:	NA		
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-29-12	1305	35' to 45' bgs	Red Brown	F-M Sand Trace silt
Method:				(very moist)
Geoprobe				
Monitor Readings				
(Range in ppm):				
0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 X 250 ml clear glass	Yes	

OBSERVATIONS / NOTES:

Sample mixed in poly Ziplock bag prior to collection.

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: **NWIRP Bethpage**
Project No.: 112G02230

[ ] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3029-4555
Sample Location: Site 1
Sampled By: vince shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: NA			
Time:	NA		—
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-29-12	1423	45' to 55' BGS	Red Brn	F-M Sand · Trace Silt + F pebbles (wet)
Method: Geoprobe				
Monitor Readings (Range in ppm): 0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 X 250 ml clear glass	yes	

OBSERVATIONS / NOTES:

Sample mixed in poly zip-lock bag prior to collection

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: **NWIRP Bethpage**
Project No.: 112G02230

[ ] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPSI-SB3029-5565
Sample Location: Site 1
Sampled By: vince shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: NA	NA		
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-29-12	1650	55' to 65' BGS	Red-Brown	F-M Sand. Trace Silt and
Method:				f pebbles (wet)
Geoprobe				
Monitor Readings				
(Range in ppm):				
0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 X 250 ml clear glass	yes	-

OBSERVATIONS / NOTES:

Sample mixed in poly Zip-lock bag prior to collection

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: **NWIRP Bethpage**
Project No.: 112G02230

[ ] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3030-2535
Sample Location: Site 1
Sampled By: vince shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: NA			
Time:			
Method:	NA		
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-30-12	1020	25' to 35' BGS	Red Brown	Silty F-M Sand.
Method:				(Very moist)
Geoprobe				
Monitor Readings				
(Range in ppm):				
0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 X 250 ml clear glass	yes	–

OBSERVATIONS / NOTES:

Sample mixed in poly zip-lock bag prior to collection

MAP:

Circle if Applicable:

MS/MSD: YES

Duplicate ID No.: –

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[ ] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3030-3545
Sample Location: Site 1
Sampled By: vince shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: NA			
Time:			
Method:	NA		
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-30-12	1054	35' to 45' BGS	Red Brown	F-M Sand - some silt and
Method:				F pebbles (very moist)
Geoprobe				
Monitor Readings				
(Range in ppm):				
0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 X 250 ml clear glass	yes	

OBSERVATIONS / NOTES:

Sample mixed in poly Zip-lock bag prior to collection.

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: **NWIRP Bethpage**
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3030-4555
Sample Location: Site 1
Sampled By: vince shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: NA			
Time:			
Method:	NA		
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-30-12	1118	45' to 55' BGS	Red Brown	F-M Sand - Trace Silt (wet)
Method: Geoprobe				
Monitor Readings (Range in ppm): 0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 X 250 ml clear glass	yes	

OBSERVATIONS / NOTES:

Sample mixed in poly Zip-lock bag prior to collection

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: **NWIRP Bethpage**
Project No.: 112G02230

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3031-0002
Sample Location: Site 1
Sampled By: vince shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 7-24-12 Time: 1305 Method: Hand Trowel / Auger Monitor Reading (ppm): 0.0	0' to 2'	Dark Brown Brown	Silty Sand and gravel Trace ash (damp)

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
~~VOCs~~ PCBs MC 11/12/13	1 X 250 ml clear glass	1	—

OBSERVATIONS / NOTES:

Hand auger to sample depth
mixed soil with disposable Trowel prior to sampling.

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3031-0205
Sample Location: BPS1-SB3031
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:	2-5' bgs		
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-20-12	1000	2-5' bgs	Brn t. DK Brn	F-C sand some sm to med gravel tr. silt and F. organics
Method:				
Mix in Plastic Bag				
Monitor Readings				
(Range in ppm):				
0.3				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.
—	Dup 04-20120320 0900 ~~BPS1-SB3031-0205~~ 8-20-12

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3031-0510
Sample Location: BPS1-SB 3031
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-20-12	1017	5-6	brn	F-C sand some sm-med gravel tr. silt
Method:		6-8.75	brn	F-M sand some silt and small gravel
Mix in Plastic Bag		8.75-9.25	dk brown	Gravely F-C sand tr. silt
Monitor Readings		9.25-10	tan-light brown	VF-F sand
(Range in ppm):				
0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3031-1015
Sample Location: BPS1-SB3031
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-20-12	1020	10-11.25	brown - light brown	VF-F sand tr. to some SM-lg gravel and M. sand tr. C. sand and pebbles
Method:		11.25-15'	tan	Gravely F-M sand some pebbles tr. C. sand
Mix in Plastic Bag				
Monitor Readings				
(Range in ppm):				
0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: **NWIRP Bethpage**
Project No.: 112G02230

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPSI-SB3032-0002
Sample Location: Site 1
Sampled By: vince shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 7-24-12 Time: 1252 Method: Hand Auger/Trowel Monitor Reading (ppm): 0.0	0' to 2'	Brown	Silty Sand and Gravel (damp)

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
~~VOCs~~ PCBs MC 11/12/13	1 X 250 ml clear glass	1	—

OBSERVATIONS / NOTES:

Hand auger to sample depth
mixed soil with disposable Trowel prior to sampling

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3032-0206
Sample Location: BPS1-SB 3032 8-22-12
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-22-12	0850	2-3.25'	Brn	F-M sand some gravel
Method:		3.25-4.5'	tan	F-M sand tr. pebbles (FILL)
Mix in Plastic Bag		4.5-6'	orgbrn-ltbrn	F-M sand some gravel tr. silt
Monitor Readings				
(Range in ppm):				
0.0-0.4				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	BPS1-Dup 07-20120822 0800

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3032-0610
Sample Location: BPS1-SB 3032
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-22-12	0859	6-6.75'	lt brn	F-M sand some gravel tr. silt
Method:		6.75-7'	tan/gray	F. sandy silt tr. C. sand
Mix in Plastic Bag		7-10'	light brn	F-M sand some C sand and pebbles tr. gravel
Monitor Readings				
(Range in ppm):				
0-0.4				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
yes	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3032-1015
Sample Location: BPS1-SB 3032
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-22-12	0905	10-11.25	light brn	F-M sand tr. pebbles and silt
Method:		11.25-13.25	tan - brn	F-C sand and gravel
Mix in Plastic Bag		13.25-15	tan	F-M sand tr. C. sand and pebbles
Monitor Readings				
(Range in ppm):				
0.3-2.7				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: **NWIRP Bethpage**
Project No.: 112G02230

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3033-0002
Sample Location: Site 1
Sampled By: vince shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 7-24-12 Time: 1238 Method: Hand Auger / Trowel Monitor Reading (ppm): 0.0	0' to 2'	Brown	Silty Sand and Gravel (dry to damp)

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
~~VOCs~~ PCBs MC 11/12/13	1 X 250 ml clear glass	1	—

OBSERVATIONS / NOTES:

Hand auger to sample depth
mixed soil with disposable Trowel prior to sampling

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3033-0206
Sample Location: BPS1-SB3033
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-22-12	0950	2-3'	Brn	F-M sand some F. organics and gravel
Method:		3-4'	tan	F-M sand tr. pebbles (FILL)
Mix in Plastic Bag		4-6'	Brn	F-M sand some pebbles tr. silt+gravel
Monitor Readings				
(Range in ppm):				
0.4-2.3				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3033-0610
Sample Location: BPS1-SB 3033
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-22-12	1008	6-7.75	brn	F-C sand some pebbles tr. gravel
Method:		7.75-8.25	lt brn	Silty VF sand tr. gravel
Mix in Plastic Bag		8.25-9.75	tan	F-M sand some pebbles and gravel
Monitor Readings		9.75-10	lt brn	Silty VF sand
(Range in ppm):				
1.5-1.9				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	Yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3033-1015
Sample Location: BPS1-SB3033
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-22-12	1020	10-11	Blk	F-M sand some pebbles/gravel and VF sand
Method:		11-12.5	light tan	VF-F sand some pebbles
Mix in Plastic Bag		12.5-15	light brown	Pebbley F-C sand some gravel
Monitor Readings				
(Range in ppm):				
1.9-22.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3034-0002
Sample Location: Site 1
Sampled By: vince shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 7-24-12	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1224	0' to 2'	Brown	Silty Sand and Gravel (Dry to damp)
Method: Hand Auger / Trowel			
Monitor Reading (ppm): 0.0			

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
~~VOCs~~ PCBs MC 11/12/13	1 X 250 ml clear glass	2	—

OBSERVATIONS / NOTES:

Hand auger to sample depth
mixed soil with disposable Trowel prior to sampling.

MAP:

Circle if Applicable:

MS/MSD (yes)

Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3034-0206
Sample Location: BPS1-SB3034
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-22-12	1124	2-5	Brn-org brn	VF-M sand some pebbles/gravel
Method:		5-6	org brn	F-M sand tr. silt and gravel
Mix in Plastic Bag				
Monitor Readings				
(Range in ppm):				
2.1-3.9				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3034-0610
Sample Location: BPS1-SB3034
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-22-12	1136	6-7.25	tan	F-M sand some gravel
Method:		7.25-7.5	gray	VF-Sandy silt tr. C. sand
Mix in Plastic Bag		7.5-8.5	lt brn	F-M sand some gravel
Monitor Readings		8.5-9	gray	VF- Sandy silt
(Range in ppm):		9-10	tan	F-C sand and gravel
2.3-3.3				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3034-1015
Sample Location: BPS1-SB3034
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-22-12	1145	10-15	tan - brn	F-C sand tr. some gravel
Method:				
Mix in Plastic Bag				
Monitor Readings				
(Range in ppm):				
1.1-203				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: **NWIRP Bethpage**
Project No.: 112G02230

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3035-0002
Sample Location: Site 1
Sampled By: vince shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 7-24-12 Time: 1208 Method: Hand Auger/Trowel Monitor Reading (ppm): 0.0	0' to 2'	Brown	Silty Sand and Gravel (dry to damp)

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
~~VOCs~~ PCBs MC 11/12/13	1 X 250 ml clear glass	2	—

OBSERVATIONS / NOTES:

Hand auger to sample depth
mixed soil with disposable Trowel
prior to sampling

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	BPS1-Dup01

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3035-0206
Sample Location: BPS1-SB 3035
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-22-12	1323	2-3'	Brn	F-M sand some organics and gravel
Method:		3-5'	tan	F-M sand tr. pebbles
Mix in Plastic Bag		5-6'	lt brown	F-M sand some pebbles tr. silt and gravel
Monitor Readings				
(Range in ppm):				
0.9-3.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar		

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3035-0610
Sample Location: BPS1-SB 3035
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-22-12	1334	6-6.5'	lt brn	F-M sand some pebbles tr. silt and gravel
Method:		6.5-6.75 and 7.25-7.5	gray	VF sandy silt
Mix in Plastic Bag		6.75-7.25 and 7.5-8'	brn	F-M sand some pebbles tr. silt
Monitor Readings		8-9'	tan	VF-M sand and gravel
(Range in ppm):		9-10'	blk + brn	F-C sand and gravel
0.7-6.8				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar		

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3035-1015
Sample Location: BPS1-SB 3035
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-22-12	1342	10-10.5'	brn	F-C sand some pebbles tr. gravel
Method:		10.5-10.75'	brn	F-M sand some pebbles
Mix in Plastic Bag		10.75-15'	brn - light brn	F-C sand tr. to some gravel
Monitor Readings				
(Range in ppm):				
2.4-11.8				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	BPS1-Dup09-20120822 #1200

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: **NWIRP Bethpage**
Project No.: 112G02230

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3036-0002
Sample Location: Site 1
Sampled By: vince shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 7-24-12 Time: 1152 Method: Hand Auger/Trowel Monitor Reading (ppm): 0.0	0' to 2'	Brown	Sandy Silt and Gravel (dry to damp)

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
~~VOCs~~ PCBs MC 11/12/13	1 X 250 ml clear glass	1	—

OBSERVATIONS / NOTES:

Hand auger to sample depth
Mixed soil with disposable Trowel prior to sampling

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3036-0206
Sample Location: BPS1-SB3036
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-22-12	1417	2-2.5	DK Brn	F-C sand some F. organics and gravel
Method:		2.5-6	Brn-DKBrn	F-C sand some gravel tr. silt
Mix in Plastic Bag				
Monitor Readings				
(Range in ppm):				
0.5-0.8				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3036-0610
Sample Location: BPS1-SB 3036
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-22-12	1425	6-10	Brn	F-C sand some pebbles tr. gravel and silt
Method:				
Mix in Plastic Bag				
Monitor Readings				
(Range in ppm):				
4.5-5.6				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	Yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3036-1015
Sample Location: BPS1-SB 3036
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-22-12	1435	10-15' bgs	Brn	F-C sand some pebbles and silt tr. gravel
Method:				
Mix in Plastic Bag				
Monitor Readings				
(Range in ppm): 0.8-3.7				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: **NWIRP Bethpage**
Project No.: 112G02230

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3037-D002
Sample Location: Site 1
Sampled By: vince shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 7-24-12 Time: 1139 Method: Hand Auger / Trowel Monitor Reading (ppm): 0.0	0' to 2'	orange-Brown	Sandy Silt and Gravel

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
~~VOCs~~ PCBs MC 11/12/13	1 X 250 ml clear glass	✓	—

OBSERVATIONS / NOTES:

Hand auger to sample depth
Mixed soil with disposable Trowel prior to sampling

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3037-0205
Sample Location: BPS1-SB 3037
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-22-12	1538	2-5'bgs	Brn	F-M sand some silt
Method:				tr. to some pebbles
Mix in Plastic Bag				tr. gravel
Monitor Readings				
(Range in ppm):				
3.6-205				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

Hole collapses at 4'bgs

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3037-0510
Sample Location: BPS1-SB 3037
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-22-12	1550	5-16' bgs	lt brown	F-C sand some pebbles tr. gravel
Method:				
Mix in Plastic Bag				
Monitor Readings				
(Range in ppm):				
3.5-9.8				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3037-1015
Sample Location: BPS1-SB 3037
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-22-12	1558	10-12.5	lt brown	F-M sand some pebbles tr. gravel
Method:		12.5-15	tan	Pebbley F-C sand some gravel
Mix in Plastic Bag				
Monitor Readings				
(Range in ppm):				
0.8-1.5				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: **NWIRP Bethpage**
Project No.: 112G02230

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3038-0002
Sample Location: Site 1
Sampled By: vince shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 7-24-12 Time: 1125 Method: Hand Auger/Trowel Monitor Reading (ppm): 0.0	0' to 2'	Brown	Sandy Silt with Gravel and roots (dry to damp)

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
~~VOCs~~ PCBs MC 11/12/13	1 X 250 ml clear glass	1	—

OBSERVATIONS / NOTES:

Hand auger to sample depth

Mixed soil with disposable Hand Trowel prior to sampling

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3038-0205
Sample Location: BPS1-SB 3038
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-23-12	0835	2-5'	org - lt brn	F-C sand some pebbles/grave
Method:				
Mix in Plastic Bag				
Monitor Readings				
(Range in ppm):				
0.1				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3038-0510
Sample Location: BPS1-SB3038
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-23-12	0953	5-8	org-lt brn	F-C sand some pebbles tr. gravel
Method:		8-9'	lt brown	F-M sand tr. pebbles
Mix in Plastic Bag		9-10'	lt brn-tan	F-C sand varying gravel
Monitor Readings				
(Range in ppm):				
0.4-0.7				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	Yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3038-1015
Sample Location: BPS1-SB 3038
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-23-12	1003	10-11	Brn	F-C sand some pebbles tr. silt and gravel
Method:		11-15	tan	F-M sand some pebbles tr. gravel
Mix in Plastic Bag				
Monitor Readings				
(Range in ppm):				
0.4-0.9				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: **NWIRP Bethpage**
Project No.: 112G02230

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3039-0002
Sample Location: Site 1
Sampled By: vince shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 7-24-12 Time: 1105 Method: Hand Auger/Trowel Monitor Reading (ppm): 0.0	0' to 2'	Brown	Silty Sand and Gravel (Dry to damp)

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
~~VOCs~~ PCBs MC 11/12/13	1 X 250 ml clear glass	1	—

OBSERVATIONS / NOTES:

Hand auger to sample depth
Mix soil with disposable Hand Trowel prior to sampling.

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3039-0205
Sample Location: BPS1-SB 3039
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-23-12	0841	2-3	lt brn	F-C sand and pebbles tr. gravel
Method:		3-3.5	lt brn	F-M sand some pebbles
Mix in Plastic Bag		3.5-5	lt brn	F-C sand and pebbles some gravel
Monitor Readings				
(Range in ppm):				
0.0-0.9				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD —

Duplicate ID No.: 0800
BPS1-Dup10-20120823

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3039-0510
Sample Location: BPS1-SB3039
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-23-12	0848	5-10	brn-tan	F-C sand some gravel some pebbles
Method:				
Mix in Plastic Bag				
Monitor Readings				
(Range in ppm):				
0-0.5				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

Some light staining from 9-10' bgs

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
yes	

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3039-1015
Sample Location: BPS1-SB 3039-
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-23-12	0856	10-12	brn/blk	F-C sand and pebbles some gravel
Method:		12-13	tan/lt brn	Pebbley F-C sand tr. small gravel
Mix in Plastic Bag		13-13.5	lt brn	F-M sand some sm. pebbles
Monitor Readings		13.5-15	tan	F-C sand and pebbles tr. gravel
(Range in ppm):				
0.4-4.4				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

light staining from 10-11.5' bgs

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPSI-SB3040-0002
Sample Location: Site 1
Sampled By: vince shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 7-24-12 Time: 1644 Method: Hand Auger / Trowel Monitor Reading (ppm): 0.0	0' to 2'	Dark Brown To Brown	Silty Sand and Gravel (dry to damp)

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
~~VOCs~~ PCBs MC 11/12/13	1 X 250 ml clear glass	1	—

OBSERVATIONS / NOTES:

Hand auger to sample depth
mixed soil with disposable Trowel
prior to sampling

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3041-0002
Sample Location: Site 1
Sampled By: vince shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 7-24-12 Time: 1614 Method: Hand Auger / Trowel Monitor Reading (ppm): 0.0	0' to 2'	Dark Brown TO Brown	Silty Sand and Gravel (damp)

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
~~VOCs~~ PCBs MC 11/12/13	1 X 250 ml clear glass	1	—

OBSERVATIONS / NOTES:

Hand auger to sample depth
mixed soil with disposable Trowel
prior to sampling

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: **NWIRP Bethpage**
Project No.: 112G02230

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3042-0002
Sample Location: Site 1
Sampled By: vince shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 7-24-12 Time: 1602 Method: Hand Auger / Trowel Monitor Reading (ppm): 0.0	0' to 2'	Brown orange	Silty Sand and Gravel (dry to damp)

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
~~VOCs~~ PCBs MC 11/12/13	1 X 250 ml clear glass	2	

OBSERVATIONS / NOTES:

Hand auger to sample depth
mixed soil with disposable Trowel
prior to sampling

MAP:

Circle if Applicable:

MS/MSD: Yes

Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: **NWIRP Bethpage**
Project No.: 112G02230

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3043-0002
Sample Location: Site 1
Sampled By: vince shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 7-24-12 Time: 1545 Method: Hand Auger / Trowel Monitor Reading (ppm): 0.0	0' to 2'	Dark Brown to orange Brown	Silty Sand and Gravel (dry to damp)

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
~~VOCs~~ PCBs MC 11/12/13	1 X 250 ml clear glass	1	—

OBSERVATIONS / NOTES:

Hand auger to sample depth
mixed soil with disposable Trowel prior to sampling

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3044-0002
Sample Location: Site 1
Sampled By: vince shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 7-24-12 Time: 1430 Method: Hand Auger / Trowel Monitor Reading (ppm): 0.0	0' to 2'	Dark Brown To orange	Silty Sand and Gravel (dry to damp)

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
~~VOCs~~ PCBs MC 11/12/13	1 X 250 ml clear glass	1	—

OBSERVATIONS / NOTES:

Hand auger to sample depth
mixed soil with disposable Trowel prior to sampling

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3044-0205
Sample Location: BPS1-SB 3044
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-20-12	1240	2-3.25	Blk	F-M Sand some organics and gravel
Method:		3.25-5	Brn	Clayey F-M Sand tr. gravel
Mix in Plastic Bag				
Monitor Readings				
(Range in ppm):				
0.3-0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3044-0510
Sample Location: BPS1-SB 3044
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-20-12	1310	5-5.25	Brn	Clayey F-M sand tr. gravel
Method:		5.25-8.75	lt brn - tan	Gravely F-M sand and pebbles
Mix in Plastic Bag		8.75-9.25	tan	F-M sand tr. pebbles
Monitor Readings		9.25-10	lt brn	Gravely F-C sand and pebbles
(Range in ppm):				
0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.: 1200
—	BPS1-DP05-20120820

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3044-1015
Sample Location: BPS1-SB 3044
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
8-20-12	1317	16-10.25	light brn	Gravely F-C Sand and pebbles
Method:		10.25-11.75	tan	F-M Sand some gravel and pebbles
Mix in Plastic Bag		11.75-15	light brn	F-C Sand and pebbles some gravel
Monitor Readings				
(Range in ppm):				
0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3045-0002
Sample Location: BPS1-SB3045
Sampled By: J.Birkett / V. Shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 8-22-12 Time: 1104 Method: Hand Auger/Trowel Monitor Reading (ppm): 6.7	0' to 2' BGS	Dark Brown	Silty Sand and Gravel (moist)

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method: Mix in Plastic Bag				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	–

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3046-0002
Sample Location: BPS1-SB3046
Sampled By: J.Birkett / V. Shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 8-22-12 Time: 1120 Method: Hand Augers / Trowel Monitor Reading (ppm): 2.0	0' to 2' BGS	Brown	Silty Sand and Gravel (moist)

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method: Mix in Plastic Bag Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	–

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
–	–

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3047-0002
Sample Location: BPS1-SB 3047
Sampled By: J.Birkett / V. Shickosa
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 8-22-12 Time: 1140 Method: Hand Auger / Trowel Monitor Reading (ppm): 2.4	0' to 2' BGS	Dark Brown	Silty Sand and Gravel (moist to damp)

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method: Mix in Plastic Bag				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	–

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
–	–

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3048-0002
Sample Location: BPS1-SB 3048
Sampled By: J.Birkett / V. Shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 8-22-12 Time: 1043 Method: Hand Auger/Trowel Monitor Reading (ppm): 6.5	0' to 2' BGS	Dark Brown	Silty Sand and Gravel Trace Ash Frags (moist)

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method: Mix in Plastic Bag				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	—

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3049-0002
Sample Location: BPS1-SB 3049
Sampled By: J.Birkett / V. Shickora
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 8-22-12	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 0947	0' to 2' BGS	Tan Brown	Silty Sand and Gravel
Method: Hand Auger/Trowel			
Monitor Reading (ppm): 0.7			

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Mix in Plastic Bag				
Monitor Readings				
(Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	—

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3050-0002
Sample Location: BPS1-SB 3050
Sampled By: J.Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 8-22-12 Time: 1005 Method: Hand Auger/Trowel Monitor Reading (ppm): 0.6	0' to 2' BGS	Dark Brown	Silty Sand and Gravel Some ash Frags (moist)

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method: Mix in Plastic Bag				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	—

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3051-0002
Sample Location: BPS1-SB 3051
Sampled By: J.Birkett / V. Shickota
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 8-22-12 Time: 1023 Method: Hand Auger / Trowel Monitor Reading (ppm): 2.0	0' to 2' BGS	Brown	Silty Sand and Gravel (damp to moist)

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method: Mix in Plastic Bag				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3052-0002
Sample Location: BPS1-SB3052
Sampled By: J.Birkett / V. Shickora
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 8-22-12 Time: 0927 Method: Hand Auger/Trowel Monitor Reading (ppm): 1.4	0' to 2' BGS	Black to Dark Brown	Silty Sand and gravel (moist)

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method: Mix in Plastic Bag				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes (2)	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.: 0900 hrs
—	BPS1-DUP08-20120822

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3053-0002
Sample Location: BPS1-SB3053
Sampled By: J.Birkett / V. Shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 8-22-12 Time: 0910 Method: Hand Auger/Trowel Monitor Reading (ppm): 8.7	0' to 2' BGS	Dark Brown To Black	Silty Sand and Gravel (moist)

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method: Mix in Plastic Bag				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel
- very slight oil-like odor
- possible oil staining

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3054-0002
Sample Location: BPS1-SB3054
Sampled By: ~~J.Birkett~~ V. Shickora
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 8-22-12 Time: 0850 Method: Hand Auger / Trowel Monitor Reading (ppm): 5.8	0' to 2' BGS	Dark Brown TO Brown	Silty Sand and gravel (moist)

COMPOSITE SAMPLE DATA:

Date: NA	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method: Mix in Plastic Bag				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-ounce WM Jar	yes	

OBSERVATIONS / NOTES:

Composite sample interval in plastic bag and used disposable hand trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3054-0205
Sample Location: BPS1-SB 3054
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-26-13	1025	2-5	tan	F-C sand some gravel moist
Method: Disposable trowel and plastic bag				
Monitor Readings (Range in ppm): 0.1				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	BPS1-Dup03-20130226 1000

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3055-0002
Sample Location: BPS1-SB3055
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-26-13	1035	0-0.8	Blk	F-C Sand some pebbles tr. silt moist
Method: Disposable trowel and plastic bag		0.8-1.2	Dk Brn	F-M Sand and gravel moist
		1.2-2	Blk	F Sand and organics tr. pebbles moist
Monitor Readings (Range in ppm): 0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3055-0205
Sample Location: BPS1-SB 3055
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-26-13	1037	2-5	Brn	F-C sand and gravel moist
Method: Disposable trowel and plastic bag				
Monitor Readings (Range in ppm): 0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3056-0002
Sample Location: BPS1-SB3056
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-26-13	1045	0-1	DK Brn	F-C sand some gravel tr. silt Moist
Method: Disposable trowel and plastic bag		1-2	Blk	F-M sand and organics Moist
Monitor Readings (Range in ppm): 0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3057-0205
Sample Location: BPS1-SB 3057
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-26-13	1056	2-3	Dk Brn to Brn	Silty F-M sand some organics moist
Method:		3-5	lt brn to tan	F-C sand and gravel moist
Disposable trowel and plastic bag				
Monitor Readings				
(Range in ppm):				
0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	Yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s): J. Birkett

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3058-0002
Sample Location: BPS1-SB3058
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-26-13	1125	0-1.5	DKBROWN	F-M sand and organics some gravel
Method: Disposable trowel and plastic bag		1.5-2	BRN	F-C sand and gravel moist
Monitor Readings (Range in ppm): 0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	Yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3059-0002
Sample Location: BPS1-SB3059
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-26-13	1135	0-2	DkBrn to Blk	F-C sand and gravel tr to some silt and organics moist
Method: Disposable trowel and plastic bag				
Monitor Readings (Range in ppm): 0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	BPS1-Dup04-20130226 1100

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3060-1520
Sample Location: BPS1-SB3060
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-28-13	1333	15-20	tan to org-brn	F-C sand tr. pebbles and gravel moist
Method: Disposable trowel and plastic bag				
Monitor Readings (Range in ppm): 0-0.1				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3060-2025
Sample Location: BPS1-SB 3060
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-28-13	1345	20-23	tan to dk brn	F-C sand some pebbles and gravel moist
Method:		23-24	lt brn-org brn-dk brn	VF-F sand tr+ some silt moist
Disposable trowel and plastic bag		24-25	Brn	VF sandy silt
Monitor Readings (Range in ppm):				
0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3060-25 35
Sample Location: BPS1-SB 3060
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)	
3-1-13	0855	25-28.5	lt brn-brn-org brn	Alternating F-M sand and Silty VF sand	moist
Method: Disposable trowel and plastic bag		28.5-35	Brn Orange-lt brn	F-M Sand tr. pebbles and silt (Frags iron slag)	moist
Monitor Readings (Range in ppm): 0-0.4					

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	0800 BPS1-Dup07-20130301

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3060-3540
Sample Location: BPS1-SB3060
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
3-1-13	0910	35-40	tan - lt bra-org bra	F-M Sand tr. to some pebbles moist
Method: Disposable trowel and plastic bag				
Monitor Readings (Range in ppm): 0.1-0.2				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	Yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3061-1520
Sample Location: BPS1-SB 3061-
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-28-13	1120	15-20	lt brn	F-C Sand and pebbles some gravel moist
Method: Disposable trowel and plastic bag				
Monitor Readings (Range in ppm): 0-0.2				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	Yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

thin black layer at 18' (0.5" thick)

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s): J. Birkett

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3061-2025
Sample Location: BPS1-SB 3061
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-28-13	1130	20-25	lt brn to tan	F-C sand some pebbles and gravel moist
Method: Disposable trowel and plastic bag				
Monitor Readings (Range in ppm): 0.2-0.4				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3061-2535
Sample Location: BPS1-SB3061
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-28-13	1215	25-31.5	tan-lt brn-red-brn	alternating F-M sand and Silty VF sand varying thicknesses ↳moist ↳wet
Method: Disposable trowel and plastic bag		31.5-35	tan	F-C sand and pebbles some gravel moist
Monitor Readings (Range in ppm): 0-0.1				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	BPS1-Dup06-20130228

1015

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3061-3540
Sample Location: BPS1-SB 3061
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-28-13	1250	35-40	lt brn and dk brn	F-M sand tr. silt moist
Method: Disposable trowel and plastic bag				
Monitor Readings (Range in ppm): 0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	Yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3062-0002
Sample Location: BPS1-SB3062
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-28-13	0835	0-2	DK Brn + Brn	Top Soil and Sand moist
Method: Disposable trowel and plastic bag				F-M Sand some organics moist
Monitor Readings (Range in ppm): 0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3062-0205
Sample Location: BPS1-SB 3062
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-28-13	0837	2-5	lt brn	F-C sand to. C. sand and gravel moist
Method: Disposable trowel and plastic bag				
Monitor Readings (Range in ppm): 0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	Yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3062-0510
Sample Location: BPS1-SB 3062
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-28-13	0840	5-10	lt brn	F-C sand tr. to some pebbles and gravel moist
Method: Disposable trowel and plastic bag				
Monitor Readings (Range in ppm): 0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3062-1015
Sample Location: BPS1-SB 3062
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-28-13	0845	10-15	lt brn	Pebble + F-C sand some gravel Moist
Method: Disposable trowel and plastic bag				
Monitor Readings (Range in ppm): 0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	Yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3062-1520
Sample Location: BPS1-SB3062
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-28-13	0850	15-18	tan to lt brn	F-M sand some pebbles and gravel moist
Method: Disposable trowel and plastic bag		18-20	lt brn	Pebbles F-C sand some gravel
Monitor Readings (Range in ppm): 0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s): J. Birkett

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3062-2025
Sample Location: BPS1-SB 3062
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-28-13	0858	20-25	tan to lt bra	F-C sand some pebbles and gravel moist
Method: Disposable trowel and plastic bag				
Monitor Readings (Range in ppm): 0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3062-2536
Sample Location: BPS1-SB 3062
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-28-13	0935	25-26	tan	F-C sand some pebbles moist
Method:		26-28.5	lt brn	VF sand some F. sand (micaceous)
Disposable trowel and plastic bag		28.5-29.5	Brn	VF sandy silt some thin silt lenses
Monitor Readings		29.5-29.75	Brn/orange	F-M sand tr. silt
(Range in ppm):		29.75-30.25	Brn	VF sand some silt
		30.25-35	lt brn	F-C sand some pebbles and gravel
0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3062-3540
Sample Location: BPS1-SB 3062
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-28-13	1005	35-35.75	lt brn	F-C sand some pebbles moist
Method:		35.75-36.25	lt brn	VF sand some silt moist
Disposable trowel and plastic bag		36.25-40	tan to brn	F-C sand trace some pebbles tr. gravel moist
Monitor Readings (Range in ppm):				
0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

Hit refusal at 40'
-discontinue boring

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
yes	

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3063-0002
Sample Location: BPS1-SB3063
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-27-13	1144	0-0.7	Dk Brn	Top soil and organics wet
Method: Disposable trowel and plastic bag		0.7-2	Dk Brn	Organics w/ some F. sand wet
Monitor Readings (Range in ppm): 0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3063-0205
Sample Location: BPS1-SB 3063
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-27-13	1146	2-2.5	Brn	Sandy Clay and organics moist
Method: Disposable trowel and plastic bag		2.5-4	lt brn	Sandy Clay some sm. gravel
		4-5	lt brn	F-M sand and gravel
Monitor Readings (Range in ppm): 0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	Yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3063-0510
Sample Location: BPS1-SB3063
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-27-13	1153	5-10	tan	F-C sand some gravel Moist
Method: Disposable trowel and plastic bag				
Monitor Readings (Range in ppm): 0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3063-1015
Sample Location: BPS1-SB 3063
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-27-13	1200	10-15	lt brn to tan	F-M sand some gravel and pebbles moist
Method: Disposable trowel and plastic bag				
Monitor Readings (Range in ppm): 0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3063-1520
Sample Location: BPS1-SB 3063
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-27-13	1206	15-20	tan	F-M sand some gravel and pebbles moist
Method: Disposable trowel and plastic bag				
Monitor Readings (Range in ppm): 0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3063-2025
Sample Location: BPS1-SB3063
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-27-13	1213	20-25'	tan	F-M sand tr to some gravel/pebbles moist
Method: Disposable trowel and plastic bag				
Monitor Readings (Range in ppm): 0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	Yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3063-2535
Sample Location: BPS1-SB 3063
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-27-13	1300	25-35	Brn to tan	F-M sand some pebbles/gravel moist
Method: Disposable trowel and plastic bag				
Monitor Readings (Range in ppm): 0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	Yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3063-3545
Sample Location: BPS1-SB3063
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-27-13	1345	35-45	tan to Brn	F-M sand tr. gravel moist
Method: Disposable trowel and plastic bag				
Monitor Readings (Range in ppm): 0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle If Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3063-4550
Sample Location: BPS1-SB3063
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-27-13	1415	45-50	lt brn to tan	F sand some mica (moist)
Method: Disposable trowel and plastic bag				Few silt lens at 49'
Monitor Readings (Range in ppm): 0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3064-0205
Sample Location: BPS1-SB3064
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-26-13	1308	2-5	Brn to lt brn	F-C sand and gravel tr-silt moist
Method: Disposable trowel and plastic bag				
Monitor Readings (Range in ppm): 0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
yes	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3064-0510
Sample Location: BPS1-SB 3064
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-26-13	1313	5-10	lt brown	F-C sand and pebbles some gravel moist
Method: Disposable trowel and plastic bag				
Monitor Readings (Range in ppm): 0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3064-1015
Sample Location: BPS1-SB3064
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-26-13	1325	10-15	org brn to lt brn	F-M sand some pebbles tr. gravel moist
Method: Disposable trowel and plastic bag				
Monitor Readings (Range in ppm): 0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3064 - 1520
Sample Location: BPS1-SB 3064
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-26-13	1332	15-20	tand	F-M sand and gravel moist
Method: Disposable trowel and plastic bag				
Monitor Readings (Range in ppm): 0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3064-2025
Sample Location: BPS1-SB 3064
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-26-13	1338	20-25	tan	F-C sand some gravel moist
Method: Disposable trowel and plastic bag				
Monitor Readings (Range in ppm): 0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3064-2535
Sample Location: BPS1-SB3064
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-26-13	1410	25-35	tan to ltbrn	F-M sand tr to some pebbles tr. gravel moist
Method: Disposable trowel and plastic bag				
Monitor Readings (Range in ppm): 0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3064-3545
Sample Location: BPS1-SB3064
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-27-13	0922	35-38.9	tan to ltbrn	F-M sand tr to some gravel and pebbles moist
Method:		38.9-39	gray	Clay
Disposable trowel and plastic bag		39-43.3	tan w/brn specks	F-M sand tr. pebbles moist
Monitor Readings		43.3-43.8	Brn	Gravel and Silty sand moist
(Range in ppm):		43.8-45	tan	F-M sand tr. C. sand
0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD —

Duplicate ID No.: 0800
BPS1-Dup05-20130227

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3064-4547
Sample Location: BPS1-SB3064
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-27-13	1055	45-47	tan	F.M sand moist
Method: Disposable trowel and plastic bag				
Monitor Readings (Range in ppm): 0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD: yes

Duplicate ID No.: —

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3065-0205
Sample Location: BPS1-SB 3065
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-25-13	1402	2-5	Brn	F-C sand and gravel moist
Method: Disposable trowel and plastic bag				
Monitor Readings (Range in ppm): 0-0.1				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3065-0510
Sample Location: BPS1-SB 3065
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-25-13	1405	5-10'	tan to brn	F-C sand some gravel moist
Method: Disposable trowel and plastic bag				
Monitor Readings (Range in ppm): 0.1				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3065-1015
Sample Location: BPS1-SB3065
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-25-13	1411	10-15	tan	F-C sand some gravel moist
Method: Disposable trowel and plastic bag				
Monitor Readings (Range in ppm): 1.8-3.7				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3065-1520
Sample Location: BPS1-SB 3065
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-25-13	1421	15-20	tan	F-M sand tr to some gravel moist
Method: Disposable trowel and plastic bag				
Monitor Readings (Range in ppm): 0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	BPS1-Dup02-20130225 1600

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3065-2025
Sample Location: BPS1-SB 3065
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-25-13	1450	20-25	tan	F-C sand and gravel moist
Method: Disposable trowel and plastic bag				
Monitor Readings (Range in ppm): 0-0.1				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 ~~32~~ 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
yes	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3065-2535
Sample Location: BPS1-SB3065
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-25-13	1502	25-25.5	Brn	VF-F sand tr silt + M. sand moist
Method: Disposable trowel and plastic bag		25.5-26.25	Brn	Silty VF sand wet
		26.25-28	lt brn	F-M sand tr. pebbles moist
Monitor Readings (Range in ppm): 0-0.9		28-29	Brn	Silty F sand
		29-35	tan	F-M sand tr to some gravel/pebbles

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3065-3540
Sample Location: BPS1-SB 3065
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-26-13	0930	35-40	tan	F-M sand tr. gravel moist
Method: Disposable trowel and plastic bag				
Monitor Readings (Range in ppm): 0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3066-0002
Sample Location: BPS1-SB3066
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-25-13	1117	0-0.5	Blk + Brn	Organics and F-M sand and pebbles moist
Method: Disposable trowel and plastic bag		0.5-2	lt brn	F-C sand and sm-med pebbles tr gravel moist
Monitor Readings (Range in ppm): 0.4				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3066-0205
Sample Location: BPS1-SB 3066
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-25-13	1119	~~2-3~~ 5 2-5	tan to lt bin	F-C Sand and pebbles tr. gravel moist
Method: Disposable trowel and plastic bag				
Monitor Readings (Range in ppm): 0.6 - 0.7				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	Yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3066-0510
Sample Location: BPS1-SB 3066
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-25-13	1123	5-10	tan to brn	F-M sand tr. pebbles and gravel moist
Method: Disposable trowel and plastic bag				
Monitor Readings (Range in ppm): 0.3 - 8.8				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3066-1013
Sample Location: BPS1-SB 3066
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-25-13	1130	10-13	tan	F-C sand some pebbles tr. gravel moist
Method: Disposable trowel and plastic bag				
Monitor Readings (Range in ppm): 0-0.3				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3066-1315
Sample Location: BPS1-SB 3066
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-25-13	1132	13-15	Brn + Blk	F-C sand and gravel tr. silt moist [illegible]
Method: Disposable trowel and plastic bag				
Monitor Readings (Range in ppm): 0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3066-1520
Sample Location: BPS1-SB3066
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-25-13	1136	15-20	Brn	VF-M sand tr to some silt moist
Method: Disposable trowel and plastic bag				
Monitor Readings (Range in ppm): 0-0.1				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	Yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

Silt lens at 18' bgs

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	BPS1-Dup01-20130225 1200

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3066-2025
Sample Location: BPS1-SB 3066
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-25-13	1150	20-25'	tan-lt brn-lt gry	F-M sand tr. silt moist
Method: Disposable trowel and plastic bag				
Monitor Readings (Range in ppm): 0.4-57.6				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

Sample ID No.: BPS1-SB3067-0002
Sample Location: BPS1-SB3067
Sampled By: J. Birkett
C.O.C. No.:

(X) Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-25-13	1227	0-1.2	Brn	F-C sand some gravel tr. silt moist
Method: Disposable trowel and plastic bag		1.2-2	lt brn	F-C sand and gravel moist
Monitor Readings (Range in ppm): 103				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3067-0205
Sample Location: BPS1-SB3067
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-25-13	1229	2-5	lt brn	F-C sand and gravel moist
Method: Disposable trowel and plastic bag				
Monitor Readings (Range in ppm): 0.5-1.6				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3067-0510
Sample Location: BPS1-SB3067
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-25-13	1240	5-10	lt brn	F-M sand tr to some pebbles tr. gravel moist
Method: Disposable trowel and plastic bag				
Monitor Readings (Range in ppm): 0-0.3				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3067-1015
Sample Location: BPS1-SB 3067
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-25-13	1250	10-15'	tan to ltbrn	VF-C sand to some pebbles to gravel moist
Method: Disposable trowel and plastic bag				
Monitor Readings (Range in ppm): 0-2.5				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3067-1520
Sample Location: BPS1-SB 3067
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-25-13	1300	15-17.1	Dk brn to brn	F-C Sand and gravel moist
Method: Disposable trowel and plastic bag		17.1-18	lt brn	VF-F Sand some gravel moist
		18-20	lt brn	F-M sand tr. pebbles moist
Monitor Readings (Range in ppm): 0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3067-2025
Sample Location: BPS1-SB 3067
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-25-13	1305	20-25	tan to lt brn	F-M sand trace silt and pebbles moist
Method: Disposable trowel and plastic bag				
Monitor Readings (Range in ppm): 0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[X] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3068-0002
Sample Location: BPS1-SB3068
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-25-13	0942	0-0.75	Brn/Blk	F-M sand tr. pebbles and organics moist
Method: Disposable trowel and plastic bag		0.75-2	lt brn to tan	F-M sand tr. pebbles and gravel
Monitor Readings (Range in ppm): 0.3				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3068-0205
Sample Location: BPS1-SB 3068
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-25-13	0945	2-5'	tan	F-M sand tr. pebbles and gravel moist
Method: Disposable trowel and plastic bag				
Monitor Readings (Range in ppm): 0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	Yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[x] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3068-0510
Sample Location: BPS1-SB 3068
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-25-13	0955	5-10'	lt brn to dk brn	F-C sand some gravel tr. silt moist
Method: Disposable trowel and plastic bag				
Monitor Readings (Range in ppm): 0.4-1.6				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle If Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3068-1015
Sample Location: BPS1-SB 3068
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-25-13	1005	10-11.2	Brn	Silty F-M sand tr. pebbles and gravel moist
Method: Disposable trowel and plastic bag		11.2-12.5	lt brn	F-M sand tr. sm. pebbles moist
		12.5-12.8	lt brn	Silty F-M sand moist
Monitor Readings (Range in ppm):		12.8-15'	tan to lt brn	F-M sand tr. C. sand
0.6-5.2				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3068-1520
Sample Location: BPS1-SB3068
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-25-13	1020	15-16.2	tan	F-M Sand tr. C. Sand and clay wet
Method: Disposable trowel and plastic bag		16.2-16.5	gray	Clay
		16.5-20	lt gray	F-M sand wet
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3069-0002
Sample Location: BPS1-SB3069
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-25-13	0857	0-1.1	lt brown	F-M sand some C. Sand moist
Method: Disposable trowel and plastic bag		1.1-1.5	Dk brown	Silty F-M sand w/organics moist
		1.5-2'	lt brown	F-M sand and sm. pebbles moist
Monitor Readings (Range in ppm): 0.3				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	Yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3069-0205
Sample Location: BPS1-SB3069
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-25-13	0900	2-3.5	lt brown	F-M sand and sm. pebbles moist
Method: Disposable trowel and plastic bag		3.5-5	tan	F-M sand tr sm-lg pebbles moist
Monitor Readings (Range in ppm): 0.3-6.8				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	Yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3069-0510
Sample Location: BPS1-SB 3069
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-25-13	0905	5-5.5	tan to lt brn	F-M sand moist
Method:		5.5-6.25	~~dk brn to~~ SB lt brn	Crushed rock and sand moist
Disposable trowel and plastic bag		6.25-9	dk brn to lt brn	F-C sand and pebbles tr. silt moist
Monitor Readings		9-10	tan	F-M Sand moist
(Range in ppm):				
0-1.1				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3069-1015
Sample Location: BPS1-SB3069
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-25-13	0910	10-14.2	tan	F-M sand moist
Method: Disposable trowel and plastic bag		14.2-15	gray	Clay wet
Monitor Readings (Range in ppm): 0-2.4				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	Yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3069-1520
Sample Location: BPS1-SB3069
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
2-25-13	0935	15-20	lt gray	F-M sand wet
Method: Disposable trowel and plastic bag				
Monitor Readings (Range in ppm): 0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited sample with plastic bag and disposable trowel

MAP:

Circle If Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3070-2527
Sample Location: BPS1-SB3070
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date: 6-7-13	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
	0730	25-25.25'	light brn	F. sand some silt moist
Method: Hand Trowel, Split Spoon and Plastic Bag		25.25-26.5'	light brn	VF sand some silt wet
		26.5-27	light brn	F-M sand tr. silt moist
Monitor Readings (Range in ppm): 0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited 25-27' interval

No recovery from 20-25' so split 25-30' interval into two samples

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3070-2830
Sample Location: BPS1-SB3070
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
6-7-13	0738	28-30'	light brn	F-M Sand Moist
Method: Hand Trowel, Split Spoon and Plastic Bag				
Monitor Readings (Range in ppm): 0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited 28-30' split spoon

No recovery in 20-25' interval, ~~to~~ split 25-30' interval into two samples

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3070-3035
Sample Location: BPS1-SB 3070
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
6-7-13	0800	30-30.5'	light brn	F-M sand tr. silt moist
Method: Hand Trowel, Split Spoon and Plastic Bag		30.5-32'	tan to lt brn	F-C sand and gravel moist
		33-35'	light brn	F-M sand some pebbles and gravel moist
Monitor Readings (Range in ppm): 0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited 30-32' and 33-35' intervals

MAP:

Circle if Applicable:

MS/MSD —

Duplicate ID No.: 1000
BPS1-DupC2-20130607

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3070-3540
Sample Location: BPS1-SB 3070
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
6-7-13	0815	35-35.5'	light brn to brn	F-M sand some gravel/pebbles tr. silt moist
Method: Hand Trowel, Split Spoon and Plastic Bag		35.5-37'	light brn to tan	F-M sand moist
		38-40'	light brn to tan	F-M sand moist
Monitor Readings (Range in ppm): 0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited 35-37' and 38-40' intervals

Iron concretions at 35.5' bgs

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3071-2025
Sample Location: BPS1-SB3071
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
6-7-13	0942	21-23'	lt brn to tan	F-M sand some gravel /pebbles moist
Method: Hand Trowel, Split Spoon and Plastic Bag				
Monitor Readings (Range in ppm): 0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composite 21-23' interval

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3071-2530
Sample Location: BPS1-SB 3071
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
6-7-13	1007	25-25.3'	tan	F-M sand tr. silt moist
Method: Hand Trowel, Split Spoon and Plastic Bag		25.3-27'	lt brn	Silty VF sand moist to wet
		28-28.2'	lt brn	F-M sand tr. silt moist
Monitor Readings		28.2-28.9'	tan	Silty VF sand moist to wet
(Range in ppm):		28.9-29.5'	org brn	F-M sand tr. pebbles moist
0.0		29.5'-29.75'	lt brn	Silty VF sand moist to wet
		29.75-30	tan	F-M sand moist

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited 25-27' and 28-30' intervals

Perched water

MAP:

Circle if Applicable:

MS/MSD —

Duplicate ID No.: 1200
BPS1-Dup03-20130607

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3071-3035
Sample Location: BPS1-SB 3071
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
6-7-13	1035	30-30.5'	light brn	Silty VF Sand moist to wet
Method: Hand Trowel, Split Spoon and Plastic Bag		30.5-32'	lt brn to tan	F-C Sand and gravel moist
		33-35'	lt brn to tan	F-M Sand tr. pebbles moist
Monitor Readings (Range in ppm): 0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	Yes	

OBSERVATIONS / NOTES:

Composited 30-32' and 33-35' intervals

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3071-3540
Sample Location: BPS1-SB 3071
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
6-7-13	1050	35-36.5'	lt brn	F-M sand tr. pebbles moist
Method: Hand Trowel, Split Spoon and Plastic Bag		36.5-37'	tan	F-M sand some gravel/pebbles moist
		38-40'	lt brn w/brn spots	F-M sand some gravel/pebbles moist
Monitor Readings (Range in ppm):				
0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited 35-37' and 38-40' intervals

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
yes	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3072-2025
Sample Location: BPS1-SB3072
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
6-6-13	0923	22-22.75'	light brn	F-C sand some sm pebbles tr. sm gravel moist
Method: Hand Trowel, Split Spoon and Plastic Bag		22.75-24'	light brn	F-M sand some sm-md gravel and pebbles tr. silt moist
Monitor Readings (Range in ppm): 0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composite 22-24' interval

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3072-2530
Sample Location: BPS1-SB 3072
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date: 6-6-13	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
	1005	25-25.25'	light brown	F. sand tr. M sand moist
Method: Hand Trowel, Split Spoon and Plastic Bag		25.25-26.9'	Brn	VF-F sand tr. silt wet
		26.9-27'	light brn	F sand some M sand moist
Monitor Readings (Range in ppm): 0-1.3		28-30'	light brn to org brn	F-M sand tr. to some sm gravel moist

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited 25-27' and 28-30' bgs intervals

perched water at 25.25-26.9' bgs

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3072-3035
Sample Location: BPS1-SB 3072
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
6-6-13	1030	30-30.5'	orange brown	F-M sand tr. gravel and pebbles moist
Method: Hand Trowel Split Spoon and Plastic Bag		30.5-31'	white	Crushed rock moist/dry
		31-32'	light brn	F-M sand some C. sand very few pebbles moist
Monitor Readings		33-33.6'	Brn	F-M sand some gravel tr. silt moist
(Range in ppm):		33.6-33.9'	white	Crushed rock dry
0-0.2		33.9-34'	lt brn w/brn spots	F-M sand tr. pebbles and silt moist

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Some iron Concretions
Composite sample From 30-32' and 33-35' bgs

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3072-3540
Sample Location: BPS1-SB3072
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
6-6-13	1050	35-37'	light bin w/ bin spots	F-M sand tr. to some gravel (iron concretions) moist
Method: Hand Trowel, Split Spoon and Plastic Bag		38-39.5'	light bin w/ bin spots	F-M sand tr. to some gravel tr. silt moist
		39.5-40'	tan	F-M sand moist
Monitor Readings (Range in ppm): 0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composite sample 35-37' and 38-40' intervals

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3073-4045
Sample Location: BPS1-SB3073
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 6-4-	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
6-4-13	1015	41-43	lt brn to tan	F sand tr. to some M. sand tr. silt moist
Method: Hand Trowel, Split Spoon and Plastic Bag				
Monitor Readings (Range in ppm): —				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited 41-43' interval from splitspoon
No PID reading (malfunctioning)
No stains or odors

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
yes	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3073-4550
Sample Location: BPS1-SB 3073
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
6-4-13	1106	46-48'	tan to lt brn	F sand tr. M sand very little silt
Method: Hand Trowel, Split Spoon and Plastic Bag				moist to wet
Monitor Readings (Range in ppm):				
—				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited 46-48' bgs interval from split spoon
PID is malfunctioning (no readings)
No stains or odors

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3073-5055
Sample Location: BPS1-SB3073
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
6-4-13	1335	53-55' bgs	light tan	F-M sand tr. C. sand wet
Method: Hand Trowel, Split Spoon and Plastic Bag				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited 53-55' bgs from split spoon
Made attempts to collect 51-53 and 52-54' bgs intervals but split spoon cutting shoe fell off and lodged in auger cutting head
No PID readings (malfunctioning)
No stains or odors

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3073-5560
Sample Location: BPS1-SB3073
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
6-4-13	1355	55-57'	lt. tan	F-M sand tr. C. sand w/mica wet
Method: Hand Trowel, Split Spoon and Plastic Bag		58-60'	light tan	M sand some C. sand w/mica wet
Monitor Readings (Range in ppm): —				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited 55-57 and 58-60' intervals from split spoons
No PID readings (malfunctioning)
No stains or odors

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3073-6065
Sample Location: BPS1-SB 3073
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
6-4-13	1410	62-62.4	light tan	F-M Sand tr. C. Sand and mica wet
Method: Hand Trowel, Split Spoon and Plastic Bag		62.4-62.6	light gray	Clay wet
		62.6-64	light brn w/ brn spots	F-M Sand some C. Sand tr. silt wet
Monitor Readings (Range in ppm): —				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	Yes	

OBSERVATIONS / NOTES:

Composited sample from 62-64' bgs from split spoon
No PID readings (malfunctioning)
No stains or odors

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3074-4045
Sample Location: BPS1-SB3074
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
6-5-13	1110	42-44'	light tan	F sand tr. M sand moist
Method: Hand Trowel, Split Spon and Plastic Bag				
Monitor Readings				
(Range in ppm):				
0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited Split spoon from 42-44' bgs

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB 3074-4550
Sample Location: BPS1-SB 3074
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
6-5-13	1140	45-47	tan to light tan	F sand tr. M sand and silt moist
Method: Hand Trowel, Split Spoon, and Plastic Bag		47-48-49	light tan to tan	F sand tr. M sand and silt moist
		~~48-48.25~~	gray	Silt some clay moist
Monitor Readings (Range in ppm): 0-1.3		6-5-13 ~~48.25~~ 49.25-50	lt brn	F-M sand tr. silt

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	Yes	

OBSERVATIONS / NOTES:

Composited split spoons from 45-47' and 48-50' bgs

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3074-5055
Sample Location: BPS1-SB3074
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
6-5-13	1305	50-51'	light gray + lt brn	F-M sand tr. to some silt moist
Method: Hand Trowel, Split Spoon and Plastic Bag		51-51.3'	light gry + lt brn	Silty VF sand some clay
		51.3-52'	tan to light tan	F-C sand (micaceous) Moist
Monitor Readings (Range in ppm): 0-0		53-55'	lt brn to tan	F-M sand some C. sand tr. silt moist wet

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited 50-52' and 53-55' split spoons
Water table at 54' bgs
Clay lens at 51.75' (1" thick)

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	BPS1-Dup01-20130605 1200

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3074-5560
Sample Location: BPS1-SB3074
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
6-5-13	1330	55-55.75'	tan	F-C sand tr. silt wet
Method: Hand Trowel, Split Spoon and Plastic Bag		55.75-57.	lt tan	F-M sand wet
		58-59.25'	tan	F-M sand tr. silt wet
Monitor Readings (Range in ppm): 0.0		59.25-60'	lt brown	F-C sand some silt wet

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composite 55-57' and 58'-60' split spoons

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project No.: 112G02230

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: BPS1-SB3074-6065
Sample Location: BPS1-SB 3074
Sampled By: J. Birkett
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
6-5-13	1415	62-64'	lt tan to tan	F-M sand tr. C. sand Wet very little silt
Method: Hand Trowel, Split Spoon and Plastic Bag				
Monitor Readings (Range in ppm): 0 - 0.1				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 8-oz glass jar	yes	

OBSERVATIONS / NOTES:

Composited 62-64' Split spoon sample

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

Tetra Tech

QA SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1
Project Number: 112602230
Sample Location: Site 1
QA Sample Type:

Sample ID Number: BPS1-RB01-072512
Sampled By: VAS
C.O.C. Number:

[] Trip Blank
[] Source Water Blank
[X] Rinsate Blank
[] Other Blank

SAMPLING DATA:

Date: 7-25-12
Time: 1312
Method: Direct pour

WATER SOURCE:

[] Laboratory Prepared
[X] Purchased
[] Other
[] Tap
[] Fire Hydrant

PURCHASED WATER INFORMATION (If Applicable as Source or Rinsate Water):

Product Name: NERL Reagent Grade Water
Supplier: Scientific Sales Inc.
Manufacturer: Thermo Scientific
Order Number: 1080900
Lot Number: 059169
Expiration Date: 7-31-12

RINSATE INFORMATION (If Applicable):

Media Type: Surface Soil
Equipment Used: Hand Auger
Equipment Type:
[] Dedicated
[X] Reusable

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
~~VOCs~~ (VAS)	4°C	2 x 1 liter Ambers	✓
PCBs			

OBSERVATIONS / NOTES:

Signature(s):

Tetra Tech

QA SAMPLE LOG SHEET

Project Site Name: NWIRP Beth. Site 1
Project Number: 112G02230
Sample Location: Site 1
QA Sample Type:

Sample ID Number: BPS1-RB02-20120822
Sampled By: J.Birkett
C.O.C. Number:

[] Trip Blank
[] Source Water Blank
[X] Rinsate Blank
[] Other Blank

SAMPLING DATA:

Date: 8-22-12
Time: 1215
Method: Pour over equipment into jar

WATER SOURCE:

[] Laboratory Prepared
[X] Purchased
[] Other
[] Tap
[] Fire Hydrant

PURCHASED WATER INFORMATION (If Applicable as Source or Rinsate Water):

Product Name: NERL Reagent Grade Water
Supplier: Scientific Sales, Inc.
Manufacturer: Thermo Scientific
Order Number: 1080900
Lot Number: 059169
Expiration Date: 7-31-12

RINSATE INFORMATION (If Applicable):

Media Type: Soil
Equipment Used: Hand auger
Equipment Type:
[] Dedicated
[X] Reusable

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
PCBs	Cool 4°C	2 1-Liter amber glass jars	Yes

OBSERVATIONS / NOTES:

Deconed auger w/ liquinox scrub, and steam jenny

Signature(s):

Tetra Tech NUS, Inc.

QA SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project Number: 112G02230
Sample Location: SB3021
QA Sample Type:

[] Trip Blank
[] Source Water Blank
[X] Rinsate Blank
[] Other Blank

Sample ID Number: BPS1-RB03-20120828
Sampled By:
C.O.C. Number:

SAMPLING DATA:

Date: 8-29-12
Time: 0805
Method: Direct pour

WATER SOURCE:

[] Laboratory Prepared
[X] Purchased
[] Other
[] Tap
[] Fire Hydrant

PURCHASED WATER INFORMATION (If Applicable as Source or Rinsate Water):

Product Name: NERL Reagent Water
Supplier:
Manufacturer:
Order Number:
Lot Number:
Expiration Date: July - 2012

RINSATE INFORMATION (If Applicable):

Media Type: Soils
Equipment Used: Macrocore Sampler
Equipment Type:
[] Dedicated
[X] Reusable

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
Volatiles	Cool 4°C & HCl		YES / NO
Semivolatiles	Cool 4°C		YES / NO
Pesticide / PCB	Cool 4°C		YES / NO
Metals	Cool 4°C & HNO_3		YES / NO
Cyanide	Cool 4°C & NaOH		YES / NO
PCBs	Cool 4°C	2 x 1 Liter Amber	(YES)

OBSERVATIONS / NOTES:

- water poured over clean macrocore sampler directly into sample bottles

Signature(s):

Tetra Tech

QA SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project Number: 112G02230
Sample Location: SB3025
QA Sample Type:

Sample ID Number: BPS1-RB-20121106
Sampled By: J. Birke
C.O.C. Number:

[] Trip Blank
[] Source Water Blank
[X] Rinsate Blank
[] Other Blank

SAMPLING DATA:

Date: 11-6-12
Time: 1115
Method: Pour over split spoon into bottle

WATER SOURCE:

[] Laboratory Prepared
[X] Purchased
[] Other
[] Tap
[] Fire Hydrant

PURCHASED WATER INFORMATION (If Applicable as Source or Rinsate Water):

Product Name: NERL Reagent Water
Supplier: Scientific Sales, Inc
Manufacturer: Fisher Diagnostics Thermo Scientific
Order Number:
Lot Number: 059169
Expiration Date: 2012-07

RINSATE INFORMATION (If Applicable):

Media Type: Aqueous
Equipment Used: Split Spoon (Deconed)
Equipment Type:
[] Dedicated
[X] Reusable

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
Volatiles	Cool 4°C & HCl		YES / NO
Semivolatiles	Cool 4°C		YES / NO
Pesticide / PCB	Cool 4°C	2 1 L Amber bottles	YES / NO
Metals	Cool 4°C & HNO_3		YES / NO
Cyanide	Cool 4°C & NaOH		YES / NO

OBSERVATIONS / NOTES:

Deconed split spoon w/ alconox scrub, water rinse, isopropanol spray, and water rinse

Signature(s):

Tetra Tech

QA SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site1
Project Number: 112G02230
Sample Location: SB302C
QA Sample Type:

Sample ID Number: BPS1-RB-20121114
Sampled By: J Birkett
C.O.C. Number:

[] Trip Blank
[] Source Water Blank
[X] Rinsate Blank
[] Other Blank

SAMPLING DATA:

Date: 11-14-12
Time: 1130
Method: Pour over clean Split Spoon into bottle

WATER SOURCE:

[] Laboratory Prepared
[] Purchased
[] Other
[] Tap
[] Fire Hydrant

PURCHASED WATER INFORMATION (If Applicable as Source or Rinsate Water):

Product Name: NERL Reagent Grade Water
Supplier: Scientific Sales, Inc
Manufacturer: Fisher Diagnostics
Order Number:
Lot Number: 059169
Expiration Date: 7-2012

RINSATE INFORMATION (If Applicable):

Media Type:
Equipment Used:
Equipment Type:
[] Dedicated
[] Reusable

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
Volatiles	Cool 4°C & HCl		YES / NO
Semivolatiles	Cool 4°C		YES / NO
~~Pesticide~~ / PCB	Cool 4°C	2 1-L Amber glass bottles	YES / NO
Metals	Cool 4°C & HNO_3		YES / NO
Cyanide	Cool 4°C & NaOH		YES / NO

OBSERVATIONS / NOTES:

Deconed split spoon w/ alconox scrub, water rinse, isopropanol spray, and D.I. water spray before sampling

Signature(s):

Tetra Tech

QA SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project Number: 112G02230
Sample Location: SB3062
QA Sample Type:

Sample ID Number: BPS1-RB01-20130228
Sampled By: J. Birkett
C.O.C. Number:

[] Trip Blank
[] Source Water Blank
[X] Rinsate Blank
[] Other Blank

SAMPLING DATA:

Date: 2-28-13
Time: 0825
Method: Direct pour over equip into bottle

WATER SOURCE:

[] Laboratory Prepared
[X] Purchased
[] Other
[] Tap
[] Fire Hydrant

PURCHASED WATER INFORMATION (If Applicable as Source or Rinsate Water):

Product Name: NERL Reagent Grade Water
Supplier: Fisher Scientific
Manufacturer: Thermo Scientific
Order Number:
Lot Number: 253719
Expiration Date: 2013-12

RINSATE INFORMATION (If Applicable):

Media Type: Aqueous
Equipment Used: Macrocore liner and cutting shoe
Equipment Type:
[X] Dedicated
[X] Reusable

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
Volatiles	Cool 4°C & HCl	—	YES / NO
Semivolatiles	Cool 4°C	—	YES / NO
~~Pesticide~~ / PCB	Cool 4°C	2 1-L Amber bottle	YES / NO
Metals	Cool 4°C & HNO_3	—	YES / NO
Cyanide	Cool 4°C & NaOH	—	YES / NO

OBSERVATIONS / NOTES:

Macrocore liner and cutting shoe (deconed)

Signature(s):

Tetra Tech

QA SAMPLE LOG SHEET

Project Site Name: Bethpage Site 1
Project Number: 112G02230
Sample Location: Site 1
QA Sample Type:

Sample ID Number: BPS1-FB01-072512
Sampled By: VAS
C.O.C. Number:

[] Trip Blank
[X] Source Water Blank
[] Rinsate Blank
[] Other Blank

SAMPLING DATA:

Date: 7-24-12
Time: 1317
Method: Direct Pour

WATER SOURCE:

[] Laboratory Prepared
[] Purchased
[] Other
[X] Tap
[] Fire Hydrant

PURCHASED WATER INFORMATION (If Applicable as Source or Rinsate Water):

Product Name:
Supplier:
Manufacturer:
Order Number:
Lot Number:
Expiration Date:

RINSATE INFORMATION (If Applicable):

Media Type:
Equipment Used:
Equipment Type:
[] Dedicated
[] Reusable

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
PCBs	4°C	2 1-L Amber glass bottles	yes

OBSERVATIONS / NOTES:

Signature(s): for VAS

Tetra Tech

QA SAMPLE LOG SHEET

Project Site Name: NWIRP Beth. Site 1
Project Number: 112G02230
Sample Location: Site 1
QA Sample Type:

[] Trip Blank
[X] Source Water Blank

Sample ID Number: BPS1-FB02-20120822
Sampled By: J.Birkett / US
C.O.C. Number:

[] Rinsate Blank
[] Other Blank

SAMPLING DATA:

Date: 8-22-12
Time: 1220
Method: Direct Fill

WATER SOURCE:

[] Laboratory Prepared
[X] Purchased
[] Other
[] Tap
[] Fire Hydrant

PURCHASED WATER INFORMATION (If Applicable as Source or Rinsate Water):

Product Name: NERL Reagent Grade Water
Supplier: Scientific Sales, Inc.
Manufacturer: Thermo Scientific
Order Number: 1080900
Lot Number: 059169
Expiration Date: 7-31-12

RINSATE INFORMATION (If Applicable):

Media Type:
Equipment Used:
Equipment Type:
[] Dedicated
[] Reusable

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
PCBs	Cool 4°C	2 1-Liter amber glass jars	yes

OBSERVATIONS / NOTES:

Signature(s):

Tetra Tech

QA SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project Number: 112G02230
Sample Location: SB3025
QA Sample Type:

Sample ID Number: BPS1-FB-20121106
Sampled By: J. Birkett
C.O.C. Number:

[] Trip Blank
[X] Source Water Blank
[] Rinsate Blank
[] Other Blank

SAMPLING DATA:

Date: 11-6-12
Time: 1130
Method: Direct pour

WATER SOURCE:

[] Laboratory Prepared
[X] Purchased
[] Tap
[] Fire Hydrant
[] Other

PURCHASED WATER INFORMATION (If Applicable as Source or Rinsate Water):

Product Name: NERL Reagent Water
Supplier: Scientific Sales Inc
Manufacturer: Fisher Diagnostics Thermo Scientific
Order Number:
Lot Number: 059169
Expiration Date: 2012-07

RINSATE INFORMATION (If Applicable):

Media Type:
Equipment Used:
Equipment Type:
[] Dedicated
[] Reusable

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
Volatiles	Cool 4°C & HCl		YES / NO
Semivolatiles	Cool 4°C		YES / NO
Pesticide / PCB	Cool 4°C	2 1L Amber bottles	YES / NO
Metals	Cool 4°C & HNO_3		YES / NO
Cyanide	Cool 4°C & NaOH		YES / NO

OBSERVATIONS / NOTES:

Signature(s):

Tetra Tech

QA SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project Number: 112G02230
Sample Location: SB3027
QA Sample Type:

Sample ID Number: BPS1-FB-20121113
Sampled By: J. Birkett
C.O.C. Number:

[] Trip Blank
[] Source Water Blank
[] Rinsate Blank
[X] Other Blank Field Blank

SAMPLING DATA:

Date: 11-13-12
Time: 1000
Method: Direct pour

WATER SOURCE:

[] Laboratory Prepared
[] Purchased
[] Other
[] Tap
[X] Fire Hydrant Outside NWIRP Bethpage

PURCHASED WATER INFORMATION (If Applicable as Source or Rinsate Water):

Product Name:
Supplier:
Manufacturer:
Order Number:
Lot Number:
Expiration Date:

RINSATE INFORMATION (If Applicable):

Media Type:
Equipment Used:
Equipment Type:
[] Dedicated
[] Reusable

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
Volatiles	Cool 4°C & HCl		YES / NO
Hex Chrom	Cool 4°C		YES / NO
PCB	Cool 4°C	2 1 L amber bottles	YES / NO
Metals	Cool 4°C & HNO_3		YES / NO

OBSERVATIONS / NOTES:

Signature(s):

Tetra Tech

QA SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project Number: 112G02230
Sample Location: SB3062
QA Sample Type:

Sample ID Number: BPS1-FB01-20130228
Sampled By: SB
C.O.C. Number:

[] Trip Blank
[X] Source Water Blank
[] Rinsate Blank
[] Other Blank

SAMPLING DATA:

Date: 2-28-13
Time: 0730
Method: Direct pour

WATER SOURCE:

[] Laboratory Prepared
[X] Purchased
[] Other
[] Tap
[] Fire Hydrant

PURCHASED WATER INFORMATION (If Applicable as Source or Rinsate Water):

Product Name: NERL Reagent Grade Water
Supplier: Fisher Diagnostic
Manufacturer: Thermo Scientific
Order Number:
Lot Number: 25 3719
Expiration Date: 2013-12

RINSATE INFORMATION (If Applicable):

Media Type:
Equipment Used:
Equipment Type:
[] Dedicated
[] Reusable

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
Volatiles	Cool 4°C & HCl	—	YES / NO
Semivolatiles	Cool 4°C	—	YES / NO
~~Pesticide~~ / PCB	Cool 4°C	2 1-L Amber bottles	YES / NO
Metals	Cool 4°C & HNO_3	—	YES / NO
Cyanide	Cool 4°C & NaOH	—	YES / NO

OBSERVATIONS / NOTES:

Signature(s):

Tetra Tech

QA SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage
Project Number: 112G02230
Sample Location: SB3073
QA Sample Type:

Sample ID Number: BPS1-RB-20130605
Sampled By: J. Birkett
C.O.C. Number:

[] Trip Blank
[] Source Water Blank
[X] Rinsate Blank
[] Other Blank

SAMPLING DATA:

Date: 6-5-13
Time: 0815
Method: Direct Pour over equip. into bottle

WATER SOURCE:

[] Laboratory Prepared
[X] Purchased
[] Other
[] Tap
[] Fire Hydrant

PURCHASED WATER INFORMATION (If Applicable as Source or Rinsate Water):

Product Name: NERL Reagent Grade water
Supplier: Scientific Sales Inc.
Manufacturer: Thermo Scientific
Order Number: 9600-5
Lot Number: 253719
Expiration Date: 12-2013

RINSATE INFORMATION (If Applicable):

Media Type: A.
Equipment Used: Split Spoon (Deconned)
Equipment Type:
[] Dedicated
[X] Reusable

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
Volatiles	Cool 4°C & HCl	—	YES / NO
Semivolatiles	Cool 4°C	—	YES / NO
~~Pesticide~~ / PCB	Cool 4°C	2 1-liter amber bottles	YES / NO
Metals	Cool 4°C & HNO_3	—	YES / NO
Cyanide	Cool 4°C & NaOH	—	YES / NO

OBSERVATIONS / NOTES:

Used clean split spoon after use at SB3063 and ran water through split spoon to fill bottles

Signature(s):

Tetra Tech

QA SAMPLE LOG SHEET

Project Site Name: NWIRP Bethpage Site 1
Project Number: 112G02230
Sample Location: SB3073
QA Sample Type:

Sample ID Number: BPS1-FB-20130605
Sampled By: J. Birkett
C.O.C. Number:

[] Trip Blank
[] Source Water Blank
[] Rinsate Blank
[X] Other Blank Field Blank

SAMPLING DATA:

Date: 6-5-13
Time: 0800
Method: Direct Pour

WATER SOURCE:

[] Laboratory Prepared
[X] Purchased
[] Other
[] Tap
[] Fire Hydrant

PURCHASED WATER INFORMATION (If Applicable as Source or Rinsate Water):

Product Name: NERL Reagent Grade Water
Supplier: Scientific Sales Inc
Manufacturer: Thermo Scientific
Order Number: 9600-5
Lot Number: 253719
Expiration Date: 12-2013

RINSATE INFORMATION (If Applicable):

Media Type:
Equipment Used:
Equipment Type:
[] Dedicated
[] Reusable

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
Volatiles	Cool 4°C & HCl	—	YES / NO
Semivolatiles	Cool 4°C	—	YES / NO
~~Pesticide~~ / PCB	Cool 4°C	2 1-liter amber bottles	YES / NO
Metals	Cool 4°C & HNO_3	—	YES / NO
Cyanide	Cool 4°C & NaOH	—	YES / NO

OBSERVATIONS / NOTES:

Signature(s):

C.4 BORING LOGS

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 6620DT

BORING No.: BPS1-SB3013 (A and B)
DATE: 8-21-12
GEOLOGIST: J. Birkett
DRILLER: L. Caballero

	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
		0												
0820	S-1			36/36		m. dense	DK Brn	Top Soil, Sand, Gravel		Hard clear to 5' bgs	0	0	0	0
						m. dense	Brn	F-M sand some F organics and sm-large gravel		moist				
						m. dense	Gry/Brn	Gravel and Sand			0	0	0	0
						hard	gry	Concrete (crushed)		Did not sample				
		5								3-5' interval No PCB sample from 2-5'	0	0	0	0
0841	S-2			36/60		hard	gray			Dry	0.1	0	0	0
						but crushed				0850 BPS1-SB3013-0510				
										Dry	0.3	0	0	0
		10								Dry Hit refusal at 10' bgs	0.3	0	0	0
0935	S-3			28/60		m. dense	lt brn	F-M sand and gravel sm-large (1"ϕ)		move 20' NW mark locations SB3013B	0.1	0	0	0
						m. dense dense	BLK lt brn	F-M sand tr. pebbles sm-large (>1"ϕ) F-M sand and gravel		Hit refusal at 10' at 3013B move 15' for 3013C				
								Some crushed rock		0945 BPS1-SB3013-1015	0.3	0	0	0
						m. dense	tan							
		15								moist	0.2	0	0	0
0950	S-4			29/60		m. dense	tan	F-C sand some pebbles tr. gravel		moist	0.1	0	0	0
							to light brn	crush rock in areas						
										moist	0	0	0	0
		20								moist	0	0	0	0
0956	S-5			33/60		loose	light brn	F-C sand some pebbles tr. gravel		moist	0.1	0	0	0
										moist	0.1	0	0	0
		25								moist	0.1	0	0	0

A

C

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks: Dual Tube set up using 3½" OD outer rods w/ 1½" OD inner rods Macrocore liner 1½" by 5'

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 6620DT

BORING No.: BPS1-SB3013
DATE: 8-21-12
GEOLOGIST: J. Birkett
DRILLER: L. Caballero

	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		25												
1000	S-6			26/60"		m.dense	lt brn	F-M sand tr. sm. pebbles and silt		moist	0.1	0	0	0
						↓	↓	↓ ↓						
						dense	Brn	Iron concretion (Sand)		Moist	0	0	0	0
						m.dense	tan	F-M sand tr. C. sand						
		30				↓		↓ ↓		moist	0	0	0	0
1008	S-7			30/60"		m.dense	tan	F-M sand tr. pebbles		moist	0.4			
						↓	↓	↓ ↓		BPS1-SB3013-2535 1039				
						dense	Brown	F-M sand some sm-med gravel		Iron staining concretions	0.1	0	0	0
						m.dense	light brn	F-M sand some silt		laminated				
		35				↓	↓			moist	0	0	0	0
1032	S-8			31/60"		loose	light Brn	F-C sand tr. pebbles + silt		moist	0	0	0	0
						loose	Brn	F-M sand some sm. gravel		iron stained				
						m.dense	dk Brn	F-M sand tr. silt		moist	0	0	0	0
						m.dense	tan	F-M sand some small pebbles		BPS1-SB3013-3540 1045				
		40				↓	↓	↓ tr. small gravel		moist	0	0	0	0
	S-9				EOB 40' bgs refusal			Hit resusal. Need a more powerful DPT or new drilling method						
		45												
	S-10													
		50												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: See first page for details

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 6620DT

BORING No.: BPS1-SB 3014
DATE: 8-20-12
GEOLOGIST: J. Birkett
DRILLER: L. Caballero

	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		0												
1502	S-1			60/60		m.dense	DK Brn	Top Soil and Gravel		moist	0	0	0	0
						m.dense	DK Brn	VF-F sand and F. organics Some sm. gravel		Hand auger to 5' bgs				
						↓	↓	↓ ↓		moist	0	0	0	0
						m.dense	DK Brn	F-M sand some sm.-med gravel		3/4" ϕ				
		5				↓	↓	↓ ↓		BPS1-SB3014-0205 1505	0	0	0	0
1510	S-2			43/60"		m.dense	lt brn	F-M sand Some sm-med gravel		moist	0	0	0	0
						m.dense m.dense	brn. brn	Silty VF sand tr. C. sand Silty VF sand tr. gravel						
						m.dense	lt brn	F-M sand some sm. gravel and C. sand		moist	0	0	0	0
						m.dense	tan lt brn	F-M sand some gravel		BPS1-SB3014-0510 1515				
		10				loose	org lt brn	F-M sand tr. C. sand and pebbles		moist	0	0	0	0
1516	S-3			32/60"		m.dens	org lt brn	F-M sand Some sm-med pebbles tr. gravel small		moist	0	0	0	0
						dense	lt Gray	Crushed Rocks						
						m.dense	org lt brn	F-M sand tr. pebbles few gravel		moist	0.1	0	0	0
						↓	↓	↓ ↓		BPS1-SB3014-1015 1525				
		15				loose	lt brn	VF-F sand some M sand		moist	0	0	0	0
					EOB 15' bgs									

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks: Continuous macrocore w/ 2" x 5' acetate sleeve from 5-15' bgs

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 6620DT

BORING No.: BPS1-SB3015
DATE: 8-20-12
GEOLOGIST: J. Birkett
DRILLER: L. Caballero

	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		0												
1358	S-1			60/60		m.dense	Brn	Top Soil, Sand, Gravel		Hand auger to 5' bgs	0	0	0	0
						m.dense	DK Brn	F-M sand some gravel and fine organics		gravel up to 3"ϕ				
						↓	↓	↓		moist	0	0	0	0
										1400 BPS1-SB3015-0205				
		5				↓	↓	↓		moist	0	0	0	0
1417	S-2			41/60		m.dense	brn/grey	F-C sand and >2"ϕ Gravel (sm-large)		wet 2 large gravel x2"ϕ at 5' bgs	0	0	0	0
						loose	lt brn	F sand some M-C sand tr. pebbles		moist to wet				
						m.dense dense	lt brn lt brn	F-C sand and pebbles tr. gravel F-C sand some gravel		moist 1425	0	0	0	0
										BPS1-SB3015-0510				
		10				loose	Brn	F sand some large pebbles		moist	0	0	0	0
1430	S-3			46/60		m.dense	Brn	Gravely F-C sand		wet	0	0	0	0
						dense	light Brn	F-M sand some Gravel and C sand		wet to moist				
						↓	↓	↓		moist	0	0	0	0
										1437 BPS1-SB3015-1615				
		15				m.dense	light Brn	F-M sand some pebbles		moist	0	0	0	0
					EOB									

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks: Continuous macrocore w/ 2"x5' acetate sleeve 5-10'
Discrete from 10-15' bgs
standing water in bore hole, likely rainwater pooling in borehole from surface soils

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe

BORING No.: BPS1-SB 3020
DATE: 8-21-12
GEOLOGIST: J. Birkett
DRILLER: L. Caballero

	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
		0												
1240	S-1			60/60		m. dense	DKBrn	Top Soil, sand gravel						
						m. dense	DKBrn	Silty F. sand some gravel		moist	8.0	0	0	0
						↓	↓	↓						
						↓	Brn	↓		moist	6.0	0	0	0
						m. dense	lt brn	Clayey VF sand tr. pebbles very few gravel		BPS1-SB3020-1242 0205				
		5				↓	↓	↓		Dup06 1200	4.4	0	0	0
1250	S-2			33/36		loose	tan	F-C sand some sm-large pebbles		moist	8.0	0	0	0
						↓	↓	↓ tr. small gravel						
						m. dense	brn/blk	F-C sand some sm-med gravel		BPS1-SB3020-1253 0510	8.4	0	0	0
							tan			light blk staining				
		10				↓	↓	↓		moist	6.3	0	0	0
1255	S-3			25/60			lt brn	F-C sand some sm-med gravel		moist	7.2	0	0	0
								areas w/ crushed rock						
										moist	8.6	0	0	0
							↓			BPS1-SB3020-1258 1015				
		15				↓	tan	↓		moist (MS/MSD)	4.4	0	0	0
1259	S-4			12/60		loose	tan	F-M sand some gravel		moist	5.6	0	0	0
								tr. C. sand						
										BPS1-SB3020-1302 1520				
										limited volume 1/3 8oz jar				
		20				↓	↓	large rock (1½") in catcher						
1328	S-5			34/60		dense	lt brn	F-C sand some silt and		No recovery on 1st attempt, gravel	2.1	0	0	0
								pebbles tr gravel		pushed back sleeve. moist				
										BPS1-SB3020-1332 2025	2.2	0	0	0
		25				↓	↓	↓		moist	2.7	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.2

Remarks: Dual Tube setup using 3½" OD outer rods w/ 1½" OD inner rods
Macrocore 1½" by 5'

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 8040

BORING No.: BPS1-SB3020
DATE: 8-21-12 / 8-27-12
GEOLOGIST: Vince Shickora
DRILLER: Jose Garcia

	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
1401		26		30/60		M. dense	brn	F-M Sand Tr. to some pebbles - few small gravel frags		moist	8.2	0	0	0
		27					↓							
		28					Brn			(1417) BPS1-SB3020-2530	3.8	0	0	0
		29												
		30			8-21-12					moist	1.5	0	0	0
9/27/12 1035		31			EOB	M. Dense	Tan Brn	F-M Sand. Tr. to some pebbles. Tr rock frags (gravel)			0.3	0	0	0
		32								moist				
		33								(1055) BPS1-SB3020-3035	0.3	0	0	0
		34					Tan Brn							
		35		60/60							0.1	0	0	0
1050		36												
		37			▽					wet at ~ 36.5'	0	0	0	0
		38				Dense	Red Brn	weathered Sandstone Frag (~ 2 inches)						
		39				M. Dense		F-Sand and Silt		wet	0	0	0	0
		40		59/60		Dense	Gry	clayey silt layer ~ 3 inches						
1120		41				M. Dense	Tan wht	F. Sand (micaceous)		BPS1-SB3020-3545 (1140)	0	0	0	0
		42				↓		↓		wet				
		43				Dense	Red Gry	clayey silt (mottled)			0	0	0	0
		44						↓						
		45		60/60		M. Dense	Gry Brn	Silty F. Sand Trace clay		wet to Very moist	0	0	0	0
1148		46				↓	wht	F. Sand (micaceous)						
		47				↓	Tan	Trace silt.		very moist	0	0	0	0
		48				M. Dense		↓						
		49				↓	wht Tan	↓			0	0	0	0
		50		60/60		↓		Same as above		very moist				

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: (see page 1 for details)
3.5" Dual Tube Sampler on 8-27-12 with 2" X 5' macrocore

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 8040

BORING No.: BPS1-SB3020
DATE: 8-27-12
GEOLOGIST: Vince Shickora
DRILLER: Jose Garcia

	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
1210		51				M. Dense	wht Tan	F. Sand (micaceous) Trace silt.		very moist	0	0	0	0
		52								BPS1-SB3020-4555 (1235)				
		53					Red	F-M Sand Tr C. Sand		wet	0	0	0	0
		54				M. Dense	Brn Tan	and F pebbles						
		55		60/60		Dense	Gry	Silty Clay		very moist	0	0	0	0
1230		56					Gry Brn	Silty F. Sand (micaceous						
		57				M. Dense	Brn	F-C Sand. Trace silt. Rock frags		wet	0	0	0	0
		58												
		59					Tan Brn							
8/27/12		60								wet	0	0	0	0
1254		61												
		62												
		63												
		64												
		65												
		66												
		67												
		68												
		69												
		70												
		71												
		72												
		73												
		74												
		75												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: (see page 1 for details)
3.5" Dual Tube sampler on 8-27-12 with 2" X 5' Macrocore

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 6620DT

BORING No.: BPS1-SB3021
DATE: 8-23-12
GEOLOGIST: J. Birkett
DRILLER: L. Caballero

	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		0												
1330	S-1			60/60		m.dense	Brn	Top Soil, sand, gravel		Hand auger to 5' bgs	0.1	0	0	0
						m.dense	Brn	Silty F-M sand some gravel		Dry moist				
						↓	↓	↓			0	0	0	0
						↓	↓	↓		1333 BPS1-SB3021-0205				
		5				m.dense	lt brn	F-M sand some silt and gravel		moist	0.1	0	0	0
1341	S-2			60/60		loose	tan	F-M sand tr. C. sand		moist	0	0	0	0
						m.dense	lt brn	F-M sand some sm-med gravel		gravel <1" ϕ				
						↓	↓	↓		1344 BPS1-SB3021-0510	0	0	0	0
						loose	lt brn	F-M sand tr. sm. pebbles		Dup 11 1200				
		10				loose	lt brn	F-C sand some pebbles tr. gravel		moist	0	0	0	0
1349	S-3			36/60		m.dense	lt brn	F-C sand some sm-large gravel		moist	0	0	0	0
						↓	tan			crushed rock at 11'				
						loose	tan	F-C sand some sm pebbles		1355 BPS1-SB3021-1015	0	0	0	0
						↓	to brn	tr. med gravel		layered sands thin black layers at				
		15				↓	↓			19' and 19.5' moist	0	0	0	0
1357	S-4			34/60		m.dense	lt brn	F-C sand some sm-large gravel tr. to some pebbles		gravel up to 1" ϕ	0.2	0	0	0
						↓	tan	↓						
						↓	↓	↓		1401 BPS1-SB3021-1520	0.5	0	0	0
						↓	lt brn	↓						
		20				↓	brn	↓			0.7	0	0	0
1406	S-5			30/60		m.dense	lt brn	F-C sand some sm-large gravel		gravel up to 2" ϕ	0.4	0	0	0
						↓	↓	↓		moist				
						m.dense	tan	F-M sand some sm-med pebbles		1412 BPS1-SB3021-2025	0	0	0	0
						↓	↓	tr. gravel		moist				
		25				↓	↓	↓			0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks: Continuous macrocore from 5 - 10' 2"x5' liners
Discrete macrocore from

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 6620DT / 8040

BORING No.: BPS1-SB 3021
DATE: 8-23-12 / 8-28-12
GEOLOGIST: J. Birkett / V. Shickora
DRILLER: L. Caballero / J. Garcia

	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		25												
1424	S-6			36/60		m dense	lt bin	Sand and Gravel (>2" Φ)		Moist	0.2	0	0	0
						m dense		F-M sand tr. pebbles						
							tan			BPS1-SB3021-2530 1407	0	0	0	0
						m dense	bin	F-M sand tr. pebble and silt		Moist				
		30				loose	lt bin	F-M Sand tr. pebbles			0	0	0	0
8/28/12 0850							Red Brn	F-M Sand Tr. C sand and pebbles		moist	0	0	0	0
						m dense								
										BPS1-SB3021-3035 (0905)	0	0	0	0
							Red Brn							
		35		42/60		m dense				very moist	0	0	0	0
0925														
							Red Brn				0	0	0	0
		38				m. dense		Same as above		very moist				
							Gry Brn	Silt - Trace clay F-M sand Tr. pebbles			0	0	0	0
		40		49/60		m dense	Gry	VF-F Sand Tr. Silt		very moist				
0953											0	0	0	0
							Tan Gry			BPS1-SB3021-3545 (1010)				
						m dense				very moist	0	0	0	0
							Brn Gry							
		45		49/60		m. dense	Gry Brn	sandy Silt. Tr clay		very moist to wet	0	0	0	0
1033								VF-F Sand little						
						m dense	Tan Brn	Silt. Tr F pebbles			0	0	0	0
										very moist				
										To wet	0	0	0	0
		50		50/60		m dense	Tan							

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: (See page 1)
3.5 inch dual Tube Sampler on 8-28-12 with 2" x 5' macrocore.

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 8040

BORING No.: BPS1-SB3021
DATE: 8-28-12
GEOLOGIST: Vince Shickora
DRILLER: Jose Garcia

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
1128		51				M dense	Tan	VF-F Sand - little Silt Trace F pebbles		Very Moist to wet	0	0	0	0
		52					Red Brn			BPS1-SB3021-4555 (1140)				
		53								wet	0	0	0	0
		54				M dense	Brn	Silty F-M sand Trace F. pebbles						
		55		48/60						wet	0	0	0	0
1212		56					Org Brn	F-M Sand little to Trace silt. Tr Fine pebbles						
		57				M dense					0	0	0	0
		58					Org Brn			wet				
		59					Gry Brn				0	0	0	0
		60		51/60		M dense	Gry Brn	Silty F-M Sand trace F pebbles		wet				
1313		61								BPS1-SB3021-5565 (1340)	0	0	0	0
		62					Brn	F-M Sand little to Trace silt. Trace F pebbles						
		63				M dense				wet	0	0	0	0
		64												
		65		49/60		M dense	Brn			wet	0	0	0	0
1455		66						No Recovery		No Recovery				
		67												
		68												
		69												
		70		0"/60"										
1639		71					Org Brn	F-C Sand with Some Silt			0	0	0	0
		72					Tan Brn	Sandy Silt. Trace clay		wet				
		73					wht Gry	F-M Sand Tr. Silt.			0	0	0	0
		74					Brn Gry	Silt with some Fine sand		BPS1-SB3021-7075 (1815)				
		75			EoB		Brn Gry	F Sand with Some Silt		wet	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: 2.5 inch Discreet sampler with 2" x 5' Macrocore

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Delta
DRILLING RIG: Failing F-10

BORING No.: BPS1-SB3022
DATE: 11-8-12
GEOLOGIST: J. Birkett
DRILLER: J. Gucci

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
		0												
		1		60/60		m. dense	Brn	F-C sand and gravel		moist	0	0	0	0
		2		~~24~~										
		3				m. dense	DKBrn	Organic rich sand		moist to wet	0	0	0	0
		4								Collect 1020 BPS1-SB3022-0205				
1010		5								moist	0	0	0	0
	S-2	6	4/5	13/24						moist	0	0	0	0
1030		7	7/8			m. dense	Brn	F-C sand some pebbles tr. gravel		Collect 1035 BPS1-SB3022-0510	0	0	0	0
		9												
		10												
1050	S-3	11	4/10	8/24		m. dense	lt brn	F-C sand some pebbles and gravel (crushed rock)		gravel up to 1"ϕ	0	0	0	0
		12	15/26							moist	0	0	0	0
										Collect 1055 BPS1-SB3022-1015				
		15												
1105	S-3	16	6/7	12/24		m. dense	lt brn	F-M sand some pebble tr. gravel			0	0	0	0
		17	11/13			m. dense	lt brn	VF-F sand tr. m. sand		moist	0	0	0	0
										Collect 1110 BPS1-SB3022-1520				
		20												
1111	S-4	21	7/14	5/24		m. dense	tan	F-M sand and pebble		gravel c5 to 1"ϕ	0	0	0	0
		22	21/25				light Brn	some sm. gravel to med		moist	0	0	0	0
										Collect 1115 BPS1-SB3022-2025				
		25												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks: 3 1/4" ID 6" OD 175 lbs drop hammer
Ben 2" by 2' Split spoons

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Delta
DRILLING RIG: Failing F-10

BORING No.: BPS1-SB3022
DATE: 11-9-12
GEOLOGIST: J. Birkett
DRILLER: J. Gucci

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
		25												
1120	S-5	26	7/8	13/24	- - - -	m.dense	lt bro	F-M sand some gravel		moist	0	0	0	0
		27	8/14			m.dense	tan lt bro	F-M sand very few gravel		thin red streaks	0	0	0	0
		30												
1130	S-6	31	2/4	15/24		m.dense	tan	F-M sand tr. pebbles very few sm. gravel		moist	0	0	0	0
		32	4/6								0	0	0	0
										Collect 1135 BPS1-SB3022-2535				
										and 0900 BPS1-BGWP-3012	1101			
		35												
1143	S-7	36	8/8	15/24		intense	tan	F-M sand tr. pebbles		moist	0	0	0	0
		37	7/10			↓	↓	very few sm gravel		pebble layer at 36'	0	0	0	0
		40												
1309	S-8	41	9/21	15/24		m.dense	lt bro tan	F-C sand tr. pebbles		moist	0	0	0	0
		42	31/50		- - -	m.dense	lt bro tan	F-M sand some clay		color bands clay in thin lenses	0	0	0	0
										Collect 1315 BPS1-SB3022-3545				
		45												
1323	S-9	46	10/13	14/24		m.dense m.stiff	tan gray	F-M sand tr. c. sand and silt Clay		silt lens moist 45.5'	0	0	0	0
		47	21/25			m.dense	light tan	F-M sand			0	0	0	0
		50												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: See first page for details

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No X Well I.D. #: _____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Delta
DRILLING RIG: Failing F-10

BORING No.: BPS1-SB3022
DATE: 11-9-12
GEOLOGIST: J. Birkett
DRILLER: J. Gucci

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
		50												
1332	S-10	51	5/7	14/24		m. dense	tan	F-M sand		moist	0	0	0	0
		52	10/10			dense m. dense	lt brn tan	F-M sand some clay F-M sand		thin clay lens at 51.5	0	0	0	0
										Collect 1335 BPS1-SB3022-4555 and MS/MSD				
		55												
1343	S-11	56	4/6	15/24		m. dense	tan	F-M sand some C. sand		wet	0	0	0	0
		57	13/15			↓	↓	tr. sm. pebbles			0	0	0	0
		60												
1352	S-12	61	2/4	15/24		m. dense	lt brn	F-M sand tr. C. sand and pebbles		wet	0	0	0	0
		62	7/8			m. dense	lt brn	F-M sand		gray thin clay lens at 61.75	0	0	0	0
										Collect 1355 BPS1-SB3022-5565				
		65												
1407	S-13	66	5/8	20/24		m. dense	tan	F-M sand		wet	0	0	0	0
		67	13/11			m. dense dense	lt brn tan	F sand some silt and M sand VF-F sand some M. sand		color banding at 66.5	0	0	0	0
		70												
1412	S-14	71	5/7	17/24		m. dense	tan	F-M sand tr. silt		thin clay lenses at 70.25	0	0	0	0
		72	10/13			m. dense	tan	VF-F sand tr. silt		wet 71 and 71.5	0	0	0	0
					EOB 72' bgs					Collect 1415 BPS1-SB3022-6675				
		75												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: See first page for details

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 6620DT

BORING No.: BPS1-SB3023
DATE: 8-21-12
GEOLOGIST: J. Birkett
DRILLER: L. Caballero

	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
1515	S-1	0		60/60		Hard M.dense	Gray Gray	asphalt Sand and gravel		Start bit through asphalt	0	0	0	0
						M. dense	Blk	VF-F Sand some gravel		moist	0	0	0	0
						↓	↓	↓ and F. organics		moist	0	0	0	0
						M dense	DK Brn	F-M Sand some gravel		1519 BPS1-SB3023-0205	0.2	0	0	0
		5				M.dense M.dense	Brn Lt brn	↓ Clayey F-M Sand		moist to wet	0	0	0	0
1523	S-2			47/60		M.dense	light brn	Silty F-M sand tr. gravel		moist	1.7	0	0	0
										moist				
						M stiff	tan	Silty clay tr. VFF Sand		1526 BPS1-SB3023-0510	0.3	0	0	0
						M. dense M. stiff	brn tan	F-M sand tr. C. sand Silty Clay tr. VF sand			1.0			
		10				M.dense	brn tan	F-C sand some pebbles tr. gravel		moist	1.4	0	0	0
1532	S-3			44/60		M.dense	tan	F-M Sand some sm-lg gravel		gravel 1" ⌀	4.1	0	0	0
						↓	↓	↓ ↓ less gravel		moist				
							↓			1536 BPS1-SB3023-1015	4.6	0	0	0
							light brn			moist	4.7	0	0	0
		15				↓	↓	↓ ↓			4.8	0	0	0
					EOB 15' bgs									

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: Continuous macro core from 5-15' bgs

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 6620DT

BORING No.: BPS1-SB3024
DATE: 8-20-12
GEOLOGIST: J. Birkett
DRILLER: Luke Caballero

	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		0				m.dense	DK Brn	Top Soil and Gravel						
1104	S-1			60/60		m.dense	DK Brn	F-C sand some Organics and silt tr. to some gravel		Moist	0	0	0	0
						↓	↓	↓		BPS1-SB3024-0002 1056	0			
						m.dense	DK Brn	F-M sand some organics		Moist	0	0	0	0
						↓	↓	↓ and gravel sm-large		Hit potential soft concrete 4.5'	0			
		5				↓	↓	↓		BPS1-SB3024-0205 1103	0	0	0	0
1108	S-2	6		42/60		m.dense m.dense	DK Brn Blk	Silty F-C sand some small to lg gravel		1.5" OD gravel moist to wet	0	0	0	0
						m.dense	Brn	Gravely F-C sand some silt Silty F-M sand some gravel		Some concrete frags moist to wet				
						m.dense	Blk	Silty F sand some M-C sand tr. gravel		Moist to wet	0	0	0	0
						m.dense m.dense	Brn Brn	Clayey F-M sand some pebbles F-M sand some gravel		large 2" Φ gravel at 8'bgs				
		10				m.dense m.dense	lt brn lt brn tan	F-M sand some C. sand to pebbles Gravel F-M sand some pebbles		BPS1-SB3024-0510 Moist 1119	0	0	0	0
1118	S-3			46/60		m.dense	lt brn	F-C sand some sm-large gravel		Moist	0	0	0	0
						↓	↓	↓						
						↓	↓	↓		Moist	0	0	0	0
						m.dense	lt brn tan	F-M sand some med pebbles to gravel		1128 BPS1-SB30241015				
		15				↓	↓	↓		Moist	0	0	0	0
1123	S-4			32/60		m.dense	lt brn tan	F-M sand some med pebbles to gravel		1.5' off slough (not logged)	0	0	0	0
						m.dense	tan	F-M sand tr. C. sand		laminated sands 17.8'				
						↓	↓	↓		Moist	0	0	0	0
						m.dense	tan	F-M sand some sm. med gravel and pebbles		BPS1-SB3024-1520 1138				
		20				↓	↓	↓		Moist	0	0	0	0
1135	S-5			38/60		m.dense	tan	Gravely M-C sand some F. sand		Moist	0	0	0	0
										Gravel up to 2" Φ				
										Thin Black Stained layer	0	0	0	0
										1150 at 18.5' bgs BPS1-SB3024-2025				
		25			EOB 25' bgs					Moist MSMSD	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks: Continuous macrocore w/2" x 5' acetate sleeve from 5-20' bgs
Discrete macrocore 20-25' bgs

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 6620DT

BORING No.: BPS1-SB 3025
DATE: 3-23-12
GEOLOGIST: J. Birkett
DRILLER: L. Caballero

	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		0												
1113	S-1			60/60		M dense	Blk	Silty F-C sand and pebbles some gravel (small to med)		Hand auger to 3' bgs	2.4	0	0	0
						↓	↓	↓		Moist				
						M dense	ltbrn	F-C sand and pebbles		crushed rock at 3' bgs	1.8	0	0	0
						↓	↓	↓ some large gravel (crushed)						
		5				↓	↓	↓ gravel 2" Φ		Moist	2.3	0	0	0
1118	S-2			43/60		stiff	ltbrn	Silt some VF sand tr sm. gravel		moist	7.9 0.4	0	0	0
						↓ M. dense	↓ ltbrn	↓						
						↓	↓	F-C sand some pebbles		Moist	0.0	0	0	0
							↓	↓ tr. large gravel		>2" Φ				
		10				↓	tan/ltbrn	↓		moist	0.0	0	0	0
1127	S-3			22/60"		M. dense	tan/ltbrn	F-C sand some sm-med gravel		<1" Φ	0	0	0	0
						↓	↓	Pebbley ↓		moist				
						↓	↓	↓			0	0	0	0
						↓	↓	↓		moist				
		15				↓	tan	↓			0	0	0	0
1151	S-4			35/60"		M. dense	ltbrn	F-C sand some pebbles		moist	2.4	0	0	0
						↓	↓	↓ tr. gravel sm-med						
						↓	↓	↓		moist	0.6	0	0	0
						↓	tan	↓						
		20				↓	↓	↓		discontinuous because gravel collapse in hole	0.4	0	0	0
		25												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: Discrete macrocore from 10' to 15' bgs

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Delta
DRILLING RIG: Failing F-10

BORING No.: BPS1-SB3025
DATE: 11-5-12
GEOLOGIST: J. Birkett
DRILLER: J. Gueci

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
		0				m.dense	brn	pebbly sandy soil		Moist	0	0	0	0
						m.dense	blk	F-M sand some organics and pebbles tr. gravel		used same holes as DPT location from				
						m-dense	Brn	F-C sand some pebbles		September moist	0	0	0	0
							Blk	and gravel tr. organics						
1055		5								moist	0	0	0	0
						m.dense	Brn	F-C sand and pebbles		moist	0	0	0	0
								some sm-med gravel						
										moist	0	0	0	0
1100		10								moist	0	0	0	0
						m.dense	lt brn	F-M sand some sm. pebbles		moist	0	0	0	0
							org	tr. sm-med gravel		gravel 1" ϕ				
										moist.	0	0	0	0
1110		15								moist	0	0	0	0
							lt brn / brn	more large gravel		moist to wet	0	0	0	0
										three gravel 3" ϕ				
										moist to wet	0	0	0	0
1115		20								moist to wet	0	0	0	0
						m.dense	lt brn	F-M sand some sm-med pebbles		Moist	0	0	0	0
								tr. gravel						
										Moist	0	0	0	0
1130		25								Moist	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks: 3¼" ID 6" OD augers and 175 lbs drop hammer for split spoon
Logged soil cutting unless otherwise noted

Converted to Well: Yes _____ No X Well I.D. #: _____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Delta
DRILLING RIG: Failing F-10

BORING No.: BPS1-SB3025
DATE: 11-5-12
GEOLOGIST: J. Birkett
DRILLER: J. Gucci

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
		25												
1147	S-1	26	2/3	11/24	- - -	m.dense m.dense	lt brn tan	M-C sand very few pebbles F-M sand tr. C. sand		large gravel at top	4.6	0	0	0
		27	6/12			↓	↓	↓ ↓		moist	0.4	0	0	0
						m.dense	lt brn	F-M sand some pebbles tr. gravel						
						↓	↓	↓ ↓		moist	0	0	0	0
1258		30				↓	↓	↓ ↓						
1310	S-2	31	3/7	19/24		m.dense	lt brn	F-M sand tr. C. sand		moist	0	0	0	0
		32	19/12		- - - -	m.dense m.dense	Brn tan	F-M sand some pebbles tr. gravel F-M sand		iron stained	0	0	0	0
										1312 Collect BPS1-SB3025-2535				
		35					speckled			and BPS1-Dup-20121105 1200				
1325	S-3	36	7/34	17/24		m.dense	tan lt brn	F-M sand some sm pebbles tr. gravel		iron concretions	2.0	0	0	0
		37	22/36			↓	↓	↓ ↓		moist	0.4	0	0	0
										moist				
1342	S-4	40												
↓	↓	41	6/14	19/24	- - -	M.dense m.dense	lt brn tan	F-M sand some sm pebbles F-M sand tr. pebbles		large gravel moist	0	0	0	0
		42	24/35			↓	↓	↓ ↓			0	0	0	0
										moist 1415				
										Collect BPS1-SB3025-3545 Run MS/MSD				
		45								moist				
1426	S-5	46	8/21	14/24		m.dense	lt brn/tan	F-M sand tr. C. sand		moist to wet	0.4	0	0	0
		47	25/36			↓	↓	↓ ↓		thin clay lense at 46.75 and 45.5	0	0	0	0
		50												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: See first page for details

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No X Well I.D. #: _____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Delta
DRILLING RIG: Failing F-10

BORING No.: BPS1-SB3025
DATE: 11-6-12
GEOLOGIST: J. Birkett
DRILLER: J. Gucci

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
		50												
0806	S-6	51	7/14	18/24	- - -	m.dense	lt brn	F-M sand tr. silt		moist	0.6	0	0	0
		52	20/25		- - -	↓	tan	F-M sand						
							lt brn	F-M sand tr. silt		moist	0	0	0	0
								Collect 0810 BPS1-SB3025-4555		→				
					▽									
		55												
0822	S-7	56	5/5	18/24		m.dense	lt brn	F-M sand tr. silt		wet	0	0	0	0
						m.stiff	gray	clay						
						m.dense	lt brn	F-M sand tr. silt		wet	0	0	0	0
		60												
0840	S-8	61	5/2	18/24		m.dense	lt brn	F-M sand		wet	0	0	0	0
						m.stiff	gray	clay						
		62	13/18			m.dense	tan	F-C sand		wet	0	0	0	0
										Collect 0857 BPS1-SB3025-5565				
		65												
0905	S-9	66	2/2	22/24	- - -	m.dense	tan	F-M sand tr. C. sand		wet	0	0	0	0
						m.dense	lt brn	F-C sand tr. sm. pebbles		wet				
		67	4/4			↓	↓	↓ ↓			0	0	0	0
		70												
0923	S-10	71	4/5	18/24	- - -	m.dense	tan	F-M sand tr. sm. pebbles		wet	0	0	0	0
		72	5/10			m.dense	lt brn	F-M sand tr. C. sand and silt		wet	0	0	0	0
					EOB 72' bgs					Collect 0930 BPS1-SB3025-6575				
		75												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: See first page for details

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Delta
DRILLING RIG: Failing F-10

BORING No.: BPS1-SB3026
DATE: 11-13-12 and 11-14-12
GEOLOGIST: J. Birkett
DRILLER: J. Gueci

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		0		60/60		hard m.dense	Blk lt brn	Asphalt F-C sand and gravel		Hard clear to 5'	0	0	0	0
										Moist	0	0	0	0
1445		5								Moist	0	0	0	0
										Moist	0	0	0	0
										Moist	0	0	0	0
1500 11-13-12		10								Moist	0	0	0	0
11-14-12						m.dense	lt brn	Pebbley F-C Sand some gravel		Moist	0	0	0	0
0736		15												
										Moist	0	0	0	0
0741		20												
										Moist	0	0	0	0
0746		25												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks: 3¼" ID by 6" OD augers w/ 175 lbs drop hammer
2" x 2' split spoon logged soil cuttings unless otherwise noted

Converted to Well: Yes _____ No X Well I.D. #: _____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Delta
DRILLING RIG: Failing F-10

BORING No.: BPS1-SB3026
DATE: 11-14-12
GEOLOGIST: J. Birkett
DRILLER: J. Gucci

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
		25												
0805	S-1	26	3/4	7/24		m.dense	lt brn	F-C sand tr. silt		Color bands	0	0	0	0
						m.dense	Brn	VF-F sandy silt						
		27	10/7			m.dense	lt brn	F-M sand some C. sand		moist	0	0	0	0
		30												
0810	S-2	31	5/4	18/24		m.dense	lt brn	F-M sand some C. sand to pebbles		moist	0	0	0	0
		32	7/8			m.dense	tan brn	F-M sand some pebbles tr. gravel		speckled color (iron) moist	0	0	0	0
										Collect 0815				
										BPS1-SB3026-3535				
		35												
0820	S-3	36	4/7	13/24		m.dense	speckled tan brn	F-M sand some pebbles tr. gravel		moist	0.2	0	0	0
		37	8/8			↓		↓		iron stained	0.3	0	0	0
		40												
0835	S-4	41	9/16	17/24		dense	tan light brn	F sand some silt		moist	0.3	0	0	0
		42	27/31			m.dense	tan	F-M sand			0	0	0	0
										Collect 0840 BPS1-SB3026-3545				
		45												
0850	S-5	46	5/10	18/24		m.dense	tan	F-M sand		gray layer at 45.5' moist	0	0	0	0
		47	18/28			↓	↓	↓		Clay lens at 48' (1" thick)	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: See first page for details

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Delta
DRILLING RIG: Failing F-10

BORING No.: BPS1-SB3026
DATE: 11-14-12
GEOLOGIST: J. Birkett
DRILLER: J. Guec'

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
		50												
0900	S-6	51	5/9	17/24		m.dense	tan	F-M sand tr. to some c.sand		moist blk layer at 51'	0	0	0	0
		52	12/21			↓	↓			orange layer at 51.75'	0	0	0	0
										Collect 0905 BPS1-SB3026-4555				
					▽									
		55												
0915	S-7	56	4/5	22/24		m.dense	tan to light	F-M sand tr. silt		wet	0	0	0	0
		57	7/9			↓	Brn ↓	↓ ↓			0	0	0	0
		60												
1040	S-8	61	5/7	16/24		m.dense	tan	F-M sand w/mica		wet	0	0	0	0
		62	4/4			↓	↓	↓ ↓		Co	0	0	0	0
										Collect 1045 BPS1-SB3026-5565				
		65												
1050	S-9	66	3/2	8/24		m.dense	tan	F-M sand		wet	0	0	0	0
		67	2/3			↓	↓ lt brn	↓ ↓			0	0	0	0
		70												
1105	S-10	71	3/4	24/24		m.dense	tan/gray tan/lt brn	pink Silty F-M sand		~~moist~~ wet	0	0	0	0
		72	4/8			m.stiff	gray pink	Silt some VF sand		GBB 11-14-12 ~~moist~~ wet	0	0	0	0
					EOB 72'					Collect 1110 BPS1-SB3026-6575				

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: See First page for details

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Delta
DRILLING RIG: Failing F-10

BORING No.: BPS1-SB3027
DATE: 11-12-12
GEOLOGIST: J. Birkett
DRILLER: J. Gucci

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		0												
	S			60/60		hard m. dense	blk dk brn	asphalt F-C sand and gravel		fresh asphalt gravel up to 2" ϕ	0	0	0	0
										moist				
							Brn			moist	0	0	0	0
										some very large cobbles				
1400		5					lt brn	less gravel starting at 3' bgs		4" ϕ moist	0	0	0	0
						m. dense	lt brn	F-C sand some gravel *		*Cuttings not coming up until 20' bgs		0	0	0
										moist				
1415		10												
												0	0	0
										moist				
1420		15												
												0	0	0
										moist				
1425		20								Cuttings don't come out of hole until 22'				
						m. dense	lt brn	F-M sand some sm-med pebble tr. sm-med gravel		gravel up to 1" ϕ	0	0	0	
1430		25												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks: 3¼" x 6" augers w/ 175 lbs drop hammer 2" x 2' Split Spoon
Logged soil cuttings unless otherwise noted

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Delta
DRILLING RIG: Failing F-10

BORING No.: BPS1-SB3027
DATE: 11-12-12 to 11-13-12
GEOLOGIST: J. Birkett
DRILLER: J. Guec

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
		25												
1440	S-1	26	5/7	18/24		m. dense dense m. dense	tan lt brn tan	F-M sand Silt some VF sand F-M sand some sm. pebbles		moist	2.2 0.4	0 0	0 0	0 0
		27	8/12			dense m. dense	lt brn lt brn Rx	Silty VF sand VF-F sand		moist	0.2	0	0	0
		30												
1500	S-2	31	10/21	14/24		m. dense	lt brn red	F-M sand some C. sand tr. pebbles		moist	0.5	0	0	0
		32	15/24			M. dense m. dense	lt brn rd lt brn rd	F-M sand some pebbles tr. gravel F-M sand		moist	0.6	0	0	0
										Collect 1510 BPS1-SB3027-2535				
										BPS1-Dup-20121112 1200				
11-12-12		35												
11-13-12 0745	S-3	36	13/14	13/24		m. dense	Brn	F-C sand some small pebbles tr. gravel		iron stained	0	0	0	0
		37	15/15			m. dense	tan	F-M sand		less pebbles w/depth moist	0	0	0	0
		40												
0756	S-4	41	7/10	16/24		m. dense stiff m. dense	tan gray tan	F-M sand tr. C. sand Clay F-M sand tr. C. sand		moist	0	0	0	0
		42	17/25			stiff m. dense stiff	gray tan gray	VF sandy silt F-M sand Clay			0	0	0	0
						m. dense	tan	F-M sand tr. C. sand		Collect 0200 BPS1-SB3027-3545				
		45												
0810	S-5	46	6/13	17/24		m. dense M. dense	lt brn tan	F-M sand tr. silt F-M sand		moist	0	0	0	0
		47	25/36			dense loose	lt brn DK Gray white	Silty F-M sand F-M sand			0	0	0	0
		50												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: See first page for details

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Delta
DRILLING RIG: Failing F-10

BORING No.: BPS1-SB3027
DATE: 11-12-12
GEOLOGIST: J. Birkett
DRILLER: J. Guec

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
		50												
0820	S-6	51	4/17	15/24		m. dense	Dk Gray tan Brn	F-C sand some sm. pebbles		wet	68	0	0	0
		52	24/25			m. dense	Dk Gray lightish tan	F-M sand		Possible staining	1.4	0	0	0
										Collect 0825 BPS1-SB3027-4555				
		55												
0840	S-7	56	2/7	19/24		m. dense stiff m. dense	lt brn gray lt brn	F-M sand tr. silt Clay F-M sand tr. C. sand + silt		wet	0	0	0	0
		57	11/17			stiff m. dense stiff m. dense	gray lt brn gray lt brn	Clay F-M sand Clay F-M sand			0	0	0	0
		60												
0847	S-8	61	3/4	24/24		m. dense	lt brn	M-C sand		wet	0	0	0	0
		62	6/12			m. dense	tan	F-M sand		light blk layer @ 61.25' (dk gray)	0	0	0	0
										Collect 0850 BPS1-SB3027-5565				
		65												
0855	S-9	66	2/5	15/24		m. dense	tan	F-M sand some C. sand		wet	0	0	0	0
		67	5/5			↓	↓	↓ tr. gm. pebbles			0	0	0	0
		70												
0915	S-10	71	2/1	29/24		m. dense	tan	F-M sand tr. C. sand		wet	0	0	0	0
		72	2/3			m. dense m. dense	tan lt brn	VF-F sand tr. M. sand F-M sand tr. silt			0	0	0	0
					EOB 72' bgs					Collect 0920 BPS1-SB3027-6575				
										MS MSD				
		75												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: See first page for details

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Delta
DRILLING RIG: Failing F-10

BORING No.: BPS1-SB3028
DATE: 11-7-12
GEOLOGIST: J. Birkett
DRILLER: J. Gucci

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		0												
						m.dense m.dense	Brn lt brn	F. organics and sand F-M sand some pebbles tr. gravel + silt		Moist	0	0	0	0
										moist	0	0	0	0
0737		5								moist	0	0	0	0
						m.dense	lt brn	F-M sand some sa. gravel and pebbles tr. silt		moist gravel up to 1" ϕ	0	0	0	0
										moist	0	0	0	0
0740		10								moist	0	0	0	0
										moist	0	0	0	0
										moist	0	0	0	0
0742		15								moist	0	0	0	0
										moist	0	0	0	0
										moist	0	0	0	0
0746		20								moist	0	0	0	0
						m.dense	lt brn	F-M sand tr. sa. pebbles and gravel		moist	0	0	0	0
										moist	0	0	0	0
0750		25								moist	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks: 3¼" ID 6" OD augers w/ 175 lbs drop hammer for split spoons
Logged soil cuttings unless otherwise noted

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Delta
DRILLING RIG: Failing F-10

BORING No.: BPS1-SB3028
DATE: 11-7-12
GEOLOGIST: J. Birkett
DRILLER: J. Gueci

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		25												
0755	S-1	26	2 / 4	14/24		M. dense	tan / lt brn	F-M sand tr. to some sm-med pebbles		moist	0	0	0	0
		27	5 / 10					tr. sm gravel		gravel 0.5"φ	0	0	0	0
		30												
0815	S-2	31	5 / 5	13/24		m. dense	tan	F-M sand tr. to some sm-med pebbles		moist	0	0	0	0
		32	8 / 14					tr. sm. gravel		gravel 0.25"φ	0	0	0	0
										Collect 0820 BPS1-SB3028-2535				
		35												
0828	S-3	36	5 / 15	17/24		m. dense	lt brn tan	F-M sand tr. C. sand		moist	0	0	0	0
		37	25 / 32			dense m. dense	Brn light tan	F-M sand some gravel and pebbles; F-M sand tr. C. sand		gravel 1"φ iron stained	0	0	0	0
		40												
0836	S-4	41	4 / 10	15/24		loose m. dense	lt brn tan	F-C sand tr. pebbles; F-M sand tr. pebbles		moist	0	0	0	0
		42	14 / 23			m. dense	tan	F sand w/ Mica		moist	0	0	0	0
										Collect : 0840 BPS1-SB3028-3545				
		45												
0848	S-5	46	4 / 20	15/24		m. dense	tan lt brn	F-M sand some C. sand		moist	0	0	0	0
		47	20 / 27			m. dense	tan lt brn	F-M sand			0	0	0	0
		50												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: See First page for details

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Delta
DRILLING RIG: Failing F-10

BORING No.: BPS1-SB3028
DATE: 11-7-12
GEOLOGIST: J. Birkett
DRILLER: J. Gueci

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
		50												
0901	S-6	51	4/10	14/24		loose	lt brn	F-M sand tr. C. sand		moist	0	0	0	0
		52	17/32			m. dense dense	white tan lt brn/tan	F-M sand F-M sand tr. silt		thin colored bands w/ more silt	0	0	0	0
										Collect 0905 BPS1-SB3028-4555				
					▽									
		55												
0910	S-7	56	5/6	24/24		m. dense	lt brn	F-C sand		wet	0	0	0	0
		57	18/21			m. dense	tan	F-M sand		wet	0	0	0	0
		60												
0922	S-8	61	4/5	20/24		m. dense	tan	F-M sand		wet	0	0	0	0
		62	17/27			m. dense m. dense	lt brn lt brn	F-M sand some clay (gray) F-C sand some pebbles tr. silt			0	0	0	0
										Collect 0930 BPS1-SB3028-5565				
		65												
0930	S-9	66	4/4	14/24		m. dense	tan	F-M sand some C. sand tr. pebbles		wet	0	0	0	0
		67	6/8			m. dense	tan	VF-F sand tr. C. sand and pebbles			0	0	0	0
		70												
0946	S-10	71	2/3	12/24		m. dense	tan/gray	VF-F sand tr. silt		wet mica	0	0	0	0
		72	5/7			↓	↓	↓ ↓						
					EOB 72' bgs					Collect 0950 BPS1-SB3028-6575				
		75												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: See first page for details

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 8040

BORING No.: BPSI-SB3029
DATE: 8-29-12
GEOLOGIST: Vince Shickora
DRILLER: Jose Garcia

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
0833		1					Blk	Asphalt		Hand Auger from 0.5' to 5' BGS	0	0	0	0
		2					Brn Gry	Gravel- Silt-Sand		moist	1.0	0	0	0
		3					Brn Tan	F-M Sand. Some C sand and pebbles		very moist	0.5	0	0	0
		4						Trace concrete Frags						
		5								BPSI-SB3029-0205 (0920)	0.0	0	0	0
0955		6				M dense	Brn Tan							
		7								very moist	0	0	0	0
		8					Brn	F-C Sand with F-M pebbles. Tr silt						
		9				M dense				BPSI-SB3029-0510 (1015)	0	0	0	0
		10		48/60						very moist				
1011		11					Brn				0	0	0	0
		12				M dense								
		13						Same as above		very moist	0	0	0	0
		14					Brn			BPSI-SB3029-1015 (1020)				
		15		51/60		M. dense					0	0	0	0
1018		16												
		17					Tan Brn			very moist	0	0	0	0
		18				M. dense								
		19					Tan Brn	Same as above		BPSI-SB3029-1520 (1028)	0	0	0	0
		20		50/60										
1029		21					Tan wht			very moist	0	0	0	0
		22												
		23					Brn			BPSI-SB3029-2025 (1040)	0	0	0	0
		24					Brn Red	Silty F-M Sand		Rust stains				
		25		50/60			Brn Tan	F-M Sand. Trace F pebbles			0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: 3.5" dual tube with 2"x5' sampler from 5' to 40'
2.5 inch discreet sampler with 2"x5' macrocore from 40' to 75' BGS

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 8040

BORING No.: BPS1-SB3029
DATE: 8-29-12
GEOLOGIST: Vince Shickora
DRILLER: Jose Garcia

	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
1038		26						Same as above			0	0	0	0
		27				M dense	org Brn	Silty F Sand (micaceous)		Very moist				
		28									0	0	0	0
		29					wht Tan	F-M Sand, Tr. Silt		BPS1-SB3029-2535 (1059)				
		30		55/60						Very moist	0	0	0	0
1047		31				M dense								
		32					wht Tan				0	0	0	0
		33								Very moist				
		34				M dense	Red Brn	Silty F Sand (micaceous)			0	0	0	0
		35		52/60			Tan	F-M Sand, Tr Silt		Very moist				
1100		36									0	0	0	0
		37				M dense				Very moist				
		38					Tan Brn				0	0	0	0
		39				M dense	Brn Red	F Sand, Tr Silt						
		40		51/60			org Red	F-M Sand - little to Trace C Sand + Silt		Very moist	0	0	0	0
1147		41					Gry Tan	F Sand, Tr Silt						
		42				M dense				BPS1-SB3029 3545 (1305)	0	0	0	0
		43					org Red	F-C Sand - Trace fine pebbles		Very moist				
		44		52/60			Brn				0	0	0	0
		45				M dense		F Sand - Trace silt and M Sand						
1326		46					Tan Brn				0	0	0	0
		47								Very moist				
		48				M dense	Gry	F-M Sand Tr Silt			0	0	0	0
		49			▽		Brn			wet ~ 48' BGS				
		50		49/60							0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: (see page 1)

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 8040

BORING No.: BPS1-SB3029
DATE: 8-29-12
GEOLOGIST: Vince Shickora
DRILLER: Jose Garcia

	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
1408		51				M dense	Gry Brn	F-M Sand - Tr Silt F. pebbles		wet	0	0	0	0
		52												
		53					Red Brn			BPS1-SB3029-4555 (1423)	0	0	0	0
		54				M dense				wet				
		55		49/60			Red Brn				0	0	0	0
1507		56												
		57				M dense	Brn			wet	0	0	0	0
		58						(little course sand)						
		59					Red Brn			wet	0	0	0	0
		60		51/60		M dense				wet				
1615		61						Same as above			0	0	0	0
		62					Red Brn			BPS1-SB3029-5565 (1650)				
		63				m. dense				wet	0	0	0	0
		64		30/60						(Partially crushed liner on sampler)				
		65			EoB	M dense	Red Brn			wet	0	0	0	0
1806		66						No recovery		casing broken in hole				
		67						Broken Rods						
		68						50' casing still in hole						
		69												
		70			EoB									
		71												
		72												
		73												
		74												
		75												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: (see page 1)

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 8040

BORING No.: BPS1-SB3030
DATE: 8-30-12
GEOLOGIST: Vince Shickora
DRILLER: Jose Garcia

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
0840		1					Black	Asphalt		Hand Auger to 5' bgs				
		2					Brn	Silty Sand and Gravel		moist	1.0	0	0	0
		3												
		4					Blk DK Brn	Silty Sand and Gravel		possibly oil stained	36	0	40	0
		5					Brn Tan	F-M Sand - Trace silt		very moist	5	0	41	0
0908		6						Direct push from 5'		No samples				
		7						to 25' BGS - No						
		8						samples collected						
		9												
		10												
		11												
		12												
		13												
		14												
		15												
		16												
		17												
		18												
		19												
		20												
		21												
		22												
		23												
		24												
		25												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: 3.5" dual Tube with 2" x 5' macrocore sampler
Direct push from 5' to 25' BGS - No sampling

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 8040

BORING No.: BPS1-SB3030
DATE: 8-30-12
GEOLOGIST: Vince Shickora
DRILLER: Jose Garcia

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
0950		26				M dense	Tan Brn	F-C Sand - Tr. silt and F-M pebbles		Very moist	0	0	0	0
		27												
		28									0	0	0	0
		29				M dense	Org Brn	F-M Sand - some silt (micaceous)		Very moist				
		30		50/60							0	0	0	0
1002		31					Org Brn							
		32				M dense				Very moist	0	0	0	0
		33					Tan Red	Silty F Sand (micaceous)						
		34								BPS1-SB3030-2535 (1020)	0	0	0	0
		35		51/60		M dense	Brn Red	VF-F Sand Trace silt and M sand		Very moist				
1014		36									0	0	0	0
		37												
		38								Very moist	0	0	0	0
		39				M dense	Red Brn	F-C Sand - some silt and F pebbles						
		40		53/60			Gry Red	F-C Sand and silt little F pebbles		Very moist	0	0	0	0
1029		41												
		42				M dense	Red Brn	F Sand - little Silt (micaceous)			0	0	0	0
		43					Red Gry	Clayey silt. Trace F sand		very moist				
		44					Tan	VF-F Sand - little		BPS1-SB3030-3545 (1054)	0	0	0	0
		45		49/60		M dense	Red	To Trace silt (micaceous)						
1042		46					Tan Brn				0	0	0	0
		47												
		48					Gry	F-M Sand - Trace silt		wet at ~ 48' bgs	0	0	0	0
		49					Brn							
		50		52/60							0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: (see page 1)

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NWIRP Bethpage
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 8040

BORING No.: BPS1-SB3030
DATE: 8-30-12
GEOLOGIST: Vince Shickora
DRILLER: Joe Gasiza

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
1105		51				M dense		F-M Sand - Trace (micaceous) Silt		wet	0	0	0	0
		52					Red Brn	↓						
		53					Red				0	0	0	0
		54					Brn			BPS1-SB3030-4555 (1118)				
		55		53/60	EoB	M dense	Gry	Same as above		wet	0	0	0	0
		56												
		57												
		58												
		59												
		60												
		61												
		62												
		63												
		64												
		65												
		66												
		67												
		68												
		69												
		70												
		71												
		72												
		73												
		74												
		75												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 6620DT

BORING No.: BPS1-SB3031
DATE: 8-20-12
GEOLOGIST: J. Birkett
DRILLER: L. Caballero

	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		0												
1000	S-1			60/60		m.dense	DK Brn	Top Soil and Gravel Gravel F-C Sand		Slight odor Hand auger to	0.6	0	0	0
								Some F. organics and silt		5' bgs	0.2			
							Brn			~~dry~~ moist to wet moist	0.3	0	0	0
										BPS1-SB3031-0205 DUP04 1000 0900	0.3			
		5								moist	0.2	0	0	0
1010	S-2	6		41/60		loose	brn	F-C sand some sm-med gravel tr. silt		moist	0	0	0	0
						m.dense	brn	F-M sand some silt and small gravel		1017 BPS1-SB3031-0516				
										moist	0	0	0	0
						m.dense	dk brn	Gravely F-C sand tr. silt		gravel 1" ϕ				
		10				loose	lt brn	VF-F sand		moist	0	0	0	0
1018	S-3	11		36/60		m.dense	lt brn	VF-F sand tr. to some sm-lg gravel and M sand		moist	0	0	0	0
						m.dense	tan	Gravely F-M sand tr. C. sand and pebble		gravel up to 1.5" ϕ				
								some pebbles tr. C. sand		moist 1020 BPS1-SB3031-1015	0	0	0	0
		15								moist	0	0	0	0
					EOB 15' bgs									

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks: Continuous macrocore w/ 2"x 5' acetate sleeve from 5-15' bgs

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 6620DT

BORING No.: BPS1-SB3032
DATE: 8-22-17
GEOLOGIST: J. Birkett
DRILLER: L. Caballero

	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		0												
0848	S-1			72/72		loose	DK Brn	F-M Top Soil and gravel sand and F. organics		Hand auger to 6' bgs	0.4	0	0	0
						↓	↓	↓ some gravel ↓		gravel >2" ϕ				
						m. dense	Brn	F-M sand some sm-large gravel		moist	0.3	0	0	0
					Clean Fill	loose	tan	F-M sand tr sm pebbles		Clean Fill				
						m. dense	org Brn	↓ ↓		0850 BPS1-SB3032-0206	0	0	0	0
		6				m. dense	lt brn	F-M sand some gravel tr silt		moist Dup07 0800	0	0	0	0
0853	S-2			38/48		↓ m. stiff	↓ tan/gray	↓ F sandy silt tr. C. sand		moist				
						m. dense	light brn	F-M sand some C. sand and		MS/MSD 0859 BPS1-SB3032-0610	0	0	0	0
						↓	↓	(sm-med) pebbles tr. large gravel		gravel >2" ϕ				
		10				↓	tan	↓ some sm-L gravel ↓		moist	0.4	0	0	0
0900	S-3			41/60		m. dense	light brn	F-M sand tr. sm-lg pebbles and silt		moist	2.7	0	0	0
						dense	tan lt brn	F-C sand and sm-med gravel		0905 BPS1-SB3032-1015				
						↓	↓	↓ ↓		moist	0.7	0	0	0
						m. dense	tan	F-M sand tr. C. sand and pebbles						
		15				↓	↓	↓ ↓		moist	0.3	0	0	0
					EOB 15' bgs									

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: Continuous macrocore in 2"x5' acetate sleeve

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No X Well I.D. #: _____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe

BORING No.: BPS1-SB 3033
DATE: 8-22-12
GEOLOGIST: J. Birkett
DRILLER: L. Caballero

	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
		0												
0947	S-1			72/72		m.dense m.dense	DK Brn Brn	Top Soil and Gravel F-M sand some F organics and gravel		Moist	2.3	0	0	0
										gravel				
								tr. silt to some less organics		Moist	0.8	0	0	0
					Clean Fill	loose	tan	F-M sand tr. pebbles		0950 BPS1-SB3033-0206				
						m.dense	Brn	F-M sand some pebbles		moist	0.4	0	0	0
		6				loose	org Brn	F-C sand some pebbles tr. silt and gravel		Moist	2.4	0	0	0
1003	S-2			44/48				tr. sm. gravel						
						m.dense	brn lt brn	Silty VF sand tr. gravel		1008 BPS1-SB3033-0610	1.5	0	0	0
						m.dense	tan	F-M sand some pebbles and gravel		gravel 1¼" ϕ				
		10				m.dense m.dense	lt brn tan	silty VF sand F-M sand some pebbles and gravel		moist	1.9	0	0	0
1015	S-3			39/60			Blk	F-M sand some pebbles/gravel and VF sand		moist	22.0	0	0	0
						loose	light tan	VF-F sand some pebble		dry	3.2	0	0	0
										1020 BPS1-SB3033-1015				
						M.dense	lt brn	Pebbley F-C sand some gravel		moist	1.9	0	0	0
		15												
					EOB 15' bgs									

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: Continuous macrocore in 2" x 5' sleeve

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 6620DT

BORING No.: BPS1-SB 3034
DATE: 8-22-12
GEOLOGIST: J. Birkett
DRILLER: L. Caballero

	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
		0												
1120	S-1			72/72		m. den sp	Brn	Top Soil, sand, gravel						
						m. dense	Brn	F-M sand some silt and pebbles		gravel 1" ϕ	18.3	0	0	0
						↓	↓	↓ tr. gravel ↓		moist				
						m. dense	Brn	VF-M sand some pebbles/gravel		gravel 2" ϕ	3.2	0	0	0
								↓		hole keeps collapsing				
						m. dense	org Brn	F-M sand tr. silt and gravel		1124 BPS1-SB3034-0406 ~4.5'	3.9	0	0	0
	S-2	6				↓	↓	↓		Moist	2.1	0	0	0
1127	S-2	7		44/48		m. dense	tan	F-M sand some gravel						
		8				stiff	gray	VF sandy silt tr. C sand		Dry	3.3	0	0	0
						m. dense	lt brn	F-M sand some gravel						
		9				stiff	gray	VF sandy silt		1136 BPS1-SB3034-0610				
		10				loose	tan	F-C sand and gravel (crushed)		Dry	2.3	0	0	0
1136	S-3			44/60		loose	Brn	F-M sand some gravel (sm-med)		Moist	2.03	0	0	0
						m. dense	tan	VF-M sand some pebbles		(1/4") Dry				
						m. dense	org brn	F-M sand tr. sm. gravel		Thin Blk stain at 12'				
						m. dense	lt brn tan	F-C sand and gravel (crushed)		Moist	3.0	0	0	0
						↓	org brn	↓ ↓		Moist 1145 BPS1-SB3034-1015				
		15				m. dense	org brn	F-C sand tr. gravel		Moist	1.1	0	0	0
					EOB 15' bgs									

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: Continuous Macrocore From 6-10' bgs
Discrete macrocore from 10-15' bgs

Converted to Well: Yes _____ No X Well I.D. #: _____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 6620DT

BORING No.: BPS1-SB3035
DATE: 8-22-12
GEOLOGIST: J. Birkett
DRILLER: L. Caballero

	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
1317	S-1			72/72		m.dense	Dk Brn	Top Soil, Sand gravel						
						m.dense	Dk Brn Brn	F-M sand some organics and gravel		Moist	1.2	0	0	0
										gravel > 2"	0.9	0	0	0
						loose	tan	F-M sand tr. pebbles		moist				
										BPS1-SB3035-1323	1.4	0	0	0
		6				loose	ltbrn	F-M sand tr. silt and gravel (some pebbles (small))		Bed sheets at 5' 1" ϕ gravel	3.0	0	0	0
1327	S-2			45/48		m. stiff loose	gray brn	VF sandy silt tr. C. sand		Moist				
						m. stiff m.dense	gray brn	F sand and gravel some silt VF sandy silt F-M sand some pebbles tr. silt		BPS1-SB3035-1334 -0610	6.8	0	0	0
						m.dense	tan	VF-M sand and gravel		Dry VF sand silt at 8' (2")				
		10			FCSand	loose loose	blk brn	F-C sand some pebbles Sand and gravel F-C sand some pebbles tr. gravel		Moist	0.7	0	0	0
1340	S-3			40/60		loose	brn	F-M sand some pebbles		gravel 1" ϕ	11.8	0	0	0
						m.dense	brn	F-C sand some gravel		iron banding				
						m.dense	light brn				3.0	0	0	0
								less gravel		BPS1-SB3035-1345				
		15								Dup09 1200	2.4	0	0	0
					EOB 15' bgs									

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm):

Remarks: Continuous macro core in 2" x 5' sleeve

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 6620DT

BORING No.: BPS1-SB3036
DATE: 8-22-12
GEOLOGIST: J. Birkett
DRILLER: L. Caballero

	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		0												
1410	S-1			72/72		m.dense	DKBrn	Top Soil, sand, gravel		moist	0.5	0	0	0
						m.dense	DKBrn	F-C sand some F. organics and gravel		Hand clear 6'bgs				
						m.dense	DKBrn	F-C sand some gravel tr. silt		moist	0.5	0	0	0
							Brn			1417 BPS1-SB3036-0206				
										moist	0.8	0	0	0
		6												
1420	S-2			27/48		m.dense	Brn	F-C sand some sm-med pebbles tr. gravel and silt		moist	5.6	0	0	0
										1425 BPS1-SB3036-0610 Slight blk staining at 9'bgs	4.5	0	0	0
		10								moist				
1425	S-3			30/60		m.dense	Brn	F-C sand some sm-med pebbles and silt tr. to some gravel (med)		moist	3.7	0	0	0
										1435 BPS1-SB3036-1015	2.2	0	0	0
										moist				
		15									0.8	0	0	0
					EOB 15'bgs									

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: Continuous macrocore from 6-15'bgs

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 6620DT

BORING No.: BPS1-SB3037
DATE: 8-22-12
GEOLOGIST: J. Birkett
DRILLER: L. Caballero

	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		0												
1535	S-1			60/60		Hard	Gray	Asphalt		Hand auger to 5' bgs	505	0	0	0
						m. stiff m. dense	Brn org	VF sandy Silt		moist				
						M	Brn	F-M sand some silt tr. to some pebbles			205	0	0	0
								tr. gravel		large gravel 2½"ϕ at 3' bgs	4.7			
		5						Note: Hole collapses at 4' bgs		BPS1-SB3037-0205 1538	3.6	0	0	0
		6		37/60		m. dense	lt brn	F-C sand some sm-med pebbles		moist	9.5	0	0	0
1542	S-2					to loose		tr. gravel (<1"ϕ)			9.8			
										1550 BPS1-SB3037-0510	7.1	0	0	0
											3.5			
		10								moist	6.3	0	0	0
1553	S-3			27/60		m. dense	lt brn	F-M sand some pebbles		moist	0.9	0	0	0
								tr. gravel						
						m. dense	tan	Pebbley F-C sand some gravel		1558 BPS1-SB3037-1015	1.5	0	0	0
		15								moist	0.8	0	0	0
					EOB 15' bgs									

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: Continuous macrocore from 4.5-15' bgs

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 6620DT

BORING No.: BPS1-SB3038
DATE: 8-23-12
GEOLOGIST: J. Birkett
DRILLER: L. Caballero

	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		0												
0930	S-1			60/60		hard	gry	asphalt		Hand auger to 5' bgs	0	0	0	0
						hard	lt bn	concrete						
						loose	org lt brn	F-C sand some pebbles/gravel		moist	0.1			
						↓	↓	↓			0	0	0	0
										0935 BPS1-SB3038-0205				
		5				↓	↓	↓		moist	0.1	0	0	0
0950	S-2			48/60		m. dense	org lt brn	F-C sand some sm-lg pebbles in gravel		crushed rock at 5' <2" ϕ	0.4	0	0	0
						↓	↓	↓		moist				
						↓	↓	↓		0953	0.6	0	0	0
						m. dense	lt brn	F-M sand tr. sm-med pebbles		BPS1-SB3038-0510				
		10				m. dense	lt brn	F-C sand and gravel						
						m. dense	tan	F-C sand tr. gravel		moist	0.7	0	0	0
0956	S-3			53/60		m. dense	Brn	F-C sand some pebbles tr. silt and gravel		moist	0.9	0	0	0
						loose	tan	F-M sand some pebbles tr. large gravel		crushe rock at 11' bgs				
						↓	↓	↓		gravel 1-3" ϕ moist 1003	0.7	0	0	0
										BPS1-SB3038-1015				
		15				↓	↓	↓		moist	0.4	0	0	0
					EOB 15' bgs									

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: Continuous macrocore from 5'-15' bgs

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 6620DT

BORING No.: BPS1-SB3039
DATE: 8-23-12
GEOLOGIST: J. Birkett
DRILLER: L. Caballero

	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		0												
0840	S-1			60/60		hard / hard	gray / lt gray	asphalt / concrete (crushed)		Hand auger to 5' bgs	0.7	0	0	0
						loose	lt brn	F-C sand and pebbles tr. gravel		moist				
										0841 BPS1-SB3039-0205	0.9	0	0	0
						loose	lt brn	F-M sand some pebbles		Dup10 0800				
		5				loose	lt brn	F-C sand and pebbles some gravel		moist	0.0	0	0	0
0845	S-2			42/60		↓	↓	↓		moist	0.0	0	0	0
						m. dense	lt brn	F-C sand and gravel						
						↓	↓	↓		moist MS/MSD	0	0	0	0
						m. dense	tan	F-M sand some pebbles		0848 BPS1-SB3039-0510				
		10				m. dense	brn/blk	F-C sand and pebbles tr. gravel some gravel		moist	0.5	0	0	0
0852	S-3			52/60		↓	↓	↓		moist	4.2	0	0	0
						↓	↓	↓		Potential light staining	4.4			
						loose	tan/lt brn	F-C sand tr. sm. gravel & pebbles		0856 BPS1-SB3039-1015	2.3	0	0	0
						m. dense	lt brn	F-M sand some sm. pebbles		moist				
		15				loose	tan	F-C sand and pebbles tr. sm. gravel			0.4	0	0	0
					EOB 15' bgs									

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: Continuous macrocore from 5-15' bgs

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 6620DT

BORING No.: BPS1-SB3044
DATE: 8-20-12
GEOLOGIST: J. Birkett
DRILLER: L. Caballero

	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
		0												
1245	S-1			60/60"		m.dense	Br/blk Blk	Top Soil, gravel, sand F-M sand some organics and gravel		Hard clear to 5' bgs	1.8	0	0	0
						m.dense	↓	↓		Moist	1.0			
						↓	↓	↓		moist	0.3	0	0	0
						m.dense	Brn	Clayey F-M sand tr gravel		1240 BPS1-SB3044-0205	0			
		5				↓	↓	↓		moist	0	0	0	0
1305	S-2			51/60		m.dense	lt brn tan	Gravely F-M sand and pebbles		gravel 1" ϕ	0	0	0	0
						↓	↓	↓		moist				
						↓	↓	↓		1310 BPS1-SB3044-0510	0	0	0	0
						m.dense	tan	F-M sand tr. sm. pebbles		and Dup05 1200				
		10				m.dense	lt brn	Gravely F-C sand and pebbles		moist	0	0	0	0
1310	S-3			40/60		m.dense	tan	F-M sand some gravel and pebbles		moist	0	0	0	0
						↓	↓	↓						
						m.dense	lt brn	F-C sand and sm.-med pebbles		1317 BPS1-SB3044-0515	0	0	0	0
						↓	↓	↓ some gravel		gravel 1" ϕ				
		15				↓	↓	↓		moist	0	0	0	0
					EOB 15' bgs									

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: Continuous macrocore w/2" x 5' acetate sleeve from 5-15' bgs

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 6610 DT

BORING No.: BPSI-SB3054
DATE: 2-26-13
GEOLOGIST: J. Birkett
DRILLER: L. Reiss

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	S-1	1		32/60		m. dense m. dense	Blk lt brn	F-C sand and pebbles vfc F sand, silt		moist	0	0	0	0
						m dense	Brn to	F-C Sand some gravel						
						↓	lt Brn	↓ to. silt		moist	0.1	0	0	0
1021		5				m. dense	tan	F-C sand some gravel		Collect BPSI-SB3054-0205 1025 and BPSI-Dup03-20130226 1000	0	0	0	0
					EOB 5' bgs									

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: ~~Hand Auger to 5 feet bgs~~ GBB 2-26-13
Continuous Macrocores with 2" by 5" acetate sleeves

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No X _____ Well I.D. #: _____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 6620DT

BORING No.: BPS1-SB3055
DATE: 2-26-13
GEOLOGIST: J. Birkett
DRILLER: L. Reiss

	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
Time		0												
	S-1	1		42/60		m.dense m.dense	Blk DkBrn	F-C sand some pebbles tr. silt F-M sand and gravel		moist	0	0	0	0
						m.dense	Blk	F sand and organics tr. pebbles		Collect 1035 BPS1-SB3055-0002				
						m.dense	Brn	F-C sand and gravel sm-med			0	0	0	0
						↓	↓	↓ ↓						
1030		5				↓	↓	↓ some clay ↓		Collect 1037 BPS1-SB3055-0205	0	0	0	0
					EOB 5' bgs									

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: ~~Hand Auger to 5 feet bgs~~ JB 2-26-13
Continuous Macrocores with 2" by 5" acetate sleeves

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 6610DT

BORING No.: BPS1-SB3056
DATE: 2-26-13
GEOLOGIST: J. Birkett
DRILLER: L. Reiss

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		0												
	S-1			38/60		m.dense	DkBrn	F-C sand some gravel tr. silt		moist	0	0	0	0
						m.dense	Blk	F-M sand and organics		Collect 1045 BPS1-SB3056-0002				
						m.dense	Brn	Pebbley F-C sand tr. silt						
						m.dense	Blk	F sand and organics						
						m.dense	Brn	F-C sand some silt mdgrav		moist to wet	0	0	0	0
						↓	↓	↓ ↓		wet				
1038		5				m.dense	lt brn	Silty F-M sand some pebbles		~~to~~ Wet	0	0	0	0
					EOB 5' bgs									

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: ~~Hand Auger to 5 feet bgs~~
Continuous Macrocores with 2" by 5" acetate sleeves

Drilling Area Background (ppm): 0 0

Converted to Well: Yes _____ No X _____ Well I.D. #: _____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 6610DT

BORING No.: BPS1-SB3057
DATE: 2-26-13
GEOLOGIST: J. Birkett
DRILLER: L. Reiss

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		0												
	S-1	1		44/60		lw-dense m.dense	Blk Brn	Sand, gravel, organics F-C sand and gravel tr. silt		moist	0	0	0	0
						m.dense	lt Brn	F-C sand some gravel						
						dense	Dk Brn Brn	Silty F-M sand some organics		moist	0	0	0	0
						m.dense	lt brn	F-C sand and gravel						
1046		5				↓	tan	↓ tr. gravel		Collect 1056 BPS1-SB3057-0205	0	0	0	0
					EOB 5' bgs									

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: ~~Hand Auger to 5 feet bgs~~
Continuous Macrocores with 2" by 5" acetate sleeves

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X ____ Well I.D. #: ____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 6610DT

BORING No.: BPSI-SB3058
DATE: 2-26-13
GEOLOGIST: J. Birkett
DRILLER: L. Reiss

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	S-1	1		36/60		m.dense	DK Brn	F-M sand and organics some gravel			0	0	0	0
						↓	↓	↓ ↓		Collect BPSI-SB3058 1125				
						m.dense	Brn	F-C sand and gravel		Moist 0912	0	0	0	0
						m.stiff	Gray	F-C sandy Clay						
						m.dense	lt Brn	F-C sand some pebbles		moist to wet				
1120		5				m.stiff	lt brn gray	Clay tr. to some sand		wet	0	0	0	0
					EOB 5' bgs									

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks: ~~Hand Auger to 3 feet bgs~~
Continuous Macrocores with 2" by 5" acetate sleeves

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 6610 DT

BORING No.: BPS1-SB3059
DATE: 2-26-13
GEOLOGIST: J. Birkett
DRILLER: L. Reiss

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		0												
1130	S-1	1		28/60		m.dense	DK Brn to	F-C sand and gravel		moist	0	0	0	0
						↓	Blk	tr to some silt and organics		Collect 1135 BPS1-SB3059-0002				
						m.dense	Brn	F-C sand and gravel		BPS1-Dup04-20130226 1100	0	0	0	0
						↓	↓	↓		moist				
		5				↓	↓	↓			0	0	0	0
					EOB 5' bgs									

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks: ~~Hand auger to 5' bgs~~
Continuous macrocore in 2" X 5' acetate sleeves from ~~0-5~~ ' bgs
~~Discrete macrocore in 2" X 5' acetate sleeves from 5- bgs~~

Converted to Well: Yes _____ No X Well I.D. #: _____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 6610 DT

BORING No.: BPS1-SB3060
DATE: 2-28-13
GEOLOGIST: J. Birkett
DRILLER: L. Reiss

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		0												
	S-1	1		60/60		hard	Blk	asphalt						
						hard	Gray	crushed concrete		dry	10.1	0	0	0
						m. dense	Brn	F-C sand and gravel tr. silt		moist				
						m. dense	lt brn	F-C sand and pebbles some gravel			0.4	0	0	0
										moist				
1315		5				m. dense	lt brn	F-C sand some pebbles			0.3	0	0	0
1315	S-2	6		38/60		m. dense	lt brn	F-C sand some pebbles		moist	0	0	0	0
						dense	org brn	F-M sand some silt and pebbles		moist				
						silt	gray brn	Silt some VF sand and pebbles		wet	0	0	0	0
						m. dense	lt brn	F-M sand and pebbles tr. silt and		moist				
1320		10				↓	↓	↓ ↓ gravel			0	0	0	0
1320	S-3	11		37/60		m. dense	org brn	F-M sand some pebbles		moist	0	0	0	0
								tr. gravel						
							lt brn			moist	0	0	0	0
1324		15				↓	tan	↓ ↓		moist	0	0	0	0
	S-4	16		37/60		m. dense	tan	F-M sand tr. C. sand		moist	0	0	0	0
						↓	↓	↓ and sm. pebbles						
						m. dense	org brn	F-C sand and sm. pebbles		moist	0.1	0	0	0
						m. dense	tan	F-M sand tr. to some						
1328		20				↓	↓	↓ pebbles and sm.-lg gravel		Collect 1333 BPS1-SB3060-1520	0.1	0	0	0
	S-5	21		34/60		m. dense	tan	F-C sand some pebbles		moist	0	0	0	0
								and gravel						
						m. dense	DK Brn	C sand and pebble						
						m. dense	lt brn	F-C sand some pebbles		moist	0	0	0	0
						m. dense	tan	F sand						
						m. dense	DK Brn	F sand some silt						
						dense	org brn	VF sand some silt						
						dense	lt brn	VF sand tr. silt		moist to wet				
1338		25				st. FF	Brn	VF sandy silt		Collect 1345 BPS1-SB3060-2025	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks: Hand auger to 5' bgs
Continuous macrocore in 2" X 5' acetate sleeves from 5- ' bgs
~~Discrete macrocore in 2" X 5' acetate sleeves from 5- bgs~~

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 6610 DT

BORING No.: BPS1-SB3060
DATE: 3-1-13
GEOLOGIST: J. Birkett
DRILLER: L. Reiss

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		25												
	S-6	26		26/60		m.dense	Brn	F-M sand some pebbles tr. gravel		moist	0	0	0	0
						dense	Brn	Silty VF sand						
						m.dense	lt brn	F-M sand						
						dense	brn	Silty VF sand						
						m.dense	org brn	F-M sand						
						m.dense	org brn	F-C sand some gravel		moist	0.1	0	0	0
						dense	brn	Silty VF sand						
						m.dense	lt brn	F-C sand and gravel		iron concretion				
0835		30				↓	↓	↓	iron	slag gravel moist	0.1	0	0	0
	S-7	31		40/60		m.dense	org lt brn	F-M sand tr. silt + C. sand		moist	0.3	0	0	0
						↓	↓	↓			0.4			
						↓	↓	↓		moist	0.4	0	0	0
						m.dense	org lt brn	F-M sand tr. pebbles very few sm. gravel		gravel up to 1" ϕ speckled brown	0.2			
0850		35				↓	lt brn brn	↓ few iron slag ↓ F mags		Collect 0855 BPS1-SB3060-2535	0.1	0	0	0
	S-8	36		40/60		m.dense	lt brn brn	F-M sand some pebbles		BPS1-Dup01-20130301 0800	0.2	0	0	0
						↓	↓	↓ few sm. gravel iron concretions		moist				
						m.dense	tan lt brn	F-M sand some C. sand			0.1	0	0	0
						dense	lt brn brn	F-C sand some sm gravel tr. silt		gravel 20 .5" ϕ moist				
0905		40				dense	Brn org	F-M sand tr. C. sand		Collect 0910 BPS1-SB3060-3540	0.2	0	0	0
					EOB 40' bgs									

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks: Hand auger to 5' bgs
Continuous macrocore in 2" X 5' acetate sleeves from 5- ' bgs
~~Discrete macrocore in 2" X 5' acetate sleeves from 5- ' bgs~~

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 6610 DT

BORING No.: BPS1-SB3061
DATE: 2-28-13
GEOLOGIST: J. Birkett
DRILLER: L. Reiss

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
		0												
	S-1	1		60/60		hard hard	blk gray	asphalt crushed concrete		moist	0	0	0	0
						m. dense	DK Brn	Silty F-M sand some pebbles			0.3			
						loose	ltbrn	F-C sand and pebbles some gravel		moist	0.1	0	0	0
						loose	ltbrn	F-M sand some pebbles						
1105		5				↓	↓	↓ ↓		moist	0	0	0	0
	S-2	6		48/60		m. dense	ltbrn	F-M sand some pebbles		moist	0	0	0	0
						↓	↓	↓ ↓						
						stiff	grayish brn	Silt some sand and pebbles		moist	0	0	0	0
						↓	↓	↓ ↓						
1108		10				m. dense	Brn ltbrn	F-C sand and pebbles tr. silt		moist	0	0	0	0
	S-3	11		40/60		m. dense	ltbrn	F-C sand some pebbles tr. gravel		gravel <1"	0	0	0	0
						↓	↓	↓ ↓		moist	0.2	0	0	0
1112		15				↓	↓	↓ ↓		moist	0	0	0	0
	S-4	16		37/60		m. dense	ltbrn	F-C sand and pebbles some gravel ~~tr. silt~~		moist	0	0	0	0
						↓	↓	↓ ↓		gravel <1" ϕ	0.1			
										thin blk layer at 18' (0.5" thick)	0.2	0	0	0
										moist	0.1			
1118		20				↓	↓	↓ ↓		Collect 1120 BPS1-SB3061-1520	0	0	0	0
	S-5	21		30/60		m. dense	ltbrn	F-C sand and pebbles some gravel		moist	0.2	0	0	0
						↓	↓	↓ ↓		moist	0.2	0	0	0
										thin blk layer at 24' (0.25" thick)				
1125		25				m. dense	tan	F-M sand tr. sm pebbles		Collect 1130 BPS1-SB3061-2025	0.4	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks: Hand auger to 5' bgs
Continuous macrocore in 2" X 5' acetate sleeves from 5-48 bgs
~~Discrete macrocore in 2" X 5' acetate sleeves from 5- bgs~~

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 6610 DT

BORING No.: BPS1-SB3061
DATE: 2-28-13
GEOLOGIST: J. Birkett
DRILLER: L. Reiss

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		25												
	S-6	26		40/60		m.dense m.dense	lt brn lt brn	F-M sand tr. C sand VF sand some silt (micaceous)		moist	0	0	0	0
						m.dense	red brn	F-M sand tr. silt		moist				
						m.dense m.dense	brn lt brn	Silty VF sand F-M sand tr. silt		wet wet	0	0	0	0
						dense m.dense	lt brn lt brn	Silty VF sand F-M sand		wet wet				
1140		30				dense m.dense m.dense	lt brn red tan	Silty VF sand F-M sand tr. silt F-C sand		wet iron staining moist	0.1	0	0	0
	S-7	31		40/60		m.dense dense	tan Brn	F-M sand Silty VF sand		moist wet	0	0	0	0
						m.dense	tan	F-C sand and pebbles		moist				
								some gravel			0.1	0	0	0
										moist				
1150		35								Collect 1215 BPS1-SB3061-2535	0	0	0	0
	S-8	36		12/60		m.dense	lt brn and	F-M sand tr. silt		BPS1-Dup06-20130228 1015	0	0	0	0
							DK Brn			iron stained				
										moist	0	0	0	0
1235		40								Collect 1250 BPS1-SB3061-3540	0	0	0	0
					EOB 40' BGS									

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks: Hand auger to 5' bgs
Continuous macrocore in 2" X 5' acetate sleeves from 5-40' bgs
~~Discrete macrocore in 2" X 5' acetate sleeves from 5- bgs~~

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 6610 DT

BORING No.: BPS1-SB3062-
DATE: ~~BPS1-S~~ 2-27-13 2-28-13
GEOLOGIST: J. Birkett
DRILLER: L. Reiss

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		0												
	S-1	1		60/60		m. dense	DK Brn	Top soil and sand		moist	0	0	0	0
						m. dense	Brn	F-M sand some organics		Collect 0835 BPS1-SB3062-0002				
						m dense	lt brn	F-C sand tr. C sand and pebbles and gravel			0	0	0	0
										moist				
0833		5								Collect 0837 BPS1-SB3062-0305	0	0	0	0
	S-2	6		32/60		m. dense	lt brn	F-C sand tr. to some pebbles and gravel			0	0	0	0
										moist				
										granite gravel 7" ϕ	0	0	0	0
										moist				
0836		10								Collect 0840 BPS1-SB3062-0510	0	0	0	0
	S-3	11		30/60		m. dense	lt brn	Pebbley F-C sand some gravel		moist	0	0	0	0
										moist	0	0	0	0
0840		15				m. dense	tan	F-M sand some pebbles		Collect 0845 BPS1-SB3062-1015	0	0	0	0
	S-4	16		25/60		m. dense	tan to lt brn	F-M sand some pebbles and gravel		moist	0	0	0	0
										moist	0	0	0	0
						m. dense	lt brn	Pebbley F-C sand some gravel		gravel ~0.5" ϕ				
0845		20								Collect 0850 BPS1-SB3062-1520	0	0	0	0
	S-5	21		25/60		m. dense	tan	F-C sand some pebbles and gravel		Moist	0	0	0	0
							to lt brn							
										moist	0	0	0	0
0852		25				loose	lt tan	Crushed rock and sand		Collect 0858 BPS1-SB3062-2025	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks: Hand auger to 5' bgs
Continuous macrocore in 2" X 5' acetate sleeves from 5- ' bgs
~~Discrete macrocore in 2" X 5' acetate sleeves from 5- ' bgs~~

Converted to Well: Yes _____ No X Well I.D. #: _____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 6610 DT

BORING No.: BPS1-SB3062
DATE: 2-28-13
GEOLOGIST: J. Birkett
DRILLER: L. Reiss

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		25												
0907	S-6	26		31/60		m.dense	tan	F-C sand some pebbles		moist	0	0	0	0
						m.dense	lt brn	VF sand some F. sand (micaceous)						
								some thin silt lens		moist	0	0	0	0
						dense	Brn	VF sandy silt						
		30				m.dense / m.dense	Brn/org Brn	F-M sand tr. silt / VF sand some silt		Color banding	0	0	0	0
	S-7	31		20?/60		m.dense	lt brn	F-C sand some pebbles and gravel		liner crushed to retrieve sample	0	0	0	0
										hammer out soil onto table	0			
										moist	0	0	0	0
0930		35								Collect 0935 BPS1-SB3062-2535	0	0	0	0
	S-8	36		32/60		m.dense brn	lt brn	F-C sand some pebbles VF sand some silt		moist				
						m.dense	lt brn	F-C sand and pebbles some gravel		moist	0	0	0	0
						m.dense	tan	F-M sand tr. pebbles		moist	0	0	0	0
1000		40				dense	Brn	Sand and gravel		iron stained w/concretions				
					EOB 40' bgs					Collect 1005 BPS1-SB3062-3540 MS/MSD				

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks: Hand auger to 5' bgs
Continuous macrocore in 2" X 5' acetate sleeves from 5- ' bgs
~~Discrete macrocore in 2" X 5' acetate sleeves from 5- bgs~~

Converted to Well: Yes _____ No X Well I.D. #: _____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 6610 DT

BORING No.: BPS1-SB3063
DATE: 2-27-13
GEOLOGIST: J. Birkett
DRILLER: L. Reiss

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		0												
	S-1	1		60/60		m.dense	DkBn	Top Soil and organics		wet	0	0	0	0
						m.dense	DkBn	Organics w/ some F sand		wet 1144				
										BPS1-SB3063-0002				
										Moist				
						m.dense	Brn	Sandy Clay and organics			0	0	0	0
						m.dense	lt brn	Sandy clay some sm. gravel		moist				
1140		5				m.dense	lt Brn	F-M sand and gravel		Collect 1146 BPS1-SB3063-0205	0	0	0	0
	S-2	6		46/60		m.dense	tan	F-M sand some gravel		moist	0	0	0	0
						↓	↓	↓ ↓						
						m.dense	tan	F-C sand and gravel		moist	0	0	0	0
						m.dense	lt brn	F-M sand some crushed						
1145		10				↓	↓	↓ gravel		Collect 1153 BPS1-SB3063-0510	0	0	0	0
	S-3	11		36/60		m.dense	lt brn	F-M sand some gravel		moist	0	0	0	0
						↓	↓	↓ ↓						
						↓	lt brn	↓ ↓		moist	0	0	0	0
						m.dense	tan lt brn	Pebbly F-C sand some						
1151		15				↓	↓	↓ gravel		Collect 1200 BPS1-SB3063-015	0	0	0	0
	S-4	16		24/60		m.dense	tan	F-M sand some gravel		moist	0	0	0	0
						↓	↓	↓ and pebbles ↓						
										moist	0	0	0	0
1159		20				↓	↓	↓ mor. C. sand ↓		Collect 1206 BPS1-SB3063-1520	0	0	0	0
	S-5	21		32/60		m.dense	tan	F-M sand some gravel		moist	0	0	0	0
						↓	↓	↓ and pebbles ↓						
						↓	↓	↓ ↓		moist	0	0	0	0
						m.dense	tan	F-M sand tr. sm-med gravel						
1205		25				↓	↓	↓ ↓		Collect 1213 BPS1-SB3063-2025	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks: Hand auger to 5' bgs
Continuous macrocore in 2" X 5' acetate sleeves from 5-~~58~~' bgs
~~Discrete macrocore in 2" X 5' acetate sleeves from 5-___ bgs~~

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 6610 DT

BORING No.: BPS1-SB3063
DATE: 2-27-13
GEOLOGIST: J. Birkett
DRILLER: L. Reiss

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		25												
	S-6	26		44/60		m.dense	tan	F-M sand some gravel/pebbles		moist	0	0	0	0
						m. dense	lt brn	F-M sand tr. pebbles						
						m. dense	Brn	Pebbley F-C sand some gravel						
						m.dense	lt brn	F-M sand tr. pebbles		moist	0	0	0	0
						↓	tan	↓						
1219		30				↓	lt brn	↓ no pebbles ↓		moist	0	0	0	0
	S-7	31		38/60		m.dense	tan	F-M sand some gravel		moist				
						m.dense	tan to lt brn	F-M sand tr. pebbles		color banding	0	0	0	0
						m.dens	lt brn	F-C sand tr. gravel		moist				
						m.dense	tan	F-M sand tr. mica			0	0	0	0
1250		35				↓	↓	↓		Collect 1300 BPS1-SB3063-2535				
	S-8	36		40/60		m.dense	tan	F sand tr. fine sm-med gravel		moist	0	0	0	0
						↓	↓	↓						
										moist	0	0	0	0
1312		40				↓	↓	↓ some M. pebbles		moist	0	0	0	0
	S-9	41		19/60		m.dense	tan	F sand tr. pebbles		moist	0	0	0	0
						↓	↓	↓						
						m.dense	Brn	F-M sand some sm-med gravel		moist	0	0	0	0
						↓	↓	↓ tr. silt						
1340		45				↓	↓	↓		Collect 1345 BPS1-SB3063-3545	0	0	0	0
	S-10	46		20/60		m.dense	lt brn	F sand some mica		moist	0	0	0	0
						↓	↓	↓						
							tan	F sand some mica		moist	0	0	0	0
							↓	↓						
1410		50			60'	↓	↓	F sand some thin silt lenses		Collect 1415 BPS1-SB3063-4550	0	0	0	0

* When rock coring, enter rock brokeness

50' bgs

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks: Hand auger to 5' bgs
Continuous macrocore in 2" X 5' acetate sleeves from 5- ' bgs
~~Discrete macrocore in 2" X 5' acetate sleeves from 5- ' bgs~~

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 6610DT

BORING No.: BPS1-SB3064
DATE: 2-26-13
GEOLOGIST: J. Birkett
DRILLER: L. Reiss

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
		0												
	S-1	1		60/60		hard loose	Blk Gray	asphalt Sand and gravel		moist	0	0	0	0
						m.dense	Brn lt brn	F-C sand and gravel tr. silt						
										moist	0	0	0	0
							Brn							
1305		5					lt brn			Collect 1303 BPS1-SB3064-0205 MS/MSD	0	0	0	0
	S-2	6		48/60		m.dense	lt brn	F-C Sand and pebbles some gravel		moist	0	0	0	0
										moist	0	0	0	0
1310		10								Collect 1313 BPS1-SB3064-0510	0	0	0	0
	S-3	11		51/60		m.dense	org brn	F-M sand some pebbles		moist	0	0	0	0
						m.dense	lt brn	F-M sand and pebbles sm-large tr. gravel						
										moist	0	0	0	0
1320		15					tan			Collect 1325 BPS1-SB3064-1015	0	0	0	0
	S-4	16		27/60		m.dense	tan	F-M sand some gravel sm-med		moist	0	0	0	0
										moist	0	0	0	0
						m.dense	tan	Gravely F-M sand						
1330		20								Collect 1332 BPS1-SB3064-1520	0	0	0	0
	S-5	21		32/60		m.dense	tan	F-C Sand some gravel		moist	0	0	0	0
										moist	0	0	0	0
										crushed rock at 24'				
1336		25								Collect 1338 BPS1-SB3064-2025	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: Hand Auger to 5 feet bgs
Continuous Macrocores with 2" by 5" acetate sleeves from 5' to 47' bgs

Drilling Area Background (ppm): 0-0

Converted to Well: Yes ____ No X ____ Well I.D. #: ____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 6610 DT

BORING No.: BPS1-SB3064
DATE: 2-26-13 and 2-27-13
GEOLOGIST: J. Birkett
DRILLER: L. Reiss

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		25												
1350	S-6	26		30/60		m.dense	tan	F-M Sand tr. to some pebbles		Moist	0	0	0	0
										Moist	0	0	0	0
		30								Moist	0	0	0	0
1405	S-7	31		43/60		m.dense	tan	F-M sand tr. pebbles & gravel		Moist	0	0	0	0
							to lt bro							
										Moist	0	0	0	0
		35								Collect 1410 BPS1-SB3064-2535	0	0	0	0
2-26-13														
2-27-13	S-8	36		42/60		m.dense	tan lt bro	F-M Sand tr. to some gravel and pebbles		Moist	0	0	0	0
										moist	0	0	0	0
						m.stiff	gray	clay						
0860		40				m.dense	tan	F-M sand tr. pebbles		moist	0	0	0	0
	S-9	41		32/60		m.dense	tan w/orn specks	F-M sand tr. pebbles		Moist	0	0	0	0
										moist	0	0	0	0
						dense	Brn	Vfr Gravel and Silty Sand						
0915		45				m.dense	tan	F-M Sand tr. C. sand		Collect 0922 BPS1-SB3064-3545	0	0	0	0
	S-10	46		12/60		m.dense	tan	F-M Sand		and 0900 BPS1-Dup05-20130227	0	0	0	0
		47												
1050										Collect 1055	0	0	0	0
					EOB 47.5			Hit refusal at 47.5 bgs		BPS1-SB3064-45 MS/MSD 47				

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks: Hand auger to 5' bgs
Continuous macrocore in 2" X 5' acetate sleeves from 5-47.5 bgs
~~Discrete macrocore in 2" X 5' acetate sleeves from 5-~~ bgs

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 6610DT

BORING No.: BPSI-SB3065
DATE: 2-25-13
GEOLOGIST: J. Birkett
DRILLER: L. Reiss

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
		0												
	S-1	1		60/60		m dense	DK Brn	Top soil w/ ~~some~~ trace sand and gravel Sig 2-25-13		moist	0	0	0	0
						↓	↓	↓						
						m dense	Brn	F-C sand and sm-med gravel		moist	0	0	0	0
						↓	↓	↓						
1357		5				↓	↓	↓		Collect 1402 BPSI-SB3065-0205	0.1	0	0	0
	S-2	6		40/60		m dense	lt brn tan	F-C sand and SM gravel		moist	0.1	0	0	0
						dense	Brn	M-C sand some pebbles						
						m dense	lt brn	F-M sand tr. to some gravel		moist	0.1	0	0	0
						↓	↓	↓		Collect 1405 BPSI-SB3065-0510				
1401		10				↓	↓	↓		moist	0.1	0	0	0
	S-3	11		30/60		m dense	tan	F-C sand some sm-large gravel		moist gravel up to 1" Φ	3.7	0	0	0
						↓	↓	↓						
						↓	↓	↓		moist	1.8	0	0	0
						↓	↓	↓						
1406		15				↓	↓	↓		Collect 1411 BPSI-SB3065-1015	1.8	0	0	0
	S-4	16		34/60		m dense	tan	F-M sand tr. to some gravel		moist	0	0	0	0
						↓	↓	↓						
						↓	↓	↓		moist	0	0	0	0
						↓	↓	↓		1600 BPSI-Dup02-20	302	25		
1415		20				↓	↓	↓		Collect 1421 BPSI-SB3065-1520	0	0	0	0
	S-5	21		34/60		m dense	tan	F-C sand and sm-large gravel		gravel >1" Φ	0	0	0	0
						↓	↓	↓		moist				
						↓	↓	↓			0.1	0	0	0
						↓	↓	↓		moist				
1428		25				↓	↓	↓		Collect 1450 MS/MSD BPSI-SB3065-2025	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks: Hand Auger to 5 feet bgs
Continuous Macrocores with 2" by 5" acetate sleeves 5-35' bgs
Discrete macrocore from 35'-

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 6610DT

BORING No.: BPS1-SB3065
DATE: 2-25-13 and 2-26-13
GEOLOGIST: J. Birkett
DRILLER: L. Reiss

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		25												
	S-6	26		31/60		m.dense dense	Brn Brn	VF-F Sand tr. silt and M. sand Silty VF Sand		moist wet	0.1	0	0	0
						m.dense	lt brn	F-M sand tr. sm. pebbles						
						↓	↓	↓ ↓		moist	0.9	0	0	0
						dense	Brn	Silty F. Sand		silt lens at 8.5' bgs				
1440		30				m.dense	tan	F-M sand tr. C. Sand		moist	0.1	0	0	0
	S-7	31		35/60		m.dense	tan	F-M Sand and sm-med pebbles		moist	0	0	0	0
						↓	↓	↓ tr. gravel (small) ↓						
						m.dense	tan	F-M sand tr. sm. gravel		moist	0	0	0	0
						↓	↓	↓ ↓		Collect 1502 BPS1-SB3065-2535				
2-25-13 1455		35				m.dense	tan	F-C Sand and sm. gravel		moist	0	0	0	0
2-26-13	S-8	36		10/60		m.dense	tan	F-M sand tr. sm-med gravel		moist	0	0	0	0
						↓	↓	↓ ↓		crushed rock in shoe				
										liner smashed in macrocore				
										unable to retrieve top 4'				
0910		40				↓	↓	↓ ↓		Collect 0930 BPS1-SB3065-3540				
					EOB 40' bgs									

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks: Hand Auger to 5 feet bgs
Continuous Macrocores with 2" by 5" acetate sleeves 5-35' bgs
Discrete 35-40', Hit refusal at 40'

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 6610DT

BORING No.: BPS1-SB3066
DATE: 2-25-13
GEOLOGIST: J. Birkett
DRILLER: L. Reiss

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		0												
	S-1	1		60/60		Blk and brn → lt brn →		Organics and F-M sand and pebbles (sm)		Hand clear to 5' bgs	0.4	0	0	0
						loose	lt brn	F-C sand and sm. med pebbles tr. to some (sm) gravel		Collect 1117 BPS1-SB3066-0002				
						↓	↓	↓		moist	0.6	0	0	0
						loose	gray	Crushed rock						
1115		5				m. dense	tan	F-M sand		Collect 1119 BPS1-SB3066-0205	0.7	0	0	0
	S-2	6		40/60		m. dense	tan	F-M sand tr. C. sand		moist	8.8	0	0	0
						m. dense	tan							
							Brn	F-M sand some sm-med pebbles tr. gravel		Moist	0.1	0	0	0
						m. dense	tan	F-M sand tr. sm-med pebbles		thin dk brn layers at 7 and 9'				
1118		10				m. dense	tan	F-M sand		Collect 1123 BPS1-SB3066-0510	0.3	0	0	0
	S-3	11		36/60		m. dense	tan	F-C sand some sm-med pebbles tr. gravel		moist	0.3	0	0	0
						↓	↓	↓						
						↓	↓	↓ more pebbles ↓		Collect 1130 BPS1-SB3066-1013	0	0	0	0
						dense	Brn/Blk	F-C sand and gravel tr. silt		moist to wet				
1122		15				↓	↓	↓		Collect 1132 BPS1-SB3066-1315	0	0	0	0
	S-4	16		38/60		m. dense	Brn	VF-M sand tr. to some silt		moist	0.1	0	0	0
						↓	↓	↓						
										moist	0	0	0	0
										Silt lens at 18' bgs				
1128		20				↓	↓	↓		Collect 1136 BPS1-SB3066-1520	0	0	0	0
	S-5			47/60		m. dense	tan	F-M sand tr. C. sand		and BPS1-Dup01-20130225 1200 Moist	51.6	0	0	0
						↓	↓	↓		moist	0.8	0	0	0
						m. dense	lt brn	F-M sand some silt						
1140		25			EOB 25' bgs	m. dense	lt gray	F-M sand		Collect 1150 BPS1-SB3066-2025 moist	0.4	0	0	0

* When rock coring, enter rock brokeness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Note: Attempted to collect 25-30' bgs but drilling got very hard

Drilling Area Background (ppm): 0.0

Remarks: Hand Auger to 5 feet bgs
Continuous Macrocores with 2" by 5" acetate sleeves 5'-15' bgs

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 6620DT

BORING No.: BPS1-SB3067
DATE: 2-25-13
GEOLOGIST: J. Birkett
DRILLER: L. Reiss

	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		0												
	S-1	1		60/60		loose	Brn	F-C sand some gravel tr. silt		moist	10.3	0	0	0
						loose	lt brn	F-C sand and gravel		Collect 1227 BPS1-SB3067-0002				
						↓	↓	↓			1.6	0	0	0
										moist				
1225		5				↓	↓	↓		Collect 1229 BPS1-SB3067-0205	0.5	0	0	0
	S-2	6		39/60		m. dense	lt brn	F-M sand tr to some sm-med pebble		moist	0.3	0	0	0
						↓	↓	tr. sm. gravel						
										moist	0	0	0	0
1229		10				↓	↓	↓		Collect 1240 BPS1-SB3067-0510	0	0	0	0
	S-3	11		40/60		m. dense	tan	VF-C sand tr to some sm-med pebble		moist	25	0	0	0
						↓	to lt brn	tr. gravel						
										moist	0	0	0	0
1233		15				↓	↓	↓		Collect 1250 BPS1-SB3067-1015	0	0	0	0
	S-4	16		39/60		dense	Brn to DK Brn	F-C sand and gravel		moist	0	0	0	0
						↓	↓	↓						
						m. dense	lt brn	VF-F sand some gravel		moist	0	0	0	0
						m. dense	lt brn	F-M sand tr. pebbles						
1240		20				↓	↓	↓		Collect 1300 BPS1-SB3067-1520	0	0	0	0
	S-5	21		50/60		m. dense	lt brn	F-M sand tr. silt sm pebble		moist	0	0	0	0
							↓							
							tan			moist	0	0	0	0
1255		25			EOB 26' bgs	↓	↓	↓		Collect 1305 BPS1-SB3067-2025	0	0	0	0

* When rock coring, enter rock brokeness.

Note: Could not drill past 25' bgs, Footwas sinking pulling out

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks: Hand Auger to 5 feet bgs
Continuous Macrocores with 2" by 5" acetate sleeves 5-15' bgs
Discrete macrocore from 15-25' bgs

Converted to Well: Yes ____ No X ____ Well I.D. #: ____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 6610DT

BORING No.: BPS1-SB3068
DATE: 2-25-13
GEOLOGIST: J. Birkett
DRILLER: L. Reiss

	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		0												
	S-1	1		60/60		m. dense to	Brn/Blk	F-M sand tr. pebbles and organics		Hand clear to 5' bgs	0.3	0	0	0
						loose	lt brn to tan	F-M Sand tr. pebbles and		Collect 0942 BPS1-SB3068-0002				
								gravel		crushed rock and Sand 4.5' bgs	0	0	0	0
						m. dense	tan	pebble/gravel layer						
0940		5				loose	tan	F-M sand		Collect 0945 BPS1-SB3068-0205	0	0	0	0
	S-2	6		48/60		m. dense	light brn to brn	F-M sand some gravel tr. silt		moist	1.6	0	0	✓
						m. dense	light brn	F-C sand and gravel		black crushed gravel				
							to dk brn	tr. to some silt tr. crushed rock		some iron staining	0.4	0	0	0
						dense	Brn	F-C sand some gravel tr. silt						
0945		10								Collect 0955 BPS1-SB3068-0510	0.4	0	0	0
	S-3	11		47/60		m. dense	Brn	Silty F-M sand tr. pebbles and gravel		moist	5.2	0	0	0
						m. dense	lt brn	F-M sand tr. sm. pebbles						
						dense	lt brn	Silty F-M sand		moist	3.2	0	0	0
					∇	m. dense	lt brn	F-M sand tr. C. sand		wet				
0950		15				dense	tan			Collect 1005 BPS1-SB3068-1015	0.6	0	0	0
	S-4	16		45/60		m. dense	tan	F-M sand tr. C. sand and clay		wet	0	0	0	0
						stiff	gray	Clay						
						loose	lt gray	F-M sand		wet	0	0	0	0
1001		20								1020 BPS1-SB3068-1520 wet	0	0	0	0
					EOB 20' bgs									

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks: Hand Auger to 5 feet bgs
Continuous Macrocores with 2" by 5" acetate sleeves 5-15' bgs
Discrete 15-20' bgs

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Zebra
DRILLING RIG: Geoprobe 6610DT

BORING No.: BPSI-SB3069
DATE: 2-25-13
GEOLOGIST: J. Birkett
DRILLER: L. Reiss

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
		0												
	S-1	1		60/60		loose	lt Brn	F-M sand some C. sand		Hand clear to 5' bgs	0.3	0	0	0
						loose	Brn	Silt, F-M sand w/ organics		Collect 0857 BPSI-SB3069-0002				
						loose	lt brn	F-M sand and sm. pebbles		moist	6.8	0	0	0
						loose	tan	F-M sand tr. sm-lg pebbles tr. silt		lg gravel layer at 3' bgs				
0855		5								Collect 0900 BPSI-SB3069-0205	0.3	0	0	0
0900	S-2	6		50/60		m. dense m. dense	tan to light brn	F-M sand		moist	1.1	0	0	0
						m. dense	lt brn to light brn	Crushed rock and sand F-C sand and pebbles tr. silt						
								more crushed rock		black gravel from 7-8'	0	0	0	0
										moist				
		10				m. dense stiff m. dense	tan gray tan	F-M sand 0906 Collect		Clay lens at 9.5' bgs BPSI-SB3069-0506	0	0	0	0
0906	S-3	11		38/60		m. dense	tan	F-M sand		1 foot of sleeve not logged	2.4	0	0	0
										moist	1.1	0	0	0
					▽					wet				
		15				Stiff	Gray	Clay		Collect BPSI-SB3069-0910	0	0	0	0
0930	S-4	16		54/60		m. dense	lt gray	F-M sand		wet	0	0	0	0
										wet	6	0	0	0
										0935 Collect BPSI-SB3069-1520				
		20								wet	0	0	0	0
	S-5	21			EOB 20' bgs									
		25												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks: Hand Auger to 5 feet bgs
Continuous Macrocores with 2" by 5" acetate sleeves from 0 15' bgs
Discrete from 15-

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Delta
DRILLING RIG: Failing F-6

BORING No.: BPS1-SB3070
DATE:
GEOLOGIST: J. Birkett
DRILLER: J. Gueci

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
		1				hard	Blk	asphalt		Hand Clear to 5'	0	0	0	0
						m.dense	Brn/Blk	F-C sand and gravel		moist				
						↓	↓	↓ ↓			0.1	0	0	0
						m.dense	lt brn	F-C sand some gravel						
1416		5				↓	↓	↓ ↓		moist	0.1	0	0	0
		6				m.dense	lt brn	F-C sand and gravel		gravel up to 1" ϕ	0.2	0	0	0
						↓	org/brn	↓ ↓						
						m.dense	lt brn	F-C sand some gravel		moist	0	0	0	0
						↓	↓	↓ ↓						
1420		10				↓	↓	↓ ↓						
		11				m.dense	lt brn	F-C sand and gravel		gravel up to 2½" ϕ	0	0	0	0
						↓	↓	↓ ↓						
1425		15				↓	↓	↓ ↓						
		16				m.dense	lt brn	F-M sand some sm-med pebbles tr. gravel sm.		gravel <0.5" ϕ	0.4	0	0	0
						↓	↓	↓ ↓						
1428		20				↓	↓	↓ ↓						
		21												
	S-1	22						No sample						
		23												
		24												
		25												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks: 3¼" ID × 6" OD augers w/ 2" × 2' split spoon using 175 lbs drop hammer

Converted to Well: Yes _____ No X Well I.D. #: _____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Delta
DRILLING RIG: Failing F-6

BORING No.: BPS1-SB3070
DATE: 6-7-13
GEOLOGIST: J. Birkett
DRILLER: J. Gucci

	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	S-2	26	50/10	5/24		m.dens	ltbrn	F-M sand some silt		moist	0	0	0	0
						dense	ltbrn	VF sand some silt		wet				
0725		27	8/8			m.dense	ltbrn	F-M sand tr. silt		moist	0	0	0	0
		28								Collect 0730 BPS1-SB3070-2527				
0734	S-3	29	6/6	4.5/24		m.dense	ltbrn	F-M sand		moist	0	0	0	0
		30	9/10			↓	↓	↓ ↓		Collect 0738 BPS1-SB3070-2830	0	0	0	0
0746	S-4	31	6/10	13/24		m.dense	ltbrn	F-M sand tr. silt		moist	0	0	0	0
		32	30/25			m.dense	tan to ltbrn	F-C sand and gravel		gravel 2" Φ	0	0	0	0
		33												
0755	S-5	34	10/11	11/24		m.dense	ltbrn	F-M sand some gravel and pebbles		moist	0	0	0	0
		35	25/30			↓	tan	more gravel/pebbles		Collect 0800 BPS1-SB3070-3035	0	0	0	0
0805	S-6	36	11/12	11.5/24		m.dense m.dense m.dense	ltbrn Brn ltbrn	F-M sand some gravel/pebbles tr. silt		and BPS1-Dup02-20130607 1000	0	0	0	0
		37	20/25			↓	tan	F-M sand		Brown iron concretions moist	0	0	0	0
		38												
0812	S-7	39	5/8	14.5/24		m.dense	ltbrn	F-M sand		moist	0	0	0	0
		40	8/11			↓	tan	↓ ↓		Collect 0815 BPS1-SB3070-3540	0	0	0	0
		41												
		45												
		46												
		50												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: See First Page for Details

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No X Well I.D. #: _____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Delta
DRILLING RIG: Failing F-6

BORING No.: BPS1-SB3071
DATE: 6-7-13
GEOLOGIST: J. Birkett
DRILLER: J. Gueci

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
		1				Hard	Blk	Asphalt		Hand clear to 5' bgs	0	0	0	0
						m.dense	Brwn	F-M Sand Some gravel small		moist				
						m.dense	ltbrn	F-M sand and gravel/pebbles		moist	0	0	0	0
						m.dense	ltbrn	Silty F-M sand tr. clay and pebbles		moist to wet				
0915		5				↓	↓	↓			0	0	0	0
		6				↓	↓	↓		moist to wet	0	0	0	0
						m.dense	ltbrn	F-C sand and pebbles gravel		gravel up to 2"ϕ				
						↓	↓	↓		moist				
0918		10				↓	↓	↓ less gravel						
		11				m.dense	ltbrn	F-C sand and pebbles		moist	0	0	0	0
						↓	↓	↓ Some sm. gravel		gravel <1"ϕ				
0926		15				↓	↓	↓						
		16				m.dense	ltbrn org	F-M sand some pebbles and gravel		moist	0	0	0	0
						↓	↓	↓		gravel <1"ϕ				
0932		20				↓	↓	↓						
		21												
0937	S-1	22	60 / 17	12 / 24		m.dense	ltbrn	F-M sand some sm-med gravel and pebbles		gravel up to 1"ϕ	0	0	0	0
		23	17 / 12			↓	tan	↓		Collect 0942 BPS1SB3071-2025	0	0	0	0
		25												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks: 3¼" ID × 6" ID augers w/ 2" × 2' split spoon 175 lbs drop hammer
Logged soil cutting unless otherless otherwise noted

Converted to Well: Yes _____ No X _____ Well I.D. #: _____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Delta
DRILLING RIG: Failing F-6

BORING No.: BPS1-SB 3071-
DATE: 6-7-13
GEOLOGIST: J. Birkett
DRILLER: J. Gucci

	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
0950	S2	26	7/8	11/24		m. dense dense	tan lt brn	F-M sand tr. silt Silty UF sand		moist moist to wet	0	0	0	0
		27	9/13			↓	↓	↓ ↓			0	0	0	0
		28												
1002	S-3	29	5/7	15/24		m. dense dense	lt brn tan	F-M sand tr. silt Silty UF sand		moist	0	0	0	0
		30	9/10			m. dense dense m. dense	or/brn lt brn tan	F-M sand tr. pebbles Silty UF sand F-M sand		Collect 1007 BPS1-SB3071-2530	0	0	0	0
1010	S-4	31	4/7	10/24		m. dense	lt brn lt brn	Silty UF sand F-C sand and gravel		BPS1-DUP03-20130607 1700	0	0	0	0
		32	7/11			m. dense	tan	↓ ↓		moist	0	0	0	0
		33												
1030	S-5	34	10/13	10.5/24		m. dense	lt brn tan	F-M sand tr. pebbles		moist	0	0	0	0
		35	16/17			↓	↓	↓ ↓		Collect 1035 BPS1-SB3071-3035	0	0	0	0
1038	S-6	36	4/7	8/24		m. dense	lt brn	F-M sand tr pebbles		moist	0	0	0	0
		37	12/25			m. dense	tan	F-M sand some gravel and pebbles			0	0	0	0
		38												
1045	S-7	39	9/20	9/24		m. dense	lt brn	F-M sand some gravel		black gravel iron concretions	0	0	0	0
		40	12/15			↓	w/brn spots	↓ and pebbles ↓		Collect 1050 BPS1-SB3071-3040	0	0	0	0
		41			EOB 40' bgs					Run MS/MSD				
		45												
		46												
		50												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: See First Page for Details

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No X Well I.D. #: _____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Delta
DRILLING RIG: Failing F-6

BORING No.: BPS1-SB3072-2
DATE: 6-8-13
GEOLOGIST: J. Birkett
DRILLER: Jason Gueci

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		1				Hard dense	Blk Blk	Asphalt F-C sand and gravel		Hard Clay to 5' bgs moist	0.	0	0	0
						m.dense	Brn	F-C sand and gravel						
						↓	↓	↓			0	0	0	0
						↓	↓	↓						
0820		5				m.dense	Brn	Silty F-M sand some clay			0	0	0	0
		6				m.dense	lt Brn	F-M sand some pebbles gravel tr. silt		moist	0	0	0	0
						↓	↓	↓		gravel >1" ϕ				
0830		10				↓	↓	↓						
		11				m.dense	lt brown	F-M sand some C. sand and pebbles		moist	0	0	0	0
						↓	↓	↓ tr. to some gravel tr. silt		gravel >1" ϕ				
0848		15				↓	↓	↓						
		16				m.dense	lt brown	F-M sand tr. C. sand and sm. pebbles		moist	0	0	0	0
						↓	↓	↓ very few sm gravel		gravel ~0.5" ϕ				
0854		20				↓	↓	↓						
		21								Attempt to collect 21-23' bgs hard rock stuck in tip,				
	S-1	22		~~24~~						only 2" of sloughy recovery from 22-24' bgs				
0918	↓	23	4/5	13/24		m.dense	lt brn	F-C sand some sm. pebbles tr. gravel		Collect 0923 BPS1-SB3072-2025	0	0	0	0
			9/17			m.dense	lt brn	F-M sand some sm-med gravel and pebbles tr. silt			0	0	0	0
		25												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks: 3 1/4" ID x 6" OD augers w/ 2" x 2' split spoon and 175 lbs drop hammer
Soil Cuttings logged unless otherwise noted

Converted to Well: Yes _____ No X _____ Well I.D. #: _____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Delta
DRILLING RIG: Failing F-6

BORING No.: BPS1-SB3072
DATE: 6-6-13
GEOLOGIST: J. Birkett
DRILLER: J. Gueci

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
0945	S-2	26	6/8	16/24		m. dense dense	lt brn Brn	F sand tr. M. sand UF-F sand tr. silt		moist wet	0.3	0	0	0
		27	10/10			↓	↓	↓			0.7 1.3	0 0	0 0	0 0
		28			m.	dense	lt brn	F sand some M sand						
0959	S-3	29	4/15	14/24		m. dense	lt brn	F-M sand tr. to some small gravel		gravel <0.5"Φ moist	0	0	0	0
		30	20/20			↓	org brn lt brn	↓		Collect 1005 BPS1-SB3072-2530	0	0	0	0
1011	S-4	31	8/15	16/24	2000	m. dense dense	org brn white	F-M sand tr. gravel and pebbles Crushed rock		moist more silt above	0	0	0	0
		32	25/30			m. dense	lt brn	F-M sand some C. sand very few pebbles		and below crushed rock and brown in color	0	0	0	0
		33												
1025	S-5	34	10/20	12/24	2000	m. dense loose	Brn white	F-M sand some gravel tr. silt Crushed rock		moist Brn areas semi-cemented together	0.2 0	0 0	0 0	0 0
		35	40/35			m. dense	lt brn w/ brown areas	F-M sand tr. sm-med pebbles and silt		Collect 1030 BPS1-SB3072-3035	0	0	0	0
1035	S-6	36	10/25	15/24		m. dense	lt brn w/	F-M sand tr. to some sm gravel		gravel <0.5"Φ moist	0	0	0	0
		37	30/35				brown spots	some brown iron concretions		increasing brown spots at bottom	0	0	0	0
		38												
1046	S-7	39	7/14	11/24		m. dense	lt brn w/brn spots	F-M sand tr. pebbles very few gravel		moist ~1"Φ brown iron concretion	0	0	0	0
		40	20/24			m. dense m. dense	Brn tan	F-M sand some gravel tr. silt F-M sand		Collect 1050 BPS1-SB3072-3540	0	0	0	0
		41			EOB 40' bgs									
		45												
		46												
		50												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: See First Page for Details

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No X Well I.D. #: _____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Delta
DRILLING RIG: Failing

BORING No.: BPS1-SB3073
DATE: 6-4-13
GEOLOGIST: J. Birkett
DRILLER: J. Gucci

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
0840		1				hard	Gray	asphalt and concrete (could not break through)		moved location to Hand clear to grade	—	—	—	—
						m.dense	Brn	Top Soil first foot at new location Silty F-M sand some gravel		5' bgs				
										PID broken				
						m. dense	lt brn	F-C sand some sm-med gravel		(no readings could be taken)				
		5						tr. silt		moist				
		6								moist	—	—	—	—
										gravel up to 1" ϕ				
										moist				
0920		10								moist				
		11				m.dense	lt brn	F-M sand some C. sand		moist to wet	—	—	—	—
								tr. to some sm-med gravel						
0927		15												
		16				m.dense	lt brn	Same as above		moist	—	—	—	—
0933		20												
		21				m.dense	lt brn	Gravel and F-M sand		moist to wet large gravel up to 2.5" ϕ	—	—	—	—
						m.dense	lt brn	F-M sand some C. sand and sm-med pebbles		moist to wet				
								tr. sm. gravel		m.				
0939		25												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): —

Remarks: 3¼" ID 6" OD Augers w/ 2'x2" split spoon · 175 lbs drop hammer
Logged soil cuttings unless otherwise noted w/ split spoon

Converted to Well: Yes _____ No X Well I.D. #: _____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Delta
DRILLING RIG: Failing

BORING No.: BPS1-SB3073
DATE: 6-4-13
GEOLOGIST: J. Birkett
DRILLER: J. Gucci

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
		26				m.dense	ltbrn	F-M sand some C. sand tr. pebbles and sm g=vel		moist	–	–	–	–
0942		30												
		31				m.dense	ltbrn	F-M sand some C. sand and pebbles tr. to some small gravel		moist	–	–	–	–
0949		35												
		36				m.dense	ltbrn	F-M sand tr. C. sand and silt very few sm. pebbles		moist	–	–	–	–
		40												
9B 643	~~S1~~	41		~~9/28~~						Collect 1015 BPS1-SB3073-4045	–	–	–	–
1010	S-1	42	3/8	9/28		m.dense	ltbrn	F sand some M. sand tr. silt		18" of recovery but dk Brn to 9" was silty clay that was likely stuck in cutting head	–	–	–	–
		43	10/10			m.dense	tan	F. sand tr. M. sand			–	–	–	–
		45												
	~~S2~~	46		~~X/28~~						Collect 1106 BPS1-SB3073-4550	–	–	–	–
1100	S-2	47	10/14	15/28		m.dense	tan	F sand tr. M sand		moist	–	–	–	–
		48	24/17			m.dense m.dense	ltbrn tan	F sand tr. M sand and silt F sand tr. M sand		moist to wet	–	–	–	–
		50												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: See First Page for Details

Drilling Area Background (ppm): –

Converted to Well: Yes _____ No X Well I.D. #: _____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Delta
DRILLING RIG: Failing

BORING No.: BPS1-SB3073
DATE: 6-4-13
GEOLOGIST: J. Birkett
DRILLER: J. Guec'

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	S.	51												
	c									Tried split spoon from 51-53 but cutting shoe came off w/ rod				
	~~S3~~	53								sample insider try again from 52-54	—	—	—	—
1330	S3	54	8/14	8/24		m.dense	light tan	F-M sand wet		but cutting shoe bulges in cutting head	—	—	—	—
		55	40/50			↓	↓	↓ tr. C. sand ↓	1335	pull all augers Collect BPS1-SB3073-5055	—	—	—	—
1340	S-4	56	6/15	18/24		m.dense	light tan	F-M sand tr. C. sand w/mica		wet	—	—	—	—
			35/40								—	—	—	—
	9		4/7			m.dense	light tan	M sand some C sand		wet	—	—	—	—
1350	S-5	60	20/20	17/24		↓	↓	↓ ↓ w/mica		Collect BPS1-SB3073-5560 1355	—	—	—	—
		61												
		62												
1405	S-6	63	5/11	17/24		m.dense stiff	light tan lt gray	F-M sand tr. C. sand (mica) clay		wet	—	—	—	—
		64	22/30			m.dense	lt brn w/brn spots	F-M sand some C. sand tr. silt		Collect 1410 BPS1-SB3073-6065	—	—	—	—
		65			EOB 64bgs									
		66												
		70												
		71												
		75												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: See First Page for Details

Drilling Area Background (ppm): —

Converted to Well: Yes _____ No X Well I.D. #: _____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Delta
DRILLING RIG: Failing F-10

BORING No.: BPS1-SB3074
DATE: 6-5-13
GEOLOGIST: J. Birkett
DRILLER: Jason Gucci

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		1				hard	Blk	Asphalt		Hard clear to 5 bgs	–	–	–	–
						m.dense	Blk	F-C sand some gravel tr. silt		moist				
						↓	↓	↓ ↓						
						m.dense	lt Brn	Silty F-C sand some gravel						
0935		5				↓	↓	↓ ↓						
		6				m.dense	lt Brn	Silty F-C sand some gravel		moist	–	–	–	–
						↓	↓	↓ ↓		gravel up to 2" ϕ				
0940		10				↓	↓	↓ ↓						
		11				m.dense	lt brn	F-C sand some gravel		gravel up to 1" ϕ	–	–	–	–
						↓	↓	↓ ↓		moist				
0945		15				↓	↓	↓ ↓						
		16				m. dense	lt brn	F-M sand some C. sand		moist	–	–	–	–
						↓	↓	and sm-med pebbles tr. to some gravel ↓ ↓						
0950		20				↓	↓	↓ ↓						
		21				m.dense	Brn	F-M sand some sm-med pebbles		moist	–	–	–	–
						↓	↓	and gravel tr. silt ↓ ↓		gravel up to 1" ϕ				
0955		25				↓	↓	↓ ↓						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: 3¼" ID 6" OD augers 2"x2' splitspoon using 175 lbs drop hammer
Soil Cuttings logged unless otherwise noted

Drilling Area Background (ppm): –

Converted to Well: Yes _____ No X Well I.D. #: _____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Delta
DRILLING RIG: Failing F-10

BORING No.: BPS1-SB3074
DATE: 6-5-13
GEOLOGIST: J. Birkett
DRILLER: Jason Guecci

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		26				m.dense	lt brn to	F-M sand some sm-med pebbles		moist	—	—	—	—
							brn	tr. gravel and silt		gravel >1"ϕ				
1009		30												
		31				m.dens	lt brn to brn	Gravely F-M sand		moist gravel >1"ϕ	—	—	—	—
								some pebbles tr. silt						
1014		35												
		36				m.dense	lt brn	Pebbley F-M sand		moist	—	—	—	—
								very few gravel						
		40												
		41												
	S1	42	12/40	0/24				No Good sample Black sand and gravel						
1040		43	40/40			↑	↑	Stuck in cutting head. Drill Down 1' and recollect		Collect 1110 BPS1-SB3074-4045	0	0	0	0
			5/12	10/24		m.dense	light tan	F sand tr. M sand		moist	0	0	0	0
1st attempt 1100 and 2nd attempt 1105		45	20/21	Sample From 42-44'										
1120	S-2	46	8/11	11/24		m.dense m.dense m.dense	lt tan tan lt tan	F sand tr. M sand F sand tr. M sand and silt F sand tr. M sand		moist	1.3 0.3	0 0	0 0	0 0
		47	17/25			m.dense m.dense	tan lt tan	F sand tr. M sand and silt F sand tr. M sand			0.1	0	0	0
		48												
1135	S-3	49	12/18	14/24		m.dense m.dense	lt tan tan	F sand tr. M sand F sand tr. M sand and silt		moist	0.8 0.1	0 0	0 0	0 0
		50	18/22			m.dense m.dense	gray lt tan lt brn	Silt some clay F-M sand tr. Silt		Collect 1140 BPS1-SB3074-4550	0	0	0	0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: See First Page for Details

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No X Well I.D. #: _____

Tetra Tech

BORING LOG

PROJECT NAME: NWIRP Bethpage Site 1
PROJECT NUMBER: 112G02230
DRILLING COMPANY: Delta
DRILLING RIG: Failing F-10

BORING No.: BPS1-SB3074
DATE: 6-5-13
GEOLOGIST: J. Birkett
DRILLER: Jason Guec:

Time	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
		50												
1150	S-4	51	9/8	16/24		m. dense m. dense	lt gray lt brn	F-M sand tr. to some silt F-M sand tr. silt		Moist	0	0	0	0
		52	11/15			dense dense m. dense	lt gray/brn tan lt tan	Silty VF sand some clay F-C sand (micaceous) F-M sand		gray clay lens at 51.75'	0	0	0	0
		53												
1255	S-5	54	7/9	10/24		m. dense m. dense	lt brn tan	F sand some M-C sand tr. silt F-M sand some C sand		wet	0	0	0	0
		55	40/30			↓	↓	↓		Collect 1305 BPS1-SB3074-5055	0	0	0	0
1310	S-6	56	10/10	9/24		m. dense	tan	F-C sand tr. silt		BPS1-Dup20130605 and 1200 for	0	0	0	0
		57	20/18			m. dense	lt tan	F-M sand		wet	0	0	0	0
		58												
1325	S-7	59	15/25	14/24		m. dense	tan	F-M sand tr. silt		Collect 1330 BPS1-SB3074-5560	0	0	0	0
		60	20/20			m. dense	light brn	F-C sand some silt		wet	0	0	0	0
		61												
		62												
1405	S-8	63	5/7	11/24		m. dense	lt tan	F-M sand tr. C. sand		wet	0.1	0	0	0
		64	25/30				tan	very little silt		Collect 1415 BPS1-SB3074-6065	0	0	0	0
		65			EOB 64' bgs									
		66												
		70												
		71												
		75												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: See First Page for Details

Drilling Area Background (ppm): 0.2

Converted to Well: Yes _____ No X Well I.D. #: _____

APPENDIX D

SURVEY DATA

BANC3, Inc.
Consulting Engineers
www.banc3.com

- Engineers
- Surveyors
- Construction Managers
- Information Technology

300 Alexander Park, Suite 350
Princeton, NJ 08540
609.759.1900 phone
609.919.9022 fax

Survey Report
U.S. Navy – NWIRP
Bethpage, New York
Subcontract # 1091758
Job # 112G02230 – CTO WE44

BANC3 Project # 2000215-04

October 17, 2013

BANC3, Inc.
Consulting Engineers
www.banc3.com

- Engineers
- Surveyors
- Construction Managers
- Information Technology

300 Alexander Park, Suite 350
Princeton, NJ 08540
609.759.1900 phone
609.919.9022 fax

October 17, 2013

Robert Sok, P.G.
Project Manager / Geologist
Tetra Tech NUS, Inc.
Twin Oaks I, Suite 309
5700 Lake Wright Drive
Norfolk, VA 23502

Re.: Survey Report
US Navy – NWIRP
Bethpage, New York
Subcontract # 1091758
Job # 112G02230 – CTO WE44
BANC3 Project # 2000215-04

Dear Mr. Sok,

BANC3 Inc. is pleased to provide you with our completed Survey Report for the above referenced project.

BANC3 performed field surveys relative to the subject project to include Global Positioning Systems (GPS), conventional Total Station Surveys and differential leveling surveys. From the data, a table of Monitoring Well and Soil Boring Locations was prepared and included herein. The table includes control points utilized, locations and elevations of Monitoring Well cover, inner casing and adjacent ground where appropriate and Soil Boring locations and elevations. BANC3 performed field reconnaissance and locations of survey control markers tied National Geodetic Survey (NGS) monument designated as "15E 14N" (PID # KU5039) included herein. BANC3 verified the positioning and accuracy of the Monitoring Wells and Soil Borings through our ground field locations and redundant measurements of survey control points. All locations are referenced to New York State Plane Coordinates (Long Island Zone), North American Datum of 1983 and elevations referenced to North American Vertical Datum of 1988. (NAD83, NAVD 88).

We appreciate the opportunity to work with your organization and the US Navy. Please contact me if you have any questions and/or require additional information.

Respectfully submitted,

Thomas F. Miller, PLS, PP
State of New York Professional Land Surveyor #050484

STATE OF NEW YORK
THOMAS F. MILLER
050484
LICENSED LAND SURVEYOR

BETHPAGE, NY MARCH 18 AND 19, 2013

ON SITE WELL LOCATIONS AND SOIL BORING LOCATIONS

PT #	GRID NORTHING (US FT)	GRID EASTING (US FT)	ELEV (US FT)	CODE / DESCRIPTION
8003	215322.487	1125165.414	130.03	MW312S
8004	215322.312	1125165.285	129.81	CASING
8000	215322.073	1125164.754	127.74	GT
8002	215327.826	1125165.880	130.11	MW312I
8005	215327.647	1125165.865	129.95	CASING
8001	215327.501	1125165.446	127.72	GT
8006	215335.574	1125161.522	127.67	GT @ 312
8007	215335.193	1125170.805	127.00	GT @ 312
8008	215316.144	1125159.242	127.69	GT @ 312
8009	215314.987	1125167.709	127.37	GT @ 312
8016	215423.331	1124594.390	130.44	MW311S
8019	215423.402	1124594.444	130.23	CASING
8010	215423.726	1124593.934	128.01	GT
8017	215421.901	1124598.827	130.59	MW311I
8018	215422.011	1124599.099	130.34	CASING
8011	215422.069	1124598.533	128.23	GT
8012	215426.607	1124605.657	128.30	GT @ 311
8013	215415.856	1124603.018	128.84	GT @ 311
8014	215419.635	1124587.614	128.05	GT @ 311
8015	215430.803	1124590.217	128.29	GT @ 311
8025	215489.681	1124093.149	129.67	MW310S
8026	215489.753	1124093.163	129.50	CASING
8024	215490.117	1124093.208	127.42	GT
8020	215485.599	1124085.246	127.23	GT @ 310
8021	215482.604	1124100.787	127.26	GT @ 310
8022	215495.937	1124102.739	127.33	GT @ 310
8023	215497.824	1124084.508	127.24	GT @ 310

BETHPAGE, NY MARCH 18 AND 19, 2013
ON SITE WELL LOCATIONS AND SOIL BORING LOCATIONS

PT #	GRID NORTHING (US FT)	GRID EASTING (US FT)	ELEV (US FT)	CODE / DESCRIPTION
8037	215155.071	1125592.409	129.91	MW313S
8038	215154.779	1125592.428	129.76	CASING
8036	215154.819	1125592.734	127.48	GT
8032	215146.192	1125597.698	127.20	GT @ 313
8033	215164.848	1125598.633	126.98	GT @ 313
8034	215164.235	1125585.590	126.74	GT @ 313
8035	215146.045	1125586.148	127.50	GT @ 313
8046	214555.397	1125571.342	128.85	MW314S
8047	214555.481	1125571.008	128.60	CASING
8043	214556.004	1125571.412	126.15	GT
8045	214550.204	1125572.919	128.95	MW314I
8048	214550.460	1125572.683	128.69	CASING
8044	214550.807	1125572.940	126.28	GT
8039	214562.216	1125562.907	126.29	GT @ 314
8040	214540.512	1125567.125	126.10	GT @ 314
8041	214543.043	1125578.318	126.17	GT @ 314
8042	214565.405	1125575.897	126.25	GT @ 314
8090	214409.064	1124932.828	127.12	MW27S
8091	214408.971	1124932.604	127.04	CASING
8089	214408.636	1124932.984	124.40	GT
8096	214408.377	1124951.830	127.33	MW27I
8093	214408.498	1124951.944	126.51	CASING
8097	214407.359	1124952.265	124.43	GT
8085	214399.176	1124958.227	124.64	GT @ 27
8086	214397.877	1124925.635	124.11	GT @ 27
8087	214421.372	1124928.638	128.60	GT @ 27
8088	214420.223	1124960.834	126.08	GT @ 27

BETHPAGE, NY MARCH 18 AND 19, 2013

ON SITE WELL LOCATIONS AND SOIL BORING LOCATIONS

PT #	GRID NORTHING (US FT)	GRID EASTING (US FT)	ELEV (US FT)	CODE / DESCRIPTION
8104	213688.271	1124983.051	116.32	GT @ NO WELL LOCATED
8105	213687.558	1125000.492	117.10	GT @ NO WELL LOCATED
8106	213687.633	1125000.500	117.08	GT @ NO WELL LOCATED
8107	213736.347	1125001.951	116.80	GT @ NO WELL LOCATED
8108	213737.440	1124985.058	116.39	GT @ NO WELL LOCATED
8109	213344.325	1124895.719	114.40	GT @ 307
8110	213357.297	1124895.167	114.61	GT @ 307
8111	213364.997	1124931.069	114.91	GT @ 307
8112	213353.208	1124936.536	114.62	GT @ 307
8113	213385.882	1124416.341	115.72	GT @ 306
8114	213389.011	1124383.958	115.46	GT @ 306
8115	213377.633	1124382.269	115.08	GT @ 306
8116	213372.808	1124413.900	115.51	GT @ 306
8117	213410.060	1123954.291	116.11	GT @ 305
8118	213397.276	1123950.230	116.38	GT @ 305
8119	213406.394	1123924.521	116.65	GT @ 305
8120	213423.183	1123929.020	116.16	GT @ 305

BETHPAGE, NY MARCH 18 AND 19, 2013
ON SITE WELL LOCATIONS AND SOIL BORING LOCATIONS

PT #	GRID NORTHING (US FT)	GRID EASTING (US FT)	ELEV (US FT)	CODE / DESCRIPTION
8064	214460.736	1124829.651	125.07	SB3013
8055	214385.402	1124951.184	124.36	SB3014
8073	214306.349	1124951.225	123.90	SB3015
8069	214220.215	1124998.078	123.33	SB3016
8066	214236.896	1124798.173	123.78	SB3020
8065	214293.018	1124775.724	123.74	SB3021
8063	214520.158	1124851.213	125.77	SB3022
8062	214519.143	1124888.068	127.65	SB3023
8060	214467.387	1124959.364	126.94	SB3024
8052	214385.427	1124806.733	124.73	SB3025
8053	214406.699	1124883.226	123.30	SB3028
8082	214467.245	1125060.969	125.52	SB3031
8077	214330.137	1125056.267	123.70	SB3032
8078	214229.775	1125047.633	123.29	SB3033
8079	214123.617	1125040.622	123.07	SB3034
8080	214023.687	1125033.634	122.65	SB3035
8081	213979.299	1125024.598	122.30	SB3036
8102	213919.873	1124956.785	116.81	SB3037D
8103	213937.208	1124959.946	119.23	SB3037S
8098	213936.551	1124732.750	115.99	SB3039D
8099	213949.766	1124733.746	116.55	SB3039S
8100	213926.804	1124866.544	115.93	SB3039D
8101	213940.304	1124868.125	116.03	SB3039S
8072	214309.359	1124890.580	123.93	SB3044
8061	214519.712	1124968.690	125.97	SB3045
8057	214517.186	1125014.545	125.86	SB3046
8083	214514.128	1125070.182	125.32	SB3047
8058	214469.731	1125011.520	125.57	SB3048
8059	214422.520	1124959.566	126.14	SB3049
8056	214420.930	1125014.208	124.90	SB3050
8084	214428.838	1125055.924	125.19	SB3051
8054	214380.216	1124925.878	124.34	SB3052
8076	214373.599	1125010.148	124.49	SB3053

8074	214345.878	1124957.643	124.35	SB3054
8075	214332.210	1125006.738	124.07	SB3055
8070	214277.804	1124997.324	124.03	SB3056
8071	214266.402	1124946.852	123.72	SB3057
8067	214219.056	1124786.208	123.30	SB3058
8068	214174.188	1124813.027	123.15	SB3059
8051	214598.552	1124793.828	125.04	SB3062
8050	214596.674	1124877.643	125.86	SB3063
8049	214613.423	1124992.281	125.28	SB3064
8027	214654.064	1124853.943	124.42	SB3065
8029	214754.599	1124879.292	98.23	SB3066
8028	214832.611	1124975.326	98.60	SB3067
8031	214715.787	1125179.102	86.40	SB3068
8030	214859.025	1125206.834	85.81	SB3069

BANC3

Tetra Tech - Bethpage, NY

16 June 2011

INPUT	OUTPUT
Geographic, NAD83	State Plane, NAD83 3104 - New York Long Island, U.S. Feet

15E14N (KU5039)

1/1

Latitude: 40 45 13.49016
Longitude: 073 29 29.50713

Northing/Y: 214296.001
Easting/X: 1125124.593

Convergence: 0 19 57.29260
Scale Factor: 0.999996308

Remark: Prepared by: Thomas F. Miller, PLS, PP

Corpscon v6.0.1, U.S. Army Corps of Engineers

DERIVATION OF ORTHOMETRIC HEIGHT OF NATIONAL GEODETIC SURVEY MONUMENT 15E 14N (PID # KU5039)

"It is a straightforward procedure to algebraically subtract an interpolated geoid height, N, from a GPS ellipsoidal height, h, to obtain and orthometric height, H:

$$H = h - N"$$ [1]

<u>For NGS Monument 15E 14N:</u>

H = Orthometric Height (to be determined)

h = Ellipsoidal Height (6.331 meters) Adjusted 02/10/07

N = Geoid Height (-31.11 meters)

<u>or</u>

H = 6.331m – (-31.11m)

H = 37.441m (or 122.84 feet)

[1] Converting GPS Height into NAVD88 Elevation with the GEOID96 Geoid Height Model, Dennis G. Milbert, Ph.D. and Dru A. Smith, Ph.D., National Geodetic Survey, NOAA

The NGS Data Sheet

See file dsdata.txt for more information about the datasheet.

```
DATABASE = NGSIDB , PROGRAM = datasheet95, VERSION = 7.87.5
1         National Geodetic Survey,   Retrieval Date = FEBRUARY 14, 2012
 KU5039 ***********************************************************************
 KU5039  DESIGNATION -  15E 14N
 KU5039  PID         -  KU5039
 KU5039  STATE/COUNTY-  NY/NASSAU
 KU5039  USGS QUAD   -  HUNTINGTON (1979)
 KU5039
 KU5039                          *CURRENT SURVEY CONTROL
 KU5039
 KU5039* NAD 83(2007)-  40 45 13.49016(N)    073 29 29.50713(W)     ADJUSTED
 KU5039* NAVD 88     -        37.4    (meters)     123.     (feet)  VERTCON
 KU5039
 KU5039  EPOCH DATE  -        2002.00
 KU5039  X           -  1,374,891.931 (meters)                      COMP
 KU5039  Y           - -4,639,038.874 (meters)                      COMP
 KU5039  Z           -  4,141,749.994 (meters)                      COMP
 KU5039  LAPLACE CORR-           4.02 (seconds)                     DEFLEC09
 KU5039  ELLIP HEIGHT-           6.331 (meters)          (02/10/07) ADJUSTED
 KU5039  GEOID HEIGHT-         -31.11 (meters)                      GEOID09
 KU5039
 KU5039  ------- Accuracy Estimates (at 95% Confidence Level in cm) --------
 KU5039  Type    PID    Designation                        North   East  Ellip
 KU5039  ---------------------------------------------------------------------
 KU5039  NETWORK KU5039 15E 14N                              1.29   1.12   2.78
 KU5039  ---------------------------------------------------------------------
 KU5039
 KU5039.The horizontal coordinates were established by GPS observations
 KU5039.and adjusted by the National Geodetic Survey in February 2007.
 KU5039
 KU5039.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).
 KU5039.See National Readjustment for more information.
 KU5039
 KU5039.The horizontal coordinates are valid at the epoch date displayed above
 KU5039.which is a decimal equivalence of Year/Month/Day.
 KU5039
 KU5039.The NAVD 88 height was computed by applying the VERTCON shift value to
 KU5039.the NGVD 29 height (displayed under SUPERSEDED SURVEY CONTROL.)
 KU5039
 KU5039.The X, Y, and Z were computed from the position and the ellipsoidal ht.
 KU5039
 KU5039.The Laplace correction was computed from DEFLEC09 derived deflections.
 KU5039
 KU5039.The ellipsoidal height was determined by GPS observations
 KU5039.and is referenced to NAD 83.
 KU5039
 KU5039.The geoid height was determined by GEOID09.
 KU5039
 KU5039;                     North         East     Units Scale Factor Converg.
 KU5039;SPC NY L,     -    65,317.552   342,938.662   MT  0.99999631   +0 19 57.3
 KU5039;SPC NY L      -   214,296.00  1,125,124.59   sFT  0.99999631   +0 19 57.3
 KU5039;UTM  18       - 4,512,515.673   627,337.852   MT  0.99979958   +0 59 05.6
```

```
KU5039
KU5039!                 -  Elev Factor  x  Scale Factor =   Combined Factor
KU5039!SPC NY L         -   0.99999901  x   0.99999631  =   0.99999532
KU5039!UTM  18          -   0.99999901  x   0.99979958  =   0.99979859
KU5039
KU5039:                     Primary Azimuth Mark                          Grid Az
KU5039:SPC NY L         -   15E 14N AZ                                    093 49 50.7
KU5039:UTM  18          -   15E 14N AZ                                    093 10 42.4
KU5039
KU5039|-----------------------------------------------------------------------|
KU5039| PID     Reference Object                          Distance      Geod. Az  |
KU5039|                                                                 dddmmss.s |
KU5039| KU5058 15E 14N AZ                                APPROX. 0.6 KM 0940948.0 |
KU5039|-----------------------------------------------------------------------|
KU5039
KU5039                              SUPERSEDED SURVEY CONTROL
KU5039
KU5039  ELLIP H (12/03/02)     6.339  (m)                          GP(        ) 4 2
KU5039  NAD 83(1996)-  40 45 13.48989(N)    073 29 29.50681(W) AD(        ) 1
KU5039  ELLIP H (01/11/99)     6.342  (m)                          GP(        ) 4 1
KU5039  NAD 83(1996)-  40 45 13.49288(N)    073 29 29.50569(W) AD(        ) 1
KU5039  NAD 83(1992)-  40 45 13.49274(N)    073 29 29.50540(W) AD(        ) 1
KU5039  NAD 83(1986)-  40 45 13.49343(N)    073 29 29.50648(W) AD(        ) 1
KU5039  NGVD 29 (03/24/92)    37.8    (m)          124.      (f) GPS OBS
KU5039
KU5039.Superseded values are not recommended for survey control.
KU5039.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
KU5039.See file dsdata.txt to determine how the superseded data were derived.
KU5039
KU5039_U.S. NATIONAL GRID SPATIAL ADDRESS: 18TXL2733712515(NAD 83)
KU5039
KU5039_MARKER: DO = NOT SPECIFIED OR SEE DESCRIPTION
KU5039_SETTING: 59 = STAINLESS STEEL ROD IN SLEEVE (10 FT.+)
KU5039_SP_SET: STAINLESS STEEL ROD IN SLEEVE
KU5039_STAMPING: 15E14N
KU5039_MARK LOGO: NYDPW
KU5039_PROJECTION: RECESSED 8 CENTIMETERS
KU5039_MAGNETIC: N = NO MAGNETIC MATERIAL
KU5039_STABILITY: A = MOST RELIABLE AND EXPECTED TO HOLD
KU5039+STABILITY: POSITION/ELEVATION WELL
KU5039_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
KU5039+SATELLITE: SATELLITE OBSERVATIONS - 1990
KU5039_ROD/PIPE-DEPTH: 20.6 meters
KU5039_SLEEVE-DEPTH  : 1.52 meters
KU5039
KU5039  HISTORY     - Date     Condition        Report By
KU5039  HISTORY     - 1990     MONUMENTED       SBAS
KU5039
KU5039                              STATION DESCRIPTION
KU5039
KU5039'DESCRIBED BY SIDNEY B BOWNE AND SON 1990
KU5039'THE POINT IS LOCATED IN BETHPAGE, TOWN OF OYSTER BAY, 21 FEET (6.4 M)
KU5039'SOUTH OF THE CENTERLINE OF SYCAMORE AVENUE AND 40 FEET (12.2 M) EAST
KU5039'OF THE CENTERLINE OF NORTH 11TH STREET,IN THE CONCRETE SIDEWALK.
KU5039'THE LOCATION TIES ARE 42.5 FEET (13.0 M) FROM THE CENTER OF THE
KU5039'HYDRANT, 48.6 FEET (14.8 M) FROM THE CENTER OF THE SEWER MANHOLE AND
KU5039'33.8 FEET (10.3 M) FROM THE NORTH WEST CORNER OF HOUSE NUMBER 207.

*** retrieval complete.
Elapsed Time = 00:00:03
```

APPENDIX E

ANALYTICAL DATA TABLES

E.1 SOIL AND SEDIMENT ANALYTICAL DATA

E.2 GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA

E.3 SOIL VAPOR EXTRACTION CONTAINMENT SYSTEM VAPOR ANALYTICAL RESULTS OF SVE WELLS FIRST QUARTER 2013

E.4 SOIL VAPOR EXTRACTION CONTAINMENT SYSTEM OFF-SITE VAPOR ANALYTICAL DATA SUMMARY OF SVPMs JANUARY 2013

E.1 SOIL AND SEDIMENT ANALYTICAL DATA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS13001		BPS13001								
SAMPLE ID	BPS1-3001-GW-20090506	BPS1-3001-GW-20090511	BPS1-3001-SB-20090506	BPS1-3001-SB-20090506	BPS1-3001-SB-20090506	BPS1-3001-SB-20090506	BPS1-3001-SB-20090507	BPS1-3001-SB-20090507	BPS1-3003-SB-20090518	BPS1-3003-SB-20090518	BPS1-3003-SB-20090518
SAMPLE DATE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SAMPLE CODE	GW	GW	SO	SO	SO	SO	SO	SO	SO	SO	SO
MATRIX	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SAMPLE TYPE	NA	NA	SB	SB	SB	SB	SB	SB	SB	SB	SB
SUBMATRIX	70	190	40	45	50	60	98	130	40	45	50
TOP DEPTH	71	191	41.5	46.5	51.5	61.5	99.5	131.5	41	46	51
MISCELLANEOUS PARAMETERS (%)											
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/KG)											
AROCLOR-1016	NA	NA	39 U	41 U	38 U	NA	42 UJ	41 U	39 U	NA	38 U
AROCLOR-1221	NA	NA	39 U	41 U	38 U	NA	42 UJ	41 U	39 U	NA	38 U
AROCLOR-1232	NA	NA	39 U	41 U	38 U	NA	42 UJ	41 U	39 U	NA	38 U
AROCLOR-1242	NA	NA	39 U	41 U	38 U	NA	42 UJ	41 U	39 U	NA	38 U
AROCLOR-1248	NA	NA	39 U	41 U	38 U	NA	42 UJ	41 U	39 U	NA	38 U
AROCLOR-1254	NA	NA	39 U	41 U	38 U	NA	42 UJ	41 U	39 U	NA	38 U
AROCLOR-1260	NA	NA	39 U	41 U	38 U	NA	42 UJ	41 U	39 U	NA	38 U
AROCLOR-1262	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AROCLOR-1268	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL AROCLOR	NA	NA	0 U	0 U	0 U	NA	0 U	0 U	0 U	NA	0 U
PETROLEUM HYDROCARBONS (MG/KG)											
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C28)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/KG)											
1,1,1-TRICHLOROETHANE	5 U	4.7 U	6 U	5.9 U	5.6 U	5.7 U	5.8 U	5.8 U	5.9 U	6.1 U	5.6 U
1,1,2,2-TETRACHLOROETHANE	5 U	4.7 U	6 U	5.9 U	5.6 U	5.7 U	5.8 U	5.8 U	5.9 U	6.1 U	5.6 U
1,1,2-TRICHLOROETHANE	5 U	4.7 U	6 U	5.9 U	5.6 U	5.7 U	5.8 U	5.8 U	5.9 U	6.1 U	5.6 U
1,1,2-TRICHLOROTRIFLUOROETHANE	5 U	4.7 U	6 U	5.9 U	5.6 U	5.7 U	5.8 U	5.8 U	5.9 U	6.1 U	5.6 U
1,1-DICHLOROETHANE	5 U	4.7 U	6 U	5.9 U	5.6 U	5.7 U	5.8 U	5.8 U	5.9 U	6.1 U	5.6 U
1,1-DICHLOROETHENE	5 U	4.7 U	6 U	5.9 U	5.6 U	5.7 U	5.8 U	5.8 U	5.9 U	6.1 U	5.6 U
1,2,4-TRICHLOROBENZENE	5 U	4.7 U	6 U	5.9 U	5.6 U	5.7 U	5.8 U	5.8 U	5.9 U	6.1 U	5.6 U
1,2-DIBROMO-3-CHLOROPROPANE	5 U	4.7 U	6 U	5.9 U	5.6 U	5.7 U	5.8 U	5.8 U	5.9 U	6.1 U	5.6 U
1,2-DIBROMOETHANE	5 U	4.7 U	6 U	5.9 U	5.6 U	5.7 U	5.8 U	5.8 U	5.9 U	6.1 U	5.6 U
1,2-DICHLOROBENZENE	5 U	4.7 U	6 U	5.9 U	5.6 U	5.7 U	5.8 U	5.8 U	5.9 U	6.1 U	5.6 U
1,2-DICHLOROETHANE	5 U	4.7 U	6 U	5.9 U	5.6 U	5.7 U	5.8 U	5.8 U	5.9 U	6.1 U	5.6 U
1,2-DICHLOROPROPANE	5 U	4.7 U	6 U	5.9 U	5.6 U	5.7 U	5.8 U	5.8 U	5.9 U	6.1 U	5.6 U
1,3-DICHLOROBENZENE	5 U	4.7 U	6 U	5.9 U	5.6 U	5.7 U	5.8 U	5.8 U	5.9 U	6.1 U	5.6 U
1,4-DICHLOROBENZENE	5 U	4.7 U	6 U	5.9 U	5.6 U	5.7 U	5.8 U	5.8 U	5.9 U	6.1 U	5.6 U
2-BUTANONE	5 U	4.7 U	6 U	5.9 U	5.6 U	5.7 U	5.8 U	5.8 U	5.9 UR	6.1 UR	5.6 UR
2-HEXANONE	5 U	4.7 U	6 U	5.9 U	5.6 U	5.7 U	5.8 U	5.8 U	5.9 U	6.1 U	5.6 U
4-METHYL-2-PENTANONE	5 U	4.7 U	6 U	5.9 U	5.6 U	5.7 U	5.8 U	5.8 U	5.9 U	6.1 U	5.6 U
ACETONE	4.2 J	6	5.6 J	3.6 J	3.7 J	2.8 J	26 J	5.8 UJ	5.9 UR	6.1 UR	5.6 UR
BENZENE	5 U	4.7 U	6 U	5.9 U	5.6 U	5.7 U	5.8 U	5.8 U	5.9 U	6.1 U	5.6 U
BROMODICHLOROMETHANE	5 U	4.7 U	6 U	5.9 U	5.6 U	5.7 U	5.8 U	5.8 U	5.9 U	6.1 U	5.6 U
BROMOFORM	5 U	4.7 U	6 U	5.9 U	5.6 U	5.7 U	5.8 U	5.8 U	5.9 U	6.1 U	5.6 U
BROMOMETHANE	5 UJ	4.7 UJ	6 UJ	5.9 UJ	5.6 UJ	5.7 UJ	5.8 U	5.8 U	5.9 U	6.1 U	5.6 U
CARBON DISULFIDE	5 U	4.7 U	6 U	5.9 U	5.6 U	5.7 U	3.7 J	5.8 U	5.9 U	6.1 U	5.6 U
CARBON TETRACHLORIDE	5 U	4.7 U	6 U	5.9 U	5.6 U	5.7 U	5.8 U	5.8 U	5.9 U	6.1 U	5.6 U
CHLOROBENZENE	5 U	4.7 U	6 U	5.9 U	5.6 U	5.7 U	5.8 U	5.8 U	5.9 U	6.1 U	5.6 U
CHLORODIBROMOMETHANE	5 U	4.7 U	6 U	5.9 U	5.6 U	5.7 U	5.8 U	5.8 U	5.9 U	6.1 U	5.6 U
CHLOROETHANE	5 UJ	4.7 UJ	6 UJ	5.9 UJ	5.6 UJ	5.7 UJ	5.8 U	5.8 U	5.9 UJ	6.1 UJ	5.6 UJ
CHLOROFORM	5 U	4.7 U	6 U	5.9 U	5.6 U	5.7 U	5.8 U	5.8 U	5.9 U	6.1 U	5.6 U
CHLOROMETHANE	5 UJ	4.7 UJ	6 UJ	5.9 UJ	5.6 UJ	5.7 UJ	5.8 U	5.8 U	5.9 U	6.1 U	5.6 U
CIS-1,2-DICHLOROETHENE	5 U	4.7 U	6 U	5.9 U	5.6 U	5.7 U	5.8 U	5.8 U	5.9 U	6.1 U	5.6 U
CIS-1,3-DICHLOROPROPENE	5 U	4.7 U	6 U	5.9 U	5.6 U	5.7 U	5.8 U	5.8 U	5.9 U	6.1 U	5.6 U
CYCLOHEXANE	5 U	4.7 U	6 U	5.9 U	5.6 U	5.7 U	5.8 U	5.8 U	5.9 U	6.1 U	5.6 U

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS13001		BPS13001								
SAMPLE ID	BPS1-3001-GW-	BPS1-3001-GW-	BPS1-3001-SB-	BPS1-3001-SB-	BPS1-3001-SB-	BPS1-3001-SB-	BPS1-3001-SB-	BPS1-3001-SB-	BPS1-3003-SB-	BPS1-3003-SB-	BPS1-3003-SB-
SAMPLE DATE	20090506	20090511	20090506	20090506	20090506	20090506	20090507	20090507	20090518	20090518	20090518
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	SB	SB	SB	SB	SB	SB	SB	SB	SB
TOP DEPTH	70	190	40	45	50	60	98	130	40	45	50
BOTTOM DEPTH	71	191	41.5	46.5	51.5	61.5	99.5	131.5	41	46	51
DICHLORODIFLUOROMETHANE	5 U	4.7 U	6 U	5.9 U	5.6 U	5.7 U	5.8 U	5.8 U	5.9 U	6.1 U	5.6 U
ETHYLBENZENE	5 U	4.7 U	6 U	5.9 U	5.6 U	5.7 U	5.8 U	5.8 U	5.9 U	6.1 U	5.6 U
ISOPROPYLBENZENE	5 U	4.7 U	6 U	5.9 U	5.6 U	5.7 U	5.8 U	5.8 U	5.9 U	6.1 U	5.6 U
METHYL ACETATE	5 U	4.7 U	6 U	5.9 U	5.6 U	5.7 U	5.8 U	5.8 U	5.9 U	6.1 U	5.6 U
METHYL CYCLOHEXANE	5 U	4.7 U	6 U	5.9 U	5.6 U	5.7 U	5.8 U	5.8 U	5.9 U	6.1 U	5.6 U
METHYL TERT-BUTYL ETHER	5 U	4.7 U	6 U	5.9 U	5.6 U	5.7 U	5.8 U	5.8 U	5.9 U	6.1 U	5.6 U
METHYLENE CHLORIDE	5 U	4.7 U	6 U	2.8 J	2.4 J	2.7 J	5.8 U	5.8 U	5.9 U	6.1 U	5.6 U
M+P-XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
STYRENE	5 U	4.7 U	6 U	5.9 U	5.6 U	5.7 U	5.8 U	5.8 U	5.9 U	6.1 U	5.6 U
TETRACHLOROETHENE	5 U	4.7 U	6 U	5.9 U	5.6 U	5.7 U	5.8 U	5.8 U	5.9 U	6.1 U	5.6 U
TOLUENE	5 U	4.7 U	6 U	5.9 U	5.6 U	5.7 U	5.8 U	5.8 U	5.9 U	6.1 U	5.6 U
TOTAL XYLENES	5 U	4.7 U	6 U	5.9 U	5.6 U	5.7 U	5.8 U	5.8 U	5.9 U	6.1 U	5.6 U
TRANS-1,2-DICHLOROETHENE	5 U	4.7 U	6 U	5.9 U	5.6 U	5.7 U	5.8 U	5.8 U	5.9 U	6.1 U	5.6 U
TRANS-1,3-DICHLOROPROPENE	5 U	4.7 U	6 U	5.9 U	5.6 U	5.7 U	5.8 U	5.8 U	5.9 U	6.1 U	5.6 U
TRICHLOROETHENE	5 U	4.7 U	6 U	5.9 U	5.6 U	5.7 U	5.8 U	5.8 U	5.9 U	6.1 U	5.6 U
TRICHLOROFLUOROMETHANE	5 UJ	4.7 UJ	6 UJ	5.9 UJ	5.6 UJ	5.7 UJ	5.8 U	5.8 U	5.9 U	6.1 U	5.6 U
VINYL CHLORIDE	5 UJ	4.7 UJ	6 UJ	5.9 UJ	5.6 UJ	5.7 UJ	5.8 U	5.8 U	5.9 U	6.1 U	5.6 U

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS13003										BPS1
SAMPLE ID	BPS1-3003-SB-20090518	BPS1-3003-SB-20090518	BPS1-3003-SB-20090519	BPS1-3003-SB-20090519	BPS1-3003-SB-20090519	BPS1-SB3004-20100713	BPS1-SB3004-20100714	BPS1-SB3004-20100714	BPS1-SB3004-20100714	BPS1-SB3004-20100714	BPS1-SB3004-20100714
SAMPLE DATE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SAMPLE CODE	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
MATRIX	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SAMPLE TYPE	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
SUBMATRIX	55	60	110	115	120	27.5	34	37	42	47	49
TOP DEPTH	56	61	111	116	121	28	34.5	37.5	42.5	47.5	49.5
MISCELLANEOUS PARAMETERS (%)											
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL SOLIDS	NA	NA	NA	NA	NA	96	94	93	83	88	85
PCBS (UG/KG)											
AROCLOR-1016	NA	38 U	40 U	41 U	41 U	14 U	14 U	14 U	16 U	15 U	15 U
AROCLOR-1221	NA	38 U	40 U	41 U	41 U	14 U	14 U	14 U	16 U	15 U	15 U
AROCLOR-1232	NA	38 U	40 U	41 U	41 U	14 U	14 U	14 U	16 U	15 U	15 U
AROCLOR-1242	NA	38 U	40 U	41 U	41 U	14 U	14 U	14 U	16 U	15 U	15 U
AROCLOR-1248	NA	38 U	40 U	41 U	41 U	7 U	7.1 U	7.2 U	8.1 U	7.6 U	7.8 U
AROCLOR-1254	NA	38 U	40 U	41 U	41 U	14 U	14 U	14 U	16 U	15 U	15 U
AROCLOR-1260	NA	38 U	40 U	41 U	41 U	14 U	14 U	14 U	16 U	15 U	15 U
AROCLOR-1262	NA	NA	NA	NA	NA	14 U	14 U	14 U	16 U	15 U	15 U
AROCLOR-1268	NA	NA	NA	NA	NA	7 U	7.1 U	7.2 U	8.1 U	7.6 U	7.8 U
TOTAL AROCLOR	NA	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U
PETROLEUM HYDROCARBONS (MG/KG											
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C28)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/KG)											
1,1,1-TRICHLOROETHANE	5.6 U	5.9 U	6.2 U	6.3 U	5.9 U	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	5.6 U	5.9 U	6.2 U	6.3 U	5.9 U	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	5.6 U	5.9 U	6.2 U	6.3 U	5.9 U	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	5.6 U	5.9 U	6.2 U	6.3 U	5.9 U	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	5.6 U	5.9 U	6.2 U	6.3 U	5.9 U	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	5.6 U	5.9 U	6.2 U	6.3 U	5.9 U	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	5.6 U	5.9 U	6.2 U	6.3 U	5.9 U	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	5.6 U	5.9 U	6.2 U	6.3 U	5.9 U	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	5.6 U	5.9 U	6.2 U	6.3 U	5.9 U	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	5.6 U	5.9 U	6.2 U	6.3 U	5.9 U	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	5.6 U	5.9 U	6.2 U	6.3 U	5.9 U	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	5.6 U	5.9 U	6.2 U	6.3 U	5.9 U	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	5.6 U	5.9 U	6.2 U	6.3 U	5.9 U	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	5.6 U	5.9 U	6.2 U	6.3 U	5.9 U	NA	NA	NA	NA	NA	NA
2-BUTANONE	5.6 UR	5.9 UR	6.2 UR	6.3 UR	5.9 UR	NA	NA	NA	NA	NA	NA
2-HEXANONE	5.6 U	5.9 U	6.2 U	6.3 U	5.9 U	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	5.6 U	5.9 UJ	6.2 UJ	6.3 UJ	5.9 UJ	NA	NA	NA	NA	NA	NA
ACETONE	5.6 UR	5.9 UR	6.2 UR	6.3 UR	5.9 UR	NA	NA	NA	NA	NA	NA
BENZENE	5.6 U	5.9 U	6.2 U	6.3 U	5.9 U	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	5.6 U	5.9 U	6.2 U	6.3 U	5.9 U	NA	NA	NA	NA	NA	NA
BROMOFORM	5.6 U	5.9 U	6.2 U	6.3 U	5.9 U	NA	NA	NA	NA	NA	NA
BROMOMETHANE	5.6 U	5.9 U	6.2 U	6.3 U	5.9 U	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	5.6 U	5.9 U	6.2 U	6.3 U	5.9 U	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	5.6 U	5.9 U	6.2 U	6.3 U	5.9 U	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	5.6 U	5.9 U	6.2 U	6.3 U	5.9 U	NA	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	5.6 U	5.9 U	6.2 U	6.3 U	5.9 U	NA	NA	NA	NA	NA	NA
CHLOROETHANE	5.6 UJ	5.9 U	6.2 U	6.3 U	5.9 U	NA	NA	NA	NA	NA	NA
CHLOROFORM	5.6 U	5.9 U	6.2 U	6.3 U	5.9 U	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	5.6 U	5.9 U	6.2 U	6.3 U	5.9 U	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	5.6 U	5.9 U	6.2 U	6.3 U	5.9 U	NA	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	5.6 U	5.9 U	6.2 U	6.3 U	5.9 U	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	5.6 U	5.9 U	6.2 U	6.3 U	5.9 U	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS13003										BPS1
SAMPLE ID	BPS1-3003-SB-20090518	BPS1-3003-SB-20090518	BPS1-3003-SB-20090519	BPS1-3003-SB-20090519	BPS1-3003-SB-20090519	BPS1-SB3004-20100713	BPS1-SB3004-20100714	BPS1-SB3004-20100714	BPS1-SB3004-20100714	BPS1-SB3004-20100714	BPS1-SB3004-20100714
SAMPLE DATE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SAMPLE CODE	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
MATRIX	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SAMPLE TYPE	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
SUBMATRIX	55	60	110	115	120	27.5	34	37	42	47	49
TOP DEPTH	56	61	111	116	121	28	34.5	37.5	42.5	47.5	49.5
BOTTOM DEPTH											
DICHLORODIFLUOROMETHANE	5.6 U	5.9 U	6.2 U	6.3 U	5.9 U	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	5.6 U	5.9 U	6.2 U	6.3 U	5.9 U	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	5.6 U	5.9 U	6.2 U	6.3 U	5.9 U	NA	NA	NA	NA	NA	NA
METHYL ACETATE	5.6 U	5.9 U	6.2 U	6.3 U	5.9 U	NA	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	5.6 U	5.9 U	6.2 U	6.3 U	5.9 U	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	5.6 U	5.9 U	6.2 U	6.3 U	5.9 U	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	5.6 U	5.9 U	6.2 U	6.3 U	5.9 U	NA	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
STYRENE	5.6 U	5.9 U	6.2 U	6.3 U	5.9 U	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	5.6 U	5.9 U	6.2 U	6.3 U	5.9 U	NA	NA	NA	NA	NA	NA
TOLUENE	5.6 U	5.9 U	6.2 U	6.3 U	5.9 U	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	5.6 U	5.9 U	6.2 U	6.3 U	5.9 U	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	5.6 U	5.9 U	6.2 U	6.3 U	5.9 U	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	5.6 U	5.9 U	6.2 U	6.3 U	5.9 U	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	5.6 U	5.9 U	6.2 U	6.3 U	5.9 U	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	5.6 U	5.9 U	6.2 U	6.3 U	5.9 U	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	5.6 U	5.9 U	6.2 U	6.3 U	5.9 U	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	3004										
SAMPLE ID	BPS1-SB3004-	BPS1-SB3004-	BPS1-SB3004-	BPS1-SB3004-	BPS1-SB3004-	BPS1-SB3004-	BPS1-SB3005-0010	BPS1-SB3005-0010	BPS1-SB3005-	BPS1-SB3005-	BPS1-SB3005-
SAMPLE DATE	20100714	20100714	20100714	20100714	20100714	20100715	20120823	20120823	20100716	20100716	20100716
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB	SS	SS	SB	SB	SB
TOP DEPTH	54	64.5	116	154	180	235	0	0	27.5	34	37.5
BOTTOM DEPTH	54.5	65	116.5	154.5	190	235.5	10	10	28	34.5	38
MISCELLANEOUS PARAMETERS (%)											
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	94	95	NA	NA	NA
TOTAL ORGANIC CARBON	0.011 U	0.012 U	NA	0.012 U	NA	0.086 J	NA	NA	NA	NA	0.085 J
TOTAL SOLIDS	91	82	81	87	81	86	NA	NA	92	92	96
PCBS (UG/KG)											
AROCLOR-1016	14 U	16 U	16 U	15 U	16 U	15 U	6900 U	14000 U	14 U	14 U	14 U
AROCLOR-1221	14 U	16 U	16 U	15 U	16 U	15 U	6900 U	14000 U	14 U	14 U	14 U
AROCLOR-1232	14 U	16 U	16 U	15 U	16 U	15 U	6900 U	14000 U	14 U	14 U	14 U
AROCLOR-1242	14 U	16 U	16 U	15 U	16 U	15 U	95000	180000	14 U	14 U	14 U
AROCLOR-1248	7.3 U	8.2 U	8.3 U	7.7 U	8.2 U	7.8 U	6900 U	14000 U	7.3 U	7.3 U	7 U
AROCLOR-1254	14 U	16 U	16 U	15 U	16 U	15 U	6900 U	14000 U	14 U	14 U	14 U
AROCLOR-1260	14 U	16 U	16 U	15 U	16 U	15 U	6900 U	14000 U	14 U	14 U	14 U
AROCLOR-1262	14 U	16 U	16 U	15 U	16 U	15 U	6900 U	14000 U	14 U	14 U	14 U
AROCLOR-1268	7.3 U	8.2 U	8.3 U	7.7 U	8.2 U	7.8 U	6900 U	14000 U	7.3 U	7.3 U	7 U
TOTAL AROCLOR	0 U	0 U	0 U	0 U	0 U	0 U	95000	180000	0 U	0 U	0 U
PETROLEUM HYDROCARBONS (MG/KG											
DIESEL RANGE ORGANICS	4.7 U	5 U	NA	8.4 U	NA	4.7 U	NA	NA	NA	NA	1.9 U
GASOLINE RANGE ORGANICS	4.4 U	4.9 U	NA	4.6 U	NA	4.7 U	NA	NA	NA	NA	4.2 U
TPH (C06-C10)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C28)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/KG)											
1,1,1-TRICHLOROETHANE	26 U	31 U	NA	29 U	NA	29 U	NA	NA	NA	NA	23 U
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	26 U	31 U	NA	29 U	NA	29 U	NA	NA	NA	NA	23 U
1,1-DICHLOROETHANE	26 U	31 U	NA	29 U	NA	29 U	NA	NA	NA	NA	23 U
1,1-DICHLOROETHENE	26 U	31 U	NA	29 U	NA	29 U	NA	NA	NA	NA	23 U
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	26 U	31 U	NA	29 U	NA	29 U	NA	NA	NA	NA	23 U
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	51 U	61 U	NA	58 U	NA	58 U	NA	NA	NA	NA	47 U
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	200 U	220 U	NA	210 U	NA	250 U	NA	NA	NA	NA	190 U
BENZENE	26 U	31 U	NA	29 U	NA	29 U	NA	NA	NA	NA	23 U
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	26 U	31 U	NA	29 U	NA	29 U	NA	NA	NA	NA	23 U
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	3004										
SAMPLE ID	BPS1-SB3004-	BPS1-SB3004-	BPS1-SB3004-	BPS1-SB3004-	BPS1-SB3004-	BPS1-SB3004-	BPS1-SB3005-0010	BPS1-SB3005-0010	BPS1-SB3005-	BPS1-SB3005-	BPS1-SB3005-
SAMPLE DATE	20100714	20100714	20100714	20100714	20100714	20100715	20120823	20120823	20100716	20100716	20100716
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB	SS	SS	SB	SB	SB
TOP DEPTH	54	64.5	116	154	180	235	0	0	27.5	34	37.5
BOTTOM DEPTH	54.5	65	116.5	154.5	190	235.5	10	10	28	34.5	38
DICHLORODIFLUOROMETHANE	51 U	61 U	NA	58 U	NA	58 U	NA	NA	NA	NA	47 U
ETHYLBENZENE	26 U	31 U	NA	29 U	NA	29 U	NA	NA	NA	NA	23 U
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	51 U	61 U	NA	58 U	NA	58 U	NA	NA	NA	NA	47 U
M+P-XYLENES	51 U	61 U	NA	58 U	NA	58 U	NA	NA	NA	NA	47 U
O-XYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
STYRENE	26 U	31 U	NA	29 U	NA	29 U	NA	NA	NA	NA	23 U
TETRACHLOROETHENE	26 U	31 U	NA	29 U	NA	29 U	NA	NA	NA	NA	23 U
TOLUENE	26 U	31 U	NA	29 U	NA	29 U	NA	NA	NA	NA	23 U
TOTAL XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	26 U	31 U	NA	29 U	NA	29 U	NA	NA	NA	NA	23 U
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	51 U	61 U	NA	58 U	NA	58 U	NA	NA	NA	NA	47 U
TRICHLOROFLUOROMETHANE	26 U	31 U	NA	29 U	NA	29 U	NA	NA	NA	NA	23 U
VINYL CHLORIDE	26 U	31 U	NA	29 U	NA	29 U	NA	NA	NA	NA	23 U

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION			BPS13005								
SAMPLE ID	BPS1-SB3005-	BPS1-SB3005-	BPS1-SB3005-	BPS1-SB3005-	BPS1-SB3005-	BPS1-SB3005-	BPS1-SB3005-	BPS1-SB3005-	BPS1-SB3005-	BPS1-SB3005-	BPS1-SB3006-
SAMPLE DATE	20100716	20100716	20100716	20100716	20100716	20100717	20100717	20100717	20100717	20100717	20100727
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	ORIG
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
TOP DEPTH	43	49	54.5	57.5	94.5	145	145	145	180	232.5	32
BOTTOM DEPTH	43.5	49.5	55	58	95	145.5	145.5	145.5	190	233	32.5
MISCELLANEOUS PARAMETERS (%)											
PERCENT SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	86
TOTAL ORGANIC CARBON	NA	NA	1	NA	NA	0.026 J	0.025	0.024 J	NA	0.022 J	NA
TOTAL SOLIDS	88	92	87	92	80	77	76.5	76	76	85	NA
PCBS (UG/KG)											
AROCLOR-1016	15 U	14 U	15 U	14 UJ	16 U	17 U	17 U	17 U	17 U	15 U	15 U
AROCLOR-1221	15 U	14 U	15 U	14 UJ	16 U	17 U	17 U	17 U	17 U	15 U	15 U
AROCLOR-1232	15 U	14 U	15 U	14 UJ	16 U	17 U	17 U	17 U	17 U	15 U	15 U
AROCLOR-1242	18 J	14 U	160000 J	110000 J	16 U	17 U	17 U	17 U	17 U	15 U	15 U
AROCLOR-1248	7.6 U	7.3 U	7.7 U	7.3 UJ	16 J	8.7 U	8.75 U	8.8 U	8.8 U	7.9 U	15000 J
AROCLOR-1254	15 U	14 U	15 U	14 UJ	16 U	17 U	17 U	17 U	17 U	15 U	15 U
AROCLOR-1260	15 U	14 U	910 J	800 J	16 U	17 U	17 U	17 U	17 U	15 U	15 U
AROCLOR-1262	15 U	14 U	15 U	14 UJ	16 U	17 U	17 U	17 U	17 U	15 U	15 U
AROCLOR-1268	7.6 U	7.3 U	7.7 U	7.3 UJ	8.3 U	8.7 U	8.75 U	8.8 U	8.8 U	7.9 U	7.8 U
TOTAL AROCLOR	18	0 U	160910	110800	16	0 U	0 U	0 U	0 U	0 U	15000
PETROLEUM HYDROCARBONS (MG/KG											
DIESEL RANGE ORGANICS	NA	NA	8.5 U	NA	NA	6.1 U	6.5 U	6.9 U	NA	4.1 U	NA
GASOLINE RANGE ORGANICS	NA	NA	4.6 U	NA	NA	5.2 U	5.25 U	5.3 U	NA	4.7 U	NA
TPH (C06-C10)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C28)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/KG)											
1,1,1-TRICHLOROETHANE	NA	NA	26 J	NA	NA	29 U	31 U	33 U	NA	29 U	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	29 U	NA	NA	29 U	31 U	33 U	NA	29 U	NA
1,1-DICHLOROETHANE	NA	NA	29 U	NA	NA	29 U	31 U	33 U	NA	29 U	NA
1,1-DICHLOROETHENE	NA	NA	29 U	NA	NA	29 U	31 U	33 U	NA	29 U	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	29 U	NA	NA	29 U	31 U	33 U	NA	29 U	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	57 U	NA	NA	57 U	61.5 U	66 U	NA	59 U	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	250 U	NA	NA	210 U	215 U	220 U	NA	240 U	NA
BENZENE	NA	NA	29 U	NA	NA	29 U	31 U	33 U	NA	29 U	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	29 U	NA	NA	29 U	31 U	33 U	NA	29 U	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION			BPS13005								
SAMPLE ID	BPS1-SB3005-	BPS1-SB3005-	BPS1-SB3005-	BPS1-SB3005-	BPS1-SB3005-	BPS1-SB3005-	BPS1-SB3005-	BPS1-SB3005-	BPS1-SB3005-	BPS1-SB3005-	BPS1-SB3006-
SAMPLE DATE	20100716	20100716	20100716	20100716	20100716	20100717	20100717	20100717	20100717	20100717	20100727
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	ORIG
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
TOP DEPTH	43	49	54.5	57.5	94.5	145	145	145	180	232.5	32
BOTTOM DEPTH	43.5	49.5	55	58	95	145.5	145.5	145.5	190	233	32.5
DICHLORODIFLUOROMETHANE	NA	NA	57 U	NA	NA	57 U	61.5 U	66 U	NA	59 U	NA
ETHYLBENZENE	NA	NA	29 U	NA	NA	29 U	31 U	33 U	NA	29 U	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	57 U	NA	NA	57 U	61.5 U	66 U	NA	59 U	NA
M+P-XYLENES	NA	NA	57 U	NA	NA	57 U	61.5 U	66 U	NA	59 U	NA
O-XYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	29 U	NA	NA	29 U	31 U	33 U	NA	29 U	NA
TETRACHLOROETHENE	NA	NA	120	NA	NA	29 U	31 U	33 U	NA	29 U	NA
TOLUENE	NA	NA	29 U	NA	NA	29 U	31 U	33 U	NA	29 U	NA
TOTAL XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	29 U	NA	NA	29 U	31 U	33 U	NA	29 U	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	57 U	NA	NA	57 U	61.5 U	66 U	NA	59 U	NA
TRICHLOROFLUOROMETHANE	NA	NA	29 U	NA	NA	29 U	31 U	33 U	NA	29 U	NA
VINYL CHLORIDE	NA	NA	29 U	NA	NA	29 U	31 U	33 U	NA	29 U	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS13006											BPS1
SAMPLE ID	BPS1-SB3006-20100727	BPS1-SB3006-20100727	BPS1-SB3006-20100727	BPS1-SB3006-20100727	BPS1-SB3006-20100727	BPS1-SB3006-20100728	BPS1-SB3006-20100728	BPS1-SB3006-20100728	BPS1-SB3006-20100728	BPS1-SB3007-20100729	BPS1-SB3007-20100729	BPS1-SB3007-20100729
SAMPLE DATE												
SAMPLE CODE	AVG	DUP	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
TOP DEPTH	32	32	53	72	117	181	181	181	226.5	37.5	57	100
BOTTOM DEPTH	32.5	32.5	53.5	72.5	117.5	181.5	181.5	181.5	227	38	57.5	100.5
MISCELLANEOUS PARAMETERS (%)												
PERCENT SOLIDS	85.5	85	86	88	83	76	75	74	84	84	87	80
TOTAL ORGANIC CARBON	NA	NA	0.01 J	NA	0.01 J	0.01 U	0.01 U	0.01 U	0.01 U	0.026 J	0.01 U	0.01 U
TOTAL SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/KG)												
AROCLOR-1016	15 U	15 U	15 U	15 U	16 U	17 U	17.5 U	18 U	15 U	15 U	15 U	16 U
AROCLOR-1221	15 U	15 U	15 U	15 U	16 U	17 U	17.5 U	18 U	15 U	15 U	15 U	16 U
AROCLOR-1232	15 U	15 U	15 U	15 U	16 U	17 U	17.5 U	18 U	15 U	15 U	15 U	16 U
AROCLOR-1242	15 U	15 U	15 U	15 U	16 U	17 U	17.5 U	18 U	15 U	15 U	15 U	16 U
AROCLOR-1248	16000	17000 J	22 J	7.6 U	8.1 U	8.8 U	8.95 U	9.1 U	8 U	8 U	7.7 U	8.4 U
AROCLOR-1254	15 U	15 U	15 U	15 U	16 U	17 U	17.5 U	18 U	15 U	15 U	15 U	16 U
AROCLOR-1260	15 U	15 U	15 U	15 U	16 U	17 U	17.5 U	18 U	15 U	15 U	15 U	16 U
AROCLOR-1262	15 U	15 U	15 U	15 U	16 U	17 U	17.5 U	18 U	15 U	15 U	15 U	16 U
AROCLOR-1268	7.85 U	7.9 U	7.8 U	7.6 U	8.1 U	8.8 U	8.95 U	9.1 U	8 U	8 U	7.7 U	8.4 U
TOTAL AROCLOR	16000	17000	22	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U
PETROLEUM HYDROCARBONS (MG/KG												
DIESEL RANGE ORGANICS	NA	NA	5.8 U	NA	6.1 U	6.6 U	6.7 U	6.8 U	5.9 U	5.9 U	5.7 U	6.3 U
GASOLINE RANGE ORGANICS	NA	NA	4.6 U	NA	4.4 U	5.3 U	5.35 U	5.4 U	4.8 U	4.2 U	4.6 U	5 U
TPH (C06-C10)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C28)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/KG)												
1,1,1-TRICHLOROETHANE	NA	NA	29 U	NA	28 U	33 U	33.5 U	34 U	30 U	30 U	29 U	31 U
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	29 U	NA	28 U	33 U	33.5 U	34 U	30 U	30 U	29 U	31 U
1,1-DICHLOROETHANE	NA	NA	29 U	NA	28 U	33 U	33.5 U	34 U	30 U	30 U	29 U	31 U
1,1-DICHLOROETHENE	NA	NA	29 U	NA	28 U	33 U	33.5 U	34 U	30 U	30 U	29 U	31 U
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	29 U	NA	28 U	33 U	33.5 U	34 U	30 U	30 U	29 U	31 U
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	58 U	NA	56 U	66 U	71.5 U	77 U	59 U	59 U	57 U	62 U
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	290 U	NA	280 U	330 U	335 U	340 U	300 U	300 U	290 U	310 U
BENZENE	NA	NA	29 U	NA	28 U	33 U	33.5 U	34 U	30 U	30 U	29 U	31 U
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	29 U	NA	28 U	33 U	33.5 U	34 U	30 U	30 U	29 U	31 U
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS13006									BPS1		
SAMPLE ID	BPS1-SB3006-20100727	BPS1-SB3006-20100727	BPS1-SB3006-20100727	BPS1-SB3006-20100727	BPS1-SB3006-20100727	BPS1-SB3006-20100728	BPS1-SB3006-20100728	BPS1-SB3006-20100728	BPS1-SB3006-20100728	BPS1-SB3007-20100729	BPS1-SB3007-20100729	BPS1-SB3007-20100729
SAMPLE DATE	AVG	DUP	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL
SAMPLE CODE	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
MATRIX	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SAMPLE TYPE	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
SUBMATRIX	32	32	53	72	117	181	181	181	226.5	37.5	57	100
TOP DEPTH	32.5	32.5	53.5	72.5	117.5	181.5	181.5	181.5	227	38	57.5	100.5
BOTTOM DEPTH												
DICHLORODIFLUOROMETHANE	NA	NA	58 U	NA	56 U	66 U	67 U	68 U	59 U	59 U	57 U	63 U
ETHYLBENZENE	NA	NA	29 U	NA	28 U	33 U	33.5 U	34 U	30 U	30 U	29 U	31 U
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	58 UJ	NA	56 UJ	66 UJ	67 U	68 UJ	59 UJ	59 UJ	57 UJ	63 UJ
M+P-XYLENES	NA	NA	58 U	NA	56 U	66 U	67 U	68 U	59 U	59 U	57 U	63 U
O-XYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	29 U	NA	28 U	33 U	33.5 U	34 U	30 U	30 U	29 U	31 U
TETRACHLOROETHENE	NA	NA	29 U	NA	28 U	33 U	33.5 U	34 U	30 U	30 U	29 U	31 U
TOLUENE	NA	NA	29 U	NA	28 U	33 U	33.5 U	34 U	30 U	30 U	29 U	31 U
TOTAL XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	29 U	NA	28 U	33 U	33.5 U	34 U	30 U	30 U	29 U	31 U
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	58 U	NA	56 U	66 U	67 U	68 U	59 U	59 U	57 U	63 U
TRICHLOROFLUOROMETHANE	NA	NA	29 U	NA	28 U	33 U	33.5 U	34 U	30 U	30 U	29 U	31 U
VINYL CHLORIDE	NA	NA	29 U	NA	28 U	33 U	33.5 U	34 U	30 U	30 U	29 U	31 U

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	3007			BPS13008								
SAMPLE ID	BPS1-SB3007-20100729	BPS1-SB3007-20100730	BPS1-SB3007-20100730	BPS1-SB3008-20100802	BPS1-SB3008-20100802	BPS1-SB3008-20100802	BPS1-SB3008-20100802	BPS1-SB3008-20100803	BPS1-SB3008-20100803	BPS1-SB3009-20100731	BPS1-SB3009-20100731	BPS1-SB3009-20100731
SAMPLE DATE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG
SAMPLE CODE	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
MATRIX	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SAMPLE TYPE	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
SUBMATRIX	140	217.5	240	37	52	86.5	161	200	234.5	27	36	51
TOP DEPTH	150	218	250	37.5	52.5	87	161.5	210	235	27.5	36.5	51.5
BOTTOM DEPTH												
MISCELLANEOUS PARAMETERS (%)												
PERCENT SOLIDS	83	82	81	90	77	82	85	82	81	94	93	90
TOTAL ORGANIC CARBON	NA	0.01 U	NA	NA	0.038 J	0.015 J	0.01 U	NA	0.021 J	NA	NA	0.01 U
TOTAL SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/KG)												
AROCLOR-1016	16 U	16 U	16 U	14 U	17 U	16 U	15 U	16 U	16 U	14 U	14 U	15 U
AROCLOR-1221	16 U	16 U	16 U	14 U	17 U	16 U	15 U	16 U	16 U	14 U	14 U	15 U
AROCLOR-1232	16 U	16 U	16 U	14 U	17 U	16 U	15 U	16 U	16 U	14 U	14 U	15 U
AROCLOR-1242	16 U	16 U	16 U	14 U	17 U	16 U	15 U	16 U	16 U	14 U	14 U	15 U
AROCLOR-1248	8.1 U	8.1 U	8.3 U	73 J	210 J	8.2 U	7.9 U	8.2 U	8.3 U	250 J	10000 J	260 J
AROCLOR-1254	16 U	16 U	16 U	14 U	17 U	16 U	15 U	16 U	16 U	14 U	14 U	15 U
AROCLOR-1260	16 U	16 U	16 U	14 U	17 U	16 U	15 U	16 U	16 U	14 U	14 U	15 U
AROCLOR-1262	16 U	16 U	16 U	14 U	17 U	16 U	15 U	16 U	16 U	14 U	14 U	15 U
AROCLOR-1268	8.1 U	8.1 U	8.3 U	7.4 U	8.7 U	8.2 U	7.9 U	8.2 U	8.3 U	7.1 U	7.2 U	7.9 U
TOTAL AROCLOR	0 U	0 U	0 U	73	210	0 U	0 U	0 U	0 U	250	10000	260
PETROLEUM HYDROCARBONS (MG/KG												
DIESEL RANGE ORGANICS	NA	6.1 U	NA	NA	13	7.4 J	5.3 J	NA	4.6 J	NA	NA	2.9 J
GASOLINE RANGE ORGANICS	NA	4.5 U	NA	NA	5.2 U	4.9 U	4.7 U	NA	0.11 UJ	NA	NA	4.1 U
TPH (C06-C10)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C28)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/KG)												
1,1,1-TRICHLOROETHANE	NA	28 U	NA	NA	32 U	31 U	30 U	NA	27 U	NA	NA	26 U
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	28 U	NA	NA	32 U	31 U	30 U	NA	27 U	NA	NA	26 U
1,1-DICHLOROETHANE	NA	28 U	NA	NA	32 U	31 U	30 U	NA	27 U	NA	NA	26 U
1,1-DICHLOROETHENE	NA	28 U	NA	NA	32 U	31 U	30 U	NA	27 U	NA	NA	26 U
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	28 U	NA	NA	32 U	31 U	30 U	NA	27 U	NA	NA	26 U
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	56 U	NA	NA	65 U	49 U	59 U	NA	47 U	NA	NA	51 U
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	280 U	NA	NA	320 U	310 U	300 U	NA	270 U	NA	NA	260 U
BENZENE	NA	28 U	NA	NA	32 U	31 U	30 U	NA	27 U	NA	NA	26 U
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	28 U	NA	NA	32 U	31 U	30 U	NA	27 U	NA	NA	26 U
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	3007			BPS13008								
SAMPLE ID	BPS1-SB3007-20100729	BPS1-SB3007-20100730	BPS1-SB3007-20100730	BPS1-SB3008-20100802	BPS1-SB3008-20100802	BPS1-SB3008-20100802	BPS1-SB3008-20100802	BPS1-SB3008-20100803	BPS1-SB3008-20100803	BPS1-SB3009-20100731	BPS1-SB3009-20100731	BPS1-SB3009-20100731
SAMPLE DATE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG
SAMPLE CODE	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
MATRIX	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SAMPLE TYPE	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
SUBMATRIX	140	217.5	240	37	52	86.5	161	200	234.5	27	36	51
TOP DEPTH	150	218	250	37.5	52.5	87	161.5	210	235	27.5	36.5	51.5
BOTTOM DEPTH												
DICHLORODIFLUOROMETHANE	NA	56 U	NA	NA	65 U	61 U	59 U	NA	55 U	NA	NA	51 U
ETHYLBENZENE	NA	28 U	NA	NA	32 U	31 U	30 U	NA	27 U	NA	NA	26 U
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	56 UJ	NA	NA	65 UJ	61 UJ	59 UJ	NA	55 UJ	NA	NA	51 UJ
M+P-XYLENES	NA	56 U	NA	NA	65 U	61 U	59 U	NA	55 U	NA	NA	51 U
O-XYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	28 U	NA	NA	32 U	31 U	30 U	NA	27 U	NA	NA	26 U
TETRACHLOROETHENE	NA	28 U	NA	NA	32 U	31 U	30 U	NA	27 U	NA	NA	26 U
TOLUENE	NA	28 U	NA	NA	32 U	31 U	30 U	NA	27 U	NA	NA	26 U
TOTAL XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	28 U	NA	NA	32 U	31 U	30 U	NA	27 U	NA	NA	26 U
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	56 U	NA	NA	65 U	61 U	59 U	NA	55 U	NA	NA	51 U
TRICHLOROFLUOROMETHANE	NA	28 U	NA	NA	32 U	31 U	30 U	NA	27 U	NA	NA	26 U
VINYL CHLORIDE	NA	28 U	NA	NA	32 U	31 U	30 U	NA	27 U	NA	NA	26 U

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS13009					BPS13010						
SAMPLE ID	BPS1-SB3009-	BPS1-SB3009-	BPS1-SB3009-	BPS1-SB3009-	BPS1-SB3009-	BPS1-SB3010-0008	BPS1-SB3010-	BPS1-SB3010-5868	BPS1-SB3010-	BPS1-SB3010-	BPS1-SB3010-	BPS1-SB3011-1828
SAMPLE DATE	20100731	20100731	20100731	20100731	20100801	20100815	20100815	20100816	20100816	20100816	20100817	20100818
SAMPLE CODE	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
TOP DEPTH	51	51	96	140	209	0	49	58	93.5	118	188	18
BOTTOM DEPTH	51.5	51.5	96.5	140.5	209.5	8	49.5	68	94	148	188.5	28
MISCELLANEOUS PARAMETERS (%)												
PERCENT SOLIDS	89.5	89	88	75	84	96	85	86	76	69	77	92
TOTAL ORGANIC CARBON	0.0085	0.012 J	0.01 U	0.01 U	0.013 J	NA	0.02 J	NA	0.01 U	NA	0.01 U	NA
TOTAL SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/KG)												
AROCLOR-1016	15 U	15 U	15 U	17 U	16 U	14 U	15 U	15 U	17 U	19 U	17 U	14 U
AROCLOR-1221	15 U	15 U	15 U	17 U	16 U	14 U	15 U	15 U	17 U	19 U	17 U	14 U
AROCLOR-1232	15 U	15 U	15 U	17 U	16 U	14 U	15 U	15 U	17 U	19 U	17 U	14 U
AROCLOR-1242	15 U	15 U	15 U	17 U	16 U	29 J	15 U	15 U	17 U	19 U	17 U	14 U
AROCLOR-1248	245	230 J	7.6 U	8.9 U	8 U	7 U	7.9 U	7.8 U	8.8 U	9.7 U	8.7 U	7.3 U
AROCLOR-1254	15 U	15 U	15 U	17 U	16 U	14 U	15 U	15 U	17 U	19 U	17 U	14 U
AROCLOR-1260	15 U	15 U	15 U	17 U	16 U	10 J	15 U	15 U	17 U	19 U	17 U	14 U
AROCLOR-1262	15 U	15 U	15 U	17 U	16 U	14 U	15 U	15 U	17 U	19 U	17 U	14 U
AROCLOR-1268	7.75 U	7.6 U	7.6 U	8.9 U	8 U	7 U	7.9 U	7.8 U	8.8 U	9.7 U	8.7 U	7.3 U
TOTAL AROCLOR	245	230	0 U	0 U	0 U	39	0 U	0 U	0 U	0 U	0 U	0 U
PETROLEUM HYDROCARBONS (MG/KG												
DIESEL RANGE ORGANICS	6.95	11	3.2 J	5.2 J	7 J	NA	5.9 U	NA	6.6 U	NA	NA	NA
GASOLINE RANGE ORGANICS	4.15 U	4.2 U	4.5 U	5.3 U	4.4 U	NA	4.7 U	NA	5.3 U	NA	NA	NA
TPH (C06-C10)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.2 UJ	NA
TPH (C10-C28)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.5 U	NA
VOLATILES (UG/KG)												
1,1,1-TRICHLOROETHANE	26 U	26 U	28 U	33 U	28 U	NA	29 U	NA	33 U	NA	33 U	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	26 U	26 U	28 U	33 U	28 U	NA	29 U	NA	33 U	NA	33 U	NA
1,1-DICHLOROETHANE	26 U	26 U	28 U	33 U	28 U	NA	29 U	NA	33 U	NA	33 U	NA
1,1-DICHLOROETHENE	26 U	26 U	28 U	33 U	28 U	NA	29 U	NA	33 U	NA	33 U	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	26 U	26 U	28 U	33 U	28 U	NA	29 U	NA	33 U	NA	33 U	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	52 U	53 U	57 U	66 U	55 U	NA	59 U	NA	66 U	NA	65 U	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	260 U	260 U	280 U	330 U	280 U	NA	290 U	NA	330 U	NA	330 U	NA
BENZENE	26 U	26 U	28 U	33 U	28 U	NA	29 U	NA	33 U	NA	33 U	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	26 U	26 U	28 U	33 U	28 U	NA	29 U	NA	33 U	NA	33 U	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS13009					BPS13010						
SAMPLE ID	BPS1-SB3009-	BPS1-SB3009-	BPS1-SB3009-	BPS1-SB3009-	BPS1-SB3009-	BPS1-SB3010-0008	BPS1-SB3010-	BPS1-SB3010-5868	BPS1-SB3010-	BPS1-SB3010-	BPS1-SB3010-	BPS1-SB3011-1828
SAMPLE DATE	20100731	20100731	20100731	20100731	20100801	20100815	20100815	20100816	20100816	20100816	20100817	20100818
SAMPLE CODE	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
TOP DEPTH	51	51	96	140	209	0	49	58	93.5	118	188	18
BOTTOM DEPTH	51.5	51.5	96.5	140.5	209.5	8	49.5	68	94	148	188.5	28
DICHLORODIFLUOROMETHANE	52 U	53 U	57 U	66 U	55 U	NA	59 U	NA	66 U	NA	65 U	NA
ETHYLBENZENE	26 U	26 U	28 U	33 U	28 U	NA	29 U	NA	33 U	NA	33 U	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	52 U	53 UJ	57 UJ	66 UJ	55 UJ	NA	59 U	NA	66 U	NA	65 U	NA
M+P-XYLENES	52 U	53 U	57 U	66 U	55 U	NA	59 U	NA	66 U	NA	65 U	NA
O-XYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
STYRENE	26 U	26 U	28 U	33 U	28 U	NA	29 U	NA	33 U	NA	33 U	NA
TETRACHLOROETHENE	26 U	26 U	28 U	33 U	28 U	NA	29 U	NA	33 U	NA	33 U	NA
TOLUENE	26 U	26 U	28 U	33 U	28 U	NA	29 U	NA	33 U	NA	33 U	NA
TOTAL XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	26 U	26 U	28 U	33 U	28 U	NA	29 U	NA	33 U	NA	33 U	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	52 U	53 U	57 U	66 U	55 U	NA	59 U	NA	66 U	NA	65 U	NA
TRICHLOROFLUOROMETHANE	26 U	26 U	28 U	33 U	28 U	NA	29 U	NA	33 U	NA	33 U	NA
VINYL CHLORIDE	26 U	26 U	28 U	33 U	28 U	NA	29 U	NA	33 U	NA	33 U	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS13011		BPS13012									
SAMPLE ID	BPS1-SB3011-3848	BPS1-SB3011-	BPS1-SB3012-	BPS1-SB3012-4858	BPS1-SB3012-5868	BPS1-SB3012-	BPS1-SB3012-	BPS1-SB3012-	BPS1-SB3012-	BPS1-SB3012-	BPS1-SB3014-0002	BPS1-SB3014-0002-
SAMPLE DATE	20100818	20100818	20100809	20100810	20100810	20100811	20100811	20100811	20100813	20100814	20120724	20120724
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	ORIG	AVG
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SS	SS
TOP DEPTH	38	48.5	39	48	58	112.5	112.5	112.5	158	203	0	0
BOTTOM DEPTH	48	49	39.5	58	68	113	113	113	168	203.5	2	2
MISCELLANEOUS PARAMETERS (%)												
PERCENT SOLIDS	76	90	93	83	88	94	94.5	95	81	84	95	95.5
TOTAL ORGANIC CARBON	NA	0.01 U	0.01 U	NA	NA	0.019 J	0.016	0.013 J	NA	0.041 J	NA	NA
TOTAL SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/KG)												
AROCLOR-1016	17 U	15 U	NA	16 U	15 U	14 U	14 U	14 U	16 U	15 U	14 U	14 U
AROCLOR-1221	17 U	15 U	NA	16 U	15 U	14 U	14 U	14 U	16 U	15 U	14 U	14 U
AROCLOR-1232	17 U	15 U	NA	16 U	15 U	14 U	14 U	14 U	16 U	15 U	14 U	14 U
AROCLOR-1242	17 U	15 U	NA	16 U	15 U	14 U	14 U	14 U	16 U	14 J	14 U	14 U
AROCLOR-1248	8.8 U	7.5 U	NA	8.1 U	7.6 U	7.1 U	7.05 U	7 U	8.3 U	7.9 U	36000	39000
AROCLOR-1254	17 U	15 U	NA	16 U	15 U	14 U	14 U	14 U	16 U	15 U	5900	6750
AROCLOR-1260	17 U	15 U	NA	16 U	15 U	14 U	14 U	14 U	16 U	15 U	14 U	14 U
AROCLOR-1262	17 U	15 U	NA	16 U	15 U	14 U	14 U	14 U	16 U	15 U	14 U	14 U
AROCLOR-1268	8.8 U	7.5 U	NA	8.1 U	7.6 U	7.1 U	7.05 U	7 U	8.3 U	7.9 U	14 U	14 U
TOTAL AROCLOR	0 U	0 U	NA	0 U	0 U	0 U	0 U	0 U	0 U	14	41900	45750
PETROLEUM HYDROCARBONS (MG/KG												
DIESEL RANGE ORGANICS	NA	NA	5.4 U	NA	NA	5.3 U	5.3 U	5.3 U	NA	5.9 U	NA	NA
GASOLINE RANGE ORGANICS	NA	NA	3.9 U	NA	NA	4.3 U	4.5 U	4.7 U	NA	4.7 U	NA	NA
TPH (C06-C10)	NA	7.7 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C28)	NA	6.8 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/KG)												
1,1,1-TRICHLOROETHANE	NA	48 U	24 U	NA	NA	27 U	28.5 U	30 U	NA	30 U	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	48 U	24 U	NA	NA	27 U	28.5 U	30 U	NA	30 U	NA	NA
1,1-DICHLOROETHANE	NA	48 U	24 U	NA	NA	27 U	28.5 U	30 U	NA	30 U	NA	NA
1,1-DICHLOROETHENE	NA	48 U	24 U	NA	NA	27 U	28.5 U	30 U	NA	30 U	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	48 U	24 U	NA	NA	27 U	28.5 U	30 U	NA	30 U	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	96 U	49 U	NA	NA	53 U	56 U	59 U	NA	59 U	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	480 U	240 U	NA	NA	270 U	285 U	300 U	NA	300 U	NA	NA
BENZENE	NA	48 U	24 U	NA	NA	27 U	28.5 U	30 U	NA	30 U	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	48 U	24 U	NA	NA	27 U	28.5 U	30 U	NA	30 U	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS13011		BPS13012									
SAMPLE ID	BPS1-SB3011-3848	BPS1-SB3011-	BPS1-SB3012-	BPS1-SB3012-4858	BPS1-SB3012-5868	BPS1-SB3012-	BPS1-SB3012-	BPS1-SB3012-	BPS1-SB3012-	BPS1-SB3012-	BPS1-SB3014-0002	BPS1-SB3014-0002-
SAMPLE DATE	20100818	20100818	20100809	20100810	20100810	20100811	20100811	20100811	20100813	20100814	20120724	20120724
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	ORIG	AVG
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SS	SS
TOP DEPTH	38	48.5	39	48	58	112.5	112.5	112.5	158	203	0	0
BOTTOM DEPTH	48	49	39.5	58	68	113	113	113	168	203.5	2	2
DICHLORODIFLUOROMETHANE	NA	96 U	49 U	NA	NA	53 U	56 U	59 U	NA	59 U	NA	NA
ETHYLBENZENE	NA	48 U	24 U	NA	NA	27 U	28.5 U	30 U	NA	30 U	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	96 U	49 U	NA	NA	53 U	56 U	59 U	NA	59 U	NA	NA
M+P-XYLENES	NA	96 U	49 U	NA	NA	53 U	56 U	59 U	NA	59 U	NA	NA
O-XYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	48 U	24 U	NA	NA	27 U	28.5 U	30 U	NA	30 U	NA	NA
TETRACHLOROETHENE	NA	48 U	24 U	NA	NA	27 U	28.5 U	30 U	NA	30 U	NA	NA
TOLUENE	NA	48 U	24 U	NA	NA	27 U	28.5 U	30 U	NA	30 U	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	48 U	24 U	NA	NA	27 U	28.5 U	30 U	NA	30 U	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	96 U	49 U	NA	NA	53 U	56 U	59 U	NA	59 U	NA	NA
TRICHLOROFLUOROMETHANE	NA	48 U	24 U	NA	NA	27 U	28.5 U	30 U	NA	30 U	NA	NA
VINYL CHLORIDE	NA	48 U	24 U	NA	NA	27 U	28.5 U	30 U	NA	30 U	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS13014				BPS13015				BPS13016	BPS13017	BPS13018	
SAMPLE ID	BPS1-SB3014-0002-	BPS1-SB3014-0205	BPS1-SB3014-0510	BPS1-SB3014-1015	BPS1-SB3015-0002	BPS1-SB3015-0205	BPS1-SB3015-0510	BPS1-SB3015-1015	BPS1-SB3016-0002	BPS1-SB3017-0002	BPS1-SB3018-0002	BPS1-SB3019-0002
SAMPLE DATE	20120724	20120820	20120820	20120820	20120724	20120820	20120820	20120820	20120724	20120724	20120724	20120724
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SB	SB	SB	SS	SB	SB	SB	SS	SS	SS	SS
TOP DEPTH	0	2	5	10	0	2	5	10	0	0	0	0
BOTTOM DEPTH	2	5	10	15	2	5	10	15	2	2	2	2
MISCELLANEOUS PARAMETERS (%)												
PERCENT SOLIDS	96	95	97	98	96	91	96	93	94	92	94	94
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/KG)												
AROCLOR-1016	14 U	68 U	13 U	13 U	14 U	1400 U	14 U	70 U	14 U	14 U	14 U	14 U
AROCLOR-1221	14 U	68 U	13 U	13 U	14 U	1400 U	14 U	70 U	14 U	14 U	14 U	14 U
AROCLOR-1232	14 U	68 U	13 U	13 U	14 U	1400 U	14 U	70 U	14 U	14 U	14 U	14 U
AROCLOR-1242	14 U	68 U	13 U	13 U	14 U	1400 U	14 U	70 U	14 U	14 U	14 U	14 U
AROCLOR-1248	42000	1100	13 U	13 U	7000	21000	70 J	1200	3400	2800	12000	530
AROCLOR-1254	7600	270 J	13 U	13 U	3300	13000	35 J	500	1000	1500	2400	190 J
AROCLOR-1260	14 U	68 U	13 U	13 U	14 U	1400 U	14 U	70 U	14 U	14 U	14 U	14 U
AROCLOR-1262	14 U	68 U	13 U	13 U	14 U	1400 U	14 U	70 U	14 U	14 U	14 U	14 U
AROCLOR-1268	14 U	68 U	13 U	13 U	14 U	1400 U	14 U	70 U	14 U	14 U	14 U	14 U
TOTAL AROCLOR	49600	1370	0 U	0 U	10300	34000	105	1700	4400	4300	14400	720
PETROLEUM HYDROCARBONS (MG/KG												
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C28)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/KG)												
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS13014				BPS13015				BPS13016	BPS13017	BPS13018	
SAMPLE ID	BPS1-SB3014-0002-	BPS1-SB3014-0205	BPS1-SB3014-0510	BPS1-SB3014-1015	BPS1-SB3015-0002	BPS1-SB3015-0205	BPS1-SB3015-0510	BPS1-SB3015-1015	BPS1-SB3016-0002	BPS1-SB3017-0002	BPS1-SB3018-0002	BPS1-SB3019-0002
SAMPLE DATE	20120724	20120820	20120820	20120820	20120724	20120820	20120820	20120820	20120724	20120724	20120724	20120724
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SB	SB	SB	SS	SB	SB	SB	SS	SS	SS	SS
TOP DEPTH	0	2	5	10	0	2	5	10	0	0	0	0
BOTTOM DEPTH	2	5	10	15	2	5	10	15	2	2	2	2
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS13019		BPS13020									
SAMPLE ID	BPS1-SB3019-0002-	BPS1-SB3019-0002-	BPS1-SB3020-0002	BPS1-SB3020-0205	BPS1-SB3020-0205-	BPS1-SB3020-0205-	BPS1-SB3020-0510	BPS1-SB3020-1015	BPS1-SB3020-1520	BPS1-SB3020-2025	BPS1-SB3020-2530	BPS1-SB3020-3035
SAMPLE DATE	20120724	20120724	20120724	20120821	20120821	20120821	20120821	20120821	20120821	20120821	20120821	20120827
SAMPLE CODE	AVG	DUP	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SB	SB	SB	SB	SB	SB	SB	SB	SB
TOP DEPTH	0	0	0	2	2	2	5	10	15	20	25	30
BOTTOM DEPTH	2	2	2	5	5	5	10	15	20	25	30	35
MISCELLANEOUS PARAMETERS (%)												
PERCENT SOLIDS	93.5	93	94	86	86	86	97	96	97	95	95	95
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/KG)												
AROCLOR-1016	14 U	14 U	14 U	15 U	15 U	15 U	13 U	14 U	13 U	14 U	14 U	14 U
AROCLOR-1221	14 U	14 U	14 U	15 U	15 U	15 U	13 U	14 U	13 U	14 U	14 U	14 U
AROCLOR-1232	14 U	14 U	14 U	15 U	15 U	15 U	13 U	14 U	13 U	14 U	14 U	14 U
AROCLOR-1242	14 U	14 U	14 U	15 U	15 U	15 U	13 U	14 U	13 U	14 U	14 U	14 U
AROCLOR-1248	570	610	5800	72 J	84	96 J	13 U	14 U	13 U	17 J	85 J	14 U
AROCLOR-1254	200	210 J	1500	21 J	25	29 J	3.8 J	4.1 J	5.9 J	6.9 J	27 J	14 U
AROCLOR-1260	14 U	14 U	14 U	15 U	15 U	15 U	13 U	14 U	13 U	14 U	14 U	14 U
AROCLOR-1262	14 U	14 U	14 U	15 U	15 U	15 U	13 U	14 U	13 U	14 U	14 U	14 U
AROCLOR-1268	14 U	14 U	14 U	15 U	15 U	15 U	13 U	14 U	13 U	14 U	14 U	14 U
TOTAL AROCLOR	770	820	7300	93	109	125	3.8	4.1	5.9	23.9	112	0 U
PETROLEUM HYDROCARBONS (MG/KG												
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C28)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/KG)												
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS13019		BPS13020									
SAMPLE ID	BPS1-SB3019-0002-	BPS1-SB3019-0002-	BPS1-SB3020-0002	BPS1-SB3020-0205	BPS1-SB3020-0205-	BPS1-SB3020-0205-	BPS1-SB3020-0510	BPS1-SB3020-1015	BPS1-SB3020-1520	BPS1-SB3020-2025	BPS1-SB3020-2530	BPS1-SB3020-3035
SAMPLE DATE	20120724	20120724	20120724	20120821	20120821	20120821	20120821	20120821	20120821	20120821	20120821	20120827
SAMPLE CODE	AVG	DUP	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SB	SB	SB	SB	SB	SB	SB	SB	SB
TOP DEPTH	0	0	0	2	2	2	5	10	15	20	25	30
BOTTOM DEPTH	2	2	2	5	5	5	10	15	20	25	30	35
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION											BPS13021	
SAMPLE ID	BPS1-SB3020-3545	BPS1-SB3020-4555	BPS1-SB3020-5560	BPS1-SB3021-0002	BPS1-SB3021-0205	BPS1-SB3021-0510	BPS1-SB3021-0510-	BPS1-SB3021-0510-	BPS1-SB3021-1015	BPS1-SB3021-1520	BPS1-SB3021-2025	BPS1-SB3021-2530
SAMPLE DATE	20120827	20120827	20120827	20120724	20120823	20120823	20120823	20120823	20120823	20120823	20120823	20120823
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SS	SB	SB	SB	SB	SB	SB	SB	SB
TOP DEPTH	35	45	55	0	2	5	5	5	10	15	20	25
BOTTOM DEPTH	45	55	60	2	5	10	10	10	15	20	25	30
MISCELLANEOUS PARAMETERS (%)												
PERCENT SOLIDS	87	92	91	94	89	97	97	97	98	98	96	95
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/KG)												
AROCLOR-1016	15 U	14 U	14 U	14 U	15 U	13 U	13 U	13 U	13 U	13 U	14 U	14 U
AROCLOR-1221	15 U	14 U	14 U	14 U	15 U	13 U	13 U	13 U	13 U	13 U	14 U	14 U
AROCLOR-1232	15 U	14 U	14 U	14 U	15 U	13 U	13 U	13 U	13 U	13 U	14 U	14 U
AROCLOR-1242	15 U	14 U	14 U	14 U	15 U	13 U	13 U	13 U	13 U	13 U	14 U	14 U
AROCLOR-1248	85 J	14 U	14 U	1100	59 J	13 U	13 U	13 U	13 U	13 U	25 J	36 J
AROCLOR-1254	15 U	14 U	14 U	420	14 J	13 U	13 U	13 U	13 U	13 U	14 U	14 U
AROCLOR-1260	15 U	14 U	14 U	14 U	15 U	13 U	13 U	13 U	13 U	13 U	14 U	14 U
AROCLOR-1262	15 U	14 U	14 U	14 U	15 U	13 U	13 U	13 U	13 U	13 U	14 U	14 U
AROCLOR-1268	15 U	14 U	14 U	14 U	15 U	13 U	13 U	13 U	13 U	13 U	14 U	14 U
TOTAL AROCLOR	85	0 U	0 U	1520	73	0 U	0 U	0 U	0 U	0 U	25	36
PETROLEUM HYDROCARBONS (MG/KG												
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C28)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/KG)												
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION											BPS13021	
SAMPLE ID	BPS1-SB3020-3545	BPS1-SB3020-4555	BPS1-SB3020-5560	BPS1-SB3021-0002	BPS1-SB3021-0205	BPS1-SB3021-0510	BPS1-SB3021-0510-	BPS1-SB3021-0510-	BPS1-SB3021-1015	BPS1-SB3021-1520	BPS1-SB3021-2025	BPS1-SB3021-2530
SAMPLE DATE	20120827	20120827	20120827	20120724	20120823	20120823	20120823	20120823	20120823	20120823	20120823	20120823
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SS	SB	SB	SB	SB	SB	SB	SB	SB
TOP DEPTH	35	45	55	0	2	5	5	5	10	15	20	25
BOTTOM DEPTH	45	55	60	2	5	10	10	10	15	20	25	30
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION												
SAMPLE ID	BPS1-SB3021-3035	BPS1-SB3021-3035-	BPS1-SB3021-3035-	BPS1-SB3021-3545	BPS1-SB3021-4555	BPS1-SB3021-5565	BPS1-SB3021-7075	BPS1-SB3022-0002	BPS1-SB3022-0040	BPS1-SB3022-0205	BPS1-SB3022-0510	BPS1-SB3022-1015
SAMPLE DATE	20120827	20120827	20120828	20120828	20120828	20120828	20120828	20120724	20121219	20121109	20121109	20121109
SAMPLE CODE	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB	SB	SS	SB	SB	SB	SB
TOP DEPTH	30	30	30	35	45	55	70	0	0	2	5	10
BOTTOM DEPTH	35	35	35	45	55	65	75	2	40	5	10	15
MISCELLANEOUS PARAMETERS (%)												
PERCENT SOLIDS	93	93	93	91	91	81	85	95	97	90	88	97
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/KG)												
AROCLOR-1016	14 U	14 U	14 U	14 U	14 U	16 U	15 U	14 U	13 U	15 U	15 U	13 U
AROCLOR-1221	14 U	14 U	14 U	14 U	14 U	16 U	15 U	14 U	13 U	15 U	15 U	13 U
AROCLOR-1232	14 U	14 U	14 U	14 U	14 U	16 U	15 U	14 U	13 U	15 U	15 U	13 U
AROCLOR-1242	14 U	14 U	14 U	14 U	14 U	16 U	15 U	14 U	13 U	15 U	15 U	13 U
AROCLOR-1248	17 J	17.5	18 J	14 U	14 U	16 U	15 U	100 J	13 U	16 J	3.8 J	13 U
AROCLOR-1254	14 U	14 U	14 U	14 U	14 U	16 U	15 U	87 J	13 U	15 U	15 U	13 U
AROCLOR-1260	14 U	14 U	14 U	14 U	14 U	16 U	15 U	14 U	13 U	15 U	15 U	13 U
AROCLOR-1262	14 U	14 U	14 U	14 U	14 U	16 U	15 U	14 U	13 U	15 U	15 U	13 U
AROCLOR-1268	14 U	14 U	14 U	14 U	14 U	16 U	15 U	14 U	13 U	15 U	15 U	13 U
TOTAL AROCLOR	17	17.5	18	0 U	0 U	0 U	0 U	187	0 U	16	3.8	0 U
PETROLEUM HYDROCARBONS (MG/KG												
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C28)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/KG)												
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION												
SAMPLE ID	BPS1-SB3021-3035	BPS1-SB3021-3035-	BPS1-SB3021-3035-	BPS1-SB3021-3545	BPS1-SB3021-4555	BPS1-SB3021-5565	BPS1-SB3021-7075	BPS1-SB3022-0002	BPS1-SB3022-0040	BPS1-SB3022-0205	BPS1-SB3022-0510	BPS1-SB3022-1015
SAMPLE DATE	20120827	20120827	20120828	20120828	20120828	20120828	20120828	20120724	20121219	20121109	20121109	20121109
SAMPLE CODE	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB	SB	SS	SB	SB	SB	SB
TOP DEPTH	30	30	30	35	45	55	70	0	0	2	5	10
BOTTOM DEPTH	35	35	35	45	55	65	75	2	40	5	10	15
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION			BPS13022									
SAMPLE ID	BPS1-SB3022-1520	BPS1-SB3022-2025	BPS1-SB3022-2535	BPS1-SB3022-2535-	BPS1-SB3022-2535-	BPS1-SB3022-3545	BPS1-SB3022-4075	BPS1-SB3022-4555	BPS1-SB3022-5565	BPS1-SB3022-6575	BPS1-SB3024-0002	BPS1-SB3024-0205
SAMPLE DATE	20121109	20121109	20121109	20121109	20121109	20121109	20121219	20121109	20121109	20121109	20120820	20120820
SAMPLE CODE	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SS	SB
TOP DEPTH	15	20	25	25	25	35	40	45	55	65	0	2
BOTTOM DEPTH	20	25	35	35	35	45	75	55	65	75	2	5
MISCELLANEOUS PARAMETERS (%)												
PERCENT SOLIDS	96	97	97	97	97	97	94	94	83	81	92	90
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/KG)												
AROCLOR-1016	14 U	13 U	13 U	13 U	13 U	13 U	14 U	14 U	16 U	16 U	71 U	72 U
AROCLOR-1221	14 U	13 U	13 U	13 U	13 U	13 U	14 U	14 U	16 U	16 U	71 U	72 U
AROCLOR-1232	14 U	13 U	13 U	13 U	13 U	13 U	14 U	14 U	16 U	16 U	71 U	72 U
AROCLOR-1242	14 U	13 U	13 U	13 U	13 U	13 U	14 U	14 U	16 U	16 U	71 U	72 U
AROCLOR-1248	14 U	13 U	13 U	13 U	13 U	13 U	3.7 J	14 U	9.5 J	11 J	150 J	100 J
AROCLOR-1254	14 U	13 U	13 U	13 U	13 U	13 U	14 U	14 U	16 U	16 U	71 U	72 U
AROCLOR-1260	14 U	13 U	13 U	13 U	13 U	13 U	14 U	14 U	16 U	16 U	71 U	72 U
AROCLOR-1262	14 U	13 U	13 U	13 U	13 U	13 U	14 U	14 U	16 U	16 U	71 U	72 U
AROCLOR-1268	14 U	13 U	13 U	13 U	13 U	13 U	14 U	14 U	16 U	16 U	71 U	72 U
TOTAL AROCLOR	0 U	0 U	0 U	0 U	0 U	0 U	3.7	0 U	9.5	11	150	100
PETROLEUM HYDROCARBONS (MG/KG												
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C28)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/KG)												
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION			BPS13022									
SAMPLE ID	BPS1-SB3022-1520	BPS1-SB3022-2025	BPS1-SB3022-2535	BPS1-SB3022-2535-	BPS1-SB3022-2535-	BPS1-SB3022-3545	BPS1-SB3022-4075	BPS1-SB3022-4555	BPS1-SB3022-5565	BPS1-SB3022-6575	BPS1-SB3024-0002	BPS1-SB3024-0205
SAMPLE DATE	20121109	20121109	20121109	20121109	20121109	20121109	20121219	20121109	20121109	20121109	20120820	20120820
SAMPLE CODE	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SS	SB
TOP DEPTH	15	20	25	25	25	35	40	45	55	65	0	2
BOTTOM DEPTH	20	25	35	35	35	45	75	55	65	75	2	5
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS13024				BPS13025							
SAMPLE ID	BPS1-SB3024-0510	BPS1-SB3024-1015	BPS1-SB3024-1520	BPS1-SB3024-2025	BPS1-SB3025-0030	BPS1-SB3025-2535	BPS1-SB3025-2535-	BPS1-SB3025-2535-	BPS1-SB3025-2570	BPS1-SB3025-3545	BPS1-SB3025-4555	BPS1-SB3025-5565
SAMPLE DATE	20120820	20120820	20120820	20120820	20121219	20121105	20121105	20121105	20121219	20121105	20121106	20121106
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
TOP DEPTH	5	10	15	20	0	25	25	25	25	35	45	55
BOTTOM DEPTH	10	15	20	25	30	35	35	35	70	45	55	65
MISCELLANEOUS PARAMETERS (%)												
PERCENT SOLIDS	91	98	97	97	97	96	96	96	95	96	94	81
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/KG)												
AROCLOR-1016	14 U	13 U	13 U	13 U	27 U	14 U	14 U	14 U	41 U	13 U	14 U	16 U
AROCLOR-1221	14 U	13 U	13 U	13 U	27 U	14 U	14 U	14 U	41 U	13 U	14 U	16 U
AROCLOR-1232	14 U	13 U	13 U	13 U	27 U	14 U	14 U	14 U	41 U	13 U	14 U	16 U
AROCLOR-1242	14 U	13 U	13 U	13 U	27 U	14 U	14 U	14 U	41 U	13 U	14 U	16 U
AROCLOR-1248	39 J	13 U	13 U	13 U	430 J	14 U	14 U	14 U	540 J	13 U	14 U	6.4 J
AROCLOR-1254	14 U	13 U	13 U	13 U	27 U	14 U	14 U	14 U	41 U	13 U	14 U	16 U
AROCLOR-1260	14 U	13 U	13 U	13 U	31 J	14 U	14 U	14 U	31 J	13 U	14 U	16 U
AROCLOR-1262	14 U	13 U	13 U	13 U	27 U	14 U	14 U	14 U	41 U	13 U	14 U	16 U
AROCLOR-1268	14 U	13 U	13 U	13 U	27 U	14 U	14 U	14 U	41 U	13 U	14 U	16 U
TOTAL AROCLOR	39	0 U	0 U	0 U	461	0 U	0 U	0 U	571	0 U	0 U	6.4
PETROLEUM HYDROCARBONS (MG/KG												
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C28)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/KG)												
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS13024				BPS13025							
SAMPLE ID	BPS1-SB3024-0510	BPS1-SB3024-1015	BPS1-SB3024-1520	BPS1-SB3024-2025	BPS1-SB3025-0030	BPS1-SB3025-2535	BPS1-SB3025-2535-	BPS1-SB3025-2535-	BPS1-SB3025-2570	BPS1-SB3025-3545	BPS1-SB3025-4555	BPS1-SB3025-5565
SAMPLE DATE	20120820	20120820	20120820	20120820	20121219	20121105	20121105	20121105	20121219	20121105	20121106	20121106
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
TOP DEPTH	5	10	15	20	0	25	25	25	25	35	45	55
BOTTOM DEPTH	10	15	20	25	30	35	35	35	70	45	55	65
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION		BPS13026										
SAMPLE ID	BPS1-SB3025-6575	BPS1-SB3026-0030	BPS1-SB3026-2535	BPS1-SB3026-3070	BPS1-SB3026-3545	BPS1-SB3026-4555	BPS1-SB3026-5565	BPS1-SB3026-6575	BPS1-SB3027-0030	BPS1-SB3027-2535	BPS1-SB3027-2535-	BPS1-SB3027-2535-
SAMPLE DATE	20121106	20121219	20121114	20121219	20121114	20121114	20121114	20121114	20121219	20121112	20121112	20121112
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
TOP DEPTH	65	0	25	25	35	45	55	65	0	25	25	25
BOTTOM DEPTH	75	25	35	70	45	55	65	75	30	35	35	35
MISCELLANEOUS PARAMETERS (%)												
PERCENT SOLIDS	85	97	92	95	96	94	82	79	96	93	93	93
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/KG)												
AROCLOR-1016	15 U	27000 U	2800 U	27000 U	68 U	28 U	790 U	66 U	2700 U	140000 U	210000 U	280000 U
AROCLOR-1221	15 U	27000 U	2800 U	27000 U	68 U	28 U	790 U	66 U	2700 U	140000 U	210000 U	280000 U
AROCLOR-1232	15 U	27000 U	2800 U	27000 U	68 U	28 U	790 U	66 U	2700 U	140000 U	210000 U	280000 U
AROCLOR-1242	15 U	440000 J	2800 U	340000 J	68 U	28 U	790 U	66 U	45000 J	140000 U	210000 U	280000 U
AROCLOR-1248	15 U	27000 U	21000	27000 U	1200	290 J	8100	860	2700 U	2400000	2950000	3500000
AROCLOR-1254	15 U	27000 U	2800 U	27000 U	68 U	28 U	790 U	66 U	2700 U	140000 U	210000 U	280000 U
AROCLOR-1260	15 U	27000 U	2800 U	27000 U	68 U	28 U	790 U	66 U	2700 U	140000 U	210000 U	280000 U
AROCLOR-1262	15 U	27000 U	2800 U	27000 U	68 U	28 U	790 U	66 U	2700 U	140000 U	210000 U	280000 U
AROCLOR-1268	15 U	27000 U	2800 U	27000 U	68 U	28 U	790 U	66 U	2700 U	140000 U	210000 U	280000 U
TOTAL AROCLOR	0 U	440000	21000	340000	1200	290	8100	860	45000	2400000	2950000	3500000
PETROLEUM HYDROCARBONS (MG/KG												
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C28)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/KG)												
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION		BPS13026										
SAMPLE ID	BPS1-SB3025-6575	BPS1-SB3026-0030	BPS1-SB3026-2535	BPS1-SB3026-3070	BPS1-SB3026-3545	BPS1-SB3026-4555	BPS1-SB3026-5565	BPS1-SB3026-6575	BPS1-SB3027-0030	BPS1-SB3027-2535	BPS1-SB3027-2535-	BPS1-SB3027-2535-
SAMPLE DATE	20121106	20121219	20121114	20121219	20121114	20121114	20121114	20121114	20121219	20121112	20121112	20121112
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
TOP DEPTH	65	0	25	25	35	45	55	65	0	25	25	25
BOTTOM DEPTH	75	25	35	70	45	55	65	75	30	35	35	35
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS13027					BPS13028						
SAMPLE ID	BPS1-SB3027-3070	BPS1-SB3027-3545	BPS1-SB3027-4555	BPS1-SB3027-5565	BPS1-SB3027-6575	BPS1-SB3028-0030	BPS1-SB3028-2535	BPS1-SB3028-3075	BPS1-SB3028-3545	BPS1-SB3028-4555	BPS1-SB3028-5565	BPS1-SB3028-6575
SAMPLE DATE	20121219	20121113	20121113	20121113	20121113	20121219	20121107	20121219	20121107	20121107	20121107	20121107
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
TOP DEPTH	30	35	45	55	65	0	25	30	35	45	55	65
BOTTOM DEPTH	70	45	55	65	75	30	35	75	45	55	65	75
MISCELLANEOUS PARAMETERS (%)												
PERCENT SOLIDS	94	95	91	84	80	97	97	95	95	95	83	78
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/KG)												
AROCLOR-1016	6900 U	55 U	57 U	150 U	160 U	67 U	13 U	14 U	14 U	14 U	16 U	17 U
AROCLOR-1221	6900 U	55 U	57 U	150 U	160 U	67 U	13 U	14 U	14 U	14 U	16 U	17 U
AROCLOR-1232	6900 U	55 U	57 U	150 U	160 U	67 U	13 U	14 U	14 U	14 U	16 U	17 U
AROCLOR-1242	120000 J	55 U	57 U	150 U	160 U	67 U	13 U	14 U	14 U	14 U	16 U	17 U
AROCLOR-1248	6900 U	890	380	1400	1900	960 J	13 U	150 J	14 U	14 U	4 J	9.7 J
AROCLOR-1254	6900 U	55 U	57 U	150 U	160 U	67 U	13 U	14 U	14 U	14 U	16 U	17 U
AROCLOR-1260	6900 U	55 U	57 U	150 U	160 U	55 J	13 U	7.1 J	14 U	14 U	16 U	17 U
AROCLOR-1262	6900 U	55 U	57 U	150 U	160 U	67 U	13 U	14 U	14 U	14 U	16 U	17 U
AROCLOR-1268	6900 U	55 U	57 U	150 U	160 U	67 U	13 U	14 U	14 U	14 U	16 U	17 U
TOTAL AROCLOR	120000	890	380	1400	1900	1015	0 U	157.1	0 U	0 U	4	9.7
PETROLEUM HYDROCARBONS (MG/KG												
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C28)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/KG)												
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS13027					BPS13028						
SAMPLE ID	BPS1-SB3027-3070	BPS1-SB3027-3545	BPS1-SB3027-4555	BPS1-SB3027-5565	BPS1-SB3027-6575	BPS1-SB3028-0030	BPS1-SB3028-2535	BPS1-SB3028-3075	BPS1-SB3028-3545	BPS1-SB3028-4555	BPS1-SB3028-5565	BPS1-SB3028-6575
SAMPLE DATE	20121219	20121113	20121113	20121113	20121113	20121219	20121107	20121219	20121107	20121107	20121107	20121107
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
TOP DEPTH	30	35	45	55	65	0	25	30	35	45	55	65
BOTTOM DEPTH	70	45	55	65	75	30	35	75	45	55	65	75
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS13029											
SAMPLE ID	BPS1-SB3029-0205	BPS1-SB3029-0510	BPS1-SB3029-1015	BPS1-SB3029-1520	BPS1-SB3029-2025	BPS1-SB3029-2025-	BPS1-SB3029-2025-	BPS1-SB3029-2535	BPS1-SB3029-3545	BPS1-SB3029-4555	BPS1-SB3029-5565	BPS1-SB3030-2535
SAMPLE DATE	20120829	20120829	20120829	20120829	20120829	20120829	20120829	20120829	20120829	20120829	20120829	20120830
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
TOP DEPTH	2	5	10	15	20	20	20	25	35	45	55	25
BOTTOM DEPTH	5	10	15	20	25	25	25	35	45	55	65	35
MISCELLANEOUS PARAMETERS (%)												
PERCENT SOLIDS	96	97	97	97	96	96	96	95	95	88	89	93
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/KG)												
AROCLOR-1016	14 U	13 U	13 U	67 U	27 U	20.5 U	14 U	1400 U	14 U	15 U	15 U	14 U
AROCLOR-1221	14 U	13 U	13 U	67 U	27 U	20.5 U	14 U	1400 U	14 U	15 U	15 U	14 U
AROCLOR-1232	14 U	13 U	13 U	67 U	27 U	20.5 U	14 U	1400 U	14 U	15 U	15 U	14 U
AROCLOR-1242	14 U	13 U	13 U	67 U	27 U	20.5 U	14 U	1400 U	14 U	15 U	15 U	14 U
AROCLOR-1248	180 J	140 J	120 J	830	340	305	270 J	28000	250 J	210 J	23 J	14 U
AROCLOR-1254	58 J	57 J	13 U	67 U	27 U	20.5 U	14 U	1400 U	14 U	15 U	15 U	14 U
AROCLOR-1260	14 U	13 U	13 U	67 U	27 U	20.5 U	14 U	1400 U	14 U	15 U	15 U	14 U
AROCLOR-1262	14 U	13 U	13 U	67 U	27 U	20.5 U	14 U	1400 U	14 U	15 U	15 U	14 U
AROCLOR-1268	14 U	13 U	13 U	67 U	27 U	20.5 U	14 U	1400 U	14 U	15 U	15 U	14 U
TOTAL AROCLOR	238	197	120	830	340	305	270	28000	250	210	23	0 U
PETROLEUM HYDROCARBONS (MG/KG												
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C28)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/KG)												
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS13029											
SAMPLE ID	BPS1-SB3029-0205	BPS1-SB3029-0510	BPS1-SB3029-1015	BPS1-SB3029-1520	BPS1-SB3029-2025	BPS1-SB3029-2025-	BPS1-SB3029-2025-	BPS1-SB3029-2535	BPS1-SB3029-3545	BPS1-SB3029-4555	BPS1-SB3029-5565	BPS1-SB3030-2535
SAMPLE DATE	20120829	20120829	20120829	20120829	20120829	20120829	20120829	20120829	20120829	20120829	20120829	20120830
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
TOP DEPTH	2	5	10	15	20	20	20	25	35	45	55	25
BOTTOM DEPTH	5	10	15	20	25	25	25	35	45	55	65	35
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS13030		BPS13031						BPS13032			
SAMPLE ID	BPS1-SB3030-3545	BPS1-SB3030-4555	BPS1-SB3031-0002	BPS1-SB3031-0205	BPS1-SB3031-0205-	BPS1-SB3031-0205-	BPS1-SB3031-0510	BPS1-SB3031-1015	BPS1-SB3032-0002	BPS1-SB3032-0206	BPS1-SB3032-0206-	BPS1-SB3032-0206-
SAMPLE DATE	20120830	20120830	20120724	20120820	20120820	20120820	20120820	20120820	20120724	20120822	20120822	20120822
SAMPLE CODE	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SS	SB	SB	SB	SB	SB	SS	SB	SB	SB
TOP DEPTH	35	45	0	2	2	2	5	10	0	2	2	2
BOTTOM DEPTH	45	55	2	5	5	5	10	15	2	6	6	6
MISCELLANEOUS PARAMETERS (%)												
PERCENT SOLIDS	89	91	94	95	95	95	96	98	94	97	96.5	96
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/KG)												
AROCLOR-1016	15 U	14 U	14 U	680 U	680 U	680 U	14 U	13 U	14 U	13 U	13.5 U	14 U
AROCLOR-1221	15 U	14 U	14 U	680 U	680 U	680 U	14 U	13 U	14 U	13 U	13.5 U	14 U
AROCLOR-1232	15 U	14 U	14 U	680 U	680 U	680 U	14 U	13 U	14 U	13 U	13.5 U	14 U
AROCLOR-1242	15 U	14 U	14 U	680 U	680 U	680 U	14 U	13 U	14 U	13 U	13.5 U	14 U
AROCLOR-1248	15 U	14 U	58000	9800	10400	11000	14 U	13 U	600	190 J	165	140 J
AROCLOR-1254	15 U	14 U	4500	1300 J	1450	1600 J	14 U	13 U	370 J	120 J	105	90 J
AROCLOR-1260	15 U	14 U	14 U	680 U	680 U	680 U	14 U	13 U	14 U	13 U	13.5 U	14 U
AROCLOR-1262	15 U	14 U	14 U	680 U	680 U	680 U	14 U	13 U	14 U	13 U	13.5 U	14 U
AROCLOR-1268	15 U	14 U	14 U	680 U	680 U	680 U	14 U	13 U	14 U	13 U	13.5 U	14 U
TOTAL AROCLOR	0 U	0 U	62500	11100	11850	12600	0 U	0 U	970	310	270	230
PETROLEUM HYDROCARBONS (MG/KG												
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C28)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/KG)												
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS13030		BPS13031						BPS13032			
SAMPLE ID	BPS1-SB3030-3545	BPS1-SB3030-4555	BPS1-SB3031-0002	BPS1-SB3031-0205	BPS1-SB3031-0205-	BPS1-SB3031-0205-	BPS1-SB3031-0510	BPS1-SB3031-1015	BPS1-SB3032-0002	BPS1-SB3032-0206	BPS1-SB3032-0206-	BPS1-SB3032-0206-
SAMPLE DATE	20120830	20120830	20120724	20120820	20120820	20120820	20120820	20120820	20120724	20120822	20120822	20120822
SAMPLE CODE	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SS	SB	SB	SB	SB	SB	SS	SB	SB	SB
TOP DEPTH	35	45	0	2	2	2	5	10	0	2	2	2
BOTTOM DEPTH	45	55	2	5	5	5	10	15	2	6	6	6
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION			BPS13033				BPS13034					
SAMPLE ID	BPS1-SB3032-0610	BPS1-SB3032-1015	BPS1-SB3033-0002	BPS1-SB3033-0206	BPS1-SB3033-0610	BPS1-SB3033-1015	BPS1-SB3034-0002	BPS1-SB3034-0206	BPS1-SB3034-0610	BPS1-SB3034-1015	BPS1-SB3035-0002	BPS1-SB3035-0002-
SAMPLE DATE	20120822	20120822	20120724	20120822	20120822	20120822	20120724	20120822	20120822	20120822	20120724	20120724
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SS	SB	SB	SB	SS	SB	SB	SB	SS	SS
TOP DEPTH	6	10	0	2	6	10	0	2	6	10	0	0
BOTTOM DEPTH	10	15	2	6	10	15	2	6	10	15	2	2
MISCELLANEOUS PARAMETERS (%)												
PERCENT SOLIDS	98	98	94	96	98	98	94	97	95	98	97	97
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/KG)												
AROCLOR-1016	13 U	13 U	14 U	27 U	13 U	13 U	14 U	13 U	14 U	13 U	13 U	13 U
AROCLOR-1221	13 U	13 U	14 U	27 U	13 U	13 U	14 U	13 U	14 U	13 U	13 U	13 U
AROCLOR-1232	13 U	13 U	14 U	27 U	13 U	13 U	14 U	13 U	14 U	13 U	13 U	13 U
AROCLOR-1242	13 U	13 U	14 U	27 U	13 U	13 U	14 U	13 U	14 U	13 U	13 U	13 U
AROCLOR-1248	13 U	13 U	1000	300 J	14 J	81 J	740	38 J	14 U	13 U	78 J	89
AROCLOR-1254	13 U	13 U	380	100 J	6.2 J	31 J	340 J	22 J	14 U	13 U	46 J	51
AROCLOR-1260	13 U	13 U	14 U	27 U	13 U	13 U	14 U	13 U	14 U	13 U	13 U	13 U
AROCLOR-1262	13 U	13 U	14 U	27 U	13 U	13 U	14 U	13 U	14 U	13 U	13 U	13 U
AROCLOR-1268	13 U	13 U	14 U	27 U	13 U	13 U	14 U	13 U	14 U	13 U	13 U	13 U
TOTAL AROCLOR	0 U	0 U	1380	400	20.2	112	1080	60	0 U	0 U	124	140
PETROLEUM HYDROCARBONS (MG/KG												
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C28)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/KG)												
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION			BPS13033				BPS13034					
SAMPLE ID	BPS1-SB3032-0610	BPS1-SB3032-1015	BPS1-SB3033-0002	BPS1-SB3033-0206	BPS1-SB3033-0610	BPS1-SB3033-1015	BPS1-SB3034-0002	BPS1-SB3034-0206	BPS1-SB3034-0610	BPS1-SB3034-1015	BPS1-SB3035-0002	BPS1-SB3035-0002-
SAMPLE DATE	20120822	20120822	20120724	20120822	20120822	20120822	20120724	20120822	20120822	20120822	20120724	20120724
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SS	SB	SB	SB	SS	SB	SB	SB	SS	SS
TOP DEPTH	6	10	0	2	6	10	0	2	6	10	0	0
BOTTOM DEPTH	10	15	2	6	10	15	2	6	10	15	2	2
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS13035						BPS13040	BPS13041	BPS13042	BPS13043		
SAMPLE ID	BPS1-SB3035-0002-	BPS1-SB3035-0206	BPS1-SB3035-0610	BPS1-SB3035-1015	BPS1-SB3035-1015-	BPS1-SB3035-1015-	BPS1-SB3040-0002	BPS1-SB3041-0002	BPS1-SB3042-0002	BPS1-SB3043-0002	BPS1-SB3044-0002	BPS1-SB3044-0205
SAMPLE DATE	20120724	20120822	20120822	20120822	20120822	20120822	20120724	20120724	20120724	20120724	20120724	20120820
SAMPLE CODE	DUP	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SB	SB	SB	SB	SB	SS	SS	SS	SS	SS	SB
TOP DEPTH	0	2	6	10	10	10	0	0	0	0	0	2
BOTTOM DEPTH	2	6	10	15	15	15	2	2	2	2	2	5
MISCELLANEOUS PARAMETERS (%)												
PERCENT SOLIDS	97	98	96	96	96	96	95	96	94	96	96	89
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/KG)												
AROCLOR-1016	13 U	13 U	13 U	13 U	13 U	13 U	14 U	14 U	14 U	14 U	14 U	29 U
AROCLOR-1221	13 U	13 U	13 U	13 U	13 U	13 U	14 U	14 U	14 U	14 U	14 U	29 U
AROCLOR-1232	13 U	13 U	13 U	13 U	13 U	13 U	14 U	14 U	14 U	14 U	14 U	29 U
AROCLOR-1242	13 U	13 U	13 U	13 U	13 U	13 U	14 U	14 U	14 U	14 U	14 U	29 U
AROCLOR-1248	100 J	160 J	13 U	27 J	26	25 J	1300	120 J	3300	500	60000	370
AROCLOR-1254	56 J	100 J	4 J	12 J	12.5	13 J	430	30 J	720	170 J	28000	110 J
AROCLOR-1260	13 U	13 U	13 U	13 U	13 U	13 U	14 U	14 U	14 U	14 U	14 U	29 U
AROCLOR-1262	13 U	13 U	13 U	13 U	13 U	13 U	14 U	14 U	14 U	14 U	14 U	29 U
AROCLOR-1268	13 U	13 U	13 U	13 U	13 U	13 U	14 U	14 U	14 U	14 U	14 U	29 U
TOTAL AROCLOR	156	260	4	39	38.5	38	1730	150	4020	670	88000	480
PETROLEUM HYDROCARBONS (MG/KG												
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C28)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/KG)												
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS13035						BPS13040	BPS13041	BPS13042	BPS13043		
SAMPLE ID	BPS1-SB3035-0002-	BPS1-SB3035-0206	BPS1-SB3035-0610	BPS1-SB3035-1015	BPS1-SB3035-1015-	BPS1-SB3035-1015-	BPS1-SB3040-0002	BPS1-SB3041-0002	BPS1-SB3042-0002	BPS1-SB3043-0002	BPS1-SB3044-0002	BPS1-SB3044-0205
SAMPLE DATE	20120724	20120822	20120822	20120822	20120822	20120822	20120724	20120724	20120724	20120724	20120724	20120820
SAMPLE CODE	DUP	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SB	SB	SB	SB	SB	SS	SS	SS	SS	SS	SB
TOP DEPTH	0	2	6	10	10	10	0	0	0	0	0	2
BOTTOM DEPTH	2	6	10	15	15	15	2	2	2	2	2	5
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS13044				BPS13045	BPS13046	BPS13047	BPS13048	BPS13049	BPS13050	BPS13051	
SAMPLE ID	BPS1-SB3044-0510	BPS1-SB3044-0510-	BPS1-SB3044-0510-	BPS1-SB3044-1015	BPS1-SB3045-0002	BPS1-SB3046-0002	BPS1-SB3047-0002	BPS1-SB3048-0002	BPS1-SB3049-0002	BPS1-SB3050-0002	BPS1-SB3051-0002	BPS1-SB3052-0002
SAMPLE DATE	20120820	20120820	20120820	20120820	20120822	20120822	20120822	20120822	20120822	20120822	20120822	20120822
SAMPLE CODE	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH	5	5	5	10	0	0	0	0	0	0	0	0
BOTTOM DEPTH	10	10	10	15	2	2	2	2	2	2	2	2
MISCELLANEOUS PARAMETERS (%)												
PERCENT SOLIDS	97	97	97	97	93	96	95	92	95	88	95	92
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/KG)												
AROCLOR-1016	13 U	13 U	13 U	13 U	700 U	27 U	69 U	280 U	14 U	1500 U	27 U	280 U
AROCLOR-1221	13 U	13 U	13 U	13 U	700 U	27 U	69 U	280 U	14 U	1500 U	27 U	280 U
AROCLOR-1232	13 U	13 U	13 U	13 U	700 U	27 U	69 U	280 U	14 U	1500 U	27 U	280 U
AROCLOR-1242	13 U	13 U	13 U	13 U	700 U	27 U	69 U	280 U	14 U	1500 U	27 U	280 U
AROCLOR-1248	13 U	13 U	13 U	13 U	2200	560	1300	4800	24 J	16000	390	3200
AROCLOR-1254	13 U	13 U	13 U	13 U	700 U	110 J	460	580 J	11 J	1500 U	150 J	4800
AROCLOR-1260	13 U	13 U	13 U	13 U	700 U	27 U	69 U	280 U	14 U	1500 U	27 U	280 U
AROCLOR-1262	13 U	13 U	13 U	13 U	700 U	27 U	210 J	280 U	14 U	1500 U	27 U	280 U
AROCLOR-1268	13 U	13 U	13 U	13 U	700 U	27 U	69 U	280 U	14 U	1500 U	27 U	280 U
TOTAL AROCLOR	0 U	0 U	0 U	0 U	2200	670	1970	5380	35	16000	540	8000
PETROLEUM HYDROCARBONS (MG/KG												
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C28)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/KG)												
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS13044				BPS13045	BPS13046	BPS13047	BPS13048	BPS13049	BPS13050	BPS13051	
SAMPLE ID	BPS1-SB3044-0510	BPS1-SB3044-0510-	BPS1-SB3044-0510-	BPS1-SB3044-1015	BPS1-SB3045-0002	BPS1-SB3046-0002	BPS1-SB3047-0002	BPS1-SB3048-0002	BPS1-SB3049-0002	BPS1-SB3050-0002	BPS1-SB3051-0002	BPS1-SB3052-0002
SAMPLE DATE	20120820	20120820	20120820	20120820	20120822	20120822	20120822	20120822	20120822	20120822	20120822	20120822
SAMPLE CODE	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SS	SS	SS	SS	SS	SS	SS	SS
TOP DEPTH	5	5	5	10	0	0	0	0	0	0	0	0
BOTTOM DEPTH	10	10	10	15	2	2	2	2	2	2	2	2
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS13052		BPS13053	BPS13054				BPS1SB3013A		BPS1SB3013B	BPS1SB3013C	
SAMPLE ID	BPS1-SB3052-0002-	BPS1-SB3052-0002-	BPS1-SB3053-0002	BPS1-SB3054-0002	BPS1-SB3054-0205	BPS1-SB3054-0205-	BPS1-SB3054-0205-	BPS1-SB3013-0002	BPS1-SB3013-0510	BPS1-SB3013-1015	BPS1-SB3013-2535	BPS1-SB3013-3540
SAMPLE DATE	20120822	20120822	20120822	20120822	20130226	20130226	20130226	20120724	20120821	20120821	20120821	20120821
SAMPLE CODE	AVG	DUP	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SB	SB	SB	SS	SB	SB	SB	SB
TOP DEPTH	0	0	0	0	2	2	2	0	5	10	25	35
BOTTOM DEPTH	2	2	2	2	5	5	5	2	10	15	35	40
MISCELLANEOUS PARAMETERS (%)												
PERCENT SOLIDS	91.5	91	89	94	96	95.5	95	95	90	96	96	96
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/KG)												
AROCLOR-1016	285 U	290 U	15000 U	2800 U	14 U	14 U	14 U	14 U	29 U	14 U	14 U	14 U
AROCLOR-1221	285 U	290 U	15000 U	2800 U	14 U	14 U	14 U	14 U	29 U	14 U	14 U	14 U
AROCLOR-1232	285 U	290 U	15000 U	2800 U	14 U	14 U	14 U	14 U	29 U	14 U	14 U	14 U
AROCLOR-1242	285 U	290 U	15000 U	2800 U	14 U	14 U	14 U	14 U	560	14 U	14 U	14 U
AROCLOR-1248	3050	2900	150000	40000	96 J	103	110 J	130 J	29 U	14 U	14 U	14 U
AROCLOR-1254	4650	4500	15000 U	5900 J	14 U	14 U	14 U	150 J	83 J	14 U	14 U	14 U
AROCLOR-1260	285 U	290 U	15000 U	2800 U	14 U	14 U	14 U	14 U	29 U	14 U	14 U	14 U
AROCLOR-1262	285 U	290 U	15000 U	2800 U	14 U	14 U	14 U	14 U	29 U	14 U	14 U	14 U
AROCLOR-1268	285 U	290 U	15000 U	2800 U	14 U	14 U	14 U	14 U	29 U	14 U	14 U	14 U
TOTAL AROCLOR	7700	7400	150000	45900	96	103	110	280	643	0 U	0 U	0 U
PETROLEUM HYDROCARBONS (MG/KG												
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C28)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/KG)												
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS13052		BPS13053	BPS13054				BPS1SB3013A		BPS1SB3013B	BPS1SB3013C	
SAMPLE ID	BPS1-SB3052-0002-	BPS1-SB3052-0002-	BPS1-SB3053-0002	BPS1-SB3054-0002	BPS1-SB3054-0205	BPS1-SB3054-0205-	BPS1-SB3054-0205-	BPS1-SB3013-0002	BPS1-SB3013-0510	BPS1-SB3013-1015	BPS1-SB3013-2535	BPS1-SB3013-3540
SAMPLE DATE	20120822	20120822	20120822	20120822	20130226	20130226	20130226	20120724	20120821	20120821	20120821	20120821
SAMPLE CODE	AVG	DUP	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SB	SB	SB	SS	SB	SB	SB	SB
TOP DEPTH	0	0	0	0	2	2	2	0	5	10	25	35
BOTTOM DEPTH	2	2	2	2	5	5	5	2	10	15	35	40
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS1SB3023D			BPS1SB3023S	BPS1SB3036D			BPS1SB3036S	BPS1SB3037D			BPS1SB3037S
SAMPLE ID	BPS1-SB3023-0205	BPS1-SB3023-0510	BPS1-SB3023-1015	BPS1-SB3023-0002	BPS1-SB3036-0206	BPS1-SB3036-0610	BPS1-SB3036-1015	BPS1-SB3036-0002	BPS1-SB3037-0205	BPS1-SB3037-0510	BPS1-SB3037-1015	BPS1-SB3037-0002
SAMPLE DATE	20120821	20120821	20120821	20120724	20120822	20120822	20120822	20120724	20120822	20120822	20120822	20120724
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SS	SB	SB	SB	SS	SB	SB	SB	SS
TOP DEPTH	2	5	10	0	2	6	10	0	2	5	10	0
BOTTOM DEPTH	5	10	15	2	6	10	15	2	5	10	15	2
MISCELLANEOUS PARAMETERS (%)												
PERCENT SOLIDS	91	87	97	94	93	95	94	96	97	97	96	96
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/KG)												
AROCLOR-1016	14 U	15 U	13 U	14 U	70 U	14 U	14 U	13 U	27 U	13 U	14 U	14 U
AROCLOR-1221	14 U	15 U	13 U	14 U	70 U	14 U	14 U	13 U	27 U	13 U	14 U	14 U
AROCLOR-1232	14 U	15 U	13 U	14 U	70 U	14 U	14 U	13 U	27 U	13 U	14 U	14 U
AROCLOR-1242	14 U	15 U	13 U	14 U	70 U	14 U	14 U	13 U	27 U	13 U	14 U	14 U
AROCLOR-1248	220 J	15 U	25 J	1100 J	560	180 J	130 J	1700	380	15 J	14 U	330 J
AROCLOR-1254	26 J	15 U	13 U	630	190 J	36 J	29 J	680	140 J	5.4 J	14 U	530
AROCLOR-1260	14 U	15 U	13 U	14 U	70 U	14 U	14 U	13 U	27 U	13 U	14 U	14 U
AROCLOR-1262	14 U	15 U	13 U	14 U	70 U	14 U	14 U	13 U	27 U	13 U	14 U	14 U
AROCLOR-1268	14 U	15 U	13 U	14 U	70 U	14 U	14 U	13 U	27 U	13 U	14 U	14 U
TOTAL AROCLOR	246	0 U	25	1730	750	216	159	2380	520	20.4	0 U	860
PETROLEUM HYDROCARBONS (MG/KG												
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C28)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/KG)												
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS1SB3023D			BPS1SB3023S	BPS1SB3036D			BPS1SB3036S	BPS1SB3037D			BPS1SB3037S
SAMPLE ID	BPS1-SB3023-0205	BPS1-SB3023-0510	BPS1-SB3023-1015	BPS1-SB3023-0002	BPS1-SB3036-0206	BPS1-SB3036-0610	BPS1-SB3036-1015	BPS1-SB3036-0002	BPS1-SB3037-0205	BPS1-SB3037-0510	BPS1-SB3037-1015	BPS1-SB3037-0002
SAMPLE DATE	20120821	20120821	20120821	20120724	20120822	20120822	20120822	20120724	20120822	20120822	20120822	20120724
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SS	SB	SB	SB	SS	SB	SB	SB	SS
TOP DEPTH	2	5	10	0	2	6	10	0	2	5	10	0
BOTTOM DEPTH	5	10	15	2	6	10	15	2	5	10	15	2
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS1SB3038D			BPS1SB3038S	BPS1SB3039D					BPS1SB3039S	BPS1SB3055	
SAMPLE ID	BPS1-SB3038-0205	BPS1-SB3038-0510	BPS1-SB3038-1015	BPS1-SB3038-0002	BPS1-SB3039-0205	BPS1-SB3039-0205-	BPS1-SB3039-0205-	BPS1-SB3039-0510	BPS1-SB3039-1015	BPS1-SB3039-0002	BPS1-SB3055-0002	BPS1-SB3055-0205
SAMPLE DATE	20120823	20120823	20120823	20120724	20120823	20120823	20120823	20120823	20120823	20120724	20130226	20130226
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SS	SB	SB	SB	SB	SB	SS	SS	SB
TOP DEPTH	2	5	10	0	2	2	2	5	10	0	0	2
BOTTOM DEPTH	5	10	15	2	5	5	5	10	15	2	2	5
MISCELLANEOUS PARAMETERS (%)												
PERCENT SOLIDS	97	97	97	96	97	97	97	97	97	95	88	96
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/KG)												
AROCLOR-1016	13 U	13 U	13 U	14 U	13 U	13 U	13 U	13 U	13 U	14 U	590 U	14 U
AROCLOR-1221	13 U	13 U	13 U	14 U	13 U	13 U	13 U	13 U	13 U	14 U	590 U	14 U
AROCLOR-1232	13 U	13 U	13 U	14 U	13 U	13 U	13 U	13 U	13 U	14 U	590 U	14 U
AROCLOR-1242	13 U	13 U	13 U	14 U	13 U	13 U	13 U	13 U	13 U	14 U	590 U	14 U
AROCLOR-1248	13 U	13 U	13 U	14 U	13 U	13 U	13 U	13 U	13 U	14 U	5100 J	7 J
AROCLOR-1254	13 U	13 U	13 U	16 J	13 U	13 U	13 U	13 U	13 U	15 J	590 U	14 U
AROCLOR-1260	13 U	13 U	13 U	14 U	13 U	13 U	13 U	13 U	13 U	14 U	590 U	14 U
AROCLOR-1262	13 U	13 U	13 U	14 U	13 U	13 U	13 U	13 U	13 U	14 U	590 U	14 U
AROCLOR-1268	13 U	13 U	13 U	14 U	13 U	13 U	13 U	13 U	13 U	14 U	590 U	14 U
TOTAL AROCLOR	0 U	0 U	0 U	16	0 U	0 U	0 U	0 U	0 U	15	5100	7
PETROLEUM HYDROCARBONS (MG/KG												
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C28)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/KG)												
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS1SB3038D			BPS1SB3038S	BPS1SB3039D					BPS1SB3039S	BPS1SB3055	
SAMPLE ID	BPS1-SB3038-0205	BPS1-SB3038-0510	BPS1-SB3038-1015	BPS1-SB3038-0002	BPS1-SB3039-0205	BPS1-SB3039-0205-	BPS1-SB3039-0205-	BPS1-SB3039-0510	BPS1-SB3039-1015	BPS1-SB3039-0002	BPS1-SB3055-0002	BPS1-SB3055-0205
SAMPLE DATE	20120823	20120823	20120823	20120724	20120823	20120823	20120823	20120823	20120823	20120724	20130226	20130226
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SS	SB	SB	SB	SB	SB	SS	SS	SB
TOP DEPTH	2	5	10	0	2	2	2	5	10	0	0	2
BOTTOM DEPTH	5	10	15	2	5	5	5	10	15	2	2	5
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS1SB3056	BPS1SB3057	BPS1SB3058	BPS1SB3059			BPS1SB3060					
SAMPLE ID	BPS1-SB3056-0002	BPS1-SB3057-0205	BPS1-SB3058-0002	BPS1-SB3059-0002	BPS1-SB3059-0002-	BPS1-SB3059-0002-	BPS1-SB3060-1520	BPS1-SB3060-2025	BPS1-SB3060-2535	BPS1-SB3060-2535-	BPS1-SB3060-2535-	BPS1-SB3060-3540
SAMPLE DATE	20130226	20130226	20130226	20130226	20130226	20130226	20130228	20130228	20130301	20130301	20130301	20130301
SAMPLE CODE	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SB	SS	SS	SS	SS	SB	SB	SB	SB	SB	SB
TOP DEPTH	0	2	0	0	0	0	15	20	25	25	25	35
BOTTOM DEPTH	2	5	2	2	2	2	20	25	35	35	35	40
MISCELLANEOUS PARAMETERS (%)												
PERCENT SOLIDS	90	93	86	87	87.5	88	97	91	94	94	94	96
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/KG)												
AROCLOR-1016	580 U	14 U	61 U	74 U	112 U	150 U	13 U	14 U	14 U	14 U	14 U	14 U
AROCLOR-1221	580 U	14 U	61 U	74 U	112 U	150 U	13 U	14 U	14 U	14 U	14 U	14 U
AROCLOR-1232	580 U	14 U	61 U	74 U	112 U	150 U	13 U	14 U	14 U	14 U	14 U	14 U
AROCLOR-1242	580 U	14 U	61 U	74 U	112 U	150 U	13 U	14 U	14 U	14 U	14 U	14 U
AROCLOR-1248	6300 J	14 U	590 J	810 J	1005	1200 J	13 U	12 J	14 U	14 U	14 U	14 U
AROCLOR-1254	580 U	14 U	61 U	74 U	112 U	150 U	13 U	14 U	14 U	14 U	14 U	14 U
AROCLOR-1260	580 U	14 U	61 U	74 U	112 U	150 U	13 U	14 U	14 U	14 U	14 U	14 U
AROCLOR-1262	580 U	14 U	61 U	74 U	112 U	150 U	13 U	14 U	14 U	14 U	14 U	14 U
AROCLOR-1268	580 U	14 U	61 U	74 U	112 U	150 U	13 U	14 U	14 U	14 U	14 U	14 U
TOTAL AROCLOR	6300	0 U	590	810	1005	1200	0 U	12	0 U	0 U	0 U	0 U
PETROLEUM HYDROCARBONS (MG/KG												
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C28)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/KG)												
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS1SB3056	BPS1SB3057	BPS1SB3058	BPS1SB3059			BPS1SB3060					
SAMPLE ID	BPS1-SB3056-0002	BPS1-SB3057-0205	BPS1-SB3058-0002	BPS1-SB3059-0002	BPS1-SB3059-0002-	BPS1-SB3059-0002-	BPS1-SB3060-1520	BPS1-SB3060-2025	BPS1-SB3060-2535	BPS1-SB3060-2535-	BPS1-SB3060-2535-	BPS1-SB3060-3540
SAMPLE DATE	20130226	20130226	20130226	20130226	20130226	20130226	20130228	20130228	20130301	20130301	20130301	20130301
SAMPLE CODE	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SB	SS	SS	SS	SS	SB	SB	SB	SB	SB	SB
TOP DEPTH	0	2	0	0	0	0	15	20	25	25	25	35
BOTTOM DEPTH	2	5	2	2	2	2	20	25	35	35	35	40
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS1SB3061						BPS1SB3062					
SAMPLE ID	BPS1-SB3061-1520	BPS1-SB3061-2025	BPS1-SB3061-2535	BPS1-SB3061-2535-	BPS1-SB3061-2535-	BPS1-SB3061-3540	BPS1-SB3062-0002	BPS1-SB3062-0205	BPS1-SB3062-0510	BPS1-SB3062-1015	BPS1-SB3062-1520	BPS1-SB3062-2025
SAMPLE DATE	20130228	20130228	20130228	20130228	20130228	20130228	20130228	20130228	20130228	20130228	20130228	20130228
SAMPLE CODE	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB	SS	SB	SB	SB	SB	SB
TOP DEPTH	15	20	25	25	25	35	0	2	5	10	15	20
BOTTOM DEPTH	20	25	35	35	35	40	2	5	10	15	20	25
MISCELLANEOUS PARAMETERS (%)												
PERCENT SOLIDS	97	97	90	90.5	91	95	89	96	97	96	97	98
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/KG)												
AROCLOR-1016	13 U	13 U	5800 U	5750 U	5700 U	14 U	150 U	14 U	13 U	14 U	13 U	13 U
AROCLOR-1221	13 U	13 U	5800 U	5750 U	5700 U	14 U	150 U	14 U	13 U	14 U	13 U	13 U
AROCLOR-1232	13 U	13 U	5800 U	5750 U	5700 U	14 U	150 U	14 U	13 U	14 U	13 U	13 U
AROCLOR-1242	13 U	13 U	5800 U	5750 U	5700 U	14 U	150 U	14 U	13 U	14 U	13 U	13 U
AROCLOR-1248	13 U	13 U	69000 J	64000	59000 J	22 J	1300 J	25 J	13 U	14 U	19 J	13 U
AROCLOR-1254	13 U	13 U	5800 U	5750 U	5700 U	14 U	150 U	14 U	13 U	14 U	13 U	13 U
AROCLOR-1260	13 U	13 U	5800 U	5750 U	5700 U	14 U	150 U	14 U	13 U	14 U	13 U	13 U
AROCLOR-1262	13 U	13 U	5800 U	5750 U	5700 U	14 U	150 U	14 U	13 U	14 U	13 U	13 U
AROCLOR-1268	13 U	13 U	5800 U	5750 U	5700 U	14 U	150 U	14 U	13 U	14 U	13 U	13 U
TOTAL AROCLOR	0 U	0 U	69000	64000	59000	22	1300	25	0 U	0 U	19	0 U
PETROLEUM HYDROCARBONS (MG/KG												
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C28)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/KG)												
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS1SB3061						BPS1SB3062					
SAMPLE ID	BPS1-SB3061-1520	BPS1-SB3061-2025	BPS1-SB3061-2535	BPS1-SB3061-2535-	BPS1-SB3061-2535-	BPS1-SB3061-3540	BPS1-SB3062-0002	BPS1-SB3062-0205	BPS1-SB3062-0510	BPS1-SB3062-1015	BPS1-SB3062-1520	BPS1-SB3062-2025
SAMPLE DATE	20130228	20130228	20130228	20130228	20130228	20130228	20130228	20130228	20130228	20130228	20130228	20130228
SAMPLE CODE	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB	SS	SB	SB	SB	SB	SB
TOP DEPTH	15	20	25	25	25	35	0	2	5	10	15	20
BOTTOM DEPTH	20	25	35	35	35	40	2	5	10	15	20	25
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION			BPS1SB3063									
SAMPLE ID	BPS1-SB3062-2535	BPS1-SB3062-3540	BPS1-SB3063-0002	BPS1-SB3063-0205	BPS1-SB3063-0510	BPS1-SB3063-1015	BPS1-SB3063-1520	BPS1-SB3063-2025	BPS1-SB3063-2535	BPS1-SB3063-3545	BPS1-SB3063-4550	BPS1-SB3064-0205
SAMPLE DATE	20130228	20130228	20130227	20130227	20130227	20130227	20130227	20130227	20130227	20130227	20130227	20130226
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SS	SB	SB	SB	SB	SB	SB	SB	SB	SB
TOP DEPTH	25	35	0	2	5	10	15	20	25	35	45	2
BOTTOM DEPTH	35	40	2	5	10	15	20	25	35	45	50	5
MISCELLANEOUS PARAMETERS (%)												
PERCENT SOLIDS	92	96	73	87	97	97	97	98	97	97	92	94
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/KG)												
AROCLOR-1016	14 U	13 U	53 U	15 U	13 U	13 U	13 U	13 U	13 U	13 U	14 U	14 U
AROCLOR-1221	14 U	13 U	53 U	15 U	13 U	13 U	13 U	13 U	13 U	13 U	14 U	14 U
AROCLOR-1232	14 U	13 U	53 U	15 U	13 U	13 U	13 U	13 U	13 U	13 U	14 U	14 U
AROCLOR-1242	14 U	13 U	53 U	15 U	13 U	13 U	13 U	13 U	13 U	13 U	14 U	14 U
AROCLOR-1248	15 J	13 U	500 J	17 J	13 U	13 U	13 U	13 U	13 U	13 U	14 U	4.1 J
AROCLOR-1254	14 U	13 U	53 U	15 U	13 U	13 U	13 U	13 U	13 U	13 U	14 U	14 U
AROCLOR-1260	14 U	13 U	53 U	15 U	13 U	13 U	13 U	13 U	13 U	13 U	14 U	14 U
AROCLOR-1262	14 U	13 U	53 U	15 U	13 U	13 U	13 U	13 U	13 U	13 U	14 U	14 U
AROCLOR-1268	14 U	13 U	53 U	15 U	13 U	13 U	13 U	13 U	13 U	13 U	14 U	14 U
TOTAL AROCLOR	15	0 U	500	17	0 U	0 U	0 U	0 U	0 U	0 U	0 U	4.1
PETROLEUM HYDROCARBONS (MG/KG												
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C28)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/KG)												
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION			BPS1SB3063									
SAMPLE ID	BPS1-SB3062-2535	BPS1-SB3062-3540	BPS1-SB3063-0002	BPS1-SB3063-0205	BPS1-SB3063-0510	BPS1-SB3063-1015	BPS1-SB3063-1520	BPS1-SB3063-2025	BPS1-SB3063-2535	BPS1-SB3063-3545	BPS1-SB3063-4550	BPS1-SB3064-0205
SAMPLE DATE	20130228	20130228	20130227	20130227	20130227	20130227	20130227	20130227	20130227	20130227	20130227	20130226
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SS	SB	SB	SB	SB	SB	SB	SB	SB	SB
TOP DEPTH	25	35	0	2	5	10	15	20	25	35	45	2
BOTTOM DEPTH	35	40	2	5	10	15	20	25	35	45	50	5
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS1SB3064											
SAMPLE ID	BPS1-SB3064-0510	BPS1-SB3064-1015	BPS1-SB3064-1520	BPS1-SB3064-2025	BPS1-SB3064-2535	BPS1-SB3064-3545	BPS1-SB3064-3545-	BPS1-SB3064-3545-	BPS1-SB3064-4547	BPS1-SB3065-0205	BPS1-SB3065-0510	BPS1-SB3065-1015
SAMPLE DATE	20130226	20130226	20130226	20130226	20130226	20130227	20130227	20130227	20130227	20130225	20130225	20130225
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
TOP DEPTH	5	10	15	20	25	35	35	35	45	2	5	10
BOTTOM DEPTH	10	15	20	25	35	45	45	45	47	5	10	15
MISCELLANEOUS PARAMETERS (%)												
PERCENT SOLIDS	96	96	97	97	96	95	95	95	94	92	96	97
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/KG)												
AROCLOR-1016	13 U	13 U	13 U	13 U	13 U	14 U	14 U	14 U	14 U	14 U	14 U	13 U
AROCLOR-1221	13 U	13 U	13 U	13 U	13 U	14 U	14 U	14 U	14 U	14 U	14 U	13 U
AROCLOR-1232	13 U	13 U	13 U	13 U	13 U	14 U	14 U	14 U	14 U	14 U	14 U	13 U
AROCLOR-1242	13 U	13 U	13 U	13 U	13 U	14 U	14 U	14 U	14 U	14 U	14 U	13 U
AROCLOR-1248	15 J	13 J	13 U	5 J	13 U	14 U	14 U	14 U	14 U	14 U	14 U	13 U
AROCLOR-1254	13 U	13 U	13 U	13 U	13 U	14 U	14 U	14 U	14 U	6 J	14 U	13 U
AROCLOR-1260	13 U	13 U	13 U	13 U	13 U	14 U	14 U	14 U	14 U	14 U	14 U	13 U
AROCLOR-1262	13 U	13 U	13 U	13 U	13 U	14 U	14 U	14 U	14 U	14 U	14 U	13 U
AROCLOR-1268	13 U	13 U	13 U	13 U	13 U	14 U	14 U	14 U	14 U	14 U	14 U	13 U
TOTAL AROCLOR	15	13	0 U	5	0 U	0 U	0 U	0 U	0 U	6	0 U	0 U
PETROLEUM HYDROCARBONS (MG/KG												
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C28)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/KG)												
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS1SB3064											
SAMPLE ID	BPS1-SB3064-0510	BPS1-SB3064-1015	BPS1-SB3064-1520	BPS1-SB3064-2025	BPS1-SB3064-2535	BPS1-SB3064-3545	BPS1-SB3064-3545-	BPS1-SB3064-3545-	BPS1-SB3064-4547	BPS1-SB3065-0205	BPS1-SB3065-0510	BPS1-SB3065-1015
SAMPLE DATE	20130226	20130226	20130226	20130226	20130226	20130227	20130227	20130227	20130227	20130225	20130225	20130225
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
TOP DEPTH	5	10	15	20	25	35	35	35	45	2	5	10
BOTTOM DEPTH	10	15	20	25	35	45	45	45	47	5	10	15
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS1SB3065						BPS1SB3066					
SAMPLE ID	BPS1-SB3065-1520	BPS1-SB3065-1520-	BPS1-SB3065-1520-	BPS1-SB3065-2025	BPS1-SB3065-2535	BPS1-SB3065-3540	BPS1-SB3066-0002	BPS1-SB3066-0205	BPS1-SB3066-0510	BPS1-SB3066-1013	BPS1-SB3066-1315	BPS1-SB3066-1520
SAMPLE DATE	20130225	20130225	20130225	20130225	20130225	20130226	20130225	20130225	20130225	20130225	20130225	20130225
SAMPLE CODE	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB	SS	SB	SB	SB	SB	SB
TOP DEPTH	15	15	15	20	25	35	0	2	5	10	13	15
BOTTOM DEPTH	20	20	20	25	35	40	2	5	10	13	15	20
MISCELLANEOUS PARAMETERS (%)												
PERCENT SOLIDS	96	96	96	97	89	96	83	95	94	92	92	91
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/KG)												
AROCLOR-1016	14 U	14 U	14 U	13 U	15 U	13 U	320 U	14 U	14 U	14 U	14 U	14 U
AROCLOR-1221	14 U	14 U	14 U	13 U	15 U	13 U	320 U	14 U	14 U	14 U	14 U	14 U
AROCLOR-1232	14 U	14 U	14 U	13 U	15 U	13 U	320 U	14 U	14 U	14 U	14 U	14 U
AROCLOR-1242	14 U	14 U	14 U	13 U	15 U	13 U	320 U	14 U	14 U	14 U	14 U	14 U
AROCLOR-1248	14 U	14 U	14 U	13 U	15 U	13 U	4600 J	36 J	7.6 J	14 U	14 U	14 U
AROCLOR-1254	14 U	14 U	14 U	13 U	15 U	13 U	320 U	14 U	14 U	7.6 J	23 J	11 J
AROCLOR-1260	14 U	14 U	14 U	13 U	15 U	13 U	320 U	14 U	14 U	14 U	14 U	14 U
AROCLOR-1262	14 U	14 U	14 U	13 U	15 U	13 U	320 U	14 U	14 U	14 U	14 U	14 U
AROCLOR-1268	14 U	14 U	14 U	13 U	15 U	13 U	320 U	14 U	14 U	14 U	14 U	14 U
TOTAL AROCLOR	0 U	0 U	0 U	0 U	0 U	0 U	4600	36	7.6	7.6	23	11
PETROLEUM HYDROCARBONS (MG/KG												
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C28)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/KG)												
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS1SB3065						BPS1SB3066					
SAMPLE ID	BPS1-SB3065-1520	BPS1-SB3065-1520-	BPS1-SB3065-1520-	BPS1-SB3065-2025	BPS1-SB3065-2535	BPS1-SB3065-3540	BPS1-SB3066-0002	BPS1-SB3066-0205	BPS1-SB3066-0510	BPS1-SB3066-1013	BPS1-SB3066-1315	BPS1-SB3066-1520
SAMPLE DATE	20130225	20130225	20130225	20130225	20130225	20130226	20130225	20130225	20130225	20130225	20130225	20130225
SAMPLE CODE	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB	SS	SB	SB	SB	SB	SB
TOP DEPTH	15	15	15	20	25	35	0	2	5	10	13	15
BOTTOM DEPTH	20	20	20	25	35	40	2	5	10	13	15	20
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION				BPS1SB3067								BPS1SB3068
SAMPLE ID	BPS1-SB3066-1520-	BPS1-SB3066-1520-	BPS1-SB3066-2025	BPS1-SB3067-0002	BPS1-SB3067-0205	BPS1-SB3067-0510	BPS1-SB3067-1015	BPS1-SB3067-1520	BPS1-SB3067-2025	BPS1-SB3068-0002	BPS1-SB3068-0205	BPS1-SB3068-0510
SAMPLE DATE	20130225	20130225	20130225	20130225	20130225	20130225	20130225	20130225	20130225	20130225	20130225	20130225
SAMPLE CODE	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SS	SB	SB	SB	SB	SB	SS	SB	SB
TOP DEPTH	15	15	20	0	2	5	10	15	20	0	2	5
BOTTOM DEPTH	20	20	25	2	5	10	15	20	25	2	5	10
MISCELLANEOUS PARAMETERS (%)												
PERCENT SOLIDS	91.5	92	94	96	98	95	96	93	96	94	96	95
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/KG)												
AROCLOR-1016	14 U	14 U	14 U	13 U	13 U	14 U	14 U	14 U	14 U	140 U	14 U	14 U
AROCLOR-1221	14 U	14 U	14 U	13 U	13 U	14 U	14 U	14 U	14 U	140 U	14 U	14 U
AROCLOR-1232	14 U	14 U	14 U	13 U	13 U	14 U	14 U	14 U	14 U	140 U	14 U	14 U
AROCLOR-1242	14 U	14 U	14 U	13 U	13 U	14 U	14 U	14 U	14 U	140 U	14 U	14 U
AROCLOR-1248	14 U	14 U	14 U	200 J	9.5 J	9.8 J	14 U	14 U	14 U	1500 J	74 J	160 J
AROCLOR-1254	11	11 J	7.8 J	13 U	13 U	14 U	14 U	14 U	14 U	140 U	14 U	14 U
AROCLOR-1260	14 U	14 U	14 U	13 U	13 U	14 U	14 U	14 U	14 U	140 U	14 U	14 U
AROCLOR-1262	14 U	14 U	14 U	13 U	13 U	14 U	14 U	14 U	14 U	140 U	14 U	14 U
AROCLOR-1268	14 U	14 U	14 U	13 U	13 U	14 U	14 U	14 U	14 U	140 U	14 U	14 U
TOTAL AROCLOR	11	11	7.8	200	9.5	9.8	0 U	0 U	0 U	1500	74	160
PETROLEUM HYDROCARBONS (MG/KG												
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C28)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/KG)												
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION				BPS1SB3067								BPS1SB3068
SAMPLE ID	BPS1-SB3066-1520-	BPS1-SB3066-1520-	BPS1-SB3066-2025	BPS1-SB3067-0002	BPS1-SB3067-0205	BPS1-SB3067-0510	BPS1-SB3067-1015	BPS1-SB3067-1520	BPS1-SB3067-2025	BPS1-SB3068-0002	BPS1-SB3068-0205	BPS1-SB3068-0510
SAMPLE DATE	20130225	20130225	20130225	20130225	20130225	20130225	20130225	20130225	20130225	20130225	20130225	20130225
SAMPLE CODE	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SS	SB	SB	SB	SB	SB	SS	SB	SB
TOP DEPTH	15	15	20	0	2	5	10	15	20	0	2	5
BOTTOM DEPTH	20	20	25	2	5	10	15	20	25	2	5	10
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION			BPS1SB3069					BPS1SB3070				
SAMPLE ID	BPS1-SB3068-1015	BPS1-SB3068-1520	BPS1-SB3069-0002	BPS1-SB3069-0205	BPS1-SB3069-0510	BPS1-SB3069-1015	BPS1-SB3069-1520	BPS1-SB3070-2527	BPS1-SB3070-2830	BPS1-SB3070-3035	BPS1-SB3070-3035-	BPS1-SB3070-3035-
SAMPLE DATE	20130225	20130225	20130225	20130225	20130225	20130225	20130225	20130607	20130607	20130607	20130607	20130607
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SS	SB	SB	SB	SB	SB	SB	SB	SB	SB
TOP DEPTH	10	15	0	2	5	10	15	25	28	30	30	30
BOTTOM DEPTH	15	20	2	5	10	15	20	27	30	35	35	35
MISCELLANEOUS PARAMETERS (%)												
PERCENT SOLIDS	94	86	90	96	95	94	87	76	88	96	96	96
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/KG)												
AROCLOR-1016	14 U	15 U	290 U	14 U	14 U	14 U	15 U	8500 U	1500 U	270 U	270 U	270 U
AROCLOR-1221	14 U	15 U	290 U	14 U	14 U	14 U	15 U	8500 U	1500 U	270 U	270 U	270 U
AROCLOR-1232	14 U	15 U	290 U	14 U	14 U	14 U	15 U	8500 U	1500 U	270 U	270 U	270 U
AROCLOR-1242	14 U	15 U	290 U	14 U	14 U	14 U	15 U	8500 U	1500 U	270 U	270 U	270 U
AROCLOR-1248	65 J	15 U	3300 J	29 J	8.3 J	14 U	15 U	170000 J	23000 J	4700 J	4900	5100 J
AROCLOR-1254	14 U	15 U	290 U	14 U	14 U	14 U	15 U	8500 U	1500 U	270 U	270 U	270 U
AROCLOR-1260	14 U	15 U	290 U	14 U	14 U	14 U	15 U	8500 U	1500 U	270 U	270 U	270 U
AROCLOR-1262	14 U	15 U	290 U	14 U	14 U	14 U	15 U	8500 U	1500 U	270 U	270 U	270 U
AROCLOR-1268	14 U	15 U	290 U	14 U	14 U	14 U	15 U	8500 U	1500 U	270 U	270 U	270 U
TOTAL AROCLOR	65	0 U	3300	29	8.3	0 U	0 U	170000	23000	4700	4900	5100
PETROLEUM HYDROCARBONS (MG/KG												
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C28)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/KG)												
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION			BPS1SB3069					BPS1SB3070				
SAMPLE ID	BPS1-SB3068-1015	BPS1-SB3068-1520	BPS1-SB3069-0002	BPS1-SB3069-0205	BPS1-SB3069-0510	BPS1-SB3069-1015	BPS1-SB3069-1520	BPS1-SB3070-2527	BPS1-SB3070-2830	BPS1-SB3070-3035	BPS1-SB3070-3035-	BPS1-SB3070-3035-
SAMPLE DATE	20130225	20130225	20130225	20130225	20130225	20130225	20130225	20130607	20130607	20130607	20130607	20130607
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SS	SB	SB	SB	SB	SB	SB	SB	SB	SB
TOP DEPTH	10	15	0	2	5	10	15	25	28	30	30	30
BOTTOM DEPTH	15	20	2	5	10	15	20	27	30	35	35	35
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION		BPS1SB3071						BPS1SB3072				
SAMPLE ID	BPS1-SB3070-3540	BPS1-SB3071-2025	BPS1-SB3071-2530	BPS1-SB3071-2530-	BPS1-SB3071-2530-	BPS1-SB3071-3035	BPS1-SB3071-3540	BPS1-SB3072-2025	BPS1-SB3072-2530	BPS1-SB3072-3035	BPS1-SB3072-3540	BPS1-SB3073-4045
SAMPLE DATE	20130607	20130607	20130607	20130607	20130607	20130607	20130607	20130606	20130606	20130606	20130606	20130604
SAMPLE CODE	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
TOP DEPTH	35	20	25	25	25	30	35	20	25	30	35	40
BOTTOM DEPTH	40	25	30	30	30	35	40	25	30	35	40	45
MISCELLANEOUS PARAMETERS (%)												
PERCENT SOLIDS	95	97	89	88	87	95	96	97	88	96	95	92
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/KG)												
AROCLOR-1016	14 U	13 U	15 U	15 U	15 U	14 U	14 U	13 U	150000 U	140 U	14 U	14 U
AROCLOR-1221	14 U	13 U	15 U	15 U	15 U	14 U	14 U	13 U	150000 U	140 U	14 U	14 U
AROCLOR-1232	14 U	13 U	15 U	15 U	15 U	14 U	14 U	13 U	150000 U	140 U	14 U	14 U
AROCLOR-1242	14 U	13 U	15 U	15 U	15 U	14 U	14 U	13 U	150000 U	140 U	14 U	14 U
AROCLOR-1248	130 J	45 J	25 U	24.5 U	24 U	14 U	35 J	13 U	3000000 J	2600 J	76 J	12 J
AROCLOR-1254	14 U	13 U	15 U	15 U	15 U	14 U	14 U	13 U	150000 U	140 U	14 U	14 U
AROCLOR-1260	14 U	13 U	15 U	15 U	15 U	14 U	14 U	13 U	150000 U	140 U	14 U	14 U
AROCLOR-1262	14 U	13 U	15 U	15 U	15 U	14 U	14 U	13 U	150000 U	140 U	14 U	14 U
AROCLOR-1268	14 U	13 U	15 U	15 U	15 U	14 U	14 U	13 U	150000 U	140 U	14 U	14 U
TOTAL AROCLOR	130	45	0 U	0 U	0 U	0 U	35	0 U	3000000	2600	76	12
PETROLEUM HYDROCARBONS (MG/KG												
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C28)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/KG)												
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION		BPS1SB3071						BPS1SB3072				
SAMPLE ID	BPS1-SB3070-3540	BPS1-SB3071-2025	BPS1-SB3071-2530	BPS1-SB3071-2530-	BPS1-SB3071-2530-	BPS1-SB3071-3035	BPS1-SB3071-3540	BPS1-SB3072-2025	BPS1-SB3072-2530	BPS1-SB3072-3035	BPS1-SB3072-3540	BPS1-SB3073-4045
SAMPLE DATE	20130607	20130607	20130607	20130607	20130607	20130607	20130607	20130606	20130606	20130606	20130606	20130604
SAMPLE CODE	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
TOP DEPTH	35	20	25	25	25	30	35	20	25	30	35	40
BOTTOM DEPTH	40	25	30	30	30	35	40	25	30	35	40	45
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS1SB3073				BPS1SB3074						
SAMPLE ID	BPS1-SB3073-4550	BPS1-SB3073-5055	BPS1-SB3073-5560	BPS1-SB3073-6065	BPS1-SB3074-4045	BPS1-SB3074-4550	BPS1-SB3074-5055	BPS1-SB3074-5055-	BPS1-SB3074-5055-	BPS1-SB3074-5560	BPS1-SB3074-6065
SAMPLE DATE	20130604	20130604	20130604	20130604	20130605	20130605	20130605	20130605	20130605	20130605	20130605
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
TOP DEPTH	45	50	55	60	40	45	50	50	50	55	60
BOTTOM DEPTH	50	55	60	65	45	50	55	55	55	60	65
MISCELLANEOUS PARAMETERS (%)											
PERCENT SOLIDS	92	91	85	78	94	94	91	91	91	89	88
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/KG)											
AROCLOR-1016	14 U	14 U	15 U	17 U	14 U	14 U	14 U	14 U	14 U	15 U	15 U
AROCLOR-1221	14 U	14 U	15 U	17 U	14 U	14 U	14 U	14 U	14 U	15 U	15 U
AROCLOR-1232	14 U	14 U	15 U	17 U	14 U	14 U	14 U	14 U	14 U	15 U	15 U
AROCLOR-1242	14 U	14 U	15 U	17 U	14 U	14 U	14 U	14 U	14 U	15 U	15 U
AROCLOR-1248	7 J	14 U	11 J	17 J	14 U	14 U	14 U	14 U	14 U	15 J	31 J
AROCLOR-1254	14 U	14 U	15 U	17 U	14 U	14 U	14 U	14 U	14 U	15 U	15 U
AROCLOR-1260	14 U	14 U	15 U	17 U	14 U	14 U	14 U	14 U	14 U	15 U	15 U
AROCLOR-1262	14 U	14 U	15 U	17 U	14 U	14 U	14 U	14 U	14 U	15 U	15 U
AROCLOR-1268	14 U	14 U	15 U	17 U	14 U	14 U	14 U	14 U	14 U	15 U	15 U
TOTAL AROCLOR	7	0 U	11	17	0 U	0 U	0 U	0 U	0 U	15	31
PETROLEUM HYDROCARBONS (MG/KG											
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C06-C10)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (C10-C28)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (UG/KG)											
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL AND SEDIMENT ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS1SB3073				BPS1SB3074						
SAMPLE ID	BPS1-SB3073-4550	BPS1-SB3073-5055	BPS1-SB3073-5560	BPS1-SB3073-6065	BPS1-SB3074-4045	BPS1-SB3074-4550	BPS1-SB3074-5055	BPS1-SB3074-5055-	BPS1-SB3074-5055-	BPS1-SB3074-5560	BPS1-SB3074-6065
SAMPLE DATE	20130604	20130604	20130604	20130604	20130605	20130605	20130605	20130605	20130605	20130605	20130605
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
TOP DEPTH	45	50	55	60	40	45	50	50	50	55	60
BOTTOM DEPTH	50	55	60	65	45	50	55	55	55	60	65
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL ACETATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
M+P-XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
O-XYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

E.2 GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPHNMW29I					BPS13010				
SAMPLE ID	BPS1-HN-29I-20101201	BPS1-HN-MW29I-20110302	BPS1-HN-MW29I-20120119	BPS1-HN-MW29I-20120119	BPS1-HN-MW29I-20120119	BPS1-GW3010-20100816	BPS1-GW3010-20100816	BPS1-GW3010-20100817	BPS1-GW3010-20100817	BPS1-GW3010-20100817
SAMPLE DATE	20101201	20110302	20120119	20120119	20120119	20100816	20100816	20100817	20100817	20100817
SAMPLE CODE	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	ORIG	AVG	DUP
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	57	114	144	144	144
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	61	118	148	148	148
DISSOLVED METALS (UG/L)										
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METALS (UG/L)										
ALUMINUM	NA	83 J	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	NA	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	0.88 J	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	43	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	0.4 U	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	0.071 J	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	NA	25000	24000	24000	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	2	5.5	5.35	5.2	NA	NA	NA	NA	NA
COBALT	NA	0.36 J	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	4.4	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NA	38	83	88	93	NA	NA	NA	NA	NA
LEAD	NA	0.34 J	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	NA	320 J	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	1.1 J	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	0.86 J	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	NA	1100	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	0.05 J	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	NA	11000	7800	7800	NA	NA	NA	NA	NA	NA
THALLIUM	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NA	4.9	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	10	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/										
HEXAVALENT CHROMIUM	NA	1.1	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/L)										
AROCLOR-1016	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1221	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1232	0.04 U	0.04 U	0.08 U	0.08 U	0.08 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
AROCLOR-1242	0.94 J	1.2 J	0.08 U	0.08 U	0.08 U	0.1 J	0.42	0.25 J	0.255	0.26 J
AROCLOR-1248	0.08 U	0.08 U	0.63	0.645	0.66	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1254	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1260	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1262	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1268	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
TOTAL AROCLOR	0.94	1.2	0.63	0.645	0.66	0.1	0.42	0.25	0.255	0.26
SEMIVOLATILES (UG/L)										
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPHNMW29I					BPS13010				
SAMPLE ID	BPS1-HN-29I-	BPS1-HN-MW29I-	BPS1-HN-MW29I-	BPS1-HN-MW29I-	BPS1-HN-MW29I-	BPS1-GW3010-	BPS1-GW3010-	BPS1-GW3010-	BPS1-GW3010-	BPS1-GW3010-
SAMPLE DATE	20101201	20110302	20120119	20120119	20120119	20100816	20100816	20100817	20100817	20100817
SAMPLE CODE	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	ORIG	AVG	DUP
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	57	114	144	144	144
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	61	118	148	148	148
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ATRAZINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZALDEHYDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPHNMW29I					BPS13010				
SAMPLE ID	BPS1-HN-29I-20101201	BPS1-HN-MW29I-20110302	BPS1-HN-MW29I-20120119	BPS1-HN-MW29I-20120119	BPS1-HN-MW29I-20120119	BPS1-GW3010-20100816	BPS1-GW3010-20100816	BPS1-GW3010-20100817	BPS1-GW3010-20100817	BPS1-GW3010-20100817
SAMPLE DATE	20101201	20110302	20120119	20120119	20120119	20100816	20100816	20100817	20100817	20100817
SAMPLE CODE	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	ORIG	AVG	DUP
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	57	114	144	144	144
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	61	118	148	148	148
VOLATILES (UG/L)										
1,1,1-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-TETRACHLOROETHANE	NA	NA	0.5 U	0.5 U	0.5 U	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	0.5 U	0.5 U	0.5 U	NA	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-TRICHLOROBENZENE	NA	NA	0.5 U	0.5 U	0.5 U	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	0.5 U	0.5 U	0.5 U	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	0.5 U	0.5 U	0.5 U	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	NA	0.25 U	0.25 U	0.25 U	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	0.5 U	0.5 U	0.5 U	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROPROPANE	NA	NA	0.5 U	0.5 U	0.5 U	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	0.25 U	0.25 U	0.25 U	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	0.5 U	0.5 U	0.5 U	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	25 UR	25 R	25 UR	NA	NA	NA	NA	NA
2-BUTANONE	1 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	1 U	1 U	1 U
2-HEXANONE	NA	NA	0.5 U	0.5 U	0.5 U	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	0.5 U	0.5 U	0.5 U	NA	NA	NA	NA	NA
ACETONE	5 U	1.4 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U
BENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMOCHLOROMETHANE	NA	NA	0.5 U	0.5 U	0.5 U	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	0.5 U	0.5 U	0.5 U	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	0.25 U	0.25 U	0.25 U	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	0.5 UJ	0.5 U	0.5 UJ	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	0.5 U	0.5 U	0.5 U	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	0.5 U	0.5 U	0.5 U	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	0.5 U	0.5 U	0.5 U	NA	NA	NA	NA	NA
CHLORODIBROMOMETHANE	NA	NA	0.25 U	0.25 U	0.25 U	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	0.5 U	0.5 U	0.5 U	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	0.5 U	0.5 U	0.5 U	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	0.5 U	0.5 U	0.5 U	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CIS-1,3-DICHLOROPROPENE	NA	NA	0.1 UJ	0.1 U	0.1 U	NA	NA	NA	NA	NA
CYCLOHEXANE	NA	NA	0.5 U	0.5 U	0.5 U	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ETHYLBENZENE	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ISOPROPYLBENZENE	NA	NA	0.5 U	0.5 U	0.5 U	NA	NA	NA	NA	NA
M+P-XYLENES	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
METHYL ACETATE	NA	NA	0.5 U	0.5 U	0.5 U	NA	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	NA	0.5 UJ	0.5 U	0.5 U	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	0.5 U	0.5 U	0.5 U	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
O-XYLENE	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
STYRENE	NA	NA	0.1 U	0.1 U	0.1 U	NA	NA	NA	NA	NA
TETRACHLOROETHENE	1.3	0.58 J	0.49 J	0.475	0.46 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TOLUENE	0.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U	0.5 U	0.19 J	0.2	0.21 J
TOTAL VOCS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRANS-1,3-DICHLOROPROPENE	NA	NA	0.25 U	0.25 U	0.25 U	NA	NA	NA	NA	NA
TRICHLOROETHENE	0.57 J	0.4 J	0.5 U	0.5 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
TRICHLOROFLUOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	0.25 U	0.5 U	0.5 U	0.5 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS13012					BPS1FWMW01				
SAMPLE ID	BPS1-GW3010-20100817	BPS1-GW3012-20100810	BPS1-GW3012-20100812	BPS1-GW3012-20100813	BPS1-GW3012-20100814	BPS1-FW-MW01-20101130	BPS1-FW-MW01-20110302	BPS1-FW-MW01-20120119	BPS1-FW-MW01-20121114	BPS1-FW-MW02-20101130
SAMPLE DATE										
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	196	48	110	144	200	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	200	52	114	148	204	-9999	-9999	-9999	-9999	-9999
DISSOLVED METALS (UG/L)										
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METALS (UG/L)										
ALUMINUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	4.4	4.2	NA
COBALT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	NA	860	900	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/										
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/L)										
AROCLOR-1016	0.08 U	0.086 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1221	0.08 U	0.086 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1232	0.04 U	0.043 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.08 U	0.08 U	0.04 U
AROCLOR-1242	0.17 J	0.086 U	0.08 U	0.24	0.08 U	1 J	1 J	0.08 U	0.08 U	0.3 J
AROCLOR-1248	0.08 U	0.086 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.46	0.45 J	0.08 U
AROCLOR-1254	0.08 U	0.086 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1260	0.08 U	0.086 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1262	0.08 U	0.086 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1268	0.08 U	0.086 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
TOTAL AROCLOR	0.17	0 U	0 U	0.24	0 U	1	1	0.46	0.45	0.3
SEMIVOLATILES (UG/L)										
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION		BPS13012				BPS1FWMW01				
SAMPLE ID	BPS1-GW3010-20100817	BPS1-GW3012-20100810	BPS1-GW3012-20100812	BPS1-GW3012-20100813	BPS1-GW3012-20100814	BPS1-FW-MW01-20101130	BPS1-FW-MW01-20110302	BPS1-FW-MW01-20120119	BPS1-FW-MW01-20121114	BPS1-FW-MW02-20101130
SAMPLE DATE										
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	196	48	110	144	200	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	200	52	114	148	204	-9999	-9999	-9999	-9999	-9999
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ATRAZINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZALDEHYDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS13012					BPS1FWMW01				
SAMPLE ID	BPS1-GW3010-20100817	BPS1-GW3012-20100810	BPS1-GW3012-20100812	BPS1-GW3012-20100813	BPS1-GW3012-20100814	BPS1-FW-MW01-20101130	BPS1-FW-MW01-20110302	BPS1-FW-MW01-20120119	BPS1-FW-MW01-20121114	BPS1-FW-MW02-20101130
SAMPLE DATE										
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	196	48	110	144	200	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	200	52	114	148	204	-9999	-9999	-9999	-9999	-9999
VOLATILES (UG/L)										
1,1,1-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	7.9	23	8.3	3.2	0.62 J
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	0.5 U	0.5 U	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	0.5 U	0.5 U	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.62 J	1.4	1.2	0.9 J	0.5 U
1,1-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3.8	4.4	3.1	1.2	0.5 U
1,1-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.46 J	0.59 J	0.5 U	0.5 U	0.5 U
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	0.5 U	0.5 U	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	0.5 U	0.5 U	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	0.5 U	0.5 U	NA
1,2-DIBROMOETHANE	NA	NA	NA	NA	NA	NA	NA	0.25 U	0.5 U	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	0.5 U	0.5 U	NA
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA	0.5 U	0.5 U	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	0.25 U	0.5 U	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	0.5 U	0.5 U	NA
1,4-DIOXANE	NA	NA	NA	NA	NA	NA	NA	25 UR	25 UR	NA
2-BUTANONE	1 U	1 U	1 U	1 U	1 U	1 U	0.5 U	0.5 U	1 U	1 U
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA	0.5 U	1 U	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA	0.5 U	1 U	NA
ACETONE	5 U	5 U	5 U	5 U	5 U	5 U	1 UR	1 U	2 U	5 U
BENZENE	0.5 U	0.5 U	0.5 U	0.19 J	0.5 U	0.5 U	0.5 U	0.5 U	0.2 U	0.5 U
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	0.5 U	0.5 U	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	0.5 U	0.5 U	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA	0.25 U	1 U	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	0.5 U	0.5 U	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA	0.5 U	1 U	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA	0.5 U	0.5 U	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	0.5 U	0.5 U	NA
CHLORODIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA	0.25 U	0.5 U	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	0.5 U	0.5 U	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA	0.5 U	0.2 U	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA	0.5 U	0.5 U	NA
CIS-1,2-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.61 J	0.5 U	32	110	70	22	0.5 U
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	0.1 UJ	0.5 U	NA
CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	0.5 U	0.5 U	NA
DICHLORODIFLUOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ETHYLBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.25 U	0.25 U	0.5 UJ	0.5 U
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA	0.5 U	0.5 U	NA
M+P-XYLENES	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
METHYL ACETATE	NA	NA	NA	NA	NA	NA	NA	0.5 U	1 U	NA
METHYL CYCLOHEXANE	NA	NA	NA	NA	NA	NA	NA	0.5 UJ	1 U	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA	0.5 U	0.5 U	NA
METHYLENE CHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
O-XYLENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.25 U	0.25 U	0.2 U	0.5 U
STYRENE	NA	NA	NA	NA	NA	NA	NA	0.1 U	0.5 U	NA
TETRACHLOROETHENE	0.5 U	0.5 U	0.5 U	0.91 J	0.5 U	180	550	200	100	29
TOLUENE	0.27 J	0.5 U	0.25 J	0.5 U	0.5 U	0.5 U	0.1 U	0.1 U	0.5 U	0.5 U
TOTAL VOCS	NA	NA	NA	NA	NA	NA	NA	NA	136.7	NA
TRANS-1,2-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.51 J	1	0.5 J	0.5 U	0.5 U
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA	0.25 U	0.5 U	NA
TRICHLOROETHENE	0.25 U	0.25 U	0.25 U	1.4	0.25 U	15	41	21	9.4	2.4
TRICHLOROFLUOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.5 U	0.5 U	0.25 U

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS1FWMW02					BPS1FWMW03				BPS1HN
SAMPLE ID	BPS1-FW-MW02-20101130	BPS1-FW-MW02-20101130	BPS1-FW-MW02-20110302	BPS1-FW-MW02-20120117	BPS1-FW-MW02-20121114	BPS1-FW-MW03-20101130	BPS1-FW-MW03-20110303	BPS1-FW-MW03-20120119	BPS1-FW-MW03-20121114	BPS1-HN-MW27I-20121114
SAMPLE DATE	20101130	20101130	20110302	20120117	20121114	20101130	20110303	20120119	20121114	20121114
SAMPLE CODE	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
DISSOLVED METALS (UG/L)										
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METALS (UG/L)										
ALUMINUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	8.5	7.8	NA	NA	4.6	5.7	8.8
COBALT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	330	280	NA	NA	110	840	120
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/										
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.4 J
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/L)										
AROCLOR-1016	0.08 U	0.08 U	0.08 U	0.08 U	0.091 U	0.08 U	0.092 U	0.08 U	0.17 U	0.08 U
AROCLOR-1221	0.08 U	0.08 U	0.08 U	0.08 U	0.091 U	0.08 U	0.092 U	0.08 U	0.17 U	0.08 U
AROCLOR-1232	0.04 U	0.04 U	0.04 U	0.08 U	0.091 U	0.04 U	0.046 U	0.08 U	0.17 U	0.08 U
AROCLOR-1242	0.295	0.29 J	0.49 J	0.08 U	0.091 U	2.8 J	2.1 J	0.08 U	0.17 U	0.08 U
AROCLOR-1248	0.08 U	0.08 U	0.08 U	0.3	0.091 U	0.08 U	0.092 U	1.9	2.3	1.2
AROCLOR-1254	0.08 U	0.08 U	0.08 U	0.08 U	0.091 U	0.08 U	0.092 U	0.08 U	0.17 U	0.08 U
AROCLOR-1260	0.08 U	0.08 U	0.08 U	0.08 U	0.091 U	0.08 U	0.092 U	0.08 U	0.17 U	0.08 U
AROCLOR-1262	0.08 U	0.08 U	0.08 U	0.08 U	0.091 U	0.08 U	0.092 U	0.08 U	0.17 U	0.08 U
AROCLOR-1268	0.08 U	0.08 U	0.08 U	0.08 U	0.091 U	0.08 U	0.092 U	0.08 U	0.17 U	0.08 U
TOTAL AROCLOR	0.295	0.29	0.49	0.3	0 U	2.8	2.1	1.9	2.3	1.2
SEMIVOLATILES (UG/L)										
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

LOCATION	BPS1FWMW02					BPS1FWMW03				BPS1HN
SAMPLE ID	BPS1-FW-MW02-20101130	BPS1-FW-MW02-20101130	BPS1-FW-MW02-20110302	BPS1-FW-MW02-20120117	BPS1-FW-MW02-20121114	BPS1-FW-MW03-20101130	BPS1-FW-MW03-20110303	BPS1-FW-MW03-20120119	BPS1-FW-MW03-20121114	BPS1-HN-MW27I-20121114
SAMPLE DATE	20101130	20101130	20110302	20120117	20121114	20101130	20110303	20120119	20121114	20121114
SAMPLE CODE	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ATRAZINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZALDEHYDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS1FWMW02					BPS1FWMW03				BPS1HN
SAMPLE ID	BPS1-FW-MW02-20101130	BPS1-FW-MW02-20101130	BPS1-FW-MW02-20110302	BPS1-FW-MW02-20120117	BPS1-FW-MW02-20121114	BPS1-FW-MW03-20101130	BPS1-FW-MW03-20110303	BPS1-FW-MW03-20120119	BPS1-FW-MW03-20121114	BPS1-HN-MW27I-20121114
SAMPLE DATE	20101130	20101130	20110302	20120117	20121114	20101130	20110303	20120119	20121114	20121114
SAMPLE CODE	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
VOLATILES (UG/L)										
1,1,1-TRICHLOROETHANE	0.635	0.65 J	0.98 J	0.39 J	0.57 J	0.29 J	0.39 J	0.25 J	0.2 J	0.5 U
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U
1,1,2-TRICHLOROETHANE	NA	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.5 U	0.5 U	0.31 J	0.36 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-TRICHLOROBENZENE	NA	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U
1,2,4-TRICHLOROBENZENE	NA	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U
1,2-DIBROMOETHANE	NA	NA	NA	0.25 U	0.5 U	NA	NA	0.25 U	0.5 U	0.5 U
1,2-DICHLOROBENZENE	NA	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROPROPANE	NA	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U
1,3-DICHLOROBENZENE	NA	NA	NA	0.25 U	0.5 U	NA	NA	0.25 U	0.5 U	0.5 U
1,4-DICHLOROBENZENE	NA	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U
1,4-DIOXANE	NA	NA	NA	25 UR	25 UR	NA	NA	25 UR	25 UR	25 UR
2-BUTANONE	1 U	1 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	1 U	1 U
2-HEXANONE	NA	NA	NA	0.5 U	1 U	NA	NA	0.5 U	1 U	1 U
4-METHYL-2-PENTANONE	NA	NA	NA	0.5 U	1 U	NA	NA	0.5 U	1 U	1 U
ACETONE	5 U	5 U	1 UR	1 U	2 U	5 U	1 UR	1 U	2 U	2 U
BENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.2 U	0.5 U	0.5 U	0.5 U	0.2 U	0.2 U
BROMOCHLOROMETHANE	NA	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U
BROMODICHLOROMETHANE	NA	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U
BROMOFORM	NA	NA	NA	0.25 U	1 U	NA	NA	0.25 U	1 U	1 U
BROMOMETHANE	NA	NA	NA	0.5 UJ	0.5 U	NA	NA	0.5 UJ	0.5 U	0.5 U
CARBON DISULFIDE	NA	NA	NA	0.5 U	1 U	NA	NA	0.5 U	1 U	1 U
CARBON TETRACHLORIDE	NA	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U
CHLOROBENZENE	NA	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U
CHLORODIBROMOMETHANE	NA	NA	NA	0.25 U	0.5 U	NA	NA	0.25 U	0.5 U	0.5 U
CHLOROETHANE	NA	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U
CHLOROFORM	NA	NA	NA	0.5 U	0.2 U	NA	NA	0.5 U	0.2 U	0.2 U
CHLOROMETHANE	NA	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U
CIS-1,2-DICHLOROETHENE	0.5 U	0.5 U	0.28 J	0.5 U	0.34 J	0.34 J	0.45 J	0.49 J	0.22 J	0.5 U
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	0.1 U	0.5 U	NA	NA	0.1 UJ	0.5 U	0.5 U
CYCLOHEXANE	NA	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U
DICHLORODIFLUOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U
ETHYLBENZENE	0.5 U	0.5 U	0.25 U	0.25 U	0.5 UJ	0.5 U	0.25 U	0.25 U	0.5 UJ	0.5 UJ
ISOPROPYLBENZENE	NA	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U
M+P-XYLENES	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	1 U	1 U
METHYL ACETATE	NA	NA	NA	0.5 U	1 U	NA	NA	0.5 U	1 U	1 U
METHYL CYCLOHEXANE	NA	NA	NA	0.5 U	1 U	NA	NA	0.5 UJ	1 U	1 U
METHYL TERT-BUTYL ETHER	NA	NA	NA	0.35 J	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U
METHYLENE CHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	1 U	1 U
O-XYLENE	0.5 U	0.5 U	0.25 U	0.25 U	0.2 U	0.5 U	0.25 U	0.25 U	0.2 U	0.2 U
STYRENE	NA	NA	NA	0.1 U	0.5 U	NA	NA	0.1 U	0.5 U	0.5 U
TETRACHLOROETHENE	28.5	28	41	21	43	67	66	68	77	0.5 U
TOLUENE	0.5 U	0.5 U	0.1 U	0.1 U	0.5 U	0.5 U	0.1 U	0.1 U	0.5 U	0.5 U
TOTAL VOCS	NA	NA	NA	NA	47.61	NA	NA	NA	80.22	0 U
TRANS-1,2-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	0.25 U	0.5 U	NA	NA	0.25 U	0.5 U	0.5 U
TRICHLOROETHENE	2.3	2.2	3.9	2.7	3.7	3.8	3.8	3.7	2.8	0.5 U
TRICHLOROFLUOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	0.25 U	0.25 U	0.5 U	0.5 U	0.5 U	0.25 U	0.5 U	0.5 U	0.5 U	0.5 U

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	IMW27I	BPS1HNMW29I	BPS1SW01			BPS1SW3001	BPS1SW3002			
SAMPLE ID	BPS1-HN-MW27I-	BPS1-HN-MW29I-	BPS1-SW01-	BPS1-SW01-	BPS1-SW01-	BPS1-SW3001	BPS1-SW3002	BPS1-TT-MW301D-	BPS1-TT-MW301D-	BPS1-TT-MW301D-
SAMPLE DATE	20130218	20121114	20110228	20110301	20110303	20111019	20111019	20101201	20110302	20110302
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG
MATRIX	GW	GW	SW	SW	SW	SW	SW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
DISSOLVED METALS (UG/L)										
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METALS (UG/L)										
ALUMINUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	12	11	NA	NA	NA	2.4	0.84 J	NA	NA	NA
COBALT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	68	1900	NA	NA	NA	240	150	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/										
HEXAVALENT CHROMIUM	5.4	0.7 J	NA	NA	NA	0.4 J	0.4 J	NA	NA	NA
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/L)										
AROCLOR-1016	0.085 U	0.086 U	0.08 U	0.093 U	0.091 U	0.08 U	0.1 U	0.08 U	0.085 U	0.085 U
AROCLOR-1221	0.085 U	0.086 U	0.08 U	0.093 U	0.091 U	0.08 U	0.1 U	0.08 U	0.085 U	0.085 U
AROCLOR-1232	0.085 U	0.086 U	0.04 U	0.047 U	0.045 U	0.08 U	0.1 U	0.04 U	0.043 U	0.043 U
AROCLOR-1242	0.085 U	0.086 U	0.08 U	0.11 J	0.068 J	0.08 U	0.1 U	0.79 J	0.82 J	0.845
AROCLOR-1248	0.61 J	1.5	0.08 U	0.093 U	0.091 U	0.35 J	0.1 U	0.08 U	0.085 U	0.085 U
AROCLOR-1254	0.085 U	0.086 U	0.08 U	0.093 U	0.091 U	0.08 U	0.1 U	0.08 U	0.085 U	0.085 U
AROCLOR-1260	0.085 U	0.086 U	0.08 U	0.093 U	0.091 U	0.08 U	0.1 U	0.08 U	0.085 U	0.085 U
AROCLOR-1262	0.085 U	0.086 U	0.08 U	0.093 U	0.091 U	0.08 U	0.1 U	0.08 U	0.085 U	0.085 U
AROCLOR-1268	0.085 U	0.086 U	0.08 U	0.093 U	0.091 U	0.08 U	0.1 U	0.08 U	0.085 U	0.085 U
TOTAL AROCLOR	0.61	1.5	0 U	0.11	0.068	0.35	0 U	0.79	0.82	0.845
SEMIVOLATILES (UG/L)										
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	IMW27I	BPS1HNMW29I		BPS1SW01		BPS1SW3001	BPS1SW3002			
SAMPLE ID	BPS1-HN-MW27I-	BPS1-HN-MW29I-	BPS1-SW01-	BPS1-SW01-	BPS1-SW01-	BPS1-SW3001	BPS1-SW3002	BPS1-TT-MW301D-	BPS1-TT-MW301D-	BPS1-TT-MW301D-
SAMPLE DATE	20130218	20121114	20110228	20110301	20110303	20111019	20111019	20101201	20110302	20110302
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG
MATRIX	GW	GW	SW	SW	SW	SW	SW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ATRAZINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZALDEHYDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	IMW27I	BPS1HNMW29I		BPS1SW01		BPS1SW3001	BPS1SW3002			
SAMPLE ID	BPS1-HN-MW27I-	BPS1-HN-MW29I-	BPS1-SW01-	BPS1-SW01-	BPS1-SW01-	BPS1-SW3001	BPS1-SW3002	BPS1-TT-MW301D-	BPS1-TT-MW301D-	BPS1-TT-MW301D-
SAMPLE DATE	20130218	20121114	20110228	20110301	20110303	20111019	20111019	20101201	20110302	20110302
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG
MATRIX	GW	GW	SW	SW	SW	SW	SW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
VOLATILES (UG/L)										
1,1,1-TRICHLOROETHANE	0.5 U	0.5 U	NA	NA	NA	0.5 U	0.5 U	0.45 J	0.34 J	0.355
1,1,2,2-TETRACHLOROETHANE	0.5 U	0.5 U	NA	NA	NA	0.5 U	0.5 U	NA	NA	NA
1,1,2-TRICHLOROETHANE	0.5 U	0.5 U	NA	NA	NA	0.5 U	0.5 U	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	0.5 U	0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHANE	0.5 U	0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHENE	0.5 U	0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-TRICHLOROBENZENE	0.5 U	0.5 U	NA	NA	NA	0.5 U	0.5 U	NA	NA	NA
1,2,4-TRICHLOROBENZENE	0.5 U	0.5 U	NA	NA	NA	0.5 U	0.5 U	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	0.5 U	0.5 U	NA	NA	NA	0.5 U	0.5 U	NA	NA	NA
1,2-DIBROMOETHANE	0.5 U	0.5 U	NA	NA	NA	0.25 U	0.25 U	NA	NA	NA
1,2-DICHLOROBENZENE	0.5 U	0.5 U	NA	NA	NA	0.5 U	0.5 U	NA	NA	NA
1,2-DICHLOROETHANE	0.5 U	0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROPROPANE	0.5 U	0.5 U	NA	NA	NA	0.5 U	0.5 U	NA	NA	NA
1,3-DICHLOROBENZENE	0.5 U	0.5 U	NA	NA	NA	0.25 U	0.25 U	NA	NA	NA
1,4-DICHLOROBENZENE	0.5 U	0.5 U	NA	NA	NA	0.5 U	0.5 U	NA	NA	NA
1,4-DIOXANE	25 UR	25 UR	NA	NA	NA	25 UR	25 UR	NA	NA	NA
2-BUTANONE	1 UJ	1 U	NA	NA	NA	0.5 U	0.5 U	1 U	0.5 U	0.5 U
2-HEXANONE	1 U	1 U	NA	NA	NA	0.5 UJ	0.5 UJ	NA	NA	NA
4-METHYL-2-PENTANONE	1 U	1 U	NA	NA	NA	0.5 U	0.5 U	NA	NA	NA
ACETONE	2 U	2 U	NA	NA	NA	1 U	1 U	5 U	1 UR	1 R
BENZENE	0.2 U	0.2 U	NA	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMOCHLOROMETHANE	0.5 U	0.5 U	NA	NA	NA	0.5 U	0.5 U	NA	NA	NA
BROMODICHLOROMETHANE	0.5 U	0.5 U	NA	NA	NA	0.5 U	0.5 U	NA	NA	NA
BROMOFORM	1 U	1 U	NA	NA	NA	0.25 U	0.25 U	NA	NA	NA
BROMOMETHANE	0.5 U	0.5 U	NA	NA	NA	0.5 UJ	0.5 UJ	NA	NA	NA
CARBON DISULFIDE	1 UJ	1 U	NA	NA	NA	0.5 U	0.5 U	NA	NA	NA
CARBON TETRACHLORIDE	0.5 U	0.5 U	NA	NA	NA	0.5 U	0.5 U	NA	NA	NA
CHLOROBENZENE	0.5 U	0.5 U	NA	NA	NA	0.5 U	0.5 U	NA	NA	NA
CHLORODIBROMOMETHANE	0.5 U	0.5 U	NA	NA	NA	0.25 U	0.25 U	NA	NA	NA
CHLOROETHANE	0.5 U	0.5 U	NA	NA	NA	0.5 U	0.5 U	NA	NA	NA
CHLOROFORM	0.2 U	0.2 U	NA	NA	NA	0.5 U	0.5 U	NA	NA	NA
CHLOROMETHANE	0.5 U	0.5 U	NA	NA	NA	0.5 U	0.5 U	NA	NA	NA
CIS-1,2-DICHLOROETHENE	0.5 U	0.5 U	NA	NA	NA	0.5 U	0.5 U	0.57 J	0.5 U	0.5 U
CIS-1,3-DICHLOROPROPENE	0.5 U	0.5 U	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA
CYCLOHEXANE	0.5 U	0.5 U	NA	NA	NA	0.5 U	0.5 U	NA	NA	NA
DICHLORODIFLUOROMETHANE	0.5 U	0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ETHYLBENZENE	0.5 U	0.5 UJ	NA	NA	NA	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U
ISOPROPYLBENZENE	0.5 U	0.5 U	NA	NA	NA	0.5 U	0.5 U	NA	NA	NA
M+P-XYLENES	1 U	1 U	NA	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
METHYL ACETATE	1.1 U	1 U	NA	NA	NA	0.5 U	0.5 U	NA	NA	NA
METHYL CYCLOHEXANE	1 U	1 U	NA	NA	NA	0.5 U	0.5 U	NA	NA	NA
METHYL TERT-BUTYL ETHER	0.5 U	0.5 U	NA	NA	NA	0.5 U	0.5 U	NA	NA	NA
METHYLENE CHLORIDE	1 U	1 U	NA	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
O-XYLENE	0.2 U	0.2 U	NA	NA	NA	0.25 U	0.25 U	0.5 U	0.25 U	0.25 U
STYRENE	0.5 U	0.5 U	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA
TETRACHLOROETHENE	0.5 U	0.67 J	NA	NA	NA	0.5 U	0.5 U	0.5 J	0.24 J	0.245
TOLUENE	0.5 U	0.5 U	NA	NA	NA	0.1 U	0.1 U	0.5 U	0.36 U	0.355 U
TOTAL VOCS	NA	0.93	NA	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	0.5 U	0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRANS-1,3-DICHLOROPROPENE	0.5 U	0.5 U	NA	NA	NA	0.25 U	0.25 U	NA	NA	NA
TRICHLOROETHENE	0.5 U	0.26 J	NA	NA	NA	0.5 U	0.5 U	2.1	1.4	1.4
TRICHLOROFLUOROMETHANE	0.5 U	0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	0.5 U	0.5 U	NA	NA	NA	0.5 U	0.5 U	0.25 U	0.5 U	0.5 U

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS1-TT-MW301D									
SAMPLE ID	BPS1-TT-MW301D-20110302	BPS1-TT-MW301D-20120117	BPS1-TT-MW301D-20120123	BPS1-TT-MW301D-20121113	BPS1-TT-MW301D-20121113	BPS1-TT-MW301D-20121113	BPS1-TT-MW301D-20130221	BPS1-TT-MW301D-20130221	BPS1-TT-MW301D-20130221	BPS1-TT-MW301I-20101201
SAMPLE DATE	20110302	20120117	20120123	20121113	20121113	20121113	20130221	20130221	20130221	20101201
SAMPLE CODE	DUP	NORMAL	NORMAL	ORIG	AVG	DUP	ORIG	AVG	DUP	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
DISSOLVED METALS (UG/L)										
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METALS (UG/L)										
ALUMINUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	92	NA	82	79	76	65 J	65	65 J	NA
COBALT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NA	14 J	NA	14	16.5	19	12	12.5	13	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/										
HEXAVALENT CHROMIUM	NA	NA	86	81.1	81.75	82.4	73.4 J	74.4	75.4 J	NA
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/L)										
AROCLOR-1016	0.085 U	0.08 U	NA	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1221	0.085 U	0.08 U	NA	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1232	0.043 U	0.08 U	NA	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.04 U
AROCLOR-1242	0.87 J	0.75 J	NA	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.69 J
AROCLOR-1248	0.085 U	0.08 U	NA	0.67	0.68	0.69	0.56	0.58	0.6	0.08 U
AROCLOR-1254	0.085 U	0.08 U	NA	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1260	0.085 U	0.08 U	NA	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1262	0.085 U	0.08 U	NA	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1268	0.085 U	0.08 U	NA	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
TOTAL AROCLOR	0.87	0.75	NA	0.67	0.68	0.69	0.56	0.58	0.6	0.69
SEMIVOLATILES (UG/L)										
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

LOCATION	BPS1-TT-MW301D									
SAMPLE ID	BPS1-TT-MW301D-20110302	BPS1-TT-MW301D-20120117	BPS1-TT-MW301D-20120123	BPS1-TT-MW301D-20121113	BPS1-TT-MW301D-20121113	BPS1-TT-MW301D-20121113	BPS1-TT-MW301D-20130221	BPS1-TT-MW301D-20130221	BPS1-TT-MW301D-20130221	BPS1-TT-MW301I-20101201
SAMPLE DATE	20110302	20120117	20120123	20121113	20121113	20121113	20130221	20130221	20130221	20101201
SAMPLE CODE	DUP	NORMAL	NORMAL	ORIG	AVG	DUP	ORIG	AVG	DUP	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ATRAZINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZALDEHYDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS1-TT-MW301D									
SAMPLE ID	BPS1-TT-MW301D-20110302	BPS1-TT-MW301D-20120117	BPS1-TT-MW301D-20120123	BPS1-TT-MW301D-20121113	BPS1-TT-MW301D-20121113	BPS1-TT-MW301D-20121113	BPS1-TT-MW301D-20130221	BPS1-TT-MW301D-20130221	BPS1-TT-MW301D-20130221	BPS1-TT-MW301I-20101201
SAMPLE DATE	20110302	20120117	20120123	20121113	20121113	20121113	20130221	20130221	20130221	20101201
SAMPLE CODE	DUP	NORMAL	NORMAL	ORIG	AVG	DUP	ORIG	AVG	DUP	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
VOLATILES (UG/L)										
1,1,1-TRICHLOROETHANE	0.37 J	0.53 J	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-TETRACHLOROETHANE	NA	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
1,1,2-TRICHLOROETHANE	NA	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	0.5 U	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHANE	0.5 U	0.22 J	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHENE	0.5 U	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-TRICHLOROBENZENE	NA	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
1,2,4-TRICHLOROBENZENE	NA	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
1,2-DIBROMOETHANE	NA	0.25 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
1,2-DICHLOROBENZENE	NA	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
1,2-DICHLOROETHANE	0.5 U	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROPROPANE	NA	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
1,3-DICHLOROBENZENE	NA	0.25 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
1,4-DICHLOROBENZENE	NA	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
1,4-DIOXANE	NA	25 UR	NA	25 UR	25 R	25 UR	25 UR	25 R	25 UR	NA
2-BUTANONE	0.5 U	0.5 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-HEXANONE	NA	0.5 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA
4-METHYL-2-PENTANONE	NA	0.5 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA
ACETONE	1 UR	1 U	NA	2 U	2 U	2 U	2 U	2 U	2 U	5 U
BENZENE	0.5 U	0.5 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.5 U
BROMOCHLOROMETHANE	NA	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
BROMODICHLOROMETHANE	NA	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
BROMOFORM	NA	0.25 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA
BROMOMETHANE	NA	0.5 UJ	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
CARBON DISULFIDE	NA	0.5 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA
CARBON TETRACHLORIDE	NA	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
CHLOROBENZENE	NA	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
CHLORODIBROMOMETHANE	NA	0.25 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
CHLOROETHANE	NA	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
CHLOROFORM	NA	0.5 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA
CHLOROMETHANE	NA	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
CIS-1,2-DICHLOROETHENE	0.5 U	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CIS-1,3-DICHLOROPROPENE	NA	0.1 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
CYCLOHEXANE	NA	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
DICHLORODIFLUOROMETHANE	0.5 U	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ETHYLBENZENE	0.25 U	0.25 U	NA	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U
ISOPROPYLBENZENE	NA	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
M+P-XYLENES	0.5 U	0.5 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	0.5 U
METHYL ACETATE	NA	0.5 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA
METHYL CYCLOHEXANE	NA	0.5 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	NA
METHYL TERT-BUTYL ETHER	NA	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
METHYLENE CHLORIDE	0.5 U	0.5 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	0.5 U
O-XYLENE	0.25 U	0.25 U	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.5 U
STYRENE	NA	0.1 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
TETRACHLOROETHENE	0.25 J	0.26 J	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TOLUENE	0.35 U	0.14 J	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TOTAL VOCS	NA	NA	NA	0.68	0.65	0.62	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	0.5 U	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRANS-1,3-DICHLOROPROPENE	NA	0.25 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
TRICHLOROETHENE	1.4	2.6	NA	0.68 J	0.65	0.62 J	0.43 J	0.43	0.43 J	0.25 U
TRICHLOROFLUOROMETHANE	0.5 U	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	0.5 U	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.25 U

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS1-TT-MW301I			BPS1-TT-MW301S				BPS1-TT-MW302D		
SAMPLE ID	BPS1-TT-MW301I-	BPS1-TT-MW301I-	BPS1-TT-MW301I-	BPS1-TT-MW301S-	BPS1-TT-MW301S-	BPS1-TT-MW301S-	BPS1-TT-MW301S-	BPS1-TT-MW302D-	BPS1-TT-MW302D-	BPS1-TT-MW302D-
SAMPLE DATE	20110302	20120117	20121113	20101201	20110302	20120117	20121113	20101129	20110301	20120120
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
DISSOLVED METALS (UG/L)										
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METALS (UG/L)										
ALUMINUM	51 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	10	NA	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	0.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	0.27	NA	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	3700	NA	NA	NA	NA	NA	NA	NA	NA	8000
CHROMIUM	7.7	7	7.8	NA	NA	2.5	2.8	NA	NA	2.3
COBALT	0.29 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	0.63 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	59	17 J	56	NA	NA	56	44	NA	NA	75
LEAD	0.16 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	840	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	3.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	2500	NA	NA	NA	NA	NA	NA	NA	NA	24000
THALLIUM	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	0.091 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	8.5 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/										
HEXAVALENT CHROMIUM	4.5	5.3	6.1	NA	NA	NA	1.2	NA	NA	NA
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/L)										
AROCLOR-1016	0.088 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.8 U	0.08 U	0.08 U	0.08 U
AROCLOR-1221	0.088 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.8 U	0.08 U	0.08 U	0.08 U
AROCLOR-1232	0.044 U	0.08 U	0.08 U	0.04 U	0.04 U	0.08 U	0.8 U	0.04 U	0.04 U	0.08 U
AROCLOR-1242	0.73 J	0.79	0.08 U	0.57 J	14 J	0.08 U	0.8 U	1.1 J	1.3 J	0.08 U
AROCLOR-1248	0.088 U	0.08 U	0.73	0.08 U	0.08 U	10	9.9	0.08 U	0.08 U	0.85
AROCLOR-1254	0.088 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.8 U	0.08 U	0.08 U	0.08 U
AROCLOR-1260	0.088 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.8 U	0.08 U	0.08 U	0.08 U
AROCLOR-1262	0.088 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.8 U	0.08 U	0.08 U	0.08 U
AROCLOR-1268	0.088 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.8 U	0.08 U	0.08 U	0.08 U
TOTAL AROCLOR	0.73	0.79	0.73	0.57	14	10	9.9	1.1	1.3	0.85
SEMIVOLATILES (UG/L)										
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS1-TT-MW301I			BPS1-TT-MW301S				BPS1-TT-MW302D		
SAMPLE ID	BPS1-TT-MW301I-20110302	BPS1-TT-MW301I-20120117	BPS1-TT-MW301I-20121113	BPS1-TT-MW301S-20101201	BPS1-TT-MW301S-20110302	BPS1-TT-MW301S-20120117	BPS1-TT-MW301S-20121113	BPS1-TT-MW302D-20101129	BPS1-TT-MW302D-20110301	BPS1-TT-MW302D-20120120
SAMPLE DATE	20110302	20120117	20121113	20101201	20110302	20120117	20121113	20101129	20110301	20120120
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ATRAZINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZALDEHYDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS1-TT-MW301I			BPS1-TT-MW301S				BPS1-TT-MW302D		
SAMPLE ID	BPS1-TT-MW301I-20110302	BPS1-TT-MW301I-20120117	BPS1-TT-MW301I-20121113	BPS1-TT-MW301S-20101201	BPS1-TT-MW301S-20110302	BPS1-TT-MW301S-20120117	BPS1-TT-MW301S-20121113	BPS1-TT-MW302D-20101129	BPS1-TT-MW302D-20110301	BPS1-TT-MW302D-20120120
SAMPLE DATE	20110302	20120117	20121113	20101201	20110302	20120117	20121113	20101129	20110301	20120120
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
VOLATILES (UG/L)										
1,1,1-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.23 J
1,1,2,2-TETRACHLOROETHANE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U
1,1,2-TRICHLOROETHANE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.62 J
1,2,3-TRICHLOROBENZENE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U
1,2,4-TRICHLOROBENZENE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U
1,2-DIBROMO-3-CHLOROPROPANE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U
1,2-DIBROMOETHANE	NA	0.25 U	0.5 U	NA	NA	0.25 U	0.5 U	NA	NA	0.25 U
1,2-DICHLOROBENZENE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROPROPANE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U
1,3-DICHLOROBENZENE	NA	0.25 U	0.5 U	NA	NA	0.25 U	0.5 U	NA	NA	0.25 U
1,4-DICHLOROBENZENE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U
1,4-DIOXANE	NA	25 UR	25 UR	NA	NA	25 UR	25 UR	NA	NA	25 UR
2-BUTANONE	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U
2-HEXANONE	NA	0.5 U	1 U	NA	NA	0.5 U	1 U	NA	NA	0.5 U
4-METHYL-2-PENTANONE	NA	0.5 U	1 U	NA	NA	0.5 U	1 U	NA	NA	0.5 U
ACETONE	6.2 U	1 U	2 U	5 U	1 UR	1 U	2 U	5 U	1 UR	1 U
BENZENE	0.5 U	0.5 U	0.2 U	0.5 U	0.5 U	0.5 U	0.2 U	0.5 U	0.5 U	0.5 U
BROMOCHLOROMETHANE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U
BROMODICHLOROMETHANE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U
BROMOFORM	NA	0.25 U	1 U	NA	NA	0.25 U	1 U	NA	NA	0.25 U
BROMOMETHANE	NA	0.5 UJ	0.5 U	NA	NA	0.5 UJ	0.5 U	NA	NA	0.5 U
CARBON DISULFIDE	NA	0.5 U	1 U	NA	NA	0.5 U	1 U	NA	NA	0.5 U
CARBON TETRACHLORIDE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U
CHLOROBENZENE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U
CHLORODIBROMOMETHANE	NA	0.25 U	0.5 U	NA	NA	0.25 U	0.5 U	NA	NA	0.25 U
CHLOROETHANE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U
CHLOROFORM	NA	0.5 U	0.2 U	NA	NA	0.5 U	0.2 U	NA	NA	0.5 U
CHLOROMETHANE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U
CIS-1,2-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CIS-1,3-DICHLOROPROPENE	NA	0.1 U	0.5 U	NA	NA	0.1 U	0.5 U	NA	NA	0.1 UJ
CYCLOHEXANE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U
DICHLORODIFLUOROMETHANE	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ETHYLBENZENE	0.25 U	0.25 U	0.5 UJ	0.5 U	0.25 U	0.25 U	0.5 UJ	0.5 U	0.25 U	0.25 U
ISOPROPYLBENZENE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U
M+P-XYLENES	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
METHYL ACETATE	NA	0.5 U	1 U	NA	NA	0.5 U	1 U	NA	NA	0.5 U
METHYL CYCLOHEXANE	NA	0.5 U	1 U	NA	NA	0.5 U	1 U	NA	NA	0.5 UJ
METHYL TERT-BUTYL ETHER	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U
METHYLENE CHLORIDE	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
O-XYLENE	0.25 U	0.25 U	0.2 U	0.5 U	0.25 U	0.25 U	0.2 U	0.5 U	0.25 U	0.25 U
STYRENE	NA	0.1 U	0.5 U	NA	NA	0.1 U	0.5 U	NA	NA	0.1 U
TETRACHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.22 J	0.33 J
TOLUENE	0.1 U	0.1 U	0.5 U	0.5 U	0.1 U	0.1 U	0.5 U	0.25 J	0.17 U	0.1 U
TOTAL VOCS	NA	NA	0 U	NA	NA	NA	0 U	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRANS-1,3-DICHLOROPROPENE	NA	0.25 U	0.5 U	NA	NA	0.25 U	0.5 U	NA	NA	0.25 U
TRICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.25 U	0.5 U	0.5 U	0.5 U	1	1.4	3.9
TRICHLOROFLUOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	0.5 U	0.5 U	0.5 U	0.25 U	0.5 U	0.5 U	0.5 U	0.25 U	0.5 U	0.5 U

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION		BPS1-TT-MW302I1				BPS1-TT-MW302I2				
SAMPLE ID	BPS1-TT-MW302D-	BPS1-TT-MW302I1-	BPS1-TT-MW302I1-	BPS1-TT-MW302I1-	BPS1-TT-MW302I1-	BPS1-TT-MW302I2-	BPS1-TT-MW302I2-	BPS1-TT-MW302I2-	BPS1-TT-MW302I2-	BPS1-TT-MW302S-
SAMPLE DATE	20121101	20101130	20110301	20120120	20121101	20101129	20110301	20120120	20121105	20101130
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
DISSOLVED METALS (UG/L)										
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METALS (UG/L)										
ALUMINUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	1.4	NA	NA	1.4	4	NA	NA	5.1	8	NA
COBALT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	19	NA	NA	34	22	NA	NA	59	100	NA
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/										
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	2.9	NA
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/L)										
AROCLOR-1016	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1221	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1232	0.08 U	0.04 U	0.04 U	0.08 U	0.08 U	0.04 U	0.04 U	0.08 U	0.08 U	0.04 U
AROCLOR-1242	0.08 U	2 J	1.9 J	0.08 U	0.08 U	2.6 J	1.8 J	0.08 U	0.08 U	0.6 J
AROCLOR-1248	0.93	0.08 U	0.08 U	1.2	1.1	0.08 U	0.08 U	1.9	1.5	0.08 U
AROCLOR-1254	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1260	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1262	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1268	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
TOTAL AROCLOR	0.93	2	1.9	1.2	1.1	2.6	1.8	1.9	1.5	0.6
SEMIVOLATILES (UG/L)										
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION		BPS1-TT-MW302I1				BPS1-TT-MW302I2				
SAMPLE ID	BPS1-TT-MW302D-	BPS1-TT-MW302I1-	BPS1-TT-MW302I1-	BPS1-TT-MW302I1-	BPS1-TT-MW302I1-	BPS1-TT-MW302I2-	BPS1-TT-MW302I2-	BPS1-TT-MW302I2-	BPS1-TT-MW302I2-	BPS1-TT-MW302S-
SAMPLE DATE	20121101	20101130	20110301	20120120	20121101	20101129	20110301	20120120	20121105	20101130
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ATRAZINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZALDEHYDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION		BPS1-TT-MW302I1				BPS1-TT-MW302I2				
SAMPLE ID	BPS1-TT-MW302D-	BPS1-TT-MW302I1-	BPS1-TT-MW302I1-	BPS1-TT-MW302I1-	BPS1-TT-MW302I1-	BPS1-TT-MW302I2-	BPS1-TT-MW302I2-	BPS1-TT-MW302I2-	BPS1-TT-MW302I2-	BPS1-TT-MW302S-
SAMPLE DATE	20121101	20101130	20110301	20120120	20121101	20101129	20110301	20120120	20121105	20101130
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
VOLATILES (UG/L)										
1,1,1-TRICHLOROETHANE	0.35 J	0.5 U	0.19 J	0.35 J	0.6 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-TETRACHLOROETHANE	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA
1,1,2-TRICHLOROETHANE	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.31 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHANE	0.25 J	0.5 U	0.5 U	0.45 J	1.2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHENE	1.3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-TRICHLOROBENZENE	0.5 UJ	NA	NA	0.5 U	0.5 UJ	NA	NA	0.5 U	0.5 U	NA
1,2,4-TRICHLOROBENZENE	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA
1,2-DIBROMO-3-CHLOROPROPANE	0.5 UJ	NA	NA	0.5 U	0.5 UJ	NA	NA	0.5 U	0.5 U	NA
1,2-DIBROMOETHANE	0.5 U	NA	NA	0.25 U	0.5 U	NA	NA	0.25 U	0.5 U	NA
1,2-DICHLOROBENZENE	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROPROPANE	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA
1,3-DICHLOROBENZENE	0.5 U	NA	NA	0.25 U	0.5 U	NA	NA	0.25 U	0.5 U	NA
1,4-DICHLOROBENZENE	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA
1,4-DIOXANE	25 UR	NA	NA	25 UR	21 J	NA	NA	25 UR	25 UR	NA
2-BUTANONE	1 U	1 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	1 U	1 U
2-HEXANONE	1 UJ	NA	NA	0.5 U	1 UJ	NA	NA	0.5 U	1 U	NA
4-METHYL-2-PENTANONE	1 U	NA	NA	0.5 U	1 U	NA	NA	0.5 U	1 U	NA
ACETONE	2 U	5 U	1 UR	1 U	2 U	5 U	1 UR	1 U	2 U	5 U
BENZENE	0.2 U	0.5 U	0.5 U	0.5 U	0.2 U	0.5 U	0.5 U	0.5 U	0.2 U	0.5 U
BROMOCHLOROMETHANE	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA
BROMODICHLOROMETHANE	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA
BROMOFORM	1 U	NA	NA	0.25 U	1 U	NA	NA	0.25 U	1 U	NA
BROMOMETHANE	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA
CARBON DISULFIDE	1 U	NA	NA	0.5 U	1 U	NA	NA	0.5 U	1 U	NA
CARBON TETRACHLORIDE	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA
CHLOROBENZENE	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA
CHLORODIBROMOMETHANE	0.5 U	NA	NA	0.25 U	0.5 U	NA	NA	0.25 U	0.5 U	NA
CHLOROETHANE	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA
CHLOROFORM	0.13 J	NA	NA	0.5 U	0.15 J	NA	NA	0.5 U	0.2 U	NA
CHLOROMETHANE	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA
CIS-1,2-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CIS-1,3-DICHLOROPROPENE	0.5 U	NA	NA	0.1 UJ	0.5 U	NA	NA	0.1 UJ	0.5 U	NA
CYCLOHEXANE	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA
DICHLORODIFLUOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U
ETHYLBENZENE	0.5 U	0.5 U	0.25 U	0.25 U	0.5 U	0.5 U	0.25 U	0.25 U	0.5 U	0.5 U
ISOPROPYLBENZENE	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA
M+P-XYLENES	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
METHYL ACETATE	1 UJ	NA	NA	0.5 U	1 UJ	NA	NA	0.5 U	1 U	NA
METHYL CYCLOHEXANE	1 U	NA	NA	0.5 UJ	1 U	NA	NA	0.5 UJ	1 U	NA
METHYL TERT-BUTYL ETHER	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA
METHYLENE CHLORIDE	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
O-XYLENE	0.2 U	0.5 U	0.25 U	0.25 U	0.2 U	0.5 U	0.25 U	0.25 U	0.2 U	0.5 U
STYRENE	0.5 U	NA	NA	0.1 U	0.5 U	NA	NA	0.1 U	0.5 U	NA
TETRACHLOROETHENE	0.38 J	0.5 U	0.19 J	0.29 J	0.25 J	0.5 U	0.5 U	0.5 U	0.5 U	0.32 J
TOLUENE	0.5 U	0.5 U	0.1 U	0.1 U	0.5 U	0.5 U	0.1 U	0.1 U	0.5 U	0.5 U
TOTAL VOCS	7.91	NA	NA	NA	26.61	NA	NA	NA	1.8	NA
TRANS-1,2-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRANS-1,3-DICHLOROPROPENE	0.5 U	NA	NA	0.25 U	0.5 U	NA	NA	0.25 U	0.5 U	NA
TRICHLOROETHENE	5.5	0.55 J	0.76 J	1.7	3.1	0.88 J	1.1	1.8	1.8	0.25 U
TRICHLOROFLUOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	0.5 U	0.25 U	0.5 U	0.5 U	0.5 U	0.25 U	0.5 U	0.5 U	0.5 U	0.25 U

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS1-TT-MW302S			BPS1-TT-MW303D				BPS1-TT-MW303I1		
SAMPLE ID	BPS1-TT-MW302S-	BPS1-TT-MW302S-	BPS1-TT-MW302S-	BPS1-TT-MW303D-	BPS1-TT-MW303D-	BPS1-TT-MW303D-	BPS1-TT-MW303D-	BPS1-TT-MW303I1-	BPS1-TT-MW303I1-	BPS1-TT-MW303I1-
SAMPLE DATE	20110301	20120120	20121115	20101129	20110301	20120119	20121105	20101130	20110301	20120119
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
DISSOLVED METALS (UG/L)										
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 J
IRON	NA	NA	NA	NA	NA	NA	NA	NA	NA	70
METALS (UG/L)										
ALUMINUM	5.7 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	13	NA	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	0.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	4800	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	1.3	0.63 J	1.1	NA	NA	5.3	62	NA	NA	5.8
COBALT	0.29 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	0.62 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	17 J	22	92	NA	NA	520	2000	NA	NA	6000
LEAD	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	770	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	12	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	1.3	NA	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	720	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	0.052 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	2100	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	0.03 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	4.5 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/										
HEXAVALENT CHROMIUM	1 U	NA	0.4 J	NA	NA	NA	NA	NA	NA	NA
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/L)										
AROCLOR-1016	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.085 U	0.16 U	0.08 U	0.08 U	0.08 U
AROCLOR-1221	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.085 U	0.16 U	0.08 U	0.08 U	0.08 U
AROCLOR-1232	0.04 U	0.08 U	0.08 U	0.04 U	0.04 U	0.085 U	0.16 U	0.04 U	0.04 U	0.08 U
AROCLOR-1242	0.26 J	0.08 U	0.08 U	0.42 J	0.66 J	1.6 J	0.16 U	3.9 J	2.8 J	3.9
AROCLOR-1248	0.08 U	0.43	0.18 J	0.08 U	0.08 U	0.085 U	2.2	0.08 U	0.08 U	0.08 U
AROCLOR-1254	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.085 U	0.16 U	0.08 U	0.08 U	0.08 U
AROCLOR-1260	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.085 U	0.16 U	0.08 U	0.08 U	0.08 U
AROCLOR-1262	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.085 U	0.16 U	0.08 U	0.08 U	0.08 U
AROCLOR-1268	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.085 U	0.16 U	0.08 U	0.08 U	0.08 U
TOTAL AROCLOR	0.26	0.43	0.18	0.42	0.66	1.6	2.2	3.9	2.8	3.9
SEMIVOLATILES (UG/L)										
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS1-TT-MW302S			BPS1-TT-MW303D				BPS1-TT-MW303I1		
SAMPLE ID	BPS1-TT-MW302S-	BPS1-TT-MW302S-	BPS1-TT-MW302S-	BPS1-TT-MW303D-	BPS1-TT-MW303D-	BPS1-TT-MW303D-	BPS1-TT-MW303D-	BPS1-TT-MW303I1-	BPS1-TT-MW303I1-	BPS1-TT-MW303I1-
SAMPLE DATE	20110301	20120120	20121115	20101129	20110301	20120119	20121105	20101130	20110301	20120119
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ATRAZINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZALDEHYDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS1-TT-MW302S			BPS1-TT-MW303D				BPS1-TT-MW303I1		
SAMPLE ID	BPS1-TT-MW302S-	BPS1-TT-MW302S-	BPS1-TT-MW302S-	BPS1-TT-MW303D-	BPS1-TT-MW303D-	BPS1-TT-MW303D-	BPS1-TT-MW303D-	BPS1-TT-MW303I1-	BPS1-TT-MW303I1-	BPS1-TT-MW303I1-
SAMPLE DATE	20110301	20120120	20121115	20101129	20110301	20120119	20121105	20101130	20110301	20120119
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
VOLATILES (UG/L)										
1,1,1-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-TETRACHLOROETHANE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U
1,1,2-TRICHLOROETHANE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.7	2.4	1.6
1,1-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2	2.7	1.6
1,2,3-TRICHLOROBENZENE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U
1,2,4-TRICHLOROBENZENE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U
1,2-DIBROMO-3-CHLOROPROPANE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U
1,2-DIBROMOETHANE	NA	0.25 U	0.5 U	NA	NA	0.25 U	0.5 U	NA	NA	0.25 U
1,2-DICHLOROBENZENE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROPROPANE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U
1,3-DICHLOROBENZENE	NA	0.25 U	0.5 U	NA	NA	0.25 U	0.5 U	NA	NA	0.25 U
1,4-DICHLOROBENZENE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U
1,4-DIOXANE	NA	25 UR	25 UR	NA	NA	25 UR	25 UR	NA	NA	25 UR
2-BUTANONE	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U
2-HEXANONE	NA	0.5 U	1 U	NA	NA	0.5 U	1 U	NA	NA	0.5 U
4-METHYL-2-PENTANONE	NA	0.5 U	1 U	NA	NA	0.5 U	1 U	NA	NA	0.5 U
ACETONE	1 UR	1 U	2 U	5 U	1 UR	1 U	2 U	5 U	1 U	1 U
BENZENE	0.5 U	0.5 U	0.2 U	0.5 U	0.5 U	0.5 U	0.2 U	0.5 U	0.5 U	0.5 U
BROMOCHLOROMETHANE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U
BROMODICHLOROMETHANE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U
BROMOFORM	NA	0.25 U	1 U	NA	NA	0.25 U	1 U	NA	NA	0.25 U
BROMOMETHANE	NA	0.5 U	0.5 U	NA	NA	0.5 UJ	0.5 U	NA	NA	0.5 UJ
CARBON DISULFIDE	NA	0.5 U	1 U	NA	NA	0.5 U	1 U	NA	NA	0.5 U
CARBON TETRACHLORIDE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U
CHLOROBENZENE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U
CHLORODIBROMOMETHANE	NA	0.25 U	0.5 U	NA	NA	0.25 U	0.5 U	NA	NA	0.25 U
CHLOROETHANE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U
CHLOROFORM	NA	0.5 U	0.2 U	NA	NA	0.5 U	0.2 U	NA	NA	0.5 U
CHLOROMETHANE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U
CIS-1,2-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.9	3.4	2
CIS-1,3-DICHLOROPROPENE	NA	0.1 UJ	0.5 U	NA	NA	0.1 U	0.5 U	NA	NA	0.1 U
CYCLOHEXANE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U
DICHLORODIFLUOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.28 J	0.5 U	0.5 UJ
ETHYLBENZENE	0.25 U	0.25 U	0.5 UJ	0.5 U	0.25 U	0.25 U	0.5 U	0.5 U	0.25 U	0.25 U
ISOPROPYLBENZENE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U
M+P-XYLENES	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
METHYL ACETATE	NA	0.5 U	1 U	NA	NA	0.5 U	1 U	NA	NA	0.5 U
METHYL CYCLOHEXANE	NA	0.5 UJ	1 U	NA	NA	0.5 U	1 U	NA	NA	0.5 U
METHYL TERT-BUTYL ETHER	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	0.5 U
METHYLENE CHLORIDE	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
O-XYLENE	0.25 U	0.25 U	0.2 U	0.5 U	0.25 U	0.25 U	0.2 U	0.5 U	0.25 U	0.25 U
STYRENE	NA	0.1 U	0.5 U	NA	NA	0.1 U	0.5 U	NA	NA	0.1 U
TETRACHLOROETHENE	0.5 U	0.5 U	0.37 J	0.5 U	0.5 U	0.5 U	0.5 U	79	120	83
TOLUENE	0.1 U	0.1 U	0.5 U	0.5 U	0.1 U	0.1 U	0.5 U	0.5 U	0.1 U	0.1 U
TOTAL VOCS	NA	NA	1.67	NA	NA	NA	0.45	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRANS-1,3-DICHLOROPROPENE	NA	0.25 U	0.5 U	NA	NA	0.25 U	0.5 U	NA	NA	0.25 U
TRICHLOROETHENE	0.5 U	0.5 U	1.3	0.45 J	0.4 J	0.51 J	0.45 J	17	25	18
TRICHLOROFLUOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.3 J	0.5 U	0.5 U
VINYL CHLORIDE	0.5 U	0.5 U	0.5 U	0.25 U	0.5 U	0.5 U	0.5 U	0.25 U	0.5 U	0.5 U

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION		BPS1-TT-MW303I2							BPS1-TT-MW303S	
SAMPLE ID	BPS1-TT-MW303I1-	BPS1-TT-MW303I2-	BPS1-TT-MW303I2-	BPS1-TT-MW303I2-	BPS1-TT-MW303I2-	BPS1-TT-MW303S-	BPS1-TT-MW303S-	BPS1-TT-MW303S-	BPS1-TT-MW303S-	BPS1-TT-MW303S-
SAMPLE DATE	20121102	20101129	20110301	20120119	20121105	20101130	20101130	20101130	20110301	20120123
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	ORIG
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
DISSOLVED METALS (UG/L)										
CHROMIUM	0.7 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	260	NA	NA	NA	NA	NA	NA	NA	NA	NA
METALS (UG/L)										
ALUMINUM	NA	NA	NA	NA	NA	NA	NA	NA	45 J	NA
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	NA	0.5 U	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	0.5 U	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	18	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA	NA	0.4 U	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	0.11 J	NA
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NA	9300	NA
CHROMIUM	4.9	NA	NA	2.4	11	NA	NA	NA	5.3	2.7
COBALT	NA	NA	NA	NA	NA	NA	NA	NA	0.18 J	NA
COPPER	NA	NA	NA	NA	NA	NA	NA	NA	0.64 J	NA
IRON	4800	NA	NA	69	90	NA	NA	NA	190	66 J
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	0.5 U	NA
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NA	1300	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA	2.9	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA	NA	3.8	NA
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NA	1900	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA	NA	1 U	NA
SILVER	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	NA
SODIUM	NA	NA	NA	NA	NA	NA	NA	NA	7400	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA	NA	0.066 J	NA
VANADIUM	NA	NA	NA	NA	NA	NA	NA	NA	0.14 J	NA
ZINC	NA	NA	NA	NA	NA	NA	NA	NA	4 U	NA
MISCELLANEOUS PARAMETERS (UG/										
HEXAVALENT CHROMIUM	1 U	NA	NA	1 U	1 U	NA	NA	NA	1 U	NA
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/L)										
AROCLOR-1016	0.16 U	0.1 U	0.08 U	0.08 U	0.16 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1221	0.16 U	0.1 U	0.08 U	0.08 U	0.16 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1232	0.16 U	0.052 U	0.04 U	0.08 U	0.16 U	0.04 U	0.04 U	0.04 U	0.04 U	0.08 U
AROCLOR-1242	3	3.4 J	2.3 J	0.08 U	0.16 U	0.052 J	0.054	0.056 J	0.13 J	0.08 U
AROCLOR-1248	0.16 U	0.1 U	0.08 U	2.4	2 J	0.08 U	0.08 U	0.08 U	0.08 U	0.21
AROCLOR-1254	0.16 U	0.1 U	0.08 U	0.08 U	0.16 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1260	0.16 U	0.1 U	0.08 U	0.08 U	0.16 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1262	0.16 U	0.1 U	0.08 U	0.08 U	0.16 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1268	0.16 U	0.1 U	0.08 U	0.08 U	0.16 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
TOTAL AROCLOR	3	3.4	2.3	2.4	2	0.052	0.054	0.056	0.13	0.21
SEMIVOLATILES (UG/L)										
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

LOCATION		BPS1-TT-MW303I2						BPS1-TT-MW303S		
SAMPLE ID	BPS1-TT-MW303I1-	BPS1-TT-MW303I2-	BPS1-TT-MW303I2-	BPS1-TT-MW303I2-	BPS1-TT-MW303I2-	BPS1-TT-MW303S-	BPS1-TT-MW303S-	BPS1-TT-MW303S-	BPS1-TT-MW303S-	BPS1-TT-MW303S-
SAMPLE DATE	20121102	20101129	20110301	20120119	20121105	20101130	20101130	20101130	20110301	20120123
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	ORIG
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ATRAZINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZALDEHYDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION		BPS1-TT-MW303I2							BPS1-TT-MW303S	
SAMPLE ID	BPS1-TT-MW303I1-20121102	BPS1-TT-MW303I2-20101129	BPS1-TT-MW303I2-20110301	BPS1-TT-MW303I2-20120119	BPS1-TT-MW303I2-20121105	BPS1-TT-MW303S-20101130	BPS1-TT-MW303S-20101130	BPS1-TT-MW303S-20101130	BPS1-TT-MW303S-20110301	BPS1-TT-MW303S-20120123
SAMPLE DATE	20121102	20101129	20110301	20120119	20121105	20101130	20101130	20101130	20110301	20120123
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	ORIG
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
VOLATILES (UG/L)										
1,1,1-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-TETRACHLOROETHANE	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	NA	NA	0.5 U
1,1,2-TRICHLOROETHANE	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	NA	NA	0.5 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHANE	1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHENE	1.1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-TRICHLOROBENZENE	0.5 UJ	NA	NA	0.5 U	0.5 U	NA	NA	NA	NA	0.5 U
1,2,4-TRICHLOROBENZENE	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	NA	NA	0.5 U
1,2-DIBROMO-3-CHLOROPROPANE	0.5 UJ	NA	NA	0.5 U	0.5 U	NA	NA	NA	NA	0.5 U
1,2-DIBROMOETHANE	0.5 U	NA	NA	0.25 U	0.5 U	NA	NA	NA	NA	0.25 U
1,2-DICHLOROBENZENE	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	NA	NA	0.5 U
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROPROPANE	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	NA	NA	0.5 U
1,3-DICHLOROBENZENE	0.5 U	NA	NA	0.25 U	0.5 U	NA	NA	NA	NA	0.25 U
1,4-DICHLOROBENZENE	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	NA	NA	0.5 U
1,4-DIOXANE	25 UR	NA	NA	25 UR	25 UR	NA	NA	NA	NA	25 UR
2-BUTANONE	1 U	1 U	0.5 U	0.5 U	1 U	1 U	1 U	1 U	0.5 U	0.5 U
2-HEXANONE	1 UJ	NA	NA	0.5 U	1 U	NA	NA	NA	NA	0.5 U
4-METHYL-2-PENTANONE	1 U	NA	NA	0.5 U	1 U	NA	NA	NA	NA	0.5 U
ACETONE	2 U	5 U	1 UR	1 U	2 U	5 U	5 U	5 U	1 UR	1 U
BENZENE	0.2 U	0.5 U	0.5 U	0.5 U	0.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMOCHLOROMETHANE	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	NA	NA	0.5 U
BROMODICHLOROMETHANE	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	NA	NA	0.5 U
BROMOFORM	1 U	NA	NA	0.25 U	1 U	NA	NA	NA	NA	0.25 U
BROMOMETHANE	0.66 J	NA	NA	0.5 UJ	0.5 U	NA	NA	NA	NA	0.5 U
CARBON DISULFIDE	1 U	NA	NA	0.5 U	1 U	NA	NA	NA	NA	0.5 U
CARBON TETRACHLORIDE	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	NA	NA	0.5 U
CHLOROBENZENE	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	NA	NA	0.5 U
CHLORODIBROMOMETHANE	0.5 U	NA	NA	0.25 U	0.5 U	NA	NA	NA	NA	0.25 U
CHLOROETHANE	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	NA	NA	0.5 U
CHLOROFORM	0.2 U	NA	NA	0.5 U	0.2 U	NA	NA	NA	NA	0.5 U
CHLOROMETHANE	0.43 J	NA	NA	0.5 U	0.5 U	NA	NA	NA	NA	0.5 U
CIS-1,2-DICHLOROETHENE	1.6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CIS-1,3-DICHLOROPROPENE	0.5 U	NA	NA	0.1 U	0.5 U	NA	NA	NA	NA	0.1 UJ
CYCLOHEXANE	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	NA	NA	0.5 U
DICHLORODIFLUOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ETHYLBENZENE	0.5 U	0.5 U	0.25 U	0.25 U	0.5 U	0.5 U	0.5 U	0.5 U	0.25 U	0.25 U
ISOPROPYLBENZENE	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	NA	NA	0.5 U
M+P-XYLENES	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
METHYL ACETATE	0.88 J	NA	NA	0.5 U	1 U	NA	NA	NA	NA	0.5 U
METHYL CYCLOHEXANE	1 U	NA	NA	0.5 U	1 U	NA	NA	NA	NA	0.5 UJ
METHYL TERT-BUTYL ETHER	0.5 U	NA	NA	0.5 U	0.5 U	NA	NA	NA	NA	0.5 U
METHYLENE CHLORIDE	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
O-XYLENE	0.2 U	0.5 U	0.25 U	0.25 U	0.2 U	0.5 U	0.5 U	0.5 U	0.25 U	0.25 U
STYRENE	0.5 U	NA	NA	0.1 U	0.5 U	NA	NA	NA	NA	0.1 U
TETRACHLOROETHENE	46	2.1	1.5	0.94 J	0.72 J	1	1	1	0.97 J	1.9
TOLUENE	0.5 U	0.5 U	0.1 U	0.1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.1 U	0.1 U
TOTAL VOCS	61.67	NA	NA	NA	1.82	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRANS-1,3-DICHLOROPROPENE	0.5 U	NA	NA	0.25 U	0.5 U	NA	NA	NA	NA	0.25 U
TRICHLOROETHENE	10	2.6	1.9	1.6	1.1	0.25 U	0.25 U	0.25 U	0.76 J	2.7
TRICHLOROFLUOROMETHANE	0.5 U	0.23 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	0.5 U	0.25 U	0.5 U	0.5 U	0.5 U	0.25 U	0.25 U	0.25 U	0.5 U	0.5 U

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION				BPS1-TT-MW304D						
SAMPLE ID	BPS1-TT-MW303S-	BPS1-TT-MW303S-	BPS1-TT-MW303S-	BPS1-TT-MW304D-	BPS1-TT-MW304D-	BPS1-TT-MW304D-	BPS1-TT-MW304D-	BPS1-TT-MW304D-	BPS1-TT-MW304D-	BPS1-TT-MW304I1-
SAMPLE DATE	20120123	20120123	20121101	20101130	20110302	20110302	20110302	20120119	20121107	20101201
SAMPLE CODE	AVG	DUP	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
DISSOLVED METALS (UG/L)										
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METALS (UG/L)										
ALUMINUM	NA	NA	NA	NA	570 J	485	400 J	NA	NA	NA
ANTIMONY	NA	NA	NA	NA	0.5 U	0.5 U	0.5 U	NA	NA	NA
ARSENIC	NA	NA	NA	NA	0.33 J	0.315	0.3 J	NA	NA	NA
BARIUM	NA	NA	NA	NA	15	15	15	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	0.4 U	0.4 U	0.4 U	NA	NA	NA
CADMIUM	NA	NA	NA	NA	0.053 J	0.0595	0.066 J	NA	NA	NA
CALCIUM	NA	NA	NA	NA	3400	3500	3600	NA	NA	NA
CHROMIUM	3.45	4.2	3.8	NA	8.6	9.05	9.5	4.5	2.2	NA
COBALT	NA	NA	NA	NA	0.41 J	0.415	0.42 J	NA	NA	NA
COPPER	NA	NA	NA	NA	1.6	1.8	2	NA	NA	NA
IRON	138	210 J	60	NA	350	365	380	160	16	NA
LEAD	NA	NA	NA	NA	0.74 J	0.69	0.64 J	NA	NA	NA
MAGNESIUM	NA	NA	NA	NA	870	885	900	NA	NA	NA
MANGANESE	NA	NA	NA	NA	5.5	5.55	5.6	NA	NA	NA
MERCURY	NA	NA	NA	NA	0.1 U	0.1 U	0.1 U	NA	NA	NA
NICKEL	NA	NA	NA	NA	5.4	5.6	5.8	NA	NA	NA
POTASSIUM	NA	NA	NA	NA	1100	1100	1100	NA	NA	NA
SELENIUM	NA	NA	NA	NA	1 U	1 U	1 U	NA	NA	NA
SILVER	NA	NA	NA	NA	0.1 U	0.1 U	0.1 U	NA	NA	NA
SODIUM	NA	NA	NA	NA	10000	10500	11000	NA	NA	NA
THALLIUM	NA	NA	NA	NA	0.1 U	0.1 U	0.1 U	NA	NA	NA
VANADIUM	NA	NA	NA	NA	0.83 J	0.865	0.9 J	NA	NA	NA
ZINC	NA	NA	NA	NA	4.8 J	5.4	6 J	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/										
HEXAVALENT CHROMIUM	NA	NA	NA	NA	1 U	1 U	1 U	NA	NA	NA
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/L)										
AROCLOR-1016	0.08 U	0.08 U	0.08 U	0.08 U	0.088 U	0.0865 U	0.085 U	0.08 U	0.32 U	0.08 U
AROCLOR-1221	0.08 U	0.08 U	0.08 U	0.08 U	0.088 U	0.0865 U	0.085 U	0.08 U	0.32 U	0.08 U
AROCLOR-1232	0.08 U	0.08 U	0.08 U	0.04 U	0.044 U	0.0435 U	0.043 U	0.08 U	0.32 U	0.04 U
AROCLOR-1242	0.08 U	0.08 U	0.08 U	4 J	2.7 J	2.8	2.9 J	0.08 U	0.32 U	0.5 J
AROCLOR-1248	0.205	0.2	0.18 J	0.08 U	0.088 U	0.0865 U	0.085 U	4.2	3.9	0.08 U
AROCLOR-1254	0.08 U	0.08 U	0.08 U	0.08 U	0.088 U	0.0865 U	0.085 U	0.08 U	0.32 U	0.08 U
AROCLOR-1260	0.08 U	0.08 U	0.08 U	0.08 U	0.088 U	0.0865 U	0.085 U	0.08 U	0.32 U	0.08 U
AROCLOR-1262	0.08 U	0.08 U	0.08 U	0.08 U	0.088 U	0.0865 U	0.085 U	0.08 U	0.32 U	0.08 U
AROCLOR-1268	0.08 U	0.08 U	0.08 U	0.08 U	0.088 U	0.0865 U	0.085 U	0.08 U	0.32 U	0.08 U
TOTAL AROCLOR	0.205	0.2	0.18	4	2.7	2.8	2.9	4.2	3.9	0.5
SEMIVOLATILES (UG/L)										
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

LOCATION				BPS1-TT-MW304D						
SAMPLE ID	BPS1-TT-MW303S-	BPS1-TT-MW303S-	BPS1-TT-MW303S-	BPS1-TT-MW304D-	BPS1-TT-MW304D-	BPS1-TT-MW304D-	BPS1-TT-MW304D-	BPS1-TT-MW304D-	BPS1-TT-MW304D-	BPS1-TT-MW304I1-
SAMPLE DATE	20120123	20120123	20121101	20101130	20110302	20110302	20110302	20120119	20121107	20101201
SAMPLE CODE	AVG	DUP	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ATRAZINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZALDEHYDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION				BPS1-TT-MW304D						
SAMPLE ID	BPS1-TT-MW303S-20120123	BPS1-TT-MW303S-20120123	BPS1-TT-MW303S-20121101	BPS1-TT-MW304D-20101130	BPS1-TT-MW304D-20110302	BPS1-TT-MW304D-20110302	BPS1-TT-MW304D-20110302	BPS1-TT-MW304D-20120119	BPS1-TT-MW304D-20121107	BPS1-TT-MW304I1-20101201
SAMPLE DATE	20120123	20120123	20121101	20101130	20110302	20110302	20110302	20120119	20121107	20101201
SAMPLE CODE	AVG	DUP	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
VOLATILES (UG/L)										
1,1,1-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	15
1,1,2,2-TETRACHLOROETHANE	0.5 U	0.5 U	0.5 U	NA	NA	NA	NA	0.5 U	0.5 U	NA
1,1,2-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	NA	NA	NA	NA	0.5 U	0.5 U	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.44 J
1,1-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	6.9
1,1-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1
1,2,3-TRICHLOROBENZENE	0.5 U	0.5 U	0.5 UJ	NA	NA	NA	NA	0.5 U	0.5 U	NA
1,2,4-TRICHLOROBENZENE	0.5 U	0.5 U	0.5 U	NA	NA	NA	NA	0.5 U	0.5 U	NA
1,2-DIBROMO-3-CHLOROPROPANE	0.5 U	0.5 U	0.5 UJ	NA	NA	NA	NA	0.5 U	0.5 U	NA
1,2-DIBROMOETHANE	0.25 U	0.25 U	0.5 U	NA	NA	NA	NA	0.25 U	0.5 U	NA
1,2-DICHLOROBENZENE	0.5 U	0.5 U	0.5 U	NA	NA	NA	NA	0.5 U	0.5 U	NA
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROPROPANE	0.5 U	0.5 U	0.5 U	NA	NA	NA	NA	0.5 U	0.5 U	NA
1,3-DICHLOROBENZENE	0.25 U	0.25 U	0.5 U	NA	NA	NA	NA	0.25 U	0.5 U	NA
1,4-DICHLOROBENZENE	0.5 U	0.5 U	0.5 U	NA	NA	NA	NA	0.5 U	0.5 U	NA
1,4-DIOXANE	25 R	25 UR	25 UR	NA	NA	NA	NA	25 UR	25 UR	NA
2-BUTANONE	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U
2-HEXANONE	0.5 U	0.5 U	1 UJ	NA	NA	NA	NA	0.5 U	1 U	NA
4-METHYL-2-PENTANONE	0.5 U	0.5 U	1 U	NA	NA	NA	NA	0.5 U	1 U	NA
ACETONE	1 U	1 U	2 U	5 U	1 UR	1 R	1 UR	1 U	2 U	5 U
BENZENE	0.5 U	0.5 U	0.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 U	0.5 U
BROMOCHLOROMETHANE	0.5 U	0.5 U	0.5 U	NA	NA	NA	NA	0.5 U	0.5 U	NA
BROMODICHLOROMETHANE	0.5 U	0.5 U	0.5 U	NA	NA	NA	NA	0.5 U	0.5 U	NA
BROMOFORM	0.25 U	0.25 U	1 U	NA	NA	NA	NA	0.25 U	1 U	NA
BROMOMETHANE	0.5 U	0.5 U	0.5 U	NA	NA	NA	NA	0.5 UJ	0.5 U	NA
CARBON DISULFIDE	0.5 U	0.5 U	1 U	NA	NA	NA	NA	0.5 U	1 U	NA
CARBON TETRACHLORIDE	0.5 U	0.5 U	0.5 U	NA	NA	NA	NA	0.5 U	0.5 U	NA
CHLOROBENZENE	0.5 U	0.5 U	0.5 U	NA	NA	NA	NA	0.5 U	0.5 U	NA
CHLORODIBROMOMETHANE	0.25 U	0.25 U	0.5 U	NA	NA	NA	NA	0.25 U	0.5 U	NA
CHLOROETHANE	0.5 U	0.5 U	0.5 U	NA	NA	NA	NA	0.5 U	0.5 U	NA
CHLOROFORM	0.5 U	0.5 U	0.2 U	NA	NA	NA	NA	0.5 U	0.2 U	NA
CHLOROMETHANE	0.5 U	0.5 U	0.5 U	NA	NA	NA	NA	0.5 U	0.5 U	NA
CIS-1,2-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	85
CIS-1,3-DICHLOROPROPENE	0.1 U	0.1 UJ	0.5 U	NA	NA	NA	NA	0.1 U	0.5 U	NA
CYCLOHEXANE	0.5 U	0.5 U	0.5 U	NA	NA	NA	NA	0.5 U	0.5 U	NA
DICHLORODIFLUOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U
ETHYLBENZENE	0.25 U	0.25 U	0.5 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 UJ	0.5 U
ISOPROPYLBENZENE	0.5 U	0.5 U	0.5 U	NA	NA	NA	NA	0.5 U	0.5 U	NA
M+P-XYLENES	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
METHYL ACETATE	0.5 U	0.5 U	1 UJ	NA	NA	NA	NA	0.5 U	0.93 U	NA
METHYL CYCLOHEXANE	0.5 U	0.5 UJ	1 U	NA	NA	NA	NA	0.5 U	1 U	NA
METHYL TERT-BUTYL ETHER	0.5 U	0.5 U	0.5 U	NA	NA	NA	NA	0.5 U	0.5 U	NA
METHYLENE CHLORIDE	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
O-XYLENE	0.25 U	0.25 U	0.2 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.2 U	0.5 U
STYRENE	0.1 U	0.1 U	0.5 U	NA	NA	NA	NA	0.1 U	0.5 U	NA
TETRACHLOROETHENE	1.85	1.8	1.9	0.5 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	93
TOLUENE	0.1 U	0.1 U	0.5 U	0.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U	0.5 U
TOTAL VOCS	NA	NA	3.5	NA	NA	NA	NA	NA	0 U	NA
TRANS-1,2-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.7 J
TRANS-1,3-DICHLOROPROPENE	0.25 U	0.25 U	0.5 U	NA	NA	NA	NA	0.25 U	0.5 U	NA
TRICHLOROETHENE	2.7	2.7	1.6	0.25 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	27
TRICHLOROFLUOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	0.5 U	0.5 U	0.5 U	0.25 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.25 U

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS1-TT-MW304I1			BPS1-TT-MW304I2						
SAMPLE ID	BPS1-TT-MW304I1-20110302	BPS1-TT-MW304I1-20120118	BPS1-TT-MW304I1-20121106	BPS1-TT-MW304I2-20101130	BPS1-TT-MW304I2-20110303	BPS1-TT-MW304I2-20120118	BPS1-TT-MW304I2-20120118	BPS1-TT-MW304I2-20120118	BPS1-TT-MW304I2-20121108	BPS1-TT-MW304S-20101201
SAMPLE DATE	20110302	20120118	20121106	20101130	20110303	20120118	20120118	20120118	20121108	20101201
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
DISSOLVED METALS (UG/L)										
CHROMIUM	NA	NA	22	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	8.2 J	NA	NA	NA	NA	NA	NA	NA
METALS (UG/L)										
ALUMINUM	2800 J	NA	NA	NA	25 J	NA	NA	NA	NA	NA
ANTIMONY	0.5 U	NA	NA	NA	0.5 U	NA	NA	NA	NA	NA
ARSENIC	5.2	NA	NA	NA	0.5 U	NA	NA	NA	NA	NA
BARIUM	10	NA	NA	NA	13	NA	NA	NA	NA	NA
BERYLLIUM	0.4 U	NA	NA	NA	0.4 U	NA	NA	NA	NA	NA
CADMIUM	0.1 U	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA
CALCIUM	4800	NA	NA	NA	3000	NA	NA	NA	NA	NA
CHROMIUM	55	38	30	NA	180	200	185	170	21	NA
COBALT	1.5	NA	NA	NA	1.4	NA	NA	NA	NA	NA
COPPER	1.3	NA	NA	NA	0.87 J	NA	NA	NA	NA	NA
IRON	480	400	500	NA	40	16 J	13	10 J	120	NA
LEAD	0.8 J	NA	NA	NA	0.5 U	NA	NA	NA	NA	NA
MAGNESIUM	1500	NA	NA	NA	890	NA	NA	NA	NA	NA
MANGANESE	7.9	NA	NA	NA	2.7	NA	NA	NA	NA	NA
MERCURY	0.1 U	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA
NICKEL	2.9	NA	NA	NA	3.3	NA	NA	NA	NA	NA
POTASSIUM	1800	NA	NA	NA	1200	NA	NA	NA	NA	NA
SELENIUM	1 U	NA	NA	NA	1 U	NA	NA	NA	NA	NA
SILVER	0.17 J	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA
SODIUM	29000	NA	NA	NA	15000	NA	NA	NA	NA	NA
THALLIUM	0.1 U	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA
VANADIUM	3	NA	NA	NA	1 U	NA	NA	NA	NA	NA
ZINC	4 J	NA	NA	NA	25	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/										
HEXAVALENT CHROMIUM	58	35.5	21.5	NA	166	181	181.5	182	152	NA
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/L)										
AROCLOR-1016	0.08 U	0.08 U	0.08 U	0.085 U	0.09 U	0.08 U	0.08 U	0.08 U	0.16 U	0.08 U
AROCLOR-1221	0.08 U	0.08 U	0.08 U	0.085 U	0.09 U	0.08 U	0.08 U	0.08 U	0.16 U	0.08 U
AROCLOR-1232	0.04 U	0.08 U	0.08 U	0.043 U	0.045 U	0.08 U	0.08 U	0.08 U	0.16 U	0.04 U
AROCLOR-1242	0.89 J	0.08 U	0.08 U	1.7 J	2.6 J	0.08 U	0.08 U	0.08 U	0.16 U	0.08 U
AROCLOR-1248	0.08 U	0.97	1.5	0.085 U	0.09 U	1.5	1.55	1.6	2.5	0.08 U
AROCLOR-1254	0.08 U	0.08 U	0.08 U	0.085 U	0.09 U	0.08 U	0.08 U	0.08 U	0.16 U	0.08 U
AROCLOR-1260	0.08 U	0.08 U	0.08 U	0.085 U	0.09 U	0.08 U	0.08 U	0.08 U	0.16 U	0.08 U
AROCLOR-1262	0.08 U	0.08 U	0.08 U	0.085 U	0.09 U	0.08 U	0.08 U	0.08 U	0.16 U	0.08 U
AROCLOR-1268	0.08 U	0.08 U	0.08 U	0.085 U	0.09 U	0.08 U	0.08 U	0.08 U	0.16 U	0.08 U
TOTAL AROCLOR	0.89	0.97	1.5	1.7	2.6	1.5	1.55	1.6	2.5	0 U
SEMIVOLATILES (UG/L)										
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS1-TT-MW304I1			BPS1-TT-MW304I2						
SAMPLE ID	BPS1-TT-MW304I1-20110302	BPS1-TT-MW304I1-20120118	BPS1-TT-MW304I1-20121106	BPS1-TT-MW304I2-20101130	BPS1-TT-MW304I2-20110303	BPS1-TT-MW304I2-20120118	BPS1-TT-MW304I2-20120118	BPS1-TT-MW304I2-20120118	BPS1-TT-MW304I2-20121108	BPS1-TT-MW304S-20101201
SAMPLE DATE	20110302	20120118	20121106	20101130	20110303	20120118	20120118	20120118	20121108	20101201
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ATRAZINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZALDEHYDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS1-TT-MW304I1			BPS1-TT-MW304I2						
SAMPLE ID	BPS1-TT-MW304I1-20110302	BPS1-TT-MW304I1-20120118	BPS1-TT-MW304I1-20121106	BPS1-TT-MW304I2-20101130	BPS1-TT-MW304I2-20110303	BPS1-TT-MW304I2-20120118	BPS1-TT-MW304I2-20120118	BPS1-TT-MW304I2-20120118	BPS1-TT-MW304I2-20121108	BPS1-TT-MW304S-20101201
SAMPLE DATE	20110302	20120118	20121106	20101130	20110303	20120118	20120118	20120118	20121108	20101201
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
VOLATILES (UG/L)										
1,1,1-TRICHLOROETHANE	6.1	1.7	1.9	0.64 J	0.31 J	0.26 J	0.245	0.23 J	0.5 U	0.5 U
1,1,2,2-TETRACHLOROETHANE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U	NA
1,1,2-TRICHLOROETHANE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHANE	3.1	1.6	1.5	0.51 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHENE	0.35 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-TRICHLOROBENZENE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U	NA
1,2,4-TRICHLOROBENZENE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U	NA
1,2-DIBROMOETHANE	NA	0.25 U	0.5 U	NA	NA	0.25 U	0.25 U	0.25 U	0.5 U	NA
1,2-DICHLOROBENZENE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U	NA
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROPROPANE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U	NA
1,3-DICHLOROBENZENE	NA	0.25 U	0.5 U	NA	NA	0.25 U	0.25 U	0.25 U	0.5 U	NA
1,4-DICHLOROBENZENE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U	NA
1,4-DIOXANE	NA	25 UR	25 UR	NA	NA	25 UR	25 R	25 UR	25 UR	NA
2-BUTANONE	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U
2-HEXANONE	NA	0.5 U	1 U	NA	NA	0.5 U	0.5 U	0.5 U	1 U	NA
4-METHYL-2-PENTANONE	NA	0.5 U	1 U	NA	NA	0.5 U	0.5 U	0.5 U	1 U	NA
ACETONE	1 UR	1 U	2 U	5 U	1 UR	1 U	1 U	1 U	2 U	5 U
BENZENE	0.5 U	0.5 U	0.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 U	0.5 U
BROMOCHLOROMETHANE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U	NA
BROMODICHLOROMETHANE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U	NA
BROMOFORM	NA	0.25 U	1 U	NA	NA	0.25 U	0.25 U	0.25 U	1 U	NA
BROMOMETHANE	NA	0.5 UJ	0.5 U	NA	NA	0.5 UJ	0.5 U	0.5 UJ	0.5 U	NA
CARBON DISULFIDE	NA	0.5 U	1 U	NA	NA	0.5 U	0.5 U	0.5 U	1 U	NA
CARBON TETRACHLORIDE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U	NA
CHLOROBENZENE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U	NA
CHLORODIBROMOMETHANE	NA	0.25 U	0.5 U	NA	NA	0.25 U	0.25 U	0.25 U	0.5 U	NA
CHLOROETHANE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U	NA
CHLOROFORM	NA	0.5 U	0.2 U	NA	NA	0.5 U	0.5 U	0.5 U	0.2 U	NA
CHLOROMETHANE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U	NA
CIS-1,2-DICHLOROETHENE	35	6	21	8.8	3.1	2.7	2.75	2.8	1.9	0.5 U
CIS-1,3-DICHLOROPROPENE	NA	0.1 U	0.5 U	NA	NA	0.1 U	0.1 U	0.1 U	0.5 U	NA
CYCLOHEXANE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U	NA
DICHLORODIFLUOROMETHANE	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U
ETHYLBENZENE	0.25 U	0.25 U	0.5 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.5 U	0.5 U
ISOPROPYLBENZENE	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U	NA
M+P-XYLENES	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
METHYL ACETATE	NA	0.5 U	1 U	NA	NA	0.5 U	0.5 U	0.5 U	1 U	NA
METHYL CYCLOHEXANE	NA	0.5 U	1 U	NA	NA	0.5 U	0.5 U	0.5 U	1 U	NA
METHYL TERT-BUTYL ETHER	NA	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U	NA
METHYLENE CHLORIDE	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
O-XYLENE	0.25 U	0.25 U	0.2 U	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.2 U	0.5 U
STYRENE	NA	0.1 U	0.5 U	NA	NA	0.1 U	0.1 U	0.1 U	0.5 U	NA
TETRACHLOROETHENE	54	25	23	17	4.8	5.5	5.5	5.5	3.1	0.5 U
TOLUENE	0.1 U	0.1 U	0.5 U	0.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U	0.5 U
TOTAL VOCS	NA	NA	53	NA	NA	NA	NA	NA	5.87	NA
TRANS-1,2-DICHLOROETHENE	0.26 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRANS-1,3-DICHLOROPROPENE	NA	0.25 U	0.5 U	NA	NA	0.25 U	0.25 U	0.25 U	0.5 U	NA
TRICHLOROETHENE	11	4.1	5.6	5.4	1.4	1.7	1.75	1.8	0.87 J	0.25 U
TRICHLOROFLUOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	0.5 U	0.5 U	0.5 U	0.25 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.25 U

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS1-TT-MW304S			BPS1-TT-MW305D		BPS1-TT-MW305I				
SAMPLE ID	BPS1-TT-MW304S-20110303	BPS1-TT-MW304S-20120118	BPS1-TT-MW304S-20121106	BPS1-TT-MW305D-20120117	BPS1-TT-MW305D-20121115	BPS1-TT-MW305I-20120117	BPS1-TT-MW305I-20121108	BPS1-TT-MW305I-20121108	BPS1-TT-MW305I-20121108	BPS1-TT-MW305S-20120117
SAMPLE DATE	20110303	20120118	20121106	20120117	20121115	20120117	20121108	20121108	20121108	20120117
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	ORIG
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
DISSOLVED METALS (UG/L)										
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METALS (UG/L)										
ALUMINUM	17 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	2.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	0.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	0.043 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	2100	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	1.9	1.4	2.4	22	1.7	3.5	4.5	4.15	3.8	2.4
COBALT	0.85 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	0.65 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	13 J	58	14	1100	91	1100	770	700	630	560
LEAD	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	280 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	6.3	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	290	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	0.087 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	5100	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	0.11 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	7.1 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/										
HEXAVALENT CHROMIUM	1 U	NA	NA	1 U	1 U	NA	1 U	1 U	NA	NA
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/L)										
AROCLOR-1016	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.12 U	0.16 U	0.08 U
AROCLOR-1221	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.12 U	0.16 U	0.08 U
AROCLOR-1232	0.04 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.12 U	0.16 U	0.08 U
AROCLOR-1242	0.08 U	0.08 U	0.08 U	0.16 J	0.08 U	0.08 U	0.08 U	0.12 U	0.16 U	0.08 U
AROCLOR-1248	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	1.3	1.1 J	1.1	1.1 J	0.08 U
AROCLOR-1254	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.12 U	0.16 U	0.08 U
AROCLOR-1260	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.12 U	0.16 U	0.08 U
AROCLOR-1262	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.12 U	0.16 U	0.08 U
AROCLOR-1268	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.12 U	0.16 U	0.08 U
TOTAL AROCLOR	0 U	0 U	0 U	0.16	0 U	1.3	1.1	1.1	1.1	0 U
SEMIVOLATILES (UG/L)										
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS1-TT-MW304S			BPS1-TT-MW305D		BPS1-TT-MW305I				
SAMPLE ID	BPS1-TT-MW304S-20110303	BPS1-TT-MW304S-20120118	BPS1-TT-MW304S-20121106	BPS1-TT-MW305D-20120117	BPS1-TT-MW305D-20121115	BPS1-TT-MW305I-20120117	BPS1-TT-MW305I-20121108	BPS1-TT-MW305I-20121108	BPS1-TT-MW305I-20121108	BPS1-TT-MW305S-20120117
SAMPLE DATE	20110303	20120118	20121106	20120117	20121115	20120117	20121108	20121108	20121108	20120117
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	ORIG
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ATRAZINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZALDEHYDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS1-TT-MW304S			BPS1-TT-MW305D		BPS1-TT-MW305I				
SAMPLE ID	BPS1-TT-MW304S-20110303	BPS1-TT-MW304S-20120118	BPS1-TT-MW304S-20121106	BPS1-TT-MW305D-20120117	BPS1-TT-MW305D-20121115	BPS1-TT-MW305I-20120117	BPS1-TT-MW305I-20121108	BPS1-TT-MW305I-20121108	BPS1-TT-MW305I-20121108	BPS1-TT-MW305S-20120117
SAMPLE DATE	20110303	20120118	20121106	20120117	20121115	20120117	20121108	20121108	20121108	20120117
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	ORIG
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
VOLATILES (UG/L)										
1,1,1-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.28 J	0.65 J	0.62	0.59 J	0.5 U
1,1,2,2-TETRACHLOROETHANE	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-TRICHLOROETHANE	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.5 U	0.5 U	0.5 U	0.33 J	0.44 J	1.1	1.6	1.5	1.4	0.5 U
1,1-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.57 J	0.56 J	2.7	4.5	4.55	4.6	0.5 U
1,1-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.73 J	0.96 J	1.3	1.9	1.95	2	0.5 U
1,2,3-TRICHLOROBENZENE	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-TRICHLOROBENZENE	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DIBROMO-3-CHLOROPROPANE	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DIBROMOETHANE	NA	0.25 U	0.5 U	0.25 U	0.5 U	0.25 U	0.5 U	0.5 U	0.5 U	0.25 U
1,2-DICHLOROBENZENE	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROPROPANE	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-DICHLOROBENZENE	NA	0.25 U	0.5 U	0.25 U	0.5 U	0.25 U	0.5 U	0.5 U	0.5 U	0.25 U
1,4-DICHLOROBENZENE	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-DIOXANE	NA	25 UR	25 UR	25 UR	25 UR	25 UR	70 J	75.5	81 J	25 UR
2-BUTANONE	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	0.5 U
2-HEXANONE	NA	0.5 U	1 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	0.5 U
4-METHYL-2-PENTANONE	NA	0.5 U	1 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	0.5 U
ACETONE	1 UR	1 U	2 U	1 U	2 U	1 U	2 U	2 U	2 U	1 U
BENZENE	0.5 U	0.5 U	0.2 U	0.5 U	0.2 U	0.5 U	0.2 U	0.2 U	0.2 U	0.5 U
BROMOCHLOROMETHANE	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMODICHLOROMETHANE	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMOFORM	NA	0.25 U	1 U	0.25 U	1 U	0.25 U	1 U	1 U	1 U	0.25 U
BROMOMETHANE	NA	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 UJ
CARBON DISULFIDE	NA	0.5 U	1 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	0.5 U
CARBON TETRACHLORIDE	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.49 J	0.42 J	0.42	0.42 J	0.5 U
CHLOROBENZENE	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLORODIBROMOMETHANE	NA	0.25 U	0.5 U	0.25 U	0.5 U	0.25 U	0.5 U	0.5 U	0.5 U	0.25 U
CHLOROETHANE	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROFORM	NA	0.5 U	0.2 U	0.19 J	0.18 J	0.27 J	0.29 J	0.295	0.3 J	0.5 U
CHLOROMETHANE	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CIS-1,2-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.32 J	4.7	9.4	8.9	8.4	0.5 U
CIS-1,3-DICHLOROPROPENE	NA	0.1 U	0.5 U	0.1 U	0.5 U	0.1 U	0.5 U	0.5 U	0.5 U	0.1 U
CYCLOHEXANE	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
DICHLORODIFLUOROMETHANE	0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.22 J	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U
ETHYLBENZENE	0.25 U	0.25 U	0.5 U	0.25 U	0.5 UJ	0.25 U	0.5 U	0.5 U	0.5 U	0.25 U
ISOPROPYLBENZENE	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
M+P-XYLENES	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	0.5 U
METHYL ACETATE	NA	0.5 U	1 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	0.5 U
METHYL CYCLOHEXANE	NA	0.5 U	1 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	0.5 U
METHYL TERT-BUTYL ETHER	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
METHYLENE CHLORIDE	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	0.5 U
O-XYLENE	0.25 U	0.25 U	0.2 U	0.25 U	0.2 U	0.25 U	0.2 U	0.2 U	0.2 U	0.25 U
STYRENE	NA	0.1 U	0.5 U	0.1 U	0.5 U	0.1 U	0.5 U	0.5 U	0.5 U	0.1 U
TETRACHLOROETHENE	0.5 U	0.5 U	0.5 U	1.9	1.8	3.3	5.2	5.1	5	0.5 U
TOLUENE	0.1 U	0.1 U	0.5 U	0.1 U	0.5 U	0.1 U	0.5 U	0.5 U	0.5 U	0.1 U
TOTAL VOCS	NA	NA	0 U	NA	205.68	NA	3494.84	3449.7	3404.56	NA
TRANS-1,2-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRANS-1,3-DICHLOROPROPENE	NA	0.25 U	0.5 U	0.25 U	0.5 U	0.25 U	0.5 U	0.5 U	0.5 U	0.25 U
TRICHLOROETHENE	0.5 U	0.5 U	0.5 U	140	200	3900	3400	3350	3300	0.5 U
TRICHLOROFLUOROMETHANE	0.5 U	0.5 U	0.5 U	0.94 J	1.2	0.91 J	0.88 J	0.865	0.85 J	0.5 U
VINYL CHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS1-TT-MW305S					BPS1-TT-MW306D		BPS1-TT-MW306I		BPS1-TT-
SAMPLE ID	BPS1-TT-MW305S-20120117	BPS1-TT-MW305S-20120117	BPS1-TT-MW305S-20121115	BPS1-TT-MW305S-20121115	BPS1-TT-MW305S-20121115	BPS1-TT-MW306D-20120123	BPS1-TT-MW306D-20121108	BPS1-TT-MW306I-20120123	BPS1-TT-MW306I-20121108	BPS1-TT-MW306S-20120123
SAMPLE DATE	20120117	20120117	20121115	20121115	20121115	20120123	20121108	20120123	20121108	20120123
SAMPLE CODE	AVG	DUP	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
DISSOLVED METALS (UG/L)										
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METALS (UG/L)										
ALUMINUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	2.5	2.6	1.7	1.7	1.7	1.2	3.1	2.3	2.5	1.3
COBALT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	605	650	58	63	68	77	39	93	25	310
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/										
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA	1 U	1 U	1 U
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	1100	NA	3300	NA	710 J
PCBS (UG/L)										
AROCLOR-1016	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.16 U	0.08 UJ	0.16 U	0.08 U
AROCLOR-1221	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.16 U	0.08 U	0.16 U	0.08 U
AROCLOR-1232	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.16 U	0.08 U	0.16 U	0.08 U
AROCLOR-1242	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.61 J	0.16 U	0.08 U	0.16 U	0.08 U
AROCLOR-1248	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	1.1 J	1.8	2.7 J	0.54
AROCLOR-1254	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.16 U	0.08 U	0.16 U	0.08 U
AROCLOR-1260	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.16 U	0.08 U	0.16 U	0.08 U
AROCLOR-1262	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.16 U	0.08 U	0.16 U	0.08 U
AROCLOR-1268	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.16 U	0.08 U	0.16 U	0.08 U
TOTAL AROCLOR	0 U	0 U	0 U	0 U	0 U	0.61	1.1	1.8	2.7	0.54
SEMIVOLATILES (UG/L)										
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

LOCATION	BPS1-TT-MW305S					BPS1-TT-MW306D		BPS1-TT-MW306I		BPS1-TT-
SAMPLE ID	BPS1-TT-MW305S-20120117	BPS1-TT-MW305S-20120117	BPS1-TT-MW305S-20121115	BPS1-TT-MW305S-20121115	BPS1-TT-MW305S-20121115	BPS1-TT-MW306D-20120123	BPS1-TT-MW306D-20121108	BPS1-TT-MW306I-20120123	BPS1-TT-MW306I-20121108	BPS1-TT-MW306S-20120123
SAMPLE DATE	20120117	20120117	20121115	20121115	20121115	20120123	20121108	20120123	20121108	20120123
SAMPLE CODE	AVG	DUP	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ATRAZINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZALDEHYDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS1-TT-MW305S					BPS1-TT-MW306D		BPS1-TT-MW306I		BPS1-TT-
SAMPLE ID	BPS1-TT-MW305S-20120117	BPS1-TT-MW305S-20120117	BPS1-TT-MW305S-20121115	BPS1-TT-MW305S-20121115	BPS1-TT-MW305S-20121115	BPS1-TT-MW306D-20120123	BPS1-TT-MW306D-20121108	BPS1-TT-MW306I-20120123	BPS1-TT-MW306I-20121108	BPS1-TT-MW306S-20120123
SAMPLE DATE	20120117	20120117	20121115	20121115	20121115	20120123	20121108	20120123	20121108	20120123
SAMPLE CODE	AVG	DUP	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
VOLATILES (UG/L)										
1,1,1-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-TETRACHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-TRICHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-TRICHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DIBROMO-3-CHLOROPROPANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DIBROMOETHANE	0.25 U	0.25 U	0.5 U	0.5 U	0.5 U	0.25 U	0.5 U	0.25 U	0.5 U	0.25 U
1,2-DICHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROPROPANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-DICHLOROBENZENE	0.25 U	0.25 U	0.5 U	0.5 U	0.5 U	0.25 U	0.5 U	0.25 U	0.5 U	0.25 U
1,4-DICHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-DIOXANE	25 R	25 UR	25 UR	25 R	25 UR	25 UR	25 UR	25 UR	25 UR	25 UR
2-BUTANONE	0.5 U	0.5 U	1 U	1 U	1 U	0.5 U	1 U	0.5 U	1 U	0.5 U
2-HEXANONE	0.5 U	0.5 U	1 U	1 U	1 U	0.5 U	1 U	0.5 U	1 U	0.5 U
4-METHYL-2-PENTANONE	0.5 U	0.5 U	1 U	1 U	1 U	0.5 U	1 U	0.5 U	1 U	0.5 U
ACETONE	1 U	1 U	2 U	2 U	2 U	1 U	2 U	1 U	2 U	1 U
BENZENE	0.5 U	0.5 U	0.2 U	0.2 U	0.2 U	0.5 U	0.2 U	0.5 U	0.2 U	0.5 U
BROMOCHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMODICHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMOFORM	0.25 U	0.25 U	1 U	1 U	1 U	0.25 U	1 U	0.25 U	1 U	0.25 U
BROMOMETHANE	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CARBON DISULFIDE	0.5 U	0.5 U	1 U	1 U	1 U	0.5 U	1 U	0.5 U	1 U	0.5 U
CARBON TETRACHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLORODIBROMOMETHANE	0.25 U	0.25 U	0.5 U	0.5 U	0.5 U	0.25 U	0.5 U	0.25 U	0.5 U	0.25 U
CHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROFORM	0.5 U	0.5 U	0.2 U	0.2 U	0.2 U	0.5 U	0.2 U	0.5 U	0.2 U	0.5 U
CHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CIS-1,2-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CIS-1,3-DICHLOROPROPENE	0.1 U	0.1 U	0.5 U	0.5 U	0.5 U	0.1 UJ	0.5 U	0.1 UJ	0.5 U	0.1 UJ
CYCLOHEXANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
DICHLORODIFLUOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U
ETHYLBENZENE	0.25 U	0.25 U	0.5 UJ	0.5 U	0.5 UJ	0.25 U	0.5 U	0.25 U	0.5 U	0.25 U
ISOPROPYLBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
M+P-XYLENES	0.5 U	0.5 U	1 U	1 U	1 U	0.5 U	1 U	0.5 U	1 U	0.5 U
METHYL ACETATE	0.5 U	0.5 U	1 U	1 U	1 U	0.5 U	1 U	0.5 U	1 U	0.5 U
METHYL CYCLOHEXANE	0.5 U	0.5 U	1 U	1 U	1 U	0.5 UJ	1 U	0.5 UJ	1 U	0.5 UJ
METHYL TERT-BUTYL ETHER	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
METHYLENE CHLORIDE	0.5 U	0.5 U	1 U	1 U	1 U	0.5 U	1 U	0.5 U	1 U	0.5 U
O-XYLENE	0.25 U	0.25 U	0.2 U	0.2 U	0.2 U	0.25 U	0.2 U	0.25 U	0.2 U	0.25 U
STYRENE	0.1 U	0.1 U	0.5 U	0.5 U	0.5 U	0.1 U	0.5 U	0.1 U	0.5 U	0.1 U
TETRACHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.44 J	0.31 J	0.5 U	0.5 U	0.4 J
TOLUENE	0.1 U	0.1 U	0.5 U	0.5 U	0.5 U	0.1 U	0.5 U	0.1 U	0.5 U	0.1 U
TOTAL VOCS	NA	NA	0 U	0 U	0 U	NA	1.81	NA	0.46	NA
TRANS-1,2-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRANS-1,3-DICHLOROPROPENE	0.25 U	0.25 U	0.5 U	0.5 U	0.5 U	0.25 U	0.5 U	0.25 U	0.5 U	0.25 U
TRICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.4	1.5	0.54 J	0.46 J	0.5 U
TRICHLOROFLUOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	MW306S	BPS1-TT-MW307D		BPS1-TT-MW307I				BPS1-TT-MW307S		
SAMPLE ID	BPS1-TT-MW306S-20121116	BPS1-TT-MW307D-20120118	BPS1-TT-MW307D-20121106	BPS1-TT-MW307I-20120118	BPS1-TT-MW307I-20121106	BPS1-TT-MW307I-20121106	BPS1-TT-MW307I-20121106	BPS1-TT-MW307S-20120118	BPS1-TT-MW307S-20121116	BPS1-TT-MW308D-20120116
SAMPLE DATE	20121116	20120118	20121106	20120118	20121106	20121106	20121106	20120118	20121116	20120116
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
DISSOLVED METALS (UG/L)										
CHROMIUM	0.48 J	NA	0.23 J	NA	NA	NA	NA	NA	NA	NA
IRON	9.5 J	NA	10	NA	NA	NA	NA	NA	NA	NA
METALS (UG/L)										
ALUMINUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	4.6	13	13	12	5.5	6.1	6.7	4	1.6	17
COBALT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	960	460	1100	460	99	104.5	110	530	100	240
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/										
HEXAVALENT CHROMIUM	0.6 J	NA	NA	1 U	1 U	1 U	NA	NA	1 U	NA
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/L)										
AROCLOR-1016	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1221	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1232	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1242	0.08 U	0.56	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.073 J
AROCLOR-1248	0.55 U	0.08 U	0.31	0.84	0.33	0.345	0.36	0.08 U	0.042 U	0.08 U
AROCLOR-1254	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1260	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1262	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1268	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
TOTAL AROCLOR	0 U	0.56	0.31	0.84	0.33	0.345	0.36	0 U	0 U	NA
SEMIVOLATILES (UG/L)										
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	MW306S	BPS1-TT-MW307D		BPS1-TT-MW307I				BPS1-TT-MW307S		
SAMPLE ID	BPS1-TT-MW306S-20121116	BPS1-TT-MW307D-20120118	BPS1-TT-MW307D-20121106	BPS1-TT-MW307I-20120118	BPS1-TT-MW307I-20121106	BPS1-TT-MW307I-20121106	BPS1-TT-MW307I-20121106	BPS1-TT-MW307S-20120118	BPS1-TT-MW307S-20121116	BPS1-TT-MW308D-20120116
SAMPLE DATE	20121116	20120118	20121106	20120118	20121106	20121106	20121106	20120118	20121116	20120116
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ATRAZINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZALDEHYDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	MW306S	BPS1-TT-MW307D		BPS1-TT-MW307I				BPS1-TT-MW307S		
SAMPLE ID	BPS1-TT-MW306S-20121116	BPS1-TT-MW307D-20120118	BPS1-TT-MW307D-20121106	BPS1-TT-MW307I-20120118	BPS1-TT-MW307I-20121106	BPS1-TT-MW307I-20121106	BPS1-TT-MW307I-20121106	BPS1-TT-MW307S-20120118	BPS1-TT-MW307S-20121116	BPS1-TT-MW308D-20120116
SAMPLE DATE	20121116	20120118	20121106	20120118	20121106	20121106	20121106	20120118	20121116	20120116
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
VOLATILES (UG/L)										
1,1,1-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-TETRACHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.23 J	0.5 U	0.5 U	0.5 U	0.24 J	0.5 U	0.5 U
1,1-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-TRICHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-TRICHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DIBROMO-3-CHLOROPROPANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DIBROMOETHANE	0.5 U	0.25 U	0.5 U	0.25 U	0.5 U	0.5 U	0.5 U	0.25 U	0.5 U	0.25 U
1,2-DICHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROPROPANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-DICHLOROBENZENE	0.5 U	0.25 U	0.5 U	0.25 U	0.5 U	0.5 U	0.5 U	0.25 U	0.5 U	0.25 U
1,4-DICHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-DIOXANE	25 UR	25 UR	25 UR	25 UR	25 UR	25 R	25 UR	25 UR	25 UR	25 UR
2-BUTANONE	1 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	0.5 U	1 U	0.5 U
2-HEXANONE	1 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	0.5 U	1 U	0.5 U
4-METHYL-2-PENTANONE	1 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	0.5 U	1 U	0.5 U
ACETONE	2 U	1 U	2 U	1 U	2 U	2 U	2 U	1 U	2 U	1 U
BENZENE	0.2 U	0.5 U	0.2 U	0.5 U	0.2 U	0.2 U	0.2 U	0.5 U	0.2 U	0.5 U
BROMOCHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMODICHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMOFORM	1 U	0.25 U	1 U	0.25 U	1 U	1 U	1 U	0.25 U	1 U	0.25 U
BROMOMETHANE	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ
CARBON DISULFIDE	1 U	0.5 U	1 U	0.2 J	1 U	1 U	1 U	0.5 U	1 U	0.5 U
CARBON TETRACHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLORODIBROMOMETHANE	0.5 U	0.25 U	0.5 U	0.25 U	0.5 U	0.5 U	0.5 U	0.25 U	0.5 U	0.25 U
CHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROFORM	0.2 U	0.5 U	0.2 U	0.5 U	0.2 U	0.2 U	0.2 U	0.5 U	0.12 J	0.19 J
CHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CIS-1,2-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CIS-1,3-DICHLOROPROPENE	0.5 U	0.1 U	0.5 U	0.1 U	0.5 U	0.5 U	0.5 U	0.1 U	0.5 U	0.1 U
CYCLOHEXANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
DICHLORODIFLUOROMETHANE	0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 U
ETHYLBENZENE	0.5 UJ	0.25 U	0.5 U	0.25 U	0.5 U	0.5 U	0.5 U	0.25 U	0.5 UJ	0.25 U
ISOPROPYLBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
M+P-XYLENES	1 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	0.5 U	1 U	0.5 U
METHYL ACETATE	1 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	0.5 U	1 U	0.5 U
METHYL CYCLOHEXANE	1 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	0.5 U	1 U	0.5 U
METHYL TERT-BUTYL ETHER	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
METHYLENE CHLORIDE	1 U	0.5 U	1 U	0.5 U	1 U	1 U	1 U	0.5 U	1 U	0.5 U
O-XYLENE	0.2 U	0.25 U	0.2 U	0.25 U	0.2 U	0.2 U	0.2 U	0.25 U	0.2 U	0.25 U
STYRENE	0.5 U	0.1 U	0.5 U	0.1 U	0.5 U	0.5 U	0.5 U	0.1 U	0.5 U	0.1 U
TETRACHLOROETHENE	0.32 J	0.5 U	0.5 U	1.1	1	1.05	1.1	1.3	0.69 J	0.7 J
TOLUENE	0.5 U	0.1 U	0.5 U	0.1 U	0.5 U	0.5 U	0.5 U	0.1 U	0.5 U	0.1 U
TOTAL VOCS	0.32	NA	0 U	NA	1.71	1.835	1.96	NA	1.22	NA
TRANS-1,2-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRANS-1,3-DICHLOROPROPENE	0.5 U	0.25 U	0.5 U	0.25 U	0.5 U	0.5 U	0.5 U	0.25 U	0.5 U	0.25 U
TRICHLOROETHENE	0.5 U	0.5 U	0.5 U	1.8	0.71 J	0.785	0.86 J	0.57 J	0.41 J	1.6
TRICHLOROFLUOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS1-TT-MW308D		BPS1-TT-MW308I			BPS1-TT-MW308S				
SAMPLE ID	BPS1-TT-MW308D-20121113	BPS1-TT-MW308D-20130220	BPS1-TT-MW308I-20120116	BPS1-TT-MW308I-20121112	BPS1-TT-MW308I-20130221	BPS1-TT-MW308S-20120116	BPS1-TT-MW308S-20121112	BPS1-TT-MW308S-20130220	BPS1-TT-MW309D-20120111	BPS1-TT-MW309D-20120111
SAMPLE DATE	20121113	20130220	20120116	20121112	20130221	20120116	20121112	20130220	20120111	20120111
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
DISSOLVED METALS (UG/L)										
CHROMIUM	NA	NA	NA	NA	7.5	NA	8.2	NA	NA	NA
IRON	NA	NA	NA	NA	37 U	NA	23	NA	NA	NA
METALS (UG/L)										
ALUMINUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	81	82 J	10	30	29	10	36	14	7.5	7.5
COBALT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	35	180	240	3200	880	150	1600	440	2400	2400
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/										
HEXAVALENT CHROMIUM	NA	82.2 J	NA	NA	NA	NA	NA	NA	1 U	1 U
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/L)										
AROCLOR-1016	0.08 U	0.089 U	0.08 U	0.085 U	0.08 U	0.08 U	0.08 U	0.08 U	0.085 U	0.085 U
AROCLOR-1221	0.08 U	0.089 U	0.08 U	0.085 U	0.08 U	0.08 U	0.08 U	0.08 U	0.085 U	0.085 U
AROCLOR-1232	0.08 U	0.089 U	0.08 U	0.085 U	0.08 U	0.08 U	0.08 U	0.08 U	0.085 U	0.085 U
AROCLOR-1242	0.08 U	0.089 U	0.52	0.085 U	0.08 U	0.08 U	0.08 U	0.08 U	0.085 U	0.085 U
AROCLOR-1248	0.056 J	0.089 U	0.08 U	0.32	0.35	0.2	0.17 J	0.15 J	0.085 U	0.085 U
AROCLOR-1254	0.08 U	0.089 U	0.08 U	0.085 U	0.08 U	0.08 U	0.08 U	0.08 U	0.085 U	0.085 U
AROCLOR-1260	0.08 U	0.089 U	0.08 U	0.085 U	0.08 U	0.08 U	0.08 U	0.08 U	0.085 U	0.085 U
AROCLOR-1262	0.08 U	0.089 U	0.08 U	0.085 U	0.08 U	0.08 U	0.08 U	0.08 U	0.085 U	0.085 U
AROCLOR-1268	0.08 U	0.089 U	0.08 U	0.085 U	0.08 U	0.08 U	0.08 U	0.08 U	0.085 U	0.085 U
TOTAL AROCLOR	0.056	NA	NA	0.32	NA	NA	0.17	NA	NA	NA
SEMIVOLATILES (UG/L)										
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS1-TT-MW308D			BPS1-TT-MW308I			BPS1-TT-MW308S			
SAMPLE ID	BPS1-TT-MW308D-20121113	BPS1-TT-MW308D-20130220	BPS1-TT-MW308I-20120116	BPS1-TT-MW308I-20121112	BPS1-TT-MW308I-20130221	BPS1-TT-MW308S-20120116	BPS1-TT-MW308S-20121112	BPS1-TT-MW308S-20130220	BPS1-TT-MW309D-20120111	BPS1-TT-MW309D-20120111
SAMPLE DATE	20121113	20130220	20120116	20121112	20130221	20120116	20121112	20130220	20120111	20120111
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ATRAZINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZALDEHYDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS1-TT-MW308D			BPS1-TT-MW308I			BPS1-TT-MW308S			
SAMPLE ID	BPS1-TT-MW308D-20121113	BPS1-TT-MW308D-20130220	BPS1-TT-MW308I-20120116	BPS1-TT-MW308I-20121112	BPS1-TT-MW308I-20130221	BPS1-TT-MW308S-20120116	BPS1-TT-MW308S-20121112	BPS1-TT-MW308S-20130220	BPS1-TT-MW309D-20120111	BPS1-TT-MW309D-20120111
SAMPLE DATE	20121113	20130220	20120116	20121112	20130221	20120116	20121112	20130220	20120111	20120111
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
VOLATILES (UG/L)										
1,1,1-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.21 J	0.5 U	0.5 U
1,1,2,2-TETRACHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.45 J	0.45 J
1,1-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.27 J	0.27 J
1,1-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-TRICHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-TRICHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DIBROMO-3-CHLOROPROPANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DIBROMOETHANE	0.5 U	0.5 U	0.25 U	0.5 U	0.5 U	0.25 U	0.5 U	0.5 U	0.25 U	0.25 U
1,2-DICHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROPROPANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-DICHLOROBENZENE	0.5 U	0.5 U	0.25 U	0.5 U	0.5 U	0.25 U	0.5 U	0.5 U	0.25 U	0.25 U
1,4-DICHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-DIOXANE	25 UR	25 UR	25 UR	25 UR	25 UR	25 UR	25 UR	25 UR	25 UR	25 UR
2-BUTANONE	1 U	1 UJ	0.5 U	1 U	1 U	0.5 U	1 U	1 UJ	0.5 U	0.5 U
2-HEXANONE	1 U	1 U	0.5 U	1 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U
4-METHYL-2-PENTANONE	1 U	1 U	0.5 U	1 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U
ACETONE	2 U	2 U	1 U	2 U	2 U	1 U	2 U	2 U	1 U	1 U
BENZENE	0.2 U	0.2 U	0.5 U	0.2 U	0.2 U	0.5 U	0.2 U	0.2 U	0.5 U	0.5 U
BROMOCHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMODICHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMOFORM	1 U	1 U	0.25 U	1 U	1 U	0.25 U	1 U	1 U	0.25 U	0.25 U
BROMOMETHANE	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U
CARBON DISULFIDE	1 U	1 UJ	0.5 U	1 U	1 U	0.5 U	1 U	1 UJ	0.5 U	0.5 U
CARBON TETRACHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLORODIBROMOMETHANE	0.5 U	0.5 U	0.25 U	0.5 U	0.5 U	0.25 U	0.5 U	0.5 U	0.25 U	0.25 U
CHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROFORM	0.2 U	0.14 J	0.5 U	0.2 U	0.2 U	0.5 U	0.2 U	0.2 U	0.5 U	0.5 U
CHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CIS-1,2-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CIS-1,3-DICHLOROPROPENE	0.5 U	0.5 U	0.1 U	0.5 U	0.5 U	0.1 U	0.5 U	0.5 U	0.1 U	0.1 U
CYCLOHEXANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
DICHLORODIFLUOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ETHYLBENZENE	0.5 UJ	0.5 U	0.25 U	0.5 UJ	0.5 U	0.25 U	0.5 UJ	0.5 U	0.25 U	0.25 U
ISOPROPYLBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
M+P-XYLENES	1 U	1 U	0.5 U	1 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U
METHYL ACETATE	1 U	1 U	0.5 U	1 U	1 U	0.5 U	1.2 U	1 U	0.5 U	0.5 U
METHYL CYCLOHEXANE	1 U	1 U	0.5 U	1 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U
METHYL TERT-BUTYL ETHER	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
METHYLENE CHLORIDE	1 U	1 U	0.5 U	1 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U
O-XYLENE	0.2 U	0.2 U	0.25 U	0.2 U	0.2 U	0.25 U	0.2 U	0.2 U	0.25 U	0.25 U
STYRENE	0.5 U	0.5 U	0.1 U	0.5 U	0.5 U	0.1 U	0.5 U	0.5 U	0.1 U	0.1 U
TETRACHLOROETHENE	0.69 J	0.75 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.1	1.1
TOLUENE	0.5 U	0.5 U	0.1 U	0.5 U	0.5 U	0.1 U	0.5 U	0.5 U	0.1 U	0.1 U
TOTAL VOCS	1.64	NA	NA	0 U	NA	NA	0.81	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRANS-1,3-DICHLOROPROPENE	0.5 U	0.5 U	0.25 U	0.5 U	0.5 U	0.25 U	0.5 U	0.5 U	0.25 U	0.25 U
TRICHLOROETHENE	0.95 J	0.82 J	0.5 U	0.5 U	0.5 U	0.71 J	0.81 J	0.84 J	1.8	1.8
TRICHLOROFLUOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS1-TT-MW309D			BPS1-TT-MW309I						BPS1-TT-MW309S
SAMPLE ID	BPS1-TT-MW309D-20120111	BPS1-TT-MW309D-20121113	BPS1-TT-MW309D-20130221	BPS1-TT-MW309I-20120111	BPS1-TT-MW309I-20121112	BPS1-TT-MW309I-20130220	BPS1-TT-MW309S-20120110	BPS1-TT-MW309S-20120110	BPS1-TT-MW309S-20120110	BPS1-TT-MW309S-20121112
SAMPLE DATE	20120111	20121113	20130221	20120111	20121112	20130220	20120110	20120110	20120110	20121112
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
DISSOLVED METALS (UG/L)										
CHROMIUM	0.56 J	NA	NA	NA	NA	NA	NA	NA	13	NA
IRON	31	NA	NA	NA	NA	NA	NA	NA	92	NA
METALS (UG/L)										
ALUMINUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	4	1.6	49	61	55	18	18	NA	6.4
COBALT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NA	220	150	130	91	47	2100	2100	NA	43
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/										
HEXAVALENT CHROMIUM	NA	1 U	1 U	47.7	55.1	NA	8.9 J	8.9 J	NA	NA
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/L)										
AROCLOR-1016	NA	0.086 U	0.08 U	0.08 U	0.08 U	0.08 U	0.086 U	0.086 U	NA	0.08 U
AROCLOR-1221	NA	0.086 U	0.08 U	0.08 U	0.08 U	0.08 U	0.086 U	0.086 U	NA	0.08 U
AROCLOR-1232	NA	0.086 U	0.08 U	0.08 U	0.08 U	0.08 U	0.086 U	0.086 U	NA	0.08 U
AROCLOR-1242	NA	0.086 U	0.08 U	0.43	0.08 U	0.08 U	0.086 U	0.086 U	NA	0.08 U
AROCLOR-1248	NA	0.086 U	0.08 U	0.08 U	0.41	0.27	1	1	NA	0.9
AROCLOR-1254	NA	0.086 U	0.08 U	0.08 U	0.08 U	0.08 U	0.086 U	0.086 U	NA	0.08 U
AROCLOR-1260	NA	0.086 U	0.08 U	0.08 U	0.08 U	0.08 U	0.086 U	0.086 U	NA	0.08 U
AROCLOR-1262	NA	0.086 U	0.08 U	0.08 U	0.08 U	0.08 U	0.086 U	0.086 U	NA	0.08 U
AROCLOR-1268	NA	0.086 U	0.08 U	0.08 U	0.08 U	0.08 U	0.086 U	0.086 U	NA	0.08 U
TOTAL AROCLOR	NA	0 U	NA	NA	0.41	NA	NA	NA	NA	0.9
SEMIVOLATILES (UG/L)										
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS1-TT-MW309D				BPS1-TT-MW309I					BPS1-TT-MW309S
SAMPLE ID	BPS1-TT-MW309D-20120111	BPS1-TT-MW309D-20121113	BPS1-TT-MW309D-20130221	BPS1-TT-MW309I-20120111	BPS1-TT-MW309I-20121112	BPS1-TT-MW309I-20130220	BPS1-TT-MW309S-20120110	BPS1-TT-MW309S-20120110	BPS1-TT-MW309S-20120110	BPS1-TT-MW309S-20121112
SAMPLE DATE	20120111	20121113	20130221	20120111	20121112	20130220	20120110	20120110	20120110	20121112
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ATRAZINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZALDEHYDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	BPS1-TT-MW309D				BPS1-TT-MW309I					BPS1-TT-MW309S
SAMPLE ID	BPS1-TT-MW309D-20120111	BPS1-TT-MW309D-20121113	BPS1-TT-MW309D-20130221	BPS1-TT-MW309I-20120111	BPS1-TT-MW309I-20121112	BPS1-TT-MW309I-20130220	BPS1-TT-MW309S-20120110	BPS1-TT-MW309S-20120110	BPS1-TT-MW309S-20120110	BPS1-TT-MW309S-20121112
SAMPLE DATE	20120111	20121113	20130221	20120111	20121112	20130220	20120110	20120110	20120110	20121112
SAMPLE CODE	DUP	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
VOLATILES (UG/L)										
1,1,1-TRICHLOROETHANE	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
1,1,2,2-TETRACHLOROETHANE	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
1,1,2-TRICHLOROETHANE	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	0.45 J	0.26 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
1,1-DICHLOROETHANE	NA	0.23 J	0.18 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
1,1-DICHLOROETHENE	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
1,2,3-TRICHLOROBENZENE	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
1,2,4-TRICHLOROBENZENE	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
1,2-DIBROMO-3-CHLOROPROPANE	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
1,2-DIBROMOETHANE	NA	0.5 U	0.5 U	0.25 U	0.5 U	0.5 U	0.25 U	0.25 U	NA	0.5 U
1,2-DICHLOROBENZENE	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
1,2-DICHLOROETHANE	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
1,2-DICHLOROPROPANE	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
1,3-DICHLOROBENZENE	NA	0.5 U	0.5 U	0.25 U	0.5 U	0.5 U	0.25 U	0.25 U	NA	0.5 U
1,4-DICHLOROBENZENE	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
1,4-DIOXANE	NA	25 UR	25 UR	25 UR	25 UR	25 UR	25 UR	25 UR	NA	25 UR
2-BUTANONE	NA	1 U	1 U	0.5 U	1 U	1 UJ	0.5 U	0.5 U	NA	1 U
2-HEXANONE	NA	1 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	NA	1 U
4-METHYL-2-PENTANONE	NA	1 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	NA	1 U
ACETONE	NA	2 U	2 U	1 U	2 U	2 U	1 U	1 U	NA	2 U
BENZENE	NA	0.2 U	0.2 U	0.5 U	0.2 U	0.2 U	0.5 U	0.5 U	NA	0.2 U
BROMOCHLOROMETHANE	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
BROMODICHLOROMETHANE	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
BROMOFORM	NA	1 U	1 U	0.25 U	1 U	1 U	0.25 U	0.25 U	NA	1 U
BROMOMETHANE	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
CARBON DISULFIDE	NA	1 U	1 U	0.5 U	1 U	1 UJ	0.5 U	0.5 U	NA	1 U
CARBON TETRACHLORIDE	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
CHLOROBENZENE	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
CHLORODIBROMOMETHANE	NA	0.5 U	0.5 U	0.25 U	0.5 U	0.5 U	0.25 U	0.25 U	NA	0.5 U
CHLOROETHANE	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
CHLOROFORM	NA	0.2 U	0.2 U	0.5 U	0.2 U	0.2 U	0.5 U	0.5 U	NA	0.2 U
CHLOROMETHANE	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
CIS-1,2-DICHLOROETHENE	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
CIS-1,3-DICHLOROPROPENE	NA	0.5 U	0.5 U	0.1 U	0.5 U	0.5 U	0.1 U	0.1 U	NA	0.5 U
CYCLOHEXANE	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
DICHLORODIFLUOROMETHANE	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
ETHYLBENZENE	NA	0.5 UJ	0.5 U	0.25 U	0.5 UJ	0.5 U	0.25 U	0.25 U	NA	0.5 UJ
ISOPROPYLBENZENE	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
M+P-XYLENES	NA	1 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	NA	1 U
METHYL ACETATE	NA	1 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	NA	1 U
METHYL CYCLOHEXANE	NA	1 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	NA	1 U
METHYL TERT-BUTYL ETHER	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
METHYLENE CHLORIDE	NA	1 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	NA	1 U
O-XYLENE	NA	0.2 U	0.2 U	0.25 U	0.2 U	0.2 U	0.25 U	0.25 U	NA	0.2 U
STYRENE	NA	0.5 U	0.5 U	0.1 U	0.5 U	0.5 U	0.1 U	0.1 U	NA	0.5 U
TETRACHLOROETHENE	NA	1.1	1.1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
TOLUENE	NA	0.5 U	0.5 U	0.1 U	0.5 U	0.5 U	0.1 U	0.1 U	NA	0.5 U
TOTAL VOCS	NA	3.38	NA	NA	0.23	NA	NA	NA	NA	0.83
TRANS-1,2-DICHLOROETHENE	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
TRANS-1,3-DICHLOROPROPENE	NA	0.5 U	0.5 U	0.25 U	0.5 U	0.5 U	0.25 U	0.25 U	NA	0.5 U
TRICHLOROETHENE	NA	1.6	1.4	0.5 U	0.23 J	0.21 J	0.61 J	0.61 J	NA	0.83 J
TRICHLOROFLUOROMETHANE	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
VINYL CHLORIDE	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION				BPS1-TT-MW310S				BPS1-TT-MW311I		BPS1-TT-
SAMPLE ID	BPS1-TT-MW309S-	BPS1-TT-MW309S-	BPS1-TT-MW309S-	BPS1-TT-MW310S-	BPS1-TT-MW310S-	BPS1-TT-MW310S-	BPS1-TT-MW310S-	BPS1-TT-MW311I-	BPS1-TT-MW311I-	BPS1-TT-MW311S-
SAMPLE DATE	20130220	20130220	20130220	20121114	20121114	20121114	20130221	20121115	20130219	20121115
SAMPLE CODE	ORIG	AVG	DUP	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
DISSOLVED METALS (UG/L)										
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.9
IRON	NA	NA	NA	NA	NA	NA	NA	NA	NA	26
METALS (UG/L)										
ALUMINUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	5.3	5.55	5.8	11	10.2	9.4	16	5.8	0.73 J	14
COBALT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	30 U	30 U	30 U	2900	3250	3600	220	130	78	1800
LEAD	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/										
HEXAVALENT CHROMIUM	NA	NA	NA	1 UJ	0.8 J	0.8 J	NA	1 U	NA	2.6
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/L)										
AROCLOR-1016	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1221	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1232	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1242	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1248	0.82	0.81	0.8	0.08 U	0.08 U	0.08 U	0.08 U	0.28	0.32 J	0.17 J
AROCLOR-1254	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1260	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1262	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
AROCLOR-1268	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
TOTAL AROCLOR	NA	NA	NA	0 U	0 U	0 U	0 U	0.28	0.32	0.17
SEMIVOLATILES (UG/L)										
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

LOCATION				BPS1-TT-MW310S				BPS1-TT-MW311I		BPS1-TT-
SAMPLE ID	BPS1-TT-MW309S-	BPS1-TT-MW309S-	BPS1-TT-MW309S-	BPS1-TT-MW310S-	BPS1-TT-MW310S-	BPS1-TT-MW310S-	BPS1-TT-MW310S-	BPS1-TT-MW311I-	BPS1-TT-MW311I-	BPS1-TT-MW311S-
SAMPLE DATE	20130220	20130220	20130220	20121114	20121114	20121114	20130221	20121115	20130219	20121115
SAMPLE CODE	ORIG	AVG	DUP	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ATRAZINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZALDEHYDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION				BPS1-TT-MW310S				BPS1-TT-MW311I		BPS1-TT-
SAMPLE ID	BPS1-TT-MW309S-	BPS1-TT-MW309S-	BPS1-TT-MW309S-	BPS1-TT-MW310S-	BPS1-TT-MW310S-	BPS1-TT-MW310S-	BPS1-TT-MW310S-	BPS1-TT-MW311I-	BPS1-TT-MW311I-	BPS1-TT-MW311S-
SAMPLE DATE	20130220	20130220	20130220	20121114	20121114	20121114	20130221	20121115	20130219	20121115
SAMPLE CODE	ORIG	AVG	DUP	ORIG	AVG	DUP	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
VOLATILES (UG/L)										
1,1,1-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-TETRACHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-TRICHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-TRICHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DIBROMO-3-CHLOROPROPANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DIBROMOETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROPROPANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-DICHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-DICHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-DIOXANE	25 UR	25 R	25 UR	25 UR	25 R	25 UR	25 UR	25 UR	25 UR	25 UR
2-BUTANONE	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U
2-HEXANONE	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4-METHYL-2-PENTANONE	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
ACETONE	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
BENZENE	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
BROMOCHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMODICHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMOFORM	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
BROMOMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CARBON DISULFIDE	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U
CARBON TETRACHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLORODIBROMOMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROFORM	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.43 J	0.52 J	0.2 U
CHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CIS-1,2-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CIS-1,3-DICHLOROPROPENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CYCLOHEXANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
DICHLORODIFLUOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ETHYLBENZENE	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ
ISOPROPYLBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
M+P-XYLENES	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
METHYL ACETATE	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
METHYL CYCLOHEXANE	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
METHYL TERT-BUTYL ETHER	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5.4	4.3	0.5 U
METHYLENE CHLORIDE	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
O-XYLENE	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
STYRENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TETRACHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TOLUENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TOTAL VOCS	NA	NA	NA	0 U	0 U	0 U	NA	6.29	NA	0 U
TRANS-1,2-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRANS-1,3-DICHLOROPROPENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRICHLOROETHENE	0.52 J	0.545	0.57 J	0.5 U	0.5 U	0.5 U	0.5 U	0.46 J	0.73 J	0.5 U
TRICHLOROFLUOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	MW311S	BPS1-TT-MW312I		BPS1-TT-MW312S		BPS1-TT-MW313S		BPS1-TT-
SAMPLE ID	BPS1-TT-MW311S-20130219	BPS1-TT-MW312I-20121109	BPS1-TT-MW312I-20130220	BPS1-TT-MW312S-20121109	BPS1-TT-MW312S-20130220	BPS1-TT-MW313S-20121114	BPS1-TT-MW313S-20130221	BPS1-TT-MW314I-20121114
SAMPLE DATE	20130219	20121109	20130220	20121109	20130220	20121114	20130221	20121114
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
DISSOLVED METALS (UG/L)								
CHROMIUM	NA	NA	6.5	NA	NA	NA	NA	NA
IRON	NA	NA	17 U	NA	NA	NA	NA	NA
METALS (UG/L)								
ALUMINUM	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	18	14	12	21	11	9.7	1.8	33
COBALT	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA	NA
IRON	180	120	1200	3000	420	310	180	85
LEAD	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/								
HEXAVALENT CHROMIUM	NA	5.7	NA	1 U	1 U	NA	NA	22.9 J
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/L)								
AROCLOR-1016	0.08 U	0.08 U	0.089 U	0.08 U	0.094 U	0.08 U	0.08 U	0.08 U
AROCLOR-1221	0.08 U	0.08 U	0.089 U	0.08 U	0.094 U	0.08 U	0.08 U	0.08 U
AROCLOR-1232	0.08 U	0.08 U	0.089 U	0.08 U	0.094 U	0.08 U	0.08 U	0.08 U
AROCLOR-1242	0.08 U	0.08 U	0.089 U	0.08 U	0.094 U	0.08 U	0.08 U	0.08 U
AROCLOR-1248	0.19 J	0.14 J	0.16 J	0.08 U	0.094 U	0.08 U	0.08 U	0.29
AROCLOR-1254	0.08 U	0.08 U	0.089 U	0.08 U	0.094 U	0.08 U	0.08 U	0.08 U
AROCLOR-1260	0.08 U	0.08 U	0.089 U	0.08 U	0.094 U	0.08 U	0.08 U	0.08 U
AROCLOR-1262	0.08 U	0.08 U	0.089 U	0.08 U	0.094 U	0.08 U	0.08 U	0.08 U
AROCLOR-1268	0.08 U	0.08 U	0.089 U	0.08 U	0.094 U	0.08 U	0.08 U	0.08 U
TOTAL AROCLOR	0.19	0.14	0.16	0 U	0 U	0 U	0 U	0.29
SEMIVOLATILES (UG/L)								
1,1-BIPHENYL	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	MW311S	BPS1-TT-MW312I		BPS1-TT-MW312S		BPS1-TT-MW313S		BPS1-TT-
SAMPLE ID	BPS1-TT-MW311S-20130219	BPS1-TT-MW312I-20121109	BPS1-TT-MW312I-20130220	BPS1-TT-MW312S-20121109	BPS1-TT-MW312S-20130220	BPS1-TT-MW313S-20121114	BPS1-TT-MW313S-20130221	BPS1-TT-MW314I-20121114
SAMPLE DATE	20130219	20121109	20130220	20121109	20130220	20121114	20130221	20121114
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA	NA
ACETOPHENONE	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA
ATRAZINE	NA	NA	NA	NA	NA	NA	NA	NA
BENZALDEHYDE	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA	NA

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	MW311S	BPS1-TT-MW312I		BPS1-TT-MW312S		BPS1-TT-MW313S		BPS1-TT-
SAMPLE ID	BPS1-TT-MW311S-20130219	BPS1-TT-MW312I-20121109	BPS1-TT-MW312I-20130220	BPS1-TT-MW312S-20121109	BPS1-TT-MW312S-20130220	BPS1-TT-MW313S-20121114	BPS1-TT-MW313S-20130221	BPS1-TT-MW314I-20121114
SAMPLE DATE	20130219	20121109	20130220	20121109	20130220	20121114	20130221	20121114
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
VOLATILES (UG/L)								
1,1,1-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-TETRACHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-TRICHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-TRICHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DIBROMO-3-CHLOROPROPANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DIBROMOETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROPROPANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-DICHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-DICHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-DIOXANE	25 UR	25 UR	25 UR	25 UR	25 UR	25 UR	25 UR	25 UR
2-BUTANONE	1 UJ	1 U	1 UJ	1 U	1 UJ	1 U	1 U	1 U
2-HEXANONE	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4-METHYL-2-PENTANONE	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
ACETONE	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
BENZENE	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
BROMOCHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMODICHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMOFORM	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
BROMOMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CARBON DISULFIDE	1 UJ	1 U	1 UJ	1 U	1 UJ	1 U	1 U	1 U
CARBON TETRACHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLORODIBROMOMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROFORM	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
CHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CIS-1,2-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CIS-1,3-DICHLOROPROPENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CYCLOHEXANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
DICHLORODIFLUOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ETHYLBENZENE	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ
ISOPROPYLBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
M+P-XYLENES	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
METHYL ACETATE	1.1 U	0.99 U	1 U	0.96 U	1 U	1 U	1 U	1 U
METHYL CYCLOHEXANE	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
METHYL TERT-BUTYL ETHER	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
METHYLENE CHLORIDE	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
O-XYLENE	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
STYRENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TETRACHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TOLUENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TOTAL VOCS	NA	0 U	NA	0 U	NA	0 U	NA	0 U
TRANS-1,2-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRANS-1,3-DICHLOROPROPENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRICHLOROFLUOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	MW314I	BPS1-TT-MW314S		BPTTAOC22MW06				BPTTAOC22MW10		
SAMPLE ID	BPS1-TT-MW314I-20130219	BPS1-TT-MW314S-20121113	BPS1-TT-MW314S-20130219	TTAOC22-20110329	TTAOC22-MW06-20121115	TTAOC22-MW06-20130218	TTAOC22-20110330	TTAOC22-20110330	TTAOC22-20110330	TTAOC22-MW10-20121115
SAMPLE DATE	20130219	20121113	20130219	20110329	20121115	20130218	20110330	20110330	20110330	20121115
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
DISSOLVED METALS (UG/L)										
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METALS (UG/L)										
ALUMINUM	NA	NA	NA	1060	NA	NA	135	142.5	150	NA
ANTIMONY	NA	NA	NA	12.5 U	NA	NA	12.5 U	12.5 U	12.5 U	NA
ARSENIC	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
BARIUM	NA	NA	NA	77.1	NA	NA	40.8 J	39.2	37.6 J	NA
BERYLLIUM	NA	NA	NA	0.716 J	NA	NA	1.5 U	1.5 U	1.5 U	NA
CADMIUM	NA	NA	NA	0.856 J	NA	NA	1.5 U	1.5 U	1.5 U	NA
CALCIUM	NA	NA	NA	38900	NA	NA	11300	10750	10200	NA
CHROMIUM	37	4.2	4.7	6.78 J	2.4	1.9	25.4 J	30.25	35.1 J	160
COBALT	NA	NA	NA	49.5	NA	NA	7.5 U	7.5 U	7.5 U	NA
COPPER	NA	NA	NA	9.54 J	NA	NA	5 U	5 U	5 U	NA
IRON	650	350	450	8880	28000	38000	1440	1275	1110	1600
LEAD	NA	NA	NA	3 U	NA	NA	3 U	3 U	3 U	NA
MAGNESIUM	NA	NA	NA	4850	NA	NA	2170	2095	2020	NA
MANGANESE	NA	NA	NA	2570	NA	NA	7.85 J	8.49	9.13 J	NA
MERCURY	NA	NA	NA	0.61	NA	NA	0.1 U	0.1 U	0.1 U	NA
NICKEL	NA	NA	NA	14.8 J	NA	NA	5.89 J	8.345	10.8 J	NA
POTASSIUM	NA	NA	NA	3370	NA	NA	1200	1135	1070	NA
SELENIUM	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
SILVER	NA	NA	NA	2.5 U	NA	NA	2.5 U	2.5 U	2.5 U	NA
SODIUM	NA	NA	NA	9850	NA	NA	25700	24750	23800	NA
THALLIUM	NA	NA	NA	10 U	NA	NA	10 U	10 U	10 U	NA
VANADIUM	NA	NA	NA	10 U	NA	NA	10 U	10 U	10 U	NA
ZINC	NA	NA	NA	34.2	NA	NA	10 U	10 U	10 U	NA
MISCELLANEOUS PARAMETERS (UG/										
HEXAVALENT CHROMIUM	21.9	NA	NA	NA	1 U	1 U	NA	NA	NA	158
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBS (UG/L)										
AROCLOR-1016	0.08 U	0.08 U	0.08 U	NA	0.08 U	0.08 U	NA	NA	NA	0.094 U
AROCLOR-1221	0.08 U	0.08 U	0.08 U	NA	0.08 U	0.08 U	NA	NA	NA	0.094 U
AROCLOR-1232	0.08 U	0.08 U	0.08 U	NA	0.08 U	0.08 U	NA	NA	NA	0.094 U
AROCLOR-1242	0.08 U	0.08 U	0.08 U	NA	0.08 U	0.08 U	NA	NA	NA	0.094 U
AROCLOR-1248	0.27	0.37	0.37	NA	0.041 J	0.08 U	NA	NA	NA	0.48
AROCLOR-1254	0.08 U	0.08 U	0.08 U	NA	0.08 U	0.08 U	NA	NA	NA	0.094 U
AROCLOR-1260	0.08 U	0.08 U	0.08 U	NA	0.08 U	0.08 U	NA	NA	NA	0.094 U
AROCLOR-1262	0.08 U	0.08 U	0.08 U	NA	0.08 U	0.08 U	NA	NA	NA	0.094 U
AROCLOR-1268	0.08 U	0.08 U	0.08 U	NA	0.08 U	0.08 U	NA	NA	NA	0.094 U
TOTAL AROCLOR	0.27	0.37	0.37	NA	0.041	NA	NA	NA	NA	0.48
SEMIVOLATILES (UG/L)										
1,1-BIPHENYL	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
2,4-DICHLOROPHENOL	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
2,4-DIMETHYLPHENOL	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
2,4-DINITROPHENOL	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
2,4-DINITROTOLUENE	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
2,6-DINITROTOLUENE	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
2-CHLORONAPHTHALENE	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	MW314I	BPS1-TT-MW314S		BPTTAOC22MW06			BPTTAOC22MW10			
SAMPLE ID	BPS1-TT-MW314I-20130219	BPS1-TT-MW314S-20121113	BPS1-TT-MW314S-20130219	TTAOC22-20110329	TTAOC22-MW06-20121115	TTAOC22-MW06-20130218	TTAOC22-20110330	TTAOC22-20110330	TTAOC22-20110330	TTAOC22-MW10-20121115
SAMPLE DATE	20130219	20121113	20130219	20110329	20121115	20130218	20110330	20110330	20110330	20121115
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
2-CHLOROPHENOL	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
2-METHYLNAPHTHALENE	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
2-METHYLPHENOL	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
2-NITROANILINE	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
2-NITROPHENOL	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
3&4-METHYLPHENOL	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
3-NITROANILINE	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
4-BROMOPHENYL PHENYL ETHER	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
4-CHLOROANILINE	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
4-CHLOROPHENYL PHENYL ETHER	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
4-NITROANILINE	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
4-NITROPHENOL	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
ACENAPHTHENE	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
ACENAPHTHYLENE	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
ACETOPHENONE	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
ANTHRACENE	NA	NA	NA	1.7 J	NA	NA	5 U	5 U	5 U	NA
ATRAZINE	NA	NA	NA	5 UJ	NA	NA	5 UJ	5 U	5 UJ	NA
BENZALDEHYDE	NA	NA	NA	5 UR	NA	NA	5 UR	5 R	5 UR	NA
BENZO(A)ANTHRACENE	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
BENZO(A)PYRENE	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
BUTYL BENZYL PHTHALATE	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
CAPROLACTAM	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
CARBAZOLE	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
CHRYSENE	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
DIBENZO(A,H)ANTHRACENE	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
DIBENZOFURAN	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
DIETHYL PHTHALATE	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
DIMETHYL PHTHALATE	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
DI-N-BUTYL PHTHALATE	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
DI-N-OCTYL PHTHALATE	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
FLUORANTHENE	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
FLUORENE	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
HEXACHLOROBENZENE	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
HEXACHLOROBUTADIENE	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
HEXACHLOROETHANE	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
ISOPHORONE	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
NAPHTHALENE	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
NITROBENZENE	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
N-NITROSODIPHENYLAMINE	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
PENTACHLOROPHENOL	NA	NA	NA	8.5 J	NA	NA	5 U	5 U	5 U	NA
PHENANTHRENE	NA	NA	NA	1.8 J	NA	NA	5 U	5 U	5 U	NA
PHENOL	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA
PYRENE	NA	NA	NA	5 U	NA	NA	5 U	5 U	5 U	NA

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION	MW314I	BPS1-TT-MW314S		BPTTAOC22MW06					BPTTAOC22MW10	
SAMPLE ID	BPS1-TT-MW314I-20130219	BPS1-TT-MW314S-20121113	BPS1-TT-MW314S-20130219	TTAOC22-20110329	TTAOC22-MW06-20121115	TTAOC22-MW06-20130218	TTAOC22-20110330	TTAOC22-20110330	TTAOC22-20110330	TTAOC22-MW10-20121115
SAMPLE DATE	20130219	20121113	20130219	20110329	20121115	20130218	20110330	20110330	20110330	20121115
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	ORIG	AVG	DUP	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999	-9999
VOLATILES (UG/L)										
1,1,1-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.16 J	0.5 U	0.5 U	0.5 U	0.2 J
1,1,2,2-TETRACHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-TRICHLOROBENZENE	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA	NA	NA	0.5 U
1,2,4-TRICHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DIBROMO-3-CHLOROPROPANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DIBROMOETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROPROPANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-DICHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-DICHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-DIOXANE	25 UR	25 UR	25 UR	NA	25 UR	25 UR	NA	NA	NA	25 UR
2-BUTANONE	1 UJ	1 U	1 UJ	2.5 U	1 U	1 UJ	2.5 U	2.5 U	2.5 U	1 U
2-HEXANONE	1 U	1 U	1 U	2.5 U	1 U	1 U	2.5 U	2.5 U	2.5 U	1 U
4-METHYL-2-PENTANONE	1 U	1 U	1 U	2.5 U	1 U	1 U	2.5 U	2.5 U	2.5 U	1 U
ACETONE	2 U	2 U	2 U	2.5 U	2 U	3.8 U	2.5 U	2.5 U	2.5 U	2 U
BENZENE	0.2 U	0.2 U	0.2 U	0.5 U	0.39 J	0.24 J	0.5 U	0.5 U	0.5 U	0.2 U
BROMOCHLOROMETHANE	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA	NA	NA	0.5 U
BROMODICHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMOFORM	1 U	1 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U
BROMOMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CARBON DISULFIDE	1 UJ	1 U	1 UJ	0.5 U	1 U	1 UJ	0.5 U	0.5 U	0.5 U	1 U
CARBON TETRACHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLORODIBROMOMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROFORM	0.2 U	0.2 U	0.2 U	0.5 U	0.2 U	0.2 U	0.5 U	0.5 U	0.5 U	0.38 J
CHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CIS-1,2-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CIS-1,3-DICHLOROPROPENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CYCLOHEXANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
DICHLORODIFLUOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ETHYLBENZENE	0.5 U	0.5 UJ	0.5 U	0.5 U	0.7 J	0.26 J	0.5 U	0.5 U	0.5 U	0.5 UJ
ISOPROPYLBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	1.6	1.9	0.5 U	0.5 U	0.5 U	0.5 U
M+P-XYLENES	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
METHYL ACETATE	1 U	1 U	1 U	0.5 U	1 U	1.1 U	0.5 U	0.5 U	0.5 U	1 U
METHYL CYCLOHEXANE	1 U	1 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U
METHYL TERT-BUTYL ETHER	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
METHYLENE CHLORIDE	1 U	1 U	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U
O-XYLENE	0.2 U	0.2 U	0.2 U	0.5 U	0.2 U	0.2 U	0.5 U	0.5 U	0.5 U	0.2 U
STYRENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TETRACHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.2	1.25	1.3	0.83 J
TOLUENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TOTAL VOCS	NA	0 U	NA	NA	3.02	NA	NA	NA	NA	87.41
TRANS-1,2-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRANS-1,3-DICHLOROPROPENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.33 J	0.36 J	13	12.5	12	86
TRICHLOROFLUOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION		BPTTAOC22MW11			BPS13003	
SAMPLE ID	TTAOC22-MW10-20130218	TTAOC22-20110328	TTAOC22-MW11-20121116	TTAOC22-MW11-20130218	BPS1-3003-GW-20090518	BPS1-3003-GW-20090519
SAMPLE DATE						
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	90	130
BOTTOM DEPTH	-9999	-9999	-9999	-9999	91	131
DISSOLVED METALS (UG/L)						
CHROMIUM	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA
METALS (UG/L)						
ALUMINUM	NA	25 U	NA	NA	NA	NA
ANTIMONY	NA	12.5 U	NA	NA	NA	NA
ARSENIC	NA	5 U	NA	NA	NA	NA
BARIUM	NA	27 J	NA	NA	NA	NA
BERYLLIUM	NA	1.5 U	NA	NA	NA	NA
CADMIUM	NA	12.2	NA	NA	NA	NA
CALCIUM	NA	12200	NA	NA	NA	NA
CHROMIUM	110 J	15.9 J	48	39	NA	NA
COBALT	NA	7.5 U	NA	NA	NA	NA
COPPER	NA	5.77 J	NA	NA	NA	NA
IRON	2600	74.6	7000	680	NA	NA
LEAD	NA	3 U	NA	NA	NA	NA
MAGNESIUM	NA	1930	NA	NA	NA	NA
MANGANESE	NA	5 U	NA	NA	NA	NA
MERCURY	NA	0.1 U	NA	NA	NA	NA
NICKEL	NA	5.11 J	NA	NA	NA	NA
POTASSIUM	NA	1040	NA	NA	NA	NA
SELENIUM	NA	5 U	NA	NA	NA	NA
SILVER	NA	2.5 U	NA	NA	NA	NA
SODIUM	NA	11300	NA	NA	NA	NA
THALLIUM	NA	10 U	NA	NA	NA	NA
VANADIUM	NA	10 U	NA	NA	NA	NA
ZINC	NA	18.8 J	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/						
HEXAVALENT CHROMIUM	111 J	NA	18.3 J	12	NA	NA
TOTAL ORGANIC CARBON	NA	NA	NA	NA	NA	NA
PCBS (UG/L)						
AROCLOR-1016	0.08 U	NA	0.08 U	0.089 U	NA	NA
AROCLOR-1221	0.08 U	NA	0.08 U	0.089 U	NA	NA
AROCLOR-1232	0.08 U	NA	0.08 U	0.089 U	NA	NA
AROCLOR-1242	0.08 U	NA	0.08 U	0.089 U	NA	NA
AROCLOR-1248	0.24 J	NA	0.24 U	0.089 U	NA	NA
AROCLOR-1254	0.08 U	NA	0.08 U	0.089 U	NA	NA
AROCLOR-1260	0.08 U	NA	0.064 U	0.089 U	NA	NA
AROCLOR-1262	0.08 U	NA	0.08 U	0.089 U	NA	NA
AROCLOR-1268	0.08 U	NA	0.08 U	0.089 U	NA	NA
TOTAL AROCLOR	NA	NA	0 U	NA	NA	NA
SEMIVOLATILES (UG/L)						
1,1-BIPHENYL	NA	5 U	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	5 U	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	5 U	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	5 U	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	5 U	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NA	5 U	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	5 U	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	5 U	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	5 U	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	5 U	NA	NA	NA	NA

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION		BPTTAOC22MW11			BPS13003	
SAMPLE ID	TTAOC22-MW10-	TTAOC22-	TTAOC22-MW11-	TTAOC22-MW11-	BPS1-3003-GW-	BPS1-3003-GW-
SAMPLE DATE	20130218	20110328	20121116	20130218	20090518	20090519
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	90	130
BOTTOM DEPTH	-9999	-9999	-9999	-9999	91	131
2-CHLOROPHENOL	NA	5 U	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	5 U	NA	NA	NA	NA
2-METHYLPHENOL	NA	5 U	NA	NA	NA	NA
2-NITROANILINE	NA	5 U	NA	NA	NA	NA
2-NITROPHENOL	NA	5 U	NA	NA	NA	NA
3&4-METHYLPHENOL	NA	5 U	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	5 U	NA	NA	NA	NA
3-NITROANILINE	NA	5 U	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	5 U	NA	NA	NA	NA
4-BROMOPHENYL PHENYL ETHER	NA	5 U	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	5 U	NA	NA	NA	NA
4-CHLOROANILINE	NA	5 U	NA	NA	NA	NA
4-CHLOROPHENYL PHENYL ETHER	NA	5 U	NA	NA	NA	NA
4-NITROANILINE	NA	5 U	NA	NA	NA	NA
4-NITROPHENOL	NA	5 U	NA	NA	NA	NA
ACENAPHTHENE	NA	5 U	NA	NA	NA	NA
ACENAPHTHYLENE	NA	5 U	NA	NA	NA	NA
ACETOPHENONE	NA	5 U	NA	NA	NA	NA
ANTHRACENE	NA	5 U	NA	NA	NA	NA
ATRAZINE	NA	5 UJ	NA	NA	NA	NA
BENZALDEHYDE	NA	5 UR	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	5 U	NA	NA	NA	NA
BENZO(A)PYRENE	NA	5 U	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	5 U	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	5 U	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	5 U	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	5 U	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	NA	5 U	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	5 U	NA	NA	NA	NA
BUTYL BENZYL PHTHALATE	NA	5 U	NA	NA	NA	NA
CAPROLACTAM	NA	5 U	NA	NA	NA	NA
CARBAZOLE	NA	5 U	NA	NA	NA	NA
CHRYSENE	NA	5 U	NA	NA	NA	NA
DIBENZO(A,H)ANTHRACENE	NA	5 U	NA	NA	NA	NA
DIBENZOFURAN	NA	5 U	NA	NA	NA	NA
DIETHYL PHTHALATE	NA	5 U	NA	NA	NA	NA
DIMETHYL PHTHALATE	NA	5 U	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	NA	5 U	NA	NA	NA	NA
DI-N-OCTYL PHTHALATE	NA	5 U	NA	NA	NA	NA
FLUORANTHENE	NA	5 U	NA	NA	NA	NA
FLUORENE	NA	5 U	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	5 U	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	5 U	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	5 U	NA	NA	NA	NA
HEXACHLOROETHANE	NA	5 U	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	5 U	NA	NA	NA	NA
ISOPHORONE	NA	5 U	NA	NA	NA	NA
NAPHTHALENE	NA	5 U	NA	NA	NA	NA
NITROBENZENE	NA	5 U	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	5 U	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE	NA	5 U	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	5 U	NA	NA	NA	NA
PHENANTHRENE	NA	5 U	NA	NA	NA	NA
PHENOL	NA	5 U	NA	NA	NA	NA
PYRENE	NA	5 U	NA	NA	NA	NA

GROUNDWATER, SURFACE WATER AND GROUNDWATER GRAB ANALYTICAL DATA
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

LOCATION			BPTTAOC22MW11		BPS13003	
SAMPLE ID	TTAOC22-MW10-20130218	TTAOC22-20110328	TTAOC22-MW11-20121116	TTAOC22-MW11-20130218	BPS1-3003-GW-20090518	BPS1-3003-GW-20090519
SAMPLE DATE						
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999	90	130
BOTTOM DEPTH	-9999	-9999	-9999	-9999	91	131
VOLATILES (UG/L)						
1,1,1-TRICHLOROETHANE	0.21 J	0.5 U	0.5 U	0.5 U	5 U	5 U
1,1,2,2-TETRACHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U
1,1,2-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U
1,1-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U
1,1-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U
1,2,3-TRICHLOROBENZENE	0.5 U	NA	0.5 U	0.5 U	NA	NA
1,2,4-TRICHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U
1,2-DIBROMO-3-CHLOROPROPANE	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U
1,2-DIBROMOETHANE	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U
1,2-DICHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U
1,2-DICHLOROPROPANE	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U
1,3-DICHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U
1,4-DICHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U
1,4-DIOXANE	25 UR	NA	25 UR	25 UR	NA	NA
2-BUTANONE	1 UJ	2.5 U	1 U	1 UJ	5 UR	5 UR
2-HEXANONE	1 U	2.5 U	1 U	1 U	5 U	5 U
4-METHYL-2-PENTANONE	1 U	2.5 U	1 U	1 U	5 U	5 U
ACETONE	2 U	2.5 U	2 U	2 U	5 UR	5 UR
BENZENE	0.2 U	0.5 U	0.2 U	0.2 U	5 U	5 U
BROMOCHLOROMETHANE	0.5 U	NA	0.5 U	0.5 U	NA	NA
BROMODICHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U
BROMOFORM	1 U	0.5 U	1 U	1 U	5 U	5 U
BROMOMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U
CARBON DISULFIDE	1 UJ	0.5 U	1 U	1 UJ	5 U	5 U
CARBON TETRACHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U
CHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U
CHLORODIBROMOMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U
CHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U
CHLOROFORM	0.29 J	0.5 U	0.2 U	0.2 U	5 U	5 U
CHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U
CIS-1,2-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U
CIS-1,3-DICHLOROPROPENE	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U
CYCLOHEXANE	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U
DICHLORODIFLUOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U
ETHYLBENZENE	0.5 U	0.5 U	0.5 UJ	0.5 U	5 U	5 U
ISOPROPYLBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U
M+P-XYLENES	1 U	1 U	1 U	1 U	NA	NA
METHYL ACETATE	1 U	0.5 U	1 U	1 U	5 U	5 U
METHYL CYCLOHEXANE	1 U	0.5 U	1 U	1 U	5 U	5 U
METHYL TERT-BUTYL ETHER	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U
METHYLENE CHLORIDE	1 U	0.5 U	1 U	1 U	5 U	5 U
O-XYLENE	0.2 U	0.5 U	0.2 U	0.2 U	NA	NA
STYRENE	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U
TETRACHLOROETHENE	1	0.5 U	0.5 U	0.23 J	5 U	5 U
TOLUENE	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U
TOTAL VOCS	NA	NA	0.94	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U
TRANS-1,3-DICHLOROPROPENE	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U
TRICHLOROETHENE	66	0.97 J	0.94 J	0.64 J	5 U	5 U
TRICHLOROFLUOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U
VINYL CHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U

E.3 SOIL VAPOR EXTRACTION CONTAINMENT SYSTEM VAPOR ANALYTICAL RESULTS OF SVE WELLS FIRST QUARTER 2013

APPENDIX E.3
SOIL VAPOR EXTRACTION CONTAINMENT SYSTEM
VAPOR ANALYTICAL DATA OF SVE WELLS FIRST QUARTER 2013
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

Sample ID	Residential Regional Screening Levels[1] (µg/m^3)		NYSDOH Subslab Screening Value [(2)]	SVE 101I	SVE 101D	SVE 102I	SVE 102D	SVE 103I	SVE 103D	SVE 104I	SVE 104D	SVE 105I
Sample Date	**Carcinogenic**	**Noncarcinogenic**		**1/15/2013**	**1/15/2013**	**1/15/2013**	**1/15/2013**	**1/15/2013**	**1/15/2013**	**1/15/2013**	**1/15/2013**	**1/15/2013**
Analysis by TO-15 (µg/m^3)												
1,1,1-Trichloroethane [(1)]		5,200	1,000	**3400**	ND	ND	ND	ND	ND	ND	820	22
1,1-Dichloroethane	1.5			**62**	1.1 J	ND	ND	ND	ND	ND	**160**	**12**
1,2,4-Trimethylbenzene		7		ND	ND	0.96 J	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.094	7.3		**12 J**	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	0.22	830		ND	**0.34 J**	ND	ND	ND	ND	**0.48 J**	ND	ND
2,2,4-Trimethylpentane				ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Propanol		7,300		ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone		32,000		ND	6.9 J	8.7 J	4.6 J	6.1 J	8.0 J	5.9 J	ND	6.2 J
Benzene	0.31	31		ND	**0.41 J**	**0.45 J**	**0.55 J**	ND	**0.76 J**	**0.53 J**	ND	ND
Bromomethane		5.2		ND	1.9 J	ND	2.0 J	ND	ND	1.9 J	ND	ND
Carbon Tetrachloride	0.41	100	250	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene [(1)]				14 J	ND	ND	ND	2.4 J	ND	2.7 J	3700	13
Ethanol				ND	2.7 J	3.6 J	5.5 J	2.6 J	3.8 J	ND	ND	ND
Freon 11		730		ND	2.2 J	1.4 J	1.5 J	1.4 J	1.1 J	1.2 J	ND	1.6 J
Freon 113		31,000		ND	3.7 J	ND	ND	ND	ND	3.6 J	1500	8.1
Freon 12		100		ND	2.5 J	2.4 J	2.6 J	2.5 J	2.7 J	2.6 J	3.2 J	3.1 J
Heptane				ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexane		730		ND	ND	ND	ND	ND	ND	ND	ND	ND
m,p-Xylene		100		ND	ND	1.1 J	ND	ND	ND	3.1 J	ND	ND
Methyl-tert-Butyl-Ether	9.4	3,100		ND	ND	0.64 J	ND	ND	ND	ND	ND	ND
Methylene Chloride	96	630		ND	ND	1.8 J	1.0 J	0.51 J	2.0 J	0.43 J	ND	ND
Tetrachloroethene [(1)]	9.4	42	1,000	**80**	**130**	2.4 J	0.96 J	**40**	1.6 J	4.8 J	**4200**	**66**
Tetrahydrofuran		2,100		ND	1.0 J	ND	ND	1.1 J	ND	ND	ND	2.0 J
Toluene		5,200		ND	0.42 J	3.8	0.58 J	0.58 J	3.8	0.54 J	ND	ND
Trichloroethene	0.43	2.1	250	**8100**	**120**	**10**	**6.5**	**16**	**6**	**3.1 J**	**2100**	**160**

Notes:
All samples were analyzed for full list VOCs by modified method TO-15. Only detected analytes are presented above.
µg/m3 = micrograms per cubic meter
J = Estimated value
ND = Not detected above laboratory method detection limit (MDL)
SVPM = soil vapor pressure monitor
Bolded value indicates detected analyte.
(1) Site specific compound specified in the Final Supplemental Offsite Soil Vapor Intrusion Monitoring Plan for the Soil Vapor Extraction Containment System Site 1 – Former Drum Marshalling Area, NWIRP Bethpage, New York (Tetra Tech 2012).
(2) Screening Value is the New York State Department of Health (NYSDOH) air guideline value for subslab.

APPENDIX E.3
SOIL VAPOR EXTRACTION CONTAINMENT SYSTEM
VAPOR ANALYTICAL DATA OF SVE WELLS FIRST QUARTER 2013
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

Sample ID	Residential Regional Screening Levels[1] (µg/m^3)		NYSDOH Subslab Screening Value [(2)]	SVE 105D	SVE 106I	SVE 106D
Sample Date	**Carcinogenic**	**Noncarcinogenic**		**1/15/2013**	**1/15/2013**	**1/15/2013**
Analysis by TO-15 (µg/m^3)						
1,1,1-Trichloroethane [(1)]		5,200	1,000	430	ND	ND
1,1-Dichloroethane	1.5			**110**	**1.9 J**	ND
1,2,4-Trimethylbenzene		7		ND	ND	ND
1,2-Dichloroethane	0.094	7.3		ND	ND	ND
1,4-Dichlorobenzene	0.22	830		ND	ND	ND
2,2,4-Trimethylpentane				ND	620	0.76 J
2-Propanol		7,300		ND	2.1 J	ND
Acetone		32,000		ND	8.6 J	5.4 J
Benzene	0.31	31		ND	**3.7**	**0.66 J**
Bromomethane		5.2		ND	ND	ND
Carbon Tetrachloride	0.41	100	250	**6.3 J**	**2.0 J**	ND
cis-1,2-Dichloroethene [(1)]				200	3.7	ND
Ethanol				ND	3.4 J	3.7 J
Freon 11		730		ND	1.4 J	1.4 J
Freon 113		31,000		58	22	ND
Freon 12		100		4.4 J	3.0 J	2.8 J
Heptane				ND	29	ND
Hexane		730		ND	7.4	ND
m,p-Xylene		100		ND	0.90 J	ND
Methyl-tert-Butyl-Ether	9.4	3,100		ND	ND	ND
Methylene Chloride	96	630		ND	1.2 J	0.72 J
Tetrachloroethene [(1)]	9.4	42	1,000	**330**	7	ND
Tetrahydrofuran		2,100		ND	ND	ND
Toluene		5,200		ND	4.8	0.60 J
Trichloroethene	0.43	2.1	250	**3800**	**110**	ND

Notes:
All samples were analyzed for full list VOCs by modified method TO-15. Only detected ar
µg/m3 = micrograms per cubic meter
J = Estimated value
ND = Not detected above laboratory method detection limit (MDL)
SVPM = soil vapor pressure monitor
Bolded value indicates detected analyte.
(1) Site specific compound specified in the Final Supplemental Offsite Soil Vapor Intrusio
Containment System Site 1 – Former Drum Marshalling Area, NWIRP Bethpage, New Yo
(2) Screening Value is the New York State Department of Health (NYSDOH) air guideline

E.4 SOIL VAPOR EXTRACTION CONTAINMENT SYSTEM OFF-SITE VAPOR ANALYTICAL DATA SUMMARY OF SVPMs JANUARY 2013

APPENDIX E.4
SOIL VAPOR EXTRACTION CONTAINMENT SYSTEM
OFF-SITE VAPOR ANALYTICAL DATA SUMMARY OF SVPMs JANUARY 2013
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

Sample ID	Residential Regional Screening Levels[1] (µg/m³)		NYSDOH Subslab Screening Value [2]	SVPM 2001S	SVPM 2001I	SVPM 2001D		SVPM 2002S	SVPM 2002I	SVPM 2002D	SVPM 2003S	SVPM 2003I	SVPM 2003D	SVPM 2004S
Sample Date	Carcinogenic	Noncarcinogenic		1/15/2013	1/15/2013	1/15/2013	1/15/13 Duplicate	1/15/2013	1/15/2013	1/15/2013	1/16/2013	1/16/2013	1/16/2013	1/16/2013
Analysis by TO-15 (µg/m3)														
1,1,1-Trichloroethane [1]		5,200	1,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,2,4-Trimethylpentane				ND	ND	ND	ND	ND	ND	ND	1.5 J	ND	ND	0.42 J
2-Butanone		5,200		ND	ND	ND	ND	ND	ND	ND	2.8 J	ND	ND	ND
Acetone		32,000		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	0.31	31		ND	**2.1 J**	**1.5 J**	**1.7 J**	**0.98 J**	**1.8 J**	**12**	**1.1 J**	ND	**0.95 J**	ND
Carbon Tetrachloride	0.41	100	250	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	0.11	100		ND	ND	ND	ND	ND	ND	ND	ND	**39**	ND	ND
cis-1,2-Dichloroethene [1]				ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cumene		420		ND	ND	ND	ND	ND	ND	20	ND	ND	ND	ND
Cyclohexane		6,300		ND	2.1 J	ND	ND	ND	ND	ND	2.2 J	ND	ND	ND
Ethanol				ND	ND	ND	ND	ND	ND	ND	17	ND	ND	ND
Ethylbenzene	0.97	1,000		ND	ND	ND	ND	ND	ND	ND	**1.6 J**	ND	ND	ND
Freon 12		100		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Heptane				ND	ND	ND	ND	ND	ND	ND	2.2 J	ND	ND	ND
Hexane		730		ND	ND	ND	ND	ND	ND	ND	1.8 J	ND	ND	ND
O-Xylene		100		ND	ND	ND	ND	ND	ND	ND	2.0 J	ND	ND	0.45 J
Propylbenzene		1,000		ND	ND	ND	ND	ND	ND	ND	0.36 J	ND	ND	ND
Tetrachloroethene [1]	9.4	42	1,000	ND	ND	ND	ND	ND	ND	ND	1.6 J	0.97 J	ND	1.0 J
Tetrahydrofuran		2,100		1.8 J	ND	1.7 J	ND	1.9 J	3.1	ND	1.4 J	1.4 J	ND	0.87 J
Toluene		5,200		ND	9.4	6.6	6.2	ND	ND	ND	15	ND	ND	ND
trans-1,2-Dichloroethene [1]		260		ND	ND	ND	ND	ND	ND	ND	2.3 J	ND	ND	ND
Trichloroethene [1]	0.43	2.1	250	ND	ND	ND	ND	ND	**12**	ND	**4.9**	ND	ND	ND

Notes:
All samples were analyzed for full list VOCs by modified method TO-15. Only detected analytes are presented above.
µg/m3 = micrograms per cubic meter
J = Estimated value
ND = Not detected above laboratory method detection limit (MDL)
SVPM = soil vapor pressure monitor
Bolded value indicates detected analyte.
(1) Site specific compound specified in the Final Supplemental Offsite Soil Vapor Intrusion Monitoring Plan for the Soil Vapor Extraction Containment System Site 1 – Former Drum Marshalling Area, NWIRP Bethpage, New York (Tetra Tech 2012).

(2) Screening Value is the New York State Department of Health (NYSDOH) air guideline value for subslab.

APPENDIX E.4
SOIL VAPOR EXTRACTION CONTAINMENT SYSTEM
OFF-SITE VAPOR ANALYTICAL DATA SUMMARY OF SVPMs JANUARY 2013
SITE 1 - FORMER DRUM MARSHALLING AREA
NWIRP BETHPAGE, NEW YORK

Sample ID	Residential Regional Screening Levels[1] (µg/m³)		NYSDOH Subslab Screening Value [(2)]	SVPM 2004I	SVPM 2004D	SVPM 2006S	SVPM 2006I	SVPM 2006D	SVPM 2007S	SVPM 2007I	SVPM 2007D	
Sample Date	Carcinogenic	Noncarcinogenic		1/16/2013	1/16/2013	1/16/2013	1/16/2013	1/16/2013	1/16/2013	1/16/2013	1/16/2013	1/16/13 Duplicate
Analysis by TO-15 (µg/m3)												
1,1,1-Trichloroethane [(1)]		5,200	1,000	ND	ND	ND	ND	ND	ND	ND	1.3 J	1.1 J
2,2,4-Trimethylpentane				ND	ND	ND	ND	0.42 J	ND	ND	1.8 J	ND
2-Butanone		5,200		ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone		32,000		ND	ND	ND	ND	ND	ND	ND	48 J	ND
Benzene	0.31	31		ND	ND	ND	ND	ND	ND	**3.6**	**1.3 J**	ND
Carbon Tetrachloride	0.41	100	250	ND	**1.6 J**	ND	ND	ND	ND	ND	ND	ND
Chloroform	0.11	100		ND	**4.4**	ND	**4.2**	**3.5 J**	ND	**0.76 J**	**2.1 J**	**2.5 J**
cis-1,2-Dichloroethene [(1)]				ND	ND	5.4	340	190	13	ND	9.8	11
Cumene		420		ND	ND	ND	ND	ND	ND	0.89 J	ND	ND
Cyclohexane		6,300		ND	ND	ND	ND	ND	ND	ND	2.5 J	ND
Ethanol				ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	0.97	1,000		0.66 J	ND	ND	ND	ND	ND	ND	**1.3 J**	ND
Freon 12		100		ND	ND	ND	ND	ND	ND	ND	9.5	12
Heptane				ND	ND	ND	ND	ND	ND	ND	3.4	ND
Hexane		730		ND	ND	ND	ND	ND	ND	ND	1.7 J	ND
O-Xylene		100		0.46 J	ND	ND	ND	ND	ND	ND	1.7 J	ND
Propylbenzene		1,000		ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene [(1)]	9.4	42	1,000	0.68 J	2.3 J	1.0 J	1.9 J	1.4 J	1.1 J	1.8 J	2.2 J	1.8 J
Tetrahydrofuran		2,100		ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene		5,200		ND	ND	ND	ND	ND	ND	ND	10 J	ND
trans-1,2-Dichloroethene [(1)]		260		ND	ND	ND	4.6	2.2 J	ND	ND	1.3 J	ND
Trichloroethene [(1)]	0.43	2.1	250	ND	ND	ND	**47**	**17**	**5**	ND	**5.5 J**	**2.9 J**

Notes:
All samples were analyzed for full list VOCs by modified method TO-15. Only
µg/m3 = micrograms per cubic meter
J = Estimated value
ND = Not detected above laboratory method detection limit (MDL)
SVPM = soil vapor pressure monitor
Bolded value indicates detected analyte.
(1) Site specific compound specified in the Final Supplemental Offsite Soil V
Extraction Containment System Site 1 – Former Drum Marshalling Area, NW

(2) Screening Value is the New York State Department of Health (NYSDOH)

APPENDIX F

CHAIN OF CUSTODIES AND VALIDATION LETTERS

F.1 CHAIN OF CUSTODIES

F.2 VALIDATION LETTERS

F.1 CHAIN OF CUSTODIES

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER 27231 | PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G00622	NWIRP- GM-75	D. BRAYACK	757 461 3824	MITKEM / LAWLER OR NG.
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
SJ Conti		S CONTI	412 551 2629	175 METRO CENTER BLVD
		CARRIER/WAYBILL NUMBER		CITY, STATE
		FED EX # 8631 3888 0697		WARWICK, RI 02886

STANDARD TAT ☐
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G G
PRESERVATIVE USED: 4°C 4°C 4°C/HCL

	DATE YEAR 2009	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	VOCs (2 oz)	PCBs (4 oz)	VOCs (40 ml)						COMMENTS
01	5/6	1130	BPS1-TB-050609M	TB	—	—	QC	G	2			2						
02	5/6	1320	BPS1-3001-SB-041M	BPS1 3001	40	41.5	SO	G	2	1	1							VERY GRAVELLY - DO THE BEST YOU CAN
03	5/6	1375	BPS1-3001-SB-046M	"	45	46.5	"	G	2	1	1							NOT AS MUCH GRAVEL BUT F/C SAND
04	5/6	1415	BPS1-3001-SB-051M	"	50	51.5	"	G	2	1	1							" "
05	5/6	1500	BPS1-3001-SB-061M	"	60	61.5	"	G	1	1								VOCS ONLY GRAVELLY AGAIN - MOSTLY SAND
06	5/6	1640	BPS1-3001-GW-071M	"	70	71	GW	G	2			2						
07	5/7	0935	BPS1-3001-SB-099M	"	98	99.5	SO	G	2	1	1							GRAY CLAY
08	5/7	1130	BPS1-3001-SB-131M	"	130	131.5	SO	G	2	1	1							TAN CLAY

1. RELINQUISHED BY SJ Conti	DATE 5/7/09	TIME 1700	1. RECEIVED BY FED EX	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE 5/8/09	TIME 9:05
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4°C

4/02R
FORM NO. TtNUS-001

0007

TETRA TECH NUS, INC. | CHAIN OF CUSTODY | NUMBER 27235 | PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G00622	NWIRP- GM75	D BRAYACK	757 461 3824	MITKEM / LAWLER OR NG
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
SJ Conti		S CONTI	412 551 2629	175 METRO CENTER BLVD
		CARRIER/WAYBILL NUMBER		CITY, STATE
		FED EX # 8631 3888 0723		WARWICK, RI, 02886

STANDARD TAT ☐
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G
PRESERVATIVE USED: 4°C HCL 4°C

DATE YEAR 2009	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: VOCs (40ml)	TYPE OF ANALYSIS: PCBs 4 oz							COMMENTS
5/11	1100	BPS1-3001-GW-191M	BPS1 3001	190	191	GW	G	2	2								TURBID
5/11	1300	BP-GM75-IDW-01	ROW OFF	0	1	SO	G	1		1							RE-DO OF PCBs PREVIOUS COC 26634 ON 4/9/09

1. RELINQUISHED BY	DATE	TIME	1. RECEIVED BY	DATE	TIME
SJ Conti	5/11/09	1830	FED EX		
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
		1330		5/12/09	8:45
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

3°C

4/02R
FORM NO. TtNUS-001

TETRA TECH NUS, INC. | CHAIN OF CUSTODY | NUMBER 27232 | PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G00622	NWIRP - GM 75	D BRAYACK		LONG ISLAND ANALYTICAL
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
S Conti		S CONTI	412 551 2629	
		CARRIER/WAYBILL NUMBER		CITY, STATE
		PICKED UP BY L.I.A.		

STANDARD TAT ☐
RUSH TAT ☐
☐ 24 hr. ☒ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G)
PRESERVATIVE USED
TYPE OF ANALYSIS: VOCs (40ml)

DATE YEAR 2009	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	VOCs (40ml)							COMMENTS
5/6	1530	BPSI-TB-050609	TB	—	—	QC	G	2	2							
5/6	1640	BPSI-3001-GW-071	BPSI 3001	70	71	GW	G	2	2							
5/7	0915	BPSI-3001-GW-091	"	90	91	GW	G	2	2							
5/7	1110	BPSI-3001-GW-111	"	110	111	GW	G	2	2							
5/7	1315	BPSI-3001-GW-151	"	150	151	GW	G	1	1							
5/7	1450	BPSI-3001-GW-172	"	171	172	GW	G	1	1							

1. RELINQUISHED BY S Conti	DATE 5/8/09	TIME 1200	1. RECEIVED BY LONG IS ANALYTICAL	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY Chris Ortiz	DATE 5/8/09	TIME 9:38 AM
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

TETRA TECH NUS, INC.

CHAIN OF CUSTODY | NUMBER 27234 | PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G00622	NWIRP - GM75	D BRAYACK		LONG IS ANALYTICAL
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
S Conti		S CONTI	412 551 2629	
		CARRIER/WAYBILL NUMBER		CITY, STATE
		PICK UP BY CHRIS (LONG IS)		

STANDARD TAT ☐
RUSH TAT ☐
☐ 24 hr. ☒ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G
PRESERVATIVE USED: 4°C HCL

DATE YEAR 2009	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: VOCs (40ml)							COMMENTS
5/11	1030	BPS1-TB-051109	TB	—	—	QC	G	2	2							
5/11	1100	BPS1-3001-GW-191	BPS1 3001	190	191	GW	G	2	2							ALSO SENT 2 VIALS TO MITKEM
5/11	1230	BPS1-3001-GW-211	"	210	211	GW	G	2	2							
5/11	1400	BPS1-3001-GW-231	"	230	231	GW	G	2	2							
5/11	1545	BPS1-3001-GW-251	"	250	251	GW	G	2	2							
5/12	0915	BPS1-3001-GW-271	"	270	271	GW	G	1	1							
5/12	1040	BPS1-3001-GW-291	"	290	291	GW	G	2	2							
5/12	1230	BPS1-3001-GW-311	"	310	311	GW	G	2	2							

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY S Conti	5/13/09	1200	1. RECEIVED BY LONG IS. ANALYTICAL		
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	5/13/09	8:56 AM
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

TETRA TECH NUS, INC. CHAIN OF CUSTODY NUMBER 27237 PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G00622	NWIRP-GM75	D BRAYACK	757 461 3824	MITKEM / LAWLER OR NG
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
SJ Conti		S CONTI	412 551 2629	175 METRO CENTER BLVD
		CARRIER/WAYBILL NUMBER		CITY, STATE
		FED EX AB # 8631 3888 0734		WARWICK, RI, 02886

STANDARD TAT ☐
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G G
PRESERVATIVE USED: 4°C 4°C 4°C HCL

	DATE YEAR 2009	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: VOCs	PCBs 2oz	VOCs 40ml						COMMENTS
01	5/18	1300	BPS1-TB-051809M	TB	—	—	QC	G	2	—	—	2						
02	5/18	1350	BPS1-3003-SB-041M	BPS1 3003	40	41	SO	G	2	1	1							
03	5/18	1405	BPS1-3003-SB-046M	"	45	46	SO	G	1	1	—							
04	5/18	1415	BPS1-3003-SB-051M	"	50	51	SO	G	2	1	1							
05	5/18	1430	BPS1-3003-SB-056M	"	55	56	SO	G	1	1	—							
06	5/18	1445	BPS1-3003-SB-061M	"	60	61	SO	G	2	1	1							
07	5/18	1700	BPS1-3003-GW-091M	"	90	91	GW	G	2	~~2~~ 1		2						
08	5/19	0840	BPS1-3003-SB-111M	"	110	111	SO	G	2	1	1							
09	5/19	0950	BPS1-3003-SB-116M	"	115	116	SO	G	2	1	1							
10	5/19	1000	BPS1-3003-SB-121M	"	120	121	SO	G	2	1	1							
11	5/19	1110	BPS1-3003-GW-131M	"	130	131	GW	G	2			2						

1. RELINQUISHED BY SJ Conti	DATE 5/19/09	TIME 1730	1. RECEIVED BY FED EX	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY Lynn R Huntley	DATE 5/20/09	TIME 8:55
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS 2°C

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4/02R
FORM NO. TtNUS-001

TETRA TECH NUS, INC.

CHAIN OF CUSTODY

NUMBER 27236

PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G00622	NWIRP - GM75	D. BRAYACK		LONG IS. ANALYTICAL
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
SJ Conti		S CONTI	412 551 2629	
		CARRIER/WAYBILL NUMBER		CITY, STATE
		PICK UP BY QIRIS		

STANDARD TAT ☐
RUSH TAT ☐
☐ 24 hr. ☒ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G

PRESERVATIVE USED: 4°C HCL

TYPE OF ANALYSIS: VOCS 40ml

DATE YEAR 2009	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	VOCS 40ml	COMMENTS
5/18	1300	BPSI-TB-051809	TB	—	—	QC	G	2	2	
5/18	1545	BPSI-3003-GW-071	BPSI 3003	70	71	GW	G	1	1	
5/18	1700	BPSI-3003-GW-091	"	90	91	GW	G	2	2	ALSO TO MITKEM.
5/19	0945	BPSI-3003-GW-112	"	111	112	GW	G	2	2	
5/19	1110	BPSI-3003-GW-131	"	130	131	GW	G	2	2	ALSO TO MITKEM
5/19	1215	BPSI-3003-GW-151	"	150	151	GW	G	2	2	
5/19	1330	BPSI-3003-GW-171	"	170	171	GW	G	1	1	
5/19	1450	BPSI-3003-GW-191	"	190	191	GW	G	2	2	
5/19	1615	BPSI-3003-GW-211	"	210	211	GW	G	2	2	
5/19	1730	BPSI-3003-GW-231	"	230	231	GW	G	2	2	
5/20	0915	BPSI-3003-GW-251	"	250	251	GW	G	2	2	
5/20	1050	BPSI-3003-GW-271	"	270	271	GW	G	2	2	
5/20	1200	BPSI-3003-GW-291	"	290	291	GW	G	2	2	
5/20	1330	BPSI-3003-GW-311	"	310	311	GW	G	2	2	

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY SJ Conti	5/21/09	1200	1. RECEIVED BY LONG IS. ANALYTICAL	5/21/09	11:40
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

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FORM NO. TtNUS-001

Cart 6

TETRA TECH NUS, INC. 11-2 488 White TM 2318 CHAIN OF CUSTODY NUMBER 27285 PAGE 1 OF 1

PROJECT NO: 112602230	FACILITY: NWIRP Bethpage	PROJECT MANAGER Robert Sok	PHONE NUMBER (757) 618-2104
LABORATORY NAME AND CONTACT: Tri Matrix (Walt) Roudebush			
SAMPLERS (SIGNATURE)	FIELD OPERATIONS LEADER Vince Shickara	PHONE NUMBER (610) 909-3264	ADDRESS 5560 Corporate Exchange CT, SE
	CARRIER/WAYBILL NUMBER FED EX/8671-2882-9638		CITY, STATE Grand Rapids, MI 49512

1007174

STANDARD TAT ☒ RUSH TAT ☒ → ☆
☒ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

	DATE YEAR 2010	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	PCB (24hr TAT) ☆	% solids	PCB/DRO	VOC/GRO	TOC	TEST GROUP	Field Screen (ppm)	COMMENTS
			CONTAINER TYPE PLASTIC (P) or GLASS (G)							G	P	G	G	G			
			PRESERVATIVE USED							NA	NA	NA	methanol	NA			
01	7/13	1656	BPS1-SB3004-27.5-28	—	27.5	28	SO	G	2	1	1				01		☆ = Quick 24hr TAT
02	7/14	0822	BPS1-SB3004-34-34.5	—	34	34.5	SO	G	2	1	1				01		☆
03	7/14	0825	BPS1-SB3004-37-37.5	—	37	37.5	SO	G	2	1	1				01		☆
04	7/14	0841	BPS1-SB3004-42-42.5	—	42	42.5	SO	G	2	1	1				01		☆
05	7/14	0845	BPS1-SB-3004-47-47.5	—	47	47.5	SO	G	2	1	1				01		☆
06	7/14	0914	BPS1-SB3004-49-49.5	—	49	49.5	SO	G	2	1	1				01		☆
07	7/14	0919	BPS1-SB3004-54-54.5	—	54	54.5	SO	G	3			1	1	1	04		
08	7/14	1117	BPS1-SB3004-64.5-65	—	64.5	65	SO	G	3			1	1	1	04		
09	7/14	0800	BPS1-TB01	—	—	—	QC		1				1		07		
10	7/14	1556	BPS1-SB3004-154-154.5	—	154	154.5	SO	G	3			1	1	1	04		

1. RELINQUISHED BY	DATE 7/14/10	TIME 1700	1. RECEIVED BY	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE 7/15/10	TIME 0845

COMMENTS

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FORM NO. TtNUS-001

E 1007222 15-1

TETRA TECH NUS, INC. Cart 3 TM2058 499W

CHAIN OF CUSTODY NUMBER 0478 PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage	Robert Sok	(757) 618-2104	Tri Matrix Walt Roudebush
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
Jacob Birkett		Vince Shickora	(610) 909-3264	5560 Corporate Exchange CT, SE
		CARRIER/WAYBILL NUMBER		CITY, STATE
		FedEx		Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☒ on sample w/*
☒ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

	DATE YEAR 2010	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	PCB	% TS	VOC/GRO (Trip Blank)	PCB/DRO	VOC/GRO	TOC	% TS	PCB (24 hr TAT)*	TEST GRAMP	COMMENTS
			CONTAINER TYPE PLASTIC (P) or GLASS (G)							G	P	G	G	G	G	G			
			PRESERVATIVE USED							NA	NA	MeOH	NA	MeOH	NA	NA			
			TYPE OF ANALYSIS																
01	7-14	1317	BPSI-SB3004-116.0116.5	—	116.0	116.5	SO	G	2	1	1						08		
02	7-14	1740	BPSI-SB3004-180190	—	180	190	SO	C	2	1	1						08		
03	7-15	0815	TB-20100715	—	—	—	QC	—	1			1					07		
04	7-15	1132	BPSI-SB3004-235.0235.5	—	235.0	235.5	SO	G	2	~~1~~ JB 6-16-10	~~1~~		1	1	1		04		
05	7-16	1051	BPSI-SB3005-27.528.0	—	27.5	28.0	SO	G	2	~~1~~ JB	1					1*	01	24 hr Quick TAT	
06	7-16	1115	BPSI-SB3005-37.538.0	—	37.5	38.0	SO	G	3				1	1	1		04		
07	7-16	1125	BPSI-SB3005-34.034.5	—	34.0	34.5	SO	G	2		1					1*	01	24 hr Quick TAT	
08	7-16	1201	BPSI-SB3005-54.555.0	—	54.5	55.0	SO	G	3				1	1	1		04		
09	7-16	1216	BPSI-SB3005-43.043.5	—	43.0	43.5	SO	G	2		1					1*	01	24 hr Quick TAT	
10	7-16	1216	BPSI-SB3005-49.049.5	—	49.0	49.5	SO	G	2		1					1*	01	↓	
11	7-16	1227	BPSI-SB3005-57.558.0	—	57.5	58.0	SO	G	2		1					1*	01	↓	

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY Jacob Birkett	7-16-10	1900	1. RECEIVED BY		
2. RELINQUISHED BY			2. RECEIVED BY		
3. RELINQUISHED BY			3. RECEIVED BY	7/17/10	0850

COMMENTS

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FORM NO. TtNUS-001

12008

597G & 521R, Cart 2

1007235

TETRA TECH NUS, INC. 19.8 CHAIN OF CUSTODY NUMBER 27289 PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage	Robert Sok	(757) 618-2104	Tri Matrix Walt Roudebush

SAMPLERS (SIGNATURE)	FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
Jacob Birkett	Vince Shickora	(610) 909-3264	5560 Corporate Exchange CT, SE

CARRIER/WAYBILL NUMBER	CITY, STATE
FedEx	Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

DATE YEAR 2010	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	VOC/GRO	PCB and %TS	PCB and DRO	TOC and %TS	Non purgeable Organics	Preserved Purgeable Organics	TOC	DRO	COMMENTS	TEST GROUP
CONTAINER TYPE PLASTIC (P) or GLASS (G)									G	G	G	G	G	G	G	G		
PRESERVATIVE USED									MeOH	NA	NA	NA	NA	HCl	H_2SO_4	HCl		
01	7-17	0745	TB-20100717	—			QC	—	1	1								10mL MeOH	07
02	7-16	1455	BPS1-SB3005-94.5-95.0	—	94.5	95.0	SO	G	1		1								08
03	7-17	0849	BPS1-SB3005-145.0-145.5	—	145.0	145.5	SO	G	3	1		1	1						04
04	7-17	1036	BPS1-SB3005-180-190	—	180	190	SO	C	1		1								08
05	7-17	1217	BPS1-SB3005-232.5-233.0	—	232.5	233.0	SO	G	5	2		2	1					Run MSMSD	06
06	7-17	1200	BPS1-Dup01-20100717	—	—	—	SO	—	3	1		1	1						05
07	7-19	1130	Rb-20100719	—	—	—	QC	—	10	~~4~~ SB				2	4	2	2		09
08	7-19	1145	Rb-20100719	—	—	—	QC	—	10	~~4~~ SB				2	4	2	2	See NIC form (CWR)	10

1. RELINQUISHED BY	DATE	TIME	1. RECEIVED BY	DATE	TIME
Jacob Birkett	7-19-10	1400			
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME
				7/20/10	0900

COMMENTS

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4/02R
FORM NO. TtNUS-001

TETRA TECH NUS, INC.

CHAIN OF CUSTODY

NUMBER 2619 Cart 7 112B PAGE 1 OF 1 3510

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage	Rob Sok	757-618-2104	Tri Matrix Walt Roudebush
SAMPLERS (SIGNATURE)		**FIELD OPERATIONS LEADER**	**PHONE NUMBER**	**ADDRESS**
Jacob Birkett		Vince Shickora	610-909-3264	5560 Corporate Exchange CT, SE
		CARRIER/WAYBILL NUMBER		**CITY, STATE**
		FedEx 8671-2882-9487		Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G G G
PRESERVATIVE USED: Methanol NA NA NA

DATE YEAR 2010	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAP (G) COMP (C)	No. OF CONTAINERS	VOC and GRO	PCB and DRO	TOC and % TS	PCB and % TS	TEST GROUP				COMMENTS E-1007438
7-27	0745	BPSI-TB-20100727	—	—	—	QC	—	1	1					07			10mL MeOH -01
7-27	1045	BPSI-SB3006-53.0 53.5	—	53.0	53.5	SO	G	3	1	1	1			04			-02
7-27	1453	BPSI-SB3006-117.0 117.5	—	117.0	117.5	SO	G	3	1	1	1			04			-03
7-28	0843	BPSI-SB3006-181.0 181.5	—	181.0	181.5	SO	G	3	1	1	1			04			-04
7-28	1038	BPSI-SB3006-226.5 227.0	—	226.5	227.0	SO	G	3	1	1	1			04			-05
7-27	0946	BPSI-SB3006-32.0 32.5	—	32.0	32.5	SO	G	1				1		08			-06
7-27	1242	BPSI-SB3006-72.0 72.5	—	72.0	72.5	SO	G	1				1		08			-07
7-27	1200	BPSI-Dup03-20100727	—	—	—	SO	G	1				1		11			-08
7-28	1200	BPSI-Dup02-20100728	—	—	—	SO	G	3	1	1	1			05			-09

1. RELINQUISHED BY	DATE	TIME	1. RECEIVED BY	DATE	TIME
Jacob Birkett	7-28-10	1400	FedEx		
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME
				7/29/10	0930

COMMENTS

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FORM NO. TtNUS-001

E-1009011

TETRA TECH NUS, INC.

CHAIN OF CUSTODY

NUMBER 2620

736W, Cart 8

PAGE 1 OF 1

39-2

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage	Rob Sok	757-618-2104	TriMatrix Walt Roudebush
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
Jacob Birkett		Vince Shickora	610-909-3264	5560 Corporate Exchange CT, SE
		CARRIER/WAYBILL NUMBER		CITY, STATE
		FedEx 8671-2882-9524		Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G G G

PRESERVATIVE USED: Methanol NA NA NA

TYPE OF ANALYSIS

	DATE YEAR 2010	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAP (G) COMP (C)	No. OF CONTAINERS	VOC and GRO	PCB and DRO	TOC and %TS	PCB and %TS		TEST GROUP			COMMENTS
01	7-29	0840	BPSI-TB04-20100729	—	—	—	QC	—	1	1					07			10 mL MeOH
02	7-29	0952	BPSI-SB3007-37.5 38.0	—	37.5	38.0	SO	G	3	1	1	1			04			
03	7-29	1037	BPSI-SB3007-57.0 57.5	—	57.0	57.5	SO	G	3	1	1	1			04			
04	7-29	1324	BPSI-SB3007-100.0 100.5	—	100.0	100.5	SO	G	3	1	1	1			04			
05	7-30	0850	BPSI-SB3007-217.5 218.0	—	217.5	218.0	SO	G	3	1	1	1			04			
06	7-29	1519	BPSI-SB3007-140 150	—	140	150	SO	C	1				1		12			Run MSMSD on PCB
07	7-30	1040	BPSI-SB3007-240-250	—	240	250	SO	C	1				1		08			

1. RELINQUISHED BY Jacob Birkett	DATE 7-30-10	TIME 1400	1. RECEIVED BY	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE 7/31/10	TIME 0845

COMMENTS

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FORM NO. TtNUS-001

2408(soil) 5896(wtr) Cart 2

TETRA TECH NUS, INC. — **CHAIN OF CUSTODY** — NUMBER 2621 — PAGE 1 OF 1 — 45-6

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage	Rob Sok	757-618-2104	TriMatrix Walt Roudebush
SAMPLERS (SIGNATURE)		**FIELD OPERATIONS LEADER**	**PHONE NUMBER**	**ADDRESS**
Jacob Birkett		Vince Shickora	610-909-3264	5560 Corporate Exchange CT, SE
		CARRIER/WAYBILL NUMBER		**CITY, STATE**
		FedEx 8671 2882 9605		Grand Rapids, MI 49512

1008025

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

	DATE YEAR 2010	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAP (G) COMP (C)	No. OF CONTAINERS	VOC and GRO	PCB and DRO	TOC and %TS	PCB and %TS	SVOC PCB	TOC	DRO	VOC and GRO	COMMENTS	TEST GROUP
CONTAINER TYPE PLASTIC (P) or GLASS (G)										G	G	G	G	G	G	G	G		
PRESERVATIVE USED										Methanol	NA	NA	NA	NA	H_2SO_4	HCl	HCl NA		
01	7-31	0820	BPSI-TB05-20100731	—	—	—	QC	—	1	1								10 mL MeOH	07
02	7-31	0945	BPSI-SB3009-27.027.5	—	27.0	27.5	SO	G	1				1						08
03	7-31	1010	BPSI-SB3009-36.036.5	—	36.0	36.5	SO	G	1				1						08
04	7-31	1102	BPSI-SB3009-51.051.5	—	51.0	51.5	SO	G	3	1	1	1							04
05	7-31	1332	BPSI-SB3009-96.096.5	—	96.0	96.5	SO	G	3	1	1	1							04
06	7-31	1515	BPSI-SB3009-140.0140.5	—	140.0	140.5	SO	G	3	1	1	1							04
07	8-1	0929	BPSI-SB3009-209.0209.5	—	209.0	209.5	SO	G	3	1	1	1							04
08	7-31	1200	BPSI-Dup04-20100731	—	—	—	SO	G	3	1	1	1							05
09	8-2	0900	RB-20100802	—	—	—	QC	—	10	~~4~~ JB				2	2	2	4		09
10	8-2	1051	BPSI-SB3008-52.052.5	—	52.0	52.5	SO	G	3	1	1	1							04
11	8-2	1258	BPSI-SB3008-86.587.0	—	86.5	87.0	SO	G	3	1	1	1							04
12	8-2	1535	BPSI-SB3008-161.0161.5	—	161.0	161.5	SO	G	3	1	1	1							04

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY Jacob Birkett	8-2-10	1830	1. RECEIVED BY		
2. RELINQUISHED BY			2. RECEIVED BY		
3. RELINQUISHED BY			3. RECEIVED BY Wm Cole	8/3/10	0900

COMMENTS

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FORM NO. TtNUS-001

Cart 6, 252G

TETRA TECH NUS, INC. **CHAIN OF CUSTODY** | **NUMBER** 2622 E1008057 **PAGE** 1 **OF** 1 47 6

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage	Rob Sok	757-618-2104	TriMatrix Walt Roudebush
SAMPLERS (SIGNATURE)		**FIELD OPERATIONS LEADER**	**PHONE NUMBER**	**ADDRESS**
Jacob Birkett		Vince Shickora	610-909-3264	5560 Corporate Exchange CT, SE
		CARRIER/WAYBILL NUMBER		**CITY, STATE**
		Fed Ex 8671-2882-9590		Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G G G
PRESERVATIVE USED: Methanol NA NA NA

DATE YEAR 2010	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAP (G) COMP (C)	No. OF CONTAINERS	VOC and GRO	PCB and DRO	TOC and %TS	PCB and %TS	TEST GROUP	COMMENTS
8-2	0820	BPSI-TB06-20100802	—	—	—	QC	—	1	1				07	-01
8-3	0940	BPSI-SB3008-234.5-235.0	—	234.5	235.0	SO	G	3	1	1	1		04	-02
8-2	1013	BPSI-SB3008-37.0-37.5	—	37.0	37.5	SO	G	1				1	08	-03
~~8-2~~	~~1328~~	~~BPSI-SB3008-103.5-104.0~~	~~—~~	~~103.5~~	~~104.0~~	~~SO~~	~~G~~	~~1~~		JB 8-3-10		~~1~~		Removed
8-3	0851	BPSI-SB3008-200-210	—	200	210	SO	C	1				1	08	-04

1. RELINQUISHED BY	DATE	TIME	1. RECEIVED BY	DATE	TIME
Jacob Birkett	8-3-10	1600			
2. RELINQUISHED BY	**DATE**	**TIME**	**2. RECEIVED BY**	**DATE**	**TIME**
3. RELINQUISHED BY	**DATE**	**TIME**	**3. RECEIVED BY**	**DATE**	**TIME**
			Wm Cole	8/4/10	0820

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

E 1008187

TETRA TECH NUS, INC.

CHAIN OF CUSTODY

NUMBER 2623

PAGE 1 OF 1

0416G, 252G Cart 7

11-4

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage	Rob Sok	757-618-2104	TriMatrix Walt Roudebush

SAMPLERS (SIGNATURE)	FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
Jacob Birkett	Jennifer Lambert	610-909-1893	5560 Corporate Exchange CT, SE

CARRIER/WAYBILL NUMBER	CITY, STATE
FedEx 8671 2882 9579	Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

	DATE YEAR 2010	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAP (G) COMP (C)	No. OF CONTAINERS	VOC and GRO	PCB and DRO	TOC and %TS	PCB and %TS	VOC	PCB	DRO	TOC	COMMENTS	TEST GROUP
									CONTAINER TYPE PLASTIC (P) or GLASS (G)	G	G	G	G	G	G	G	G		
									PRESERVATIVE USED	MeOH	NA	NA	NA	HCl	NA	NA	NA		
01	7-27	0800	BPSI-GWTB01-20100727	—	—	—	QC	—	2					2				Lab Prepared	13
02	8-9	0930	BPSI-TB07-20100809	—	—	—	QC	—	1	1								10 mL Methanol	07
03	8-9	1130	BPSI-SB3012-39.0 39.5	—	39.0	39.5	SO	G	3	1						1	1		16
04	8-10	1602	BPSI-GW3012-4852	—	48	52	GW	G	5					3	2				14
05	8-11	0720	BPSI-AQIDW-01-20100811	—	—	—	GW	—	2						2			Sample of Fractank SB3004 SB3009	15
06	8-11	1535	BPSI-SB3012-112.5 113.0	—	112.5	113.0	SO	G	3	1	1	1							04
07	8-10	1718	BPSI-SB3012-58 68	—	58	68	SO	C	1				1						08
08	8-11	1200	BPSI-Dup05-20100811	—	—	—	SO	G	3	1	1	1							05
																			17

1. RELINQUISHED BY	DATE	TIME	1. RECEIVED BY	DATE	TIME
Jacob Birkett	8-11-10				
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME
			Wm Cole	8/12/10	0900

COMMENTS
Aqueous TB 'collection' date changed to that of first GW collected (WM) or 8-10-10.

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R

FORM NO. TtNUS-001

E-1008223 TM23560 161B Cart 3 15-3

TETRA TECH NUS, INC.

CHAIN OF CUSTODY

NUMBER 2624

PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage	Rob Sok	757-618-2104	Tri Matrix Walt Roudebush
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
Jacob Birkett		Jennifer Lambert	610-909-1893	5560 Corporate Exchange CT, SE
		CARRIER/WAYBILL NUMBER		CITY, STATE
		Fed Ex 8641-3687-5365		Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G

PRESERVATIVE USED: HCl –

TYPE OF ANALYSIS

	DATE YEAR 2010	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAP (G) COMP (C)	No. OF CONTAINERS	VOC		PCB		TEGROUP				COMMENTS
-01	7-27	0800	BPSI-GWTB02-20100727	—	—	—	QC	—	2	2				13				Lab prepared
-02	8-12	1530	BPSI-GW3012-110114	—	110	114	GW	G	5	3	2			14				
-03	8-13	1358	BPSI-GW3012-144148	—	144	148	GW	G	13	7	6			18				Run MS MSD

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY Jacob Birkett	8-13-10	1730	1. RECEIVED BY FedEx		
2. RELINQUISHED BY			2. RECEIVED BY		
3. RELINQUISHED BY			3. RECEIVED BY	8/14/10	0910

COMMENTS: Change Trip Blank 'collection' date to 8/12/10 (WR)

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

TETRA TECH NUS, INC.

CHAIN OF CUSTODY | NUMBER 27286 | Cart 8, 655G(soils) 577G(waters) | PAGE 1 OF 1 21-8

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage	Rob Sok	757-618-2104	TriMatrix Walt Roudebush
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
Jacob Birkett		Jennifer Lambert	610-909-1893	5560 Corporate Exchange CT, SE
		CARRIER/WAYBILL NUMBER		CITY, STATE
		FedEx 8671-2882-9009		Grand Rapids, MI 49512

1008243

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G G G G G

PRESERVATIVE USED: MeOH NA NA NA HCl NA

TYPE OF ANALYSIS

	DATE YEAR 2010	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	VOC+GRO	PCB+DRO	TOC+%TS	PCB+%TS	VOC	PCB	TEST GROUP	COMMENTS
01	8-14	0744	BPS1-TB08-20100814	—	—	—	QC	—	1	1						07	
02	8-14	0800	BPS1-GWTB03-20100814	—	—	—	QC	—	2					2		13	Lab prepared
03	8-14	0905	BPS1-SB3012-203.0203.5	—	203.0	203.5	SO	G	3	1	1	1				04	
04	8-14	1315	BPS1-GW3012-200204	—	200	204	GW	G	5					3	2	14	
05	8-10	1712	BPS1-SB3012-4858	—	48	58	SO	C	1				1			08	
06	8-13	1617	BPS1-SB3012-158168	—	158	168	SO	C	1				1			08	
07	8-15	0810	BPS1-RB03-20100815	—	—	—	QC	—	5					3	2	19	
08	8-15	1342	BPS1-SB3010-49.049.5	—	49.0	49.5	SO	G	3	1	1	1				04	
09	8-16	0752	BPS1-GW3010-5761	—	57	61	GW	G	5					3	2	14	
10	8-16	0941	BPS1-SB3010-93.5940	—	93.5	94.0	SO	G	5	2	2	1				06	Run MSMSD
11	8-16	1232	BPS1-GW3010-114118	—	114	118	GW	G	5					3	2	14	

1. RELINQUISHED BY	DATE	TIME	1. RECEIVED BY	DATE	TIME
Jacob Birkett	8-16-10	1830			
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME
			Wm Cole	8/17/10	0845

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

E 10083308 25-5

TETRA TECH NUS, INC.

Cart Inorganic 715 MeOH-W 182 WTR-B

CHAIN OF CUSTODY NUMBER 2639

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage	Rob Sok	757-618-2104	TriMatrix Walt Roudebush
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
Jacob Birkett		Jennifer Lambert	610-909-1893	5560 Corporate Exchange CT, SE
		CARRIER/WAYBILL NUMBER		CITY, STATE
		FedEx 8671-2882-9546		Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G G G G G

PRESERVATIVE USED: HCl NA MeOH NA NA NA

TYPE OF ANALYSIS

	DATE YEAR 2010	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAP (G) COMP (C)	No. OF CONTAINERS	VOC	PCB	VOC and GRO	PCB and DRO	TOC and %TS	PCB and %TS	TEST GROUP	COMMENTS
01	8-17	0738	BPS1-TB09-20100817	–	–	–	QC	–	1			1				07	
02	8-17	0759	BPS1-GW3010-144148	–	144	148	GW	G	5	3	2					14	
03	8-17	0800	BPS1-GWTB04-20100817	–	–	–	QC	–	2	2						13	Lab prepared
04	8-17	1245	BPS1-SB3010-188.0188.5	–	188.0	188.5	SO	G	3			1	1	1		04	
05	8-17	1734	BPS1-~~SB~~GW3010-196200	–	196	200	GW	G	5	3	2					14	
06	8-17	1200	BPS1-GWDup01-20100817	–	–	–	GW	G	5	3	2					19	
07	8-15	1050	BPS1-SB3010-0008	–	0	8	SO	C	1						1	08	
08	8-16	0902	BPS1-SB3010-5868	–	58	68	SO	C	1						1	08	
09	8-16	1502	BPS1-SB3010-118148	–	118	148	SO	C	1						1	08	
10	8-18	0922	BPS1-FB02-20100818	–	–	–	QC	–	5	3	2					20	Field Blank of Pink (dyed) drilling water
11	8-18	1308	BPS1-SB3011-1828	–	18	28	SO	C	1						1	08	
12	8-18	1335	BPS1-SB3011-3848	–	38	48	SO	C	1						1	08	
13	8-18	1350	BPS1-SB3011-48.5 49.0	–	48.5	49.0	SO	G	3			1	1	1		04	

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY Jacob Birkett	8-18-10	1630	1. RECEIVED BY		
2. RELINQUISHED BY			2. RECEIVED BY		
3. RELINQUISHED BY			3. RECEIVED BY	8/19/10	0900

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

E1008310 256 Cart Inorganic

TETRA TECH NUS, INC.

CHAIN OF CUSTODY | NUMBER 27284 | PAGE 2 OF 2

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage	Rob Sok	757-618-2104	TriMatrix Walt Roudebush
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
Jacob Birkett		Jennifer Lambert	610-909-1893	5560 Corporate Exchange CT, SE
		CARRIER/WAYBILL NUMBER		CITY, STATE
		Fed Ex 8671-2882-9546		Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

DATE YEAR 2010	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TCLP VOC	TCLP SVOC/Pest/Herb	PCB % TS	TCLP Metals	Ignitability, Reactivity, Corrosivity		TEST GROUPS		COMMENTS
CONTAINER TYPE PLASTIC (P) or GLASS (G)									G	G	G	P	P				
PRESERVATIVE USED									NA	NA	NA	NA	NA				
01 02 8-18	1140	BPS1-DrumIDW-01-20100818	—	—	—	SO	C	5	1	1	1	1	1		21 08		Composite of 5 drums

1. RELINQUISHED BY	DATE	TIME	1. RECEIVED BY	DATE	TIME
Jacob Birkett	8-18-10				
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME
			Ralph Romeyn	8/19/10	0900

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

1037, 1916 G Cart 6

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER 2636 | PAGE 1 OF 1 27-2

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage	Rob Sok	757-618-2104	TriMatrix - Walt Roudenbush
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
		Jennifer Lambert	610-909-1893	5560 Corporate Exchange CT, SE
		CARRIER/WAYBILL NUMBER		CITY, STATE
		FedEx - 8682-8224-1010		Grand Rapids, MI 49512

1008330

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G G G

PRESERVATIVE USED: HCl HCl H_2SO_4 Ice only

TYPE OF ANALYSIS

DATE YEAR 2010	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	VOC +GRO	DRO	TOC	PCB			TEST GROUP		COMMENTS
8-18	1200	BPS1-TB10-20100818	—	—	—	QC	G	2	2	—	—	—			~~04~~	13	NO GRO per client (WMC)
8-18	1700	BPS1-RB04-20100818	—	—	—	QC	G	10	4	2	2	2			09		

8/19/10

1. RELINQUISHED BY	DATE 8/19/10	TIME 1030	1. RECEIVED BY		DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY		DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY		DATE 8/20/10	TIME 0830

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER 2658 | PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	Bethpage	Rob Sok	757-466-4904	Tri Matrix Laboratories, Inc.
SAMPLERS (SIGNATURE): Gordon Araujo		FIELD OPERATIONS LEADER: Vince Shickora	PHONE NUMBER: 810-491-9688	ADDRESS: 5560 Corporate Exchange Ct, SE
		CARRIER/WAYBILL NUMBER: FedEx 8706-9629-2497		CITY, STATE: Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

44-4 476W
Cart 7
1008435

DATE YEAR 2010	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAP (G) COMP (C)	No. OF CONTAINERS	VOC	PCBs							COMMENTS
CONTAINER TYPE PLASTIC (P) or GLASS (G)									G	G							
PRESERVATIVE USED									HCl	1							
8/26	1645	BPS1-TB-20100826	Site1	—	—	QC	G	3	3								
8/26	1750	BPS1-TW3011-20100826	Site1	—	—	GW	G	5	3	2							

1. RELINQUISHED BY	DATE 8/27/10	TIME 1300	1. RECEIVED BY	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE 8/28/10	TIME 1115

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

TETRA TECH NUS, INC. | CHAIN OF CUSTODY | NUMBER 2629 | PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage	Rob Sok	757-466-4904	TriMatrix Walt Roudebush

SAMPLERS (SIGNATURE)	FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
Jacob Birkett	Jacob Birkett	757-814-9916	5560 Corporate Exchange Ct, SE

CARRIER/WAYBILL NUMBER	CITY, STATE
Fed Ex 8706-9629-3677	Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G G P P
PRESERVATIVE USED: / / / / /

	DATE YEAR 2010	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAP (G) COMP (C)	No. OF CONTAINERS	TCLP VOC	TCLP SVOC/Pest/Herb	PCB, %TS	TCLP Metals	Ignitability, Reactivity, Cor.		TEST GROUPS		COMMENTS
01	10-25	1120	BPS1-IDWSoil-20101025	—	—	—	SO	C	5	1	1	1	1	1		21/08		
02																		

35.4
Cart 7 ¾ Vol. Fridge
E 1010540

1. RELINQUISHED BY	DATE	TIME	1. RECEIVED BY	DATE	TIME
Jacob Birkett	10-25-10				
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME
			Wm Cole	10/26/10	0900

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

01008

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER 2633 431 PAGE 1 OF 2

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT: 616-975-4501
112G02230	NWIRP Bethpage	Rob Sak	757-466 4904	TriMatrix Walt Roodebush
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
		Vince Shickora	610 491-9688	5560 Corporate Exchange CT, SE
		CARRIER/WAYBILL NUMBER		CITY, STATE
		FedEx 8706 9629 3508		Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G
PRESERVATIVE USED: HCl —

	DATE YEAR 2010	TIME	SAMPLE ID E-1012046	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: VOC	2C3		TEST GROUP					COMMENTS
01	11-29	1100	BPSI-T301-20101129	—	—	—	QC	G	2	2			13					Lab prepared
02	11-29	1230	BPSI-MW302D-20101129	—	—	—	GW	G	5	3	2		14					
03	11-29	1320	BPSI-TT-MW303D-20101129	—	—	—	GW	G	5	3	2		14					
04	11-29	1520	BPSI-MW302I2-20101129	—	—	—	GW	G	5	3	2		14					
05	11-29	1523	BPSI-TT-MW303I2-20101129	—	—	—	GW	G	5	3	2		14					
06	11-30	0845	BPSI-MW302I1-20101130	—	—	—	GW	G	5	3	2		14					
07	11-30	0943	BPSI-TT-MW303I1-20101130	—	—	—	GW	G	5	3	2		14					
08	11-30	1020	BPSI-MW302S-20101130	—	—	—	GW	G	15	9	6		17					Ro. MS/MSD
09	11-30	1133	BPSI-TT-MW303S-20101130	—	—	—	GW	G	5	3	2		14					
10	11-30	1200	BPSI-Dup01-20101130	—	—	—	GW	G	5	3	2		19					
11	11-30	1230	BPSI-FW-MW01-20101130	—	—	—	GW	G	5	3	2		14					
12	11-30	1347	BPSI-TT-MW304D-20101130	—	—	—	GW	G	5	3	2		14					
13	11-30	1415	BPSI-FW-MW02-20101130	—	—	—	GW	G	5	3	2		14					

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY	12-1-10	1300	1. RECEIVED BY		
2. RELINQUISHED BY			2. RECEIVED BY		
3. RELINQUISHED BY			3. RECEIVED BY	12/2/10	0915

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER 27288 | PAGE 2 OF 2

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112602230	NWIRP Bethpage	Rob Sok	757-466-4907	TriMatrix Walt Roudebush 616-975-4561
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER: Vince Shickora	PHONE NUMBER: 616-491-9688	ADDRESS: 5560 Corporate Exchange CT, SE
		CARRIER/WAYBILL NUMBER: FedEx 8706 9629 3508		CITY, STATE: Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

DATE YEAR 2010	TIME	SAMPLE ID (E 1012046)	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	VOC	PCB	SVOC	Metals	TSS	(pH)	Hexavalent Chromium	TCLP VOC	TCLP SVOC/Pest/Herb	PCB + % TS	TCLP Metals	Ignit, Reac, Corr.	COMMENTS	TEST GROUP
CONTAINER TYPE PLASTIC (P) or GLASS (G)									G	G	G	P	P	P	G	G	G					
PRESERVATIVE USED												HCl			HNO3							
14 11-30	1517	BPSI-TT-MW304I2-20101130	—	—	—	GW	G	5	3	2												14
15 11-30	1555	BPSI-FW-MW03-20101130	—	—	—	GW	G	5	3	2												14
16 11-30	2400	BPSI-Dup02-20101130	—	—	—	GW	G	5	3	2												19
17 12-1	0730	BPSI-RB01-20101201	—	—	—	QC	G	5	3	2											Rinsate	18
18 12-1	0915	BPSI-MW301S-20101201	—	—	—	GW	G	5	3	2												14
19 12-1	0917	BPSI-TT-MW304I1-20101201	—	—	—	GW	G	5	3	2												14
20 12-1	1050	BPSI-MW301D-20101201	—	—	—	GW	G	5	3	2												14
21 12-1	1135	BPSI-TT-MW304S-20101201	—	—	—	GW	G	5	3	2												14
22 12-1	1230	BPSI-MW301I-20101201	—	—	—	GW	G	5	3	2												14
23 12-1	1310	BPSI-MW SB01-20101201	—	—	—	QC	G	5	3	2											Source Water Blank	20
24 12-1	1347	BPSI-HN MW29I-20101201	—	—	—	GW	G	5	3	2												14
12-1	1350	BPSI-AQIDW01-20101201	—	—	—	GW	G	10	3	2	2	1	1	1								
12-1	1410	BPSI-SOIDW01-20101201	—	—	—	SO	C	5							1	1	1	1	1			

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY	12-1-10	1800	1. RECEIVED BY		
2. RELINQUISHED BY			2. RECEIVED BY		
3. RELINQUISHED BY			3. RECEIVED BY	12/2/10	0915

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

E-1103029

Cart 7

TETRA TECH NUS, INC.

CHAIN OF CUSTODY | NUMBER 2697 | PAGE 1 OF 1 37.7

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage	Rob Sok	757-466-4904	TriMatrix Labs
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
Jacob Birkett		Vince Shickora	610-909-1893	5560 Corporate Exchange Ct, SE
		CARRIER/WAYBILL NUMBER		CITY, STATE
		FedEx # 8706 9629 3324		Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G P P

PRESERVATIVE USED: HCl / HNO3 /

	DATE YEAR 2011	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAP (G) COMP (C)	No. OF CONTAINERS	VOCs		PCBs		TAL Metals	Hex Chrom	TEST GROUP		COMMENTS
01	2-28	0845	BPSI-TB01-20110228	—	—	—	QC	—	2	2						13		TB lab prepared
02	3-1	0900	BPSI-TT-MW302D-20110301	—	—	—	GW	G	5	3	2					14		
03	3-1	0913	BPSI-TT-MW303D-20110301	—	—	—	GW	G	5	3	2					14		
04	3-1	1040	BPSI-TT-MW302I2-20110301	—	—	—	GW	G	5	3	2					14		
05	3-1	1046	BPSI-TT-MW303I2-20110301	—	—	—	GW	G	5	3	2					14		
06	3-1	1210	BPSI-TT-MW302I1-20110301	—	—	—	GW	G	5	3	2					14		
07	3-1	1223	BPSI-TT-MW303I1-20110301	—	—	—	GW	G	5	3	2					14		
08	3-1	1400	BPSI-TT-MW302S-20110301	—	—	—	GW	G	7	3	2	1	1			23		
09	3-1	1400	BPSI-TT-MW303S-20110301	—	—	—	GW	G	15	7	6	1	1			24		Run MSMSD
			~~BPSI-Dup~~ 3-1-11															

1. RELINQUISHED BY	DATE	TIME	1. RECEIVED BY	DATE	TIME
Jacob Birkett	3-1-11	1630			
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME
			Wm Cole	3/2/11	0840

COMMENTS: TriMatrix to change TB collection date to 3/1/11. WMC 3/2/11

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

E 1103045

691R 3 Cart 7

TETRA TECH NUS, INC.

CHAIN OF CUSTODY | NUMBER 2698 | PAGE 1 OF 1 39.1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage	Rob Sok	(757) 466-4904	Trimatrix Laboratories
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
Jacob Birkett, Vince Shickora		Vince Shickora	(610) 909-1893	5560 Corporate Exchange Ct. SE
		CARRIER/WAYBILL NUMBER		CITY, STATE
		FED Ex # 8706 9629 3770		Grand Rapids, MI 49512

STANDARD TAT ☐
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

	DATE YEAR 2011	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	PCBs (1 Liter Amber)	VOCs	TAL Metals	Hex Chrom	TEST GROUP			COMMENTS
									CONTAINER TYPE PLASTIC (P) or GLASS (G)	G	G	P	P				
									PRESERVATIVE USED	—	HCl	HNO3	—				
01	3/1	1640	BPSI-SW01-20110301	—	—	—	SW	G	2	2					26		
02	3/1	1700	BPSI-TB02-20110301	—	—	—	QC	—	2		2				13		Lab prepared
03	3/2	0745	BPSI-RB01-20110302	—	—	—	QC	G	5	2	3				18		Rinsate on Grundfos
04	3/2	0922	BPSI-TT-MW301S-20110302	—	—	—	GW	G	5	2	3				14		
05	3/2	0935	BPSI-FW-MW02-20110302	—	—	—	GW	G	5	2	3				14		
06	3/2	1056	BPSI-TT-MW301D-20110302	—	—	—	GW	G	5	2	3				14		
07	3/2	1105	BPSI-FW-MW01-20110302	—	—	—	GW	G	5	2	3				14		
08	3/2	1246	BPSI-TT-MW301I-20110302	—	—	—	GW	G	7	2	3	1	1		23		
09	3/2	1315	BPSI-HN-MW29I-20110302	—	—	—	GW	G	7	2	3	1	1		23		
10	3/2	1446	BPSI-TT-MW304D-20110302	—	—	—	GW	G	7	2	3	1	1		23		
11	3/2	1200	BPSI-DUP02-20110302	—	—	—	GW	G	7	2	3	1	1		27		
12	3/2	1520	BPSI-TT-MW304I1-20110302	—	—	—	GW	G	7	2	3	1	1		23		
13	3/2	1030	BPSI-DUP01-20110302	—	—	—	GW	G	5	2	3				19		

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY	3-2-11	1800	1. RECEIVED BY		
2. RELINQUISHED BY			2. RECEIVED BY		
3. RELINQUISHED BY			3. RECEIVED BY	3/3/11	0830

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

00031

TMC 2659 434 Rd Cart 12 417

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER 2675 1103075 PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage	Rob Sok	757-466-4904	TriMatrix Lab
SAMPLERS (SIGNATURE) Jacob Birkett		FIELD OPERATIONS LEADER Vince Shickora	PHONE NUMBER 610-909-1893	ADDRESS 5560 Corporate Exchange Ct, SE
		CARRIER/WAYBILL NUMBER FedEx Airbill # 8706 9629 3769		CITY, STATE Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

DATE YEAR 2011	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	VOC	PCB	TAL Metals	Hex Chrom	TEST GROUP				COMMENTS
CONTAINER TYPE PLASTIC (P) or GLASS (G)									G	G	P	P					
PRESERVATIVE USED									HCl		HNO3						
TYPE OF ANALYSIS																	
3-3	0730	BPSI-FB01-20110303	–	–	–	QC	G	5	3	2				20			Field Blank
3-3	0731	BPSI-TB03-20110303	–	–	–	QC	–	2	2	~~2~~ 3-3-11				13			Lab prepared
3-3	0835	BPSI-SW01-20110303	–	–	–	SW	G	2		2				26			
3-3	1102	BPSI-FW-MW03-20110303	–	–	–	GW	G	5	3	2				14			
3-3	1224	BPSI-TT-MW304I2-20110303	–	–	–	GW	G	7	3	2	1	1		23			
3-3	1235	BPSI-TT-MW304$-20110303	–	–	–	GW	G	7	3	2	1	1		23			

1. RELINQUISHED BY Jacob Birkett	DATE 3-3-11	TIME 1430	1. RECEIVED BY	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY TriMatrix	DATE 3/4/11	TIME 0835

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

21888

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER № 1129 | PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112603230	NORTH/Brunswick Battery	Robert Sok	757-466-4904	TRE-MATRIX - Walt Rouderbush
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER: Jim Ferguson	PHONE NUMBER: 412-496-9283	ADDRESS: 5360 Corporate Exchange Court
		CARRIER/WAYBILL NUMBER: FED EX AB # 8735 6012 1350		CITY, STATE: Grand Rapids, MI 49512

STANDARD TAT ☐
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G P P
PRESERVATIVE USED: HCL 1 HNO3 1

DATE YEAR 2011	TIME	SAMPLE ID (19-1 717 White Cart 3 E-1110398)	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: TIL VOC	PLBS	TOTAL/HEX CHROMIUM	TOTAL/HEX CHROMIUM	PLBS		TEST GROUP		COMMENTS
10/19	11:00	BPSI-SW3001	SW 3001	—	—	SW	G	7	3	2	1	1	—		01	*	HEX CHROME 24 HR HOLD TIME
10/19	11:30	BPSI-SW3002	SW 3002	—	—	SW	G	7	3	2	1	1	—		01	*	HEX CHROME 24 HR HOLD TIME
10/19	14:00	BPSI-TT-MW309-1520	MW 309	15'	20'	SO	G	1	—	—	—	—	1		02		
10/19	13:45	BPSI-TT-MW309-2025	MW 309	20'	25'	SO	G	1	—	—	—	—	1		02		
10/19	14:15	BPSI-TT-MW309-1015	MW 309	10'	15'	SO	G	1	—	—	—	—	1		02		
10/19	13:15	BPSI-TT-MW309-0005	MW 309	00'	05'	SO	G	1	—	—	—	—	1		02		
10/19	13:30	BPSI-TT-MW309-0510	MW 309	05'	10'	SO	G	1	—	—	—	—	1		02		
10/19	0800	BPSI-TT-TB1019	—					2	2						03		Added per TtNUS 10/20/11

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY	10/19/2011	16:00	1. RECEIVED BY FED EX AB # 8735 6012 1350	10/19/2011	16:00
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY Tom Romeyn Tri-Matrix	10/20/11	0705

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

000018

E-1201112

TETRA TECH NUS, INC.

CHAIN OF CUSTODY | NUMBER № 1106 | PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	SITE 1 PCB	ROB SOK	757 618 2104	TRIMATRIX/ WALT R.
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
S Conti		S CONTI	412 551 2629	5560 CORPORATE EXC. COURT
		CARRIER/WAYBILL NUMBER		CITY, STATE
		FED EX # 8735 5966 0542		GRAND RAPIDS, MI. 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G P P P

PRESERVATIVE USED: 4°C HCL; 4°C; 4°C HNO3; 4°C; 4°C HNO3

TYPE OF ANALYSIS: VOCs (40ml); PCBs (1L Amber); TAL METALS TOT Cr, Fe; HEX Cr.; TAL METALS TOT Cr, Fe (DISS); TEST GROUP

Rack # 47-2 6599 Cart 4

	DATE YEAR 2012	TIME	SAMPLE ID *	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	VOCs (40ml)	PCBs (1L Amber)	TAL METALS TOT Cr, Fe	HEX Cr.	TAL METALS TOT Cr, Fe (DISS)		TEST GROUP	COMMENTS
01	1/10	1200	BPS1-TB-01102012	TB	—	—	QC	G	2	2						04	
02	1/10	1500	BPS1-TT-MW309S-01102012		—	—	GW	G	7	3	2	1	1			05	
03	1/10	1500	BPS1-TT-MW309S-01102012-F		—	—	GW	G	1				[redacted]	1		06	

1. RELINQUISHED BY S Conti	DATE 1/10/12	TIME 1800	1. RECEIVED BY FED EX	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE 1/11/12	TIME 0845

COMMENTS * CALL ROB SOK FOR TAT / ANALYTE HEX Cr. ASAP.

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

T00031

E-1201126 Cart 2 678 Blue 49-2

TETRA TECH NUS, INC.

CHAIN OF CUSTODY | NUMBER № 1107 | PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	SITE 1 PCB	ROB SOK	757 618 2104	TRIMATRIX / WALT R
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
SJ Conti		S CONTI	412 551 2629	5560 CORP EXC COURT
		CARRIER/WAYBILL NUMBER		CITY, STATE
		FED EX # 8735 5966 0531		GRAND RAPIDS, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

	DATE YEAR 2012	TIME	SAMPLE ID	~~LOCATION ID~~	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	VOCs (40ml)	PCBs (1L AMBER)	TAL METALS TOT CN FC	HEX CR.	TAL METALS (DISS)		TEST GRP DEP	COMMENTS
CONTAINER TYPE PLASTIC (P) or GLASS (G)										G	G	P	P	P			
PRESERVATIVE USED										4°C HCL	4°C	4°C HNO3	4°C	4°C HNO3			
01	1/11	0800	BPS1-TB-01112012	TB	–	–	QC	G	2	2						04	TRIP BLANK
02	1/11	1000	BPS1-TT-MW309I-0111	2012	–	–	GW	G	7	3	2	1	1			05	MW309I
03	1/11	1410	BPS1-TT-MW309D-0111	2012	–	–	GW	G	7	3	2	1	1			05	MW309D
04	1/11	1410	BPS1-TT-MW309D-0111	2012-F	–	–	GW	G	1					1		06	MW309D (F)

1. RELINQUISHED BY SJ Conti	DATE 1/11/12	TIME 1630	1. RECEIVED BY FED EX.	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY [signature]	DATE 1/12/12	TIME 0900

COMMENTS CALL ROB SOK W/ ANY QUESTIONS.

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

00036

E-1201218

Cart 10 Rack #5 MG 32446

TETRA TECH NUS, INC.

CHAIN OF CUSTODY

NUMBER № 1167 | PAGE 1 OF 1 9-5

PROJECT NO: 112G02230	FACILITY: NWIRP Bethpage	PROJECT MANAGER: Rob Sok	PHONE NUMBER: 757-466-4904	LABORATORY NAME AND CONTACT: TriMatrix Walt Roulebush
SAMPLERS (SIGNATURE): Jacob Birkett		FIELD OPERATIONS LEADER: Vince Shickora	PHONE NUMBER: 610-909-1893	ADDRESS: 5560 Corporate Exchange Court
		CARRIER/WAYBILL NUMBER: FedEx 8729-3229-8874		CITY, STATE: Grand Rapids MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G P P
PRESERVATIVE USED: HCl – HNO3 –

	DATE YEAR 2012	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	VOCs	PCBs	Metals (Fe+Cr)	Hexavalent Cr.		TEST GROUP			COMMENTS
1	1-16	0935	BPSI-TB01-01162012	—	—	—	QC	—	2	2					04			Lab prepared
2	1-16	1230	BPSI-TT-MW308D-01162012	—	—	-	GW	G	6	3	2	1			07			
3	1-16	1440	BPSI-TT-MW308I-01162012	—	—	—	GW	G	6	3	2	1			07			
4	1-16	1605	BPSI-TT-MW308S-01162012	—	—	—	GW	G	16	7	6	3			08			Run MSMSD
5	1-17	0950	BPSI-TT-MW301D-01172012	—	—	—	GW	G	6	3	2	1			07			
6	1-17	1050	BPSI-TT-MW305S-01172012	—	—	—	GW	G	6	3	2	1			07			
7	1-17	1140	BPSI-TT-MW301S-01172012	—	—	-	GW	G	6	3	2	1			07			
8	1-17	1158	BPSI-TT-MW305I-01172012	—	—	—	GW	G	6	3	2	1			07			
9	1-17	1305	BPSI-TT-MW301I-01172012	—	—	—	GW	G	7	3	2	1	1		05			
10	1-17	1446	BPSI-TT-MW305D-01172012	—	—	—	GW	G	7	3	2	1	1		05			
11	1-17	1515	BPSI-FW-MW02-01172012	—	—	—	GW	G	6	3	2	1			07			
12	1-17	1200	BPSI-Dup01-01172012	—	—	-	GW	G	6	3	2	1			09			

1. RELINQUISHED BY: Jacob Birkett	DATE: 1-17-12	TIME: 1720	1. RECEIVED BY	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE: 1-18-12	TIME: 0845

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

00041

E-1201218

Cart 10 Rack #5 MG 32446

TETRA TECH NUS, INC.

CHAIN OF CUSTODY

NUMBER № 1167 | PAGE 1 OF 1 9-5

PROJECT NO: 112G02230	FACILITY: NWIRP Bethpage	PROJECT MANAGER: Rob Sok	PHONE NUMBER: 757-466-4904	LABORATORY NAME AND CONTACT: TriMatrix Walt Roulebush
SAMPLERS (SIGNATURE): Jacob Birkett		FIELD OPERATIONS LEADER: Vince Shickora	PHONE NUMBER: 610-909-1893	ADDRESS: 5560 Corporate Exchange Court
		CARRIER/WAYBILL NUMBER: FedEx 8729-3229-8874		CITY, STATE: Grand Rapids MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G P P
PRESERVATIVE USED: HCl – HNO3 –

	DATE YEAR 2012	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	VOCs	PCBs	Metals (Fe+Cr)	Hexavalent Cr.		TEST GROUP			COMMENTS
1	1-16	0935	BPSI-TB01-01162012	—	—	—	QC	—	2	2					04			Lab prepared
2	1-16	1230	BPSI-TT-MW308D-01162012	—	—	-	GW	G	6	3	2	1			07			
3	1-16	1440	BPSI-TT-MW308I-01162012	—	—	—	GW	G	6	3	2	1			07			
4	1-16	1605	BPSI-TT-MW308S-01162012	—	—	—	GW	G	16	7	6	3			08			Run MSMSD
5	1-17	0950	BPSI-TT-MW301D-01172012	—	—	—	GW	G	6	3	2	1			07			
6	1-17	1050	BPSI-TT-MW305S-01172012	—	—	—	GW	G	6	3	2	1			07			
7	1-17	1140	BPSI-TT-MW301S-01172012	—	—	-	GW	G	6	3	2	1			07			
8	1-17	1158	BPSI-TT-MW305I-01172012	—	—	—	GW	G	6	3	2	1			07			
9	1-17	1305	BPSI-TT-MW301I-01172012	—	—	—	GW	G	7	3	2	1	1		05			
10	1-17	1446	BPSI-TT-MW305D-01172012	—	—	—	GW	G	7	3	2	1	1		05			
11	1-17	1515	BPSI-FW-MW02-01172012	—	—	—	GW	G	6	3	2	1			07			
12	1-17	1200	BPSI-Dup01-01172012	—	—	-	GW	G	6	3	2	1			09			

1. RELINQUISHED BY: Jacob Birkett	DATE: 1-17-12	TIME: 1720	1. RECEIVED BY	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE: 1-18-12	TIME: 0845

COMMENTS

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00041

Rack 306G ? Cart 11

1201344

TETRA TECH NUS, INC.

CHAIN OF CUSTODY | NUMBER № 1168 | PAGE 1 OF 1

11-2

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage	Rob Sok	757-466-4904	Trimatrix Walt Roudebush
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
		Vince Shickora	610-909-1893	5560 Corporate Exchang Court SE
		CARRIER/WAYBILL NUMBER		CITY, STATE
		FedEx 8729 3229 8680		Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G P P P
PRESERVATIVE USED: HCl / HNO3 HNO3 /

	DATE YEAR 2012	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	VOCs	PCBs	Total Metals (Fe+Cr)	Filtered Dissolved Metals (Fe+Cr)	Hexavalent Cr.		TEST GROUP		COMMENTS
1	1-18	0800	BPSI-TB02-01182012	—	—	—	QC	—	2	2						04		Lab prepared
2	1-18	0810	BPSI-FB01-01182012	—	—	—	QC	—	8	3	2	1	1	1		10		Field Blank
3	1-18	0820	BPSI-RB01-01182012	—	—	—	QC	—	8	3	2	1	1	1		11		Rinsate Blank over Grundfos
4	1-18	1042	BPSI-TT-MW307D-01182012	—	—	—	GW	G	6	3	2	1				07		
5	1-18	1045	BPSI-TT-MW304S-01182012	—	—	—	GW	G	6	3	2	1				07		
6	1-18	1225	BPSI-TT-MW304I1-01182012	—	—	—	GW	G	7	3	2	1	X JB 1-18-12	1		05		
7	1-18	1232	BPSI-TT-MW307I-01182012	—	—	—	GW	G	7	3	2	1		1		05		
8	1-18	1400	BPSI-TT-MW304I2-01182012	—	—	—	GW	G	7	3	2	1		1		05		
9	1-18	1450	BPSI-TT-MW307S-01182012	—	—	—	GW	G	6	3	2	1				07		
10	1-18	1600	BPSI-TT-Dup02-01182012	—	—	—	GW	G	7	3	2	1		1		12		Duplicate

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY	1-18-2012	1700	1. RECEIVED BY		
2. RELINQUISHED BY			2. RECEIVED BY		
3. RELINQUISHED BY			3. RECEIVED BY	1-19-12	0845

COMMENTS

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000048

Cart 4 3.3 Rack #377G E-1201254

TETRA TECH NUS, INC.

CHAIN OF CUSTODY | NUMBER № 1134 | PAGE 1 OF 1 13.5

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage	Rob Sok	757-466-4904	TriMatrix Walt Roudebush
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER: Vince Shickom	PHONE NUMBER: 610-909-1893	ADDRESS: 5560 Corporate Exchange Court SE
		CARRIER/WAYBILL NUMBER: FedEx 8729 3229 8679		CITY, STATE: Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

	DATE YEAR	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	VOC	PCB	Total Metals (Fe+Cr)	Filtered/Dissolved Metals (Fe+Cr)	Total Metals (Fe, Cr, Ca, Na)	Hexavalent Chromium		TEST GROUP	COMMENTS
CONTAINER TYPE PLASTIC (P) or GLASS (G)										G	G	P	P	P	P			
PRESERVATIVE USED										HCl	—	HNO3	HNO3	HNO3	—			
1	1-19	0745	BPSI-TB03-01192012	—	—	—	QC	—	2	2							04	Lab Prepared
2	1-19	0917	BPSI-HN-MW29I-01192012	—	—	—	GW	G	6	3	2			1			01	
3	1-19	0930	BPSI-FW-MW01-01192012	—	—	—	GW	G	6	3	2	1					07	
4	1-19	1110	BPSI-FW-MW03-01192012	—	—	—	GW	G	6	3	2	1					07	
5	1-19	1117	BPSI-TT-MW304D-01192012	—	—	—	GW	G	6	3	2	1					07	
6	1-19	1307	BPSI-TT-MW303I2-01192012	—	—	—	GW	G	7	3	2	1			1		05	
7	1-19	1415	BPSI-TT-MW303I1-01192012	—	—	—	GW	G	7	3	2	1	1				13	
8	1-19	1452	BPSI-TT-MW303D-01192012	—	—	—	GW	G	6	3	2	1					07	
9	1-19	1630	BPSI-Dup03-01192012	—	—	—	GW	G	6	3	2	1					09	Duplicate

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY	1-19-12	1645	1. RECEIVED BY		
2. RELINQUISHED BY			2. RECEIVED BY		
3. RELINQUISHED BY			3. RECEIVED BY	1-20-12	0845

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

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00022

E-1201287

Rack # 160 Blue Cart 2 15-7 TM 1395

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER № 1132 | PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage	Rob Sok	757-~~814~~ 466-4904	Tri Matrix Walt Raudebush
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER: Vince Shickora	PHONE NUMBER: 610-909-1893	ADDRESS: 5560 Corporate Exchange Court SE
		CARRIER/WAYBILL NUMBER: FedEx 8729-3229-8830		CITY, STATE: Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

	DATE YEAR 2012	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	VOCs	PCBs	Total Metals (Fe & Cr)	Total Metals (Fe, Cr, Cu, Mn)		TEST GROUP			COMMENTS
CONTAINER TYPE PLASTIC (P) or GLASS (G)										G	G	P	P					
PRESERVATIVE USED										HCl	/	HNO_3	HNO_3					
01	1-20	0730	BPSI-TB04-01202012	—	—	—	QC	—	2	2					04			Lab prepared
02	1-20	0920	BPSI-TT-MW302S-01202012	—	—	—	GW	G	6	3	2	1			07			
03	1-20	1000	BPSI-TT-MW302D-01202012	—	—	—	GW	G	6	3	2		1		01			
04	1-20	1045	BPSI-TT-MW302I1-01202012	—	—	—	GW	G	6	3	2	1			07			
05	1-20	1115	BPSI-TT-MW302I2-01202012	—	—	—	GW	G	6	3	2	1			07			

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY	1-20-12	1400	1. RECEIVED BY		
2. RELINQUISHED BY			2. RECEIVED BY		
3. RELINQUISHED BY			3. RECEIVED BY Tri Matrix	1/21/12	0845

COMMENTS

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00028

E-1201310

TETRA TECH NUS, INC.

CHAIN OF CUSTODY

NUMBER 2674

Rack # 12, ~~914~~ Cart 9 white

19-3

PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage	Rob Sok	757-466-4904	TriMatrix Walt Roudebush
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER: Vince Shickora	PHONE NUMBER: 610-909-1893	ADDRESS: 5560 Corporate Exchange Court SE
		CARRIER/WAYBILL NUMBER: FedEx 8749-3229-8841		CITY, STATE: Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G P P G

PRESERVATIVE USED: HCl / HNO3 / H2SO4

TYPE OF ANALYSIS

	DATE YEAR 2012	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	VOCs	PCBs	Total Metals (Fe+Cl)	Hexavalent Chromium	TOC		TEST GROUP		COMMENTS
01	1-23	0730	BPSI-TB05-01232012	—	—	—	QC	—	2	2						04		Lab prepared
02	1-23	1035	BPSI-TT-MW306D-01232012	—	—	—	GW	G	9	3	2	1		3		14		
03	1-23	1049	BPSI-TT-MW303S-01232012	—	—	—	GW	G	6	3	2	1				07		
04	1-23	1210	BPSI-TT-MW306I-01232012	—	—	—	GW	G	18	7	6	1	1	3		15		Run MS/MSD on everything except TOC
05	1-23	1230	BPSI-TT-MW301D-01232012	—	—	—	GW	G	1				1			16		
06	1-23	1330	BPSI-RB02-01232012	—	—	—	QC	—	7	3	2	1	1			17		Rinsate Blank
07	1-23	1350	BPSI-TT-MW306S-01232012	—	—	—	GW	G	10	3	2	1	1	3		~~14~~	19	
08	1-23	1430	BPSI-FB02-01232012	—	—	—	QC	—	7	3	2	1	1			18		Source Blank
09	1-23	1600	BPSI-Dup04-01232012	—	—	—	GW	G	6	3	2	1				09		

1. RELINQUISHED BY	DATE 1-23-12	TIME	1. RECEIVED BY	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY TriMatrix	DATE 1/24/12	TIME 0845

COMMENTS

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Cart 6, E-1207388

27-1

TETRA TECH NUS, INC.

CHAIN OF CUSTODY | NUMBER № 1137 | PAGE 1 OF 3

PROJECT NO: 112G02230	FACILITY: NWIRP Bethpage	PROJECT MANAGER: Rob Sok	PHONE NUMBER: (757) 466-4904
LABORATORY NAME AND CONTACT: Trimatrix (Walt Roudebush)	SAMPLERS (SIGNATURE)	FIELD OPERATIONS LEADER: Vince Shickora	PHONE NUMBER: (610) 909-1893
ADDRESS: 5560 Corporate Exchange Court	CARRIER/WAYBILL NUMBER: FED Ex # 8744 5964 0018	CITY, STATE: Grand Rapids MI 49512	

STANDARD TAT ☐ (*) 5 Day Turn
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

	DATE YEAR 2012	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	CONTAINER TYPE PLASTIC (P) or GLASS (G)	PRESERVATIVE USED	TYPE OF ANALYSIS: PCBs (250ml glass)	PCBs (1000ml Amber)	TESS GRADUP					COMMENTS
										G	G	4°C	4°C						
01	7/24	1349	BPSI-SB3013-0002	—	0'	2'	SO	G	1	1				01					
02	7/24	1359	BPSI-SB3014-0002	—	0'	2'	SO	G	1	1				↓					
03	7/24	1418	BPSI-SB3015-0002	—	0'	2'	SO	G	1	1									
04	7/24	1521	BPSI-SB3016-0002	—	0'	2'	SO	G	1	1									
05	7/24	1533	BPSI-SB3017-0002	—	0'	2'	SO	G	1	1									
06	7/24	1700	BPSI-SB3018-0002	—	0'	2'	SO	G	1	1									
07	7/24	1630	BPSI-SB3019-0002	—	0'	2'	SO	G	1	1									
08	7/24	1458	BPSI-SB3020-0002	—	0'	2'	SO	G	1	1									
09	7/24	1443	BPSI-SB3021-0002	—	0'	2'	SO	G	1	1									
10	7/24	1340	BPSI-SB3022-0002	—	0'	2'	SO	G	1	1									
11	7/24	1329	BPSI-SB3023-0002	—	0'	2'	SO	G	1	1									
12	7/24	1208	BPSI-SB3035-0002	—	0'	2'	SO	G	1	1				↓					
13	7/24	1224	BPSI-SB3034-0002	—	0'	2'	SO	G	1	1				03					Do MS/MSD

1. RELINQUISHED BY	DATE 7-25-12	TIME 1300	1. RECEIVED BY	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE 7-26-12	TIME 0800

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

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00018

E-1207388

27-1

TETRA TECH NUS, INC.

CHAIN OF CUSTODY | NUMBER № 1136 | PAGE 2 OF 3

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage	Rob Sok	(757) 466-4904	Trimatrix (Walt Roudebush)
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
[signature]		Vince Shickora	(610) 909-1893	5560 Corporate Exchange Court
		CARRIER/WAYBILL NUMBER		CITY, STATE
		FED EX # 8744 5964 0018		Grand Rapids MI 49512

STANDARD TAT ☐ (*) 5 day Turn
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G
PRESERVATIVE USED: 4°C 4°C

	DATE YEAR 2012	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	PCBs (250 ml glass)	PCBs (1000 ml Amber)		TESS GROUP					COMMENTS
14	7/24	1238	BPSI-SB3033-0002	—	0'	2'	SO	G	1	1			01					
15	7/24	1252	BPSI-SB3032-0002	—	0'	2'	SO	G	1	1			↓					
16	7/24	1305	BPSI-SB3031-0002	—	0'	2'	SO	G	1	1			↓					
17	7/24	1545	BPSI-SB3043-0002	—	0'	2'	SO	G	1	1			↓					
18	7/24	1602	BPSI-SB3042-0002	—	0'	2'	SO	G	1	1			03					Do MS/MSD
19	7/24	1614	BPSI-SB-3041-0002	—	0'	2'	SO	G	1	1			01					
20	7/24	1644	BPSI-SB3040-0002	—	0'	2'	SO	G	1	1			↓					
21	7/24	1105	BPSI-SB3039-0002	—	0'	2'	SO	G	1	1			↓					
22	7/24	1125	BPSI-SB3038-0002	—	0'	2'	SO	G	1	1			↓					
23	7/24	1139	BPSI-SB3037-0002	—	0'	2'	SO	G	1	1			↓					
24	7/24	1152	BPSI-SB3036-0002	—	0'	2'	SO	G	1	1			↓					
25	7/24	1430	BPSI-SB3044-0002	—	0'	2'	SO	G	1	1			↓					
26	7/24	1200	BPSI-DUP01	—	0'	2'	SO	G	1	1			02					

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY [signature]	7-25-12	1300	1. RECEIVED BY		
2. RELINQUISHED BY			2. RECEIVED BY		
3. RELINQUISHED BY			3. RECEIVED BY [signature]	7-26-12	0800

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

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00019

E-1207388

27-1

TETRA TECH NUS, INC.

CHAIN OF CUSTODY | NUMBER № 1138 | PAGE 3 OF 3

PROJECT NO: 112G02230	FACILITY: NWIRP Bethpage	PROJECT MANAGER: Rob Sok	PHONE NUMBER: (757) 466-4904
SAMPLERS (SIGNATURE): [signature]		FIELD OPERATIONS LEADER: Vince Shickora	PHONE NUMBER: (610) 909-1893
		CARRIER/WAYBILL NUMBER: FED Ex # 8744 5964 0018	

LABORATORY NAME AND CONTACT: Trimatrix (Walt Roudebush)

ADDRESS: 5560 Corporate Exchange Court

CITY, STATE: Grand Rapids, MI 49512

STANDARD TAT ☐ (*) 5 day Turn
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

	DATE YEAR 2012	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	PCBs (250 ml glass)	PCBs (1000 ml Amber)	TEST GROUP					COMMENTS
	CONTAINER TYPE PLASTIC (P) or GLASS (G)									G	G						
	PRESERVATIVE USED									4°C	4°C						
27	7/24	1201	BPS1-DUP02	—	0'	2'	SO	G	1	1		02					
28	7/24	1202	BPS1-DUP03	—	0'	2'	SO	G	1	1		02					
29	7/24	1312	BPS1-RB01-072412	—	—	—	QC	G	2		2	04					Rinsate Blank
30	7/24	1317	BPS1-FB01-072412	—	—	—	QC	G	2		2	05					Source Water Blank

1. RELINQUISHED BY [signature]	DATE 7-25-12	TIME 1300	1. RECEIVED BY	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY [signature] Cole	DATE 7-26-12	TIME 0800

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

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FORM NO. TtNUS-001

00020

E-12083163

234

TETRA TECH NUS, INC.

CHAIN OF CUSTODY | NUMBER № 1140 | PAGE 1 OF 3

PROJECT NO: 112G02230	FACILITY: NWIRP Bethpage	PROJECT MANAGER: Rob Sok	PHONE NUMBER: (757) 466-4904	LABORATORY NAME AND CONTACT: Trimatrix (wait Roudebush)
SAMPLERS (SIGNATURE): Jake Birkett		FIELD OPERATIONS LEADER: Jake Birkett	PHONE NUMBER: (757) 814-9916	ADDRESS: 5560 Corporate Exchange Court
		CARRIER/WAYBILL NUMBER: FED Ex # 8744 5963 9632		CITY, STATE: Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☒ Select
☐ 24 hr. ☐ 48 hr. ☒ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G

PRESERVATIVE USED: 4°C 4°C

TYPE OF ANALYSIS: PCBs (250 ml glass) / PCBs (1000 ml Amber) / TEST GROUP

	DATE YEAR 2012	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	PCBs (250 ml glass)	PCBs (1000 ml Amber)		TEST GROUP					COMMENTS
1.	8/20	1000	BPSI-SB3031-0205	-	2.0	5.0	SO	C	1	1			01					Quick Turn
2.	8/20	1017	BPSI-SB3031-0510	-	5.0	10.0	SO	C	1	1			01					Quick Turn
	8/20	0900	BPSI-DUP04-20120820	-	-	-	SO	C	1	1			—					
3.	8/20	1020	BPSI-SB3031-1015	-	10.0	15.0	SO	C	1	1			01					Quick Turn
4.	8/20	1056	BPSI-SB3024-0002	-	0.0	2.0	SO	G	1	1			01					Quick Turn
5.	8/20	1103	BPSI-SB3024-0205	-	2.0	5.0	SO	C	1	1			01					Quick Turn
6.	8/20	1119	BPSI-SB3024-0510	-	5.0	10.0	SO	C	1	1			01					Quick Turn
7.	8/20	1128	BPSI-SB3024-1015	-	10.0	15.0	SO	C	1	1			01					Quick Turn
8.	8/20	1138	BPSI-SB3024-1520	-	15.0	20.0	SO	C	1	1			01					Quick Turn
9.	8/20	1150	BPSI-SB3024-2025	-	20.0	25.0	SO	C	1	1			03					Quick Turn Do MS/MSD
	8/20	1240	BPSI-SB3044-0205	-	2.0	5.0	SO	C	1	1			—					
	8/20	1200	BPSI-DUP05-20120820	-	-	-	SO	C	1	1			—					
	8/20	1310	BPSI-SB3044-0510	-	5.0	10.0	SO	C	1	1			—					

1. RELINQUISHED BY: Jacob Birkett	DATE: 8-21-12	TIME: 1800	1. RECEIVED BY: FedEx	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE: 8-22-12	TIME: 0830

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

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00031

E-1208363

23-4

TETRA TECH NUS, INC.

CHAIN OF CUSTODY | NUMBER № 1141 | PAGE 2 OF 3

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage	Rob Sok	(757) 466-4904	Trimatrix (Walt Roudebush)
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
		Jake Birkett	(757) 814-9916	5560 Corporate Exchange Court)
		CARRIER/WAYBILL NUMBER		CITY, STATE
		FED Ex # 8744 5963 9632		Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☒ ☐ 24 hr. ☐ 48 hr. ☒ 72 hr. (Select) ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G

PRESERVATIVE USED: 4° 4°

TYPE OF ANALYSIS: PCBs (250 ml glass) / PCBs (1000 ml Amber) / TEST GROUP

	DATE YEAR 2012	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	PCBs (250 ml glass)	PCBs (1000 ml Amber)		TEST GROUP					COMMENTS
	8/20	1317	BPSI-SB3044-1015	-	10.0	15.0	SO	C	1	1			—					
10.	8/20	1400	BPSI-SB3015-0205	-	2.0	5.0	SO	C	1	1			01					Quick Turn
11.	8/20	1425	BPSI-SB3015-0510	-	5.0	10.0	SO	C	1	1			01					Quick Turn
12.	8/20	1437	BPSI-SB3015-1015	-	10.0	15.0	SO	C	1	1			01					Quick Turn
13.	8/20	1505	BPSI-SB3014-0205	-	2.0	5.0	SO	C	1	1			01					Quick Turn
14.	8/20	1515	BPSI-SB3014-0510	-	5.0	10.0	SO	C	1	1			01					Quick Turn
15.	8/20	1525	BPSI-SB3014-1015	-	10.0	15.0	SO	C	1	1			01					Quick Turn
	8/21	0850	BPSI-SB3013-0510	-	5.0	10.0	SO	C	1	1			—					
	8/21	0945	BPSI-SB3013-1015	-	10.0	15.0	SO	C	1	1								
	8/21	1039	BPSI-SB3013-2535	-	25.0	35.0	SO	C	1	1								
	8/21	1045	BPSI-SB3013-3540	-	35.0	40.0	SO	C	1	1								
	8/21	1242	BPSI-SB3020-0205	-	2.0	5.0	SO	C	1	1								
	8/21	1200	BPSI-DUP06-20120821	-	-	-	SO	C	1	1								

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY Jacob Birkett	8-21-12	1800	1. RECEIVED BY FedEx		
2. RELINQUISHED BY			2. RECEIVED BY		
3. RELINQUISHED BY			3. RECEIVED BY	8-22-12	0830

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

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E-12083b3

234

TETRA TECH NUS, INC.

CHAIN OF CUSTODY | NUMBER № 1142 | PAGE 3 OF 3

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage	Rob Sok	(757) 466-4904	Trimatrix (Walt Roudebush)
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
		Jake Birkett	(757) 814-9916	5560 Corporate Exchange Court
		CARRIER/WAYBILL NUMBER		CITY, STATE
		FED Ex # 8744 5963 9632		Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☒ Select
☐ 24 hr. ☐ 48 hr. ☒ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G

PRESERVATIVE USED: 4°C

TYPE OF ANALYSIS: PCBs (250 ml glass); TEST, GROUP

	DATE YEAR 2012	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	PCBs (250 ml glass)			TEST, GROUP					COMMENTS
	8/21	1253	BPSI-SB3020-0510	-	5.0	10.0	SO	C	1	1			1					
	8/21	1258	BPSI-SB3020-1015	-	10.0	15.0	SO	C	1	1								Do MS/MSD
	8/21	1302	BPSI-SB3020-1520	-	15.0	20.0	SO	C	1	1								
	8/21	1332	BPSI-SB3020-2025	-	20.0	25.0	SO	C	1	1								
	8/21	1417	BPSI-SB3020-2530	-	25.0	30.0	SO	C	1	1								
16	8-21	1519	BPSI-SB3023-0205	-	2.0	5.0	SO	C	1	1			01					Quick Turn
17	8-21	1523	BPSI-SB3023-0510	-	5.0	10.0	SO	C	1	1			01					Quick Turn
18	8-21	1536	BPSI-SB3023-1015	-	10.0	15.0	SO	C	1	1			01					Quick Turn

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY Jacob Birkett	8-21-12	1800	1. RECEIVED BY FedEx		
2. RELINQUISHED BY			2. RECEIVED BY		
3. RELINQUISHED BY			3. RECEIVED BY	8-22-12	0830

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

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E-1208407

27-2

TETRA TECH NUS, INC.

CHAIN OF CUSTODY | NUMBER № 1178 | PAGE 2 OF 4

PROJECT NO: 112G02230	FACILITY: NWIRP Bethpage Site	PROJECT MANAGER: Rob Sok	PHONE NUMBER: 757-466-4904
LABORATORY NAME AND CONTACT: TriMatrix Walt Roudebush	SAMPLERS (SIGNATURE): [signature]	FIELD OPERATIONS LEADER: Jacob Birkett	PHONE NUMBER: 757-814-9916
ADDRESS: 5560 Corporate Exchange Court	CARRIER/WAYBILL NUMBER: FedEx 8744 5963 9643	CITY, STATE: Grand Rapids, MI 49512	

STANDARD TAT ☒
RUSH TAT ☒ ☒ 10 Day
☐ 24 hr. ☐ 48 hr. ☒ 72 hr. ☐ 7 day ☐ 14 day

	DATE YEAR 2012	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: Soil PCBs (250 mL Jar)	Aqueous PCBs (1000 mL Amber bottle)		TEST GROUP					COMMENTS
									CONTAINER TYPE PLASTIC (P) or GLASS (G)	G	G							
									PRESERVATIVE USED	/	/							
11.	8-22	1104	BPSI-SB3045-0002	SB 3045	0	2	SO	C	1	1			01					72 hour TAT
12.	8-22	1120	BPSI-SB3046-0002	SB 3046	0	2	SO	C	1	1			01					72 hour TAT
	8-22	1124	BPSI-SB3034-0206	SB 3034	2	6	SO	C	1	1			—					10 Day TAT
	8-22	1136	BPSI-SB3034-0610	SB 3034	6	10	SO	C	1	1			—					10 Day TAT
13.	8-22	1140	BPSI-SB3047-0002	SB 3047	0	2	SO	C	1	1			01					72 hour TAT
	8-22	1145	BPSI-SB3034-1015	SB 3034	10	15	SO	C	1	1			—					10 Day TAT
	8-22	1215	BPSI-RB02-20120822	—	—	—	QC	—	2		2		—					Rinsate
	8-22	1220	BPSI-FB02-20120822	—	—	—	QC	—	2		2		—					Source Blank of Rinsate water
	8-22	1323	BPSI-SB3035-0206	SB 3035	2	6	SO	C	1	1			—					10 Day TAT
	8-22	1334	BPSI-SB3035-0610	SB 3035	6	10	SO	C	1	1			—					10 Day TAT
	8-22	1342	BPSI-SB3035-1015	SB 3035	10	15	SO	C	1	1			—					10 Day TAT
	8-22	1417	BPSI-SB3036-0206	SB 3036	2	6	SO	C	1	1			—					10 Day TAT
	8-22	1425	BPSI-SB3036-0610	SB 3036	6	10	SO	C	1	1			—					10 Day TAT

1. RELINQUISHED BY: Jacob Birkett [signature]	DATE: 8-23-12	TIME: 1800	1. RECEIVED BY: FedEx	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY: [signature]	DATE: 8-24-12	TIME: 0830

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

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TETRA TECH NUS, INC.

CHAIN OF CUSTODY | NUMBER № 1179 | PAGE 3 OF 4

PROJECT NO: 112G02230	FACILITY: NWIRP Bethpage Sitel	PROJECT MANAGER: Rob Sok	PHONE NUMBER: 757-466-4904
		FIELD OPERATIONS LEADER: Jacob Birkett	PHONE NUMBER: 757-814-9916
SAMPLERS (SIGNATURE): [signature]		CARRIER/WAYBILL NUMBER: FedEx 8744 5963 9643	

LABORATORY NAME AND CONTACT: TriMatrix Walt Roudebush
ADDRESS: 5560 Corporate Exchange Court
CITY, STATE: Grand Rapids, MI 49512

STANDARD TAT ☒ RUSH TAT ☒ ☒ 10 Day
☐ 24 hr. ☐ 48 hr. ☒ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G
PRESERVATIVE USED: —

TYPE OF ANALYSIS

DATE YEAR 2012	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	Soil PCB (250 mL jar)	TESTGROUP	COMMENTS
8-22	1435	BPSI-SB3036-1015	SB 3036	10	15	SO	G	1	1	—	10 Day TAT
8-22	1538	BPSI-SB3037-0205	SB 3037	2	5	SO	C	1	1		10 Day TAT
8-22	1550	BPSI-SB3037-0510	SB 3037	5	10	SO	C	1	1		10 Day TAT
8-22	1558	BPSI-SB3037-1015	SB 3037	10	15	SO	C	1	1		10 Day TAT
8-22	0800	BPSI-Dup07-20120822	—	—	—	SO	C	1	1		
8-22	0900	BPSI-Dup08-20120822	—	—	—	SO	C	1	1		
8-22	1200	BPSI-Dup09-20120822	—	—	—	SO	C	1	1		
8/23	0841	BPSI-SB3039-0205	SB 3039	2'	5'	SO	C	1	1		10 Day TAT
8/23	0848	BPSI-SB3039-0510	SB 3039	5'	10'	SO	C	1	1		10 Day TAT
8/23	0800	BPSI-DUP10-20120823	—	—	—	SO	C	1	1		
8/23	0856	BPSI-SB3039-1015	SB 3039	10'	15'	SO	C	1	1		10 Day TAT
8/23	0935	BPSI-SB3038-0205	SB 3038	2'	5'	SO	C	1	1		10 Day TAT
8/23	0953	BPSI-SB3038-0510	SB 3038	5'	10'	SO	C	1	1		10 Day TAT

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY: Jacob Birkett [signature]	8-23-12	1800	1. RECEIVED BY: FedEx		
2. RELINQUISHED BY			2. RECEIVED BY		
3. RELINQUISHED BY			3. RECEIVED BY: [signature]	8.24.12	0830

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

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27.2

TETRA TECH NUS, INC.

CHAIN OF CUSTODY | NUMBER № 1143 | PAGE 4 OF 4

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage	Rob Sok	757-466-4904	Trimatrix (Walt Roudebush)
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER: Jake Birkett	PHONE NUMBER: 757-814-9916	ADDRESS: 5560 Corporate Exchange Court
		CARRIER/WAYBILL NUMBER: FED Ex # 8744 5963 9643		CITY, STATE: Grand Rapids MI 49512

STANDARD TAT ☒
RUSH TAT ☒ ☒ 10-day
☐ 24 hr. ☐ 48 hr. ☒ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G
PRESERVATIVE USED: 4°C

	DATE YEAR 2012	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: PCBs (250 ml jar)			TEST GROUP					COMMENTS
	8/23	1003	BPSI-SB3038-1015	SB 3038	10'	15'	SO	C	1	1			—					10 Day TAT
14.	8/23	1333	BPSI-SB3021-0205	SB 3021	2'	5'	SO	C	1	1			01					72 hour TAT
15.	8/23	1344	BPSI-SB3021-0510	SB 3021	5'	10'	SO	C	1	1			01					72 hour TAT
	~~8/23~~	~~1200~~	~~BPSI-DUP~~															VAS
	8/23	1200	BPSI-DUP11-20120823	—	—	—	SO	C	1	1			—					
16.	8/23	1355	BPSI-SB3021-1015	SB 3021	10'	15'	SO	C	1	1			01					72 hour TAT
17.	8/23	1401	BPSI-SB3021-1520	SB 3021	15'	20'	SO	C	1	1			01					72 hour TAT
18.	8/23	1412	BPSI-SB3021-2025	SB 3021	20'	25'	SO	C	1	1			01					72 hour TAT
	8/23	1530	BPSI-SB3005-0010 Bucket#1	SB 3005	0	10'	SO	C	1	1			—					
	8/23	1530	BPSI-SB3005-0010 Bucket#2	SB 3005	0	10'	SO	C	1	1			—					
19.	~~8/23~~	~~1427~~																~~BPSI-SB3021-2530~~ added by Trimatrix ~~product~~ 72 hr. TAT
	8/23	1427	BPSI-SB3021-2530	SB 3021	25'	30'	SO	C	1	1			01					72 hour TAT

8-23-12

WM 8/24

1. RELINQUISHED BY	DATE	TIME	1. RECEIVED BY	DATE	TIME
Jacob Birkett	8.23.12	1800	FedEx		
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME
				8.24.12	0830

COMMENTS

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00050

TETRA TECH NUS, INC. 1208544 CHAIN OF CUSTODY | NUMBER № 1145 | PAGE 2 OF 2

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage	Rob Sok	757-466-4904	Trimatrix (Walt Roudebush)
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
		Vince Shickora	610-909-1893	5560 Corporate Exchange Court
		CARRIER/WAYBILL NUMBER		CITY, STATE
		FED Ex # 8744 5963 9645		Grand Rapids MI 49512

STANDARD TAT ☐
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G
PRESERVATIVE USED: 4°C

	DATE YEAR 2012	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	PCBs (250 ml Jar)			TEST GROUP					COMMENTS
11.	8/29	1028	BPS1-SB3029-1520	SB 3029	15	20	SO	C	1	1			—					Standard Turn
12.	8/29	1040	BPS1-SB3029-2025	SB 3029	20	25	SO	C	1	1			—					
13.	8/29	1200	BPS1-DUP13-20120829	—	—	—	SO	C	1	1			—					
14.	8/29	1059	BPS1-SB3029-2535	SB 3029	25	35	SO	C	1	1			—					
15.	8/29	1305	BPS1-SB3029-3545	SB 3029	35	45	SO	C	1	1			—					
04	8/29	1423	BPS1-SB3029-4555	SB 3029	45	55	SO	C	1	1			01					72 hour Turn
05	8/29	1650	BPS1-SB3029-5565	SB 3029	55	65	SO	C	1	1			01					72 hour Turn
06	8/27	1605	BPS1-SB3020-5560	SB 3020	55	60	SO	C	1	1			01					72 hour Turn
16.	8/30	1020	BPS1-SB3030-2535	SB 3030	25	35	SO	C	1	1			—					Do MS/MSD
07	8/30	1054	BPS1-SB3030-3545	SB 3030	35	45	SO	C	1	1			01					72 hour Turn
08	8/30	1118	BPS1-SB3030-4555	SB 3030	45	55	SO	C	1	1			01					72 hour Turn

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY	8-30-12	1630	1. RECEIVED BY		
2. RELINQUISHED BY			2. RECEIVED BY		
3. RELINQUISHED BY			3. RECEIVED BY	8-31-12	0830

COMMENTS

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7-6

TETRA TECH NUS, INC.

CHAIN OF CUSTODY | NUMBER № 1255 | PAGE 2 OF 2

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage Site1	Rob Sok	757-466-4904	TriMatrix Walt Roudebush
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER: Jacob Birkett	PHONE NUMBER: 757-814-9916	ADDRESS: 5600 Corporate Exchange Ct
		CARRIER/WAYBILL NUMBER: FedEx 8741-9938-0876		CITY, STATE: Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G

PRESERVATIVE USED: —

TYPE OF ANALYSIS: PCBs

TEST GROUP

	DATE YEAR 2012	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS									COMMENTS
14	11-9	1355	BPSI-SB3022-5565	SB 3022	55	65	SO	C	1	1			01					
15	11-9	1415	BPSI-SB3022-6575	SB 3022	65	75	SO	C	1	1			01					
16	11-9	0900	BPSI-Dup-20121109	—	—	—	SO	C	1	1			02					Duplicate

11-9-12

1. RELINQUISHED BY	DATE	TIME	1. RECEIVED BY	DATE	TIME
Jacob Birkett	11-9-12	1600	FedEx		
2. RELINQUISHED BY: FedEx	DATE	TIME	2. RECEIVED BY	DATE: 11-10-12	TIME: 09:00
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

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E 1211348

USDA Regulated Cooler Cart 10

17-8

TETRA TECH NUS, INC.

CHAIN OF CUSTODY | NUMBER № 1259 | PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage Stol	Rob Sok	757-466-4904	TriMatrix Walt Roudebush
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER: Jacob Birkett	PHONE NUMBER: 757-814-9916	ADDRESS: 5560 Corporate Exchange Ct
		CARRIER/WAYBILL NUMBER: FedEx 8634-8642-7560		CITY, STATE: Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G
PRESERVATIVE USED: / /

	DATE YEAR 2012	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: PCB (Soils)	PCB (aqueous)		TEST GROUP					COMMENTS
01	11-12	1510	BPSI-SB3027-2535	SB 3027	25	35	SO	C	1	1			01					
02	11-13	0800	BPSI-SB3027-3545	SB 3027	35	45	SO	C	1	1			01					
03	11-13	0825	BPSI-SB3027-4555	SB 3027	45	55	SO	C	1	1			01					
04	11-13	0850	BPSI-SB3027-5565	SB 3027	55	65	SO	C	1	1			01					
05	11-13	0920	BPSI-SB3027-6575	SB 3027	65	75	SO	C	2	2			03					Run MSMSD
06	11-12	1200	BPSI-Dup-20121112	—	—	—	SO	C	1	1			02					
07	11-14	0815	BPSI-SB3026-2535	SB 3026	25	35	SO	C	1	1			01					
08	11-14	0840	BPSI-SB3026-3545	SB 3026	35	45	SO	C	1	1			01					
09	11-14	0965	BPSI-SB3026-4555	SB 3026	45	55	SO	C	1	1			01					
10	11-14	1045	BPSI-SB3026-5565	SB 3026	55	65	SO	C	1	1			01					
11	11-14	1110	BPSI-SB3026-6575	SB 3026	65	75	SO	C	1	1			01					
12	11-13	1000	BPSI-FB-20121113	—	—	—	QC	—	2		2		05					Source Water Blank
13	11-14	1130	BPSI-RB-20121114	—	—	—	QC	—	2		2		04					Rinsate Blank

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY: Jacob Birkett	11-14-12	1930	1. RECEIVED BY	11-16-12	08:35
2. RELINQUISHED BY			2. RECEIVED BY		
3. RELINQUISHED BY			3. RECEIVED BY		

COMMENTS: Collection time for BPSI-FB-20121113 not originally listed on COC & taken from container label

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

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FORM NO. TINUS-001

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1302384

29.5

TETRA TECH NUS, INC.

CHAIN OF CUSTODY | NUMBER № 1235 | PAGE 1 OF 4

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage Site 1	Rob Sok	757-466-4904	TriMatrix Walt Roudebush
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER: Jacob Birkett	PHONE NUMBER: 757-814-9916	ADDRESS: 5560 Corporate Exchange Ct SE
		CARRIER/WAYBILL NUMBER: FedEx 8741-9938-0865		CITY, STATE: Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G
PRESERVATIVE USED: —

	DATE YEAR 2013	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: PCBs		TEST GROUP						COMMENTS
01	2-25	0857	BPSI-SB3069-0002	SB 3069	0	2	SO	C	1	1		01						
02	2-25	0900	BPSI-SB3069-0205	SB 3069	2	5	SO	C	1	1		01						
03	2-25	0905	BPSI-SB3069-0510	SB 3069	5	10	SO	C	1	1		01						
04	2-25	0910	BPSI-SB3069-1015	SB 3069	10	15	SO	C	1	1		01						
05	2-25	0935	BPSI-SB 3069-1520	SB 3069	15	20	SO	C	1	1		01						
06	2-25	0942	BPSI-SB3068-0002	SB 3068	0	2	SO	C	1	1		01						
07	2-25	0945	BPSI-SB 3068-0205	SB 3068	2	5	SO	C	1	1		01						
08	2-25	0955	BPSI-SB3068-0510	SB 3068	5	10	SO	C	1	1		01						
09	2-25	1005	BPSI-SB 3068-1015	SB 3068	10	15	SO	C	1	1		01						
10	2-25	1020	BPSI-SB 3068-1520	SB 3068	15	20	SO	C	1	1		01						
11	2-25	1117	BPSI-SB3066-0002	SB 3066	0	2	SO	C	1	1		01						
12	2-25	1119	BPSI-SB3066-0205	SB 3066	2	5	SO	C	1	1		01						
13	2-25	1123	BPSI-SB3066-0510	SB 3066	5	10	SO	C	1	1		01						

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY: Jacob Birkett	2-26-13	1800	1. RECEIVED BY		
2. RELINQUISHED BY			2. RECEIVED BY		
3. RELINQUISHED BY			3. RECEIVED BY	2-27-13	1000

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

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1302384

29.5

TETRA TECH NUS, INC.

CHAIN OF CUSTODY | NUMBER № 1236 | PAGE 2 OF 4

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage Site1	Rob Sok	757-466-4904	TriMatrix Walt Roudebush
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER: Jacob Birkett	PHONE NUMBER: 757-814-9916	ADDRESS: 5560 Corporate Exchange Ct SE
		CARRIER/WAYBILL NUMBER: FedEx 8741-9938-0865		CITY, STATE: Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G
PRESERVATIVE USED: —

	DATE YEAR 2013	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: PCBS		TEST GROUP						COMMENTS
14	2-25	1130	BPSI-SB3066-1013	SB 3066	10	13	SO	C	1	1		01						
15	2-25	1132	BPSI-SB3066-1315	SB 3066	13	15	SO	C	1	1		01						
16	2-25	1136	BPSI-SB3066-1520	SB 3066	15	20	SO	C	1	1		01						
17	2-25	1150	BPSI-SB3066-2025	SB 3066	20	25	SO	C	1	1		01						
18	2-25	1227	BPSI-SB3067-0002	SB 3067	0	2	SO	C	1	1		01						
19	2-25	1229	BPSI-SB3067-0205	SB 3067	2	5	SO	C	1	1		01						
20	2-25	1240	BPSI-SB3067-0510	SB 3067	5	10	SO	C	1	1		01						
21	2-25	1250	BPSI-SB3067-1015	SB 3067	10	15	SO	C	1	1		01						
22	2-25	1300	BPSI-SB3067-1520	SB 3067	15	20	SO	C	1	1		01						
23	2-25	1305	BPSI-SB3067-2025	SB 3067	20	25	SO	C	1	1		01						
24	2-25	1402	BPSI-SB3065-0205	SB 3065	2	5	SO	C	1	1		01						
25	2-25	1405	BPSI-SB3065-0510	SB 3065	5	10	SO	C	1	1		01						
26	2-25	1411	BPSI-SB3065-1015	SB 3065	10	15	SO	C	1	1		01						

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY: Jacob Birkett	2-26-13	1800	1. RECEIVED BY		
2. RELINQUISHED BY			2. RECEIVED BY		
3. RELINQUISHED BY			3. RECEIVED BY	2-27-13	1000

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

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29.5

TETRA TECH NUS, INC.

CHAIN OF CUSTODY | NUMBER № 1268 | PAGE 3 OF 4

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02233	NWIRP Bethpage Site 1	Rob Sok	757-466-4904	TriMatrix Walt Raudebush
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER: Jacob Birkett	PHONE NUMBER: 757-814-9916	ADDRESS: 5560 Corporate Exchange Ct SE
		CARRIER/WAYBILL NUMBER: FedEx 8741-9938-0865		CITY, STATE: Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G
PRESERVATIVE USED: —

	DATE YEAR 2013	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: PCBs		TEST GROUP						COMMENTS
1.	2-25	1421	BPSI-SB3065-1520	SB 3065	15	20	SO	C	1	1		01						
2.	2-25	1450	BPSI-SB3065-2025	SB 3065	20	25	SO	C	1	1		03						Run MSMSD
3.	2-25	1502	BPSI-SB3065-2535	SB 3065	25	35	SO	C	1	1		01						
4.	2-25	1200	BPSI-Dup01-20130225	—	—	—	SO	C	1	1		02						
5.	2-25	1600	BPSI-Dup02-20130225	—	—	—	SO	C	1	1		02						
6.	2-26	0930	BPSI-SB3065-3540	SB 3065	35	40	SO	C	1	1		01						
7.	2-26	1025	BPSI-SB3054-0205	SB 3054	2	5	SO	C	1	1		01						
8.	2-26	1035	BPSI-SB3055-0002	SB 3055	0	2	SO	C	1	1		01						
9.	2-26	1037	BPSI-SB3055-0205	SB 3055	2	5	SO	C	1	1		01						
10.	2-26	1045	BPSI-SB3056-0002	SB 3056	0	2	SO	C	1	1		01						
11.	2-26	1056	BPSI-SB3057-0205	SB 3057	2	5	SO	C	1	1		01						
12.	2-26	1125	BPSI-SB3058-0002	SB 3058	0	2	SO	C	1	1		01						
13.	2-26	1135	BPSI-SB3059-0002	SB 3059	0	2	SO	C	1	1		01						

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY: Jacob Birkett	2-26-13	1800	1. RECEIVED BY		
2. RELINQUISHED BY			2. RECEIVED BY		
3. RELINQUISHED BY			3. RECEIVED BY	2-27-13	1000

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

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E-1302386

29.5

TETRA TECH NUS, INC.

CHAIN OF CUSTODY | NUMBER № 1269 | PAGE 4 OF 4

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
NW 112G02230	NWIRP Bethpage Site1	Rob Sok	~~757-814~~ 757-466-4904	Tri Matrix Walt Roudebush

SAMPLERS (SIGNATURE)	FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
	Jacob Birkett	757-814-9916	5560 Corporate Exchange Ct SE
	CARRIER/WAYBILL NUMBER		CITY, STATE
	FedEx 8741 9938 0865		Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G
PRESERVATIVE USED: —

	DATE YEAR 2013	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: PCBS		TESS GROUP						COMMENTS
14.	2-26	1000	BPSI-Dup03-20130226	—	—	—	SO	C	1	1		02						
15.	2-26	1100	BPSI-Dup04-20130226	—	—	—	SO	C	1	1		02						
16.	2-26	1308	BPSI-SB3064-0205	SB 3064	2	5	SO	C	1	1		03						Run MS/MSD
17.	2-26	1313	BPSI-SB3064-0510	SB 3064	5	10	SO	C	1	1		01						
18.	2-26	1325	BPSI-SB3064-1015	SB 3064	10	15	SO	C	1	1		01						
19.	2-26	1332	BPSI-SB3064-1520	SB 3064	15	20	SO	C	1	1		01						
20.	2-26	1338	BPSI-SB3064-2025	SB 3064	20	25	SO	C	1	1		01						
21.	2-26	1410	BPSI-SB3064-2535	SB 3064	25	35	SO	C	1	1		01						

2-26-13

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY Jacob Birkett	2-26-13	1800	1. RECEIVED BY		
2. RELINQUISHED BY			2. RECEIVED BY		
3. RELINQUISHED BY			3. RECEIVED BY	2-27-13	1000

COMMENTS

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45-5

TETRA TECH NUS, INC.

CHAIN OF CUSTODY

NUMBER № 1243

PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
NWIRP Bethpage	NWIRP Bethpage Site1	Rob Sok	757-466-4904	TriMatrix Walt Roudebush

SAMPLERS (SIGNATURE)

FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
Jacob Birkett	757-814-9916	5560 Corporate Exchange Ct SE

CARRIER/WAYBILL NUMBER	CITY, STATE
FedEx 8634-8642-7765	Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

	DATE YEAR 2013	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: PCBs (Soils)	PCBs (Aqueous)			TEST GROUP				COMMENTS
									CONTAINER TYPE PLASTIC (P) or GLASS (G)	G	G							
									PRESERVATIVE USED	–	–							
1.	6-4	1015	BPSI-SB3073-4045	SB 3073	40	45	SO	C	1	1				03				Run MSMSD
2.	6-4	1106	BPSI-SB3073-4550	SB 3073	45	50	SO	C	1	1				01				
3.	6-4	1335	BPSI-SB3073-5055	SB 3073	50	55	SO	C	1	1				01				
4.	6-4	1355	BPSI-SB3073-5560	SB 3073	55	60	SO	C	1	1				↓				
5.	6-4	1410	BPSI-SB3073-6065	SB 3073	60	65	SO	C	1	1				↓				
6.	6-5	0800	BPSI-FB-20130605	–	–	–	QC	G	2		2			05				Field Blank
7.	6-5	0815	BPSI-RB-20130605	–	–	–	QC	G	2		2			04				Rinsate Blank
8.	6-5	1110	BPSI-SB3074-4045	SB 3074	40	45	SO	C	1	1				01				
9.	6-5	1140	BPSI-SB3074-4550	SB 3074	45	50	SO	C	1	1				↓				
10.	6-5	1305	BPSI-SB3074-5055	SB 3074	50	55	SO	C	1	1				↓				
11.	6-5	1330	BPSI-SB3074-5560	SB 3074	55	60	SO	C	1	1				↓				
12.	6-5	1415	BPSI-SB3074-6065	SB 3074	60	65	SO	C	1	1				↓				
13.	6-5	1200	BPSI-Dup01-20130605	–	–	–	SO	C	1	1				02				

1. RELINQUISHED BY Jacob Birkett	DATE 6-5-13	TIME 1700	1. RECEIVED BY	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE 6-6-13	TIME 0900

COMMENTS

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FORM NO. TtNUS-001

1306173

49.2

TETRA TECH NUS, INC.

CHAIN OF CUSTODY

NUMBER № 1247 | PAGE 1 OF 1

PROJECT NO: 112G02230 CTO WE44	FACILITY: NWIRP Bethpage Site1	PROJECT MANAGER: Rob Sok	PHONE NUMBER: 757-466-4904
LABORATORY NAME AND CONTACT: TriMatrix Walt Roudebush	SAMPLERS (SIGNATURE): [signature]	FIELD OPERATIONS LEADER: Jacob Birke	PHONE NUMBER: 757-814-9916
ADDRESS: 5560 Corporate Exchange Ct SE	CARRIER/WAYBILL NUMBER: FedEx 8634 8642 7754	CITY, STATE: Grand Rapids, MI 49512	

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G
PRESERVATIVE USED: 1

	DATE YEAR 2013	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: PCBs			TEST GROUP					COMMENTS
01	6-6	0923	BPSI-SB3072-2025	SB 3072	20	25	SO	C	1	1			01					
02	6-6	1005	BPSI-SB3072-2530	SB 3072	25	30	SO	C	1	1			↓					
03	6-6	1030	BPSI-SB3072-3035	SB 3072	30	35	SO	C	1	1								
04	6-6	1050	BPSI-SB3072-3540	SB 3072	35	40	SO	C	1	1								
05	6-7	0730	BPSI-SB3070-2527	SB 3070	25	27	SO	C	1	1								
06	6-7	0738	BPSI-SB3070-2830	SB 3070	28	30	SO	C	1	1								
07	6-7	0800	BPSI-SB3070-3035	SB 3070	30	35	SO	C	1	1								
08	6-7	0815	BPSI-SB3070-3540	SB 3070	35	40	SO	C	1	1								
09	6-7	0942	BPSI-SB3071-2025	SB 3071	20	25	SO	C	1	1								
10	6-7	1007	BPSI-SB3071-2530	SB 3071	25	30	SO	C	1	1								
11	6-7	1035	BPSI-SB3071-3035	SB 3071	30	35	SO	C	1	1			↓					
12	6-7	1050	BPSI-SB3071-3540	SB 3071	35	40	SO	C	1	1		WM ~~03~~	03					Run MSMSD
13	6-7	1000	BPSI-Dup02-20130607	—	—	—	SO	C	1	1		~~02~~	02					
14	6-7	1200	BPSI-Dup03-20130607	—	—	—	SO	C	1	1		~~02~~	02					

1. RELINQUISHED BY: [signature] Jacob Birkett	DATE: 6-7-13	TIME: 1700	1. RECEIVED BY	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY: [signature]	DATE: 6-8-13	TIME: 1140

COMMENTS

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22998

Cart 6

33-13

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER № 1271 | PAGE 1 OF 3

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage Sitel	Rob Sok	757-466-4904	TriMatrix Walt Roudebush
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
		Jacob Birkett	757-814-9916	5560 Corporate Exchange Ct SE
		CARRIER/WAYBILL NUMBER		CITY, STATE
		FedEx 8741-9938-0854		Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G
PRESERVATIVE USED: –

DATE YEAR 2013	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: PCBs		TEST GROUP						COMMENTS
2-27	0922	BPSI-SB3064-3545	SB 3064	35	45	SO	C	1	1		01						E-1303014-01
2-27	1055	BPSI-SB3064-4547	SB 3064	45	47	SO	C	1	1		03						Run MSMSD -02
2-27	1144	BPSI-SB3063-0002	SB 3063	0	2	SO	C	1	1		01						-03
2-27	1146	BPSI-SB3063-0205	SB 3063	2	5	SO	C	1	1		↓						-04
2-27	1153	BPSI-SB3063-0510	SB 3063	5	10	SO	C	1	1								-05
2-27	1200	BPSI-SB3063-1015	SB 3063	10	15	SO	C	1	1								-06
2-27	1206	BPSI-SB3063-1520	SB 3063	15	20	SO	C	1	1								-07
2-27	1213	BPSI-SB3063-2025	SB 3063	20	25	SO	C	1	1								-08
2-27	1300	BPSI-SB3063-2535	SB 3063	25	35	SO	C	1	1								-09
2-27	1345	BPSI-SB3063-3545	SB 3063	35	45	SO	C	1	1								-10
2-27	1415	BPSI-SB3063-4550	SB 3063	45	50	SO	C	1	1		↓						-11
2-27	0800	BPSI-Dup05-20130227	—	—	—	SO	C	1	1		02						-12
2-28	0835	BPSI-SB3062-0002	SB 3062	0	2	SO	C	1	1		01						-13

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY Jacob Birkett	2-28-13	1800	1. RECEIVED BY	3/1/13	0930
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

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33-13

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER № 1272 | PAGE 2 OF 3

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage Site1	Rob Sok	757-466-4904	TriMatrix Walt Roudebush
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER: Jacob Birkett	PHONE NUMBER: 757-814-9916	ADDRESS: 5560 Corporate Exchange Ct SE
		CARRIER/WAYBILL NUMBER: FedEx 8741-9938-0854		CITY, STATE: Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G
PRESERVATIVE USED: 1

DATE YEAR 2013	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: PCBS	TEST GROUP	COMMENTS
2-28	0837	BPSI-SB3062-0205	SB 3062	2	5	SO	C	1	1	01	E-1303014-14
2-28	0840	BPSI-SB3062-0510	SB 3062	5	10	SO	C	1	1	↓	-15
2-28	0845	BPSI-SB3062-1015	SB 3062	10	15	SO	C	1	1	↓	-16
2-28	0850	BPSI-SB3062-1520	SB 3062	15	20	SO	C	1	1	↓	-17
2-28	0858	BPSI-SB3062-2025	SB 3062	20	25	SO	C	1	1	↓	-18
2-28	0935	BPSI-SB3062-2535	SB 3062	25	35	SO	C	1	1	↓	-19
2-28	1005	BPSI-SB3062-3540	SB 3062	35	40	SO	C	1	1	03	Run MSMSD -20
2-28	1120	BPSI-SB3061-1520	SB 3061	15	20	SO	C	1	1	01	-21
2-28	1130	BPSI-SB3061-2025	SB 3061	20	25	SO	C	1	1	↓	-22
2-28	1215	BPSI-SB3061-2535	SB 3061	25	35	SO	C	1	1	↓	-23
2-28	1250	BPSI-SB3061-3540	SB 3061	35	40	SO	C	1	1	↓	-24
2-28	1333	BPSI-SB3060-1520	SB 3060	15	20	SO	C	1	1	↓	-25
2-28	1345	BPSI-SB3060-2025	SB 3060	20	25	SO	C	1	1	↓	-26

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY: Jacob Birkett	2-28-13	1800	1. RECEIVED BY: [signature]	3/1/13	0930
2. RELINQUISHED BY			2. RECEIVED BY		
3. RELINQUISHED BY			3. RECEIVED BY		

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

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FORM NO. TtNUS-001

33-13

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER № 1234 | PAGE 3 OF 3

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage Site1	Rob Sok	757-466-4904	TriMatrix Walt Roudebush
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER: Jacob Birkett	PHONE NUMBER: 757-814-9916	ADDRESS: 5560 Corporate Exchange Ct SE
		CARRIER/WAYBILL NUMBER: FedEx 8741-9938-0854		CITY, STATE: Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G
PRESERVATIVE USED: — —

DATE YEAR 2013	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: PCBs (soil)	PCBs (Aqueous)	TEST GROUP					COMMENTS
2-28	1015	BPSI-Dup06-20130228	—	—	—	SO	C	1	1			02				E-1303014-27
2-28	0730	BPSI-FB01-20130228	—	—	—	QC	G	2		2		05				Field Blank-28
2-28	0825	BPSI-RB01-20130228	—	—	—	QC	G	2		2		04				Rinsate Blank-29

JBS 2-28-13

1. RELINQUISHED BY: Jacob Birkett	DATE	TIME 1800	1. RECEIVED BY: [signature]	DATE 3/1/13	TIME 0930
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

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FORM NO. TINUS-001

E·1303027

35-6

TETRA TECH NUS, INC.

CHAIN OF CUSTODY | NUMBER № 1238·1 PAGE 1 OF 1

PROJECT NO: 112G02230	FACILITY: NWIRP Bethpage Site1	PROJECT MANAGER Rob Sok	PHONE NUMBER 757-466-4904	LABORATORY NAME AND CONTACT: TriMatrix Walt Roudebush
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER Jacob Birkett	PHONE NUMBER 757-814-9916	ADDRESS 5560 Corporate Exchange CtSE
		CARRIER/WAYBILL NUMBER FedEx 8741-9938 0843		CITY, STATE Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G
PRESERVATIVE USED: —

	DATE YEAR 2013	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: PCBs		TEST GROUP						COMMENTS
1.	3-1	0835	BPS1-SB3060-2535	SB 3060	25	35	SO	C	1	1		01						
2.	3-1	0910	BPS1-SB3060-3540	SB 3060	35	40	SO	C	1	1		01						
3.	3-1	0800	BPS1-Dup07-20130301	—	—	—	SO	C	1	1		02						

3-1-2013

1. RELINQUISHED BY Jacob Birkett	DATE 3-1-13	TIME 1200	1. RECEIVED BY	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE 3/2/13	TIME 0900

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

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FORM NO. TINUS-001

1208544

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER № 1144 | PAGE 1 OF 2

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage	Rob Sok	757-466-4904	Trimatrix Labs (Walt Roudebush)
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
		Vince Shickora	610-909-1893	5560 Corporate Exchange Court
		CARRIER/WAYBILL NUMBER		CITY, STATE
		FED Ex # 8744 5963 9645		Grand Rapids, MI 49512

STANDARD TAT ☐
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G
PRESERVATIVE USED: 4°C 4°C

	DATE YEAR 2012	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: PCBs (250 ml Jar)	PCBs (1 liter Amber)		TEST GROUP					COMMENTS
1.	8/27	1055	BPSI-SB3020-3035	SB 3020	30	35	SO	C	1	1			—					Standard Turn
2.	8/27	1140	BPSI-SB3020-3545	SB 3020	35	45	SO	C	1	1			—					↓
Q	8/27	1235	BPSI-SB3020-4555	SB 3020	45	55	SO	C	1	1			01					72 hour Turn
3.	8/28	0905	BPSI-SB3021-3035	SB 3021	30	35	SO	C	1	1			—					Standard Turn
4.	8/28	1200	BPSI-DUP12-20120828	—	—	—	SO	C	1	1			—					↓
5.	8/28	1010	BPSI-SB3021-3545	SB 3021	35	45	SO	C	1	1			—					Do MS/MSD
6.	8/28	1140	BPSI-SB3021-4555	SB 3021	45	55	SO	C	1	1			—					Standard Turn
Q	8/28	1340	BPSI-SB3021-5565	SB 3021	55	65	SO	C	1	1			01					72 hour Turn
Q	8/29	1715	BPSI-SB3021-7075	SB 3021	70	75	SO	C	1	1			01					72 hour Turn
7.	8/29	0805	BPSI-RB03-20120829	—	—	—	QC	G	2		2		—					Rinsate Blank
8.	8/29	0920	BPSI-SB3029-0205	SB 3029	2	5	SO	C	1	1			—					Standard Turn
9.	8/29	1015	BPSI-SB3029-0510	SB 3029	5	10	SO	C	1	1			—					↓
10.	8/29	1020	BPSI-SB3029-1015	SB 3029	10	15	SO	C	1	1			—					↓

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY	8-30-12	1630	1. RECEIVED BY		
2. RELINQUISHED BY			2. RECEIVED BY		
3. RELINQUISHED BY			3. RECEIVED BY	8-31-12	0830

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

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FORM NO. TtNUS-001

00015

E-1208407

27-2

TETRA TECH NUS, INC.

CHAIN OF CUSTODY | NUMBER № 1177 | PAGE 1 OF 4

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage Sitel	Rob Sak	757-466-4904	TriMatrix Walt Roudebush
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
		Jacob Birkett	757-814-9916	5560 Corporate Exchange Court
		CARRIER/WAYBILL NUMBER		CITY, STATE
		FedEx 8744 5963 9643		Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☒ ☒ 10 Day
☐ 24 hr. ☐ 48 hr. ☒ 72 hr. ☐ 7 day ☐ 14 day

	DATE YEAR 2012	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	CONTAINER TYPE PLASTIC (P) or GLASS (G)								COMMENTS
										G		G						
										PRESERVATIVE USED								
										TYPE OF ANALYSIS	Soil PCBs (250mL jar)	Aqueous PCBs (1000mL Amber bottle)		TEST GROUP				
1.	8-22	0850	BPSI-SB3054-0002	SB 3054	0	2	SO	C	1		1			01				72 hour TAT
2.	8-22	0850	BPSI-SB3032-0206	SB 3032	2	6	SO	C	1		1			01				72 hour TAT
3.	8-22	0859	BPSI-SB3032-0610	SB 3032	6	10	SO	C	1		1			03				Run MS/MSD 72 hour TAT
4.	8-22	0905	BPSI-SB3032-1015	SB 3032	10	15	SO	C	1		1			01				72 hour TAT
5.	8-22	0910	BPSI-SB3053-0002	SB 3053	0	2	SO	C	1		1			01				72 hour TAT
6.	8-22	0927	BPSI-SB3052-0002	SB 3052	0	2	SO	C	1		1			01				72 hour TAT
7.	8-22	0947	BPSI-SB3049-0002	SB 3049	0	2	SO	C	1		1			01				72 hour TAT
	8-22	0950	BPSI-SB3033-0206	SB 3033	2	6	SO	C	1		1			—				10 Day TAT
8.	8-22	1005	BPSI-SB3050-0002	SB 3050	0	2	SO	C	1		1			01				72 hour TAT
	8-22	1008	BPSI-SB3033-0610	SB 3033	6	10	SO	C	1		1			—				10 Day TAT
	8-22	1020	BPSI-SB3033-1015	SB 3033	10	15	SO	C	1		1			—				10 Day TAT
9.	8-22	1023	BPSI-SB3051-0002	SB 3051	0	2	SO	C	1		1			01				72 hour TAT
10.	8-22	1043	BPSI-SB3048-0002	SB 3048	0	2	SO	C	1		1			01				72 hour TAT

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY Jacob Birkett	8-23-12	1800	1. RECEIVED BY FedEx		
2. RELINQUISHED BY			2. RECEIVED BY		
3. RELINQUISHED BY			3. RECEIVED BY	8-24-12	0830

COMMENTS

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FORM NO. TtNUS-001

7 1000

Cart 5 E-1211133

1-14

TETRA TECH NUS, INC. CHAIN OF CUSTODY NUMBER № 1252 PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage Site1	Rob Sak	757-~~814-9916~~ 466-4904	TriMatrix Walt Roudebush
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER: Jacob Birkett	PHONE NUMBER: 757-814-9916	ADDRESS: 5600 Corporate Exchange Ct
		CARRIER/WAYBILL NUMBER: FedEx 8741-9938-0898		CITY, STATE: Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

	DATE YEAR 2012	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: PCBs (Soil)	PCBs (Aqueous)			TEST GROUP				COMMENTS
									CONTAINER TYPE PLASTIC (P) or GLASS (G)	G	G							
									PRESERVATIVE USED	/	/							
01	11-5	1312	BPSI-SB3025-2535	SB3025	25	35	SO	C	1	1				01				
02	11-5	1415	BPSI-SB3025-3545	SB3025	35	45	SO	C	2	2				03				Run MSMSD
03	11-5	1200	BPSI-Dup-20121105	SB3025	—	—	SO	C	1	1				02				Duplicate
04	11-6	0810	BPSI-SB3025-4555	SB3025	45	55	SO	C	1	1				01				
05	11-6	0857	BPSI-SB3025-5565	SB3025	55	65	SO	C	1	1				01				
06	11-6	0930	BPSI-SB3025-6575	SB3025	65	75	SO	C	1	1				01				
07	11-6	1115	BPSI-RB-20121106	—	—	—	QC AQ	G	2		2			04				Rinsate Blank of Split Spoon
08	11-6	1130	BPSI-FB-20121106	—	—	—	QC AC	G	2		2			05				Source Blank

11-6-12

1. RELINQUISHED BY: Jacob Birkett	DATE: 11-6-12	TIME	1. RECEIVED BY: FedEx	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE: 11/7/12	TIME: 0830

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

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FORM NO. TtNUS-001

E-121071 Cart 9 Rack# 194B TM2856 45-1

TETRA TECH NUS, INC.

CHAIN OF CUSTODY

NUMBER № 1248 | PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	Bethpage Site 1	D. Brayack	757 461 3768	Trimatrix
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER: E. Watt	PHONE NUMBER: 302 542-2982	ADDRESS: 5560 Corporate Exchange Court
		CARRIER/WAYBILL NUMBER: 8000 4356 0828		CITY, STATE: Grand Rapids, MI 49512

STANDARD TAT ☐
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

	DATE YEAR 2012	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TCL VOCs	PCBs	Total Fe and Cr	Dissolved Fe and Cr	Hexavalent Cr	TESS Group	Containers	COMMENTS
CONTAINER TYPE PLASTIC (P) or GLASS (G)										G	G	P			P		
PRESERVATIVE USED										HCl	ice	HNO3	HNO3 HCl		ice		
01	11-1	1030	BPS1-TT-MW302I1-2012 1101		—	—	GW	G	6	X	X	X				06	~~3~~ 6
02	11-1	1450	BPS1-TT-MW302D-2012 1101		—	—	GW	G	6	X	X	X				06	~~3~~ 6
03	11-1	1655	BPS1-TT-MW303S-2012 1101		—	—	GW	G	6	X	X	X				06	5
04	11-2	1015	BPS1-TT-MW303I1-2012 1102		—	—	GW	G	8	X	X	X	X	X		07	8
05	11-1	1000	BPS1-TB20121101		—	—	GW	G	2	X						08	2

LR 11/3/12

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY: E. Watt	11-2-12	1300	1. RECEIVED BY: Tri Matrix	11/3/12	0920
2. RELINQUISHED BY			2. RECEIVED BY		
3. RELINQUISHED BY			3. RECEIVED BY		

COMMENTS

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FORM NO. TtNUS-001

1211079 Cart 7 Rack #415 white

TETRA TECH NUS, INC.

CHAIN OF CUSTODY | NUMBER № 1249 | PAGE 1 OF 1 49-1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	Bethpage Site 1	D. Brayack	(757) 461-3768	Tri Matrix / Walt
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
		E. Wall	(302) 542-2482	5560 Corporate Exchange Court
		CARRIER/WAYBILL NUMBER		CITY, STATE
		FedEx 8741 9938 0902		Grand Rapids, MI 49512

STANDARD TAT ☐
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G P P

PRESERVATIVE USED: HCl, Ice, HNO3, Ice

	DATE YEAR 2012	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TCL VOCs	PCBs	Total Fe and Cr	Hexavalent Cr		TEST GROUP			COMMENTS
01	11-5	1100	BPS1-TB20121105		—	—	QC	G		X					08			
02	11-5	1220	BPS1-TT-MW303D-20121105		—	—	GW	G	6	X	X	X			06			
03	11-5	1435	BPS1-TT-MW303D2-20121105		—	—	GW	G	7	X	X	X	X		09			
04	11-5	1635	BPS1-TT-MW302D2-20121105		—	—	GW	G	7	X	X	X	X		09			

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY E. Wall	11-5-12	1730	1. RECEIVED BY		
2. RELINQUISHED BY			2. RECEIVED BY		
3. RELINQUISHED BY			3. RECEIVED BY	11/6/12	0830

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

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FORM NO. TtNUS-001

Cart 13, Rack #432R E 1211104

1-7

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER № 1250 | PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
1R60223D	Bethpage Site 1	D. Brayack	757 461-3768	Tri Matrix / Walt
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER: E. Watt	PHONE NUMBER: 302 542-2982	ADDRESS: 5560 Corporate Exchange Court
		CARRIER/WAYBILL NUMBER: Fed Ex 8000 4356 0839		CITY, STATE: Grand Rapids, MI 49512

STANDARD TAT ☐
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

	DATE YEAR 2012	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TCL VOCs	PCBs	Total Ferrous Cr	Hexavalent Cr	Dissolved Ferrous Cr		TEST GROUP	COMMENTS
CONTAINER TYPE PLASTIC (P) or GLASS (G)										G	G	P	P	P			
PRESERVATIVE USED										HCl	Ice	HNO3	Ice	HNO3			
1.	11-6	0900	BPSI-TB2012 1106		—	—	QC	G	2	X						08	
2.	11-6	1010	BPSI-TT-MW307I-2012 1106		—	—	GW	G	7	X	X	X	X			09	
3.	11-6	1310	BSI-TT-MW307D-2012 1106		—	—	GW	G	7	X	X	X		X		10	BPSI (WM)
4.	11-6	0930	BPSI-DUP01-2012 1106		—	—	GW	G	6	X	X	X				11	
5.	11-6	1535	BPSI-TT-MW304S-2012 1106		—	—	GW	G	6	X	X	X				06	
6.	11-6	1715	BPSI-TT-MW304I-2012 1106		—	—	GW	G	8	X	X	X	X	X		07	

1. RELINQUISHED BY: Eric Watt	DATE: 11-6-12	TIME: 1500	1. RECEIVED BY	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE: 11/7/12	TIME: 0830

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

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FORM NO. TtNUS-001

Cart 8, 577G E-1211153

5-5

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER № 1251 | PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	Bethpage Site 1	D. Brayack		Tri Matrix / Walt
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
[signature]		E. Watt	302 542-2982	5860 Corporate Exchange Court
		CARRIER/WAYBILL NUMBER		CITY, STATE
		Fed Ex ~~8001~~ 7940 2756 8442 ~~3652 7782~~		Grand Rapids, MI 49512

STANDARD TAT ☐
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

	DATE YEAR 2012	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TCL VOCs	PCBs	Total Fe and Cr	Hexavalent Cr		TESS GP DUP			COMMENTS
CONTAINER TYPE PLASTIC (P) or GLASS (G)										G	G	P	P					
PRESERVATIVE USED										HCl	ice	HNO3	ice					
1.	11-7	0900	BPSI-TB20121107		–	–	QC	G	2	X					08			
2.	11-7	0935	BPSI-TT-MW304D-20121107		–	–	GW	G	6	X	X	X			—			See N/C Form
023.	11-8	1115	BPSI-TT-MW306D-20121108		–	–	GW	G	6	X	X	X			06			
024.	11-8	1310	BPSI-TT-MW306I-20121108		–	–	GW	G	15	X	X	X	X		~~09~~	12		MS/MSD
025.	11-8	1450	BPSI-TT-MW304I2-20121108		–	–	GW	G	7	X	X	X	X		09			
026.	11-8	1000	BPSI-DUP02-20121108		–	–	GW	G	6	X	X	X			11			
027.	11-8	1645	BPSI-TT-MW305I-20121108		–	–	GW	G	7	X	X	X	X		09			

1. RELINQUISHED BY [signature] Eric Watt	DATE 11-8-12	TIME 1730	1. RECEIVED BY	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY W. Cole	DATE 11/9/12	TIME 0830
COMMENTS					

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

E 1211220

Cart 8 VOC Rack # 711-W 7-1

TETRA TECH NUS, INC.

CHAIN OF CUSTODY | NUMBER № 1254 | PAGE 1 OF ____

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	Bethpage Site 1	Rob Sojk	757	Tri Matrix / Wait
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER: Eric Wait	PHONE NUMBER: 302 542-2982	ADDRESS: 5560 Corporate Exchange Court
		CARRIER/WAYBILL NUMBER: Fed Ex 7940 3836 0743		CITY, STATE: Grand Rapids, MI 49512

STANDARD TAT ☐
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G P P

PRESERVATIVE USED: HCl ice HNO3 ice

	DATE YEAR 2012	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TCL VOCs	PCBs	Total Fe & Cr	Hexavalent Cr		TEST GROUP			COMMENTS
01	11-9	0930	BPS1-TB2012 1109		—	—	QC	G	2	X					08			
02	11-9	1015	BPS1-TT-MW312S-2012 1109		—	—	GW	G	7	X	X	X	X		09			
03	11-9	1150	BPS1-TT-MW312I-2012 1109		—	—	GW	G	7	X	X	X	X		09			
04	11-7	0935	BPS1-TT-MW304D-2012 1109		—	—	GW	G	6	X	X	X			06			

1. RELINQUISHED BY	DATE	TIME	1. RECEIVED BY	DATE	TIME
Eric Wait	11-9-12	1700		11-10-12	09:00
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

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FORM NO. TtNUS-001

Cart 4, 701R E-1211254

H-3

TETRA TECH NUS, INC.

CHAIN OF CUSTODY

NUMBER № 1257

PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage Site1	Rob Sok	757-466-4904	Tri Matrix Walt Roudebush
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
Jacob A. Costello / Chuck L. Fanin		Jacob Birkett	757-814-9916	5560 Corporate Exchange Ct
		CARRIER/WAYBILL NUMBER		CITY, STATE
		FedEx 8634-8642-7592		Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G P P P

PRESERVATIVE USED: HCl / HNO3 / HNO3

	DATE YEAR 2012	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	VOCs	PCBs	Total Fe and Cr	Hexavalent Cr	Dissolved Fe and Cr		TEST GROUP		COMMENTS
01	11-12	1340	BPSI-TT-MW308S-20121112	MW308S	—	—	GW	G	7	3	2	1		1		10		See NIC FORM (CLR)
02	11-12	1410	BPSI-TT-MW309S-20121112	MW309S	—	—	GW	G	6	3	2	1				06		
03	11-12	1545	BPSI-TT-MW308I-20121112	MW308I	—	—	GW	G	6	3	2	1				06		
04	11-12	1630	BPSI-TT-MW309I-20121112	MW309I	—	—	GW	G	7	3	2	1	1			09		
05	11-12	1200	BPSI-TB-20121112	—	—	—	QC	—	2	2						08		Trip Blank

1. RELINQUISHED BY Chuck L. Fanin	DATE 11/12/12	TIME 18:30	1. RECEIVED BY	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY W. Cole	DATE 11/13/12	TIME 0830

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

92999

E-1211282

Bottom/Cart 12 150 Blue

13-3

TETRA TECH NUS, INC.

CHAIN OF CUSTODY | NUMBER № 1258 | PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage Site 1	Rob Sok	757-466-4904	TriMatrix Walt Roudebush
SAMPLERS (SIGNATURE) Jacob A. Costello, Cassell J. Fenn		FIELD OPERATIONS LEADER: Jacob Birkett	PHONE NUMBER: 757-814-9916	ADDRESS: 55600 Corporate Exchange Ct
		CARRIER/WAYBILL NUMBER: FedEx 8634-8642-7559		CITY, STATE: Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G P P

PRESERVATIVE USED: HCl / HNO3 /

	DATE YEAR 2012	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	VOC	PCBs	Total Fe and Cr	Hexavalent Cr	TEST GROUP			COMMENTS
01	11-13	0830	BPSI-TB-20121113	—	—	—	QC	—	2	2				08			Field Prepared Trip Blank
02	11-13	1020	BPSI-TT-MW308D-20121113	MW308D	—	—	GW	G	6	3	2	1		06			
03	11-13	1155	BPSI-TT-MW309D-20121113	MW309D	—	—	GW	G	15	7	6	1	1	12			Run MSMSD
04	11-13	1240	BPSI-TT-MW301S-20121113	MW301S	—	—	GW	G	7	3	2	1	1	09			
05	11-13	1400	BPSI-TT-MW301D-20121113	MW301D	—	—	GW	G	7	3	2	1	1	09			
06	11-13	1500	BPSI-TT-MW314S-20121113	MW314S	—	—	GW	G	6	3	2	1		06			
07	11-13	1550	BPSI-TT-MW301I-20121113	MW301I	—	—	GW	G	7	3	2	1	1	09			
08	11-13	1410	BPSI-Dup03-20121113	—	—	—	GW	G	7	3	2	1	1	13			Duplicate

11-13-12

1. RELINQUISHED BY: Cassell J. Fenn	DATE: 11/13/12	TIME: 18:30	1. RECEIVED BY: [signature]	DATE: 11/14/12	TIME: 0830
2. RELINQUISHED BY:	DATE:	TIME:	2. RECEIVED BY:	DATE:	TIME:
3. RELINQUISHED BY:	DATE:	TIME:	3. RECEIVED BY:	DATE:	TIME:

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

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FORM NO. TtNUS-001

E 1211346

Cat 5 VOC Rack #1 1029-W 17-1

TETRA TECH NUS, INC.

CHAIN OF CUSTODY | NUMBER № 1261 | PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage Site 1	Rob Sok	757-466-4904	TriMatrix Walt Roudebush
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
Jacob A. Goddard / Chad L. Ferri		Jacob Birkett		5560 Corporate Exchange Ct
		CARRIER/WAYBILL NUMBER		CITY, STATE
		FedEx 8634 8642 7607		Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G P P

PRESERVATIVE USED: HCl / HNO3 /

	DATE YEAR 2012	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	VOC	PCBs	Total Cr and Fe	Hexavalent Cr		TEST GROUP			COMMENTS
01	11-14	0845	BPSI-TB-20121114	—	—	—	QC	—	3	3					08			Trip Blank (Field Prep)
02	11-14	1020	BPSI-FW-MW01-20121114	FW MW01	—	—	GW	G	6	3	2	1			06			
03	11-14	1015	BPSI-TT-MW314I-20121114	TT MW314I	—	—	GW	G	7	3	2	1	1		09			
04	11-14	1140	BPSI-FW-MW02-20121114	FW MW02	—	—	GW	G	6	3	2	1			06			
05	11-14	1235	BPSI-TT-MW313S-20121114	TT MW313S	—	—	GW	G	6	3	2	1			06			
06	11-14	1320	BPSI-FW-MW03-20121114	FW MW03	—	—	GW	G	6	3	2	1			06			
07	11-14	1500	BPSI-HN-MW29I-20121114	HN MW29I	—	—	GW	G	7	3	2	1	1		09			
08	11-14	1535	BPSI-TT-MW310S-20121114	TT MW310S	—	—	GW	G	7	3	2	1	1		09			
09	11-14	1710	BPSI-HN-MW27I-20121114	HN MW27I	—	—	GW	G	7	3	2	1	1		09			
10	11-14	1200	BPSI-Dup04-20121114	—	—	—	GW	G	7	3	2	1	1		13			

JBB 11-14-12

1. RELINQUISHED BY Chad L. Ferri	DATE 11/14/12	TIME 14:00	1. RECEIVED BY Joshua Jones	DATE 11-16-12	TIME 08:35
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

E-1211347

VOC Rack 539-R

17-6

TETRA TECH NUS, INC.

CHAIN OF CUSTODY | NUMBER № 1260 | PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage Site 1	Rob Sok	757-466-4904	TriMatrix Walt Roudebush
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
Cavell L. Ferri		Jacob Birkett	757-814-9916	5560 Corporate Exchange Ct
		CARRIER/WAYBILL NUMBER		CITY, STATE
		FedEx 8634-8642-7570		Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

	DATE YEAR 2012	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	VOCs	PCBs	Total Cr and Fe	Dissolved Cr and Fe	Hexavalent Chromium	TEST GROUP	COMMENTS
									CONTAINER TYPE PLASTIC (P) or GLASS (G)	G	G	P	P	P		
									PRESERVATIVE USED	HCl	—	HNO3	HNO3	—		
01	11-15	0800	BPSI-TB-20121115	—	—	—	QC	—	2	2					08	Trip Blank
02	11-15	1000	BPSI-TT-MW305S-20121115	TT MW305S	—	—	GW	G	6	3	2	1			06	
03	11-15	1045	BPSI-TT-MW311S-20121115	TT MW311S	—	—	GW	G	7	3	2	1		1	09	
04	11-15	1150	BPSI-TT-MW305D-20121115	TT MW305D	—	—	GW	G	7	3	2	1		1	09	
05	11-15	1245	BPSI-TT-MW311I-20121115	TT MW311I	—	—	GW	G	8	3	2	1	1	1	07	
06	11-15	1400	TTAOC22-MW06-20121115	AOC22 MW06	—	—	GW	G	7	3	2	1		1	09	
07	11-15	1600	BPSI-TT-MW302S-20121115	TT MW302S	—	—	GW	G	7	3	2	1		1	09	
08	11-15	1600	TTAOC22-MW10-20121115	AOC MW10	—	—	GW	G	7	3	2	1		1	09	
	~~11-15~~		~~BPSI-TT-MW306S-20121115~~	~~TT MW306S~~	—	—	GW	G		3	2	1			Did not sample	
09	11-15	1010	BPSI-Dup05-20121115	—	—	—	GW	G	6	3	2	1				Duplicate sample

QBB 11-15-12

QB 11-14-12 → 11

1. RELINQUISHED BY	DATE	TIME	1. RECEIVED BY	DATE	TIME
Cavell L. Ferri	11/15/12	18:00	Joshua Smith	11-16-12	08:35
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

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FORM NO. TtNUS-001

120009

E 1211367

Rack # 579 Green Metals Cart

TETRA TECH NUS, INC.

CHAIN OF CUSTODY

NUMBER № 1262

PAGE 1 OF 1

19-1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage Site1	Rob Sok	757-466-4904	TriMatrix Walt Roudebush
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
Chuck L. Ferri		Jacob Birkett	757-814-9916	5560 Corporate Exchange Ct
		CARRIER/WAYBILL NUMBER		CITY, STATE
		FedEx 8634-8642-7581		Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G P P P

PRESERVATIVE USED: HCl / HNO3 / HNO3

	DATE YEAR 2012	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	VOCs	PCBs	Total Fe and Cr	Hexavalent Chromium	Dissolved Fe and Cr		TEST GROUP		COMMENTS
01	11-16	0800	BPSI-TB-20121116	—	—	—	QC	—	2	2						08		Trip Blank
02	11-16	0915	TTAOC22-MW11-20121116	AOC22 MW11	—	—	GW	G	7	3	2	1	1			09		
03	11-16	0940	BPSI-TT-MW306S-20121116	TT MW306S	—	—	GW	G	8	3	2	1	1	1		07		
04	11-16	1100	BPSI-RB-20121116	—	—	—	QC	—	7	3	2	1	1			14		Rinsate Blank
05	11-16	1000	BPSI-FB-20121116	—	—	—	QC	—	7	3	2	1	1			15		Field Blank
06	11-16	1140	BPSI-TT-MW307S-20121116	TT MW307S	—	—	GW	G	7	3	2	1	1			09		

11-16-12

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY	11-16-12	1600	1. RECEIVED BY		
2. RELINQUISHED BY Chuck L. Ferri	11/16/12	16:00	2. RECEIVED BY		
3. RELINQUISHED BY			3. RECEIVED BY TriMatrix	11/17/12	0950

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

00037

Cart 3 Rack 343 B. E-1302260 15-3

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER № 1264 | PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage	Rob Sok	757-466-4907	TriMatrix Walt Roudebush
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
[signature]		Vince Shickora	610-909-1893	5560 Corporate Exchange Ct
		CARRIER/WAYBILL NUMBER		CITY, STATE
		FedEx Airbill # 8634-8642-7798		Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G P P
PRESERVATIVE USED: HCl / HNO3 -

	DATE YEAR 2013	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	VOCs	PCBs	Total Metals	Hexavalent Chromium		TEST GROUP			COMMENTS
-01	2-18	0840	BPSI-TB01-20130218	—	—	—	QC	G	2	2					08			Trip Blank
-02	2-18	1127	TTAOC22-MW11-20130218	TTAOC22-MW11	—	—	GW	G	7	3	2	1	1		09			
-03	2-18	1140	TTAOC22-MW06-20130218	TTAOC22-MW06	—	—	GW	G	7	3	2	1	1		09			
-04	2-18	1317	BPSI-HN-MW27I-20130218	BPSI-HN-MW27I	—	—	GW	G	15	7	6	1	1		12			Run MS MSD
-05	2-18	1340	TTAOC22-MW10-20130218	TTAOC22-MW10	—	—	GW	G	7	3	2	1	1		09			

2-18-12

1. RELINQUISHED BY Jacob Birkett [signature]	DATE 2-18-12	TIME 1800	1. RECEIVED BY [signature]	DATE 2/19/13	TIME 0940
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

23999

Cart 13 326 Blue 17-3

TETRA TECH NUS, INC. CHAIN OF CUSTODY NUMBER № 1266 PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage S.bl	Rob Sok	757-466-4904	TriMatrix Walt Roudebush
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS Corporate Exchange Ct
		Vince Shickora	616-909-1893	5560 ~~Grand Rapids, MI~~ JBB 2-19-13
		CARRIER/WAYBILL NUMBER		CITY, STATE
		FedEx 8634-8642-7813		Grand Rapids, MI 49512

1302268

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G P G P
PRESERVATIVE USED: HCl HNO3 - -

	DATE YEAR 2013	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	VOCs	Total Metals (Fe and Cr)	PCBs	Hexavalent Chromium		TEST GROUP			COMMENTS
01	2-13	0800	BPSI-TB02-20130219	—	—	—	QC	G	2	2					08			Trip Blank
02	2-13	1201	BPSI-TT-MW311S-20130219	BPSI-TT-MW311S	—	—	GW	G	6	3	1	2			06			
03	2-13	1215	BPSI-TT-MW311I-20130219	BPSI-TT MW311I	—	—	GW	G	6	3	1	2			06			
04	2-13	1407	BPSI-TT-MW314S-20130219	BPSI-TT MW314S	—	—	GW	G	6	3	1	2			06			
05	2-13	1427	BPSI-TT-MW314I-20130219	BPSI-TT MW314I	—	—	GW	G	7	3	1	2	1		09			
06	2-13	1540	BPSI-RB01-20130219	—	—	—	QC	G	7	3	1	2	1		14			
07	2-13	1550	BPSI-FB01-20130219	—	—	—	QC	G	7	3	1	2	1		15			

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY	2-19-13	1745	1. RECEIVED BY	2/20/13	0830
2. RELINQUISHED BY			2. RECEIVED BY		
3. RELINQUISHED BY			3. RECEIVED BY		

COMMENTS See TriMatrix NC form. Date changed to 2-19 (WR)

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

Cart 7 & Rack #372G E-1302295

19-2

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER № 1233 | PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage Site 1	Rob Sok	757-466-4904	TriMatrix Walt Roudebush
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
Jacob Birkett		Vince Shickora	610-909-1893	5560 Corporate Exchange Ct
		CARRIER/WAYBILL NUMBER		CITY, STATE
		FedEx 8741-9938-0784		Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

	DATE YEAR 2013	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	BS 2-20-13 VOC	PCBs	Total Metals (Fe and Cr)	Dissolved Metals (Fe and Cr)	Hexavalent Chromium		TEST GROUP		COMMENTS
CONTAINER TYPE PLASTIC (P) or GLASS (G)										G	G	P	P	P				
PRESERVATIVE USED										HCl	–	HNO3	HNO3	–				
1.	2-20	0700	BPSI-TB03-20130220	—	—	—	QC	—	2	2						08		Trip Blank
2.	2-20	0855	BPSI-TT-MW312I-20130220	BPSI-TT-MW312I	—	—	GW	G	7	3	2	1	1			10		
3.	2-20	1015	BPSI-TT-MW312S-20130220	BPSI-TT-MW312S	—	—	GW	G	7	3	2	1		1		09		
4.	2-20	1232	BPSI-TT-MW308S-20130220	BPSI-TT-MW308S	—	—	GW	G	6	3	2	1				06		
5.	2-20	1240	BPSI-TT-MW309I-20130220	BPSI-TT-MW309I	—	—	GW	G	6	3	2	1				06		
6.	2-20	1402	BPSI-TT-MW308D-20130220	BPSI-TT-MW308D	—	—	GW	G	7	3	2	1		1		10		
7.	2-20	1420	BPSI-TT-MW309S-20130220	BPSI-TT-MW309S	—	—	GW	G	6	3	2	1				06		
8.	2-20	1600	BPSI-Dup01-20130220	—	—	—	GW	G	6	3	2	1				17		

BS 2-20-13

1. RELINQUISHED BY	DATE	TIME	1. RECEIVED BY	DATE	TIME
Jacob Birkett	2-20-13	1800			
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME
				2-21-13	0830

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

Rock #310G, Cart 6 E-1302315

21.4

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER № 1270 | PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage Site1	Rob Sok	757-466-4904	TriMatrix Walt Roudebush
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
Jacob Birkett		Vince Shickora	610-909-1893	5560 Corporate Exchange Ct SE
		CARRIER/WAYBILL NUMBER		CITY, STATE
		FedEx 8634-8642-7802		Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G P P P
PRESERVATIVE USED: HCl — HNO3 HNO3 —

	DATE YEAR 2013	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	VOCs	PCBs	Total Metals (Fe and Cr)	Dissolved Metals (Fe and Cr)	Hexavalent Chromium		TEST GROUP		COMMENTS
1.	2-21	0710	BPSI-TB04-20130221	—	—	-	QC	-	2	2						08		Trip Blank
2.	2-21	0852	BPSI-TT-MW310S-20130221	BPSI-TT-MW310S	-	-	GW	G	6	3	2	1				06		
3.	2-21	0905	BPSI-TT-MW313S-20130221	BPSI-TT-MW313S	-	-	GW	G	6	3	2	1				06		
4.	2-21	1107	BPSI-TT-MW308I-20130221	BPSI-TT-MW308I	-	-	GW	G	7	3	2	1	1			10		
5.	2-21	1110	BPSI-TT-MW309D-20130221	BPSI-TT-MW309D	-	-	GW	G	7	3	2	1		1		09		
6.	2-21	1320	BPSI-TT-MW301D-20130221	BPSI-TT-MW301D	-	-	GW	G	7	3	2	1		1		09		
7.	2-21	1200	BPSI-DUP02-20130221	—	—	-	GW	G	7	3	2	1		1		13		

2-21-13

1. RELINQUISHED BY Jacob Birkett	DATE 2-21-13	TIME 1800	1. RECEIVED BY	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE 2·22·13	TIME 0930

COMMENTS

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CHAIN OF CUSTODY | NUMBER № 1253 | PAGE 1 OF 2

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02230	NWIRP Bethpage Site 1	Rob Sok	757-466-4904	TriMatrix Walt Roudebush
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
		Jacob Birkett	757-814-9916	5600 Corporate Exchange Ct
		CARRIER/WAYBILL NUMBER		CITY, STATE
		FedEx 8741 998 0876		Grand Rapids, MI 49512

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G
PRESERVATIVE USED: 1

	DATE YEAR 2012	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: PCBs			TEST GROUP					COMMENTS
01	11-7	0820	BPSI-SB3028-2535	SB 3028	25	35	SO	C	1	1			01					
02	11-7	0840	BPSI-SB3028-3545	SB 3028	35	45	SO	C	1	1			01					
03	11-7	0905	BPSI-SB3028-4555	SB 3028	45	55	SO	C	1	1			01					
04	11-7	0930	BPSI-SB3028-5565	SB 3028	55	65	SO	C	1	1			01					
05	11-7	0950	BPSI-SB3028-6575	SB 3028	65	75	SO	C	1	1			01					
06	11-9	1020	BPSI-SB3022-0205	SB 3022	2	5	SO	C	1	1			01					
07	11-9	1035	BPSI-SB3022-0510	SB 3022	5	10	SO	C	1	1			01					
08	11-9	1055	BPSI-SB3022-1015	SB 3022	10	15	SO	C	1	1			01					
09	11-9	1110	BPSI-SB3022-1520	SB 3022	15	20	SO	C	1	1			01					
10	11-9	1115	BPSI-SB3022-2025	SB 3022	20	25	SO	C	1	1			01					
11	11-9	1135	BPSI-SB3022-2535	SB 3022	25	35	SO	C	1	1			01					
12	11-9	1315	BPSI-SB3022-3545	SB 3022	35	45	SO	C	1	1			01					
13	11-9	1335	BPSI-SB3022-4555	SB 3022	45	55	SO	C	2	2			03					Run MS/MSD

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY Jacob Birkett	11-9-12	1600	1. RECEIVED BY FedEx		
2. RELINQUISHED BY FedEx	11-10-12	09:00	2. RECEIVED BY	11-10-12	09:00
3. RELINQUISHED BY			3. RECEIVED BY		

COMMENTS

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F.2 VALIDATION LETTERS

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO: **R. SOK** **DATE:** **MAY 2, 2011**

FROM: **JOSEPH KALINYAK** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC / PCB**
NWIRP BETHPAGE CTO WE44
SDG 50063-8

SAMPLES: 26 / Aqueous / VOC

BPS1-DUP01-20110302	BPS1-DUP02-20110302	BPS1-FB01-20110303
BPS1-FW-MW01-20110302	BPS1-FW-MW02-20110302	BPS1-FW-MW03-20110303
BPS1-HN-MW29I-20110302	BPS1-RB01-20110302	BPS1-TB01-20110228
BPS1-TB02-20110301	BPS1-TB03-20110303	BPS1-TT-MW301D-20110302
BPS1-TT-MW301I-20110302	BPS1-TT-MW301S-20110302	BPS1-TT-MW302D-20110301
BPS1-TT-MW302I1-20110301	BPS1-TT-MW302I2-20110301	BPS1-TT-MW302S-20110301
BPS1-TT-MW303D-20110301	BPS1-TT-MW303I1-20110301	BPS1-TT-MW303I2-20110301
BPS1-TT-MW303S-20110301	BPS1-TT-MW304D-20110302	BPS1-TT-MW304I1-20110302
BPS1-TT-MW304I2-20110303	BPS1-TT-MW304S-20110303	

26 / Aqueous / PCB

BPS1-DUP01-20110302	BPS1-DUP02-20110302	BPS1-FB01-20110303
BPS1-FW-MW01-20110302	BPS1-FW-MW02-20110302	BPS1-FW-MW03-20110303
BPS1-HN-MW29I-20110302	BPS1-RB01-20110302	BPS1-SW01-20110228
BPS1-SW01-20110301	BPS1-SW01-20110303	BPS1-TT-MW301D-20110302
BPS1-TT-MW301I-20110302	BPS1-TT-MW301S-20110302	BPS1-TT-MW302D-20110301
BPS1-TT-MW302I1-20110301	BPS1-TT-MW302I2-20110301	BPS1-TT-MW302S-20110301
BPS1-TT-MW303D-20110301	BPS1-TT-MW303I1-20110301	BPS1-TT-MW303I2-20110301
BPS1-TT-MW303S-20110301	BPS1-TT-MW304D-20110302	BPS1-TT-MW304I1-20110302
BPS1-TT-MW304I2-20110303	BPS1-TT-MW304S-20110303	

5 / Soil / PCB

S1-SB3005-DR1	S1-SB3005-DR2	S1-SB3005-DR3
S1-SB3005-DR4	S1-SB3005-DR5	

Overview

The sample set for NWIRP Bethpage, CTO WE44, SDG 50063-8 consisted of twenty-nine (29) aqueous samples and five (5) soil environmental samples including three (3) aqueous trip blank samples, one (1) aqueous rinse blank sample, and one (1) aqueous field blank sample. A sample set of twenty-six (26) aqueous samples including the trip and field blank samples were analyzed for a select list of volatile organic compounds (VOC). A different sample set of twenty-six (26) aqueous samples were analyzed for polychlorinated biphenyls (PCB) as listed above. The five (5) soil samples were analyzed for PCBs only. Two field duplicate sample pairs were associated with this sample delivery group (SDG); BPS1-DUP01-20110302 / BPS1-TT-MW301D-20110302 and BPS1-DUP02-20110302 / BPS1-TT-MW304D-20110302.

The samples were collected by Tetra Tech on February 28, and March 1, 2, and 3, 2011 and analyzed by TriMatrix Laboratories. All analyses were conducted in accordance with EPA Methods SW-846 8260B and 8082A analytical and reporting protocols.

The data contained in this SDG was validated with regard to the following parameters:

- Data Completeness
- * Holding Times
- * GC/MS Tuning
- Initial and Continuing Calibration
- Blank Analyses
- * System Monitoring Compound/Surrogate Recovery
- * Laboratory Blank Spike Results
- * Internal Standard Recoveries
- * Field Duplicate Precision
- Compound Quantitation
- Compound Identification
- * Detection Limits

The symbol (*) indicates that all quality control criteria were met for this parameter. Qualified analytical results are presented in Appendix A, results as reported by the laboratory are presented in Appendix B, Region II data validation forms are presented in Appendix C, and documentation supporting these findings is presented in Appendix D.

Volatile (VOC)

The following common laboratory contaminants were detected in the rinse blank BPS1-RB01-20110302 affecting all SDG samples.

Compound	Maximum Conc. µg/L	Action Level µg/L
2-Butanone	2.2	22
Acetone	8.9	89.0
Methylene chloride	0.37	3.7
Toluene	0.2	1.0

An action level of 10X the maximum concentration for the common laboratory contaminants and 5X the maximum concentration for toluene was established to evaluate for laboratory contamination. Dilution factors and sample aliquots, if applicable, were taken into consideration during the application of all action levels. The positive results for acetone, 2-butanone, and toluene below the blank action level were qualified as non-detected, (U).

The initial calibration Relative Response Factor (RRF) was less than the 0.05 quality control limit for acetone for instrument 328 on 03/01/11 and the continuing calibration verification (CCV) RRFs for acetone were less than the quality control limit on 03/06/11 @ 11:23 and 03/06/11 @ 22:20 affecting samples BPS1-TB01-20110228, BPS1-TT-MW302D-20110301, BPS1-TT-MW303D-20110301, BPS1-TT-MW302I2-20110301, BPS1-TT-MW303I2-20110301, BPS1-TT-MW302I1-20110301, BPS1-TT-MW303I1-20110301, BPS1-TT-MW302S-20110301, BPS1-TT-MW303S-20110301, BPS1-TB02-20110301, BPS1-RB01-20110302, BPS1-FB01-20110303, BPS1-TB03-20110303, BPS1-TT-MW301S-20110302, BPS1-FW-MW02-20110302, BPS1-TT-MW301D-20110302, BPS1-FW-MW01-20110302, BPS1-TT-MW304D-20110302, BPS1-DUP02-20110302, BPS1-TT-MW304I1-20110302, BPS1-DUP01-20110302, BPS1-FW-MW03-20110303, BPS1-TT-MW304I2-20110303, and BPS1-TT-MW304S-20110303. The non-detected acetone results for the aforementioned samples were qualified rejected, (UR), except where qualified for blank contamination. The positive acetone result for sample BPS1-RB01-20110302 was qualified estimated, (J).

PCB

The continuing calibration verification (CCV) Aroclor-1260 result was greater than the 15% quality control limit for the CLPEST column for instrument 158 on 03/09/11 @ 05:33. No action was taken as the CLPEST2 column Aroclor-1260 CCV was within the quality control limits and all samples had non-detected Aroclor results for all Aroclors except Aroclor-1242. All positive Aroclor-1242 sample results were reported from specific Aroclor-1242 calibrations and analyses and are not affected by this issue.

Aroclor-1242 was reported by the laboratory in all environmental samples except for sample BPS1-TT-MW304S-20110303, BPS1-SW01-20110228 and the field quality control blanks. Because the presence of Aroclors are unusual in water samples, the data reviewer has examined the chromatograms of the method and field quality control blanks, the samples with detections, and compared them to the patterns of Aroclor standards 1242 and 1248. No detections of Aroclors were reported in the method and field quality control blanks. The chromatograms of the method and field quality control blanks do not contain a discernable pattern representative of Aroclors 1242 and 1248. This is an indication that the appearance of Aroclors in the samples is not a result of laboratory or field personnel contamination of the samples.

The chromatograms for Aroclors 1242 and 1248 share several common peaks within their characteristic patterns. The peaks common to both Aroclor mixtures are contained in each of the environmental samples that exhibit detections. Because of shared compounds and similarities in portions of the chromatographic patterns for the mixtures of Aroclors 1242 and 1248, it is difficult to determine which Aroclor is predominant or how to precisely quantify each Aroclor separately. The laboratory has therefore reported a single Aroclor mixture, Aroclor-1242, in each sample with a detection. A "weathering effect" or degradation of compounds within the specific mixtures is also a likely factor in precisely identifying the Aroclor mixture present. Despite the aforementioned complexities associated with exact identification and quantification, the reviewer has concluded that an Aroclor mixture is present in the affected samples. Therefore, because the exact identification of the Aroclor mixture is complicated by the similarities between Aroclors 1242 and 1248 and from natural "weathering" of the mixture, detected results reported in samples have been qualified as estimated, (J).

The laboratory stated the following in their case narrative regarding a positive Aroclor-1242 detection for sample BPS1-TT-MW301S-20110302: "A conclusive Aroclor identification is not possible due to matrix interference and/or weathering of the sample. The result is qualitative and the identity of the reported Aroclor is tentative. The Aroclor may also be PCB-1248." The laboratory used a different set of peaks for the calibration and analysis for this particular sample. This sample was analyzed using peaks labeled as PCB9, PCB10, PCB11, PCB13, and PCB14 for the determination and quantitation of Aroclor-1242, while the other samples analyzed for Aroclor-1242 used peaks labeled as PCB7, PCB11, PCB12, PCB13, and PCB14 for the determination and quantitation of Aroclor-1242. The labeled peaks are not indicative of individual PCB congeners in this case and are used simply as reference peaks. The positive result is qualified as estimated, (J).

The relative percent difference (RPD) between analytical columns was greater than the 25% quality control limit for the positive Aroclor-1242 result for samples BPS1-DUP02-20110302, BPS1-TT-MW302S-20110301, BPS1-TT-MW303S-20110301, BPS1-TT-MW304I1-20110302, and BPS1-TT-MW304I2-20110303. Aroclor-1242 results in these samples were qualified estimated, (J).

Additional Comments

Positive results below the Limit of Quantitation (LOQ) and above the detection limit were qualified as estimated, (J), due to uncertainty near the detection limit.

Sample BPS1-FW-MW01-20110302 was analyzed both undiluted and diluted 5X due to a greater than the calibration limit tetrachloroethene result in the undiluted VOC analysis. Only the tetrachloroethene result was reported from the dilution sample analysis.

The data reviewer questioned the laboratory regarding the reporting of nondetected results from the undiluted analyses of samples S1-SB3005-DR2 and S1-SB3005-DR3. The aforementioned samples contained Aroclor 1242 at concentrations of 25 and 580 mg/kg, respectively, which are several orders of magnitude greater than the Limit of Detection (LOD). Because of the relatively high concentrations of Aroclor 1242 in the samples, the chromatograms of the undiluted samples displayed peaks that are completely unresolved and the rendered the initial analyses essentially useless. The laboratory responded with an addendum to the Aroclor data validation package that included non-detected Aroclor results for the aforementioned samples at dilutions. All Aroclor results were reported from the dilution analyses of the aforementioned samples. The addendum pages are included in this report in Appendices B and D and the electronic data base (EDD) results were manually edited for the sample non-detected results which were reported from these dilutions.

Two Aroclor analysis CCVs had surrogate %Rs less than the quality control limit for decachlorobiphenyl (DCB) for both analytical columns. One CCV had surrogate %Rs greater than the quality control limit for DCB for both analytical columns. No action was taken as the CCV %R quality control limit non-compliances did not affect the sample analyses.

All reported Aroclor results for the samples were reported from the DB-35 column regardless if the result was the higher or lower of the two column Aroclor results, with the exception of sample BPS1-TT-MW304I-20110302.

Some of the Aroclor %D results for the CCVs were not calculated by the laboratory. The data validation chemist manually calculated the CCVs where necessary.

The Aroclor laboratory control sample (LCS) and the LCS duplicate (LCSD) analyses as well as the matrix spike (MS) and MS duplicate (MSD) analyses were spiked and analyzed only for the analytes Aroclor-1016 and Aroclor-1260.

Aroclor 1242 results were quantified and reported from dilution analyses in the following samples:

Sample	Dilution
BPS1-DUP02-20110302	3X
BPS1-FW-MW03-20110303	2X
BPS1-TT-MW301S-20110302	10X
BPS1-TT-MW302I1-20110301	2X
BPS1-TT-MW302I2-20110301	2X
BPS1-TT-MW303I1-20110301	3X
BPS1-TT-MW303I2-20110301	2X
BPS1-TT-MW304D-20110302	2X
BPS1-TT-MW304I2-20110303	2X
S1-SB3005-DR1	10X
S1-SB3005-DR2	100X
S1-SB3005-DR3	3000X
S1-SB3005-DR4	4X

EXECUTIVE SUMMARY

Laboratory Performance Issues: VOC method blank contamination resulted in qualification of sample acetone results. Non-detected acetone results were rejected due to RRF quality control limit non-compliances and a positive acetone result was qualified estimated for the same non-compliance. Positive Aroclor-1242 results for samples were qualified due to analytical column RPD quality control limit non-compliances.

Other Factors Affecting Data Quality: Positive results below the LOQ and above the detection limit were qualified as estimated, (J), due to uncertainty near the detection limit. Aroclor 1242 results were qualified as estimated in all water samples because exact identification is tentative due to similarities with Aroclor 1248 and from "weathering effects".

The data for these analyses were reviewed with reference to the USEPA Region II Standard Operating Procedures for Validation - SOP HW-24 Revision #2 Volatile Organic Compounds by SW-846 Method 8260B (August 2008) and SOP HW-45 Data Validation SOP of Organic Analysis of PCBs by Gas Chromatography SW-846 Method 8082A (October 2006), and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (April 2009).

TetraTech NUS
Joseph Kalinyak
Chemist/Data Validator

TetraTech NUS
Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:
1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as Reported by the Laboratory
3. Appendix C – Region II Data Validation Forms
4. Appendix D - Support Documentation

Appendix A

Qualified Analytical Results

Value Qualifier Key (Val Qual)

J – The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

UJ – The result is an estimated non-detected quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

U - Value is a non-detect as reported by the laboratory.

UR – Non-detected result is considered rejected, (UR), as a result of technical non-compliances.

DATA QUALIFICATION CODE (QUAL CODE)

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$ / ICP PDS Recovery Noncompliance
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 02230	NSAMPLE	BPS1-DUP01-20110302			BPS1-DUP02-20110302			BPS1-FB01-20110303			BPS1-FW-MW01-20110302		
SDG: 50063-8	LAB_ID	1103045-13			1103045-11			1103073-01			1103045-07		
FRACTION: OV	SAMP_DATE	3/2/2011			3/2/2011			3/3/2011			3/2/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	BPS1-TT-MW301D-20110302			BPS1-TT-MW304D-20110302								
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.37	J	P	0.5	U		0.5	U		23		
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.5	U		0.5	U		1.4		
1,1-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		4.4		
1,1-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.59	J	P
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
2-BUTANONE		0.5	U		0.5	U		0.5	U		0.5	U	
ACETONE		1	UR	C	1	UR	C	1	UR	C	1	UR	C
BENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		110		
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.25	U		0.25	U		0.25	U		0.25	U	
M+P-XYLENES		0.5	U		0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
O-XYLENE		0.25	U		0.25	U		0.25	U		0.25	U	
TETRACHLOROETHENE		0.25	J	P	0.5	U		0.5	U				
TOLUENE		0.35	U	B	0.1	U		0.1	U		0.1	U	
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		1		
TRICHLOROETHENE		1.4			0.5	U		0.5	U		41		
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	

PROJ_NO: 02230	NSAMPLE	BPS1-FW-MW01-20110302RE			BPS1-FW-MW02-20110302			BPS1-FW-MW03-20110303			BPS1-HN-MW29I-20110302		
SDG: 50063-8	LAB_ID	1103045-07RE1			1103045-05			1103073-04			1103045-09		
FRACTION: OV	SAMP_DATE	3/2/2011			3/2/2011			3/3/2011			3/2/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE					0.98	J	P	0.39	J	P	0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE					0.31	J	P	0.5	U		0.5	U	
1,1-DICHLOROETHANE					0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHENE					0.5	U		0.5	U		0.5	U	
1,2-DICHLOROETHANE					0.5	U		0.5	U		0.5	U	
2-BUTANONE					0.5	U		0.5	U		0.5	U	
ACETONE					1	UR	C	1	UR	C	1.4	U	B
BENZENE					0.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE					0.28	J	P	0.45	J	P	0.5	U	
DICHLORODIFLUOROMETHANE					0.5	U		0.5	U		0.5	U	
ETHYLBENZENE					0.25	U		0.25	U		0.25	U	
M+P-XYLENES					0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE					0.5	U		0.5	U		0.5	U	
O-XYLENE					0.25	U		0.25	U		0.25	U	
TETRACHLOROETHENE		550			41			66			0.58	J	P
TOLUENE					0.1	U		0.1	U		0.1	U	
TRANS-1,2-DICHLOROETHENE					0.5	U		0.5	U		0.5	U	
TRICHLOROETHENE					3.9			3.8			0.4	J	P
TRICHLOROFLUOROMETHANE					0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE					0.5	U		0.5	U		0.5	U	

PROJ_NO: 02230	NSAMPLE	BPS1-RB01-20110302			BPS1-TB01-20110228			BPS1-TB02-20110301			BPS1-TB03-20110303		
SDG: 50063-8	LAB_ID	1103045-03			1103029-01			1103045-02			1103073-02		
FRACTION: OV	SAMP_DATE	3/2/2011			2/28/2011			3/1/2011			3/3/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
2-BUTANONE		2.2	J	P	0.5	U		0.5	U		0.5	U	
ACETONE		8.9	J	CP	1	UR	C	1	UR	C	1	UR	C
BENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.25	U		0.25	U		0.25	U		0.25	U	
M+P-XYLENES		0.5	U		0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		0.37	J	P	0.5	U		0.5	U		0.5	U	
O-XYLENE		0.25	U		0.25	U		0.25	U		0.25	U	
TETRACHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TOLUENE		0.2	J	P	0.1	U		0.1	U		0.1	U	
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW301D-20110302			BPS1-TT-MW301I-20110302			BPS1-TT-MW301S-20110302			BPS1-TT-MW302D-20110301		
SDG: 50063-8	LAB_ID	1103045-06			1103045-08			1103045-04			1103029-02		
FRACTION: OV	SAMP_DATE	3/2/2011			3/2/2011			3/2/2011			3/1/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.34	J	P	0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
2-BUTANONE		0.5	U		0.5	U		0.5	U		0.5	U	
ACETONE		1	UR	C	6.2	U	B	1	UR	C	1	UR	C
BENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.25	U		0.25	U		0.25	U		0.25	U	
M+P-XYLENES		0.5	U		0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
O-XYLENE		0.25	U		0.25	U		0.25	U		0.25	U	
TETRACHLOROETHENE		0.24	J	P	0.5	U		0.5	U		0.22	J	P
TOLUENE		0.36	U	B	0.1	U		0.1	U		0.17	U	B
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRICHLOROETHENE		1.4			0.5	U		0.5	U		1.4		
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW302I1-20110301			BPS1-TT-MW302I2-20110301			BPS1-TT-MW302S-20110301			BPS1-TT-MW303D-20110301		
SDG: 50063-8	LAB_ID	1103029-06			1103029-04			1103029-08			1103029-03		
FRACTION: OV	SAMP_DATE	3/1/2011			3/1/2011			3/1/2011			3/1/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.19	J	P	0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
2-BUTANONE		0.5	U		0.5	U		0.5	U		0.5	U	
ACETONE		1	UR	C	1	UR	C	1	UR	C	1	UR	C
BENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.25	U		0.25	U		0.25	U		0.25	U	
M+P-XYLENES		0.5	U		0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
O-XYLENE		0.25	U		0.25	U		0.25	U		0.25	U	
TETRACHLOROETHENE		0.19	J	P	0.5	U		0.5	U		0.5	U	
TOLUENE		0.1	U		0.1	U		0.1	U		0.1	U	
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRICHLOROETHENE		0.76	J	P	1.1			0.5	U		0.4	J	P
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	

PROJ_NO: 02230 SDG: 50063-8 FRACTION: OV MEDIA: WATER	NSAMPLE	BPS1-TT-MW303I1-20110301			BPS1-TT-MW303I2-20110301			BPS1-TT-MW303S-20110301			BPS1-TT-MW304D-20110302		
	LAB_ID	1103029-07			1103029-05			1103029-09			1103045-10		
	SAMP_DATE	3/1/2011			3/1/2011			3/1/2011			3/2/2011		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHANE		2.4			0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHENE		2.7			0.5	U		0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
2-BUTANONE		0.5	U		0.5	U		0.5	U		0.5	U	
ACETONE		1	U		1	UR	C	1	UR	C	1	UR	C
BENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		3.4			0.5	U		0.5	U		0.5	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.25	U		0.25	U		0.25	U		0.25	U	
M+P-XYLENES		0.5	U		0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
O-XYLENE		0.25	U		0.25	U		0.25	U		0.25	U	
TETRACHLOROETHENE		120			1.5			0.97	J	P	0.5	U	
TOLUENE		0.1	U		0.1	U		0.1	U		0.1	U	
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRICHLOROETHENE		25			1.9			0.76	J	P	0.5	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	

PROJ_NO: 02230 SDG: 50063-8 FRACTION: OV MEDIA: WATER	NSAMPLE	BPS1-TT-MW304I1-20110302			BPS1-TT-MW304I2-20110303			BPS1-TT-MW304S-20110303		
	LAB_ID	1103045-12			1103073-05			1103073-06		
	SAMP_DATE	3/2/2011			3/3/2011			3/3/2011		
	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		6.1			0.31	J	P	0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHANE		3.1			0.5	U		0.5	U	
1,1-DICHLOROETHENE		0.35	J	P	0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U	
2-BUTANONE		0.5	U		0.5	U		0.5	U	
ACETONE		1	UR	C	1	UR	C	1	UR	C
BENZENE		0.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		35			3.1			0.5	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.25	U		0.25	U		0.25	U	
M+P-XYLENES		0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		0.5	U		0.5	U		0.5	U	
O-XYLENE		0.25	U		0.25	U		0.25	U	
TETRACHLOROETHENE		54			4.8			0.5	U	
TOLUENE		0.1	U		0.1	U		0.1	U	
TRANS-1,2-DICHLOROETHENE		0.26	J	P	0.5	U		0.5	U	
TRICHLOROETHENE		11			1.4			0.5	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.5	U		0.5	U		0.5	U	

PROJ_NO: 02230	NSAMPLE	BPS1-DUP01-20110302			BPS1-DUP02-20110302			BPS1-FB01-20110303			BPS1-FW-MW01-20110302		
SDG: 50063-8	LAB_ID	1103045-13			1103045-11			1103073-01			1103045-07		
FRACTION: PCB	SAMP_DATE	3/2/2011			3/2/2011			3/3/2011			3/2/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	BPS1-TT-MW301D-20110302			BPS1-TT-MW304D-20110302								
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.085	U		0.085	U		0.08	U		0.08	U	
AROCLOR-1221		0.085	U		0.085	U		0.08	U		0.08	U	
AROCLOR-1232		0.043	U		0.043	U		0.04	U		0.04	U	
AROCLOR-1242		0.87	J	Q	2.9	J	QU	0.08	U		1	J	Q
AROCLOR-1248		0.085	U		0.085	U		0.08	U		0.08	U	
AROCLOR-1254		0.085	U		0.085	U		0.08	U		0.08	U	
AROCLOR-1260		0.085	U		0.085	U		0.08	U		0.08	U	
AROCLOR-1262		0.085	U		0.085	U		0.08	U		0.08	U	
AROCLOR-1268		0.085	U		0.085	U		0.08	U		0.08	U	

PROJ_NO: 02230	NSAMPLE	BPS1-FW-MW02-20110302			BPS1-FW-MW03-20110303			BPS1-HN-MW29I-20110302			BPS1-RB01-20110302		
SDG: 50063-8	LAB_ID	1103045-05			1103073-04			1103045-09			1103045-03		
FRACTION: PCB	SAMP_DATE	3/2/2011			3/3/2011			3/2/2011			3/2/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.08	U		0.092	U		0.08	U		0.08	U	
AROCLOR-1221		0.08	U		0.092	U		0.08	U		0.08	U	
AROCLOR-1232		0.04	U		0.046	U		0.04	U		0.04	U	
AROCLOR-1242		0.49	J	Q	2.1	J	Q	1.2	J	Q	0.08	U	
AROCLOR-1248		0.08	U		0.092	U		0.08	U		0.08	U	
AROCLOR-1254		0.08	U		0.092	U		0.08	U		0.08	U	
AROCLOR-1260		0.08	U		0.092	U		0.08	U		0.08	U	
AROCLOR-1262		0.08	U		0.092	U		0.08	U		0.08	U	
AROCLOR-1268		0.08	U		0.092	U		0.08	U		0.08	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SW01-20110228			BPS1-SW01-20110301			BPS1-SW01-20110303			BPS1-TT-MW301D-20110302		
SDG: 50063-8	LAB_ID	1103029-15			1103045-01			1103073-03			1103045-06		
FRACTION: PCB	SAMP_DATE	2/28/2011			3/1/2011			3/3/2011			3/2/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.08	U		0.093	U		0.091	U		0.085	U	
AROCLOR-1221		0.08	U		0.093	U		0.091	U		0.085	U	
AROCLOR-1232		0.04	U		0.047	U		0.045	U		0.043	U	
AROCLOR-1242		0.08	U		0.11	J	PQ	0.068	J	PQ	0.82	J	Q
AROCLOR-1248		0.08	U		0.093	U		0.091	U		0.085	U	
AROCLOR-1254		0.08	U		0.093	U		0.091	U		0.085	U	
AROCLOR-1260		0.08	U		0.093	U		0.091	U		0.085	U	
AROCLOR-1262		0.08	U		0.093	U		0.091	U		0.085	U	
AROCLOR-1268		0.08	U		0.093	U		0.091	U		0.085	U	

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW301I-20110302			BPS1-TT-MW301S-20110302			BPS1-TT-MW302D-20110301			BPS1-TT-MW302I1-20110301		
SDG: 50063-8	LAB_ID	1103045-08			1103045-04			1103029-02			1103029-06		
FRACTION: PCB	SAMP_DATE	3/2/2011			3/2/2011			3/1/2011			3/1/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.088	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1221		0.088	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1232		0.044	U		0.04	U		0.04	U		0.04	U	
AROCLOR-1242		0.73	J	Q	14	J	Q	1.3	J	Q	1.9	J	Q
AROCLOR-1248		0.088	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1254		0.088	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1260		0.088	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1262		0.088	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1268		0.088	U		0.08	U		0.08	U		0.08	U	

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW302I2-20110301			BPS1-TT-MW302S-20110301			BPS1-TT-MW303D-20110301			BPS1-TT-MW303I1-20110301		
SDG: 50063-8	LAB_ID	1103029-04			1103029-08			1103029-03			1103029-07		
FRACTION: PCB	SAMP_DATE	3/1/2011			3/1/2011			3/1/2011			3/1/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.08	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1221		0.08	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1232		0.04	U		0.04	U		0.04	U		0.04	U	
AROCLOR-1242		1.8	J	Q	0.26	J	QU	0.66	J	Q	2.8	J	Q
AROCLOR-1248		0.08	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1254		0.08	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1260		0.08	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1262		0.08	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1268		0.08	U		0.08	U		0.08	U		0.08	U	

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW303I2-20110301			BPS1-TT-MW303S-20110301			BPS1-TT-MW304D-20110302			BPS1-TT-MW304I1-20110302		
SDG: 50063-8	LAB_ID	1103029-05			1103029-09			1103045-10			1103045-12		
FRACTION: PCB	SAMP_DATE	3/1/2011			3/1/2011			3/2/2011			3/2/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.08	U		0.08	U		0.088	U		0.08	U	
AROCLOR-1221		0.08	U		0.08	U		0.088	U		0.08	U	
AROCLOR-1232		0.04	U		0.04	U		0.044	U		0.04	U	
AROCLOR-1242		2.3	J	Q	0.13	J	PQU	2.7	J	Q	0.89	J	QU
AROCLOR-1248		0.08	U		0.08	U		0.088	U		0.08	U	
AROCLOR-1254		0.08	U		0.08	U		0.088	U		0.08	U	
AROCLOR-1260		0.08	U		0.08	U		0.088	U		0.08	U	
AROCLOR-1262		0.08	U		0.08	U		0.088	U		0.08	U	
AROCLOR-1268		0.08	U		0.08	U		0.088	U		0.08	U	

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW304I2-20110303			BPS1-TT-MW304S-20110303		
SDG: 50063-8	LAB_ID	1103073-05			1103073-06		
FRACTION: PCB	SAMP_DATE	3/3/2011			3/3/2011		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.09	U		0.08	U	
AROCLOR-1221		0.09	U		0.08	U	
AROCLOR-1232		0.045	U		0.04	U	
AROCLOR-1242		2.6	J	QU	0.08	U	
AROCLOR-1248		0.09	U		0.08	U	
AROCLOR-1254		0.09	U		0.08	U	
AROCLOR-1260		0.09	U		0.08	U	
AROCLOR-1262		0.09	U		0.08	U	
AROCLOR-1268		0.09	U		0.08	U	

PROJ_NO: 02230	NSAMPLE	S1-SB3005-DR1			S1-SB3005-DR2			S1-SB3009-DR3			S1-SB3009-DR4		
SDG: 50063-8	LAB_ID	1103029-14			1103029-12			1103029-11			1103029-13		
FRACTION: PCB	SAMP_DATE	2/28/2011			2/28/2011			2/28/2011			2/28/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	73.0			82.0			79.0			79.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.018	U		0.32	U		3.3	U		0.017	U	
AROCLOR-1221		0.018	U		0.32	U		3.3	U		0.017	U	
AROCLOR-1232		0.018	U		0.32	U		3.3	U		0.017	U	
AROCLOR-1242		2.2	J	P	25	J	P	580	J	P	0.017	U	
AROCLOR-1248		0.0092	U		0.16	U		1.7	U		0.85	J	P
AROCLOR-1254		0.018	U		0.32	U		3.3	U		0.017	U	
AROCLOR-1260		0.018	U		0.32	U		3.3	U		0.017	U	
AROCLOR-1262		0.018	U		0.32	U		3.3	U		0.017	U	
AROCLOR-1268		0.0092	U		0.16	U		1.7	U		0.0085	U	

PROJ_NO: 02230	NSAMPLE	S1-SB3012-DR5		
SDG: 50063-8	LAB_ID	1103029-10		
FRACTION: PCB	SAMP_DATE	2/28/2011		
MEDIA: SOIL	QC_TYPE	NM		
	UNITS	MG/KG		
	PCT_SOLIDS	95.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
AROCLOR-1016		0.014	U	
AROCLOR-1221		0.014	U	
AROCLOR-1232		0.014	U	
AROCLOR-1242		0.014	U	
AROCLOR-1248		0.15	J	P
AROCLOR-1254		0.014	U	
AROCLOR-1260		0.014	U	
AROCLOR-1262		0.014	U	
AROCLOR-1268		0.007	U	

Tetra Tech INC **INTERNAL CORRESPONDENCE**

TO:	**R. SOK**	**DATE:**	**NOVEMBER 9, 2012**
FROM:	**JOSEPH KALINYAK**	**COPIES:**	**DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – PCB**
NWIRP BETHPAGE, CTO WE44
SAMPLE DELIVERY GROUP SDG 50063-14

SAMPLES: 2 / Aqueous / PCB

BPS1-FB01-072412 BPS1-RB01-072412

28 / Soil / PCB

BPS1-DUP01	BPS1-DUP02	BPS1-DUP03
BPS1-SB3013-0002	BPS1-SB3014-0002	BPS1-SB3015-0002
BPS1-SB3016-0002	BPS1-SB3017-0002	BPS1-SB3018-0002
BPS1-SB3019-0002	BPS1-SB3020-0002	BPS1-SB3021-0002
BPS1-SB3022-0002	BPS1-SB3023-0002	BPS1-SB3031-0002
BPS1-SB3032-0002	BPS1-SB3033-0002	BPS1-SB3034-0002
BPS1-SB3035-0002	BPS1-SB3036-0002	BPS1-SB3037-0002
BPS1-SB3038-0002	BPS1-SB3039-0002	BPS1-SB3040-0002
BPS1-SB3041-0002	BPS1-SB3042-0002	BPS1-SB3043-0002
BPS1-SB3044-0002		

Overview

The sample set for NWIRP Bethpage, CTO WE44, SDG 50063-14 consisted of twenty-eight (28) soil samples and two (2) aqueous samples, including one (1) aqueous rinse blank sample and one (1) aqueous field blank sample. All of the samples were analyzed for polychlorinated biphenyls (PCB) as listed above. Three (3) field duplicate sample pairs were included with this sample delivery group (SDG): BPS1-DUP01 / BPS1-SB3035-0002, BPS1-DUP02 / BPS1-SB3014-0002, and BPS1-DUP03 / BPS1-SB3019-0002.

The samples were collected by Tetra Tech on July 24, 2012 and analyzed by Trimatrix Laboratories Inc. All analyses were conducted in accordance with EPA Method SW-846 8082 for PCBs analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters:

- * Data completeness
- * Hold times
- * Initial/continuing Calibrations
- * Method Blank Results
- * Laboratory Control Sample Recovery
- Matrix Spike/Matrix Spike Duplicate Recoveries
- Surrogate Spike Recoveries
- * Field Duplicate Precision
- Compound Identification
- Compound Quantitation

* • Detection Limits

The symbol (*) indicates that all quality control criteria were met for this parameter. Qualified analytical results are presented in Appendix A, results as reported by the laboratory are presented in Appendix B, Region II data validation forms are presented in Appendix C, and documentation supporting these findings is presented in Appendix D.

PCB

The matrix spike (MS) and MS duplicate (MSD) percent recoveries (%Rs) were greater than the quality control limit for Aroclor-1260 and Aroclor-1016 for both columns for spiked sample BPS1-SB3034-0002 and BPS1-SB3042-0002. No validation action was taken because the aforementioned spike compounds were not detected.

The surrogate recoveries for decachlorobiphenyl (DCB), both columns, were greater than the quality control limit in sample BPS1-SB3032-0002. The Aroclor 1254 detection was qualified estimated, (J).

The DB-35 column 1 results were reported by the laboratory for the positive Aroclor results for all samples except the sample BPS1-SB3037-0002 Aroclor-1248 result.

Aroclor 1248 detections in samples BPS1-SB3037-0002, BPS1-SB3023-0002, BPS1-SB3035-0002, BPS1-SB3039-0002, and BPS1-DUP01 contained a RPD between columns that was greater than 25%. The lower of the two column detected Aroclor-1248 results was reported from the DB-XLB column 2 and was qualified estimated, (J).

The accuracy of Aroclor-1254 identification was noted as an issue by the laboratory for Aroclor 1254 detections in samples BPS1-SB3038-0002 and BPS1-SB3039-0002. Per the laboratory narrative... "A conclusive PCB Aroclor identification is not possible due to matrix interference and/or weathering of the sample. The identity of the reported Aroclor is tentative." Aroclor 1254 detections in samples BPS1-SB3038-0002 and BPS1-SB3039-0002 Aroclor-1254 were qualified estimated, (J).

Positive results below the Limit of Quantitation (LOQ) and above the Method Detection Limit (MDL) were qualified as estimated, (J), due to uncertainty near the detection limit.

Additional Comments

Aroclor-1248 was detected in the field blank sample BPS1-FB01-072412. Aroclor 1248 was not detected in the rinse blank. No Aroclors were detected in any method blanks.

The surrogate %Rs for DCB for both columns were greater than the quality control limit for sample BPS1-SB3032-0002. The sample Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1260, Aroclor-1262, and Aroclor-1268 results were non-detected results and were not qualified.

The surrogate %R for DCB for column 2 was less than the quality control limit for sample BPS1-SB3017-0002. The detected Aroclor-1254 result was reported from the compliant column 1 and therefore no validation action was necessary.

Samples were diluted for Aroclor analyses as listed below. The surrogate recoveries were missing from the laboratory report for some of the samples listed below. Neither column surrogate recoveries were reported by the laboratory, although due to dilution, the surrogates were presumed diluted out. No validation action was taken for this issue.

Sample	Dilution
BPS1-SB3014-0002	Aroclor-1248/200X, Aroclor-1254/100X
BPS1-SB3015-0002	Aroclor-1248/40X, Aroclor-1254/20X
BPS1-SB3016-0002	Aroclor-1248/20X, Aroclor-1254/10X
BPS1-SB3017-0002	Aroclor-1248/20X, Aroclor-1254/10X
BPS1-SB3018-0002	Aroclor-1248/50X, Aroclor-1254/40X
BPS1-SB3019-0002	Aroclor-1248/3X
BPS1-SB3020-0002	Aroclor-1248/20X, Aroclor-1254/20X
BPS1-SB3021-0002	Aroclor-1248/5X, Aroclor-1254/4X
BPS1-SB3023-0002	Aroclor-1248/5X, Aroclor-1254/5X
BPS1-SB3031-0002	Aroclor-1248/400X, Aroclor-1254/50X
BPS1-SB3032-0002	Aroclor-1248/3X, Aroclor-1254/3X
BPS1-SB3033-0002	Aroclor-1248/4X, Aroclor-1254/4X
BPS1-SB3034-0002	Aroclor-1248/3X, Aroclor-1254/3X
BPS1-SB3036-0002	Aroclor-1248/10X, Aroclor-1254/10X
BPS1-SB3037-0002	Aroclor-1248/4X, Aroclor-1254/2X
BPS1-SB3040-0002	Aroclor-1248/5X, Aroclor-1254/5X
BPS1-SB3042-0002	Aroclor-1248/20X, Aroclor-1254/10X
BPS1-SB3043-0002	Aroclor-1248/2X
BPS1-SB3044-0002	Aroclor-1248/400X, Aroclor-1254/200X
BPS1-DUP02	Aroclor-1248/200X, Aroclor-1254/50X
BPS1-DUP03	Aroclor-1248/3X

Sample Aroclor analyte results were reported to the Limit of Detection (LOD).

The laboratory did not provide Aroclor %Ds for all of the CCVs. The data validation chemist manually calculated the CCV %Ds to verify that they were quality control compliant.

EXECUTIVE SUMMARY

Laboratory Performance Issues: One Aroclor result was qualified for surrogate %R non-compliances.

Other Factors Affecting Data Quality: Positive results below the Limit of Quantitation (LOQ) and above the Method Detection Limit (MDL) were qualified as estimated, (J), due to uncertainty near the detection limit. Several sample results were qualified for RPDs greater than 25% between columns. Aroclor 1254 detections in samples BPS1-SB3038-0002 and BPS1-SB3039-0002 were qualified for matrix interference and/or weathering.

The data for these analyses were reviewed with reference to the SOP HW-45 Revision 1 - October 2006 Data Validation SOP of Organic Analysis of PCBs by Gas Chromatography, and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (April 2009).

Tetra Tech
Joseph Kalinyak
Chemist/Data Validator

Tetra Tech
Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:
Appendix A - Qualified Analytical Results
Appendix B - Results as Reported by the Laboratory
Appendix C – Region II Data Validation Forms
Appendix D - Support Documentation

Appendix A

Qualified Analytical Results

Value Qualifier Key (Val Qual)

J – The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

UJ – The result is an estimated non-detected quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

U - Value is a non-detect as reported by the laboratory.

UR – Non-detected result is considered rejected, (UR), as a result of technical non-compliances.

DATA QUALIFICATION CODE (QUAL CODE)

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is less than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed

PROJ_NO: 02230	NSAMPLE	BPS1-FB01-072412			BPS1-RB01-072412		
SDG: 50063-14	LAB_ID	1207388-30			1207388-29		
FRACTION: PCB	SAMP_DATE	7/24/2012			7/24/2012		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.08	U		0.08	U	
AROCLOR-1221		0.08	U		0.08	U	
AROCLOR-1232		0.08	U		0.08	U	
AROCLOR-1242		0.08	U		0.08	U	
AROCLOR-1248		0.068	J	P	0.08	U	
AROCLOR-1254		0.08	U		0.08	U	
AROCLOR-1260		0.08	U		0.08	U	
AROCLOR-1262		0.08	U		0.08	U	
AROCLOR-1268		0.08	U		0.08	U	

PROJ_NO: 02230	NSAMPLE	BPS1-DUP01			BPS1-DUP02			BPS1-DUP03			BPS1-SB3013-0002		
SDG: 50063-14	LAB_ID	1207388-26			1207388-27			1207388-28			1207388-01		
FRACTION: PCB	SAMP_DATE	7/24/2012			7/24/2012			7/24/2012			7/24/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	97.0			96.0			93.0			95.0		
	DUP_OF	BPS1-SB3035-0002			BPS1-SB3014-0002			BPS1-SB3019-0002					
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.013	U		0.014	U		0.014	U		0.014	U	
AROCLOR-1221		0.013	U		0.014	U		0.014	U		0.014	U	
AROCLOR-1232		0.013	U		0.014	U		0.014	U		0.014	U	
AROCLOR-1242		0.013	U		0.014	U		0.014	U		0.014	U	
AROCLOR-1248		0.1	J	PU	42			0.61			0.13	J	P
AROCLOR-1254		0.056	J	P	7.6			0.21	J	P	0.15	J	P
AROCLOR-1260		0.013	U		0.014	U		0.014	U		0.014	U	
AROCLOR-1262		0.013	U		0.014	U		0.014	U		0.014	U	
AROCLOR-1268		0.013	U		0.014	U		0.014	U		0.014	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3014-0002			BPS1-SB3015-0002			BPS1-SB3016-0002			BPS1-SB3017-0002		
SDG: 50063-14	LAB_ID	1207388-02			1207388-03			1207388-04			1207388-05		
FRACTION: PCB	SAMP_DATE	7/24/2012			7/24/2012			7/24/2012			7/24/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	95.0			96.0			94.0			92.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.014	U		0.014	U		0.014	U		0.014	U	
AROCLOR-1221		0.014	U		0.014	U		0.014	U		0.014	U	
AROCLOR-1232		0.014	U		0.014	U		0.014	U		0.014	U	
AROCLOR-1242		0.014	U		0.014	U		0.014	U		0.014	U	
AROCLOR-1248		36			7			3.4			2.8		
AROCLOR-1254		5.9			3.3			1			1.5		
AROCLOR-1260		0.014	U		0.014	U		0.014	U		0.014	U	
AROCLOR-1262		0.014	U		0.014	U		0.014	U		0.014	U	
AROCLOR-1268		0.014	U		0.014	U		0.014	U		0.014	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3018-0002			BPS1-SB3019-0002			BPS1-SB3020-0002			BPS1-SB3021-0002		
SDG: 50063-14	LAB_ID	1207388-06			1207388-07			1207388-08			1207388-09		
FRACTION: PCB	SAMP_DATE	7/24/2012			7/24/2012			7/24/2012			7/24/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	94.0			94.0			94.0			94.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.014	U		0.014	U		0.014	U		0.014	U	
AROCLOR-1221		0.014	U		0.014	U		0.014	U		0.014	U	
AROCLOR-1232		0.014	U		0.014	U		0.014	U		0.014	U	
AROCLOR-1242		0.014	U		0.014	U		0.014	U		0.014	U	
AROCLOR-1248		12			0.53			5.8			1.1		
AROCLOR-1254		2.4			0.19	J	P	1.5			0.42		
AROCLOR-1260		0.014	U		0.014	U		0.014	U		0.014	U	
AROCLOR-1262		0.014	U		0.014	U		0.014	U		0.014	U	
AROCLOR-1268		0.014	U		0.014	U		0.014	U		0.014	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3022-0002			BPS1-SB3023-0002			BPS1-SB3031-0002			BPS1-SB3032-0002		
SDG: 50063-14	LAB_ID	1207388-10			1207388-11			1207388-16			1207388-15		
FRACTION: PCB	SAMP_DATE	7/24/2012			7/24/2012			7/24/2012			7/24/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	95.0			94.0			94.0			94.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.014	U		0.014	U		0.014	U		0.014	U	
AROCLOR-1221		0.014	U		0.014	U		0.014	U		0.014	U	
AROCLOR-1232		0.014	U		0.014	U		0.014	U		0.014	U	
AROCLOR-1242		0.014	U		0.014	U		0.014	U		0.014	U	
AROCLOR-1248		0.1	J	P	1.1	J	U	58			0.6		
AROCLOR-1254		0.087	J	P	0.63			4.5			0.37	J	R
AROCLOR-1260		0.014	U		0.014	U		0.014	U		0.014	U	
AROCLOR-1262		0.014	U		0.014	U		0.014	U		0.014	U	
AROCLOR-1268		0.014	U		0.014	U		0.014	U		0.014	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3033-0002			BPS1-SB3034-0002			BPS1-SB3035-0002			BPS1-SB3036-0002		
SDG: 50063-14	LAB_ID	1207388-14			1207388-13			1207388-12			1207388-24		
FRACTION: PCB	SAMP_DATE	7/24/2012			7/24/2012			7/24/2012			7/24/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	94.0			94.0			97.0			96.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.014	U		0.014	U		0.013	U		0.013	U	
AROCLOR-1221		0.014	U		0.014	U		0.013	U		0.013	U	
AROCLOR-1232		0.014	U		0.014	U		0.013	U		0.013	U	
AROCLOR-1242		0.014	U		0.014	U		0.013	U		0.013	U	
AROCLOR-1248		1			0.74			0.078	J	PU	1.7		
AROCLOR-1254		0.38			0.34	J	P	0.046	J	P	0.68		
AROCLOR-1260		0.014	U		0.014	U		0.013	U		0.013	U	
AROCLOR-1262		0.014	U		0.014	U		0.013	U		0.013	U	
AROCLOR-1268		0.014	U		0.014	U		0.013	U		0.013	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3037-0002			BPS1-SB3037-0002CON1			BPS1-SB3038-0002			BPS1-SB3039-0002		
SDG: 50063-14	LAB_ID	1207388-23			1207388-23RE1			1207388-22			1207388-21		
FRACTION: PCB	SAMP_DATE	7/24/2012			7/24/2012			7/24/2012			7/24/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	96.0			96.0			96.0			95.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.014	U					0.014	U		0.014	U	
AROCLOR-1221		0.014	U					0.014	U		0.014	U	
AROCLOR-1232		0.014	U					0.014	U		0.014	U	
AROCLOR-1242		0.014	U					0.014	U		0.014	U	
AROCLOR-1248					0.33	J	PU	0.014	U		0.014	U	
AROCLOR-1254		0.53						0.016	J	PQ	0.015	J	PUQ
AROCLOR-1260		0.014	U					0.014	U		0.014	U	
AROCLOR-1262		0.014	U					0.014	U		0.014	U	
AROCLOR-1268		0.014	U					0.014	U		0.014	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3040-0002			BPS1-SB3041-0002			BPS1-SB3042-0002			BPS1-SB3043-0002		
SDG: 50063-14	LAB_ID	1207388-20			1207388-19			1207388-18			1207388-17		
FRACTION: PCB	SAMP_DATE	7/24/2012			7/24/2012			7/24/2012			7/24/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	95.0			96.0			94.0			96.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.014	U		0.014	U		0.014	U		0.014	U	
AROCLOR-1221		0.014	U		0.014	U		0.014	U		0.014	U	
AROCLOR-1232		0.014	U		0.014	U		0.014	U		0.014	U	
AROCLOR-1242		0.014	U		0.014	U		0.014	U		0.014	U	
AROCLOR-1248		1.3			0.12	J	P	3.3			0.5		
AROCLOR-1254		0.43			0.03	J	P	0.72			0.17	J	P
AROCLOR-1260		0.014	U		0.014	U		0.014	U		0.014	U	
AROCLOR-1262		0.014	U		0.014	U		0.014	U		0.014	U	
AROCLOR-1268		0.014	U		0.014	U		0.014	U		0.014	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3044-0002		
SDG: 50063-14	LAB_ID	1207388-25		
FRACTION: PCB	SAMP_DATE	7/24/2012		
MEDIA: SOIL	QC_TYPE	NM		
	UNITS	MG/KG		
	PCT_SOLIDS	96.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
AROCLOR-1016		0.014	U	
AROCLOR-1221		0.014	U	
AROCLOR-1232		0.014	U	
AROCLOR-1242		0.014	U	
AROCLOR-1248		60		
AROCLOR-1254		28		
AROCLOR-1260		0.014	U	
AROCLOR-1262		0.014	U	
AROCLOR-1268		0.014	U	

Tetra Tech INC **INTERNAL CORRESPONDENCE**

TO:	**R. SOK**	**DATE:**	**NOVEMBER 8, 2012**
FROM:	**JOSEPH KALINYAK**	**COPIES:**	**DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – PCB**
NWIRP BETHPAGE, CTO WE44
SAMPLE DELIVERY GROUP SDG 50063-15

SAMPLES: 2 / Aqueous / PCB

BPS1-FB02-20120822 BPS1-RB02-20120822

81 / Soil / PCB / Percent Solids

BPS1-DUP04-20120820	BPS1-DUP05-20120820	BPS1-DUP06-20120821
BPS1-DUP07-20120822	BPS1-DUP08-20120822	BPS1-DUP09-20120822
BPS1-DUP10-20120823	BPS1-DUP11-20120823	
BPS1-SB3005-0010 Bucket #1	BPS1-SB3005-0010 Bucket #2	BPS1-SB3013-0510
BPS1-SB3013-1015	BPS1-SB3013-2535	BPS1-SB3013-3540
BPS1-SB3014-0205	BPS1-SB3014-0510	BPS1-SB3014-1015
BPS1-SB3015-0205	BPS1-SB3015-0510	BPS1-SB3015-1015
BPS1-SB3020-0205	BPS1-SB3020-0510	BPS1-SB3020-1015
BPS1-SB3020-1520	BPS1-SB3020-2025	BPS1-SB3020-2530
BPS1-SB3021-0205	BPS1-SB3021-0510	BPS1-SB3021-1015
BPS1-SB3021-1520	BPS1-SB3021-2025	BPS1-SB3021-2530
BPS1-SB3023-0205	BPS1-SB3023-0510	BPS1-SB3023-1015
BPS1-SB3024-0002	BPS1-SB3024-0205	BPS1-SB3024-0510
BPS1-SB3024-1015	BPS1-SB3024-1520	BPS1-SB3024-2025
BPS1-SB3031-0205	BPS1-SB3031-0510	BPS1-SB3031-1015
BPS1-SB3032-0206	BPS1-SB3032-0610	BPS1-SB3032-1015
BPS1-SB3033-0206	BPS1-SB3033-0610	BPS1-SB3033-1015
BPS1-SB3034-0206	BPS1-SB3034-0610	BPS1-SB3034-1015
BPS1-SB3035-0206	BPS1-SB3035-0610	BPS1-SB3035-1015
BPS1-SB3036-0206	BPS1-SB3036-0610	BPS1-SB3036-1015
BPS1-SB3037-0205	BPS1-SB3037-0510	BPS1-SB3037-1015
BPS1-SB3038-0205	BPS1-SB3038-0510	BPS1-SB3038-1015
BPS1-SB3039-0205	BPS1-SB3039-0510	BPS1-SB3039-1015
BPS1-SB3044-0205	BPS1-SB3044-0510	BPS1-SB3044-1015
BPS1-SB3045-0002	BPS1-SB3046-0002	BPS1-SB3047-0002
BPS1-SB3048-0002	BPS1-SB3049-0002	BPS1-SB3050-0002
BPS1-SB3051-0002	BPS1-SB3052-0002	BPS1-SB3053-0002
BPS1-SB3054-0002		

Overview

The sample set for NWIRP Bethpage, CTO WE44, SDG 50063-15 consisted of eighty-one (81) soil samples, one (1) aqueous rinse blank sample, and one (1) aqueous field blank sample. All of the

samples were analyzed for polychlorinated biphenyls (PCB) as listed above. Eight (8) field duplicate sample pairs were included with this sample delivery group (SDG):

BPS1-DUP04-20120820 / BPS1-SB3031-0205	BPS1-DUP05-20120820 / BPS1-SB3044-0510
BPS1-DUP06-20120821 / BPS1-SB3020-0205	BPS1-DUP07-20120822 / BPS1-SB3032-0206
BPS1-DUP08-20120822 / BPS1-SB3052-0002	BPS1-DUP09-20120822 / BPS1-SB3035-1015
BPS1-DUP10-20120823 / BPS1-SB3039-0205	BPS1-DUP11-20120823 / BPS1-SB3021-0510

The samples were collected by Tetra Tech on August 20, 21, 22, and 23, 2012 and analyzed by Trimatrix Laboratories Inc. All analyses were conducted in accordance with EPA Methods SW-846 8082 for PCBs analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters:

- Data completeness
- * Hold times
- * Initial/continuing Calibrations
- * Method Blank Results
- * Laboratory Control Sample Recovery
- * Matrix Spike/Matrix Spike Duplicate Recoveries
- Surrogate Spike Recoveries
- * Field Duplicate Precision
- * Compound Identification
- Compound Quantitation
- * Detection Limits

The symbol (*) indicates that all quality control criteria were met for this parameter. Qualified analytical results are presented in Appendix A, results as reported by the laboratory are presented in Appendix B, Region II data validation forms are presented in Appendix C, and documentation supporting these findings is presented in Appendix D.

PCB

Positive results below the Limit of Quantitation (LOQ) and above the Method Detection Limit (MDL) were qualified as estimated, (J), due to uncertainty near the detection limit.

The Aroclor analysis surrogate %Rs for DCB for both columns were greater than the quality control limit for samples BPS1-SB3054-0002, BPS1-SB3045-0002, and BPS1-DUP04-20120820. No validation action was taken as the samples were diluted >5X for the sample analyses.

The analytical column RPDs were greater than the 25% quality control limit for Aroclor-1248 positive results for samples BPS1-SB3024-0002, BPS1-SB3024-0205, BPS1-SB3024-0510, and BPS1-SB3049-0002.

Actions: The aforementioned sample Aroclor-1248 results were qualified estimated, (J).

The analytical column RPDs were greater than the 25% quality control limit for Aroclor-1254 positive results for samples BPS1-SB3020-0510, BPS1-SB3020-1015, BPS1-SB3020-2025, BPS1-SB3033-0610, BPS1-SB3034-0206, BPS1-SB3035-0610, BPS1-SB3036-1015, BPS1-SB3037-0510, and BPS1-SB3049-0002.

Actions: The aforementioned sample Aroclor-1254 results were qualified estimated, (J).

Additional Comments

The DB-35 column 1 results were reported by the laboratory for the positive Aroclor results for all samples. Samples were diluted for Aroclor analyses as listed below resulting in elevated results for non-detected analytes. Per the laboratory narrative, samples BPS1-SB3031-0205, BPS1-SB3015-0205, BPS1-DUP04-20120820, BPS1-SB3054-0002, BPS1-SB3053-0002, BPS1-SB3052-0002, BPS1-SB3050-0002, BPS1-SB3048-0002, BPS1-DUP08-20120822, BPS1-SB3005-0010 Bucket #1, and BPS1-SB3005-0010 Bucket #2 were diluted due to interference caused by high concentrations of other analytes present in the sample. Per the laboratory narrative, sample BPS1-SB3024-0002, BPS1-SB3024-0205, and BPS1-SB3045-0002 Aroclor reporting limits were elevated due to sample matrix interference.

Sample	Dilution
BPS1-DUP04-20120820	50X
BPS1-DUP08-20120822	20X
BPS1-SB3005-0010 Bucket #1	500X
BPS1-SB3005-0010 Bucket #2	1000X
BPS1-SB3013-0510	2X
BPS1-SB3014-0205	5X
BPS1-SB3015-0205	100X
BPS1-SB3015-1015	5X
BPS1-SB3024-0002	5X
BPS1-SB3024-0205	5X
BPS1-SB3031-0205	50X
BPS1-SB3033-0206	2X
BPS1-SB3036-0206	5X
BPS1-SB3037-0205	2X
BPS1-SB3044-0205	2X
BPS1-SB3045-0002	50X
BPS1-SB3046-0002	2X
BPS1-SB3047-0002	5X
BPS1-SB3048-0002	20X
BPS1-SB3050-0002	100X
BPS1-SB3051-0002	2X
BPS1-SB3052-0002	20X
BPS1-SB3053-0002	1000X
BPS1-SB3054-0002	200X

Sample Aroclor analyte results were reported to the Limit of Detection (LOD).

The laboratory did not provide Aroclor %Ds for all of the CCVs. The data validation chemist manually calculated the CCV %Ds to verify that they were quality control compliant.

The laboratory did not initially provide all the Aroclor CCV information necessary to evaluate the data package. The laboratory was contacted and provided the appropriate revisions with the necessary applicable data.

EXECUTIVE SUMMARY

Laboratory Performance Issues: None.

Other Factors Affecting Data Quality: Positive results below the Limit of Quantitation (LOQ) and above the Method Detection Limit (MDL) were qualified as estimated, (J), due to uncertainty near the detection limit. Sample positive Aroclor-1248 and Aroclor-1254 results were qualified for column RPD non-compliances.

The data for these analyses were reviewed with reference to the SOP HW-45 Revision 1 - October 2006 Data Validation SOP of Organic Analysis of PCBs by Gas Chromatography, USEPA SW-846 Method 8082A, and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (April 2009).

Tetra Tech
Joseph Kalinyak
Chemist/Data Validator

Tetra Tech
Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:
Appendix A - Qualified Analytical Results
Appendix B - Results as Reported by the Laboratory
Appendix C – Region II Data Validation Forms
Appendix D - Support Documentation

Appendix A

Qualified Analytical Results

Value Qualifier Key (Val Qual)

J – The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

UJ – The result is an estimated non-detected quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

U - Value is a non-detect as reported by the laboratory.

UR – Non-detected result is considered rejected, (UR), as a result of technical non-compliances.

DATA QUALIFICATION CODE (QUAL CODE)

Qualifier Codes:

A	=	Lab Blank Contamination
B	=	Field Blank Contamination
C	=	Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01	=	GC/MS Tuning Noncompliance
D	=	MS/MSD Recovery Noncompliance
E	=	LCS/LCSD Recovery Noncompliance
F	=	Lab Duplicate Imprecision
G	=	Field Duplicate Imprecision
H	=	Holding Time Exceedance
I	=	ICP Serial Dilution Noncompliance
J	=	ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K	=	ICP Interference - includes ICS % R Noncompliance
L	=	Instrument Calibration Range Exceedance
M	=	Sample Preservation Noncompliance
N	=	Internal Standard Noncompliance
N01	=	Internal Standard Recovery Noncompliance Dioxins
N02	=	Recovery Standard Noncompliance Dioxins
N03	=	Clean-up Standard Noncompliance Dioxins
O	=	Poor Instrument Performance (i.e., base-time drifting)
P	=	Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q	=	Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R	=	Surrogates Recovery Noncompliance
S	=	Pesticide/PCB Resolution
T	=	% Breakdown Noncompliance for DDT and Endrin
U	=	RPD between columns/detectors >40% for positive results determined via GC/HPLC
V	=	Non-linear calibrations; correlation coefficient $r < 0.995$
W	=	EMPC result
X	=	Signal to noise response drop
Y	=	Percent solids <30%
Z	=	Uncertainty at 2 sigma deviation is less than sample activity
Z1	=	Tentatively Identified Compound considered presumptively present
Z2	=	Tentatively Identified Compound column bleed

PROJ_NO: 02230	NSAMPLE	BPS1-DUP04-20120820			BPS1-DUP05-20120820			BPS1-DUP06-20120821			BPS1-DUP07-20120822		
SDG: 50063-15	LAB_ID	1208371-01RE1			1208371-03			1208371-11			1208432-18		
FRACTION: PCB	SAMP_DATE	8/20/2012			8/20/2012			8/21/2012			8/22/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	95.0			97.0			86.0			96.0		
	DUP_OF	BPS1-SB3031-0205			BPS1-SB3044-0510			BPS1-SB3020-0205			BPS1-SB3032-0206		
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.68	U		0.013	U		0.015	U		0.014	U	
AROCLOR-1221		0.68	U		0.013	U		0.015	U		0.014	U	
AROCLOR-1232		0.68	U		0.013	U		0.015	U		0.014	U	
AROCLOR-1242		0.68	U		0.013	U		0.015	U		0.014	U	
AROCLOR-1248		11			0.013	U		0.096	J	P	0.14	J	P
AROCLOR-1254		1.6	J	P	0.013	U		0.029	J	P	0.09	J	P
AROCLOR-1260		0.68	U		0.013	U		0.015	U		0.014	U	
AROCLOR-1262		0.68	U		0.013	U		0.015	U		0.014	U	
AROCLOR-1268		0.68	U		0.013	U		0.015	U		0.014	U	

PROJ_NO: 02230 SDG: 50063-15 FRACTION: PCB MEDIA: SOIL	NSAMPLE	BPS1-DUP08-20120822			BPS1-DUP09-20120822			BPS1-DUP10-20120823			BPS1-DUP11-20120823		
	LAB_ID	1208432-19RE1			1208432-20			1208432-23			1208432-28		
	SAMP_DATE	8/22/2012			8/22/2012			8/23/2012			8/23/2012		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	91.0			96.0			97.0			97.0		
	DUP_OF	BPS1-SB3052-0002			BPS1-SB3035-1015			BPS1-SB3039-0205			BPS1-SB3021-0510		
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.29	U		0.013	U		0.013	U		0.013	U	
AROCLOR-1221		0.29	U		0.013	U		0.013	U		0.013	U	
AROCLOR-1232		0.29	U		0.013	U		0.013	U		0.013	U	
AROCLOR-1242		0.29	U		0.013	U		0.013	U		0.013	U	
AROCLOR-1248		2.9			0.025	J	P	0.013	U		0.013	U	
AROCLOR-1254		4.5			0.013	J	P	0.013	U		0.013	U	
AROCLOR-1260		0.29	U		0.013	U		0.013	U		0.013	U	
AROCLOR-1262		0.29	U		0.013	U		0.013	U		0.013	U	
AROCLOR-1268		0.29	U		0.013	U		0.013	U		0.013	U	

PROJ_NO: 02230 SDG: 50063-15 FRACTION: PCB MEDIA: SOIL	NSAMPLE	BPS1-SB3005-0010 Bucket #1			BPS1-SB3005-0010 Bucket #2			BPS1-SB3005-0010 Bucket #2RE2			BPS1-SB3013-0510		
	LAB_ID	1208432-29RE1			1208432-30RE1			1208432-30RE2			1208371-06		
	SAMP_DATE	8/23/2012			8/23/2012			8/23/2012			8/21/2012		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	94.0			95.0			95.0			90.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		6.9	U					14	U		0.029	U	
AROCLOR-1221		6.9	U					14	U		0.029	U	
AROCLOR-1232		6.9	U					14	U		0.029	U	
AROCLOR-1242		95			180						0.56		
AROCLOR-1248		6.9	U					14	U		0.029	U	
AROCLOR-1254		6.9	U					14	U		0.083	J	P
AROCLOR-1260		6.9	U					14	U		0.029	U	
AROCLOR-1262		6.9	U					14	U		0.029	U	
AROCLOR-1268		6.9	U					14	U		0.029	U	

PROJ_NO: 02230 SDG: 50063-15 FRACTION: PCB MEDIA: SOIL	NSAMPLE	BPS1-SB3013-1015			BPS1-SB3013-2535			BPS1-SB3013-3540			BPS1-SB3014-0205		
	LAB_ID	1208371-07			1208371-08			1208371-09			1208363-13		
	SAMP_DATE	8/21/2012			8/21/2012			8/21/2012			8/20/2012		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	96.0			96.0			96.0			95.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.014	U		0.014	U		0.014	U		0.068	U	
AROCLOR-1221		0.014	U		0.014	U		0.014	U		0.068	U	
AROCLOR-1232		0.014	U		0.014	U		0.014	U		0.068	U	
AROCLOR-1242		0.014	U		0.014	U		0.014	U		0.068	U	
AROCLOR-1248		0.014	U		0.014	U		0.014	U		1.1		
AROCLOR-1254		0.014	U		0.014	U		0.014	U		0.27	J	P
AROCLOR-1260		0.014	U		0.014	U		0.014	U		0.068	U	
AROCLOR-1262		0.014	U		0.014	U		0.014	U		0.068	U	
AROCLOR-1268		0.014	U		0.014	U		0.014	U		0.068	U	

PROJ_NO: 02230 SDG: 50063-15 FRACTION: PCB MEDIA: SOIL	NSAMPLE	BPS1-SB3014-0510			BPS1-SB3014-1015			BPS1-SB3015-0205			BPS1-SB3015-0510		
	LAB_ID	1208363-14			1208363-15			1208363-10RE1			1208363-11		
	SAMP_DATE	8/20/2012			8/20/2012			8/20/2012			8/20/2012		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	97.0			98.0			91.0			96.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.013	U		0.013	U		1.4	U		0.014	U	
AROCLOR-1221		0.013	U		0.013	U		1.4	U		0.014	U	
AROCLOR-1232		0.013	U		0.013	U		1.4	U		0.014	U	
AROCLOR-1242		0.013	U		0.013	U		1.4	U		0.014	U	
AROCLOR-1248		0.013	U		0.013	U		21			0.07	J	P
AROCLOR-1254		0.013	U		0.013	U		13			0.035	J	P
AROCLOR-1260		0.013	U		0.013	U		1.4	U		0.014	U	
AROCLOR-1262		0.013	U		0.013	U		1.4	U		0.014	U	
AROCLOR-1268		0.013	U		0.013	U		1.4	U		0.014	U	

PROJ_NO: 02230 SDG: 50063-15 FRACTION: PCB MEDIA: SOIL	NSAMPLE	BPS1-SB3015-1015			BPS1-SB3020-0205			BPS1-SB3020-0510			BPS1-SB3020-1015		
	LAB_ID	1208363-12			1208371-10			1208371-12			1208371-13		
	SAMP_DATE	8/20/2012			8/21/2012			8/21/2012			8/21/2012		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	93.0			86.0			97.0			96.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.07	U		0.015	U		0.013	U		0.014	U	
AROCLOR-1221		0.07	U		0.015	U		0.013	U		0.014	U	
AROCLOR-1232		0.07	U		0.015	U		0.013	U		0.014	U	
AROCLOR-1242		0.07	U		0.015	U		0.013	U		0.014	U	
AROCLOR-1248		1.2			0.072	J	P	0.013	U		0.014	U	
AROCLOR-1254		0.5			0.021	J	P	0.0038	J	PU	0.0041	J	PU
AROCLOR-1260		0.07	U		0.015	U		0.013	U		0.014	U	
AROCLOR-1262		0.07	U		0.015	U		0.013	U		0.014	U	
AROCLOR-1268		0.07	U		0.015	U		0.013	U		0.014	U	

PROJ_NO: 02230 SDG: 50063-15 FRACTION: PCB MEDIA: SOIL	NSAMPLE	BPS1-SB3020-1520			BPS1-SB3020-2025			BPS1-SB3020-2530			BPS1-SB3021-0205		
	LAB_ID	1208371-14			1208371-15			1208371-16			1208407-14		
	SAMP_DATE	8/21/2012			8/21/2012			8/21/2012			8/23/2012		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	97.0			95.0			95.0			89.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.013	U		0.014	U		0.014	U		0.015	U	
AROCLOR-1221		0.013	U		0.014	U		0.014	U		0.015	U	
AROCLOR-1232		0.013	U		0.014	U		0.014	U		0.015	U	
AROCLOR-1242		0.013	U		0.014	U		0.014	U		0.015	U	
AROCLOR-1248		0.013	U		0.017	J	P	0.085	J	P	0.059	J	P
AROCLOR-1254		0.0059	J	P	0.0069	J	PU	0.027	J	P	0.014	J	P
AROCLOR-1260		0.013	U		0.014	U		0.014	U		0.015	U	
AROCLOR-1262		0.013	U		0.014	U		0.014	U		0.015	U	
AROCLOR-1268		0.013	U		0.014	U		0.014	U		0.015	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3021-0510			BPS1-SB3021-1015			BPS1-SB3021-1520			BPS1-SB3021-2025		
SDG: 50063-15	LAB_ID	1208407-15			1208407-16			1208407-17			1208407-18		
FRACTION: PCB	SAMP_DATE	8/23/2012			8/23/2012			8/23/2012			8/23/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	97.0			98.0			98.0			96.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.013	U		0.013	U		0.013	U		0.014	U	
AROCLOR-1221		0.013	U		0.013	U		0.013	U		0.014	U	
AROCLOR-1232		0.013	U		0.013	U		0.013	U		0.014	U	
AROCLOR-1242		0.013	U		0.013	U		0.013	U		0.014	U	
AROCLOR-1248		0.013	U		0.013	U		0.013	U		0.025	J	P
AROCLOR-1254		0.013	U		0.013	U		0.013	U		0.014	U	
AROCLOR-1260		0.013	U		0.013	U		0.013	U		0.014	U	
AROCLOR-1262		0.013	U		0.013	U		0.013	U		0.014	U	
AROCLOR-1268		0.013	U		0.013	U		0.013	U		0.014	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3021-2530			BPS1-SB3023-0205			BPS1-SB3023-0510			BPS1-SB3023-1015		
SDG: 50063-15	LAB_ID	1208407-19			1208363-16			1208363-17			1208363-18		
FRACTION: PCB	SAMP_DATE	8/23/2012			8/21/2012			8/21/2012			8/21/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	95.0			91.0			87.0			97.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.014	U		0.014	U		0.015	U		0.013	U	
AROCLOR-1221		0.014	U		0.014	U		0.015	U		0.013	U	
AROCLOR-1232		0.014	U		0.014	U		0.015	U		0.013	U	
AROCLOR-1242		0.014	U		0.014	U		0.015	U		0.013	U	
AROCLOR-1248		0.036	J	P	0.22	J	P	0.015	U		0.025	J	P
AROCLOR-1254		0.014	U		0.026	J	P	0.015	U		0.013	U	
AROCLOR-1260		0.014	U		0.014	U		0.015	U		0.013	U	
AROCLOR-1262		0.014	U		0.014	U		0.015	U		0.013	U	
AROCLOR-1268		0.014	U		0.014	U		0.015	U		0.013	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3024-0002			BPS1-SB3024-0205			BPS1-SB3024-0510			BPS1-SB3024-1015		
SDG: 50063-15	LAB_ID	1208363-04			1208363-05			1208363-06			1208363-07		
FRACTION: PCB	SAMP_DATE	8/20/2012			8/20/2012			8/20/2012			8/20/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	92.0			90.0			91.0			98.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.071	U		0.072	U		0.014	U		0.013	U	
AROCLOR-1221		0.071	U		0.072	U		0.014	U		0.013	U	
AROCLOR-1232		0.071	U		0.072	U		0.014	U		0.013	U	
AROCLOR-1242		0.071	U		0.072	U		0.014	U		0.013	U	
AROCLOR-1248		0.15	J	PU	0.1	J	PU	0.039	J	PU	0.013	U	
AROCLOR-1254		0.071	U		0.072	U		0.014	U		0.013	U	
AROCLOR-1260		0.071	U		0.072	U		0.014	U		0.013	U	
AROCLOR-1262		0.071	U		0.072	U		0.014	U		0.013	U	
AROCLOR-1268		0.071	U		0.072	U		0.014	U		0.013	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3024-1520			BPS1-SB3024-2025			BPS1-SB3031-0205			BPS1-SB3031-0510		
SDG: 50063-15	LAB_ID	1208363-08			1208363-09			1208363-01RE1			1208363-02		
FRACTION: PCB	SAMP_DATE	8/20/2012			8/20/2012			8/20/2012			8/20/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	97.0			97.0			95.0			96.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.013	U		0.013	U		0.68	U		0.014	U	
AROCLOR-1221		0.013	U		0.013	U		0.68	U		0.014	U	
AROCLOR-1232		0.013	U		0.013	U		0.68	U		0.014	U	
AROCLOR-1242		0.013	U		0.013	U		0.68	U		0.014	U	
AROCLOR-1248		0.013	U		0.013	U		9.8			0.014	U	
AROCLOR-1254		0.013	U		0.013	U		1.3	J		0.014	U	
AROCLOR-1260		0.013	U		0.013	U		0.68	U		0.014	U	
AROCLOR-1262		0.013	U		0.013	U		0.68	U		0.014	U	
AROCLOR-1268		0.013	U		0.013	U		0.68	U		0.014	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3031-1015			BPS1-SB3032-0206			BPS1-SB3032-0610			BPS1-SB3032-1015		
SDG: 50063-15	LAB_ID	1208363-03			1208407-02			1208407-03			1208407-04		
FRACTION: PCB	SAMP_DATE	8/20/2012			8/22/2012			8/22/2012			8/22/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	98.0			97.0			98.0			98.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.013	U		0.013	U		0.013	U		0.013	U	
AROCLOR-1221		0.013	U		0.013	U		0.013	U		0.013	U	
AROCLOR-1232		0.013	U		0.013	U		0.013	U		0.013	U	
AROCLOR-1242		0.013	U		0.013	U		0.013	U		0.013	U	
AROCLOR-1248		0.013	U		0.19	J	P	0.013	U		0.013	U	
AROCLOR-1254		0.013	U		0.12	J	P	0.013	U		0.013	U	
AROCLOR-1260		0.013	U		0.013	U		0.013	U		0.013	U	
AROCLOR-1262		0.013	U		0.013	U		0.013	U		0.013	U	
AROCLOR-1268		0.013	U		0.013	U		0.013	U		0.013	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3033-0206			BPS1-SB3033-0610			BPS1-SB3033-1015			BPS1-SB3034-0206		
SDG: 50063-15	LAB_ID	1208432-01			1208432-02			1208432-03			1208432-04		
FRACTION: PCB	SAMP_DATE	8/22/2012			8/22/2012			8/22/2012			8/22/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	96.0			98.0			98.0			97.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.027	U		0.013	U		0.013	U		0.013	U	
AROCLOR-1221		0.027	U		0.013	U		0.013	U		0.013	U	
AROCLOR-1232		0.027	U		0.013	U		0.013	U		0.013	U	
AROCLOR-1242		0.027	U		0.013	U		0.013	U		0.013	U	
AROCLOR-1248		0.3	J	P	0.014	J	P	0.081	J	P	0.038	J	P
AROCLOR-1254		0.1	J	P	0.0062	J	PU	0.031	J	P	0.022	J	PU
AROCLOR-1260		0.027	U		0.013	U		0.013	U		0.013	U	
AROCLOR-1262		0.027	U		0.013	U		0.013	U		0.013	U	
AROCLOR-1268		0.027	U		0.013	U		0.013	U		0.013	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3034-0610			BPS1-SB3034-1015			BPS1-SB3035-0206			BPS1-SB3035-0610		
SDG: 50063-15	LAB_ID	1208432-05			1208432-06			1208432-09			1208432-10		
FRACTION: PCB	SAMP_DATE	8/22/2012			8/22/2012			8/22/2012			8/22/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	95.0			98.0			98.0			96.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.014	U		0.013	U		0.013	U		0.013	U	
AROCLOR-1221		0.014	U		0.013	U		0.013	U		0.013	U	
AROCLOR-1232		0.014	U		0.013	U		0.013	U		0.013	U	
AROCLOR-1242		0.014	U		0.013	U		0.013	U		0.013	U	
AROCLOR-1248		0.014	U		0.013	U		0.16	J	P	0.013	U	
AROCLOR-1254		0.014	U		0.013	U		0.1	J	P	0.004	J	PU
AROCLOR-1260		0.014	U		0.013	U		0.013	U		0.013	U	
AROCLOR-1262		0.014	U		0.013	U		0.013	U		0.013	U	
AROCLOR-1268		0.014	U		0.013	U		0.013	U		0.013	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3035-1015			BPS1-SB3036-0206			BPS1-SB3036-0610			BPS1-SB3036-1015		
SDG: 50063-15	LAB_ID	1208432-11			1208432-12			1208432-13			1208432-14		
FRACTION: PCB	SAMP_DATE	8/22/2012			8/22/2012			8/22/2012			8/22/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	96.0			93.0			95.0			94.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.013	U		0.07	U		0.014	U		0.014	U	
AROCLOR-1221		0.013	U		0.07	U		0.014	U		0.014	U	
AROCLOR-1232		0.013	U		0.07	U		0.014	U		0.014	U	
AROCLOR-1242		0.013	U		0.07	U		0.014	U		0.014	U	
AROCLOR-1248		0.027	J	P	0.56			0.18	J	P	0.13	J	P
AROCLOR-1254		0.012	J	P	0.19	J	P	0.036	J	P	0.029	J	PU
AROCLOR-1260		0.013	U		0.07	U		0.014	U		0.014	U	
AROCLOR-1262		0.013	U		0.07	U		0.014	U		0.014	U	
AROCLOR-1268		0.013	U		0.07	U		0.014	U		0.014	U	

PROJ_NO: 02230 SDG: 50063-15 FRACTION: PCB MEDIA: SOIL	NSAMPLE	BPS1-SB3037-0205			BPS1-SB3037-0510			BPS1-SB3037-1015			BPS1-SB3038-0205		
	LAB_ID	1208432-15			1208432-16			1208432-17			1208432-25		
	SAMP_DATE	8/22/2012			8/22/2012			8/22/2012			8/23/2012		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	97.0			97.0			96.0			97.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.027	U		0.013	U		0.014	U		0.013	U	
AROCLOR-1221		0.027	U		0.013	U		0.014	U		0.013	U	
AROCLOR-1232		0.027	U		0.013	U		0.014	U		0.013	U	
AROCLOR-1242		0.027	U		0.013	U		0.014	U		0.013	U	
AROCLOR-1248		0.38			0.015	J	P	0.014	U		0.013	U	
AROCLOR-1254		0.14	J	P	0.0054	J	PU	0.014	U		0.013	U	
AROCLOR-1260		0.027	U		0.013	U		0.014	U		0.013	U	
AROCLOR-1262		0.027	U		0.013	U		0.014	U		0.013	U	
AROCLOR-1268		0.027	U		0.013	U		0.014	U		0.013	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3038-0510			BPS1-SB3038-1015			BPS1-SB3039-0205			BPS1-SB3039-0510		
SDG: 50063-15	LAB_ID	1208432-26			1208432-27			1208432-21			1208432-22		
FRACTION: PCB	SAMP_DATE	8/23/2012			8/23/2012			8/23/2012			8/23/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	97.0			97.0			97.0			97.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.013	U		0.013	U		0.013	U		0.013	U	
AROCLOR-1221		0.013	U		0.013	U		0.013	U		0.013	U	
AROCLOR-1232		0.013	U		0.013	U		0.013	U		0.013	U	
AROCLOR-1242		0.013	U		0.013	U		0.013	U		0.013	U	
AROCLOR-1248		0.013	U		0.013	U		0.013	U		0.013	U	
AROCLOR-1254		0.013	U		0.013	U		0.013	U		0.013	U	
AROCLOR-1260		0.013	U		0.013	U		0.013	U		0.013	U	
AROCLOR-1262		0.013	U		0.013	U		0.013	U		0.013	U	
AROCLOR-1268		0.013	U		0.013	U		0.013	U		0.013	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3039-1015			BPS1-SB3044-0205			BPS1-SB3044-0510			BPS1-SB3044-1015		
SDG: 50063-15	LAB_ID	1208432-24			1208371-02			1208371-04			1208371-05		
FRACTION: PCB	SAMP_DATE	8/23/2012			8/20/2012			8/20/2012			8/20/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	97.0			89.0			97.0			97.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.013	U		0.029	U		0.013	U		0.013	U	
AROCLOR-1221		0.013	U		0.029	U		0.013	U		0.013	U	
AROCLOR-1232		0.013	U		0.029	U		0.013	U		0.013	U	
AROCLOR-1242		0.013	U		0.029	U		0.013	U		0.013	U	
AROCLOR-1248		0.013	U		0.37			0.013	U		0.013	U	
AROCLOR-1254		0.013	U		0.11	J	P	0.013	U		0.013	U	
AROCLOR-1260		0.013	U		0.029	U		0.013	U		0.013	U	
AROCLOR-1262		0.013	U		0.029	U		0.013	U		0.013	U	
AROCLOR-1268		0.013	U		0.029	U		0.013	U		0.013	U	

PROJ_NO: 02230 SDG: 50063-15 FRACTION: PCB MEDIA: SOIL	NSAMPLE	BPS1-SB3045-0002			BPS1-SB3046-0002			BPS1-SB3047-0002			BPS1-SB3048-0002		
	LAB_ID	1208407-11RE1			1208407-12			1208407-13			1208407-10RE1		
	SAMP_DATE	8/22/2012			8/22/2012			8/22/2012			8/22/2012		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	93.0			96.0			95.0			92.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.7	U		0.027	U		0.069	U		0.28	U	
AROCLOR-1221		0.7	U		0.027	U		0.069	U		0.28	U	
AROCLOR-1232		0.7	U		0.027	U		0.069	U		0.28	U	
AROCLOR-1242		0.7	U		0.027	U		0.069	U		0.28	U	
AROCLOR-1248		2.2			0.56			1.3			4.8		
AROCLOR-1254		0.7	U		0.11	J	P	0.46			0.58	J	P
AROCLOR-1260		0.7	U		0.027	U		0.069	U		0.28	U	
AROCLOR-1262		0.7	U		0.027	U		0.21	J	P	0.28	U	
AROCLOR-1268		0.7	U		0.027	U		0.069	U		0.28	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3049-0002			BPS1-SB3050-0002			BPS1-SB3051-0002			BPS1-SB3052-0002		
SDG: 50063-15	LAB_ID	1208407-07			1208407-08RE1			1208407-09			1208407-06RE1		
FRACTION: PCB	SAMP_DATE	8/22/2012			8/22/2012			8/22/2012			8/22/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	95.0			88.0			95.0			92.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.014	U		1.5	U		0.027	U		0.28	U	
AROCLOR-1221		0.014	U		1.5	U		0.027	U		0.28	U	
AROCLOR-1232		0.014	U		1.5	U		0.027	U		0.28	U	
AROCLOR-1242		0.014	U		1.5	U		0.027	U		0.28	U	
AROCLOR-1248		0.024	J	PU	16			0.39			3.2		
AROCLOR-1254		0.011	J	PU	1.5	U		0.15	J	P	4.8		
AROCLOR-1260		0.014	U		1.5	U		0.027	U		0.28	U	
AROCLOR-1262		0.014	U		1.5	U		0.027	U		0.28	U	
AROCLOR-1268		0.014	U		1.5	U		0.027	U		0.28	U	

PROJ_NO: 02230 SDG: 50063-15 FRACTION: PCB MEDIA: SOIL	NSAMPLE	BPS1-SB3053-0002			BPS1-SB3054-0002		
	LAB_ID	1208407-05RE1			1208407-01RE1		
	SAMP_DATE	8/22/2012			8/22/2012		
	QC_TYPE	NM			NM		
	UNITS	MG/KG			MG/KG		
	PCT_SOLIDS	89.0			94.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		15	U		2.8	U	
AROCLOR-1221		15	U		2.8	U	
AROCLOR-1232		15	U		2.8	U	
AROCLOR-1242		15	U		2.8	U	
AROCLOR-1248		150			40		
AROCLOR-1254		15	U		5.9	J	P
AROCLOR-1260		15	U		2.8	U	
AROCLOR-1262		15	U		2.8	U	
AROCLOR-1268		15	U		2.8	U	

Tetra Tech INC **INTERNAL CORRESPONDENCE**

TO:	**R. SOK**	**DATE:**	**NOVEMBER 9, 2012**
FROM:	**JOSEPH KALINYAK**	**COPIES:**	**DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – PCB**
NWIRP BETHPAGE, CTO WE44
SAMPLE DELIVERY GROUP SDG 50063-16

SAMPLES: 1 / Aqueous / PCB

BPS1-FB01-072412

23 / Soil / PCB

BPS1-DUP12-20120828	BPS1-DUP13-20120829	BPS1-SB3020-3035
BPS1-SB3020-3545	BPS1-SB3020-4555	BPS1-SB3020-5560
BPS1-SB3021-3035	BPS1-SB3021-3545	BPS1-SB3021-4555
BPS1-SB3021-5565	BPS1-SB3021-7075	BPS1-SB3029-0205
BPS1-SB3029-0510	BPS1-SB3029-1015	BPS1-SB3029-1520
BPS1-SB3029-2025	BPS1-SB3029-2535	BPS1-SB3029-3545
BPS1-SB3029-4555	BPS1-SB3029-5565	BPS1-SB3030-2535
BPS1-SB3030-3545	BPS1-SB3030-4555	

Overview

The sample set for NWIRP Bethpage, CTO WE44, SDG 50063-16 consisted of twenty-three (23) soil samples and one (1) aqueous rinse blank sample. All of the samples were analyzed for polychlorinated biphenyls (PCB) as listed above. The twenty-three (23) soil samples were analyzed for percent solids. Two (2) field duplicate sample pairs were included with this sample delivery group (SDG): BPS1-DUP12-20120828 / BPS1-SB3021-3035 and BPS1-DUP13-20120829 / BPS1-SB3029-2025.

The samples were collected by Tetra Tech on August 27, 28, 29, and 30, 2012 and analyzed by Trimatrix Laboratories Inc. All analyses were conducted in accordance with EPA Method SW-846 8082 for PCBs analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters:

- * Data completeness
- * Hold times
- * Initial/continuing Calibrations
- * Method Blank Results
- * Laboratory Control Sample Recovery
- * Surrogate Spike Recoveries
- * Field Duplicate Precision
- * Compound Identification
- Compound Quantitation
- * Detection Limits

The symbol (*) indicates that all quality control criteria were met for this parameter. Qualified analytical results are presented in Appendix A, results as reported by the laboratory are presented in Appendix B,

Region II data validation forms are presented in Appendix C, and documentation supporting these findings is presented in Appendix D.

PCB

The DB-35 column 1 results were reported by the laboratory for the positive Aroclor results for all samples.

Positive results below the Limit of Quantitation (LOQ) and above the Method Detection Limit (MDL) were qualified as estimated, (J), due to uncertainty near the detection limit.

The analytical column RPDs were greater than the 25% quality control limit for Aroclor-1248 positive results for samples BPS1-SB3029-0205 and BPS1-SB3029-0510.

Actions: The aforementioned sample Aroclor-1248 results were qualified estimated, (J).

Additional Comments

Samples were diluted for Aroclor analyses as listed below resulting in elevated results for non-detected analytes Sample BPS1-SB3029-2535 was diluted due to interference caused by high concentrations of other analytes present in the sample.

Sample	Dilution
BPS1-SB3029-1520	Aroclor-1016/1260-5X; Aroclor-1248-5X
BPS1-SB3029-2025	Aroclor-1016/1260-2X; Aroclor-1248-2X
BPS1-SB3029-2535	Aroclor-1016/1260-100X; Aroclor-1248-100X

Sample Aroclor analyte results were reported to the Limit of Detection (LOD).

The laboratory did not provide Aroclor %Ds for all of the CCVs. The data validation chemist manually calculated the CCV %Ds to verify that they were quality control compliant.

EXECUTIVE SUMMARY

Laboratory Performance Issues: No issues were identified.

Other Factors Affecting Data Quality: Positive results below the Limit of Quantitation (LOQ) and above the Method Detection Limit (MDL) were qualified as estimated, (J), due to uncertainty near the detection limit. Sample positive Aroclor-1248 results were qualified for column RPD non-compliances.

The data for these analyses were reviewed with reference to the SOP HW-45 Revision 1 - October 2006 Data Validation SOP of Organic Analysis of PCBs by Gas Chromatography, USEPA SW-846 Method 8082A, and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (April 2009).

Tetra Tech
Joseph Kalinyak
Chemist/Data Validator

Tetra Tech
Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:
Appendix A - Qualified Analytical Results
Appendix B - Results as Reported by the Laboratory
Appendix C – Region II Data Validation Forms
Appendix D - Support Documentation

Appendix A

Qualified Analytical Results

Value Qualifier Key (Val Qual)

J – The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

UJ – The result is an estimated non-detected quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

U - Value is a non-detect as reported by the laboratory.

UR – Non-detected result is considered rejected, (UR), as a result of technical non-compliances.

DATA QUALIFICATION CODE (QUAL CODE)

Qualifier Codes:

A	=	Lab Blank Contamination
B	=	Field Blank Contamination
C	=	Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01	=	GC/MS Tuning Noncompliance
D	=	MS/MSD Recovery Noncompliance
E	=	LCS/LCSD Recovery Noncompliance
F	=	Lab Duplicate Imprecision
G	=	Field Duplicate Imprecision
H	=	Holding Time Exceedance
I	=	ICP Serial Dilution Noncompliance
J	=	ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K	=	ICP Interference - includes ICS % R Noncompliance
L	=	Instrument Calibration Range Exceedance
M	=	Sample Preservation Noncompliance
N	=	Internal Standard Noncompliance
N01	=	Internal Standard Recovery Noncompliance Dioxins
N02	=	Recovery Standard Noncompliance Dioxins
N03	=	Clean-up Standard Noncompliance Dioxins
O	=	Poor Instrument Performance (i.e., base-time drifting)
P	=	Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q	=	Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R	=	Surrogates Recovery Noncompliance
S	=	Pesticide/PCB Resolution
T	=	% Breakdown Noncompliance for DDT and Endrin
U	=	RPD between columns/detectors >40% for positive results determined via GC/HPLC
V	=	Non-linear calibrations; correlation coefficient $r < 0.995$
W	=	EMPC result
X	=	Signal to noise response drop
Y	=	Percent solids <30%
Z	=	Uncertainty at 2 sigma deviation is less than sample activity
Z1	=	Tentatively Identified Compound considered presumptively present
Z2	=	Tentatively Identified Compound column bleed

PROJ_NO: 02230	NSAMPLE	BPS1-RB03-20120829		
SDG: 50063-16	LAB_ID	1208551-07		
FRACTION: PCB	SAMP_DATE	8/29/2012		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
AROCLOR-1016		0.08	U	
AROCLOR-1221		0.08	U	
AROCLOR-1232		0.08	U	
AROCLOR-1242		0.08	U	
AROCLOR-1248		0.08	U	
AROCLOR-1254		0.08	U	
AROCLOR-1260		0.08	U	
AROCLOR-1262		0.08	U	
AROCLOR-1268		0.08	U	

PROJ_NO: 02230	NSAMPLE	BPS1-DUP12-20120828			BPS1-DUP13-20120829			BPS1-SB3020-3035			BPS1-SB3020-3545		
SDG: 50063-16	LAB_ID	1208551-04			1208551-13			1208551-01			1208551-02		
FRACTION: PCB	SAMP_DATE	8/28/2012			8/29/2012			8/27/2012			8/27/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	93.0			96.0			95.0			87.0		
	DUP_OF	BPS1-SB3021-3035			BPS1-SB3029-2025								
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.014	U		0.014	U		0.014	U		0.015	U	
AROCLOR-1221		0.014	U		0.014	U		0.014	U		0.015	U	
AROCLOR-1232		0.014	U		0.014	U		0.014	U		0.015	U	
AROCLOR-1242		0.014	U		0.014	U		0.014	U		0.015	U	
AROCLOR-1248		0.018	J	P	0.27	J	P	0.014	U		0.085	J	P
AROCLOR-1254		0.014	U		0.014	U		0.014	U		0.015	U	
AROCLOR-1260		0.014	U		0.014	U		0.014	U		0.015	U	
AROCLOR-1262		0.014	U		0.014	U		0.014	U		0.015	U	
AROCLOR-1268		0.014	U		0.014	U		0.014	U		0.015	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3020-4555			BPS1-SB3020-5560			BPS1-SB3021-3035			BPS1-SB3021-3545		
SDG: 50063-16	LAB_ID	1208544-01			1208544-06			1208551-03			1208551-05		
FRACTION: PCB	SAMP_DATE	8/27/2012			8/27/2012			8/27/2012			8/28/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	92.0			91.0			93.0			91.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.014	U		0.014	U		0.014	U		0.014	U	
AROCLOR-1221		0.014	U		0.014	U		0.014	U		0.014	U	
AROCLOR-1232		0.014	U		0.014	U		0.014	U		0.014	U	
AROCLOR-1242		0.014	U		0.014	U		0.014	U		0.014	U	
AROCLOR-1248		0.014	U		0.014	U		0.017	J	P	0.014	U	
AROCLOR-1254		0.014	U		0.014	U		0.014	U		0.014	U	
AROCLOR-1260		0.014	U		0.014	U		0.014	U		0.014	U	
AROCLOR-1262		0.014	U		0.014	U		0.014	U		0.014	U	
AROCLOR-1268		0.014	U		0.014	U		0.014	U		0.014	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3021-4555			BPS1-SB3021-5565			BPS1-SB3021-7075			BPS1-SB3029-0205		
SDG: 50063-16	LAB_ID	1208551-06			1208544-02			1208544-03			1208551-08		
FRACTION: PCB	SAMP_DATE	8/28/2012			8/28/2012			8/28/2012			8/29/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	91.0			81.0			85.0			96.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.014	U		0.016	U		0.015	U		0.014	U	
AROCLOR-1221		0.014	U		0.016	U		0.015	U		0.014	U	
AROCLOR-1232		0.014	U		0.016	U		0.015	U		0.014	U	
AROCLOR-1242		0.014	U		0.016	U		0.015	U		0.014	U	
AROCLOR-1248		0.014	U		0.016	U		0.015	U		0.18	J	GPU
AROCLOR-1254		0.014	U		0.016	U		0.015	U		0.058	J	P
AROCLOR-1260		0.014	U		0.016	U		0.015	U		0.014	U	
AROCLOR-1262		0.014	U		0.016	U		0.015	U		0.014	U	
AROCLOR-1268		0.014	U		0.016	U		0.015	U		0.014	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3029-0510			BPS1-SB3029-1015			BPS1-SB3029-1520			BPS1-SB3029-2025		
SDG: 50063-16	LAB_ID	1208551-09			1208551-10			1208551-11			1208551-12		
FRACTION: PCB	SAMP_DATE	8/29/2012			8/29/2012			8/29/2012			8/29/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	97.0			97.0			97.0			96.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.013	U		0.013	U		0.067	U		0.027	U	
AROCLOR-1221		0.013	U		0.013	U		0.067	U		0.027	U	
AROCLOR-1232		0.013	U		0.013	U		0.067	U		0.027	U	
AROCLOR-1242		0.013	U		0.013	U		0.067	U		0.027	U	
AROCLOR-1248		0.14	J	GPU	0.12	J	P	0.83			0.34		
AROCLOR-1254		0.057	J	P	0.013	U		0.067	U		0.027	U	
AROCLOR-1260		0.013	U		0.013	U		0.067	U		0.027	U	
AROCLOR-1262		0.013	U		0.013	U		0.067	U		0.027	U	
AROCLOR-1268		0.013	U		0.013	U		0.067	U		0.027	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3029-2535			BPS1-SB3029-3545			BPS1-SB3029-4555			BPS1-SB3029-4555RE1		
SDG: 50063-16	LAB_ID	1208551-14RE1			1208551-15			1208544-04			1208544-04RE1		
FRACTION: PCB	SAMP_DATE	8/29/2012			8/29/2012			8/29/2012			8/29/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	95.0			95.0			88.0			88.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		1.4	U		0.014	U		0.015	U				
AROCLOR-1221		1.4	U		0.014	U		0.015	U				
AROCLOR-1232		1.4	U		0.014	U		0.015	U				
AROCLOR-1242		1.4	U		0.014	U		0.015	U				
AROCLOR-1248		28			0.25	J	P				0.21	J	P
AROCLOR-1254		1.4	U		0.014	U		0.015	U				
AROCLOR-1260		1.4	U		0.014	U		0.015	U				
AROCLOR-1262		1.4	U		0.014	U		0.015	U				
AROCLOR-1268		1.4	U		0.014	U		0.015	U				

PROJ_NO: 02230	NSAMPLE	BPS1-SB3029-5565			BPS1-SB3029-5565RE1			BPS1-SB3030-2535			BPS1-SB3030-3545		
SDG: 50063-16	LAB_ID	1208544-05			1208544-05RE1			1208551-16			1208544-07		
FRACTION: PCB	SAMP_DATE	8/29/2012			8/29/2012			8/30/2012			8/30/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	89.0			89.0			93.0			89.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.015	U					0.014	U		0.015	U	
AROCLOR-1221		0.015	U					0.014	U		0.015	U	
AROCLOR-1232		0.015	U					0.014	U		0.015	U	
AROCLOR-1242		0.015	U					0.014	U		0.015	U	
AROCLOR-1248					0.023	J	P	0.014	U		0.015	U	
AROCLOR-1254		0.015	U					0.014	U		0.015	U	
AROCLOR-1260		0.015	U					0.014	U		0.015	U	
AROCLOR-1262		0.015	U					0.014	U		0.015	U	
AROCLOR-1268		0.015	U					0.014	U		0.015	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3030-4555		
SDG: 50063-16	LAB_ID	1208544-08		
FRACTION: PCB	SAMP_DATE	8/30/2012		
MEDIA: SOIL	QC_TYPE	NM		
	UNITS	MG/KG		
	PCT_SOLIDS	91.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
AROCLOR-1016		0.014	U	
AROCLOR-1221		0.014	U	
AROCLOR-1232		0.014	U	
AROCLOR-1242		0.014	U	
AROCLOR-1248		0.014	U	
AROCLOR-1254		0.014	U	
AROCLOR-1260		0.014	U	
AROCLOR-1262		0.014	U	
AROCLOR-1268		0.014	U	

Tetra Tech INC **INTERNAL CORRESPONDENCE**

TO: **R. SOK** **DATE:** **FEBRUARY 22, 2013**

FROM: **JOSEPH KALINYAK** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC / PCB**
INORGANIC DATA VALIDATION – METALS / HEXAVALENT CHROMIUM,
NWIRP BETHPAGE, CTO WE44
SDG 50063-17

SAMPLES: 21 / Aqueous / VOC

BPS1-DUP01-20121106	BPS1-DUP02-20121108	BPS1-TB20121101
BPS1-TB20121106	BPS1-TB20121107	BPS1-TT-MW302D-20121101
BPS1-TT-MW302I1-20121101	BPS1-TT-MW303I1-20121102	BPS1-TT-MW303S-20121101
BPS1-TT-MW304I1-20121106	BPS1-TT-MW304I2-20121108	BPS1-TT-MW304S-20121106
BPS1-TT-MW305I-20121108	BPS1-TT-MW306D-20121108	BPS1-TT-MW306I-20121108
BPS1-TT-MW307D-20121106	BPS1-TT-MW307I-20121106	BPSI-TB20121105
BPSI-TT-MW302I2-20121105	BPSI-TT-MW303D-20121105	BPSI-TT-MW303I2-20121105

19 / Aqueous / PCB

BPS1-DUP01-20121106	BPS1-DUP02-20121108	BPS1-FB-20121106
BPS1-RB-20121106	BPS1-TT-MW302D-20121101	BPS1-TT-MW302I1-20121101
BPS1-TT-MW303I1-20121102	BPS1-TT-MW303S-20121101	BPS1-TT-MW304I1-20121106
BPS1-TT-MW304I2-20121108	BPS1-TT-MW304S-20121106	BPS1-TT-MW305I-20121108
BPS1-TT-MW306D-20121108	BPS1-TT-MW306I-20121108	BPS1-TT-MW307D-20121106
BPS1-TT-MW307I-20121106	BPSI-TT-MW302I2-20121105	BPSI-TT-MW303D-20121105
BPSI-TT-MW303I2-20121105		

17 / Aqueous / Total Metals – Iron & Chromium

BPS1-DUP01-20121106	BPS1-DUP02-20121108	BPS1-TT-MW302D-20121101
BPS1-TT-MW302I1-20121101	BPS1-TT-MW303I1-20121102	BPS1-TT-MW303S-20121101
BPS1-TT-MW304I1-20121106	BPS1-TT-MW304I2-20121108	BPS1-TT-MW304S-20121106
BPS1-TT-MW305I-20121108	BPS1-TT-MW306D-20121108	BPS1-TT-MW306I-20121108
BPS1-TT-MW307D-20121106	BPS1-TT-MW307I-20121106	BPSI-TT-MW302I2-20121105
BPSI-TT-MW303D-20121105	BPSI-TT-MW303I2-20121105	

3 / Aqueous / Dissolved Metals - Iron & Chromium

BPS1-TT-MW303I1-20121102	BPS1-TT-MW304I1-20121106	BPS1-TT-MW307D-20121106

8 / Aqueous / Hexavalent Chromium

BPS1-TT-MW303I1-20121102	BPS1-TT-MW304I1-20121106	BPS1-TT-MW304I2-20121108
BPS1-TT-MW305I-20121108	BPS1-TT-MW306I-20121108	BPS1-TT-MW307I-20121106
BPSI-TT-MW302I2-20121105	BPSI-TT-MW303I2-20121105	

6 / Soil / PCB / Hexavalent Chromium

BPS1-Dup-20121105	BPS1-SB3025-2535	BPS1-SB3025-3545
BPS1-SB3025-4555	BPS1-SB3025-5565	BPS1-SB3025-6575

Overview

The sample set for NWIRP Bethpage, CTO WE44, SDG 50063-17 consisted of twenty-one (1) aqueous samples and six (6) soil samples, including four (4) trip blank samples, one (1) rinse blank sample, and one (1) field blank sample. Three (3) field duplicate samples were included in the Sample Delivery Group (SDG); BPS1-DUP01-20121106 / BPS1-TT-MW307I-20121106, BPS1-DUP02-20121108 / BPS1-TT-MW305I-20121108, and BPS1-Dup-20121105 / BPS1-SB3025-2535. Twenty-one (21) aqueous samples were analyzed for volatile organic compounds (VOC) as listed above. Nineteen (19) aqueous samples and six (6) soil samples were analyzed for polychlorinated biphenyls (PCB) and seventeen (17) aqueous samples were analyzed for the total metals chromium and iron as listed above. Three (3) aqueous samples were also analyzed for the dissolved metals iron and chromium as listed above. Eight (8) aqueous samples and six (6) soil samples were analyzed for hexavalent chromium as listed above.

The samples were collected by Tetra Tech on November 1, 2, 5, 6, 7, and 8, 2012 and analyzed by TriMatrix Laboratories, Inc. All analyses were conducted in accordance with EPA Methods SW-846 8260C for VOCs, 8082A for PCB, 6010C for iron, 6020A for chromium, and EPA Method 7196A for hexavalent chromium, method analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters:

*	• Data completeness
*	• Hold times
*	• GC/MS System Tuning and Performance
	• Initial/continuing Calibrations
	• Blank Results
*	• Laboratory Control Sample Recovery
	• Matrix Spike/Matrix Spike Duplicate Recoveries
*	• Surrogate Spike Recoveries
*	• Internal Standard Recoveries
*	• ICP Interference Results
*	• ICP Serial Dilution Results
*	• Field Duplicate Precision
*	• Compound Identification
	• Compound Quantitation
*	• Detection Limits

The symbol (*) indicates that all quality control criteria were met for this parameter. Qualified analytical results are presented in Appendix A, results as reported by the laboratory are presented in Appendix B, Region II data validation forms are presented in Appendix C, and documentation supporting these findings is presented in Appendix D.

VOC

The initial calibration average relative response factor (RRF) was less than the 0.05 quality control limit for 1,4-dioxane for instrument 224 on 11/13/12 and for instrument 328 on 11/19/13 and on all continuing calibration verifications (CCV).

Affected samples: All samples

Action: The non-detected 1,4-dioxane results for all samples were qualified rejected, (UR). The sample positive 1,4-dioxane results were qualified estimated, (J).

The CCV percent differences (%D) were greater than the 20% quality control limit 1,2-dibromo-3-chloropropane, 2-hexanone, methyl acetate, and 1,2,3-trichlorobenzene for instrument 224 on 11/14/12 @ 09:15.

Affected samples:

BPS1-TB20121101	BPS1-TT-MW302I1-20121101
BPS1-TT-MW302D-20121101	BPS1-TT-MW303S-20121101
BPS1-TT-MW303I1-20121102	

Action: The sample positive and non-detected results 1,2-dibromo-3-chloropropane, 2-hexanone, methyl acetate, and 1,2,3-trichlorobenzene were qualified estimated, (J) and (UJ), respectively.

The CCV %D was greater than the 20% quality control limit for dichlorodifluoromethane for instrument 224 on 11/15/12 @ 11:53.

Affected samples:

BPSI-TB20121105	BPSI-TT-MW303D-20121105
BPSI-TT-MW303I2-20121105	BPSI-TT-MW303I2-20121105
BPS1-TB20121106	BPS1-TT-MW307I-20121106
BPS1-TT-MW307D-20121106	BPS1-DUP01-20121106
BPS1-TT-MW304S-20121106	BPS1-TT-MW304I1-20121106
BPS1-TB20121107	BPS1-TT-MW306D-20121108
BPS1-TT-MW306I-20121108	BPS1-TT-MW304I2-20121108
BPS1-DUP02-20121108	BPS1-TT-MW305I-20121108

Action: Sample non-detected dichlorodifluoromethane results for were qualified estimated, (UJ).

The initial calibration RRF relative standard deviation (RSD) was greater than the 15% quality control limit for ethyl benzene for instrument 328 on 11/19/12.

Affected samples:

BPS1-DUP02-20121108 dilution re-analysis

BPS1-TT-MW305I-20121108 dilution re-analysis

Action: The non-detected ethyl benzene results for the samples were not reported from these dilution analyses and no validation action was necessary.

The VOC MS %R was less than the quality control limit methyl acetate for spiked sample BPS1-TT-MW306I-20121108.

Affected sample: BPS1-TT-MW306I-20121108

Action: The non-detected methyl acetate result for the sample was not qualified as the sample MSD %R and the batch LCS %R was compliant.

The VOC MSD %R was less than the quality control limit 1,4-dioxane for spiked sample BPS1-TT-MW306I-20121108.

Affected sample: BPS1-TT-MW306I-20121108

Action: The non-detected 1,4-dioxane result was rejected for an RRF criteria non-compliance and no further action was necessary.

The following VOC contaminants were detected in the blanks at the following maximum concentrations.

Analyte	Maximum Conc. µg/L	Action Level µg/L
Acetone [1]	4.7	47.0
1,2,3-Trichlorobenzene [1]	2.6	13.0
Acetone [2]	4.9	49.0
Methyl acetate [3]	1.5	7.5
Methyl acetate [4]	0.69	3.45
Acetone [5]	4.0	40.0
Acetone [6]	2.2	22.0

(1) Method blank for batch 1214055 affecting samples BPS1-TB20121101, BPS1-TT-MW302I1-20121101, BPS1-TT-MW302D-20121101, BPS1-TT-MW303S-20121101, BPS1-TT-MW303I1-20121102.
(2) Method blank for batch 1214198 affecting samples BPSI-TB20121105, BPSI-TT-MW303D-20121105, BPSI-TT-MW303I2-20121105, BPSI-TT-MW303I2-20121105, BPS1-TB20121106, BPS1-TT-MW307I-20121106, BPS1-TT-MW307D-20121106, BPS1-DUP01-20121106, BPS1-TT-MW304S-20121106, BPS1-TT-MW304I1-20121106, BPS1-TB20121107, BPS1-TT-MW306D-20121108, BPS1-TT-MW306I-20121108, BPS1-TT-MW304I2-20121108, BPS1-DUP02-20121108, and BPS1-TT-MW305I-20121108.
(3) Method blank for batch 1214413 affecting the samples BPS1-DUP02-20121108 and BPS1-TT-MW305I-20121108 dilution re-analyses.
(4) Trip blank sample BPS1-TB20121101affecting samples from 11/01/12.
(5) Trip blank sample BPS1-TB20121106 affecting samples from 11/06/12.
(6) Trip blank sample BPS1-TB20121107 affecting samples from 11/07/12.

An action level of ten times the maximum level for acetone and five times the maximum level for the other contaminants has been used to evaluate sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. The trip blank samples were not qualified for trip blank contamination. No samples were qualified for blank contamination.

PCB

The Aroclor-1248 positive result column relative percent differences (RPDs) were greater than the 25% quality control limit.

Affected samples:

BPS1-DUP02-20121108 BPS1-TT-MW305I-20121108
BPS1-TT-MW306D-20121108 BPS1-TT-MW306I-20121108
BPSI-TT-MW303I2-20121105

Action: The Aroclor-1248 sample results were qualified estimated, (J).

The MS and MSD %Rs were greater than the quality control limit for Aroclor-1016 for spiked sample BPS1-TT-MW306I-20121108.

Affected sample: BPS1-TT-MW306I-20121108

Action: The sample had a non-detected result for Aroclor-1016 and was therefore not qualified.

Miscellaneous – Hexavalent Chromium

It was noted that the hexavalent chromium result for sample BPS1-TT-MW304I2-20121108 was greater than the total chromium result for the sample. The hexavalent chromium result was 152 µg/l while the total chromium result was 21 µg/l. A detailed look by the validation chemist of the raw data for these sample analytes did not reveal the reason for the illogical sample analyte results. The laboratory was contacted to investigate the total chromium/hexavalent chromium results and to indicate whether re-analysis of the sample was possible. A review of the sample Method 6010C raw data, used for the iron analysis, indicated a sample chromium result of 170 µg/l. The laboratory also reported that re-analysis for total chromium was not possible as the sample had been discarded. A review of historical data for the sample point indicated that the higher hexavalent chromium concentration was consistent with previous sample data. Additionally, the total chromium for the previous sample data was more consistent with the higher total chromium concentration from the Method 6010C (170 µg/l) analysis. The correspondence with the laboratory as well as the Method 6010C raw data which includes chromium is included in Appendix C of the data validation report. As a result of the total chromium concentration discrepancy, the sample BPS1-TT-MW304I2-20121108 total chromium result was qualified estimated, (J).

Metals

Negative signal drift was present in the metals laboratory blank at the following maximum concentration.

Analyte	Conc.
Iron [1]	-7.1 ug/L

[1] Blank affecting samples BPS1-TT-MW303I1-20121102, BPS1-TT-MW304I1-20121106, and BPS1-TT-MW307D-20121106 for dissolved iron.

No action is required because the negative drift is greater than the reporting limit for iron.

Additional Comments

Positive results below the Limit of Quantitation (LOQ) and above the Method Detection Limit (MDL) were qualified as estimated, (J), due to uncertainty near the detection limit.

Samples BPS1-DUP02-20121108 and BPS1-TT-MW305I-20121108 were analyzed for VOCs both undiluted and diluted 50X. Only trichloroethene was reported from the dilution analyses.

The samples listed below were analyzed diluted for Aroclors. Samples which were only analyzed at a dilution resulted in slightly elevated levels reported for non-detected Aroclor analytes.

Sample	Dilution
BPS1-DUP02-20121108	2X
BPS1-TT-MW303I1-20121102	2X
BPS1-TT-MW304I2-20121108	2X
BPS1-TT-MW305I-20121108	1X, 2X
BPS1-TT-MW306D-20121108	2X
BPS1-TT-MW306I-20121108	2X
BPSI-TT-MW303D-20121105	2X
BPSI-TT-MW303I2-20121105	2X

Sample BPS1-TT-MW304I2-20121108 was diluted 20X for the hexavalent chromium analysis.

The laboratory reported all positive results for Aroclors from column 1 with the exception of column result RPDs >40%, in which case the lower of the two column results was reported.

EXECUTIVE SUMMARY

Laboratory Performance Issues: The sample 1,4-dioxane non-detected results were rejected and the positive results were qualified for RRF criteria non-compliances. VOC sample results were qualified for CCV %D non-compliances. Sample iron results were qualified for blank contamination. The sample BPS1-TT-MW304I2-20121108 total chromium result was qualified as the result was inconsistent with the hexavalent chromium concentration and also inconsistent with historical sample total chromium data.

Other Factors Affecting Data Quality: Positive results below the Limit of Quantitation (LOQ) and above the Method Detection Limit (MDL) were qualified as estimated, (J), due to uncertainty near the detection limit. Aroclor-1248 positive sample results were qualified for column RPD criteria non-compliances.

The data for these analyses were reviewed with reference to the SOP HW-24 Revision #2 - August 2008 Validating Volatile Organic Compounds by SW-846 Method 8260B, SOP HW-45 Revision 1 - Oct '06 Data Validation SOP of Organic Analysis of PCBs by Gas Chromatography SW-846 Method 8082A, SOP HW-02 Rev.13 – September 2006 Evaluation of Metals Data for the CLP Program; and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (October 2010).

Tetra Tech
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Chemist/Data Validator

Tetra Tech
Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:
Appendix A - Qualified Analytical Results
Appendix B - Results as Reported by the Laboratory
Appendix C – Region II Data Validation Forms
Appendix D - Support Documentation

Appendix A

Qualified Analytical Results

Value Qualifier Key (Val Qual)

J – The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

UJ – The result is an estimated non-detected quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

U - Value is a non-detect as reported by the laboratory.

UR – Non-detected result is considered rejected, (UR), as a result of technical non-compliances.

DATA QUALIFICATION CODE (QUAL CODE)

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is less than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed

PROJ_NO: 02230	NSAMPLE	BPS1-DUP01-20121106			BPS1-DUP02-20121108			BPS1-DUP02-20121108RE1			BPS1-TB20121101		
SDG: 50063-17	LAB_ID	1211104-04			1211153-05			1211153-05RE1			1211071-05		
FRACTION: OV	SAMP_DATE	11/6/2012			11/8/2012			11/8/2012			11/1/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	BPS1-TT-MW307I-20121106			BPS1-TT-MW305I-20121108			BPS1-TT-MW305I-20121108					
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	U		0.59	J	P				0.5	U	
1,1,2,2-TETRACHLOROETHANE		0.5	U		0.5	U					0.5	U	
1,1,2-TRICHLOROETHANE		0.5	U		0.5	U					0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		1.4						0.5	U	
1,1-DICHLOROETHANE		0.5	U		4.6						0.5	U	
1,1-DICHLOROETHENE		0.5	U		2						0.5	U	
1,2,3-TRICHLOROBENZENE		0.5	U		0.5	U					0.5	UJ	C
1,2,4-TRICHLOROBENZENE		0.5	U		0.5	U					0.5	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.5	U		0.5	U					0.5	UJ	C
1,2-DIBROMOETHANE		0.5	U		0.5	U					0.5	U	
1,2-DICHLOROBENZENE		0.5	U		0.5	U					0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U					0.5	U	
1,2-DICHLOROPROPANE		0.5	U		0.5	U					0.5	U	
1,3-DICHLOROBENZENE		0.5	U		0.5	U					0.5	U	
1,4-DICHLOROBENZENE		0.5	U		0.5	U					0.5	U	
1,4-DIOXANE		25	UR	C	81	J	C				25	UR	C
2-BUTANONE		1	U		1	U					1	U	
2-HEXANONE		1	U		1	U					1	UJ	C
4-METHYL-2-PENTANONE		1	U		1	U					1	U	
ACETONE		2	U		2	U					2	U	
BENZENE		0.2	U		0.2	U					0.2	U	
BROMOCHLOROMETHANE		0.5	U		0.5	U					0.5	U	
BROMODICHLOROMETHANE		0.5	U		0.5	U					0.5	U	
BROMOFORM		1	U		1	U					1	U	
BROMOMETHANE		0.5	U		0.5	U					0.5	U	
CARBON DISULFIDE		1	U		1	U					1	U	
CARBON TETRACHLORIDE		0.5	U		0.42	J	P				0.5	U	
CHLOROBENZENE		0.5	U		0.5	U					0.5	U	
CHLORODIBROMOMETHANE		0.5	U		0.5	U					0.5	U	
CHLOROETHANE		0.5	U		0.5	U					0.5	U	
CHLOROFORM		0.2	U		0.3	J	P				0.2	U	
CHLOROMETHANE		0.5	U		0.5	U					0.5	U	
CIS-1,2-DICHLOROETHENE		0.5	U		8.4						0.5	U	
CIS-1,3-DICHLOROPROPENE		0.5	U		0.5	U					0.5	U	
CYCLOHEXANE		0.5	U		0.5	U					0.5	U	
DICHLORODIFLUOROMETHANE		0.5	UJ	C	0.5	UJ	C				0.5	U	

PROJ_NO: 02230	NSAMPLE	BPS1-TB20121106			BPS1-TB20121107			BPS1-TT-MW302D-20121101			BPS1-TT-MW302I1-20121101		
SDG: 50063-17	LAB_ID	1211104-01			1211153-01			1211071-02			1211071-01		
FRACTION: OV	SAMP_DATE	11/6/2012			11/7/2012			11/1/2012			11/1/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	U		0.5	U		0.35	J	P	0.6	J	P
1,1,2,2-TETRACHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.5	U		0.5	U		0.31	J	P
1,1-DICHLOROETHANE		0.5	U		0.5	U		0.25	J	P	1.2		
1,1-DICHLOROETHENE		0.5	U		0.5	U		1.3			0.5	U	
1,2,3-TRICHLOROBENZENE		0.5	U		0.5	U		0.5	UJ	C	0.5	UJ	C
1,2,4-TRICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.5	U		0.5	U		0.5	UJ	C	0.5	UJ	C
1,2-DIBROMOETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROPROPANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,3-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,4-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,4-DIOXANE		25	UR	C	25	UR	C	25	UR	C	21	J	CP
2-BUTANONE		1	U		1	U		1	U		1	U	
2-HEXANONE		1	U		1	U		1	UJ	C	1	UJ	C
4-METHYL-2-PENTANONE		1	U		1	U		1	U		1	U	
ACETONE		4	J	P	2.2	J	P	2	U		2	U	
BENZENE		0.2	U		0.2	U		0.2	U		0.2	U	
BROMOCHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
BROMODICHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
BROMOFORM		1	U		1	U		1	U		1	U	
BROMOMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CARBON DISULFIDE		1	U		1	U		1	U		1	U	
CARBON TETRACHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLORODIBROMOMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROFORM		0.2	U		0.2	U		0.13	J	P	0.15	J	P
CHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,3-DICHLOROPROPENE		0.5	U		0.5	U		0.5	U		0.5	U	
CYCLOHEXANE		0.5	U		0.5	U		0.5	U		0.5	U	
DICHLORODIFLUOROMETHANE		0.5	UJ	C	0.5	UJ	C	0.5	U		0.5	U	

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW303I1-20121102			BPS1-TT-MW303S-20121101			BPS1-TT-MW304I1-20121106			BPS1-TT-MW304I2-20121108		
SDG: 50063-17	LAB_ID	1211071-04			1211071-03			1211104-06			1211153-04		
FRACTION: OV	SAMP_DATE	11/2/2012			11/1/2012			11/6/2012			11/8/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	U		0.5	U		1.9			0.5	U	
1,1,2,2-TETRACHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHANE		1			0.5	U		1.5			0.5	U	
1,1-DICHLOROETHENE		1.1			0.5	U		0.5	U		0.5	U	
1,2,3-TRICHLOROBENZENE		0.5	UJ	C	0.5	UJ	C	0.5	U		0.5	U	
1,2,4-TRICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.5	UJ	C	0.5	UJ	C	0.5	U		0.5	U	
1,2-DIBROMOETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROPROPANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,3-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,4-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,4-DIOXANE		25	UR	C	25	UR	C	25	UR	C	25	UR	C
2-BUTANONE		1	U		1	U		1	U		1	U	
2-HEXANONE		1	UJ	C	1	UJ	C	1	U		1	U	
4-METHYL-2-PENTANONE		1	U		1	U		1	U		1	U	
ACETONE		2	U		2	U		2	U		2	U	
BENZENE		0.2	U		0.2	U		0.2	U		0.2	U	
BROMOCHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
BROMODICHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
BROMOFORM		1	U		1	U		1	U		1	U	
BROMOMETHANE		0.66	J	P	0.5	U		0.5	U		0.5	U	
CARBON DISULFIDE		1	U		1	U		1	U		1	U	
CARBON TETRACHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLORODIBROMOMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROFORM		0.2	U		0.2	U		0.2	U		0.2	U	
CHLOROMETHANE		0.43	J	P	0.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		1.6			0.5	U		21			1.9		
CIS-1,3-DICHLOROPROPENE		0.5	U		0.5	U		0.5	U		0.5	U	
CYCLOHEXANE		0.5	U		0.5	U		0.5	U		0.5	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	UJ	C	0.5	UJ	C

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW304S-20121106			BPS1-TT-MW305I-20121108			BPS1-TT-MW305I-20121108RE1			BPS1-TT-MW306D-20121108		
SDG: 50063-17	LAB_ID	1211104-05			1211153-06			1211153-06RE1			1211153-02		
FRACTION: OV	SAMP_DATE	11/6/2012			11/8/2012			11/8/2012			11/8/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	U		0.65	J	P				0.5	U	
1,1,2,2-TETRACHLOROETHANE		0.5	U		0.5	U					0.5	U	
1,1,2-TRICHLOROETHANE		0.5	U		0.5	U					0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		1.6						0.5	U	
1,1-DICHLOROETHANE		0.5	U		4.5						0.5	U	
1,1-DICHLOROETHENE		0.5	U		1.9						0.5	U	
1,2,3-TRICHLOROBENZENE		0.5	U		0.5	U					0.5	U	
1,2,4-TRICHLOROBENZENE		0.5	U		0.5	U					0.5	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.5	U		0.5	U					0.5	U	
1,2-DIBROMOETHANE		0.5	U		0.5	U					0.5	U	
1,2-DICHLOROBENZENE		0.5	U		0.5	U					0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U					0.5	U	
1,2-DICHLOROPROPANE		0.5	U		0.5	U					0.5	U	
1,3-DICHLOROBENZENE		0.5	U		0.5	U					0.5	U	
1,4-DICHLOROBENZENE		0.5	U		0.5	U					0.5	U	
1,4-DIOXANE		25	UR	C	70	J	C				25	UR	C
2-BUTANONE		1	U		1	U					1	U	
2-HEXANONE		1	U		1	U					1	U	
4-METHYL-2-PENTANONE		1	U		1	U					1	U	
ACETONE		2	U		2	U					2	U	
BENZENE		0.2	U		0.2	U					0.2	U	
BROMOCHLOROMETHANE		0.5	U		0.5	U					0.5	U	
BROMODICHLOROMETHANE		0.5	U		0.5	U					0.5	U	
BROMOFORM		1	U		1	U					1	U	
BROMOMETHANE		0.5	U		0.5	U					0.5	U	
CARBON DISULFIDE		1	U		1	U					1	U	
CARBON TETRACHLORIDE		0.5	U		0.42	J	P				0.5	U	
CHLOROBENZENE		0.5	U		0.5	U					0.5	U	
CHLORODIBROMOMETHANE		0.5	U		0.5	U					0.5	U	
CHLOROETHANE		0.5	U		0.5	U					0.5	U	
CHLOROFORM		0.2	U		0.29	J	P				0.2	U	
CHLOROMETHANE		0.5	U		0.5	U					0.5	U	
CIS-1,2-DICHLOROETHENE		0.5	U		9.4						0.5	U	
CIS-1,3-DICHLOROPROPENE		0.5	U		0.5	U					0.5	U	
CYCLOHEXANE		0.5	U		0.5	U					0.5	U	
DICHLORODIFLUOROMETHANE		0.5	UJ	C	0.5	UJ	C				0.5	UJ	C

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW306I-20121108			BPS1-TT-MW307D-20121106			BPS1-TT-MW307I-20121106			BPSI-TB20121105		
SDG: 50063-17	LAB_ID	1211153-03			1211104-03			1211104-02			1211079-01		
FRACTION: OV	SAMP_DATE	11/8/2012			11/6/2012			11/6/2012			11/5/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2,2-TETRACHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2,3-TRICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2,4-TRICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DIBROMOETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROPROPANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,3-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,4-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,4-DIOXANE		25	UR	C	25	UR	C	25	UR	C	25	UR	C
2-BUTANONE		1	U		1	U		1	U		1	U	
2-HEXANONE		1	U		1	U		1	U		1	U	
4-METHYL-2-PENTANONE		1	U		1	U		1	U		1	U	
ACETONE		2	U		2	U		2	U		2	U	
BENZENE		0.2	U		0.2	U		0.2	U		0.2	U	
BROMOCHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
BROMODICHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
BROMOFORM		1	U		1	U		1	U		1	U	
BROMOMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CARBON DISULFIDE		1	U		1	U		1	U		1	U	
CARBON TETRACHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLORODIBROMOMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROFORM		0.2	U		0.2	U		0.2	U		0.2	U	
CHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,3-DICHLOROPROPENE		0.5	U		0.5	U		0.5	U		0.5	U	
CYCLOHEXANE		0.5	U		0.5	U		0.5	U		0.5	U	
DICHLORODIFLUOROMETHANE		0.5	UJ	C	0.5	UJ	C	0.5	UJ	C	0.5	UJ	C

PROJ_NO: 02230	NSAMPLE	BPSI-TT-MW302I2-20121105			BPSI-TT-MW303D-20121105			BPSI-TT-MW303I2-20121105		
SDG: 50063-17	LAB_ID	1211079-04			1211079-02			1211079-03		
FRACTION: OV	SAMP_DATE	11/5/2012			11/5/2012			11/5/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U	
1,1,2,2-TETRACHLOROETHANE		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHANE		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHENE		0.5	U		0.5	U		0.5	U	
1,2,3-TRICHLOROBENZENE		0.5	U		0.5	U		0.5	U	
1,2,4-TRICHLOROBENZENE		0.5	U		0.5	U		0.5	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.5	U		0.5	U		0.5	U	
1,2-DIBROMOETHANE		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROPROPANE		0.5	U		0.5	U		0.5	U	
1,3-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U	
1,4-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U	
1,4-DIOXANE		25	UR	C	25	UR	C	25	UR	C
2-BUTANONE		1	U		1	U		1	U	
2-HEXANONE		1	U		1	U		1	U	
4-METHYL-2-PENTANONE		1	U		1	U		1	U	
ACETONE		2	U		2	U		2	U	
BENZENE		0.2	U		0.2	U		0.2	U	
BROMOCHLOROMETHANE		0.5	U		0.5	U		0.5	U	
BROMODICHLOROMETHANE		0.5	U		0.5	U		0.5	U	
BROMOFORM		1	U		1	U		1	U	
BROMOMETHANE		0.5	U		0.5	U		0.5	U	
CARBON DISULFIDE		1	U		1	U		1	U	
CARBON TETRACHLORIDE		0.5	U		0.5	U		0.5	U	
CHLOROBENZENE		0.5	U		0.5	U		0.5	U	
CHLORODIBROMOMETHANE		0.5	U		0.5	U		0.5	U	
CHLOROETHANE		0.5	U		0.5	U		0.5	U	
CHLOROFORM		0.2	U		0.2	U		0.2	U	
CHLOROMETHANE		0.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U	
CIS-1,3-DICHLOROPROPENE		0.5	U		0.5	U		0.5	U	
CYCLOHEXANE		0.5	U		0.5	U		0.5	U	
DICHLORODIFLUOROMETHANE		0.5	UJ	C	0.5	UJ	C	0.5	UJ	C

PROJ_NO: 02230	NSAMPLE	BPS1-DUP01-20121106			BPS1-DUP02-20121108			BPS1-DUP02-20121108RE1			BPS1-TB20121101		
SDG: 50063-17	LAB_ID	1211104-04			1211153-05			1211153-05RE1			1211071-05		
FRACTION: OV	SAMP_DATE	11/6/2012			11/8/2012			11/8/2012			11/1/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	BPS1-TT-MW307I-20121106			BPS1-TT-MW305I-20121108			BPS1-TT-MW305I-20121108					
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ETHYLBENZENE		0.5	U		0.5	U					0.5	U	
ISOPROPYLBENZENE		0.5	U		0.5	U					0.5	U	
M+P-XYLENES		1	U		1	U					1	U	
METHYL ACETATE		1	U		1	U					0.69	J	CP
METHYL CYCLOHEXANE		1	U		1	U					1	U	
METHYL TERT-BUTYL ETHER		0.5	U		0.5	U					0.5	U	
METHYLENE CHLORIDE		1	U		1	U					1	U	
O-XYLENE		0.2	U		0.2	U					0.2	U	
STYRENE		0.5	U		0.5	U					0.5	U	
TETRACHLOROETHENE		1.1			5						0.5	U	
TOLUENE		0.5	U		0.5	U					0.5	U	
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U					0.5	U	
TRANS-1,3-DICHLOROPROPENE		0.5	U		0.5	U					0.5	U	
TRICHLOROETHENE		0.86	J	P				3300			0.5	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.85	J	P				0.5	U	
VINYL CHLORIDE		0.5	U		0.5	U					0.5	U	

PROJ_NO: 02230	NSAMPLE	BPS1-TB20121106			BPS1-TB20121107			BPS1-TT-MW302D-20121101			BPS1-TT-MW302I1-20121101		
SDG: 50063-17	LAB_ID	1211104-01			1211153-01			1211071-02			1211071-01		
FRACTION: OV	SAMP_DATE	11/6/2012			11/7/2012			11/1/2012			11/1/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ETHYLBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
ISOPROPYLBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
M+P-XYLENES		1	U		1	U		1	U		1	U	
METHYL ACETATE		1	U		1	U		1	UJ	C	1	UJ	C
METHYL CYCLOHEXANE		1	U		1	U		1	U		1	U	
METHYL TERT-BUTYL ETHER		0.5	U		0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		1	U		1	U		1	U		1	U	
O-XYLENE		0.2	U		0.2	U		0.2	U		0.2	U	
STYRENE		0.5	U		0.5	U		0.5	U		0.5	U	
TETRACHLOROETHENE		0.5	U		0.5	U		0.38	J	P	0.25	J	P
TOLUENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRANS-1,3-DICHLOROPROPENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRICHLOROETHENE		0.5	U		0.5	U		5.5			3.1		
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW303I1-20121102			BPS1-TT-MW303S-20121101			BPS1-TT-MW304I1-20121106			BPS1-TT-MW304I2-20121108		
SDG: 50063-17	LAB_ID	1211071-04			1211071-03			1211104-06			1211153-04		
FRACTION: OV	SAMP_DATE	11/2/2012			11/1/2012			11/6/2012			11/8/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ETHYLBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
ISOPROPYLBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
M+P-XYLENES		1	U		1	U		1	U		1	U	
METHYL ACETATE		0.88	J	CP	1	UJ	C	1	U		1	U	
METHYL CYCLOHEXANE		1	U		1	U		1	U		1	U	
METHYL TERT-BUTYL ETHER		0.5	U		0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		1	U		1	U		1	U		1	U	
O-XYLENE		0.2	U		0.2	U		0.2	U		0.2	U	
STYRENE		0.5	U		0.5	U		0.5	U		0.5	U	
TETRACHLOROETHENE		46			1.9			23			3.1		
TOLUENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRANS-1,3-DICHLOROPROPENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRICHLOROETHENE		10			1.6			5.6			0.87	J	P
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW304S-20121106			BPS1-TT-MW305I-20121108			BPS1-TT-MW305I-20121108RE1			BPS1-TT-MW306D-20121108		
SDG: 50063-17	LAB_ID	1211104-05			1211153-06			1211153-06RE1			1211153-02		
FRACTION: OV	SAMP_DATE	11/6/2012			11/8/2012			11/8/2012			11/8/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ETHYLBENZENE		0.5	U		0.5	U					0.5	U	
ISOPROPYLBENZENE		0.5	U		0.5	U					0.5	U	
M+P-XYLENES		1	U		1	U					1	U	
METHYL ACETATE		1	U		1	U					1	U	
METHYL CYCLOHEXANE		1	U		1	U					1	U	
METHYL TERT-BUTYL ETHER		0.5	U		0.5	U					0.5	U	
METHYLENE CHLORIDE		1	U		1	U					1	U	
O-XYLENE		0.2	U		0.2	U					0.2	U	
STYRENE		0.5	U		0.5	U					0.5	U	
TETRACHLOROETHENE		0.5	U		5.2						0.31	J	P
TOLUENE		0.5	U		0.5	U					0.5	U	
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U					0.5	U	
TRANS-1,3-DICHLOROPROPENE		0.5	U		0.5	U					0.5	U	
TRICHLOROETHENE		0.5	U					3400			1.5		
TRICHLOROFLUOROMETHANE		0.5	U		0.88	J	P				0.5	U	
VINYL CHLORIDE		0.5	U		0.5	U					0.5	U	

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW306I-20121108			BPS1-TT-MW307D-20121106			BPS1-TT-MW307I-20121106			BPSI-TB20121105		
SDG: 50063-17	LAB_ID	1211153-03			1211104-03			1211104-02			1211079-01		
FRACTION: OV	SAMP_DATE	11/8/2012			11/6/2012			11/6/2012			11/5/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ETHYLBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
ISOPROPYLBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
M+P-XYLENES		1	U		1	U		1	U		1	U	
METHYL ACETATE		1	U		1	U		1	U		1	U	
METHYL CYCLOHEXANE		1	U		1	U		1	U		1	U	
METHYL TERT-BUTYL ETHER		0.5	U		0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		1	U		1	U		1	U		1	U	
O-XYLENE		0.2	U		0.2	U		0.2	U		0.2	U	
STYRENE		0.5	U		0.5	U		0.5	U		0.5	U	
TETRACHLOROETHENE		0.5	U		0.5	U		1			0.5	U	
TOLUENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRANS-1,3-DICHLOROPROPENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRICHLOROETHENE		0.46	J	P	0.5	U		0.71	J	P	0.5	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	

PROJ_NO: 02230	NSAMPLE	BPSI-TT-MW302I2-20121105			BPSI-TT-MW303D-20121105			BPSI-TT-MW303I2-20121105		
SDG: 50063-17	LAB_ID	1211079-04			1211079-02			1211079-03		
FRACTION: OV	SAMP_DATE	11/5/2012			11/5/2012			11/5/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ETHYLBENZENE		0.5	U		0.5	U		0.5	U	
ISOPROPYLBENZENE		0.5	U		0.5	U		0.5	U	
M+P-XYLENES		1	U		1	U		1	U	
METHYL ACETATE		1	U		1	U		1	U	
METHYL CYCLOHEXANE		1	U		1	U		1	U	
METHYL TERT-BUTYL ETHER		0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		1	U		1	U		1	U	
O-XYLENE		0.2	U		0.2	U		0.2	U	
STYRENE		0.5	U		0.5	U		0.5	U	
TETRACHLOROETHENE		0.5	U		0.5	U		0.72	J	P
TOLUENE		0.5	U		0.5	U		0.5	U	
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U	
TRANS-1,3-DICHLOROPROPENE		0.5	U		0.5	U		0.5	U	
TRICHLOROETHENE		1.8			0.45	J	P	1.1		
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.5	U		0.5	U		0.5	U	

PROJ_NO: 02230	NSAMPLE	BPS1-DUP01-20121106			BPS1-DUP02-20121108			BPS1-DUP02-20121108RE1C			BPS1-FB-20121106		
SDG: 50063-17	LAB_ID	1211104-04			1211153-05			1211153-05RE1			1211133-08		
FRACTION: PCB	SAMP_DATE	11/6/2012			11/8/2012			11/8/2012			11/6/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	BPS1-TT-MW307I-20121106			BPS1-TT-MW305I-20121108			BPS1-TT-MW305I-20121108					
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.08	U		0.16	U					0.08	U	
AROCLOR-1221		0.08	U		0.16	U					0.08	U	
AROCLOR-1232		0.08	U		0.16	U					0.08	U	
AROCLOR-1242		0.08	U		0.16	U					0.08	U	
AROCLOR-1248		0.36						1.1	J	U	0.08	U	
AROCLOR-1254		0.08	U		0.16	U					0.08	U	
AROCLOR-1260		0.08	U		0.16	U					0.08	U	
AROCLOR-1262		0.08	U		0.16	U					0.08	U	
AROCLOR-1268		0.08	U		0.16	U					0.08	U	

PROJ_NO: 02230	NSAMPLE	BPS1-FB-20121106CON			BPS1-RB-20121106			BPS1-RB-20121106CON			BPS1-TT-MW302D-20121101		
SDG: 50063-17	LAB_ID	1211133-08			1211133-07			1211133-07			1211071-02		
FRACTION: PCB	SAMP_DATE	11/6/2012			11/6/2012			11/6/2012			11/1/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.08	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1221		0.08	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1232		0.08	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1242		0.08	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1248		0.08	U		0.08	U		0.08	U				
AROCLOR-1254		0.08	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1260		0.08	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1262		0.08	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1268		0.08	U		0.08	U		0.08	U		0.08	U	

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW302D-20121101RE1			BPS1-TT-MW302I1-20121101			BPS1-TT-MW302I1-20121101RE1			BPS1-TT-MW303I1-20121102		
SDG: 50063-17	LAB_ID	1211071-02RE1			1211071-01			1211071-01RE1			1211071-04		
FRACTION: PCB	SAMP_DATE	11/1/2012			11/1/2012			11/1/2012			11/2/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016					0.08	U					0.16	U	
AROCLOR-1221					0.08	U					0.16	U	
AROCLOR-1232					0.08	U					0.16	U	
AROCLOR-1242					0.08	U							
AROCLOR-1248		0.93						1.1			0.16	U	
AROCLOR-1254					0.08	U					0.16	U	
AROCLOR-1260					0.08	U					0.16	U	
AROCLOR-1262					0.08	U					0.16	U	
AROCLOR-1268					0.08	U					0.16	U	

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW303I1-20121102RE1			BPS1-TT-MW303S-20121101			BPS1-TT-MW303S-20121101RE1			BPS1-TT-MW304I1-20121106		
SDG: 50063-17	LAB_ID	1211071-04RE1			1211071-03			1211071-03RE1			1211104-06		
FRACTION: PCB	SAMP_DATE	11/2/2012			11/1/2012			11/1/2012			11/6/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016					0.08	U					0.08	U	
AROCLOR-1221					0.08	U					0.08	U	
AROCLOR-1232					0.08	U					0.08	U	
AROCLOR-1242		3			0.08	U					0.08	U	
AROCLOR-1248								0.18	J	P			
AROCLOR-1254					0.08	U					0.08	U	
AROCLOR-1260					0.08	U					0.08	U	
AROCLOR-1262					0.08	U					0.08	U	
AROCLOR-1268					0.08	U					0.08	U	

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW304I1-20121106RE1			BPS1-TT-MW304I2-20121108			BPS1-TT-MW304I2-20121108RE1			BPS1-TT-MW304S-20121106		
SDG: 50063-17	LAB_ID	1211104-06RE1			1211153-04			1211153-04RE1			1211104-05		
FRACTION: PCB	SAMP_DATE	11/6/2012			11/8/2012			11/8/2012			11/6/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016					0.16	U					0.08	U	
AROCLOR-1221					0.16	U					0.08	U	
AROCLOR-1232					0.16	U					0.08	U	
AROCLOR-1242					0.16	U					0.08	U	
AROCLOR-1248		1.5						2.5			0.08	U	
AROCLOR-1254					0.16	U					0.08	U	
AROCLOR-1260					0.16	U					0.08	U	
AROCLOR-1262					0.16	U					0.08	U	
AROCLOR-1268					0.16	U					0.08	U	

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW304S-20121106CON			BPS1-TT-MW305I-20121108			BPS1-TT-MW305I-20121108RE2C			BPS1-TT-MW306D-20121108		
SDG: 50063-17	LAB_ID	1211104-05			1211153-06			1211153-06RE2			1211153-02		
FRACTION: PCB	SAMP_DATE	11/6/2012			11/8/2012			11/8/2012			11/8/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.08	U		0.08	U					0.16	U	
AROCLOR-1221		0.08	U		0.08	U					0.16	U	
AROCLOR-1232		0.08	U		0.08	U					0.16	U	
AROCLOR-1242		0.08	U		0.08	U					0.16	U	
AROCLOR-1248		0.08	U					1.1	J	U			
AROCLOR-1254		0.08	U		0.08	U					0.16	U	
AROCLOR-1260		0.08	U		0.08	U					0.16	U	
AROCLOR-1262		0.08	U		0.08	U					0.16	U	
AROCLOR-1268		0.08	U		0.08	U					0.16	U	

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW306D-20121108RE1C			BPS1-TT-MW306I-20121108			BPS1-TT-MW306I-20121108RE1			BPS1-TT-MW307D-20121106		
SDG: 50063-17	LAB_ID	1211153-02RE1			1211153-03			1211153-03RE1			1211104-03		
FRACTION: PCB	SAMP_DATE	11/8/2012			11/8/2012			11/8/2012			11/6/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016					0.16	U					0.08	U	
AROCLOR-1221					0.16	U					0.08	U	
AROCLOR-1232					0.16	U					0.08	U	
AROCLOR-1242					0.16	U					0.08	U	
AROCLOR-1248		1.1	J	U				2.7	J	U	0.31		
AROCLOR-1254					0.16	U					0.08	U	
AROCLOR-1260					0.16	U					0.08	U	
AROCLOR-1262					0.16	U					0.08	U	
AROCLOR-1268					0.16	U					0.08	U	

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW307I-20121106			BPSI-TT-MW302I2-20121105			BPSI-TT-MW302I2-20121105RE1			BPSI-TT-MW303D-20121105		
SDG: 50063-17	LAB_ID	1211104-02			1211079-04			1211079-04RE1			1211079-02		
FRACTION: PCB	SAMP_DATE	11/6/2012			11/5/2012			11/5/2012			11/5/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.08	U		0.08	U					0.16	U	
AROCLOR-1221		0.08	U		0.08	U					0.16	U	
AROCLOR-1232		0.08	U		0.08	U					0.16	U	
AROCLOR-1242		0.08	U		0.08	U					0.16	U	
AROCLOR-1248		0.33						1.5			2.2		
AROCLOR-1254		0.08	U		0.08	U					0.16	U	
AROCLOR-1260		0.08	U		0.08	U					0.16	U	
AROCLOR-1262		0.08	U		0.08	U					0.16	U	
AROCLOR-1268		0.08	U		0.08	U					0.16	U	

PROJ_NO: 02230	NSAMPLE	BPSI-TT-MW303I2-20121105			BPSI-TT-MW303I2-20121105RE1		
SDG: 50063-17	LAB_ID	1211079-03			1211079-03RE1		
FRACTION: PCB	SAMP_DATE	11/5/2012			11/5/2012		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.16	U				
AROCLOR-1221		0.16	U				
AROCLOR-1232		0.16	U				
AROCLOR-1242		0.16	U				
AROCLOR-1248					2	J	U
AROCLOR-1254		0.16	U				
AROCLOR-1260		0.16	U				
AROCLOR-1262		0.16	U				
AROCLOR-1268		0.16	U				

PROJ_NO: 02230	NSAMPLE	BPS1-Dup-20121105			BPS1-SB3025-2535			BPS1-SB3025-3545			BPS1-SB3025-4555		
SDG: 50063-17	LAB_ID	1211133-03			1211133-01			1211133-02			1211133-04		
FRACTION: PCB	SAMP_DATE	11/5/2012			11/5/2012			11/5/2012			11/6/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	96.0			96.0			96.0			94.0		
	DUP_OF	BPS1-SB3025-2535											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.014	U		0.014	U		0.013	U		0.014	U	
AROCLOR-1221		0.014	U		0.014	U		0.013	U		0.014	U	
AROCLOR-1232		0.014	U		0.014	U		0.013	U		0.014	U	
AROCLOR-1242		0.014	U		0.014	U		0.013	U		0.014	U	
AROCLOR-1248		0.014	U		0.014	U		0.013	U		0.014	U	
AROCLOR-1254		0.014	U		0.014	U		0.013	U		0.014	U	
AROCLOR-1260		0.014	U		0.014	U		0.013	U		0.014	U	
AROCLOR-1262		0.014	U		0.014	U		0.013	U		0.014	U	
AROCLOR-1268		0.014	U		0.014	U		0.013	U		0.014	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3025-5565			BPS1-SB3025-5565RE1			BPS1-SB3025-6575		
SDG: 50063-17	LAB_ID	1211133-05			1211133-05RE1			1211133-06		
FRACTION: PCB	SAMP_DATE	11/6/2012			11/6/2012			11/6/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	81.0			81.0			85.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.016	U					0.015	U	
AROCLOR-1221		0.016	U					0.015	U	
AROCLOR-1232		0.016	U					0.015	U	
AROCLOR-1242		0.016	U					0.015	U	
AROCLOR-1248					0.0064	J	P	0.015	U	
AROCLOR-1254		0.016	U					0.015	U	
AROCLOR-1260		0.016	U					0.015	U	
AROCLOR-1262		0.016	U					0.015	U	
AROCLOR-1268		0.016	U					0.015	U	

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW303I1-20121102			BPS1-TT-MW304I1-20121106			BPS1-TT-MW304I2-20121108			BPS1-TT-MW305I-20121108		
SDG: 50063-17	LAB_ID	1211071-04			1211104-06			1211153-04			1211153-06		
FRACTION: MISC	SAMP_DATE	11/2/2012			11/6/2012			11/8/2012			11/8/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		1	U		21.5			152			1	U	

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW306I-20121108			BPS1-TT-MW307I-20121106			BPSI-TT-MW302I2-20121105			BPSI-TT-MW303I2-20121105		
SDG: 50063-17	LAB_ID	1211153-03			1211104-02			1211079-04			1211079-03		
FRACTION: MISC	SAMP_DATE	11/8/2012			11/6/2012			11/5/2012			11/5/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		1	U		1	U		2.9			1	U	

PROJ_NO: 02230	NSAMPLE	BPS1-DUP01-20121106			BPS1-DUP02-20121108			BPS1-TT-MW302D-20121101			BPS1-TT-MW302I1-20121101		
SDG: 50063-17	LAB_ID	1211104-04			1211153-05			1211071-02			1211071-01		
FRACTION: M	SAMP_DATE	11/6/2012			11/8/2012			11/1/2012			11/1/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	BPS1-TT-MW307I-20121106			BPS1-TT-MW305I-20121108								
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CHROMIUM		6.7			3.8			1.4			4		
IRON		110			630			19			22		

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW303I1-20121102			BPS1-TT-MW303S-20121101			BPS1-TT-MW304I1-20121106			BPS1-TT-MW304I2-20121108		
SDG: 50063-17	LAB_ID	1211071-04			1211071-03			1211104-06			1211153-04		
FRACTION: M	SAMP_DATE	11/2/2012			11/1/2012			11/6/2012			11/8/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CHROMIUM		4.9			3.8			30			21	J	Q
IRON		4800			60			500			120		

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW304S-20121106			BPS1-TT-MW305I-20121108			BPS1-TT-MW306D-20121108			BPS1-TT-MW306I-20121108		
SDG: 50063-17	LAB_ID	1211104-05			1211153-06			1211153-02			1211153-03		
FRACTION: M	SAMP_DATE	11/6/2012			11/8/2012			11/8/2012			11/8/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CHROMIUM		2.4			4.5			3.1			2.5		
IRON		14			770			39			25		

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW307D-20121106			BPS1-TT-MW307I-20121106			BPSI-TT-MW302I2-20121105			BPSI-TT-MW303D-20121105		
SDG: 50063-17	LAB_ID	1211104-03			1211104-02			1211079-04			1211079-02		
FRACTION: M	SAMP_DATE	11/6/2012			11/6/2012			11/5/2012			11/5/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CHROMIUM		13			5.5			8			62		
IRON		1100			99			100			2000		

PROJ_NO: 02230	NSAMPLE	BPSI-TT-MW303I2-20121105		
SDG: 50063-17	LAB_ID	1211079-03		
FRACTION: M	SAMP_DATE	11/5/2012		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
CHROMIUM		11		
IRON		90		

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW303I1-20121102			BPS1-TT-MW304I1-20121106			BPS1-TT-MW307D-20121106		
SDG: 50063-17	LAB_ID	1211071-04			1211104-06			1211104-03		
FRACTION: MF	SAMP_DATE	11/2/2012			11/6/2012			11/6/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CHROMIUM		0.7	J	P	22			0.23	J	P
IRON		260			8.2	J	P	10		

PROJ_NO: 02230	NSAMPLE	BPS1-Dup-20121105			BPS1-SB3025-2535			BPS1-SB3025-3545			BPS1-SB3025-4555		
SDG: 50063-17	LAB_ID	1211133-03			1211133-01			1211133-02			1211133-04		
FRACTION: MISC	SAMP_DATE	11/5/2012			11/5/2012			11/5/2012			11/6/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	%			%			%			%		
	PCT_SOLIDS	96.0			96.0			96.0			94.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCENT SOLIDS		96			96			96			94		

PROJ_NO: 02230	NSAMPLE	BPS1-SB3025-5565			BPS1-SB3025-6575		
SDG: 50063-17	LAB_ID	1211133-05			1211133-06		
FRACTION: MISC	SAMP_DATE	11/6/2012			11/6/2012		
MEDIA: SOIL	QC_TYPE	NM			NM		
	UNITS	%			%		
	PCT_SOLIDS	81.0			85.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCENT SOLIDS		81			85		

Tetra Tech INC **INTERNAL CORRESPONDENCE**

TO:	**R. SOK**	**DATE:**	**FEBRUARY 19, 2013**
FROM:	**JOSEPH KALINYAK**	**COPIES:**	**DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC / PCB**
INORGANIC DATA VALIDATION – METALS / HEXAVALENT CHROMIUM,
NWIRP BETHPAGE, CTO WE44
SDG 50063-18

SAMPLES: 4 / Aqueous / VOC

BPS1-TB20121109 BPS1-TT-MW304D-20121109 BPS1-TT-MW312I-20121109
BPS1-TT-MW312S-20121109

3 / Aqueous / PCB / Total Metals – Iron & Chromium

BPS1-TT-MW304D-20121109 BPS1-TT-MW312I-20121109 BPS1-TT-MW312S-20121109

2 / Aqueous / Hexavalent Chromium

BPS1-TT-MW312I-20121109 BPS1-TT-MW312S-20121109

16 / Soil / PCB

BPS1-Dup-20121109	BPS1-SB3022-0205	BPS1-SB3022-0510
BPS1-SB3022-1015	BPS1-SB3022-1520	BPS1-SB3022-2025
BPS1-SB3022-2535	BPS1-SB3022-3545	BPS1-SB3022-4555
BPS1-SB3022-5565	BPS1-SB3022-6575	BPS1-SB3028-2535
BPS1-SB3028-3545	BPS1-SB3028-4555	BPS1-SB3028-5565
BPS1-SB3028-6575		

Overview

The sample set for NWIRP Bethpage, CTO WE44, SDG 50063-18 consisted of four (4) aqueous samples and sixteen (16) soil samples, including one (1) trip blank sample. One (1) field duplicate sample was included in the Sample Delivery Group (SDG); BPS1-Dup-20121109 / BPS1-SB3022-2535. Four (4) aqueous samples were analyzed for volatile organic compounds (VOC) as listed above. Three (3) aqueous samples were analyzed for polychlorinated biphenyls (PCB) and the metals (total) iron and chromium as listed above. Two (2) aqueous samples were analyzed for hexavalent chromium as listed above. Two (2) aqueous samples were analyzed for hexavalent chromium as listed above. Sixteen (16) soil samples were analyzed for PCBs as listed above.

The samples were collected by Tetra Tech on November 7, and 9, 2012 and analyzed by TriMatrix Laboratories, Inc. All analyses were conducted in accordance with EPA Methods SW-846 8260C for VOCs, 8082A for PCB, 6010C for iron, 6020A for chromium, and EPA Method 7196A for hexavalent chromium, method analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters:

*	•	Data completeness
	•	Hold times
*	•	GC/MS System Tuning and Performance
	•	Initial/continuing Calibrations
	•	Blank Results
	•	Laboratory Control Sample Recovery
*	•	Matrix Spike/Matrix Spike Duplicate Recoveries
*	•	Surrogate Spike Recoveries
*	•	Internal Standard Recoveries
*	•	ICP Interference Results
*	•	ICP Serial Dilution Results
*	•	Field Duplicate Precision
*	•	Compound Identification
	•	Compound Quantitation
*	•	Detection Limits

The symbol (*) indicates that all quality control criteria were met for this parameter. Qualified analytical results are presented in Appendix A, results as reported by the laboratory are presented in Appendix B, Region II data validation forms are presented in Appendix C, and documentation supporting these findings is presented in Appendix D.

VOC

The following VOC contaminants were detected in the blanks at the following maximum concentrations.

Analyte	Maximum Conc. µg/L	Action Level µg/L
Methyl acetate (1)	0.87	4.35
Methyl acetate (2)	1.1	5.5
Acetone (2)	2.0	20.0

(1) Method blank for batch 1214456 affecting samples BPS1-TT-MW304D-20121109, BPS1-TT-MW312I-20121109, and BPS1-TT-MW312S-20121109.
(2) Trip blank sample BPS1-TB20121109 affecting samples BPS1-TT-MW304D-20121109, BPS1-TT-MW312I-20121109, and BPS1-TT-MW312S-20121109.

An action level of ten time the maximum level for acetone and five times the maximum level for methyl acetate has been used to evaluate sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. The trip blank sample was not qualified for blank contamination. All sample methyl acetate positive results were qualified for blank contamination.

The initial calibration average relative response factor (RRF) was less than the 0.05 quality control limit for 1,4-dioxane for instrument 328 on 11/19/13 and on all continuing calibration verifications (CCV).

Affected samples:
BPS1-TB20121109 BPS1-TT-MW304D-20121109 BPS1-TT-MW312I-20121109
BPS1-TT-MW312S-20121109
Action: The non-detected 1,4-dioxane results for all samples were qualified rejected, (UR).

The initial calibration RRF relative standard deviation (RSD) was greater than the 15% quality control limit for ethyl benzene for instrument 328 on 11/19/12.

Affected samples:
BPS1-TB20121109 BPS1-TT-MW304D-20121109 BPS1-TT-MW312I-20121109
BPS1-TT-MW312S-20121109
Action: The non-detected ethyl benzene results for the samples were qualified estimated, (UJ).

PCB

The Aroclor-1248 positive result column relative percent differences (RPDs) were greater than the 25% quality control limit.

Affected samples:
BPS1-SB3022-0205 BPS1-SB3022-0510
BPS1-SB3028-5565 BPS1-SB3028-6575
Action: The Aroclor-1248 sample results for the affected samples were qualified estimated, (J). The lower of the two column results was reported for all RPDs greater than 25%. The laboratory reported the lower of the two column results for all RPDs greater than 40% but for Region II criteria this was lowered to the 25% criteria.

Metals

No issues were identified.

Miscellaneous – Hexavalent Chromium

No issues were identified.

Additional Comments

Positive results below the Limit of Quantitation (LOQ) and above the Method Detection Limit (MDL) were qualified as estimated, (J), due to uncertainty near the detection limit.

The CCV percent difference (%D) was greater than the 20% quality control limit 1,4-dioxane for instrument 328 on 11/20/12 @ 08:51.

Affected samples:
BPS1-TB20121109 BPS1-TT-MW304D-20121109 BPS1-TT-MW312I-20121109
BPS1-TT-MW312S-20121109
Action: No validation action was necessary as the sample non-detected results were rejected for RRF criteria non-compliances.

The VOC laboratory control sample (LCS) %R was less than the quality control limit for 1,4-dioxane for batch 1214456.

Affected samples:
BPS1-TB20121109 BPS1-TT-MW304D-20121109 BPS1-TT-MW312I-20121109
BPS1-TT-MW312S-20121109
Action: The samples had non-detected 1,4-dioxane results which were qualified rejected for RRF criteria non-compliances and no further validation action was necessary.

The aqueous samples analyzed for PCBs were extracted greater than the 7 day sample to extraction hold time. No validation action was taken as the newest PCB analysis procedure, EPA Method 8082A, lists no sample to extraction time hold time.

The samples listed below were analyzed diluted for Aroclors. Samples which were only analyzed at a dilution resulted in elevated levels reported for non-detected Aroclor analytes.

Sample	Dilution
BPS1-TT-MW304D-20121109	4X
BPS1-TT-MW304D-20121109 Aroclor-1248	4X

The laboratory reported all positive results for Aroclors from column 1 with the exception of column result RPDs >40%, in which case the lowest of the two column results was reported.

EXECUTIVE SUMMARY

Laboratory Performance Issues: The sample 1,4-dioxane non-detected results were for RRF criteria non-compliances. VOC ethyl benzene non-detected sample results were qualified for an initial calibration RSD non-compliance. Sample VOC methyl acetate results were qualified for blank contamination.

Other Factors Affecting Data Quality: Positive results below the Limit of Quantitation (LOQ) and above the Method Detection Limit (MDL) were qualified as estimated, (J), due to uncertainty near the detection limit. Aroclor-1248 positive sample results were qualified for column RPD criteria non-compliances.

The data for these analyses were reviewed with reference to the SOP HW-24 Revision #2 - August 2008 Validating Volatile Organic Compounds by SW-846 Method 8260B, SOP HW-45 Revision 1 - Oct '06 Data Validation SOP of Organic Analysis of PCBs by Gas Chromatography SW-846 Method 8082A, SOP HW-02 Rev.13 – September 2006 Evaluation of Metals Data for the CLP Program; and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (October 2010).

Tetra Tech
Joseph Kalinyak
Chemist/Data Validator

Tetra Tech
Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:
Appendix A - Qualified Analytical Results
Appendix B - Results as Reported by the Laboratory
Appendix C – Region II Data Validation Forms
Appendix D - Support Documentation

Appendix A

Qualified Analytical Results

Value Qualifier Key (Val Qual)

J – The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

UJ – The result is an estimated non-detected quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

U - Value is a non-detect as reported by the laboratory.

UR – Non-detected result is considered rejected, (UR), as a result of technical non-compliances.

DATA QUALIFICATION CODE (QUAL CODE)

Qualifier Codes:

A	=	Lab Blank Contamination
B	=	Field Blank Contamination
C	=	Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01	=	GC/MS Tuning Noncompliance
D	=	MS/MSD Recovery Noncompliance
E	=	LCS/LCSD Recovery Noncompliance
F	=	Lab Duplicate Imprecision
G	=	Field Duplicate Imprecision
H	=	Holding Time Exceedance
I	=	ICP Serial Dilution Noncompliance
J	=	ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K	=	ICP Interference - includes ICS % R Noncompliance
L	=	Instrument Calibration Range Exceedance
M	=	Sample Preservation Noncompliance
N	=	Internal Standard Noncompliance
N01	=	Internal Standard Recovery Noncompliance Dioxins
N02	=	Recovery Standard Noncompliance Dioxins
N03	=	Clean-up Standard Noncompliance Dioxins
O	=	Poor Instrument Performance (i.e., base-time drifting)
P	=	Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q	=	Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R	=	Surrogates Recovery Noncompliance
S	=	Pesticide/PCB Resolution
T	=	% Breakdown Noncompliance for DDT and Endrin
U	=	RPD between columns/detectors >40% for positive results determined via GC/HPLC
V	=	Non-linear calibrations; correlation coefficient $r < 0.995$
W	=	EMPC result
X	=	Signal to noise response drop
Y	=	Percent solids <30%
Z	=	Uncertainty at 2 sigma deviation is less than sample activity
Z1	=	Tentatively Identified Compound considered presumptively present
Z2	=	Tentatively Identified Compound column bleed

PROJ_NO: 02230	NSAMPLE	BPS1-TB20121109			BPS1-TT-MW304D-20121109			BPS1-TT-MW312I-20121109			BPS1-TT-MW312S-20121109		
SDG: 50063-18	LAB_ID	1211220-01			1211220-04			1211220-03			1211220-02		
FRACTION: OV	SAMP_DATE	11/9/2012			11/7/2012			11/9/2012			11/9/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2,2-TETRACHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2,3-TRICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2,4-TRICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DIBROMOETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROPROPANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,3-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,4-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,4-DIOXANE		25	UR	C	25	UR	C	25	UR	C	25	UR	C
2-BUTANONE		1	U		1	U		1	U		1	U	
2-HEXANONE		1	U		1	U		1	U		1	U	
4-METHYL-2-PENTANONE		1	U		1	U		1	U		1	U	
ACETONE		2	J	P	2	U		2	U		2	U	
BENZENE		0.2	U		0.2	U		0.2	U		0.2	U	
BROMOCHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
BROMODICHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
BROMOFORM		1	U		1	U		1	U		1	U	
BROMOMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CARBON DISULFIDE		1	U		1	U		1	U		1	U	
CARBON TETRACHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLORODIBROMOMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROFORM		0.2	U		0.2	U		0.2	U		0.2	U	
CHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,3-DICHLOROPROPENE		0.5	U		0.5	U		0.5	U		0.5	U	
CYCLOHEXANE		0.5	U		0.5	U		0.5	U		0.5	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	

PROJ_NO: 02230	NSAMPLE	BPS1-TB20121109			BPS1-TT-MW304D-20121109			BPS1-TT-MW312I-20121109			BPS1-TT-MW312S-20121109		
SDG: 50063-18	LAB_ID	1211220-01			1211220-04			1211220-03			1211220-02		
FRACTION: OV	SAMP_DATE	11/9/2012			11/7/2012			11/9/2012			11/9/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ETHYLBENZENE		0.5	UJ	C	0.5	UJ	C	0.5	UJ	C	0.5	UJ	C
ISOPROPYLBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
M+P-XYLENES		1	U		1	U		1	U		1	U	
METHYL ACETATE		1.1	J	P	0.93	U	A	0.99	U	A	0.96	U	A
METHYL CYCLOHEXANE		1	U		1	U		1	U		1	U	
METHYL TERT-BUTYL ETHER		0.5	U		0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		1	U		1	U		1	U		1	U	
O-XYLENE		0.2	U		0.2	U		0.2	U		0.2	U	
STYRENE		0.5	U		0.5	U		0.5	U		0.5	U	
TETRACHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TOLUENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRANS-1,3-DICHLOROPROPENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW304D-20121109			BPS1-TT-MW304D-20121109RE1			BPS1-TT-MW312I-20121109			BPS1-TT-MW312I-20121109RE1		
SDG: 50063-18	LAB_ID	1211220-04			1211220-04RE1			1211220-03			1211220-03RE1		
FRACTION: PCB	SAMP_DATE	11/7/2012			11/7/2012			11/9/2012			11/9/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.32	U					0.08	U				
AROCLOR-1221		0.32	U					0.08	U				
AROCLOR-1232		0.32	U					0.08	U				
AROCLOR-1242		0.32	U					0.08	U				
AROCLOR-1248					3.9						0.14	J	P
AROCLOR-1254		0.32	U					0.08	U				
AROCLOR-1260		0.32	U					0.08	U				
AROCLOR-1262		0.32	U					0.08	U				
AROCLOR-1268		0.32	U					0.08	U				

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW312S-20121109		
SDG: 50063-18	LAB_ID	1211220-02		
FRACTION: PCB	SAMP_DATE	11/9/2012		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
AROCLOR-1016		0.08	U	
AROCLOR-1221		0.08	U	
AROCLOR-1232		0.08	U	
AROCLOR-1242		0.08	U	
AROCLOR-1248		0.08	U	
AROCLOR-1254		0.08	U	
AROCLOR-1260		0.08	U	
AROCLOR-1262		0.08	U	
AROCLOR-1268		0.08	U	

PROJ_NO: 02230	NSAMPLE	BPS1-Dup-20121109			BPS1-SB3022-0205			BPS1-SB3022-0205RE1			BPS1-SB3022-0510		
SDG: 50063-18	LAB_ID	1211221-16			1211221-06			1211221-06RE1			1211221-07		
FRACTION: PCB	SAMP_DATE	11/9/2012			11/9/2012			11/9/2012			11/9/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	97.0			90.0			90.0			88.0		
	DUP_OF	BPS1-SB3022-2535											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.013	U		0.015	U					0.015	U	
AROCLOR-1221		0.013	U		0.015	U					0.015	U	
AROCLOR-1232		0.013	U		0.015	U					0.015	U	
AROCLOR-1242		0.013	U		0.015	U					0.015	U	
AROCLOR-1248		0.013	U					0.016	J	PU	0.0038	J	PU
AROCLOR-1254		0.013	U		0.015	U					0.015	U	
AROCLOR-1260		0.013	U		0.015	U					0.015	U	
AROCLOR-1262		0.013	U		0.015	U					0.015	U	
AROCLOR-1268		0.013	U		0.015	U					0.015	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3022-1015			BPS1-SB3022-1015CON			BPS1-SB3022-1520			BPS1-SB3022-1520CON		
SDG: 50063-18	LAB_ID	1211221-08			1211221-08			1211221-09			1211221-09		
FRACTION: PCB	SAMP_DATE	11/9/2012			11/9/2012			11/9/2012			11/9/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	97.0			97.0			96.0			96.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.013	U		0.013	U		0.014	U		0.014	U	
AROCLOR-1221		0.013	U		0.013	U		0.014	U		0.014	U	
AROCLOR-1232		0.013	U		0.013	U		0.014	U		0.014	U	
AROCLOR-1242		0.013	U		0.013	U		0.014	U		0.014	U	
AROCLOR-1248		0.013	U		0.013	U		0.014	U		0.014	U	
AROCLOR-1254		0.013	U		0.013	U		0.014	U		0.014	U	
AROCLOR-1260		0.013	U		0.013	U		0.014	U		0.014	U	
AROCLOR-1262		0.013	U		0.013	U		0.014	U		0.014	U	
AROCLOR-1268		0.013	U		0.013	U		0.014	U		0.014	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3022-2025			BPS1-SB3022-2535			BPS1-SB3022-3545			BPS1-SB3022-4555		
SDG: 50063-18	LAB_ID	1211221-10			1211221-11			1211221-12			1211221-13		
FRACTION: PCB	SAMP_DATE	11/9/2012			11/9/2012			11/9/2012			11/9/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	97.0			97.0			97.0			94.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.013	U		0.013	U		0.013	U		0.014	U	
AROCLOR-1221		0.013	U		0.013	U		0.013	U		0.014	U	
AROCLOR-1232		0.013	U		0.013	U		0.013	U		0.014	U	
AROCLOR-1242		0.013	U		0.013	U		0.013	U		0.014	U	
AROCLOR-1248		0.013	U		0.013	U		0.013	U		0.014	U	
AROCLOR-1254		0.013	U		0.013	U		0.013	U		0.014	U	
AROCLOR-1260		0.013	U		0.013	U		0.013	U		0.014	U	
AROCLOR-1262		0.013	U		0.013	U		0.013	U		0.014	U	
AROCLOR-1268		0.013	U		0.013	U		0.013	U		0.014	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3022-5565			BPS1-SB3022-6575			BPS1-SB3028-2535			BPS1-SB3028-3545		
SDG: 50063-18	LAB_ID	1211221-14			1211221-15			1211221-01			1211221-02		
FRACTION: PCB	SAMP_DATE	11/9/2012			11/9/2012			11/7/2012			11/7/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	83.0			81.0			97.0			95.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.016	U		0.016	U		0.013	U		0.014	U	
AROCLOR-1221		0.016	U		0.016	U		0.013	U		0.014	U	
AROCLOR-1232		0.016	U		0.016	U		0.013	U		0.014	U	
AROCLOR-1242		0.016	U		0.016	U		0.013	U		0.014	U	
AROCLOR-1248		0.0095	J	P	0.011	J	P	0.013	U		0.014	U	
AROCLOR-1254		0.016	U		0.016	U		0.013	U		0.014	U	
AROCLOR-1260		0.016	U		0.016	U		0.013	U		0.014	U	
AROCLOR-1262		0.016	U		0.016	U		0.013	U		0.014	U	
AROCLOR-1268		0.016	U		0.016	U		0.013	U		0.014	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3028-4555			BPS1-SB3028-5565			BPS1-SB3028-5565RE1			BPS1-SB3028-6575		
SDG: 50063-18	LAB_ID	1211221-03			1211221-04			1211221-04RE1			1211221-05		
FRACTION: PCB	SAMP_DATE	11/7/2012			11/7/2012			11/7/2012			11/7/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	95.0			83.0			83.0			78.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.014	U		0.016	U					0.017	U	
AROCLOR-1221		0.014	U		0.016	U					0.017	U	
AROCLOR-1232		0.014	U		0.016	U					0.017	U	
AROCLOR-1242		0.014	U		0.016	U					0.017	U	
AROCLOR-1248		0.014	U					0.004	J	PU			
AROCLOR-1254		0.014	U		0.016	U					0.017	U	
AROCLOR-1260		0.014	U		0.016	U					0.017	U	
AROCLOR-1262		0.014	U		0.016	U					0.017	U	
AROCLOR-1268		0.014	U		0.016	U					0.017	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3028-6575RE1		
SDG: 50063-18	LAB_ID	1211221-05RE1		
FRACTION: PCB	SAMP_DATE	11/7/2012		
MEDIA: SOIL	QC_TYPE	NM		
	UNITS	MG/KG		
	PCT_SOLIDS	78.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
AROCLOR-1016				
AROCLOR-1221				
AROCLOR-1232				
AROCLOR-1242				
AROCLOR-1248		0.0097	J	PU
AROCLOR-1254				
AROCLOR-1260				
AROCLOR-1262				
AROCLOR-1268				

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW304D-20121109			BPS1-TT-MW312I-20121109			BPS1-TT-MW312S-20121109		
SDG: 50063-18	LAB_ID	1211220-04			1211220-03			1211220-02		
FRACTION: M	SAMP_DATE	11/7/2012			11/9/2012			11/9/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CHROMIUM		2.2			14			21		
IRON		16			120			3000		

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW312I-20121109			BPS1-TT-MW312S-20121109		
SDG: 50063-18	LAB_ID	1211220-03			1211220-02		
FRACTION: MISC	SAMP_DATE	11/9/2012			11/9/2012		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		5.7			1	U	

PROJ_NO: 02230	NSAMPLE	BPS1-Dup-20121109			BPS1-SB3022-0205			BPS1-SB3022-0510			BPS1-SB3022-1015		
SDG: 50063-18	LAB_ID	1211221-16			1211221-06			1211221-07			1211221-08		
FRACTION: MISC	SAMP_DATE	11/9/2012			11/9/2012			11/9/2012			11/9/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	%			%			%			%		
	PCT_SOLIDS	97.0			90.0			88.0			97.0		
	DUP_OF	BPS1-SB3022-2535											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCENT SOLIDS		97			90			88			97		

PROJ_NO: 02230	NSAMPLE	BPS1-SB3022-1520			BPS1-SB3022-2025			BPS1-SB3022-2535			BPS1-SB3022-3545		
SDG: 50063-18	LAB_ID	1211221-09			1211221-10			1211221-11			1211221-12		
FRACTION: MISC	SAMP_DATE	11/9/2012			11/9/2012			11/9/2012			11/9/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	%			%			%			%		
	PCT_SOLIDS	96.0			97.0			97.0			97.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCENT SOLIDS		96			97			97			97		

PROJ_NO: 02230	NSAMPLE	BPS1-SB3022-4555			BPS1-SB3022-5565			BPS1-SB3022-6575			BPS1-SB3028-2535		
SDG: 50063-18	LAB_ID	1211221-13			1211221-14			1211221-15			1211221-01		
FRACTION: MISC	SAMP_DATE	11/9/2012			11/9/2012			11/9/2012			11/7/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	%			%			%			%		
	PCT_SOLIDS	94.0			83.0			81.0			97.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCENT SOLIDS		94			83			81			97		

PROJ_NO: 02230	NSAMPLE	BPS1-SB3028-3545			BPS1-SB3028-4555			BPS1-SB3028-5565			BPS1-SB3028-6575		
SDG: 50063-18	LAB_ID	1211221-02			1211221-03			1211221-04			1211221-05		
FRACTION: MISC	SAMP_DATE	11/7/2012			11/7/2012			11/7/2012			11/7/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	%			%			%			%		
	PCT_SOLIDS	95.0			95.0			83.0			78.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCENT SOLIDS		95			95			83			78		

Tetra Tech, Inc. **INTERNAL CORRESPONDENCE**

TO:	**R. SOK**	**DATE:**	**FEBRUARY 21, 2013**
FROM:	**MICHELLE L. ALLEN**	**COPIES:**	**DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC**
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT (NWIRP), BETHPAGE
CTO WE44
SAMPLE DELIVERY GROUP (SDG) 50063-20

SAMPLES: 11/Soil/PCB

BPS1-Dup-20121112
BPS1-SB3026-3545
BPS1-SB3026-5565
BPS1-SB3027-2535
BPS1-SB3027-4555
BPS1-SB3027-6575
BPS1-SB3026-2535
BPS1-SB3026-4555
BPS1-SB3026-6575
BPS1-SB3027-3545
BPS1-SB3027-5565

15/Aqueous/VOC

BPS1-Dup05-20121115
BPS1-RB-20121116
BPS1-TB-20121116
BPS1-TT-MW305D-20121115
BPS1-TT-MW306S-20121116
BPS1-TT-MW311I-20121115
TTAOC22-MW06-20121115
TTAOC22-MW11-20121116
BPS1-FB-20121116
BPS1-TB-20121115
BPS1-TT-MW302S-20121115
BPS1-TT-MW305S-20121115
BPS1-TT-MW307S-20121116
BPS1-TT-MW311S-20121115
TTAOC22-MW10-20121115

15/Aqueous/PCB

BPS1-Dup05-20121115
BPS1-FB-20121116
BPS1-RB-20121116
BPS1-TT-MW305D-20121115
BPS1-TT-MW306S-20121116
BPS1-TT-MW311I-20121115
TTAOC22-MW06-20121115
TTAOC22-MW11-20121116
BPS1-FB-20121113
BPS1-RB-20121114
BPS1-TT-MW302S-20121115
BPS1-TT-MW305S-20121115
BPS1-TT-MW307S-20121116
BPS1-TT-MW311S-20121115
TTAOC22-MW10-20121115

Overview

The sample set for NWIRP Bethpage SDG 50063-20 consisted of eleven (11) soil environmental samples, eleven (11) aqueous environmental samples, two (2) field blanks, two (2) rinsate blanks, and two (2) trip blanks. Fifteen (15) aqueous samples were analyzed for Target Compound List (TCL) volatile organic compounds (VOC). The eleven (11) soil environmental samples, eleven (11) environmental aqueous samples, the field blanks, and rinsate blanks were analyzed for polychlorinated biphenyls (PCB). Two field duplicate sample pairs were associated with this sample data group (SDG): BPS1-Dup-20121112/BPS1-SB3027-2535 and BPS1-Dup05-20121115/BPS1-TT-MW305S-20121115.

The samples were collected by Tetra Tech, Inc. on November 12-16, 2012 and analyzed by TriMatrix Laboratories. All analyses were conducted in accordance with EPA Methods SW-846 8260B and 8082A analytical and reporting protocols. The data contained in this SDG was validated with regard to the following parameters:

* • Data completeness
* • Hold times
* • GC/MS System Tuning and Performance
  • Initial/continuing calibrations
  • Laboratory Method and Field Blank Results
* • Surrogate Spike Recoveries
* • Internal Standard Results
* • Laboratory Control Sample/Laboratory Control Sample Duplicate Results
  • Matrix Spike/Matrix Spike Duplicate Results
* • Field Duplicate Precision
* • Compound Identification
* • Compound Quantitation
* • Detection Limits

The symbol (*) indicates that all quality control criteria were met for this parameter. Qualified analytical results are presented in Appendix A, results as reported by the laboratory are presented in Appendix B, and documentation supporting these findings is presented in Appendix C.

Volatiles (VOC)

The initial and continuing calibrations performed on instrument 328 had Relative Response Factors (RRFs) for 1,4-dioxane below the 0.05 quality control criterion. All aqueous samples were affected. The non-detected results reported for this compound in the affected samples were qualified as rejected, (UR).

The initial calibration performed on instrument 328 had a Percent Relative Standard Deviation (%RSD) for ethylbenzene above the 15% quality control limit. All aqueous samples were affected. The detected and non-detected results reported for ethylbenzene in the affected samples were qualified as estimated, (J) and (UJ), respectively.

The following contaminants were detected in the laboratory method and trip blanks at the following maximum concentrations:

Analyte	Maximum Concentration (µg/L)	Action Level (µg/L)
Acetone [1]	3.8	38
Methyl Acetate [1]	1.2	6
Methylene Chloride [1]	1.2	12
Acetone [2]	3.8	38

[1] Maximum concentration detected in the laboratory method blank, 1214677-BLK1, affecting all aqueous samples.

[2] Maximum concentration detected in the trip blank, BPS1-TB-20121116, affecting samples BPS1-FB-20121116,BPS1-RB-20121116, BPS1-TT-MW306S-20121116, BPS1-TT-MW307S-20121116, and TTAOC22-MW11-20121116.

An action level of 10X was used for the common laboratory contaminants, acetone and methylene chloride, and an action level of 5X the maximum contaminant level was used for methyl acetate to evaluate sample data for blank contamination. Sample aliquot and dilution factor, if applicable, were taken into consideration when evaluating for blank contamination. Detected results reported for methyl acetate in the environmental samples below the established action level were qualified as non-detected, (U). No action was taken for acetone or methylene chloride because no detections were made for these compounds in the associated environmental samples. The field, rinsate, and trip blanks are not qualified for blank contamination.

Polychlorinated Biphenyls (PCB)

The following PCB was detected in the laboratory method blank at the following maximum concentration:

Analyte	Maximum Concentration (µg/L)	Action Level (µg/L)
Aroclor 1248 [1]	0.28	1.4

[1] Maximum concentration detected in the laboratory method blank, 1214512-BLK2, affecting aqueous samples associated with preparation batch #1214512.

An action level of 5X the maximum contaminant level was used to evaluate sample data for blank contamination. Sample aliquot and dilution factor, if applicable, were taken into consideration when evaluating for blank contamination. Detected results reported for Aroclor 1248 in the associated environmental samples below the established action level were qualified as non-detected, (U).

Additional Comments

Region II data validation forms were not included this data validation report because at the time the data was being reviewed, the Region II website indicated the validation forms were in the process of being revised and are not available.

The Matrix Spike/Matrix Spike Duplicate (MS/MSD) analyses of sample BPS1-SB3027-6575 yielded Percent Recoveries (%Rs) for Aroclor 1016 on both GC columns grossly above the upper quality control limit. No validation action was taken for the non-detected result reported for this PCB in the parent sample.

The following samples were analyzed at a dilution due to concentrations of PCBs.

Sample	Dilution
BPS1-Dup-20121112	20000X
BPS1-SB3026-3545	5X
BPS1-SB3026-4555	2X
BPS1-SB3026-6575	4X
BPS1-SB3027-2535	10000X
BPS1-SB3027-3545	4X
BPS1-SB3027-4555	4X
BPS1-SB3027-5565	10X
BPS1-SB3027-6575	10X
BPS1-RB-20121114	4X

Detected results reported below the Limit of Quantitation (LOQ) but above the Detection Limit (DL) were qualified as estimated, (J). Non-detected results are reported to the Limit of Detection (LOD).

EXECUTIVE SUMMARY

Laboratory Performance Issues: Initial and continuing calibration RRFs were below 0.05 for 1,4-dioxane. An initial calibration %RSD exceeded 15%. Contaminants were detected in the VOC and PCB laboratory method blanks.

Other Factors Affecting Data Quality: Acetone was detected in one trip blank. The PCB MS/MSD %Rs for Aroclor 1016 were grossly high. Some PCB samples required dilutions. Detected results below the LOQ were estimated.

The data for these analyses were reviewed with reference to the SOP #HW-24 Revision #2, USEPA Region II Hazardous Waste Support Branch Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260B (August, 2008), SOP #HW-45 USEPA Region II Hazardous Waste Support Branch Validating PCBs by Gas Chromatography SW-846 Method 8082A (October 2006), EPA Methods SW-846 8260C and 8082A analytical and reporting protocols, and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (October, 2010).

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Attachments:
1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as Reported by the Laboratory
3. Appendix C - Support Documentation

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate

PROJ_NO: 02230	NSAMPLE	BPS1-Dup05-20121115			BPS1-FB-20121116			BPS1-RB-20121116			BPS1-TB-20121115		
SDG: 50063-20	LAB_ID	1211347-09			1211367-05			1211367-04			1211347-01		
FRACTION: OV	SAMP_DATE	11/15/2012			11/16/2012			11/16/2012			11/15/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	BPS1-TT-MW305S-20121115											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2,2-TETRACHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2,3-TRICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2,4-TRICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DIBROMOETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROPROPANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,3-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,4-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,4-DIOXANE		25	UR	C	25	UR	C	25	UR	C	25	UR	C
2-BUTANONE		1	U		3.3	J	P	4.4	J	P	1	U	
2-HEXANONE		1	U		1	U		1	U		1	U	
4-METHYL-2-PENTANONE		1	U		1	U		1	U		1	U	
ACETONE		2	U		2.3	J	P	4.8	J	P	2	U	
BENZENE		0.2	U		0.2	U		0.2	U		0.2	U	
BROMOCHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
BROMODICHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
BROMOFORM		1	U		1	U		1	U		1	U	
BROMOMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CARBON DISULFIDE		1	U		1	U		1	U		1	U	
CARBON TETRACHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLORODIBROMOMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROFORM		0.2	U		0.2	U		0.2	U		0.2	U	
CHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,3-DICHLOROPROPENE		0.5	U		0.5	U		0.5	U		0.5	U	
CYCLOHEXANE		0.5	U		0.5	U		0.5	U		0.5	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	

PROJ_NO: 02230	NSAMPLE	BPS1-TB-20121116			BPS1-TT-MW302S-20121115			BPS1-TT-MW305D-20121115			BPS1-TT-MW305D-20121115RE1		
SDG: 50063-20	LAB_ID	1211367-01			1211347-07			1211347-04			1211347-04RE1		
FRACTION: OV	SAMP_DATE	11/16/2012			11/15/2012			11/15/2012			11/15/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U				
1,1,2,2-TETRACHLOROETHANE		0.5	U		0.5	U		0.5	U				
1,1,2-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U				
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.5	U		0.44	J	P			
1,1-DICHLOROETHANE		0.5	U		0.5	U		0.56	J	P			
1,1-DICHLOROETHENE		0.5	U		0.5	U		0.96	J	P			
1,2,3-TRICHLOROBENZENE		0.5	U		0.5	U		0.5	U				
1,2,4-TRICHLOROBENZENE		0.5	U		0.5	U		0.5	U				
1,2-DIBROMO-3-CHLOROPROPANE		0.5	U		0.5	U		0.5	U				
1,2-DIBROMOETHANE		0.5	U		0.5	U		0.5	U				
1,2-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U				
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U				
1,2-DICHLOROPROPANE		0.5	U		0.5	U		0.5	U				
1,3-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U				
1,4-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U				
1,4-DIOXANE		25	UR	C	25	UR	C	25	UR	C			
2-BUTANONE		1	U		1	U		1	U				
2-HEXANONE		1	U		1	U		1	U				
4-METHYL-2-PENTANONE		1	U		1	U		1	U				
ACETONE		6.1			2	U		2	U				
BENZENE		0.2	U		0.2	U		0.2	U				
BROMOCHLOROMETHANE		0.5	U		0.5	U		0.5	U				
BROMODICHLOROMETHANE		0.5	U		0.5	U		0.5	U				
BROMOFORM		1	U		1	U		1	U				
BROMOMETHANE		0.5	U		0.5	U		0.5	U				
CARBON DISULFIDE		1	U		1	U		1	U				
CARBON TETRACHLORIDE		0.5	U		0.5	U		0.5	U				
CHLOROBENZENE		0.5	U		0.5	U		0.5	U				
CHLORODIBROMOMETHANE		0.5	U		0.5	U		0.5	U				
CHLOROETHANE		0.5	U		0.5	U		0.5	U				
CHLOROFORM		0.2	U		0.2	U		0.18	J	P			
CHLOROMETHANE		0.5	U		0.5	U		0.5	U				
CIS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.32	J	P			
CIS-1,3-DICHLOROPROPENE		0.5	U		0.5	U		0.5	U				
CYCLOHEXANE		0.5	U		0.5	U		0.5	U				
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.22	J	P			

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW305S-20121115			BPS1-TT-MW306S-20121116			BPS1-TT-MW307S-20121116			BPS1-TT-MW311I-20121115		
SDG: 50063-20	LAB_ID	1211347-02			1211367-03			1211367-06			1211347-05		
FRACTION: OV	SAMP_DATE	11/15/2012			11/16/2012			11/16/2012			11/15/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2,2-TETRACHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2,3-TRICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2,4-TRICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DIBROMOETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROPROPANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,3-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,4-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,4-DIOXANE		25	UR	C	25	UR	C	25	UR	C	25	UR	C
2-BUTANONE		1	U		1	U		1	U		1	U	
2-HEXANONE		1	U		1	U		1	U		1	U	
4-METHYL-2-PENTANONE		1	U		1	U		1	U		1	U	
ACETONE		2	U		2	U		2	U		2	U	
BENZENE		0.2	U		0.2	U		0.2	U		0.2	U	
BROMOCHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
BROMODICHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
BROMOFORM		1	U		1	U		1	U		1	U	
BROMOMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CARBON DISULFIDE		1	U		1	U		1	U		1	U	
CARBON TETRACHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLORODIBROMOMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROFORM		0.2	U		0.2	U		0.12	J	P	0.43	J	P
CHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,3-DICHLOROPROPENE		0.5	U		0.5	U		0.5	U		0.5	U	
CYCLOHEXANE		0.5	U		0.5	U		0.5	U		0.5	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW311S-20121115			TTAOC22-MW06-20121115			TTAOC22-MW10-20121115			TTAOC22-MW11-20121116		
SDG: 50063-20	LAB_ID	1211347-03			1211347-06			1211347-08			1211367-02		
FRACTION: OV	SAMP_DATE	11/15/2012			11/15/2012			11/15/2012			11/16/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	U		0.5	U		0.2	J	P	0.5	U	
1,1,2,2-TETRACHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2,3-TRICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2,4-TRICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DIBROMOETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROPROPANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,3-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,4-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,4-DIOXANE		25	UR	C	25	UR	C	25	UR	C	25	UR	C
2-BUTANONE		1	U		1	U		1	U		1	U	
2-HEXANONE		1	U		1	U		1	U		1	U	
4-METHYL-2-PENTANONE		1	U		1	U		1	U		1	U	
ACETONE		2	U		2	U		2	U		2	U	
BENZENE		0.2	U		0.39	J	P	0.2	U		0.2	U	
BROMOCHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
BROMODICHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
BROMOFORM		1	U		1	U		1	U		1	U	
BROMOMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CARBON DISULFIDE		1	U		1	U		1	U		1	U	
CARBON TETRACHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLORODIBROMOMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROFORM		0.2	U		0.2	U		0.38	J	P	0.2	U	
CHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,3-DICHLOROPROPENE		0.5	U		0.5	U		0.5	U		0.5	U	
CYCLOHEXANE		0.5	U		0.5	U		0.5	U		0.5	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	

PROJ_NO: 02230	NSAMPLE	BPS1-Dup05-20121115			BPS1-FB-20121116			BPS1-RB-20121116			BPS1-TB-20121115		
SDG: 50063-20	LAB_ID	1211347-09			1211367-05			1211367-04			1211347-01		
FRACTION: OV	SAMP_DATE	11/15/2012			11/16/2012			11/16/2012			11/15/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	BPS1-TT-MW305S-20121115											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ETHYLBENZENE		0.5	UJ	C	0.5	UJ	C	0.5	UJ	C	0.5	UJ	C
ISOPROPYLBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
M+P-XYLENES		1	U		1	U		1	U		1	U	
METHYL ACETATE		1	U	A	0.81	J	P	1	J	P	0.98	J	P
METHYL CYCLOHEXANE		1	U		1	U		1	U		1	U	
METHYL TERT-BUTYL ETHER		0.5	U		0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		1	U		1	U		1	U		1	U	
O-XYLENE		0.2	U		0.2	U		0.2	U		0.2	U	
STYRENE		0.5	U		0.5	U		0.5	U		0.5	U	
TETRACHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TOLUENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRANS-1,3-DICHLOROPROPENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	

PROJ_NO: 02230	NSAMPLE	BPS1-TB-20121116			BPS1-TT-MW302S-20121115			BPS1-TT-MW305D-20121115			BPS1-TT-MW305D-20121115RE1		
SDG: 50063-20	LAB_ID	1211367-01			1211347-07			1211347-04			1211347-04RE1		
FRACTION: OV	SAMP_DATE	11/16/2012			11/15/2012			11/15/2012			11/15/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ETHYLBENZENE		0.5	UJ	C	0.5	UJ	C	0.5	UJ	C			
ISOPROPYLBENZENE		0.5	U		0.5	U		0.5	U				
M+P-XYLENES		1	U		1	U		1	U				
METHYL ACETATE		1	J	P	1	U	A	1	U	A			
METHYL CYCLOHEXANE		1	U		1	U		1	U				
METHYL TERT-BUTYL ETHER		0.5	U		0.5	U		0.5	U				
METHYLENE CHLORIDE		1	U		1	U		1	U				
O-XYLENE		0.2	U		0.2	U		0.2	U				
STYRENE		0.5	U		0.5	U		0.5	U				
TETRACHLOROETHENE		0.5	U		0.37	J	P	1.8					
TOLUENE		0.5	U		0.5	U		0.5	U				
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U				
TRANS-1,3-DICHLOROPROPENE		0.5	U		0.5	U		0.5	U				
TRICHLOROETHENE		0.5	U		1.3						200		
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		1.2					
VINYL CHLORIDE		0.5	U		0.5	U		0.5	U				

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW305S-20121115			BPS1-TT-MW306S-20121116			BPS1-TT-MW307S-20121116			BPS1-TT-MW311I-20121115		
SDG: 50063-20	LAB_ID	1211347-02			1211367-03			1211367-06			1211347-05		
FRACTION: OV	SAMP_DATE	11/15/2012			11/16/2012			11/16/2012			11/15/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ETHYLBENZENE		0.5	UJ	C	0.5	UJ	C	0.5	UJ	C	0.5	UJ	C
ISOPROPYLBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
M+P-XYLENES		1	U		1	U		1	U		1	U	
METHYL ACETATE		1	U	A	1	U	A	1	U	A	1	U	A
METHYL CYCLOHEXANE		1	U		1	U		1	U		1	U	
METHYL TERT-BUTYL ETHER		0.5	U		0.5	U		0.5	U		5.4		
METHYLENE CHLORIDE		1	U		1	U		1	U		1	U	
O-XYLENE		0.2	U		0.2	U		0.2	U		0.2	U	
STYRENE		0.5	U		0.5	U		0.5	U		0.5	U	
TETRACHLOROETHENE		0.5	U		0.32	J	P	0.69	J	P	0.5	U	
TOLUENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRANS-1,3-DICHLOROPROPENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRICHLOROETHENE		0.5	U		0.5	U		0.41	J	P	0.46	J	P
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW311S-20121115			TTAOC22-MW06-20121115			TTAOC22-MW10-20121115			TTAOC22-MW11-20121116		
SDG: 50063-20	LAB_ID	1211347-03			1211347-06			1211347-08			1211367-02		
FRACTION: OV	SAMP_DATE	11/15/2012			11/15/2012			11/15/2012			11/16/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ETHYLBENZENE		0.5	UJ	C	0.7	J	CP	0.5	UJ	C	0.5	UJ	C
ISOPROPYLBENZENE		0.5	U		1.6			0.5	U		0.5	U	
M+P-XYLENES		1	U		1	U		1	U		1	U	
METHYL ACETATE		1	U	A	1	U	A	1	U	A	1	U	A
METHYL CYCLOHEXANE		1	U		1	U		1	U		1	U	
METHYL TERT-BUTYL ETHER		0.5	U		0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		1	U		1	U		1	U		1	U	
O-XYLENE		0.2	U		0.2	U		0.2	U		0.2	U	
STYRENE		0.5	U		0.5	U		0.5	U		0.5	U	
TETRACHLOROETHENE		0.5	U		0.5	U		0.83	J	P	0.5	U	
TOLUENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRANS-1,3-DICHLOROPROPENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRICHLOROETHENE		0.5	U		0.33	J	P	86			0.94	J	P
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	

PROJ_NO: 02230	NSAMPLE	BPS1-Dup05-20121115			BPS1-FB-20121113			BPS1-FB-20121116			BPS1-RB-20121114		
SDG: 50063-20	LAB_ID	1211347-09			1211348-12			1211367-05			1211348-13		
FRACTION: PCB	SAMP_DATE	11/15/2012			11/13/2012			11/16/2012			11/14/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	BPS1-TT-MW305S-20121115											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.08	U		0.08	U		0.08	U		0.32	U	
AROCLOR-1221		0.08	U		0.08	U		0.08	U		0.32	U	
AROCLOR-1232		0.08	U		0.08	U		0.08	U		0.32	U	
AROCLOR-1242		0.08	U		0.08	U		0.08	U		0.32	U	
AROCLOR-1248		0.08	U		0.08	U		0.08	U		4.2		
AROCLOR-1254		0.08	U		0.08	U		0.08	U		0.32	U	
AROCLOR-1260		0.08	U		0.08	U		0.08	U		0.32	U	
AROCLOR-1262		0.08	U		0.08	U		0.08	U		0.32	U	
AROCLOR-1268		0.08	U		0.08	U		0.08	U		0.32	U	

PROJ_NO: 02230	NSAMPLE	BPS1-RB-20121116			BPS1-TT-MW302S-20121115			BPS1-TT-MW305D-20121115			BPS1-TT-MW305S-20121115		
SDG: 50063-20	LAB_ID	1211367-04			1211347-07			1211347-04			1211347-02		
FRACTION: PCB	SAMP_DATE	11/16/2012			11/15/2012			11/15/2012			11/15/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.08	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1221		0.08	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1232		0.08	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1242		0.08	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1248		0.08	U		0.18	J	P	0.08	U		0.08	U	
AROCLOR-1254		0.08	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1260		0.08	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1262		0.08	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1268		0.08	U		0.08	U		0.08	U		0.08	U	

PROJ_NO: 02230	NSAMPLE	BPS1-TT-MW306S-20121116			BPS1-TT-MW307S-20121116			BPS1-TT-MW311I-20121115			BPS1-TT-MW311S-20121115		
SDG: 50063-20	LAB_ID	1211367-03			1211367-06			1211347-05			1211347-03		
FRACTION: PCB	SAMP_DATE	11/16/2012			11/16/2012			11/15/2012			11/15/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.08	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1221		0.08	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1232		0.08	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1242		0.08	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1248		0.55	U	A	0.042	U	A	0.28			0.17	J	P
AROCLOR-1254		0.08	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1260		0.08	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1262		0.08	U		0.08	U		0.08	U		0.08	U	
AROCLOR-1268		0.08	U		0.08	U		0.08	U		0.08	U	

PROJ_NO: 02230	NSAMPLE	TTAOC22-MW06-20121115			TTAOC22-MW10-20121115			TTAOC22-MW11-20121116		
SDG: 50063-20	LAB_ID	1211347-06			1211347-08			1211367-02		
FRACTION: PCB	SAMP_DATE	11/15/2012			11/15/2012			11/16/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.08	U		0.094	U		0.08	U	
AROCLOR-1221		0.08	U		0.094	U		0.08	U	
AROCLOR-1232		0.08	U		0.094	U		0.08	U	
AROCLOR-1242		0.08	U		0.094	U		0.08	U	
AROCLOR-1248		0.041	J	P	0.48			0.24	U	A
AROCLOR-1254		0.08	U		0.094	U		0.08	U	
AROCLOR-1260		0.08	U		0.094	U		0.064	U	A
AROCLOR-1262		0.08	U		0.094	U		0.08	U	
AROCLOR-1268		0.08	U		0.094	U		0.08	U	

PROJ_NO: 02230	NSAMPLE	BPS1-Dup-20121112			BPS1-SB3026-2535			BPS1-SB3026-2535RE2			BPS1-SB3026-3545		
SDG: 50063-20	LAB_ID	1211348-06			1211348-07RE1			1211348-07RE2			1211348-08		
FRACTION: PCB	SAMP_DATE	11/12/2012			11/14/2012			11/14/2012			11/14/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	93.0			92.0			92.0			96.0		
	DUP_OF	BPS1-SB3027-2535											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		280	U		2.8	U					0.068	U	
AROCLOR-1221		280	U		2.8	U					0.068	U	
AROCLOR-1232		280	U		2.8	U					0.068	U	
AROCLOR-1242		280	U		2.8	U					0.068	U	
AROCLOR-1248		3500						21			1.2		
AROCLOR-1254		280	U		2.8	U					0.068	U	
AROCLOR-1260		280	U		2.8	U					0.068	U	
AROCLOR-1262		280	U		2.8	U					0.068	U	
AROCLOR-1268		280	U		2.8	U					0.068	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3026-4555			BPS1-SB3026-5565			BPS1-SB3026-5565RE2			BPS1-SB3026-6575		
SDG: 50063-20	LAB_ID	1211348-09			1211348-10RE1			1211348-10RE2			1211348-11		
FRACTION: PCB	SAMP_DATE	11/14/2012			11/14/2012			11/14/2012			11/14/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	94.0			82.0			82.0			79.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.028	U		0.79	U					0.066	U	
AROCLOR-1221		0.028	U		0.79	U					0.066	U	
AROCLOR-1232		0.028	U		0.79	U					0.066	U	
AROCLOR-1242		0.028	U		0.79	U					0.066	U	
AROCLOR-1248		0.29	J	P				8.1			0.86		
AROCLOR-1254		0.028	U		0.79	U					0.066	U	
AROCLOR-1260		0.028	U		0.79	U					0.066	U	
AROCLOR-1262		0.028	U		0.79	U					0.066	U	
AROCLOR-1268		0.028	U		0.79	U					0.066	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3027-2535			BPS1-SB3027-3545			BPS1-SB3027-4555			BPS1-SB3027-5565		
SDG: 50063-20	LAB_ID	1211348-01			1211348-02			1211348-03			1211348-04		
FRACTION: PCB	SAMP_DATE	11/12/2012			11/13/2012			11/13/2012			11/13/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	93.0			95.0			91.0			84.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		140	U		0.055	U		0.057	U		0.15	U	
AROCLOR-1221		140	U		0.055	U		0.057	U		0.15	U	
AROCLOR-1232		140	U		0.055	U		0.057	U		0.15	U	
AROCLOR-1242		140	U		0.055	U		0.057	U		0.15	U	
AROCLOR-1248		2400			0.89			0.38			1.4		
AROCLOR-1254		140	U		0.055	U		0.057	U		0.15	U	
AROCLOR-1260		140	U		0.055	U		0.057	U		0.15	U	
AROCLOR-1262		140	U		0.055	U		0.057	U		0.15	U	
AROCLOR-1268		140	U		0.055	U		0.057	U		0.15	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3027-6575		
SDG: 50063-20	LAB_ID	1211348-05		
FRACTION: PCB	SAMP_DATE	11/13/2012		
MEDIA: SOIL	QC_TYPE	NM		
	UNITS	MG/KG		
	PCT_SOLIDS	80.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
AROCLOR-1016		0.16	UJ	D
AROCLOR-1221		0.16	U	
AROCLOR-1232		0.16	U	
AROCLOR-1242		0.16	U	
AROCLOR-1248		1.9		
AROCLOR-1254		0.16	U	
AROCLOR-1260		0.16	U	
AROCLOR-1262		0.16	U	
AROCLOR-1268		0.16	U	

Tetra Tech INC **INTERNAL CORRESPONDENCE**

TO:	**R. SOK**	**DATE:**	**FEBRUARY 11, 2012**
FROM:	**JOSEPH KALINYAK**	**COPIES:**	**DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – PCB**
NWIRP BETHPAGE, CTO WE44
SAMPLE DELIVERY GROUP SDG 50063-22

SAMPLES: 14 / Soil / PCB

SB-3022-0040	SB-3022-4075	SB-3025-0030
SB-3025-2570	SB-3026-0030	SB-3026-3070
SB-3027-0030	SB-3027-3070	SB-3028-0030
SB-3028-3075	Site 1-Drum 1A	Site 1-Drum 2A
Site 1-Drum 3A	Site 4-OW-01	

Overview

The sample set for NWIRP Bethpage, CTO WE44, SDG 50063-22 consisted of fourteen (14) soil samples. All of the samples were analyzed for polychlorinated biphenyls (PCB) as listed above, and percent solids No field duplicate sample pairs were included with this sample delivery group (SDG).

The samples were collected by Tetra Tech on December 19, 2012 and analyzed by Trimatrix Laboratories Inc. All analyses were conducted in accordance with EPA Method SW-846 8082A for PCBs analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters:

*	• Data completeness
*	• Hold times
*	• Initial/continuing Calibrations
*	• Method Blank Results
*	• Laboratory Control Sample Recovery
	• Surrogate Spike Recoveries
*	• Compound Identification
	• Compound Quantitation
*	• Detection Limits

The symbol (*) indicates that all quality control criteria were met for this parameter. Qualified analytical results are presented in Appendix A, results as reported by the laboratory are presented in Appendix B, Region II data validation forms are presented in Appendix C, and documentation supporting these findings is presented in Appendix D.

PCB

Positive results below the Limit of Quantitation (LOQ) and above the Method Detection Limit (MDL) were qualified as estimated, (J), due to uncertainty near the detection limit.

Sample Site 4-OW-01 had percent recoveries (%Rs) for the surrogate decachlorobiphenyl (DCB) less than the quality control limit for both analytical columns.

Affected Sample: Site 4-OW-01

Actions: The sample Site 4-OW-01 was re-analyzed with similar non-compliant %Rs for DCB for both analytical columns. Therefore, the original sample results were reported and the sample non-detected Aroclor results were qualified estimated, (UJ).

The analytical column RPD was greater than the 25% quality control limit for the positive Aroclor-1248 result for sample SB-3022-4075.

Affected Sample: SB-3022-4075

Actions: The sample SB-3022-4075 Aroclor-1248 result was qualified estimated, (J).

Additional Comments

The DB-35 column 1 results were reported by the laboratory for the positive Aroclor results for all samples.

Samples were diluted for Aroclor analyses as listed below resulting in elevated results for non-detected analytes. Per the laboratory narrative, "...sample reporting limits were elevated due to interference caused by high concentrations of other analytes present in the samples..." for samples SB-3026-0030, SB-3026-3070, SB-3027-0030, and SB-3027-3070.

Sample	Dilution
SB-3025-0030	2X
SB-3025-2570	3X
SB-3026-0030	2000X
SB-3026-3070	2000X
SB-3027-0030	200X
SB-3027-3070	500X
SB-3028-0030	5X
Site 1-Drum 1A	3X
Site 1-Drum 3A	10X

Sample Aroclor analyte results were reported to the Limit of Detection (LOD).

The laboratory did not provide Aroclor %Ds for all of the CCVs. The data validation chemist manually calculated the CCV %Ds to verify that they were quality control compliant.

EXECUTIVE SUMMARY

Laboratory Performance Issues: Sample Site 4-OW-01 non-detected results were qualified for surrogate %R non-compliances.

Other Factors Affecting Data Quality: Positive results below the Limit of Quantitation (LOQ) and above the Method Detection Limit (MDL) were qualified as estimated, (J), due to uncertainty near the detection limit. A sample positive Aroclor-1248 result was qualified for a column RPD non-compliance.

The data for these analyses were reviewed with reference to the SOP HW-45 Revision 1 - October 2006 Data Validation SOP of Organic Analysis of PCBs by Gas Chromatography, USEPA SW-846 Method 8082A, and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (October 2010).

Tetra Tech
Joseph Kalinyak
Chemist/Data Validator

Tetra Tech
Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:
Appendix A - Qualified Analytical Results
Appendix B - Results as Reported by the Laboratory
Appendix C – Region II Data Validation Forms
Appendix D - Support Documentation

Appendix A

Qualified Analytical Results

Value Qualifier Key (Val Qual)

J – The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

UJ – The result is an estimated non-detected quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

U - Value is a non-detect as reported by the laboratory.

UR – Non-detected result is considered rejected, (UR), as a result of technical non-compliances.

DATA QUALIFICATION CODE (QUAL CODE)

Qualifier Codes:

A	=	Lab Blank Contamination
B	=	Field Blank Contamination
C	=	Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01	=	GC/MS Tuning Noncompliance
D	=	MS/MSD Recovery Noncompliance
E	=	LCS/LCSD Recovery Noncompliance
F	=	Lab Duplicate Imprecision
G	=	Field Duplicate Imprecision
H	=	Holding Time Exceedance
I	=	ICP Serial Dilution Noncompliance
J	=	ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K	=	ICP Interference - includes ICS % R Noncompliance
L	=	Instrument Calibration Range Exceedance
M	=	Sample Preservation Noncompliance
N	=	Internal Standard Noncompliance
N01	=	Internal Standard Recovery Noncompliance Dioxins
N02	=	Recovery Standard Noncompliance Dioxins
N03	=	Clean-up Standard Noncompliance Dioxins
O	=	Poor Instrument Performance (i.e., base-time drifting)
P	=	Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q	=	Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R	=	Surrogates Recovery Noncompliance
S	=	Pesticide/PCB Resolution
T	=	% Breakdown Noncompliance for DDT and Endrin
U	=	RPD between columns/detectors >40% for positive results determined via GC/HPLC
V	=	Non-linear calibrations; correlation coefficient $r < 0.995$
W	=	EMPC result
X	=	Signal to noise response drop
Y	=	Percent solids <30%
Z	=	Uncertainty at 2 sigma deviation is less than sample activity
Z1	=	Tentatively Identified Compound considered presumptively present
Z2	=	Tentatively Identified Compound column bleed

PROJ_NO: 02230	NSAMPLE	SB-3022-0040			SB-3022-4075			SB-3022-4075RE1			SB-3025-0030		
SDG: 50063-22	LAB_ID	1212387-11			1212387-13			1212387-13RE1			1212387-07		
FRACTION: PCB	SAMP_DATE	12/19/2012			12/19/2012			12/19/2012			12/19/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	97.0			94.0			94.0			97.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.013	U		0.014	U					0.027	U	
AROCLOR-1221		0.013	U		0.014	U					0.027	U	
AROCLOR-1232		0.013	U		0.014	U					0.027	U	
AROCLOR-1242		0.013	U		0.014	U					0.027	U	
AROCLOR-1248		0.013	U					0.0037	J	PU			
AROCLOR-1254		0.013	U		0.014	U					0.027	U	
AROCLOR-1260		0.013	U		0.014	U					0.031	J	P
AROCLOR-1262		0.013	U		0.014	U					0.027	U	
AROCLOR-1268		0.013	U		0.014	U					0.027	U	

PROJ_NO: 02230	NSAMPLE	SB-3025-0030RE1			SB-3025-2570			SB-3025-2570RE1			SB-3026-0030		
SDG: 50063-22	LAB_ID	1212387-07RE1			1212387-01			1212387-01RE1			1212387-02		
FRACTION: PCB	SAMP_DATE	12/19/2012			12/19/2012			12/19/2012			12/19/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	97.0			95.0			95.0			97.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016					0.041	U					27	U	
AROCLOR-1221					0.041	U					27	U	
AROCLOR-1232					0.041	U					27	U	
AROCLOR-1242					0.041	U							
AROCLOR-1248		0.43	J	P				0.54	J	P	27	U	
AROCLOR-1254					0.041	U					27	U	
AROCLOR-1260					0.031	J	P				27	U	
AROCLOR-1262					0.041	U					27	U	
AROCLOR-1268					0.041	U					27	U	

PROJ_NO: 02230	NSAMPLE	SB-3026-0030RE1			SB-3026-3070			SB-3026-3070RE1			SB-3027-0030		
SDG: 50063-22	LAB_ID	1212387-02RE1			1212387-03			1212387-03RE1			1212387-08		
FRACTION: PCB	SAMP_DATE	12/19/2012			12/19/2012			12/19/2012			12/19/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	97.0			95.0			95.0			96.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016					27	U					2.7	U	
AROCLOR-1221					27	U					2.7	U	
AROCLOR-1232					27	U					2.7	U	
AROCLOR-1242		440	J	P				340	J	P			
AROCLOR-1248					27	U					2.7	U	
AROCLOR-1254					27	U					2.7	U	
AROCLOR-1260					27	U					2.7	U	
AROCLOR-1262					27	U					2.7	U	
AROCLOR-1268					27	U					2.7	U	

PROJ_NO: 02230	NSAMPLE	SB-3027-0030RE1			SB-3027-3070			SB-3027-3070RE1			SB-3028-0030		
SDG: 50063-22	LAB_ID	1212387-08RE1			1212387-04			1212387-04RE1			1212387-12		
FRACTION: PCB	SAMP_DATE	12/19/2012			12/19/2012			12/19/2012			12/19/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	96.0			94.0			94.0			97.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016					6.9	U					0.067	U	
AROCLOR-1221					6.9	U					0.067	U	
AROCLOR-1232					6.9	U					0.067	U	
AROCLOR-1242		45	J	P				120	J	P	0.067	U	
AROCLOR-1248					6.9	U							
AROCLOR-1254					6.9	U					0.067	U	
AROCLOR-1260					6.9	U					0.055	J	P
AROCLOR-1262					6.9	U					0.067	U	
AROCLOR-1268					6.9	U					0.067	U	

PROJ_NO: 02230	NSAMPLE	SB-3028-0030RE1			SB-3028-3075			SB-3028-3075RE1			Site 1-Drum 1A		
SDG: 50063-22	LAB_ID	1212387-12RE1			1212387-05			1212387-05RE1			1212387-10		
FRACTION: PCB	SAMP_DATE	12/19/2012			12/19/2012			12/19/2012			12/19/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	97.0			95.0			95.0			95.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016					0.014	U					0.041	U	
AROCLOR-1221					0.014	U					0.041	U	
AROCLOR-1232					0.014	U					0.041	U	
AROCLOR-1242					0.014	U					0.041	U	
AROCLOR-1248		0.96	J	P				0.15	J	P			
AROCLOR-1254					0.014	U					0.041	U	
AROCLOR-1260					0.0071	J	P				0.061	J	P
AROCLOR-1262					0.014	U					0.041	U	
AROCLOR-1268					0.014	U					0.041	U	

PROJ_NO: 02230	NSAMPLE	Site 1-Drum 1ARE1			Site 1-Drum 2A			Site 1-Drum 2ARE1			Site 1-Drum 3A		
SDG: 50063-22	LAB_ID	1212387-10RE1			1212387-09			1212387-09RE1			1212387-06		
FRACTION: PCB	SAMP_DATE	12/19/2012			12/19/2012			12/19/2012			12/19/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	95.0			96.0			96.0			97.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016					0.014	U					0.13	U	
AROCLOR-1221					0.014	U					0.13	U	
AROCLOR-1232					0.014	U					0.13	U	
AROCLOR-1242					0.014	U							
AROCLOR-1248		0.68	J	P				0.13	J	P	0.13	U	
AROCLOR-1254					0.014	U					0.13	U	
AROCLOR-1260					0.0063	J	P				0.13	U	
AROCLOR-1262					0.014	U					0.13	U	
AROCLOR-1268					0.014	U					0.13	U	

PROJ_NO: 02230	NSAMPLE	Site 1-Drum 3ARE1			Site 4-OW-01		
SDG: 50063-22	LAB_ID	1212387-06RE1			1212387-14		
FRACTION: PCB	SAMP_DATE	12/19/2012			12/19/2012		
MEDIA: SOIL	QC_TYPE	NM			NM		
	UNITS	MG/KG			MG/KG		
	PCT_SOLIDS	97.0			83.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016					0.016	UJ	R
AROCLOR-1221					0.016	UJ	R
AROCLOR-1232					0.016	UJ	R
AROCLOR-1242		1.5	J	P	0.016	UJ	R
AROCLOR-1248					0.016	UJ	R
AROCLOR-1254					0.016	UJ	R
AROCLOR-1260					0.016	UJ	R
AROCLOR-1262					0.016	UJ	R
AROCLOR-1268					0.016	UJ	R

PROJ_NO: 02230	NSAMPLE	SB-3022-0040			SB-3022-4075			SB-3025-0030			SB-3025-2570		
SDG: 50063-22	LAB_ID	1212387-11			1212387-13			1212387-07			1212387-01		
FRACTION: MISC	SAMP_DATE	12/19/2012			12/19/2012			12/19/2012			12/19/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	%			%			%			%		
	PCT_SOLIDS	97.0			94.0			97.0			95.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCENT SOLIDS		97			94			97			95		

PROJ_NO: 02230	NSAMPLE	SB-3026-0030			SB-3026-3070			SB-3027-0030			SB-3027-3070		
SDG: 50063-22	LAB_ID	1212387-02			1212387-03			1212387-08			1212387-04		
FRACTION: MISC	SAMP_DATE	12/19/2012			12/19/2012			12/19/2012			12/19/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	%			%			%			%		
	PCT_SOLIDS	97.0			95.0			96.0			94.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCENT SOLIDS		97			95			96			94		

PROJ_NO: 02230	NSAMPLE	SB-3028-0030			SB-3028-3075			Site 1-Drum 1A			Site 1-Drum 2A		
SDG: 50063-22	LAB_ID	1212387-12			1212387-05			1212387-10			1212387-09		
FRACTION: MISC	SAMP_DATE	12/19/2012			12/19/2012			12/19/2012			12/19/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	%			%			%			%		
	PCT_SOLIDS	97.0			95.0			95.0			96.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCENT SOLIDS		97			95			95			96		

PROJ_NO: 02230	NSAMPLE	Site 1-Drum 3A			Site 4-OW-01		
SDG: 50063-22	LAB_ID	1212387-06			1212387-14		
FRACTION: MISC	SAMP_DATE	12/19/2012			12/19/2012		
MEDIA: SOIL	QC_TYPE	NM			NM		
	UNITS	%			%		
	PCT_SOLIDS	97.0			83.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCENT SOLIDS		97			83		

Tetra Tech INC **INTERNAL CORRESPONDENCE**

TO:	**R. SOK**	**DATE:**	**APRIL 1, 2013**
FROM:	**JOSEPH KALINYAK**	**COPIES:**	**DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – PCB**
NWIRP BETHPAGE, CTO WE44
SAMPLE DELIVERY GROUP SDG 50063-25

SAMPLES: 26 / Soil / PCB

BPS1-SB3065-0205	BPS1-SB3065-0510	BPS1-SB3065-1015
BPS1-SB3066-0002	BPS1-SB3066-0205	BPS1-SB3066-0510
BPS1-SB3066-1013	BPS1-SB3066-1315	BPS1-SB3066-1520
BPS1-SB3066-2025	BPS1-SB3067-0002	BPS1-SB3067-0205
BPS1-SB3067-0510	BPS1-SB3067-1015	BPS1-SB3067-1520
BPS1-SB3067-2025	BPS1-SB3068-0002	BPS1-SB3068-0205
BPS1-SB3068-0510	BPS1-SB3068-1015	BPS1-SB3068-1520
BPS1-SB3069-0002	BPS1-SB3069-0205	BPS1-SB3069-0510
BPS1-SB3069-1015	BPS1-SB3069-1520	

Overview

The sample set for NWIRP Bethpage, CTO WE44, SDG 50063-25 consisted of twenty-six (26) soil samples. All of the samples were analyzed for polychlorinated biphenyls (PCB) as listed above, and percent solids. No field duplicate sample pairs were included with this sample delivery group (SDG).

The samples were collected by Tetra Tech on February 25, 2013 and analyzed by Trimatrix Laboratories Inc. All analyses were conducted in accordance with EPA Method SW-846 8082A for PCBs analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters:

- * Data completeness
- * Hold times
- * Initial/continuing Calibrations
- * Method Blank Results
- * Laboratory Control Sample Recovery
- * Surrogate Spike Recoveries
- * Compound Identification
- Compound Quantitation
- * Detection Limits

The symbol (*) indicates that all quality control criteria were met for this parameter. Qualified analytical results are presented in Appendix A, results as reported by the laboratory are presented in Appendix B, Region II data validation forms are presented in Appendix C, and documentation supporting these findings is presented in Appendix D.

PCB

Positive results below the Limit of Quantitation (LOQ) and above the Method Detection Limit (MDL) were qualified as estimated, (J), due to uncertainty near the detection limit.

The analytical column RPD was greater than the 25% quality control limit for the positive Aroclor-1254 result for sample BPS1-SB3066-1315.

Affected Sample: BPS1-SB3066-1315
Actions: The sample BPS1-SB3066-1315 Aroclor-1254 result was qualified estimated, (J).

The analytical column RPD was greater than the 25% quality control limit for the positive Aroclor-1248 result for sample BPS1-SB3067-0510.

Affected Sample: BPS1-SB3067-0510
Actions: The sample BPS1-SB3067-0510 Aroclor-1248 result was qualified estimated, (J).

The laboratory indicated in the PCB narrative that the sample BPS1-SB3067-0510 Aroclor 1248 result had a matrix interference..."A conclusive PCB Aroclor identification is not possible due to matrix interference and/or weathering of the sample. The identity of the reported Aroclor is tentative." The sample BPS1-SB3067-0510 positive Aroclor 1248 result was qualified estimated, (J).

Additional Comments

The DB-35 column 1 results were reported by the laboratory for the positive Aroclor results for all samples.

Samples were diluted for Aroclor analyses as listed below resulting in elevated results for non-detected analytes.

Sample	Dilution
BPS1-SB3066-0002	20X
BPS1-SB3068-0002	10X
BPS1-SB3069-0002	20X

Sample Aroclor analyte results were reported to the Limit of Detection (LOD).

EXECUTIVE SUMMARY

Laboratory Performance Issues: None.

Other Factors Affecting Data Quality: Positive results below the Limit of Quantitation (LOQ) and above the Method Detection Limit (MDL) were qualified as estimated, (J), due to uncertainty near the detection limit. Positive Aroclor results were qualified for column RPD non-compliances and a matrix interference/weathering issue.

The data for these analyses were reviewed with reference to the SOP HW-45 Revision 1 - October 2006 Data Validation SOP of Organic Analysis of PCBs by Gas Chromatography, USEPA SW-846 Method 8082A, and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (October 2010).

Tetra Tech
Joseph Kalinyak
Chemist/Data Validator

Tetra Tech
Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:
Appendix A - Qualified Analytical Results
Appendix B - Results as Reported by the Laboratory
Appendix C – Region II Data Validation Forms
Appendix D - Support Documentation

Appendix A

Qualified Analytical Results

Value Qualifier Key (Val Qual)

J – The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

UJ – The result is an estimated non-detected quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

U - Value is a non-detect as reported by the laboratory.

UR – Non-detected result is considered rejected, (UR), as a result of technical non-compliances.

DATA QUALIFICATION CODE (QUAL CODE)

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is less than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed

PROJ_NO: 02230	NSAMPLE	BPS1-SB3065-0205			BPS1-SB3065-0205RE1			BPS1-SB3065-0510			BPS1-SB3065-1015		
SDG: 50063-25	LAB_ID	1302384-24			1302384-24RE1			1302384-25			1302384-26		
FRACTION: PCB	SAMP_DATE	2/25/2013			2/25/2013			2/25/2013			2/25/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	92.0			92.0			96.0			97.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.014	U					0.014	U		0.013	U	
AROCLOR-1221		0.014	U					0.014	U		0.013	U	
AROCLOR-1232		0.014	U					0.014	U		0.013	U	
AROCLOR-1242		0.014	U					0.014	U		0.013	U	
AROCLOR-1248		0.014	U					0.014	U		0.013	U	
AROCLOR-1254					0.006	J	P	0.014	U		0.013	U	
AROCLOR-1260		0.014	U					0.014	U		0.013	U	
AROCLOR-1262		0.014	U					0.014	U		0.013	U	
AROCLOR-1268		0.014	U					0.014	U		0.013	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3066-0002			BPS1-SB3066-0002RE1			BPS1-SB3066-0205			BPS1-SB3066-0205RE1		
SDG: 50063-25	LAB_ID	1302384-11			1302384-11RE1			1302384-12			1302384-12RE1		
FRACTION: PCB	SAMP_DATE	2/25/2013			2/25/2013			2/25/2013			2/25/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	83.0			83.0			95.0			95.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.32	U					0.014	U				
AROCLOR-1221		0.32	U					0.014	U				
AROCLOR-1232		0.32	U					0.014	U				
AROCLOR-1242		0.32	U					0.014	U				
AROCLOR-1248					4.6	J	P				0.036	J	P
AROCLOR-1254		0.32	U					0.014	U				
AROCLOR-1260		0.32	U					0.014	U				
AROCLOR-1262		0.32	U					0.014	U				
AROCLOR-1268		0.32	U					0.014	U				

PROJ_NO: 02230	NSAMPLE	BPS1-SB3066-0510			BPS1-SB3066-0510RE1			BPS1-SB3066-1013			BPS1-SB3066-1315		
SDG: 50063-25	LAB_ID	1302384-13			1302384-13RE1			1302384-14			1302384-15		
FRACTION: PCB	SAMP_DATE	2/25/2013			2/25/2013			2/25/2013			2/25/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	94.0			94.0			92.0			92.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.014	U					0.014	U		0.014	U	
AROCLOR-1221		0.014	U					0.014	U		0.014	U	
AROCLOR-1232		0.014	U					0.014	U		0.014	U	
AROCLOR-1242		0.014	U					0.014	U		0.014	U	
AROCLOR-1248					0.0076	J	P	0.014	U		0.014	U	
AROCLOR-1254		0.014	U					0.0076	J	P			
AROCLOR-1260		0.014	U					0.014	U		0.014	U	
AROCLOR-1262		0.014	U					0.014	U		0.014	U	
AROCLOR-1268		0.014	U					0.014	U		0.014	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3066-1315RE1			BPS1-SB3066-1520			BPS1-SB3066-2025			BPS1-SB3066-2025RE1		
SDG: 50063-25	LAB_ID	1302384-15RE1			1302384-16			1302384-17			1302384-17RE1		
FRACTION: PCB	SAMP_DATE	2/25/2013			2/25/2013			2/25/2013			2/25/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	92.0			91.0			94.0			94.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016					0.014	U		0.014	U				
AROCLOR-1221					0.014	U		0.014	U				
AROCLOR-1232					0.014	U		0.014	U				
AROCLOR-1242					0.014	U		0.014	U				
AROCLOR-1248					0.014	U		0.014	U				
AROCLOR-1254		0.023	J	PU	0.011	J	P				0.0078	J	P
AROCLOR-1260					0.014	U		0.014	U				
AROCLOR-1262					0.014	U		0.014	U				
AROCLOR-1268					0.014	U		0.014	U				

PROJ_NO: 02230	NSAMPLE	BPS1-SB3067-0002			BPS1-SB3067-0002RE1			BPS1-SB3067-0205			BPS1-SB3067-0205RE1		
SDG: 50063-25	LAB_ID	1302384-18			1302384-18RE1			1302384-19			1302384-19RE1		
FRACTION: PCB	SAMP_DATE	2/25/2013			2/25/2013			2/25/2013			2/25/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	96.0			96.0			98.0			98.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.013	U					0.013	U				
AROCLOR-1221		0.013	U					0.013	U				
AROCLOR-1232		0.013	U					0.013	U				
AROCLOR-1242		0.013	U					0.013	U				
AROCLOR-1248					0.2	J	P				0.0095	J	P
AROCLOR-1254		0.013	U					0.013	U				
AROCLOR-1260		0.013	U					0.013	U				
AROCLOR-1262		0.013	U					0.013	U				
AROCLOR-1268		0.013	U					0.013	U				

PROJ_NO: 02230	NSAMPLE	BPS1-SB3067-0510			BPS1-SB3067-0510RE1			BPS1-SB3067-1015			BPS1-SB3067-1520		
SDG: 50063-25	LAB_ID	1302384-20			1302384-20RE1			1302384-21			1302384-22		
FRACTION: PCB	SAMP_DATE	2/25/2013			2/25/2013			2/25/2013			2/25/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	95.0			95.0			96.0			93.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.014	U					0.014	U		0.014	U	
AROCLOR-1221		0.014	U					0.014	U		0.014	U	
AROCLOR-1232		0.014	U					0.014	U		0.014	U	
AROCLOR-1242		0.014	U					0.014	U		0.014	U	
AROCLOR-1248					0.0098	J	PQU	0.014	U		0.014	U	
AROCLOR-1254		0.014	U					0.014	U		0.014	U	
AROCLOR-1260		0.014	U					0.014	U		0.014	U	
AROCLOR-1262		0.014	U					0.014	U		0.014	U	
AROCLOR-1268		0.014	U					0.014	U		0.014	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3067-2025			BPS1-SB3068-0002			BPS1-SB3068-0002RE1			BPS1-SB3068-0205		
SDG: 50063-25	LAB_ID	1302384-23			1302384-06			1302384-06RE1			1302384-07		
FRACTION: PCB	SAMP_DATE	2/25/2013			2/25/2013			2/25/2013			2/25/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	96.0			94.0			94.0			96.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.014	U		0.14	U					0.014	U	
AROCLOR-1221		0.014	U		0.14	U					0.014	U	
AROCLOR-1232		0.014	U		0.14	U					0.014	U	
AROCLOR-1242		0.014	U		0.14	U					0.014	U	
AROCLOR-1248		0.014	U					1.5	J	P			
AROCLOR-1254		0.014	U		0.14	U					0.014	U	
AROCLOR-1260		0.014	U		0.14	U					0.014	U	
AROCLOR-1262		0.014	U		0.14	U					0.014	U	
AROCLOR-1268		0.014	U		0.14	U					0.014	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3068-0205RE1			BPS1-SB3068-0510			BPS1-SB3068-0510RE1			BPS1-SB3068-1015		
SDG: 50063-25	LAB_ID	1302384-07RE1			1302384-08			1302384-08RE1			1302384-09		
FRACTION: PCB	SAMP_DATE	2/25/2013			2/25/2013			2/25/2013			2/25/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	96.0			95.0			95.0			94.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016					0.014	U					0.014	U	
AROCLOR-1221					0.014	U					0.014	U	
AROCLOR-1232					0.014	U					0.014	U	
AROCLOR-1242					0.014	U					0.014	U	
AROCLOR-1248		0.074	J	P				0.16	J	P			
AROCLOR-1254					0.014	U					0.014	U	
AROCLOR-1260					0.014	U					0.014	U	
AROCLOR-1262					0.014	U					0.014	U	
AROCLOR-1268					0.014	U					0.014	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3068-1015RE1			BPS1-SB3068-1520			BPS1-SB3069-0002			BPS1-SB3069-0002RE1		
SDG: 50063-25	LAB_ID	1302384-09RE1			1302384-10			1302384-01			1302384-01RE1		
FRACTION: PCB	SAMP_DATE	2/25/2013			2/25/2013			2/25/2013			2/25/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	94.0			86.0			90.0			90.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016					0.015	U		0.29	U				
AROCLOR-1221					0.015	U		0.29	U				
AROCLOR-1232					0.015	U		0.29	U				
AROCLOR-1242					0.015	U		0.29	U				
AROCLOR-1248		0.065	J	P	0.015	U					3.3	J	P
AROCLOR-1254					0.015	U		0.29	U				
AROCLOR-1260					0.015	U		0.29	U				
AROCLOR-1262					0.015	U		0.29	U				
AROCLOR-1268					0.015	U		0.29	U				

PROJ_NO: 02230	NSAMPLE	BPS1-SB3069-0205			BPS1-SB3069-0205RE1			BPS1-SB3069-0510			BPS1-SB3069-0510RE1		
SDG: 50063-25	LAB_ID	1302384-02			1302384-02RE1			1302384-03			1302384-03RE1		
FRACTION: PCB	SAMP_DATE	2/25/2013			2/25/2013			2/25/2013			2/25/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	96.0			96.0			95.0			95.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.014	U					0.014	U				
AROCLOR-1221		0.014	U					0.014	U				
AROCLOR-1232		0.014	U					0.014	U				
AROCLOR-1242		0.014	U					0.014	U				
AROCLOR-1248					0.029	J	P				0.0083	J	P
AROCLOR-1254		0.014	U					0.014	U				
AROCLOR-1260		0.014	U					0.014	U				
AROCLOR-1262		0.014	U					0.014	U				
AROCLOR-1268		0.014	U					0.014	U				

PROJ_NO: 02230	NSAMPLE	BPS1-SB3069-1015			BPS1-SB3069-1520		
SDG: 50063-25	LAB_ID	1302384-04			1302384-05		
FRACTION: PCB	SAMP_DATE	2/25/2013			2/25/2013		
MEDIA: SOIL	QC_TYPE	NM			NM		
	UNITS	MG/KG			MG/KG		
	PCT_SOLIDS	94.0			87.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.014	U		0.015	U	
AROCLOR-1221		0.014	U		0.015	U	
AROCLOR-1232		0.014	U		0.015	U	
AROCLOR-1242		0.014	U		0.015	U	
AROCLOR-1248		0.014	U		0.015	U	
AROCLOR-1254		0.014	U		0.015	U	
AROCLOR-1260		0.014	U		0.015	U	
AROCLOR-1262		0.014	U		0.015	U	
AROCLOR-1268		0.014	U		0.015	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3065-0205			BPS1-SB3065-0510			BPS1-SB3065-1015			BPS1-SB3066-0002		
SDG: 50063-25	LAB_ID	1302384-24			1302384-25			1302384-26			1302384-11		
FRACTION: MISC	SAMP_DATE	2/25/2013			2/25/2013			2/25/2013			2/25/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	%			%			%			%		
	PCT_SOLIDS	92.0			96.0			97.0			83.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCENT SOLIDS		92			96			97			83		

PROJ_NO: 02230	NSAMPLE	BPS1-SB3066-0205			BPS1-SB3066-0510			BPS1-SB3066-1013			BPS1-SB3066-1315		
SDG: 50063-25	LAB_ID	1302384-12			1302384-13			1302384-14			1302384-15		
FRACTION: MISC	SAMP_DATE	2/25/2013			2/25/2013			2/25/2013			2/25/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	%			%			%			%		
	PCT_SOLIDS	95.0			94.0			92.0			92.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCENT SOLIDS		95			94			92			92		

PROJ_NO: 02230	NSAMPLE	BPS1-SB3066-1520			BPS1-SB3066-2025			BPS1-SB3067-0002			BPS1-SB3067-0205		
SDG: 50063-25	LAB_ID	1302384-16			1302384-17			1302384-18			1302384-19		
FRACTION: MISC	SAMP_DATE	2/25/2013			2/25/2013			2/25/2013			2/25/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	%			%			%			%		
	PCT_SOLIDS	91.0			94.0			96.0			98.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCENT SOLIDS		91			94			96			98		

PROJ_NO: 02230	NSAMPLE	BPS1-SB3067-0510			BPS1-SB3067-1015			BPS1-SB3067-1520			BPS1-SB3067-2025		
SDG: 50063-25	LAB_ID	1302384-20			1302384-21			1302384-22			1302384-23		
FRACTION: MISC	SAMP_DATE	2/25/2013			2/25/2013			2/25/2013			2/25/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	%			%			%			%		
	PCT_SOLIDS	95.0			96.0			93.0			96.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCENT SOLIDS		95			96			93			96		

PROJ_NO: 02230	NSAMPLE	BPS1-SB3068-0002			BPS1-SB3068-0205			BPS1-SB3068-0510			BPS1-SB3068-1015		
SDG: 50063-25	LAB_ID	1302384-06			1302384-07			1302384-08			1302384-09		
FRACTION: MISC	SAMP_DATE	2/25/2013			2/25/2013			2/25/2013			2/25/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	%			%			%			%		
	PCT_SOLIDS	94.0			96.0			95.0			94.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCENT SOLIDS		94			96			95			94		

PROJ_NO: 02230	NSAMPLE	BPS1-SB3068-1520			BPS1-SB3069-0002			BPS1-SB3069-0205			BPS1-SB3069-0510		
SDG: 50063-25	LAB_ID	1302384-10			1302384-01			1302384-02			1302384-03		
FRACTION: MISC	SAMP_DATE	2/25/2013			2/25/2013			2/25/2013			2/25/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	%			%			%			%		
	PCT_SOLIDS	86.0			90.0			96.0			95.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCENT SOLIDS		86			90			96			95		

PROJ_NO: 02230	NSAMPLE	BPS1-SB3069-1015			BPS1-SB3069-1520		
SDG: 50063-25	LAB_ID	1302384-04			1302384-05		
FRACTION: MISC	SAMP_DATE	2/25/2013			2/25/2013		
MEDIA: SOIL	QC_TYPE	NM			NM		
	UNITS	%			%		
	PCT_SOLIDS	94.0			87.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCENT SOLIDS		94			87		

Tetra Tech INC **INTERNAL CORRESPONDENCE**

TO:	**R. SOK**	**DATE:**	**APRIL 3, 2013**
FROM:	**JOSEPH KALINYAK**	**COPIES:**	**DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – PCB**
NWIRP BETHPAGE, CTO WE44
SAMPLE DELIVERY GROUP SDG 50063-27

SAMPLES: 30 / Soil / PCB

BPS1-Dup05-20130227	BPS1-Dup06-20130228	BPS1-Dup07-20130301
BPS1-SB3060-1520	BPS1-SB3060-2025	BPS1-SB3060-2535
BPS1-SB3060-3540	BPS1-SB3061-1520	BPS1-SB3061-2025
BPS1-SB3061-2535	BPS1-SB3061-3540	BPS1-SB3062-0002
BPS1-SB3062-0205	BPS1-SB3062-0510	BPS1-SB3062-1015
BPS1-SB3062-1520	BPS1-SB3062-2025	BPS1-SB3062-2535
BPS1-SB3062-3540	BPS1-SB3063-0002	BPS1-SB3063-0205
BPS1-SB3063-0510	BPS1-SB3063-1015	BPS1-SB3063-1520
BPS1-SB3063-2025	BPS1-SB3063-2535	BPS1-SB3063-3545
BPS1-SB3063-4550	BPS1-SB3064-3545	BPS1-SB3064-4547

2 / Aqueous / PCB

BPS1-FB01-20130228	BPS1-RB01-20130228

Overview

The sample set for NWIRP Bethpage, CTO WE44, SDG 50063-27 consisted of thirty (30) soil samples and two (2) aqueous samples including one (1) aqueous rinse blank sample and one (1) aqueous field blank sample. All of the samples were analyzed for polychlorinated biphenyls (PCB) as listed above. Three (3) field duplicate sample pairs were included with this sample delivery group (SDG); BPS1-Dup05-20130227 / BPS1-SB3064-3545, BPS1-Dup06-20130228 / BPS1-SB3061-2535, and BPS1-Dup07-20130301 / BPS1-SB3060-2535.

The samples were collected by Tetra Tech on February 27, 28, and March 1, 2013 and analyzed by Trimatrix Laboratories Inc. All analyses were conducted in accordance with EPA Method SW-846 8082A for PCBs analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters:

* • Data completeness
* • Hold times
* • Initial/continuing Calibrations
* • Method Blank Results
* • Laboratory Control Sample Recovery
* • Surrogate Spike Recoveries
* • Field Duplicate Precision
* • Compound Identification

* • Compound Quantitation
* • Detection Limits

The symbol (*) indicates that all quality control criteria were met for this parameter. Qualified analytical results are presented in Appendix A, results as reported by the laboratory are presented in Appendix B, Region II data validation forms are presented in Appendix C, and documentation supporting these findings is presented in Appendix D.

PCB

Positive results below the Limit of Quantitation (LOQ) and above the Method Detection Limit (MDL) were qualified as estimated, (J), due to uncertainty near the detection limit.

Additional Comments

The DB-35 column 1 results were reported by the laboratory for the positive Aroclor results for all samples.

Samples were diluted for Aroclor analyses as listed below resulting in elevated results for non-detected analytes.

Sample	Dilution
BPS1-Dup06-20130228	400X
BPS1-SB3061-2535	400X
BPS1-SB3062-0002	10X
BPS1-SB3063-0002	3X

Sample Aroclor analyte results were reported to the Limit of Detection (LOD).

EXECUTIVE SUMMARY

Laboratory Performance Issues: None.

Other Factors Affecting Data Quality: Positive results below the Limit of Quantitation (LOQ) and above the Method Detection Limit (MDL) were qualified as estimated, (J), due to uncertainty near the detection limit.

The data for these analyses were reviewed with reference to the SOP HW-45 Revision 1 - October 2006 Data Validation SOP of Organic Analysis of PCBs by Gas Chromatography, USEPA SW-846 Method 8082A, and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (October 2010).

Tetra Tech
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Chemist/Data Validator

Tetra Tech
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Data Validation Quality Assurance Officer

Attachments:
Appendix A - Qualified Analytical Results
Appendix B - Results as Reported by the Laboratory
Appendix C – Region II Data Validation Forms
Appendix D - Support Documentation

Appendix A

Qualified Analytical Results

Value Qualifier Key (Val Qual)

J – The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

UJ – The result is an estimated non-detected quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

U - Value is a non-detect as reported by the laboratory.

UR – Non-detected result is considered rejected, (UR), as a result of technical non-compliances.

DATA QUALIFICATION CODE (QUAL CODE)

Qualifier Codes:

A	=	Lab Blank Contamination
B	=	Field Blank Contamination
C	=	Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01	=	GC/MS Tuning Noncompliance
D	=	MS/MSD Recovery Noncompliance
E	=	LCS/LCSD Recovery Noncompliance
F	=	Lab Duplicate Imprecision
G	=	Field Duplicate Imprecision
H	=	Holding Time Exceedance
I	=	ICP Serial Dilution Noncompliance
J	=	ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K	=	ICP Interference - includes ICS % R Noncompliance
L	=	Instrument Calibration Range Exceedance
M	=	Sample Preservation Noncompliance
N	=	Internal Standard Noncompliance
N01	=	Internal Standard Recovery Noncompliance Dioxins
N02	=	Recovery Standard Noncompliance Dioxins
N03	=	Clean-up Standard Noncompliance Dioxins
O	=	Poor Instrument Performance (i.e., base-time drifting)
P	=	Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q	=	Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R	=	Surrogates Recovery Noncompliance
S	=	Pesticide/PCB Resolution
T	=	% Breakdown Noncompliance for DDT and Endrin
U	=	RPD between columns/detectors >40% for positive results determined via GC/HPLC
V	=	Non-linear calibrations; correlation coefficient $r < 0.995$
W	=	EMPC result
X	=	Signal to noise response drop
Y	=	Percent solids <30%
Z	=	Uncertainty at 2 sigma deviation is less than sample activity
Z1	=	Tentatively Identified Compound considered presumptively present
Z2	=	Tentatively Identified Compound column bleed

PROJ_NO: 02230	NSAMPLE	BPS1-FB01-20130228			BPS1-RB01-20130228		
SDG: 50063-27	LAB_ID	1303014-28			1303014-29		
FRACTION: PCB	SAMP_DATE	2/28/2013			2/28/2013		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.08	U		0.08	U	
AROCLOR-1221		0.08	U		0.08	U	
AROCLOR-1232		0.08	U		0.08	U	
AROCLOR-1242		0.08	U		0.08	U	
AROCLOR-1248		0.08	U		0.08	U	
AROCLOR-1254		0.08	U		0.08	U	
AROCLOR-1260		0.08	U		0.08	U	
AROCLOR-1262		0.08	U		0.08	U	
AROCLOR-1268		0.08	U		0.08	U	

PROJ_NO: 02230	NSAMPLE	BPS1-Dup05-20130227			BPS1-Dup06-20130228			BPS1-Dup07-20130301			BPS1-SB3060-1520		
SDG: 50063-27	LAB_ID	1303014-12			1303014-27			1303027-03			1303014-25		
FRACTION: PCB	SAMP_DATE	2/27/2013			2/28/2013			3/1/2013			2/28/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	95.0			91.0			94.0			97.0		
	DUP_OF	BPS1-SB3064-3545			BPS1-SB3061-2535			BPS1-SB3060-2535					
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.014	U		5.7	U		0.014	U		0.013	U	
AROCLOR-1221		0.014	U		5.7	U		0.014	U		0.013	U	
AROCLOR-1232		0.014	U		5.7	U		0.014	U		0.013	U	
AROCLOR-1242		0.014	U		5.7	U		0.014	U		0.013	U	
AROCLOR-1248		0.014	U		59	J	P	0.014	U		0.013	U	
AROCLOR-1254		0.014	U		5.7	U		0.014	U		0.013	U	
AROCLOR-1260		0.014	U		5.7	U		0.014	U		0.013	U	
AROCLOR-1262		0.014	U		5.7	U		0.014	U		0.013	U	
AROCLOR-1268		0.014	U		5.7	U		0.014	U		0.013	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3060-2025			BPS1-SB3060-2535			BPS1-SB3060-3540			BPS1-SB3061-1520		
SDG: 50063-27	LAB_ID	1303014-26			1303027-01			1303027-02			1303014-21		
FRACTION: PCB	SAMP_DATE	2/28/2013			3/1/2013			3/1/2013			2/28/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	91.0			94.0			96.0			97.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.014	U		0.014	U		0.014	U		0.013	U	
AROCLOR-1221		0.014	U		0.014	U		0.014	U		0.013	U	
AROCLOR-1232		0.014	U		0.014	U		0.014	U		0.013	U	
AROCLOR-1242		0.014	U		0.014	U		0.014	U		0.013	U	
AROCLOR-1248		0.012	J	P	0.014	U		0.014	U		0.013	U	
AROCLOR-1254		0.014	U		0.014	U		0.014	U		0.013	U	
AROCLOR-1260		0.014	U		0.014	U		0.014	U		0.013	U	
AROCLOR-1262		0.014	U		0.014	U		0.014	U		0.013	U	
AROCLOR-1268		0.014	U		0.014	U		0.014	U		0.013	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3061-2025			BPS1-SB3061-2535			BPS1-SB3061-3540			BPS1-SB3062-0002		
SDG: 50063-27	LAB_ID	1303014-22			1303014-23			1303014-24			1303014-13		
FRACTION: PCB	SAMP_DATE	2/28/2013			2/28/2013			2/28/2013			2/28/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	97.0			90.0			95.0			89.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.013	U		5.8	U		0.014	U		0.15	U	
AROCLOR-1221		0.013	U		5.8	U		0.014	U		0.15	U	
AROCLOR-1232		0.013	U		5.8	U		0.014	U		0.15	U	
AROCLOR-1242		0.013	U		5.8	U		0.014	U		0.15	U	
AROCLOR-1248		0.013	U		69	J	P	0.022	J	P	1.3	J	P
AROCLOR-1254		0.013	U		5.8	U		0.014	U		0.15	U	
AROCLOR-1260		0.013	U		5.8	U		0.014	U		0.15	U	
AROCLOR-1262		0.013	U		5.8	U		0.014	U		0.15	U	
AROCLOR-1268		0.013	U		5.8	U		0.014	U		0.15	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3062-0205			BPS1-SB3062-0510			BPS1-SB3062-1015			BPS1-SB3062-1520		
SDG: 50063-27	LAB_ID	1303014-14			1303014-15			1303014-16			1303014-17		
FRACTION: PCB	SAMP_DATE	2/28/2013			2/28/2013			2/28/2013			2/28/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	96.0			97.0			96.0			97.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.014	U		0.013	U		0.014	U		0.013	U	
AROCLOR-1221		0.014	U		0.013	U		0.014	U		0.013	U	
AROCLOR-1232		0.014	U		0.013	U		0.014	U		0.013	U	
AROCLOR-1242		0.014	U		0.013	U		0.014	U		0.013	U	
AROCLOR-1248		0.025	J	P	0.013	U		0.014	U		0.019	J	P
AROCLOR-1254		0.014	U		0.013	U		0.014	U		0.013	U	
AROCLOR-1260		0.014	U		0.013	U		0.014	U		0.013	U	
AROCLOR-1262		0.014	U		0.013	U		0.014	U		0.013	U	
AROCLOR-1268		0.014	U		0.013	U		0.014	U		0.013	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3062-2025			BPS1-SB3062-2535			BPS1-SB3062-3540			BPS1-SB3063-0002		
SDG: 50063-27	LAB_ID	1303014-18			1303014-19			1303014-20			1303014-03		
FRACTION: PCB	SAMP_DATE	2/28/2013			2/28/2013			2/28/2013			2/27/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	98.0			92.0			96.0			73.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.013	U		0.014	U		0.013	U		0.053	U	
AROCLOR-1221		0.013	U		0.014	U		0.013	U		0.053	U	
AROCLOR-1232		0.013	U		0.014	U		0.013	U		0.053	U	
AROCLOR-1242		0.013	U		0.014	U		0.013	U		0.053	U	
AROCLOR-1248		0.013	U		0.015	J	P	0.013	U		0.5	J	P
AROCLOR-1254		0.013	U		0.014	U		0.013	U		0.053	U	
AROCLOR-1260		0.013	U		0.014	U		0.013	U		0.053	U	
AROCLOR-1262		0.013	U		0.014	U		0.013	U		0.053	U	
AROCLOR-1268		0.013	U		0.014	U		0.013	U		0.053	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3063-0205			BPS1-SB3063-0510			BPS1-SB3063-1015			BPS1-SB3063-1520		
SDG: 50063-27	LAB_ID	1303014-04			1303014-05			1303014-06			1303014-07		
FRACTION: PCB	SAMP_DATE	2/27/2013			2/27/2013			2/27/2013			2/27/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	87.0			97.0			97.0			97.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.015	U		0.013	U		0.013	U		0.013	U	
AROCLOR-1221		0.015	U		0.013	U		0.013	U		0.013	U	
AROCLOR-1232		0.015	U		0.013	U		0.013	U		0.013	U	
AROCLOR-1242		0.015	U		0.013	U		0.013	U		0.013	U	
AROCLOR-1248		0.017	J	P	0.013	U		0.013	U		0.013	U	
AROCLOR-1254		0.015	U		0.013	U		0.013	U		0.013	U	
AROCLOR-1260		0.015	U		0.013	U		0.013	U		0.013	U	
AROCLOR-1262		0.015	U		0.013	U		0.013	U		0.013	U	
AROCLOR-1268		0.015	U		0.013	U		0.013	U		0.013	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3063-2025			BPS1-SB3063-2535			BPS1-SB3063-3545			BPS1-SB3063-4550		
SDG: 50063-27	LAB_ID	1303014-08			1303014-09			1303014-10			1303014-11		
FRACTION: PCB	SAMP_DATE	2/27/2013			2/27/2013			2/27/2013			2/27/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	98.0			97.0			97.0			92.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.013	U		0.013	U		0.013	U		0.014	U	
AROCLOR-1221		0.013	U		0.013	U		0.013	U		0.014	U	
AROCLOR-1232		0.013	U		0.013	U		0.013	U		0.014	U	
AROCLOR-1242		0.013	U		0.013	U		0.013	U		0.014	U	
AROCLOR-1248		0.013	U		0.013	U		0.013	U		0.014	U	
AROCLOR-1254		0.013	U		0.013	U		0.013	U		0.014	U	
AROCLOR-1260		0.013	U		0.013	U		0.013	U		0.014	U	
AROCLOR-1262		0.013	U		0.013	U		0.013	U		0.014	U	
AROCLOR-1268		0.013	U		0.013	U		0.013	U		0.014	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3064-3545			BPS1-SB3064-4547		
SDG: 50063-27	LAB_ID	1303014-01			1303014-02		
FRACTION: PCB	SAMP_DATE	2/27/2013			2/27/2013		
MEDIA: SOIL	QC_TYPE	NM			NM		
	UNITS	MG/KG			MG/KG		
	PCT_SOLIDS	95.0			94.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.014	U		0.014	U	
AROCLOR-1221		0.014	U		0.014	U	
AROCLOR-1232		0.014	U		0.014	U	
AROCLOR-1242		0.014	U		0.014	U	
AROCLOR-1248		0.014	U		0.014	U	
AROCLOR-1254		0.014	U		0.014	U	
AROCLOR-1260		0.014	U		0.014	U	
AROCLOR-1262		0.014	U		0.014	U	
AROCLOR-1268		0.014	U		0.014	U	

PROJ_NO: 02230	NSAMPLE	BPS1-Dup05-20130227			BPS1-Dup06-20130228			BPS1-Dup07-20130301			BPS1-SB3060-1520		
SDG: 50063-27	LAB_ID	1303014-12			1303014-27			1303027-03			1303014-25		
FRACTION: MISC	SAMP_DATE	2/27/2013			2/28/2013			3/1/2013			2/28/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	%			%			%			%		
	PCT_SOLIDS	95.0			91.0			94.0			97.0		
	DUP_OF	BPS1-SB3064-3545			BPS1-SB3061-2535			BPS1-SB3060-2535					
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCENT SOLIDS		95			91			94			97		

PROJ_NO: 02230	NSAMPLE	BPS1-SB3060-2025			BPS1-SB3060-2535			BPS1-SB3060-3540			BPS1-SB3061-1520		
SDG: 50063-27	LAB_ID	1303014-26			1303027-01			1303027-02			1303014-21		
FRACTION: MISC	SAMP_DATE	2/28/2013			3/1/2013			3/1/2013			2/28/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	%			%			%			%		
	PCT_SOLIDS	91.0			94.0			96.0			97.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCENT SOLIDS		91			94			96			97		

PROJ_NO: 02230	NSAMPLE	BPS1-SB3061-2025			BPS1-SB3061-2535			BPS1-SB3061-3540			BPS1-SB3062-0002		
SDG: 50063-27	LAB_ID	1303014-22			1303014-23			1303014-24			1303014-13		
FRACTION: MISC	SAMP_DATE	2/28/2013			2/28/2013			2/28/2013			2/28/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	%			%			%			%		
	PCT_SOLIDS	97.0			90.0			95.0			89.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCENT SOLIDS		97			90			95			89		

PROJ_NO: 02230	NSAMPLE	BPS1-SB3062-0205			BPS1-SB3062-0510			BPS1-SB3062-1015			BPS1-SB3062-1520		
SDG: 50063-27	LAB_ID	1303014-14			1303014-15			1303014-16			1303014-17		
FRACTION: MISC	SAMP_DATE	2/28/2013			2/28/2013			2/28/2013			2/28/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	%			%			%			%		
	PCT_SOLIDS	96.0			97.0			96.0			97.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCENT SOLIDS		96			97			96			97		

PROJ_NO: 02230	NSAMPLE	BPS1-SB3062-2025			BPS1-SB3062-2535			BPS1-SB3062-3540			BPS1-SB3063-0002		
SDG: 50063-27	LAB_ID	1303014-18			1303014-19			1303014-20			1303014-03		
FRACTION: MISC	SAMP_DATE	2/28/2013			2/28/2013			2/28/2013			2/27/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	%			%			%			%		
	PCT_SOLIDS	98.0			92.0			96.0			73.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCENT SOLIDS		98			92			96			73		

PROJ_NO: 02230	NSAMPLE	BPS1-SB3063-0205			BPS1-SB3063-0510			BPS1-SB3063-1015			BPS1-SB3063-1520		
SDG: 50063-27	LAB_ID	1303014-04			1303014-05			1303014-06			1303014-07		
FRACTION: MISC	SAMP_DATE	2/27/2013			2/27/2013			2/27/2013			2/27/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	%			%			%			%		
	PCT_SOLIDS	87.0			97.0			97.0			97.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCENT SOLIDS		87			97			97			97		

PROJ_NO: 02230	NSAMPLE	BPS1-SB3063-2025			BPS1-SB3063-2535			BPS1-SB3063-3545			BPS1-SB3063-4550		
SDG: 50063-27	LAB_ID	1303014-08			1303014-09			1303014-10			1303014-11		
FRACTION: MISC	SAMP_DATE	2/27/2013			2/27/2013			2/27/2013			2/27/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	%			%			%			%		
	PCT_SOLIDS	98.0			97.0			97.0			92.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCENT SOLIDS		98			97			97			92		

PROJ_NO: 02230	NSAMPLE	BPS1-SB3064-3545			BPS1-SB3064-4547		
SDG: 50063-27	LAB_ID	1303014-01			1303014-02		
FRACTION: MISC	SAMP_DATE	2/27/2013			2/27/2013		
MEDIA: SOIL	QC_TYPE	NM			NM		
	UNITS	%			%		
	PCT_SOLIDS	95.0			94.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCENT SOLIDS		95			94		

Tetra Tech INC **INTERNAL CORRESPONDENCE**

TO:	**R. SOK**	**DATE:**	**APRIL 4, 2013**
FROM:	**JOSEPH KALINYAK**	**COPIES:**	**DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – PCB**
NWIRP BETHPAGE, CTO WE44
SAMPLE DELIVERY GROUP SDG 50063-26

SAMPLES: 21 / Soil / PCB

BPS1-Dup01-20130225	BPS1-Dup02-20130225	BPS1-Dup03-20130226
BPS1-Dup04-20130226	BPS1-SB3054-0205	BPS1-SB3055-0002
BPS1-SB3055-0205	BPS1-SB3056-0002	BPS1-SB3057-0205
BPS1-SB3058-0002	BPS1-SB3059-0002	BPS1-SB3064-0205
BPS1-SB3064-0510	BPS1-SB3064-1015	BPS1-SB3064-1520
BPS1-SB3064-2025	BPS1-SB3064-2535	BPS1-SB3065-1520
BPS1-SB3065-2025	BPS1-SB3065-2535	BPS1-SB3065-3540

Overview

The sample set for NWIRP Bethpage, CTO WE44, SDG 50063-26 consisted of twenty-one (21) soil samples. All of the samples were analyzed for polychlorinated biphenyls (PCB) as listed above. Four (4) field duplicate sample pairs were included with this sample delivery group (SDG) and SDG 50063-25; BPS1-Dup01-20130225 / BPS1-SB3066-1520 (from SDG 50063-25), BPS1-Dup02-20130225 / BPS1-SB3065-1520, BPS1-Dup03-20130226 / BPS1-SB3054-0205, and BPS1-Dup04-20130226 / .

The samples were collected by Tetra Tech on February 25 and 26, 2013 and analyzed by Trimatrix Laboratories Inc. All analyses were conducted in accordance with EPA Method SW-846 8082A for PCBs analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters:

*	•	Data completeness
*	•	Hold times
*	•	Initial/continuing Calibrations
*	•	Method Blank Results
*	•	Laboratory Control Sample Recovery
	•	Surrogate Spike Recoveries
*	•	Field Duplicate Precision
*	•	Compound Identification
	•	Compound Quantitation
*	•	Detection Limits

The symbol (*) indicates that all quality control criteria were met for this parameter. Qualified analytical results are presented in Appendix A, results as reported by the laboratory are presented in Appendix B, Region II data validation forms are presented in Appendix C, and documentation supporting these findings is presented in Appendix D.

PCB

Positive results below the Limit of Quantitation (LOQ) and above the Method Detection Limit (MDL) were qualified as estimated, (J), due to uncertainty near the detection limit.

The two analytical column result relative percent differences (RPD) were greater than the 25% quality control limit for the positive Aroclor-1248 results for samples as listed below.

Affected Samples:
BPS1-SB3055-0205 BPS1-SB3064-1015 BPS1-SB3064-2025
Actions: The aforementioned sample Aroclor-1248 results were qualified estimated, (J).

Additional Comments

Sample BPS1-SB3059-0002 had a percent recovery (%R) for the surrogate decachlorobiphenyl (DCB) greater than the quality control limit for analytical column 2.

Affected Sample: BPS1-SB3059-0002
Actions: No validation action was necessary as the sample BPS1-SB3059-0002 positive Aroclor 1248 result was reported from analytical column 1. The remaining Aroclor results were non-detected and were not qualified as the alternate column was compliant.

The DB-35 column 1 results were reported by the laboratory for the positive Aroclor results for all samples.

Samples were diluted for Aroclor analyses as listed below resulting in elevated results for non-detected analytes.

Sample	Dilution
BPS1-Dup04-20130226	10X
BPS1-SB3055-0002	40X
BPS1-SB3056-0002	40X
BPS1-SB3058-0002	4X
BPS1-SB3059-0002	5X

Sample Aroclor analyte results were reported to the Limit of Detection (LOD).

EXECUTIVE SUMMARY

Laboratory Performance Issues: None.

Other Factors Affecting Data Quality: Positive results below the Limit of Quantitation (LOQ) and above the Method Detection Limit (MDL) were qualified as estimated, (J), due to uncertainty near the detection limit. Aroclor-1248 positive sample results were qualified for column RPD non-compliances.

The data for these analyses were reviewed with reference to the SOP HW-45 Revision 1 - October 2006 Data Validation SOP of Organic Analysis of PCBs by Gas Chromatography, USEPA SW-846 Method 8082A, and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (October 2010).

Tetra Tech
Joseph Kalinyak
Chemist/Data Validator

Tetra Tech
Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:
Appendix A - Qualified Analytical Results
Appendix B - Results as Reported by the Laboratory
Appendix C – Region II Data Validation Forms
Appendix D - Support Documentation

Appendix A

Qualified Analytical Results

Value Qualifier Key (Val Qual)

J – The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

UJ – The result is an estimated non-detected quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

U - Value is a non-detect as reported by the laboratory.

UR – Non-detected result is considered rejected, (UR), as a result of technical non-compliances.

DATA QUALIFICATION CODE (QUAL CODE)

Qualifier Codes:

A	=	Lab Blank Contamination
B	=	Field Blank Contamination
C	=	Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01	=	GC/MS Tuning Noncompliance
D	=	MS/MSD Recovery Noncompliance
E	=	LCS/LCSD Recovery Noncompliance
F	=	Lab Duplicate Imprecision
G	=	Field Duplicate Imprecision
H	=	Holding Time Exceedance
I	=	ICP Serial Dilution Noncompliance
J	=	ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K	=	ICP Interference - includes ICS % R Noncompliance
L	=	Instrument Calibration Range Exceedance
M	=	Sample Preservation Noncompliance
N	=	Internal Standard Noncompliance
N01	=	Internal Standard Recovery Noncompliance Dioxins
N02	=	Recovery Standard Noncompliance Dioxins
N03	=	Clean-up Standard Noncompliance Dioxins
O	=	Poor Instrument Performance (i.e., base-time drifting)
P	=	Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q	=	Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R	=	Surrogates Recovery Noncompliance
S	=	Pesticide/PCB Resolution
T	=	% Breakdown Noncompliance for DDT and Endrin
U	=	RPD between columns/detectors >40% for positive results determined via GC/HPLC
V	=	Non-linear calibrations; correlation coefficient $r < 0.995$
W	=	EMPC result
X	=	Signal to noise response drop
Y	=	Percent solids <30%
Z	=	Uncertainty at 2 sigma deviation is less than sample activity
Z1	=	Tentatively Identified Compound considered presumptively present
Z2	=	Tentatively Identified Compound column bleed

PROJ_NO: 02230	NSAMPLE	BPS1-SB3065-0205			BPS1-SB3065-0205RE1			BPS1-SB3065-0510			BPS1-SB3065-1015		
SDG: 50063-25	LAB_ID	1302384-24			1302384-24RE1			1302384-25			1302384-26		
FRACTION: PCB	SAMP_DATE	2/25/2013			2/25/2013			2/25/2013			2/25/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	92.0			92.0			96.0			97.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.014	U					0.014	U		0.013	U	
AROCLOR-1221		0.014	U					0.014	U		0.013	U	
AROCLOR-1232		0.014	U					0.014	U		0.013	U	
AROCLOR-1242		0.014	U					0.014	U		0.013	U	
AROCLOR-1248		0.014	U					0.014	U		0.013	U	
AROCLOR-1254					0.006	J	P	0.014	U		0.013	U	
AROCLOR-1260		0.014	U					0.014	U		0.013	U	
AROCLOR-1262		0.014	U					0.014	U		0.013	U	
AROCLOR-1268		0.014	U					0.014	U		0.013	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3066-0002			BPS1-SB3066-0002RE1			BPS1-SB3066-0205			BPS1-SB3066-0205RE1		
SDG: 50063-25	LAB_ID	1302384-11			1302384-11RE1			1302384-12			1302384-12RE1		
FRACTION: PCB	SAMP_DATE	2/25/2013			2/25/2013			2/25/2013			2/25/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	83.0			83.0			95.0			95.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.32	U					0.014	U				
AROCLOR-1221		0.32	U					0.014	U				
AROCLOR-1232		0.32	U					0.014	U				
AROCLOR-1242		0.32	U					0.014	U				
AROCLOR-1248					4.6	J	P				0.036	J	P
AROCLOR-1254		0.32	U					0.014	U				
AROCLOR-1260		0.32	U					0.014	U				
AROCLOR-1262		0.32	U					0.014	U				
AROCLOR-1268		0.32	U					0.014	U				

PROJ_NO: 02230	NSAMPLE	BPS1-SB3066-0510			BPS1-SB3066-0510RE1			BPS1-SB3066-1013			BPS1-SB3066-1315		
SDG: 50063-25	LAB_ID	1302384-13			1302384-13RE1			1302384-14			1302384-15		
FRACTION: PCB	SAMP_DATE	2/25/2013			2/25/2013			2/25/2013			2/25/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	94.0			94.0			92.0			92.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.014	U					0.014	U		0.014	U	
AROCLOR-1221		0.014	U					0.014	U		0.014	U	
AROCLOR-1232		0.014	U					0.014	U		0.014	U	
AROCLOR-1242		0.014	U					0.014	U		0.014	U	
AROCLOR-1248					0.0076	J	P	0.014	U		0.014	U	
AROCLOR-1254		0.014	U					0.0076	J	P			
AROCLOR-1260		0.014	U					0.014	U		0.014	U	
AROCLOR-1262		0.014	U					0.014	U		0.014	U	
AROCLOR-1268		0.014	U					0.014	U		0.014	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3066-1315RE1			BPS1-SB3066-1520			BPS1-SB3066-2025			BPS1-SB3066-2025RE1		
SDG: 50063-25	LAB_ID	1302384-15RE1			1302384-16			1302384-17			1302384-17RE1		
FRACTION: PCB	SAMP_DATE	2/25/2013			2/25/2013			2/25/2013			2/25/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	92.0			91.0			94.0			94.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016					0.014	U		0.014	U				
AROCLOR-1221					0.014	U		0.014	U				
AROCLOR-1232					0.014	U		0.014	U				
AROCLOR-1242					0.014	U		0.014	U				
AROCLOR-1248					0.014	U		0.014	U				
AROCLOR-1254		0.023	J	PU	0.011	J	P				0.0078	J	P
AROCLOR-1260					0.014	U		0.014	U				
AROCLOR-1262					0.014	U		0.014	U				
AROCLOR-1268					0.014	U		0.014	U				

PROJ_NO: 02230	NSAMPLE	BPS1-SB3067-0002			BPS1-SB3067-0002RE1			BPS1-SB3067-0205			BPS1-SB3067-0205RE1		
SDG: 50063-25	LAB_ID	1302384-18			1302384-18RE1			1302384-19			1302384-19RE1		
FRACTION: PCB	SAMP_DATE	2/25/2013			2/25/2013			2/25/2013			2/25/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	96.0			96.0			98.0			98.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.013	U					0.013	U				
AROCLOR-1221		0.013	U					0.013	U				
AROCLOR-1232		0.013	U					0.013	U				
AROCLOR-1242		0.013	U					0.013	U				
AROCLOR-1248					0.2	J	P				0.0095	J	P
AROCLOR-1254		0.013	U					0.013	U				
AROCLOR-1260		0.013	U					0.013	U				
AROCLOR-1262		0.013	U					0.013	U				
AROCLOR-1268		0.013	U					0.013	U				

PROJ_NO: 02230	NSAMPLE	BPS1-SB3067-0510			BPS1-SB3067-0510RE1			BPS1-SB3067-1015			BPS1-SB3067-1520		
SDG: 50063-25	LAB_ID	1302384-20			1302384-20RE1			1302384-21			1302384-22		
FRACTION: PCB	SAMP_DATE	2/25/2013			2/25/2013			2/25/2013			2/25/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	95.0			95.0			96.0			93.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.014	U					0.014	U		0.014	U	
AROCLOR-1221		0.014	U					0.014	U		0.014	U	
AROCLOR-1232		0.014	U					0.014	U		0.014	U	
AROCLOR-1242		0.014	U					0.014	U		0.014	U	
AROCLOR-1248					0.0098	J	PQU	0.014	U		0.014	U	
AROCLOR-1254		0.014	U					0.014	U		0.014	U	
AROCLOR-1260		0.014	U					0.014	U		0.014	U	
AROCLOR-1262		0.014	U					0.014	U		0.014	U	
AROCLOR-1268		0.014	U					0.014	U		0.014	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3067-2025			BPS1-SB3068-0002			BPS1-SB3068-0002RE1			BPS1-SB3068-0205		
SDG: 50063-25	LAB_ID	1302384-23			1302384-06			1302384-06RE1			1302384-07		
FRACTION: PCB	SAMP_DATE	2/25/2013			2/25/2013			2/25/2013			2/25/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	96.0			94.0			94.0			96.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.014	U		0.14	U					0.014	U	
AROCLOR-1221		0.014	U		0.14	U					0.014	U	
AROCLOR-1232		0.014	U		0.14	U					0.014	U	
AROCLOR-1242		0.014	U		0.14	U					0.014	U	
AROCLOR-1248		0.014	U					1.5	J	P			
AROCLOR-1254		0.014	U		0.14	U					0.014	U	
AROCLOR-1260		0.014	U		0.14	U					0.014	U	
AROCLOR-1262		0.014	U		0.14	U					0.014	U	
AROCLOR-1268		0.014	U		0.14	U					0.014	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3068-0205RE1			BPS1-SB3068-0510			BPS1-SB3068-0510RE1			BPS1-SB3068-1015		
SDG: 50063-25	LAB_ID	1302384-07RE1			1302384-08			1302384-08RE1			1302384-09		
FRACTION: PCB	SAMP_DATE	2/25/2013			2/25/2013			2/25/2013			2/25/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	96.0			95.0			95.0			94.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016					0.014	U					0.014	U	
AROCLOR-1221					0.014	U					0.014	U	
AROCLOR-1232					0.014	U					0.014	U	
AROCLOR-1242					0.014	U					0.014	U	
AROCLOR-1248		0.074	J	P				0.16	J	P			
AROCLOR-1254					0.014	U					0.014	U	
AROCLOR-1260					0.014	U					0.014	U	
AROCLOR-1262					0.014	U					0.014	U	
AROCLOR-1268					0.014	U					0.014	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3068-1015RE1			BPS1-SB3068-1520			BPS1-SB3069-0002			BPS1-SB3069-0002RE1		
SDG: 50063-25	LAB_ID	1302384-09RE1			1302384-10			1302384-01			1302384-01RE1		
FRACTION: PCB	SAMP_DATE	2/25/2013			2/25/2013			2/25/2013			2/25/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	94.0			86.0			90.0			90.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016					0.015	U		0.29	U				
AROCLOR-1221					0.015	U		0.29	U				
AROCLOR-1232					0.015	U		0.29	U				
AROCLOR-1242					0.015	U		0.29	U				
AROCLOR-1248		0.065	J	P	0.015	U					3.3	J	P
AROCLOR-1254					0.015	U		0.29	U				
AROCLOR-1260					0.015	U		0.29	U				
AROCLOR-1262					0.015	U		0.29	U				
AROCLOR-1268					0.015	U		0.29	U				

PROJ_NO: 02230	NSAMPLE	BPS1-SB3069-0205			BPS1-SB3069-0205RE1			BPS1-SB3069-0510			BPS1-SB3069-0510RE1		
SDG: 50063-25	LAB_ID	1302384-02			1302384-02RE1			1302384-03			1302384-03RE1		
FRACTION: PCB	SAMP_DATE	2/25/2013			2/25/2013			2/25/2013			2/25/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	96.0			96.0			95.0			95.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.014	U					0.014	U				
AROCLOR-1221		0.014	U					0.014	U				
AROCLOR-1232		0.014	U					0.014	U				
AROCLOR-1242		0.014	U					0.014	U				
AROCLOR-1248					0.029	J	P				0.0083	J	P
AROCLOR-1254		0.014	U					0.014	U				
AROCLOR-1260		0.014	U					0.014	U				
AROCLOR-1262		0.014	U					0.014	U				
AROCLOR-1268		0.014	U					0.014	U				

PROJ_NO: 02230	NSAMPLE	BPS1-SB3069-1015			BPS1-SB3069-1520		
SDG: 50063-25	LAB_ID	1302384-04			1302384-05		
FRACTION: PCB	SAMP_DATE	2/25/2013			2/25/2013		
MEDIA: SOIL	QC_TYPE	NM			NM		
	UNITS	MG/KG			MG/KG		
	PCT_SOLIDS	94.0			87.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.014	U		0.015	U	
AROCLOR-1221		0.014	U		0.015	U	
AROCLOR-1232		0.014	U		0.015	U	
AROCLOR-1242		0.014	U		0.015	U	
AROCLOR-1248		0.014	U		0.015	U	
AROCLOR-1254		0.014	U		0.015	U	
AROCLOR-1260		0.014	U		0.015	U	
AROCLOR-1262		0.014	U		0.015	U	
AROCLOR-1268		0.014	U		0.015	U	

PROJ_NO: 02230	NSAMPLE	BPS1-Dup01-20130225			BPS1-Dup02-20130225			BPS1-Dup03-20130226			BPS1-Dup04-20130226		
SDG: 50063-26	LAB_ID	1302386-04			1302386-05			1302386-14			1302386-15		
FRACTION: MISC	SAMP_DATE	2/25/2013			2/25/2013			2/26/2013			2/26/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	%			%			%			%		
	PCT_SOLIDS	92.0			96.0			95.0			88.0		
	DUP_OF	BPS1-SB3066-1520			BPS1-SB3065-1520			BPS1-SB3054-0205			BPS1-SB3059-0002		
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCENT SOLIDS		92			96			95			88		

PROJ_NO: 02230	NSAMPLE	BPS1-SB3054-0205			BPS1-SB3055-0002			BPS1-SB3055-0205			BPS1-SB3056-0002		
SDG: 50063-26	LAB_ID	1302386-07			1302386-08			1302386-09			1302386-10		
FRACTION: MISC	SAMP_DATE	2/26/2013			2/26/2013			2/26/2013			2/26/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	%			%			%			%		
	PCT_SOLIDS	96.0			88.0			96.0			90.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCENT SOLIDS		96			88			96			90		

PROJ_NO: 02230	NSAMPLE	BPS1-SB3057-0205			BPS1-SB3058-0002			BPS1-SB3059-0002			BPS1-SB3064-0205		
SDG: 50063-26	LAB_ID	1302386-11			1302386-12			1302386-13			1302386-16		
FRACTION: MISC	SAMP_DATE	2/26/2013			2/26/2013			2/26/2013			2/26/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	%			%			%			%		
	PCT_SOLIDS	93.0			86.0			87.0			94.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCENT SOLIDS		93			86			87			94		

PROJ_NO: 02230	NSAMPLE	BPS1-SB3064-0510			BPS1-SB3064-1015			BPS1-SB3064-1520			BPS1-SB3064-2025		
SDG: 50063-26	LAB_ID	1302386-17			1302386-18			1302386-19			1302386-20		
FRACTION: MISC	SAMP_DATE	2/26/2013			2/26/2013			2/26/2013			2/26/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	%			%			%			%		
	PCT_SOLIDS	96.0			96.0			97.0			97.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCENT SOLIDS		96			96			97			97		

PROJ_NO: 02230	NSAMPLE	BPS1-SB3064-2535			BPS1-SB3065-1520			BPS1-SB3065-2025			BPS1-SB3065-2535		
SDG: 50063-26	LAB_ID	1302386-21			1302386-01			1302386-02			1302386-03		
FRACTION: MISC	SAMP_DATE	2/26/2013			2/25/2013			2/25/2013			2/25/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	%			%			%			%		
	PCT_SOLIDS	96.0			96.0			97.0			89.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCENT SOLIDS		96			96			97			89		

PROJ_NO: 02230	NSAMPLE	BPS1-SB3065-3540		
SDG: 50063-26	LAB_ID	1302386-06		
FRACTION: MISC	SAMP_DATE	2/26/2013		
MEDIA: SOIL	QC_TYPE	NM		
	UNITS	%		
	PCT_SOLIDS	96.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
PERCENT SOLIDS		96		

Tetra Tech INC **INTERNAL CORRESPONDENCE**

TO:	**R. SOK**	**DATE:**	**AUGUST 20, 2013**
FROM:	**JOSEPH KALINYAK**	**COPIES:**	**DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – PCB**
NWIRP BETHPAGE, CTO WE44
SAMPLE DELIVERY GROUP (SDG) – 50063-29

SAMPLES: 2 / Aqueous / PCB

BPS1-FB-20130605 BPS1-RB-20130605

25 / Soil / PCB

BPS1-Dup01-20130605	BPS1-Dup02-20130607	BPS1-Dup03-20130607
BPS1-SB3070-2527	BPS1-SB3070-2830	BPS1-SB3070-3035
BPS1-SB3070-3540	BPS1-SB3071-2025	BPS1-SB3071-2530
BPS1-SB3071-3035	BPS1-SB3071-3540	BPS1-SB3072-2025
BPS1-SB3072-2530	BPS1-SB3072-3035	BPS1-SB3072-3540
BPS1-SB3073-4045	BPS1-SB3073-4550	BPS1-SB3073-5055
BPS1-SB3073-5560	BPS1-SB3073-6065	BPS1-SB3074-4045
BPS1-SB3074-4550	BPS1-SB3074-5055	BPS1-SB3074-5560
BPS1-SB3074-6065		

Overview

The sample set for NWIRP Bethpage, CTO WE44, SDG 50063-29 consisted of twenty-five (25) soil samples and two (2) aqueous samples including one (1) rinse aqueous blank sample and one (1) aqueous field blank sample. All of the samples were analyzed for polychlorinated biphenyls (PCB) as listed above. Three (3) field duplicate sample pairs were included with this sample delivery group (SDG); BPS1-Dup01-20130605 / BPS1-SB3074-5055, BPS1-Dup02-20130607 / BPS1-SB3070-3035, and BPS1-Dup03-20130607 / BPS1-SB3071-2530.

The samples were collected by Tetra Tech on June 4, 5, 6, and 7, 2013 and analyzed by Trimatrix Laboratories Inc. All analyses were conducted in accordance with EPA Method SW-846 8082A for PCBs analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters:

- * Data completeness
- * Hold times
- * Initial/continuing Calibrations
- Method Blank Results
- * Laboratory Control Sample Recovery
- * Surrogate Spike Recoveries
- * Matrix Spike/Matrix Spike Duplicate Recoveries
- * Field Duplicate Precision
- * Compound Identification

* • Compound Quantitation
* • Detection Limits

The symbol (*) indicates that all quality control criteria were met for this parameter. Qualified analytical results are presented in Appendix A, results as reported by the laboratory are presented in Appendix B, Region II data validation forms are presented in Appendix C, and documentation supporting these findings is presented in Appendix D.

PCB

Positive results below the Limit of Quantitation (LOQ) and above the Method Detection Limit (MDL) were qualified as estimated, (J), due to uncertainty near the detection limit.

Aroclor 1248 was detected in the method blank batch 1306113 at the following maximum concentration.

Analyte	Maximum Conc. mg/kg	Action Level mg/kg
Aroclor 1248 (1)	0.0052	0.0260

(1) Method blank for batch 1306113 affecting samples listed below BPS1-Dup02-20130607, BPS1-Dup03-20130607, BPS1-SB3071-2530, BPS1-SB3071-3035, and BPS1-SB3071-3540.

An action level of five times the maximum level for the Aroclor 1248 contaminant has been used to evaluate sample data for blank contamination. Sample aliquot, percent solids, and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Positive sample results less than the action level were qualified non-detected, (U).

The relative percent difference (RPD) between columns was greater than the 25% quality control limit for the detected Aroclor-1248 results for samples listed below.

Affected Samples: BPS1-SB3073-4550 BPS1-SB3073-5560

Actions: The aforementioned Aroclor-1248 results were qualified estimated, (J).

Additional Comments

The DB-35 column 1 results were reported by the laboratory for the detected Aroclor results for all samples.

The following samples were diluted resulting in elevated non-detected analyte reporting limits:

Sample	Dilution
BPS1-Dup02-20130607	20X
BPS1-SB3070-2527	500X
BPS1-SB3070-2830	100X
BPS1-SB3070-3035	20X
BPS1-SB3072-2530	10000X
BPS1-SB3072-3035	10X

Sample Aroclor analyte results were reported to the Limit of Detection (LOD).

EXECUTIVE SUMMARY

Laboratory Performance Issues: Positive sample Aroclor 1248 results were qualified for method blank contamination.

Other Factors Affecting Data Quality: Positive results below the Limit of Quantitation (LOQ) and above the Method Detection Limit (MDL) were qualified as estimated, (J), due to uncertainty near the detection limit. Aroclor-1248 positive sample results were qualified for column RPD non-compliances.

The data for these analyses were reviewed with reference to the SOP HW-45 Revision 1 - October 2006 Data Validation SOP of Organic Analysis of PCBs by Gas Chromatography, USEPA SW-846 Method 8082A, and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (October 2010).

Tetra Tech
Joseph Kalinyak
Chemist/Data Validator

Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A - Qualified Analytical Results
Appendix B - Results as Reported by the Laboratory
Appendix C – Region II Data Validation Forms
Appendix D - Support Documentation

Appendix A

Qualified Analytical Results

Value Qualifier Key (Val Qual)

J – The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

UJ – The result is an estimated non-detected quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

U - Value is a non-detect as reported by the laboratory.

UR – Non-detected result is considered rejected, (UR), as a result of technical non-compliances.

DATA QUALIFICATION CODE (QUAL CODE)

Qualifier Codes:

A	=	Lab Blank Contamination
B	=	Field Blank Contamination
C	=	Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01	=	GC/MS Tuning Noncompliance
D	=	MS/MSD Recovery Noncompliance
E	=	LCS/LCSD Recovery Noncompliance
F	=	Lab Duplicate Imprecision
G	=	Field Duplicate Imprecision
H	=	Holding Time Exceedance
I	=	ICP Serial Dilution Noncompliance
J	=	ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K	=	ICP Interference - includes ICS % R Noncompliance
L	=	Instrument Calibration Range Exceedance
M	=	Sample Preservation Noncompliance
N	=	Internal Standard Noncompliance
N01	=	Internal Standard Recovery Noncompliance Dioxins
N02	=	Recovery Standard Noncompliance Dioxins
N03	=	Clean-up Standard Noncompliance Dioxins
O	=	Poor Instrument Performance (i.e., base-time drifting)
P	=	Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q	=	Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R	=	Surrogates Recovery Noncompliance
S	=	Pesticide/PCB Resolution
T	=	% Breakdown Noncompliance for DDT and Endrin
U	=	RPD between columns/detectors >40% for positive results determined via GC/HPLC
V	=	Non-linear calibrations; correlation coefficient $r < 0.995$
W	=	EMPC result
X	=	Signal to noise response drop
Y	=	Percent solids <30%
Z	=	Uncertainty at 2 sigma deviation is less than sample activity
Z1	=	Tentatively Identified Compound considered presumptively present
Z2	=	Tentatively Identified Compound column bleed

PROJ_NO: 02230	NSAMPLE	BPS1-FB-20130605			BPS1-RB-20130605		
SDG: 50063-29	LAB_ID	1306102-06			1306102-07		
FRACTION: PCB	SAMP_DATE	6/5/2013			6/5/2013		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.08	U		0.085	U	
AROCLOR-1221		0.08	U		0.085	U	
AROCLOR-1232		0.08	U		0.085	U	
AROCLOR-1242		0.08	U		0.085	U	
AROCLOR-1248		0.08	U		0.085	U	
AROCLOR-1254		0.08	U		0.085	U	
AROCLOR-1260		0.08	U		0.085	U	
AROCLOR-1262		0.08	U		0.085	U	
AROCLOR-1268		0.08	U		0.085	U	

PROJ_NO: 02230	NSAMPLE	BPS1-Dup01-20130605			BPS1-Dup02-20130607			BPS1-Dup02-20130607RE1			BPS1-Dup03-20130607		
SDG: 50063-29	LAB_ID	1306102-13			1306173-13			1306173-13RE1			1306173-14		
FRACTION: PCB	SAMP_DATE	6/5/2013			6/7/2013			6/7/2013			6/7/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	91.0			96.0			96.0			87.0		
	DUP_OF	BPS1-SB3074-5055			BPS1-SB3070-3035			BPS1-SB3070-3035			BPS1-SB3071-2530		
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.014	U		0.27	U					0.015	U	
AROCLOR-1221		0.014	U		0.27	U					0.015	U	
AROCLOR-1232		0.014	U		0.27	U					0.015	U	
AROCLOR-1242		0.014	U		0.27	U					0.015	U	
AROCLOR-1248		0.014	U					5.1	J	P			
AROCLOR-1254		0.014	U		0.27	U					0.015	U	
AROCLOR-1260		0.014	U		0.27	U					0.015	U	
AROCLOR-1262		0.014	U		0.27	U					0.015	U	
AROCLOR-1268		0.014	U		0.27	U					0.015	U	

PROJ_NO: 02230	NSAMPLE	BPS1-Dup03-20130607RE1			BPS1-SB3070-2527			BPS1-SB3070-2527RE1			BPS1-SB3070-2830		
SDG: 50063-29	LAB_ID	1306173-14RE1			1306173-05			1306173-05RE1			1306173-06		
FRACTION: PCB	SAMP_DATE	6/7/2013			6/7/2013			6/7/2013			6/7/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	87.0			76.0			76.0			88.0		
	DUP_OF	BPS1-SB3071-2530											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016					8.5	U					1.5	U	
AROCLOR-1221					8.5	U					1.5	U	
AROCLOR-1232					8.5	U					1.5	U	
AROCLOR-1242					8.5	U					1.5	U	
AROCLOR-1248		0.024	U	A				170	J	P			
AROCLOR-1254					8.5	U					1.5	U	
AROCLOR-1260					8.5	U					1.5	U	
AROCLOR-1262					8.5	U					1.5	U	
AROCLOR-1268					8.5	U					1.5	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3070-2830RE1			BPS1-SB3070-3035			BPS1-SB3070-3035RE1			BPS1-SB3070-3540		
SDG: 50063-29	LAB_ID	1306173-06RE1			1306173-07			1306173-07RE1			1306173-08		
FRACTION: PCB	SAMP_DATE	6/7/2013			6/7/2013			6/7/2013			6/7/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	88.0			96.0			96.0			95.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016					0.27	U					0.014	U	
AROCLOR-1221					0.27	U					0.014	U	
AROCLOR-1232					0.27	U					0.014	U	
AROCLOR-1242					0.27	U					0.014	U	
AROCLOR-1248		23	J	P				4.7	J	P			
AROCLOR-1254					0.27	U					0.014	U	
AROCLOR-1260					0.27	U					0.014	U	
AROCLOR-1262					0.27	U					0.014	U	
AROCLOR-1268					0.27	U					0.014	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3070-3540RE1			BPS1-SB3071-2025			BPS1-SB3071-2025RE1			BPS1-SB3071-2530		
SDG: 50063-29	LAB_ID	1306173-08RE1			1306173-09			1306173-09RE1			1306173-10		
FRACTION: PCB	SAMP_DATE	6/7/2013			6/7/2013			6/7/2013			6/7/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	95.0			97.0			97.0			89.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016					0.013	U					0.015	U	
AROCLOR-1221					0.013	U					0.015	U	
AROCLOR-1232					0.013	U					0.015	U	
AROCLOR-1242					0.013	U					0.015	U	
AROCLOR-1248		0.13	J	P				0.045	J	P			
AROCLOR-1254					0.013	U					0.015	U	
AROCLOR-1260					0.013	U					0.015	U	
AROCLOR-1262					0.013	U					0.015	U	
AROCLOR-1268					0.013	U					0.015	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3071-2530RE1			BPS1-SB3071-3035			BPS1-SB3071-3035RE1			BPS1-SB3071-3540		
SDG: 50063-29	LAB_ID	1306173-10RE1			1306173-11			1306173-11RE1			1306173-12		
FRACTION: PCB	SAMP_DATE	6/7/2013			6/7/2013			6/7/2013			6/7/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	89.0			95.0			95.0			96.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016					0.014	U					0.014	U	
AROCLOR-1221					0.014	U					0.014	U	
AROCLOR-1232					0.014	U					0.014	U	
AROCLOR-1242					0.014	U					0.014	U	
AROCLOR-1248		0.025	U	A				0.014	U	A			
AROCLOR-1254					0.014	U					0.014	U	
AROCLOR-1260					0.014	U					0.014	U	
AROCLOR-1262					0.014	U					0.014	U	
AROCLOR-1268					0.014	U					0.014	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3071-3540RE1			BPS1-SB3072-2025			BPS1-SB3072-2530			BPS1-SB3072-2530RE1		
SDG: 50063-29	LAB_ID	1306173-12RE1			1306173-01			1306173-02			1306173-02RE1		
FRACTION: PCB	SAMP_DATE	6/7/2013			6/6/2013			6/6/2013			6/6/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	96.0			97.0			88.0			88.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016					0.013	U		150	U				
AROCLOR-1221					0.013	U		150	U				
AROCLOR-1232					0.013	U		150	U				
AROCLOR-1242					0.013	U		150	U				
AROCLOR-1248		0.035	J	P	0.013	U					3000	J	P
AROCLOR-1254					0.013	U		150	U				
AROCLOR-1260					0.013	U		150	U				
AROCLOR-1262					0.013	U		150	U				
AROCLOR-1268					0.013	U		150	U				

PROJ_NO: 02230	NSAMPLE	BPS1-SB3072-3035			BPS1-SB3072-3035RE1			BPS1-SB3072-3540			BPS1-SB3072-3540RE1		
SDG: 50063-29	LAB_ID	1306173-03			1306173-03RE1			1306173-04			1306173-04RE1		
FRACTION: PCB	SAMP_DATE	6/6/2013			6/6/2013			6/6/2013			6/6/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	96.0			96.0			95.0			95.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.14	U					0.014	U				
AROCLOR-1221		0.14	U					0.014	U				
AROCLOR-1232		0.14	U					0.014	U				
AROCLOR-1242		0.14	U					0.014	U				
AROCLOR-1248					2.6	J	P				0.076	J	P
AROCLOR-1254		0.14	U					0.014	U				
AROCLOR-1260		0.14	U					0.014	U				
AROCLOR-1262		0.14	U					0.014	U				
AROCLOR-1268		0.14	U					0.014	U				

PROJ_NO: 02230	NSAMPLE	BPS1-SB3073-4045			BPS1-SB3073-4045RE1			BPS1-SB3073-4550			BPS1-SB3073-4550RE1		
SDG: 50063-29	LAB_ID	1306102-01			1306102-01RE1			1306102-02			1306102-02RE1		
FRACTION: PCB	SAMP_DATE	6/4/2013			6/4/2013			6/4/2013			6/4/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	92.0			92.0			92.0			92.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.014	U					0.014	U				
AROCLOR-1221		0.014	U					0.014	U				
AROCLOR-1232		0.014	U					0.014	U				
AROCLOR-1242		0.014	U					0.014	U				
AROCLOR-1248					0.012	J	P				0.007	J	PU
AROCLOR-1254		0.014	U					0.014	U				
AROCLOR-1260		0.014	U					0.014	U				
AROCLOR-1262		0.014	U					0.014	U				
AROCLOR-1268		0.014	U					0.014	U				

PROJ_NO: 02230	NSAMPLE	BPS1-SB3073-5055			BPS1-SB3073-5560			BPS1-SB3073-5560RE1			BPS1-SB3073-6065		
SDG: 50063-29	LAB_ID	1306102-03			1306102-04			1306102-04RE1			1306102-05		
FRACTION: PCB	SAMP_DATE	6/4/2013			6/4/2013			6/4/2013			6/4/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	91.0			85.0			85.0			78.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.014	U		0.015	U					0.017	U	
AROCLOR-1221		0.014	U		0.015	U					0.017	U	
AROCLOR-1232		0.014	U		0.015	U					0.017	U	
AROCLOR-1242		0.014	U		0.015	U					0.017	U	
AROCLOR-1248		0.014	U					0.011	J	PU			
AROCLOR-1254		0.014	U		0.015	U					0.017	U	
AROCLOR-1260		0.014	U		0.015	U					0.017	U	
AROCLOR-1262		0.014	U		0.015	U					0.017	U	
AROCLOR-1268		0.014	U		0.015	U					0.017	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3073-6065RE1			BPS1-SB3074-4045			BPS1-SB3074-4550			BPS1-SB3074-5055		
SDG: 50063-29	LAB_ID	1306102-05RE1			1306102-08			1306102-09			1306102-10		
FRACTION: PCB	SAMP_DATE	6/4/2013			6/5/2013			6/5/2013			6/5/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	78.0			94.0			94.0			91.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016					0.014	U		0.014	U		0.014	U	
AROCLOR-1221					0.014	U		0.014	U		0.014	U	
AROCLOR-1232					0.014	U		0.014	U		0.014	U	
AROCLOR-1242					0.014	U		0.014	U		0.014	U	
AROCLOR-1248		0.017	J	P	0.014	U		0.014	U		0.014	U	
AROCLOR-1254					0.014	U		0.014	U		0.014	U	
AROCLOR-1260					0.014	U		0.014	U		0.014	U	
AROCLOR-1262					0.014	U		0.014	U		0.014	U	
AROCLOR-1268					0.014	U		0.014	U		0.014	U	

PROJ_NO: 02230	NSAMPLE	BPS1-SB3074-5560			BPS1-SB3074-5560RE1			BPS1-SB3074-6065			BPS1-SB3074-6065RE1		
SDG: 50063-29	LAB_ID	1306102-11			1306102-11RE1			1306102-12			1306102-12RE1		
FRACTION: PCB	SAMP_DATE	6/5/2013			6/5/2013			6/5/2013			6/5/2013		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	89.0			89.0			88.0			88.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.015	U					0.015	U				
AROCLOR-1221		0.015	U					0.015	U				
AROCLOR-1232		0.015	U					0.015	U				
AROCLOR-1242		0.015	U					0.015	U				
AROCLOR-1248					0.015	J	P				0.031	J	P
AROCLOR-1254		0.015	U					0.015	U				
AROCLOR-1260		0.015	U					0.015	U				
AROCLOR-1262		0.015	U					0.015	U				
AROCLOR-1268		0.015	U					0.015	U				

APPENDIX G

SUPPORTING INFORMATION FOR HUMAN HEALTH RISK ASSESSMENT

G.1 Samples Used in Risk Assessment
G.2 RAGS Part D Tables
G.3 ProUCL Outputs
G.4 Sample Calculations

APPENDIX G.1

SAMPLES USED IN RISK ASSESSMENT

TABLE 1
SAMPLES USED IN THE HUMAN HEALTH RISH ASSESSMENT
SITE 1

Surface Soil	Shallow Subsurface Soil		Deep Subsurface Soil		Saturated Subsurface Soil
BPS1-SB3013-0002	BPS1-SB3013-0510	BPS1-SB3032-0610	BPS1-SB3004-27.528	BPS1-SB3021-3035	BPS1-SB3004-116.0116.5
BPS1-SB3014-0002	BPS1-SB3013-1015	BPS1-SB3032-1015	BPS1-SB3004-3434.5	BPS1-SB3021-3545	BPS1-SB3004-154154.5
BPS1-SB3015-0002	BPS1-SB3014-0205	BPS1-SB3033-0206	BPS1-SB3004-3737.5	BPS1-SB3022-1520	BPS1-SB3004-180190
BPS1-SB3016-0002	BPS1-SB3014-0510	BPS1-SB3033-0610	BPS1-SB3004-4242.5	BPS1-SB3022-2025	BPS1-SB3004-235.0235.5
BPS1-SB3017-0002	BPS1-SB3014-1015	BPS1-SB3033-1015	BPS1-SB3004-4747.5	BPS1-SB3022-2535	BPS1-SB3004-5454.5
BPS1-SB3018-0002	BPS1-SB3015-0205	BPS1-SB3034-0206	BPS1-SB3004-4949.5	BPS1-SB3022-3545	BPS1-SB3004-64.565
BPS1-SB3019-0002	BPS1-SB3015-0510	BPS1-SB3034-0610	BPS1-SB3005-27.528.0	BPS1-SB3022-4555	BPS1-SB3005-145.0145.5
BPS1-SB3020-0002	BPS1-SB3015-1015	BPS1-SB3034-1015	BPS1-SB3005-34.034.5	BPS1-SB3024-1520	BPS1-SB3005-180190
BPS1-SB3021-0002	BPS1-SB3020-0205	BPS1-SB3035-0206	BPS1-SB3005-37.538.0	BPS1-SB3024-2025	BPS1-SB3005-232.5233.0
BPS1-SB3022-0002	BPS1-SB3020-0510	BPS1-SB3035-0610	BPS1-SB3005-43.043.5	BPS1-SB3025-2535	BPS1-SB3005-54.555.0
BPS1-SB3023-0002	BPS1-SB3020-1015	BPS1-SB3035-1015	BPS1-SB3005-49.049.5	BPS1-SB3025-3545	BPS1-SB3005-57.558.0
BPS1-SB3024-0002	BPS1-SB3021-0205	BPS1-SB3036-0206	BPS1-SB3006-32.032.5	BPS1-SB3025-4555	BPS1-SB3005-94.595.0
BPS1-SB3031-0002	BPS1-SB3021-0510	BPS1-SB3036-0610	BPS1-SB3007-37.538.0	BPS1-SB3028-2535	BPS1-SB3006-117.0117.5
BPS1-SB3032-0002	BPS1-SB3021-1015	BPS1-SB3036-1015	BPS1-SB3013-2535	BPS1-SB3028-3545	BPS1-SB3006-181.0181.5
BPS1-SB3033-0002	BPS1-SB3022-0205	BPS1-SB3044-0205	BPS1-SB3013-3540	BPS1-SB3028-4555	BPS1-SB3006-226.5227.0
BPS1-SB3034-0002	BPS1-SB3022-0510	BPS1-SB3044-0510	BPS1-SB3020-1520	BPS1-SB3062-1520	BPS1-SB3006-53.053.5
BPS1-SB3035-0002	BPS1-SB3022-1015	BPS1-SB3044-1015	BPS1-SB3020-2025	BPS1-SB3062-2025	BPS1-SB3006-72.072.5
BPS1-SB3036-0002	BPS1-SB3023-0205	BPS1-SB3054-0205	BPS1-SB3020-2530	BPS1-SB3062-2535	BPS1-SB3007-100.0100.5
BPS1-SB3040-0002	BPS1-SB3023-0510	BPS1-SB3055-0205	BPS1-SB3020-3035	BPS1-SB3062-3540	BPS1-SB3007-140150
BPS1-SB3041-0002	BPS1-SB3023-1015	BPS1-SB3057-0205	BPS1-SB3020-3545	BPS1-SB3063-1520	BPS1-SB3007-217.5218.0
BPS1-SB3042-0002	BPS1-SB3024-0205	BPS1-SB3062-0205	BPS1-SB3020-4555	BPS1-SB3063-2025	BPS1-SB3007-240.250
BPS1-SB3043-0002	BPS1-SB3024-0510	BPS1-SB3062-0510	BPS1-SB3021-1520	BPS1-SB3063-2535	BPS1-SB3007-57.057.5
BPS1-SB3044-0002	BPS1-SB3024-1015	BPS1-SB3062-1015	BPS1-SB3021-2025	BPS1-SB3063-3545	BPS1-SB3020-5560
BPS1-SB3045-0002	BPS1-SB3031-0205	BPS1-SB3063-0205	BPS1-SB3021-2530	BPS1-SB3063-4550	BPS1-SB3021-5565
BPS1-SB3046-0002	BPS1-SB3031-0510	BPS1-SB3063-0510			BPS1-SB3021-7075
BPS1-SB3047-0002	BPS1-SB3031-1015	BPS1-SB3063-1015			BPS1-SB3022-5565
BPS1-SB3048-0002	BPS1-SB3032-0206				BPS1-SB3022-6575
BPS1-SB3049-0002					BPS1-SB3025-5565
BPS1-SB3050-0002					BPS1-SB3025-6575
BPS1-SB3051-0002					BPS1-SB3028-5565
BPS1-SB3052-0002					BPS1-SB3028-6575
BPS1-SB3053-0002					
BPS1-SB3054-0002					
BPS1-SB3055-0002					
BPS1-SB3056-0002					
BPS1-SB3058-0002					
BPS1-SB3059-0002					
BPS1-SB3062-0002					
BPS1-SB3063-0002					

TABLE 2
SAMPLES USED IN THE HUMAN HEALTH RISH ASSESSMENT
GROUNDWATER

BPS1-HN-29I-20101201	BPS1-HN-MW27I-20130218	BPS1-TT-MW303I2-20110301	BPS1-TT-MW304S-20110303
BPS1-HN-MW29I-01192012	BPS1-HN-MW29I-20121114	BPS1-TT-MW303I2-20121105	BPS1-TT-MW304S-20121106
BPS1-HN-MW29I-01192012	BPS1-TT-MW302D-01202012	BPS1-TT-MW303S-01232012	BPS1-TT-MW305D-01172012
BPS1-HN-MW29I-01192012-D	BPS1-TT-MW302D-20101129	BPS1-TT-MW303S-01232012	BPS1-TT-MW305D-20121115
BPS1-HN-MW29I-20110302	BPS1-TT-MW302D-20110301	BPS1-TT-MW303S-01232012-D	BPS1-TT-MW305I-01172012
BPS1-FW-MW01-01192012	BPS1-TT-MW302D-20121101	BPS1-TT-MW303S-20101130	BPS1-TT-MW305I-20121108
BPS1-FW-MW01-20101130	BPS1-TT-MW302I1-01202012	BPS1-TT-MW303S-20101130	BPS1-TT-MW305I-20121108
BPS1-FW-MW01-20110302	BPS1-TT-MW302I1-20101130	BPS1-TT-MW303S-20101130-D	BPS1-TT-MW305I-20121108-D
BPS1-FW-MW01-20121114	BPS1-TT-MW302I1-20110301	BPS1-TT-MW303S-20110301	BPS1-TT-MW305S-01172012
BRMW04101	BPS1-TT-MW302I1-20121101	BPS1-TT-MW303S-20121101	BPS1-TT-MW305S-01172012
BRMW1011	BPS1-TT-MW302I2-01202012	BPS1-TT-MW304D-01192012	BPS1-TT-MW305S-01172012-D
BPS1-FW-MW02-01172012	BPS1-TT-MW302I2-20101129	BPS1-TT-MW304D-20101130	BPS1-TT-MW305S-20121115
BPS1-FW-MW02-20101130	BPS1-TT-MW302I2-20110301	BPS1-TT-MW304D-20110302	BPS1-TT-MW305S-20121115
BPS1-FW-MW02-20101130	BPS1-TT-MW302I2-20121105	BPS1-TT-MW304D-20110302	BPS1-TT-MW305S-20121115-D
BPS1-FW-MW02-20101130-D	BPS1-TT-MW302S-01202012	BPS1-TT-MW304D-20110302-D	BPS1-TT-MW306D-01232012
BPS1-FW-MW02-20110302	BPS1-TT-MW302S-20101130	BPS1-TT-MW304D-20121109	BPS1-TT-MW306D-20121108
BPS1-FW-MW02-20121114	BPS1-TT-MW302S-20110301	BPS1-TT-MW304I1-01182012	BPS1-TT-MW306I-01232012
BRMW04102	BPS1-TT-MW302S-20121115	BPS1-TT-MW304I1-20101201	BPS1-TT-MW306I-20121108
BRMW1021	BPS1-TT-MW303D-01192012	BPS1-TT-MW304I1-20110302	BPS1-TT-MW306S-01232012
BPS1-FW-MW03-01192012	BPS1-TT-MW303D-20101129	BPS1-TT-MW304I1-20121106	BPS1-TT-MW306S-20121116
BPS1-FW-MW03-20101130	BPS1-TT-MW303D-20110301	BPS1-TT-MW304I2-01182012	BPS1-TT-MW307D-01182012
BPS1-FW-MW03-20110303	BPS1-TT-MW303D-20121105	BPS1-TT-MW304I2-01182012	BPS1-TT-MW307D-20121106
BPS1-FW-MW03-20121114	BPS1-TT-MW303I1-01192012	BPS1-TT-MW304I2-01182012-D	BPS1-TT-MW307I-01182012
BRMW04103	BPS1-TT-MW303I1-20101130	BPS1-TT-MW304I2-20101130	BPS1-TT-MW307I-20121106
BRMW04104	BPS1-TT-MW303I1-20110301	BPS1-TT-MW304I2-20110303	BPS1-TT-MW307I-20121106
BRMW1031	BPS1-TT-MW303I1-20121102	BPS1-TT-MW304I2-20121108	BPS1-TT-MW307I-20121106-D
BRMW1041	BPS1-TT-MW303I2-01192012	BPS1-TT-MW304S-01182012	BPS1-TT-MW307S-01182012
BPS1-HN-MW27I-20121114	BPS1-TT-MW303I2-20101129	BPS1-TT-MW304S-20101201	BPS1-TT-MW307S-20121116

TABLE 3
SAMPLES USED IN THE HUMAN HEALTH RISH ASSESSMENT
DRY WELLS

Dry Well 20-08 Deep Subsurface Soil	Dry Well 20-08 Saturated Subsurface Soil	Dry Well 20-08 Shallow Subsurface Soil	Dry Well 34-07 Deep Subsurface Soil	Dry Well 34-07 Saturated Subsurface Soil
BPS1-SB3008-37.037.5	BPS1-SB3008-161.0161.5	BPS1-SB3029-0205	BPS1-SB3009-27.027.5	BPS1-SB3009-140.0140.5
BPS1-SB3026-4555	BPS1-SB3008-200210	BPS1-SB3029-0510	BPS1-SB3009-36.036.5	BPS1-SB3009-209.0209.5
BPS1-SB3027-2535	BPS1-SB3008-234.5235.0	BPS1-SB3029-1015	BPS1-SB3029-1520	BPS1-SB3009-51.051.5
BPS1-SB3027-3545	BPS1-SB3008-52.052.5	BPS1-SB3029-1520	BPS1-SB3029-2025	BPS1-SB3009-96.096.5
BPS1-SB3027-4555	BPS1-SB3008-86.587.0		BPS1-SB3029-2535	BPS1-SB3029-5565
BPS1-SB3060-1520	BPS1-SB3026-5565		BPS1-SB3029-3545	
BPS1-SB3060-2025	BPS1-SB3026-6575		BPS1-SB3029-4555	
BPS1-SB3060-2535	BPS1-SB3027-5565		BPS1-SB3030-2535	
BPS1-SB3060-3540	BPS1-SB3027-6575		BPS1-SB3030-3545	
BPS1-SB3061-1520			BPS1-SB3030-4555	
BPS1-SB3061-2025				
BPS1-SB3061-2535				
BPS1-SB3061-3540				

APPENDIX G.2

RAGS-PART D TABLES

RAGS Part D Table 1

Selection of Exposure Pathways

TABLE 1
SELECTION OF EXPOSURE PATHWAYS
NWIRP BETHPAGE
BETHPAGE, NEW YORK

Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway
Current/Future	Surface Soil (0 - 2 feet bgs)	Surface Soil	Site 1	Construction Workers	Adult	Ingestion Dermal	Quant Quant	Construction workers may have contact with surface soil during excavation activities.
				Industrial Worker	Adult	Ingestion Dermal	Quant Quant	Industrial workers may contact surface soil during normal work activities.
				Trespassers	Adolescent	Ingestion Dermal	Quant Quant	Trespassers may contact surface soil while at the site.
		Air	Site 1	Construction Workers	Adult	Inhalation	Quant	Construction workers may be exposed to fugitive dust and volatile emissions during construction activities.
				Industrial Worker	Adult	Inhalation	Quant	Industrial workers may be exposed to fugitive dust and volatile emissions during work activities.
				Trespassers	Adolescent	Inhalation	Quant	Trespassers may be exposed to fugitive dust and volatile emissions while at the site.
	Subsurface Soil (2 - 15 feet bgs)	Subsurface Soil	Site 1	Construction Workers	Adult	Ingestion Dermal	Quant Quant	Construction workers may have contact with subsurface soil during excavation activities.
				Industrial Worker	Adult	Ingestion Dermal	Quant Quant	Although exposures to subsurface soil by industrial workers is considered unlikely at the site this scenario is included to aid in future risk management decisions.
				Trespassers	Adolescent	Ingestion Dermal	Quant Quant	Although exposures to subsurface soil by trespassers is considered unlikely at the site this scenario is included to aid in future risk management decisions.
		Air	Site 1	Construction Workers	Adult	Inhalation	Quant	Construction workers may have contact with subsurface soil during excavation activities.
				Industrial Worker	Adult	Inhalation	Quant	Although exposures to subsurface soil by industrial workers is considered unlikely at the site this scenario is included to aid in future risk management decisions.
				Trespassers	Adolescent	Inhalation	Quant	Although exposures to subsurface soil by trespassers is considered unlikely at the site this scenario is included to aid in future risk management decisions.
			Off-SIte	Off-SIte Residents	Child	Inhalation	Qual	Off-Site Residents may be exposed to COPCs that have volatilized from soil and migrated through building foundations into indoor air.
					Adult	Inhalation	Qual	
	Groundwater	Groundwater	Dry Well 34-07	Construction Workers	Adult	Ingestion Dermal	None None	Construction workers may have contact with groundwater during excavation activities.
				Industrial Worker	Adult	Ingestion Dermal	None None	Industrial workers are not exposed to be exposed to COPCs that have volatilized from groundwater.
				Trespassers	Adolescent	Ingestion Dermal	None None	Current trespassers are not exposed to groundwater.
		Air	Site 1	Construction Workers	Adult	Inhalation	Quant	Construction workers may be exposed to chemicals which have volatilized from groundwater.
				Industrial Worker	Adult	Inhalation	None	Industrial workers are not exposed to be exposed to COPCs that have volatilized from groundwater.
				Trespassers	Adolescent	Inhalation	None	Current trespassers are not exposed to groundwater.

TABLE 1
SELECTION OF EXPOSURE PATHWAYS
NWIRP BETHPAGE
BETHPAGE, NEW YORK

Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway
Current/Future	Surface Soil (0 - 2 feet bgs)	Surface Soil	Dry Well 34-07	Construction Workers	Adult	Ingestion Dermal	None None	Surface is paved, therefore no surface soil samples were collected at Dry Well 34-07.
				Industrial Worker	Adult	Ingestion Dermal	None None	
				Trespassers	Adolescent	Ingestion Dermal	None None	
		Air	Dry Well 34-07	Construction Workers	Adult	Inhalation	None	
				Industrial Worker	Adult	Inhalation	None	
				Trespassers	Adolescent	Inhalation	None	
	Subsurface Soil (2 - 15 feet bgs)	Subsurface Soil	Dry Well 34-07	Construction Workers	Adult	Ingestion Dermal	Quant Quant	Construction workers may have contact with subsurface soil during excavation activities.
				Industrial Worker	Adult	Ingestion Dermal	Quant Quant	Although exposures to subsurface soil by industrial workers is considered unlikely at the site this scenario is included to aid in future risk management decisions.
				Trespassers	Adolescent	Ingestion Dermal	Quant Quant	Although exposures to subsurface soil by trespassers is considered unlikely at the site this scenario is included to aid in future risk management decisions.
		Air	Dry Well 34-07	Construction Workers	Adult	Inhalation	Quant	Construction workers may have contact with subsurface soil during excavation activities.
				Industrial Worker	Adult	Inhalation	Quant	Although exposures to subsurface soil by industrial workers is considered unlikely at the site this scenario is included to aid in future risk management decisions.
				Trespassers	Adolescent	Inhalation	Quant	Although exposures to subsurface soil by trespassers is considered unlikely at the site this scenario is included to aid in future risk management decisions.
Future	Surface Soil	Surface Soil	Site 1	Residents	Child	Ingestion Dermal	Quant Quant	Although a future residential scenario is considered unlikely at the site this scenario is included to aid in future risk management decisions.
					Adult	Ingestion Dermal	Quant Quant	
		Air	Site 1	Residents	Child	Inhalation	Quant	Although a future residential scenario is considered unlikely at the site this scenario is included to aid in future risk management decisions.
					Adult	Inhalation	Quant	
	Subsurface Soil	Subsurface Soil	Site 1	Residents	Child	Ingestion Dermal	Quant Quant	Although a future residential scenario is considered unlikely at the site this scenario is included to aid in future risk management decisions.
					Adult	Ingestion Dermal	Quant Quant	
		Air	Site 1	Residents	Child	Inhalation	Quant	Although a future residential scenario is considered unlikely at the site this scenario is included to aid in future risk management decisions.
					Adult	Inhalation	Quant	

TABLE 1
SELECTION OF EXPOSURE PATHWAYS
NWIRP BETHPAGE
BETHPAGE, NEW YORK

Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway
Future	Groundwater	Groundwater	Site 1	Residents	Child	Ingestion	Quant	Although a future residential scenario is considered unlikely at the site this scenario is included to aid in future risk management decisions.
						Dermal	Quant	
					Adult	Ingestion	Quant	
						Dermal	Quant	
		Air	Site 1	Residents	Child	Inhalation	Quant	Although a future residential scenario is considered unlikely at the site this scenario is included to aid in future risk management decisions.
					Adult	Inhalation	Quant	
			Vapor Intrusion	Residents	Child	Inhalation	Qual	Hypothetical residents could be exposed to COPCs that have volatilized from groundwater and migrated through building foundations and into indoor air.
					Adult	Inhalation	Qual	
	Surface Soil	Surface Soil	Dry Well 34-07	Residents	Child	Ingestion	None	Surface is paved, therefore no surface soil samples were collected at Dry Well 34-07.
						Dermal	None	
					Adult	Ingestion	None	
						Dermal	None	
		Air	Dry Well 34-07	Residents	Child	Inhalation	None	
					Adult	Inhalation	None	
	Subsurface Soil	Subsurface Soil	Dry Well 34-07	Residents	Child	Ingestion	Quant	Although a future residential scenario is considered unlikely at the site this scenario is included to aid in future risk management decisions.
						Dermal	Quant	
					Adult	Ingestion	Quant	
						Dermal	Quant	
		Air	Dry Well 34-07	Residents	Child	Inhalation	Quant	Although a future residential scenario is considered unlikely at the site this scenario is included to aid in future risk management decisions.
					Adult	Inhalation	Quant	

BGS = Below ground surface.
COPC = Chemical Of Potential Concern.
PCBs = Polychlorinated biphenyls.
Qual - Qualitative.
Quant - Quantitative.

RAGS Part D Table 2

Occurrence, Distribution and Selection Of Chemicals of Potential Concern

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OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN

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TABLE 2.1
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - DIRECT CONTACT WITH SURFACE SOIL (0 - 2 FEET BGS)
NWIRP BETHPAGE
BETHPAGE, NEW YORK

Scenario Timeframe: Current/Future
Medium: Surface Soil
Exposure Medium: Surface Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	Adjusted USEPA RSL Residential Soil[5]	Potential ARAR/TBC	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection[6]
Site 1 Proper	**PCBs**														
	12672-29-6	**Aroclor-1248**	24 J	150,000	ug/kg	BPS1-SB3053-0002	39/39	-	150,000	NA	**220 C**	NA	NA	**Yes**	ASL
	11097-69-1	**Aroclor-1254**	11 J	28,000	ug/kg	BPS1-SB3044-0002	29/39	53 - 15000	28,000	NA	**110 N[7]**	NA	NA	**Yes**	ASL
	37324-23-5	Aroclor-1262	210 J	210 J	ug/kg	BPS1-SB3047-0002	1/39	13 - 15000	210	NA	220 N[8]	NA	NA	No	BSL

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - No background data is available.
5 - USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, November 2013. The noncarcinogenic values (denoted with a "N" flag) are the screening level divided by 10 to correspond to a target hazard quotient of 0.1. Carcinogenic values represent an incremental cancer risk of 1.0E-06 (carcinogens denoted with a "C" flag).
6 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level.
7 - Ten percent of the noncarcinogenic value is less than the carcinogenic value, therefore the noncarcinogenic value is presented.
8 - Value is for Aroclor-1260.
Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Associated Samples

BPS1-SB3013-0002	BPS1-SB3042-0002
BPS1-SB3014-0002	BPS1-SB3043-0002
BPS1-SB3015-0002	BPS1-SB3044-0002
BPS1-SB3016-0002	BPS1-SB3045-0002
BPS1-SB3017-0002	BPS1-SB3046-0002
BPS1-SB3018-0002	BPS1-SB3047-0002
BPS1-SB3019-0002	BPS1-SB3048-0002
BPS1-SB3020-0002	BPS1-SB3049-0002
BPS1-SB3021-0002	BPS1-SB3050-0002
BPS1-SB3022-0002	BPS1-SB3051-0002
BPS1-SB3023-0002	BPS1-SB3052-0002
BPS1-SB3024-0002	BPS1-SB3053-0002
BPS1-SB3031-0002	BPS1-SB3054-0002
BPS1-SB3032-0002	BPS1-SB3055-0002
BPS1-SB3033-0002	BPS1-SB3056-0002
BPS1-SB3034-0002	BPS1-SB3058-0002
BPS1-SB3035-0002	BPS1-SB3059-0002
BPS1-SB3036-0002	BPS1-SB3062-0002
BPS1-SB3040-0002	BPS1-SB3063-0002
BPS1-SB3041-0002	

Definitions:
ARAR/TBC = Applicable or Relevant and Appropriate Requirements To Be Considered
BGS = Below ground surface
C = Carcinogen
COPC = Chemical Of Potential Concern
J = Estimated value
N = Noncarcinogen
NA = Not Applicable/Not Available

Rationale Codes:
For selection as a COPC:
ASL = Above Screening Level

For elimination as a COPC:
BSL = Below COPC Screening Level

TABLE 2.2
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - MIGRATION FROM SURFACE SOIL TO GROUNDWATER (0 - 2 FEET BGS)
NWIRP BETHPAGE
BETHPAGE, NEW YORK

Scenario Timeframe: Current/Future
Medium: Surface Soil
Exposure Medium: Surface Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration(1)	Maximum Concentration(1)	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects(2)	Concentration Used for Screening(3)	Range of Background Concentrations(4)	USEPA RSL Protection of Groundwater(5)	Potential ARAR/TBC	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection(6)
Site 1 Proper	**PCBs**														
	12672-29-6	**Aroclor-1248**	24 J	150,000	ug/kg	BPS1-SB3053-0002	39/39	-	150,000	NA	**5.2**	NA	NA	**Yes**	ASL
	11097-69-1	**Aroclor-1254**	11 J	28,000	ug/kg	BPS1-SB3044-0002	29/39	53 - 15000	28,000	NA	**8.8**	NA	NA	**Yes**	ASL
	37324-23-5	**Aroclor-1262**	210 J	210 J	ug/kg	BPS1-SB3047-0002	1/39	13 - 15000	210	NA	**24** (7)	NA	NA	**Yes**	ASL

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - No background data is available.
5 - USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, November 2013.
6 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level.
7 - Value is for Aroclor-1260.
Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Associated Samples

BPS1-SB3013-0002	BPS1-SB3042-0002
BPS1-SB3014-0002	BPS1-SB3043-0002
BPS1-SB3015-0002	BPS1-SB3044-0002
BPS1-SB3016-0002	BPS1-SB3045-0002
BPS1-SB3017-0002	BPS1-SB3046-0002
BPS1-SB3018-0002	BPS1-SB3047-0002
BPS1-SB3019-0002	BPS1-SB3048-0002
BPS1-SB3020-0002	BPS1-SB3049-0002
BPS1-SB3021-0002	BPS1-SB3050-0002
BPS1-SB3022-0002	BPS1-SB3051-0002
BPS1-SB3023-0002	BPS1-SB3052-0002
BPS1-SB3024-0002	BPS1-SB3053-0002
BPS1-SB3031-0002	BPS1-SB3054-0002
BPS1-SB3032-0002	BPS1-SB3055-0002
BPS1-SB3033-0002	BPS1-SB3056-0002
BPS1-SB3034-0002	BPS1-SB3058-0002
BPS1-SB3035-0002	BPS1-SB3059-0002
BPS1-SB3036-0002	BPS1-SB3062-0002
BPS1-SB3040-0002	BPS1-SB3063-0002
BPS1-SB3041-0002	

Definitions:
ARAR/TBC = Applicable or Relevant and Appropriate Requirements To Be Considered
BGS = Below ground surface
COPC = Chemical Of Potential Concern
J = Estimated value
NA = Not Applicable/Not Available

Rationale Codes:
For selection as a COPC:
ASL = Above Screening Level

For elimination as a COPC:
BSL = Below COPC Screening Level

TABLE 2.3
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - DIRECT CONTACT WITH SHALLOW SUBSURFACE SOIL (2 TO 15 FEET BGS)
NWIRP BETHPAGE
BETHPAGE, NEW YORK

Scenario Timeframe: Current/Future
Medium: Shallow Subsurface Soil
Exposure Medium: Shallow Subsurface Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration(1)	Maximum Concentration(1)	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects(2)	Concentration Used for Screening(3)	Range of Background Concentrations(4)	Adjusted USEPA RSL Residential Soil(5)	Potential ARAR/TBC	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection(6)
Site 1 Proper	**PCBs**														
	53469-21-9	**Aroclor-1242**	560	560	ug/kg	BPS1-SB3013-0510	1/53	13 - 1400	560	NA	**220 C**	NA	NA	**Yes**	ASL
	12672-29-6	**Aroclor-1248**	3.8 J	21,000	ug/kg	BPS1-SB3015-0205	28/53	13 - 29	21,000	NA	**220 C**	NA	NA	**Yes**	ASL
	11097-69-1	**Aroclor-1254**	3.8 J	13,000	ug/kg	BPS1-SB3015-0205	23/53	13 - 72	13,000	NA	**110 N(7)**	NA	NA	**Yes**	ASL

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - No background data is available.
5 - USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, November 2013. The noncarcinogenic values (denoted with a "N" flag) are the screening level divided by 10 to correspond to a target hazard quotient of 0.1. Carcinogenic values represent an incremental cancer risk of 1.0E-06 (carcinogens denoted with a "C" flag).
6 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level
7 - Ten percent of the noncarcinogenic value is less than the carcinogenic value, therefore the noncarcinogenic value is presented.
Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Associated Samples

BPS1-SB3013-0510	BPS1-SB3023-0510	BPS1-SB3035-0610
BPS1-SB3013-1015	BPS1-SB3023-1015	BPS1-SB3035-1015
BPS1-SB3014-0205	BPS1-SB3024-0205	BPS1-SB3036-0206
BPS1-SB3014-0510	BPS1-SB3024-0510	BPS1-SB3036-0610
BPS1-SB3014-1015	BPS1-SB3024-1015	BPS1-SB3036-1015
BPS1-SB3015-0205	BPS1-SB3031-0205	BPS1-SB3044-0205
BPS1-SB3015-0510	BPS1-SB3031-0510	BPS1-SB3044-0510
BPS1-SB3015-1015	BPS1-SB3031-1015	BPS1-SB3044-1015
BPS1-SB3020-0205	BPS1-SB3032-0206	BPS1-SB3054-0205
BPS1-SB3020-0510	BPS1-SB3032-0610	BPS1-SB3055-0205
BPS1-SB3020-1015	BPS1-SB3032-1015	BPS1-SB3057-0205
BPS1-SB3021-0205	BPS1-SB3033-0206	BPS1-SB3062-0205
BPS1-SB3021-0510	BPS1-SB3033-0610	BPS1-SB3062-0510
BPS1-SB3021-1015	BPS1-SB3033-1015	BPS1-SB3062-1015
BPS1-SB3022-0205	BPS1-SB3034-0206	BPS1-SB3063-0205
BPS1-SB3022-0510	BPS1-SB3034-0610	BPS1-SB3063-0510
BPS1-SB3022-1015	BPS1-SB3034-1015	BPS1-SB3063-1015
BPS1-SB3023-0205	BPS1-SB3035-0206	

Definitions:
ARAR/TBC = Applicable or Relevant and Appropriate Requirements To Be Considered
BGS = Below ground surface
C = Carcinogen
COPC = Chemical Of Potential Concern
J = Estimated value
N = Noncarcinogen
NA = Not Applicable/Not Available

Rationale Codes:
For selection as a COPC:
ASL = Above Screening Level

For elimination as a COPC:
BSL = Below COPC Screening Level

TABLE 2.4
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - MIGRATION FROM SHALLOW SUBSURFACE SOIL TO GROUNDWATER (2 TO 15 FEET BGS)
NWIRP BETHPAGE
BETHPAGE, NEW YORK

Scenario Timeframe: Current/Future
Medium: Shallow Subsurface Soil
Exposure Medium: Shallow Subsurface Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration(1)	Maximum Concentration(1)	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects(2)	Concentration Used for Screening(3)	Range of Background Concentrations(4)	USEPA RSL Protection of Groundwater(5)	Potential ARAR/TBC	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection(6)
Site 1 Proper	**PCBs**														
	53469-21-9	**Aroclor-1242**	560	560	ug/kg	BPS1-SB3013-0510	1/53	13 - 1400	560	NA	**5.3**	NA	NA	**Yes**	ASL
	12672-29-6	**Aroclor-1248**	3.8 J	21,000	ug/kg	BPS1-SB3015-0205	28/53	13 - 29	21,000	NA	**5.2**	NA	NA	**Yes**	ASL
	11097-69-1	**Aroclor-1254**	3.8 J	13,000	ug/kg	BPS1-SB3015-0205	23/53	13 - 72	13,000	NA	**8.8**	NA	NA	**Yes**	ASL

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - No background data is available.
5 - USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, November 2013.
6 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level.
Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Associated Samples

BPS1-SB3013-0510	BPS1-SB3023-0510	BPS1-SB3035-0610
BPS1-SB3013-1015	BPS1-SB3023-1015	BPS1-SB3035-1015
BPS1-SB3014-0205	BPS1-SB3024-0205	BPS1-SB3036-0206
BPS1-SB3014-0510	BPS1-SB3024-0510	BPS1-SB3036-0610
BPS1-SB3014-1015	BPS1-SB3024-1015	BPS1-SB3036-1015
BPS1-SB3015-0205	BPS1-SB3031-0205	BPS1-SB3044-0205
BPS1-SB3015-0510	BPS1-SB3031-0510	BPS1-SB3044-0510
BPS1-SB3015-1015	BPS1-SB3031-1015	BPS1-SB3044-1015
BPS1-SB3020-0205	BPS1-SB3032-0206	BPS1-SB3054-0205
BPS1-SB3020-0510	BPS1-SB3032-0610	BPS1-SB3055-0205
BPS1-SB3020-1015	BPS1-SB3032-1015	BPS1-SB3057-0205
BPS1-SB3021-0205	BPS1-SB3033-0206	BPS1-SB3062-0205
BPS1-SB3021-0510	BPS1-SB3033-0610	BPS1-SB3062-0510
BPS1-SB3021-1015	BPS1-SB3033-1015	BPS1-SB3062-1015
BPS1-SB3022-0205	BPS1-SB3034-0206	BPS1-SB3063-0205
BPS1-SB3022-0510	BPS1-SB3034-0610	BPS1-SB3063-0510
BPS1-SB3022-1015	BPS1-SB3034-1015	BPS1-SB3063-1015
BPS1-SB3023-0205	BPS1-SB3035-0206	

Definitions:
ARAR/TBC = Applicable or Relevant and Appropriate Requirements To Be Considered
BGS = Below ground surface
COPC = Chemical Of Potential Concern
J = Estimated value
NA = Not Applicable/Not Available

Rationale Codes:
For selection as a COPC:
ASL = Above Screening Level

For elimination as a COPC:
BSL = Below COPC Screening Level

TABLE 2.5
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - DIRECT CONTACT WITH DEEP SUBSURFACE SOIL (15 TO 50 FEET BGS)
NWIRP BETHPAGE
BETHPAGE, NEW YORK

Scenario Timeframe: Current/Future
Medium: Deep Subsurface Soil
Exposure Medium: Deep Subsurface Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	Adjusted USEPA RSL Residential Soil[5]	Potential ARAR/TBC	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection[6]
Site 1 Proper	**PCBs**														
	53469-21-9	Aroclor-1242	18 J	18 J	ug/kg	BPS1-SB3005-43.043.5	1/48	13 - 16	18	NA	220 C	NA	NA	No	BSL
	12672-29-6	**Aroclor-1248**	15 J	15,000 J	ug/kg	BPS1-SB3006-32.032.5	9/48	7 - 14	15,000	NA	**220 C**	NA	NA	**Yes**	ASL
	11097-69-1	Aroclor-1254	5.9 J	27 J	ug/kg	BPS1-SB3020-2530	3/48	13 - 16	27	NA	110 N[7]	NA	NA	No	BSL

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - No background data is available.
5 - USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, November 2013. The noncarcinogenic values (denoted with a "N" flag) are the screening level divided by 10 to correspond to a target hazard quotient of 0.1. Carcinogenic values represent an incremental cancer risk of 1.0E-06 (carcinogens denoted with a "C" flag).
6 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level
7 - Ten percent of the noncarcinogenic value is less than the carcinogenic value, therefore the noncarcinogenic value is presented.
Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Associated Samples

BPS1-SB3004-27.528	BPS1-SB3021-3035
BPS1-SB3004-3434.5	BPS1-SB3021-3545
BPS1-SB3004-3737.5	BPS1-SB3022-1520
BPS1-SB3004-4242.5	BPS1-SB3022-2025
BPS1-SB3004-4747.5	BPS1-SB3022-2535
BPS1-SB3004-4949.5	BPS1-SB3022-3545
BPS1-SB3005-27.528.0	BPS1-SB3022-4555
BPS1-SB3005-34.034.5	BPS1-SB3024-1520
BPS1-SB3005-37.538.0	BPS1-SB3024-2025
BPS1-SB3005-43.043.5	BPS1-SB3025-2535
BPS1-SB3005-49.049.5	BPS1-SB3025-3545
BPS1-SB3006-32.032.5	BPS1-SB3025-4555
BPS1-SB3007-37.538.0	BPS1-SB3028-2535
BPS1-SB3013-2535	BPS1-SB3028-3545
BPS1-SB3013-3540	BPS1-SB3028-4555
BPS1-SB3020-1520	BPS1-SB3062-1520
BPS1-SB3020-2025	BPS1-SB3062-2025
BPS1-SB3020-2530	BPS1-SB3062-2535
BPS1-SB3020-3035	BPS1-SB3062-3540
BPS1-SB3020-3545	BPS1-SB3063-1520
BPS1-SB3020-4555	BPS1-SB3063-2025
BPS1-SB3021-1520	BPS1-SB3063-2535
BPS1-SB3021-2025	BPS1-SB3063-3545
BPS1-SB3021-2530	BPS1-SB3063-4550

Definitions:
ARAR/TBC = Applicable or Relevant and Appropriate Requirements To Be Considered
BGS = Below ground surface
C = Carcinogen
COPC = Chemical Of Potential Concern
J = Estimated value
N = Noncarcinogen
NA = Not Applicable/Not Available

Rationale Codes:
For selection as a COPC:
ASL = Above Screening Level

For elimination as a COPC:
BSL = Below COPC Screening Level

TABLE 2.6
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - MIGRATION FROM DEEP SUBSURFACE SOIL TO GROUNDWATER (15 TO 50 FEET BGS)
NWIRP BETHPAGE
BETHPAGE, NEW YORK

Scenario Timeframe: Current/Future
Medium: Deep Subsurface Soil
Exposure Medium: Deep Subsurface Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration(1)	Maximum Concentration(1)	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects(2)	Concentration Used for Screening(3)	Range of Background Concentrations(4)	USEPA RSL Protection of Groundwater(5)	Potential ARAR/TBC	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection(6)
Site 1 Proper	**PCBs**														
	53469-21-9	**Aroclor-1242**	18 J	18 J	ug/kg	BPS1-SB3005-43.043.5	1/48	13 - 16	18	NA	**5.3**	NA	NA	**Yes**	ASL
	12672-29-6	**Aroclor-1248**	15 J	15,000 J	ug/kg	BPS1-SB3006-32.032.5	9/48	7 - 14	15,000	NA	**5.2**	NA	NA	**Yes**	ASL
	11097-69-1	**Aroclor-1254**	5.9 J	27 J	ug/kg	BPS1-SB3020-2530	3/48	13 - 16	27	NA	**8.8**	NA	NA	**Yes**	ASL

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - No background data is available.
5 - USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, November 2013.
6 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level.
Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Associated Samples

BPS1-SB3004-27.528	BPS1-SB3021-3035
BPS1-SB3004-3434.5	BPS1-SB3021-3545
BPS1-SB3004-3737.5	BPS1-SB3022-1520
BPS1-SB3004-4242.5	BPS1-SB3022-2025
BPS1-SB3004-4747.5	BPS1-SB3022-2535
BPS1-SB3004-4949.5	BPS1-SB3022-3545
BPS1-SB3005-27.528.0	BPS1-SB3022-4555
BPS1-SB3005-34.034.5	BPS1-SB3024-1520
BPS1-SB3005-37.538.0	BPS1-SB3024-2025
BPS1-SB3005-43.043.5	BPS1-SB3025-2535
BPS1-SB3005-49.049.5	BPS1-SB3025-3545
BPS1-SB3006-32.032.5	BPS1-SB3025-4555
BPS1-SB3007-37.538.0	BPS1-SB3028-2535
BPS1-SB3013-2535	BPS1-SB3028-3545
BPS1-SB3013-3540	BPS1-SB3028-4555
BPS1-SB3020-1520	BPS1-SB3062-1520
BPS1-SB3020-2025	BPS1-SB3062-2025
BPS1-SB3020-2530	BPS1-SB3062-2535
BPS1-SB3020-3035	BPS1-SB3062-3540
BPS1-SB3020-3545	BPS1-SB3063-1520
BPS1-SB3020-4555	BPS1-SB3063-2025
BPS1-SB3021-1520	BPS1-SB3063-2535
BPS1-SB3021-2025	BPS1-SB3063-3545
BPS1-SB3021-2530	BPS1-SB3063-4550

Definitions:
ARAR/TBC = Applicable or Relevant and Appropriate Requirements To Be Considered
BGS = Below ground surface
COPC = Chemical Of Potential Concern
J = Estimated value
NA = Not Applicable/Not Available

Rationale Codes:
For selection as a COPC:
ASL = Above Screening Level

For elimination as a COPC:
BSL = Below COPC Screening Level

TABLE 2.7
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - DIRECT CONTACT WITH SATURATED SOIL (GREATER THAN 50 FEET BGS)
NWIRP BETHPAGE
BETHPAGE, NEW YORK

Scenario Timeframe: Current/Future
Medium: Saturated Soil
Exposure Medium: Saturated Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration(1)	Maximum Concentration(1)	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects(2)	Concentration Used for Screening(3)	Range of Background Concentrations(4)	Adjusted USEPA RSL Residential Soil(5)	Potential ARAR/TBC	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection(6)
Site 1 Proper	**Volatile Organic Compounds**														
	71-55-6	1,1,1-Trichloroethane	26 J	26 J	ug/kg	BPS1-SB3005-54.555.0	1/14	26 - 33	26	NA	870,000 N	NA	NA	No	BSL
	127-18-4	Tetrachloroethene	120	120	ug/kg	BPS1-SB3005-54.555.0	1/14	26 - 33	120	NA	8,600 N(7)	NA	NA	No	BSL
	PCBs														
	53469-21-9	**Aroclor-1242**	110,000 J	160,000 J	ug/kg	BPS1-SB3005-54.555.0	2/31	14 - 17	160,000	NA	**220 C**	NA	NA	**Yes**	ASL
	12672-29-6	Aroclor-1248	4 J	22 J	ug/kg	BPS1-SB3006-53.053.5	7/31	7.3 - 16	22	NA	220 C	NA	NA	No	BSL
	11096-82-5	**Aroclor-1260**	800 J	910 J	ug/kg	BPS1-SB3005-54.555.0	2/31	14 - 17	910	NA	**220 C**	NA	NA	**Yes**	ASL

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - No background data is available.
5 - USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, November 2013. The noncarcinogenic values (denoted with a "N" flag) are the screening level divided by 10 to correspond to a target hazard quotient of 0.1. Carcinogenic values represent an incremental cancer risk of 1.0E-06 (carcinogens denoted with a "C" flag).
6 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level
7 - Ten percent of the noncarcinogenic value is less than the carcinogenic value, therefore the noncarcinogenic value is presented.
Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Associated Samples

BPS1-SB3004-116.0116.5	BPS1-SB3006-72.072.5
BPS1-SB3004-154154.5	BPS1-SB3007-100.0100.5
BPS1-SB3004-180190	BPS1-SB3007-140150
BPS1-SB3004-235.0235.5	BPS1-SB3007-217.5218.0
BPS1-SB3004-5454.5	BPS1-SB3007-240.250
BPS1-SB3004-64.565	BPS1-SB3007-57.057.5
BPS1-SB3005-145.0145.5	BPS1-SB3020-5560
BPS1-SB3005-180190	BPS1-SB3021-5565
BPS1-SB3005-232.5233.0	BPS1-SB3021-7075
BPS1-SB3005-54.555.0	BPS1-SB3022-5565
BPS1-SB3005-57.558.0	BPS1-SB3022-6575
BPS1-SB3005-94.595.0	BPS1-SB3025-5565
BPS1-SB3006-117.0117.5	BPS1-SB3025-6575
BPS1-SB3006-181.0181.5	BPS1-SB3028-5565
BPS1-SB3006-226.5227.0	BPS1-SB3028-6575
BPS1-SB3006-53.053.5	

Definitions:
ARAR/TBC = Applicable or Relevant and Appropriate Requirements To Be Considered
BGS = Below ground surface
C = Carcinogen
COPC = Chemical Of Potential Concern
J = Estimated value
N = Noncarcinogen
NA = Not Applicable/Not Available

Rationale Codes:
For selection as a COPC:
ASL = Above Screening Level

For elimination as a COPC:
BSL = Below COPC Screening Level

TABLE 2.8
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - MIGRATION FROM SATURATED TO GROUNDWATER (GREATER THAN 50 FEET BGS)
NWIRP BETHPAGE
BETHPAGE, NEW YORK

Scenario Timeframe: Current/Future
Medium: Saturated Soil
Exposure Medium: Saturated Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration(1)	Maximum Concentration(1)	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects(2)	Concentration Used for Screening(3)	Range of Background Concentrations(4)	USEPA RSL Protection of Groundwater(5)	Potential ARAR/TBC	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection(6)
Site 1 Proper	**Volatile Organic Compounds**														
	71-55-6	1,1,1-Trichloroethane	26 J	26 J	ug/kg	BPS1-SB3005-54.555.0	1/14	26 - 33	26	NA	2,600	NA	NA	No	BSL
	127-18-4	**Tetrachloroethene**	120	120	ug/kg	BPS1-SB3005-54.555.0	1/14	26 - 33	120	NA	**4.4**	NA	NA	**Yes**	ASL
	PCBs														
	53469-21-9	**Aroclor-1242**	110,000 J	160,000 J	ug/kg	BPS1-SB3005-54.555.0	2/31	14 - 17	160,000	NA	**5.3**	NA	NA	**Yes**	ASL
	12672-29-6	**Aroclor-1248**	4 J	22 J	ug/kg	BPS1-SB3006-53.053.5	7/31	7.3 - 16	22	NA	**5.2**	NA	NA	**Yes**	ASL
	11096-82-5	**Aroclor-1260**	800 J	910 J	ug/kg	BPS1-SB3005-54.555.0	2/31	14 - 17	910	NA	**24**	NA	NA	**Yes**	ASL

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - No background data is available.
5 - USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, November 2013.
6 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level.
Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Associated Samples

BPS1-SB3004-116.0116.5	BPS1-SB3006-72.072.5
BPS1-SB3004-154154.5	BPS1-SB3007-100.0100.5
BPS1-SB3004-180190	BPS1-SB3007-140150
BPS1-SB3004-235.0235.5	BPS1-SB3007-217.5218.0
BPS1-SB3004-5454.5	BPS1-SB3007-240.250
BPS1-SB3004-64.565	BPS1-SB3007-57.057.5
BPS1-SB3005-145.0145.5	BPS1-SB3020-5560
BPS1-SB3005-180190	BPS1-SB3021-5565
BPS1-SB3005-232.5233.0	BPS1-SB3021-7075
BPS1-SB3005-54.555.0	BPS1-SB3022-5565
BPS1-SB3005-57.558.0	BPS1-SB3022-6575
BPS1-SB3005-94.595.0	BPS1-SB3025-5565
BPS1-SB3006-117.0117.5	BPS1-SB3025-6575
BPS1-SB3006-181.0181.5	BPS1-SB3028-5565
BPS1-SB3006-226.5227.0	BPS1-SB3028-6575
BPS1-SB3006-53.053.5	

Definitions:
ARAR/TBC = Applicable or Relevant and Appropriate Requirements To Be Considered
BGS = Below ground surface
COPC = Chemical Of Potential Concern
J = Estimated value
NA = Not Applicable/Not Available

Rationale Codes:
For selection as a COPC:
ASL = Above Screening Level

For elimination as a COPC:
BSL = Below COPC Screening Level

TABLE 2.9
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - DIRECT CONTACT WITH GROUNDWATER
NWIRP BETHPAGE
BETHPAGE, NEW YORK

Scenario Timeframe: Current/Future
Medium: Groundwater
Exposure Medium: Groundwater

Exposure Point	CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	Adjusted USEPA RSL Tapwater[5]	USEPA MCL[6]	COPC Flag	Rationale for Contaminant Deletion or Selection[7]
Site 1	**Dissolved Metals**													
	7440-47-3	**Chromium**	0.23 J	22	ug/L	BPS1-TT-MW304I1-20121106	5/5	-	22	NA	**0.031 C[8]**	100	**Yes**	ASL
	7439-89-6	Iron	8.2 J	260	ug/L	BPS1-TT-MW303I1-20121102	5/5	-	260	NA	1,100 N	NA	No	BSL
	Metals													
	7429-90-5	**Aluminum**	5.7 J	2,800 J	ug/L	BPS1-TT-MW304I1-20110302	7/7	-	2,800	NA	**1,600 N**	NA	**Yes**	ASL
	7440-38-2	**Arsenic**	0.3 J	5.2	ug/L	BPS1-TT-MW304I1-20110302	3/7	0.5 - 0.5	5.2	NA	**0.045 C**	10	**Yes**	ASL
	7440-39-3	Barium	2.2	43	ug/L	BPS1-HN-MW29I-20110302	7/7	-	43	NA	290 N	2,000	No	BSL
	7440-43-9	Cadmium	0.043 J	0.11 J	ug/L	BPS1-TT-MW303S-20110301	4/7	0.1 - 0.1	0.11	NA	0.69 N	5	No	BSL
	7440-70-2	Calcium	2,100	25,000	ug/L	BPS1-HN-MW29I-20110302	8/8	-	25,000	NA	NA	NA	No	NUT
	7440-47-3	**Chromium**	0.63 J	200	ug/L	BPS1-TT-MW304I2-01182012	59/59	-	200	NA	**0.031 C[8]**	**100**	**Yes**	ASL
	7440-48-4	**Cobalt**	0.18 J	1.5	ug/L	BPS1-TT-MW304I1-20110302	7/7	-	1.5	NA	**0.47 N**	NA	**Yes**	ASL
	7440-50-8	Copper	0.62 J	4.4	ug/L	BPS1-HN-MW29I-20110302	7/7	-	4.4	NA	62 N	1,300	No	BSL
	7439-89-6	**Iron**	10 J	6,000	ug/L	BPS1-TT-MW303I1-01192012	59/59	-	6,000	NA	**1,100 N**	NA	**Yes**	ASL
	7439-92-1	Lead	0.34 J	0.8 J	ug/L	BPS1-TT-MW304I1-20110302	3/7	0.5 - 0.5	0.8	NA	15	15	No	BSL
	7439-95-4	Magnesium	280 J	1,500	ug/L	BPS1-TT-MW304I1-20110302	7/7	-	1,500	NA	NA	NA	No	NUT
	7439-96-5	Manganese	1.1 J	12	ug/L	BPS1-TT-MW302S-20110301	7/7	-	12	NA	32 N	NA	No	BSL
	7440-02-0	Nickel	0.86 J	5.8	ug/L	BPS1-TT-MW304D-20110302-D	7/7	-	5.8	NA	30 N	NA	No	BSL
	7440-09-7	Potassium	290	1,900	ug/L	BPS1-TT-MW303S-20110301	7/7	-	1,900	NA	NA	NA	No	NUT
	7440-22-4	Silver	0.05 J	0.17 J	ug/L	BPS1-TT-MW304I1-20110302	4/7	0.1 - 0.1	0.17	NA	7.1 N	NA	No	BSL
	7440-23-5	Sodium	2,100	29,000	ug/L	BPS1-TT-MW304I1-20110302	9/9	-	29,000	NA	NA	NA	No	NUT
	7440-28-0	**Thallium**	0.03 J	0.066 J	ug/L	BPS1-TT-MW303S-20110301	2/7	0.1 - 0.1	0.066	NA	**0.016 N**	2	**Yes**	ASL
	7440-62-2	Vanadium	0.11 J	4.9	ug/L	BPS1-HN-MW29I-20110302	5/7	0.2 - 1	4.9	NA	6.3 N	NA	No	BSL
	7440-66-6	Zinc	4 J	25	ug/L	BPS1-TT-MW304I2-20110303	6/7	4 - 4	25	NA	470 N	NA	No	BSL
	Miscellaneous Parameters													
	18540-29-9	**Hexavalent Chromium**	0.4 J	182	ug/L	BPS1-TT-MW304I2-01182012-D	13/29	1 - 1	182	NA	**0.031 C**	NA	**Yes**	ASL
	PCBs													
	53469-21-9	**Aroclor-1242**	0.052 J	4 J	ug/L	BPS1-TT-MW304D-20101130	36/84	0.08 - 0.32	4	NA	**0.034 C**	**0.5**	**Yes**	ASL
	12672-29-6	**Aroclor-1248**	0.18 J	4.2	ug/L	BPS1-TT-MW304D-01192012	37/84	0.042 - 0.55	4.2	NA	**0.034 C**	**0.5**	**Yes**	ASL

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - No background data is available.
5- USEPA Regional Screening Levels (RSLs) for Chemical Contaminants at Superfund Sites, November 2013. RSLs for carcinogens correspond to an integrated lifetime cancer risk (ILCR) of 1E-06; adjusted RSLs for noncarcinogens correspond to a hazard quotient (HQ) of 0.1.
6 - 2012 Edition of the Drinking Water Standards and Health Advisories (USEPA, April 2012).
7 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level.
8 - Values are for hexavalent chromium.

Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Definitions:
ARAR/TBC = Applicable or Relevant and Appropriate Requirements To Be Considered
C = Carcinogen
COPC = Chemical Of Potential Concern
J = Estimated value
N = Noncarcinogen
NA = Not Applicable/Not Available

Rationale Codes:
For selection as a COPC:
ASL = Above Screening Level

For elimination as a COPC:
BSL = Below COPC Screening Level
NUT = Essential nutrient

TABLE 2.9
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - DIRECT CONTACT WITH GROUNDWATER
NWIRP BETHPAGE
BETHPAGE, NEW YORK

Associated Samples

BPS1-HN-29I-20101201
BPS1-HN-MW29I-01192012
BPS1-HN-MW29I-01192012
BPS1-HN-MW29I-01192012-D
BPS1-HN-MW29I-20110302
BPS1-FW-MW01-01192012
BPS1-FW-MW01-20101130
BPS1-FW-MW01-20110302
BPS1-FW-MW01-20121114
BRMW04101
BRMW1011
BPS1-FW-MW02-01172012
BPS1-FW-MW02-20101130
BPS1-FW-MW02-20101130
BPS1-FW-MW02-20101130-D
BPS1-FW-MW02-20110302
BPS1-FW-MW02-20121114
BRMW04102
BRMW1021
BPS1-FW-MW03-01192012
BPS1-FW-MW03-20101130
BPS1-FW-MW03-20110303
BPS1-FW-MW03-20121114
BRMW04103
BRMW04104
BRMW1031
BRMW1041
BPS1-HN-MW27I-20121114
BPS1-HN-MW27I-20130218
BPS1-HN-MW29I-20121114
BPS1-TT-MW302D-01202012
BPS1-TT-MW302D-20101129
BPS1-TT-MW302D-20110301
BPS1-TT-MW302D-20121101
BPS1-TT-MW302I1-01202012
BPS1-TT-MW302I1-20101130
BPS1-TT-MW302I1-20110301
BPS1-TT-MW302I1-20121101
BPS1-TT-MW302I2-01202012
BPS1-TT-MW302I2-20101129
BPS1-TT-MW302I2-20110301
BPS1-TT-MW302I2-20121105
BPS1-TT-MW302S-01202012
BPS1-TT-MW302S-20101130
BPS1-TT-MW302S-20110301
BPS1-TT-MW302S-20121115
BPS1-TT-MW303D-01192012
BPS1-TT-MW303D-20101129
BPS1-TT-MW303D-20110301
BPS1-TT-MW303D-20121105
BPS1-TT-MW303I1-01192012
BPS1-TT-MW303I1-20101130
BPS1-TT-MW303I1-20110301
BPS1-TT-MW303I1-20121102
BPS1-TT-MW303I2-01192012
BPS1-TT-MW303I2-20101129
BPS1-TT-MW303I2-20110301
BPS1-TT-MW303I2-20121105
BPS1-TT-MW303S-01232012
BPS1-TT-MW303S-01232012
BPS1-TT-MW303S-01232012-D
BPS1-TT-MW303S-20101130
BPS1-TT-MW303S-20101130
BPS1-TT-MW303S-20101130-D
BPS1-TT-MW303S-20110301
BPS1-TT-MW303S-20121101
BPS1-TT-MW304D-01192012
BPS1-TT-MW304D-20101130
BPS1-TT-MW304D-20110302
BPS1-TT-MW304D-20110302
BPS1-TT-MW304D-20110302-D
BPS1-TT-MW304D-20121109
BPS1-TT-MW304I1-01182012
BPS1-TT-MW304I1-20101201
BPS1-TT-MW304I1-20110302
BPS1-TT-MW304I1-20121106
BPS1-TT-MW304I2-01182012
BPS1-TT-MW304I2-01182012
BPS1-TT-MW304I2-01182012-D
BPS1-TT-MW304I2-20101130
BPS1-TT-MW304I2-20110303
BPS1-TT-MW304I2-20121108
BPS1-TT-MW304S-01182012
BPS1-TT-MW304S-20101201
BPS1-TT-MW304S-20110303
BPS1-TT-MW304S-20121106
BPS1-TT-MW305D-01172012
BPS1-TT-MW305D-20121115
BPS1-TT-MW305I-01172012
BPS1-TT-MW305I-20121108
BPS1-TT-MW305I-20121108
BPS1-TT-MW305I-20121108-D
BPS1-TT-MW305S-01172012
BPS1-TT-MW305S-01172012
BPS1-TT-MW305S-01172012-D
BPS1-TT-MW305S-20121115
BPS1-TT-MW305S-20121115
BPS1-TT-MW305S-20121115-D
BPS1-TT-MW306D-01232012
BPS1-TT-MW306D-20121108
BPS1-TT-MW306I-01232012
BPS1-TT-MW306I-20121108
BPS1-TT-MW306S-01232012
BPS1-TT-MW306S-20121116
BPS1-TT-MW307D-01182012
BPS1-TT-MW307D-20121106
BPS1-TT-MW307I-01182012
BPS1-TT-MW307I-20121106
BPS1-TT-MW307I-20121106
BPS1-TT-MW307I-20121106-D
BPS1-TT-MW307S-01182012
BPS1-TT-MW307S-20121116

TABLE 2.10
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - DIRECT CONTACT WITH DEEP SUBSURFACE SOIL (15 TO 50 FEET BGS)
NWIRP BETHPAGE
BETHPAGE, NEW YORK

Scenario Timeframe: Current/Future
Medium: Deep Subsurface Soil
Exposure Medium: Deep Subsurface Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration(1)	Maximum Concentration(1)	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects(2)	Concentration Used for Screening(3)	Range of Background Concentrations(4)	Adjusted USEPA RSL Residential Soil(5)	Potential ARAR/TBC	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection(6)
Dry Well 20-08	**PCBs**														
	12672-29-6	**Aroclor-1248**	12 J	2,400,000	ug/kg	BPS1-SB3027-2535	10/13	13 - 14	2,400,000	NA	**220 C**	NA	NA	**Yes**	ASL

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - No background data is available.
5 - USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, November 2013. The noncarcinogenic values (denoted with a "N" flag) are the screening level divided by 10 to correspond to a target hazard quotient of 0.1. Carcinogenic values represent an incremental cancer risk of 1.0E-06 (carcinogens denoted with a "C" flag).
6 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level
Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Associated Samples
BPS1-SB3008-37.037.5
BPS1-SB3026-2535
BPS1-SB3026-3545
BPS1-SB3026-4555
BPS1-SB3027-2535
BPS1-SB3027-3545
BPS1-SB3027-4555
BPS1-SB3060-1520
BPS1-SB3060-2025
BPS1-SB3060-2535
BPS1-SB3060-3540
BPS1-SB3061-1520
BPS1-SB3061-2025
BPS1-SB3061-2535
BPS1-SB3061-3540

Definitions:
ARAR/TBC = Applicable or Relevant and Appropriate Requirements To Be Considered
BGS = Below ground surface
C = Carcinogen
COPC = Chemical Of Potential Concern
J = Estimated value
N = Noncarcinogen
NA = Not Applicable/Not Available

Rationale Codes:
For selection as a COPC:
ASL = Above Screening Level

For elimination as a COPC:
BSL = Below COPC Screening Level

TABLE 2.11
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - MIGRATION FROM DEEP SUBSURFACE SOIL TO GROUNDWATER (15 TO 50 FEET BGS)
NWIRP BETHPAGE
BETHPAGE, NEW YORK

Scenario Timeframe: Current/Future
Medium: Deep Subsurface Soil
Exposure Medium: Deep Subsurface Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration(1)	Maximum Concentration(1)	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects(2)	Concentration Used for Screening(3)	Range of Background Concentrations(4)	USEPA RSL Protection of Groundwater(5)	Potential ARAR/TBC	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection(6)
Dry Well 20-08	**PCBs**														
	12672-29-6	**Aroclor-1248**	12 J	2,400,000	ug/kg	BPS1-SB3027-2535	10/13	13 - 14	2,400,000	NA	**5.2**	NA	NA	**Yes**	ASL

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - No background data is available.
5 - USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, November 2013.
6 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level.
Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Associated Samples
BPS1-SB3008-37.037.5
BPS1-SB3026-2535
BPS1-SB3026-3545
BPS1-SB3026-4555
BPS1-SB3027-2535
BPS1-SB3027-3545
BPS1-SB3027-4555
BPS1-SB3060-1520
BPS1-SB3060-2025
BPS1-SB3060-2535
BPS1-SB3060-3540
BPS1-SB3061-1520
BPS1-SB3061-2025
BPS1-SB3061-2535
BPS1-SB3061-3540

Definitions:
ARAR/TBC = Applicable or Relevant and Appropriate Requirements To Be Considered
BGS = Below ground surface
COPC = Chemical Of Potential Concern
J = Estimated value
NA = Not Applicable/Not Available

Rationale Codes:
For selection as a COPC:
ASL = Above Screening Level

For elimination as a COPC:
BSL = Below COPC Screening Level

TABLE 2.12
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - DIRECT CONTACT WITH SATURATED SOIL (GREATER THAN 50 FEET BGS)
NWIRP BETHPAGE
BETHPAGE, NEW YORK

Scenario Timeframe: Current/Future
Medium: Saturated Soil
Exposure Medium: Saturated Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration(1)	Maximum Concentration(1)	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects(2)	Concentration Used for Screening(3)	Range of Background Concentrations(4)	Adjusted USEPA RSL Residential Soil(5)	Potential ARAR/TBC	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection(6)
Dry Well 20-08	**PCBs**														
	12672-29-6	**Aroclor-1248**	210 J	8100	ug/kg	BPS1-SB3026-5565	5/9	7.9 - 8.3	8100	NA	**220 C**	NA	NA	**Yes**	ASL

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - No background data is available.
5 - USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, November 2013. The noncarcinogenic values (denoted with a "N" flag) are the screening level divided by 10 to correspond to a target hazard quotient of 0.1. Carcinogenic values represent an incremental cancer risk of 1.0E-06 (carcinogens denoted with a "C" flag).
6 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level
Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Associated Samples
BPS1-SB3008-161.0161.5
BPS1-SB3008-200210
BPS1-SB3008-234.5235.0
BPS1-SB3008-52.052.5
BPS1-SB3008-86.587.0
BPS1-SB3026-5565
BPS1-SB3026-6575
BPS1-SB3027-5565
BPS1-SB3027-6575

Definitions:
ARAR/TBC = Applicable or Relevant and Appropriate Requirements To Be Considered
BGS = Below ground surface
C = Carcinogen
COPC = Chemical Of Potential Concern
J = Estimated value
N = Noncarcinogen
NA = Not Applicable/Not Available

Rationale Codes:
For selection as a COPC:
ASL = Above Screening Level

For elimination as a COPC:
BSL = Below COPC Screening Level

TABLE 2.13
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - MIGRATION FROM SATURATED TO GROUNDWATER (GREATER THAN 50 FEET BGS)
NWIRP BETHPAGE
BETHPAGE, NEW YORK

Scenario Timeframe: Current/Future
Medium: Saturated Soil
Exposure Medium: Saturated Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration(1)	Maximum Concentration(1)	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects(2)	Concentration Used for Screening(3)	Range of Background Concentrations(4)	USEPA RSL Protection of Groundwater(5)	Potential ARAR/TBC	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection(6)
Dry Well 20-08	**PCBs**														
	12672-29-6	**Aroclor-1248**	210 J	8,100	ug/kg	BPS1-SB3026-5565	5/9	7.9 - 8.3	8,100	NA	**5.2**	NA	NA	**Yes**	ASL

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - No background data is available.
5 - USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, November 2013.
6 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level.
Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Associated Samples
BPS1-SB3008-161.0161.5
BPS1-SB3008-200210
BPS1-SB3008-234.5235.0
BPS1-SB3008-52.052.5
BPS1-SB3008-86.587.0
BPS1-SB3026-5565
BPS1-SB3026-6575
BPS1-SB3027-5565
BPS1-SB3027-6575

Definitions:
ARAR/TBC = Applicable or Relevant and Appropriate Requirements To Be Considered
BGS = Below ground surface
COPC = Chemical Of Potential Concern
J = Estimated value
NA = Not Applicable/Not Available

Rationale Codes:
For selection as a COPC:
ASL = Above Screening Level

For elimination as a COPC:
BSL = Below COPC Screening Level

TABLE 2.14
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - DIRECT CONTACT WITH SHALLOW SUBSURFACE SOIL (2 TO 15 FEET BGS)
NWIRP BETHPAGE
BETHPAGE, NEW YORK

Scenario Timeframe: Current/Future
Medium: Shallow Subsurface Soil
Exposure Medium: Shallow Subsurface Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration(1)	Maximum Concentration(1)	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects(2)	Concentration Used for Screening(3)	Range of Background Concentrations(4)	Adjusted USEPA RSL Residential Soil(5)	Potential ARAR/TBC	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection(6)
Dry Well 34-07	**PCBs**														
	12672-29-6	**Aroclor-1248**	120 J	830	ug/kg	BPS1-SB3029-1520	4/4	-	830	NA	**220 C**	NA	NA	**Yes**	ASL
	11097-69-1	Aroclor-1254	57 J	58 J	ug/kg	BPS1-SB3029-0205	2/4	13 - 67	58	NA	110 N(7)	NA	NA	No	BSL

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - No background data is available.
5 - USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, November 2013. The noncarcinogenic values (denoted with a "N" flag) are the screening level divided by 10 to correspond to a target hazard quotient of 0.1. Carcinogenic values represent an incremental cancer risk of 1.0E-06 (carcinogens denoted with a "C" flag).
6 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level
7 - Ten percent of the noncarcinogenic value is less than the carcinogenic value, therefore the noncarcinogenic value is presented.
Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Associated Samples
BPS1-SB3029-0205
BPS1-SB3029-0510
BPS1-SB3029-1015
BPS1-SB3029-1520

Definitions:
ARAR/TBC = Applicable or Relevant and Appropriate Requirements To Be Considered
BGS = Below ground surface
C = Carcinogen
COPC = Chemical Of Potential Concern
J = Estimated value
N = Noncarcinogen
NA = Not Applicable/Not Available

Rationale Codes:
For selection as a COPC:
ASL = Above Screening Level

For elimination as a COPC:
BSL = Below COPC Screening Level

TABLE 2.15
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - MIGRATION FROM SHALLOW SUBSURFACE SOIL TO GROUNDWATER (2 TO 15 FEET BGS)
NWIRP BETHPAGE
BETHPAGE, NEW YORK

Scenario Timeframe: Current/Future
Medium: Shallow Subsurface Soil
Exposure Medium: Shallow Subsurface Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration(1)	Maximum Concentration(1)	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects(2)	Concentration Used for Screening(3)	Range of Background Concentrations(4)	USEPA RSL Protection of Groundwater(5)	Potential ARAR/TBC	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection(6)
Dry Well 34-07	**PCBs**														
	12672-29-6	**Aroclor-1248**	120 J	830	ug/kg	BPS1-SB3029-1520	4/4	-	830	NA	**5.2**	NA	NA	**Yes**	ASL
	11097-69-1	**Aroclor-1254**	57 J	58 J	ug/kg	BPS1-SB3029-0205	2/4	13 - 67	58	NA	**8.8**	NA	NA	**Yes**	ASL

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - No background data is available.
5 - USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, November 2013.
6 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level.
Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Associated Samples
BPS1-SB3029-0205
BPS1-SB3029-0510
BPS1-SB3029-1015
BPS1-SB3029-1520

Definitions:
ARAR/TBC = Applicable or Relevant and Appropriate Requirements To Be Considered
BGS = Below ground surface
COPC = Chemical Of Potential Concern
J = Estimated value
NA = Not Applicable/Not Available

Rationale Codes:
For selection as a COPC:
ASL = Above Screening Level

For elimination as a COPC:
BSL = Below COPC Screening Level

TABLE 2.16
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - DIRECT CONTACT WITH DEEP SUBSURFACE SOIL (15 TO 50 FEET BGS)
NWIRP BETHPAGE
BETHPAGE, NEW YORK

Scenario Timeframe: Current/Future
Medium: Deep Subsurface Soil
Exposure Medium: Deep Subsurface Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration(1)	Maximum Concentration(1)	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects(2)	Concentration Used for Screening(3)	Range of Background Concentrations(4)	Adjusted USEPA RSL Residential Soil(5)	Potential ARAR/TBC	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection(6)
Dry Well 34-07	**PCBs**														
	12672-29-6	**Aroclor-1248**	210 J	28,000	ug/kg	BPS1-SB3029-2535	7/10	14 - 15	28,000	NA	**220 C**	NA	NA	**Yes**	ASL

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - No background data is available.
5 - USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, November 2013. The noncarcinogenic values (denoted with a "N" flag) are the screening level divided by 10 to correspond to a target hazard quotient of 0.1. Carcinogenic values represent an incremental cancer risk of 1.0E-06 (carcinogens denoted with a "C" flag).
6 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level
Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Associated Samples
BPS1-SB3009-27.027.5
BPS1-SB3009-36.036.5
BPS1-SB3029-1520
BPS1-SB3029-2025
BPS1-SB3029-2535
BPS1-SB3029-3545
BPS1-SB3029-4555
BPS1-SB3030-2535
BPS1-SB3030-3545
BPS1-SB3030-4555

Definitions:
ARAR/TBC = Applicable or Relevant and Appropriate Requirements To Be Considered
BGS = Below ground surface
C = Carcinogen
COPC = Chemical Of Potential Concern
J = Estimated value
N = Noncarcinogen
NA = Not Applicable/Not Available

Rationale Codes:
For selection as a COPC:
ASL = Above Screening Level

For elimination as a COPC:
BSL = Below COPC Screening Level

TABLE 2.17
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - MIGRATION FROM DEEP SUBSURFACE SOIL TO GROUNDWATER (15 TO 50 FEET BGS)
NWIRP BETHPAGE
BETHPAGE, NEW YORK

Scenario Timeframe: Current/Future
Medium: Deep Subsurface Soil
Exposure Medium: Deep Subsurface Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration(1)	Maximum Concentration(1)	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects(2)	Concentration Used for Screening(3)	Range of Background Concentrations(4)	USEPA RSL Protection of Groundwater(5)	Potential ARAR/TBC	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection(6)
Dry Well 34-07	**PCBs**														
	12672-29-6	**Aroclor-1248**	210 J	28,000	ug/kg	BPS1-SB3029-2535	7/10	14 - 15	28,000	NA	**5.2 C**	NA	NA	**Yes**	ASL

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - No background data is available.
5 - USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, November 2013.
6 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level.
Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Associated Samples
BPS1-SB3009-27.027.5
BPS1-SB3009-36.036.5
BPS1-SB3029-1520
BPS1-SB3029-2025
BPS1-SB3029-2535
BPS1-SB3029-3545
BPS1-SB3029-4555
BPS1-SB3030-2535
BPS1-SB3030-3545
BPS1-SB3030-4555

Definitions:
ARAR/TBC = Applicable or Relevant and Appropriate Requirements To Be Considered
BGS = Below ground surface
COPC = Chemical Of Potential Concern
J = Estimated value
NA = Not Applicable/Not Available

Rationale Codes:
For selection as a COPC:
ASL = Above Screening Level

For elimination as a COPC:
BSL = Below COPC Screening Level

TABLE 2.18
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - DIRECT CONTACT WITH SATURATED SOIL (GREATER THAN 50 FEET BGS)
NWIRP BETHPAGE
BETHPAGE, NEW YORK

Scenario Timeframe: Current/Future
Medium: Saturated Soil
Exposure Medium: Saturated Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration(1)	Maximum Concentration(1)	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects(2)	Concentration Used for Screening(3)	Range of Background Concentrations(4)	Adjusted USEPA RSL Residential Soil(5)	Potential ARAR/TBC	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection(6)
Dry Well 34-07	**PCBs**														
	12672-29-6	**Aroclor-1248**	23 J	260 J	ug/kg	BPS1-SB3009-51.051.5	2/5	7.6 - 8.9	260	NA	**220 C**	NA	NA	**Yes**	ASL

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - No background data is available.
5 - USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, November 2013. The noncarcinogenic values (denoted with a "N" flag) are the screening level divided by 10 to correspond to a target hazard quotient of 0.1. Carcinogenic values represent an incremental cancer risk of 1.0E-06 (carcinogens denoted with a "C" flag).
6 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level
Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Associated Samples
BPS1-SB3009-140.0140.5
BPS1-SB3009-209.0209.5
BPS1-SB3009-51.051.5
BPS1-SB3009-96.096.5
BPS1-SB3029-5565

Definitions:
ARAR/TBC = Applicable or Relevant and Appropriate Requirements To Be Considered
BGS = Below ground surface
C = Carcinogen
COPC = Chemical Of Potential Concern
J = Estimated value
N = Noncarcinogen
NA = Not Applicable/Not Available

Rationale Codes:
For selection as a COPC:
ASL = Above Screening Level

For elimination as a COPC:
BSL = Below COPC Screening Level

TABLE 2.19
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - MIGRATION FROM DEEP SUBSURFACE SOIL TO GROUNDWATER (15 TO 50 FEET BGS)
NWIRP BETHPAGE
BETHPAGE, NEW YORK

Scenario Timeframe: Current/Future
Medium: Saturated Soil
Exposure Medium: Saturated Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration(1)	Maximum Concentration(1)	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects(2)	Concentration Used for Screening(3)	Range of Background Concentrations(4)	USEPA RSL Protection of Groundwater(5)	Potential ARAR/TBC	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection(6)
Dry Well 34-07	**PCBs**														
	12672-29-6	**Aroclor-1248**	23 J	260 J	ug/kg	BPS1-SB3009-51.051.5	2/5	7.6 - 8.9	260	NA	**5.2**	NA	NA	**Yes**	ASL

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - No background data is available.
5 - USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, November 2013.
6 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level.
Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Associated Samples
BPS1-SB3009-140.0140.5
BPS1-SB3009-209.0209.5
BPS1-SB3009-51.051.5
BPS1-SB3009-96.096.5
BPS1-SB3029-5565

Definitions:
ARAR/TBC = Applicable or Relevant and Appropriate Requirements To Be Considered
BGS = Below ground surface
COPC = Chemical Of Potential Concern
J = Estimated value
NA = Not Applicable/Not Available

Rationale Codes:
For selection as a COPC:
ASL = Above Screening Level

For elimination as a COPC:
BSL = Below COPC Screening Level

RAGS Part D Table 3

Medium-Specific Exposure Point Concentration Summary

LIST OF TABLES
RAGS PART D TABLE 3
MEDIUM-SPECIFIC EXPOSURE POINT CONCENTRATION SUMMARY

Table No.

3.1.RME	Surface Soil - Site 1
3.2.RME	Shallow Subsurface Soil - Site 1
3.3.RME	Shallow Subsurface Soil - Dry Well 34-07
3.4.RME	Groundwater

TABLE 3.1.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Current
Medium: Surface Soil
Exposure Medium: Surface Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic	Rationale
Site 1	Aroclor-1248	mg/kg	11	30 (L)	150	30	mg/kg	95% Chebyshev (Mean, Sd) UCL	ProUCL 5.0.00
	Aroclor-1254	mg/kg	1.9	9.12 (L)	28	9.12	mg/kg	99% KM (Chebyshev) UCL	ProUCL 5.0.00

L = Lognormal

Exposure point concentrations for the RME scenarios are also the exposure point concentrations for the CTE scenarios.

"

EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Future
Medium: Shallow Subsurface Soil
Exposure Medium: Shallow Subsurface Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic	Rationale
Site 1	Aroclor-1242	mg/kg	0.037	(1)	0.56	0.56	mg/kg	Maximum Detected Concentration	(1)
	Aroclor-1248	mg/kg	0.562	3.41 (L)	21	3.41	mg/kg	97.5% KM (Chebyshev) UCL	ProUCL 5.0.00
	Aroclor-1254	mg/kg	0.321	1.39 (L)	13	1.39	mg/kg	95% KM (Chebyshev) UCL	ProUCL 5.0.00

G = Gamma
N = Normal
NP = Non-parametric

(1) There are less than four detected concentrations. Reliable statistics cannot be computed. The Maximum concentration was used as the EPC.

Exposure point concentrations for the RME scenarios are also the exposure point concentrations for the CTE scenarios.

TABLE 3.3.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Future
Medium: Shallow Subsurface Soil
Exposure Medium: Shallow Subsurface Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic	Rationale
Dry Well 34-07	Aroclor-1248	mg/kg	0.318	(1)	0.83	0.83	mg/kg	Maximum Detected Concentration	(1)

(1) There were only four samples. Reliable statistics cannot be computed. The Maximum concentration was used as the EPC.

Exposure point concentrations for the RME scenarios are also the exposure point concentrations for the CTE scenarios.

TABLE 3.4.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Current/Future
Medium: Groundwater
Exposure Medium: Groundwater

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic	Rationale
Site 1	Aroclor-1242	ug/L	0.711	0.913 (G)	4 J	0.913	ug/L	95% KM (t) UCL	ProUCL 5.0.00
	Aroclor-1248	ug/L	0.610	0.775 (G)	4.2	0.775	ug/L	95% KM (t) UCL	ProUCL 5.0.00
	Aluminum	ug/L	494	4660 (G)	2800 J	2800	ug/L	Maximum Detected Concentration	(1)
	Arsenic	ug/L	1.06	2.6 (N)	5.2	2.6	ug/L	95% KM (t) UCL	ProUCL 5.0.00
	Hexavalent Chromium	ug/L	22.1	38.8 (G)	182	38.8	ug/L	95% KM (t) UCL	ProUCL 5.0.00
	Cobalt	ug/L	0.714	1.11 (N)	1.5	1.11	ug/L	95% Student's-t UCL	ProUCL 5.0.00
	Iron	ug/L	507	1090 (NP)	6000	1090	ug/L	95% Chebyshev (Mean, Sd) UCL	ProUCL 5.0.00
	Thallium	ug/L	0.049	0.083 (NP)	0.066 J	0.066	ug/L	Maximum Detected Concentration	(1)

G - Gamma distribution.
N - Normal distribution.
NP = Nonparametric distribution.

1 - The estimated UCL was greater than the maximum detected concentration therefore the maxmium detected concentration is used as the exposure point concentration.

Exposure point concentrations for the RME scenarios are also the exposure point concentrations for the CTE scenarios.

RAGS Part D Table 4

Values Used For Daily Intake Calculations

TABLE 4.1.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - CONSTRUCTION WORKERS- SOILS

NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Current/Future
Medium: Surface Soil/Subsurface Soil
Exposure Medium: Surface/Subsurface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Construction Workers	Adult	Site 1	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002a	Intake (mg/kg/day) =
				IR-S	Ingestion Rate	330	mg/day	USEPA, 2002b	
				RBA	Relative Bioavailability	Chemical Specific	unitless	USEPA, 1989	Cs x RBA x IRS x CF3 x FI x EF x ED
				CF3	Conversion Factor 3	0.000001	kg/mg	--	BW x AT
				FI	Fraction Ingested	1	unitless	USEPA, 2002b	
				EF	Exposure Frequency	250	days/year	(1)	
				ED	Exposure Duration	1	years	(1)	
				BW	Body Weight	70	kg	USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	365	days	USEPA, 1989	
Dermal	Construction Workers	Adult	Site 1	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002a	Dermally Absorbed Dose (mg/kg/day) =
				CF3	Conversion Factor 3	0.000001	kg/mg	--	
				SA	Skin Surface Available for Contact	3300	cm2	USEPA, 2004	CS x CF3 x SA x SSAF x DABS x EV x EF x ED
				SSAF	Soil to Skin Adherence Factor	0.3	mg/cm2/event	USEPA, 2004	BW x AT
				DABS	Absorption Factor	Chemical Specific	unitless	USEPA, 2004	
				EV	Events Frequency	1	events/day	USEPA, 2004	
				EF	Exposure Frequency	250	days/year	(1)	
				ED	Exposure Duration	1	years	(1)	
				BW	Body Weight	70	kg	USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	365	days	USEPA, 1989	

Notes:

1 - Professional judgment.

Sources:

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A.

USEPA, 2002a:Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.

USEPA, 2002b: Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24.

USEPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

Unit Intake Calculations

Incidental Ingestion Intake = (IR-S x CF3 x FI x EF x ED)/(BW x AT)

Dermal Intake = (CF3 x SA x SSAF x EF x ED)/(BW x AT)

Cancer Ingestion Intake = 4.61E-08 Cancer Dermal Intake = 1.38E-07

Noncancer Ingestion Intake = 3.23E-06 Noncancer Dermal Intake = 9.69E-06

Cancer risk from ingestion = Soil concentration x Cancer Ingestion Intake x Oral Cancer Slope Factor

Cancer risk from dermal contact = Soil concentration x Cancer Dermal Intake x Absorption Factor x Dermal Cancer Slope Factor

Hazard Index from ingestion = Soil concentration x Noncancer Ingestion Intake / Oral Reference Dose

Hazard Index from dermal contact = Soil concentration x Noncancer Dermal Intake x Absorption Factor / Dermal Reference Dose

TABLE 4.2.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - CONSTRUCTION WORKERS - SOILS TO AIR

NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Current/Future
Medium: Surface/Subsurface Soil
Exposure Medium: Air

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Inhalation	Construction Workers	Adult	Site 16	CA	Chemical concentration in air	Calculated	mg/m3	USEPA, 2002a	Exposure Concentration (mg/m^3) =
				CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002b	
				ET	Exposure Time	8	hours/day	(1)	CA x ET x EF x ED
				EF	Exposure Frequency	250	days/year	(1)	AT x 24 hours/day
				ED	Exposure Duration	1	years	(1)	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	CA = (1/PEF + 1/VF) x Cs
				AT-N	Averaging Time (Non-Cancer)	365	days	USEPA, 1989	
				PEF	Particulate Emission Factor	1.43E+06	m3/kg	USEPA, 2002a	
				VF	Volatilization Factor	Chemical-specific	m3/kg	USEPA, 2002a	
				Q/C	Inverse of mean concentration at center of source	14.31	g/m2-s per kg/m3	USEPA, 2002a	

Notes:

1 - Professional judgment.

Sources:

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A. EPA/540/1-86/060.

USEPA, 1997: Exposure Factors Handbook. USEPA/600/8-95/002FA.

USEPA, 2002a: Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24.

USEPA, 2002b:Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.

Unit Intake Calculations

Unit Exposure Concentration = (ET x EF x ED)/(AT x 24 hours/day)

Cancer Inhalation Intake = 3.26E-03 Noncancer Inhalation Intake = 2.28E-01

Cancer risk from ingestion = Air concentration x Cancer Inhalation Intake x Inhalation Cancer Slope Factor

Hazard Index from ingestion = Air concentration x Noncancer Inhalation Intake / Inhalation Reference Dose

TABLE 4.3.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - INDUSTRIAL WORKERS - SOIL

NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Current/Future
Medium: Surface Soil/Subsurface Soil
Exposure Medium: Surface/Subsurface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Industrial Workers	Adult	Site 1	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002a	Intake (mg/kg/day) =
				IR-S	Ingestion Rate	100	mg/day	USEPA, 2002b	
				RBA	Relative Bioavailability	Chemical Specific	unitless	USEPA, 1989	Cs x RBA x IRS x CF3 x FI x EF x ED
				CF3	Conversion Factor 3	0.000001	kg/mg	--	BW x AT
				FI	Fraction Ingested	1	unitless	USEPA, 2002b	
				EF	Exposure Frequency	250	days/year	USEPA, 2002b	
				ED	Exposure Duration	25	years	USEPA, 2002b	
				BW	Body Weight	70	kg	USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	9125	days	USEPA, 1989	
Dermal	Industrial Workers	Adult	Site 1	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002	Dermally Absorbed Dose (mg/kg/day) =
				CF3	Conversion Factor 3	0.000001	kg/mg	--	
				SA	Skin Surface Available for Contact	3300	cm2	USEPA, 2004	CS x CF3 x SA x SSAF x DABS x EV x EF x ED
				SSAF	Soil to Skin Adherence Factor	0.2	mg/cm2/event	USEPA, 2004	BW x AT
				DABS	Absorption Factor	Chemical Specific	unitless	USEPA, 2004	
				EV	Events Frequency	1	events/day	USEPA, 2004	
				EF	Exposure Frequency	250	days/year	USEPA, 2002b	
				ED	Exposure Duration	25	years	USEPA, 1989	
				BW	Body Weight	70	kg	USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	9125	days	USEPA, 1989	

Sources:

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A.

USEPA, 2002a:Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.

USEPA, 2002b: Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24.

USEPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

Unit Intake Calculations

Incidental Ingestion Intake = (IR-S x CF3 x FI x EF x ED)/(BW x AT)

Dermal Intake = (CF3 x SA x SSAF x EF x ED)/(BW x AT)

Cancer Ingestion Intake = 3.49E-07 Cancer Dermal Intake = 2.31E-06

Noncancer Ingestion Intake = 9.78E-07 Noncancer Dermal Intake = 6.46E-06

Cancer risk from ingestion = Soil concentration x Cancer Ingestion Intake x Oral Cancer Slope Factor

Cancer risk from dermal contact = Soil concentration x Cancer Dermal Intake x Absorption Factor x Dermal Cancer Slope Factor

Hazard Index from ingestion = Soil concentration x Noncancer Ingestion Intake / Oral Reference Dose

Hazard Index from dermal contact = Soil concentration x Noncancer Dermal Intake x Absorption Factor / Dermal Reference Dose

TABLE 4.4.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - INDUSTRIAL WORKERS - SOIL TO AIR

NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Current/Future
Medium: Surface/Subsurface Soil
Exposure Medium: Air

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Inhalation	Industrial Workers	Adult	Site 1	CA	Chemical concentration in air	Calculated	mg/m3	USEPA, 2002a	Exposure Concentration (mg/m^3) =
				CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002b	
				ET	Exposure Time	8	hours/day	(1)	CA x ET x EF x ED
				EF	Exposure Frequency	250	days/year	USEPA, 2002a	AT x 24 hours/day
				ED	Exposure Duration	25	years	USEPA, 2002a	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	CA = (1/PEF + 1/VF) x Cs
				AT-N	Averaging Time (Non-Cancer)	9125	days	USEPA, 1989	
				PEF	Particulate Emission Factor	1.36E+09	m3/kg	USEPA 2002a	
				VF	Volatilization Factor	Chemical-specific	m3/kg	USEPA, 2002a	
				Q/C	Inverse of mean concentration at center of source	68.18365	g/m2-s per kg/m3	USEPA 2002a	

Notes:

1 - Length of typical work day.

Sources:

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A. USEPA/540/1-86/060.

USEPA, 1997: Exposure Factors Handbook. USEPA/600/8-95/002FA.

USEPA, 2002a: Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24.

USEPA, 2002b:Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.

Unit Intake Calculations

Unit Exposure Concentration = (ET x EF x ED)/(AT x 24 hours/day)

Cancer Inhalation Intake = 8.15E-02 Noncancer Inhalation Intake = 2.28E-01

Cancer risk from ingestion = Air concentration x Cancer Inhalation Intake x Inhalation Cancer Slope Factor

Hazard Index from ingestion = Air concentration x Noncancer Inhalation Intake / Inhalation Reference Dose

TABLE 4.5.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE - ADOLESCENT TRESPASSERS - SOILS
NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Current/Future
Medium: Surface Soil/Subsurface Soil
Exposure Medium: Surface/Subsurface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Trespassers	Adolescent	Site 1	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002	Intake (mg/kg/day) =
				IR-S	Ingestion Rate	100	mg/day	USEPA, 1991	
				RBA	Relative Bioavailability	Chemical Specific	unitless	USEPA, 1989	Cs x RBA x IRS x CF3 x FI x EF x ED
				CF3	Conversion Factor 3	0.000001	kg/mg	--	BW x AT
				FI	Fraction Ingested	1	unitless	USEPA, 1991	
				EF	Exposure Frequency	26	days/year	(1)	
				ED	Exposure Duration	10	years	(2)	
				BW	Body Weight	45	kg	USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	3650	days	USEPA, 1989	
Dermal	Trespassers	Adolescent	Site 1	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002	Dermally Absorbed Dose (mg/kg/day) =
				CF3	Conversion Factor 3	0.000001	kg/mg	--	
				SA	Skin Surface Available for Contact	3280	cm2	(3)	CS x CF3 x SA x SSAF x DABS x EV x EF x ED
				SSAF	Soil to Skin Adherence Factor	0.2	mg/cm2/event	USEPA, 2004	BW x AT
				DABS	Absorption Factor	Chemical Specific	unitless	USEPA, 2004	
				EV	Events Frequency	1	events/day	USEPA, 2004	
				EF	Exposure Frequency	26	days/year	(1)	
				ED	Exposure Duration	10	years	(2)	
				BW	Body Weight	45	kg	USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	3650	days	USEPA, 1989	

Notes:
For chemicals that act via the mutagenic mode of action the intake will be multiplied by the appropriate age-dependent adjustment factor in accordance with USEPA's Supplemental Guidance of Assessing Susceptibility from Early-Life Exposure to Carcinogens (USEPA, 2005).
1 - Assume one day a week in the warm weather months.
2 - Older child from age 6 to 17.
3 - Assume 25 percent of total body surface area is exposed, U.S. EPA, 1997: Exposure Factors Handbook. EPA/600/8-95/002FA.
Sources:
USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A. EPA/540/1-86/060.
USEPA, 1991: Human Health Evaluation Manual, Supplemental Guidance: Standard Default Exposure Factors. OSWER Directive 9285.6-03.
USEPA, 2002: Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.
USEPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

Unit Intake Calculations

Incidental Ingestion Intake = (IR-S x CF3 x FI x EF x ED)/(BW x AT)
Dermal Intake = (CF3 x SA x SSAF x EF x ED)/(BW x AT)

Cancer Ingestion Intake = 2.26E-08 Cancer Dermal Intake = 1.48E-07
Noncancer Ingestion Intake = 1.58E-07 Noncancer Dermal Intake = 1.04E-06

Cancer risk from ingestion = Soil concentration x Cancer Ingestion Intake x Oral Cancer Slope Factor
Cancer risk from dermal contact = Soil concentration x Cancer Dermal Intake x Absorption Factor x Dermal Cancer Slope Factor
Hazard Index from ingestion = Soil concentration x Noncancer Ingestion Intake / Oral Reference Dose
Hazard Index from dermal contact = Soil concentration x Noncancer Dermal Intake x Absorption Factor / Dermal Reference Dose

TABLE 4.6.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - ADOLESCENT TRESPASSERS - SOILS TO AIR

NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Current/Future
Medium: Surface/Subsurface Soil
Exposure Medium: Air

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Inhalation	Trespassers	Adolescent	Site 1	CA	Chemical concentration in air	Calculated	mg/m3	USEPA, 2002a	Exposure Concentration (mg/m^3) =
				CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002b	
				ET	Exposure Time	4	hours/day	(1)	CA x ET x EF x ED
				EF	Exposure Frequency	26	days/year	(2)	AT x 24 hours/day
				ED	Exposure Duration	10	years	(3)	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	CA = (1/PEF + 1/VF) x Cs
				AT-N	Averaging Time (Non-Cancer)	3,650	days	USEPA, 1989	
				PEF	Particulate Emission Factor	1.36E+09	m3/kg	USEPA 2002a	
				VF	Volatilization Factor	Chemical-specific	m3/kg	USEPA, 2002a	
				Q/C	Inverse of mean concentration at center of source	68.18365	g/m2-s per kg/m3	USEPA 2002a	

Notes:

For chemicals that act via the mutagenic mode of action the intake will be multiplied by the appropriate age-dependent adjustment factor in accordance with USEPA's Supplemental Guidance of Assessing Susceptibility from Early-Life Exposure to Carcinogens (USEPA, 2005).

1 - Professional judgment.

2 - Assume one day a week in the warm weather months.

3 - Older child from age 6 to 17.

Sources:

MEDEP, 1994: Guidance Manual for Human Health Risk Assessments at Hazardous Substance Sites.

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A. USEPA/540/1-86/060.

USEPA, 1997: Exposure Factors Handbook. USEPA/600/8-95/002FA.

USEPA, 2002a: Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24.

USEPA, 2002b:Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.

USEPA, 2013: Soil Screening Guidance calculation Internet site at http://rais.ornl.gov/epa/ssl1.shtml. Site-specific values for Hartford, Connecticut.

Unit Intake Calculations

Unit Exposure Concentration = (ET x EF x ED)/(AT x 24 hours/day)

Cancer Inhalation Intake = 1.70E-03 Noncancer Inhalation Intake = 1.19E-02

Cancer risk from ingestion = Air concentration x Cancer Inhalation Intake x Inhalation Cancer Slope Factor

Hazard Index from ingestion = Air concentration x Noncancer Inhalation Intake / Inhalation Reference Dose

TABLE 4.7.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE - CHILD RESIDENTS - SOILS
NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Future
Medium: Surface Soil/Subsurface Soil
Exposure Medium: Surface/Subsurface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Resident	Child	Site 1	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002a	Intake (mg/kg/day) =
				IR-S	Ingestion Rate	200	mg/day	USEPA, 1991	
				RBA	Relative Bioavailability	Chemical Specific	unitless	USEPA, 1989	Cs x RBA x IRS x CF3 x FI x EF x ED
				CF3	Conversion Factor 3	1.0E-06	kg/mg	--	BW x AT
				FI	Fraction Ingested	1	unitless	USEPA, 1991	
				EF	Exposure Frequency	350	days/year	USEPA, 2002b	
				ED1	Exposure Duration (Age 0 - 2)	2	years	(1), USEPA, 1989, 2005	
				ED2	Exposure Duration (Age 2 - 6)	4	years	(1), USEPA, 1989, 2005	
				BW	Body Weight	15	kg	USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
Dermal	Resident	Child	Site 1	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002	Dermally Absorbed Dose (mg/kg/day) =
				CF3	Conversion Factor 3	1E-06	kg/mg	--	
				SA	Skin Surface Available for Contact	2,800	cm2	USEPA, 2004	CS x CF3 x SA x SSAF x DABS x EV x EF x ED
				SSAF	Soil to Skin Adherence Factor	0.2	mg/cm2/event	USEPA, 2004	BW x AT
				DABS	Absorption Factor	Chemical Specific	unitless	USEPA, 2004	
				EV	Events Frequency	1	events/day	USEPA, 2004	
				EF	Exposure Frequency	350	days/year	USEPA, 2002b	
				ED1	Exposure Duration (Age 0 - 2)	2	years	(1), USEPA, 1989, 2005	
				ED2	Exposure Duration (Age 2 - 6)	4	years	(1), USEPA, 1989, 2005	
				BW	Body Weight	15	kg	USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	

Notes:

1 - Children will be evaluated as one age group (0 - 6 years) for non-mutagenic chemicals. For chemicals that act via the mutagenic mode of action, residential children will be evaluated as two age groups, 0 - 2 years and 2 - 6 years in accordance with USEPA's Supplemental Guidance of Assessing Susceptibility from Early-Life Exposure to Carcinogens (USEPA, 2005).

Sources:

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A. EPA/540/1-86/060.

USEPA, 1991: Risk Assessment Guidance for Superfund - Supplemental Guidance- Standard Default Exposure Factors Interim Final.

USEPA, 1994: USEPA Region I Risk Updates, August 1994.

USEPA, 2002a:Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.

USEPA, 2002b: Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24.

USEPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

Unit Intake Calculations

Incidental Ingestion Intake = (IR-S x CF3 x FI x EF x ED)/(BW x AT)

Dermal Intake = (CF3 x SA x SSAF x EF x ED)/(BW x AT)

Non-Mutagenic Chemicals

Cancer Ingestion Intake (Age 0 - 6) = 1.10E-06 Cancer Dermal Intake (Age 0 - 6) = 3.07E-06

Mutagenic Chemicals

Cancer Ingestion Intake (Age 0 - 2) = 3.65E-07 Cancer Dermal Intake (Age 0 - 2) = 1.02E-06

Cancer Ingestion Intake (Age 2 - 6) = 7.31E-07 Cancer Dermal Intake (Age 2 - 6) = 2.05E-06

Noncarcinogenic Chemicals

Noncancer Ingestion Intake = 1.28E-05 Noncancer Dermal Intake = 3.58E-05

Cancer risk from ingestion = Soil concentration x Cancer Ingestion Intake x Oral Cancer Slope Factor

Cancer risk from dermal contact = Soil concentration x Cancer Dermal Intake x Absorption Factor x Dermal Cancer Slope Factor

Hazard Index from ingestion = Soil concentration x Noncancer Ingestion Intake / Oral Reference Dose

Hazard Index from dermal contact = Soil concentration x Noncancer Dermal Intake x Absorption Factor / Dermal Reference Dose

TABLE 4.8.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - CHILD RESIDENTS SOILS TO AIR

NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Future
Medium: Surface/Subsurface Soil
Exposure Medium: Air

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Inhalation	Resident	Child	Site 1	CA	Chemical concentration in air	Calculated	mg/m3	USEPA, 2002a	Exposure Concentration (mg/m^3) =
				CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002b	
				ET	Exposure Time	24	hours/day	USEPA, 1991	CA x ET x EF x ED
				EF	Exposure Frequency	350	days/year	USEPA, 1994	AT x 24 hours/day
				ED1	Exposure Duration (Age 0 - 2)	2	years	(1), USEPA, 1989, 2005	
				ED2	Exposure Duration (Age 2 - 6)	4	years	(1), USEPA, 1989, 2005	CA = (1/PEF + 1/VF) x Cs
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2190	days	USEPA, 1989	
				PEF	Particulate Emission Factor	1.36E+09	m3/kg	USEPA 2002a	
				VF	Volatilization Factor	Chemical-specific	m3/kg	USEPA, 2002a	
				Q/C	Inverse of mean concentration at center of source	68.18365	g/m2-s per kg/m3	USEPA 2002a	

Notes:

1 - Children will be evaluated as one age group (0 - 6 years) for non-mutagenic chemicals. For chemicals that act via the mutagenic mode of action, residential children will be evaluated as two age groups, 0 - 2 years and 2 - 6 years in accordance with USEPA's Supplemental Guidance of Assessing Susceptibility from Early-Life Exposure to Carcinogens (USEPA, 2005).

Sources:

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A. USEPA/540/1-86/060.

USEPA, 1991: Risk Assessment Guidance for Superfund - Supplemental Guidance- Standard Default Exposure Factors Interim Final.

USEPA, 1994: USEPA Region I Risk Updates, August 1994.

USEPA, 2002a: Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24.

USEPA, 2002b: Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.

Unit Intake Calculations

Unit Exposure Concentration = (ET x EF x ED)/(AT x 24 hours/day)

Non-Mutagenic Chemicals

Cancer Inhalation Intake (Age 0 - 6) = 8.22E-02

Noncarcinogenic Chemicals

Noncancer Inhalation Intake = 1.92E+00

Mutagenic Chemicals

Cancer Inhalation Intake (Age 0 - 2) = 2.74E-02

Cancer Inhalation Intake (Age 2 - 6) = 5.48E-02

Cancer risk from ingestion = Air concentration x Cancer Inhalation Intake x Inhalation Cancer Slope Factor

Hazard Index from ingestion = Air concentration x Noncancer Inhalation Intake / Inhalation Reference Dose

TABLE 4.9.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE - CHILD RESIDENTS - GROUNDWATER
NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Residents	Child	Site 1	CGW	Chemical Concentration in Groundwater	Max or 95% UCL	mg/kg	USEPA, 2002a	Chronic Daily Intake (CDI) (mg/kg/day) =
				CF	Conversion Factor	0.001	mg/ug	--	
				IR-GW	Ingestion Rate of Groundwater	1	L/day	USEPA, 1994	CGW x CF x IR-GW x EF x ED
				EF	Exposure Frequency	350	days/year	USEPA, 1994	BW x AT
				ED1	Exposure Duration (Age 0 - 2)	2	years	(1), USEPA, 1989, 2005	
				ED2	Exposure Duration (Age 2 - 6)	4	years	(1), USEPA, 1989, 2005	
				BW	Body Weight	15	kg	USEPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
Dermal	Residents	Child	Site 1	Daevent	Dermally Absorbed Dose per Event	Calculated	mg/cm2-event	USEPA, 2004	Dermally Absorbed Dose (mg/kg/day) =
				Cw	Chemical Concentration in Groundwater	Max or 95% UCL	mg/kg	USEPA, 2002a	
				FA	Fraction Absorbed	Chemical Specific	unitless	USEPA, 2004	DAevent x EV x EF x ED x SA
				CF	Conversion factor	0.001	L/cm^3	- -	BW x AT
				Kp	Permeability coefficient	Chemical Specific	cm/hr	USEPA, 2004	
				τ	Lag time	Chemical Specific	hr/event	USEPA, 2004	For inorganics
				t^*	Time it takes to reach steady state	Chemical Specific	hr/event	USEPA, 2004	DAevent = Kp x CW x CF x tevent
				tevent	Duration of event	1	hr/event	USEPA, 2004	
				B	Bunge model constant	Chemical Specific	unitless	USEPA, 2004	For organics if tevent <= t^*
				SA	Skin Surface Available for Contact	6,600	cm2	USEPA, 2004	DAevent= 2 x FA x Kp x Cw x CF x sqrt[(6 x τ x tevent)/pi]
				EV	Event Frequency	1	events/day	USEPA, 2004	
				EF	Exposure Frequency	350	days/year	USEPA, 1994	
				ED1	Exposure Duration (Age 0 - 2)	2	years	(1), USEPA, 1989, 2005	DAevent =FA x Kp x Cw x CF x [tevent/(1+B) +
				ED2	Exposure Duration (Age 2 - 6)	4	years	(1), USEPA, 1989, 2005	2 x τ +(1 + 3B + $3B^2$)/(1+B^2)
				BW	Body Weight	15	kg	USEPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	

Notes:
1 - Children will be evaluated as one age group (0 - 6 years) for non-mutagenic chemicals. For chemicals that act via the mutagenic mode of action, residential children will be evaluated as two age groups, 0 - 2 years and 2 - 6 years in accordance with USEPA's Supplemental Guidance of Assessing Susceptibility from Early-Life Exposure to Carcinogens (USEPA, 2005).

Sources:
USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A. EPA/540/1-86/060.
USEPA, 1991: Risk Assessment Guidance for Superfund - Supplemental Guidance- Standard Default Exposure Factors Interim Final.
USEPA, 1994: USEPA Region I Risk Updates, August 1994.
USEPA, 1997: Exposure Factors Handbook. EPA/600/P-95/002Fa
USEPA, 2002:Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.
USEPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

Unit Intake Calculations

Ingestion Intake = (IR-GW x EF x ED)/(BW x AT)
Dermal Intake = (SA x EV x EF x ED)/(BW x AT)

Non-Mutagenic Chemicals

Cancer Ingestion Intake (Age 0 - 6) = 5.48E-06 Cancer Dermal Intake Time (Age 0 - 6) = 3.62E+01

Mutagenic Chemicals

Cancer Ingestion Intake (Age 0 - 2) = 1.83E-06 Cancer Dermal Intake (Age 0 - 2) = 1.21E+01
Cancer Ingestion Intake (Age 2 - 6) = 3.65E-06 Cancer Dermal Intake (Age 2 - 6) = 2.41E+01

Noncarcinogenic Chemicals

Noncancer Ingestion Intake = 6.39E-05 Noncancer Dermal Intake = 4.22E+02

Cancer risk from ingestion = Groundwater concentration x Cancer Ingestion Intake x Oral Cancer Slope Factor
Cancer risk from dermal contact = Groundwater concentration x Cancer Dermal Intake x DAevent x Dermal Cancer Slope Factor
Hazard Index from ingestion = Groundwater concentration x Noncancer Ingestion Intake / Oral Reference Dose
Hazard Index from dermal contact = Groundwater concentration x Noncancer Dermal Intake x DAevent / Dermal Reference Dose

TABLE 4.10.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE - ADULT RESIDENTS - SOILS
NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Future
Medium: Surface Soil/Subsurface Soil
Exposure Medium: Surface/Subsurface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Resident	Adult	Site 1	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002a	Intake (mg/kg/day) =
				IR-S	Ingestion Rate	100	mg/day	USEPA, 1991	
				RBA	Relative Bioavailability	Chemical Specific	unitless	USEPA, 1989	Cs x RBA x IRS x CF3 x FI x EF x ED
				CF3	Conversion Factor 3	1.0E-06	kg/mg	--	BW x AT
				FI	Fraction Ingested	1	unitless	USEPA, 1991	
				EF	Exposure Frequency	350	days/year	USEPA, 2002b	
				ED1	Exposure Duration (Age 6 - 16)	10	years	(1), USEPA, 1989, 2005	
				ED2	Exposure Duration (Age 16 - 30)	14	years	(1), USEPA, 1989, 2005	
				BW	Body Weight	70	kg	USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	USEPA, 1989	
Dermal	Resident	Adult	Site 1	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002	Dermally Absorbed Dose (mg/kg/day) =
				CF3	Conversion Factor 3	1.0E-06	kg/mg	--	
				SA	Skin Surface Available for Contact	5,700	cm2	USEPA, 2004	CS x CF3 x SA x SSAF x DABS x EV x EF x ED
				SSAF	Soil to Skin Adherence Factor	0.07	mg/cm2/event	USEPA, 2004	BW x AT
				DABS	Absorption Factor	Chemical Specific	unitless	USEPA, 2004	
				EV	Events Frequency	1	events/day	USEPA, 2004	
				EF	Exposure Frequency	350	days/year	USEPA, 2002b	
				ED1	Exposure Duration (Age 6 - 16)	10	years	(1), USEPA, 1989, 2005	
				ED2	Exposure Duration (Age 16 - 30)	14	years	(1), USEPA, 1989, 2005	
				BW	Body Weight	70	kg	USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	USEPA, 1989	

Notes:

1 - Adults will be evaluated as one age group (7 - 30 years) for non-mutagenic chemicals. For chemicals that act via the mutagenic mode of action, residential adults will be evaluated as two age groups, 7 - 16 years and 16 - 30 years in accordance with USEPA's Supplemental Guidance of Assessing Susceptibility from Early-Life Exposure to Carcinogens (USEPA, 2005).

Sources:

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A.
USEPA, 1991: Risk Assessment Guidance for Superfund - Supplemental Guidance- Standard Default Exposure Factors Interim Final.
USEPA, 1993: Superfund Standard Default Exposure Factors for the Central Tendency and Reasonable Maximum Exposure.
USEPA, 1994: USEPA Region I Risk Updates, August 1994.
USEPA, 2002:Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.
USEPA, 2002b: Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24.
USEPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

Unit Intake Calculations

Incidental Ingestion Intake = (IR-S x CF3 x FI x EF x ED)/(BW x AT)

Dermal Intake = (CF3 x SA x SSAF x EF x ED)/(BW x AT)

Non-Mutagenic Chemicals

Cancer Ingestion Intake (Age 6 - 30) = 4.70E-07 Cancer Dermal Intake (Age 6 - 30) = 1.87E-06

Mutagenic Chemicals

Cancer Ingestion Intake (Age 6 - 16) = 1.96E-07 Cancer Dermal Intake (Age 6 - 16) = 7.81E-07

Cancer Ingestion Intake (Age 16 - 30) = 2.74E-07 Cancer Dermal Intake (Age 16 - 30) = 1.09E-06

Noncarcinogenic Chemicals

Noncancer Ingestion Intake = 1.37E-06 Noncancer Dermal Intake = 5.47E-06

Cancer risk from ingestion = Soil concentration x Cancer Ingestion Intake x Oral Cancer Slope Factor

Cancer risk from dermal contact = Soil concentration x Cancer Dermal Intake x Absorption Factor x Dermal Cancer Slope Factor

Hazard Index from ingestion = Soil concentration x Noncancer Ingestion Intake / Oral Reference Dose

Hazard Index from dermal contact = Soil concentration x Noncancer Dermal Intake x Absorption Factor / Dermal Reference Dose

TABLE 4.11.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - ADULT RESIDENTS - SOILS TO AIR

NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Future
Medium: Surface/Subsurface Soil
Exposure Medium: Air

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Inhalation	Resident	Adult	Site 1	CA	Chemical concentration in air	Calculated	mg/m3	USEPA, 2002a	Exposure Concentration (mg/m^3) =
				CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002b	
				ET	Exposure Time	24	hours/day	USEPA, 1991	CA x ET x EF x ED
				EF	Exposure Frequency	350	days/year	USEPA, 2002a	AT x 24 hours/day
				ED1	Exposure Duration (Age 6 - 16)	10	years	(1), USEPA, 1989, 2005	
				ED2	Exposure Duration (Age 16 - 30)	14	years	(1), USEPA, 1989, 2005	CA = (1/PEF + 1/VF) x Cs
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8760	days	USEPA, 1989	
				PEF	Particulate Emission Factor	1.36E+09	m3/kg	USEPA 2002a	
				VF	Volatilization Factor	Chemical-specific	m3/kg	USEPA, 2002a	
				Q/C	Inverse of mean concentration at center of source	68.18365	g/m2-s per kg/m3	USEPA 2002a	

Notes:

1 - Adults will be evaluated as one age group (7 - 30 years) for non-mutagenic chemicals. For chemicals that act via the mutagenic mode of action, residential adults will be evaluated as two age groups, 7 - 16 years and 16 - 30 years in accordance with USEPA's Supplemental Guidance of Assessing Susceptibility from Early-Life Exposure to Carcinogens (USEPA, 2005).

Sources:

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A. USEPA/540/1-86/060.

USEPA, 1991: Risk Assessment Guidance for Superfund - Supplemental Guidance- Standard Default Exposure Factors Interim Final.

USEPA, 1994: USEPA Region I Risk Updates, August 1994.

USEPA, 2002a: Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24.

USEPA, 2002b: Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10.

Unit Intake Calculations

Unit Exposure Concentration = (ET x EF x ED)/(AT x 24 hours/day)

Non-Mutagenic Chemicals

Cancer Inhalation Intake (Age 6 - 30) = 3.29E-01

Noncarcinogenic Chemicals

Noncancer Inhalation Intake = 9.59E-01

Mutagenic Chemicals

Cancer Inhalation Intake (Age 6 - 16) = 1.37E-01

Cancer Inhalation Intake (Age 16 - 30) = 1.92E-01

Cancer risk from ingestion = Air concentration x Cancer Inhalation Intake x Inhalation Cancer Slope Factor

Hazard Index from ingestion = Air concentration x Noncancer Inhalation Intake / Inhalation Reference Dose

TABLE 4.12.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - ADULT RESIDENTS - GROUNDWATER

NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Residents	Adult	Site 1	CGW	Chemical Concentration in Groundwater	95% UCL or Max	ug/L	USEPA, 2002	Chronic Daily Intake (CDI) (mg/kg/day) =
				CF	Conversion Factor	0.001	mg/ug	--	
				IR-GW	Ingestion Rate of Groundwater	2	L/day	USEPA, 1994	CGW x CF x IR-GW x EF x ED
				EF	Exposure Frequency	350	days/year	USEPA, 1994	BW x AT
				ED1	Exposure Duration (Age 6 - 16)	10	years	(1), USEPA, 1989, 2005	
				ED2	Exposure Duration (Age 16 - 30)	14	years	(1), USEPA, 1989, 2005	
				BW	Body Weight	70	kg	USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	USEPA, 1989	
Dermal	Residents	Adult	Site 1	Daevent	Dermally Absorbed Dose per Event	Calculated	mg/cm2-event	USEPA, 2004	Dermally Absorbed Dose (mg/kg/day) =
				Cw	Chemical Concentration in Groundwater	Max or 95% UCL	mg/kg	USEPA, 2002a	DAevent x EV x EF x ED x SA
				FA	Fraction Absorbed	Chemical Specific	unitless	USEPA, 2004	BW x AT
				CF	Conversion factor	0.001	L/cm^3	- -	
				Kp	Permeability coefficient	Chemical Specific	cm/hr	USEPA, 2004	For inorganics
				τ	Lag time	Chemical Specific	hr/event	USEPA, 2004	DAevent = Kp x CW x CF x tevent
				t*	Time it takes to reach steady state	Chemical Specific	hr/event	USEPA, 2004	
				tevent	Duration of event	0.58	hr/event	USEPA, 2004	For organics if tevent <= t*
				B	Bunge model constant	Chemical Specific	unitless	USEPA, 2004	DAevent= 2 x FA x Kp x Cw x CF x sqrt[(6 x τ x tevent)/pi]
				SA	Skin Surface Available for Contact	18,000	cm2	USEPA, 2004	
				EV	Event Frequency	1	events/day	USEPA, 2004	
				EF	Exposure Frequency	350	days/year	USEPA, 1994	For organics if tevent > t*
				ED1	Exposure Duration (Age 6 - 16)	10	years	(1), USEPA, 1989, 2005	DAevent =FA x Kp x Cw x CF x [tevent/(1+B) +
				ED2	Exposure Duration (Age 16 - 30)	14	years	(1), USEPA, 1989, 2005	2 x τ +(1 + 3B + $3B^2$)/(1+B^2)
				BW	Body Weight	70	kg	USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	USEPA, 1989	

Notes:

1 - Adults will be evaluated as one age group (7 - 30 years) for non-mutagenic chemicals. For chemicals that act via the mutagenic mode of action, residential adults will be evaluated as two age groups, 7 - 16 years and 16 - 30 years in accordance with USEPA's Supplemental Guidance of Assessing Susceptibility from Early-Life Exposure to Carcinogens (USEPA, 2005).

Sources:

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A. EPA/540/1-86/060.

USEPA, 1991: Risk Assessment Guidance for Superfund - Supplemental Guidance- Standard Default Exposure Factors Interim Final.

USEPA, 1994: USEPA Region I Risk Updates, August 1994.

USEPA, 1997: Exposure Factors Handbook. USEPA/600/8-95/002FA.

USEPA, 2002: Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10.

USEPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

Unit Intake Calculations

Ingestion Intake = (IR-GW x EF x ED)/(BW x AT)

Dermal Intake = (SA x EV x EF x ED)/(BW x AT)

Non-Mutagenic Chemicals

Cancer Ingestion Intake (Age 6 - 30) = 9.39E-06 Cancer Dermal Intake (Age 6 - 30) = 8.45E+01

Mutagenic Chemicals

Cancer Ingestion Intake (Age 6 - 16) = 3.91E-06 Cancer Dermal Intake (Age 6 - 16) = 3.52E+01

Cancer Ingestion Intake (Age 16 - 30) = 5.48E-06 Cancer Dermal Intake (Age 16 - 30) = 4.93E+01

Noncarcinogenic Chemicals

Noncancer Ingestion Intake = 2.74E-05 Noncancer Dermal Intake = 2.47E+02

Cancer risk from ingestion = Groundwater concentration x Cancer Ingestion Intake x Oral Cancer Slope Factor

Cancer risk from dermal contact = Groundwater concentration x Cancer Dermal Intake x DAevent x Dermal Cancer Slope Factor

Hazard Index from ingestion = Groundwater concentration x Noncancer Ingestion Intake / Oral Reference Dose

Hazard Index from dermal contact = Groundwater concentration x Noncancer Dermal Intake x DAevent / Dermal Reference Dose

TABLE 4.1.CTE

VALUES USED FOR DAILY INTAKE CALCULATIONS

CENTRAL TENDENCY EXPOSURES - CONSTRUCTION WORKERS - SOILS

NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Current/Future
Medium: Surface Soil/Subsurface Soil
Exposure Medium: Surface/Subsurface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Construction Workers	Adult	Site 16	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002a	Intake (mg/kg/day) =
				IR-S	Ingestion Rate	165	mg/day	(1)	
				RBA	Relative Bioavailability	Chemical Specific	unitless	USEPA, 1989	Cs x RBA x IRS x CF3 x FI x EF x ED
				CF3	Conversion Factor 3	0.000001	kg/mg	--	BW x AT
				FI	Fraction Ingested	1	unitless	USEPA, 2002b	
				EF	Exposure Frequency	150	days/year	(1)	
				ED	Exposure Duration	1	years	(1)	
				BW	Body Weight	70	kg	USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	365	days	USEPA, 1989	
Dermal	Construction Workers	Adult	Site 16	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002a	Dermally Absorbed Dose (mg/kg/day) =
				CF3	Conversion Factor 3	0.000001	kg/mg	--	
				SA	Skin Surface Available for Contact	3300	cm2	USEPA, 2002b	CS x CF3 x SA x SSAF x DABS x EV x EF x ED
				SSAF	Soil to Skin Adherence Factor	0.1	mg/cm2/event	USEPA, 2004	BW x AT
				DABS	Absorption Factor	Chemical Specific	unitless	USEPA, 2004	
				EV	Events Frequency	1	events/day	USEPA, 2004	
				EF	Exposure Frequency	150	days/year	(1)	
				ED	Exposure Duration	1	years	(1)	
				BW	Body Weight	70	kg	USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	365	days	USEPA, 1989	

Notes:

1 - Professional judgment. For some factors, CTE is assumed to be 50 percent of RME.

Sources:

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A.

USEPA, 2002a:Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.

USEPA, 2002b: Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24.

USEPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

Unit Intake Calculations

Incidental Ingestion Intake = (IR-S x CF3 x FI x EF x ED)/(BW x AT)

Dermal Intake = (CF3 x SA x SSAF x EF x ED)/(BW x AT)

Cancer Ingestion Intake = 1.38E-08 Cancer Dermal Intake = 2.77E-08

Noncancer Ingestion Intake = 9.69E-07 Noncancer Dermal Intake = 1.94E-06

Cancer risk from ingestion = Soil concentration x Cancer Ingestion Intake x Oral Cancer Slope Factor

Cancer risk from dermal contact = Soil concentration x Cancer Dermal Intake x Absorption Factor x Dermal Cancer Slope Factor

Hazard Index from ingestion = Soil concentration x Noncancer Ingestion Intake / Oral Reference Dose

Hazard Index from dermal contact = Soil concentration x Noncancer Dermal Intake x Absorption Factor / Dermal Reference Dose

TABLE 4.2.CTE

VALUES USED FOR DAILY INTAKE CALCULATIONS

CENTRAL TENDENCY EXPOSURES - CONSTRUCTION WORKERS - SOILS TO AIR

NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Current/Future
Medium: Surface/Subsurface Soil
Exposure Medium: Air

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Inhalation	Construction Workers	Adult	Site 16	CA	Chemical concentration in air	Calculated	mg/m3	USEPA, 2002a	Exposure Concentration (mg/m^3) =
				CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002b	
				ET	Exposure Time	8	hours/day	(1)	CA x ET x EF x ED
				EF	Exposure Frequency	150	days/year	(1)	AT x 24 hours/day
				ED	Exposure Duration	1	years	(1)	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	CA = (1/PEF + 1/VF) x Cs
				AT-N	Averaging Time (Non-Cancer)	365	days	USEPA, 1989	
				PEF	Particulate Emission Factor	1.43E+06	m3/kg	USEPA, 2002a	
				VF	Volatilization Factor	Chemical-specific	m3/kg	USEPA, 2002a	
				Q/C	Inverse of mean concentration at center of source	14.31	g/m2-s per kg/m3	USEPA, 2002a	

Notes:

1 - Professional judgment. For some factors, CTE is assumed to be 50 percent of RME.

Sources:

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A. EPA/540/1-86/060.

USEPA, 1997: Exposure Factors Handbook. USEPA/600/8-95/002FA.

USEPA, 2002a: Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24.

USEPA, 2002b:Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.

Unit Intake Calculations

Unit Exposure Concentration = (ET x EF x ED)/(AT x 24 hours/day)

Cancer Inhalation Intake = 1.96E-03 Noncancer Inhalation Intake = 1.37E-01

Cancer risk from ingestion = Air concentration x Cancer Inhalation Intake x Inhalation Cancer Slope Factor

Hazard Index from ingestion = Air concentration x Noncancer Inhalation Intake / Inhalation Reference Dose

TABLE 4.3.CTE

VALUES USED FOR DAILY INTAKE CALCULATIONS

CENTRAL TENDENCY EXPOSURES - INDUSTRIAL WORKERS - SOIL

NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Current/Future
Medium: Surface Soil/Subsurface Soil
Exposure Medium: Surface/Subsurface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Industrial Workers	Adult	Site 1	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002	Intake (mg/kg/day) =
				IR-S	Ingestion Rate	50	mg/day	USEPA, 1993	
				RBA	Relative Bioavailability	Chemical Specific	unitless	USEPA, 1989	Cs x RBA x IRS x CF3 x FI x EF x ED
				CF3	Conversion Factor 3	0.000001	kg/mg	--	BW x AT
				FI	Fraction Ingested	1	unitless	USEPA, 1993	
				EF	Exposure Frequency	219	days/year	USEPA, 1993	
				ED	Exposure Duration	9	years	USEPA, 1993	
				BW	Body Weight	70	kg	USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	3285	days	USEPA, 1989	
Dermal	Industrial Workers	Adult	Site 1	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002	Dermally Absorbed Dose (mg/kg/day) =
				CF3	Conversion Factor 3	0.000001	kg/mg	--	
				SA	Skin Surface Available for Contact	3300	cm2	USEPA, 2004	CS x CF3 x SA x SSAF x DABS x EV x EF x ED
				SSAF	Soil to Skin Adherence Factor	0.02	mg/cm2/event	USEPA, 2004	BW x AT
				DABS	Absorption Factor	Chemical Specific	unitless	USEPA, 2004	
				EV	Events Frequency	1	events/day	USEPA, 2004	
				EF	Exposure Frequency	219	days/year	USEPA, 1993	
				ED	Exposure Duration	9	years	USEPA, 1993	
				BW	Body Weight	70	kg	USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	3285	days	USEPA, 1989	

Sources:

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A.

USEPA, 1993: Superfund's Standard Default Exposure Factors for the Central Tendency and Reasonable Maximum Exposure.

USEPA, 2002: Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.

USEPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

Unit Intake Calculations

Incidental Ingestion Intake = (IR-S x CF3 x FI x EF x ED)/(BW x AT)

Dermal Intake = (CF3 x SA x SSAF x EF x ED)/(BW x AT)

Cancer Ingestion Intake = 5.51E-08 Cancer Dermal Intake = 7.27E-08

Noncancer Ingestion Intake = 4.29E-07 Noncancer Dermal Intake = 5.66E-07

Cancer risk from ingestion = Soil concentration x Cancer Ingestion Intake x Oral Cancer Slope Factor

Cancer risk from dermal contact = Soil concentration x Cancer Dermal Intake x Absorption Factor x Dermal Cancer Slope Factor

Hazard Index from ingestion = Soil concentration x Noncancer Ingestion Intake / Oral Reference Dose

Hazard Index from dermal contact = Soil concentration x Noncancer Dermal Intake x Absorption Factor / Dermal Reference Dose

TABLE 4.4.CTE

VALUES USED FOR DAILY INTAKE CALCULATIONS

CENTRAL TENDENCY EXPOSURES - INDUSTRIAL WORKERS - SOIL TO AIR

NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Current/Future
Medium: Surface/Subsurface Soil
Exposure Medium: Air

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Inhalation	Industrial Workers	Adult	Site 1	CA	Chemical concentration in air	Calculated	mg/m3	USEPA, 2002a	Exposure Concentration (mg/m^3) =
				CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002b	
				ET	Exposure Time	8	hours/day	(1)	CA x ET x EF x ED
				EF	Exposure Frequency	219	days/year	USEPA, 2002a	AT x 24 hours/day
				ED	Exposure Duration	9	years	USEPA, 1993	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	CA = (1/PEF + 1/VF) x Cs
				AT-N	Averaging Time (Non-Cancer)	3285	days	USEPA, 1989	
				PEF	Particulate Emission Factor	1.36E+09	m3/kg	USEPA 2002a	
				VF	Volatilization Factor	Chemical-specific	m3/kg	USEPA, 2002a	
				Q/C	Inverse of mean concentration at center of source	68.18365	g/m2-s per kg/m3	USEPA 2002a	

Notes:

1 - Length of typical work day.

Sources:

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A. USEPA/540/1-86/060.

USEPA, 1993: Superfund Standard Default Exposure Factors for the Central Tendency and Reasonable Maximum Exposure.

USEPA, 1997: Exposure Factors Handbook. USEPA/600/8-95/002FA.

USEPA, 2002a: Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24.

USEPA, 2002b:Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.

Unit Intake Calculations

Unit Exposure Concentration = (ET x EF x ED)/(AT x 24 hours/day)

Cancer Inhalation Intake = 2.57E-02 Noncancer Inhalation Intake = 2.00E-01

Cancer risk from ingestion = Air concentration x Cancer Inhalation Intake x Inhalation Cancer Slope Factor

Hazard Index from ingestion = Air concentration x Noncancer Inhalation Intake / Inhalation Reference Dose

TABLE 4.5.CTE

VALUES USED FOR DAILY INTAKE CALCULATIONS

CENTRAL TENDENCY EXPOSURES - ADOLESCENT TRESPASSERS - SOILS

NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Current/Future
Medium: Surface Soil/Subsurface Soil
Exposure Medium: Surface/Subsurface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Trespassers	Adolescent	Site 1	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002	Intake (mg/kg/day) =
				IR-S	Ingestion Rate	50	mg/day	USEPA, 1993	
				RBA	Relative Bioavailability	Chemical Specific	unitless	USEPA, 1989	Cs x RBA x IRS x CF3 x FI x EF x ED
				CF3	Conversion Factor 3	0.000001	kg/mg	--	BW x AT
				FI	Fraction Ingested	1	unitless	USEPA, 1993	
				EF	Exposure Frequency	13	days/year	(1)	
				ED	Exposure Duration	10	years	(2)	
				BW	Body Weight	45	kg	USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	3650	days	USEPA, 1989	
Dermal	Trespassers	Adolescent	Site 1	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002	Dermally Absorbed Dose (mg/kg/day) =
				CF3	Conversion Factor 3	0.000001	kg/mg	--	
				SA	Skin Surface Available for Contact	3280	cm2	(3)	CS x CF3 x SA x SSAF x DABS x EV x EF x ED
				SSAF	Soil to Skin Adherence Factor	0.04	mg/cm2/event	USEPA, 2004	BW x AT
				DABS	Absorption Factor	Chemical Specific	unitless	USEPA, 2004	
				EV	Events Frequency	1	events/day	USEPA, 2004	
				EF	Exposure Frequency	13	days/year	(1)	
				ED	Exposure Duration	10	years	(2)	
				BW	Body Weight	45	kg	USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	3650	days	USEPA, 1989	

Notes:

1 - Assume one day a week for RME and one day every other week for CTE.

2 - Older child from age 6 to 17.

3 - Assume 25 percent of total body surface area is exposed, U.S. EPA, 1997: Exposure Factors Handbook. EPA/600/8-95/002FA.

Sources:

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A. EPA/540/1-86/060.

USEPA, 1993: Superfund's Standard Default Exposure Factors for the Central Tendency and Reasonable Maximum Exposure.

USEPA, 2002: Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.

USEPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

Unit Intake Calculations

Incidental Ingestion Intake = (IR-S x CF3 x FI x EF x ED)/(BW x AT)

Dermal Intake = (CF3 x SA x SSAF x EF x ED)/(BW x AT)

Cancer Ingestion Intake = 5.65E-09 Cancer Dermal Intake = 1.48E-08

Noncancer Ingestion Intake = 3.96E-08 Noncancer Dermal Intake = 1.04E-07

Cancer risk from ingestion = Soil concentration x Cancer Ingestion Intake x Oral Cancer Slope Factor

Cancer risk from dermal contact = Soil concentration x Cancer Dermal Intake x Absorption Factor x Dermal Cancer Slope Factor

Hazard Index from ingestion = Soil concentration x Noncancer Ingestion Intake / Oral Reference Dose

Hazard Index from dermal contact = Soil concentration x Noncancer Dermal Intake x Absorption Factor / Dermal Reference Dose

TABLE 4.6.CTE

VALUES USED FOR DAILY INTAKE CALCULATIONS

CENTRAL TENDENCY EXPOSURES - ADOLESCENT TRESPASSERS - SOILS TO AIR

NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Current/Future
Medium: Surface/Subsurface Soil
Exposure Medium: Air

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Inhalation	Trespassers	Adolescent	Site 1	CA	Chemical concentration in air	Calculated	mg/m3	USEPA, 2002a	Exposure Concentration (mg/m^3) =
				CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002b	
				ET	Exposure Time	2	hours/day	(1)	CA x ET x EF x ED
				EF	Exposure Frequency	13	days/year	(2)	AT x 24 hours/day
				ED	Exposure Duration	10	years	(3)	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	CA = (1/PEF + 1/VF) x Cs
				AT-N	Averaging Time (Non-Cancer)	3,650	days	USEPA, 1989	
				PEF	Particulate Emission Factor	1.36E+09	m3/kg	USEPA 2002a	
				VF	Volatilization Factor	Chemical-specific	m3/kg	USEPA, 2002a	
				Q/C	Inverse of mean concentration at center of source	68.18365	g/m2-s per kg/m3	USEPA 2002a	

Notes:

1 - Professional judgment.

2 - Assume one day a week for RME and one day every other week for CTE.

3 - Older child from age 6 to 17.

Sources:

MEDEP, 1994: Guidance Manual for Human Health Risk Assessments at Hazardous Substance Sites.

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A. USEPA/540/1-86/060.

USEPA, 1997: Exposure Factors Handbook. USEPA/600/8-95/002FA.

USEPA, 2002a: Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24.

USEPA, 2002b: Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.

USEPA, 2013: Soil Screening Guidance calculation Internet site at http://rais.ornl.gov/epa/ssl1.shtml. Site-specific values for Hartford, Connecticut.

Unit Intake Calculations

Unit Exposure Concentration = (ET x EF x ED)/(AT x 24 hours/day)

Cancer Inhalation Intake = 4.24E-04 Noncancer Inhalation Intake = 2.97E-03

Cancer risk from ingestion = Air concentration x Cancer Inhalation Intake x Inhalation Cancer Slope Factor

Hazard Index from ingestion = Air concentration x Noncancer Inhalation Intake / Inhalation Reference Dose

TABLE 4.7.CTE
VALUES USED FOR DAILY INTAKE CALCULATIONS
CENTRAL TENDENCY EXPOSURES - CHILD RESIDENTS - SOILS
NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Future
Medium: Surface Soil/Subsurface Soil
Exposure Medium: Surface/Subsurface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Resident	Child	Site 1	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002	Intake (mg/kg/day) =
				IR-S	Ingestion Rate	100	mg/day	USEPA, 1993	
				RBA	Relative Bioavailability	Chemical Specific	unitless	USEPA, 1989	Cs x RBA x IRS x CF3 x FI x EF x ED
				CF3	Conversion Factor 3	1.0E-06	kg/mg	--	BW x AT
				FI	Fraction Ingested	1	unitless	USEPA, 1993	
				EF	Exposure Frequency	234	days/year	USEPA, 1993	
				ED1	Exposure Duration (Age 0 - 2)	1	years	(1), USEPA, 1989, 2005	
				ED2	Exposure Duration (Age 2 - 6)	1	years	(1), USEPA, 1989, 2005	
				BW	Body Weight	15	kg	USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
Dermal	Resident	Child	Site 1	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002	Dermally Absorbed Dose (mg/kg/day) =
				CF3	Conversion Factor 3	1E-06	kg/mg	--	
				SA	Skin Surface Available for Contact	2,800	cm2	USEPA, 2004	CS x CF3 x SA x SSAF x DABS x EV x EF x ED
				SSAF	Soil to Skin Adherence Factor	0.04	mg/cm2/event	USEPA, 2004	BW x AT
				DABS	Absorption Factor	Chemical Specific	unitless	USEPA, 2004	
				EV	Events Frequency	1	events/day	USEPA, 2004	
				EF	Exposure Frequency	234	days/year	USEPA, 1993	
				ED1	Exposure Duration (Age 0 - 2)	1	years	(1), USEPA, 1989, 2005	
				ED2	Exposure Duration (Age 2 - 6)	1	years	(1), USEPA, 1989, 2005	
				BW	Body Weight	15	kg	USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	

Notes:
1 - Children will be evaluated as one age group (0 - 6 years) for non-mutagenic chemicals. For chemicals that act via the mutagenic mode of action, residential children will be evaluated as two age groups, 0 - 2 years and 2 - 6 years in accordance with USEPA's Supplemental Guidance of Assessing Susceptibility from Early-Life Exposure to Carcinogens (USEPA, 2005).

Sources:
USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A. EPA/540/1-86/060.
USEPA, 1993: Superfund Standard Default Exposure Factors for the Central Tendency and Reasonable Maximum Exposure.
USEPA, 1994: USEPA Region I Risk Updates, August 1994.
USEPA, 2002: Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.
USEPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

Unit Intake Calculations

Incidental Ingestion Intake = (IR-S x CF3 x FI x EF x ED)/(BW x AT)
Dermal Intake = (CF3 x SA x SSAF x EF x ED)/(BW x AT)

Non-Mutagenic Chemicals

Cancer Ingestion Intake = 1.22E-07 Cancer Dermal Intake = 1.37E-07

Mutagenic Chemicals

Cancer Ingestion Intake (Age 0 - 2) = 6.11E-08 Cancer Dermal Intake (Age 0 - 2) = 6.84E-08
Cancer Ingestion Intake (Age 2 - 6) = 6.11E-08 Cancer Dermal Intake (Age 2 - 6) = 6.84E-08

Noncarcinogenic Chemicals

Noncancer Ingestion Intake = 4.27E-06 Noncancer Dermal Intake = 4.79E-06

Cancer risk from ingestion = Soil concentration x Cancer Ingestion Intake x Oral Cancer Slope Factor
Cancer risk from dermal contact = Soil concentration x Cancer Dermal Intake x Absorption Factor x Dermal Cancer Slope Factor
Hazard Index from ingestion = Soil concentration x Noncancer Ingestion Intake / Oral Reference Dose
Hazard Index from dermal contact = Soil concentration x Noncancer Dermal Intake x Absorption Factor / Dermal Reference Dose

TABLE 4.8.CTE

VALUES USED FOR DAILY INTAKE CALCULATIONS

CENTRAL TENDENCY EXPOSURES - CHILD RESIDENTS - SOILS TO AIR

NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Future
Medium: Surface/Subsurface Soil
Exposure Medium: Air

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Inhalation	Resident	Child	Site 1	CA	Chemical concentration in air	Calculated	mg/m3	USEPA, 2002a	Exposure Concentration (mg/m^3) =
				CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002b	
				ET	Exposure Time	24	hours/day	USEPA, 1993	CA x ET x EF x ED
				EF	Exposure Frequency	234	days/year	USEPA, 1994	AT x 24 hours/day
				ED1	Exposure Duration (Age 0 - 2)	1	years	(1), USEPA, 1989, 2005	
				ED2	Exposure Duration (Age 2 - 6)	1	years	(1), USEPA, 1989, 2005	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	CA = (1/PEF + 1/VF) x Cs
				AT-N	Averaging Time (Non-Cancer)	730	days	USEPA, 1989	
				PEF	Particulate Emission Factor	1.36E+09	m3/kg	USEPA 2002a	
				VF	Volatilization Factor	Chemical-specific	m3/kg	USEPA, 2002a	
				Q/C	Inverse of mean concentration at center of source	68.18365	g/m2-s per kg/m3	USEPA 2002a	

Notes:

1 - Children will be evaluated as one age group (0 - 6 years) for non-mutagenic chemicals. For chemicals that act via the mutagenic mode of action, residential children will be evaluated as two age groups, 0 - 2 years and 2 - 6 years in accordance with USEPA's Supplemental Guidance of Assessing Susceptibility from Early-Life Exposure to Carcinogens (USEPA, 2005).

Sources:

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A. USEPA/540/1-86/060.

USEPA, 1991: Risk Assessment Guidance for Superfund - Supplemental Guidance- Standard Default Exposure Factors Interim Final.

USEPA, 1993: Superfund Standard Default Exposure Factors for the Central Tendency and Reasonable Maximum Exposure.

USEPA, 1994: USEPA Region I Risk Updates, August 1994.

USEPA, 2002a: Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24.

USEPA, 2002b: Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.

Unit Intake Calculations

Unit Exposure Concentration = (ET x EF x ED)/(AT x 24 hours/day)

Non-Mutagenic Chemicals

Cancer Inhalation Intake = 1.83E-02

Noncarcinogenic Chemicals

Noncancer Inhalation Intake = 6.41E-01

Mutagenic Chemicals

Cancer Inhalation Intake (Age 0 - 2) = 9.16E-03

Cancer Inhalation Intake (Age 2 - 6) = 9.16E-03

Cancer risk from ingestion = Air concentration x Cancer Inhalation Intake x Inhalation Cancer Slope Factor

Hazard Index from ingestion = Air concentration x Noncancer Inhalation Intake / Inhalation Reference Dose

TABLE 4.9.CTE
VALUES USED FOR DAILY INTAKE CALCULATIONS
CENTRAL TENDENCY EXPOSURES - CHILD RESIDENTS - GROUNDWATER
NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Residents	Child	Site 1	CGW	Chemical Concentration in Groundwater	Max or 95% UCL	mg/kg	USEPA, 2002	Chronic Daily Intake (CDI) (mg/kg/day) =
				CF	Conversion Factor	0.001	mg/ug	--	
				IR-GW	Ingestion Rate of Groundwater	0.66	L/day	USEPA, 1997	CGW x CF x IR-GW x EF x ED
				EF	Exposure Frequency	350	days/year	USEPA, 1994	BW x AT
				ED1	Exposure Duration (Age 0 - 2)	2	years	(1), USEPA, 1989, 2005	
				ED2	Exposure Duration (Age 2 - 6)	4	years	(1), USEPA, 1989, 2005	
				BW	Body Weight	15	kg	USEPA, 1993	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
Dermal	Residents	Child	Site 1	Daevent	Dermally Absorbed Dose per Event	Calculated	mg/cm2-event	USEPA, 2004	Dermally Absorbed Dose (mg/kg/day) =
				Cw	Chemical Concentration in Groundwater	Max or 95% UCL	mg/kg	USEPA, 2002a	
				FA	Fraction Absorbed	Chemical Specific	unitless	USEPA, 2004	DAevent x EV x EF x ED x SA
				CF	Conversion factor	0.001	L/cm^3	- -	BW x AT
				Kp	Permeability coefficient	Chemical Specific	cm/hr	USEPA, 2004	
				τ	Lag time	Chemical Specific	hr/event	USEPA, 2004	For inorganics
				t*	Time it takes to reach steady state	Chemical Specific	hr/event	USEPA, 2004	DAevent = Kp x CW x CF x tevent
				tevent	Duration of event	0.33	hr/event	USEPA, 1997	
				B	Bunge model constant	Chemical Specific	unitless	USEPA, 2004	For organics if tevent <= t*
				SA	Skin Surface Available for Contact	6,600	cm2	USEPA, 2004	DAevent= 2 x FA x Kp x Cw x CF x sqrt[(6 x τ x tevent)/pi]
				EV	Event Frequency	1	events/day	USEPA, 2004	
				EF	Exposure Frequency	350	days/year	USEPA, 1994	For organics if tevent > t*
				ED1	Exposure Duration (Age 0 - 2)	2	years	(1), USEPA, 1989, 2005	DAevent =FA x Kp x Cw x CF x [tevent/(1+B) +
				ED2	Exposure Duration (Age 2 - 6)	4	years	(1), USEPA, 1989, 2005	2 x τ +(1 + 3B + $3B^2$)/(1+B^2)
				BW	Body Weight	15	kg	USEPA, 1993	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	

Notes:
1 - Children will be evaluated as one age group (0 - 6 years) for non-mutagenic chemicals. For chemicals that act via the mutagenic mode of action, residential children will be evaluated as two age groups, 0 - 2 years and 2 - 6 years in accordance with USEPA's Supplemental Guidance of Assessing Susceptibility from Early-Life Exposure to Carcinogens (USEPA, 2005).

Sources:
USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A. EPA/540/1-86/060.
USEPA, 1993: Superfund Standard Default Exposure Factors for the Central Tendency and Reasonable Maximum Exposure.
USEPA, 1994: USEPA Region I Risk Updates, August 1994.
USEPA, 1997: Exposure Factors Handbook. EPA/600/P-95/002Fa
USEPA, 2002: Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.
USEPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

Unit Intake Calculations

Ingestion Intake = (IR-GW x EF x ED)/(BW x AT)
Dermal Intake = (SA x EV x EF x ED)/(BW x AT)

Non-Mutagenic Chemicals

Cancer Ingestion Intake = 3.62E-06 Cancer Dermal Intake = 3.62E+01

Mutagenic Chemicals

Cancer Ingestion Intake (Age 0 - 2) = 1.21E-06 Cancer Dermal Intake (Age 0 - 2) = 1.21E+01
Cancer Ingestion Intake (Age 2 - 6) = 2.41E-06 Cancer Dermal Intake (Age 2 - 6) = 2.41E+01

Noncarcinogenic Chemicals

Noncancer Ingestion Intake = 4.22E-05 Noncancer Dermal Intake = 4.22E+02

Cancer risk from ingestion = Groundwater concentration x Cancer Ingestion Intake x Oral Cancer Slope Factor
Cancer risk from dermal contact = Groundwater concentration x Cancer Dermal Intake x DAevent x Dermal Cancer Slope Factor
Hazard Index from ingestion = Groundwater concentration x Noncancer Ingestion Intake / Oral Reference Dose
Hazard Index from dermal contact = Groundwater concentration x Noncancer Dermal Intake x DAevent / Dermal Reference Dose

TABLE 4.10.CTE
VALUES USED FOR DAILY INTAKE CALCULATIONS
CENTRAL TENDENCY EXPOSURES - ADULT RESIDENTS - SOILS
NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Future
Medium: Surface Soil/Subsurface Soil
Exposure Medium: Surface/Subsurface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Resident	Adult	Site 1	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002	Intake (mg/kg/day) =
				IR-S	Ingestion Rate	50	mg/day	USEPA, 1993	
				RBA	Relative Bioavailability	Chemical Specific	unitless	USEPA, 1989	Cs x RBA x IRS x CF3 x FI x EF x ED
				CF3	Conversion Factor 3	1.0E-06	kg/mg	--	BW x AT
				FI	Fraction Ingested	1	unitless	USEPA, 1993	
				EF	Exposure Frequency	234	days/year	USEPA, 1993	
				ED1	Exposure Duration (Age 6 - 16)	2	years	(1), USEPA, 1989, 2005	
				ED2	Exposure Duration (Age 16 - 30)	5	years	(1), USEPA, 1989, 2005	
				BW	Body Weight	70	kg	USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,555	days	USEPA, 1989	
Dermal	Resident	Adult	Site 1	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002	Dermally Absorbed Dose (mg/kg/day) =
				CF3	Conversion Factor 3	1.0E-06	kg/mg	--	
				SA	Skin Surface Available for Contact	5,700	cm2	USEPA, 2004	CS x CF3 x SA x SSAF x DABS x EV x EF x ED
				SSAF	Soil to Skin Adherence Factor	0.01	mg/cm2/event	USEPA, 2004	BW x AT
				DABS	Absorption Factor	Chemical Specific	unitless	USEPA, 2004	
				EV	Events Frequency	1	events/day	USEPA, 2004	
				EF	Exposure Frequency	234	days/year	USEPA, 1993	
				ED1	Exposure Duration (Age 6 - 16)	2	years	(1), USEPA, 1989, 2005	
				ED2	Exposure Duration (Age 16 - 30)	5	years	(1), USEPA, 1989, 2005	
				BW	Body Weight	70	kg	USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,555	days	USEPA, 1989	

Notes:

1 - Adults will be evaluated as one age group (7 - 30 years) for non-mutagenic chemicals. For chemicals that act via the mutagenic mode of action, residential adults will be evaluated as two age groups, 7 - 16 years and 16 - 30 years in accordance with USEPA's Supplemental Guidance of Assessing Susceptibility from Early-Life Exposure to Carcinogens (USEPA, 2005).

Sources:

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A.

USEPA, 1993: Superfund Standard Default Exposure Factors for the Central Tendency and Reasonable Maximum Exposure.

USEPA, 1994: USEPA Region I Risk Updates, August 1994.

USEPA, 2002: Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10.

USEPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

Unit Intake Calculations

Incidental Ingestion Intake = (IR-S x CF3 x FI x EF x ED)/(BW x AT)

Dermal Intake = (CF3 x SA x SSAF x EF x ED)/(BW x AT)

Non-Mutagenic Chemicals

Cancer Ingestion Intake = 4.58E-08 Cancer Dermal Intake = 5.22E-08

Mutagenic Chemicals

Cancer Ingestion Intake (Age 6 - 16) = 1.31E-08 Cancer Dermal Intake (Age 6 - 16) = 1.49E-08

Cancer Ingestion Intake (Age 16 - 30) = 3.27E-08 Cancer Dermal Intake (Age 16 - 30) = 3.73E-08

Noncarcinogenic Chemicals

Noncancer Ingestion Intake = 4.58E-07 Noncancer Dermal Intake = 5.22E-07

Cancer risk from ingestion = Soil concentration x Cancer Ingestion Intake x Oral Cancer Slope Factor

Cancer risk from dermal contact = Soil concentration x Cancer Dermal Intake x Absorption Factor x Dermal Cancer Slope Factor

Hazard Index from ingestion = Soil concentration x Noncancer Ingestion Intake / Oral Reference Dose

Hazard Index from dermal contact = Soil concentration x Noncancer Dermal Intake x Absorption Factor / Dermal Reference Dose

TABLE 4.11.CTE

VALUES USED FOR DAILY INTAKE CALCULATIONS

CENTRAL TENDENCY EXPOSURES - ADULT RESIDENTS - SOILS TO AIR

NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Future
Medium: Surface/Subsurface Soil
Exposure Medium: Air

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Inhalation	Resident	Adult	Site 1	CA	Chemical concentration in air	Calculated	mg/m3	USEPA, 2002a	Exposure Concentration (mg/m^3) =
				CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002b	
				ET	Exposure Time	24	hours/day	USEPA, 1993	CA x ET x EF x ED
				EF	Exposure Frequency	234	days/year	USEPA, 1994	AT x 24 hours/day
				ED1	Exposure Duration (Age 6 - 16)	2	years	(1), USEPA, 1989, 2005	
				ED2	Exposure Duration (Age 16 - 30)	5	years	(1), USEPA, 1989, 2005	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	CA = (1/PEF + 1/VF) x Cs
				AT-N	Averaging Time (Non-Cancer)	2555	days	USEPA, 1989	
				PEF	Particulate Emission Factor	1.36E+09	m3/kg	USEPA 2002a	
				VF	Volatilization Factor	Chemical-specific	m3/kg	USEPA, 2002a	
				Q/C	Inverse of mean concentration at center of source	68.18365	g/m2-s per kg/m3	USEPA 2002a	

Notes:

1 - Adults will be evaluated as one age group (7 - 30 years) for non-mutagenic chemicals. For chemicals that act via the mutagenic mode of action, residential adults will be evaluated as two age groups, 7 - 16 years and 16 - 30 years in accordance with USEPA's Supplemental Guidance of Assessing Susceptibility from Early-Life Exposure to Carcinogens (USEPA, 2005).

Sources:

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A. USEPA/540/1-86/060.

USEPA, 1991: Risk Assessment Guidance for Superfund - Supplemental Guidance- Standard Default Exposure Factors Interim Final.

USEPA, 1993: Superfund Standard Default Exposure Factors for the Central Tendency and Reasonable Maximum Exposure.

USEPA, 1994: USEPA Region I Risk Updates, August 1994.

USEPA, 2002a: Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24.

USEPA, 2002b: Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10.

Unit Intake Calculations

Unit Exposure Concentration = (ET x EF x ED)/(AT x 24 hours/day)

Non-Mutagenic Chemicals

Cancer Inhalation Intake = 6.41E-02

Noncarcinogenic Chemicals

Noncancer Inhalation Intake = 6.41E-01

Mutagenic Chemicals

Cancer Inhalation Intake (Age 6 - 16) = 1.83E-02

Cancer Inhalation Intake (Age 16 - 30) = 4.58E-02

Cancer risk from ingestion = Air concentration x Cancer Inhalation Intake x Inhalation Cancer Slope Factor

Hazard Index from ingestion = Air concentration x Noncancer Inhalation Intake / Inhalation Reference Dose

TABLE 4.12.CTE

VALUES USED FOR DAILY INTAKE CALCULATIONS

CENTRAL TENDENCY EXPOSURES - ADULT RESIDENTS - GROUNDWATER

NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Residents	Adult	Site 1	CGW	Chemical Concentration in Groundwater	95% UCL or Max	ug/L	USEPA, 2002	Chronic Daily Intake (CDI) (mg/kg/day) =
				CF	Conversion Factor	0.001	mg/ug	--	
				IR-GW	Ingestion Rate of Groundwater	1.4	L/day	USEPA, 1994	CGW x CF x IR-GW x EF x ED
				EF	Exposure Frequency	350	days/year	USEPA, 1994	BW x AT
				ED1	Exposure Duration (Age 6 - 16)	2	years	(1), USEPA, 1989, 2005	
				ED2	Exposure Duration (Age 16 - 30)	5	years	(1), USEPA, 1989, 2005	
				BW	Body Weight	70	kg	USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,555	days	USEPA, 1989	
Dermal	Residents	Adult	Site 1	Daevent	Dermally Absorbed Dose per Event	Calculated	mg/cm2-event	USEPA, 2004	Dermally Absorbed Dose (mg/kg/day) =
				Cw	Chemical Concentration in Groundwater	Max or 95% UCL	mg/kg	USEPA, 2002a	
				FA	Fraction Absorbed	Chemical Specific	unitless	USEPA, 2004	DAevent x EV x EF x ED x SA
				CF	Conversion factor	0.001	L/cm^3	- -	BW x AT
				Kp	Permeability coefficient	Chemical Specific	cm/hr	USEPA, 2004	
				τ	Lag time	Chemical Specific	hr/event	USEPA, 2004	For inorganics
				t*	Time it takes to reach steady state	Chemical Specific	hr/event	USEPA, 2004	DAevent = Kp x CW x CF x tevent
				tevent	Duration of event	0.25	hr/event	USEPA, 1997	
				B	Bunge model constant	Chemical Specific	unitless	USEPA, 2004	For organics if tevent <= t*
				SA	Skin Surface Available for Contact	18,000	cm2	USEPA, 2004	DAevent= 2 x FA x Kp x Cw x CF x sqrt[(6 x τ x tevent)/pi]
				EV	Event Frequency	1	events/day	USEPA, 2004	
				EF	Exposure Frequency	350	days/year	USEPA, 1994	
				ED1	Exposure Duration (Age 6 - 16)	2	years	(1), USEPA, 1989, 2005	DAevent =FA x Kp x Cw x CF x [tevent/(1+B) +
				ED2	Exposure Duration (Age 16 - 30)	5	years	(1), USEPA, 1989, 2005	
				BW	Body Weight	70	kg	USEPA, 1989	2 x τ +(1 + 3B + $3B^2$)/(1+B^2)
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,555	days	USEPA, 1989	

Notes:

1 - Adults will be evaluated as one age group (7 - 30 years) for non-mutagenic chemicals. For chemicals that act via the mutagenic mode of action, residential adults will be evaluated as two age groups, 7 - 16 years and 16 - 30 years in accordance with USEPA's Supplemental Guidance of Assessing Susceptibility from Early-Life Exposure to Carcinogens (USEPA, 2005).

Sources:

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A. EPA/540/1-86/060.

USEPA, 1993: Superfund Standard Default Exposure Factors for the Central Tendency and Reasonable Maximum Exposure.

USEPA, 1994: USEPA Region I Risk Updates, August 1994.

USEPA, 1997: Exposure Factors Handbook. USEPA/600/8-95/002FA.

USEPA, 2002: Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10.

USEPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

Unit Intake Calculations

Ingestion Intake = (IR-GW x EF x ED)/(BW x AT)

Dermal Intake = (SA x EV x EF x ED)/(BW x AT)

Non-Mutagenic Chemicals

Cancer Ingestion Intake = 1.92E-06 Cancer Dermal Intake = 2.47E+01

Mutagenic Chemicals

Cancer Ingestion Intake (Age 6 - 16) = 5.48E-07 Cancer Dermal Intake (Age 6 - 16) = 7.05E+00

Cancer Ingestion Intake (Age 16 - 30) = 1.37E-06 Cancer Dermal Intake (Age 16 - 30) = 1.76E+01

Noncarcinogenic Chemicals

Noncancer Ingestion Intake = 1.92E-05 Noncancer Dermal Intake = 2.47E+02

Cancer risk from ingestion = Groundwater concentration x Cancer Ingestion Intake x Oral Cancer Slope Factor

Cancer risk from dermal contact = Groundwater concentration x Cancer Dermal Intake x DAevent x Dermal Cancer Slope Factor

Hazard Index from ingestion = Groundwater concentration x Noncancer Ingestion Intake / Oral Reference Dose

Hazard Index from dermal contact = Groundwater concentration x Noncancer Dermal Intake x DAevent / Dermal Reference Dose

RAGS Part D Table 5

Non-Cancer Toxicity Data

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RAGS PART D TABLE 5
NON-CANCER TOXICITY DATA

Table No.

5-1 Non-Cancer Toxicity Data - Oral/Dermal
5-2 Non-Cancer Toxicity Data - Inhalation

TABLE 5.1
NON-CANCER TOXICITY DATA -- ORAL/DERMAL
NWIRP BETHPAGE
BETHPAGE, NEW YORK

Chemical of Potential Concern	Chronic/ Subchronic	Oral RfD		Oral Absorption Efficiency for Dermal[1]	Absorbed RfD for Dermal[2]		Primary Target Organ(s)	Combined Uncertainty/Modifying Factors	RfD:Target Organ(s)	
		Value	Units		Value	Units			Source(s)	Date(s) (MM/DD/YYYY)
PCBs										
Aroclor-1242	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	Subchronic	3.0E-05	mg/kg/day	1	3.0E-05	mg/kg/day	Central Nervous System	300/1	ATSDR	11/2000
	Chronic	2.0E-05	mg/kg/day	1	2.0E-05	mg/kg/day	Immune System	300/1	IRIS	9/20/2013
Aroclor-1260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics										
Aluminum	Subchronic	1.0E+00	mg/kg/day	1	1.0E+00	mg/kg/day	Central Nervous System	30/1	ATSDR	9/2008
	Chronic	1.0E+00	mg/kg/day	1	1.0E+00	mg/kg/day	Central Nervous System	100	PPRTV	10/23/2006
Arsenic	Chronic	3.0E-04	mg/kg/day	1	3.0E-04	mg/kg/day	Skin, Cardiovascular System	3/1	IRIS	9/20/2013
Chromium[3]	Subchronic	5.0E-03	mg/kg/day	0.025	1.3E-04	mg/kg/day	Kidney	100/1	ATSDR	9/2012
	Chronic	3.0E-03	mg/kg/day	0.025	7.5E-05	mg/kg/day	None Reported	300/3	IRIS	9/20/2013
Cobalt	Subchronic	3.0E-03	mg/kg/day	1	3.0E-03	mg/kg/day	Thyroid	300/1	PPRTV	8/25/2008
	Chronic	3.0E-04	mg/kg/day	1	3.0E-04	mg/kg/day	Thyroid	3000/1	PPRTV	8/25/2008
Iron	Subchronic	7.0E-01	mg/kg/day	1	7.0E-01	mg/kg/day	Gastrointestinal System	1.5	PPRTV	9/11/2006
	Chronic	7.0E-01	mg/kg/day	1	7.0E-01	mg/kg/day	Gastrointestinal System	1.5	PPRTV	9/11/2006
Thallium[4]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
1 - U.S. EPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Interim. EPA/540/R/99/005.
2 - Adjusted dermal RfD = Oral RfD x Oral Absorption Efficiency for Dermal.
3 - Values are for hexavalent chromium.
4 - Toxicity criteria used to derive the RSLs is only suitable for screening and is not to be used for quantifying risks.

Definitions:
ATSDR = Agency for Toxic Substances and Disease Registry.
HEAST = Health Effects Assessment Summary Tables
IRIS = Integrated Risk Information System
NA = Not Available.
PPRTV = Provisional Peer Reviewed Toxicity Value.

TABLE 5.2
NON-CANCER TOXICITY DATA -- INHALATION
NWIRP BETHPAGE
BETHPAGE, NEW YORK

Chemical of Potential Concern	Chronic/ Subchronic	Inhalation RfC		Extrapolated RfD[1]		Primary Target Organ(s)	Combined Uncertainty/Modifying Factors	RfC : Target Organ(s)	
		Value	Units	Value	Units			Source(s)	Date(s) (MM/DD/YYYY)
PCBs									
Aroclor-1242	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics									
Aluminum	Chronic	5.0E-03	mg/m3	1.4E-03	(mg/kg/day)	Central Nervous System	300/1	PPRTV	10/23/2006
Arsenic	Chronic	1.5E-05	mg/m3	4.3E-06	(mg/kg/day)	Skin, Cardiovascular System	NA	Cal EPA(1)	9/2009
Chromium[2]	Subchronic	3.0E-04	mg/m3	8.6E-05	(mg/kg/day)	Respiratory	30/1	ATSDR	9/2012
	Chronic	1.0E-04	mg/m3	2.9E-05	(mg/kg/day)	Respiratory	300/1	IRIS	9/20/2013
Cobalt	Subchronic	2.0E-05	mg/m3	5.7E-06	(mg/kg/day)	Respiratory	100/1	PPRTV	8/25/2008
	Chronic	6.0E-06	mg/m3	1.7E-06	(mg/kg/day)	Respiratory	300/1	PPRTV	8/25/2008
Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
1 - Extrapolated RfD = RfC *20m^3/day / 70 kg
2 - Values are for hexavalent chromium.

Definitions:
IRIS = Integrated Risk Information System
NA = Not Applicable
ATSDR = Agency for Toxic Substances and Disease Registry.
Cal EPA(1) = California Environmental Protection Agency, Technical Support Document for Describing Available Cancer Slope Factors, September 2009.
PPRTV = Provisional Peer Reviewed Toxicity Value.

RAGS Part D Table 6

Cancer Toxicity Data

LIST OF TABLES
RAGS PART D TABLE 6
CANCER TOXICITY DATA

Table No.

6-1 Cancer Toxicity Data - Oral/Dermal
6-2 Cancer Toxicity Data - Inhalation

TABLE 6.1
CANCER TOXICITY DATA -- ORAL/DERMAL
NWIRP BETHPAGE
BETHPAGE, NEW YORK

Chemical of Potential Concern	Oral Cancer Slope Factor		Oral Absorption Efficiency for Dermal[1]	Absorbed Cancer Slope Factor for Dermal[2]		Weight of Evidence/ Cancer Guideline Description	Oral CSF	
	Value	Units		Value	Units		Source(s)	Date(s) (MM/DD/YYYY)
PCBs								
Aroclor-1242 (Soil)	2.0E+00	$(mg/kg/day)^{-1}$	1	2.0E+00	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	USEPA(1)	9/1996
Aroclor-1242 (Water)	4.0E-01	$(mg/kg/day)^{-1}$	1	4.0E-01	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	USEPA(1)	9/1996
Aroclor-1248 (Soil)	2.0E+00	$(mg/kg/day)^{-1}$	1	2.0E+00	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	USEPA(1)	9/1996
Aroclor-1248 (Water)	4.0E-01	$(mg/kg/day)^{-1}$	1	4.0E-01	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	USEPA(1)	9/1996
Aroclor-1254	2.0E+00	$(mg/kg/day)^{-1}$	1	2.0E+00	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	USEPA(1)	9/1996
Aroclor-1260	2.0E+00	$(mg/kg/day)^{-1}$	1	2.0E+00	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	USEPA(1)	9/1996
Inorganics								
Aluminum	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	1.5E+00	$(mg/kg/day)^{-1}$	1	1.5E+00	$(mg/kg/day)^{-1}$	A / human carcinogen	IRIS	9/20/2013
Chromium[3,4]	5.0E-01	$(mg/kg/day)^{-1}$	0.025	2.0E+01	$(mg/kg/day)^{-1}$	Carcinogenic potential cannot be determined (Oral route)	NJDEP	4/8/2009
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
1 - USEPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Interim. EPA/540/R/99/005.
2 - Adjusted cancer slope factor for dermal = Oral cancer slope factor / Oral absorption efficiency for dermal.
3 - Values are for hexavalent chromium.
4 - Hexavalent chromium are considered to act via the mutagenic mode of action. These chemicals are evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

IRIS = Integrated Risk Information System.
NA = Not Available.
NJDEP = New Jersey Department of Environmental Protection.
USEPA(1) = USEPA, PCBs: Cancer Dose-Response Assessment and Applications to Environmental Mixtures, September 1996, EPA/600/P-96/001F.

TABLE 6.2
CANCER TOXICITY DATA -- INHALATION
NWIRP BETHPAGE
BETHPAGE, NEW YORK

Chemical of Potential Concern	Unit Risk		Inhalation Cancer Slope Factor[1]		Weight of Evidence/ Cancer Guideline Description	Unit Risk : Inhalation CSF	
	Value	Units	Value	Units		Source(s)	Date(s) (MM/DD/YYYY)
PCBs							
Aroclor-1242	5.7E-04	$(ug/m^3)^{-1}$	2.0E+00	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	USEPA(1)	9/1996
Aroclor-1248	5.7E-04	$(ug/m^3)^{-1}$	2.0E+00	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	USEPA(1)	9/1996
Aroclor-1254	5.7E-04	$(ug/m^3)^{-1}$	2.0E+00	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	USEPA(1)	9/1996
Aroclor-1260	5.7E-04	$(ug/m^3)^{-1}$	2.0E+00	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	USEPA(1)	9/1996
Inorganics							
Aluminum	NA	NA	NA	NA	NA	NA	NA
Arsenic	4.3E-03	$(ug/m^3)^{-1}$	1.5E+01	$(mg/kg/day)^{-1}$	A / Known human carcinogen	IRIS	9/20/2013
Chromium[2,3]	8.4E-02	$(ug/m^3)^{-1}$	2.9E+02	$(mg/kg/day)^{-1}$	Known/likely human carcinogen (Inhalation route)	IRIS	9/20/2013
Cobalt	9.0E-03	$(ug/m^3)^{-1}$	3.2E+01	$(mg/kg/day)^{-1}$	NA	PPRTV	8/25/2008
Iron	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA

Notes:

1 - Inhalation CSF = Unit Risk * 70 kg / $20m^3$/day.

2 - Values are for hexavalent chromium.

3 - Hexavalent chromium are considered to act via the mutagenic mode of action. These chemicals are evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

Definitions:

IRIS = Integrated Risk Information System.

NA = Not Available.

PPRTV = Provisional Peer Reviewed Toxicity Value.

USEPA(1) = USEPA, PCBs: Cancer Dose-Response Assessment and Applications to Environmental Mixtures, September 1996, EPA/600/P-96/001F.

RAGS Part D Table 7

Calculation of Cancer Risks and Non-Cancer Hazards

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RAGS PART D TABLE 7

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

Table No.

Reasonable Maximum Exposures

7.1.RME Construction Workers
7.2.RME Industrial Workers
7.3.RME Adolescent Trespassers
7.4.RME Child Residents
7.5.RME Adult Residents

Central Tendency Exposures

7.1.CTE Construction Workers
7.2.CTE Industrial Workers
7.3.CTE Adolescent Trespassers
7.4.CTE Child Residents
7.5.CTE Adult Residents

TABLE 7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Current/Future
Receptor Population: Construction Workers
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Soil	Surface Soil	Site 1	Ingestion	Aroclor-1248	30	mg/kg	1.4E-06	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	2.8E-06	9.7E-05	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1254	9.12	mg/kg	4.2E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	8.4E-07	2.9E-05	(mg/kg/day)	3.0E-05	(mg/kg/day)	1.0
			Exp. Route Total								3.6E-06					1.0
			Dermal	Aroclor-1248	30	mg/kg	5.8E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.2E-06	4.1E-05	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1254	9.12	mg/kg	1.8E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	3.5E-07	1.2E-05	(mg/kg/day)	3.0E-05	(mg/kg/day)	0.4
			Exp. Route Total								1.5E-06					0.4
		Exposure Point Total									5.1E-06					1.4
	Exposure Medium Total										5.1E-06					1.4
	Air	Site 1	Inhalation	Aroclor-1248	2.1E-05	mg/m^3	6.8E-08	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	3.9E-08	4.8E-06	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1254	6.4E-06	mg/m^3	2.1E-08	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	1.2E-08	1.5E-06	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								5.1E-08					--
		Exposure Point Total									5.1E-08					--
	Exposure Medium Total										5.1E-08					--
Medium Total											5.2E-06					1.4
Subsurface Soil	Subsurface Soil	Site 1	Ingestion	Aroclor-1242	0.56	mg/kg	2.6E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	5.2E-08	1.8E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1248	3.41	mg/kg	1.6E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	3.1E-07	1.1E-05	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1254	1.39	mg/kg	6.4E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.3E-07	4.5E-06	(mg/kg/day)	3.0E-05	(mg/kg/day)	0.1
			Exp. Route Total								4.9E-07					0.1
			Dermal	Aroclor-1242	0.56	mg/kg	1.1E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	2.2E-08	7.6E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1248	3.41	mg/kg	6.6E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.3E-07	4.6E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1254	1.39	mg/kg	2.7E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	5.4E-08	1.9E-06	(mg/kg/day)	3.0E-05	(mg/kg/day)	0.06
			Exp. Route Total								2.1E-07					0.06
		Exposure Point Total									7.0E-07					0.2
	Exposure Medium Total										7.0E-07					0.2
	Air	Site 1	Inhalation	Aroclor-1242	3.9E-07	mg/m^3	1.3E-09	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	7.3E-10	8.9E-08	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1248	2.4E-06	mg/m^3	7.8E-09	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	4.4E-09	5.4E-07	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1254	9.7E-07	mg/m^3	3.2E-09	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	1.8E-09	2.2E-07	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								7.0E-09					--
		Exposure Point Total									7.0E-09					--
	Exposure Medium Total										7.0E-09					--
Medium Total											7.1E-07					0.2
Subsurface Soil	Subsurface Soil	Dry Well 34-07	Ingestion	Aroclor-1248	0.83	mg/kg	3.8E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	7.7E-08	2.7E-06	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								7.7E-08					--
			Dermal	Aroclor-1248	0.83	mg/kg	1.6E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	3.2E-08	1.1E-06	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								3.2E-08					--
		Exposure Point Total									1.1E-07					--
	Exposure Medium Total										1.1E-07					--
	Air	Dry Well 34-07	Inhalation	Aroclor-1248	5.8E-07	mg/m^3	1.9E-09	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	1.1E-09	1.3E-07	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								1.1E-09					--
		Exposure Point Total									1.1E-09					--
	Exposure Medium Total										1.1E-09					--
Medium Total											1.1E-07					--

Notes:

1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

TABLE 7.2.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Future
Receptor Population: Industrial Workers
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Soil	Surface Soil	Site 1	Ingestion	Aroclor-1248	30	mg/kg	1.0E-05	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	2.1E-05	2.9E-05	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1254	9.12	mg/kg	3.2E-06	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	6.4E-06	8.9E-06	(mg/kg/day)	2.0E-05	(mg/kg/day)	0.4
			Exp. Route Total								2.7E-05					0.4
			Dermal	Aroclor-1248	30	mg/kg	9.7E-06	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.9E-05	2.7E-05	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1254	9.12	mg/kg	2.9E-06	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	5.9E-06	8.2E-06	(mg/kg/day)	2.0E-05	(mg/kg/day)	0.4
			Exp. Route Total								2.5E-05					0.4
		Exposure Point Total									5.3E-05					0.9
	Exposure Medium Total										5.3E-05					0.9
	Air	Site 1	Inhalation	Aroclor-1248	2.2E-08	mg/m^3	1.8E-09	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	1.0E-09	5.0E-09	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1254	6.7E-09	mg/m^3	5.5E-10	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	3.1E-10	1.5E-09	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								1.3E-09					--
		Exposure Point Total									1.3E-09					--
	Exposure Medium Total										1.3E-09					--
Medium Total											5.3E-05					0.9
Subsurface Soil	Subsurface Soil	Site 1	Ingestion	Aroclor-1242	0.56	mg/kg	2.0E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	3.9E-07	5.5E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1248	3.41	mg/kg	1.2E-06	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	2.4E-06	3.3E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1254	1.39	mg/kg	4.9E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	9.7E-07	1.4E-06	(mg/kg/day)	2.0E-05	(mg/kg/day)	0.07
			Exp. Route Total								3.7E-06					0.07
			Dermal	Aroclor-1242	0.56	mg/kg	1.8E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	3.6E-07	5.1E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1248	3.41	mg/kg	1.1E-06	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	2.2E-06	3.1E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1254	1.39	mg/kg	4.5E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	9.0E-07	1.3E-06	(mg/kg/day)	2.0E-05	(mg/kg/day)	0.06
			Exp. Route Total								3.5E-06					0.06
		Exposure Point Total									7.2E-06					0.1
	Exposure Medium Total										7.2E-06					0.1
	Air	Site 1	Inhalation	Aroclor-1242	4.1E-10	mg/m^3	3.4E-11	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	1.9E-11	9.4E-11	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1248	2.5E-09	mg/m^3	2.0E-10	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	1.2E-10	5.7E-10	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1254	1.0E-09	mg/m^3	8.3E-11	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	4.8E-11	2.3E-10	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								1.8E-10					--
		Exposure Point Total									1.8E-10					--
	Exposure Medium Total										1.8E-10					--
Medium Total											7.2E-06					0.1
Subsurface Soil	Subsurface Soil	Dry Well 34-07	Ingestion	Aroclor-1248	0.83	mg/kg	2.9E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	5.8E-07	8.1E-07	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								5.8E-07					--
			Dermal	Aroclor-1248	0.83	mg/kg	2.7E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	5.4E-07	7.5E-07	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								5.4E-07					--
		Exposure Point Total									1.1E-06					--
	Exposure Medium Total										1.1E-06					--
	Air	Dry Well 34-07	Inhalation	Aroclor-1248	6.1E-10	mg/m^3	5.0E-11	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	2.8E-11	1.4E-10	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								2.8E-11					--
		Exposure Point Total									2.8E-11					--
	Exposure Medium Total										2.8E-11					--
Medium Total											1.1E-06					--

Notes:

1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

TABLE 7.3.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Current/Future
Receptor Population: Trespassers
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Soil	Surface Soil	Site 1	Ingestion	Aroclor-1248	30	mg/kg	6.8E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.4E-06	4.7E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1254	9.12	mg/kg	2.1E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	4.1E-07	1.4E-06	(mg/kg/day)	2.0E-05	(mg/kg/day)	0.07
			Exp. Route Total								1.8E-06					0.07
			Dermal	Aroclor-1248	30	mg/kg	6.2E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.2E-06	4.4E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1254	9.12	mg/kg	1.9E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	3.8E-07	1.3E-06	(mg/kg/day)	2.0E-05	(mg/kg/day)	0.07
			Exp. Route Total								1.6E-06					0.07
		Exposure Point Total									3.4E-06					0.1
	Exposure Medium Total										3.4E-06					0.1
	Air	Site 1	Inhalation	Aroclor-1248	2.2E-08	mg/m^3	3.7E-11	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	2.1E-11	2.6E-10	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1254	6.7E-09	mg/m^3	1.1E-11	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	6.5E-12	8.0E-11	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								2.8E-11					--
		Exposure Point Total									2.8E-11					--
	Exposure Medium Total										2.8E-11					--
Medium Total											3.4E-06					0.1
Subsurface Soil	Subsurface Soil	Site 1	Ingestion	Aroclor-1242	0.56	mg/kg	1.3E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	2.5E-08	8.9E-08	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1248	3.41	mg/kg	7.7E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.5E-07	5.4E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1254	1.39	mg/kg	3.1E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	6.3E-08	2.2E-07	(mg/kg/day)	2.0E-05	(mg/kg/day)	0.01
			Exp. Route Total								2.4E-07					0.01
			Dermal	Aroclor-1242	0.56	mg/kg	1.2E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	2.3E-08	8.1E-08	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1248	3.41	mg/kg	7.1E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.4E-07	5.0E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1254	1.39	mg/kg	2.9E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	5.8E-08	2.0E-07	(mg/kg/day)	2.0E-05	(mg/kg/day)	0.01
			Exp. Route Total								2.2E-07					0.01
		Exposure Point Total									4.7E-07					0.02
	Exposure Medium Total										4.7E-07					0.02
	Air	Site 1	Inhalation	Aroclor-1242	4.1E-10	mg/m^3	7.0E-13	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	4.0E-13	4.9E-12	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1248	2.5E-09	mg/m^3	4.3E-12	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	2.4E-12	3.0E-11	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1254	1.0E-09	mg/m^3	1.7E-12	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	9.9E-13	1.2E-11	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								3.8E-12					--
		Exposure Point Total									3.8E-12					--
	Exposure Medium Total										3.8E-12					--
Medium Total											4.7E-07					0.02
Subsurface Soil	Subsurface Soil	Dry Well 34-07	Ingestion	Aroclor-1248	0.83	mg/kg	1.9E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	3.8E-08	1.3E-07	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								3.8E-08					--
			Dermal	Aroclor-1248	0.83	mg/kg	1.7E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	3.4E-08	1.2E-07	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								3.4E-08					--
		Exposure Point Total									7.2E-08					--
	Exposure Medium Total										7.2E-08					--
	Air	Dry Well 34-07	Inhalation	Aroclor-1248	6.1E-10	mg/m^3	1.0E-12	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	5.9E-13	7.2E-12	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								5.9E-13					--
		Exposure Point Total									5.9E-13					--
	Exposure Medium Total										5.9E-13					--
Medium Total											7.2E-08					--

Notes:

1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

TABLE 7.4.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Soil	Surface Soil	Site 1	Ingestion	Aroclor-1248	30	mg/kg	3.3E-05	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	6.6E-05	3.8E-04	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1254	9.12	mg/kg	1.0E-05	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	2.0E-05	1.2E-04	(mg/kg/day)	2.0E-05	(mg/kg/day)	5.8
			Exp. Route Total								8.6E-05					5.8
			Dermal	Aroclor-1248	30	mg/kg	1.3E-05	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	3E-05	1.5E-04	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1254	9.12	mg/kg	3.9E-06	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	8E-06	4.6E-05	(mg/kg/day)	2.0E-05	(mg/kg/day)	2.3
			Exp. Route Total								3.4E-05					2.3
		Exposure Point Total									1.2E-04					8.1
	Exposure Medium Total										1.2E-04					8.1
	Air	Site 1	Inhalation	Aroclor-1248	2.2E-08	mg/m^3	1.8E-09	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	1.0E-09	2.1E-08	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1254	6.7E-09	mg/m^3	5.5E-10	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	3.1E-10	6.4E-09	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								1.3E-09					--
		Exposure Point Total									1.3E-09					--
	Exposure Medium Total										1.3E-09					--
Medium Total											1.2E-04					8.1
Subsurface Soil	Subsurface Soil	Site 1	Ingestion	Aroclor-1242	0.56	mg/kg	6.1E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.2E-06	7.2E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1248	3.41	mg/kg	3.7E-06	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	7.5E-06	4.4E-05	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1254	1.39	mg/kg	1.5E-06	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	3.0E-06	1.8E-05	(mg/kg/day)	2.0E-05	(mg/kg/day)	0.9
			Exp. Route Total								1.2E-05					0.9
			Dermal	Aroclor-1242	0.56	mg/kg	2.4E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	4.8E-07	2.8E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1248	3.41	mg/kg	1.5E-06	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	2.9E-06	1.7E-05	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1254	1.39	mg/kg	6.0E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.2E-06	7.0E-06	(mg/kg/day)	2.0E-05	(mg/kg/day)	0.3
			Exp. Route Total								4.6E-06					0.3
		Exposure Point Total									1.6E-05					1.2
	Exposure Medium Total										1.6E-05					1.2
	Air	Site 1	Inhalation	Aroclor-1242	4.1E-10	mg/m^3	3.4E-11	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	1.9E-11	3.9E-10	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1248	2.5E-09	mg/m^3	2.1E-10	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	1.2E-10	2.4E-09	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1254	1.0E-09	mg/m^3	8.4E-11	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	4.8E-11	9.8E-10	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								1.8E-10					--
		Exposure Point Total									1.8E-10					--
	Exposure Medium Total										1.8E-10					--
Medium Total											1.6E-05					1.2
Groundwater	Groundwater	Site 1	Ingestion	Aroclor-1242 (Water)	0.913	ug/L	5.0E-06	(mg/kg/day)	4.0E-01	$(mg/kg/day)^{-1}$	2.0E-06	5.8E-05	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1248 (Water)	0.775	ug/L	4.2E-06	(mg/kg/day)	4.0E-01	$(mg/kg/day)^{-1}$	1.7E-06	5.0E-05	(mg/kg/day)	NA	(mg/kg/day)	--
				Aluminum	2800	ug/L	1.5E-02	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.8E-01	(mg/kg/day)	1.0E+00	(mg/kg/day)	0.2
				Arsenic	2.6	ug/L	1.4E-05	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	2.1E-05	1.7E-04	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.6
				Hexavalent Chromium	38.8	ug/L	1.1E-03	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	5.7E-04	2.5E-03	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.8
				Cobalt	1.11	ug/L	6.1E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	7.1E-05	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.2
				Iron	1090	ug/L	6.0E-03	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	7.0E-02	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.10
				Thallium	0.066	ug/L	3.6E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.2E-06	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								5.9E-04					1.9
			Dermal	Aroclor-1242 (Water)	0.913	ug/L	0.0E+00	(mg/kg/day)	4.0E-01	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1248 (Water)	0.775	ug/L	0.0E+00	(mg/kg/day)	4.0E-01	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
				Aluminum	2800	ug/L	1.0E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.2E-03	(mg/kg/day)	1.0E+00	(mg/kg/day)	0.0012
				Arsenic	2.6	ug/L	9.4E-08	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	1.4E-07	1.1E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.004
				Hexavalent Chromium	38.8	ug/L	1.5E-05	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	3.0E-04	3.3E-05	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.4
				Cobalt	1.11	ug/L	1.6E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.9E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.0006
				Iron	1090	ug/L	3.9E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.6E-04	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.0007
				Thallium	0.066	ug/L	2.4E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.8E-08	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								3.0E-04					0.4
		Exposure Point Total									8.9E-04					2.3
	Exposure Medium Total										8.9E-04					2.3
Medium Total											8.9E-04					2.3

TABLE 7.4.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Subsurface Soil	Subsurface Soil	Dry Well 34-07	Ingestion	Aroclor-1248	0.83	mg/kg	9.1E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.8E-06	1.1E-05	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								1.8E-06					--
			Dermal	Aroclor-1248	0.83	mg/kg	3.6E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	7.1E-07	4.2E-06	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								7.1E-07					--
		Exposure Point Total									2.5E-06					--
	Exposure Medium Total										2.5E-06					--
	Air	Dry Well 34-07	Inhalation	Aroclor-1248	6.1E-10	mg/m^3	5.0E-11	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	2.9E-11	5.9E-10	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								2.9E-11					--
		Exposure Point Total									2.9E-11					--
	Exposure Medium Total										2.9E-11					--
Medium Total											2.5E-06					--

Notes:

1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

TABLE 7.5.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Soil	Surface Soil	Site 1	Ingestion	Aroclor-1248	30	mg/kg	1.4E-05	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	2.8E-05	4.1E-05	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1254	9.12	mg/kg	4.3E-06	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	8.6E-06	1.2E-05	(mg/kg/day)	2.0E-05	(mg/kg/day)	0.6
			Exp. Route Total								3.7E-05					0.6
			Dermal	Aroclor-1248	30	mg/kg	7.9E-06	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	2E-05	2.3E-05	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1254	9.12	mg/kg	2.4E-06	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	5E-06	7.0E-06	(mg/kg/day)	2.0E-05	(mg/kg/day)	0.3
			Exp. Route Total								2.1E-05					0.3
		Exposure Point Total									5.7E-05					1.0
	Exposure Medium Total										5.7E-05					1.0
	Air	Site 1	Inhalation	Aroclor-1248	2.2E-08	mg/m^3	7.3E-09	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	4.1E-09	2.1E-08	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1254	6.7E-09	mg/m^3	2.2E-09	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	1.3E-09	6.4E-09	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								5.4E-09					--
		Exposure Point Total									5.4E-09					--
	Exposure Medium Total										5.4E-09					--
Medium Total											5.7E-05					1.0
Subsurface Soil	Subsurface Soil	Site 1	Ingestion	Aroclor-1242	0.56	mg/kg	2.6E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	5.3E-07	7.7E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1248	3.41	mg/kg	1.6E-06	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	3.2E-06	4.7E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1254	1.39	mg/kg	6.5E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.3E-06	1.9E-06	(mg/kg/day)	2.0E-05	(mg/kg/day)	0.10
			Exp. Route Total								5.0E-06					0.10
			Dermal	Aroclor-1242	0.56	mg/kg	1.5E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	2.9E-07	4.3E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1248	3.41	mg/kg	8.9E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.8E-06	2.6E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1254	1.39	mg/kg	3.6E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	7.3E-07	1.1E-06	(mg/kg/day)	2.0E-05	(mg/kg/day)	0.05
			Exp. Route Total								2.8E-06					0.05
		Exposure Point Total									7.8E-06					0.1
	Exposure Medium Total										7.8E-06					0.1
	Air	Site 1	Inhalation	Aroclor-1242	4.1E-10	mg/m^3	1.4E-10	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	7.7E-11	3.9E-10	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1248	2.5E-09	mg/m^3	8.2E-10	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	4.7E-10	2.4E-09	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1254	1.0E-09	mg/m^3	3.4E-10	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	1.9E-10	9.8E-10	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								7.4E-10					--
		Exposure Point Total									7.4E-10					--
	Exposure Medium Total										7.4E-10					--
Medium Total											7.8E-06					0.1
Groundwater	Groundwater	Site 1	Ingestion	Aroclor-1242 (Water)	0.913	ug/L	8.6E-06	(mg/kg/day)	4.0E-01	$(mg/kg/day)^{-1}$	3.4E-06	2.5E-05	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1248 (Water)	0.775	ug/L	7.3E-06	(mg/kg/day)	4.0E-01	$(mg/kg/day)^{-1}$	2.9E-06	2.1E-05	(mg/kg/day)	NA	(mg/kg/day)	--
				Aluminum	2800	ug/L	2.6E-02	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	7.7E-02	(mg/kg/day)	1.0E+00	(mg/kg/day)	0.08
				Arsenic	2.6	ug/L	2.4E-05	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	3.7E-05	7.1E-05	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.2
				Hexavalent Chromium	38.8	ug/L	6.7E-04	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	3.3E-04	1.1E-03	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.4
				Cobalt	1.11	ug/L	1.0E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.0E-05	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.1
				Iron	1090	ug/L	1.0E-02	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.0E-02	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.04
				Thallium	0.066	ug/L	6.2E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.8E-06	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								3.8E-04					0.8
			Dermal	Aroclor-1242 (Water)	0.913	ug/L	0.0E+00	(mg/kg/day)	4.0E-01	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1248 (Water)	0.775	ug/L	0.0E+00	(mg/kg/day)	4.0E-01	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
				Aluminum	2800	ug/L	1.4E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.0E-04	(mg/kg/day)	1.0E+00	(mg/kg/day)	0.0004
				Arsenic	2.6	ug/L	1.3E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	1.9E-07	3.7E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.001
				Hexavalent Chromium	38.8	ug/L	7.0E-06	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	1.4E-04	1.1E-05	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.1
				Cobalt	1.11	ug/L	2.2E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	6.3E-08	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.0002
				Iron	1090	ug/L	5.3E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.6E-04	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.0002
				Thallium	0.066	ug/L	3.2E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	9.4E-09	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								1.4E-04					0.2
		Exposure Point Total									5.2E-04					1.0
	Exposure Medium Total										5.2E-04					1.0
Medium Total											5.2E-04					1.0

TABLE 7.5.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Subsurface Soil	Subsurface Soil	Dry Well 34-07	Ingestion	Aroclor-1248	0.83	mg/kg	3.9E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	7.8E-07	1.1E-06	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								7.8E-07					--
			Dermal	Aroclor-1248	0.83	mg/kg	2.2E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	4.4E-07	6.4E-07	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								4.4E-07					--
		Exposure Point Total									1.2E-06					--
	Exposure Medium Total										1.2E-06					--
	Air	Dry Well 34-07	Inhalation	Aroclor-1248	6.1E-10	mg/m^3	2.0E-10	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	1.1E-10	5.9E-10	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								1.1E-10					--
		Exposure Point Total									1.1E-10					--
	Exposure Medium Total										1.1E-10					--
Medium Total											1.2E-06					--

Notes:

1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

TABLE 7.1.CTE
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY EXPOSURES
NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Current/Future
Receptor Population: Construction Workers
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Soil	Surface Soil	Site 1	Ingestion	Aroclor-1248	30	mg/kg	4.2E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	8.3E-07	2.9E-05	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1254	9.12	mg/kg	1.3E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	2.5E-07	8.8E-06	(mg/kg/day)	3.0E-05	(mg/kg/day)	0.3
			Exp. Route Total								1.1E-06					0.3
			Dermal	Aroclor-1248	30	mg/kg	1.2E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	2.3E-07	8.1E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1254	9.12	mg/kg	3.5E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	7.1E-08	2.5E-06	(mg/kg/day)	3.0E-05	(mg/kg/day)	0.08
			Exp. Route Total								3.0E-07					0.08
		Exposure Point Total									1.4E-06					0.4
	Exposure Medium Total										1.4E-06					0.4
	Air	Site 1	Inhalation	Aroclor-1248	2.1E-05	mg/m^3	4.1E-08	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	2.3E-08	2.9E-06	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1254	6.4E-06	mg/m^3	1.2E-08	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	7.1E-09	8.7E-07	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								3.1E-08					--
		Exposure Point Total									3.1E-08					--
	Exposure Medium Total										3.1E-08					--
Medium Total											1.4E-06					0.4
Subsurface Soil	Subsurface Soil	Site 1	Ingestion	Aroclor-1242	0.56	mg/kg	7.7E-09	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.5E-08	5.4E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1248	3.41	mg/kg	4.7E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	9.4E-08	3.3E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1254	1.39	mg/kg	1.9E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	3.8E-08	1.3E-06	(mg/kg/day)	3.0E-05	(mg/kg/day)	0.04
			Exp. Route Total								1.5E-07					0.04
			Dermal	Aroclor-1242	0.56	mg/kg	2.2E-09	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	4.3E-09	1.5E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1248	3.41	mg/kg	1.3E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	2.6E-08	9.2E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1254	1.39	mg/kg	5.4E-09	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.1E-08	3.8E-07	(mg/kg/day)	3.0E-05	(mg/kg/day)	0.01
			Exp. Route Total								4.2E-08					0.01
		Exposure Point Total									1.9E-07					0.06
	Exposure Medium Total										1.9E-07					0.06
	Air	Site 1	Inhalation	Aroclor-1242	3.9E-07	mg/m^3	7.7E-10	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	4.4E-10	5.4E-08	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1248	2.4E-06	mg/m^3	4.7E-09	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	2.7E-09	3.3E-07	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1254	9.7E-07	mg/m^3	1.9E-09	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	1.1E-09	1.3E-07	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								4.2E-09					--
		Exposure Point Total									4.2E-09					--
	Exposure Medium Total										4.2E-09					--
Medium Total											1.9E-07					0.06
Subsurface Soil	Subsurface Soil	Dry Well 34-07	Ingestion	Aroclor-1248	0.83	mg/kg	1.1E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	2.3E-08	8.0E-07	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								2.3E-08					--
			Dermal	Aroclor-1248	0.83	mg/kg	3.2E-09	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	6.4E-09	2.3E-07	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								6.4E-09					--
		Exposure Point Total									2.9E-08					--
	Exposure Medium Total										2.9E-08					--
	Air	Dry Well 34-07	Inhalation	Aroclor-1248	5.8E-07	mg/m^3	1.1E-09	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	6.5E-10	8.0E-08	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								6.5E-10					--
		Exposure Point Total									6.5E-10					--
	Exposure Medium Total										6.5E-10					--
Medium Total											3.0E-08					--

Notes:

1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

TABLE 7.2.CTE
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY EXPOSURES
NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Future
Receptor Population: Industrial Workers
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Soil	Surface Soil	Site 1	Ingestion	Aroclor-1248	30	mg/kg	1.7E-06	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	3.3E-06	1.3E-05	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1254	9.12	mg/kg	5.0E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.0E-06	3.9E-06	(mg/kg/day)	2.0E-05	(mg/kg/day)	0.2
			Exp. Route Total								4.3E-06					0.2
			Dermal	Aroclor-1248	30	mg/kg	3.1E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	6.1E-07	2.4E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1254	9.12	mg/kg	9.3E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.9E-07	7.2E-07	(mg/kg/day)	2.0E-05	(mg/kg/day)	0.04
			Exp. Route Total								8.0E-07					0.04
		Exposure Point Total									5.1E-06					0.2
	Exposure Medium Total										5.1E-06					0.2
	Air	Site 1	Inhalation	Aroclor-1248	2.2E-08	mg/m^3	5.7E-10	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	3.2E-10	4.4E-09	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1254	6.7E-09	mg/m^3	1.7E-10	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	9.8E-11	1.3E-09	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								4.2E-10					--
		Exposure Point Total									4.2E-10					--
	Exposure Medium Total										4.2E-10					--
Medium Total											5.1E-06					0.2
Subsurface Soil	Subsurface Soil	Site 1	Ingestion	Aroclor-1242	0.56	mg/kg	3.1E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	6.2E-08	2.4E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1248	3.41	mg/kg	1.9E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	3.8E-07	1.5E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1254	1.39	mg/kg	7.7E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.5E-07	6.0E-07	(mg/kg/day)	2.0E-05	(mg/kg/day)	0.03
			Exp. Route Total								5.9E-07					0.03
			Dermal	Aroclor-1242	0.56	mg/kg	5.7E-09	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.1E-08	4.4E-08	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1248	3.41	mg/kg	3.5E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	6.9E-08	2.7E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1254	1.39	mg/kg	1.4E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	2.8E-08	1.1E-07	(mg/kg/day)	2.0E-05	(mg/kg/day)	0.006
			Exp. Route Total								1.1E-07					0.006
		Exposure Point Total									7.0E-07					0.04
	Exposure Medium Total										7.0E-07					0.04
	Air	Site 1	Inhalation	Aroclor-1242	4.1E-10	mg/m^3	1.1E-11	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	6.0E-12	8.2E-11	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1248	2.5E-09	mg/m^3	6.4E-11	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	3.7E-11	5.0E-10	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1254	1.0E-09	mg/m^3	2.6E-11	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	1.5E-11	2.0E-10	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								5.8E-11					--
		Exposure Point Total									5.8E-11					--
	Exposure Medium Total										5.8E-11					--
Medium Total											7.0E-07					0.04
Subsurface Soil	Subsurface Soil	Dry Well 34-07	Ingestion	Aroclor-1248	0.83	mg/kg	4.6E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	9.1E-08	3.6E-07	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								9.1E-08					--
			Dermal	Aroclor-1248	0.83	mg/kg	8.5E-09	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.7E-08	6.6E-08	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								1.7E-08					--
		Exposure Point Total									1.1E-07					--
	Exposure Medium Total										1.1E-07					--
	Air	Dry Well 34-07	Inhalation	Aroclor-1248	6.1E-10	mg/m^3	1.6E-11	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	9.0E-12	1.2E-10	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								9.0E-12					--
		Exposure Point Total									9.0E-12					--
	Exposure Medium Total										9.0E-12					--
Medium Total											1.1E-07					--

Notes:

1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

TABLE 7.3.CTE
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY EXPOSURES
NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Current/Future
Receptor Population: Trespassers
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Soil	Surface Soil	Site 1	Ingestion	Aroclor-1248	30	mg/kg	1.7E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	3.4E-07	1.2E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1254	9.12	mg/kg	5.2E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.0E-07	3.6E-07	(mg/kg/day)	2.0E-05	(mg/kg/day)	0.02
			Exp. Route Total								4.4E-07					0.02
			Dermal	Aroclor-1248	30	mg/kg	6.2E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.2E-07	4.4E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1254	9.12	mg/kg	1.9E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	3.8E-08	1.3E-07	(mg/kg/day)	2.0E-05	(mg/kg/day)	0.007
			Exp. Route Total								1.6E-07					0.007
		Exposure Point Total									6.0E-07					0.02
	Exposure Medium Total										6.0E-07					0.02
	Air	Site 1	Inhalation	Aroclor-1248	2.2E-08	mg/m^3	9.4E-12	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	5.3E-12	6.5E-11	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1254	6.7E-09	mg/m^3	2.8E-12	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	1.6E-12	2.0E-11	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								7.0E-12					--
		Exposure Point Total									7.0E-12					--
	Exposure Medium Total										7.0E-12					--
Medium Total											6.0E-07					0.02
Subsurface Soil	Subsurface Soil	Site 1	Ingestion	Aroclor-1242	0.56	mg/kg	3.2E-09	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	6.3E-09	2.2E-08	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1248	3.41	mg/kg	1.9E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	3.9E-08	1.3E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1254	1.39	mg/kg	7.9E-09	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.6E-08	5.5E-08	(mg/kg/day)	2.0E-05	(mg/kg/day)	0.003
			Exp. Route Total								6.1E-08					0.003
			Dermal	Aroclor-1242	0.56	mg/kg	1.2E-09	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	2.3E-09	8.1E-09	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1248	3.41	mg/kg	7.1E-09	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.4E-08	5.0E-08	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1254	1.39	mg/kg	2.9E-09	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	5.8E-09	2.0E-08	(mg/kg/day)	2.0E-05	(mg/kg/day)	0.001
			Exp. Route Total								2.2E-08					0.001
		Exposure Point Total									8.3E-08					0.004
	Exposure Medium Total										8.3E-08					0.004
	Air	Site 1	Inhalation	Aroclor-1242	4.1E-10	mg/m^3	1.7E-13	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	1.0E-13	1.2E-12	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1248	2.5E-09	mg/m^3	1.1E-12	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	6.1E-13	7.4E-12	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1254	1.0E-09	mg/m^3	4.3E-13	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	2.5E-13	3.0E-12	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								9.5E-13					--
		Exposure Point Total									9.5E-13					--
	Exposure Medium Total										9.5E-13					--
Medium Total											8.3E-08					0.004
Subsurface Soil	Subsurface Soil	Dry Well 34-07	Ingestion	Aroclor-1248	0.83	mg/kg	4.7E-09	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	9.4E-09	3.3E-08	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								9.4E-09					--
			Dermal	Aroclor-1248	0.83	mg/kg	1.7E-09	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	3.4E-09	1.2E-08	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								3.4E-09					--
		Exposure Point Total									1.3E-08					--
	Exposure Medium Total										1.3E-08					--
	Air	Dry Well 34-07	Inhalation	Aroclor-1248	6.1E-10	mg/m^3	2.6E-13	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	1.5E-13	1.8E-12	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								1.5E-13					--
		Exposure Point Total									1.5E-13					--
	Exposure Medium Total										1.5E-13					--
Medium Total											1.3E-08					--

Notes:

1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

TABLE 7.4.CTE
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY EXPOSURES
NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Soil	Surface Soil	Site 1	Ingestion	Aroclor-1248	30	mg/kg	3.7E-06	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	7.3E-06	1.3E-04	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1254	9.12	mg/kg	1.1E-06	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	2.2E-06	3.9E-05	(mg/kg/day)	2.0E-05	(mg/kg/day)	1.9
			Exp. Route Total								9.6E-06					1.9
			Dermal	Aroclor-1248	30	mg/kg	5.7E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.1E-06	2.0E-05	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1254	9.12	mg/kg	1.7E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	3.5E-07	6.1E-06	(mg/kg/day)	2.0E-05	(mg/kg/day)	0.3
			Exp. Route Total								1.5E-06					0.3
		Exposure Point Total									1.1E-05					2.3
	Exposure Medium Total										1.1E-05					2.3
	Air	Site 1	Inhalation	Aroclor-1248	2.2E-08	mg/m^3	4.0E-10	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	2.3E-10	1.4E-08	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1254	6.7E-09	mg/m^3	1.2E-10	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	7.0E-11	4.3E-09	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								3.0E-10					--
		Exposure Point Total									3.0E-10					--
	Exposure Medium Total										3.0E-10					--
Medium Total											1.1E-05					2.3
Subsurface Soil	Subsurface Soil	Site 1	Ingestion	Aroclor-1242	0.56	mg/kg	6.8E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.4E-07	2.4E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1248	3.41	mg/kg	4.2E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	8.3E-07	1.5E-05	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1254	1.39	mg/kg	1.7E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	3.4E-07	5.9E-06	(mg/kg/day)	2.0E-05	(mg/kg/day)	0.3
			Exp. Route Total								1.3E-06					0.3
			Dermal	Aroclor-1242	0.56	mg/kg	1.1E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	2.1E-08	3.8E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1248	3.41	mg/kg	6.5E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.3E-07	2.3E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1254	1.39	mg/kg	2.7E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	5.3E-08	9.3E-07	(mg/kg/day)	2.0E-05	(mg/kg/day)	0.05
			Exp. Route Total								2.1E-07					0.05
		Exposure Point Total									1.5E-06					0.3
	Exposure Medium Total										1.5E-06					0.3
	Air	Site 1	Inhalation	Aroclor-1242	4.1E-10	mg/m^3	7.5E-12	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	4.3E-12	2.6E-10	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1248	2.5E-09	mg/m^3	4.6E-11	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	2.6E-11	1.6E-09	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1254	1.0E-09	mg/m^3	1.9E-11	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	1.1E-11	6.6E-10	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								4.1E-11					--
		Exposure Point Total									4.1E-11					--
	Exposure Medium Total										4.1E-11					--
Medium Total											1.5E-06					0.3
Groundwater	Groundwater	Site 1	Ingestion	Aroclor-1242 (Water)	0.913	ug/L	3.3E-06	(mg/kg/day)	4.0E-01	$(mg/kg/day)^{-1}$	1.3E-06	3.9E-05	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1248 (Water)	0.775	ug/L	2.8E-06	(mg/kg/day)	4.0E-01	$(mg/kg/day)^{-1}$	1.1E-06	3.3E-05	(mg/kg/day)	NA	(mg/kg/day)	--
				Aluminum	2800	ug/L	1.0E-02	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.2E-01	(mg/kg/day)	1.0E+00	(mg/kg/day)	0.1
				Arsenic	2.6	ug/L	9.4E-06	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	1.4E-05	1.1E-04	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.4
				Hexavalent Chromium	38.8	ug/L	7.5E-04	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	3.7E-04	1.6E-03	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.5
				Cobalt	1.11	ug/L	4.0E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.7E-05	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.2
				Iron	1090	ug/L	3.9E-03	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.6E-02	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.07
				Thallium	0.066	ug/L	2.4E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.8E-06	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								3.9E-04					1.3
			Dermal	Aroclor-1242 (Water)	0.913	ug/L	0.0E+00	(mg/kg/day)	4.0E-01	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1248 (Water)	0.775	ug/L	0.0E+00	(mg/kg/day)	4.0E-01	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
				Aluminum	2800	ug/L	3.3E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.9E-04	(mg/kg/day)	1.0E+00	(mg/kg/day)	0.0004
				Arsenic	2.6	ug/L	3.1E-08	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	4.7E-08	3.6E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.0012
				Hexavalent Chromium	38.8	ug/L	4.9E-06	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	9.9E-05	1.1E-05	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.1
				Cobalt	1.11	ug/L	5.3E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	6.2E-08	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.0002
				Iron	1090	ug/L	1.3E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.5E-04	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.0002
				Thallium	0.066	ug/L	7.9E-10	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	9.2E-09	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								9.9E-05					0.1
		Exposure Point Total									4.9E-04					1.4
	Exposure Medium Total										4.9E-04					1.4
Medium Total											4.9E-04					1.4

TABLE 7.4.CTE
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY EXPOSURES
NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Subsurface Soil	Subsurface Soil	Dry Well 34-07	Ingestion	Aroclor-1248	0.83	mg/kg	1.0E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	2.0E-07	3.5E-06	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								2.0E-07					--
			Dermal	Aroclor-1248	0.83	mg/kg	1.6E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	3.2E-08	5.6E-07	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								3.2E-08					--
		Exposure Point Total									2.3E-07					--
	Exposure Medium Total										2.3E-07					--
	Air	Dry Well 34-07	Inhalation	Aroclor-1248	6.1E-10	mg/m^3	1.1E-11	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	6.4E-12	3.9E-10	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								6.4E-12					--
		Exposure Point Total									6.4E-12					--
	Exposure Medium Total										6.4E-12					--
Medium Total											2.3E-07					--

Notes:

1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

TABLE 7.5.CTE
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY EXPOSURES
NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Soil	Surface Soil	Site 1	Ingestion	Aroclor-1248	30	mg/kg	1.4E-06	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	2.7E-06	1.4E-05	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1254	9.12	mg/kg	4.2E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	8.4E-07	4.2E-06	(mg/kg/day)	2.0E-05	(mg/kg/day)	0.2
			Exp. Route Total								3.6E-06					0.2
			Dermal	Aroclor-1248	30	mg/kg	2.2E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	4.4E-07	2.2E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1254	9.12	mg/kg	6.7E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.3E-07	6.7E-07	(mg/kg/day)	2.0E-05	(mg/kg/day)	0.03
			Exp. Route Total								5.7E-07					0.03
		Exposure Point Total									4.2E-06					0.2
	Exposure Medium Total										4.2E-06					0.2
	Air	Site 1	Inhalation	Aroclor-1248	2.2E-08	mg/m^3	1.4E-09	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	8.1E-10	1.4E-08	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1254	6.7E-09	mg/m^3	4.3E-10	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	2.5E-10	4.3E-09	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								1.1E-09					--
		Exposure Point Total									1.1E-09					--
	Exposure Medium Total										1.1E-09					--
Medium Total											4.2E-06					0.2
Subsurface Soil	Subsurface Soil	Site 1	Ingestion	Aroclor-1242	0.56	mg/kg	2.6E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	5.1E-08	2.6E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1248	3.41	mg/kg	1.6E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	3.1E-07	1.6E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1254	1.39	mg/kg	6.4E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.3E-07	6.4E-07	(mg/kg/day)	2.0E-05	(mg/kg/day)	0.03
			Exp. Route Total								4.9E-07					0.03
			Dermal	Aroclor-1242	0.56	mg/kg	4.1E-09	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	8.2E-09	4.1E-08	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1248	3.41	mg/kg	2.5E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	5.0E-08	2.5E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1254	1.39	mg/kg	1.0E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	2.0E-08	1.0E-07	(mg/kg/day)	2.0E-05	(mg/kg/day)	0.005
			Exp. Route Total								7.8E-08					0.005
		Exposure Point Total									5.7E-07					0.04
	Exposure Medium Total										5.7E-07					0.04
	Air	Site 1	Inhalation	Aroclor-1242	4.1E-10	mg/m^3	2.6E-11	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	1.5E-11	2.6E-10	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1248	2.5E-09	mg/m^3	1.6E-10	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	9.2E-11	1.6E-09	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1254	1.0E-09	mg/m^3	6.6E-11	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	3.7E-11	6.6E-10	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								1.4E-10					--
		Exposure Point Total									1.4E-10					--
	Exposure Medium Total										1.4E-10					--
Medium Total											5.7E-07					0.04
Groundwater	Groundwater	Site 1	Ingestion	Aroclor-1242 (Water)	0.913	ug/L	1.8E-06	(mg/kg/day)	4.0E-01	$(mg/kg/day)^{-1}$	7.0E-07	1.8E-05	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1248 (Water)	0.775	ug/L	1.5E-06	(mg/kg/day)	4.0E-01	$(mg/kg/day)^{-1}$	5.9E-07	1.5E-05	(mg/kg/day)	NA	(mg/kg/day)	--
				Aluminum	2800	ug/L	5.4E-03	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.4E-02	(mg/kg/day)	1.0E+00	(mg/kg/day)	0.05
				Arsenic	2.6	ug/L	5.0E-06	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	7.5E-06	5.0E-05	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.2
				Hexavalent Chromium	38.8	ug/L	1.2E-04	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	5.8E-05	7.4E-04	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.2
				Cobalt	1.11	ug/L	2.1E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.1E-05	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.07
				Iron	1090	ug/L	2.1E-03	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.1E-02	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.03
				Thallium	0.066	ug/L	1.3E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.3E-06	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								6.7E-05					0.6
			Dermal	Aroclor-1242 (Water)	0.913	ug/L	0.0E+00	(mg/kg/day)	4.0E-01	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1248 (Water)	0.775	ug/L	0.0E+00	(mg/kg/day)	4.0E-01	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
				Aluminum	2800	ug/L	1.7E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.7E-04	(mg/kg/day)	1.0E+00	(mg/kg/day)	0.0002
				Arsenic	2.6	ug/L	1.6E-08	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	2.4E-08	1.6E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.0005
				Hexavalent Chromium	38.8	ug/L	7.5E-07	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	1.5E-05	4.8E-06	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.06
				Cobalt	1.11	ug/L	2.7E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.7E-08	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.00009
				Iron	1090	ug/L	6.7E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	6.7E-05	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.00010
				Thallium	0.066	ug/L	4.1E-10	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.1E-09	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								1.5E-05					0.06
		Exposure Point Total									8.2E-05					0.6
	Exposure Medium Total										8.2E-05					0.6
Medium Total											8.2E-05					0.6

TABLE 7.5.CTE
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
CENTRAL TENDENCY EXPOSURES
NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Subsurface Soil	Subsurface Soil	Dry Well 34-07	Ingestion	Aroclor-1248	0.83	mg/kg	3.8E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	7.6E-08	3.8E-07	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								7.6E-08					--
			Dermal	Aroclor-1248	0.83	mg/kg	6.1E-09	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.2E-08	6.1E-08	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								1.2E-08					--
		Exposure Point Total									8.8E-08					--
	Exposure Medium Total										8.8E-08					--
	Air	Dry Well 34-07	Inhalation	Aroclor-1248	6.1E-10	mg/m^3	3.9E-11	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	2.2E-11	3.9E-10	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								2.2E-11					--
		Exposure Point Total									2.2E-11					--
	Exposure Medium Total										2.2E-11					--
Medium Total											8.8E-08					--

Notes:

1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

RAGS Part D Table 9

Summary of Receptor Risks and Hazards for COPCs

LIST OF TABLES

RAGS PART D TABLE 9

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

Table No.

Reasonable Maximum Exposures

9.1.RME Construction Workers
9.2.RME Industrial Workers
9.3.RME Adolescent Trespassers
9.4.RME Child Residents
9.5.RME Adult Residents
9.6.RME Lifelong Residents

Central Tendency Exposures

9.1.CTE Construction Workers
9.2.CTE Industrial Workers
9.3.CTE Adolescent Trespassers
9.4.CTE Child Residents
9.5.CTE Adult Residents
9.6.CTE Lifelong Residents

TABLE 9.1.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Current/Future
Receptor Population: Construction Workers
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	Site 1	Aroclor-1248	3E-06	--	1E-06	--	4E-06	NA	--	--	--	--
			Aroclor-1254	8E-07	--	4E-07	--	1E-06	CNS	1.0	--	0.4	1
			Chemical Total	4E-06	--	2E-06	--	5E-06		1.0	--	0.4	1
		Exposure Point Total						5E-06					1
	Exposure Medium Total							5E-06					1
	Air	Site 1	Aroclor-1248	--	4E-08	--	--	4E-08	NA	--	--	--	--
			Aroclor-1254	--	1E-08	--	--	1E-08	NA	--	--	--	--
			Chemical Total	--	5E-08	--	--	5E-08		- -	--	- -	--
		Exposure Point Total						5E-08					--
	Exposure Medium Total							5E-08					--
Medium Total								5E-06					1
Subsurface Soil	Subsurface Soil	Site 1	Aroclor-1242	5E-08	--	2E-08	--	7E-08	NA	--	--	--	--
			Aroclor-1248	3E-07	--	1E-07	--	4E-07	NA	--	--	--	--
			Aroclor-1254	1E-07	--	5E-08	--	2E-07	CNS	0.1	--	0.06	0.2
			Chemical Total	5E-07	--	2E-07	--	7E-07		0.1	--	0.06	0.2
		Exposure Point Total						7E-07					0.2
	Exposure Medium Total							7E-07					0.2
	Air	Site 1	Aroclor-1242	--	7E-10	--	--	7E-10	NA	--	--	--	--
			Aroclor-1248	--	4E-09	--	--	4E-09	NA	--	--	--	--
			Aroclor-1254	--	2E-09	--	--	2E-09	NA	--	--	--	--
			Chemical Total	--	7E-09	--	--	7E-09		- -	--	- -	--
		Exposure Point Total						7E-09					--
	Exposure Medium Total							7E-09					--
Medium Total								7E-07					0.2
Subsurface Soil	Subsurface Soil	Dry Well 34-07	Aroclor-1248	8E-08	--	3E-08	--	1E-07	NA	--	--	--	--
			Chemical Total	8E-08	--	3E-08	--	1E-07		--	--	--	--
		Exposure Point Total						1E-07					--
	Exposure Medium Total							1E-07					--
	Air	Dry Well 34-07	Aroclor-1248	--	1E-09	--	--	1E-09	NA	--	--	--	--
			Chemical Total	--	1E-09	--	--	1E-09		- -	--	- -	--
		Exposure Point Total						1E-09					--
	Exposure Medium Total							1E-09					--
Medium Total								1E-07					--
Receptor Total							Receptor Risk Total	6E-06				Receptor HI Total	2

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

TABLE 9.2.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Future
Receptor Population: Industrial Workers
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	Site 1	Aroclor-1248	2E-05	--	2E-05	--	4E-05	NA	--	--	--	--
			Aroclor-1254	6E-06	--	6E-06	--	1E-05	Immune	0.4	--	0.4	0.9
			Chemical Total	3E-05	--	3E-05	--	5E-05		0.4	--	0.4	0.9
		Exposure Point Total						5E-05					0.9
	Exposure Medium Total							5E-05					0.9
	Air	Site 1	Aroclor-1248	--	1E-09	--	--	1E-09	NA	--	--	--	--
			Aroclor-1254	--	3E-10	--	--	3E-10	NA	--	--	--	--
			Chemical Total	--	1E-09	--	--	1E-09		- -	--	- -	--
		Exposure Point Total						1E-09					--
	Exposure Medium Total							1E-09					--
Medium Total								5E-05					0.9
Subsurface Soil	Subsurface Soil	Site 1	Aroclor-1242	4E-07	--	4E-07	--	8E-07	NA	--	--	--	--
			Aroclor-1248	2E-06	--	2E-06	--	5E-06	NA	--	--	--	--
			Aroclor-1254	1E-06	--	9E-07	--	2E-06	Immune	0.07	--	0.06	0.1
			Chemical Total	4E-06	--	3E-06	--	7E-06		0.07	--	0.06	0.1
		Exposure Point Total						7E-06					0.1
	Exposure Medium Total							7E-06					0.1
	Air	Site 1	Aroclor-1242	--	2E-11	--	--	2E-11	NA	--	--	--	--
			Aroclor-1248	--	1E-10	--	--	1E-10	NA	--	--	--	--
			Aroclor-1254	--	5E-11	--	--	5E-11	NA	--	--	--	--
			Chemical Total	--	2E-10	--	--	2E-10		- -	--	- -	--
		Exposure Point Total						2E-10					--
	Exposure Medium Total							2E-10					--
Medium Total								7E-06					0.1
Subsurface Soil	Subsurface Soil	Dry Well 34-07	Aroclor-1248	6E-07	--	5E-07	--	1E-06	NA	--	--	--	--
			Chemical Total	6E-07	--	5E-07	--	1E-06		--	--	--	--
		Exposure Point Total						1E-06					--
	Exposure Medium Total							1E-06					--
	Air	Dry Well 34-07	Aroclor-1248	--	3E-11	--	--	3E-11	NA	--	--	--	--
			Chemical Total	--	3E-11	--	--	3E-11		- -	--	- -	--
		Exposure Point Total						3E-11					--
	Exposure Medium Total							3E-11					--
Medium Total								1E-06					--

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

TABLE 9.3.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Current/Future
Receptor Population: Trespassers
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	Site 1	Aroclor-1248	1E-06	--	1E-06	--	3E-06	NA	--	--	--	--
			Aroclor-1254	4E-07	--	4E-07	--	8E-07	Immune	0.07	--	0.07	0.1
			Chemical Total	2E-06	--	2E-06	--	3E-06		0.07	--	0.07	0.1
		Exposure Point Total						3E-06					0.1
	Exposure Medium Total							3E-06					0.1
	Air	Site 1	Aroclor-1248	--	2E-11	--	--	2E-11	NA	--	--	--	--
			Aroclor-1254	--	6E-12	--	--	6E-12	NA	--	--	--	--
			Chemical Total	--	3E-11	--	--	3E-11		- -	--	- -	--
		Exposure Point Total						3E-11					--
	Exposure Medium Total							3E-11					--
Medium Total								3E-06					0.1
Subsurface Soil	Subsurface Soil	Site 1	Aroclor-1242	3E-08	--	2E-08	--	5E-08	NA	--	--	--	--
			Aroclor-1248	2E-07	--	1E-07	--	3E-07	NA	--	--	--	--
			Aroclor-1254	6E-08	--	6E-08	--	1E-07	Immune	0.01	--	0.01	0.02
			Chemical Total	2E-07	--	2E-07	--	5E-07		0.01	--	0.01	0.02
		Exposure Point Total						5E-07					0.02
	Exposure Medium Total							5E-07					0.02
	Air	Site 1	Aroclor-1242	--	4E-13	--	--	4E-13	NA	--	--	--	--
			Aroclor-1248	--	2E-12	--	--	2E-12	NA	--	--	--	--
			Aroclor-1254	--	1E-12	--	--	1E-12	NA	--	--	--	--
			Chemical Total	--	4E-12	--	--	4E-12		- -	--	- -	--
		Exposure Point Total						4E-12					--
	Exposure Medium Total							4E-12					--
Medium Total								5E-07					0.02
Subsurface Soil	Subsurface Soil	Dry Well 34-07	Aroclor-1248	4E-08	--	3E-08	--	7E-08	NA	--	--	--	--
			Chemical Total	4E-08	--	3E-08	--	7E-08		--	--	--	--
		Exposure Point Total						7E-08					--
	Exposure Medium Total							7E-08					--
	Air	Dry Well 34-07	Aroclor-1248	--	6E-13	--	--	6E-13	NA	--	--	--	--
			Chemical Total	--	6E-13	--	--	6E-13		- -	--	- -	--
		Exposure Point Total						6E-13					--
	Exposure Medium Total							6E-13					--
Medium Total								7E-08					--

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

TABLE 9.4.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	Site 1	Aroclor-1248	7E-05	--	3E-05	--	9E-05	NA	--	--	--	--
			Aroclor-1254	2E-05	--	8E-06	--	3E-05	Immune	6	--	2	8
			Chemical Total	9E-05	--	3E-05	--	1E-04		6	--	2	8
		Exposure Point Total						1E-04					8
	Exposure Medium Total							1E-04					8
	Air	Site 1	Aroclor-1248	--	1E-09	--	--	1E-09	NA	--	--	--	--
			Aroclor-1254	--	3E-10	--	--	3E-10	NA	--	--	--	--
			Chemical Total	--	1E-09	--	--	1E-09		- -	--	- -	--
		Exposure Point Total						1E-09					--
	Exposure Medium Total							1E-09					--
Medium Total								1E-04					8
Subsurface Soil	Subsurface Soil	Site 1	Aroclor-1242	1E-06	--	5E-07	--	2E-06	NA	--	--	--	--
			Aroclor-1248	7E-06	--	3E-06	--	1E-05	NA	--	--	--	--
			Aroclor-1254	3E-06	--	1E-06	--	4E-06	Immune	0.9	--	0.3	1
			Chemical Total	1E-05	--	5E-06	--	2E-05		0.9	--	0.3	1
		Exposure Point Total						2E-05					1
	Exposure Medium Total							2E-05					1
	Air	Site 1	Aroclor-1242	--	2E-11	--	--	2E-11	NA	--	--	--	--
			Aroclor-1248	--	1E-10	--	--	1E-10	NA	--	--	--	--
			Aroclor-1254	--	5E-11	--	--	5E-11	NA	--	--	--	--
			Chemical Total	--	2E-10	--	--	2E-10		- -	--	- -	--
		Exposure Point Total						2E-10					--
	Exposure Medium Total							2E-10					--
Medium Total								2E-05					1
Groundwater	Groundwater	Site 1	Aroclor-1242 (Water)	2E-06	--	- -	--	2E-06	NA	--	--	--	--
			Aroclor-1248 (Water)	2E-06	--	- -	--	2E-06	NA	--	--	--	--
			Aluminum	- -	--	- -	--	- -	CNS	0.2	--	0.0012	0.2
			Arsenic	2E-05	--	1E-07	--	2E-05	Skin, CVS	0.6	--	0.004	0.6
			Hexavalent Chromium	6E-04	--	3E-04	--	9E-04	None Specified	0.8	--	0.4	1.3
			Cobalt	- -	--	- -	--	- -	Thyroid	0.2	--	0.0006	0.2
			Iron	- -	--	- -	--	- -	GS	0.10	--	0.0007	0.10
			Thallium	- -	--	- -	--	- -	Skin	--	--	--	--
			Chemical Total	6E-04	--	3E-04	--	9E-04		2	--	0.4	2
		Exposure Point Total						9E-04					2
	Exposure Medium Total							9E-04					2
Medium Total								9E-04					2
Subsurface Soil	Subsurface Soil	Dry Well 34-07	Aroclor-1248	2E-06	--	7E-07	--	3E-06	NA	--	--	--	--
			Chemical Total	2E-06	--	7E-07	--	3E-06		--	--	--	--
		Exposure Point Total						3E-06					--
	Exposure Medium Total							3E-06					--
	Air	Dry Well 34-07	Aroclor-1248	--	3E-11	--	--	3E-11	NA	--	--	--	--
			Chemical Total	--	3E-11	--	--	3E-11		- -	--	- -	--
		Exposure Point Total						3E-11					--
	Exposure Medium Total							3E-11					--
Medium Total								3E-06					--

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

Total Surface Soil HI	
Total Immune HI	8

Total Subsurface Soil HI	
Total Immune HI	1

Total Groundwater Soil HI	
Total CNS HI	0.2
Total CVS HI	0.6
Total GS HI	0.1
Total None Specified HI	1
Total Skin HI	0.6
Total Thyroid HI	0.2

TABLE 9.5.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	Site 1	Aroclor-1248	3E-05	--	2E-05	--	4E-05	NA	--	--	--	--
			Aroclor-1254	9E-06	--	5E-06	--	1E-05	Immune	0.6	--	0.3	1
			Chemical Total	4E-05	--	2E-05	--	6E-05		0.6	--	0.3	1
		Exposure Point Total						6E-05					1
	Exposure Medium Total							6E-05					1
	Air	Site 1	Aroclor-1248	--	4E-09	--	--	4E-09	NA	--	--	--	--
			Aroclor-1254	--	1E-09	--	--	1E-09	NA	--	--	--	--
			Chemical Total	--	5E-09	--	--	5E-09		- -	--	- -	--
		Exposure Point Total						5E-09					--
	Exposure Medium Total							5E-09					--
Medium Total								6E-05					1
Subsurface Soil	Subsurface Soil	Site 1	Aroclor-1242	5E-07	--	3E-07	--	8E-07	NA	--	--	--	--
			Aroclor-1248	3E-06	--	2E-06	--	5E-06	NA	--	--	--	--
			Aroclor-1254	1E-06	--	7E-07	--	2E-06	Immune	0.10	--	0.05	0.1
			Chemical Total	5E-06	--	3E-06	--	8E-06		0.10	--	0.05	0.1
		Exposure Point Total						8E-06					0.1
	Exposure Medium Total							8E-06					0.1
	Air	Site 1	Aroclor-1242	--	8E-11	--	--	8E-11	NA	--	--	--	--
			Aroclor-1248	--	5E-10	--	--	5E-10	NA	--	--	--	--
			Aroclor-1254	--	2E-10	--	--	2E-10	NA	--	--	--	--
			Chemical Total	--	7E-10	--	--	7E-10		- -	--	- -	--
		Exposure Point Total						7E-10					--
	Exposure Medium Total							7E-10					--
Medium Total								8E-06					0.1
Groundwater	Groundwater	Site 1	Aroclor-1242 (Water)	3E-06	--	- -	--	3E-06	NA	--	--	--	--
			Aroclor-1248 (Water)	3E-06	--	- -	--	3E-06	NA	--	--	--	--
			Aluminum	- -	--	- -	--	- -	CNS	0.08	--	0.0004	0.08
			Arsenic	4E-05	--	2E-07	--	4E-05	Skin, CVS	0.2	--	0.001	0.2
			Hexavalent Chromium	3E-04	--	1E-04	--	5E-04	None Specified	0.4	--	0.1	0.5
			Cobalt	- -	--	- -	--	- -	Thyroid	0.1	--	0.0002	0.1
			Iron	- -	--	- -	--	- -	GS	0.04	--	0.0002	0.04
			Thallium	- -	--	- -	--	- -	Skin	--	--	--	--
			Chemical Total	4E-04	--	1E-04	--	5E-04		0.8	--	0.2	1
		Exposure Point Total						5E-04					1
	Exposure Medium Total							5E-04					1
Medium Total								5E-04					1
Subsurface Soil	Subsurface Soil	Dry Well 34-07	Aroclor-1248	8E-07	--	4E-07	--	1E-06	NA	--	--	--	--
			Chemical Total	8E-07	--	4E-07	--	1E-06		--	--	--	--
		Exposure Point Total						1E-06					--
	Exposure Medium Total							1E-06					--
	Air	Dry Well 34-07	Aroclor-1248	--	1E-10	--	--	1E-10	NA	--	--	--	--
			Chemical Total	--	1E-10	--	--	1E-10		- -	--	- -	--
		Exposure Point Total						1E-10					--
	Exposure Medium Total							1E-10					--
Medium Total								1E-06					--

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

TABLE 9.6.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Lifelong (Child and Adult)

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	Site 1	Aroclor-1248	9E-05	--	4E-05	--	1E-04					
			Aroclor-1254	3E-05	--	1E-05	--	4E-05					
			Chemical Total	1E-04	--	5E-05	--	2E-04					
		Exposure Point Total						2E-04					
	Exposure Medium Total							2E-04					
	Air	Site 1	Aroclor-1248	--	5E-09	--	--	5E-09					
			Aroclor-1254	--	2E-09	--	--	2E-09					
			Chemical Total	--	7E-09	--	--	7E-09					
		Exposure Point Total						7E-09					
	Exposure Medium Total							7E-09					
Medium Total								2E-04					
Subsurface Soil	Subsurface Soil	Site 1	Aroclor-1242	2E-06	--	8E-07	--	3E-06					
			Aroclor-1248	1E-05	--	5E-06	--	2E-05					
			Aroclor-1254	4E-06	--	2E-06	--	6E-06					
			Chemical Total	2E-05	--	7E-06	--	2E-05					
		Exposure Point Total						2E-05					
	Exposure Medium Total							2E-05					
	Air	Site 1	Aroclor-1242	--	1E-10	--	--	1E-10					
			Aroclor-1248	--	6E-10	--	--	6E-10					
			Aroclor-1254	--	2E-10	--	--	2E-10					
			Chemical Total	--	9E-10	--	--	9E-10					
		Exposure Point Total						9E-10					
	Exposure Medium Total							9E-10					
Medium Total								2E-05					
Groundwater	Groundwater	Site 1	Aroclor-1242 (Water)	5E-06	--	- -	--	5E-06					
			Aroclor-1248 (Water)	5E-06	--	- -	--	5E-06					
			Aluminum	- -	--	- -	--	- -					
			Arsenic	6E-05	--	3E-07	--	6E-05					
			Hexavalent Chromium	9E-04	--	4E-04	--	1E-03					
			Cobalt	- -	--	- -	--	- -					
			Iron	- -	--	- -	--	- -					
			Thallium	- -	--	- -	--	- -					
			Chemical Total	1E-03	--	4E-04	--	1E-03					
		Exposure Point Total						1E-03					
	Exposure Medium Total							1E-03					
Medium Total								1E-03					
Subsurface Soil	Subsurface Soil	Dry Well 34-07	Aroclor-1248	3E-06	--	1E-06	--	4E-06					
			Chemical Total	3E-06	--	1E-06	--	4E-06					
		Exposure Point Total						4E-06					
	Exposure Medium Total							4E-06					
	Air	Dry Well 34-07	Aroclor-1248	--	1E-10	--	--	1E-10					
			Chemical Total	--	1E-10	--	--	1E-10					
		Exposure Point Total						1E-10					
	Exposure Medium Total							1E-10					
Medium Total								4E-06					

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

TABLE 9.1.CTE
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY EXPOSURES
NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Current/Future
Receptor Population: Construction Workers
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	Site 1	Aroclor-1248	8E-07	--	2E-07	--	1E-06	NA	--	--	--	--
			Aroclor-1254	3E-07	--	7E-08	--	3E-07	CNS	0.3	--	0.08	0.4
			Chemical Total	1E-06	--	3E-07	--	1E-06		0.3	--	0.08	0.4
		Exposure Point Total						1E-06					0.4
	Exposure Medium Total							1E-06					0.4
	Air	Site 1	Aroclor-1248	--	2E-08	--	--	2E-08	NA	--	--	--	--
			Aroclor-1254	--	7E-09	--	--	7E-09	NA	--	--	--	--
			Chemical Total	--	3E-08	--	--	3E-08		- -	--	- -	--
		Exposure Point Total						3E-08					--
	Exposure Medium Total							3E-08					--
Medium Total								1E-06					0.4
Subsurface Soil	Subsurface Soil	Site 1	Aroclor-1242	2E-08	--	4E-09	--	2E-08	NA	--	--	--	--
			Aroclor-1248	9E-08	--	3E-08	--	1E-07	NA	--	--	--	--
			Aroclor-1254	4E-08	--	1E-08	--	5E-08	CNS	0.04	--	0.01	0.06
			Chemical Total	1E-07	--	4E-08	--	2E-07		0.04	--	0.01	0.06
		Exposure Point Total						2E-07					0.06
	Exposure Medium Total							2E-07					0.06
	Air	Site 1	Aroclor-1242	--	4E-10	--	--	4E-10	NA	--	--	--	--
			Aroclor-1248	--	3E-09	--	--	3E-09	NA	--	--	--	--
			Aroclor-1254	--	1E-09	--	--	1E-09	NA	--	--	--	--
			Chemical Total	--	4E-09	--	--	4E-09		- -	--	- -	--
		Exposure Point Total						4E-09					--
	Exposure Medium Total							4E-09					--
Medium Total								2E-07					0.06
Subsurface Soil	Subsurface Soil	Dry Well 34-07	Aroclor-1248	2E-08	--	6E-09	--	3E-08	NA	--	--	--	--
			Chemical Total	2E-08	--	6E-09	--	3E-08		--	--	--	--
		Exposure Point Total						3E-08					--
	Exposure Medium Total							3E-08					--
	Air	Dry Well 34-07	Aroclor-1248	--	6E-10	--	--	6E-10	NA	--	--	--	--
			Chemical Total	--	6E-10	--	--	6E-10		- -	--	- -	--
		Exposure Point Total						6E-10					--
	Exposure Medium Total							6E-10					--
Medium Total								3E-08					--

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

TABLE 9.2.CTE
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY EXPOSURES
NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Future
Receptor Population: Industrial Workers
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	Site 1	Aroclor-1248	3E-06	--	6E-07	--	4E-06	NA	--	--	--	--
			Aroclor-1254	1E-06	--	2E-07	--	1E-06	Immune	0.2	--	0.04	0.2
			Chemical Total	4E-06	--	8E-07	--	5E-06		0.2	--	0.04	0.2
		Exposure Point Total						5E-06					0.2
	Exposure Medium Total							5E-06					0.2
	Air	Site 1	Aroclor-1248	--	3E-10	--	--	3E-10	NA	--	--	--	--
			Aroclor-1254	--	1E-10	--	--	1E-10	NA	--	--	--	--
			Chemical Total	--	4E-10	--	--	4E-10		- -	--	- -	--
		Exposure Point Total						4E-10					--
	Exposure Medium Total							4E-10					--
Medium Total								5E-06					0.2
Subsurface Soil	Subsurface Soil	Site 1	Aroclor-1242	6E-08	--	1E-08	--	7E-08	NA	--	--	--	--
			Aroclor-1248	4E-07	--	7E-08	--	4E-07	NA	--	--	--	--
			Aroclor-1254	2E-07	--	3E-08	--	2E-07	Immune	0.03	--	0.006	0.04
			Chemical Total	6E-07	--	1E-07	--	7E-07		0.03	--	0.006	0.04
		Exposure Point Total						7E-07					0.04
	Exposure Medium Total							7E-07					0.04
	Air	Site 1	Aroclor-1242	--	6E-12	--	--	6E-12	NA	--	--	--	--
			Aroclor-1248	--	4E-11	--	--	4E-11	NA	--	--	--	--
			Aroclor-1254	--	2E-11	--	--	2E-11	NA	--	--	--	--
			Chemical Total	--	6E-11	--	--	6E-11		- -	--	- -	--
		Exposure Point Total						6E-11					--
	Exposure Medium Total							6E-11					--
Medium Total								7E-07					0.04
Subsurface Soil	Subsurface Soil	Dry Well 34-07	Aroclor-1248	9E-08	--	2E-08	--	1E-07	NA	--	--	--	--
			Chemical Total	9E-08	--	2E-08	--	1E-07		--	--	--	--
		Exposure Point Total						1E-07					--
	Exposure Medium Total							1E-07					--
	Air	Dry Well 34-07	Aroclor-1248	--	9E-12	--	--	9E-12	NA	--	--	--	--
			Chemical Total	--	9E-12	--	--	9E-12		- -	--	- -	--
		Exposure Point Total						9E-12					--
	Exposure Medium Total							9E-12					--
Medium Total								1E-07					--

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

TABLE 9.3.CTE
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY EXPOSURES
NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Current/Future
Receptor Population: Trespassers
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	Site 1	Aroclor-1248	3E-07	--	1E-07	--	5E-07	NA	--	--	--	--
			Aroclor-1254	1E-07	--	4E-08	--	1E-07	Immune	0.02	--	0.007	0.02
			Chemical Total	4E-07	--	2E-07	--	6E-07		0.02	--	0.007	0.02
		Exposure Point Total						6E-07					0.02
	Exposure Medium Total							6E-07					0.02
	Air	Site 1	Aroclor-1248	--	5E-12	--	--	5E-12	NA	--	--	--	--
			Aroclor-1254	--	2E-12	--	--	2E-12	NA	--	--	--	--
			Chemical Total	--	7E-12	--	--	7E-12		- -	--	- -	--
		Exposure Point Total						7E-12					--
	Exposure Medium Total							7E-12					--
Medium Total								6E-07					0.02
Subsurface Soil	Subsurface Soil	Site 1	Aroclor-1242	6E-09	--	2E-09	--	9E-09	NA	--	--	--	--
			Aroclor-1248	4E-08	--	1E-08	--	5E-08	NA	--	--	--	--
			Aroclor-1254	2E-08	--	6E-09	--	2E-08	Immune	0.003	--	0.001	0.004
			Chemical Total	6E-08	--	2E-08	--	8E-08		0.003	--	0.001	0.004
		Exposure Point Total						8E-08					0.004
	Exposure Medium Total							8E-08					0.004
	Air	Site 1	Aroclor-1242	--	1E-13	--	--	1E-13	NA	--	--	--	--
			Aroclor-1248	--	6E-13	--	--	6E-13	NA	--	--	--	--
			Aroclor-1254	--	2E-13	--	--	2E-13	NA	--	--	--	--
			Chemical Total	--	1E-12	--	--	1E-12		- -	--	- -	--
		Exposure Point Total						1E-12					--
	Exposure Medium Total							1E-12					--
Medium Total								8E-08					0.004
Subsurface Soil	Subsurface Soil	Dry Well 34-07	Aroclor-1248	9E-09	--	3E-09	--	1E-08	NA	--	--	--	--
			Chemical Total	9E-09	--	3E-09	--	1E-08		--	--	--	--
		Exposure Point Total						1E-08					--
	Exposure Medium Total							1E-08					--
	Air	Dry Well 34-07	Aroclor-1248	--	1E-13	--	--	1E-13	NA	--	--	--	--
			Chemical Total	--	1E-13	--	--	1E-13		- -	--	- -	--
		Exposure Point Total						1E-13					--
	Exposure Medium Total							1E-13					--
Medium Total								1E-08					--

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

TABLE 9.4.CTE
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY EXPOSURES
NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	Site 1	Aroclor-1248	7E-06	--	1E-06	--	8E-06	NA	--	--	--	--
			Aroclor-1254	2E-06	--	3E-07	--	3E-06	Immune	2	--	0.3	2
			Chemical Total	1E-05	--	1E-06	--	1E-05		2	--	0.3	2
		Exposure Point Total						1E-05					2
	Exposure Medium Total							1E-05					2
	Air	Site 1	Aroclor-1248	--	2E-10	--	--	2E-10	NA	--	--	--	--
			Aroclor-1254	--	7E-11	--	--	7E-11	NA	--	--	--	--
			Chemical Total	--	3E-10	--	--	3E-10		- -	--	- -	--
		Exposure Point Total						3E-10					--
	Exposure Medium Total							3E-10					--
Medium Total								1E-05					2
Subsurface Soil	Subsurface Soil	Site 1	Aroclor-1242	1E-07	--	2E-08	--	2E-07	NA	--	--	--	--
			Aroclor-1248	8E-07	--	1E-07	--	1E-06	NA	--	--	--	--
			Aroclor-1254	3E-07	--	5E-08	--	4E-07	Immune	0.3	--	0.05	0.3
			Chemical Total	1E-06	--	2E-07	--	2E-06		0.3	--	0.05	0.3
		Exposure Point Total						2E-06					0.3
	Exposure Medium Total							2E-06					0.3
	Air	Site 1	Aroclor-1242	--	4E-12	--	--	4E-12	NA	--	--	--	--
			Aroclor-1248	--	3E-11	--	--	3E-11	NA	--	--	--	--
			Aroclor-1254	--	1E-11	--	--	1E-11	NA	--	--	--	--
			Chemical Total	--	4E-11	--	--	4E-11		- -	--	- -	--
		Exposure Point Total						4E-11					--
	Exposure Medium Total							4E-11					--
Medium Total								2E-06					0.3
Groundwater	Groundwater	Site 1	Aroclor-1242 (Water)	1E-06	--	- -	--	1E-06	NA	--	--	--	--
			Aroclor-1248 (Water)	1E-06	--	- -	--	1E-06	NA	--	--	--	--
			Aluminum	- -	--	- -	--	- -	CNS	0.1	--	0.0004	0.1
			Arsenic	1E-05	--	5E-08	--	1E-05	Skin, CVS	0.4	--	0.0012	0.4
			Hexavalent Chromium	4E-04	--	1E-04	--	5E-04	None Specified	0.5	--	0.1	0.7
			Cobalt	- -	--	- -	--	- -	Thyroid	0.2	--	0.0002	0.2
			Iron	- -	--	- -	--	- -	GS	0.07	--	0.0002	0.07
			Thallium	- -	--	- -	--	- -	Skin	--	--	--	--
			Chemical Total	4E-04	--	1E-04	--	5E-04		1	--	0.1	1
		Exposure Point Total						5E-04					1
	Exposure Medium Total							5E-04					1
Medium Total								5E-04					1
Subsurface Soil	Subsurface Soil	Dry Well 34-07	Aroclor-1248	2E-07	--	3E-08	--	2E-07	NA	--	--	--	--
			Chemical Total	2E-07	--	3E-08	--	2E-07		--	--	--	--
		Exposure Point Total						2E-07					--
	Exposure Medium Total							2E-07					--
	Air	Dry Well 34-07	Aroclor-1248	--	6E-12	--	--	6E-12	NA	--	--	--	--
			Chemical Total	--	6E-12	--	--	6E-12		- -	--	- -	--
		Exposure Point Total						6E-12					--
	Exposure Medium Total							6E-12					--
Medium Total								2E-07					--

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

Total Surface Soil HI	
Total Immune HI	2

Total Subsurface Soil HI	
Total Immune HI	0.3

Total Groundwater Soil HI	
Total CNS HI	0.1
Total CVS HI	0.4
Total GS HI	0.07
Total None Specified HI	0.7
Total Skin HI	0.4
Total Thyroid HI	0.2

TABLE 9.5.CTE
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY EXPOSURES
NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	Site 1	Aroclor-1248	3E-06	--	4E-07	--	3E-06	NA	--	--	--	--
			Aroclor-1254	8E-07	--	1E-07	--	1E-06	Immune	0.2	--	0.03	0.2
			Chemical Total	4E-06	--	6E-07	--	4E-06		0.2	--	0.03	0.2
		Exposure Point Total						4E-06					0.2
	Exposure Medium Total							4E-06					0.2
	Air	Site 1	Aroclor-1248	--	8E-10	--	--	8E-10	NA	--	--	--	--
			Aroclor-1254	--	2E-10	--	--	2E-10	NA	--	--	--	--
			Chemical Total	--	1E-09	--	--	1E-09		- -	--	- -	--
		Exposure Point Total						1E-09					--
	Exposure Medium Total							1E-09					--
Medium Total								4E-06					0.2
Subsurface Soil	Subsurface Soil	Site 1	Aroclor-1242	5E-08	--	8E-09	--	6E-08	NA	--	--	--	--
			Aroclor-1248	3E-07	--	5E-08	--	4E-07	NA	--	--	--	--
			Aroclor-1254	1E-07	--	2E-08	--	1E-07	Immune	0.03	--	0.005	0.04
			Chemical Total	5E-07	--	8E-08	--	6E-07		0.03	--	0.005	0.04
		Exposure Point Total						6E-07					0.04
	Exposure Medium Total							6E-07					0.04
	Air	Site 1	Aroclor-1242	--	2E-11	--	--	2E-11	NA	--	--	--	--
			Aroclor-1248	--	9E-11	--	--	9E-11	NA	--	--	--	--
			Aroclor-1254	--	4E-11	--	--	4E-11	NA	--	--	--	--
			Chemical Total	--	1E-10	--	--	1E-10		- -	--	- -	--
		Exposure Point Total						1E-10					--
	Exposure Medium Total							1E-10					--
Medium Total								6E-07					0.04
Groundwater	Groundwater	Site 1	Aroclor-1242 (Water)	7E-07	--	- -	--	7E-07	NA	--	--	--	--
			Aroclor-1248 (Water)	6E-07	--	- -	--	6E-07	NA	--	--	--	--
			Aluminum	- -	--	- -	--	- -	CNS	0.05	--	0.0002	0.05
			Arsenic	7E-06	--	2E-08	--	8E-06	Skin, CVS	0.2	--	0.0005	0.2
			Hexavalent Chromium	6E-05	--	2E-05	--	7E-05	None Specified	0.2	--	0.06	0.3
			Cobalt	- -	--	- -	--	- -	Thyroid	0.07	--	0.00009	0.07
			Iron	- -	--	- -	--	- -	GS	0.03	--	0.00010	0.03
			Thallium	- -	--	- -	--	- -	Skin	--	--	--	--
			Chemical Total	7E-05	--	2E-05	--	8E-05		0.6	--	0.06	0.6
		Exposure Point Total						8E-05					0.6
	Exposure Medium Total							8E-05					0.6
Medium Total								8E-05					0.6
Subsurface Soil	Subsurface Soil	Dry Well 34-07	Aroclor-1248	8E-08	--	1E-08	--	9E-08	NA	--	--	--	--
			Chemical Total	8E-08	--	1E-08	--	9E-08		--	--	--	--
		Exposure Point Total						9E-08					--
	Exposure Medium Total							9E-08					--
	Air	Dry Well 34-07	Aroclor-1248	--	2E-11	--	--	2E-11	NA	--	--	--	--
			Chemical Total	--	2E-11	--	--	2E-11		- -	--	- -	--
		Exposure Point Total						2E-11					--
	Exposure Medium Total							2E-11					--
Medium Total								9E-08					--

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

TABLE 9.6.CTE
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY EXPOSURES
NWIRP BETHPAGE, BETHPAGE, NEW YORK

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Lifelong (Child and Adult)

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	Site 1	Aroclor-1248	1E-05	--	2E-06	--	1E-05					
			Aroclor-1254	3E-06	--	5E-07	--	4E-06					
			Chemical Total	1E-05	--	2E-06	--	2E-05					
		Exposure Point Total						2E-05					
	Exposure Medium Total							2E-05					
	Air	Site 1	Aroclor-1248	--	1E-09	--	--	1E-09					
			Aroclor-1254	--	3E-10	--	--	3E-10					
			Chemical Total	--	1E-09	--	--	1E-09					
		Exposure Point Total						1E-09					
	Exposure Medium Total							1E-09					
Medium Total								2E-05					
Subsurface Soil	Subsurface Soil	Site 1	Aroclor-1242	2E-07	--	3E-08	--	2E-07					
			Aroclor-1248	1E-06	--	2E-07	--	1E-06					
			Aroclor-1254	5E-07	--	7E-08	--	5E-07					
			Chemical Total	2E-06	--	3E-07	--	2E-06					
		Exposure Point Total						2E-06					
	Exposure Medium Total							2E-06					
	Air	Site 1	Aroclor-1242	--	2E-11	--	--	2E-11					
			Aroclor-1248	--	1E-10	--	--	1E-10					
			Aroclor-1254	--	5E-11	--	--	5E-11					
			Chemical Total	--	2E-10	--	--	2E-10					
		Exposure Point Total						2E-10					
	Exposure Medium Total							2E-10					
Medium Total								2E-06					
Groundwater	Groundwater	Site 1	Aroclor-1242 (Water)	2E-06	--	- -	--	2E-06					
			Aroclor-1248 (Water)	2E-06	--	- -	--	2E-06					
			Aluminum	- -	--	- -	--	- -					
			Arsenic	2E-05	--	7E-08	--	2E-05					
			Hexavalent Chromium	4E-04	--	1E-04	--	5E-04					
			Cobalt	- -	--	- -	--	- -					
			Iron	- -	--	- -	--	- -					
			Thallium	- -	--	- -	--	- -					
			Chemical Total	5E-04	--	1E-04	--	6E-04					
		Exposure Point Total						6E-04					
	Exposure Medium Total							6E-04					
Medium Total								6E-04					
Subsurface Soil	Subsurface Soil	Dry Well 34-07	Aroclor-1248	3E-07	--	4E-08	--	3E-07					
			Chemical Total	3E-07	--	4E-08	--	3E-07					
		Exposure Point Total						3E-07					
	Exposure Medium Total							3E-07					
	Air	Dry Well 34-07	Aroclor-1248	--	3E-11	--	--	3E-11					
			Chemical Total	--	3E-11	--	--	3E-11					
		Exposure Point Total						3E-11					
	Exposure Medium Total							3E-11					
Medium Total								3E-07					

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

APPENDIX G.3

PROUCL OUTPUTS

Surface Soil

PROUCL OUTPUT - SURFACE SOIL - SITE 1 PROPER

UCL Statistics for Uncensored Full Data Sets	
User Selected Options	
Date/Time of Computation	9/24/2013 7:46:02 AM
From File	ProUCL Data - Proper - Surface Soil.xls
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

AROCLOR-1248

General Statistics			
Total Number of Observations	39	Number of Distinct Observations	35
		Number of Missing Observations	0
Minimum	24	Mean	11039
Maximum	150000	Median	1300
SD	27260	Std. Error of Mean	4365
Coefficient of Variation	2.469	Skewness	3.993

Normal GOF Test		
Shapiro Wilk Test Statistic	0.454	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.939	Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.379	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.142	Data Not Normal at 5% Significance Level
Data Not Normal at 5% Significance Level		

Assuming Normal Distribution			
95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	18398	95% Adjusted-CLT UCL (Chen-1995)	21201
		95% Modified-t UCL (Johnson-1978)	18864

Gamma GOF Test		
A-D Test Statistic	2.29	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.844	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.199	**Kolmogrov-Smirnoff Gamma GOF Test**
5% K-S Critical Value	0.152	Data Not Gamma Distributed at 5% Significance Level
Data Not Gamma Distributed at 5% Significance Level		

Gamma Statistics			
k hat (MLE)	0.362	k star (bias corrected MLE)	0.351
Theta hat (MLE)	30493	Theta star (bias corrected MLE)	31427
nu hat (MLE)	28.24	nu star (bias corrected)	27.4
MLE Mean (bias corrected)	11039	MLE Sd (bias corrected)	18626
		Approximate Chi Square Value (0.05)	16.46
Adjusted Level of Significance	0.0437	Adjusted Chi Square Value	16.13

Assuming Gamma Distribution			
95% Approximate Gamma UCL (use when n>=50))	18374	95% Adjusted Gamma UCL (use when n<50)	18757

Lognormal GOF Test		
Shapiro Wilk Test Statistic	0.979	**Shapiro Wilk Lognormal GOF Test**
5% Shapiro Wilk Critical Value	0.939	Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.0969	**Lilliefors Lognormal GOF Test**
5% Lilliefors Critical Value	0.142	Data appear Lognormal at 5% Significance Level
Data appear Lognormal at 5% Significance Level		

AROCLOR-1248 (Continued)

Lognormal Statistics			
Minimum of Logged Data	3.178	Mean of logged Data	7.462
Maximum of Logged Data	11.92	SD of logged Data	1.985

Assuming Lognormal Distribution			
95% H-UCL	41626	90% Chebyshev (MVUE) UCL	25575
95% Chebyshev (MVUE) UCL	32207	97.5% Chebyshev (MVUE) UCL	41412
99% Chebyshev (MVUE) UCL	59494		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs			
95% CLT UCL	18219	95% Jackknife UCL	18398
95% Standard Bootstrap UCL	18409	95% Bootstrap-t UCL	25957
95% Hall's Bootstrap UCL	38896	95% Percentile Bootstrap UCL	18800
95% BCA Bootstrap UCL	22859		
90% Chebyshev(Mean, Sd) UCL	24134	95% Chebyshev(Mean, Sd) UCL	30066
97.5% Chebyshev(Mean, Sd) UCL	38299	99% Chebyshev(Mean, Sd) UCL	54472

Suggested UCL to Use	
95% Chebyshev (Mean, Sd) UCL	30066

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). However, simulations results will not cover all Real World data sets.
For additional insight the user may want to consult a statistician.

UCL Statistics for Data Sets with Non-Detects

User Selected Options	
Date/Time of Computation	9/24/2013 7:44:46 AM
From File	ProUCL Data - Proper - Surface Soil.xls
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

AROCLOR-1254

General Statistics

Total Number of Observations	39	Number of Distinct Observations	33
Number of Detects	29	Number of Non-Detects	10
Number of Distinct Detects	26	Number of Distinct Non-Detects	10
Minimum Detect	11	Minimum Non-Detect	53
Maximum Detect	28000	Maximum Non-Detect	15000
Variance Detects	27760276	Percent Non-Detects	25.64%
Mean Detects	2233	SD Detects	5269
Median Detects	460	CV Detects	2.36
Skewness Detects	4.483	Kurtosis Detects	22.01
Mean of Logged Detects	6.308	SD of Logged Detects	1.755

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.429	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.926	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.337	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.165	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	1713	Standard Error of Mean	744.7
SD	4562	95% KM (BCA) UCL	3051
95% KM (t) UCL	2969	95% KM (Percentile Bootstrap) UCL	2938
95% KM (z) UCL	2938	95% KM Bootstrap t UCL	5109
90% KM Chebyshev UCL	3947	95% KM Chebyshev UCL	4959
97.5% KM Chebyshev UCL	6364	99% KM Chebyshev UCL	9123

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	1.166	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.821	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.206	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.173	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.459	k star (bias corrected MLE)	0.434
Theta hat (MLE)	4866	Theta star (bias corrected MLE)	5140
nu hat (MLE)	26.62	nu star (bias corrected)	25.2
MLE Mean (bias corrected)	2233	MLE Sd (bias corrected)	3388

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.141	nu hat (KM)	11
Approximate Chi Square Value (11.00, α)	4.576	Adjusted Chi Square Value (11.00, β)	4.413
95% Gamma Approximate KM-UCL (use when n>=50)	4118	95% Gamma Adjusted KM-UCL (use when n<50)	4270

AROCLOR-1254 (Continued)

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	1660
Maximum	28000	Median	340
SD	4629	CV	2.788
k hat (MLE)	0.19	k star (bias corrected MLE)	0.192
Theta hat (MLE)	8740	Theta star (bias corrected MLE)	8627
nu hat (MLE)	14.82	nu star (bias corrected)	15.01
MLE Mean (bias corrected)	1660	MLE Sd (bias corrected)	3785
		Adjusted Level of Significance (β)	0.0437
Approximate Chi Square Value (15.01, α)	7.269	Adjusted Chi Square Value (15.01, β)	7.057
95% Gamma Approximate UCL (use when n>=50)	3429	95% Gamma Adjusted UCL (use when n<50)	3532

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.988	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.926	Detected Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.0938	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.165	Detected Data appear Lognormal at 5% Significance Level

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	1686	Mean in Log Scale	5.78
SD in Original Scale	4620	SD in Log Scale	1.813
95% t UCL (assumes normality of ROS data)	2933	95% Percentile Bootstrap UCL	3016
95% BCA Bootstrap UCL	4063	95% Bootstrap t UCL	5172
95% H-UCL (Log ROS)	4669		

UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed

KM Mean (logged)	5.741	95% H-UCL (KM -Log)	5914
KM SD (logged)	1.909	95% Critical H Value (KM-Log)	3.625
KM Standard Error of Mean (logged)	0.331		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	1901	Mean in Log Scale	5.997
SD in Original Scale	4696	SD in Log Scale	1.825
95% t UCL (Assumes normality)	3169	95% H-Stat UCL	6006

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Lognormal Distributed at 5% Significance Level

Suggested UCL to Use

99% KM (Chebyshev) UCL	9123

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Shallow Subsurface Soil

UCL Statistics for Data Sets with Non-Detects

User Selected Options	
Date/Time of Computation	9/24/2013 7:46:51 AM
From File	ProUCL Data - Proper - Shallow Subsurface Soil.xls
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

AROCLOR-1242

General Statistics

Total Number of Observations	53	Number of Distinct Observations	11
Number of Detects	1	Number of Non-Detects	52
Number of Distinct Detects	1	Number of Distinct Non-Detects	10

Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!

It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV)

The data set for variable AROCLOR-1242 was not processed!

AROCLOR-1248

General Statistics

Total Number of Observations	53	Number of Distinct Observations	30
Number of Detects	28	Number of Non-Detects	25
Number of Distinct Detects	27	Number of Distinct Non-Detects	4
Minimum Detect	3.8	Minimum Non-Detect	13
Maximum Detect	21000	Maximum Non-Detect	29
Variance Detects	18311355	Percent Non-Detects	47.17%
Mean Detects	1282	SD Detects	4279
Median Detects	88.5	CV Detects	3.338
Skewness Detects	4.197	Kurtosis Detects	18.23
Mean of Logged Detects	4.703	SD of Logged Detects	1.971

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.331	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.924	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.436	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.167	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	680	Standard Error of Mean	436.4
SD	3120	95% KM (BCA) UCL	1490
95% KM (t) UCL	1411	95% KM (Percentile Bootstrap) UCL	1457
95% KM (z) UCL	1398	95% KM Bootstrap t UCL	9671
90% KM Chebyshev UCL	1989	95% KM Chebyshev UCL	2582
97.5% KM Chebyshev UCL	3405	99% KM Chebyshev UCL	5022

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	3.405	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.862	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.285	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.18	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

AROCLOR-1248 (Continued)

Gamma Statistics on Detected Data Only			
k hat (MLE)	0.284	k star (bias corrected MLE)	0.277
Theta hat (MLE)	4520	Theta star (bias corrected MLE)	4627
nu hat (MLE)	15.88	nu star (bias corrected)	15.52
MLE Mean (bias corrected)	1282	MLE Sd (bias corrected)	2436
Gamma Kaplan-Meier (KM) Statistics			
k hat (KM)	0.0475	nu hat (KM)	5.035
Approximate Chi Square Value (5.03, α)	1.168	Adjusted Chi Square Value (5.03, β)	1.118
95% Gamma Approximate KM-UCL (use when n>=50)	2930	95% Gamma Adjusted KM-UCL (use when n<50)	3062
Gamma (KM) may not be used when k hat (KM) is < 0.1			
Gamma ROS Statistics using Imputed Non-Detects			
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs			
GROS may not be used when kstar of detected data is small such as < 0.1			
For such situations, GROS method tends to yield inflated values of UCLs and BTVs			
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates			
Minimum	0.01	Mean	677.4
Maximum	21000	Median	7
SD	3150	CV	4.651
k hat (MLE)	0.127	k star (bias corrected MLE)	0.132
Theta hat (MLE)	5341	Theta star (bias corrected MLE)	5123
nu hat (MLE)	13.44	nu star (bias corrected)	14.02
MLE Mean (bias corrected)	677.4	MLE Sd (bias corrected)	1863
		Adjusted Level of Significance (β)	0.0455
Approximate Chi Square Value (14.02, α)	6.582	Adjusted Chi Square Value (14.02, β)	6.439
95% Gamma Approximate UCL (use when n>=50)	1442	95% Gamma Adjusted UCL (use when n<50)	1474
Lognormal GOF Test on Detected Observations Only			
Shapiro Wilk Test Statistic	0.946	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.924	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.113	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.167	Detected Data appear Lognormal at 5% Significance Level	
Detected Data appear Lognormal at 5% Significance Level			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	679.1	Mean in Log Scale	2.768
SD in Original Scale	3150	SD in Log Scale	2.687
95% t UCL (assumes normality of ROS data)	1404	95% Percentile Bootstrap UCL	1482
95% BCA Bootstrap UCL	1998	95% Bootstrap t UCL	9925
95% H-UCL (Log ROS)	3336		
UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed			
KM Mean (logged)	3.264	95% H-UCL (KM -Log)	677.9
KM SD (logged)	2.086	95% Critical H Value (KM-Log)	3.735
KM Standard Error of Mean (logged)	0.311		
DL/2 Statistics			
DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	680.6	Mean in Log Scale	3.394
SD in Original Scale	3150	SD in Log Scale	1.996
95% t UCL (Assumes normality)	1405	95% H-Stat UCL	593.2
DL/2 is not a recommended method, provided for comparisons and historical reasons			

AROCLOR-1248 (Continued)							
Nonparametric Distribution Free UCL Statistics							
Detected Data appear Lognormal Distributed at 5% Significance Level							
Suggested UCL to Use							
97.5% KM (Chebyshev) UCL	3405						
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
Recommendations are based upon data size, data distribution, and skewness.							
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).							
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.							

AROCLOR-1254

General Statistics			
Total Number of Observations	53	Number of Distinct Observations	25
Number of Detects	23	Number of Non-Detects	30
Number of Distinct Detects	22	Number of Distinct Non-Detects	4
Minimum Detect	3.8	Minimum Non-Detect	13
Maximum Detect	13000	Maximum Non-Detect	72
Variance Detects	7270659	Percent Non-Detects	56.6%
Mean Detects	696.4	SD Detects	2696
Median Detects	35	CV Detects	3.872
Skewness Detects	4.717	Kurtosis Detects	22.44
Mean of Logged Detects	3.967	SD of Logged Detects	1.953

Normal GOF Test on Detects Only		
Shapiro Wilk Test Statistic	0.269	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.914	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.442	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.185	Detected Data Not Normal at 5% Significance Level
Detected Data Not Normal at 5% Significance Level		

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
Mean	305.7	Standard Error of Mean	248.7
SD	1771	95% KM (BCA) UCL	798
95% KM (t) UCL	722.2	95% KM (Percentile Bootstrap) UCL	790.6
95% KM (z) UCL	714.8	95% KM Bootstrap t UCL	6694
90% KM Chebyshev UCL	1052	95% KM Chebyshev UCL	1390
97.5% KM Chebyshev UCL	1859	99% KM Chebyshev UCL	2780

Gamma GOF Tests on Detected Observations Only		
A-D Test Statistic	3.008	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.863	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.305	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.198	Detected Data Not Gamma Distributed at 5% Significance Level
Detected Data Not Gamma Distributed at 5% Significance Level		

Gamma Statistics on Detected Data Only			
k hat (MLE)	0.272	k star (bias corrected MLE)	0.265
Theta hat (MLE)	2563	Theta star (bias corrected MLE)	2625
nu hat (MLE)	12.5	nu star (bias corrected)	12.2
MLE Mean (bias corrected)	696.4	MLE Sd (bias corrected)	1352

Gamma Kaplan-Meier (KM) Statistics			
k hat (KM)	0.0298	nu hat (KM)	3.16
Approximate Chi Square Value (3.16, α)	0.421	Adjusted Chi Square Value (3.16, β)	0.397
95% Gamma Approximate KM-UCL (use when n>=50)	2293	95% Gamma Adjusted KM-UCL (use when n<50)	2431
Gamma (KM) may not be used when k hat (KM) is < 0.1			

AROCLOR-1254 (Continued)

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	302.2
Maximum	13000	Median	0.01
SD	1788	CV	5.917
k hat (MLE)	0.12	k star (bias corrected MLE)	0.126
Theta hat (MLE)	2514	Theta star (bias corrected MLE)	2399
nu hat (MLE)	12.74	nu star (bias corrected)	13.35
MLE Mean (bias corrected)	302.2	MLE Sd (bias corrected)	851.5
		Adjusted Level of Significance (β)	0.0455
Approximate Chi Square Value (13.35, α)	6.131	Adjusted Chi Square Value (13.35, β)	5.994
95% Gamma Approximate UCL (use when n>=50)	658.2	95% Gamma Adjusted UCL (use when n<50)	673.3

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.932	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.914	Detected Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.143	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.185	Detected Data appear Lognormal at 5% Significance Level

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	305.7	Mean in Log Scale	2.429
SD in Original Scale	1788	SD in Log Scale	2.075
95% t UCL (assumes normality of ROS data)	716.9	95% Percentile Bootstrap UCL	778
95% BCA Bootstrap UCL	1247	95% Bootstrap t UCL	6634
95% H-UCL (Log ROS)	285		

UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed

KM Mean (logged)	2.685	95% H-UCL (KM -Log)	139.3
KM SD (logged)	1.72	95% Critical H Value (KM-Log)	3.235
KM Standard Error of Mean (logged)	0.27		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	306.6	Mean in Log Scale	2.837
SD in Original Scale	1787	SD in Log Scale	1.632
95% t UCL (Assumes normality)	717.8	95% H-Stat UCL	131

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Lognormal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL	1390

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Groundwater

UCL Statistics for Data Sets with Non-Detects	
User Selected Options	
Date/Time of Computation	9/24/2013 7:33:00 AM
From File	ProUCL Data - Groundwater.xls
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

AROCLOR-1242

General Statistics			
Total Number of Observations	84	Number of Distinct Observations	38
Number of Detects	36	Number of Non-Detects	48
Number of Distinct Detects	31	Number of Distinct Non-Detects	8
Minimum Detect	0.054	Minimum Non-Detect	0.08
Maximum Detect	4	Maximum Non-Detect	0.32
Variance Detects	1.399	Percent Non-Detects	57.14%
Mean Detects	1.594	SD Detects	1.183
Median Detects	1.25	CV Detects	0.742
Skewness Detects	0.574	Kurtosis Detects	-0.792
Mean of Logged Detects	0.0738	SD of Logged Detects	1.047

Normal GOF Test on Detects Only		
Shapiro Wilk Test Statistic	0.914	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.935	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.137	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.148	Detected Data appear Normal at 5% Significance Level
Detected Data appear Approximate Normal at 5% Significance Level		

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
Mean	0.714	Standard Error of Mean	0.119
SD	1.078	95% KM (BCA) UCL	0.926
95% KM (t) UCL	0.913	95% KM (Percentile Bootstrap) UCL	0.913
95% KM (z) UCL	0.91	95% KM Bootstrap t UCL	0.936
90% KM Chebyshev UCL	1.072	95% KM Chebyshev UCL	1.234
97.5% KM Chebyshev UCL	1.459	99% KM Chebyshev UCL	1.902

Gamma GOF Tests on Detected Observations Only		
A-D Test Statistic	0.361	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.768	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.0954	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.15	Detected data appear Gamma Distributed at 5% Significance Level
Detected data appear Gamma Distributed at 5% Significance Level		

Gamma Statistics on Detected Data Only			
k hat (MLE)	1.418	k star (bias corrected MLE)	1.319
Theta hat (MLE)	1.123	Theta star (bias corrected MLE)	1.208
nu hat (MLE)	102.1	nu star (bias corrected)	94.95
MLE Mean (bias corrected)	1.594	MLE Sd (bias corrected)	1.388

Gamma Kaplan-Meier (KM) Statistics			
k hat (KM)	0.438	nu hat (KM)	73.67
Approximate Chi Square Value (73.67, α)	54.9	Adjusted Chi Square Value (73.67, β)	54.62
95% Gamma Approximate KM-UCL (use when n>=50)	0.958	95% Gamma Adjusted KM-UCL (use when n<50)	0.963

AROCLOR-1242 (Continued)

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	0.705
Maximum	4	Median	0.0751
SD	1.092	CV	1.55
k hat (MLE)	0.34	k star (bias corrected MLE)	0.336
Theta hat (MLE)	2.074	Theta star (bias corrected MLE)	2.1
nu hat (MLE)	57.08	nu star (bias corrected)	56.38
MLE Mean (bias corrected)	0.705	MLE Sd (bias corrected)	1.217
		Adjusted Level of Significance (β)	0.0471
Approximate Chi Square Value (56.38, α)	40.12	Adjusted Chi Square Value (56.38, β)	39.88
95% Gamma Approximate UCL (use when n>=50)	0.99	95% Gamma Adjusted UCL (use when n<50)	0.996

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.922	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.935	Detected Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.12	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.148	Detected Data appear Lognormal at 5% Significance Level

Detected Data appear Approximate Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	0.75	Mean in Log Scale	-1.382
SD in Original Scale	1.065	SD in Log Scale	1.597
95% t UCL (assumes normality of ROS data)	0.943	95% Percentile Bootstrap UCL	0.949
95% BCA Bootstrap UCL	0.967	95% Bootstrap t UCL	0.973
95% H-UCL (Log ROS)	1.487		

UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed

KM Mean (logged)	-1.633	95% H-UCL (KM -Log)	1.233
KM SD (logged)	1.626	95% Critical H Value (KM-Log)	2.912
KM Standard Error of Mean (logged)	0.18		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	0.711	Mean in Log Scale	-1.733
SD in Original Scale	1.087	SD in Log Scale	1.73
95% t UCL (Assumes normality)	0.908	95% H-Stat UCL	1.403

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Approximate Normal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL	0.913	95% KM (Percentile Bootstrap) UCL	0.913

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

AROCLOR-1248

General Statistics			
Total Number of Observations	84	Number of Distinct Observations	40
Number of Detects	37	Number of Non-Detects	47
Number of Distinct Detects	30	Number of Distinct Non-Detects	10
Minimum Detect	0.18	Minimum Non-Detect	0.042
Maximum Detect	4.2	Maximum Non-Detect	0.55
Variance Detects	0.952	Percent Non-Detects	55.95%
Mean Detects	1.327	SD Detects	0.976
Median Detects	1.1	CV Detects	0.735
Skewness Detects	1.185	Kurtosis Detects	1.501
Mean of Logged Detects	-0.0142	SD of Logged Detects	0.841

Normal GOF Test on Detects Only		
Shapiro Wilk Test Statistic	0.897	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.936	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.12	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.146	Detected Data appear Normal at 5% Significance Level
Detected Data appear Approximate Normal at 5% Significance Level		

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
Mean	0.609	Standard Error of Mean	0.0998
SD	0.902	95% KM (BCA) UCL	0.807
95% KM (t) UCL	0.775	95% KM (Percentile Bootstrap) UCL	0.786
95% KM (z) UCL	0.773	95% KM Bootstrap t UCL	0.794
90% KM Chebyshev UCL	0.908	95% KM Chebyshev UCL	1.044
97.5% KM Chebyshev UCL	1.232	99% KM Chebyshev UCL	1.602

Gamma GOF Tests on Detected Observations Only		
A-D Test Statistic	0.227	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.762	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.0736	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.147	Detected data appear Gamma Distributed at 5% Significance Level
Detected data appear Gamma Distributed at 5% Significance Level		

Gamma Statistics on Detected Data Only			
k hat (MLE)	1.832	k star (bias corrected MLE)	1.702
Theta hat (MLE)	0.724	Theta star (bias corrected MLE)	0.78
nu hat (MLE)	135.6	nu star (bias corrected)	125.9
MLE Mean (bias corrected)	1.327	MLE Sd (bias corrected)	1.017

Gamma Kaplan-Meier (KM) Statistics			
k hat (KM)	0.455	nu hat (KM)	76.41
Approximate Chi Square Value (76.41, α)	57.27	Adjusted Chi Square Value (76.41, β)	56.98
95% Gamma Approximate KM-UCL (use when n>=50)	0.812	95% Gamma Adjusted KM-UCL (use when n<50)	0.816

AROCLOR-1248 (Continued)

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	0.594
Maximum	4.2	Median	0.01
SD	0.917	CV	1.543
k hat (MLE)	0.344	k star (bias corrected MLE)	0.34
Theta hat (MLE)	1.727	Theta star (bias corrected MLE)	1.749
nu hat (MLE)	57.82	nu star (bias corrected)	57.09
MLE Mean (bias corrected)	0.594	MLE Sd (bias corrected)	1.02
		Adjusted Level of Significance (β)	0.0471
Approximate Chi Square Value (57.09, α)	40.72	Adjusted Chi Square Value (57.09, β)	40.48
95% Gamma Approximate UCL (use when n>=50)	0.833	95% Gamma Adjusted UCL (use when n<50)	0.838

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.953	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.936	Detected Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.119	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.146	Detected Data appear Lognormal at 5% Significance Level

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	0.658	Mean in Log Scale	-1.27
SD in Original Scale	0.879	SD in Log Scale	1.374
95% t UCL (assumes normality of ROS data)	0.818	95% Percentile Bootstrap UCL	0.826
95% BCA Bootstrap UCL	0.841	95% Bootstrap t UCL	0.846
95% H-UCL (Log ROS)	1.071		

UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed

KM Mean (logged)	-1.776	95% H-UCL (KM -Log)	1.15
KM SD (logged)	1.66	95% Critical H Value (KM-Log)	2.951
KM Standard Error of Mean (logged)	0.184		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	0.61	Mean in Log Scale	-1.774
SD in Original Scale	0.907	SD in Log Scale	1.682
95% t UCL (Assumes normality)	0.775	95% H-Stat UCL	1.21

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Approximate Normal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL	0.775	95% KM (Percentile Bootstrap) UCL	0.786

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

ARSENIC

General Statistics			
Total Number of Observations	7	Number of Distinct Observations	4
		Number of Missing Observations	58
Number of Detects	3	Number of Non-Detects	4
Number of Distinct Detects	3	Number of Distinct Non-Detects	1
Minimum Detect	0.315	Minimum Non-Detect	0.5
Maximum Detect	5.2	Maximum Non-Detect	0.5
Variance Detects	7.141	Percent Non-Detects	57.14%
Mean Detects	2.132	SD Detects	2.672
Median Detects	0.88	CV Detects	1.254
Skewness Detects	1.645	Kurtosis Detects	N/A
Mean of Logged Detects	0.122	SD of Logged Detects	1.419

Warning: Data set has only 3 Detected Values.
This is not enough to compute meaningful or reliable statistics and estimates.

Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use
guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).
Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.0

Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.835	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.767	Detected Data appear Normal at 5% Significance Level	
Lilliefors Test Statistic	0.347	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.512	Detected Data appear Normal at 5% Significance Level	

Detected Data appear Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
Mean	1.094	Standard Error of Mean	0.781
SD	1.688	95% KM (BCA) UCL	N/A
95% KM (t) UCL	2.612	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	2.379	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	3.437	95% KM Chebyshev UCL	4.499
97.5% KM Chebyshev UCL	5.973	99% KM Chebyshev UCL	8.867

Gamma GOF Tests on Detected Observations Only
Not Enough Data to Perform GOF Test

Gamma Statistics on Detected Data Only			
k hat (MLE)	0.918	k star (bias corrected MLE)	N/A
Theta hat (MLE)	2.321	Theta star (bias corrected MLE)	N/A
nu hat (MLE)	5.51	nu star (bias corrected)	N/A
MLE Mean (bias corrected)	N/A	MLE Sd (bias corrected)	N/A

Gamma Kaplan-Meier (KM) Statistics			
k hat (KM)	0.42	nu hat (KM)	5.878
		Adjusted Level of Significance (β)	0.0158
Approximate Chi Square Value (5.88, α)	1.578	Adjusted Chi Square Value (5.88, β)	1
95% Gamma Approximate KM-UCL (use when n>=50)	4.074	95% Gamma Adjusted KM-UCL (use when n<50)	6.427

ARSENIC (Continued)

Lognormal GOF Test on Detected Observations Only			
Shapiro Wilk Test Statistic	0.977	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.767	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.237	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.512	Detected Data appear Lognormal at 5% Significance Level	
Detected Data appear Lognormal at 5% Significance Level			

Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	1.091	Mean in Log Scale	-0.74
SD in Original Scale	1.831	SD in Log Scale	1.279
95% t UCL (assumes normality of ROS data)	2.436	95% Percentile Bootstrap UCL	2.423
95% BCA Bootstrap UCL	3.121	95% Bootstrap t UCL	9.598
95% H-UCL (Log ROS)	11.41		

UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed			
KM Mean (logged)	-0.608	95% H-UCL (KM -Log)	3.876
KM SD (logged)	0.987	95% Critical H Value (KM-Log)	3.661
KM Standard Error of Mean (logged)	0.457		

DL/2 Statistics			
DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	1.056	Mean in Log Scale	-0.74
SD in Original Scale	1.842	SD in Log Scale	1.149
95% t UCL (Assumes normality)	2.409	95% H-Stat UCL	6.401
DL/2 is not a recommended method, provided for comparisons and historical reasons			

Nonparametric Distribution Free UCL Statistics			
Detected Data appear Normal Distributed at 5% Significance Level			
Suggested UCL to Use			
95% KM (t) UCL	2.612	95% KM (Percentile Bootstrap) UCL	N/A
Warning: One or more Recommended UCL(s) not available!			

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

THALLIUM

General Statistics			
Total Number of Observations	7	Number of Distinct Observations	3
		Number of Missing Observations	58
Number of Detects	2	Number of Non-Detects	5
Number of Distinct Detects	2	Number of Distinct Non-Detects	1
Minimum Detect	0.03	Minimum Non-Detect	0.1
Maximum Detect	0.066	Maximum Non-Detect	0.1
Variance Detects	6.4800E-4	Percent Non-Detects	71.43%
Mean Detects	0.048	SD Detects	0.0255
Median Detects	0.048	CV Detects	0.53
Skewness Detects	N/A	Kurtosis Detects	N/A
Mean of Logged Detects	-3.112	SD of Logged Detects	0.558

Warning: Data set has only 2 Detected Values.
This is not enough to compute meaningful or reliable statistics and estimates.

Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use
guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).
Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.0

Normal GOF Test on Detects Only
Not Enough Data to Perform GOF Test

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
Mean	0.048	Standard Error of Mean	0.018
SD	0.018	95% KM (BCA) UCL	N/A
95% KM (t) UCL	0.083	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	0.0776	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	0.102	95% KM Chebyshev UCL	0.126
97.5% KM Chebyshev UCL	0.16	99% KM Chebyshev UCL	0.227

Gamma GOF Tests on Detected Observations Only
Not Enough Data to Perform GOF Test

Gamma Statistics on Detected Data Only			
k hat (MLE)	6.761	k star (bias corrected MLE)	N/A
Theta hat (MLE)	0.0071	Theta star (bias corrected MLE)	N/A
nu hat (MLE)	27.04	nu star (bias corrected)	N/A
MLE Mean (bias corrected)	N/A	MLE Sd (bias corrected)	N/A

Gamma Kaplan-Meier (KM) Statistics			
k hat (KM)	7.111	nu hat (KM)	99.56
		Adjusted Level of Significance (β)	0.0158
Approximate Chi Square Value (99.56, α)	77.54	Adjusted Chi Square Value (99.56, β)	71.69
95% Gamma Approximate KM-UCL (use when n>=50)	0.0616	95% Gamma Adjusted KM-UCL (use when n<50)	0.0667

Lognormal GOF Test on Detected Observations Only
Not Enough Data to Perform GOF Test

THALLIUM (Continued)			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	0.0518	Mean in Log Scale	-3.112
SD in Original Scale	0.0307	SD in Log Scale	0.604
95% t UCL (assumes normality of ROS data)	0.0744	95% Percentile Bootstrap UCL	0.0697
95% BCA Bootstrap UCL	0.0706	95% Bootstrap t UCL	0.0842
95% H-UCL (Log ROS)	0.103		
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.0494	Mean in Log Scale	-3.029
SD in Original Scale	0.0104	SD in Log Scale	0.235
95% t UCL (Assumes normality)	0.0571	95% H-Stat UCL	0.0605
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Data do not follow a Discernible Distribution at 5% Significance Level			
Suggested UCL to Use			
95% KM (t) UCL	0.083	95% KM (% Bootstrap) UCL	N/A
Warning: One or more Recommended UCL(s) not available!			
Warning: Recommended UCL exceeds the maximum observation			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness.			
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			

HEXAVALENT CHROMIUM

General Statistics			
Total Number of Observations	29	Number of Distinct Observations	14
Number of Detects	13	Number of Non-Detects	16
Number of Distinct Detects	13	Number of Distinct Non-Detects	1
Minimum Detect	0.4	Minimum Non-Detect	1
Maximum Detect	181.5	Maximum Non-Detect	1
Variance Detects	4837	Percent Non-Detects	55.17%
Mean Detects	48.62	SD Detects	69.55
Median Detects	6.4	CV Detects	1.431
Skewness Detects	1.275	Kurtosis Detects	-0.105
Mean of Logged Detects	2.227	SD of Logged Detects	2.259

Normal GOF Test on Detects Only		
Shapiro Wilk Test Statistic	0.708	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.866	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.267	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.246	Detected Data Not Normal at 5% Significance Level
Detected Data Not Normal at 5% Significance Level		

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
Mean	22.11	Standard Error of Mean	9.803
SD	50.72	95% KM (BCA) UCL	39.14
95% KM (t) UCL	38.78	95% KM (Percentile Bootstrap) UCL	38.67
95% KM (z) UCL	38.23	95% KM Bootstrap t UCL	47.66
90% KM Chebyshev UCL	51.52	95% KM Chebyshev UCL	64.84
97.5% KM Chebyshev UCL	83.33	99% KM Chebyshev UCL	119.6

Gamma GOF Tests on Detected Observations Only		
A-D Test Statistic	0.561	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.81	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.195	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.253	Detected data appear Gamma Distributed at 5% Significance Level
Detected data appear Gamma Distributed at 5% Significance Level		

Gamma Statistics on Detected Data Only			
k hat (MLE)	0.398	k star (bias corrected MLE)	0.357
Theta hat (MLE)	122.3	Theta star (bias corrected MLE)	136.1
nu hat (MLE)	10.34	nu star (bias corrected)	9.285
MLE Mean (bias corrected)	48.62	MLE Sd (bias corrected)	81.35

Gamma Kaplan-Meier (KM) Statistics			
k hat (KM)	0.19	nu hat (KM)	11.02
Approximate Chi Square Value (11.02, α)	4.587	Adjusted Chi Square Value (11.02, β)	4.341
95% Gamma Approximate KM-UCL (use when n>=50)	53.09	95% Gamma Adjusted KM-UCL (use when n<50)	56.11

HEXAVALENT CHROMIUM (Continued)

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	21.8
Maximum	181.5	Median	0.01
SD	51.75	CV	2.374
k hat (MLE)	0.166	k star (bias corrected MLE)	0.172
Theta hat (MLE)	131	Theta star (bias corrected MLE)	126.6
nu hat (MLE)	9.656	nu star (bias corrected)	9.991
MLE Mean (bias corrected)	21.8	MLE Sd (bias corrected)	52.53
		Adjusted Level of Significance (β)	0.0407
Approximate Chi Square Value (9.99, α)	3.936	Adjusted Chi Square Value (9.99, β)	3.711
95% Gamma Approximate UCL (use when n>=50)	55.34	95% Gamma Adjusted UCL (use when n<50)	58.7

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.912	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.866	Detected Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.135	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.246	Detected Data appear Lognormal at 5% Significance Level

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	22.28	Mean in Log Scale	0.455
SD in Original Scale	51.55	SD in Log Scale	2.491
95% t UCL (assumes normality of ROS data)	38.56	95% Percentile Bootstrap UCL	38.35
95% BCA Bootstrap UCL	43.97	95% Bootstrap t UCL	47.86
95% H-UCL (Log ROS)	320.7		

UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed

KM Mean (logged)	0.67	95% H-UCL (KM -Log)	69.52
KM SD (logged)	2.028	95% Critical H Value (KM-Log)	3.954
KM Standard Error of Mean (logged)	0.401		

DL/2 Statistics

DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	22.07	Mean in Log Scale	0.616
SD in Original Scale	51.63	SD in Log Scale	2.091
95% t UCL (Assumes normality)	38.38	95% H-Stat UCL	81.76

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Gamma Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL	38.78	95% GROS Adjusted Gamma UCL	58.7
95% Adjusted Gamma KM-UCL	56.11		

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

UCL Statistics for Uncensored Full Data Sets	
User Selected Options	
Date/Time of Computation	9/24/2013 7:41:33 AM
From File	ProUCL Data - Groundwater.xls
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

ALUMINUM

General Statistics			
Total Number of Observations	7	Number of Distinct Observations	7
		Number of Missing Observations	58
Minimum	5.7	Mean	494.4
Maximum	2800	Median	45
SD	1031	Std. Error of Mean	389.6
Coefficient of Variation	2.085	Skewness	2.507

Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest. For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012). Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.0

Normal GOF Test		
Shapiro Wilk Test Statistic	0.561	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.803	Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.369	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.335	Data Not Normal at 5% Significance Level

Data Not Normal at 5% Significance Level

Assuming Normal Distribution			
95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	1251	95% Adjusted-CLT UCL (Chen-1995)	1530
		95% Modified-t UCL (Johnson-1978)	1313

Gamma GOF Test		
A-D Test Statistic	0.641	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.775	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.307	**Kolmogrov-Smirnoff Gamma GOF Test**
5% K-S Critical Value	0.333	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics			
k hat (MLE)	0.354	k star (bias corrected MLE)	0.297
Theta hat (MLE)	1398	Theta star (bias corrected MLE)	1663
nu hat (MLE)	4.952	nu star (bias corrected)	4.163
MLE Mean (bias corrected)	494.4	MLE Sd (bias corrected)	906.6
		Approximate Chi Square Value (0.05)	0.787
Adjusted Level of Significance	0.0158	Adjusted Chi Square Value	0.442

Assuming Gamma Distribution			
95% Approximate Gamma UCL (use when n>=50)	2615	95% Adjusted Gamma UCL (use when n<50)	4659

ALUMINUM (Continued)

Lognormal GOF Test			
Shapiro Wilk Test Statistic	0.946	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk Critical Value	0.803	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.193	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.335	Data appear Lognormal at 5% Significance Level	
Data appear Lognormal at 5% Significance Level			

Lognormal Statistics			
Minimum of Logged Data	1.74	Mean of logged Data	4.306
Maximum of Logged Data	7.937	SD of logged Data	2.118

Assuming Lognormal Distribution			
95% H-UCL	328940	90% Chebyshev (MVUE) UCL	1174
95% Chebyshev (MVUE) UCL	1538	97.5% Chebyshev (MVUE) UCL	2044
99% Chebyshev (MVUE) UCL	3037		

Nonparametric Distribution Free UCL Statistics
Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs			
95% CLT UCL	1135	95% Jackknife UCL	1251
95% Standard Bootstrap UCL	1088	95% Bootstrap-t UCL	18110
95% Hall's Bootstrap UCL	7638	95% Percentile Bootstrap UCL	1218
95% BCA Bootstrap UCL	1615		
90% Chebyshev(Mean, Sd) UCL	1663	95% Chebyshev(Mean, Sd) UCL	2192
97.5% Chebyshev(Mean, Sd) UCL	2927	99% Chebyshev(Mean, Sd) UCL	4371

Suggested UCL to Use			
95% Adjusted Gamma UCL	4659		

Recommended UCL exceeds the maximum observation

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). However, simulations results will not cover all Real World data sets.
For additional insight the user may want to consult a statistician.

COBALT

General Statistics			
Total Number of Observations	7	Number of Distinct Observations	7
		Number of Missing Observations	58
Minimum	0.18	Mean	0.714
Maximum	1.5	Median	0.415
SD	0.546	Std. Error of Mean	0.206
Coefficient of Variation	0.765	Skewness	0.738

Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest. For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012). Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.0

Normal GOF Test			
Shapiro Wilk Test Statistic	0.844	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.803	Data appear Normal at 5% Significance Level	
Lilliefors Test Statistic	0.279	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.335	Data appear Normal at 5% Significance Level	
Data appear Normal at 5% Significance Level			

Assuming Normal Distribution			
95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	1.114	95% Adjusted-CLT UCL (Chen-1995)	1.114
		95% Modified-t UCL (Johnson-1978)	1.124

Gamma GOF Test			
A-D Test Statistic	0.403	**Anderson-Darling Gamma GOF Test**	
5% A-D Critical Value	0.715	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.246	**Kolmogrov-Smirnoff Gamma GOF Test**	
5% K-S Critical Value	0.315	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data appear Gamma Distributed at 5% Significance Level			

Gamma Statistics			
k hat (MLE)	1.981	k star (bias corrected MLE)	1.227
Theta hat (MLE)	0.36	Theta star (bias corrected MLE)	0.581
nu hat (MLE)	27.73	nu star (bias corrected)	17.18
MLE Mean (bias corrected)	0.714	MLE Sd (bias corrected)	0.644
		Approximate Chi Square Value (0.05)	8.802
Adjusted Level of Significance	0.0158	Adjusted Chi Square Value	7.067

Assuming Gamma Distribution			
95% Approximate Gamma UCL (use when n>=50))	1.393	95% Adjusted Gamma UCL (use when n<50)	1.735

Lognormal GOF Test			
Shapiro Wilk Test Statistic	0.924	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk Critical Value	0.803	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.201	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.335	Data appear Lognormal at 5% Significance Level	
Data appear Lognormal at 5% Significance Level			

COBALT (Continued)

Lognormal Statistics			
Minimum of Logged Data	-1.715	Mean of logged Data	-0.611
Maximum of Logged Data	0.405	SD of logged Data	0.815

Assuming Lognormal Distribution			
95% H-UCL	2.19	90% Chebyshev (MVUE) UCL	1.38
95% Chebyshev (MVUE) UCL	1.681	97.5% Chebyshev (MVUE) UCL	2.099
99% Chebyshev (MVUE) UCL	2.921		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs			
95% CLT UCL	1.053	95% Jackknife UCL	1.114
95% Standard Bootstrap UCL	1.028	95% Bootstrap-t UCL	1.489
95% Hall's Bootstrap UCL	1.092	95% Percentile Bootstrap UCL	1.03
95% BCA Bootstrap UCL	1.079		
90% Chebyshev(Mean, Sd) UCL	1.332	95% Chebyshev(Mean, Sd) UCL	1.613
97.5% Chebyshev(Mean, Sd) UCL	2.002	99% Chebyshev(Mean, Sd) UCL	2.766

Suggested UCL to Use	
95% Student's-t UCL	1.114

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). However, simulations results will not cover all Real World data sets.
For additional insight the user may want to consult a statistician.

IRON			
General Statistics			
Total Number of Observations	59	Number of Distinct Observations	52
		Number of Missing Observations	25
Minimum	13	Mean	507.4
Maximum	6000	Median	110
SD	1029	Std. Error of Mean	133.9
Coefficient of Variation	2.028	Skewness	4.075
Normal GOF Test			
Shapiro Wilk Test Statistic	0.497	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk P Value	0	Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.315	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.115	Data Not Normal at 5% Significance Level	
Data Not Normal at 5% Significance Level			
Assuming Normal Distribution			
95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	731.3	95% Adjusted-CLT UCL (Chen-1995)	803.7
		95% Modified-t UCL (Johnson-1978)	743.1
Gamma GOF Test			
A-D Test Statistic	2.109	**Anderson-Darling Gamma GOF Test**	
5% A-D Critical Value	0.812	Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.189	**Kolmogrov-Smirnoff Gamma GOF Test**	
5% K-S Critical Value	0.122	Data Not Gamma Distributed at 5% Significance Level	
Data Not Gamma Distributed at 5% Significance Level			
Gamma Statistics			
k hat (MLE)	0.543	k star (bias corrected MLE)	0.526
Theta hat (MLE)	934.9	Theta star (bias corrected MLE)	963.9
nu hat (MLE)	64.04	nu star (bias corrected)	62.12
MLE Mean (bias corrected)	507.4	MLE Sd (bias corrected)	699.3
		Approximate Chi Square Value (0.05)	44.99
Adjusted Level of Significance	0.0459	Adjusted Chi Square Value	44.63
Assuming Gamma Distribution			
95% Approximate Gamma UCL (use when n>=50))	700.6	95% Adjusted Gamma UCL (use when n<50)	706.3
Lognormal GOF Test			
Shapiro Wilk Test Statistic	0.956	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk P Value	0.0708	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.116	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.115	Data Not Lognormal at 5% Significance Level	
Data appear Approximate Lognormal at 5% Significance Level			
Lognormal Statistics			
Minimum of Logged Data	2.565	Mean of logged Data	5.074
Maximum of Logged Data	8.7	SD of logged Data	1.534
Assuming Lognormal Distribution			
95% H-UCL	987.9	90% Chebyshev (MVUE) UCL	901.3
95% Chebyshev (MVUE) UCL	1084	97.5% Chebyshev (MVUE) UCL	1338
99% Chebyshev (MVUE) UCL	1837		

IRON (Continued)

Nonparametric Distribution Free UCL Statistics			
Data appear to follow a Discernible Distribution at 5% Significance Level			
Nonparametric Distribution Free UCLs			
95% CLT UCL	727.7	95% Jackknife UCL	731.3
95% Standard Bootstrap UCL	726	95% Bootstrap-t UCL	989.4
95% Hall's Bootstrap UCL	1783	95% Percentile Bootstrap UCL	744.8
95% BCA Bootstrap UCL	837.2		
90% Chebyshev(Mean, Sd) UCL	909.2	95% Chebyshev(Mean, Sd) UCL	1091
97.5% Chebyshev(Mean, Sd) UCL	1344	99% Chebyshev(Mean, Sd) UCL	1840
Suggested UCL to Use			
95% Chebyshev (Mean, Sd) UCL	1091		

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). However, simulations results will not cover all Real World data sets.
For additional insight the user may want to consult a statistician.

APPENDIX G.4

SAMPLE CALCULATIONS

CLIENT: NWIRP BETHPAGE, BETHPAGE, NEW YORK		**JOB NUMBER:** 112G02230
SUBJECT: CALCULATION OF INTAKE/RISK FROM INCIDENTAL INGESTION OF SOIL INDUSTRIAL WORKERS		
BASED ON: USEPA, DECEMBER 1989		
BY: R. JUPIN	**CHECKED BY:** L. Cifani	**DATE:** 9/16/2013

PURPOSE: To estimate intake, carcinogenic and noncarcinogenic risks from incidental ingestion of surface soil.

EQUATION:

$$IEX = \frac{CS \times RBA \times IR \times EF \times ED \times FI \times CF}{BW \times AT}$$

Where:

IEX	=	estimated exposure intake (mg/kg/day)
Cs	=	exposure point concentration in soil (mg/kg)
RBA	=	relative bioavailability (unitless)
IR	=	incidental ingestion rate (mg/day)
EF	=	exposure frequency (days/year)
ED	=	exposure duration (years)
FI	=	fraction ingested from contaminated source (unitless)
CF	=	conversion factor (1E-06 kg/mg)
BW	=	body weight (kg)
AT	=	averaging time (days)
CSFo	=	oral carcinogenic slope factor ($(mg/kg/day)^{-1}$)
RfDo	=	oral noncarcinogenic reference dose (mg/kg/day)

RISKS:

ILCR (Carcinogens) = Intake (mg/kg/day) x CSFo (mg/kg/day)-1
HQ (Noncarcinogens) = Intake (mg/kg/day) / RFDo (mg/kg/day)

ASSUMPTIONS:

Cs	=	9.12	mg/kg	Chemical: Aroclor-1254
RBA	=	1		
IR	=	100	mg/day	
EF	=	250	days/year	
ED	=	25	years	
FI	=	1		
CF	=	1E-06	kg/mg	
BW	=	70	kg	
ATc	=	25,550	days	
ATnc	=	9125	days	
CSFo	=	2.0E+00	$(mg/kg/day)^{-1}$	
RfDo	=	2.0E-05	(mg/kg/day)	

CLIENT: NWIRP BETHPAGE, BETHPAGE, NEW YORK		**JOB NUMBER:** 112G02230
SUBJECT: CALCULATION OF INTAKE/RISK FROM INCIDENTAL INGESTION OF SOIL INDUSTRIAL WORKERS		
BASED ON: USEPA, DECEMBER 1989		
BY: R. JUPIN	**CHECKED BY:** L. Cuffney	**DATE:** 9/16/2013

EXAMPLE CARCINOGENIC CALCULATION

$$IEXc = \frac{9.12 \text{ mg/kg} \times 1 \times 100 \text{ mg/day} \times 250 \text{ days/year} \times 25 \text{ years} \times 1 \times 1E\text{-}06 \text{ kg/mg}}{70 \text{ kg} \times 25550 \text{ days}}$$

IEXc = 3.19E-06 mg/kg/day

ILCR = 3.19E-06 mg/kg/day x 2.00E+00 (mg/kg/day)-1 = Incremental Lifetime Cancer Risk

ILCR = 6.4E-06

EXAMPLE NONCARCINOGENIC CALCULATION

$$IEXnc = \frac{9.12 \text{ mg/kg} \times 1 \times 100 \text{ mg/day} \times 250 \text{ days/year} \times 25 \text{ years} \times 1 \times 1E\text{-}06 \text{ kg/mg}}{70 \text{ kg} \times 9125 \text{ days}}$$

IEXnc = 8.92E-06 mg/kg/day

HQ = 8.92E-06 mg/kg/day / 2.00E-05 (mg/kg/day) = Hazard Quotient

HQ = 4.5E-01

CLIENT: NWIRP BETHPAGE, BETHPAGE, NEW YORK		**JOB NUMBER:** 112G02230
SUBJECT: CALCULATION OF INTAKE/RISK FROM DERMAL CONTACT WITH SOIL INDUSTRIAL WORKERS		
BASED ON: USEPA, JULY 2004		
BY: R. JUPIN	**CHECKED BY:** L. Cafferini	**DATE:** 9/16/2013

PURPOSE: To estimate intake, carcinogenic and noncarcinogenic risks from dermal contact with surface soil.

EQUATION:

$$DEX = \frac{Cs \times CF \times SA \times AF \times ABS \times EF \times ED}{BW \times AT}$$

Where:

DEX	=	estimated exposure intake (mg/kg/day)
Cs	=	exposure point concentration in soil (mg/kg)
CF	=	conversion factor (1E-06 kg/mg)
SA	=	skin surface available for contact (cm2/day)
ABS	=	absorption factor (unitless)
AF	=	adherence factor (mg/cm2)
EF	=	exposure frequency (days/year)
ED	=	exposure duration (years)
BW	=	body weight (kg)
AT	=	averaging time (days)
CSFd	=	dermal carcinogenic slope factor ($(mg/kg/day)^{-1}$)
RfDd	=	dermal noncarcinogenic reference dose (mg/kg/day)

RISKS:

ILCR (Carcinogens) = Intake (mg/kg/day) x CSFd (mg/kg/day)-1
HQ (Noncarcinogens) = Intake (mg/kg/day) / RFDd (mg/kg/day)

ASSUMPTIONS:

Cs	=	9.12	mg/kg	Chemical: Aroclor-1254
CF	=	1E-06	kg/mg	
SA	=	3,300	cm^2/day	
AF	=	0.2	mg/cm^2	
ABS	=	0.14		
EF	=	250	days/year	
ED	=	25	years	
BW	=	70	kg	
ATc	=	25,550	days	
ATnc	=	9125	days	
CSFd	=	2.0E+00	$(mg/kg/day)^{-1}$	
RfDd	=	2.0E-05	(mg/kg/day)	

CLIENT: NWIRP BETHPAGE, BETHPAGE, NEW YORK		JOB NUMBER: 112G02230
SUBJECT: CALCULATION OF INTAKE/RISK FROM DERMAL CONTACT WITH SOIL INDUSTRIAL WORKERS		
BASED ON: USEPA, JULY 2004		
BY: R. JUPIN	CHECKED BY:	DATE: 9/16/2013

EXAMPLE CARCINOGENIC CALCULATION

$$DEXc = \frac{9.12 \text{ mg/kg} \times 1E\text{-}06 \text{ kg/mg} \times 3300 \text{ cm2/day} \times 0.2 \text{ mg/cm2} \times 0.14 \times 250 \text{ days/year} \times 25 \text{ years}}{70 \text{ kg} \times 25550 \text{ days}}$$

DEXc = 2.94E-06 mg/kg/day

ILCR = 2.94E-06 mg/kg/day x 2.00E+00 (mg/kg/day)-1 = Incremental Lifetime Cancer Risk

ILCR = 5.9E-06

EXAMPLE NONCARCINOGENIC CALCULATION

$$DEXnc = \frac{9.12 \text{ mg/kg} \times 1E\text{-}06 \text{ kg/mg} \times 3300 \text{ cm2/day} \times 0.2 \text{ mg/cm2} \times 0.14 \times 250 \text{ days/year} \times 25 \text{ years}}{70 \text{ kg} \times 9125 \text{ days}}$$

DEXnc = 8.25E-06 mg/kg/day

HQ = 8.25E-06 mg/kg/day / 2.00E-05 (mg/kg/day) = Hazard Quotient

HQ = 4.1E-01

CALCULATION WORKSHEET

CLIENT: NWIRP BETHPAGE, BETHPAGE, NEW YORK		**JOB NUMBER:** 112G02230
SUBJECT: CALCULATION OF INTAKE/RISK FROM INHALATION OF FUGITIVE DUST EMISSIONS INDUSTRIAL WORKERS		
BASED ON: USEPA, JANUARY 2009		
BY: R. JUPIN	**CHECKED BY:** L. Cofani	**DATE:** 9/16/2013

PURPOSE: To estimate intake, carcinogenic and noncarcinogenic risks from inhalation of surface soil.

EQUATION:

$$EC = \frac{Ca \times ET \times EF \times ED}{AT \times 24 \text{ hours/day}}$$

Where:

EC	=	exposure concentration (mg/m3)
Ca	=	exposure point concentration in air (mg/m3)
	=	Cs x 1/PEF
Cs	=	exposure point concentration in soil (mg/kg)
PEF	=	particulate emission factor (m3/kg)
ET	=	exposure time (hrs/day)
EF	=	exposure frequency (days/year)
ED	=	exposure duration (years)
BW	=	body weight (kg)
AT	=	averaging time (hours)
IUR	=	inhalation unit risk ($(ug/m3)^{-1}$)
RfC	=	inhalation reference concentration (mg/m3)

RISKS:

ILCR (Carcinogens) = Exposure Concentration (mg/m3) x IURi (ug/m3)-1 x 1000 ug/mg
HQ (Noncarcinogens) = Exposure Concentration (mg/m3) / RFCi (mg/m3)

ASSUMPTIONS:

Cs	=	9.12	mg/kg	Chemical: Aroclor-1254
PEF	=	1.36E+09	m3/kg	
Ca	=	6.71E-09	mg/m3	
ET	=	8	hours/day	
EF	=	250	days/year	
ED	=	25	years	
ATc	=	25,550	days	
ATnc	=	9,125	days	
IUR	=	5.7E-04	$(ug/m3)^{-1}$	
RfC	=	NA	(mg/m3)	

CLIENT: NWIRP BETHPAGE, BETHPAGE, NEW YORK		**JOB NUMBER:** 112G02230
SUBJECT: CALCULATION OF INTAKE/RISK FROM INHALATION OF FUGITIVE DUST EMISSIONS INDUSTRIAL WORKERS		
BASED ON: USEPA, JANUARY 2009		
BY: R. JUPIN	**CHECKED BY:**	**DATE:** 9/16/2013

EXAMPLE CARCINOGENIC CALCULATION

$$IEXc = \frac{6.71E\text{-}09 \text{ mg/m3} \times 8 \text{ hours/day} \times 250 \text{ days/year} \times 25 \text{ years}}{25550 \text{ days} \times 24 \text{ hours/day}}$$

IEXc = 5.47E-10 mg/m3

ILCR = 5.47E-10 mg/m3 x 5.70E-04 (ug/m3)-1 x 1000 ug/mg = Incremental Lifetime Cancer Risk

ILCR = 3.1E-10

EXAMPLE NONCARCINOGENIC CALCULATION

$$IEXnc = \frac{6.71E\text{-}09 \text{ mg/m3} \times 8 \text{ hours/day} \times 250 \text{ days/year} \times 25 \text{ years}}{9125 \text{ days} \times 24 \text{ hours/day}}$$

IEXnc = 1.53E-09 mg/m3

HQ **No reference concentration is available for Aroclor-1254.**

CLIENT:	JOB NUMBER:
NWIRP BETHPAGE, BETHPAGE, NEW YORK	112G02230

SUBJECT:
CALCULATION OF PARTICULATE EMISSION FACTOR FOR CONSTRUCTION WORKERS

BASED ON:
Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites (USEPA, December 2002)

BY:	CHECKED BY:	DATE:
R. JUPIN	L. Cufari	9/16/2013

Equation 5-5
Derivation of the Particulate Emission Factor
Construction Scenario - Construction Worker

$$PEF_{sc} = Q/C_{sr} \times \frac{1}{F_D} \times \left[\frac{T \times A_R}{556 \times (W/3)^{0.4} \times \frac{(365d/yr - p)}{365d/yr} \times \Sigma VKT} \right]$$

Parameter/Definition (units)	Default
PEF_{sc}/subchronic road particulate emission factor (m^3/kg)	site-specific
Q/C_{sr}/ inverse of the ratio of the 1-h geometric mean air concentration to the emission flux along a straight road segment bisecting a square site (g/m^2-s per kg/m^3)	23.02[a] (Equation 5-6)
F_D/dispersion correction factor (unitless)	0.185 (Appendix E)
T/total time over which construction occurs (s)	site-specific
A_R/surface area of contaminated road segment (m^2) L_R/length of road segment (ft) W_R/width of road segment (ft)	274.213 ($A_R = L_R \times W_R \times 0.092903 m^2/ft^2$)
W/mean vehicle weight (tons)	site-specific
p/number of days with at least 0.01 inches of precipitation (days/year)	site-specific (Exhibit 5-2)
ΣVKT/sum of fleet vehicle kilometers traveled during the exposure duration (km)	site-specific

[a] Assumes a 0.5 acre site

Calculation of PEF for Construction Workers

Q/C	23.02	(g/m^2-s per kg/m^3)	
Fd	0.185	dispersion correction factor (unitless)	
T	7.20E+06	sec	3600 sec/hr x 8hr/day x 250 days/yr
A_R	274.213	m^2	
W	8	tons	
p	140	day/year	
VKT	337.5	km	30 vehicles x 0.045 km/day x 250 days

PEF = 1.43E+06 m^3/kg

CALCULATION WORKSHEET

CLIENT: NWIRP BETHPAGE, BETHPAGE, NEW YORK		**JOB NUMBER:** 112G02230
SUBJECT: CALCULATION OF INTAKE/RISK FROM INGESTION OF GROUNDWATER ADULT RESIDENTS		
BASED ON: USEPA, DECEMBER 1989		
BY: R. JUPIN	**CHECKED BY:** L. Ciofani	**DATE:** 9/16/2013

PURPOSE: To estimate intake, carcinogenic and noncarcinogenic risks from ingestion of groundwater.

EQUATION:

$$IEX = \frac{Cgw \times CF \times IR \times EF \times ED}{BW \times AT}$$

Where:

IEX	=	estimated exposure intake (mg/kg/day)
Cgw	=	exposure point concentration in groundwater (ug/L)
CF	=	conversion factor (1.0E-3 mg/ug)
IR	=	ingestion rate (L/day)
EF	=	exposure frequency (days/year)
ED	=	exposure duration (years)
BW	=	body weight (kg)
AT	=	averaging time (days)
CSFo	=	oral carcinogenic slope factor ($(mg/kg/day)^{-1}$)
RfDo	=	oral noncarcinogenic reference dose (mg/kg/day)

RISKS:

ILCR (Carcinogens) = Intake (mg/kg/day) x CSFo (mg/kg/day)-1
HQ (Noncarcinogens) = Intake (mg/kg/day) / RFDo (mg/kg/day)

ASSUMPTIONS:

Cgw	=	2.6	ug/L	Chemical: Arsenic
IR	=	2	L/day	
CF	=	1.0E-03	mg/ug	
EF	=	350	days/year	
ED	=	24	years	
BW	=	70	kg	
ATc	=	25,550	days	
ATnc	=	8,760	days	
CSFo	=	1.5E+00	$(mg/kg/day)^{-1}$	
RfDo	=	3.0E-04	(mg/kg/day)	

CLIENT: NWIRP BETHPAGE, BETHPAGE, NEW YORK		**JOB NUMBER:** 112G02230
SUBJECT: CALCULATION OF INTAKE/RISK FROM INGESTION OF GROUNDWATER ADULT RESIDENTS		
BASED ON: USEPA, DECEMBER 1989		
BY: R. JUPIN	**CHECKED BY:** L. Cifani	**DATE:** 9/16/2013

EXAMPLE CARCINOGENIC CALCULATION

$$IEXc = \frac{2.6\ ug/L \times 0.001\ mg/ug \times 2\ L/day \times 350\ days/year \times 24\ years}{70\ kg \times 25550\ days}$$

IEXc = 2.44E-05 mg/kg/day

ILCR = 2.44E-05 mg/kg/day x 1.50E+00 (mg/kg/day)-1 = Incremental Lifetime Cancer Risk

ILCR = 3.7E-05

EXAMPLE NONCARCINOGENIC CALCULATION

$$IEXnc = \frac{2.6\ ug/L \times 0.001\ mg/ug \times 2\ L/day \times 350\ days/year \times 24\ years}{70\ kg \times 8760\ days}$$

IEXnc = 7.12E-05 mg/kg/day

$$HQ = \frac{7.12E\text{-}05\ mg/kg/day}{3.00E\text{-}04\ (mg/kg/day)} = \text{Hazard Quotient}$$

HQ = 2.4E-01

CLIENT: NWIRP BETHPAGE, BETHPAGE, NEW YORK		**JOB NUMBER:** 112G02230
SUBJECT: CALCULATION OF INTAKE/RISK FROM DERMAL CONTACT WITH GROUNDWATER ADULT RESIDENTS		
BASED ON: USEPA, DECEMBER 1989, JULY 2004		
BY: R. JUPIN	**CHECKED BY:** L. Cafarini	**DATE:** 9/16/2013

PURPOSE: To estimate intake, carcinogenic and noncarcinogenic risks from dermal contact with groundwater.

EQUATION:

$$DAD = \frac{DAevent \times EV \times ED \times EF \times A}{BW \times AT}$$

Where:

DAD	=	dermally absorbed dose (mg/kg/day)
DAevent	=	absorbed dose per event (mg/cm^2/event)
EV	=	event frequency (events/day)
EF	=	exposure frequency (days/year)
ED	=	exposure duration (years)
A	=	skin surface available for contact (cm^2)
BW	=	body weight (kg)
AT	=	averaging time (days)
CSFd	=	dermal carcinogenic slope factor ((mg/kg/day)$^{-1}$)
RfDd	=	dermal noncarcinogenic reference dose (mg/kg/day)

RISKS:

ILCR (Carcinogens) = DAD (mg/kg/day) x CSFd (mg/kg/day)-1
HQ (Noncarcinogens) = DAD (mg/kg/day) / RFDd (mg/kg/day)

EQUATIONS for DAevent:

For Inorganics:

DAevent = Kp x Cw x CF x tevent

For Organics:

$$\text{If tevent} \le t^*\text{, then: DAevent} = 2 \times FA \times Kp \times Cw \times CF \times \sqrt{\frac{6 \times tau \times tevent}{\pi}}$$

$$\text{If tevent} > t^*\text{, then: DAevent} = FA \times Kp \times Cw \times CF \times \left[\frac{tevent}{1+B} + 2 \times tau \times \left(\frac{1+3B+3B^2}{(1+B)^2}\right)\right]$$

CLIENT: NWIRP BETHPAGE, BETHPAGE, NEW YORK		**JOB NUMBER:** 112G02230
SUBJECT: CALCULATION OF INTAKE/RISK FROM DERMAL CONTACT WITH GROUNDWATER ADULT RESIDENTS		
BASED ON: USEPA, DECEMBER 1989, JULY 2004		
BY: R. JUPIN	**CHECKED BY:**	**DATE:** 9/16/2013

Where:

Kp	=	permeability coefficient from water (cm/hr)
Cgw	=	concentration of chemical in groundwater (mg/L)
tevent	=	duration of event (hr/event)
CF	=	conversion factor (0.001 L/cm^3)
t*	=	time it takes to reach steady-state (hr/event)
τ	=	lag time (hr/event)
B	=	Bunge Model Constant (dimensionless)

EXAMPLE CALCULATION OF DAevent

ASSUMPTIONS:

Cgw	=	0.0026	mg/L	Chemical: Arsenic
Kp	=	1.00E-03	cm/hr	
FA	=	1	unitless	
tevent	=	0.58	hr/event	
CF	=	0.001	L/cm^3	

DA_{event} = 0.001 cm/hr x 0.0026 mg/L x 0.001 L/cm3 x 0.58 hr/event

DA_{event} 1.51E-09 mg/cm2-event

RISK CALCULATIONS

ASSUMPTIONS:

A	=	18,000	cm^2
EV	=	1	event/day
ED	=	24	years
EF	=	350	days/year
BW	=	70	kg
ATc	=	25,550	days
ATnc	=	8,760	days
CSFd	=	1.5E+00	$(mg/kg/day)^{-1}$
RfDd	=	3.0E-04	(mg/kg/day)

CLIENT: NWIRP BETHPAGE, BETHPAGE, NEW YORK		JOB NUMBER: 112G02230
SUBJECT: CALCULATION OF INTAKE/RISK FROM DERMAL CONTACT WITH GROUNDWATER ADULT RESIDENTS		
BASED ON: USEPA, DECEMBER 1989, JULY 2004		
BY: R. JUPIN	CHECKED BY: L. Cofani	DATE: 9/16/2013

EXAMPLE CARCINOGENIC CALCULATION

$$DADc = \frac{1.51E\text{-}09 \text{ mg/cm2-event} \times 1 \text{ event/day} \times 24 \text{ years} \times 350 \text{ days/year} \times 18000 \text{ cm2}}{70 \text{ kg} \times 25550 \text{ days}}$$

DADc = 1.27E-07 mg/kg/day

ILCR = 1.27E-07 mg/kg/day x 1.50E+00 (mg/kg/day)-1 = Incremental Lifetime Cancer Risk

ILCR = 1.9E-07

EXAMPLE NONCARCINOGENIC CALCULATION

$$DADnc = \frac{1.51E\text{-}09 \text{ mg/cm2-event} \times 1 \text{ event/day} \times 24 \text{ years} \times 350 \text{ days/year} \times 18000 \text{ cm2}}{70 \text{ kg} \times 8760 \text{ days}}$$

DADnc = 3.72E-07 mg/kg/day

HQ = 3.72E-07 mg/kg/day / 3.00E-04 (mg/kg/day) = Hazard Quotient

HQ = 1.2E-03

CALCULATION WORKSHEET

CLIENT: NWIRP BETHPAGE, BETHPAGE, NEW YORK		**JOB NUMBER:** 112G02230
SUBJECT: CALCULATION OF INTAKE/RISK FROM INGESTION OF GROUNDWATER FOR MUTAGENIC CHEMICALS - HYPOTHETICAL CHILD RESIDENTS		
BASED ON: USEPA, DECEMBER 1989, MARCH 2005		
BY: R. JUPIN	**CHECKED BY:** L. Ciofani	**DATE:** 9/16/2013

PURPOSE: To estimate intake, carcinogenic risks for mutagenic chemicals from ingestion of groundwater.

EQUATION:

$$IEX = \frac{Cgw \times CF \times IF \times EF \times ED}{BW \times AT} \times ADAF$$

Where:

IEX	=	estimated exposure intake (mg/kg/day)
Cgw	=	exposure point concentration in groundwater (ug/L)
CF	=	conversion factor (1.0E-3 mg/ug)
IR	=	ingestion rate (L/day)
EF	=	exposure frequency (days/year)
ED	=	exposure duration (years)
BW	=	body weight (kg)
AT	=	averaging time (days)
ADAF	=	age-dependent adjustment factor
CSFo	=	oral carcinogenic slope factor ($(mg/kg/day)^{-1}$)

RISKS:

ILCR (Carcinogens) = Intake (mg/kg/day) x CSFo (mg/kg/day)-1

ASSUMPTIONS:

Cgw	=	38.8	ug/L	Chemical: Hexavalent Chromium
IR	=	1	L/day	
CF	=	1.0E-03	mg/ug	
EF	=	350	days/year	
ED_1	=	2	years	
ED_2	=	4	years	
BW	=	15	kg	
ATc	=	25550	days	
CSFo	=	5.0E-01	$(mg/kg/day)^{-1}$	
$ADAF_1$	=	10		
$ADAF_2$	=	3		

CLIENT: NWIRP BETHPAGE, BETHPAGE, NEW YORK		**JOB NUMBER:** 112G02230
SUBJECT: CALCULATION OF INTAKE/RISK FROM INGESTION OF GROUNDWATER FOR MUTAGENIC CHEMICALS - HYPOTHETICAL CHILD RESIDENTS		
BASED ON: USEPA, DECEMBER 1989, MARCH 2005		
BY: R. JUPIN	**CHECKED BY:** L. Ciofani	**DATE:** 9/16/2013

EXAMPLE CARCINOGENIC CALCULATION

$$IEXc = \frac{38.8\ ug/L \times 0.001\ mg/ug \times 1\ L/day \times 350\ days/year \times 2\ years}{15\ kg \times 25550\ days} \times 10$$

IEXc = 7.09E-04 mg/kg/day

$$IEXc = \frac{38.8\ ug/L \times 0.001\ mg/ug \times 1\ L/day \times 350\ days/year \times 4\ years}{15\ kg \times 25550\ days} \times 3$$

IEXc = 4.25E-04 mg/kg/day

ILCR = (7.09E-04 mg/kg/day + 4.25E-04 mg/kg/day) x 5.00E-01 (mg/kg/day)-1

ILCR = 5.7E-04

CLIENT: NWIRP BETHPAGE, BETHPAGE, NEW YORK		**JOB NUMBER:** 112G02230
SUBJECT: CALCULATION OF INTAKE/RISK FROM INGESTION OF GROUNDWATER FOR MUTAGENIC CHEMICALS - HYPOTHETICAL ADULT RESIDENT		
BASED ON: USEPA, DECEMBER 1989, MARCH 2005		
BY: R. JUPIN	**CHECKED BY:** L. Cifani	**DATE:** 9/16/2013

PURPOSE: To estimate intake, carcinogenic risks for mutagenic chemicals from ingestion of groundwater.

EQUATION:

$$IEX = \frac{Cgw \times CF \times IF \times EF \times ED}{BW \times AT} \times ADAF$$

Where:

IEX	=	estimated exposure intake (mg/kg/day)
Cgw	=	exposure point concentration in groundwater (ug/L)
CF	=	conversion factor (1.0E-3 mg/ug)
IR	=	ingestion rate (L/day)
EF	=	exposure frequency (days/year)
ED	=	exposure duration (years)
BW	=	body weight (kg)
AT	=	averaging time (days)
ADAF	=	age-dependent adjustment factor
CSFo	=	oral carcinogenic slope factor ($(mg/kg/day)^{-1}$)

RISKS:

ILCR (Carcinogens) = Intake (mg/kg/day) x CSFo (mg/kg/day)-1

ASSUMPTIONS:

Cgw	=	38.8	ug/L	Chemical: Hexavalent Chromium
IR	=	2	L/day	
CF	=	1.0E-03	mg/ug	
EF	=	350	days/year	
ED_1	=	10	years	
ED_2	=	14	years	
BW	=	70	kg	
ATc	=	25550	days	
CSFo	=	5.0E-01	$(mg/kg/day)^{-1}$	
$ADAF_1$	=	3		
$ADAF_2$	=	1		

CLIENT: NWIRP BETHPAGE, BETHPAGE, NEW YORK		**JOB NUMBER:** 0
SUBJECT: CALCULATION OF INTAKE/RISK FROM INGESTION OF GROUNDWATER FOR MUTAGENIC CHEMICALS - HYPOTHETICAL ADULT RESIDENT		
BASED ON: USEPA, DECEMBER 1989, MARCH 2005		
BY: R. JUPIN	**CHECKED BY:** L. Ciffani	**DATE:** 9/16/2013

EXAMPLE CARCINOGENIC CALCULATION

$$IEXc = \frac{38.8\ ug/L \times 0.001\ mg/ug \times 2\ L/day \times 350\ days/year \times 10\ years}{70\ kg \times 25550\ days} \times 3$$

IEXc = 4.56E-04 mg/kg/day

$$IEXc = \frac{38.8\ ug/L \times 0.001\ mg/ug \times 2\ L/day \times 350\ days/year \times 14\ years}{70\ kg \times 25550\ days} \times 1$$

IEXc = 2.13E-04 mg/kg/day

ILCR = (4.56E-04 mg/kg/day + 2.13E-04 mg/kg/day) x 5.00E-01 (mg/kg/day)-1

ILCR = 3.3E-04

CLIENT: NWIRP BETHPAGE, BETHPAGE, NEW YORK		JOB NUMBER: 112G02230
SUBJECT: CALCULATION OF INTAKE/RISK FROM DERMAL CONTACT WITH GROUNDWATER FOR MUTAGENIC CHEMICALS - HYPOTHETICAL CHILD RESIDENTS		
BASED ON: USEPA, JULY 2004, MARCH 2005		
BY: R. JUPIN	CHECKED BY: L. Cofani	DATE: 9/16/2013

PURPOSE: To estimate intake and carcinogenic risks for mutagenic chemicals from dermal contact with groundwater.

EQUATION:

$$DAD = \frac{DAevent \times EV \times ED \times EF \times A}{BW \times AT} \times ADAF$$

Where:

DAD	=	dermally absorbed dose (mg/kg/day)
DAevent	=	absorbed dose per event (mg/cm^2/event)
EV	=	event frequency (events/day)
EF	=	exposure frequency (days/year)
ED	=	exposure duration (years)
A	=	skin surface available for contact (cm^2)
BW	=	body weight (kg)
AT	=	averaging time (days)
CSFd	=	dermal carcinogenic slope factor ((mg/kg/day)$^{-1}$)
ADAF	=	age-dependent adjustment factor

RISKS:

ILCR (Carcinogens) = DAD (mg/kg/day) x CSFd (mg/kg/day)$^{-1}$

EQUATIONS for DAevent:

For Inorganics:

DAevent = Kp x Cw x CF x tevent

For Organics:

$$\text{If } tevent \le t^*, \text{ then}: DAevent = 2 \times FA \times Kp \times Cw \times CF \times \sqrt{\frac{6 \times tau \times tevent}{\pi}}$$

$$\text{If } tevent > t^*, \text{ then}: DAevent = FA \times Kp \times Cw \times CF \times \left[\frac{tevent}{1+B} + 2 \times tau \times \left(\frac{1+3B+3B^2}{(1+B)^2}\right)\right]$$

CLIENT: NWIRP BETHPAGE, BETHPAGE, NEW YORK		JOB NUMBER: 112G02230
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BASED ON: USEPA, JULY 2004, MARCH 2005		
BY: R. JUPIN	CHECKED BY: L. Ciafani	DATE: 9/16/2013

Where:

Kp	=	permeability coefficient from water (cm/hr)
Cgw	=	concentration of chemical in groundwater (mg/L)
tevent	=	duration of event (hr/event)
CF	=	conversion factor (0.001 L/cm^3)
t*	=	time it takes to reach steady-state (hr/event)
τ	=	lag time (hr/event)
B	=	Bunge Model Constant (dimensionless)

EXAMPLE CALCULATION OF DAevent

ASSUMPTIONS:

Cgw	=	38.8	ug/L	Chemical: Hexavalent Chromium
Kp	=	2.00E-03	cm/hr	
tevent	=	1	hr/event	
CF	=	0.001	L/cm^3	

DAevent = 0.002 cm/hr x 38.8 ug/L x 0.001 x L/cm3 x 1 hr/event x 0.001 mg/ug

DAevent = 7.76E-08 mg/cm^2-event

RISK CALCULATIONS

ASSUMPTIONS:

A	=	6600	cm^2
EV	=	1	event/day
ED_1	=	2	years
ED_2	=	4	years
EF	=	350	days/year
BW	=	15	kg
ATc	=	25550	days
CSFd	=	2.0E+01	$(mg/kg/day)^{-1}$
$ADAF_1$	=	10	
$ADAF_2$	=	3	

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EXAMPLE CARCINOGENIC CALCULATION

$$DADc = \frac{7.76E\text{-}08 \text{ mg/cm2-event} \times 1 \text{ event/day} \times 2 \text{ years} \times 350 \text{ days/year} \times 6600 \text{ cm2}}{15 \text{ kg} \times 25550 \text{ days}} \times 10$$

DADc = 9.35E-06 mg/kg/day

$$DADc = \frac{7.76E\text{-}08 \text{ mg/cm2-event} \times 1 \text{ event/day} \times 4 \text{ years} \times 350 \text{ days/year} \times 6600 \text{ cm2}}{15 \text{ kg} \times 25550 \text{ days}} \times 3$$

DADc = 5.61E-06 mg/kg/day

ILCR = (9.35E-06 mg/kg/day + 5.61E-06 mg/kg/day) x 2.00E+01 (mg/kg/day)-1

ILCR = 3.0E-04

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BASED ON: USEPA, JULY 2004, MARCH 2005		
BY: R. JUPIN	CHECKED BY:	DATE: 1/7/2013

PURPOSE: To estimate intake and carcinogenic risks for mutagenic chemicals from dermal contact with groundwater.

EQUATION:

$$DAD = \frac{DAevent \times EV \times ED \times EF \times A}{BW \times AT} \times ADAF$$

Where:

DAD	=	dermally absorbed dose (mg/kg/day)
DAevent	=	absorbed dose per event (mg/cm^2/event)
EV	=	event frequency (events/day)
EF	=	exposure frequency (days/year)
ED	=	exposure duration (years)
A	=	skin surface available for contact (cm^2)
BW	=	body weight (kg)
AT	=	averaging time (days)
CSFd	=	dermal carcinogenic slope factor ((mg/kg/day)$^{-1}$)
ADAF	=	age-dependent adjustment factor

RISKS:

ILCR (Carcinogens) = DAD (mg/kg/day) x CSFd (mg/kg/day)$^{-1}$

EQUATIONS for DAevent:

For Inorganics:

DAevent = Kp x Cw x CF x tevent

For Organics:

$$\text{If } tevent \le t^*, \text{ then: } DAevent = 2 \times FA \times Kp \times Cw \times CF \times \sqrt{\frac{6 \times tau \times tevent}{\pi}}$$

$$\text{If } tevent > t^*, \text{ then: } DAevent = FA \times Kp \times Cw \times CF \times \left[\frac{tevent}{1+B} + 2 \times tau \times \left(\frac{1+3B+3B^2}{(1+B)^2}\right)\right]$$

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BASED ON: USEPA, JULY 2004, MARCH 2005		
BY: R. JUPIN	CHECKED BY: L. Cofani	DATE: 1/7/2013

Where:

Kp	=	permeability coefficient from water (cm/hr)
Cgw	=	concentration of chemical in groundwater (mg/L)
tevent	=	duration of event (hr/event)
CF	=	conversion factor (0.001 L/cm^3)
t*	=	time it takes to reach steady-state (hr/event)
τ	=	lag time (hr/event)
B	=	Bunge Model Constant (dimensionless)

EXAMPLE CALCULATION OF DAevent

ASSUMPTIONS:

Cgw	=	38.8	ug/L	Chemical: Hexavalent Chromium
Kp	=	2.00E-03	cm/hr	
tevent	=	0.58	hr/event	
CF	=	0.001	L/cm^3	

DAevent = 0.002 cm/hr x 38.8 ug/L x 0.001 x L/cm3 x 0.58 hr/event x 0.001 mg/ug

DAevent = 4.50E-08 mg/cm^2-event

RISK CALCULATIONS

ASSUMPTIONS:

A	=	18000	cm^2
EV	=	1	event/day
ED_1	=	10	years
ED_2	=	14	years
EF	=	350	days/year
BW	=	70	kg
ATc	=	25550	days
CSFd	=	2.0E+01	(mg/kg/day)$^{-1}$
$ADAF_1$	=	3	
$ADAF_2$	=	1	

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EXAMPLE CARCINOGENIC CALCULATION

$$DADc = \frac{4.50E\text{-}08 \text{ mg/cm2-event} \times 1 \text{ event/day} \times 10 \text{ years} \times 350 \text{ days/year} \times 18000 \text{ cm2}}{70 \text{ kg} \times 25550 \text{ days}} \times 3$$

DADc = 4.76E-06 mg/kg/day

$$DADc = \frac{4.50E\text{-}08 \text{ mg/cm2-event} \times 1 \text{ event/day} \times 14 \text{ years} \times 350 \text{ days/year} \times 18000 \text{ cm2}}{70 \text{ kg} \times 25550 \text{ days}} \times 1$$

DADc = 2.22E-06 mg/kg/day

ILCR = (4.76E-06 mg/kg/day + 2.22E-06 mg/kg/day) x 2.00E+01 (mg/kg/day)-1

ILCR = 1.4E-04