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DRAFT FINAL INTERIM MEASURES REPORT FOR SOLID WASTE MANAGEMENT UNIT 27
(SWMU 27) SETTLING TANK AND SUMP REMOVALS AND FORMER BUILDING 181 AREA
BASIN, CISTERN, AND UNDERGROUND STORAGE TANK REMOVALS NSA CRANE
(DRAFT FINAL ACTING AS FINAL)

02/01/2014
TETRA TECH

**Draft Final
Interim Measures Report
for
Solid Waste Management Unit 27 -
Settling Tank and Sump Removals
and
Former Building 181 Area -
Basin, Cistern, and Underground
Storage Tank Removals**

**Naval Support Activity Crane
Crane, Indiana**



**Naval Facilities Engineering Command Midwest
Great Lakes, Illinois**

**Contract Number N62470-08-D-1001
Contract Task Order F276**

February 2014

**DRAFT FINAL
INTERIM MEASURES REPORT
FOR
SOLID WASTE MANAGEMENT UNIT 27 -
SETTLING TANK AND SUMP REMOVALS
AND
FORMER BUILDING 181 AREA -
BASIN, CISTERN, AND UNDERGROUND STORAGE TANK REMOVALS
NAVAL SUPPORT ACTIVITY CRANE
CRANE, INDIANA
COMPREHENSIVE LONG-TERM
ENVIRONMENTAL ACTION NAME (CLEAN) CONTRACT**

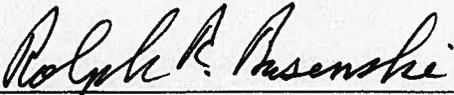
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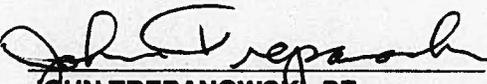

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ACRONYMS

CAAA	Crane Ammunition Army Activity
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CLEAN	Comprehensive Long-Term Environmental Action Navy
COPC	Contaminant of Potential Concern
CMS	Corrective Measures Study
CQC	Contractor Quality Control
CTO	Contract Task Order
DOT	Department of Transportation
EFS	Environmental Field Services, Inc.
EMAC	Environmental Multiple Award Contract
EST	Eastern Standard Time
FTS	Full Time Staff
IDEM	Indiana Department of Environmental Management
IM	Interim Measures
IMR	Interim Measures Report
IMWP	Interim Measures Work Plan
MRP	Munitions Response Program
NAVFAC	Naval Facilities Engineering Command
NFA	No Further Action
NPDES	National Pollutant Discharge Elimination System
NSA	Naval Support Activity
NSWC	Naval Surface Warfare Center
PAL	Project Action Limit
PPA	Pyrotechnics Production Area
PR/VSI	Preliminary Review/Visual Site Inspection
QC	Quality Control
QCM	Quality Control Manager
RCRA	Resource Conservation and Recovery Act
RFI	Resource Conservation and Recovery Act Facility Investigation
ROICC	Resident Officer In Charge of Construction
SAP	Sampling and Analysis Plan
SEQ Vets	SEQ Vets Remediation Joint Venture, Inc.
SS	Site Superintendent

SSHO	Site Safety and Health Officer
SWMU	Solid Waste Management Unit
Tetra Tech	Tetra Tech, Inc.
USEPA	United States Environmental Protection Agency
UST	underground storage tank

EXECUTIVE SUMMARY

Interim Measures (IM) activities were performed at Solid Waste Management Unit (SWMU) 27 and the former Building 181 Area at Naval Support Activity (NSA) Crane in Crane, Indiana in July and August 2013. The work included excavation and removal of eight specific settling tanks and sumps in SWMU 27 and a settling tank, an underground cistern, and an underground storage tank (UST) in the former Building 181 Area. A series of previous environmental reports including the Final SWMU 27 Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) RFI Report (Tetra Tech, Inc., September 2012b) identified unacceptable exposure risks to construction workers within settling tanks, pits, and sumps. The Environmental Investigation Report for the Building 181 Area (Tetra Tech, Inc. February 2013a) indicated that there was no significant soil contamination outside the concrete structures but that there was the potential for environmental contaminants to accumulate within some of the inactive settling tanks and structures. The Navy made the decision to remove these concrete structures and seal associated pipelines or, when necessary, reroute active pipelines to the NSA Crane sanitary sewer system or suitable drainage swales. This Interim Measures Report (IMR) summarizes the basin cleaning, removal, and site restoration activities performed as a part of this IM.

SWMU 27 - Pyrotechnic Production Area

Since the early years of World War II, SWMU 27 has produced pyrotechnic devices including signal flares, smoke and dye markers, ground and aircraft signals, submarine signals, and illuminating projectiles such as the 5-inch (star shell) illuminating parachute flare. SWMU 27 covers approximately 31 acres at NSA Crane and includes the Pyrotechnic Production Area (PPA). The PPA contains specialized storage buildings and bunkers, red phosphorus mixing and loading buildings, various curing buildings for pyrotechnic items, and other pyrotechnic production support facilities. Building 126 (Illuminant Building) is the primary building in the PPA complex.

The Final SWMU 27 RFI Report (Tetra Tech, 2012b) indicated that exposure risks to terrestrial plants, invertebrates, birds, and mammals from organic and inorganic chemicals in surface soil at SWMU 27 were low to negligible, and a finding of No Further Action (NFA) was recommended for ecological receptors. No unacceptable human health risks were estimated based on exposures to surface or subsurface soil under current or future land use at SWMU 27. Unacceptable exposure risks were identified for construction workers exposed to contaminants in residues (primarily manganese and lead) within settling tanks, pits, and sumps. It was recommended that the settling tanks, pits, and sumps at

SWMU 27 be addressed under a Correct Measures Study (CMS) or IM to eliminate the unacceptable exposure risks to construction workers.

Building 181 Area

The former Building 181 Area is located slightly more than one mile from the southern boundary of NSA Crane and covers an area of approximately 2.3 acres. Building 181 was originally designed and constructed during World War II as a chemical decontamination building supporting the storage of Navy aerial bombs containing mustard gas at NSA Crane. After the war, the mustard gas bombs were removed from Crane and the facility was unused. During the Vietnam conflict, a remotely-operated bomb-cutting saw was installed and operated in Building 181. After the conclusion of bomb-cutting activities in the mid-1970s, Building 181 was inactive until the early 1980s when the Navy acquired the building from the Crane Ammunition Army Activity (CAAA). The Navy completely rebuilt and redesigned Building 181 for abusive testing of lithium batteries. When another Lithium Battery Test Facility was built in the main facility Industrial Area, Building 181 was no longer needed, and the building was demolished as a part of the military footprint reduction effort during 2006-2008. Several gun tubs and other infrastructure still remain at the former Building 181 Area. It was believed that wash water used to wash explosives from the insides of bombs in former Building 181 may have been directed through a drain to an external location. One UST located near former Building 181 may have received wash water containing explosives and possibly other contaminants, such as metals.

The Environmental Investigation Report for the Building 181 Area (Tetra Tech, February 2013a) presented the results of the environmental investigation for surface soil, sediments, subsurface soil, and basin/tank residues within the former Building 181 Area. Only very limited detections of nickel, zinc, and lithium in surface soil samples exceeded soil screening criteria, but these metals were considered inconsequential and NFA was recommended for surface soil. Nickel and zinc concentrations in drainageway sediment samples exceeded only ecological screening criteria and background surface soil levels. Because the drainageway is dry most of the year, it is unlikely a benthic community is present or could be impacted; therefore the metals exceedances in sediment were considered inconsequential, and NFA was recommended for site sediment. No concentrations of explosive or metals detected in subsurface soil samples exceeded screening criteria; therefore, NFA was recommended for site subsurface soil. Three former Building 181 Area subsurface structures (i.e., cistern, settling basin, and UST) were considered as potential future metals accumulation points; therefore, removal of these structures and backfilling was recommended in the Environmental Investigation Report (Tetra Tech, February 2013a).

Interim Measure to Address Residual Contamination at SWMU 27 and Former Building 181 Area

In response to the recommendations developed for SWMU 27 and the former Building 181 Area, an IM Work Plan (IMWP) was prepared and approved by Indiana Department of Environmental Management (IDEM). The IMWP was used to guide removal of settling tank residues from specific infrastructure features at SWMU 27 and the former Building 181 Area. The removed structures were no longer in use and those with unacceptable human health exposure risks could potentially release contaminants into the surrounding environment. The removal of the residues and the structures at SWMU 27 and the Building 181 Area eliminated the human exposure risks and the potential for environmental releases of contaminated residues (Tetra Tech, 2013c). The Navy selected an Environmental Multiple Award Contract (EMAC) contractor, SEQ Vets Remediation Joint Venture, Inc. (SEQ Vets), to implement the IM, which consisted of the following:

- Installation of erosion controls around structures proposed for removal
- Cleaning/scraping interior sides/bottoms of structures and power-washing with cleaning surfactants
- Pumping water, residues, and cleaning solution from the basin, tank, or sump structure and dispose
- Excavate clean soil from around the basin, tank, or sump structure to facilitate structure access
- Disconnect the attendant piping and plug these pipelines
- Remove handrails, baffles, and other metal elements for recycling
- Remove the primary basin, tank, or sump structure and dispose of the concrete debris
- Backfill the excavation with removed soil and with certified clean fill
- Backfill surficial topsoil material and replant to approach pre-disturbance conditions.

SEQ Vets removed approximately 8,824 gallons of wastewater and sludge from the structures and these materials were disposed of properly at an offsite facility. Approximately 52 cubic yards of concrete rubble/debris from the structures removed at SWMU 27 and the former Building 181 Area was transported to the NSA Crane construction debris area. An estimated 300 pounds of scrap metal (such as safety railings and brackets) was loaded into a bin for recycling by NSA Crane. Loose lead-based paint on hand railings was collected in a Navy-supplied Department of Transportation (DOT) 5-gallon container for transport to the NSA Crane hazardous material collection facility. Basins and excavations were backfilled using 4 cubic yards of flowable fill, approximately 45 tons of pea gravel, and 65 tons of top soil. Basin excavation sites were restored, regraded, and seeded in accordance with the IMWP.

Based on the success of this IM in removing the residues and subject settling tanks from SWMU 27 and removing the settling basin, UST, and cistern structure and residues from the former Building 181 Area, a

finding of NFA is now recommended for all media and receptors at both the SWMU 27 and Building 181 Area at NSA Crane.

1.0 INTRODUCTION

1.1 PURPOSE

This Interim Measures (IM) Report (IMR) summarizes the IM activities performed at Solid Waste Management Unit (SWMU) 27 and at the former Building 181 Area at Naval Support Activity (NSA) Crane in Crane, Indiana, July and August 2013. This IMR was prepared for the United States Department of Navy, Naval Facilities Engineering Command (NAVFAC) Midwest by Tetra Tech, Inc. under Contract Task Order (CTO) F276 of the Comprehensive Long-Term Environmental Action Navy (CLEAN) Contract Number N62470-08-D-1001.

SWMU 27 is located in the north-central portion of NSA Crane (Figure 1). SWMU 27 includes the Pyrotechnics Production Area (PPA) and consists of a complex of buildings, the majority of which were designed and built during World War II for the purpose of loading, assembling, and packing star shell ammunition to supply both the Atlantic and Pacific fleets with pyrotechnic devices including illuminating projectiles, parachute flares, and star shells. The PPA is still an active pyrotechnics production facility, although there have been process changes during more than 70 years of operation. Tetra Tech began development of the Sampling and Analysis Plan (SAP) for a Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) of SWMU 27 in 2009. Tetra Tech performed an RFI for SWMU 27 in accordance with the Navy-approved project Health and Safety Plan (Tetra Tech, 2010) and the Indiana Department of Environmental Management (IDEM)-approved Sampling and Analysis Plan (SAP) (Tetra Tech, 2011).

The Final SWMU 27 RFI Report (Tetra Tech, 2012b) evaluated the collected analytical data from surface soil, subsurface soil, and concrete settling tank residues against site-wide background soil data, and human health and ecological risk criteria, as appropriate. The RFI Report indicated that exposure risks to terrestrial plants, invertebrates, birds, and mammals from organic and inorganic chemicals in surface soil at SWMU 27 were low to negligible, and a finding of No Further Action (NFA) was recommended for ecological receptors. No unacceptable human health risks were estimated based on exposures to surface or subsurface soil under current or future land use at SWMU 27. A series of concrete settling tanks and basins constructed in SWMU 27 allowed collection of process solids and residues from process wastewaters and rinsate discharges. Ethylbenzene, total xylenes, aluminum, cadmium, chromium, copper, lead, manganese, and zinc, the primary constituents of concern in settling tank and sump residues at SWMU 27, were detected at concentrations greater than screening levels. Unacceptable exposure risks were identified for construction workers exposed to contaminants in residues (primarily

manganese and lead) within settling tanks and sumps. The SWMU 27 RFI Report recommended that the settling tanks and sumps at SWMU 27 be addressed under a Corrective Measures Study (CMS) or IM to eliminate the unacceptable exposure risks to construction workers (Tetra Tech, 2012b). The Navy determined that an IM should be conducted.

B181 is located in the south-central portion of NSA Crane (Figure 1). The Environmental Investigation Report for the Building 181 Area (Tetra Tech, 2013a) presented the results of the environmental investigation for surface soil, sediments, subsurface soil, and basin/tank residues collected within the former Building 181 Area. The Environmental Investigation of the Building 181 Area was conducted in accordance with the approved Sampling and Analysis Plan (SAP) for the Building 181 Area (Tetra Tech, 2012a). The analytical data were screened against site-wide background soil data, and human health and ecological risk criteria. Only very limited detections of nickel, zinc, and lithium in surface soil samples exceeded soil screening criteria, but these metals were considered inconsequential and NFA was recommended for surface soil. Nickel and zinc concentrations in drainageway sediment samples exceeded only ecological screening criteria and background surface soil levels. Because the drainageway is dry most of the year, it is unlikely a benthic community is present or could be impacted; therefore the metals exceedances in sediment were considered inconsequential, and NFA was recommended for site sediment. No concentrations of explosives or metals detected in subsurface soil samples exceeded screening criteria; therefore, NFA was recommended for site subsurface soil.

Residue samples from three structures in the former Building 181 Area (i.e., a cistern, a settling tank, and an underground storage tank [UST]) were also collected during this investigation. While the residues in these structures were contained and under normal circumstances would not be considered as potential sources of contamination for human or ecological risk assessment purposes, these three structures were regarded as potential future metals accumulation and environmental release points. Consequently, the three former Building 181 Area subsurface structures were recommended for cleaning and removal with their contents, along with the excavation the structures and backfilling in the Environmental Investigation Report for the Building 181 Area (Tetra Tech, 2013a). The recommended IM removals were further described in a Technical Memorandum titled NSA Crane - Building 181 Subsurface Structure Removal Actions (Tetra Tech, 2013b).

The Navy determined that because there was the potential for certain environmental contaminants to accumulate within some of the inactive settling tanks or structures at SWMU 27 and in the Building 181 Area, it was reasonable to perform IM activities to clean and remove the residues, remove the concrete structures, seal the associated piping, or when necessary, reroute active pipelines to the NSA Crane sanitary sewer system, or suitable drainage swales (for roof drains). Infrastructure improvements were

also performed to extend the operational life of the primary active settling tank at Building 126, but this IMR will focus on IM activities described in the Interim Measure Work Plan (IMWP) prepared by Tetra Tech (Tetra Tech, 2013c) that was reviewed and approved by IDEM. The Department of the Navy, Midwest Division Facilities Engineering Command (NAVFAC Midwest) contracted SEQ Vets Remediation Joint Venture (SEQ Vets) under Environmental Multiple Award Contract (EMAC) Contract No. N40083-11-D-0030, Task Order 0005, to clean, excavate, and remove specific tanks/structures at SWMU 27 and the former Building 181 Area. A summary report describing SWMU 27 and former Building 181 Area IM, performed in July and August 2013, was prepared and issued by SEQ Vets in September 2013 (SEQ Vets, 2013c).

1.2 SITE DESCRIPTION

The sites addressed by this IM activity are located within SWMU 27 (including the PPA) and at the former Building 181 Area at NSA Crane in Crane, Indiana (Figure 1). The following paragraphs provide site-specific information about these IM sites.

1.2.1 Pyrotechnic Production Area

Since the early years of World War II, the PPA at SWMU 27 has produced pyrotechnic devices including signal flares, smoke and dye markers, ground and aircraft signals, submarine signals, and illuminating projectiles such as the 5-inch (star shell) illuminating parachute flare. The SWMU 27 PPA covers approximately 31 acres, and the majority is located within restricted access fencing. Although much of NSA Crane is forested, the PPA has been cleared of trees and has been developed as a highly industrialized pyrotechnic production center. Building 126 is the primary building in the PPA, and a number of other specialized storage buildings and bunkers, red phosphorus mixing and loading buildings, various curing buildings for pyrotechnic items, and other pyrotechnic production support buildings have been constructed in the PPA (Figure 2).

The PPA primarily produced 5-inch illuminating rounds (star shells) with parachutes. This round required multiple production process steps, which were performed in the following PPA buildings:

- Building 121 (second floor) was used for parachute fabrication.
- Buildings 123, 124, and 125 were used for metal part generation (machining and assembly).

- Building 126 (Illuminant Building) was used for preparation of the illumination composition and its pressing into “candles.”
- Building 122 was the final assembly building where the candle (pyrotechnic package) was inserted into the projectile, the parachute was attached and packed, and the whole round was packed for rail shipment from the plant.
- Several smaller buildings that surround Building 126 were used for chemical storage, candle curing, and ready magazines and as inert support warehouses to maintain the process.

Additional buildings were constructed in the PPA after 1942 to support the war effort and later operations and were used for production of the following pyrotechnic items:

- Marker flares, rescue flares, and parachute flares
- Illuminating projectile and incendiaries
- Smoke signals and spotting charges
- Ground and aircraft signals and submarine signals
- Aircraft signal cartridges and depth charge markers

Process wastewaters and rinsates from many of these processes were at one time discharged to open ditches and drainage swales. A series of concrete settling tanks and basins were constructed to permit collection of process solids and residues from process wastewaters and rinsate discharges (Figure 2). The process settling tanks, basins, and sumps may have overflowed into ditches and swales that drain SWMU 27 to the south and west into the Boggs Creek watershed (Figure 1). Red phosphorus rinsates from process buildings were discharged to settling tanks. Heavy metal contamination (zinc and cadmium) was detected in process wastewater that was previously discharged into open ditches and settling tanks. Currently, treated wastewater from metal-plating operations in SWMU 27 is discharged to the sanitary sewer system under a National Pollution Discharge Elimination System (NPDES) permit.

1.2.2 Building 181 Area

The Building 181 Area is located slightly more than one mile north of the southern boundary of NSA Crane (Figure 1). The location of former Building 181 (which was demolished after 2006), the surrounding area of approximately 2.3 acres, and the associated structures constitute the Building 181 Area site (Figure 3). Building 181 was constructed during World War II as a chemical decontamination building. During the war, NSA Crane was designated as a storage facility for Navy chemical weapons. At

that time, the chemical weapons in use were aerial bombs containing mustard gas. The Building 181 structure had several small rooms for work with weapon items and other support functions. At the end of the war, the mustard gas bombs were removed from Crane storage and Building 181 was unused.

During the Vietnam conflict, a remotely-operated saw used to cut through bomb casings, was installed in Building 181. The bomb-cutting operation was directed from a remote control room constructed in Magazine 1441. The purpose of the bomb cutting was to evaluate the extent of cavities (void spaces) present in the main 2,4,6-trinitrotoluene (TNT) explosive payloads in the bomb casings to determine if there was a risk of TNT recrystallization in the explosive voids (which are far more shock sensitive than the standard TNT explosives used in bombs). The remotely-operated band saw likely required external cooling (possibly water or other cutting fluid) to control heat generation. Cooling fluids used on the band saw blade might have experienced some explosive contamination from cutting through the explosive materials inside the bomb casings. There is no indication that cooling fluids or explosive wastes were discharged to a drain, pipeline, or tank in the Building 181 Area. However, a UST located near former Building 181 could have received cooling fluids containing explosive residues and possibly other contaminants such as metals. The UST was open to the air via a 6-inch metal stand pipe.

After the bomb-sawing operations were completed in the mid-1970s, the Building 181 facility again was unused until the early 1980s, when the Navy acquired the facility from the Crane Ammunition Army Activity (CAAA). The Navy completely rebuilt the facility and redesigned it for abusive testing of lithium batteries. When another Lithium Battery Test Facility was later built in the Industrial Area of the installation and lithium battery use was a well-understood technology, Building 181 was no longer needed. Building 181 was demolished as a part of the military footprint reduction effort during 2006-2008. Some of the test facilities (i.e., gun tubs and battery drop tower structure) still remain on the site.

1.3 REPORT ORGANIZATION

This IMR summarizes the basin cleaning, removal, and site restoration activities performed as a part of this IM. The remaining text sections of this document contain the following information:

- Section 2.0 presents a summary of the environmental history of SWMU 27 and the former Building 181 Area.

- Section 3.0 presents a summary of the soil excavation and other IM activities performed at SWMU 27 and the former Building 181 Area in July and August 2013.
- Section 4.0 presents a conclusion and also includes a recommendation based on IM activities.

The Summary Report - Surface Soil Excavation at SWMU 27 Basin Removals/Excavation prepared by SEQ Vets (SEQ Vets, 2013c) was the primary data source for this IMR. Materials in the IMR appendices are directly from the Summary Report (SEQ Vets, 2013c). Appendix D (Project Field Photographs) has been modified to include both Tetra Tech and SEQ Vets photographs, so the images show local conditions of structures prior to the IM, during removals, and following site restoration. Appendix F (Waste Manifest - Transport and Disposal Documentation) has been supplemented to include signed non-hazardous waste manifests for transport and disposal of waste water/residues recovered during this IM. Other materials generated during the IM were taken to facilities at NSA Crane for proper management, reuse, and/or disposal (Table 1). Appendix G was added to this IMR to present backfill analytical documentation for the materials used for backfill and to provide copies of the delivery tickets for the backfill material used during this IM. The backfill material types and amounts used during the IM at SWMU 27 and at the Building 181 Area are summarized in Table 2.

2.0 ENVIRONMENTAL HISTORY

2.1 INITIAL ENVIRONMENTAL INVESTIGATIONS

The 1987 Preliminary Review/Visual Site Inspection (PR/VSI) Report by A.T. Kearney stated that potential releases to soil at SWMU 27 may: (1) present complete exposure pathways to human receptors and/or (2) serve as a source of contamination to groundwater and present complete exposure pathways to human receptors through those routes. However, the PR/VSI Report concluded that there are low release potentials to surface water because of the sanitary sewer system discharge (A.T. Kearney, 1987). A Basewide Background Soil Investigation Report was prepared by Tetra Tech in 2001 to support the establishment of acceptable background soil conditions at the facility (Tetra Tech, 2001).

2.2 RCRA FACILITY INVESTIGATIONS

The SWMU 27 RFI fieldwork and the development of the baseline human health and screening-level ecological risk evaluations were conducted in accordance with the IDEM-approved SAP for the SWMU 27 RFI at SWMU 27 (Tetra Tech, 2011). The primary purpose of the RFI was to determine the nature and extent of potential contaminants associated with the activities and operations performed at SWMU 27 and the potential impacts to human health and ecological receptors. The initial field sampling event included surface and subsurface soil sampling and sampling of tank/sump residue to determine if contamination in site media was present at concentrations exceeding regulatory and risk-based screening criteria. The Final SWMU 27 RFI Report (Tetra Tech, 2012b) summarized the field activities conducted during 2011, described the nature and extent of contamination at SWMU 27, and presented the results of the human health and ecological risk evaluations.

The exposure risk to terrestrial plants, invertebrates, birds, and mammals from organic and inorganic chemicals in surface soil at SWMU 27 was estimated to be low to negligible, and NFA was recommended for ecological receptors. The human health risk assessment for SWMU 27 evaluated surface and subsurface soils and residue collected from various settling tanks and sumps in the PPA at SWMU 27. The human receptors evaluated at SWMU 27 included construction workers, industrial workers, child and adult recreational users, and future adult and child residents. No unacceptable human health risks were estimated based on exposures to surface or subsurface soil under current or future land use at SWMU 27. A series of concrete settling tanks and basins constructed in SWMU 27 allowed collection of process solids and residues from process wastewaters and rinsate discharges. Ethylbenzene, total xylenes, aluminum, cadmium, chromium, copper, lead, manganese, and zinc, the primary constituents of concern in settling tank and sump residues at SWMU 27, were detected at concentrations greater than

screening levels. Unacceptable exposure risks were identified for construction workers exposed to contaminants in residues (primarily manganese and lead) within settling tanks and sumps. The SWMU 27 RFI Report recommended that the settling tanks and sumps at SWMU 27 be addressed under a Corrective Measures Study (CMS) or IM to eliminate the unacceptable exposure risks to construction workers to address the unacceptable exposure risks to construction workers (Tetra Tech, 2012b).

An environmental investigation of the Building 181 Area was conducted in accordance with the Navy-approved SAP (Tetra Tech, 2012a) and provided data on select organic and inorganic chemical concentrations in surface and subsurface soils, drainageway sediment, and residues from a settling tank, a cistern, and one UST in Building 181 Area. The Environmental Investigation Report for the Building 181 Area (Tetra Tech, 2013a) presented the results of the environmental investigation for surface soil, sediments, subsurface soil, and basin/tank residues and the analytical data were screened against basewide background soil data, and human health and ecological risk criteria. The primary COPCs in the Building 181 area were lithium, nickel, and zinc in the onsite surface soil, and zinc in the drainageway sediments. Nickel, zinc and lithium exceeded screening criteria in a few surface soil samples. These exceedances were very limited and represented a small percentage of the total number of surface soil samples collected. Therefore, these metal exceedances were considered inconsequential, and no further action (NFA) was recommended for site surface soil. Nickel and zinc concentrations in drainageway sediment samples exceeded only ecological screening criteria and background surface soil levels. Because the drainageway is dry most of the year, it is unlikely a benthic community is present or could be impacted; therefore the metals exceedances in sediment were considered inconsequential, and NFA was recommended for site sediment. No concentrations of explosives or metals detected in subsurface soil samples exceeded screening criteria; therefore, NFA was recommended for site subsurface soil.

Residue samples from three structures in the former Building 181 Area (i.e., a cistern, a settling tank, and an underground storage tank [UST]) were also collected during this investigation. While the residues in these structures were contained and under normal circumstances would not be considered as potential sources of contamination for human or ecological risk assessment purposes, these three structures were regarded as potential future metals accumulation and environmental release points. Consequently, the three former Building 181 Area subsurface structures were recommended for cleaning and removal with their contents, along with the excavation the structures and backfilling in the Environmental Investigation Report for the Building 181 Area (Tetra Tech, 2013a).

2.3 NON-RCRA FACILITY INVESTIGATIONS

A Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Site Inspection (SI) was conducted at NSA Crane by Tetra Tech and included unexploded ordnance (UXO) 8 site in SWMU 27, west of Building 126 under the Munitions Response Program (MRP) in August 2010. Site UXO 8 consisted of two 6-foot by 6-foot by 4-foot deep concrete basins (approximately 30 feet apart) used to test various types of pyrotechnic devices (flares, signals, and screening smokes) developed and manufactured at NSA Crane. A total of ten soil samples were collected from soils from outside the basins. A five-point composite residue sample was collected from the interior of each concrete basin. All twelve samples were analyzed for perchlorate, explosives, and dyes. The highest detected perchlorate concentration was 5.5 µg/kg, which was well below the IDEM residential human health exposure screening criteria. All twelve samples had detections of explosive constituents, but were all below applicable exposure criteria. Solvent Green 3 dye was detected at significant concentrations in the residues of both basins, and at a concentration above the Project Action Limit (PAL) in one soil sample.

Although there was minimal contamination detected in the basin residues, the SI Report identified the removal of basin residues and demolition and removal the concrete test basins as a reasonable best management practice for this MRP site. An interim measures removal action was completed for UXO 8 in August 2011 and removed residues and the concrete basins from the site. IDEM accepted the NFA finding for the UXO 8 site after IM completion. The UXO 8 area within SWMU 27 has been closed.

2.4 INTERIM MEASURES WORK PLANS

As previously described, site-specific environmental reports indicated that there was no significant soil contamination outside of the various concrete structures, but there was the potential for environmental contaminants to accumulate within unused and inactive settling tanks and structures. Consequently, the Navy supported the recommendations to remove the clean and empty the concrete settling tanks and structures, remove the underground structures and seal associated pipelines or, when necessary, reroute active pipelines to the NSA Crane sanitary sewer system.

The Navy developed and implemented a plan to remove the settling tank residues and to also remove the various settling tanks and the subsurface cistern, and UST that were no longer in use and could potentially release contaminants to surrounding environment. An IMWP was prepared by Tetra Tech that presented a plan to remove specific settling tanks and sump structures at SWMU 27 (Tetra Tech, 2013c).

Similar IM actions to address proposed infrastructure (settling tank, cistern, and UST) removals at the former Building 181 Area were presented and described in a Technical Memorandum titled NSA Crane - Building 181 Subsurface Structure Removal Actions (Tetra Tech, 2013b).

3.0 INTERIM MEASURES

The following sections describe the IM work performed at SWMU 27 and the former Building 181 Area. Figure 2 shows the locations of the settling tanks removed from SWMU 27, and Figure 3 shows the locations of the settling tank, cistern structure, and UST removed from the Building 181 Area during the subject IM.

3.1 SITE PREPARATION AND SUPPORT ACTIVITIES

The Project Work Plan (Abbreviated for Sampling, Including Environmental Protection Plan and Waste Management Plan) Solid Waste Management Unit (SWMU) 27 – Settling Basin Removal/Excavations Building #126 & Building #181 Subsurface Structures Removal Action (SEQ Vets, 2013a) and Quality Control Plan (Accident Prevention Plan and Site Safety and Health Plan) - Solid Waste Management Unit (SWMU) 27 – Settling Basin Removal/Excavations Building #126 & Building #181 Subsurface Structures Removal Action (SEQ Vets, 2013b) were reviewed and approved by the Navy and reviewed and signed by all project team personnel prior to the initiation of field work.

On July 16, 2012, equipment and materials were mobilized to the NSA Crane SWMU 27 project site. Site preparation included mobilizing a 4,000-gallon vacuum truck, two service trucks, and labor to the site. The field vehicle used by the Quality Control (QC) Manager (QCM) and Site Superintendent (SS) was equipped with laptop computers with mobile internet access, cellular telephone, and an inverter power supply for use as an on-base mobile field office.

A detailed and thorough inspection of the site location was made by the SS and QCM/Site Safety and Health Officer (SSHO) during the mobilization and site preparation phase of the project. A dig permit was issued by NAVFAC Midwest effective July 17, 2013. No relevant changes to the work area, such as site access, occurred that would impact field activities.

3.2 INTERIM MEASURES PROJECT MANAGEMENT/QUALITY CONTROL

Site management was performed by Mr. Craig Hoby, of SEQ Vets and included oversight of subcontractors, site staff, and visitors. Access to the work area was limited to persons involved with the project. A site visitor log accompanied by proper signs and postings assisted in maintaining proper site security.

Project QC was conducted by Mr. Yonas Misgina. SEQ Vets recorded all field activities in daily QC and Contractor Production reports. The Summary Report - Surface Soil Excavation at SWMU 27 Basin Removals/Excavations was prepared by SEQ Vets (2013c), and as part of the inspection system for that effort, the following documents were submitted in that report:

- Daily Production Reports
- Contractor QC (CQC) Daily Reports
- Daily Tailgate Health and Safety Forms
- Project Field Photos
- Laboratory Analytical Reports
- Waste Disposal Manifests

The appendices to this IMR were taken directly from the SEQ Vets Summary Report (SEQ Vets, 2013c). The Daily Production Reports are presented in this IMR as Appendix A, and the CQC Daily Reports are presented in this IMR as Appendix B. These reports were submitted daily during the performance of on-site activities; reports for non-work days and holidays were not submitted. The Daily Health and Safety forms; presented in this IMR as Appendix C; were submitted daily for all work days. The Project Field Photos; presented in this IMR as Appendix D; were taken during the course of the project to document progress. However, additional photographs taken by Tetra Tech were included in Appendix D to show the basins and structures prior to the IM, during performance of the IM, and following completion of site restoration activities. Laboratory analytical results of wastewater/sludge samples are presented in this IMR as Appendix E. Appendix F includes the signed non-hazardous waste manifest forms used to transport and dispose of the wastewater and sludge residues recovered during this IM. The waste disposal tickets; presented in this IMR as Appendix F; show the weight of IM-generated wastewater that was shipped and disposed at the facility. The laboratory analytical documentation for the fill material used to support site restoration activities at SWMU 27 and the Building 181 Area were added to this IMR as Appendix G.

During the initial meeting prior to the commencement of IM work, SEQ VETS discussed with the NSA Crane Full Time Staff (FTS) and NAVFAC Resident Officer in Charge of Construction (ROICC) the work to be conducted to establish the level of workmanship and to ensure that all crew members understood required safety procedures, personal protective equipment, and the nature of the materials to be handled and managed during this field activity.

3.3 BASIN CLEANING, EXCAVATION, REMOVAL, AND SITE IMPROVEMENTS

On July 16, 2013, SEQ Vets and subcontractor Environmental Field Services, Inc. (EFS) mobilized to SWMU 27 to begin cleaning and removing wastewater and sludge residues from the basins. A 4,000-gallon vacuum truck was mobilized to the site and used to remove existing liquids and sludge from the basins. Cleaning consisted of scraping the sides of the basins and power washing with potable water amended with a cleaning surfactant. Wash water generated during cleaning was removed via the vacuum truck and disposed of along with the removed liquids and sludge. Photographs of these activities are included in Appendix D.

Basin removals and excavation began on July 18, 2013, by SEQ Vets and EFS. An excavator was used to remove the basins from the ground and load them into a dump truck for transportation to the NSA Crane concrete demolition waste staging area.

The following structures were removed from SWMU 27 beginning on July 18, 2013:

- Building 122 Pit A was physically attached to the foundation of the building. During removal activities, saw cutting of the structure disrupted sensitive operations within Building 122. The IM work was stopped, and the structure was abandoned in place with flowable fill.

- Building 1885 Sump.

- Building 1886 Sump.

- Building 1885 Pit A.

- Building 1886 Pit A.

- Building 130 Pit A.

- Building 133 Pit A was removed. An active storm water drain trench at Building 133 that formerly conveyed flow from the building to the basin was modified and included placement of drainage pipes from the building to a nearby drainage ditch and filling the existing drainage trench with flowable fill.

- Building 2698 Pit A.

The following structures were removed from the former Building 181 Area on July 23, 2013:

- Concrete settling tank - a concrete settling basin located in the northern portion of the site measuring approximately 5 feet by 4 feet and 2 feet deep. Approximately 4 inches of water and 1 inch of sediment were observed in the basin during a site walk conducted by Tetra Tech on November 21, 2011. The settling tank was cleaned and removed.
- Concrete cistern - a square concrete cistern structure with dimensions of approximately 2 feet by 2 feet and 9.4 feet deep located in the western portion of the site near the tree line. Several inches of water and an unknown amount of sediment were observed in the cistern during a site walk conducted by Tetra Tech on November 21, 2011. The cistern was cleaned and removed.
- Concrete UST - a steel UST (non-petroleum) was originally planned for removal under the IMWP; however, during performance of the IM, the UST structure was observed to be a concrete vault. The UST was cleaned and removed. The concrete debris from the UST was removed and disposed of at the NSA Crane concrete demolition waste staging area.

Basin removals were completed on July 23, 2013. Additional site improvement work performed by SEQ Vets at SWMU 27 during the IM was associated with localized maintenance and construction or site infrastructure enhancement activities and included the following:

- Repairs to Building 126 Pit B – Clean interior settling basin, apply epoxy surface coating, power jet influent drain line, replace settling tank control valves, replace safety hand railing
- Modification 1 – Fabricate and install aluminum settling tank covers for Building 126 Pit B.
- Modification 2 – Install new drain pipes at Building 126 and Building 133 and fill former drainage trench at Building 133 with flowable fill.

Although the site improvement activities were performed in conjunction with the IM removal actions, for purposes of this report, they are not considered part of the IM and will not be discussed further.

3.4 TRANSPORTATION AND OFF-SITE DISPOSAL OF BASIN RESIDUES

After the settling tanks and pits were cleaned and the residues were pumped out, the basins were visually inspected and certified clean by the QCM. To increase access to the settling tanks, the hand rails (when present) were removed and placed on polyethylene sheeting. Loose lead-based paint was scraped and

collected in the polyethylene sheeting and transferred to a Navy-supplied Department of Transportation (DOT)-approved 5-gallon container and disposed off-site via the NSA Crane hazardous waste storage facility. The container of lead-based paint chips was transported with other similar hazardous lead waste containers by American Transportation Solutions, LLC, of Sewickley, Pennsylvania by truck to the AES Environmental, LLC hazardous waste treatment, storage, and disposal facility in Calvert City, Kentucky.

The transport and disposal of the residues and wash water from the basins were conducted under a waste manifest signed by a Navy representative. Approximately 8,824 gallons of wastewater and sludge were removed by SEQ Vets and transported by National Environmental, Inc., of National Environmental, Inc., of Greenfield, Indiana by tanker truck under manifest to the CGS Services, Inc. disposal facility in Morristown, Indiana, a Navy-approved waste disposal site.

The waste disposal manifests for the non-hazardous residues and liquids removed from the settling tanks, pits, cistern, and UST and the hazardous waste manifest that includes the lead-based paint chips container (line #24) are presented in Appendix F.

3.5 BACKFILL AND SITE RESTORATION

The tank/basin excavations were backfilled, and the former excavation sites were restored. Backfill activities began on July 18, 2013, with Shelby Trucking of Mitchell, Indiana providing clean backfill. Documentation for the backfill material is presented in Appendix G. SEQ Vets placed the backfill in the excavations and compacted it by tamping with the excavator blade.

When backfilling was complete, 4 inches of topsoil were placed over the excavation areas and additional areas that were impacted by IM activities. The site was then restored with a mix of winter wheat and annual ryegrass temporary cover and Kentucky 32 fescue permanent cover. The topsoil was fertilized and amended according to the seed supplier's recommendation with 5 pounds of crushed limestone and a 13-0-13 fertilizer. Erosion control mattresses and straw were then placed over the seeded areas as temporary cover. Backfill and restoration was completed on July 25, 2013, for the basins and completed on August 29, 2013, for the supplemental pipe installation.

Mr. Tim Sears and Mr. Tom Brent of NAVFAC Midwest inspected and approved the completed IM work at SWMU 27 and the former Building 181 Area with Chris Dietrich (SEQ Vets) on September 6, 2013.

4.0 CONCLUSION AND RECOMMENDATION

The IM activities performed at SWMU 27 and in the former Building 181 Area implemented recommendations to excavate and remove residues from nine settling tanks and sumps, a cistern, and one UST that were no longer in use and could potentially release contaminants to the surrounding environment.

The IM activities included removal and off-site disposal of approximately 8,824 gallons of sludge, residue, and cleaning solutions from the nine settling tanks and sumps in these two areas as well as the cleaning and removal of a concrete cistern and a concrete UST in the Building 181 Area. Over 50 cubic yards of concrete debris were recovered and transported to the NSA Crane construction debris staging area. Approximately 300 pounds of scrap metal (hand railings, metal covers for settling tanks and basins, etc.) were recovered and transported to the NSA Crane recycling center. Loose lead-based paint from hand railings was recovered, transferred to a Navy-supplied DOT-approved 5-gallon container, and shipped from the NSA Crane hazardous waste storage facility to an authorized off-site hazardous waste TSD facility in Kentucky for disposal. The areas where tanks, sumps, cistern, and UST were excavated were backfilled, seeded, and restored to pre-disturbance conditions. Basins and excavations were backfilled using 4 cubic yards of flowable fill, approximately 45 tons of pea gravel, and 65 tons of top soil to support the site restoration process for the disturbed areas within SWMU 27 and the Building 181 Area during the IM activities (Table 2).

The removal and off-site disposal of the 8,824 gallons of residue from the nine settling tanks and sumps, a cistern, and one UST from SWMU 27 and the former Building 181 Area, and the corresponding removal of these structures from these locations collectively support a recommendation of NFA for SWMU 27 and the Building 181 Area based on the successful completion of the IM.

5.0 REFERENCES

A.T. Kearney, 1987. Preliminary Review/Visual Site Inspection Report of Naval Weapons Support Center. Crane, Indiana. USEPA ID IN5170023498. Prepared for U.S. Environmental Protection Agency Region V. March.

SEQ Vets, 2013a. Work Plan (Abbreviated for Sampling, Including Environmental Protection Plan and Waste Management Plan) Solid Waste Management Unit (SWMU) 27 – Settling Basin Removal/Excavations Building #126 & Building #181 Subsurface Structures Removal Action, Naval Support Activity Crane, Indiana. July.

SEQ Vets, 2013b. Quality Control Plan - Solid Waste Management Unit (SWMU) 27 – Settling Basin Removal/Excavations Building #126 & Building #181 Subsurface Structures Removal Action Naval Support Activity Crane, Indiana. July.

SEQ Vets, 2013c. Summary Report, Surface Soil Excavation at SWMU 27, Basin Removals/Excavations Naval Support Activity Crane, Crane, Indiana. September.

Tetra Tech (Tetra Tech, Inc.), 2001. Basewide Background Soil Investigation Report, Naval Surface Warfare Center, Crane, Crane, Indiana. January.

Tetra Tech, 2010. Health and Safety Plan. Resource Conservation and Recovery Act Facility Investigation. SWMU 27 – Illuminant Building 126. Naval Support Activity (NSA) Crane. Crane, Indiana. August.

Tetra Tech, 2011. Sampling and Analysis Plan (Field Sampling Plan and Quality Assurance Project Plan) for SWMU 27 – Illuminant Building 126, Resource Conservation and Recovery Act Facility Investigation, Naval Support Activity Crane, Crane, Indiana, January.

Tetra Tech, 2012a. Final Tier II Sampling and Analysis Plan (SAP) Soil Characterization Investigation for Building 181 Area, Naval Support Activity Crane, Crane, Indiana. June.

Tetra Tech, 2012b. Final RFI Report for Illuminant Building 126 (SWMU 27), Naval Support Activity Crane, Crane, Indiana. September.

Tetra Tech, 2013a. Environmental Investigation Report for the Building 181 Area, Naval Support Activity Crane, Crane, Indiana. February.

Tetra Tech, 2013b. Technical Memorandum from Ralph Basinski (Tetra Tech) to Tom Brent (NSA Crane) titled NSA Crane – Building 181 Subsurface Structures Removal Action (an addendum to the SWMU 27 Interim Measures Work Plan. February 19.

Tetra Tech, 2013c. Interim Measures Work Plan for Settling Basin Removals/Excavations at SWMU 27 – Building 126 and Pyrotechnics Production Area, Naval Support Activity Crane, Crane, Indiana. March.

TABLES

TABLE 1

**SUMMARY OF DISPOSED MATERIALS FROM IM ACTIVITIES AT
SWMU 27 AND FORMER BUILDING 181 AREA
NSA CRANE, INDIANA**

Material	Quantity (units)	Tracking No. / Date	Disposal Location
Basin water, residues, and cleaning solutions	8,824 gallons	#338730 / 07/18/2103 #339160 / 07/22/2013 #339405 / 07/23/2013	CGS Services, Inc. 2920 East US 52 Morristown, IN 46161
Concrete debris and incorporated rebar	52 cubic yards	N/A	Concrete demolition debris staging area NSA Crane, Indiana
Scrap metal (railings, baffles, etc.)	300 pounds	N/A	Scrap metal recycling facility NSA Crane, Indiana
Lead-based paint chips (collected from settling basin railings and other painted metal surfaces)	One 5-gallon bucket, combined with similar lead waste: Line #24 – three “DF” containers (fiberboard or plastic drums, barrels, kegs) weighing 113 pounds	011238045JJK / 11/08/2013	AES Environmental, LLC 1689 Shar-Cal Road Calvert City, KY 42029

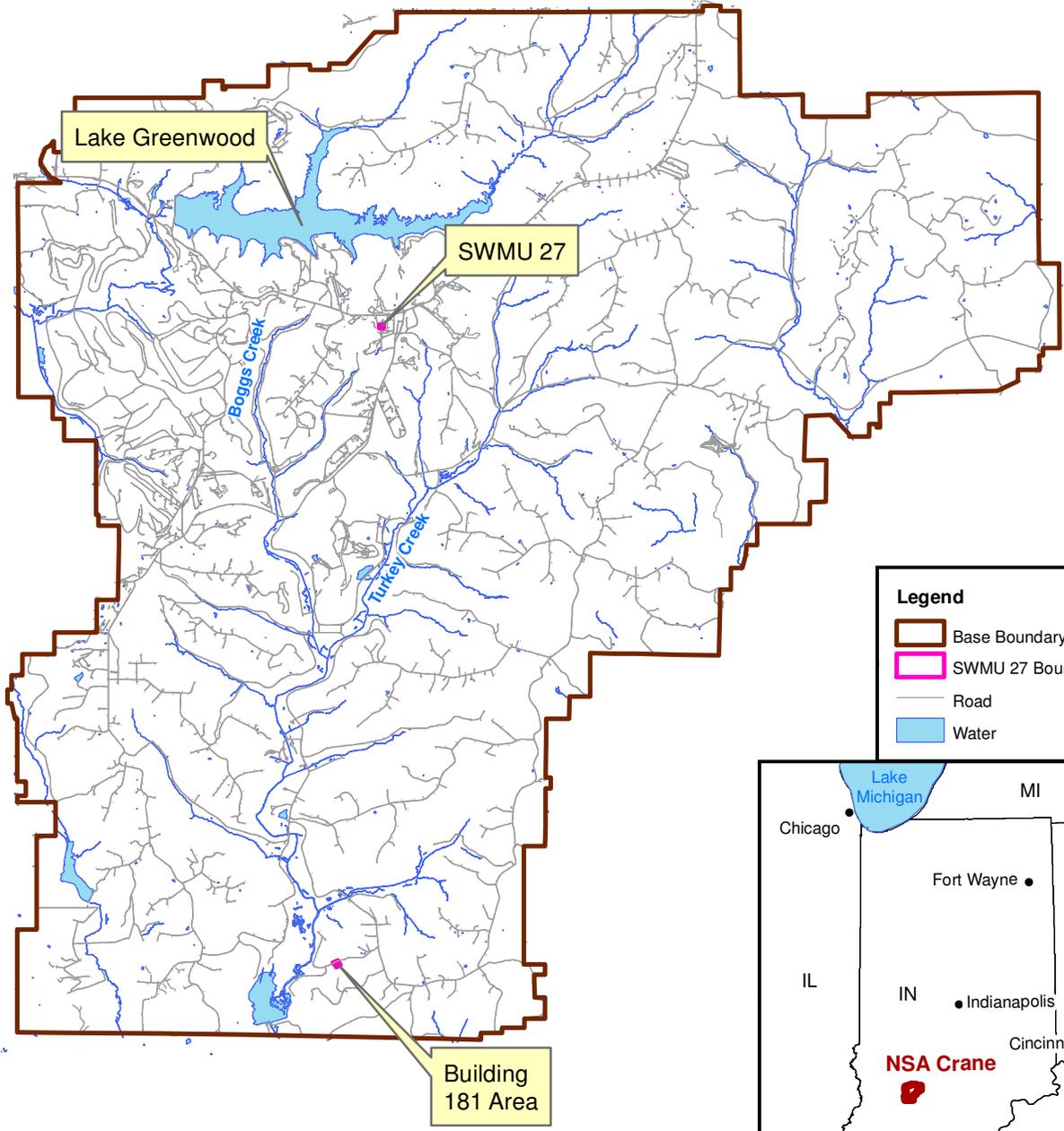
TABLE 2

**SUMMARY OF BACKFILL MATERIALS USED FOR IM SITE RESTORATION
SWMU 27 AND FORMER BUILDING 181 AREA
NSA CRANE, INDIANA**

Date	Material	Volume/Amount*
07/18/13	Flexifill (Flowable) Concrete	One truck/4 cubic yards
07/18/13	Backfill Top Soil	Two truckloads/42.74 tons
07/22/13	Backfill Top Soil	One truckload/22.18 tons
07/22/13	Backfill Pea Gravel	Two truckloads/44.79 tons

*Copies of delivery tickets for the individual truckloads of backfill materials are included in Appendix G.

FIGURES



Legend

- Base Boundary
- SWMU 27 Boundary
- Road
- Water

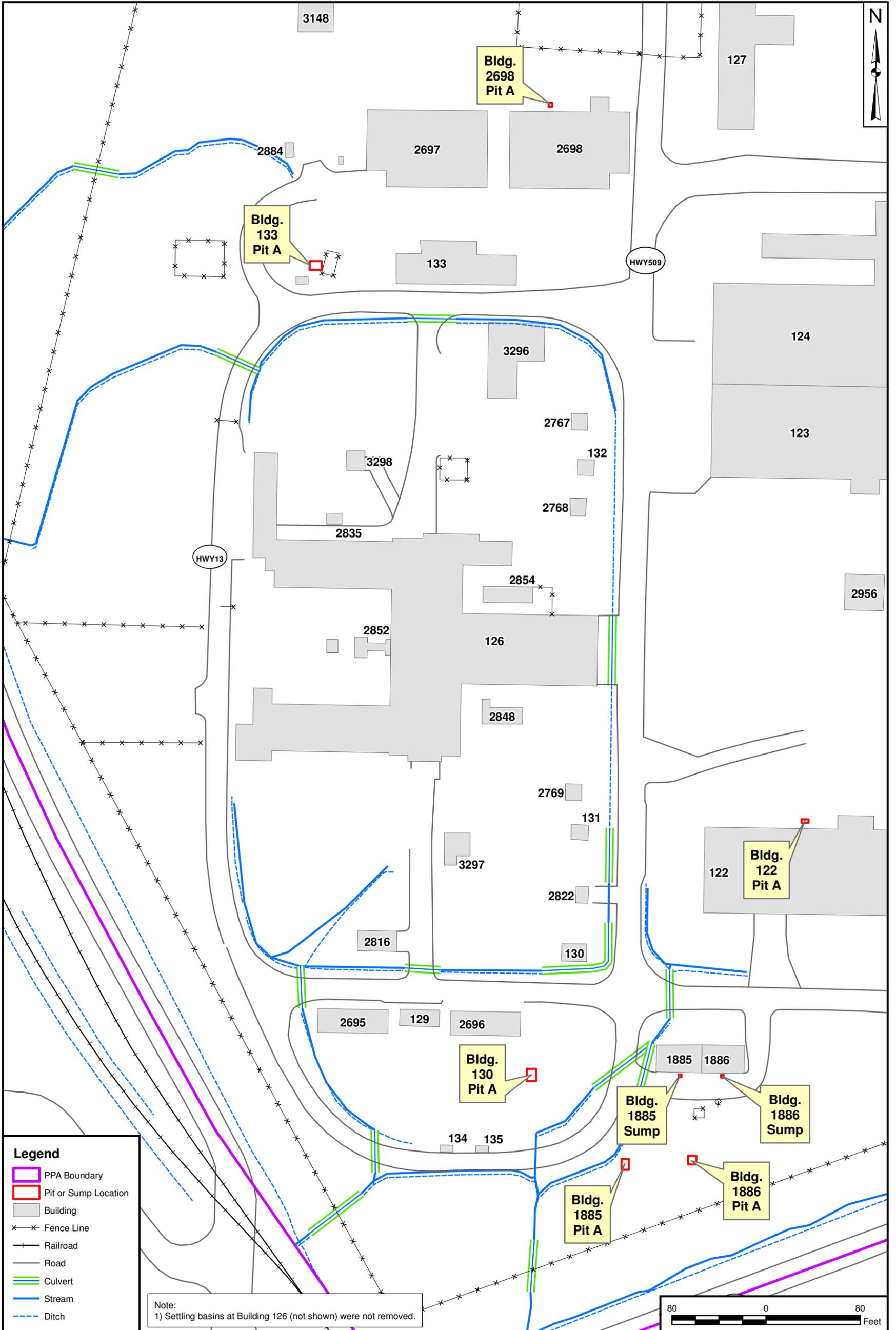


DRAWN BY	DATE
D. COUCH	01/08/13
CHECKED BY	DATE
R. BARRINGER	10/07/13
REVISED BY	DATE
S. PAXTON	10/07/13
SCALE AS NOTED	



BASE AND SITE LOCATION MAP
SWMU 27 - PYROTECHNICS PRODUCTION AREA
AND FORMER BUILDING 181 AREA
NSA CRANE
CRANE, INDIANA

CONTRACT NUMBER	CTO NUMBER
2126	F276
APPROVED BY	DATE
_____	_____
APPROVED BY	DATE
_____	_____
FIGURE NO.	REV
FIGURE 1	0



Note:
1) Settling basins at Building 126 (not shown) were not removed.

Legend

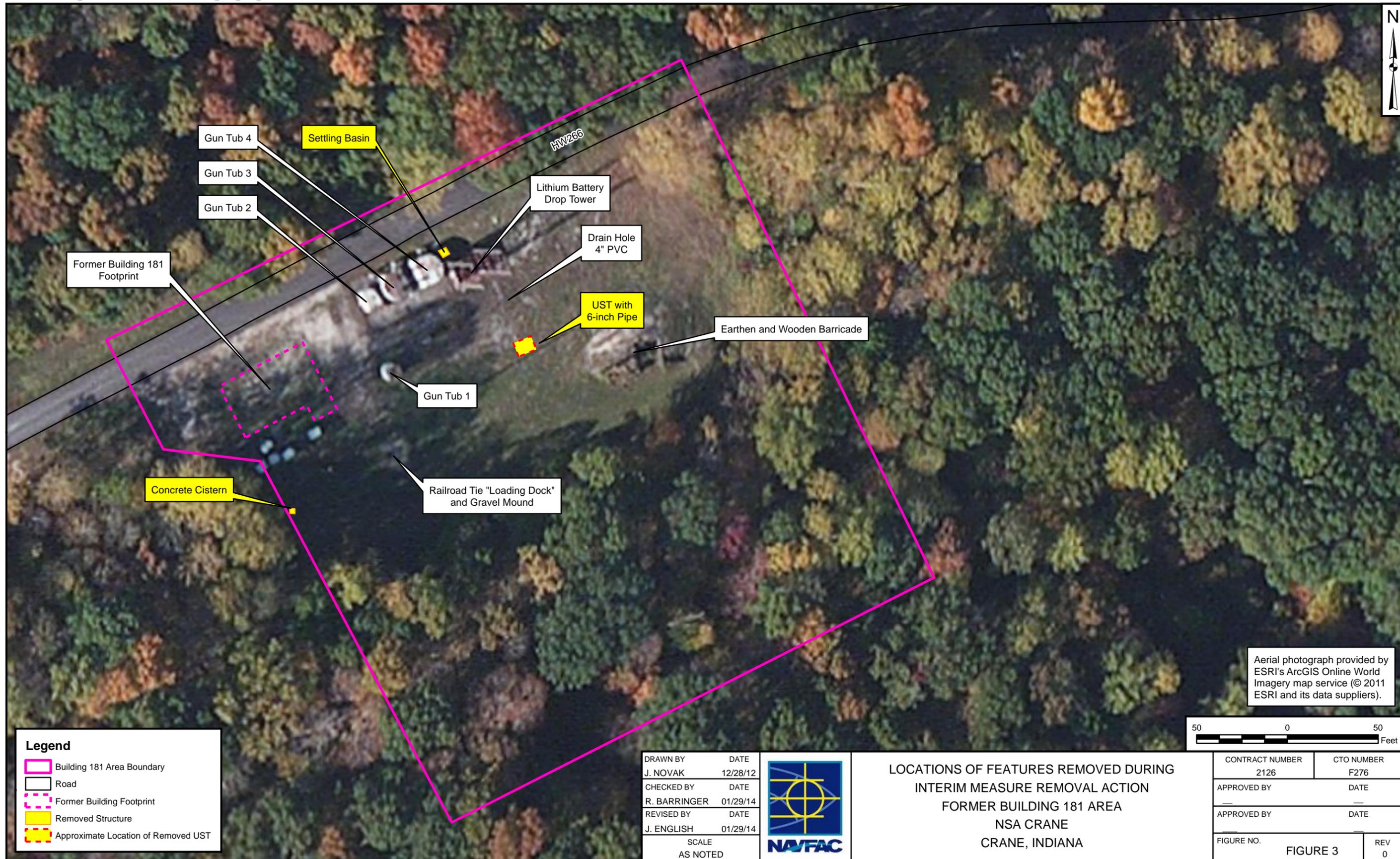
- PPA Boundary
- Pit or Sump Location
- Building
- Fence Line
- Railroad
- Road
- Culvert
- Stream
- Ditch

DRAWN BY S. STROZ	DATE 06/29/10
CHECKED BY R. BARRINGER	DATE 10/14/13
REVISED BY S. PAXTON	DATE 10/14/13
SCALE AS NOTED	



**LOCATIONS OF SUMPS AND SETTLING BASINS REMOVED DURING
INTERIM MEASURE REMOVAL ACTION
SWMU 27 - PYROTECHNICS PRODUCTION AREA
NSA CRANE
CRANE, INDIANA**

CONTRACT NUMBER 2126	CTO NUMBER F276
APPROVED BY	DATE
APPROVED BY	DATE
FIGURE NO. FIGURE 2	REV 0



Aerial photograph provided by ESRI's ArcGIS Online World Imagery map service (© 2011 ESRI and its data suppliers).



Legend	
	Building 181 Area Boundary
	Road
	Former Building Footprint
	Removed Structure
	Approximate Location of Removed UST

DRAWN BY	DATE
J. NOVAK	12/28/12
CHECKED BY	DATE
R. BARRINGER	01/29/14
REVISED BY	DATE
J. ENGLISH	01/29/14
SCALE AS NOTED	



LOCATIONS OF FEATURES REMOVED DURING
 INTERIM MEASURE REMOVAL ACTION
 FORMER BUILDING 181 AREA
 NSA CRANE
 CRANE, INDIANA

CONTRACT NUMBER	CTO NUMBER
2126	F276
APPROVED BY	DATE
---	---
APPROVED BY	DATE
---	---
FIGURE NO.	REV
FIGURE 3	0

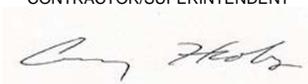
APPENDIX A

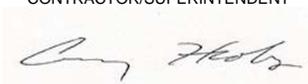
DAILY PRODUCTION REPORT

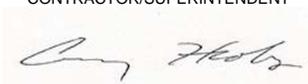
CONTRACTOR PRODUCTION REPORT <small>(ATTACH ADDITIONAL SHEETS IF NECESSARY)</small>				DATE 07/16/13		
CONTRACT NO N40083-11-D-0030/0005		TITLE AND LOCATION SWMU 27 Basin Removals/Excavation		REPORT NO 01		
CONTRACTOR SEQ Vets			SUPERINTENDENT Yonas Misgina			
AM WEATHER Sunny		PM WEATHER Sunny		MAX TEMP (F) 94	MIN TEMP (F) 70	
WORK PERFORMED TODAY						
Schedule Activity No.	WORK LOCATION AND DESCRIPTION	EMPLOYER	NUMBER	TRADE	HRS	
1	Mobilization	SEQ Vets/EQM	4	Laborers	4	
1	Mobilization	SEQ Vets/Sullivan	3	QC Manager/Site Super	3	
2	Pump and power wash basins at Bldg 126	SEQ Vets/EQM	4	Site Super/Laborer	28	
2	Pump and power wash basins at Bldg 126	SEQ Vets/Sullivan	3	QC Manager	21	
JOB SAFETY	WAS A JOB SAFETY MEETING HELD THIS DATE? <small>(If YES attach copy of the meeting minutes)</small>		<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	TOTAL WORK HOURS ON JOB SITE, THIS DATE, INCL CON'T SHEETS	55
	WERE THERE ANY LOST TIME ACCIDENTS THIS DATE? <small>(If YES attach copy of completed OSHA report)</small>		<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	CUMULATIVE TOTAL OF WORK HOURS FROM PREVIOUS REPORT	0
	WAS CRANE/MANLIFT/TRENCHING/SCAFFOLD/HV ELEC/HIGH WORK/ HAZMAT WORK DONE? <small>(If YES attach statement or checklist showing inspection performed.)</small>		<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	TOTAL WORK HOURS FROM START OF CONSTRUCTION	55
	WAS HAZARDOUS MATERIAL/WASTE RELEASED INTO THE ENVIRONMENT? <small>(If YES attach description of incident and proposed action.)</small>		<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO		
Schedule Activity No.	LIST SAFETY ACTIONS TAKEN TODAY/SAFETY INSPECTIONS CONDUCTED			<input checked="" type="checkbox"/> SAFETY REQUIREMENTS HAVE BEEN MET.		
1	Initial safety meeting					
EQUIPMENT/MATERIAL RECEIVED TODAY TO BE INCORPORATED IN JOB (INDICATE SCHEDULE ACTIVITY NUMBER)						
Schedule Activity No.	Submittal #	Description of Equipment/Material Received				
CONSTRUCTION AND PLANT EQUIPMENT ON JOB SITE TODAY. INDICATE HOURS USED AND SCHEDULE ACTIVITY NUMBER.						
Schedule Activity No.	Owner	Description of Construction Equipment Used Today (inc Make and Model)			Hours Used	
2		Vacuum truck, 5,000 gallon			6	
2		Excavator			0	
Schedule Activity No.	REMARKS					
2	Pumped and power washed 4 basins at Bldg 126. 2 Basins were dry. 1 basin was partially power washed.					
2	Scrapped LBP from handrails					
_____ CONTRACTOR/SUPERINTENDENT			_____ DATE 07/16/13			

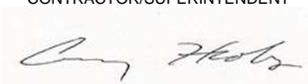
CONTRACTOR PRODUCTION REPORT <small>(ATTACH ADDITIONAL SHEETS IF NECESSARY)</small>				DATE 07/23/13	
CONTRACT NO N40083-11-D-0030/0005		TITLE AND LOCATION SWMU 27 Basin Removals/Excavation		REPORT NO 06	
CONTRACTOR SEQ Vets			SUPERINTENDENT Craig Hoby		
AM WEATHER Mostly sunny		PM WEATHER Cloudy/overcast		MAX TEMP (F) Low 90s	MIN TEMP (F) 65
WORK PERFORMED TODAY					
Schedule Activity No.	WORK LOCATION AND DESCRIPTION	EMPLOYER	NUMBER	TRADE	HRS
	SWMU 27	SEQ Vets/EQM	1	Site Superintendent	8
	SWMU 27	SEQ Vets/ Sullivan	1	QC Manager	8
	SWMU 27	SEQ Vets/EFS	4	Laborer & Operator	8
JOB SAFETY		WAS A JOB SAFETY MEETING HELD THIS DATE? <small>(If YES attach copy of the meeting minutes)</small>		TOTAL WORK HOURS ON JOB SITE, THIS DATE, INCL CON'T SHEETS	
		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		48	
		WERE THERE ANY LOST TIME ACCIDENTS THIS DATE? <small>(If YES attach copy of completed OSHA report)</small>		CUMULATIVE TOTAL OF WORK HOURS FROM PREVIOUS REPORT	
		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		214	
		WAS CRANE/MANLIFT/TRENCHING/SCAFFOLD/HV ELEC/HIGH WORK/ HAZMAT WORK DONE? <small>(If YES attach statement or checklist showing inspection performed.)</small>		TOTAL WORK HOURS FROM START OF CONSTRUCTION	
		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		262	
		WAS HAZARDOUS MATERIAL/WASTE RELEASED INTO THE ENVIRONMENT? <small>(If YES attach description of incident and proposed action.)</small>			
		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
Schedule Activity No.	LIST SAFETY ACTIONS TAKEN TODAY/SAFETY INSPECTIONS CONDUCTED			<input checked="" type="checkbox"/> SAFETY REQUIREMENTS HAVE BEEN MET.	
	Morning meeting; stay clear of heavy equipment in operation				
EQUIPMENT/MATERIAL RECEIVED TODAY TO BE INCORPORATED IN JOB (INDICATE SCHEDULE ACTIVITY NUMBER)					
Schedule Activity No.	Submittal #	Description of Equipment/Material Received			
		Cat 320 Excavator, delivered and hauled away same day			
CONSTRUCTION AND PLANT EQUIPMENT ON JOB SITE TODAY. INDICATE HOURS USED AND SCHEDULE ACTIVITY NUMBER.					
Schedule Activity No.	Owner	Description of Construction Equipment Used Today (inc Make and Model)			Hours Used
	Rental	Cat 312 Excavator			3
	Rental	Cat Skid Loader			3
	National	Vac truck			8
	Rental	Cat 320 Excavator			4
	Young	Tri-axle truck			6
Schedule Activity No.	REMARKS				
	Investigated the trenches leading to Pit 133 for possible closure.				
	UST at Site 181 was a concrete vault not a typical steel UST. EFS excavated around the structure and removed it after demolishing it in place. Concrete debris loaded and hauled out the Crane's site for clean construction debris. National's vac truck removed the last Of the water from the vault prior to demolition and then finished removing the fluid sludge and liquids from the cleaning of Pit 126. Crane's NAVFAC and Army reps will investigate the collapsed pipe issue and provide direction.				
			CONTRACTOR/SUPERINTENDENT		DATE
					07/23/13

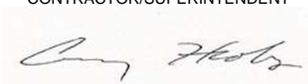
CONTRACTOR PRODUCTION REPORT (ATTACH ADDITIONAL SHEETS IF NECESSARY)				DATE 07/24/13	
CONTRACT NO N40083-11-D-0030/0005		TITLE AND LOCATION SWMU 27 Basin Removals/Excavation		REPORT NO 07	
CONTRACTOR SEQ Vets			SUPERINTENDENT Craig Hoby		
AM WEATHER Mostly sunny		PM WEATHER Sunny		MAX TEMP (F) Mid 70s	MIN TEMP (F) 65
WORK PERFORMED TODAY					
Schedule Activity No.	WORK LOCATION AND DESCRIPTION	EMPLOYER	NUMBER	TRADE	HRS
	SWMU 27	SEQ Vets/EQM	1	Site Superintendent	8
	SWMU 27	SEQ Vets/ Sullivan	1	QC Manager	8
	SWMU 27	SEQ Vets/EFS	4	Laborer & Operator	8
JOB SAFETY		WAS A JOB SAFETY MEETING HELD THIS DATE? (If YES attach copy of the meeting minutes)		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
		WERE THERE ANY LOST TIME ACCIDENTS THIS DATE? (If YES attach copy of completed OSHA report)		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
		WAS CRANE/MANLIFT/TRENCHING/SCAFFOLD/HV ELEC/HIGH WORK/ HAZMAT WORK DONE? (If YES attach statement or checklist showing inspection performed.)		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
WAS HAZARDOUS MATERIAL/WASTE RELEASED INTO THE ENVIRONMENT? (If YES attach description of incident and proposed action.)		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		TOTAL WORK HOURS ON JOB SITE, THIS DATE, INCL CON'T SHEETS	
				48	
				CUMULATIVE TOTAL OF WORK HOURS FROM PREVIOUS REPORT	
				262	
				TOTAL WORK HOURS FROM START OF CONSTRUCTION	
				310	
Schedule Activity No.	LIST SAFETY ACTIONS TAKEN TODAY/SAFETY INSPECTIONS CONDUCTED			<input checked="" type="checkbox"/> SAFETY REQUIREMENTS HAVE BEEN MET.	
	Morning meeting; stay clear of heavy equipment in operation				
EQUIPMENT/MATERIAL RECEIVED TODAY TO BE INCORPORATED IN JOB (INDICATE SCHEDULE ACTIVITY NUMBER)					
Schedule Activity No.	Submittal #	Description of Equipment/Material Received			
		New concrete and coated re-bar for the construction of the new walls to replace the CMU block removed as part of the demolition effort.			
CONSTRUCTION AND PLANT EQUIPMENT ON JOB SITE TODAY. INDICATE HOURS USED AND SCHEDULE ACTIVITY NUMBER.					
Schedule Activity No.	Owner	Description of Construction Equipment Used Today (inc Make and Model)			Hours Used
	Rental	Cat 312 Excavator			0
	Rental	Cat Skid Loader			0
					0
Schedule Activity No.	REMARKS				
	HCI formed the new walls for Pit 126. EFS manually removed the hardened sludge/sediment from Pit 126 (sediment had accumulated in the first weir chamber and could be removed via pumping or pressure washing. Sludge sediments were shoveled and bucketed out and staged on plastic visqueen. NAVFAC will arrange disposal of this sludge/sediment. Field crew will temporarily demobilize until concrete cures in the new walls and NAVFAC decides on a course of action for the collapsed line and the potential in-fill of the trenches at 133.				
CONTRACTOR/SUPERINTENDENT			DATE		
			07/24/13		

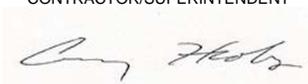
CONTRACTOR PRODUCTION REPORT <small>(ATTACH ADDITIONAL SHEETS IF NECESSARY)</small>				DATE 07/25/13	
CONTRACT NO N40083-11-D-0030/0005		TITLE AND LOCATION SWMU 27 Basin Removals/Excavation		REPORT NO 08	
CONTRACTOR SEQ Vets			SUPERINTENDENT Craig Hoby		
AM WEATHER Mostly sunny		PM WEATHER Sunny		MAX TEMP (F) Mid 8-s	MIN TEMP (F) 66
WORK PERFORMED TODAY					
Schedule Activity No.	WORK LOCATION AND DESCRIPTION	EMPLOYER	NUMBER	TRADE	HRS
	None				
JOB SAFETY		WAS A JOB SAFETY MEETING HELD THIS DATE? <small>(If YES attach copy of the meeting minutes)</small>			
		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		TOTAL WORK HOURS ON JOB SITE, THIS DATE, INCL CON'T SHEETS	
		WERE THERE ANY LOST TIME ACCIDENTS THIS DATE? <small>(If YES attach copy of completed OSHA report)</small>			
		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		CUMULATIVE TOTAL OF WORK HOURS FROM PREVIOUS REPORT	
WAS CRANE/MANLIFT/TRENCHING/SCAFFOLD/HV ELEC/HIGH WORK/ HAZMAT WORK DONE? <small>(If YES attach statement or checklist showing inspection performed.)</small>		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		TOTAL WORK HOURS FROM START OF CONSTRUCTION	
WAS HAZARDOUS MATERIAL/WASTE RELEASED INTO THE ENVIRONMENT? <small>(If YES attach description of incident and proposed action.)</small>		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		310	
Schedule Activity No.	LIST SAFETY ACTIONS TAKEN TODAY/SAFETY INSPECTIONS CONDUCTED			<input checked="" type="checkbox"/> SAFETY REQUIREMENTS HAVE BEEN MET.	
	None				
EQUIPMENT/MATERIAL RECEIVED TODAY TO BE INCORPORATED IN JOB (INDICATE SCHEDULE ACTIVITY NUMBER)					
Schedule Activity No.	Submittal #	Description of Equipment/Material Received			
		None			
CONSTRUCTION AND PLANT EQUIPMENT ON JOB SITE TODAY. INDICATE HOURS USED AND SCHEDULE ACTIVITY NUMBER.					
Schedule Activity No.	Owner	Description of Construction Equipment Used Today (inc Make and Model)			Hours Used
	Rental	Cat Skid Loader			0
Schedule Activity No.	REMARKS				
	No work – concrete is curing, forms will be removed as appropriate.				
CONTRACTOR/SUPERINTENDENT			DATE		
			07/25/13		

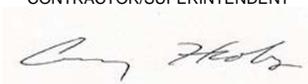
CONTRACTOR PRODUCTION REPORT <small>(ATTACH ADDITIONAL SHEETS IF NECESSARY)</small>				DATE 07/26/13	
CONTRACT NO N40083-11-D-0030/0005		TITLE AND LOCATION SWMU 27 Basin Removals/Excavation		REPORT NO 09	
CONTRACTOR SEQ Vets			SUPERINTENDENT Craig Hoby		
AM WEATHER Mostly sunny		PM WEATHER Sunny		MAX TEMP (F) Mid 80-s	MIN TEMP (F) 66
WORK PERFORMED TODAY					
Schedule Activity No.	WORK LOCATION AND DESCRIPTION	EMPLOYER	NUMBER	TRADE	HRS
	None				
JOB SAFETY		WAS A JOB SAFETY MEETING HELD THIS DATE? <small>(If YES attach copy of the meeting minutes)</small>			
		WERE THERE ANY LOST TIME ACCIDENTS THIS DATE? <small>(If YES attach copy of completed OSHA report)</small>			
		WAS CRANE/MANLIFT/TRENCHING/SCAFFOLD/HV ELEC/HIGH WORK/ HAZMAT WORK DONE? <small>(If YES attach statement or checklist showing inspection performed.)</small>			
		WAS HAZARDOUS MATERIAL/WASTE RELEASED INTO THE ENVIRONMENT? <small>(If YES attach description of incident and proposed action.)</small>			
		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		TOTAL WORK HOURS ON JOB SITE, THIS DATE, INCL CON'T SHEETS 0	
		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		CUMULATIVE TOTAL OF WORK HOURS FROM PREVIOUS REPORT 310	
		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		TOTAL WORK HOURS FROM START OF CONSTRUCTION 310	
		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
Schedule Activity No.	LIST SAFETY ACTIONS TAKEN TODAY/SAFETY INSPECTIONS CONDUCTED				<input checked="" type="checkbox"/> SAFETY REQUIREMENTS HAVE BEEN MET.
	None				
EQUIPMENT/MATERIAL RECEIVED TODAY TO BE INCORPORATED IN JOB (INDICATE SCHEDULE ACTIVITY NUMBER)					
Schedule Activity No.	Submittal #	Description of Equipment/Material Received			
		None			
CONSTRUCTION AND PLANT EQUIPMENT ON JOB SITE TODAY. INDICATE HOURS USED AND SCHEDULE ACTIVITY NUMBER.					
Schedule Activity No.	Owner	Description of Construction Equipment Used Today (inc Make and Model)			Hours Used
	Rental	Cat Skid Loader			0
Schedule Activity No.	REMARKS				
	No work – concrete is curing, removal of forms is scheduled.				
			CONTRACTOR/SUPERINTENDENT		DATE 07/26/13
					

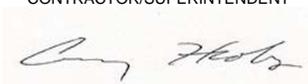
CONTRACTOR PRODUCTION REPORT <small>(ATTACH ADDITIONAL SHEETS IF NECESSARY)</small>				DATE 07/29/13			
CONTRACT NO N40083-11-D-0030/0005		TITLE AND LOCATION SWMU 27 Basin Removals/Excavation		REPORT NO 10			
CONTRACTOR SEQ Vets			SUPERINTENDENT Craig Hoby				
AM WEATHER Mostly sunny		PM WEATHER Sunny		MAX TEMP (F) Mid 70-s	MIN TEMP (F) 52		
WORK PERFORMED TODAY							
Schedule Activity No.	WORK LOCATION AND DESCRIPTION	EMPLOYER	NUMBER	TRADE	HRS		
	SWMU 27 – Pit 126	SEQ Vets	1	Site Superintendent	8		
		EFS	1	Laborer	8		
JOB SAFETY		WAS A JOB SAFETY MEETING HELD THIS DATE? <small>(If YES attach copy of the meeting minutes)</small>		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO TOTAL WORK HOURS ON JOB SITE, THIS DATE, INCL CON'T SHEETS 16			
		WERE THERE ANY LOST TIME ACCIDENTS THIS DATE? <small>(If YES attach copy of completed OSHA report)</small>				<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO CUMULATIVE TOTAL OF WORK HOURS FROM PREVIOUS REPORT 310	
		WAS CRANE/MANLIFT/TRENCHING/SCAFFOLD/HV ELEC/HIGH WORK/ HAZMAT WORK DONE? <small>(If YES attach statement or checklist showing inspection performed.)</small>		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO TOTAL WORK HOURS FROM START OF CONSTRUCTION 326			
		WAS HAZARDOUS MATERIAL/WASTE RELEASED INTO THE ENVIRONMENT? <small>(If YES attach description of incident and proposed action.)</small>		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
Schedule Activity No.	LIST SAFETY ACTIONS TAKEN TODAY/SAFETY INSPECTIONS CONDUCTED			<input checked="" type="checkbox"/> SAFETY REQUIREMENTS HAVE BEEN MET.			
	None						
EQUIPMENT/MATERIAL RECEIVED TODAY TO BE INCORPORATED IN JOB (INDICATE SCHEDULE ACTIVITY NUMBER)							
Schedule Activity No.	Submittal #	Description of Equipment/Material Received					
		None					
CONSTRUCTION AND PLANT EQUIPMENT ON JOB SITE TODAY. INDICATE HOURS USED AND SCHEDULE ACTIVITY NUMBER.							
Schedule Activity No.	Owner	Description of Construction Equipment Used Today (inc Make and Model)			Hours Used		
	Rental	Cat Skid Loader			8		
Schedule Activity No.	REMARKS						
	Forms from concrete knee wall removed and the general area backfilled and graded using the existing soil burden stockpiles around the pit.						
			CONTRACTOR/SUPERINTENDENT		DATE 07/29/13		
							

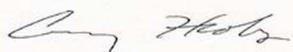
CONTRACTOR PRODUCTION REPORT <small>(ATTACH ADDITIONAL SHEETS IF NECESSARY)</small>				DATE 7/31/13	
CONTRACT NO N40083-11-D-0030/0005		TITLE AND LOCATION SWMU 27 Basin Removals/Excavation		REPORT NO 12	
CONTRACTOR SEQ Vets			SUPERINTENDENT Craig Hoby		
AM WEATHER Mostly sunny		PM WEATHER Sunny		MAX TEMP (F) Mid 70-s	MIN TEMP (F) 55
WORK PERFORMED TODAY					
Schedule Activity No.	WORK LOCATION AND DESCRIPTION	EMPLOYER	NUMBER	TRADE	HRS
	None				
JOB SAFETY		WAS A JOB SAFETY MEETING HELD THIS DATE? <small>(If YES attach copy of the meeting minutes)</small>			
		WERE THERE ANY LOST TIME ACCIDENTS THIS DATE? <small>(If YES attach copy of completed OSHA report)</small>			
		WAS CRANE/MANLIFT/TRENCHING/SCAFFOLD/HV ELEC/HIGH WORK/ HAZMAT WORK DONE? <small>(If YES attach statement or checklist showing inspection performed.)</small>			
		WAS HAZARDOUS MATERIAL/WASTE RELEASED INTO THE ENVIRONMENT? <small>(If YES attach description of incident and proposed action.)</small>			
		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		TOTAL WORK HOURS ON JOB SITE, THIS DATE, INCL CON'T SHEETS 0 CUMULATIVE TOTAL OF WORK HOURS FROM PREVIOUS REPORT 326 TOTAL WORK HOURS FROM START OF CONSTRUCTION 326	
Schedule Activity No.		LIST SAFETY ACTIONS TAKEN TODAY/SAFETY INSPECTIONS CONDUCTED			<input checked="" type="checkbox"/> SAFETY REQUIREMENTS HAVE BEEN MET.
		None			
EQUIPMENT/MATERIAL RECEIVED TODAY TO BE INCORPORATED IN JOB (INDICATE SCHEDULE ACTIVITY NUMBER)					
Schedule Activity No.	Submittal #	Description of Equipment/Material Received			
		None			
CONSTRUCTION AND PLANT EQUIPMENT ON JOB SITE TODAY. INDICATE HOURS USED AND SCHEDULE ACTIVITY NUMBER.					
Schedule Activity No.	Owner	Description of Construction Equipment Used Today (inc Make and Model)			Hours Used
	Rental	Cat Skid Loader			0
Schedule Activity No.	REMARKS				
	No work on-site. Waiting on fabrication of hand-rails and lids for Pit 126 B.				
			CONTRACTOR/SUPERINTENDENT		DATE 07/31/13
					

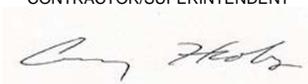
CONTRACTOR PRODUCTION REPORT <small>(ATTACH ADDITIONAL SHEETS IF NECESSARY)</small>				DATE 8/1/13	
CONTRACT NO N40083-11-D-0030/0005		TITLE AND LOCATION SWMU 27 Basin Removals/Excavation		REPORT NO 13	
CONTRACTOR SEQ Vets			SUPERINTENDENT Craig Hoby		
AM WEATHER Mostly sunny		PM WEATHER Sunny		MAX TEMP (F) Mid 70-s	MIN TEMP (F) 55
WORK PERFORMED TODAY					
Schedule Activity No.	WORK LOCATION AND DESCRIPTION	EMPLOYER	NUMBER	TRADE	HRS
	None				
JOB SAFETY		WAS A JOB SAFETY MEETING HELD THIS DATE? <small>(If YES attach copy of the meeting minutes)</small>		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
		WERE THERE ANY LOST TIME ACCIDENTS THIS DATE? <small>(If YES attach copy of completed OSHA report)</small>		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
		WAS CRANE/MANLIFT/TRENCHING/SCAFFOLD/HV ELEC/HIGH WORK/ HAZMAT WORK DONE? <small>(If YES attach statement or checklist showing inspection performed.)</small>		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
		WAS HAZARDOUS MATERIAL/WASTE RELEASED INTO THE ENVIRONMENT? <small>(If YES attach description of incident and proposed action.)</small>		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
		TOTAL WORK HOURS ON JOB SITE, THIS DATE, INCL CON'T SHEETS		0	
		CUMULATIVE TOTAL OF WORK HOURS FROM PREVIOUS REPORT		326	
		TOTAL WORK HOURS FROM START OF CONSTRUCTION		326	
Schedule Activity No.		LIST SAFETY ACTIONS TAKEN TODAY/SAFETY INSPECTIONS CONDUCTED			<input checked="" type="checkbox"/> SAFETY REQUIREMENTS HAVE BEEN MET.
		None			
EQUIPMENT/MATERIAL RECEIVED TODAY TO BE INCORPORATED IN JOB (INDICATE SCHEDULE ACTIVITY NUMBER)					
Schedule Activity No.	Submittal #	Description of Equipment/Material Received			
		None			
CONSTRUCTION AND PLANT EQUIPMENT ON JOB SITE TODAY. INDICATE HOURS USED AND SCHEDULE ACTIVITY NUMBER.					
Schedule Activity No.	Owner	Description of Construction Equipment Used Today (inc Make and Model)			Hours Used
	Rental	Cat Skid Loader			0
Schedule Activity No.	REMARKS				
	No work on-site. Waiting on fabrication of hand-rails and lids for Pit 126 B.				
		CONTRACTOR/SUPERINTENDENT		DATE	
				8/1/13	

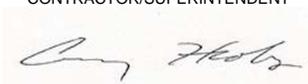
CONTRACTOR PRODUCTION REPORT <small>(ATTACH ADDITIONAL SHEETS IF NECESSARY)</small>				DATE 8/2/13	
CONTRACT NO N40083-11-D-0030/0005		TITLE AND LOCATION SWMU 27 Basin Removals/Excavation		REPORT NO 14	
CONTRACTOR SEQ Vets			SUPERINTENDENT Craig Hoby		
AM WEATHER Mostly sunny		PM WEATHER Sunny		MAX TEMP (F) Mid 70-s	MIN TEMP (F) 55
WORK PERFORMED TODAY					
Schedule Activity No.	WORK LOCATION AND DESCRIPTION	EMPLOYER	NUMBER	TRADE	HRS
	None				
JOB SAFETY		WAS A JOB SAFETY MEETING HELD THIS DATE? <small>(If YES attach copy of the meeting minutes)</small>			
		WERE THERE ANY LOST TIME ACCIDENTS THIS DATE? <small>(If YES attach copy of completed OSHA report)</small>			
		WAS CRANE/MANLIFT/TRENCHING/SCAFFOLD/HV ELEC/HIGH WORK/ HAZMAT WORK DONE? <small>(If YES attach statement or checklist showing inspection performed.)</small>			
		WAS HAZARDOUS MATERIAL/WASTE RELEASED INTO THE ENVIRONMENT? <small>(If YES attach description of incident and proposed action.)</small>			
		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		TOTAL WORK HOURS ON JOB SITE, THIS DATE, INCL CON'T SHEETS	
		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		CUMULATIVE TOTAL OF WORK HOURS FROM PREVIOUS REPORT	
		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		TOTAL WORK HOURS FROM START OF CONSTRUCTION	
		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
Schedule Activity No.	LIST SAFETY ACTIONS TAKEN TODAY/SAFETY INSPECTIONS CONDUCTED			<input checked="" type="checkbox"/> SAFETY REQUIREMENTS HAVE BEEN MET.	
	None				
EQUIPMENT/MATERIAL RECEIVED TODAY TO BE INCORPORATED IN JOB (INDICATE SCHEDULE ACTIVITY NUMBER)					
Schedule Activity No.	Submittal #	Description of Equipment/Material Received			
		None			
CONSTRUCTION AND PLANT EQUIPMENT ON JOB SITE TODAY. INDICATE HOURS USED AND SCHEDULE ACTIVITY NUMBER.					
Schedule Activity No.	Owner	Description of Construction Equipment Used Today (inc Make and Model)			Hours Used
	Rental	Cat Skid Loader			0
Schedule Activity No.	REMARKS				
	No work on-site. Waiting on fabrication of hand-rails and lids for Pit 126 B.				
			CONTRACTOR/SUPERINTENDENT		DATE 8/2/13
					

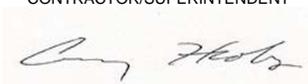
CONTRACTOR PRODUCTION REPORT <small>(ATTACH ADDITIONAL SHEETS IF NECESSARY)</small>				DATE 8/5/13	
CONTRACT NO N40083-11-D-0030/0005		TITLE AND LOCATION SWMU 27 Basin Removals/Excavation		REPORT NO 15	
CONTRACTOR SEQ Vets			SUPERINTENDENT Craig Hoby		
AM WEATHER Mostly sunny		PM WEATHER Sunny		MAX TEMP (F) Mid 70-s	MIN TEMP (F) 55
WORK PERFORMED TODAY					
Schedule Activity No.	WORK LOCATION AND DESCRIPTION	EMPLOYER	NUMBER	TRADE	HRS
	None				
JOB SAFETY		WAS A JOB SAFETY MEETING HELD THIS DATE? <small>(If YES attach copy of the meeting minutes)</small>			
		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		TOTAL WORK HOURS ON JOB SITE, THIS DATE, INCL CON'T SHEETS	
		WERE THERE ANY LOST TIME ACCIDENTS THIS DATE? <small>(If YES attach copy of completed OSHA report)</small>			
		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		CUMULATIVE TOTAL OF WORK HOURS FROM PREVIOUS REPORT	
WAS CRANE/MANLIFT/TRENCHING/SCAFFOLD/HV ELEC/HIGH WORK/ HAZMAT WORK DONE? <small>(If YES attach statement or checklist showing inspection performed.)</small>		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		TOTAL WORK HOURS FROM START OF CONSTRUCTION	
WAS HAZARDOUS MATERIAL/WASTE RELEASED INTO THE ENVIRONMENT? <small>(If YES attach description of incident and proposed action.)</small>		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		326	
Schedule Activity No.	LIST SAFETY ACTIONS TAKEN TODAY/SAFETY INSPECTIONS CONDUCTED			<input checked="" type="checkbox"/> SAFETY REQUIREMENTS HAVE BEEN MET.	
	None				
EQUIPMENT/MATERIAL RECEIVED TODAY TO BE INCORPORATED IN JOB (INDICATE SCHEDULE ACTIVITY NUMBER)					
Schedule Activity No.	Submittal #	Description of Equipment/Material Received			
		None			
CONSTRUCTION AND PLANT EQUIPMENT ON JOB SITE TODAY. INDICATE HOURS USED AND SCHEDULE ACTIVITY NUMBER.					
Schedule Activity No.	Owner	Description of Construction Equipment Used Today (inc Make and Model)			Hours Used
	Rental	Cat Skid Loader			0
Schedule Activity No.	REMARKS				
	No work on-site. Waiting on fabrication of hand-rails and lids for Pit 126 B.				
			CONTRACTOR/SUPERINTENDENT		DATE 8/5/13
					

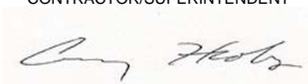
CONTRACTOR PRODUCTION REPORT <small>(ATTACH ADDITIONAL SHEETS IF NECESSARY)</small>				DATE 8/6/13	
CONTRACT NO N40083-11-D-0030/0005		TITLE AND LOCATION SWMU 27 Basin Removals/Excavation		REPORT NO 16	
CONTRACTOR SEQ Vets			SUPERINTENDENT Craig Hoby		
AM WEATHER Mostly sunny		PM WEATHER Sunny		MAX TEMP (F) Mid 70-s	MIN TEMP (F) 55
WORK PERFORMED TODAY					
Schedule Activity No.	WORK LOCATION AND DESCRIPTION	EMPLOYER	NUMBER	TRADE	HRS
	None				
JOB SAFETY		WAS A JOB SAFETY MEETING HELD THIS DATE? <small>(If YES attach copy of the meeting minutes)</small>			
		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		TOTAL WORK HOURS ON JOB SITE, THIS DATE, INCL CON'T SHEETS	
		WERE THERE ANY LOST TIME ACCIDENTS THIS DATE? <small>(If YES attach copy of completed OSHA report)</small>			
		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		CUMULATIVE TOTAL OF WORK HOURS FROM PREVIOUS REPORT	
WAS CRANE/MANLIFT/TRENCHING/SCAFFOLD/HV ELEC/HIGH WORK/ HAZMAT WORK DONE? <small>(If YES attach statement or checklist showing inspection performed.)</small>		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		TOTAL WORK HOURS FROM START OF CONSTRUCTION	
WAS HAZARDOUS MATERIAL/WASTE RELEASED INTO THE ENVIRONMENT? <small>(If YES attach description of incident and proposed action.)</small>		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		326	
Schedule Activity No.	LIST SAFETY ACTIONS TAKEN TODAY/SAFETY INSPECTIONS CONDUCTED			<input checked="" type="checkbox"/> SAFETY REQUIREMENTS HAVE BEEN MET.	
	None				
EQUIPMENT/MATERIAL RECEIVED TODAY TO BE INCORPORATED IN JOB (INDICATE SCHEDULE ACTIVITY NUMBER)					
Schedule Activity No.	Submittal #	Description of Equipment/Material Received			
		None			
CONSTRUCTION AND PLANT EQUIPMENT ON JOB SITE TODAY. INDICATE HOURS USED AND SCHEDULE ACTIVITY NUMBER.					
Schedule Activity No.	Owner	Description of Construction Equipment Used Today (inc Make and Model)			Hours Used
	Rental	Cat Skid Loader			0
Schedule Activity No.	REMARKS				
	No work on-site. Waiting on fabrication of hand-rails and lids for Pit 126 B.				
			CONTRACTOR/SUPERINTENDENT		DATE 8/6/13
					

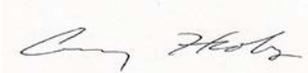
CONTRACTOR PRODUCTION REPORT <small>(ATTACH ADDITIONAL SHEETS IF NECESSARY)</small>				DATE 8/19/13	
CONTRACT NO N40083-11-D-0030/0005		TITLE AND LOCATION SWMU 27 Basin Removals/Excavation		REPORT NO 17	
CONTRACTOR SEQ Vets			SUPERINTENDENT Craig Hoby		
AM WEATHER Mostly sunny		PM WEATHER Sunny		MAX TEMP (F) Mid 80s	MIN TEMP (F) 67
WORK PERFORMED TODAY					
Schedule Activity No.	WORK LOCATION AND DESCRIPTION	EMPLOYER	NUMBER	TRADE	HRS
	SWMU 27	SEQ Vets/EQM	1	Site Superintendent	8
		SEQ Vets/ Sullivan	1	QC Rep	8
		EFS	1	Foreman	8
		EFS	2	Laborers	6
JOB SAFETY		WAS A JOB SAFETY MEETING HELD THIS DATE? <small>(If YES attach copy of the meeting minutes)</small>		TOTAL WORK HOURS ON JOB SITE, THIS DATE, INCL CON'T SHEETS 36	
		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			
		WERE THERE ANY LOST TIME ACCIDENTS THIS DATE? <small>(If YES attach copy of completed OSHA report)</small>		CUMULATIVE TOTAL OF WORK HOURS FROM PREVIOUS REPORT 326	
		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
WAS CRANE/MANLIFT/TRENCHING/SCAFFOLD/HV ELEC/HIGH WORK/ HAZMAT WORK DONE? <small>(If YES attach statement or checklist showing inspection performed.)</small>		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		TOTAL WORK HOURS FROM START OF CONSTRUCTION 362	
WAS HAZARDOUS MATERIAL/WASTE RELEASED INTO THE ENVIRONMENT? <small>(If YES attach description of incident and proposed action.)</small>		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
Schedule Activity No.	LIST SAFETY ACTIONS TAKEN TODAY/SAFETY INSPECTIONS CONDUCTED			<input checked="" type="checkbox"/> SAFETY REQUIREMENTS HAVE BEEN MET.	
	None				
EQUIPMENT/MATERIAL RECEIVED TODAY TO BE INCORPORATED IN JOB (INDICATE SCHEDULE ACTIVITY NUMBER)					
Schedule Activity No.	Submittal #	Description of Equipment/Material Received			
		Cat 310 delivered and demobbed skid loaded			
CONSTRUCTION AND PLANT EQUIPMENT ON JOB SITE TODAY. INDICATE HOURS USED AND SCHEDULE ACTIVITY NUMBER.					
Schedule Activity No.	Owner	Description of Construction Equipment Used Today (inc Make and Model)			Hours Used
	Rental	Cat Excavator			0
Schedule Activity No.	REMARKS				
	Drained and re-cleaned Pit 126 B. Cut pavement of road at 126 in advance of running the new drain line.				
CONTRACTOR/SUPERINTENDENT			DATE		
			8/19/13		

CONTRACTOR PRODUCTION REPORT <small>(ATTACH ADDITIONAL SHEETS IF NECESSARY)</small>				DATE 8/21/13	
CONTRACT NO N40083-11-D-0030/0005		TITLE AND LOCATION SWMU 27 Basin Removals/Excavation		REPORT NO 18	
CONTRACTOR SEQ Vets			SUPERINTENDENT Craig Hoby		
AM WEATHER Mostly sunny, clear & dry		PM WEATHER Sunny		MAX TEMP (F) Mid 80s	MIN TEMP (F) 67
WORK PERFORMED TODAY					
Schedule Activity No.	WORK LOCATION AND DESCRIPTION	EMPLOYER	NUMBER	TRADE	HRS
	SWMU 27	SEQ Vets/EQM	1	Site Superintendent	8
		SEQ Vets/ Sullivan	1	QC Rep	8
		EFS	1	Foreman	8
		EFS	4	Laborers	8
JOB SAFETY		WAS A JOB SAFETY MEETING HELD THIS DATE? <small>(If YES attach copy of the meeting minutes)</small>		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
		WERE THERE ANY LOST TIME ACCIDENTS THIS DATE? <small>(If YES attach copy of completed OSHA report)</small>		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
		WAS CRANE/MANLIFT/TRENCHING/SCAFFOLD/HV ELEC/HIGH WORK/ HAZMAT WORK DONE? <small>(If YES attach statement or checklist showing inspection performed.)</small>		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
		WAS HAZARDOUS MATERIAL/WASTE RELEASED INTO THE ENVIRONMENT? <small>(If YES attach description of incident and proposed action.)</small>		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
		TOTAL WORK HOURS ON JOB SITE, THIS DATE, INCL CON'T SHEETS		56	
		CUMULATIVE TOTAL OF WORK HOURS FROM PREVIOUS REPORT		362	
		TOTAL WORK HOURS FROM START OF CONSTRUCTION		418	
Schedule Activity No.	LIST SAFETY ACTIONS TAKEN TODAY/SAFETY INSPECTIONS CONDUCTED			<input checked="" type="checkbox"/> SAFETY REQUIREMENTS HAVE BEEN MET.	
	None				
EQUIPMENT/MATERIAL RECEIVED TODAY TO BE INCORPORATED IN JOB (INDICATE SCHEDULE ACTIVITY NUMBER)					
Schedule Activity No.	Submittal #	Description of Equipment/Material Received			
		Sch 40 PVC Pipe			
		Flowable fill			
CONSTRUCTION AND PLANT EQUIPMENT ON JOB SITE TODAY. INDICATE HOURS USED AND SCHEDULE ACTIVITY NUMBER.					
Schedule Activity No.	Owner	Description of Construction Equipment Used Today (inc Make and Model)			Hours Used
	Rental	Cat Excavator			8
REMARKS					
Installed 4" inch drain line from B126. Encountered live electrical line along roadway during trench dig – line undamaged; hand-dug In the area for any other active utilities. Placed flowable fill in the trench road cut to restore pavement.					
CONTRACTOR/SUPERINTENDENT				DATE	
				8/20/13	

CONTRACTOR PRODUCTION REPORT <small>(ATTACH ADDITIONAL SHEETS IF NECESSARY)</small>				DATE 8/21/13			
CONTRACT NO N40083-11-D-0030/0005		TITLE AND LOCATION SWMU 27 Basin Removals/Excavation		REPORT NO 19			
CONTRACTOR SEQ Vets			SUPERINTENDENT Craig Hoby				
AM WEATHER Mostly sunny, clear & dry		PM WEATHER Sunny		MAX TEMP (F) Mid 90s	MIN TEMP (F) 67		
WORK PERFORMED TODAY							
Schedule Activity No.	WORK LOCATION AND DESCRIPTION	EMPLOYER	NUMBER	TRADE	HRS		
	SWMU 27	SEQ Vets/EQM	1	Site Superintendent	8		
		SEQ Vets/ Sullivan	1	QC Rep	8		
		EFS	1	Foreman	8		
		EFS	4	Laborers	8		
JOB SAFETY		WAS A JOB SAFETY MEETING HELD THIS DATE? <small>(If YES attach copy of the meeting minutes)</small>		TOTAL WORK HOURS ON JOB SITE, THIS DATE, INCL CON'T SHEETS			
		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO				56	
		WERE THERE ANY LOST TIME ACCIDENTS THIS DATE? <small>(If YES attach copy of completed OSHA report)</small>		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		CUMULATIVE TOTAL OF WORK HOURS FROM PREVIOUS REPORT	
						418	
WAS CRANE/MANLIFT/TRENCHING/SCAFFOLD/HV ELEC/HIGH WORK/ HAZMAT WORK DONE? <small>(If YES attach statement or checklist showing inspection performed.)</small>		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		TOTAL WORK HOURS FROM START OF CONSTRUCTION			
WAS HAZARDOUS MATERIAL/WASTE RELEASED INTO THE ENVIRONMENT? <small>(If YES attach description of incident and proposed action.)</small>		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		474			
Schedule Activity No.	LIST SAFETY ACTIONS TAKEN TODAY/SAFETY INSPECTIONS CONDUCTED			<input checked="" type="checkbox"/> SAFETY REQUIREMENTS HAVE BEEN MET.			
	None						
EQUIPMENT/MATERIAL RECEIVED TODAY TO BE INCORPORATED IN JOB (INDICATE SCHEDULE ACTIVITY NUMBER)							
Schedule Activity No.	Submittal #	Description of Equipment/Material Received					
		Sch 40 PVC Pipe					
		Flowable fill					
CONSTRUCTION AND PLANT EQUIPMENT ON JOB SITE TODAY. INDICATE HOURS USED AND SCHEDULE ACTIVITY NUMBER.							
Schedule Activity No.	Owner	Description of Construction Equipment Used Today (inc Make and Model)			Hours Used		
	Rental	Cat Excavator			8		
REMARKS							
Finished the installation of 4" inch drain line from B126.							
Installed two sump drains from Bldg 133 across the road to the grassy ditch. Pavement cuts and trenches backfilled with flowable fill. Hand dug out the doorway sumps. Placed flowable fill in trenches leading to former Pit 133 around B133. Replaced steel plates over the trenches. EFS made final preparations for the application of the epoxy onto the Pit 126 however, EFS possessed the wrong epoxy upon inspection by Chris Dietrich. EFS ordered approved epoxy.							
<div style="display: flex; justify-content: space-between;"> CONTRACTOR/SUPERINTENDENT DATE </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="text-align: center;">  </div> <div style="text-align: center;"> 8/21/13 </div> </div>							

CONTRACTOR PRODUCTION REPORT <small>(ATTACH ADDITIONAL SHEETS IF NECESSARY)</small>				DATE 8/27/13			
CONTRACT NO N40083-11-D-0030/0005		TITLE AND LOCATION SWMU 27 Basin Removals/Excavation		REPORT NO 20			
CONTRACTOR SEQ Vets			SUPERINTENDENT Craig Hoby				
AM WEATHER Mostly sunny, clear & dry, hot		PM WEATHER Sunny		MAX TEMP (F) Mid 90s	MIN TEMP (F) 70		
WORK PERFORMED TODAY							
Schedule Activity No.	WORK LOCATION AND DESCRIPTION	EMPLOYER	NUMBER	TRADE	HRS		
	SWMU 27	SEQ Vets/EQM	1	Site Superintendent	9		
		SEQ Vets/ Sullivan	1	QC Rep	9		
		EFS	1	Foreman	9		
		EFS	2	Laborers	9		
JOB SAFETY		WAS A JOB SAFETY MEETING HELD THIS DATE? <small>(If YES attach copy of the meeting minutes)</small>		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO TOTAL WORK HOURS ON JOB SITE, THIS DATE, INCL CON'T SHEETS 45			
		WERE THERE ANY LOST TIME ACCIDENTS THIS DATE? <small>(If YES attach copy of completed OSHA report)</small>				<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO CUMULATIVE TOTAL OF WORK HOURS FROM PREVIOUS REPORT 474	
		WAS CRANE/MANLIFT/TRENCHING/SCAFFOLD/HV ELEC/HIGH WORK/ HAZMAT WORK DONE? <small>(If YES attach statement or checklist showing inspection performed.)</small>		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO TOTAL WORK HOURS FROM START OF CONSTRUCTION 519			
		WAS HAZARDOUS MATERIAL/WASTE RELEASED INTO THE ENVIRONMENT? <small>(If YES attach description of incident and proposed action.)</small>		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
Schedule Activity No.	LIST SAFETY ACTIONS TAKEN TODAY/SAFETY INSPECTIONS CONDUCTED			<input checked="" type="checkbox"/> SAFETY REQUIREMENTS HAVE BEEN MET.			
	Morning briefing reviewing slips, trips and falls						
EQUIPMENT/MATERIAL RECEIVED TODAY TO BE INCORPORATED IN JOB (INDICATE SCHEDULE ACTIVITY NUMBER)							
Schedule Activity No.	Submittal #	Description of Equipment/Material Received					
		Flowable Fill					
CONSTRUCTION AND PLANT EQUIPMENT ON JOB SITE TODAY. INDICATE HOURS USED AND SCHEDULE ACTIVITY NUMBER.							
Schedule Activity No.	Owner	Description of Construction Equipment Used Today (inc Make and Model)			Hours Used		
	Rental	Cat Excavator			2		
	Rental	Cat Skid Loader			1		
	Rental	Pressure Washer			3		
Schedule Activity No.	REMARKS						
	EFS cleaned out the drain line from the doorway sumps at B133 leading to the new drain lines. Placed 4 cyd of flowable fill in the last of the trenches at B133. MacAllister spotted the skid loader out at Site 181 to perform final grading. NAVFAC approved the two valves for Pit 123 B. EFS applied first coat of epoxy to the pit floor and walls.						
			CONTRACTOR/SUPERINTENDENT		DATE 8/27/13		
							

CONTRACTOR PRODUCTION REPORT <small>(ATTACH ADDITIONAL SHEETS IF NECESSARY)</small>				DATE 8/28/13	
CONTRACT NO N40083-11-D-0030/0005		TITLE AND LOCATION SWMU 27 Basin Removals/Excavation		REPORT NO 21	
CONTRACTOR SEQ Vets			SUPERINTENDENT Craig Hoby		
AM WEATHER Mostly sunny, clear & dry, hot		PM WEATHER Sunny		MAX TEMP (F) Mid 90s	MIN TEMP (F) 75
WORK PERFORMED TODAY					
Schedule Activity No.	WORK LOCATION AND DESCRIPTION	EMPLOYER	NUMBER	TRADE	HRS
	SWMU 27	SEQ Vets/EQM	1	Site Superintendent	9
		SEQ Vets/ Sullivan	1	QC Rep	9
		EFS	1	Foreman	9
		EFS	3	Laborers	9
		Heflin	2	Plumbers	7
JOB SAFETY		WAS A JOB SAFETY MEETING HELD THIS DATE? <small>(If YES attach copy of the meeting minutes)</small>		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
		WERE THERE ANY LOST TIME ACCIDENTS THIS DATE? <small>(If YES attach copy of completed OSHA report)</small>		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
		WAS CRANE/MANLIFT/TRENCHING/SCAFFOLD/HV ELEC/HIGH WORK/ HAZMAT WORK DONE? <small>(If YES attach statement or checklist showing inspection performed.)</small>		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
		WAS HAZARDOUS MATERIAL/WASTE RELEASED INTO THE ENVIRONMENT? <small>(If YES attach description of incident and proposed action.)</small>		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
				TOTAL WORK HOURS ON JOB SITE, THIS DATE, INCL CON'T SHEETS	68
				CUMULATIVE TOTAL OF WORK HOURS FROM PREVIOUS REPORT	519
				TOTAL WORK HOURS FROM START OF CONSTRUCTION	587
Schedule Activity No.	LIST SAFETY ACTIONS TAKEN TODAY/SAFETY INSPECTIONS CONDUCTED			<input checked="" type="checkbox"/> SAFETY REQUIREMENTS HAVE BEEN MET.	
	Morning briefing reviewing slips, trips and falls				
EQUIPMENT/MATERIAL RECEIVED TODAY TO BE INCORPORATED IN JOB (INDICATE SCHEDULE ACTIVITY NUMBER)					
Schedule Activity No.	Submittal #	Description of Equipment/Material Received			
		Metal Beams			
		Hand rails			
		Steel Lids			
		Valves			
CONSTRUCTION AND PLANT EQUIPMENT ON JOB SITE TODAY. INDICATE HOURS USED AND SCHEDULE ACTIVITY NUMBER.					
Schedule Activity No.	Owner	Description of Construction Equipment Used Today (inc Make and Model)			Hours Used
	Rental	Cat Excavator			2
	Rental	Cat Skid Loader			1
	Rental	Pressure Washer			3
Schedule Activity No.	REMARKS				
	Heflin removed the old valves and installed the new valves. EFS performed the final grading at Site 181 and formed concrete				
	Splash pads at the outfalls of the drain lines from the door sumps at B133. EFS took delivery of the lids, hand rails and beams.				
			CONTRACTOR/SUPERINTENDENT		DATE 8/28/13
					

CONTRACTOR PRODUCTION REPORT <small>(ATTACH ADDITIONAL SHEETS IF NECESSARY)</small>				DATE 8/29/13	
CONTRACT NO N40083-11-D-0030/0005		TITLE AND LOCATION SWMU 27 Basin Removals/Excavation		REPORT NO 22	
CONTRACTOR SEQ Vets			SUPERINTENDENT Craig Hoby		
AM WEATHER Mostly sunny, clear & dry, hot		PM WEATHER Sunny		MAX TEMP (F) Mid 90s	MIN TEMP (F) 75
WORK PERFORMED TODAY					
Schedule Activity No.	WORK LOCATION AND DESCRIPTION	EMPLOYER	NUMBER	TRADE	HRS
	SWMU 27	SEQ Vets/EQM	1	Site Superintendent	9
		EFS	1	Foreman	9
		EFS	3	Laborers	9
		Heflin	2	Plumbers	2
JOB SAFETY		WAS A JOB SAFETY MEETING HELD THIS DATE? <small>(If YES attach copy of the meeting minutes)</small>		TOTAL WORK HOURS ON JOB SITE, THIS DATE, INCL CON'T SHEETS	
		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		49	
		WERE THERE ANY LOST TIME ACCIDENTS THIS DATE? <small>(If YES attach copy of completed OSHA report)</small>		CUMULATIVE TOTAL OF WORK HOURS FROM PREVIOUS REPORT	
		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		587	
WAS CRANE/MANLIFT/TRENCHING/SCAFFOLD/HV ELEC/HIGH WORK/ HAZMAT WORK DONE? <small>(If YES attach statement or checklist showing inspection performed.)</small>		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		TOTAL WORK HOURS FROM START OF CONSTRUCTION	
WAS HAZARDOUS MATERIAL/WASTE RELEASED INTO THE ENVIRONMENT? <small>(If YES attach description of incident and proposed action.)</small>		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		636	
Schedule Activity No.	LIST SAFETY ACTIONS TAKEN TODAY/SAFETY INSPECTIONS CONDUCTED			<input checked="" type="checkbox"/> SAFETY REQUIREMENTS HAVE BEEN MET.	
	Morning briefing reviewing slips, trips and falls				
EQUIPMENT/MATERIAL RECEIVED TODAY TO BE INCORPORATED IN JOB (INDICATE SCHEDULE ACTIVITY NUMBER)					
Schedule Activity No.	Submittal #	Description of Equipment/Material Received			
		Metal Valve stem brackets			
CONSTRUCTION AND PLANT EQUIPMENT ON JOB SITE TODAY. INDICATE HOURS USED AND SCHEDULE ACTIVITY NUMBER.					
Schedule Activity No.	Owner	Description of Construction Equipment Used Today (inc Make and Model)			Hours Used
	Rental	Cat Excavator			2
	Rental	Cat Skid Loader			0
REMARKS					
Heflin installed the valve stem brackets and EFS applied the second coat of epoxy to the interior of the pit.					
EFS then partially installed the hand rails, metal support beams and steel lids. EFS picked up the metal grating.					
CONTRACTOR/SUPERINTENDENT				DATE	
				8/29/13	

APPENDIX B

CONTRACTOR QUALITY CONTROL DAILY REPORTS

CONTRACTOR QUALITY CONTROL REPORT (ATTACH ADDITIONAL SHEETS IF NECESSARY)				DATE 07/16/13	
CONTRACT NO. N40083-11-D-0030/0005		TITLE AND LOCATION SWMU 27 Basin Removal/Excavations		REPORT NO.1	
CONTRACTOR SEQ Vets			FIELD SUPERVISOR/PROJECT MANAGER Greg Hoby / Chris Dietrich		
AM WEATHER Sunny		PM WEATHER Sunny		MAX TEMP 96° F MIN TEMP 70° F	
WORK PERFORMED TODAY					
WORK LOCATION AND DESCRIPTION	EMPLOYER	NUMBER	TRADE	HRS	
SWMU 27	SEQ Vets/EQM	1	Site Super	8	
SWMU 27	SEQ Vets/Sullivan	1	PM	8	
SWMU 27	SEQ Vets/Sullivan	1	QC Manager	8	
SWMU 27	EFS	4	Labor	8	
WAS A JOB SAFETY MEETING HELD THIS DATE? (If YES attach a copy of the meeting minutes)		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		TOTAL WORK HOURS ON JOB SITE THIS DATE 56	
WERE THERE ANY LOST TIME ACCIDENTS? (If YES attach a copy of the OSHA report)		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		CUMULATIVE TOTAL OF WORK HOURS FROM PREVIOUS REPORT 0	
WAS HAZARDOUS MATERIAL/WASTE RELEASED INTO THE ENVIRONMENTAL? (If YES attach description of incident and proposed action)		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		TOTAL WORK HOURS FROM START OF CONSTRUCTION 56	
WAS TRENCHING/SCAVVOD/HV ELECTRIC/HIGH WORK DONE? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO (If YES attach statement or checklist showing inspection performed)					
LIST SAFETY ACTIONS TAKEN TODAY/SAFETY INSPECTION CONDUCTED			<input checked="" type="checkbox"/> SAFETY REQUIREMENTS HAVE BEEN MET		
Initial safety meeting held.					
EQUIPMENT/MATERIAL RECEIVED TODAY TO BE INCORPORATED IN JOB					
Not applicable, no materials delivered.					
WORK PERFORMED TODAY					
Pumped basins at Bldg 126 site. 3 basins pumped and washed, 2 basins dry, 1 basin pumped and partially washed. Scraped LBP from demolished hand rails and collected in 5 gallon NAVFAC supplied container for disposal.					
EQUIPMENT ON SITE TODAY, INCLUDE NUMBER OF HOURS USED TODAY					
Vacuum truck, 6 hours Excavator, 0 hours					

VERBAL INSTRUCTIONS RECEIVED: (List any instruction given by the Government personnel on construction deficiencies, retesting required, etc., with action to be taken.)

Modification 1 was approved.

TEST REQUIRED BY PLANS AND/OR SPECIFICATIONS PERFORMED AND RESULTS OF TESTS

N/A

LIST THE TOTAL NUMBER SAMPLES COLLECTED AND TESTED FOR THE DAY:

COLLECTED: None

TESTED:

AMPLIFYING INFO:

LIST THE TOTAL AMOUNT OF WASTE(S) REMOVED FROM THE SITE:

LIQUID (bb/gal): 5000 gallons, slurry (sludge, aqueous liquid, wash water)

LIST THE FOLLOWING TRANSPORTATION AND/OR DISPOSAL INFORMATION TO DATE FOR THE PROJECT

QUANTITY	ID NO.	MATERIAL	MANIFEST NO.	DISPOSAL LOCATION
5000	NA	Slurry	NA	Sycamore Ridge Landfill

LIST ALL SAFETY VIOLATIONS OBSERVED AND CORRECTIVE ACTIONS TAKEN:

None

SUBMITTAL ACTION:

None

REMARKS:

None

CONTRACTOR/SUPERVISOR _____

DATE

__07/16/13__

CONTRACTOR QUALITY CONTROL REPORT (ATTACH ADDITIONAL SHEETS IF NECESSARY)			DATE 07/17/13		
CONTRACT NO. N40083-11-D-0030/0005		TITLE AND LOCATION SWMU 27 Basin Removal/Excavations		REPORT NO.2	
CONTRACTOR SEQ Vets		FIELD SUPERVISOR/PROJECT MANAGER Greg Hoby / Chris Dietrich			
AM WEATHER	Sunny	PM WEATHER	Sunny	MAX TEMP 94° F MIN TEMP 73° F	
WORK PERFORMED TODAY					
WORK LOCATION AND DESCRIPTION	EMPLOYER	NUMBER	TRADE	HRS	
SWMU 27	SEQ Vets/EQM	1	Site Super	10	
SWMU 27	SEQ Vets/Sullivan	1	QC Manager	10	
SWMU 27	EFS	3	Labor	10	
WAS A JOB SAFETY MEETING HELD THIS DATE? (If YES attach a copy of the meeting minutes)		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		TOTAL WORK HOURS ON JOB SITE THIS DATE	50
WERE THERE ANY LOST TIME ACCIDENTS? (If YES attach a copy of the OSHA report)		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		CUMULATIVE TOTAL OF WORK HOURS FROM PREVIOUS REPORT	56
WAS HAZARDOUS MATERIAL/WASTE RELEASED INTO THE ENVIRONMENTAL (If YES attach description of incident and proposed action)		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		TOTAL WORK HOURS FROM START OF CONSTRUCTION	106
WAS TRENCHING/SCAVVOD/HV ELECTRIC/HIGH WORK DONE? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO (If YES attach statement or checklist showing inspection performed)					
LIST SAFETY ACTIONS TAKEN TODAY/SAFETY INSPECTION CONDUCTED			<input checked="" type="checkbox"/> SAFETY REQUIREMENTS HAVE BEEN MET		
Morning tailgate safety meeting held.					
EQUIPMENT/MATERIAL RECEIVED TODAY TO BE INCORPORATED IN JOB					
Cement					
WORK PERFORMED TODAY					
7 basins demolished (5 pits and 2 sumps): 130 Pit A, 1885 Pit A, 1886 Pit A, 122 Pit A, 126 Pit A, 1885 Sump and 1886 Sump. The B126 pit had Aluminum hand rails scraped of LBP and collected in 5 gallon NAVFAC supplied container for disposal. Adjacent to this pit were discovered two manholes on the east side (adjacent to the road), one with a metal lid, and another one without a lid, filled with rip rap. The latter manhole was cleaned of the rip rap. There was also a minor change in the configuration of the Bldg 126 pit, the eastern side had a trapezoidal concrete apron above the level of the other three sides (at the same level as the demolished CMU). The concrete apron was left in place and the new concrete wall will be cast to the same level as the apron on the other three sides. All pits that had demolished concrete were fenced with orange reflective plastic fences for safety.					
EQUIPMENT ON SITE TODAY, INCLUDE NUMBER OF HOURS USED TODAY					
CAT 312 Excavator with hydraulic hammer and 36" bucket – 9 hours					

VERBAL INSTRUCTIONS RECEIVED: (List any instruction given by the Government personnel on construction deficiencies, retesting required, etc., with action to be taken.)

NAVFAC Engineering Technician agreed to the use of flowable fill to fill the basin cavity at Bldg 122 in lieu of approved backfill. The flowable fill will stabilize the cavity and reduce vibration that would interfere with operations inside the building.

TEST REQUIRED BY PLANS AND/OR SPECIFICATIONS PERFORMED AND RESULTS OF TESTS

N/A

LIST THE TOTAL NUMBER SAMPLES COLLECTED AND TESTED FOR THE DAY:

COLLECTED: None

TESTED: N/A

AMPLIFYING INFO: N/A

LIST THE TOTAL AMOUNT OF WASTE(S) REMOVED FROM THE SITE:

N/A

LIST THE FOLLOWING TRANSPORTATION AND/OR DISPOSAL INFORMATION TO DATE FOR THE PROJECT

QUANTITY	ID NO.	MATERIAL	MANIFEST NO.	DISPOSAL LOCATION
5000	NA	Slurry	NA	Sycamore Ridge Landfill

LIST ALL SAFETY VIOLATIONS OBSERVED AND CORRECTIVE ACTIONS TAKEN:

None

SUBMITTAL ACTION:

None

REMARKS:

Demolition was halted at Bldg 122 when groundwater was pumping up during the concrete pit slab demolition process. The pit at Bldg 122 was located adjacent the toe of a slope, and it was presumed groundwater was flowing from the adjacent area with higher elevation. The groundwater stabilized at a height of 3" above the slab. NAVFAC Engineering technician was present on site and the Contractor proposed to abandon the pit in place using flowable fill.

Yonas Misgina
CONTRACTOR/SUPERVISOR

07/17/13
DATE



Date: 7/17/13	Time: 07:15	Project: NSA Crain	Conducting DTSM	Craig Hoby/Yonas Misgina
Client: NAVFAC	Site Location: Crane NSA SWMU-27		Daily Weather Conditions: Hot	

SITE ACTIVITIES FOR TODAY – 7/17/13

General (Safety Concerns for the Day)

- Severe Weather
- Equipment operating, keeping eye contact with operator if working near heavy equipment
- Slip, trip, fall
- Visual and hand verification of utilities
- Snakes andpoison ivy
- Fire hazard mitigaion

Safety Topic or concerns

Activity	AHA #	Activity	AHA #
Demolition	1		
Excavation	1		

Level of Protection: Level D – Hard hats, steel toe boots (safety boots), and eye protection (ANSI Z87.1). PPE needs to be worn (excluding inside an enclosed cab)

Physical Hazards:

Chemical Hazards: List of chemicals from the HASP or any additional chemicals discovered or brought on site				
Chemical of Concern	PEL/NIOSH/AGCIH	Route of Entry	Target Organs	Signs/Symptoms of Exposure
Metals		Dermal	Liver; reproductive	

Environmental and biohazards: Remember BBP – Be aware of severe weather (high temperature, poison ivy, snakes).

Equipment Hazards: Heavy equipment will be active today on site. Stay alert. Complete your daily inspections. Keep eye contact with operator at all times

Decontamination: Decontaminate heavy equipment and PPE

Others:

Employee Questions or Comments:

CONTRACTOR QUALITY CONTROL REPORT (ATTACH ADDITIONAL SHEETS IF NECESSARY)				DATE 07/18/13
CONTRACT NO. N40083-11-D-0030/0005		TITLE AND LOCATION SWMU 27 Basin Removal/Excavations		REPORT NO.3
CONTRACTOR SEQ Vets		FIELD QC MANAGER Yonas Misgina		
AM WEATHER Sunny	PM WEATHER Sunny	MAX TEMP 94° F	MIN TEMP 73° F	
WORK PERFORMED TODAY				
WORK LOCATION AND DESCRIPTION	EMPLOYER	NUMBER	TRADE	HRS
SWMU 27	SEQ Vets/EQM	1	Site Super	8
SWMU 27	SEQ Vets/Sullivan	1	QC Manager	8
SWMU 27	EFS	4	Labor	8
WAS A JOB SAFETY MEETING HELD THIS DATE? (If YES attach a copy of the meeting minutes)		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		TOTAL WORK HOURS ON JOB SITE THIS DATE
WERE THERE ANY LOST TIME ACCIDENTS? (If YES attach a copy of the OSHA report)		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		CUMULATIVE TOTAL OF WORK HOURS FROM PREVIOUS REPORT
WAS HAZARDOUS MATERIAL/WASTE RELEASED INTO THE ENVIRONMENT (If YES attach description of incident and proposed action)		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		TOTAL WORK HOURS FROM START OF CONSTRUCTION
WAS TRENCHING/SCAVVOD/HV ELECTRIC/HIGH WORK DONE? (If YES attach statement or checklist showing inspection performed)		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
LIST SAFETY ACTIONS TAKEN TODAY/SAFETY INSPECTION CONDUCTED		<input checked="" type="checkbox"/> SAFETY REQUIREMENTS HAVE BEEN MET		
Initial safety meeting held.				
EQUIPMENT/MATERIAL RECEIVED TODAY TO BE INCORPORATED IN JOB				
Backfill soil material and flexifill				
WORK PERFORMED TODAY				
Continued excavating around pit at Bldg 126 B, hauled concrete rubble at pits A at Bldgs 130, 1885, 1886, 2698 and sumps 1885 and 1886, abandoned pit A at Bldg 122. All pits and sumps had pipes associated with them plugged with a cement mortar mix and expanding metal & rubber seal. Concrete rubble taken to designated area within the NSA facility for disposal, and excavated pits A at Bldgs 130, 1885, 1886, 2698 were backfilled.				
EQUIPMENT ON SITE TODAY, INCLUDE NUMBER OF HOURS USED TODAY				
CAT 312 Excavator, 7 hours Skid steer, 7 hours Dump truck, 2 loads Cement truck, 1 load				

VERBAL INSTRUCTIONS RECEIVED: (List any instruction given by the Government personnel on construction deficiencies, retesting required, etc., with action to be taken.)

None

TEST REQUIRED BY PLANS AND/OR SPECIFICATIONS PERFORMED AND RESULTS OF TESTS

N/A

LIST THE TOTAL NUMBER SAMPLES COLLECTED AND TESTED FOR THE DAY:

COLLECTED: None TESTED: N/A

AMPLIFYING INFO: N/A

LIST THE TOTAL AMOUNT OF WASTE(S) REMOVED FROM THE SITE:

Solid Concrete Rubble and Rebar: About 25 CY loose

LIST THE FOLLOWING TRANSPORTATION AND/OR DISPOSAL INFORMATION TO DATE FOR THE PROJECT

QUANTITY	ID NO.	MATERIAL	MANIFEST NO.	DISPOSAL LOCATION
5000	NA	Slurry	NA	Sycamore Ridge Landfill
25 CY	N/A	Concrete & Rebar	N/A	On NSA Disposal Facility

LIST ALL SAFETY VIOLATIONS OBSERVED AND CORRECTIVE ACTIONS TAKEN:

None

SUBMITTAL ACTION:

None

REMARKS:

None

Yonas Misgina
CONTRACTOR/SUPERVISOR

07/16/13
DATE



Date: 7/18/13	Time: 07:00	Project:	Conducting DTSM	Craig Hoby/Yonas Misgina
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Client: NAVFAC	Site Location: Crane NSA SWMU-27	Daily Weather Conditions: Hot
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SITE ACTIVITIES FOR TODAY – 7/18/13

General (Safety Concerns for the Day)

- Severe Weather
- Equipment operating
- Slip, trip, fall

Safety Topic or concerns

Activity	AHA #	Activity	AHA #
Excavation	1		
Cement works	1		

Level of Protection: Level D – Hard hats, steel toe boots (safety boots), and eye protection (ANSI Z87.1). PPE needs to be worn (excluding inside an enclosed cab)

Physical Hazards:

Chemical Hazards: List of chemicals from the HASP or any additional chemicals discovered or brought on site				
Chemical of Concern	PEL/NIOSH/AGCIH	Route of Entry	Target Organs	Signs/Symptoms of Exposure
Metals		Dermal	Liver; reproductive	

Environmental and biohazards: Watch out for poison ivy, snakes

Equipment Hazards: Heavy equipment will be active today on site. Stay alert. Complete your daily inspections. Try to keep the cabs clean and not have bottles or other loose item rolling on the floor of the cab.

Decontamination: Dry decon of boots prior to leaving site, wash hands prior to eating/drinking

Others:

Employee Questions or Comments:

Deficiency and Comments that had occurred from yesterday (DATE) Not applicable

(Any concerns, comments, or changes that were brought up from the previous day) Not applicable

None

TEST REQUIRED BY PLANS AND/OR SPECIFICATIONS PERFORMED AND RESULTS OF TESTS

N/A

LIST THE TOTAL NUMBER SAMPLES COLLECTED AND TESTED FOR THE DAY:

COLLECTED: None TESTED: N/A

AMPLIFYING INFO: N/A

LIST THE TOTAL AMOUNT OF WASTE(S) REMOVED FROM THE SITE: N/A

LIST THE FOLLOWING TRANSPORTATION AND/OR DISPOSAL INFORMATION TO DATE FOR THE PROJECT

QUANTITY	ID NO.	MATERIAL	MANIFEST NO.	DISPOSAL LOCATION
5000	NA	Slurry	NA	Sycamore Ridge Landfill
25 CY	N/A	Concrete & Rebar	N/A	On NSA Disposal Facility

LIST ALL SAFETY VIOLATIONS OBSERVED AND CORRECTIVE ACTIONS TAKEN:

N/A

SUBMITTAL ACTION:

N/A

REMARKS:

N/A

Yonas Misgina
CONTRACTOR/SUPERVISOR

07/19/13
DATE

CONTRACTOR QUALITY CONTROL REPORT (ATTACH ADDITIONAL SHEETS IF NECESSARY)				DATE 07/22/13
CONTRACT NO. N40083-11-D-0030/0005		TITLE AND LOCATION SWMU 27 Basin Removal/Excavations		REPORT NO.5
CONTRACTOR SEQ Vets		FIELD QC MANAGER Yonas Misgina		
AM WEATHER	Cloudy/Rainy	PM WEATHER	Overcast	MAX TEMP 82° F MIN TEMP 71° F
WORK PERFORMED TODAY				
WORK LOCATION AND DESCRIPTION	EMPLOYER	NUMBER	TRADE	HRS
SWMU 27	SEQ Vets/EQM	1	Site Super	10
SWMU 27	SEQ Vets/Sullivan	1	QC Manager	10
SWMU 27	EFS	4	Labor	10
WAS A JOB SAFETY MEETING HELD THIS DATE? (If YES attach a copy of the meeting minutes)		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		TOTAL WORK HOURS ON JOB SITE THIS DATE
WERE THERE ANY LOST TIME ACCIDENTS? (If YES attach a copy of the OSHA report)		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		CUMULATIVE TOTAL OF WORK HOURS FROM PREVIOUS REPORT
WAS HAZARDOUS MATERIAL/WASTE RELEASED INTO THE ENVIRONMENT (If YES attach description of incident and proposed action)		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		TOTAL WORK HOURS FROM START OF CONSTRUCTION
WAS TRENCHING/SCAVVOD/HV ELECTRIC/HIGH WORK DONE? (If YES attach statement or checklist showing inspection performed)		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
LIST SAFETY ACTIONS TAKEN TODAY/SAFETY INSPECTION CONDUCTED		<input checked="" type="checkbox"/> SAFETY REQUIREMENTS HAVE BEEN MET		
Daily tailgate safety meeting held.				
EQUIPMENT/MATERIAL RECEIVED TODAY TO BE INCORPORATED IN JOB				
Backfill soil material and pea gravel				
WORK PERFORMED TODAY				
Vacuum truck pumped water and sediment out of Bldg 133 pit A, pit was thoroughly cleaned with pressured water. Concrete was demolished and concrete rubble was hauled to on-site disposal area at NSA. Backfilling and compaction commenced. Pipe going from intermediate manhole to Bldg 126 pit B was thoroughly cleaned out. Scrap metal and reinforcement steel was loaded on to an on-site recycling bin that was delivered the same day. Pits on Bldgs 1885, 1886 and 2696 as well as other previously disturbed areas were seeded and covered with erosion control mat.				
EQUIPMENT ON SITE TODAY, INCLUDE NUMBER OF HOURS USED TODAY				
CAT 312 Excavator, 9 hours Skid steer, 9 hours Dump truck, 2 loads of pea gravel and 1 load of backfill soil Vacuum truck, 1 load				

VERBAL INSTRUCTIONS RECEIVED: (List any instruction given by the Government personnel on construction deficiencies, retesting required, etc., with action to be taken.)

Navy Engineering Technician on-site to discuss revision of shop drawing for Bldg 126 B pit, Shop Drawing 07-1 Handrail Design: Aluminum rail connections to concrete wall to stem out of interior wall surface instead of top of concrete wall. Bolts drilled to concrete wall to be binded with epoxy.

TEST REQUIRED BY PLANS AND/OR SPECIFICATIONS PERFORMED AND RESULTS OF TESTS

N/A

LIST THE TOTAL NUMBER SAMPLES COLLECTED AND TESTED FOR THE DAY:

COLLECTED: None TESTED: N/A

AMPLIFYING INFO: N/A

LIST THE TOTAL AMOUNT OF WASTE(S) REMOVED FROM THE SITE:

Solid Concrete Rubble: About 12 CY loose

LIST THE FOLLOWING TRANSPORTATION AND/OR DISPOSAL INFORMATION TO DATE FOR THE PROJECT

QUANTITY	ID NO.	MATERIAL	MANIFEST NO.	DISPOSAL LOCATION
5000	NA	Slurry	NA	Sycamore Ridge Landfill
25 CY	N/A	Concrete & Rebar	N/A	On NSA Disposal Facility
25 CY	N/A	Concrete	N/A	On NSA Disposal Facility
2000	N/A	Slurry	N/A	Sycamore Ridge Landfill

LIST ALL SAFETY VIOLATIONS OBSERVED AND CORRECTIVE ACTIONS TAKEN:

None

SUBMITTAL ACTION:

None

REMARKS:

- Bldg 133 pit A looked deeper to the eye when water was being pumped out of it, it was measured with a tape measure and depth was 7.5 feet.
- Pipe/downspout that stems from Bldg 126 could not be completely cleaned up after repeated efforts to plug-in auger drain opener through pipe and rotating the tip/head with a motor. Crew discovered an intermediate manhole that had a pipe draining to pit 126 B, and that pipe was thoroughly cleaned and tested. Navy Engineering Technician was on site and decided to temporarily halt work on cleaning the pipe stemming out of Bldg 126 until other alternatives were being considered.
- During demolition of Bldg 133 pit A, an open channel draining to the pit was discovered. There was a 6" PVC pipe visible on the wall of the pit before demolition, and it appeared that pipe stemmed out of the open channel which has a dimension W X H of 1ft X 2ft with metal plate covers. Navy Engineering Technician was on site and decided to come up with an alternative solution. The pit was cleaned out of water and sediment, concrete was demolished and hauled away, and backfilling and compaction commenced.

Yonas Misgina
CONTRACTOR/SUPERVISOR

07/16/13
DATE



Date: 7/22/13	Time: 07:00	Project:	Conducting DTSM	Craig Hoby/Yonas Misgina
Client: NAVFAC	Site Location: Crane NSA SWMU-27		Daily Weather Conditions: Overcast with a few showers	

SITE ACTIVITIES FOR TODAY – 7/22/13

General (Safety Concerns for the Day)

- Hot Weather
- Equipment operating
- Slip, trip, fall
- Bio hazards

Safety Topic or concerns

Activity	AHA #	Activity	AHA #
Excavation	2		
Transportation and Loading Out	3		

Level of Protection: Level D – Hard hats, steel toe boots (safety boots), and eye protection (ANSI Z87.1). PPE needs to be worn (excluding inside an enclosed cab)

Physical Hazards:

Chemical Hazards: List of chemicals from the HASP or any additional chemicals discovered or brought on site				
Chemical of Concern	PEL/NIOSH/AGCIH	Route of Entry	Target Organs	Signs/Symptoms of Exposure
Metals		Dermal	Liver; reproductive	

Environmental and biohazards: Watch out for poison ivy, snakes

Equipment Hazards: Heavy equipment will be active today on site. Stay alert. Complete your daily inspections. Try to keep the cabs clean and not have bottles or other loose item rolling on the floor of the cab.

Decontamination: Dry decon of boots prior to leaving site, wash hands prior to eating/drinking

Others:

Employee Questions or Comments:

Deficiency and Comments that had occurred from yesterday (DATE) Not applicable



(Any concerns, comments, or changes that were brought up from the previous day) Not applicable

SAFETY ISSUES and COMMENTS FOR 7/22/13

(Updates of activities or changes due to hazards that require changes in activities or amendments that were incorporated during the day) Not applicable

REMINDER: No Smoking except in permitted area. Properly store tools and other items when not in use to help protect against slips/trips/falls.

WERE THERE ANY LOST TIME ACCIDENTS? (If YES attach a copy of the OSHA report)	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	CUMULATIVE TOTAL OF WORK HOURS FROM PREVIOUS REPORT	214
WAS HAZARDOUS MATERIAL/WASTE RELEASED INTO THE ENVIRONMENT (If YES attach description of incident and proposed action)	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	TOTAL WORK HOURS FROM START OF CONSTRUCTION	262
WAS TRENCHING/SCAVVOD/HV ELECTRIC/HIGH WORK DONE? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO (If YES attach statement or checklist showing inspection performed)			
LIST SAFETY ACTIONS TAKEN TODAY/SAFETY INSPECTION CONDUCTED		✓SAFETY REQUIREMENTS HAVE BEEN MET	
Daily tailgate safety meeting held.			
EQUIPMENT/MATERIAL RECEIVED TODAY TO BE INCORPORATED IN JOB			
Backfill soil material, pea gravel and reinforcement bars			
WORK PERFORMED TODAY			
Backfill material placement and compaction was done for Bldg 133 pit A after 6" PVC pipe connected to the pit was plugged with cement mortar. After backfill was placed the area around it that was disturbed was seeded and covered with erosion control mat. Work on cleaning out sediment from Bldg 126 pit B and reinforcement bar placement on top of existing reinforced concrete walls also commenced after old concrete wall was chiseled of old and weak concrete pieces. Underground storage tank, cistern and pit at 181 were excavated out and hauled to on-site disposal area. The excavated areas were backfilled with pea gravel and top soil. Removal process was properly measured and documented. Remaining metal scrap material on the Bldg 126 site was also gathered up and loaded on to metal recycling container.			
EQUIPMENT ON SITE TODAY, INCLUDE NUMBER OF HOURS USED TODAY			
CAT 312 Excavator, 3 hours CAT 320 Excavator, 4 hours Skid steer, 3 hours Dump truck, 2 loads of pea gravel and 1 load of backfill soil Vacuum truck, 1 load			

VERBAL INSTRUCTIONS RECEIVED: (List any instruction given by the Government personnel on construction deficiencies, retesting required, etc., with action to be taken.)
Navy Engineering Technician on-site to discuss update on open channel issue at Bldg 133 pit A. It was decided that the channel, about 185 ft long and 1 ft wide X 2 ft deep, was to be filled with flowable fill. Formal RFP to be issued by Navy. Another RFP was to be issued for cleaning out the pipe stemming out of Bldg 126 as well.
TEST REQUIRED BY PLANS AND/OR SPECIFICATIONS PERFORMED AND RESULTS OF TESTS
N/A
LIST THE TOTAL NUMBER SAMPLES COLLECTED AND TESTED FOR THE DAY:
COLLECTED: None TESTED: N/A
AMPLIFYING INFO: N/A
LIST THE TOTAL AMOUNT OF WASTE(S) REMOVED FROM THE SITE:
Solid Concrete Rubble: About 15 CY loose Liquid Waste : About 1000 gallons

LIST THE FOLLOWING TRANSPORTATION AND/OR DISPOSAL INFORMATION TO DATE FOR THE PROJECT

QUANTITY	ID NO.	MATERIAL	MANIFEST NO.	DISPOSAL LOCATION
5000	NA	Slurry	NA	Sycamore Ridge Landfill
25 CY	N/A	Concrete & Rebar	N/A	On NSA Disposal Facility
12 CY	N/A	Concrete	N/A	On NSA Disposal Facility
2000	N/A	Slurry	N/A	Sycamore Ridge Landfill
15 CY	N/A	Concrete	N/A	On NSA Disposal Facility
1000	N/A	Slurry	N/A	Sycamore Ridge Landfill

LIST ALL SAFETY VIOLATIONS OBSERVED AND CORRECTIVE ACTIONS TAKEN:

None

SUBMITTAL ACTION:

None

REMARKS:

- Concrete wall at Bldg 126 B was deteriorated due to old age and there was concern more of the concrete wall would need to be chiseled out to reach a harder concrete top to cast new wall on top. Navy Engineering technician was on site, new wall to be cast over old wall as this was previously anticipated.
- The UST at Bldg 181 site was not cylindrical as first thought, but a concrete box 7ft X 13ft X 6ft deep and 0.5 ft thick with 1.5 ft X 1.5 ft opening on top of it connected to a 6" diameter sheet metal hole. It was discovered 2 – 3 feet below ground surface.

Yonas Misgina
CONTRACTOR/SUPERVISOR

07/23/13
DATE



Date: 7/23/13	Time: 07:00	Project:	Conducting DTSM	Craig Hoby/Yonas Misgina
Client: NAVFAC	Site Location: Crane NSA SWMU-27		Daily Weather Conditions: Sunny with clouds and some rain	

SITE ACTIVITIES FOR TODAY – 7/23/13

General (Safety Concerns for the Day)

- Equipment operating
- Slip, trip, fall
- Bio hazards
- Excavations and safe distance from pits and holes

Safety Topic or concerns

Activity	AHA #	Activity	AHA #
Excavation	2		
Transportation and Loading Out	3		

Level of Protection: Level D – Hard hats, steel toe boots (safety boots), and eye protection (ANSI Z87.1). PPE needs to be worn (excluding inside an enclosed cab)

Physical Hazards:

Chemical Hazards: List of chemicals from the HASP or any additional chemicals discovered or brought on site				
Chemical of Concern	PEL/NIOSH/AGCIH	Route of Entry	Target Organs	Signs/Symptoms of Exposure
Metals		Dermal	Liver; reproductive	

Environmental and biohazards: Watch out for poison ivy, snakes

Equipment Hazards: Heavy equipment will be active today on site. Stay alert. Complete your daily inspections. Try to keep the cabs clean and not have bottles or other loose item rolling on the floor of the cab.

Decontamination: Dry decon of boots prior to leaving site, wash hands prior to eating/drinking

Others:

Employee Questions or Comments:

Deficiency and Comments that had occurred from yesterday (DATE) Not applicable



(Any concerns, comments, or changes that were brought up from the previous day) Not applicable

SAFETY ISSUES and COMMENTS FOR 7/23/13

(Updates of activities or changes due to hazards that require changes in activities or amendments that were incorporated during the day) Not applicable

REMINDER: No Smoking except in permitted area. Properly store tools and other items when not in use to help protect against slips/trips/falls.

VERBAL INSTRUCTIONS RECEIVED: (List any instruction given by the Government personnel on construction deficiencies, retesting required, etc., with action to be taken.)

Navy Engineering Technician on-site to discuss modification of the 133 pit and new pipe construction at Bldg 126. Two new PVC pipelines to be constructed across asphalt road at Bldg 133, and a new PVC pipeline to be constructed stemming out of Bldg 126 discharging into a manhole adjacent to the Bldg 126 pit. This would provide new storm water drainage from the building and solve the pipe blockage that was difficult to clean. Navy Engineering Technician also visited site Bldg 181 and said quality of work was acceptable. He gave a verbal instruction for SEQ Vets to submit a bill for 85% of the contract value.

TEST REQUIRED BY PLANS AND/OR SPECIFICATIONS PERFORMED AND RESULTS OF TESTS

N/A

LIST THE TOTAL NUMBER SAMPLES COLLECTED AND TESTED FOR THE DAY:

COLLECTED: None TESTED: N/A

AMPLIFYING INFO: N/A

LIST THE TOTAL AMOUNT OF WASTE(S) REMOVED FROM THE SITE:

Scrap metal and re-bars to recycling facility: About 300 Tons

LIST THE FOLLOWING TRANSPORTATION AND/OR DISPOSAL INFORMATION TO DATE FOR THE PROJECT

QUANTITY	ID NO.	MATERIAL	MANIFEST NO.	DISPOSAL LOCATION
5000	NA	Slurry	NA	Sycamore Ridge Landfill
25 CY	N/A	Concrete & Rebar	N/A	On NSA Disposal Facility
12 CY	N/A	Concrete	N/A	On NSA Disposal Facility
2000	N/A	Slurry	N/A	Sycamore Ridge Landfill
15 CY	N/A	Concrete	N/A	On NSA Disposal Facility
1000 CY	N/A	Slurry	N/A	Sycamore Ridge Landfill
300 Ton	N/A	Scrap Metal	N/A	Recycling Facility

LIST ALL SAFETY VIOLATIONS OBSERVED AND CORRECTIVE ACTIONS TAKEN:

None

SUBMITTAL ACTION:

None

REMARKS:

- Heavy construction equipment was demobilized from site today

Yonas Misgina
CONTRACTOR/SUPERVISOR

07/24/13
DATE



Date: 7/24/13	Time: 07:00	Project:	Conducting DTSM	Craig Hoby/Yonas Misgina
Client: NAVFAC	Site Location: Crane NSA SWMU-27		Daily Weather Conditions: Sunny with clouds and some rain	

SITE ACTIVITIES FOR TODAY – 7/23/13

General (Safety Concerns for the Day)

- Struck-by hazards
- Chemical hazards and appropriate PPE
- Bio hazards
- Concrete burns

Safety Topic or concerns

Activity	AHA #	Activity	AHA #
Backfill and Restoration	4		

Level of Protection: Level D – Hard hats, steel toe boots (safety boots), and eye protection (ANSI Z87.1). PPE needs to be worn (excluding inside an enclosed cab)

Physical Hazards:

Chemical Hazards: List of chemicals from the HASP or any additional chemicals discovered or brought on site				
Chemical of Concern	PEL/NIOSH/AGCIH	Route of Entry	Target Organs	Signs/Symptoms of Exposure
Metals		Dermal	Liver; reproductive	

Environmental and biohazards: Watch out for poison ivy, snakes and chiggers

Equipment Hazards: Concrete to be cast today, make sure to wear appropriate PPE, operate hand tools safely, watch out for overhead hazards.

Decontamination: Temporary contamination reduction zone provided, decontaminate if working inside Bldg 126 B wash hands prior to eating/drinking

Others:

Employee Questions or Comments:

Deficiency and Comments that had occurred from yesterday (DATE) Not applicable

(Any concerns, comments, or changes that were brought up from the previous day) Not applicable



SAFETY ISSUES and COMMENTS FOR 7/24/13

(Updates of activities or changes due to hazards that require changes in activities or amendments that were incorporated during the day) Not applicable

REMINDER: No Smoking except in permitted area. Properly store tools and other items when not in use to help protect against slips/trips/falls.

None

TEST REQUIRED BY PLANS AND/OR SPECIFICATIONS PERFORMED AND RESULTS OF TESTS
N/A

LIST THE TOTAL NUMBER SAMPLES COLLECTED AND TESTED FOR THE DAY:
COLLECTED: None TESTED: N/A
AMPLIFYING INFO: N/A

LIST THE TOTAL AMOUNT OF WASTE(S) REMOVED FROM THE SITE:
N/A

LIST THE FOLLOWING TRANSPORTATION AND/OR DISPOSAL INFORMATION TO DATE FOR THE PROJECT

QUANTITY	ID NO.	MATERIAL	MANIFEST NO.	DISPOSAL LOCATION
5000	NA	Slurry	NA	Sycamore Ridge Landfill
25 CY	N/A	Concrete & Rebar	N/A	On NSA Disposal Facility
12 CY	N/A	Concrete	N/A	On NSA Disposal Facility
2000	N/A	Slurry	N/A	Sycamore Ridge Landfill
15 CY	N/A	Concrete	N/A	On NSA Disposal Facility
1000 CY	N/A	Slurry	N/A	Sycamore Ridge Landfill
300 Ton	N/A	Scrap Metal	N/A	Recycling Facility

LIST ALL SAFETY VIOLATIONS OBSERVED AND CORRECTIVE ACTIONS TAKEN:
None

SUBMITTAL ACTION:
None

REMARKS:
- None

Yonas Misgina
CONTRACTOR/SUPERVISOR

07/25/13
DATE

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH ADDITIONAL SHEETS IF NECESSARY)

DATE
08/19/13

CONTRACT NO. **N40083-11-D-0030/0005**

TITLE AND LOCATION **SWMU 27 Basin Removal/Excavations**

REPORT NO.9

CONTRACTOR
SEQ Vets

FIELD SUPERVISOR/PROJECT MANAGER
Greg Hoby / Chris Dietrich

AM WEATHER Sunny PM WEATHER Sunny

MAX TEMP 86° F MIN TEMP 67° F

WORK PERFORMED TODAY

WORK LOCATION AND DESCRIPTION	EMPLOYER	NUMBER	TRADE	HRS
SWMU 27	SEQ Vets/EQM	1	Site Super	8
SWMU 27	SEQ Vets/Sullivan	1	PM	8
SWMU 27	SEQ Vets/Sullivan	1	Sub Rep	8
SWMU 27	EFS	2	Labor	6
WAS A JOB SAFETY MEETING HELD THIS DATE? (If YES attach a copy of the meeting minutes)		✓ YES □ NO		TOTAL WORK HOURS ON JOB SITE THIS DATE
				36

QUANTITY	ID NO.	MATERIAL	MANIFEST NO.	DISPOSAL LOCATION
NA				

LIST ALL SAFETY VIOLATIONS OBSERVED AND CORRECTIVE ACTIONS TAKEN:

None

SUBMITTAL ACTION:

None

REMARKS:

None

Chris Dietrich
CONTRACTOR/SUPERVISOR

08/19/13
DATE

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH ADDITIONAL SHEETS IF NECESSARY)

DATE
08/20/13

CONTRACT NO. **N40083-11-D-0030/0005**

TITLE AND LOCATION **SWMU 27 Basin Removal/Excavations**

REPORT NO.10

CONTRACTOR
SEQ Vets

FIELD SUPERVISOR/PROJECT MANAGER
Greg Hoby / Chris Dietrich

AM WEATHER Sunny PM WEATHER Sunny

MAX TEMP 86° F MIN TEMP 67° F

WORK PERFORMED TODAY

WORK LOCATION AND DESCRIPTION	EMPLOYER	NUMBER	TRADE	HRS
SWMU 27	SEQ Vets/EQM	1	Site Super	8
SWMU 27	SEQ Vets/Sullivan	1	PM	8
SWMU 27	SEQ Vets/Sullivan	1	Sub Rep	8
SWMU 27	EFS	4	Labor	8
WAS A JOB SAFETY MEETING HELD THIS DATE? (If YES attach a copy of the meeting minutes)		✓ YES □ NO		TOTAL WORK HOURS ON JOB SITE THIS DATE
				56

QUANTITY	ID NO.	MATERIAL	MANIFEST NO.	DISPOSAL LOCATION
NA				

LIST ALL SAFETY VIOLATIONS OBSERVED AND CORRECTIVE ACTIONS TAKEN:

None

SUBMITTAL ACTION:

None

REMARKS:

None

Chris Dietrich

CONTRACTOR/SUPERVISOR

08/20/13

DATE

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH ADDITIONAL SHEETS IF NECESSARY)

DATE
08/21/13

CONTRACT NO. **N40083-11-D-0030/0005**

TITLE AND LOCATION **SWMU 27 Basin Removal/Excavations**

REPORT NO.11

CONTRACTOR
SEQ Vets

FIELD SUPERVISOR/PROJECT MANAGER
Greg Hoby / Chris Dietrich

AM WEATHER Sunny PM WEATHER Sunny

MAX TEMP 90° F MIN TEMP 70° F

WORK PERFORMED TODAY

WORK LOCATION AND DESCRIPTION	EMPLOYER	NUMBER	TRADE	HRS
SWMU 27	SEQ Vets/EQM	1	Site Super	8
SWMU 27	SEQ Vets/Sullivan	1	PM	8
SWMU 27	SEQ Vets/Sullivan	1	Sub Rep	8
SWMU 27	EFS	4	Labor	8
WAS A JOB SAFETY MEETING HELD THIS DATE? (If YES attach a copy of the meeting minutes)		✓ YES □ NO		TOTAL WORK HOURS ON JOB SITE THIS DATE
				56

LIST THE FOLLOWING TRANSPORTATION AND/OR DISPOSAL INFORMATION TO DATE FOR THE PROJECT

QUANTITY	ID NO.	MATERIAL	MANIFEST NO.	DISPOSAL LOCATION
NA				

LIST ALL SAFETY VIOLATIONS OBSERVED AND CORRECTIVE ACTIONS TAKEN:

None

SUBMITTAL ACTION:

Re-submittal on valves for Bldg 126 pit B.

REMARKS:

Delivery date for epoxy, valves, and covers is unknown. SEQ Vets will place seed and straw over disturbed areas on August 21, 2013 and then demobilize until a confirmed delivery date can be established.

Chris Dietrich

CONTRACTOR/SUPERVISOR

08/21/13

DATE

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH ADDITIONAL SHEETS IF NECESSARY)

DATE
08/27/13

CONTRACT NO. **N40083-11-D-0030/0005**

TITLE AND LOCATION **SWMU 27 Basin Removal/Excavations**

REPORT NO.12

CONTRACTOR
SEQ Vets

FIELD SUPERVISOR/PROJECT MANAGER
Greg Hoby / Chris Dietrich

AM WEATHER Sunny PM WEATHER Sunny

MAX TEMP 90° F MIN TEMP 70° F

WORK PERFORMED TODAY

WORK LOCATION AND DESCRIPTION	EMPLOYER	NUMBER	TRADE	HRS
SWMU 27	SEQ Vets/EQM	1	Site Super	9
SWMU 27	SEQ Vets/Sullivan	1	PM	9
SWMU 27	SEQ Vets/Sullivan	1	Sub Rep	9
SWMU 27	EFS	2	Labor	9
WAS A JOB SAFETY MEETING HELD THIS DATE? (If YES attach a copy of the meeting minutes)		✓ YES □ NO		TOTAL WORK HOURS ON JOB SITE THIS DATE
				45

QUANTITY	ID NO.	MATERIAL	MANIFEST NO.	DISPOSAL LOCATION
NA				

LIST ALL SAFETY VIOLATIONS OBSERVED AND CORRECTIVE ACTIONS TAKEN:

None.

SUBMITTAL ACTION:

None.

REMARKS:

Delivery date for epoxy, valves, and covers is unknown. SEQ Vets will place seed and straw over disturbed areas on August 21, 2013 and then demobilize until a confirmed delivery date can be established.

Chris Dietrich

CONTRACTOR/SUPERVISOR

08/27/13

DATE

QUANTITY	ID NO.	MATERIAL	MANIFEST NO.	DISPOSAL LOCATION
NA				

LIST ALL SAFETY VIOLATIONS OBSERVED AND CORRECTIVE ACTIONS TAKEN:

None.

SUBMITTAL ACTION:

None.

REMARKS:

Delivery date for epoxy, valves, and covers is unknown. SEQ Vets will place seed and straw over disturbed areas on August 21, 2013 and then demobilize until a confirmed delivery date can be established.

Chris Dietrich

CONTRACTOR/SUPERVISOR

08/28/13

DATE

WERE THERE ANY LOST TIME ACCIDENTS? (If YES attach a copy of the OSHA report)	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	CUMULATIVE TOTAL OF WORK HOURS FROM PREVIOUS REPORT	587
WAS HAZARDOUS MATERIAL/WASTE RELEASED INTO THE ENVIRONMENTAL (If YES attach description of incident and proposed action)	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	TOTAL WORK HOURS FROM START OF CONSTRUCTION	636
WAS TRENCHING/SCAVVOD/HV ELECTRIC/HIGH WORK DONE? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO (If YES attach statement or checklist showing inspection performed)			
None.			
LIST SAFETY ACTIONS TAKEN TODAY/SAFETY INSPECTION CONDUCTED		✓SAFETY REQUIREMENTS HAVE BEEN MET	
Tailgate safety meeting held.			
EQUIPMENT/MATERIAL RECEIVED TODAY TO BE INCORPORATED IN JOB			
Metal valve stems, grating.			
WORK PERFORMED TODAY			
Heflin installed the valve stem brackets and EFS applied the second coat of epoxy to the interior of the pit. EFS then partially installed the hand rails, metal support beams and steel lids. EFS picked up the metal grating.			
EQUIPMENT ON SITE TODAY, INCLUDE NUMBER OF HOURS USED TODAY			
CAT Skid Steer loader, 2 hours.			
CAT Excavator, 0 hours.			
Pressure washer, 3 hours.			

VERBAL INSTRUCTIONS RECEIVED: (List any instruction given by the Government personnel on construction deficiencies, retesting required, etc., with action to be taken.)
None.
TEST REQUIRED BY PLANS AND/OR SPECIFICATIONS PERFORMED AND RESULTS OF TESTS
N/A
LIST THE TOTAL NUMBER SAMPLES COLLECTED AND TESTED FOR THE DAY:
COLLECTED: None TESTED:
AMPLIFYING INFO:
LIST THE TOTAL AMOUNT OF WASTE(S) REMOVED FROM THE SITE:
LIQUID (bb/gal): None.
LIST THE FOLLOWING TRANSPORTATION AND/OR DISPOSAL INFORMATION TO DATE FOR THE PROJECT

QUANTITY	ID NO.	MATERIAL	MANIFEST NO.	DISPOSAL LOCATION
NA				

LIST ALL SAFETY VIOLATIONS OBSERVED AND CORRECTIVE ACTIONS TAKEN:

None.

SUBMITTAL ACTION:

None.

REMARKS:

None.



 CONTRACTOR/SUPERVISOR

08/29/13
 DATE

WERE THERE ANY LOST TIME ACCIDENTS? (If YES attach a copy of the OSHA report)	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	CUMULATIVE TOTAL OF WORK HOURS FROM PREVIOUS REPORT	636
WAS HAZARDOUS MATERIAL/WASTE RELEASED INTO THE ENVIRONMENTAL (If YES attach description of incident and proposed action)	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	TOTAL WORK HOURS FROM START OF CONSTRUCTION	660
WAS TRENCHING/SCAVVOD/HV ELECTRIC/HIGH WORK DONE? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO (If YES attach statement or checklist showing inspection performed)			
None.			
LIST SAFETY ACTIONS TAKEN TODAY/SAFETY INSPECTION CONDUCTED		✓SAFETY REQUIREMENTS HAVE BEEN MET	
Tailgate safety meeting held.			
EQUIPMENT/MATERIAL RECEIVED TODAY TO BE INCORPORATED IN JOB			
Metal valve stems, grating.			
WORK PERFORMED TODAY			
EFS installed the metal grating, finished the installation of the lids and hand rails. EFS re-seeded and re-mulched the area around the pit. MacAllister picked up the skid loader and excavator. Valves were closed and the bladder plug removed from the influent service pipe.			
EQUIPMENT ON SITE TODAY, INCLUDE NUMBER OF HOURS USED TODAY			
CAT Skid Steer loader, 0 hours.			
CAT Excavator, 0 hours.			

VERBAL INSTRUCTIONS RECEIVED: (List any instruction given by the Government personnel on construction deficiencies, retesting required, etc., with action to be taken.)
None.
TEST REQUIRED BY PLANS AND/OR SPECIFICATIONS PERFORMED AND RESULTS OF TESTS
N/A
LIST THE TOTAL NUMBER SAMPLES COLLECTED AND TESTED FOR THE DAY:
COLLECTED: None TESTED:
AMPLIFYING INFO:
LIST THE TOTAL AMOUNT OF WASTE(S) REMOVED FROM THE SITE:
LIQUID (bb/gal): None.
LIST THE FOLLOWING TRANSPORTATION AND/OR DISPOSAL INFORMATION TO DATE FOR THE PROJECT

QUANTITY	ID NO.	MATERIAL	MANIFEST NO.	DISPOSAL LOCATION
NA				

LIST ALL SAFETY VIOLATIONS OBSERVED AND CORRECTIVE ACTIONS TAKEN:

None.

SUBMITTAL ACTION:

None.

REMARKS:

Work complete. Schedule final walk through with NAVFAC MW.

Chris Dietrich

CONTRACTOR/SUPERVISOR

08/30/13

DATE

APPENDIX C

DAILY TAILGATE HEALTH AND SAFETY REPORTS

Daily Tailgate
Safety Meeting
07:15

Name

Safety Attendance

- ① Jonas Misgina - _____
- ② Mike Rivers
- ③ DAVID ALLARDICE
- ④ Craig Hobb
- ⑤ DON WINCHEL

~~YHS~~
~~SA~~
Craig Hobb
Don Winchel

Topics Discussed

- It will be hot, drink lots of water
- Smoking in designated areas only
- Keep a safe distance from construction equipment.
- Eye contact with operator at all times
- Visual & hand verification of utilities
- Snakes, poison ivy should be looked out for
- Calling 911 for fire hazards



DAILY TAILGATE SAFETY MEETING FORM

Date: 07/22/13 Time: 0700 Project No.:

Table with 2 columns: PRINT NAME, SIGNATURE. Rows 1-6 contain handwritten names and signatures: 1. Mike Rivers, 2. Don Winchell, 3. David Allardice, 4. Yonas Missgina, 5. Craig Hoby, 6. Josh Christensen.

Meeting Conducted by:

Name Y. Missgina / C. Hoby

Title CQM/SSHO

Signature [Handwritten Signature]

- Copies: 1) CSRМ, 2) Job Folder, 3) Jobsite Safety Binder



DAILY TAILGATE SAFETY MEETING FORM

Date: 07/23/13 Time: 0700 Project No.: _____

ATTENDEES	
PRINT NAME	SIGNATURE
1. <u>Mike Rivers</u>	
2. <u>Jonas Misgina</u>	
3. <u>DAVID ALLARDICE</u>	
4. <u>Craig Hoby</u>	
5. <u>Josh Caldwell</u>	
6. <u>Dou Mitchell</u>	
7.	
8.	
9.	
10.	
11.	
12.	
13.	
14.	
15.	
16.	

Meeting Conducted by:

Y. Misgina / C. Hoby
Name

C&M/SS10
Title

Signature

- Copies:
- 1) CSRM
 - 2) Job Folder
 - 3) Jobsite Safety Binder



DAILY TAILGATE SAFETY MEETING FORM

Date: 8/14/13 Time: Project No.: TO 805
Client: NAVFAC MH Site Location: NSA Crane Bldg 126

SITE ACTIVITIES PLANNED FOR TODAY

Drain water from Pit B, clean walls and floors. Dry
*Excavate Pipe

SAFETY TOPICS DISCUSSED

Protective clothing and equipment: Level D PPE
Chemical hazards: None
Physical hazards: Slip/trip/fall, trench <4', utilities
Environmental and biohazards: Heat stress
Equipment hazards: Heavy Equipment
Decontamination procedures: No decon.
Other: No smoking in Pyrotechnics area. Hot work Permit Req.
Review of emergency procedures:

EMPLOYEE QUESTIONS OR COMMENTS

ADDITIONAL COMMENTS

Use this field to detail corrective action steps taken for any previously identified unsafe acts or unsafe conditions.

Non permitted confined space.
Monitor PSI 4000 PSI water, only one person per time,
Safety fence around pit, B,



DAILY TAILGATE SAFETY MEETING FORM

Date: 8/19/2013 Time: 1:00 Project No.: SWMU 27

Table with 2 columns: PRINT NAME, SIGNATURE. Rows 1-6 contain handwritten names and signatures: 1. Chris Dietrich, 2. Josh Glatstein, 3. ERIC LIKEUS, 4. Joel Lopez, 5. DAVID ALLARDICE, 6. Craig Hoby.

Meeting Conducted by:

Name: Chris Dietrich
Signature: [Handwritten Signature]

Title: PM

- Copies: 1) CSRSM, 2) Job Folder, 3) Jobsite Safety Binder



DAILY TAILGATE SAFETY MEETING FORM

Date: 8/29/2013 Time: 0800 Project No.: SCWMO 27
Client: NAVFAC MW Site Location: Crane

SITE ACTIVITIES PLANNED FOR TODAY

Epoxy application Pit "B"
Bldg 126 Pipe installation, backfill
Bldg 133 pipe.

SAFETY TOPICS DISCUSSED

Protective clothing and equipment: Level D PPE

Chemical hazards: NA

Physical hazards: Slip trip fall, heavy equipment

Environmental and biohazards: Heat stress

Equipment hazards: Excavator

Decontamination procedures: NA

Other:

Review of emergency procedures: 911

EMPLOYEE QUESTIONS OR COMMENTS

ADDITIONAL COMMENTS

Use this field to detail corrective action steps taken for any previously identified unsafe acts or unsafe conditions.

Utility verification, excavate for pipe. Hand dig around utilities, electric, water.



DAILY TAILGATE SAFETY MEETING FORM

Date: 8/20/2013 Time: 0800 Project No.: SWMU 27

Table with 2 columns: PRINT NAME, SIGNATURE. Rows 1-5 contain handwritten names and signatures: 1. DAVID ALLARDICE, 2. BRYAN CHAPMAN, 3. Joel Lopez, 4. Brent Ayer, 5. Chris Dietrich.

Meeting Conducted by:

Chris Dietrich 8/19/2013

Name

PM

Title

Signature

- Copies: 1) CSRSM, 2) Job Folder, 3) Jobsite Safety Binder



DAILY TAILGATE SAFETY MEETING FORM

Date: 8/20/2013 Time: 0830 Project No.: SWMU 27
Client: NAVFAC MW Site Location: NSA Crane

SITE ACTIVITIES PLANNED FOR TODAY

Epoxy application Bldg 126 Pit B Start.
Continue Bldg 126 Pipe
Continue Bldg 133 Pipe

SAFETY TOPICS DISCUSSED

Protective clothing and equipment: Level D PPE

Chemical hazards: NA

Physical hazards: Slip, trip, fall

Environmental and biohazards: Heat stress

Equipment hazards: Heavy equipment

Decontamination procedures: NA

Other:

Review of emergency procedures: 911

EMPLOYEE QUESTIONS OR COMMENTS

Buddy System.

ADDITIONAL COMMENTS

Use this field to detail corrective action steps taken for any previously identified unsafe acts or unsafe conditions.

Hand dig to verify utilities.



DAILY TAILGATE SAFETY MEETING FORM

Date: 8/20/2013 Time: 0830 Project No.: SWMU 27

Table with 2 columns: PRINT NAME, SIGNATURE. Rows 1-16. Contains handwritten names and signatures.

Meeting Conducted by:

Chris Dietrich
Name

[Signature]
Title

[Signature]
Signature

- Copies: 1) CSRM, 2) Job Folder, 3) Jobsite Safety Binder



DAILY TAILGATE SAFETY MEETING FORM

Date: 8/27/13 Time: 0800 Project No.: SWMU 27

Client: NAVFAC MW Site Location: Bldg 126 Crane

SITE ACTIVITIES PLANNED FOR TODAY

Epoxy, Valves Pit B Bldg 126

SAFETY TOPICS DISCUSSED

Protective clothing and equipment: Level D PPE

Chemical hazards: NA

Physical hazards: Slip Trip Fall, Open Pit

Environmental and biohazards: NA

Equipment hazards: Trucks

Decontamination procedures: NA

Other: Heat Stress

Review of emergency procedures: 911, Hospital Route

EMPLOYEE QUESTIONS OR COMMENTS

ADDITIONAL COMMENTS

Use this field to detail corrective action steps taken for any previously identified unsafe acts or unsafe conditions.

Epoxy, Use buddy system.



DAILY TAILGATE SAFETY MEETING FORM

Date: _____ Time: _____ Project No.: _____

ATTENDEES	
PRINT NAME	SIGNATURE
1. Craig Hoby	<i>Craig Hoby</i>
2. Josh Gladstein	<i>Josh Gladstein</i>
3. Brent Ayer	<i>Brent Ayer</i>
4.	
5.	
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11.	
12.	
13.	
14.	
15.	
16.	

Meeting Conducted by:

Craig Hoby
Name

SS
Title

Signature

- Copies:
- 1) CSRM
 - 2) Job Folder
 - 3) Jobsite Safety Binder



DAILY TAILGATE SAFETY MEETING FORM

Date: 8/28/13 Time: 0800 Project No.: SWMU 27

Client: NAVFAC MMW Site Location: Bldg 126 Crane

SITE ACTIVITIES PLANNED FOR TODAY

Replace Valves Bldg 126 Pit B
Epoxy

SAFETY TOPICS DISCUSSED

Protective clothing and equipment: Level D PPE

Chemical hazards: NA

Physical hazards: Slip Trip Fall

Environmental and biohazards: NA

Equipment hazards: heavy Equipment, trucks

Decontamination procedures: NA

Other: Open air pit monitoring

Review of emergency procedures: Hospital Route

EMPLOYEE QUESTIONS OR COMMENTS

ADDITIONAL COMMENTS

Use this field to detail corrective action steps taken for any previously identified unsafe acts or unsafe conditions.

Open pit monitoring
Heat
Slip trip fall
Secure ladder 3 point.
Fall hazard,
Slings, Shackles.



DAILY TAILGATE SAFETY MEETING FORM

Date: 8/28/13 Time: 0800 Project No.: SWMU 27

ATTENDEES	
PRINT NAME	SIGNATURE
1. Chris Dietrich	
2. Roger Perry	
3. Raymond Schloesser	
4. Eric Litens	
5. Craig Hoby	
6. Josh Clarkstein	
7. Brent Ayer	
8. ALLEN AUGUSTIA	
9.	
10.	
11.	
12.	
13.	
14.	
15.	
16.	

Meeting Conducted by:

Chris Dietrich
Name

PM
Title

Signature

- Copies:
- 1) CSRM
 - 2) Job Folder
 - 3) Jobsite Safety Binder



DAILY TAILGATE SAFETY MEETING FORM

Date: 8/29/13 Time: 0800 Project No.: SWMU 27

Client: NAVFAC MW Crane Site Location: Bldg 126

SITE ACTIVITIES PLANNED FOR TODAY

Complete Valves
Touch up epoxx.
Install covers

SAFETY TOPICS DISCUSSED

Protective clothing and equipment: Level D PPE

Chemical hazards: NA

Physical hazards: Slip, trip, fall

Environmental and biohazards: NA

Equipment hazards: Heavy Equipment

Decontamination procedures: NA

Other: Open air pit.

Review of emergency procedures: Call 911

EMPLOYEE QUESTIONS OR COMMENTS

None.

ADDITIONAL COMMENTS

Use this field to detail corrective action steps taken for any previously identified unsafe acts or unsafe conditions.

open air pit monitoring.
Heat stress
Secure ladder.



DAILY TAILGATE SAFETY MEETING FORM

Date: 8/29/13 Time: 0800 Project No.: SWMU 27

Table with 2 columns: PRINT NAME, SIGNATURE. Rows 1-6 contain handwritten names and signatures: 1. Craig Hoby, 2. Roger Perry, 3. Raymond Schloesser, 4. ERIC LIKENS, 5. Josh Calachstein, 6. Brent Ayer.

Meeting Conducted by:

Craig Hoby (handwritten signature) Name

SS (handwritten initials) Title

Signature

- Copies: 1) CSRM, 2) Job Folder, 3) Jobsite Safety Binder



DAILY TAILGATE SAFETY MEETING FORM

Date: 8/30/2013 Time: 0800 Project No.: SWMU 27
Client: NAVFAC MW Crane Site Location: Bldg 126

SITE ACTIVITIES PLANNED FOR TODAY

Complete covers, site Restoration

SAFETY TOPICS DISCUSSED

Protective clothing and equipment: Level D PPE

Chemical hazards: NA

Physical hazards: Slip trip fall

Environmental and biohazards: NA

Equipment hazards: Heavy Equipment

Decontamination procedures: NA

Other: Open air pit

Review of emergency procedures: Hospital Route

EMPLOYEE QUESTIONS OR COMMENTS

None

ADDITIONAL COMMENTS

Use this field to detail corrective action steps taken for any previously identified unsafe acts or unsafe conditions.

Open air pit
Heat Stress
Secure ladder.



DAILY TAILGATE SAFETY MEETING FORM

Date: 8/30/13 Time: 0800 Project No.: SWMU 27

Table with 2 columns: PRINT NAME, SIGNATURE. Rows 1-5 contain handwritten names and signatures: 1. Chris Dietrich, 2. Craig Hoby, 3. ERIC LIKENS, 4. Josh Cabana, 5. Brent Ayer.

Meeting Conducted by:

Chris Dietrich
Name

PM
Title

Signature

- Copies: 1) CSRSM, 2) Job Folder, 3) Jobsite Safety Binder

APPENDIX D

PROJECT FIELD PHOTOGRAPHS

**SWMU 27 Pyrotechnic Production Area Basin Interim Measures
July – August 2013**



Bldg. 1885 Pit A (center right) and Bldg. 1886 Pit A (left center background)



Bldg. 1885 Pit A

**SWMU 27 Pyrotechnic Production Area Basin Interim Measures
July – August 2013**



Bldg. 1885 Pit A Cleaning



Bldg. 1885 Pit A Cleaning

**SWMU 27 Pyrotechnic Production Area Basin Interim Measures
July – August 2013**



Bldg. 1886 Pit A



Bldg. 1886 Pit A

**SWMU 27 Pyrotechnic Production Area Basin Interim Measures
July – August 2013**



Bldg. 1886 Pit A



Bldg. 1886 Pit A Concrete Debris Being Removed

**SWMU 27 Pyrotechnic Production Area Basin Interim Measures
July – August 2013**



Bldg. 1886 Pit A Concrete Debris Being Loaded into Truck for Transport



Bldg. 1886 Pit A After Site Restoration

**SWMU 27 Pyrotechnic Production Area Basin Interim Measures
July – August 2013**



Bldg. 2698 Pit A



Bldg. 2698 Pit A

**SWMU 27 Pyrotechnic Production Area Basin Interim Measures
July – August 2013**



Bldg. 2698 Pit A Removal



Bldg. 2698 Pit A Removal Area Showing Plugged Pipe

**SWMU 27 Pyrotechnic Production Area Basin Interim Measures
July – August 2013**



Bldg. 133 Pit A with Metal Cover



Bldg. 133 Trench Drain System to Settling Tank

**SWMU 27 Pyrotechnic Production Area Basin Interim Measures
July – August 2013**



Bldg. 133 Pit A Cleaning



Bldg. 133 Pit A Cleaning

**SWMU 27 Pyrotechnic Production Area Basin Interim Measures
July – August 2013**



Bldg. 133 Pit A Cleaning



Bldg. 133 Installed Drainage Pipe

**SWMU 27 Pyrotechnic Production Area Basin Interim Measures
July – August 2013**



Bldg. 133 Installed Drainage Pipe



Filling/Covering Bldg. 133 Installed Drainage Pipe

**SWMU 27 Pyrotechnic Production Area Basin Interim Measures
July – August 2013**



Bldg. 133 Filling Drainage Trench



Bldg. 133 Filling Drainage Trench

**SWMU 27 Pyrotechnic Production Area Basin Interim Measures
July – August 2013**



Removal of Bldg. 133 Pit A Concrete and Debris



Concrete Debris Being Unloaded at Concrete Staging Area for Recycling

**SWMU 27 Pyrotechnic Production Area Basin Interim Measures
July – August 2013**



Bldg. 122 Pit A



Bldg. 122 Pit A Closed in Place with Fill

**SWMU 27 Pyrotechnic Production Area Basin Interim Measures
July – August 2013**



Bldg. 1885 Sump



Bldg. 1885 Sump after Removal

**SWMU 27 Pyrotechnic Production Area Basin Interim Measures
July – August 2013**



Bldg. 130 Pit A



Bldg. 130 Pit A

**SWMU 27 Pyrotechnic Production Area Basin Interim Measures
July – August 2013**



Bldg. 130 Pit A Area After Cleaning and Concrete Debris Loading to Truck



Bldg. 130 Pit A After Backfilling and Site Restoration

**Building 181 Area Interim Measures
July – August 2013**



View of Bldg. 181 Area Settling Tank



View of Bldg. 181 Settling Tank Removal During Interim Measure

**Building 181 Area Interim Measures
July – August 2013**



View of Bldg. 181 Area Underground Storage Tank Removal During Interim Measure



View of Bldg. 181 Area Underground Storage Tank Removal During Interim Measure

**Building 181 Area Interim Measures
July – August 2013**



View of Bldg. 181 Area Cistern Structure



View of Bldg. 181 Cistern Structure Removal During Interim Measure

APPENDIX E

EMAC ANALYTICAL REPORT

July 01, 2013

Neil Skirvin
August Mack Environmental, Inc.
1302 N. Meridian St
Suite 300
Indianapolis, IN 46202

RE: Project: Crane Naval Base
Pace Project No.: 5082398

Dear Neil Skirvin:

Enclosed are the analytical results for sample(s) received by the laboratory on June 20, 2013. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kelly Jones

kelly.jones@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

CERTIFICATIONS

Project: Crane Naval Base
Pace Project No.: 5082398

Indiana Certification IDs

7726 Moller Road, Indianapolis, IN 46268
Illinois Certification #: 200074
Indiana Certification #: C-49-06
Kansas Certification #: E-10247
Kentucky Certification #: 0042

Louisiana/NELAC Certification #: 04076
Ohio VAP Certification #: 101170-0
Pennsylvania Certification #: 68-04991
West Virginia Certification #: 330

Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219
A2LA Certification #: 2456.01
Arkansas Certification #: 13-012-0
Illinois Certification #: 003097
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116

Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407-13-4
Utah Certification #: KS000212013-3
Illinois Certification #: 003097

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Crane Naval Base

Pace Project No.: 5082398

Lab ID	Sample ID	Matrix	Date Collected	Date Received
5082398001	130 Pit A	Water	06/20/13 10:10	06/20/13 15:15
5082398002	1886 Pit A	Water	06/20/13 09:55	06/20/13 15:15
5082398003	1885 Pit A	Water	06/20/13 10:00	06/20/13 15:15
5082398004	122 Pit A	Water	06/20/13 10:20	06/20/13 15:15
5082398005	126 Pit B	Water	06/20/13 10:35	06/20/13 15:15
5082398006	133 Pit A	Water	06/20/13 10:50	06/20/13 15:15
5082398007	2698 Pit A	Water	06/20/13 11:00	06/20/13 15:15
5082398008	181	Water	06/20/13 11:45	06/20/13 15:15
5082398009	181 UST	Water	06/20/13 12:05	06/20/13 15:15
5082398010	SWMU 27 Composite	Water	06/20/13 08:00	06/20/13 15:15

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Crane Naval Base
Pace Project No.: 5082398

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
5082398001	130 Pit A	EPA 8260	GRM	75	PASI-I
5082398002	1886 Pit A	EPA 8260	GRM	75	PASI-I
5082398003	1885 Pit A	EPA 8260	GRM	75	PASI-I
5082398004	122 Pit A	EPA 8260	GRM	75	PASI-I
5082398005	126 Pit B	EPA 8260	GRM	75	PASI-I
5082398006	133 Pit A	EPA 8260	GRM	75	PASI-I
5082398007	2698 Pit A	EPA 8260	GRM	75	PASI-I
5082398008	181	EPA 8260	GRM	75	PASI-I
5082398009	181 UST	EPA 6010	LLB	7	PASI-I
		EPA 7470	LLB	1	PASI-I
		EPA 8270 by SIM	CEM	20	PASI-I
		EPA 8270	KES	48	PASI-I
		EPA 8260	GRM	75	PASI-I
		EPA 1010	WDB	1	PASI-I
		SM 4500-H+B	ZM	1	PASI-I
		SW-846 7.3.4.2 Modified	AJM	1	PASI-K
		SW-846 7.3.3.2 Modified	AJM	1	PASI-K
5082398010	SWMU 27 Composite	EPA 6010	LLB	7	PASI-I
		EPA 7470	LLB	1	PASI-I
		EPA 8270 by SIM	CEM	20	PASI-I
		EPA 8270	KES	48	PASI-I
		EPA 8260	GRM	75	PASI-I
		EPA 1010	WDB	1	PASI-I
		SM 4500-H+B	ZM	1	PASI-I
		SW-846 7.3.4.2 Modified	AJM	1	PASI-K
		SW-846 7.3.3.2 Modified	AJM	1	PASI-K

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Crane Naval Base

Pace Project No.: 5082398

Sample: 130 Pit A		Lab ID: 5082398001	Collected: 06/20/13 10:10	Received: 06/20/13 15:15	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Indiana		Analytical Method: EPA 8260						
Acetone	ND	ug/L	100	1		06/27/13 04:39	67-64-1	
Acrolein	ND	ug/L	50.0	1		06/27/13 04:39	107-02-8	
Acrylonitrile	ND	ug/L	100	1		06/27/13 04:39	107-13-1	
Benzene	ND	ug/L	5.0	1		06/27/13 04:39	71-43-2	
Bromobenzene	ND	ug/L	5.0	1		06/27/13 04:39	108-86-1	
Bromochloromethane	ND	ug/L	5.0	1		06/27/13 04:39	74-97-5	
Bromodichloromethane	ND	ug/L	5.0	1		06/27/13 04:39	75-27-4	
Bromoform	ND	ug/L	5.0	1		06/27/13 04:39	75-25-2	
Bromomethane	ND	ug/L	5.0	1		06/27/13 04:39	74-83-9	
2-Butanone (MEK)	ND	ug/L	25.0	1		06/27/13 04:39	78-93-3	
n-Butylbenzene	ND	ug/L	5.0	1		06/27/13 04:39	104-51-8	
sec-Butylbenzene	ND	ug/L	5.0	1		06/27/13 04:39	135-98-8	
tert-Butylbenzene	ND	ug/L	5.0	1		06/27/13 04:39	98-06-6	
Carbon disulfide	ND	ug/L	10.0	1		06/27/13 04:39	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		06/27/13 04:39	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		06/27/13 04:39	108-90-7	
Chloroethane	ND	ug/L	5.0	1		06/27/13 04:39	75-00-3	
Chloroform	ND	ug/L	5.0	1		06/27/13 04:39	67-66-3	
Chloromethane	ND	ug/L	5.0	1		06/27/13 04:39	74-87-3	
2-Chlorotoluene	ND	ug/L	5.0	1		06/27/13 04:39	95-49-8	
4-Chlorotoluene	ND	ug/L	5.0	1		06/27/13 04:39	106-43-4	
Dibromochloromethane	ND	ug/L	5.0	1		06/27/13 04:39	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	5.0	1		06/27/13 04:39	106-93-4	
Dibromomethane	ND	ug/L	5.0	1		06/27/13 04:39	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		06/27/13 04:39	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		06/27/13 04:39	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		06/27/13 04:39	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		06/27/13 04:39	110-57-6	
Dichlorodifluoromethane	ND	ug/L	5.0	1		06/27/13 04:39	75-71-8	
1,1-Dichloroethane	ND	ug/L	5.0	1		06/27/13 04:39	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		06/27/13 04:39	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		06/27/13 04:39	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		06/27/13 04:39	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		06/27/13 04:39	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		06/27/13 04:39	78-87-5	
1,3-Dichloropropane	ND	ug/L	5.0	1		06/27/13 04:39	142-28-9	
2,2-Dichloropropane	ND	ug/L	5.0	1		06/27/13 04:39	594-20-7	
1,1-Dichloropropene	ND	ug/L	5.0	1		06/27/13 04:39	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		06/27/13 04:39	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		06/27/13 04:39	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		06/27/13 04:39	100-41-4	
Ethyl methacrylate	ND	ug/L	100	1		06/27/13 04:39	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	5.0	1		06/27/13 04:39	87-68-3	
n-Hexane	ND	ug/L	5.0	1		06/27/13 04:39	110-54-3	N2
2-Hexanone	ND	ug/L	25.0	1		06/27/13 04:39	591-78-6	
Iodomethane	ND	ug/L	10.0	1		06/27/13 04:39	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	5.0	1		06/27/13 04:39	98-82-8	

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ANALYTICAL RESULTS

Project: Crane Naval Base

Pace Project No.: 5082398

Sample: 130 Pit A		Lab ID: 5082398001	Collected: 06/20/13 10:10	Received: 06/20/13 15:15	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Indiana		Analytical Method: EPA 8260						
p-Isopropyltoluene	ND ug/L		5.0	1		06/27/13 04:39	99-87-6	
Methylene Chloride	ND ug/L		5.0	1		06/27/13 04:39	75-09-2	
1-Methylnaphthalene	ND ug/L		5.0	1		06/27/13 04:39	90-12-0	N2
2-Methylnaphthalene	ND ug/L		10.0	1		06/27/13 04:39	91-57-6	N2
4-Methyl-2-pentanone (MIBK)	ND ug/L		25.0	1		06/27/13 04:39	108-10-1	
Methyl-tert-butyl ether	ND ug/L		4.0	1		06/27/13 04:39	1634-04-4	
Naphthalene	ND ug/L		1.4	1		06/27/13 04:39	91-20-3	
n-Propylbenzene	ND ug/L		5.0	1		06/27/13 04:39	103-65-1	
Styrene	ND ug/L		5.0	1		06/27/13 04:39	100-42-5	
1,1,1,2-Tetrachloroethane	ND ug/L		5.0	1		06/27/13 04:39	630-20-6	
1,1,2,2-Tetrachloroethane	ND ug/L		5.0	1		06/27/13 04:39	79-34-5	
Tetrachloroethene	ND ug/L		5.0	1		06/27/13 04:39	127-18-4	
Toluene	ND ug/L		5.0	1		06/27/13 04:39	108-88-3	
1,2,3-Trichlorobenzene	ND ug/L		5.0	1		06/27/13 04:39	87-61-6	
1,2,4-Trichlorobenzene	ND ug/L		5.0	1		06/27/13 04:39	120-82-1	
1,1,1-Trichloroethane	ND ug/L		5.0	1		06/27/13 04:39	71-55-6	
1,1,2-Trichloroethane	ND ug/L		5.0	1		06/27/13 04:39	79-00-5	
Trichloroethene	ND ug/L		5.0	1		06/27/13 04:39	79-01-6	
Trichlorofluoromethane	ND ug/L		5.0	1		06/27/13 04:39	75-69-4	
1,2,3-Trichloropropane	ND ug/L		5.0	1		06/27/13 04:39	96-18-4	
1,2,4-Trimethylbenzene	ND ug/L		5.0	1		06/27/13 04:39	95-63-6	
1,3,5-Trimethylbenzene	ND ug/L		5.0	1		06/27/13 04:39	108-67-8	
Vinyl acetate	ND ug/L		50.0	1		06/27/13 04:39	108-05-4	
Vinyl chloride	ND ug/L		2.0	1		06/27/13 04:39	75-01-4	
Xylene (Total)	ND ug/L		10.0	1		06/27/13 04:39	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	94 %.		79-116	1		06/27/13 04:39	1868-53-7	
4-Bromofluorobenzene (S)	98 %.		80-114	1		06/27/13 04:39	460-00-4	
Toluene-d8 (S)	108 %.		81-110	1		06/27/13 04:39	2037-26-5	

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ANALYTICAL RESULTS

Project: Crane Naval Base

Pace Project No.: 5082398

Sample: 1886 Pit A		Lab ID: 5082398002	Collected: 06/20/13 09:55	Received: 06/20/13 15:15	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Indiana		Analytical Method: EPA 8260						
Acetone	ND	ug/L	100	1		06/27/13 06:20	67-64-1	
Acrolein	ND	ug/L	50.0	1		06/27/13 06:20	107-02-8	
Acrylonitrile	ND	ug/L	100	1		06/27/13 06:20	107-13-1	
Benzene	ND	ug/L	5.0	1		06/27/13 06:20	71-43-2	
Bromobenzene	ND	ug/L	5.0	1		06/27/13 06:20	108-86-1	
Bromochloromethane	ND	ug/L	5.0	1		06/27/13 06:20	74-97-5	
Bromodichloromethane	ND	ug/L	5.0	1		06/27/13 06:20	75-27-4	
Bromoform	ND	ug/L	5.0	1		06/27/13 06:20	75-25-2	
Bromomethane	ND	ug/L	5.0	1		06/27/13 06:20	74-83-9	
2-Butanone (MEK)	ND	ug/L	25.0	1		06/27/13 06:20	78-93-3	
n-Butylbenzene	ND	ug/L	5.0	1		06/27/13 06:20	104-51-8	
sec-Butylbenzene	ND	ug/L	5.0	1		06/27/13 06:20	135-98-8	
tert-Butylbenzene	ND	ug/L	5.0	1		06/27/13 06:20	98-06-6	
Carbon disulfide	ND	ug/L	10.0	1		06/27/13 06:20	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		06/27/13 06:20	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		06/27/13 06:20	108-90-7	
Chloroethane	ND	ug/L	5.0	1		06/27/13 06:20	75-00-3	
Chloroform	ND	ug/L	5.0	1		06/27/13 06:20	67-66-3	
Chloromethane	ND	ug/L	5.0	1		06/27/13 06:20	74-87-3	
2-Chlorotoluene	ND	ug/L	5.0	1		06/27/13 06:20	95-49-8	
4-Chlorotoluene	ND	ug/L	5.0	1		06/27/13 06:20	106-43-4	
Dibromochloromethane	ND	ug/L	5.0	1		06/27/13 06:20	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	5.0	1		06/27/13 06:20	106-93-4	
Dibromomethane	ND	ug/L	5.0	1		06/27/13 06:20	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		06/27/13 06:20	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		06/27/13 06:20	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		06/27/13 06:20	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		06/27/13 06:20	110-57-6	
Dichlorodifluoromethane	ND	ug/L	5.0	1		06/27/13 06:20	75-71-8	
1,1-Dichloroethane	ND	ug/L	5.0	1		06/27/13 06:20	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		06/27/13 06:20	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		06/27/13 06:20	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		06/27/13 06:20	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		06/27/13 06:20	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		06/27/13 06:20	78-87-5	
1,3-Dichloropropane	ND	ug/L	5.0	1		06/27/13 06:20	142-28-9	
2,2-Dichloropropane	ND	ug/L	5.0	1		06/27/13 06:20	594-20-7	
1,1-Dichloropropene	ND	ug/L	5.0	1		06/27/13 06:20	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		06/27/13 06:20	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		06/27/13 06:20	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		06/27/13 06:20	100-41-4	
Ethyl methacrylate	ND	ug/L	100	1		06/27/13 06:20	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	5.0	1		06/27/13 06:20	87-68-3	
n-Hexane	ND	ug/L	5.0	1		06/27/13 06:20	110-54-3	N2
2-Hexanone	ND	ug/L	25.0	1		06/27/13 06:20	591-78-6	
Iodomethane	ND	ug/L	10.0	1		06/27/13 06:20	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	5.0	1		06/27/13 06:20	98-82-8	

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ANALYTICAL RESULTS

Project: Crane Naval Base

Pace Project No.: 5082398

Sample: 1886 Pit A		Lab ID: 5082398002	Collected: 06/20/13 09:55	Received: 06/20/13 15:15	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Indiana		Analytical Method: EPA 8260						
p-Isopropyltoluene	ND ug/L		5.0	1		06/27/13 06:20	99-87-6	
Methylene Chloride	ND ug/L		5.0	1		06/27/13 06:20	75-09-2	
1-Methylnaphthalene	ND ug/L		5.0	1		06/27/13 19:10	90-12-0	N2
2-Methylnaphthalene	ND ug/L		10.0	1		06/27/13 19:10	91-57-6	N2
4-Methyl-2-pentanone (MIBK)	ND ug/L		25.0	1		06/27/13 06:20	108-10-1	
Methyl-tert-butyl ether	ND ug/L		4.0	1		06/27/13 06:20	1634-04-4	
Naphthalene	ND ug/L		1.4	1		06/27/13 06:20	91-20-3	
n-Propylbenzene	ND ug/L		5.0	1		06/27/13 06:20	103-65-1	
Styrene	ND ug/L		5.0	1		06/27/13 06:20	100-42-5	
1,1,1,2-Tetrachloroethane	ND ug/L		5.0	1		06/27/13 06:20	630-20-6	
1,1,2,2-Tetrachloroethane	ND ug/L		5.0	1		06/27/13 06:20	79-34-5	
Tetrachloroethene	ND ug/L		5.0	1		06/27/13 06:20	127-18-4	
Toluene	ND ug/L		5.0	1		06/27/13 06:20	108-88-3	
1,2,3-Trichlorobenzene	ND ug/L		5.0	1		06/27/13 06:20	87-61-6	
1,2,4-Trichlorobenzene	ND ug/L		5.0	1		06/27/13 06:20	120-82-1	
1,1,1-Trichloroethane	ND ug/L		5.0	1		06/27/13 06:20	71-55-6	
1,1,2-Trichloroethane	ND ug/L		5.0	1		06/27/13 06:20	79-00-5	
Trichloroethene	ND ug/L		5.0	1		06/27/13 06:20	79-01-6	
Trichlorofluoromethane	ND ug/L		5.0	1		06/27/13 06:20	75-69-4	
1,2,3-Trichloropropane	ND ug/L		5.0	1		06/27/13 06:20	96-18-4	
1,2,4-Trimethylbenzene	ND ug/L		5.0	1		06/27/13 06:20	95-63-6	
1,3,5-Trimethylbenzene	ND ug/L		5.0	1		06/27/13 06:20	108-67-8	
Vinyl acetate	ND ug/L		50.0	1		06/27/13 06:20	108-05-4	
Vinyl chloride	ND ug/L		2.0	1		06/27/13 06:20	75-01-4	
Xylene (Total)	ND ug/L		10.0	1		06/27/13 06:20	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	95 %.		79-116	1		06/27/13 06:20	1868-53-7	
4-Bromofluorobenzene (S)	95 %.		80-114	1		06/27/13 06:20	460-00-4	
Toluene-d8 (S)	105 %.		81-110	1		06/27/13 06:20	2037-26-5	

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ANALYTICAL RESULTS

Project: Crane Naval Base

Pace Project No.: 5082398

Sample: 1885 Pit A		Lab ID: 5082398003	Collected: 06/20/13 10:00	Received: 06/20/13 15:15	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Indiana		Analytical Method: EPA 8260						
Acetone	ND	ug/L	100	1		06/27/13 06:54	67-64-1	
Acrolein	ND	ug/L	50.0	1		06/27/13 06:54	107-02-8	
Acrylonitrile	ND	ug/L	100	1		06/27/13 06:54	107-13-1	
Benzene	ND	ug/L	5.0	1		06/27/13 06:54	71-43-2	
Bromobenzene	ND	ug/L	5.0	1		06/27/13 06:54	108-86-1	
Bromochloromethane	ND	ug/L	5.0	1		06/27/13 06:54	74-97-5	
Bromodichloromethane	ND	ug/L	5.0	1		06/27/13 06:54	75-27-4	
Bromoform	ND	ug/L	5.0	1		06/27/13 06:54	75-25-2	
Bromomethane	ND	ug/L	5.0	1		06/27/13 06:54	74-83-9	
2-Butanone (MEK)	ND	ug/L	25.0	1		06/27/13 06:54	78-93-3	
n-Butylbenzene	ND	ug/L	5.0	1		06/27/13 06:54	104-51-8	
sec-Butylbenzene	ND	ug/L	5.0	1		06/27/13 06:54	135-98-8	
tert-Butylbenzene	ND	ug/L	5.0	1		06/27/13 06:54	98-06-6	
Carbon disulfide	ND	ug/L	10.0	1		06/27/13 06:54	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		06/27/13 06:54	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		06/27/13 06:54	108-90-7	
Chloroethane	ND	ug/L	5.0	1		06/27/13 06:54	75-00-3	
Chloroform	ND	ug/L	5.0	1		06/27/13 06:54	67-66-3	
Chloromethane	ND	ug/L	5.0	1		06/27/13 06:54	74-87-3	
2-Chlorotoluene	ND	ug/L	5.0	1		06/27/13 06:54	95-49-8	
4-Chlorotoluene	ND	ug/L	5.0	1		06/27/13 06:54	106-43-4	
Dibromochloromethane	ND	ug/L	5.0	1		06/27/13 06:54	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	5.0	1		06/27/13 06:54	106-93-4	
Dibromomethane	ND	ug/L	5.0	1		06/27/13 06:54	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		06/27/13 06:54	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		06/27/13 06:54	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		06/27/13 06:54	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		06/27/13 06:54	110-57-6	
Dichlorodifluoromethane	ND	ug/L	5.0	1		06/27/13 06:54	75-71-8	
1,1-Dichloroethane	ND	ug/L	5.0	1		06/27/13 06:54	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		06/27/13 06:54	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		06/27/13 06:54	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		06/27/13 06:54	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		06/27/13 06:54	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		06/27/13 06:54	78-87-5	
1,3-Dichloropropane	ND	ug/L	5.0	1		06/27/13 06:54	142-28-9	
2,2-Dichloropropane	ND	ug/L	5.0	1		06/27/13 06:54	594-20-7	
1,1-Dichloropropene	ND	ug/L	5.0	1		06/27/13 06:54	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		06/27/13 06:54	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		06/27/13 06:54	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		06/27/13 06:54	100-41-4	
Ethyl methacrylate	ND	ug/L	100	1		06/27/13 06:54	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	5.0	1		06/27/13 06:54	87-68-3	
n-Hexane	ND	ug/L	5.0	1		06/27/13 06:54	110-54-3	N2
2-Hexanone	ND	ug/L	25.0	1		06/27/13 06:54	591-78-6	
Iodomethane	ND	ug/L	10.0	1		06/27/13 06:54	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	5.0	1		06/27/13 06:54	98-82-8	

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ANALYTICAL RESULTS

Project: Crane Naval Base

Pace Project No.: 5082398

Sample: 1885 Pit A		Lab ID: 5082398003	Collected: 06/20/13 10:00	Received: 06/20/13 15:15	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Indiana		Analytical Method: EPA 8260						
p-Isopropyltoluene	ND	ug/L	5.0	1		06/27/13 06:54	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		06/27/13 06:54	75-09-2	
1-Methylnaphthalene	ND	ug/L	5.0	1		06/27/13 06:54	90-12-0	N2
2-Methylnaphthalene	ND	ug/L	10.0	1		06/27/13 06:54	91-57-6	N2
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25.0	1		06/27/13 06:54	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		06/27/13 06:54	1634-04-4	
Naphthalene	ND	ug/L	1.4	1		06/27/13 06:54	91-20-3	
n-Propylbenzene	ND	ug/L	5.0	1		06/27/13 06:54	103-65-1	
Styrene	ND	ug/L	5.0	1		06/27/13 06:54	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	1		06/27/13 06:54	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		06/27/13 06:54	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		06/27/13 06:54	127-18-4	
Toluene	ND	ug/L	5.0	1		06/27/13 06:54	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	5.0	1		06/27/13 06:54	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	5.0	1		06/27/13 06:54	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/27/13 06:54	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		06/27/13 06:54	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		06/27/13 06:54	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		06/27/13 06:54	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	5.0	1		06/27/13 06:54	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		06/27/13 06:54	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		06/27/13 06:54	108-67-8	
Vinyl acetate	ND	ug/L	50.0	1		06/27/13 06:54	108-05-4	
Vinyl chloride	ND	ug/L	2.0	1		06/27/13 06:54	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		06/27/13 06:54	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	94 %.		79-116	1		06/27/13 06:54	1868-53-7	
4-Bromofluorobenzene (S)	98 %.		80-114	1		06/27/13 06:54	460-00-4	
Toluene-d8 (S)	108 %.		81-110	1		06/27/13 06:54	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Crane Naval Base

Pace Project No.: 5082398

Sample: 122 Pit A	Lab ID: 5082398004	Collected: 06/20/13 10:20	Received: 06/20/13 15:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Indiana		Analytical Method: EPA 8260						
Acetone	ND ug/L		100	1		06/27/13 07:28	67-64-1	
Acrolein	ND ug/L		50.0	1		06/27/13 07:28	107-02-8	
Acrylonitrile	ND ug/L		100	1		06/27/13 07:28	107-13-1	
Benzene	ND ug/L		5.0	1		06/27/13 07:28	71-43-2	
Bromobenzene	ND ug/L		5.0	1		06/27/13 07:28	108-86-1	
Bromochloromethane	ND ug/L		5.0	1		06/27/13 07:28	74-97-5	
Bromodichloromethane	ND ug/L		5.0	1		06/27/13 07:28	75-27-4	
Bromoform	ND ug/L		5.0	1		06/27/13 07:28	75-25-2	
Bromomethane	ND ug/L		5.0	1		06/27/13 07:28	74-83-9	
2-Butanone (MEK)	ND ug/L		25.0	1		06/27/13 07:28	78-93-3	
n-Butylbenzene	ND ug/L		5.0	1		06/27/13 07:28	104-51-8	
sec-Butylbenzene	ND ug/L		5.0	1		06/27/13 07:28	135-98-8	
tert-Butylbenzene	ND ug/L		5.0	1		06/27/13 07:28	98-06-6	
Carbon disulfide	ND ug/L		10.0	1		06/27/13 07:28	75-15-0	
Carbon tetrachloride	ND ug/L		5.0	1		06/27/13 07:28	56-23-5	
Chlorobenzene	ND ug/L		5.0	1		06/27/13 07:28	108-90-7	
Chloroethane	ND ug/L		5.0	1		06/27/13 07:28	75-00-3	
Chloroform	ND ug/L		5.0	1		06/27/13 07:28	67-66-3	
Chloromethane	ND ug/L		5.0	1		06/27/13 07:28	74-87-3	
2-Chlorotoluene	ND ug/L		5.0	1		06/27/13 07:28	95-49-8	
4-Chlorotoluene	ND ug/L		5.0	1		06/27/13 07:28	106-43-4	
Dibromochloromethane	ND ug/L		5.0	1		06/27/13 07:28	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/L		5.0	1		06/27/13 07:28	106-93-4	
Dibromomethane	ND ug/L		5.0	1		06/27/13 07:28	74-95-3	
1,2-Dichlorobenzene	ND ug/L		5.0	1		06/27/13 07:28	95-50-1	
1,3-Dichlorobenzene	ND ug/L		5.0	1		06/27/13 07:28	541-73-1	
1,4-Dichlorobenzene	ND ug/L		5.0	1		06/27/13 07:28	106-46-7	
trans-1,4-Dichloro-2-butene	ND ug/L		100	1		06/27/13 07:28	110-57-6	
Dichlorodifluoromethane	ND ug/L		5.0	1		06/27/13 07:28	75-71-8	
1,1-Dichloroethane	ND ug/L		5.0	1		06/27/13 07:28	75-34-3	
1,2-Dichloroethane	ND ug/L		5.0	1		06/27/13 07:28	107-06-2	
1,1-Dichloroethene	ND ug/L		5.0	1		06/27/13 07:28	75-35-4	
cis-1,2-Dichloroethene	ND ug/L		5.0	1		06/27/13 07:28	156-59-2	
trans-1,2-Dichloroethene	ND ug/L		5.0	1		06/27/13 07:28	156-60-5	
1,2-Dichloropropane	ND ug/L		5.0	1		06/27/13 07:28	78-87-5	
1,3-Dichloropropane	ND ug/L		5.0	1		06/27/13 07:28	142-28-9	
2,2-Dichloropropane	ND ug/L		5.0	1		06/27/13 07:28	594-20-7	
1,1-Dichloropropene	ND ug/L		5.0	1		06/27/13 07:28	563-58-6	
cis-1,3-Dichloropropene	ND ug/L		5.0	1		06/27/13 07:28	10061-01-5	
trans-1,3-Dichloropropene	ND ug/L		5.0	1		06/27/13 07:28	10061-02-6	
Ethylbenzene	ND ug/L		5.0	1		06/27/13 07:28	100-41-4	
Ethyl methacrylate	ND ug/L		100	1		06/27/13 07:28	97-63-2	
Hexachloro-1,3-butadiene	ND ug/L		5.0	1		06/27/13 07:28	87-68-3	
n-Hexane	ND ug/L		5.0	1		06/27/13 07:28	110-54-3	N2
2-Hexanone	ND ug/L		25.0	1		06/27/13 07:28	591-78-6	
Iodomethane	ND ug/L		10.0	1		06/27/13 07:28	74-88-4	
Isopropylbenzene (Cumene)	ND ug/L		5.0	1		06/27/13 07:28	98-82-8	

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ANALYTICAL RESULTS

Project: Crane Naval Base

Pace Project No.: 5082398

Sample: 122 Pit A		Lab ID: 5082398004	Collected: 06/20/13 10:20	Received: 06/20/13 15:15	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Indiana		Analytical Method: EPA 8260						
p-Isopropyltoluene	ND	ug/L	5.0	1		06/27/13 07:28	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		06/27/13 07:28	75-09-2	
1-Methylnaphthalene	ND	ug/L	5.0	1		06/27/13 07:28	90-12-0	N2
2-Methylnaphthalene	ND	ug/L	10.0	1		06/27/13 07:28	91-57-6	N2
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25.0	1		06/27/13 07:28	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		06/27/13 07:28	1634-04-4	
Naphthalene	ND	ug/L	1.4	1		06/27/13 07:28	91-20-3	
n-Propylbenzene	ND	ug/L	5.0	1		06/27/13 07:28	103-65-1	
Styrene	ND	ug/L	5.0	1		06/27/13 07:28	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	1		06/27/13 07:28	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		06/27/13 07:28	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		06/27/13 07:28	127-18-4	
Toluene	ND	ug/L	5.0	1		06/27/13 07:28	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	5.0	1		06/27/13 07:28	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	5.0	1		06/27/13 07:28	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/27/13 07:28	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		06/27/13 07:28	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		06/27/13 07:28	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		06/27/13 07:28	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	5.0	1		06/27/13 07:28	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		06/27/13 07:28	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		06/27/13 07:28	108-67-8	
Vinyl acetate	ND	ug/L	50.0	1		06/27/13 07:28	108-05-4	
Vinyl chloride	ND	ug/L	2.0	1		06/27/13 07:28	75-01-4	
Xylene (Total)	116	ug/L	10.0	1		06/27/13 07:28	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	100 %.		79-116	1		06/27/13 07:28	1868-53-7	
4-Bromofluorobenzene (S)	98 %.		80-114	1		06/27/13 07:28	460-00-4	
Toluene-d8 (S)	108 %.		81-110	1		06/27/13 07:28	2037-26-5	

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ANALYTICAL RESULTS

Project: Crane Naval Base

Pace Project No.: 5082398

Sample: 126 Pit B	Lab ID: 5082398005	Collected: 06/20/13 10:35	Received: 06/20/13 15:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Indiana	Analytical Method: EPA 8260							
Acetone	ND ug/L		100	1		06/28/13 15:02	67-64-1	
Acrolein	ND ug/L		50.0	1		06/28/13 15:02	107-02-8	
Acrylonitrile	ND ug/L		100	1		06/28/13 15:02	107-13-1	
Benzene	ND ug/L		5.0	1		06/28/13 15:02	71-43-2	
Bromobenzene	ND ug/L		5.0	1		06/28/13 15:02	108-86-1	
Bromochloromethane	ND ug/L		5.0	1		06/28/13 15:02	74-97-5	
Bromodichloromethane	ND ug/L		5.0	1		06/28/13 15:02	75-27-4	
Bromoform	ND ug/L		5.0	1		06/28/13 15:02	75-25-2	
Bromomethane	ND ug/L		5.0	1		06/28/13 15:02	74-83-9	
2-Butanone (MEK)	29.1 ug/L		25.0	1		06/28/13 15:02	78-93-3	
n-Butylbenzene	ND ug/L		5.0	1		06/28/13 15:02	104-51-8	
sec-Butylbenzene	ND ug/L		5.0	1		06/28/13 15:02	135-98-8	
tert-Butylbenzene	ND ug/L		5.0	1		06/28/13 15:02	98-06-6	
Carbon disulfide	ND ug/L		10.0	1		06/28/13 15:02	75-15-0	
Carbon tetrachloride	ND ug/L		5.0	1		06/28/13 15:02	56-23-5	
Chlorobenzene	ND ug/L		5.0	1		06/28/13 15:02	108-90-7	
Chloroethane	ND ug/L		5.0	1		06/28/13 15:02	75-00-3	
Chloroform	ND ug/L		5.0	1		06/28/13 15:02	67-66-3	
Chloromethane	ND ug/L		5.0	1		06/28/13 15:02	74-87-3	
2-Chlorotoluene	ND ug/L		5.0	1		06/28/13 15:02	95-49-8	
4-Chlorotoluene	ND ug/L		5.0	1		06/28/13 15:02	106-43-4	
Dibromochloromethane	ND ug/L		5.0	1		06/28/13 15:02	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/L		5.0	1		06/28/13 15:02	106-93-4	
Dibromomethane	ND ug/L		5.0	1		06/28/13 15:02	74-95-3	
1,2-Dichlorobenzene	ND ug/L		5.0	1		06/28/13 15:02	95-50-1	
1,3-Dichlorobenzene	ND ug/L		5.0	1		06/28/13 15:02	541-73-1	
1,4-Dichlorobenzene	ND ug/L		5.0	1		06/28/13 15:02	106-46-7	
trans-1,4-Dichloro-2-butene	ND ug/L		100	1		06/28/13 15:02	110-57-6	
Dichlorodifluoromethane	ND ug/L		5.0	1		06/28/13 15:02	75-71-8	
1,1-Dichloroethane	ND ug/L		5.0	1		06/28/13 15:02	75-34-3	
1,2-Dichloroethane	ND ug/L		5.0	1		06/28/13 15:02	107-06-2	
1,1-Dichloroethene	ND ug/L		5.0	1		06/28/13 15:02	75-35-4	
cis-1,2-Dichloroethene	ND ug/L		5.0	1		06/28/13 15:02	156-59-2	
trans-1,2-Dichloroethene	ND ug/L		5.0	1		06/28/13 15:02	156-60-5	
1,2-Dichloropropane	ND ug/L		5.0	1		06/28/13 15:02	78-87-5	
1,3-Dichloropropane	ND ug/L		5.0	1		06/28/13 15:02	142-28-9	
2,2-Dichloropropane	ND ug/L		5.0	1		06/28/13 15:02	594-20-7	
1,1-Dichloropropene	ND ug/L		5.0	1		06/28/13 15:02	563-58-6	
cis-1,3-Dichloropropene	ND ug/L		5.0	1		06/28/13 15:02	10061-01-5	
trans-1,3-Dichloropropene	ND ug/L		5.0	1		06/28/13 15:02	10061-02-6	
Ethylbenzene	ND ug/L		5.0	1		06/28/13 15:02	100-41-4	
Ethyl methacrylate	ND ug/L		100	1		06/28/13 15:02	97-63-2	
Hexachloro-1,3-butadiene	ND ug/L		5.0	1		06/28/13 15:02	87-68-3	
n-Hexane	ND ug/L		5.0	1		06/28/13 15:02	110-54-3	N2
2-Hexanone	ND ug/L		25.0	1		06/28/13 15:02	591-78-6	
Iodomethane	ND ug/L		10.0	1		06/28/13 15:02	74-88-4	
Isopropylbenzene (Cumene)	ND ug/L		5.0	1		06/28/13 15:02	98-82-8	

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ANALYTICAL RESULTS

Project: Crane Naval Base

Pace Project No.: 5082398

Sample: 126 Pit B		Lab ID: 5082398005	Collected: 06/20/13 10:35	Received: 06/20/13 15:15	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Indiana		Analytical Method: EPA 8260						
p-Isopropyltoluene	ND	ug/L	5.0	1		06/28/13 15:02	99-87-6	
Methylene Chloride	5.0	ug/L	5.0	1		06/28/13 15:02	75-09-2	B,C9
1-Methylnaphthalene	ND	ug/L	5.0	1		06/28/13 15:02	90-12-0	N2
2-Methylnaphthalene	ND	ug/L	10.0	1		06/28/13 15:02	91-57-6	N2
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25.0	1		06/28/13 15:02	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		06/28/13 15:02	1634-04-4	
Naphthalene	ND	ug/L	1.4	1		06/28/13 15:02	91-20-3	
n-Propylbenzene	ND	ug/L	5.0	1		06/28/13 15:02	103-65-1	
Styrene	ND	ug/L	5.0	1		06/28/13 15:02	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	1		06/28/13 15:02	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		06/28/13 15:02	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		06/28/13 15:02	127-18-4	
Toluene	ND	ug/L	5.0	1		06/28/13 15:02	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	5.0	1		06/28/13 15:02	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	5.0	1		06/28/13 15:02	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/28/13 15:02	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		06/28/13 15:02	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		06/28/13 15:02	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		06/28/13 15:02	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	5.0	1		06/28/13 15:02	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		06/28/13 15:02	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		06/28/13 15:02	108-67-8	
Vinyl acetate	ND	ug/L	50.0	1		06/28/13 15:02	108-05-4	
Vinyl chloride	ND	ug/L	2.0	1		06/28/13 15:02	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		06/28/13 15:02	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	106 %.		79-116	1		06/28/13 15:02	1868-53-7	H1,HS, p2
4-Bromofluorobenzene (S)	89 %.		80-114	1		06/28/13 15:02	460-00-4	
Toluene-d8 (S)	107 %.		81-110	1		06/28/13 15:02	2037-26-5	

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ANALYTICAL RESULTS

Project: Crane Naval Base

Pace Project No.: 5082398

Sample: 133 Pit A	Lab ID: 5082398006	Collected: 06/20/13 10:50	Received: 06/20/13 15:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Indiana		Analytical Method: EPA 8260						
Acetone	ND ug/L		100	1		06/27/13 08:01	67-64-1	
Acrolein	ND ug/L		50.0	1		06/27/13 08:01	107-02-8	
Acrylonitrile	ND ug/L		100	1		06/27/13 08:01	107-13-1	
Benzene	ND ug/L		5.0	1		06/27/13 08:01	71-43-2	
Bromobenzene	ND ug/L		5.0	1		06/27/13 08:01	108-86-1	
Bromochloromethane	ND ug/L		5.0	1		06/27/13 08:01	74-97-5	
Bromodichloromethane	ND ug/L		5.0	1		06/27/13 08:01	75-27-4	
Bromoform	ND ug/L		5.0	1		06/27/13 08:01	75-25-2	
Bromomethane	ND ug/L		5.0	1		06/27/13 08:01	74-83-9	
2-Butanone (MEK)	ND ug/L		25.0	1		06/27/13 08:01	78-93-3	
n-Butylbenzene	ND ug/L		5.0	1		06/27/13 08:01	104-51-8	
sec-Butylbenzene	ND ug/L		5.0	1		06/27/13 08:01	135-98-8	
tert-Butylbenzene	ND ug/L		5.0	1		06/27/13 08:01	98-06-6	
Carbon disulfide	ND ug/L		10.0	1		06/27/13 08:01	75-15-0	
Carbon tetrachloride	ND ug/L		5.0	1		06/27/13 08:01	56-23-5	
Chlorobenzene	ND ug/L		5.0	1		06/27/13 08:01	108-90-7	
Chloroethane	ND ug/L		5.0	1		06/27/13 08:01	75-00-3	
Chloroform	ND ug/L		5.0	1		06/27/13 08:01	67-66-3	
Chloromethane	ND ug/L		5.0	1		06/27/13 08:01	74-87-3	
2-Chlorotoluene	ND ug/L		5.0	1		06/27/13 08:01	95-49-8	
4-Chlorotoluene	ND ug/L		5.0	1		06/27/13 08:01	106-43-4	
Dibromochloromethane	ND ug/L		5.0	1		06/27/13 08:01	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/L		5.0	1		06/27/13 08:01	106-93-4	
Dibromomethane	ND ug/L		5.0	1		06/27/13 08:01	74-95-3	
1,2-Dichlorobenzene	ND ug/L		5.0	1		06/27/13 08:01	95-50-1	
1,3-Dichlorobenzene	ND ug/L		5.0	1		06/27/13 08:01	541-73-1	
1,4-Dichlorobenzene	ND ug/L		5.0	1		06/27/13 08:01	106-46-7	
trans-1,4-Dichloro-2-butene	ND ug/L		100	1		06/27/13 08:01	110-57-6	
Dichlorodifluoromethane	ND ug/L		5.0	1		06/27/13 08:01	75-71-8	
1,1-Dichloroethane	ND ug/L		5.0	1		06/27/13 08:01	75-34-3	
1,2-Dichloroethane	ND ug/L		5.0	1		06/27/13 08:01	107-06-2	
1,1-Dichloroethene	ND ug/L		5.0	1		06/27/13 08:01	75-35-4	
cis-1,2-Dichloroethene	ND ug/L		5.0	1		06/27/13 08:01	156-59-2	
trans-1,2-Dichloroethene	ND ug/L		5.0	1		06/27/13 08:01	156-60-5	
1,2-Dichloropropane	ND ug/L		5.0	1		06/27/13 08:01	78-87-5	
1,3-Dichloropropane	ND ug/L		5.0	1		06/27/13 08:01	142-28-9	
2,2-Dichloropropane	ND ug/L		5.0	1		06/27/13 08:01	594-20-7	
1,1-Dichloropropene	ND ug/L		5.0	1		06/27/13 08:01	563-58-6	
cis-1,3-Dichloropropene	ND ug/L		5.0	1		06/27/13 08:01	10061-01-5	
trans-1,3-Dichloropropene	ND ug/L		5.0	1		06/27/13 08:01	10061-02-6	
Ethylbenzene	ND ug/L		5.0	1		06/27/13 08:01	100-41-4	
Ethyl methacrylate	ND ug/L		100	1		06/27/13 08:01	97-63-2	
Hexachloro-1,3-butadiene	ND ug/L		5.0	1		06/27/13 08:01	87-68-3	
n-Hexane	ND ug/L		5.0	1		06/27/13 08:01	110-54-3	N2
2-Hexanone	ND ug/L		25.0	1		06/27/13 08:01	591-78-6	
Iodomethane	ND ug/L		10.0	1		06/27/13 08:01	74-88-4	
Isopropylbenzene (Cumene)	ND ug/L		5.0	1		06/27/13 08:01	98-82-8	

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ANALYTICAL RESULTS

Project: Crane Naval Base

Pace Project No.: 5082398

Sample: 133 Pit A		Lab ID: 5082398006	Collected: 06/20/13 10:50	Received: 06/20/13 15:15	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Indiana		Analytical Method: EPA 8260						
p-Isopropyltoluene	ND ug/L		5.0	1		06/27/13 08:01	99-87-6	
Methylene Chloride	ND ug/L		5.0	1		06/27/13 08:01	75-09-2	
1-Methylnaphthalene	ND ug/L		5.0	1		06/27/13 08:01	90-12-0	N2
2-Methylnaphthalene	ND ug/L		10.0	1		06/27/13 08:01	91-57-6	N2
4-Methyl-2-pentanone (MIBK)	ND ug/L		25.0	1		06/27/13 08:01	108-10-1	
Methyl-tert-butyl ether	ND ug/L		4.0	1		06/27/13 08:01	1634-04-4	
Naphthalene	ND ug/L		1.4	1		06/27/13 08:01	91-20-3	
n-Propylbenzene	ND ug/L		5.0	1		06/27/13 08:01	103-65-1	
Styrene	ND ug/L		5.0	1		06/27/13 08:01	100-42-5	
1,1,1,2-Tetrachloroethane	ND ug/L		5.0	1		06/27/13 08:01	630-20-6	
1,1,2,2-Tetrachloroethane	ND ug/L		5.0	1		06/27/13 08:01	79-34-5	
Tetrachloroethene	ND ug/L		5.0	1		06/27/13 08:01	127-18-4	
Toluene	ND ug/L		5.0	1		06/27/13 08:01	108-88-3	
1,2,3-Trichlorobenzene	ND ug/L		5.0	1		06/27/13 08:01	87-61-6	
1,2,4-Trichlorobenzene	ND ug/L		5.0	1		06/27/13 08:01	120-82-1	
1,1,1-Trichloroethane	ND ug/L		5.0	1		06/27/13 08:01	71-55-6	
1,1,2-Trichloroethane	ND ug/L		5.0	1		06/27/13 08:01	79-00-5	
Trichloroethene	ND ug/L		5.0	1		06/27/13 08:01	79-01-6	
Trichlorofluoromethane	ND ug/L		5.0	1		06/27/13 08:01	75-69-4	
1,2,3-Trichloropropane	ND ug/L		5.0	1		06/27/13 08:01	96-18-4	
1,2,4-Trimethylbenzene	ND ug/L		5.0	1		06/27/13 08:01	95-63-6	
1,3,5-Trimethylbenzene	ND ug/L		5.0	1		06/27/13 08:01	108-67-8	
Vinyl acetate	ND ug/L		50.0	1		06/27/13 08:01	108-05-4	
Vinyl chloride	ND ug/L		2.0	1		06/27/13 08:01	75-01-4	
Xylene (Total)	ND ug/L		10.0	1		06/27/13 08:01	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	96 %.		79-116	1		06/27/13 08:01	1868-53-7	
4-Bromofluorobenzene (S)	98 %.		80-114	1		06/27/13 08:01	460-00-4	
Toluene-d8 (S)	108 %.		81-110	1		06/27/13 08:01	2037-26-5	

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ANALYTICAL RESULTS

Project: Crane Naval Base

Pace Project No.: 5082398

Sample: 2698 Pit A		Lab ID: 5082398007	Collected: 06/20/13 11:00	Received: 06/20/13 15:15	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Indiana		Analytical Method: EPA 8260						
Acetone	ND	ug/L	100	1		06/27/13 08:35	67-64-1	
Acrolein	ND	ug/L	50.0	1		06/27/13 08:35	107-02-8	
Acrylonitrile	ND	ug/L	100	1		06/27/13 08:35	107-13-1	
Benzene	ND	ug/L	5.0	1		06/27/13 08:35	71-43-2	
Bromobenzene	ND	ug/L	5.0	1		06/27/13 08:35	108-86-1	
Bromochloromethane	ND	ug/L	5.0	1		06/27/13 08:35	74-97-5	
Bromodichloromethane	ND	ug/L	5.0	1		06/27/13 08:35	75-27-4	
Bromoform	ND	ug/L	5.0	1		06/27/13 08:35	75-25-2	
Bromomethane	ND	ug/L	5.0	1		06/27/13 08:35	74-83-9	
2-Butanone (MEK)	ND	ug/L	25.0	1		06/27/13 08:35	78-93-3	
n-Butylbenzene	ND	ug/L	5.0	1		06/27/13 08:35	104-51-8	
sec-Butylbenzene	ND	ug/L	5.0	1		06/27/13 08:35	135-98-8	
tert-Butylbenzene	ND	ug/L	5.0	1		06/27/13 08:35	98-06-6	
Carbon disulfide	ND	ug/L	10.0	1		06/27/13 08:35	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		06/27/13 08:35	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		06/27/13 08:35	108-90-7	
Chloroethane	ND	ug/L	5.0	1		06/27/13 08:35	75-00-3	
Chloroform	ND	ug/L	5.0	1		06/27/13 08:35	67-66-3	
Chloromethane	ND	ug/L	5.0	1		06/27/13 08:35	74-87-3	
2-Chlorotoluene	ND	ug/L	5.0	1		06/27/13 08:35	95-49-8	
4-Chlorotoluene	ND	ug/L	5.0	1		06/27/13 08:35	106-43-4	
Dibromochloromethane	ND	ug/L	5.0	1		06/27/13 08:35	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	5.0	1		06/27/13 08:35	106-93-4	
Dibromomethane	ND	ug/L	5.0	1		06/27/13 08:35	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		06/27/13 08:35	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		06/27/13 08:35	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		06/27/13 08:35	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		06/27/13 08:35	110-57-6	
Dichlorodifluoromethane	ND	ug/L	5.0	1		06/27/13 08:35	75-71-8	
1,1-Dichloroethane	ND	ug/L	5.0	1		06/27/13 08:35	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		06/27/13 08:35	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		06/27/13 08:35	75-35-4	
cis-1,2-Dichloroethene	19.5	ug/L	5.0	1		06/27/13 08:35	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		06/27/13 08:35	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		06/27/13 08:35	78-87-5	
1,3-Dichloropropane	ND	ug/L	5.0	1		06/27/13 08:35	142-28-9	
2,2-Dichloropropane	ND	ug/L	5.0	1		06/27/13 08:35	594-20-7	
1,1-Dichloropropene	ND	ug/L	5.0	1		06/27/13 08:35	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		06/27/13 08:35	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		06/27/13 08:35	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		06/27/13 08:35	100-41-4	
Ethyl methacrylate	ND	ug/L	100	1		06/27/13 08:35	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	5.0	1		06/27/13 08:35	87-68-3	
n-Hexane	ND	ug/L	5.0	1		06/27/13 08:35	110-54-3	N2
2-Hexanone	ND	ug/L	25.0	1		06/27/13 08:35	591-78-6	
Iodomethane	ND	ug/L	10.0	1		06/27/13 08:35	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	5.0	1		06/27/13 08:35	98-82-8	

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ANALYTICAL RESULTS

Project: Crane Naval Base

Pace Project No.: 5082398

Sample: 2698 Pit A		Lab ID: 5082398007	Collected: 06/20/13 11:00	Received: 06/20/13 15:15	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Indiana		Analytical Method: EPA 8260						
p-Isopropyltoluene	ND	ug/L	5.0	1		06/27/13 08:35	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		06/27/13 08:35	75-09-2	
1-Methylnaphthalene	ND	ug/L	5.0	1		06/27/13 08:35	90-12-0	N2
2-Methylnaphthalene	ND	ug/L	10.0	1		06/27/13 08:35	91-57-6	N2
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25.0	1		06/27/13 08:35	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		06/27/13 08:35	1634-04-4	
Naphthalene	ND	ug/L	1.4	1		06/27/13 08:35	91-20-3	
n-Propylbenzene	ND	ug/L	5.0	1		06/27/13 08:35	103-65-1	
Styrene	ND	ug/L	5.0	1		06/27/13 08:35	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	1		06/27/13 08:35	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		06/27/13 08:35	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		06/27/13 08:35	127-18-4	
Toluene	ND	ug/L	5.0	1		06/27/13 08:35	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	5.0	1		06/27/13 08:35	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	5.0	1		06/27/13 08:35	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/27/13 08:35	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		06/27/13 08:35	79-00-5	
Trichloroethene	29.1	ug/L	5.0	1		06/27/13 08:35	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		06/27/13 08:35	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	5.0	1		06/27/13 08:35	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		06/27/13 08:35	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		06/27/13 08:35	108-67-8	
Vinyl acetate	ND	ug/L	50.0	1		06/27/13 08:35	108-05-4	
Vinyl chloride	9.5	ug/L	2.0	1		06/27/13 08:35	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		06/27/13 08:35	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	96 %.		79-116	1		06/27/13 08:35	1868-53-7	
4-Bromofluorobenzene (S)	97 %.		80-114	1		06/27/13 08:35	460-00-4	
Toluene-d8 (S)	107 %.		81-110	1		06/27/13 08:35	2037-26-5	

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ANALYTICAL RESULTS

Project: Crane Naval Base

Pace Project No.: 5082398

Sample: 181	Lab ID: 5082398008	Collected: 06/20/13 11:45	Received: 06/20/13 15:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Indiana		Analytical Method: EPA 8260						
Acetone	ND ug/L		100	1		06/27/13 09:09	67-64-1	
Acrolein	ND ug/L		50.0	1		06/27/13 09:09	107-02-8	
Acrylonitrile	ND ug/L		100	1		06/27/13 09:09	107-13-1	
Benzene	ND ug/L		5.0	1		06/27/13 09:09	71-43-2	
Bromobenzene	ND ug/L		5.0	1		06/27/13 09:09	108-86-1	
Bromochloromethane	ND ug/L		5.0	1		06/27/13 09:09	74-97-5	
Bromodichloromethane	ND ug/L		5.0	1		06/27/13 09:09	75-27-4	
Bromoform	ND ug/L		5.0	1		06/27/13 09:09	75-25-2	
Bromomethane	ND ug/L		5.0	1		06/27/13 09:09	74-83-9	
2-Butanone (MEK)	ND ug/L		25.0	1		06/27/13 09:09	78-93-3	
n-Butylbenzene	ND ug/L		5.0	1		06/27/13 09:09	104-51-8	
sec-Butylbenzene	ND ug/L		5.0	1		06/27/13 09:09	135-98-8	
tert-Butylbenzene	ND ug/L		5.0	1		06/27/13 09:09	98-06-6	
Carbon disulfide	ND ug/L		10.0	1		06/27/13 09:09	75-15-0	
Carbon tetrachloride	ND ug/L		5.0	1		06/27/13 09:09	56-23-5	
Chlorobenzene	ND ug/L		5.0	1		06/27/13 09:09	108-90-7	
Chloroethane	ND ug/L		5.0	1		06/27/13 09:09	75-00-3	
Chloroform	ND ug/L		5.0	1		06/27/13 09:09	67-66-3	
Chloromethane	ND ug/L		5.0	1		06/27/13 09:09	74-87-3	
2-Chlorotoluene	ND ug/L		5.0	1		06/27/13 09:09	95-49-8	
4-Chlorotoluene	ND ug/L		5.0	1		06/27/13 09:09	106-43-4	
Dibromochloromethane	ND ug/L		5.0	1		06/27/13 09:09	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/L		5.0	1		06/27/13 09:09	106-93-4	
Dibromomethane	ND ug/L		5.0	1		06/27/13 09:09	74-95-3	
1,2-Dichlorobenzene	ND ug/L		5.0	1		06/27/13 09:09	95-50-1	
1,3-Dichlorobenzene	ND ug/L		5.0	1		06/27/13 09:09	541-73-1	
1,4-Dichlorobenzene	ND ug/L		5.0	1		06/27/13 09:09	106-46-7	
trans-1,4-Dichloro-2-butene	ND ug/L		100	1		06/27/13 09:09	110-57-6	
Dichlorodifluoromethane	ND ug/L		5.0	1		06/27/13 09:09	75-71-8	
1,1-Dichloroethane	ND ug/L		5.0	1		06/27/13 09:09	75-34-3	
1,2-Dichloroethane	ND ug/L		5.0	1		06/27/13 09:09	107-06-2	
1,1-Dichloroethene	ND ug/L		5.0	1		06/27/13 09:09	75-35-4	
cis-1,2-Dichloroethene	ND ug/L		5.0	1		06/27/13 09:09	156-59-2	
trans-1,2-Dichloroethene	ND ug/L		5.0	1		06/27/13 09:09	156-60-5	
1,2-Dichloropropane	ND ug/L		5.0	1		06/27/13 09:09	78-87-5	
1,3-Dichloropropane	ND ug/L		5.0	1		06/27/13 09:09	142-28-9	
2,2-Dichloropropane	ND ug/L		5.0	1		06/27/13 09:09	594-20-7	
1,1-Dichloropropene	ND ug/L		5.0	1		06/27/13 09:09	563-58-6	
cis-1,3-Dichloropropene	ND ug/L		5.0	1		06/27/13 09:09	10061-01-5	
trans-1,3-Dichloropropene	ND ug/L		5.0	1		06/27/13 09:09	10061-02-6	
Ethylbenzene	ND ug/L		5.0	1		06/27/13 09:09	100-41-4	
Ethyl methacrylate	ND ug/L		100	1		06/27/13 09:09	97-63-2	
Hexachloro-1,3-butadiene	ND ug/L		5.0	1		06/27/13 09:09	87-68-3	
n-Hexane	ND ug/L		5.0	1		06/27/13 09:09	110-54-3	N2
2-Hexanone	ND ug/L		25.0	1		06/27/13 09:09	591-78-6	
Iodomethane	ND ug/L		10.0	1		06/27/13 09:09	74-88-4	
Isopropylbenzene (Cumene)	ND ug/L		5.0	1		06/27/13 09:09	98-82-8	

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ANALYTICAL RESULTS

Project: Crane Naval Base

Pace Project No.: 5082398

Sample: 181	Lab ID: 5082398008	Collected: 06/20/13 11:45	Received: 06/20/13 15:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Indiana		Analytical Method: EPA 8260						
p-Isopropyltoluene	ND ug/L		5.0	1		06/27/13 09:09	99-87-6	
Methylene Chloride	ND ug/L		5.0	1		06/27/13 09:09	75-09-2	
1-Methylnaphthalene	ND ug/L		5.0	1		06/27/13 09:09	90-12-0	N2
2-Methylnaphthalene	ND ug/L		10.0	1		06/27/13 09:09	91-57-6	N2
4-Methyl-2-pentanone (MIBK)	ND ug/L		25.0	1		06/27/13 09:09	108-10-1	
Methyl-tert-butyl ether	ND ug/L		4.0	1		06/27/13 09:09	1634-04-4	
Naphthalene	ND ug/L		1.4	1		06/27/13 09:09	91-20-3	
n-Propylbenzene	ND ug/L		5.0	1		06/27/13 09:09	103-65-1	
Styrene	ND ug/L		5.0	1		06/27/13 09:09	100-42-5	
1,1,1,2-Tetrachloroethane	ND ug/L		5.0	1		06/27/13 09:09	630-20-6	
1,1,2,2-Tetrachloroethane	ND ug/L		5.0	1		06/27/13 09:09	79-34-5	
Tetrachloroethene	ND ug/L		5.0	1		06/27/13 09:09	127-18-4	
Toluene	ND ug/L		5.0	1		06/27/13 09:09	108-88-3	
1,2,3-Trichlorobenzene	ND ug/L		5.0	1		06/27/13 09:09	87-61-6	
1,2,4-Trichlorobenzene	ND ug/L		5.0	1		06/27/13 09:09	120-82-1	
1,1,1-Trichloroethane	ND ug/L		5.0	1		06/27/13 09:09	71-55-6	
1,1,2-Trichloroethane	ND ug/L		5.0	1		06/27/13 09:09	79-00-5	
Trichloroethene	ND ug/L		5.0	1		06/27/13 09:09	79-01-6	
Trichlorofluoromethane	ND ug/L		5.0	1		06/27/13 09:09	75-69-4	
1,2,3-Trichloropropane	ND ug/L		5.0	1		06/27/13 09:09	96-18-4	
1,2,4-Trimethylbenzene	ND ug/L		5.0	1		06/27/13 09:09	95-63-6	
1,3,5-Trimethylbenzene	ND ug/L		5.0	1		06/27/13 09:09	108-67-8	
Vinyl acetate	ND ug/L		50.0	1		06/27/13 09:09	108-05-4	
Vinyl chloride	ND ug/L		2.0	1		06/27/13 09:09	75-01-4	
Xylene (Total)	ND ug/L		10.0	1		06/27/13 09:09	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	97 %.		79-116	1		06/27/13 09:09	1868-53-7	
4-Bromofluorobenzene (S)	97 %.		80-114	1		06/27/13 09:09	460-00-4	
Toluene-d8 (S)	108 %.		81-110	1		06/27/13 09:09	2037-26-5	

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ANALYTICAL RESULTS

Project: Crane Naval Base

Pace Project No.: 5082398

Sample: 181 UST		Lab ID: 5082398009	Collected: 06/20/13 12:05	Received: 06/20/13 15:15	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010						
Arsenic	ND ug/L		10.0	1	06/22/13 09:02	06/24/13 12:08	7440-38-2	
Barium	ND ug/L		100	1	06/22/13 09:02	06/24/13 12:08	7440-39-3	
Cadmium	ND ug/L		5.0	1	06/22/13 09:02	06/24/13 12:08	7440-43-9	
Chromium	ND ug/L		10.0	1	06/22/13 09:02	06/24/13 12:08	7440-47-3	
Lead	ND ug/L		10.0	1	06/22/13 09:02	06/24/13 12:08	7439-92-1	
Selenium	ND ug/L		10.0	1	06/22/13 09:02	06/24/13 12:08	7782-49-2	
Silver	ND ug/L		50.0	1	06/22/13 09:02	06/24/13 12:08	7440-22-4	
7470 Mercury		Analytical Method: EPA 7470 Preparation Method: EPA 7470						
Mercury	ND ug/L		2.0	1	06/25/13 14:15	06/26/13 14:48	7439-97-6	
8270 MSSV PAH		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510						
Acenaphthene	ND ug/L		1.0	1	06/24/13 20:50	06/26/13 01:07	83-32-9	
Acenaphthylene	ND ug/L		1.0	1	06/24/13 20:50	06/26/13 01:07	208-96-8	
Anthracene	ND ug/L		0.10	1	06/24/13 20:50	06/26/13 01:07	120-12-7	
Benzo(a)anthracene	ND ug/L		0.10	1	06/24/13 20:50	06/26/13 01:07	56-55-3	
Benzo(a)pyrene	ND ug/L		0.10	1	06/24/13 20:50	06/26/13 01:07	50-32-8	
Benzo(b)fluoranthene	ND ug/L		0.10	1	06/24/13 20:50	06/26/13 01:07	205-99-2	
Benzo(g,h,i)perylene	ND ug/L		0.10	1	06/24/13 20:50	06/26/13 01:07	191-24-2	
Benzo(k)fluoranthene	ND ug/L		0.10	1	06/24/13 20:50	06/26/13 01:07	207-08-9	
Chrysene	ND ug/L		0.52	1	06/24/13 20:50	06/26/13 01:07	218-01-9	
Dibenz(a,h)anthracene	ND ug/L		0.10	1	06/24/13 20:50	06/26/13 01:07	53-70-3	
Fluoranthene	ND ug/L		1.0	1	06/24/13 20:50	06/26/13 01:07	206-44-0	
Fluorene	ND ug/L		1.0	1	06/24/13 20:50	06/26/13 01:07	86-73-7	
Indeno(1,2,3-cd)pyrene	ND ug/L		0.10	1	06/24/13 20:50	06/26/13 01:07	193-39-5	
1-Methylnaphthalene	ND ug/L		1.0	1	06/24/13 20:50	06/26/13 01:07	90-12-0	N2
2-Methylnaphthalene	ND ug/L		1.0	1	06/24/13 20:50	06/26/13 01:07	91-57-6	
Naphthalene	ND ug/L		1.0	1	06/24/13 20:50	06/26/13 01:07	91-20-3	
Phenanthrene	ND ug/L		1.0	1	06/24/13 20:50	06/26/13 01:07	85-01-8	
Pyrene	ND ug/L		1.0	1	06/24/13 20:50	06/26/13 01:07	129-00-0	
Surrogates								
2-Fluorobiphenyl (S)	54 %.		21-114	1	06/24/13 20:50	06/26/13 01:07	321-60-8	
p-Terphenyl-d14 (S)	73 %.		25-131	1	06/24/13 20:50	06/26/13 01:07	1718-51-0	
8270 MSSV SCAN		Analytical Method: EPA 8270 Preparation Method: EPA 3510						
Benzyl alcohol	ND ug/L		20.6	1	06/24/13 20:50	06/25/13 18:15	100-51-6	
4-Bromophenylphenyl ether	ND ug/L		10.3	1	06/24/13 20:50	06/25/13 18:15	101-55-3	
Butylbenzylphthalate	ND ug/L		10.3	1	06/24/13 20:50	06/25/13 18:15	85-68-7	
4-Chloro-3-methylphenol	ND ug/L		20.6	1	06/24/13 20:50	06/25/13 18:15	59-50-7	
4-Chloroaniline	ND ug/L		20.6	1	06/24/13 20:50	06/25/13 18:15	106-47-8	
bis(2-Chloroethoxy)methane	ND ug/L		10.3	1	06/24/13 20:50	06/25/13 18:15	111-91-1	
bis(2-Chloroethyl) ether	ND ug/L		10.3	1	06/24/13 20:50	06/25/13 18:15	111-44-4	
bis(2-Chloroisopropyl) ether	ND ug/L		5.2	1	06/24/13 20:50	06/25/13 18:15	108-60-1	
bis(2chloro1methylethyl) ether	ND ug/L		5.2	1	06/24/13 20:50	06/25/13 18:15	108-60-1	
2-Chloronaphthalene	ND ug/L		10.3	1	06/24/13 20:50	06/25/13 18:15	91-58-7	
2-Chlorophenol	ND ug/L		10.3	1	06/24/13 20:50	06/25/13 18:15	95-57-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Crane Naval Base

Pace Project No.: 5082398

Sample: 181 UST **Lab ID: 5082398009** Collected: 06/20/13 12:05 Received: 06/20/13 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
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8270 MSSV SCAN

Analytical Method: EPA 8270 Preparation Method: EPA 3510

4-Chlorophenylphenyl ether	ND ug/L		10.3	1	06/24/13 20:50	06/25/13 18:15	7005-72-3	
Dibenzofuran	ND ug/L		10.3	1	06/24/13 20:50	06/25/13 18:15	132-64-9	
3,3'-Dichlorobenzidine	ND ug/L		20.6	1	06/24/13 20:50	06/25/13 18:15	91-94-1	
2,4-Dichlorophenol	ND ug/L		10.3	1	06/24/13 20:50	06/25/13 18:15	120-83-2	
Diethylphthalate	ND ug/L		10.3	1	06/24/13 20:50	06/25/13 18:15	84-66-2	
2,4-Dimethylphenol	ND ug/L		10.3	1	06/24/13 20:50	06/25/13 18:15	105-67-9	
Dimethylphthalate	ND ug/L		10.3	1	06/24/13 20:50	06/25/13 18:15	131-11-3	
Di-n-butylphthalate	ND ug/L		10.3	1	06/24/13 20:50	06/25/13 18:15	84-74-2	
4,6-Dinitro-2-methylphenol	ND ug/L		51.5	1	06/24/13 20:50	06/25/13 18:15	534-52-1	
2,4-Dinitrophenol	ND ug/L		51.5	1	06/24/13 20:50	06/25/13 18:15	51-28-5	
2,4-Dinitrotoluene	ND ug/L		10.3	1	06/24/13 20:50	06/25/13 18:15	121-14-2	
2,6-Dinitrotoluene	ND ug/L		10.3	1	06/24/13 20:50	06/25/13 18:15	606-20-2	
Di-n-octylphthalate	ND ug/L		10.3	1	06/24/13 20:50	06/25/13 18:15	117-84-0	
bis(2-Ethylhexyl)phthalate	ND ug/L		5.2	1	06/24/13 20:50	06/25/13 18:15	117-81-7	
Hexachloro-1,3-butadiene	ND ug/L		5.2	1	06/24/13 20:50	06/25/13 18:15	87-68-3	
Hexachlorobenzene	ND ug/L		10.3	1	06/24/13 20:50	06/25/13 18:15	118-74-1	
Hexachlorocyclopentadiene	ND ug/L		20.6	1	06/24/13 20:50	06/25/13 18:15	77-47-4	
Hexachloroethane	ND ug/L		10.3	1	06/24/13 20:50	06/25/13 18:15	67-72-1	
Isophorone	ND ug/L		10.3	1	06/24/13 20:50	06/25/13 18:15	78-59-1	
2-Methylphenol(o-Cresol)	ND ug/L		10.3	1	06/24/13 20:50	06/25/13 18:15	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND ug/L		20.6	1	06/24/13 20:50	06/25/13 18:15		
2-Nitroaniline	ND ug/L		51.5	1	06/24/13 20:50	06/25/13 18:15	88-74-4	
3-Nitroaniline	ND ug/L		51.5	1	06/24/13 20:50	06/25/13 18:15	99-09-2	
4-Nitroaniline	ND ug/L		51.5	1	06/24/13 20:50	06/25/13 18:15	100-01-6	
Nitrobenzene	ND ug/L		10.3	1	06/24/13 20:50	06/25/13 18:15	98-95-3	
2-Nitrophenol	ND ug/L		10.3	1	06/24/13 20:50	06/25/13 18:15	88-75-5	
4-Nitrophenol	ND ug/L		51.5	1	06/24/13 20:50	06/25/13 18:15	100-02-7	
N-Nitroso-di-n-propylamine	ND ug/L		10.3	1	06/24/13 20:50	06/25/13 18:15	621-64-7	
N-Nitrosodiphenylamine	ND ug/L		10.3	1	06/24/13 20:50	06/25/13 18:15	86-30-6	
Pentachlorophenol	ND ug/L		51.5	1	06/24/13 20:50	06/25/13 18:15	87-86-5	
Phenol	ND ug/L		10.3	1	06/24/13 20:50	06/25/13 18:15	108-95-2	
2,4,5-Trichlorophenol	ND ug/L		10.3	1	06/24/13 20:50	06/25/13 18:15	95-95-4	
2,4,6-Trichlorophenol	ND ug/L		10.3	1	06/24/13 20:50	06/25/13 18:15	88-06-2	
Surrogates								
Nitrobenzene-d5 (S)	76 %.		29-126	1	06/24/13 20:50	06/25/13 18:15	4165-60-0	
Phenol-d5 (S)	11 %.		10-47	1	06/24/13 20:50	06/25/13 18:15	4165-62-2	
2-Fluorophenol (S)	20 %.		10-67	1	06/24/13 20:50	06/25/13 18:15	367-12-4	
2,4,6-Tribromophenol (S)	97 %.		31-161	1	06/24/13 20:50	06/25/13 18:15	118-79-6	

8260 MSV Indiana

Analytical Method: EPA 8260

Acetone	ND ug/L		100	1		06/27/13 09:43	67-64-1	
Acrolein	ND ug/L		50.0	1		06/27/13 09:43	107-02-8	
Acrylonitrile	ND ug/L		100	1		06/27/13 09:43	107-13-1	
Benzene	ND ug/L		5.0	1		06/27/13 09:43	71-43-2	
Bromobenzene	ND ug/L		5.0	1		06/27/13 09:43	108-86-1	
Bromochloromethane	ND ug/L		5.0	1		06/27/13 09:43	74-97-5	
Bromodichloromethane	ND ug/L		5.0	1		06/27/13 09:43	75-27-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Crane Naval Base

Pace Project No.: 5082398

Sample: 181 UST		Lab ID: 5082398009	Collected: 06/20/13 12:05	Received: 06/20/13 15:15	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Indiana		Analytical Method: EPA 8260						
Bromoform	ND	ug/L	5.0	1		06/27/13 09:43	75-25-2	
Bromomethane	ND	ug/L	5.0	1		06/27/13 09:43	74-83-9	
2-Butanone (MEK)	ND	ug/L	25.0	1		06/27/13 09:43	78-93-3	
n-Butylbenzene	ND	ug/L	5.0	1		06/27/13 09:43	104-51-8	
sec-Butylbenzene	ND	ug/L	5.0	1		06/27/13 09:43	135-98-8	
tert-Butylbenzene	ND	ug/L	5.0	1		06/27/13 09:43	98-06-6	
Carbon disulfide	ND	ug/L	10.0	1		06/27/13 09:43	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		06/27/13 09:43	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		06/27/13 09:43	108-90-7	
Chloroethane	ND	ug/L	5.0	1		06/27/13 09:43	75-00-3	
Chloroform	ND	ug/L	5.0	1		06/27/13 09:43	67-66-3	
Chloromethane	ND	ug/L	5.0	1		06/27/13 09:43	74-87-3	
2-Chlorotoluene	ND	ug/L	5.0	1		06/27/13 09:43	95-49-8	
4-Chlorotoluene	ND	ug/L	5.0	1		06/27/13 09:43	106-43-4	
Dibromochloromethane	ND	ug/L	5.0	1		06/27/13 09:43	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	5.0	1		06/27/13 09:43	106-93-4	
Dibromomethane	ND	ug/L	5.0	1		06/27/13 09:43	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		06/27/13 09:43	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		06/27/13 09:43	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		06/27/13 09:43	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		06/27/13 09:43	110-57-6	
Dichlorodifluoromethane	ND	ug/L	5.0	1		06/27/13 09:43	75-71-8	
1,1-Dichloroethane	ND	ug/L	5.0	1		06/27/13 09:43	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		06/27/13 09:43	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		06/27/13 09:43	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		06/27/13 09:43	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		06/27/13 09:43	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		06/27/13 09:43	78-87-5	
1,3-Dichloropropane	ND	ug/L	5.0	1		06/27/13 09:43	142-28-9	
2,2-Dichloropropane	ND	ug/L	5.0	1		06/27/13 09:43	594-20-7	
1,1-Dichloropropene	ND	ug/L	5.0	1		06/27/13 09:43	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		06/27/13 09:43	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		06/27/13 09:43	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		06/27/13 09:43	100-41-4	
Ethyl methacrylate	ND	ug/L	100	1		06/27/13 09:43	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	5.0	1		06/27/13 09:43	87-68-3	
n-Hexane	ND	ug/L	5.0	1		06/27/13 09:43	110-54-3	N2
2-Hexanone	ND	ug/L	25.0	1		06/27/13 09:43	591-78-6	
Iodomethane	ND	ug/L	10.0	1		06/27/13 09:43	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	5.0	1		06/27/13 09:43	98-82-8	
p-Isopropyltoluene	ND	ug/L	5.0	1		06/27/13 09:43	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		06/27/13 09:43	75-09-2	
1-Methylnaphthalene	ND	ug/L	5.0	1		06/27/13 09:43	90-12-0	N2
2-Methylnaphthalene	ND	ug/L	10.0	1		06/27/13 09:43	91-57-6	N2
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25.0	1		06/27/13 09:43	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		06/27/13 09:43	1634-04-4	
Naphthalene	ND	ug/L	1.4	1		06/27/13 09:43	91-20-3	

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ANALYTICAL RESULTS

Project: Crane Naval Base

Pace Project No.: 5082398

Sample: 181 UST	Lab ID: 5082398009	Collected: 06/20/13 12:05	Received: 06/20/13 15:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Indiana		Analytical Method: EPA 8260						
n-Propylbenzene	ND ug/L		5.0	1		06/27/13 09:43	103-65-1	
Styrene	ND ug/L		5.0	1		06/27/13 09:43	100-42-5	
1,1,1,2-Tetrachloroethane	ND ug/L		5.0	1		06/27/13 09:43	630-20-6	
1,1,2,2-Tetrachloroethane	ND ug/L		5.0	1		06/27/13 09:43	79-34-5	
Tetrachloroethene	ND ug/L		5.0	1		06/27/13 09:43	127-18-4	
Toluene	ND ug/L		5.0	1		06/27/13 09:43	108-88-3	
1,2,3-Trichlorobenzene	ND ug/L		5.0	1		06/27/13 09:43	87-61-6	
1,2,4-Trichlorobenzene	ND ug/L		5.0	1		06/27/13 09:43	120-82-1	
1,1,1-Trichloroethane	ND ug/L		5.0	1		06/27/13 09:43	71-55-6	
1,1,2-Trichloroethane	ND ug/L		5.0	1		06/27/13 09:43	79-00-5	
Trichloroethene	ND ug/L		5.0	1		06/27/13 09:43	79-01-6	
Trichlorofluoromethane	ND ug/L		5.0	1		06/27/13 09:43	75-69-4	
1,2,3-Trichloropropane	ND ug/L		5.0	1		06/27/13 09:43	96-18-4	
1,2,4-Trimethylbenzene	ND ug/L		5.0	1		06/27/13 09:43	95-63-6	
1,3,5-Trimethylbenzene	ND ug/L		5.0	1		06/27/13 09:43	108-67-8	
Vinyl acetate	ND ug/L		50.0	1		06/27/13 09:43	108-05-4	
Vinyl chloride	ND ug/L		2.0	1		06/27/13 09:43	75-01-4	
Xylene (Total)	ND ug/L		10.0	1		06/27/13 09:43	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	99 %.		79-116	1		06/27/13 09:43	1868-53-7	
4-Bromofluorobenzene (S)	97 %.		80-114	1		06/27/13 09:43	460-00-4	
Toluene-d8 (S)	107 %.		81-110	1		06/27/13 09:43	2037-26-5	
1010 Flashpoint,Closed Cup		Analytical Method: EPA 1010						
Flashpoint	>180 deg F			1		06/21/13 14:53		
4500H+ pH, Electrometric		Analytical Method: SM 4500-H+B						
pH at 25 Degrees C	7.7 Std. Units			1		06/21/13 11:29		H6
734S Reactive Sulfide		Analytical Method: SW-846 7.3.4.2 Modified						
Sulfide, Reactive	ND mg/L		10.0	1		06/24/13 12:15		
733C Reactive Cyanide		Analytical Method: SW-846 7.3.3.2 Modified						
Cyanide, Reactive	ND mg/L		0.0050	1		06/24/13 13:05		

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ANALYTICAL RESULTS

Project: Crane Naval Base

Pace Project No.: 5082398

Sample: SWMU 27 Composite		Lab ID: 5082398010	Collected: 06/20/13 08:00	Received: 06/20/13 15:15	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP								
Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Arsenic	ND ug/L		10.0	1	06/22/13 09:02	06/24/13 12:12	7440-38-2	
Barium	18600 ug/L		100	1	06/22/13 09:02	06/24/13 12:12	7440-39-3	
Cadmium	11.0 ug/L		5.0	1	06/22/13 09:02	06/24/13 12:12	7440-43-9	
Chromium	314 ug/L		10.0	1	06/22/13 09:02	06/24/13 12:12	7440-47-3	
Lead	1250 ug/L		10.0	1	06/22/13 09:02	06/24/13 12:12	7439-92-1	
Selenium	ND ug/L		10.0	1	06/22/13 09:02	06/24/13 12:12	7782-49-2	
Silver	ND ug/L		50.0	1	06/22/13 09:02	06/24/13 12:12	7440-22-4	
7470 Mercury								
Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	2.8 ug/L		2.0	1	06/25/13 14:15	06/26/13 14:50	7439-97-6	
8270 MSSV PAH								
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510								
Acenaphthene	ND ug/L		5.3	5	06/24/13 20:50	06/27/13 09:26	83-32-9	
Acenaphthylene	ND ug/L		5.3	5	06/24/13 20:50	06/27/13 09:26	208-96-8	
Anthracene	32.3 ug/L		0.53	5	06/24/13 20:50	06/27/13 09:26	120-12-7	
Benzo(a)anthracene	ND ug/L		0.53	5	06/24/13 20:50	06/27/13 09:26	56-55-3	
Benzo(a)pyrene	ND ug/L		0.53	5	06/24/13 20:50	06/27/13 09:26	50-32-8	
Benzo(b)fluoranthene	ND ug/L		0.53	5	06/24/13 20:50	06/27/13 09:26	205-99-2	
Benzo(g,h,i)perylene	ND ug/L		0.53	5	06/24/13 20:50	06/27/13 09:26	191-24-2	
Benzo(k)fluoranthene	ND ug/L		0.53	5	06/24/13 20:50	06/27/13 09:26	207-08-9	
Chrysene	ND ug/L		2.6	5	06/24/13 20:50	06/27/13 09:26	218-01-9	
Dibenz(a,h)anthracene	ND ug/L		0.53	5	06/24/13 20:50	06/27/13 09:26	53-70-3	
Fluoranthene	ND ug/L		5.3	5	06/24/13 20:50	06/27/13 09:26	206-44-0	
Fluorene	ND ug/L		5.3	5	06/24/13 20:50	06/27/13 09:26	86-73-7	
Indeno(1,2,3-cd)pyrene	ND ug/L		0.53	5	06/24/13 20:50	06/27/13 09:26	193-39-5	
1-Methylnaphthalene	ND ug/L		5.3	5	06/24/13 20:50	06/27/13 09:26	90-12-0	N2
2-Methylnaphthalene	ND ug/L		5.3	5	06/24/13 20:50	06/27/13 09:26	91-57-6	
Naphthalene	ND ug/L		5.3	5	06/24/13 20:50	06/27/13 09:26	91-20-3	1d
Phenanthrene	ND ug/L		5.3	5	06/24/13 20:50	06/27/13 09:26	85-01-8	
Pyrene	ND ug/L		5.3	5	06/24/13 20:50	06/27/13 09:26	129-00-0	
Surrogates								
2-Fluorobiphenyl (S)	73 %.		21-114	5	06/24/13 20:50	06/27/13 09:26	321-60-8	
p-Terphenyl-d14 (S)	83 %.		25-131	5	06/24/13 20:50	06/27/13 09:26	1718-51-0	
8270 MSSV SCAN								
Analytical Method: EPA 8270 Preparation Method: EPA 3510								
Benzyl alcohol	ND ug/L		21.1	1	06/24/13 20:50	06/25/13 19:15	100-51-6	
4-Bromophenylphenyl ether	ND ug/L		10.5	1	06/24/13 20:50	06/25/13 19:15	101-55-3	
Butylbenzylphthalate	ND ug/L		10.5	1	06/24/13 20:50	06/25/13 19:15	85-68-7	
4-Chloro-3-methylphenol	ND ug/L		21.1	1	06/24/13 20:50	06/25/13 19:15	59-50-7	
4-Chloroaniline	ND ug/L		21.1	1	06/24/13 20:50	06/25/13 19:15	106-47-8	
bis(2-Chloroethoxy)methane	ND ug/L		10.5	1	06/24/13 20:50	06/25/13 19:15	111-91-1	
bis(2-Chloroethyl) ether	ND ug/L		10.5	1	06/24/13 20:50	06/25/13 19:15	111-44-4	
bis(2-Chloroisopropyl) ether	ND ug/L		5.3	1	06/24/13 20:50	06/25/13 19:15	108-60-1	
bis(2chloro1methylethyl) ether	ND ug/L		5.3	1	06/24/13 20:50	06/25/13 19:15	108-60-1	
2-Chloronaphthalene	ND ug/L		10.5	1	06/24/13 20:50	06/25/13 19:15	91-58-7	
2-Chlorophenol	ND ug/L		10.5	1	06/24/13 20:50	06/25/13 19:15	95-57-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Crane Naval Base

Sample Project No.: 5082398

Sample: SWMU 27 Composite **Lab ID: 5082398010** Collected: 06/20/13 08:00 Received: 06/20/13 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
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8270 MSSV SCAN

Analytical Method: EPA 8270 Preparation Method: EPA 3510

4-Chlorophenylphenyl ether	ND ug/L		10.5	1	06/24/13 20:50	06/25/13 19:15	7005-72-3	
Dibenzofuran	ND ug/L		10.5	1	06/24/13 20:50	06/25/13 19:15	132-64-9	
3,3'-Dichlorobenzidine	ND ug/L		21.1	1	06/24/13 20:50	06/25/13 19:15	91-94-1	
2,4-Dichlorophenol	ND ug/L		10.5	1	06/24/13 20:50	06/25/13 19:15	120-83-2	
Diethylphthalate	ND ug/L		10.5	1	06/24/13 20:50	06/25/13 19:15	84-66-2	
2,4-Dimethylphenol	ND ug/L		10.5	1	06/24/13 20:50	06/25/13 19:15	105-67-9	
Dimethylphthalate	ND ug/L		10.5	1	06/24/13 20:50	06/25/13 19:15	131-11-3	
Di-n-butylphthalate	ND ug/L		10.5	1	06/24/13 20:50	06/25/13 19:15	84-74-2	
4,6-Dinitro-2-methylphenol	ND ug/L		52.6	1	06/24/13 20:50	06/25/13 19:15	534-52-1	
2,4-Dinitrophenol	ND ug/L		52.6	1	06/24/13 20:50	06/25/13 19:15	51-28-5	
2,4-Dinitrotoluene	ND ug/L		10.5	1	06/24/13 20:50	06/25/13 19:15	121-14-2	
2,6-Dinitrotoluene	ND ug/L		10.5	1	06/24/13 20:50	06/25/13 19:15	606-20-2	
Di-n-octylphthalate	ND ug/L		10.5	1	06/24/13 20:50	06/25/13 19:15	117-84-0	
bis(2-Ethylhexyl)phthalate	21.5 ug/L		5.3	1	06/24/13 20:50	06/25/13 19:15	117-81-7	
Hexachloro-1,3-butadiene	ND ug/L		5.3	1	06/24/13 20:50	06/25/13 19:15	87-68-3	
Hexachlorobenzene	ND ug/L		10.5	1	06/24/13 20:50	06/25/13 19:15	118-74-1	
Hexachlorocyclopentadiene	ND ug/L		21.1	1	06/24/13 20:50	06/25/13 19:15	77-47-4	
Hexachloroethane	ND ug/L		10.5	1	06/24/13 20:50	06/25/13 19:15	67-72-1	
Isophorone	ND ug/L		10.5	1	06/24/13 20:50	06/25/13 19:15	78-59-1	
2-Methylphenol(o-Cresol)	ND ug/L		10.5	1	06/24/13 20:50	06/25/13 19:15	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND ug/L		21.1	1	06/24/13 20:50	06/25/13 19:15		
2-Nitroaniline	ND ug/L		52.6	1	06/24/13 20:50	06/25/13 19:15	88-74-4	
3-Nitroaniline	ND ug/L		52.6	1	06/24/13 20:50	06/25/13 19:15	99-09-2	
4-Nitroaniline	ND ug/L		52.6	1	06/24/13 20:50	06/25/13 19:15	100-01-6	
Nitrobenzene	ND ug/L		10.5	1	06/24/13 20:50	06/25/13 19:15	98-95-3	
2-Nitrophenol	ND ug/L		10.5	1	06/24/13 20:50	06/25/13 19:15	88-75-5	
4-Nitrophenol	ND ug/L		52.6	1	06/24/13 20:50	06/25/13 19:15	100-02-7	
N-Nitroso-di-n-propylamine	ND ug/L		10.5	1	06/24/13 20:50	06/25/13 19:15	621-64-7	
N-Nitrosodiphenylamine	ND ug/L		10.5	1	06/24/13 20:50	06/25/13 19:15	86-30-6	
Pentachlorophenol	ND ug/L		52.6	1	06/24/13 20:50	06/25/13 19:15	87-86-5	
Phenol	ND ug/L		10.5	1	06/24/13 20:50	06/25/13 19:15	108-95-2	
2,4,5-Trichlorophenol	ND ug/L		10.5	1	06/24/13 20:50	06/25/13 19:15	95-95-4	
2,4,6-Trichlorophenol	ND ug/L		10.5	1	06/24/13 20:50	06/25/13 19:15	88-06-2	
Surrogates								
Nitrobenzene-d5 (S)	83 %.		29-126	1	06/24/13 20:50	06/25/13 19:15	4165-60-0	
Phenol-d5 (S)	18 %.		10-47	1	06/24/13 20:50	06/25/13 19:15	4165-62-2	
2-Fluorophenol (S)	29 %.		10-67	1	06/24/13 20:50	06/25/13 19:15	367-12-4	
2,4,6-Tribromophenol (S)	104 %.		31-161	1	06/24/13 20:50	06/25/13 19:15	118-79-6	

8260 MSV Indiana

Analytical Method: EPA 8260

Acetone	ND ug/L		100	1		06/27/13 10:17	67-64-1	
Acrolein	ND ug/L		50.0	1		06/27/13 10:17	107-02-8	
Acrylonitrile	ND ug/L		100	1		06/27/13 10:17	107-13-1	
Benzene	ND ug/L		5.0	1		06/27/13 10:17	71-43-2	
Bromobenzene	ND ug/L		5.0	1		06/27/13 10:17	108-86-1	
Bromochloromethane	ND ug/L		5.0	1		06/27/13 10:17	74-97-5	
Bromodichloromethane	ND ug/L		5.0	1		06/27/13 10:17	75-27-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Crane Naval Base

Pace Project No.: 5082398

Sample: SWMU 27 Composite	Lab ID: 5082398010	Collected: 06/20/13 08:00	Received: 06/20/13 15:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Indiana		Analytical Method: EPA 8260						
Bromoform	ND ug/L		5.0	1		06/27/13 10:17	75-25-2	
Bromomethane	ND ug/L		5.0	1		06/27/13 10:17	74-83-9	
2-Butanone (MEK)	ND ug/L		25.0	1		06/27/13 10:17	78-93-3	
n-Butylbenzene	ND ug/L		5.0	1		06/27/13 10:17	104-51-8	
sec-Butylbenzene	ND ug/L		5.0	1		06/27/13 10:17	135-98-8	
tert-Butylbenzene	ND ug/L		5.0	1		06/27/13 10:17	98-06-6	
Carbon disulfide	ND ug/L		10.0	1		06/27/13 10:17	75-15-0	
Carbon tetrachloride	ND ug/L		5.0	1		06/27/13 10:17	56-23-5	
Chlorobenzene	ND ug/L		5.0	1		06/27/13 10:17	108-90-7	
Chloroethane	ND ug/L		5.0	1		06/27/13 10:17	75-00-3	
Chloroform	ND ug/L		5.0	1		06/27/13 10:17	67-66-3	
Chloromethane	ND ug/L		5.0	1		06/27/13 10:17	74-87-3	
2-Chlorotoluene	ND ug/L		5.0	1		06/27/13 10:17	95-49-8	
4-Chlorotoluene	ND ug/L		5.0	1		06/27/13 10:17	106-43-4	
Dibromochloromethane	ND ug/L		5.0	1		06/27/13 10:17	124-48-1	
1,2-Dibromoethane (EDB)	ND ug/L		5.0	1		06/27/13 10:17	106-93-4	
Dibromomethane	ND ug/L		5.0	1		06/27/13 10:17	74-95-3	
1,2-Dichlorobenzene	ND ug/L		5.0	1		06/27/13 10:17	95-50-1	
1,3-Dichlorobenzene	ND ug/L		5.0	1		06/27/13 10:17	541-73-1	
1,4-Dichlorobenzene	ND ug/L		5.0	1		06/27/13 10:17	106-46-7	
trans-1,4-Dichloro-2-butene	ND ug/L		100	1		06/27/13 10:17	110-57-6	
Dichlorodifluoromethane	ND ug/L		5.0	1		06/27/13 10:17	75-71-8	
1,1-Dichloroethane	ND ug/L		5.0	1		06/27/13 10:17	75-34-3	
1,2-Dichloroethane	ND ug/L		5.0	1		06/27/13 10:17	107-06-2	
1,1-Dichloroethene	ND ug/L		5.0	1		06/27/13 10:17	75-35-4	
cis-1,2-Dichloroethene	ND ug/L		5.0	1		06/27/13 10:17	156-59-2	
trans-1,2-Dichloroethene	ND ug/L		5.0	1		06/27/13 10:17	156-60-5	
1,2-Dichloropropane	ND ug/L		5.0	1		06/27/13 10:17	78-87-5	
1,3-Dichloropropane	ND ug/L		5.0	1		06/27/13 10:17	142-28-9	
2,2-Dichloropropane	ND ug/L		5.0	1		06/27/13 10:17	594-20-7	
1,1-Dichloropropene	ND ug/L		5.0	1		06/27/13 10:17	563-58-6	
cis-1,3-Dichloropropene	ND ug/L		5.0	1		06/27/13 10:17	10061-01-5	
trans-1,3-Dichloropropene	ND ug/L		5.0	1		06/27/13 10:17	10061-02-6	
Ethylbenzene	ND ug/L		5.0	1		06/27/13 10:17	100-41-4	
Ethyl methacrylate	ND ug/L		100	1		06/27/13 10:17	97-63-2	
Hexachloro-1,3-butadiene	ND ug/L		5.0	1		06/27/13 10:17	87-68-3	
n-Hexane	ND ug/L		5.0	1		06/27/13 10:17	110-54-3	N2
2-Hexanone	ND ug/L		25.0	1		06/27/13 10:17	591-78-6	
Iodomethane	ND ug/L		10.0	1		06/27/13 10:17	74-88-4	
Isopropylbenzene (Cumene)	ND ug/L		5.0	1		06/27/13 10:17	98-82-8	
p-Isopropyltoluene	ND ug/L		5.0	1		06/27/13 10:17	99-87-6	
Methylene Chloride	ND ug/L		5.0	1		06/27/13 10:17	75-09-2	
1-Methylnaphthalene	ND ug/L		5.0	1		06/27/13 10:17	90-12-0	N2
2-Methylnaphthalene	ND ug/L		10.0	1		06/27/13 10:17	91-57-6	N2
4-Methyl-2-pentanone (MIBK)	ND ug/L		25.0	1		06/27/13 10:17	108-10-1	
Methyl-tert-butyl ether	ND ug/L		4.0	1		06/27/13 10:17	1634-04-4	
Naphthalene	ND ug/L		1.4	1		06/27/13 10:17	91-20-3	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Crane Naval Base

Pace Project No.: 5082398

Sample: SWMU 27 Composite	Lab ID: 5082398010	Collected: 06/20/13 08:00	Received: 06/20/13 15:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Indiana		Analytical Method: EPA 8260						
n-Propylbenzene	ND	ug/L	5.0	1		06/27/13 10:17	103-65-1	
Styrene	ND	ug/L	5.0	1		06/27/13 10:17	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	1		06/27/13 10:17	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		06/27/13 10:17	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		06/27/13 10:17	127-18-4	
Toluene	ND	ug/L	5.0	1		06/27/13 10:17	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	5.0	1		06/27/13 10:17	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	5.0	1		06/27/13 10:17	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/27/13 10:17	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		06/27/13 10:17	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		06/27/13 10:17	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		06/27/13 10:17	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	5.0	1		06/27/13 10:17	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		06/27/13 10:17	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		06/27/13 10:17	108-67-8	
Vinyl acetate	ND	ug/L	50.0	1		06/27/13 10:17	108-05-4	
Vinyl chloride	ND	ug/L	2.0	1		06/27/13 10:17	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		06/27/13 10:17	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	98 %		79-116	1		06/27/13 10:17	1868-53-7	
4-Bromofluorobenzene (S)	97 %		80-114	1		06/27/13 10:17	460-00-4	
Toluene-d8 (S)	108 %		81-110	1		06/27/13 10:17	2037-26-5	
1010 Flashpoint,Closed Cup		Analytical Method: EPA 1010						
Flashpoint	>180	deg F		1		06/21/13 14:53		
4500H+ pH, Electrometric		Analytical Method: SM 4500-H+B						
pH at 25 Degrees C	7.4	Std. Units		1		06/21/13 11:27		H1,H6
734S Reactive Sulfide		Analytical Method: SW-846 7.3.4.2 Modified						
Sulfide, Reactive	ND	mg/L	10.0	1		06/24/13 12:15		
733C Reactive Cyanide		Analytical Method: SW-846 7.3.3.2 Modified						
Cyanide, Reactive	ND	mg/L	0.0050	1		06/24/13 13:08		

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QUALITY CONTROL DATA

Project: Crane Naval Base

Pace Project No.: 5082398

QC Batch: MERP/4711

Analysis Method: EPA 7470

QC Batch Method: EPA 7470

Analysis Description: 7470 Mercury

Associated Lab Samples: 5082398009, 5082398010

METHOD BLANK: 938208

Matrix: Water

Associated Lab Samples: 5082398009, 5082398010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	ND	2.0	06/26/13 14:11	

LABORATORY CONTROL SAMPLE: 938209

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	4.6	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 938210

938211

Parameter	Units	5082274004		MS	MSD	MS	MSD	MS	MSD	% Rec	Max	Qual
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD	
Mercury	ug/L	ND	5	5	5	5.7	5.8	113	114	75-125	1	20

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Crane Naval Base
Pace Project No.: 5082398

QC Batch: MPRP/11533 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET
Associated Lab Samples: 5082398009, 5082398010

METHOD BLANK: 936599 Matrix: Water
Associated Lab Samples: 5082398009, 5082398010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	ug/L	ND	10.0	06/24/13 10:28	
Barium	ug/L	ND	100	06/24/13 10:28	
Cadmium	ug/L	ND	5.0	06/24/13 10:28	
Chromium	ug/L	ND	10.0	06/24/13 10:28	
Lead	ug/L	ND	10.0	06/24/13 10:28	
Selenium	ug/L	ND	10.0	06/24/13 10:28	
Silver	ug/L	ND	50.0	06/24/13 10:28	

LABORATORY CONTROL SAMPLE: 936600

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	1000	1020	102	80-120	
Barium	ug/L	1000	1040	104	80-120	
Cadmium	ug/L	1000	982	98	80-120	
Chromium	ug/L	1000	1030	103	80-120	
Lead	ug/L	1000	990	99	80-120	
Selenium	ug/L	1000	992	99	80-120	
Silver	ug/L	500	484	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 936601 936602

Parameter	Units	5082274004		MS		MSD		% Rec		Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec				
Arsenic	ug/L	10.8	1000	1000	1000	1080	1090	107	108	75-125	1	20	
Barium	ug/L	ND	1000	1000	1000	1110	1130	105	106	75-125	1	20	
Cadmium	ug/L	ND	1000	1000	1000	1020	1040	102	104	75-125	1	20	
Chromium	ug/L	ND	1000	1000	1000	986	996	98	99	75-125	1	20	
Lead	ug/L	ND	1000	1000	1000	960	973	95	97	75-125	1	20	
Selenium	ug/L	ND	1000	1000	1000	1040	1050	104	105	75-125	1	20	
Silver	ug/L	ND	500	500	500	494	501	99	100	75-125	2	20	

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QUALITY CONTROL DATA

Project: Crane Naval Base

Pace Project No.: 5082398

QC Batch: MSV/54643 Analysis Method: EPA 8260
 QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
 Associated Lab Samples: 5082398001, 5082398002, 5082398003, 5082398004, 5082398006, 5082398007, 5082398008, 5082398009, 5082398010

METHOD BLANK: 939307 Matrix: Water
 Associated Lab Samples: 5082398001, 5082398002, 5082398003, 5082398004, 5082398006, 5082398007, 5082398008, 5082398009, 5082398010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	5.0	06/27/13 01:16	
1,1,1-Trichloroethane	ug/L	ND	5.0	06/27/13 01:16	
1,1,2,2-Tetrachloroethane	ug/L	ND	5.0	06/27/13 01:16	
1,1,2-Trichloroethane	ug/L	ND	5.0	06/27/13 01:16	
1,1-Dichloroethane	ug/L	ND	5.0	06/27/13 01:16	
1,1-Dichloroethene	ug/L	ND	5.0	06/27/13 01:16	
1,1-Dichloropropene	ug/L	ND	5.0	06/27/13 01:16	
1,2,3-Trichlorobenzene	ug/L	ND	5.0	06/27/13 01:16	
1,2,3-Trichloropropane	ug/L	ND	5.0	06/27/13 01:16	
1,2,4-Trichlorobenzene	ug/L	ND	5.0	06/27/13 01:16	
1,2,4-Trimethylbenzene	ug/L	ND	5.0	06/27/13 01:16	
1,2-Dibromoethane (EDB)	ug/L	ND	5.0	06/27/13 01:16	
1,2-Dichlorobenzene	ug/L	ND	5.0	06/27/13 01:16	
1,2-Dichloroethane	ug/L	ND	5.0	06/27/13 01:16	
1,2-Dichloropropane	ug/L	ND	5.0	06/27/13 01:16	
1,3,5-Trimethylbenzene	ug/L	ND	5.0	06/27/13 01:16	
1,3-Dichlorobenzene	ug/L	ND	5.0	06/27/13 01:16	
1,3-Dichloropropane	ug/L	ND	5.0	06/27/13 01:16	
1,4-Dichlorobenzene	ug/L	ND	5.0	06/27/13 01:16	
1-Methylnaphthalene	ug/L	ND	5.0	06/27/13 01:16	N2
2,2-Dichloropropane	ug/L	ND	5.0	06/27/13 01:16	
2-Butanone (MEK)	ug/L	ND	25.0	06/27/13 01:16	
2-Chlorotoluene	ug/L	ND	5.0	06/27/13 01:16	
2-Hexanone	ug/L	ND	25.0	06/27/13 01:16	
2-Methylnaphthalene	ug/L	ND	10.0	06/27/13 01:16	N2
4-Chlorotoluene	ug/L	ND	5.0	06/27/13 01:16	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	25.0	06/27/13 01:16	
Acetone	ug/L	ND	100	06/27/13 01:16	
Acrolein	ug/L	ND	50.0	06/27/13 01:16	
Acrylonitrile	ug/L	ND	100	06/27/13 01:16	
Benzene	ug/L	ND	5.0	06/27/13 01:16	
Bromobenzene	ug/L	ND	5.0	06/27/13 01:16	
Bromochloromethane	ug/L	ND	5.0	06/27/13 01:16	
Bromodichloromethane	ug/L	ND	5.0	06/27/13 01:16	
Bromoform	ug/L	ND	5.0	06/27/13 01:16	
Bromomethane	ug/L	ND	5.0	06/27/13 01:16	
Carbon disulfide	ug/L	ND	10.0	06/27/13 01:16	
Carbon tetrachloride	ug/L	ND	5.0	06/27/13 01:16	
Chlorobenzene	ug/L	ND	5.0	06/27/13 01:16	
Chloroethane	ug/L	ND	5.0	06/27/13 01:16	
Chloroform	ug/L	ND	5.0	06/27/13 01:16	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Crane Naval Base

Pace Project No.: 5082398

METHOD BLANK: 939307

Matrix: Water

Associated Lab Samples: 5082398001, 5082398002, 5082398003, 5082398004, 5082398006, 5082398007, 5082398008, 5082398009, 5082398010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloromethane	ug/L	ND	5.0	06/27/13 01:16	
cis-1,2-Dichloroethene	ug/L	ND	5.0	06/27/13 01:16	
cis-1,3-Dichloropropene	ug/L	ND	5.0	06/27/13 01:16	
Dibromochloromethane	ug/L	ND	5.0	06/27/13 01:16	
Dibromomethane	ug/L	ND	5.0	06/27/13 01:16	
Dichlorodifluoromethane	ug/L	ND	5.0	06/27/13 01:16	
Ethyl methacrylate	ug/L	ND	100	06/27/13 01:16	
Ethylbenzene	ug/L	ND	5.0	06/27/13 01:16	
Hexachloro-1,3-butadiene	ug/L	ND	5.0	06/27/13 01:16	
Iodomethane	ug/L	ND	10.0	06/27/13 01:16	
Isopropylbenzene (Cumene)	ug/L	ND	5.0	06/27/13 01:16	
Methyl-tert-butyl ether	ug/L	ND	4.0	06/27/13 01:16	
Methylene Chloride	ug/L	5.5	5.0	06/27/13 01:16	
n-Butylbenzene	ug/L	ND	5.0	06/27/13 01:16	
n-Hexane	ug/L	ND	5.0	06/27/13 01:16	N2
n-Propylbenzene	ug/L	ND	5.0	06/27/13 01:16	
Naphthalene	ug/L	ND	1.4	06/27/13 01:16	
p-Isopropyltoluene	ug/L	ND	5.0	06/27/13 01:16	
sec-Butylbenzene	ug/L	ND	5.0	06/27/13 01:16	
Styrene	ug/L	ND	5.0	06/27/13 01:16	
tert-Butylbenzene	ug/L	ND	5.0	06/27/13 01:16	
Tetrachloroethene	ug/L	ND	5.0	06/27/13 01:16	
Toluene	ug/L	ND	5.0	06/27/13 01:16	
trans-1,2-Dichloroethene	ug/L	ND	5.0	06/27/13 01:16	
trans-1,3-Dichloropropene	ug/L	ND	5.0	06/27/13 01:16	
trans-1,4-Dichloro-2-butene	ug/L	ND	100	06/27/13 01:16	
Trichloroethene	ug/L	ND	5.0	06/27/13 01:16	
Trichlorofluoromethane	ug/L	ND	5.0	06/27/13 01:16	
Vinyl acetate	ug/L	ND	50.0	06/27/13 01:16	
Vinyl chloride	ug/L	ND	2.0	06/27/13 01:16	
Xylene (Total)	ug/L	ND	10.0	06/27/13 01:16	
4-Bromofluorobenzene (S)	%	99	80-114	06/27/13 01:16	
Dibromofluoromethane (S)	%	101	79-116	06/27/13 01:16	
Toluene-d8 (S)	%	110	81-110	06/27/13 01:16	

LABORATORY CONTROL SAMPLE: 939308

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	41.7	83	61-135	
1,1,1-Trichloroethane	ug/L	50	41.5	83	71-129	
1,1,2,2-Tetrachloroethane	ug/L	50	45.4	91	66-126	
1,1,2-Trichloroethane	ug/L	50	46.2	92	77-130	
1,1-Dichloroethane	ug/L	50	42.1	84	75-130	
1,1-Dichloroethene	ug/L	50	48.9	98	68-127	

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QUALITY CONTROL DATA

Project: Crane Naval Base

Pace Project No.: 5082398

LABORATORY CONTROL SAMPLE: 939308

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1-Dichloropropene	ug/L	50	42.7	85	78-130	
1,2,3-Trichlorobenzene	ug/L	50	38.2	76	70-130	
1,2,3-Trichloropropane	ug/L	50	43.4	87	58-142	
1,2,4-Trichlorobenzene	ug/L	50	45.1	90	68-131	
1,2,4-Trimethylbenzene	ug/L	50	53.3	107	69-127	
1,2-Dibromoethane (EDB)	ug/L	50	44.7	89	76-125	
1,2-Dichlorobenzene	ug/L	50	52.9	106	75-123	
1,2-Dichloroethane	ug/L	50	42.4	85	75-128	
1,2-Dichloropropane	ug/L	50	40.7	81	74-121	
1,3,5-Trimethylbenzene	ug/L	50	55.5	111	70-126	
1,3-Dichlorobenzene	ug/L	50	54.0	108	74-122	
1,3-Dichloropropane	ug/L	50	42.0	84	74-123	
1,4-Dichlorobenzene	ug/L	50	44.4	89	76-120	
2,2-Dichloropropane	ug/L	50	43.2	86	50-137	
2-Butanone (MEK)	ug/L	250	233	93	58-139	
2-Chlorotoluene	ug/L	50	55.3	111	74-122	
2-Hexanone	ug/L	250	219	88	54-140	
2-Methylnaphthalene	ug/L	50	37.0	74	70-130	N2
4-Chlorotoluene	ug/L	50	45.3	91	77-123	
4-Methyl-2-pentanone (MIBK)	ug/L	250	219	88	58-138	
Acetone	ug/L	250	241	96	49-150	
Acrolein	ug/L	1000	1230	123	41-200	
Acrylonitrile	ug/L	1000	806	81	63-137	
Benzene	ug/L	50	43.4	87	74-122	
Bromobenzene	ug/L	50	51.3	103	72-127	
Bromochloromethane	ug/L	50	56.8	114	63-132	
Bromodichloromethane	ug/L	50	39.0	78	62-136	
Bromoform	ug/L	50	31.4	63	44-134	
Bromomethane	ug/L	50	44.7	89	22-181	
Carbon disulfide	ug/L	100	101	101	59-132	
Carbon tetrachloride	ug/L	50	36.5	73	56-137	
Chlorobenzene	ug/L	50	45.5	91	78-123	
Chloroethane	ug/L	50	49.9	100	60-144	
Chloroform	ug/L	50	41.4	83	78-126	
Chloromethane	ug/L	50	48.4	97	42-134	
cis-1,2-Dichloroethene	ug/L	50	44.8	90	75-122	
cis-1,3-Dichloropropene	ug/L	50	40.7	81	64-126	
Dibromochloromethane	ug/L	50	39.4	79	58-128	
Dibromomethane	ug/L	50	46.3	93	73-125	
Dichlorodifluoromethane	ug/L	50	81.7	163	35-181	
Ethyl methacrylate	ug/L	200	172	86	69-133	
Ethylbenzene	ug/L	50	53.8	108	66-133	
Hexachloro-1,3-butadiene	ug/L	50	50.5	101	59-145	
Iodomethane	ug/L	100	92.8	93	21-170	
Isopropylbenzene (Cumene)	ug/L	50	52.4	105	69-124	
Methyl-tert-butyl ether	ug/L	100	96.4	96	69-122	
Methylene Chloride	ug/L	50	49.3	99	68-132	
n-Butylbenzene	ug/L	50	49.4	99	70-126	

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QUALITY CONTROL DATA

Project: Crane Naval Base

Pace Project No.: 5082398

LABORATORY CONTROL SAMPLE: 939308

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
n-Hexane	ug/L	50	45.8	92	51-125	N2
n-Propylbenzene	ug/L	50	52.3	105	71-122	
Naphthalene	ug/L	50	41.4	83	68-127	
p-Isopropyltoluene	ug/L	50	57.5	115	72-132	
sec-Butylbenzene	ug/L	50	53.8	108	70-128	
Styrene	ug/L	50	52.8	106	74-126	
tert-Butylbenzene	ug/L	50	43.1	86	51-118	
Tetrachloroethene	ug/L	50	52.0	104	69-130	
Toluene	ug/L	50	54.1	108	72-122	
trans-1,2-Dichloroethene	ug/L	50	50.3	101	72-124	
trans-1,3-Dichloropropene	ug/L	50	39.3	79	64-121	
trans-1,4-Dichloro-2-butene	ug/L	200	180	90	56-133	
Trichloroethene	ug/L	50	44.1	88	76-126	
Trichlorofluoromethane	ug/L	50	53.5	107	76-149	
Vinyl acetate	ug/L	200	195	97	70-130	
Vinyl chloride	ug/L	50	45.0	90	59-126	
Xylene (Total)	ug/L	150	160	107	70-124	
4-Bromofluorobenzene (S)	%			98	80-114	
Dibromofluoromethane (S)	%			98	79-116	
Toluene-d8 (S)	%			106	81-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 939309 939310

Parameter	Units	5082398001		MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Spike Conc.								
1,1,1,2-Tetrachloroethane	ug/L	ND	50	50	50	45.7	47.5	91	95	50-132	4	20	
1,1,1-Trichloroethane	ug/L	ND	50	50	50	45.1	44.6	90	89	60-138	1	20	
1,1,2,2-Tetrachloroethane	ug/L	ND	50	50	50	51.3	49.5	103	99	55-128	3	20	
1,1,2-Trichloroethane	ug/L	ND	50	50	50	52.8	52.5	106	105	61-139	0	20	
1,1-Dichloroethane	ug/L	ND	50	50	50	47.0	44.7	94	89	57-147	5	20	
1,1-Dichloroethene	ug/L	ND	50	50	50	53.8	52.8	108	106	55-145	2	20	
1,1-Dichloropropene	ug/L	ND	50	50	50	47.8	47.2	96	94	55-147	1	20	
1,2,3-Trichlorobenzene	ug/L	ND	50	50	50	42.1	42.4	84	85	31-141	1	20	
1,2,3-Trichloropropane	ug/L	ND	50	50	50	49.4	49.7	99	99	58-133	1	20	
1,2,4-Trichlorobenzene	ug/L	ND	50	50	50	49.4	49.5	99	99	25-143	0	20	
1,2,4-Trimethylbenzene	ug/L	ND	50	50	50	59.8	59.1	120	118	18-149	1	20	
1,2-Dibromoethane (EDB)	ug/L	ND	50	50	50	50.8	49.6	102	99	63-129	2	20	
1,2-Dichlorobenzene	ug/L	ND	50	50	50	60.5	59.6	121	119	38-136	1	20	
1,2-Dichloroethane	ug/L	ND	50	50	50	46.6	47.0	93	94	62-138	1	20	
1,2-Dichloropropane	ug/L	ND	50	50	50	46.3	46.3	93	93	59-130	0	20	
1,3,5-Trimethylbenzene	ug/L	ND	50	50	50	62.1	60.4	124	121	20-147	3	20	
1,3-Dichlorobenzene	ug/L	ND	50	50	50	60.7	60.6	121	121	28-141	0	20	
1,3-Dichloropropane	ug/L	ND	50	50	50	48.1	47.2	96	94	62-127	2	20	
1,4-Dichlorobenzene	ug/L	ND	50	50	50	49.9	49.5	100	99	30-139	1	20	
2,2-Dichloropropane	ug/L	ND	50	50	50	47.8	47.7	96	95	37-139	0	20	
2-Butanone (MEK)	ug/L	ND	250	250	250	256	256	102	102	37-156	0	20	
2-Chlorotoluene	ug/L	ND	50	50	50	63.6	61.5	127	123	27-142	3	20	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Crane Naval Base

Pace Project No.: 5082398

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 939309 939310											
Parameter	Units	5082398001 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Max	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD	
2-Hexanone	ug/L	ND	250	250	237	231	95	92	44-143	3	20
2-Methylnaphthalene	ug/L	ND	50	50	43.3	51.5	80	97	70-130	17	20 N2
4-Chlorotoluene	ug/L	ND	50	50	50.9	51.1	102	102	27-144	0	20
4-Methyl-2-pentanone (MIBK)	ug/L	ND	250	250	244	238	97	95	46-144	2	20
Acetone	ug/L	ND	250	250	264	267	106	107	39-156	1	20
Acrolein	ug/L	ND	1000	1000	1140	1130	114	113	33-200	1	20
Acrylonitrile	ug/L	ND	1000	1000	830	849	83	85	48-149	2	20
Benzene	ug/L	ND	50	50	48.7	48.4	97	97	62-129	1	20
Bromobenzene	ug/L	ND	50	50	56.2	55.6	112	111	39-140	1	20
Bromochloromethane	ug/L	ND	50	50	64.1	62.8	128	126	49-142	2	20
Bromodichloromethane	ug/L	ND	50	50	41.6	41.6	83	83	50-142	0	20
Bromoform	ug/L	ND	50	50	32.4	36.8	65	74	36-125	12	20
Bromomethane	ug/L	ND	50	50	49.2	52.6	98	105	13-179	7	20
Carbon disulfide	ug/L	ND	100	100	110	109	110	109	45-142	1	20
Carbon tetrachloride	ug/L	ND	50	50	38.6	38.1	77	76	46-142	1	20
Chlorobenzene	ug/L	ND	50	50	51.3	50.8	103	102	49-136	1	20
Chloroethane	ug/L	ND	50	50	56.7	55.6	113	111	47-160	2	20
Chloroform	ug/L	ND	50	50	46.0	45.4	92	91	54-150	1	20
Chloromethane	ug/L	ND	50	50	53.6	52.8	107	106	30-148	2	20
cis-1,2-Dichloroethene	ug/L	ND	50	50	50.4	50.0	101	100	60-135	1	20
cis-1,3-Dichloropropene	ug/L	ND	50	50	45.7	45.7	91	91	52-123	0	20
Dibromochloromethane	ug/L	ND	50	50	42.1	44.3	84	89	48-125	5	20
Dibromomethane	ug/L	ND	50	50	51.5	51.0	103	102	59-134	1	20
Dichlorodifluoromethane	ug/L	ND	50	50	91.0	89.7	182	179	24-197	1	20
Ethyl methacrylate	ug/L	ND	200	200	193	192	96	96	55-139	1	20
Ethylbenzene	ug/L	ND	50	50	61.4	60.6	123	121	28-153	1	20
Hexachloro-1,3-butadiene	ug/L	ND	50	50	52.9	51.6	106	103	10-176	3	20
Iodomethane	ug/L	ND	100	100	106	109	106	109	17-157	3	20
Isopropylbenzene (Cumene)	ug/L	ND	50	50	59.1	57.9	118	116	18-152	2	20
Methyl-tert-butyl ether	ug/L	ND	100	100	106	107	106	107	63-130	1	20
Methylene Chloride	ug/L	ND	50	50	48.0	49.2	96	98	45-156	2	20
n-Butylbenzene	ug/L	ND	50	50	55.5	54.8	111	110	10-161	1	20
n-Hexane	ug/L	ND	50	50	51.0	50.4	102	101	33-144	1	20 N2
n-Propylbenzene	ug/L	ND	50	50	59.6	58.3	119	117	16-150	2	20
Naphthalene	ug/L	ND	50	50	47.4	50.0	95	100	39-140	5	20
p-Isopropyltoluene	ug/L	ND	50	50	64.7	64.4	129	129	10-163	1	20
sec-Butylbenzene	ug/L	ND	50	50	61.3	59.4	123	119	10-160	3	20
Styrene	ug/L	ND	50	50	58.8	58.2	118	116	36-139	1	20
tert-Butylbenzene	ug/L	ND	50	50	48.2	46.8	96	94	12-134	3	20
Tetrachloroethene	ug/L	ND	50	50	59.8	59.4	120	119	33-151	1	20
Toluene	ug/L	ND	50	50	63.6	63.0	127	126	50-132	1	20
trans-1,2-Dichloroethene	ug/L	ND	50	50	54.1	53.8	108	108	40-153	0	20
trans-1,3-Dichloropropene	ug/L	ND	50	50	44.1	43.6	88	87	48-122	1	20
trans-1,4-Dichloro-2-butene	ug/L	ND	200	200	198	196	99	98	32-139	1	20
Trichloroethene	ug/L	ND	50	50	49.4	50.3	99	101	50-143	2	20
Trichlorofluoromethane	ug/L	ND	50	50	60.4	59.7	121	119	60-175	1	20
Vinyl acetate	ug/L	ND	200	200	168	167	84	84	70-130	0	20

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QUALITY CONTROL DATA

Project: Crane Naval Base

Pace Project No.: 5082398

Parameter	Units	5082398001		939309		939310		% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec							
Vinyl chloride	ug/L	ND	50	50	51.2	50.2	102	100	44-145	2	20			
Xylene (Total)	ug/L	ND	150	150	181	177	121	118	29-145	2	20			
4-Bromofluorobenzene (S)	%						96	97	80-114					
Dibromofluoromethane (S)	%						95	96	79-116					
Toluene-d8 (S)	%						105	106	81-110					

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QUALITY CONTROL DATA

Project: Crane Naval Base

Pace Project No.: 5082398

QC Batch: MSV/54707 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 5082398005

METHOD BLANK: 940745 Matrix: Water

Associated Lab Samples: 5082398005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	5.0	06/28/13 13:54	
1,1,1-Trichloroethane	ug/L	ND	5.0	06/28/13 13:54	
1,1,2,2-Tetrachloroethane	ug/L	ND	5.0	06/28/13 13:54	
1,1,2-Trichloroethane	ug/L	ND	5.0	06/28/13 13:54	
1,1-Dichloroethane	ug/L	ND	5.0	06/28/13 13:54	
1,1-Dichloroethene	ug/L	ND	5.0	06/28/13 13:54	
1,1-Dichloropropene	ug/L	ND	5.0	06/28/13 13:54	
1,2,3-Trichlorobenzene	ug/L	ND	5.0	06/28/13 13:54	
1,2,3-Trichloropropane	ug/L	ND	5.0	06/28/13 13:54	
1,2,4-Trichlorobenzene	ug/L	ND	5.0	06/28/13 13:54	
1,2,4-Trimethylbenzene	ug/L	ND	5.0	06/28/13 13:54	
1,2-Dibromoethane (EDB)	ug/L	ND	5.0	06/28/13 13:54	
1,2-Dichlorobenzene	ug/L	ND	5.0	06/28/13 13:54	
1,2-Dichloroethane	ug/L	ND	5.0	06/28/13 13:54	
1,2-Dichloropropane	ug/L	ND	5.0	06/28/13 13:54	
1,3,5-Trimethylbenzene	ug/L	ND	5.0	06/28/13 13:54	
1,3-Dichlorobenzene	ug/L	ND	5.0	06/28/13 13:54	
1,3-Dichloropropane	ug/L	ND	5.0	06/28/13 13:54	
1,4-Dichlorobenzene	ug/L	ND	5.0	06/28/13 13:54	
1-Methylnaphthalene	ug/L	ND	5.0	06/28/13 13:54	N2
2,2-Dichloropropane	ug/L	ND	5.0	06/28/13 13:54	
2-Butanone (MEK)	ug/L	ND	25.0	06/28/13 13:54	
2-Chlorotoluene	ug/L	ND	5.0	06/28/13 13:54	
2-Hexanone	ug/L	ND	25.0	06/28/13 13:54	
2-Methylnaphthalene	ug/L	ND	10.0	06/28/13 13:54	N2
4-Chlorotoluene	ug/L	ND	5.0	06/28/13 13:54	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	25.0	06/28/13 13:54	
Acetone	ug/L	ND	100	06/28/13 13:54	
Acrolein	ug/L	ND	50.0	06/28/13 13:54	
Acrylonitrile	ug/L	ND	100	06/28/13 13:54	
Benzene	ug/L	ND	5.0	06/28/13 13:54	
Bromobenzene	ug/L	ND	5.0	06/28/13 13:54	
Bromochloromethane	ug/L	ND	5.0	06/28/13 13:54	
Bromodichloromethane	ug/L	ND	5.0	06/28/13 13:54	
Bromoform	ug/L	ND	5.0	06/28/13 13:54	
Bromomethane	ug/L	ND	5.0	06/28/13 13:54	
Carbon disulfide	ug/L	ND	10.0	06/28/13 13:54	
Carbon tetrachloride	ug/L	ND	5.0	06/28/13 13:54	
Chlorobenzene	ug/L	ND	5.0	06/28/13 13:54	
Chloroethane	ug/L	ND	5.0	06/28/13 13:54	
Chloroform	ug/L	ND	5.0	06/28/13 13:54	
Chloromethane	ug/L	ND	5.0	06/28/13 13:54	
cis-1,2-Dichloroethene	ug/L	ND	5.0	06/28/13 13:54	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Crane Naval Base

Pace Project No.: 5082398

METHOD BLANK: 940745

Matrix: Water

Associated Lab Samples: 5082398005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
cis-1,3-Dichloropropene	ug/L	ND	5.0	06/28/13 13:54	
Dibromochloromethane	ug/L	ND	5.0	06/28/13 13:54	
Dibromomethane	ug/L	ND	5.0	06/28/13 13:54	
Dichlorodifluoromethane	ug/L	ND	5.0	06/28/13 13:54	
Ethyl methacrylate	ug/L	ND	100	06/28/13 13:54	
Ethylbenzene	ug/L	ND	5.0	06/28/13 13:54	
Hexachloro-1,3-butadiene	ug/L	ND	5.0	06/28/13 13:54	
Iodomethane	ug/L	ND	10.0	06/28/13 13:54	
Isopropylbenzene (Cumene)	ug/L	ND	5.0	06/28/13 13:54	
Methyl-tert-butyl ether	ug/L	ND	4.0	06/28/13 13:54	
Methylene Chloride	ug/L	5.2	5.0	06/28/13 13:54	
n-Butylbenzene	ug/L	ND	5.0	06/28/13 13:54	
n-Hexane	ug/L	ND	5.0	06/28/13 13:54	N2
n-Propylbenzene	ug/L	ND	5.0	06/28/13 13:54	
Naphthalene	ug/L	ND	1.4	06/28/13 13:54	
p-Isopropyltoluene	ug/L	ND	5.0	06/28/13 13:54	
sec-Butylbenzene	ug/L	ND	5.0	06/28/13 13:54	
Styrene	ug/L	ND	5.0	06/28/13 13:54	
tert-Butylbenzene	ug/L	ND	5.0	06/28/13 13:54	
Tetrachloroethene	ug/L	ND	5.0	06/28/13 13:54	
Toluene	ug/L	ND	5.0	06/28/13 13:54	
trans-1,2-Dichloroethene	ug/L	ND	5.0	06/28/13 13:54	
trans-1,3-Dichloropropene	ug/L	ND	5.0	06/28/13 13:54	
trans-1,4-Dichloro-2-butene	ug/L	ND	100	06/28/13 13:54	
Trichloroethene	ug/L	ND	5.0	06/28/13 13:54	
Trichlorofluoromethane	ug/L	ND	5.0	06/28/13 13:54	
Vinyl acetate	ug/L	ND	50.0	06/28/13 13:54	
Vinyl chloride	ug/L	ND	2.0	06/28/13 13:54	
Xylene (Total)	ug/L	ND	10.0	06/28/13 13:54	
4-Bromofluorobenzene (S)	%	97	80-114	06/28/13 13:54	
Dibromofluoromethane (S)	%	95	79-116	06/28/13 13:54	
Toluene-d8 (S)	%	106	81-110	06/28/13 13:54	

LABORATORY CONTROL SAMPLE: 940746

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	40.4	81	61-135	
1,1,1-Trichloroethane	ug/L	50	40.3	81	71-129	
1,1,2,2-Tetrachloroethane	ug/L	50	45.1	90	66-126	
1,1,2-Trichloroethane	ug/L	50	45.1	90	77-130	
1,1-Dichloroethane	ug/L	50	40.2	80	75-130	
1,1-Dichloroethene	ug/L	50	48.3	97	68-127	
1,1-Dichloropropene	ug/L	50	42.8	86	78-130	
1,2,3-Trichlorobenzene	ug/L	50	41.3	83	70-130	
1,2,3-Trichloropropane	ug/L	50	42.5	85	58-142	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Crane Naval Base

Pace Project No.: 5082398

LABORATORY CONTROL SAMPLE: 940746

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/L	50	51.0	102	68-131	
1,2,4-Trimethylbenzene	ug/L	50	54.9	110	69-127	
1,2-Dibromoethane (EDB)	ug/L	50	43.9	88	76-125	
1,2-Dichlorobenzene	ug/L	50	55.3	111	75-123	
1,2-Dichloroethane	ug/L	50	40.4	81	75-128	
1,2-Dichloropropane	ug/L	50	41.5	83	74-121	
1,3,5-Trimethylbenzene	ug/L	50	57.5	115	70-126	
1,3-Dichlorobenzene	ug/L	50	57.0	114	74-122	
1,3-Dichloropropane	ug/L	50	41.2	82	74-123	
1,4-Dichlorobenzene	ug/L	50	47.1	94	76-120	
2,2-Dichloropropane	ug/L	50	44.0	88	50-137	
2-Butanone (MEK)	ug/L	250	265	106	58-139	
2-Chlorotoluene	ug/L	50	56.8	114	74-122	
2-Hexanone	ug/L	250	219	88	54-140	
2-Methylnaphthalene	ug/L	50	42.0	84	70-130	N2
4-Chlorotoluene	ug/L	50	47.5	95	77-123	
4-Methyl-2-pentanone (MIBK)	ug/L	250	202	81	58-138	
Acetone	ug/L	250	326	131	49-150	L3
Acrolein	ug/L	1000	1160	116	41-200	
Acrylonitrile	ug/L	1000	756	76	63-137	
Benzene	ug/L	50	43.6	87	74-122	
Bromobenzene	ug/L	50	49.0	98	72-127	
Bromochloromethane	ug/L	50	54.4	109	63-132	
Bromodichloromethane	ug/L	50	38.4	77	62-136	
Bromoform	ug/L	50	30.0	60	44-134	
Bromomethane	ug/L	50	46.9	94	22-181	
Carbon disulfide	ug/L	100	100	100	59-132	
Carbon tetrachloride	ug/L	50	34.6	69	56-137	
Chlorobenzene	ug/L	50	46.5	93	78-123	
Chloroethane	ug/L	50	48.9	98	60-144	
Chloroform	ug/L	50	40.9	82	78-126	
Chloromethane	ug/L	50	45.8	92	42-134	
cis-1,2-Dichloroethene	ug/L	50	45.3	91	75-122	
cis-1,3-Dichloropropene	ug/L	50	40.2	80	64-126	
Dibromochloromethane	ug/L	50	36.9	74	58-128	
Dibromomethane	ug/L	50	47.0	94	73-125	
Dichlorodifluoromethane	ug/L	50	78.8	158	35-181	
Ethyl methacrylate	ug/L	200	168	84	69-133	
Ethylbenzene	ug/L	50	54.7	109	66-133	
Hexachloro-1,3-butadiene	ug/L	50	54.4	109	59-145	
Iodomethane	ug/L	100	105	105	21-170	
Isopropylbenzene (Cumene)	ug/L	50	52.2	104	69-124	
Methyl-tert-butyl ether	ug/L	100	93.9	94	69-122	
Methylene Chloride	ug/L	50	45.2	90	68-132	
n-Butylbenzene	ug/L	50	52.1	104	70-126	
n-Hexane	ug/L	50	44.3	89	51-125	N2
n-Propylbenzene	ug/L	50	53.8	108	71-122	
Naphthalene	ug/L	50	42.9	86	68-127	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Crane Naval Base

Pace Project No.: 5082398

LABORATORY CONTROL SAMPLE: 940746

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
p-Isopropyltoluene	ug/L	50	60.2	120	72-132	
sec-Butylbenzene	ug/L	50	54.9	110	70-128	
Styrene	ug/L	50	53.6	107	74-126	
tert-Butylbenzene	ug/L	50	42.9	86	51-118	
Tetrachloroethene	ug/L	50	54.7	109	69-130	
Toluene	ug/L	50	53.6	107	72-122	
trans-1,2-Dichloroethene	ug/L	50	49.2	98	72-124	
trans-1,3-Dichloropropene	ug/L	50	38.5	77	64-121	
trans-1,4-Dichloro-2-butene	ug/L	200	178	89	56-133	
Trichloroethene	ug/L	50	45.3	91	76-126	
Trichlorofluoromethane	ug/L	50	53.2	106	76-149	
Vinyl acetate	ug/L	200	181	90	70-130	
Vinyl chloride	ug/L	50	44.2	88	59-126	
Xylene (Total)	ug/L	150	162	108	70-124	
4-Bromofluorobenzene (S)	%			93	80-114	
Dibromofluoromethane (S)	%			96	79-116	
Toluene-d8 (S)	%			103	81-110	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Crane Naval Base

Pace Project No.: 5082398

QC Batch: OEXT/33141 Analysis Method: EPA 8270 by SIM
QC Batch Method: EPA 3510 Analysis Description: 8270 Water PAH
Associated Lab Samples: 5082398009, 5082398010

METHOD BLANK: 937809 Matrix: Water

Associated Lab Samples: 5082398009, 5082398010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	ug/L	ND	1.0	06/25/13 23:55	N2
2-Methylnaphthalene	ug/L	ND	1.0	06/25/13 23:55	
Acenaphthene	ug/L	ND	1.0	06/25/13 23:55	
Acenaphthylene	ug/L	ND	1.0	06/25/13 23:55	
Anthracene	ug/L	ND	0.10	06/25/13 23:55	
Benzo(a)anthracene	ug/L	ND	0.10	06/25/13 23:55	
Benzo(a)pyrene	ug/L	ND	0.10	06/25/13 23:55	
Benzo(b)fluoranthene	ug/L	ND	0.10	06/25/13 23:55	
Benzo(g,h,i)perylene	ug/L	ND	0.10	06/25/13 23:55	
Benzo(k)fluoranthene	ug/L	ND	0.10	06/25/13 23:55	
Chrysene	ug/L	ND	0.50	06/25/13 23:55	
Dibenz(a,h)anthracene	ug/L	ND	0.10	06/25/13 23:55	
Fluoranthene	ug/L	ND	1.0	06/25/13 23:55	
Fluorene	ug/L	ND	1.0	06/25/13 23:55	
Indeno(1,2,3-cd)pyrene	ug/L	ND	0.10	06/25/13 23:55	
Naphthalene	ug/L	ND	1.0	06/25/13 23:55	
Phenanthrene	ug/L	ND	1.0	06/25/13 23:55	
Pyrene	ug/L	ND	1.0	06/25/13 23:55	
2-Fluorobiphenyl (S)	%	57	21-114	06/25/13 23:55	
p-Terphenyl-d14 (S)	%	72	25-131	06/25/13 23:55	

LABORATORY CONTROL SAMPLE: 937810

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/L	10	6.2	62	29-112	N2
2-Methylnaphthalene	ug/L	10	6.3	63	29-110	
Acenaphthene	ug/L	10	6.3	63	39-117	
Acenaphthylene	ug/L	10	6.5	65	40-120	
Anthracene	ug/L	10	6.9	69	48-126	
Benzo(a)anthracene	ug/L	10	6.9	69	51-134	
Benzo(a)pyrene	ug/L	10	5.9	59	48-141	
Benzo(b)fluoranthene	ug/L	10	6.8	68	49-139	
Benzo(g,h,i)perylene	ug/L	10	5.6	56	44-134	
Benzo(k)fluoranthene	ug/L	10	5.9	59	48-140	
Chrysene	ug/L	10	6.9	69	53-136	
Dibenz(a,h)anthracene	ug/L	10	5.7	57	44-132	
Fluoranthene	ug/L	10	7.2	72	50-135	
Fluorene	ug/L	10	6.5	65	44-124	
Indeno(1,2,3-cd)pyrene	ug/L	10	5.7	57	45-132	
Naphthalene	ug/L	10	5.9	59	30-112	
Phenanthrene	ug/L	10	6.8	68	47-128	

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QUALITY CONTROL DATA

Project: Crane Naval Base

Pace Project No.: 5082398

LABORATORY CONTROL SAMPLE: 937810

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Pyrene	ug/L	10	7.4	74	50-134	
2-Fluorobiphenyl (S)	%.			61	21-114	
p-Terphenyl-d14 (S)	%.			69	25-131	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Crane Naval Base

Pace Project No.: 5082398

QC Batch: OEXT/33140

Analysis Method: EPA 8270

QC Batch Method: EPA 3510

Analysis Description: 8270 Water Scan

Associated Lab Samples: 5082398009, 5082398010

METHOD BLANK: 937807

Matrix: Water

Associated Lab Samples: 5082398009, 5082398010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
2,4,5-Trichlorophenol	ug/L	ND	10.0	06/25/13 16:35	
2,4,6-Trichlorophenol	ug/L	ND	10.0	06/25/13 16:35	
2,4-Dichlorophenol	ug/L	ND	10.0	06/25/13 16:35	
2,4-Dimethylphenol	ug/L	ND	10.0	06/25/13 16:35	
2,4-Dinitrophenol	ug/L	ND	50.0	06/25/13 16:35	
2,4-Dinitrotoluene	ug/L	ND	10.0	06/25/13 16:35	
2,6-Dinitrotoluene	ug/L	ND	10.0	06/25/13 16:35	
2-Chloronaphthalene	ug/L	ND	10.0	06/25/13 16:35	
2-Chlorophenol	ug/L	ND	10.0	06/25/13 16:35	
2-Methylphenol(o-Cresol)	ug/L	ND	10.0	06/25/13 16:35	
2-Nitroaniline	ug/L	ND	50.0	06/25/13 16:35	
2-Nitrophenol	ug/L	ND	10.0	06/25/13 16:35	
3&4-Methylphenol(m&p Cresol)	ug/L	ND	20.0	06/25/13 16:35	
3,3'-Dichlorobenzidine	ug/L	ND	20.0	06/25/13 16:35	
3-Nitroaniline	ug/L	ND	50.0	06/25/13 16:35	
4,6-Dinitro-2-methylphenol	ug/L	ND	50.0	06/25/13 16:35	
4-Bromophenylphenyl ether	ug/L	ND	10.0	06/25/13 16:35	
4-Chloro-3-methylphenol	ug/L	ND	20.0	06/25/13 16:35	
4-Chloroaniline	ug/L	ND	20.0	06/25/13 16:35	
4-Chlorophenylphenyl ether	ug/L	ND	10.0	06/25/13 16:35	
4-Nitroaniline	ug/L	ND	50.0	06/25/13 16:35	
4-Nitrophenol	ug/L	ND	50.0	06/25/13 16:35	
Benzyl alcohol	ug/L	ND	20.0	06/25/13 16:35	
bis(2-Chloroethoxy)methane	ug/L	ND	10.0	06/25/13 16:35	
bis(2-Chloroethyl) ether	ug/L	ND	10.0	06/25/13 16:35	
bis(2-Chloroisopropyl) ether	ug/L	ND	5.0	06/25/13 16:35	
bis(2-Ethylhexyl)phthalate	ug/L	ND	5.0	06/25/13 16:35	
bis(2chloro1 methylethyl) ether	ug/L	ND	5.0	06/25/13 16:35	
Butylbenzylphthalate	ug/L	ND	10.0	06/25/13 16:35	
Di-n-butylphthalate	ug/L	ND	10.0	06/25/13 16:35	
Di-n-octylphthalate	ug/L	ND	10.0	06/25/13 16:35	
Dibenzofuran	ug/L	ND	10.0	06/25/13 16:35	
Diethylphthalate	ug/L	ND	10.0	06/25/13 16:35	
Dimethylphthalate	ug/L	ND	10.0	06/25/13 16:35	
Hexachloro-1,3-butadiene	ug/L	ND	5.0	06/25/13 16:35	
Hexachlorobenzene	ug/L	ND	10.0	06/25/13 16:35	
Hexachlorocyclopentadiene	ug/L	ND	20.0	06/25/13 16:35	
Hexachloroethane	ug/L	ND	10.0	06/25/13 16:35	
Isophorone	ug/L	ND	10.0	06/25/13 16:35	
N-Nitroso-di-n-propylamine	ug/L	ND	10.0	06/25/13 16:35	
N-Nitrosodiphenylamine	ug/L	ND	10.0	06/25/13 16:35	
Nitrobenzene	ug/L	ND	10.0	06/25/13 16:35	
Pentachlorophenol	ug/L	ND	50.0	06/25/13 16:35	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Crane Naval Base

Pace Project No.: 5082398

METHOD BLANK: 937807

Matrix: Water

Associated Lab Samples: 5082398009, 5082398010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Phenol	ug/L	ND	10.0	06/25/13 16:35	
2,4,6-Tribromophenol (S)	%.	93	31-161	06/25/13 16:35	
2-Fluorophenol (S)	%.	26	10-67	06/25/13 16:35	
Nitrobenzene-d5 (S)	%.	81	29-126	06/25/13 16:35	
Phenol-d5 (S)	%.	13	10-47	06/25/13 16:35	

LABORATORY CONTROL SAMPLE: 937808

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4-Dinitrotoluene	ug/L	100	88.9	89	36-126	
2-Chlorophenol	ug/L	100	49.8	50	40-98	
4-Chloro-3-methylphenol	ug/L	100	59.2	59	43-113	
4-Nitrophenol	ug/L	100	ND	15	10-42	
N-Nitroso-di-n-propylamine	ug/L	100	84.0	84	43-120	
Pentachlorophenol	ug/L	100	81.0	81	31-125	
Phenol	ug/L	100	13.1	13	10-37	
2,4,6-Tribromophenol (S)	%.			97	31-161	
2-Fluorophenol (S)	%.			23	10-67	
Nitrobenzene-d5 (S)	%.			82	29-126	
Phenol-d5 (S)	%.			13	10-47	

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QUALITY CONTROL DATA

Project: Crane Naval Base

Pace Project No.: 5082398

QC Batch: WET/12211 Analysis Method: SM 4500-H+B

QC Batch Method: SM 4500-H+B Analysis Description: 4500H+B pH

Associated Lab Samples: 5082398009, 5082398010

SAMPLE DUPLICATE: 936151

Parameter	Units	5082398010 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.4	7.4	0		H1,H6

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Crane Naval Base

Pace Project No.: 5082398

QC Batch: WET/42003 Analysis Method: SW-846 7.3.4.2 Modified

QC Batch Method: SW-846 7.3.4.2 Modified Analysis Description: 734S Reactive Sulfide

Associated Lab Samples: 5082398009, 5082398010

METHOD BLANK: 1209915 Matrix: Water

Associated Lab Samples: 5082398009, 5082398010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfide, Reactive	mg/L	ND	10.0	06/24/13 12:15	

LABORATORY CONTROL SAMPLE: 1209916

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide, Reactive	mg/L	20	18.8	94	80-107	

MATRIX SPIKE SAMPLE: 1209917

Parameter	Units	5082398009 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide, Reactive	mg/L	ND	50	44.9	86	67-110	

SAMPLE DUPLICATE: 1209918

Parameter	Units	5082398010 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Reactive	mg/L	ND	2J		30	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: Crane Naval Base

Pace Project No.: 5082398

QC Batch: WETA/25217 Analysis Method: SW-846 7.3.3.2 Modified

QC Batch Method: SW-846 7.3.3.2 Modified Analysis Description: 733C Reactive Cyanide

Associated Lab Samples: 5082398009, 5082398010

METHOD BLANK: 1209777 Matrix: Water

Associated Lab Samples: 5082398009, 5082398010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide, Reactive	mg/L	ND	0.0050	06/24/13 13:04	

LABORATORY CONTROL SAMPLE: 1209778

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide, Reactive	mg/L	.05	0.052	104	74-121	

MATRIX SPIKE SAMPLE: 1209779

Parameter	Units	5082398009 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cyanide, Reactive	mg/L	ND	.05	0.053	106	57-125	

SAMPLE DUPLICATE: 1209780

Parameter	Units	5082398010 Result	Dup Result	RPD	Max RPD	Qualifiers
Cyanide, Reactive	mg/L	ND	ND		26	

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Crane Naval Base

Pace Project No.: 5082398

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-I Pace Analytical Services - Indianapolis

PASI-K Pace Analytical Services - Kansas City

ANALYTE QUALIFIERS

1d Due to the extract's physical characteristics, the analysis was performed at dilution. CEM 06/27/13

B Analyte was detected in the associated method blank.

C9 Common Laboratory Contaminant.

H1 Analysis conducted outside the EPA method holding time.

H6 Analysis initiated outside of the 15 minute EPA recommended holding time.

HS Results are from sample aliquot taken from VOA vial with headspace (air bubble greater than 6 mm diameter).

L3 Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

N2 The lab does not hold TNI accreditation for this parameter.

p2 Post-analysis pH measurement indicates pH > 2.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Crane Naval Base

Pace Project No.: 5082398

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
5082398009	181 UST	EPA 3010	MPRP/11533	EPA 6010	ICP/12368
5082398010	SWMU 27 Composite	EPA 3010	MPRP/11533	EPA 6010	ICP/12368
5082398009	181 UST	EPA 7470	MERP/4711	EPA 7470	MERC/4936
5082398010	SWMU 27 Composite	EPA 7470	MERP/4711	EPA 7470	MERC/4936
5082398009	181 UST	EPA 3510	OEXT/33141	EPA 8270 by SIM	MSSV/12832
5082398010	SWMU 27 Composite	EPA 3510	OEXT/33141	EPA 8270 by SIM	MSSV/12832
5082398009	181 UST	EPA 3510	OEXT/33140	EPA 8270	MSSV/12839
5082398010	SWMU 27 Composite	EPA 3510	OEXT/33140	EPA 8270	MSSV/12839
5082398001	130 Pit A	EPA 8260	MSV/54643		
5082398002	1886 Pit A	EPA 8260	MSV/54643		
5082398003	1885 Pit A	EPA 8260	MSV/54643		
5082398004	122 Pit A	EPA 8260	MSV/54643		
5082398005	126 Pit B	EPA 8260	MSV/54707		
5082398006	133 Pit A	EPA 8260	MSV/54643		
5082398007	2698 Pit A	EPA 8260	MSV/54643		
5082398008	181	EPA 8260	MSV/54643		
5082398009	181 UST	EPA 8260	MSV/54643		
5082398010	SWMU 27 Composite	EPA 8260	MSV/54643		
5082398009	181 UST	EPA 1010	WET/12215		
5082398010	SWMU 27 Composite	EPA 1010	WET/12215		
5082398009	181 UST	SM 4500-H+B	WET/12211		
5082398010	SWMU 27 Composite	SM 4500-H+B	WET/12211		
5082398009	181 UST	SW-846 7.3.4.2 Modified	WET/42003		
5082398010	SWMU 27 Composite	SW-846 7.3.4.2 Modified	WET/42003		
5082398009	181 UST	SW-846 7.3.3.2 Modified	WETA/25217		
5082398010	SWMU 27 Composite	SW-846 7.3.3.2 Modified	WETA/25217		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Sample Condition Upon Receipt



Client Name: August Mack Project # 5082398

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: _____

Custody Seal on Cooler/Box Present: yes no Seals Intact: yes no

Date/Time 5035A kits placed in freezer

Packing Material: Bubble Wrap Bubble Bags None Other Ziplocks

Thermometer Used 1234567890 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature 25°C / 1.4°C Ice Visible in Sample Containers: yes no

Temp should be above freezing to 6°C

Comments: _____ Date and Initials of person examining contents: Kee 6-20-13

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	5.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sample Labels match COC: -Includes date/time/ID/Analysis	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
All containers needing acid/base pres. have been checked? exceptions: VOA, uniform, TOC, ORG	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9. (Circle) HNO3 H2SO4 NaOH HCl
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	10.
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	14.

Client Notification/ Resolution: _____ Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: K. G. Mack Date: 6-21-13

CLIENT: August Mack

Sample Container Count



COC PAGE 1 of 1
 COC ID# 1683561

Project # 5082398

Sample Line Item	DG9H	AG1U	WGFU	AG0U	R 4/6	BP2N	BP2U	BP2S	BP3N	BP3U	BP3S	AG3S	AG1H	Comments
1	3													
2	1													
3														
4														
5														
6														
7														
8														
9		2					2		1					
10	↓	2					2		1					
11														
12														

Container Codes

DG9H	40mL HCL amber vial	AG0U	100mL unpreserved amber glass	BP1N	1 liter HNO3 plastic	DG9P	40mL TSP amber vial
AG1U	1 liter unpreserved amber glass	AG1H	1 liter HCL amber glass	BP1S	1 liter H2SO4 plastic	DG9S	40mL H2SO4 amber vial
WGFU	4oz clear soil jar	AG1S	1 liter H2SO4 amber glass	BP1U	1 liter unpreserved plastic	DG9T	40mL Na Thio amber vial
R	terra core kit	AG1T	1 liter Na Thiosulfate amber gl	BP1Z	1 liter NaOH, Zn, Ac	DG9U	40mL unpreserved amber vial
BP2N	500mL HNO3 plastic	AG2N	500mL HNO3 amber glass	BP2A	500mL NaOH, Asc Acid plastic		Wipe/Swab
BP2U	500mL unpreserved plastic	AG2S	500mL H2SO4 amber glass	BP2O	500mL NaOH plastic	JGFU	4oz unpreserved amber wide
BP2S	500mL H2SO4 plastic	AG2U	500mL unpreserved amber gla	BP2Z	500mL NaOH, Zn Ac	U	Summa Can
BP3N	250mL HNO3 plastic	AG3U	250mL unpreserved amber gla	AF	Air Filter	VG9H	40mL HCL clear vial
BP3U	250mL unpreserved plastic	BG1H	1 liter HCL clear glass	BP3C	250mL NaOH plastic	VG9T	40mL Na Thio. clear vial
BP3S	250mL H2SO4 plastic	BG1S	1 liter H2SO4 clear glass	BP3Z	250mL NaOH, Zn Ac plastic	VG9U	40mL unpreserved clear vial
AG3S	250mL H2SO4 glass amber	BG1T	1 liter Na Thiosulfate clear gla	C	Air Cassettes	VSG	Headspace septa vial & HCL
AG1S	1 liter H2SO4 amber glass	BG1U	1 liter unpreserved glass	DG9B	40mL Na Bisulfate amber vial	WGFU	4oz wide jar w/hexane wipe
BP1U	1 liter unpreserved plastic	BP1A	1 liter NaOH, Asc Acid plastic	DG9M	40mL MeOH clear vial	ZPLC	Ziploc Bag

APPENDIX F

WASTE MANIFESTS – TRANSPORT AND DISPOSAL DOCUMENTATION

80180



CGS Services Inc.
PO Box 212 - 2920 E US 52
Morristown, IN 46161
765-763-6258 * 1-800-453-5575
Fax 765-763-6174

NON-HAZARDOUS WASTE VERIFICATION NOTICE

Generator Information (To be completed by the Generator & submitted to CGS prior to initial disposal.)

Generator Name: NAVFAC PWD Crane Mailing Address: B3245 Code PRC4 County: Martin
 Contact Name: Thomas J. Brent City: Crane State: IN
 Contact Phone: 812-854-6160 Zip: 47421
 Contact Fax: 812-854-4173 **Please Type or Print Clearly**

Representative, Consultant, or Third Party Information

Company Name: National Environmental, Inc. Mailing Address: 7468 W. 200 North County: Hancock
 Contact Name: Greg Tolten City: Greenfield State: IN
 Contact Phone: 317-894-8373 Zip: 46140
 Contact Fax: 317-891-0785

Location of Waste

Street Address: 300 Highway 361 City: Crane State: IN Zip: 47522

Waste Information

Name of Waste: Pit/UST Water
 Est. annual amount of waste Cyds: _____ Tons: _____ Gallons: 8000 Drums: _____
 Is the above waste material a result of a one time project cleanup? Yes
 Description of process generating the waste: Clean out of pits/trenches/UST for demolition

Verification

Is this verification notice a result of a significant raw material change or a process change? No
 Was this waste previously permitted or verified? No

Generator Notification (If any of the following apply, please indicate with a yes)

The above waste is a: (indicate by circling) Liquid
 Is this waste a hazardous waste that is defined by USEPA and/or state regulation? No
 Does the Waste contain regulated radioactive material? No
 Does the waste contain regulated concentrations of Polychlorinated Biphenyls (PCB's)? No
 Does the waste generate fugitive dust? No
 Is the waste hot or capable of generating heat? No
 Is the waste a regulated Asbestos-containing material? No
 Have the characteristics of this waste changed since a waste determination was performed? No

By signing this waste notification sheet, I hereby attest the above information on this waste notification is true and accurate. I hereby acknowledge that documentation that supports the waste determination will be made available upon request to the landfill and IDEM.

Gen. Signature: Thomas J. Brent Title: Env. Rest. Site Mgr.
 Name (Print): Thomas J. Brent Co. Name: NAVFAC PWD Crane Date: 7/9/2013

To be completed by the disposal facility.

Landfill Verification Waste Determination: Verification Number: 51-6193
 Approval Signature: [Signature] Date: 7-10-13

Transporter Information (to be filled out by Transporter)

Company Name: National Environmental Drivers Signature: [Signature]
 Mailing Address: 7468 W. 200 North, Greenfield, IN 46140 Date: 7/15/13

Disposal Site Information (to be filled out by Disposal Site)

Site Name: CGS Services Inc. IDEM Facility ID #: 73-01
 Address: PO Box 212 Morrstown IN 46161 Volume/Weight: _____
 Authorized Signature: [Signature] Date: 7/18/13

haul -
 CUS - National Env.

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number
 2. Page 1 of 1
 3. Emergency Response Phone
 4. Waste Tracking Number 13-460 7-16-13

5. Generator's Name and Mailing Address: NAVFAC PWD Crane, B3245 Code PRC4, Crane, IN 47421. Phone: 812-854-6160.
 Generator's Site Address (if different than mailing address): 300 Highway 361, Crane, IN 47522

6. Transporter 1 Company Name: National Environmental, Inc. U.S. EPA ID Number: INR000134171

7. Transporter 2 Company Name: U.S. EPA ID Number:

8. Designated Facility Name and Site Address: CGS Services, Inc., 2920 E US 52, Morristown, IN 46161. Phone: 765-763-6268. U.S. EPA ID Number:

9. Waste Shipping Name and Description	10. Containers		11. Total Quantity	12. Unit WL/Vol.
	No.	Type		
1. Non-DOT Regulated, Non-RCRA Hazardous Pit Sludge	1	TT	4666	G
2.				
3.				
4.				

13. Special Handling Instructions and Additional Information: Approval # 51-6193

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offor's Printed/Typed Name: Thomas J. Brent. Signature: [Signature]. Month: 7, Day: 16, Year: 13

15. International Shipments: Import to U.S. Export from U.S. Port of entry/exit: Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Alan L. Fisher. Signature: [Signature]. Month: 7, Day: 16, Year: 13

Transporter 2 Printed/Typed Name: Signature: Month: Day: Year:

17. Discrepancy

17a. Discrepancy Indication Space: Quantity Type Residue Partial Rejection Full Rejection

Manifest Reference Number: U.S. EPA ID Number:

17b. Alternate Facility (or Generator): Facility's Phone:

17c. Signature of Alternate Facility (or Generator): Month: Day: Year:

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: V. LINVILLE. Signature: [Signature]. Month: 7, Day: 18, Year: 13

GENERATOR
INT'L
TRANSPORTER
DESIGNATED FACILITY

68620



CGS Services Inc.
PO Box 212 - 2920 E US 52
Morristown, IN 46161
765-763-6258 * 1-800-453-5575
Fax 765-763-6174

NON-HAZARDOUS WASTE VERIFICATION NOTICE

Generator Information (To be completed by the Generator & submitted to CGS prior to initial disposal.)

Generator Name: NAVFAC PWD Crane Mailing Address: B3245 Code PRC4 County: Martin
 Contact Name: Thomas J. Brent City: Crane State: IN
 Contact Phone: 812-854-6160 Zip: 47421
 Contact Fax: 812-854-4173 Please Type or Print Clearly

Representative, Consultant, or Third Party Information

Company Name: National Environmental, Inc. Mailing Address: 7468 W. 200 North County: Hancock
 Contact Name: Greg Tollen City: Greenfield State: IN
 Contact Phone: 317-894-8373 Zip: 46140
 Contact Fax: 317-891-0785

Location of Waste

Street Address: 300 Highway 361 City: Crane State: IN Zip: 47522

Waste Information

Name of Waste: Pi/UST Water
 Est. annual amount of waste Cyds: _____ Tons: _____ Gallons: 8000 Drums: _____
 Is the above waste material a result of a one time project cleanup? Yes
 Description of process generating the waste: Clean out of pits/trenches/UST for demolition

Verification

Is this verification notice a result of a significant raw material change or a process change? No
 Was this waste previously permitted or verified? No

Generator Notification (If any of the following apply, please indicate with a yes)

The above waste is a: (Indicate by circling) Liquid
 Is this waste a hazardous waste that is defined by USEPA and/or state regulation? No
 Does the Waste contain regulated radioactive material? No
 Does the waste contain regulated concentrations of Polychlorinated Biphenyls (PCB's)? No
 Does the waste generate fugitive dust? No
 Is the waste hot or capable of generating heat? No
 Is the waste a regulated Asbestos-containing material? No
 Have the characteristics of this waste changed since a waste determination was performed? No

By signing this waste notification sheet, I hereby attest the above information on this waste notification is true and accurate. I hereby acknowledge that documentation that supports the waste determination will be made available upon request to the landfill and IDEM.

Gen. Signature: Thomas J. Brent Title: Env. Rest. Site Mgr.
 Name (Print): Thomas J. Brent Co. Name: NAVFAC PWD Crane Date: 7/9/2013

To be completed by the disposal facility.

Landfill Verification Waste Determination: ✓ Verification Number: 51-6193
 Approval Signature: [Signature] Date: 7-10-13

Transporter Information (to be filled out by Transporter)

Company Name: National Environmental Drivers Signature: [Signature]
 Mailing Address: 7468 W. 200 North, Greenfield, IN 46140 Date: 7-22-13

Disposal Site Information (to be filled out by Disposal Site)

Site Name: CGS Services Inc. IDEM Facility ID #: 73-01
 Address: PO Box 212 Morrilltown IN 46161 Volume (Weight): _____
 Authorized Signature: [Signature] Date: 7-22-13

Howl -
 Cus - National Env.

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number

2. Page 1 of 1

3. Emergency Response Phone

4. Waste Tracking Number

13-460-2 7-22-13

5. Generator's Name and Mailing Address

NAVFAC PWD Crane
B3245 Code PRC4
Crane, IN 47421

Generator's Site Address (if different than mailing address)

300 Highway 361
Crane, IN 47522

Generator's Phone:

812-854-6160

6. Transporter 1 Company Name

National Environmental, Inc.

U.S. EPA ID Number

INR000134171

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address

CGS Services, Inc.
2920 E US 52
Morristown, IN 46161

U.S. EPA ID Number

Facility's Phone:

765-763-6268

9. Waste Shipping Name and Description

10. Containers

No.

Type

11. Total Quantity

12. Unit WL/Vol.

1. Non-DOT Regulated, Non-RCRA Hazardous Pit Sludge

1

TT

4000

G

13. Special Handling Instructions and Additional Information

Approval# 51-6193

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offor's Printed/Typed Name

Dennis A. Lenkford

Signature

[Signature]

Month Day Year
7 22 13

15. International Shipments

Import to U.S.

Export from U.S.

Port of entry/exit:

Transporter Signature (for exports only):

Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name

Alan L. Fisher

Signature

[Signature]

Month Day Year
9 22 13

Transporter 2 Printed/Typed Name

Signature

Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space

Quantity

Type

Residue

Partial Rejection

Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)

U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)

Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name

Kathi Riggs

Signature

[Signature]

Month Day Year
7 22 13

GGS SERVICES, INC.
 INDOT 0992164 SOURCE PLT #2329
 2920 E US 52
 MORAISTOWN, IN 46161

TICKET 339160

DATE/TIME PRODUCT HAULER/TRUCK LOCATION

7/22/2013 LIQ
 4:05:29 PM LIQ BY TON NATENV NAT'L ENVIRONME E
 K1 K1 IN 3:40:44 PM

CUSTOMER QTY UNIT PRODUCT PRICE AMOUNT

NATENV 9.730Ton LIQ BY TON
 NATIONAL ENVIRONMENTAL INC COUNTY: MARTIN OTHER FEES:
 PIT/UST WATER FEE
 Order No: 516193 FREIGHT
 Loads Today: 1 ZONE
 Qty. Today: 9.73 TAX EXEMPT

P.O. NAVFAC PWD CRANE GROSS IN Scale 1
 TARE Scale 2 TOTAL

	METRIC	POUNDS	TONS	PIT/UST WATER
GROSS	31.130	68620	34.310	
TARE	22.300	49160	24.500	
NET	8.830	19460	9.730	

AS DRIVER FOR THIS COMPANY, I AFFIRM NO HAZARDOUS WASTE IS CONTAINED IN THIS LOAD

WEIGHMASTER: Vickie Linville DRIVER 

7760



CGS Services Inc.
PO Box 212 - 2920 E US 52
Morristown, IN 46161
765-763-6258 * 1-800-453-5575
Fax 765-763-6174

NON-HAZARDOUS WASTE VERIFICATION NOTICE

Generator Information (To be completed by the Generator & submitted to CGS prior to initial disposal.)

Generator Name: NAVFAC PWD Crane Mailing Address: B3245 Code PRC4 County: Marin
 Contact Name: Thomas J. Brent City: Crane State: IN
 Contact Phone: 812-854-6160 Zip: 47421
 Contact Fax: 812-854-4173 Please Type or Print Clearly

Representative, Consultant, or Third Party Information

Company Name: National Environmental, Inc. Mailing Address: 7468 W. 200 North County: Hancock
 Contact Name: Greg Totten City: Greenfield State: IN
 Contact Phone: 317-894-8373 Zip: 46140
 Contact Fax: 317-891-0785

Location of Waste

Street Address: 300 Highway 361 City: Crane State: IN Zip: 47522

Waste Information

Name of Waste: Pit/UST Water
 Est. annual amount of waste Cyds: _____ Tons: _____ Gallons: 8000 Drums: _____
 Is the above waste material a result of a one time project cleanup? Yes
 Description of process generating the waste: Clean out of pits/tranches/UST for demolition
 Verification

Is this verification notice a result of a significant raw material change or a process change? No

Was this waste previously permitted or verified? No

Generator Notification (If any of the following apply, please indicate with a yes)

The above waste is a: (Indicate by circling) Liquid
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 Have the characteristics of this waste changed since a waste determination was performed? No

By signing this waste notification sheet, I hereby attest the above information on this waste notification is true and accurate. I hereby acknowledge that documentation that supports the waste determination will be made available upon request to the landfill and IDEM.

Gen. Signature: Thomas J. Brent Title: Env. Rest. Site Mgr.
 Name (Print): Thomas J. Brent Co. Name: NAVFAC PWD Crane Date: 7/9/2013

To be completed by the disposal facility.

Landfill Verification Waste Determination: ✓ Verification Number: 51-6193
 Approval Signature: [Signature] Date: 7-10-13

Transporter Information (to be filled out by Transportor)

Company Name: National Environmental Drivers Signature: Alan L. Fish
 Mailing Address: 7468 W. 200 North, Greenfield, IN 46140 Date: 7-24-12

Disposal Site Information (to be filled out by Disposal Site)

Site Name: CGS Services Inc. DEM Facility ID #: 73-01
 Address: PO Box 212 Morrstown IN 46161 Volume (Weight): _____
 Authorized Signature: [Signature] Date: 7/24/13

Haul -
CUS - National Env.

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number

2. Page 1 of 1

3. Emergency Response Phone

4. Waste Tracking Number

7-CRANE-23-13

5. Generator's Name and Mailing Address

NAVFAC PWD Crane
B3245 Code PRC4
Crane, IN 47421

Generator's Site Address (if different than mailing address)

300 Highway 361
Crane, IN 47522

Generator's Phone: 812-854-6160

6. Transporter 1 Company Name

National Environmental, Inc.

U.S. EPA ID Number

INR000134171

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address

CGS Services, Inc.
2920 E US 52
Morristown, IN 46161

U.S. EPA ID Number

Facility's Phone:

9. Waste Shipping Name and Description

1. Non-DOT Regulated, Non-RCRA Hazardous Pitt Sludge

10. Containers

No.

Type

11. Total Quantity

12. Unit Wt./Vol.

1

TT

4000

G

13. Special Handling Instructions and Additional Information
Approval#: 51-6193

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offero's Printed/Typed Name

Thomas J. Brewer

Signature

Thomas J. Brewer

Month Day Year

7 23 13

15. International Shipments

Import to U.S.

Export from U.S.

Port of entry/exit:

Transporter Signature (for exports only):

Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name

Alan L. Fisher

Signature

Alan L. Fisher

Month Day Year

7 23 13

Transporter 2 Printed/Typed Name

Signature

Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space

Quantity

Type

Residue

Partial Rejection

Full Rejection

Manifest Reference Number:

U.S. EPA ID Number

17b. Alternate Facility (or Generator)

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)

Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name

V. LINVILLE

Signature

Vickie Linville

Month Day Year

7 24 13

GENERATOR

INT'L

TRANSPORTER

DESIGNATED FACILITY

CGS SERVICES, INC.
 INDOT 0992164 SOURCE FLT #2329
 2920 E US 52.
 MORRISTOWN, IN 46161

TICKET 339405

DATE/TIME	PRODUCT	HAULER/TRUCK	LOCATION
7/24/2013 10:57:48	LIQT AMLIQ BY TON	NATENV K1	NAT'L ENVIRONMENTAL K1 IN 9:45:13 AM

CUSTOMER	QTY	UNIT	PRODUCT	PRICE	AMOUNT
NATENV NATIONAL ENVIRONMENTAL INC PIT/UST WATER Order No: 516193 Loads Today: 1 Qty. Today: 10.23	10.23	Ton	LIQ BY TON COUNTY: MARTIN	OTHER FEES: FEE FREIGHT ZONE TAX	EXEMPT
P.O. NAVFAC PWD CRANE	GROSS IN TARE	Scale 1 Scale 2	TOTAL		

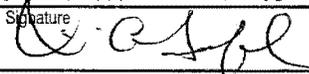
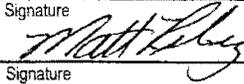
	METRIC	POUNDS	TONS
GROSS	30.740	67760	33.880
TARE	21.450	47300	23.650
NET	9.280	20460	10.230

AS DRIVER FOR THIS COMPANY, I AFFIRM NO
 HAZARDOUS WASTE IS CONTAINED IN THIS LOAD

WEIGHMASTER: Vickie Linville

DRIVER

Ala T. JH

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number IN5170023498	2. Page 1 of 4	3. Emergency Response Phone 317-431-6152	4. Manifest Tracking Number 011238045 JJK		
5. Generator's Name and Mailing Address Crane NSWC BXTM-DL Bldg 3260; 300 Hwy 381 Crane, IN 47522-5000				Generator's Site Address (if different than mailing address)			
6. Transporter 1 Company Name American Transportation Solutions, LLC				U.S. EPA ID Number PAR000521740			
7. Transporter 2 Company Name				U.S. EPA ID Number			
8. Designated Facility Name and Site Address AES Environmental, LLC 1689 Shar Cal Rd Calvert City, KY 42029				U.S. EPA ID Number KYD985073196			
Facility's Phone: 270-395-0504							
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes	
		No.	Type				
X	1. RQ, UN1993, WASTE FLAMMABLE LIQUID, N.O.S., 3, PG II (Isopropyl) D001,,,,,(ERG:128)(2991)	005	DM	01930	P	D001	
X	2. RQ, UN1325, WASTE FLAMMABLE SOLID, ORGANIC, N.O.S., 4.1, PG III (Rags/Alcohol) D001,,,,,(ERG:133)(2457)	007	DM	01010	P	D001	
X	3. RQ, UN1993, WASTE FLAMMABLE LIQUID, N.O.S., 3, PG II (isopropyl) D001,F005,,,,,(ERG:128)(2991)	002	DF	00070	P	D001	F005
X	4. RQ, UN1263, WASTE PAINT RELATED MATERIAL, 3, PG II D001,,,,,(ERG:128)(2991)	012	DM	00400	P	D001	
14. Special Handling Instructions and Additional Information SEND ALL INVOICES AND C.D.'s TO APPLIED TECHNOLOGY, INC., FISHERS, INDIANA							
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.							
Generator's/Offoror's Printed/Typed Name Dennis A. Lankford				Signature 		Month Day Year 11 7 13	
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____							
17. Transporter Acknowledgment of Receipt of Materials							
Transporter 1 Printed/Typed Name Matt Riley				Signature 		Month Day Year 11 7 13	
Transporter 2 Printed/Typed Name				Signature		Month Day Year	
18. Discrepancy							
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection							
Manifest Reference Number: _____							
18b. Alternate Facility (or Generator)				U.S. EPA ID Number			
Facility's Phone: _____							
18c. Signature of Alternate Facility (or Generator)						Month Day Year	
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)							
1. _____		2. _____		3. _____		4. _____	
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a							
Printed/Typed Name				Signature		Month Day Year	

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)		21. Generator ID Number IN5170023498	22. Page 2 OF 4	23. Manifest Tracking Number 011238045JJK			
24. Generator's Name Crane NSWC BXTM-DL Bldg 3260: 300 Hwy 361 Crane, IN 47522-5000							
25. Transporter _____ Company Name				U.S. EPA ID Number			
26. Transporter _____ Company Name				U.S. EPA ID Number			
27a HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers		29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes	
		No.	Type				
5 X	RQ, UN1950, WASTE AEROSOLS, FLAMMABLE, 2.1 D001,,,,,(ERG:126)(4397)	001	DM	00090	P	D001	
6 X	RQ, UN1263, WASTE PAINT RELATED MATERIAL, 3, PG II D001,,,,,(ERG:128)(2992)	001	DM	00330	P	D001	
7 X	RQ, UN1954, WASTE COMPRESSED GAS, FLAMMABLE, N.O.S., 2.1 D001,,,,,(ERG:115)(42376)	001	DF	00020	P	D001	
8 X	RQ, WASTE OXIDIZING SOLID, N.O.S., 5.1, UN1479, PG III (Barium Nitrate) D001,,,,,(ERG:140)(35753)	002	DF	00230	P	D001	
9 X	RQ, UN1760, WASTE CORROSIVE LIQUID, N.O.S., 8, PG II (Sodium Hydroxide) D002,,,,,(ERG:154)(3234)	004	DF	00405	P	D002	
10 X	RQ, UN1760, WASTE CORROSIVE LIQUID, N.O.S., 8, PG II (Potassium Hydroxide) D002,,,,,(ERG:154)(2538)	001	DF	00160	P	D002	
11 X	RQ, UN1760, WASTE CORROSIVE LIQUID, N.O.S., 8, PG II (Hydrochloric Acid) D002,,,,,(ERG:154)(3232)	002	DM	00180	P	D002	
12 X	RQ, UN1760, WASTE CORROSIVE LIQUID, N.O.S., 8, PG II (Monoethanolamine) D002,,,,,(ERG:154)(2538)	001	DF	00022	P	D002	
13 X	RQ, UN1760, WASTE CORROSIVE LIQUID, N.O.S., 8, PG II (Sodium Hydroxide) D002.D007,,,,,(ERG:154)(2538)	004	DF	01220	P	D002	D007
14 X	RQ, UN1760, WASTE CORROSIVE LIQUID, N.O.S., 8, PG II (Hydrochloric/Nitric Acid) D002,,,,,(ERG:154)(3232)	004	DF	00245	P	D002	
32. Special Handling Instructions and Additional Information							
33. Transporter _____ Acknowledgment of Receipt of Materials							
Printed/Typed Name				Signature		Month	Day
34. Transporter _____ Acknowledgment of Receipt of Materials							
Printed/Typed Name				Signature		Month	Day
35. Discrepancy							
36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)							

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)		21. Generator ID Number IN5170023498	22. Page 3 OF 4	23. Manifest Tracking Number 011238045JJK				
24. Generator's Name Crane NSWC BXTM-DL Bldg 3260: 300 Hwy 361 Crane, IN 47522-5000								
25. Transporter _____ Company Name						U.S. EPA ID Number		
26. Transporter _____ Company Name						U.S. EPA ID Number		
27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers		29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
		No.	Type					
15 X	RQ, UN1760, WASTE CORROSIVE LIQUID, N.O.S., 8, PG II (Hydrochloric Acid) D002, D008, D010, ... (ERG:154)(2463)	001	DF	00040	P	D002	D008	D010
16 X	RQ, UN1760, WASTE CORROSIVE LIQUID, N.O.S., 8, PG II (Sulfuric/Nitric Acid) D002, D011, ... (ERG:154)(2463)	001	DF	00050	P	D002	D011	
17 X	RQ, UN1760, WASTE CORROSIVE LIQUID, N.O.S., 8, PG II (Nitric Acid) D002, D007, ... (ERG:154)(2463)	015	DF	07390	P	D002	D007	
18 X	RQ, NA3077, HAZARDOUS WASTE SOLID, N.O.S., 9, PG III (Barium) (Cyclone Residue) D005, ... (ERG:171)(2468)	001	DM	00230	P	D005		
19 X	RQ, NA3077, HAZARDOUS WASTE SOLID, N.O.S., 9, PG III (Cadmium) (Blast Media) D006, ... (ERG:171)(2458)	002	DM	00540	P	D006		
20 X	RQ, NA3077, HAZARDOUS WASTE SOLID, N.O.S., 9, PG III (Cadmium) (Spent Carbon) D006, ... (ERG:171)(2458)	005	DM	01960	P	D006		
21 X	RQ, NA3082, HAZARDOUS WASTE LIQUID, N.O.S., 9, PG III (Chromium) (Wastewater Sludge) D007, ... (ERG:171)(2456)	006	DF	02970	P	D007		
22 X	RQ, NA3077, HAZARDOUS WASTE SOLID, N.O.S., 9, PG III (Chromium) (PPE) D007, ... (ERG:171)(2468)	008	DF	00720	P	D007		
23 X	RQ, NA3082, HAZARDOUS WASTE LIQUID, N.O.S., 9, PG III (Lead) (Wastewater) D008, ... (ERG:171)(2456)	001	DF	00450	P	D008		
24 X	RQ, NA3077, HAZARDOUS WASTE SOLID, N.O.S., 9, PG III (Lead) (Debris) D008, ... (ERG:171)(2468)	003	DF	00113	P	D008		
32. Special Handling Instructions and Additional Information								
33. Transporter _____ Acknowledgment of Receipt of Materials								
Printed/Typed Name				Signature		Month	Day	Year
34. Transporter _____ Acknowledgment of Receipt of Materials								
Printed/Typed Name				Signature		Month	Day	Year
35. Discrepancy								
36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)								

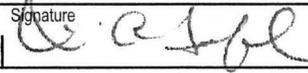
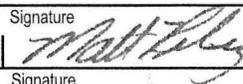
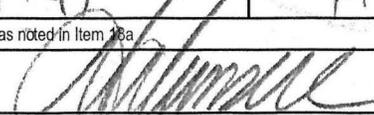
UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)		21. Generator ID Number IN5170023498	22. Page 4 OF 4	23. Manifest Tracking Number 011238045JJK					
24. Generator's Name Crane NSWC BXTM-DL Bldg 3260: 300 Hwy 361 Crane, IN 47522-5000									
25. Transferor _____ Company Name				U.S. EPA ID Number					
26. Transporter _____ Company Name				U.S. EPA ID Number					
27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers		29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes			
		No.	Type						
25 X	RQ, NA3077, HAZARDOUS WASTE SOLID, N.O.S., 9, PG III (Hexachloroethane) D034,,,,,(ERG:171)(2457)	004	DF	00092	P	D034			
26	NON-RCRA/NON-REGULATED MATERIAL, LIQUIDS (Paint Filters/Water) ,,,,,(ERG:)(2450)	003	DM	00960	P				
27	NON-RCRA/NON-REGULATED MATERIAL, LIQUIDS (Coolant Oils) ,,,,,(ERG:)(2450)	012	DM	05460	P				
28	NON-RCRA/NON-REGULATED MATERIAL, SOLIDS (Dessicant/Misc Other) ,,,,,(ERG:)(2496)	018	DM	01577	P				
29	NON-RCRA/NON-REGULATED MATERIAL, SOLIDS (Grit Blast) ,,,,,(ERG:)(2496)	004	CW	07820	P				
30	NON-RCRA/NON-REGULATED MATERIAL, LIQUIDS (Oils/Glycols) ,,,,,(ERG:)(2450)	003	DM	00740	P				
31	NON-RCRA/NON-REGULATED MATERIAL, LIQUIDS (Oily Water) ,,,,,(ERG:)(2450)	003	DF	00100	P				
32. Special Handling Instructions and Additional Information									
33. Transporter _____ Acknowledgment of Receipt of Materials									
Printed/Typed Name				Signature		Month	Day	Year	
34. Transporter _____ Acknowledgment of Receipt of Materials									
Printed/Typed Name				Signature		Month	Day	Year	
35. Discrepancy									
36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)									

GENERATOR

TRANSPORTER

DESIGNATED FACILITY

10798

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number IN5170023498	2. Page 1 of 4	3. Emergency Response Phone 317-431-6152	4. Manifest Tracking Number 011238045 JJK			
5. Generator's Name and Mailing Address Crane NSWC EXTM-DL Bldg 3250; 300 Hwy 361 Crane, IN 47522-5000				Generator's Site Address (if different than mailing address)				
Generator's Phone: 812-854-3114								
6. Transporter 1 Company Name American Transportation Solutions, LLC				U.S. EPA ID Number PAR000521740				
7. Transporter 2 Company Name				U.S. EPA ID Number				
8. Designated Facility Name and Site Address AES Environmental, LLC 1689 Shar Cal Rd Calvert City, KY 42029				U.S. EPA ID Number KYD985073196				
Facility's Phone: 270-395-0504								
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
		No.	Type					
X	1. RQ, UN1993, WASTE FLAMMABLE LIQUID, N.O.S., 3, PG II (Isopropyl) D001,....(ERG:128)(2991)	005	DM	01930	P	D001		
X	2. RQ, UN1325, WASTE FLAMMABLE SOLID, ORGANIC, N.O.S., 4.1, PG III (Rags/Alcohol) D001,....(ERG:133)(2457)	007	DM	01010	P	D001		
X	3. RQ, UN1993, WASTE FLAMMABLE LIQUID, N.O.S., 3, PG II (Isopropyl) D001,F005,....(ERG:128)(2991)	002	DF	00070	P	D001	F005	
X	4. RQ, UN1263, WASTE PAINT RELATED MATERIAL, 3, PG II D001,....(ERG:128)(2991)	012	DM	00400	P	D001		
14. Special Handling Instructions and Additional Information SEND ALL INVOICES AND C.D.'s TO APPLIED TECHNOLOGY, INC., FISHERS, INDIANA								
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.								
Generator's/Offieror's Printed/Typed Name Dennis A. Lankford				Signature 		Month 11	Day 7	Year 13
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____								
17. Transporter Acknowledgment of Receipt of Materials								
Transporter 1 Printed/Typed Name Matt Riley				Signature 		Month 11	Day 7	Year 13
Transporter 2 Printed/Typed Name				Signature		Month	Day	Year
18. Discrepancy								
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection								
Manifest Reference Number: _____								
18b. Alternate Facility (or Generator)				U.S. EPA ID Number				
Facility's Phone:								
18c. Signature of Alternate Facility (or Generator)						Month	Day	Year
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)								
1. H141	2. H141	3. H141	4. H141					
20. Designated Facility Owner or Operator Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a								
Printed/Typed Name MIKE MUNSSELL				Signature 		Month 11	Day 08	Year 13

GENERATOR

TRANSPORTER INT'L

DESIGNATED FACILITY

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator ID Number SIF 1 20023 400	22. Page 1 OF 1	23. Manifest Tracking Number 014035026 1 W
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24. Generator's Name
 Crane & Service
 BY CM-01, Bldg 1260, 300 Hwy 381
 Crane # 47523-5000

25. Transporter _____ Company Name _____ U.S. EPA ID Number _____

26. Transporter _____ Company Name _____ U.S. EPA ID Number _____

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers		29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
		No.	Type					
5 X	RQ, UN1900, WASTE AEROSOLS, FLAMMABLE, P 1 D001... (ERG 128)(337)	001	DM	00090	P	0001		
6 X	RQ, UN1900, WASTE AEROSOLS, FLAMMABLE, P 1 D001... (ERG 128)(337)	001	DM	00030	P	0001		
7 X	RQ, UN1900, WASTE COMPRESSED GAS, FLAMMABLE, N.O.S., P 1 D001... (ERG 115)(279)	001	DF	00020	P	0001		
8 X	RQ, WASTE OXIDIZING SOLID, N.O.S., P 1 (Barium Nitrate) D001... (ERG 143)(333)	002	DF	00230	P	0001		
9 X	RQ, UN1760, WASTE CORROSIVE LIQUID, N.O.S., P 2 (Sodium Hydroxide) D002... (ERG 154)(233)	004	DF	00405	P	0001		
10 X	RQ, UN1760, WASTE CORROSIVE LIQUID, N.O.S., P 2 (Potassium Hydroxide) D002... (ERG 154)(233)	001	DF	00160	P	0002		
11 X	RQ, UN1760, WASTE CORROSIVE LIQUID, N.O.S., P 2 (Hydrochloric Acid) D002... (ERG 154)(233)	002	DM	00180	P	0002		
12 X	RQ, UN1760, WASTE CORROSIVE LIQUID, N.O.S., P 2 (Monochloroamine) D002... (ERG 154)(233)	001	DF	00022	P	0002		
13 X	RQ, UN1760, WASTE CORROSIVE LIQUID, N.O.S., P 2 (Sodium Hydroxide) D002 D007... (ERG 154)(233)	004	DF	01220	P	0002	0007	
14 X	RQ, UN1760, WASTE CORROSIVE LIQUID, N.O.S., P 2 (Hydrochloric Acid) D007... (ERG 154)(233)	004	DF	00245	P	0002		

32. Special Handling Instructions and Additional Information

33. Transporter _____ Acknowledgment of Receipt of Materials
 Printed/Typed Name _____ Signature _____ Month _____ Day _____ Year _____

34. Transporter _____ Acknowledgment of Receipt of Materials
 Printed/Typed Name _____ Signature _____ Month _____ Day _____ Year _____

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

H111	H111	H111	H111	H110
H110	H110	H110	H110	H110

GENERATOR

TRANSPORTER

DESIGNATED FACILITY

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator ID Number A5E170023498	22. Page 1 OF 4	23. Manifest Tracking Number 014935045 UN
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24. Generator's Name
 Crane & BWC
 5374 OL Bldg 1242 307 Ave. 244
 Crane, IA 52521-0244

25. Transporter _____ Company Name _____ U.S. EPA ID Number _____

26. Transporter _____ Company Name _____ U.S. EPA ID Number _____

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers		29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
		No.	Type			1002	1004	1005
15 X	RQ, UN1788, WASTE CORROSIVE LIQUID, N.O.S., 3 PG II (Sulfuric Acid) D002.D010... (ERG:154/2452)	001	DF	00040	P			
16 X	RQ, UN1788, WASTE CORROSIVE LIQUID, N.O.S., 3 PG II (Sulfuric Acid) D002.D011... (ERG:154/2452)	001	DF	00050	P			
17 X	RQ, UN1788, WASTE CORROSIVE LIQUID, N.O.S., 3 PG II (Sulfuric Acid) D002.D017... (ERG:154/2452)	015	DF	07380	P			
18 X	RQ, NA3077, HAZARDOUS WASTE SOLID, N.O.S., 3 PG II (Benzene) (Cyclone Residue) D005... (ERG:171/2452)	001	DM	00230	P			
19 X	RQ, NA3077, HAZARDOUS WASTE SOLID, N.O.S., 3 PG II (Cadmium) (Blair Media) D005... (ERG:171/2452)	002	DM	00540	P			
20 X	RQ, NA3077, HAZARDOUS WASTE SOLID, N.O.S., 3 PG II (Cadmium) (Spec. Carbon) D005... (ERG:171/2452)	005	DM	01960	P			
21 X	RQ, NA3082, HAZARDOUS WASTE LIQUID, N.O.S., 3 PG II (Chromium) (Wastewater Sludge) D007... (ERG:171/2452)	008	DF	02970	P			
22 X	RQ, NA3077, HAZARDOUS WASTE SOLID, N.O.S., 3 PG II (Chromium) (HTO) D007... (ERG:171/2452)	008	DF	00720	P			
23 X	RQ, NA3082, HAZARDOUS WASTE LIQUID, N.O.S., 3 PG II (Lead) (Wastewater) D008... (ERG:171/2452)	004	DF	00450	P			
24 X	RQ, NA3077, HAZARDOUS WASTE SOLID, N.O.S., 3 PG II (Cadmium) (Cadmium) D005... (ERG:171/2452)	008	DF	00113	P			

32. Special Handling Instructions and Additional Information

33. Transporter _____ Acknowledgment of Receipt of Materials
 Printed/Typed Name _____ Signature _____ Month _____ Day _____ Year _____

34. Transporter _____ Acknowledgment of Receipt of Materials
 Printed/Typed Name _____ Signature _____ Month _____ Day _____ Year _____

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

H110	H110	H110	H110	H110
H110	H110	H110	H110	H110

GENERATOR

TRANSPORTER

DESIGNATED FACILITY

**HAZARDOUS WASTE MANIFEST
(Continuation Sheet)**

21. Generator ID Number

22. Page

23. Manifest Tracking Number

MS 170022100

1 OF 1

04035045114

Generator's Name

Crane MS&C
EXTN-DL Bldg 3365, 200 Hwy 354
Cape Canaveral, FL 32910

25. Transporter _____ Company Name _____ U.S. EPA ID Number _____
 26. Transporter _____ Company Name _____ U.S. EPA ID Number _____

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers		29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
		No.	Type					
26	NON-RCRA/NON-REGULATED MATERIAL, SOLIDS (Paints/Coatings) (FRG (2498))	004	DR	00092	P	9034		
26	NON-RCRA/NON-REGULATED MATERIAL, LIQUIDS (Paint Filters/Water) (FRG (2450))	003	DR	00360	P			
27	NON-RCRA/NON-REGULATED MATERIAL, LIQUIDS (Coolant Gas) (FRG (2450))	012	DR	05450	P			
28	NON-RCRA/NON-REGULATED MATERIAL, SOLIDS (Barium Chloride) (FRG (2498))	018	DR	01577	P			
28	NON-RCRA/NON-REGULATED MATERIAL, SOLIDS (Grit Sludg) (FRG (2498))	004	DR	07820	P			
28	NON-RCRA/NON-REGULATED MATERIAL, LIQUIDS (Oil/Solvents) (FRG (2450))	003	DR	00740	P			
28	NON-RCRA/NON-REGULATED MATERIAL, LIQUIDS (Oily Water) (FRG (2450))	005	DR	00100	P			

32. Special Handling Instructions and Additional Information

33. Transporter _____ Acknowledgment of Receipt of Materials
 Printed/Typed Name _____ Signature _____ Month _____ Day _____ Year _____

34. Transporter _____ Acknowledgment of Receipt of Materials
 Printed/Typed Name _____ Signature _____ Month _____ Day _____ Year _____

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

H111	H132	H132	H132	H132
H132	H132			

DESIGNATED FACILITY TO GENERATOR

APPENDIX G

BACKFILL MATERIAL TESTING DOCUMENTATION



TO:

Date: 3/29/13	Job No: N40083-11-D-0030 Delivery Order: 0004 Sullivan Project Number:
Attn: NAVFAC Midwest PW D Crane Naval Support Activity B#2516 300 Highway 361 Crane In 47522-5001 ATTN: Thomas Brent Thomas.brent@navy.mil	
RE: SWMU-17	
File No:	

WE ARE SENDING YOU:

<input checked="" type="checkbox"/> Attached	<input type="checkbox"/> Under Separate Cover
--	---

<input type="checkbox"/> Prints	<input type="checkbox"/> Plans	<input type="checkbox"/> Samples
<input type="checkbox"/> Specifications	<input type="checkbox"/> Copy of Letter	<input type="checkbox"/> Change Order
<input type="checkbox"/> Shop Drawings	<input type="checkbox"/> Reports / Documents	<input checked="" type="checkbox"/> Other (explain) Fill Material

Copies	Date	No.	Description
-----	3/29/13	-----	Fill Material – Physical & Chemical Results

WE ARE TRANSMITTING as checked below:

<input checked="" type="checkbox"/> For Approval	<input type="checkbox"/> For Your Use	___ Copied for Approval
<input type="checkbox"/> As Requested	<input type="checkbox"/> Returned after Loan to Us	___ Copies for Distribution
<input type="checkbox"/> For review and Comment	<input type="checkbox"/> Other (explain)	___ Corrected Prints

Signed: _____ Date: 3/29/12

Remarks: Hard copies to follow via mail.

Copy To: Tim Sears, NAVFAC

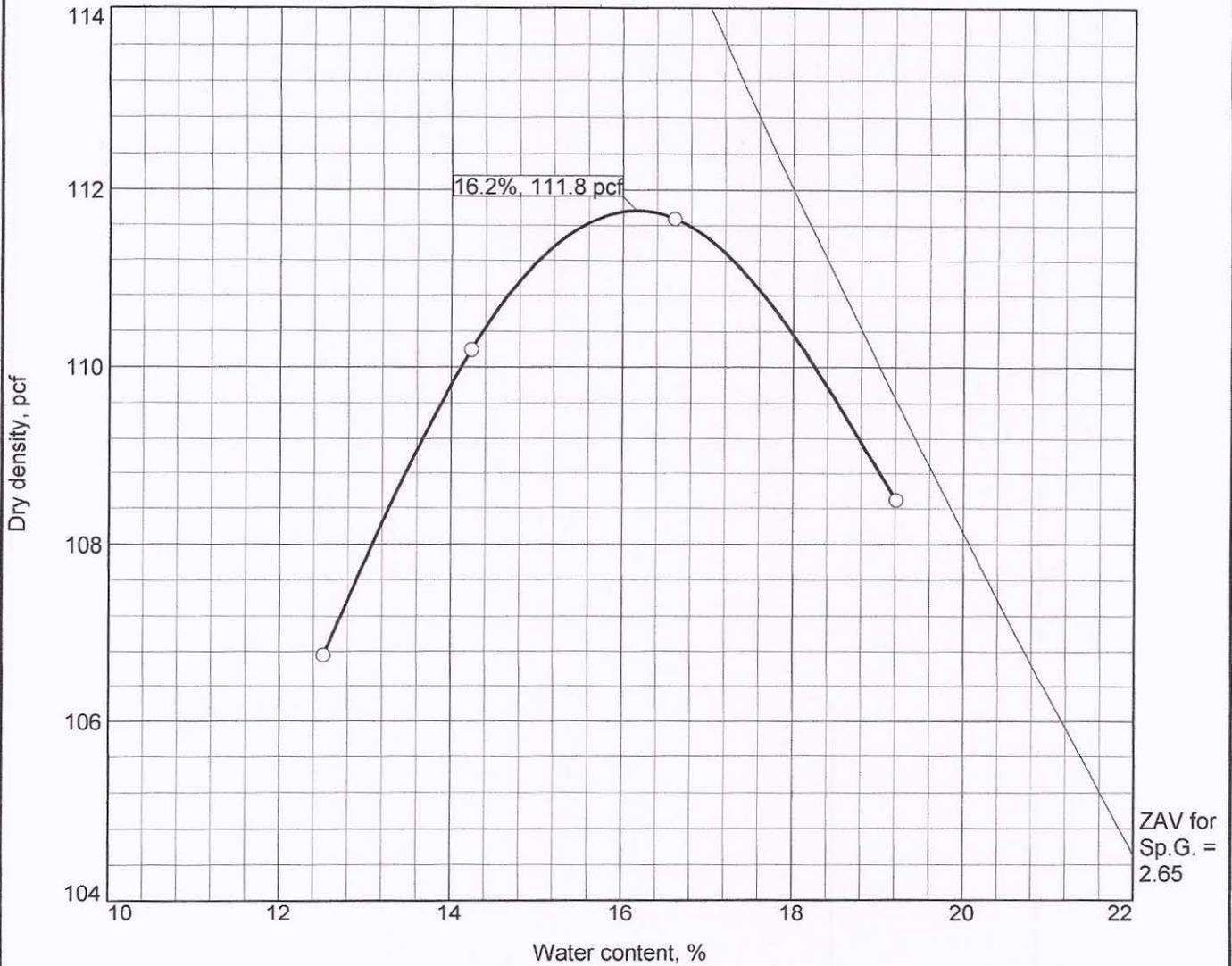
WHEN RETURNING check below, as appropriate:

<input checked="" type="checkbox"/> Approved	<input type="checkbox"/> Rejected	___ Copied for Approval
<input type="checkbox"/> Approved as revised	<input type="checkbox"/> Submit	___ Copies for Distribution
<input type="checkbox"/> Revise and Resubmit	<input type="checkbox"/> Other (explain)	___ Corrected Prints

Remarks:

Signed: _____ Date: 4/1/2013

STANDARD PROCTOR TEST REPORT

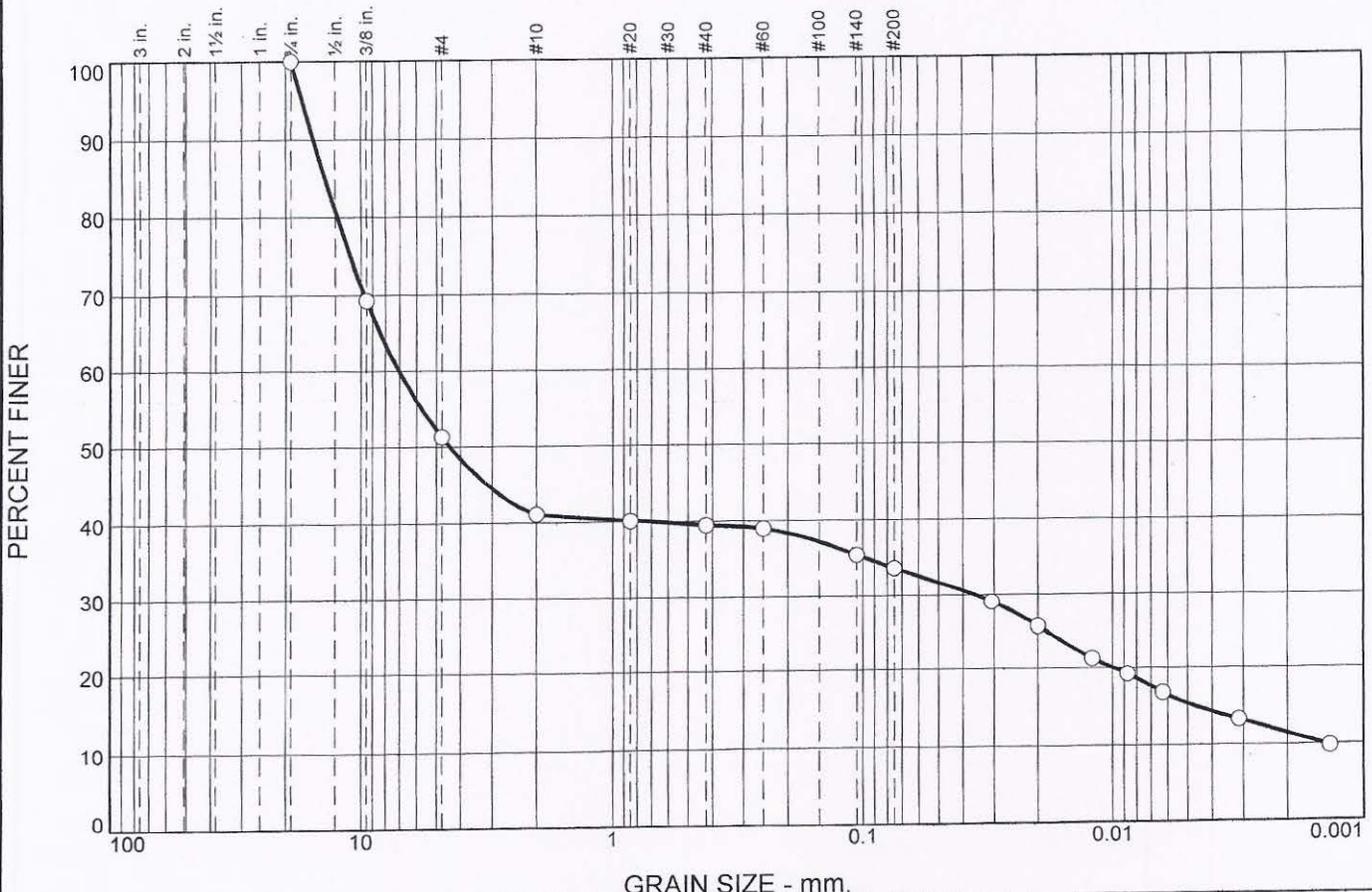


Test specification: ASTM D 698-07 Method A Standard

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > #4	% < No.200
	USCS	AASHTO						
	CL		16.6		41	22	48.7	33.7

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 111.8 pcf Optimum moisture = 16.2 %	Gray Brown, LEAN CLAY WITH SAND with CLAY SHALE and SANDSTONE Fragments
Project No. 6300 Client: Mr. Craig Hoby Env. Quality Mgmt. Project: CRANE NSA - SWMU 17 Bloomington, Indiana Date: 3-13-12 ○ Location: US AGGREGATE - SMITHVILLE QUARRY	Remarks:
WHITNEY & ASSOCIATES PEORIA, ILLINOIS www.whitneyassociates.com	

GRAIN SIZE ANALYSIS REPORT



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	48.7	10.2	1.6	5.8	18.4	15.3

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/4"	100.0		
3/8"	69.3		
#4	51.3		
#10	41.1		
#20	40.1		
#40	39.5		
#60	39.0		
#140	35.5		
#200	33.7		

Material Description

Gray Brown, LEAN CLAY WITH SAND
with CLAY SHALE and SANDSTONE Fragments

Atterberg Limits

PL= 19 LL= 41 PI= 22

Coefficients

D₉₀= 15.4729 D₈₅= 13.9003 D₆₀= 7.0522
 D₅₀= 4.4120 D₃₀= 0.0357 D₁₅= 0.0047
 D₁₀= 0.0014 C_u= 4911.06 C_c= 0.13

USCS= CL AASHTO=

Remarks

* (no specification provided)

Location: US AGGREGATE - SMITHVILLE QUARRY

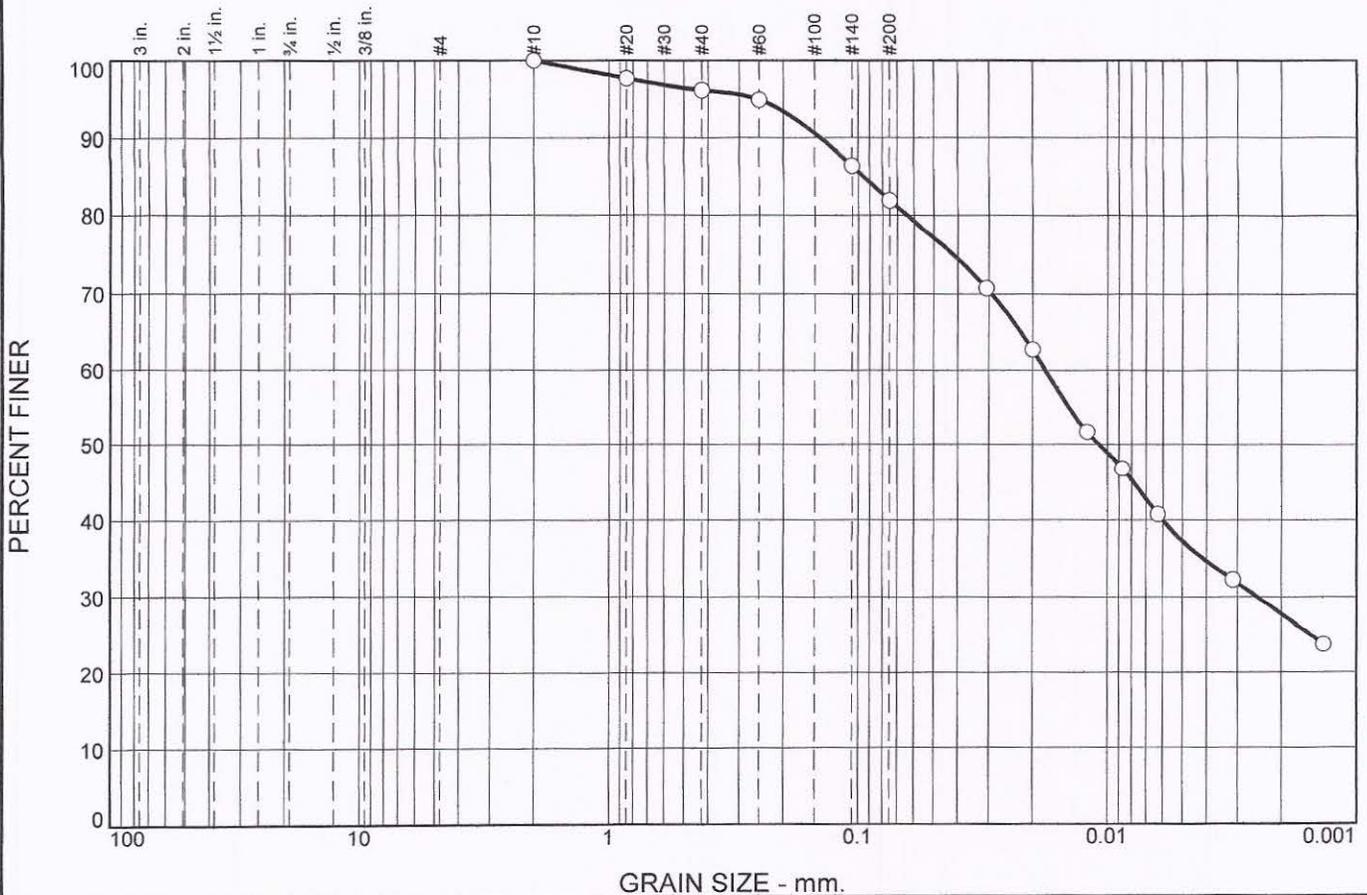
Date: 3-13-13

WHITNEY & ASSOCIATES
PEORIA, ILLINOIS
www.whitneyassociates.com

Client: Mr. Craig Hoby Environmental Quality Management
Project: CRANE NSA - SWMU 17
 Bloomington, Indiana
Project No: 6300

Figure GS-1

GRAIN SIZE ANALYSIS REPORT



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	3.9	14.2	44.6	37.3

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#10	100.0		
#20	97.7		
#40	96.1		
#60	94.9		
#140	86.4		
#200	81.9		

Material Description

Gray Brown, LEAN CLAY WITH SAND
(CLAY SHALE and SANDSTONE Fragments Deleted)

Atterberg Limits

PL= 19 LL= 41 PI= 22

Coefficients

D₉₀= 0.1420 D₈₅= 0.0955 D₆₀= 0.0178
D₅₀= 0.0108 D₃₀= 0.0025 D₁₅=
D₁₀= C_u= C_c=

Classification

USCS= CL AASHTO=

Remarks

* (no specification provided)

Location: US AGGREGATE - SMITHVILLE QUARRY

Date: 3-13-13

CERTIFICATE OF ANALYSIS

Service Location HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	Received	07-MAR-13	Lab ID	A977116
	Completed	18-MAR-13	PO Number
	Printed	27-MAR-13	Sampled	07-MAR-13 14:22

Report To CRAIG HOBY EQM INC. 12721 WOLF ROAD GENESEO, IL 61254	Bill To RESIDENTIAL CUSTOMER 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231
--	--

Sample Description
CLIENT ID: BORROW MATERIAL/FILL MATRIX TYPE: SLUDGE, SOIL, SOLID OR SEDIMENT SUBMITTER: 11049 - EQM GENESEO IL DATA PACKAGE #: N/A DESCRIPTION: STD TAT - 7 BIZ DAYS, SINGLE PHASE EXTRACT

PH, CORROSIVITY CHARACTERISTIC SW846-9045C			NELAC:Y
Analyst: S. MCNEAL		Analysis Date: 13-MAR-13 10:20	Test: G624.2.0
Parameter	Result	Det. Limit	Units
PH	5.4	0.1	Std. Units

CLEVELAND OPEN CUP FLASHPOINT ASTM D-92			NELAC:N
Analyst: S. MCNEAL		Analysis Date: 12-MAR-13	Test: G515.9.0
Parameter	Result	Det. Limit	Units
FLASH POINT	> 200		Degrees F

CYANIDE, TOTAL AVAILABLE (AUTOMATED) SW 7.3.3.2			NELAC:N
Analyst: S. BOXUM		Analysis Date: 12-MAR-13 10:15	Instrument: AUTO-ANALYZER Test: G115.3.0
Parameter	Result	Det. Limit	Units
REACTIVE CYANIDE	BDL	0.1	mg/kg

TOTAL AVAILABLE SULFIDE EXTRACTION SW 7.3.4.1			
Analyst: S. MCNEAL		Analysis Date: 11-MAR-13 09:25	Instrument: PREP Test: P116.2.0
Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	10		Grams
FINAL VOLUME	100		mL

SULFIDE (TITRIMETRIC IODINE) SW846-9034			NELAC:N
Analyst: S. MCNEAL		Analysis Date: 11-MAR-13 09:25	Test: G110.4.0
Prep: TOTAL AVAILABLE SULFIDE EXTRACTION SW 7.3.4.1 P116.2.0			
Parameter	Result	Det. Limit	Units
SULFIDE	BDL	11	mg/kg

PCB SONICATION EXTRACTION FOR ORGANICS SW846-3550(MOD)			
Analyst: B. WOOD		Analysis Date: 12-MAR-13	Instrument: PREP
		Test: P231.1.0	
Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	10.05		Grams
FINAL VOLUME	100		mL
CLEANUP RATIO 1 TO	5		

PCB AROCLORS BY GAS CHROMATOGRAPHY/ECD SW846-8082A			NELAC:Y
Analyst: R. DALAL		Analysis Date: 13-MAR-13 14:51	Instrument: GC/ECD
		Test: O301.7.0	
Prep: PCB SONICATION EXTRACTION FOR ORGANICS SW846-3550(MOD) P231.1.0			
Parameter	Result	Det. Limit	Units
PCB AROCLOR 1016	BDL	1.0	mg/kg
PCB AROCLOR 1221	BDL	1.0	mg/kg
PCB AROCLOR 1232	BDL	1.0	mg/kg
PCB AROCLOR 1242	BDL	1.0	mg/kg
PCB AROCLOR 1248	BDL	1.0	mg/kg
PCB AROCLOR 1254	BDL	1.0	mg/kg
PCB AROCLOR 1260	BDL	1.0	mg/kg
PCB AROCLOR 1262	BDL	1.0	mg/kg
...			
SURROGATE RECOVERY			

DECACHLOROBIPHENYL (DCB)	118.0		% Rec

PURGEABLE AROMATICS BY GC/MS (BTEX) SW846-8260B			NELAC:Y
Analyst: H. WILLIAMS		Analysis Date: 09-MAR-13 11:52	Instrument: GC/MS VOA
		Test: O560.3.0	
Parameter	Result	Det. Limit	Units
BENZENE	BDL	5.0	ug/kg
ETHYL BENZENE	BDL	5.0	ug/kg
TOLUENE	BDL	5.0	ug/kg
XYLENES (O/M/P-XYLENE)	BDL	10	ug/kg
METHYL-T-BUTYL ETHER (MTBE)	BDL	5.0	ug/kg
NAPHTHALENE	BDL	5.0	ug/kg
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	96		% Rec
TOLUENE-D8	92		% Rec
4-BROMOFLUOROBENZENE	103		% Rec

5 GRAMS
Prep Method SW846-5030B Purge and Trap

GRO MED LEVEL PURGE AND TRAP METHOD SW846-5030B			
Analyst: B. WOOD		Analysis Date: 10-MAR-13	Instrument: PREP
Test: P239.0.0			
Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	5.18		Grams
FINAL VOLUME	5		mL

IDEM TPH-GRO BY P&T GC/FID SW846-8015D			
Analyst: B. WOOD		Analysis Date: 10-MAR-13 11:05	Instrument: GC/FID
Test: O410.8.0			
Prep: GRO MED LEVEL PURGE AND TRAP METHOD SW846-5030B P239.0.0			
Parameter	Result	Det. Limit	Units
GRO (C5 - C12)	BDL	5.0	mg/kg
...			
SURROGATE RECOVERY			

(TRIFLUOROMETHYL)BENZENE	109.8		% Rec
1:40 Dilution.			

DRO/ERO ACCELERATED SOLVENT EXTRACTION SW846-3545A			
Analyst: R. DALAL		Analysis Date: 08-MAR-13 16:00	Instrument: PREP
Test: P231.7.0			
Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	20.26		Grams
FINAL VOLUME	5.0		mL

IDEM TPH-DRO BY GC/FID SW846-8015D			
Analyst: R. DALAL		Analysis Date: 09-MAR-13 12:38	Instrument: GC/FID
Test: O410.6.0			
Prep: DRO/ERO ACCELERATED SOLVENT EXTRACTION SW846-3545A P231.7.0			
Parameter	Result	Det. Limit	Units
DRO (C8-C28)	BDL	10	mg/kg
...			
SURROGATE RECOVERY			

1-CHLOROOCYTADECANE	60.9		% Rec

ZERO HEADSPACE EXTRACTION (TCLP) SW846-1311			
Analyst: J. MINNIEAR, II		Analysis Date: 14-MAR-13 18:45	Instrument: PREP
Test: P108.1.0			
Parameter	Result	Det. Limit	Units
TOTAL SAMPLE WEIGHT	20.0		Grams
EXTRACTED SAMPLE	20.0		Grams

TCLP VOLATILE ORGANICS (TOXICITY CHARACTERISTIC) SW846-8260B			
Analyst: H. WILLIAMS		Analysis Date: 17-MAR-13 14:23	Instrument: GC/MS VOA
Test: O513.3.0			
Prep: ZERO HEADSPACE EXTRACTION (TCLP) SW846-1311 P108.1.0			
Parameter	Result	Det. Limit	Units

BENZENE	BDL	50	ug/L
CARBON TETRACHLORIDE	BDL	50	ug/L
CHLOROBENZENE	BDL	50	ug/L
CHLOROFORM	BDL	50	ug/L
1,2-DICHLOROETHANE	BDL	50	ug/L
1,1-DICHLOROETHYLENE	BDL	50	ug/L
METHYL ETHYL KETONE	BDL	100	ug/L
TETRACHLOROETHYLENE	BDL	50	ug/L
TRICHLOROETHYLENE	BDL	50	ug/L
VINYL CHLORIDE	BDL	100	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	97		% Rec
TOLUENE-D8	98		% Rec
4-BROMOFLUOROBENZENE	123		% Rec

1:10 Dilution
 Prep Method SW846-5030B Purge and Trap

TOX CHAR LEACHING PROCEDURE (TCLP METALS ONLY) SW846-1311			
Analyst: C. WILLHITE		Analysis Date: 13-MAR-13	Instrument: PREP
		Test: P106.1.0	
Parameter	Result	Det. Limit	Units
TOTAL SAMPLE WEIGHT	100.0		Grams
LIQUID FRACTION (GRAMS)	NA		Grams
EXTRACTED SAMPLE	100.0		Grams
SOLIDS	100		Percent
9.5 MM SIEVE TEST	YES		Passed
INITIAL PH	4.9		Std. Units
ADJUSTED PH	NA		Std. Units
BUFFER SOLUTION PH	4.93		Std. Units
FINAL PH	5.3		Std. Units
VOLUME BUFFERED SOLUTION	2000		mL
VOLUME EXTRACT FILTERED	2000		mL
VOLUME LIQUID (ADD BACK)	NA		mL
TOTAL VOLUME FILTRATE	2000		mL
AMBIENT TEMPERATURE	22.0		Degrees C
INITIAL TIME	5503.8		Hours
FINAL TIME	5520.7		Hours
PHASE 0 VOLUME (REP 0)	2000		mL
PHASE 0 WEIGHT	NA		Grams
PHASE 0 DENSITY	NA		g/mL

PHASE 1 VOLUME (REP 1)	NA		mL
PHASE 1 WEIGHT	NA		Grams
PHASE 1 DENSITY	NA		g/mL

FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A

Analyst: K. KAMARA Analysis Date: 14-MAR-13 09:00 Instrument: PREP Test: P130.8.0
 Prep: TOX CHAR LEACHING PROCEDURE (TCLP METALS ONLY) SW846-1311 P106.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

MERCURY CVAA ACID DIGESTION (LEACHATE) SW846-7470A

NELAC:Y

Analyst: S. O'NEAL Analysis Date: 15-MAR-13 11:00 Instrument: PREP Test: P131.9.0
 Prep: TOX CHAR LEACHING PROCEDURE (TCLP METALS ONLY) SW846-1311 P106.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	4		mL
FINAL VOLUME	40		mL

TCLP ARSENIC ICP SW846-6010B

NELAC:Y

Analyst: J. KRAMER Analysis Date: 15-MAR-13 09:23 Instrument: ICP Test: M603.8.0
 Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A P130.8.0

Parameter	Result	Det. Limit	Units
ARSENIC	BDL	0.050	mg/L

1:5 Dilution.

TCLP BARIUM ICP SW846-6010B

NELAC:Y

Analyst: J. KRAMER Analysis Date: 15-MAR-13 09:23 Instrument: ICP Test: M604.8.0
 Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A P130.8.0

Parameter	Result	Det. Limit	Units
BARIUM	0.73	0.050	mg/L

1:5 Dilution.

TCLP CADMIUM ICP SW846-6010B

NELAC:Y

Analyst: J. KRAMER Analysis Date: 15-MAR-13 09:23 Instrument: ICP Test: M608.8.0
 Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A P130.8.0

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.025	mg/L

1:5 Dilution.

TCLP CHROMIUM ICP SW846-6010B			NELAC:Y
Analyst: J. KRAMER		Analysis Date: 15-MAR-13 09:23	Instrument: ICP
Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A P130.8.0		Test: M610.8.0	
Parameter CHROMIUM	Result BDL	Det. Limit 0.050	Units mg/L
1:5 Dilution. Suspected matrix interference for this element. The matrix spike results were outside control limit criteria. Results for this sample are estimated.			

TCLP LEAD ICP SW846-6010B			NELAC:Y
Analyst: J. KRAMER		Analysis Date: 15-MAR-13 09:23	Instrument: ICP
Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A P130.8.0		Test: M616.8.0	
Parameter LEAD	Result BDL	Det. Limit 0.050	Units mg/L
1:5 Dilution.			

TCLP MERCURY CVAA SW846-7470A			NELAC:Y
Analyst: S. O'NEAL		Analysis Date: 15-MAR-13 14:53	Instrument: CVAA
Prep: MERCURY CVAA ACID DIGESTION (LEACHATE) SW846-7470A P131.9.0		Test: M620.4.0	
Parameter MERCURY	Result BDL	Det. Limit 0.0020	Units mg/L

TCLP SELENIUM ICP SW846-6010B			NELAC:Y
Analyst: J. KRAMER		Analysis Date: 15-MAR-13 09:23	Instrument: ICP
Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A P130.8.0		Test: M628.8.0	
Parameter SELENIUM	Result BDL	Det. Limit 0.050	Units mg/L
1:5 Dilution.			

TCLP SILVER ICP SW846-6010B			NELAC:Y
Analyst: J. KRAMER		Analysis Date: 15-MAR-13 09:23	Instrument: ICP
Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A P130.8.0		Test: M630.8.0	
Parameter SILVER	Result BDL	Det. Limit 0.050	Units mg/L
1:5 Dilution.			

Sample Comments			
<p>> Greater Than BDL Below Detection Limit NA Not Applicable YES Yes</p> <p>Sample was received on ice at temperature 6 C. Sample chain of custody number 13553.</p>			

Sample Comments

This Certificate shall not be reproduced, except in full, without the written approval of the lab. The sample results relate only to the analytes of interest tested or to the sample as received by the lab. Heritage Environmental Services, LLC certifies that the test results indicated as NELAP (National Environmental Laboratory Accreditation Program) accredited (Yes for NELAP) meet all requirements of NELAP and Kansas (KDHE) unless otherwise explained or justified as to the the exact nature of the deviations.

KS ELAP / NELAP Accreditation # E-10177 Indiana SDWA C-49-01



Approved by: GARY KLINGLER 18-MAR-13

Remit To: P.O. Box 7048, Group #2
Indianapolis, IN 46207-7048

Concrete Delivery Ticket



Plant #	Ticket Number	Truck	Load Size	Mix	Slump	Use	Date	Customer
33	3326630	440	4.00cy	197	6.00		07/18/13	31724
Sold To					Tax Code	Driver	Project No.	Order No.
AUGUST MACK ENVIRONMENTAL					IN	DALE BEDWELL	0	3316
Delivery Address							P.O. Number	

CRANE

Job No.)

Time Printed 14:14

Load Quantity	Total	Ordered Quantity	Product Code	Product Description	Unit Price	Amount
---------------	-------	------------------	--------------	---------------------	------------	--------

4.00 4.00cy 4.00cy 197 FLEXIFILL-NSWC



Environmental Fee

Water Added At Customer's Request		Total No. Gallons	Slump Meter Reading	800
On Job Time	Finish Pour Time			

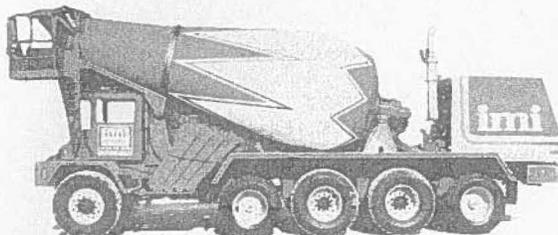
Subtotal
Tax
Total

PROPERTY DAMAGE RELEASE / WARNING - Irritating To The Skin and Eyes

Dear Customer - The Seller is not responsible for slumps, strength or quality of concrete to which water or any other material has been added by the purchaser or at his request. The undersigned hereby authorizes Irving Materials, Inc. to use private property for making the delivery shown here on and assumes full responsibility for any damage or injury due to the premises. The undersigned agrees to reimburse said Company for loss of time and equipment by reason of such delivery and also to identify and save harmless said Company from any and all claims, demands and suits for or on account of or in any manner caused by or arising from private property delivery. The undersigned assumes responsibility for a suitable roadway from public highway to point of delivery and is responsible for any needed wrecker service charges as a result. SAFETY WARNING: Keep away from children. Contains Portland Cement. Irritating to the skin and eyes. Wear rubber boots, gloves and eye protection. Prolonged contact may cause burns. In case of contact with skin or eyes, flush thoroughly with water. If irritation persists, get medical attention. For additional information regarding the HAZARDS OF READY MIX CONCRETE, consult the Material Data Safety Sheet (MSDS) available upon request. PRODUCT NOTICE: Seller will not be held responsible for the final appearance of exposed aggregate, integral coloring, stamped and decorative surfacing, and all other forms of architectural and design concrete. DELIVERY NOTICE: Seller assumes no responsibility for deliveries beyond the public right of way. Buyer assumes responsibility for damages including but not limited to curb, sidewalk, driveway, or any property of the contractor or property owner or agents. NOTICE: MY SIGNATURE BELOW INDICATES THAT I HAVE READ THE SAFETY AND HEALTH WARNING NOTICE AND ACCEPTANCE OF THE LOAD.

Release, Load and Terms Accepted By:

X



Concrete - Sand - Gravel - Stone "We're Proud Of Our Work" General Office (317) 326-3101

CUSTOMER COPY

VCNA PRAIRIE

Votorantim Cement North America Inc.

The material delivered on this ticket is subject to separately agreed upon prices for material and service charges including cartage and Saturday delivery.

Payment is due within 30 days from date on invoice. A service charge of 1-1/2% per month which is an annual rate of 18%, will accrue 30 days after invoice date. It is expressly agreed by and between the parties hereto that Buyer will reimburse Seller for any and all collection costs incurred including reasonable attorney fees.

Billing Control

No. 3042129

PLANT 4578 BLOOMFIELD
SOURCE 2687

Ship To: YOUNG TRUCKING, INC. AGENT

Ticket No: 07823260

Delivery Address: PU 7B
PU 7B

12:50

BULK AGGREGATE WEIGHTS ARE ROUNDED TO THE NEAREST 20 POUNDS

Customer	JobID	Customer Order/Job No.	Method of Payment	Rundate
5917177	28380		OK TO SHIP	7/22/2013

Truck No.	Trucker No.	Trucker Name	Cumulative		
YT1	4039955	YOUNG TRUCKING, INC.	Total	44.79	Loads 2
Zone	Job/Section/Contract No.		Delivered		

Quantity	Description
22.53	6116593 PEA GRAVEL

N
U/M
Ton

E.F.S.

SE

CRANE

OUT	GROSS:	72,940 lb	(Scale E)
P.T.	TARE:	27,880 lb	(Scale 6)
	NET:	45,060 lb	

AGYT - 01/05

Signature

Date

VCNA PRAIRIE

Votorantim Cement North America Inc.

The material delivered on this ticket is subject to separately agreed upon prices for material and service charges including cartage and Saturday delivery.

Payment is due within 30 days from date on invoice. A service charge of 1-1/2% per month which is an annual rate of 18%, will accrue 30 days after invoice date. It is expressly agreed by and between the parties hereto that Buyer will reimburse Seller for any and all collection costs incurred including reasonable attorney fees.

Billing Control
No. 2042106

PLANT 4978 BLOOMFIELD
SOURCE 2687

Ship To: YOUNG TRUCKING, INC. AGENT

Ticket No: 07823237

Delivery Address: PU 78

PU 79

10:21

BULK AGGREGATE WEIGHTS ARE ROUNDED TO THE NEAREST 20 POUNDS

Customer	JobID	Customer Order/Job No.	Method of Payment	Rundate
5917177	28380		OK TO SHIP	7/22/2013

Truck No.	Trucker No.	Trucker Name	Cumulative	
YT1	4039955	YOUNG TRUCKING, INC.	Total	22.26 Loads 1
Zone	Job/Section/Contract No.		Delivered	

Quantity	Description
22.26	6116593 PEA GRAVEL

SE

E.F.S.

CRANE

OUT	GROSS:	72,400 lb	(Scale 6)
P.T.	TARE:	27,880 lb	(Scale 6)
	NET:	44,520 lb	

AGYT - 01/05

Signature

Date

Ben's Quarry, LLC
Ben's Quarry LLC
303 E. Ingram Road
Springville, IN 47462

Phone : (812)824-3730 Fax :(812)824-3732

Weigh Master: ETTA

Hauler:

Customer: YOU100
Young Trucking Inc.
8647 E. St. Rd. 45

Unionville, IN 47468

Ticket No : 15054508 Date : 7/18/13
Order No : 25

Truck : 01YOU Young Trucking
Material: TOPSOIL2 Topsoil 2 by the ton
Location: TWO

Gross:	69560 lb	MAN WT
Tare:	28320 lb	STORED
Net:	41240 lb	Out 10:59 am
	20.620 tn	

Material \$	
Delivery \$	
Misc \$	
Tax \$	
Total \$	_____

Remarks:
Thanks

Customer

Ben's Quarry, LLC

Ben's Quarry LLC
303 E. Ingram Road
Springville, IN 47462

Phone : (812)824-3730 Fax :(812)824-3732

Weigh Master: ETTA

Hauler:

Customer: YOU100
Young Trucking Inc.
8647 E. St. Rd. 45

Unionville, IN 47468

Ticket No : 15054457 Date : 7/18/13
Order No : 25

Truck : 01YOU Young Trucking
Material: TOPSOIL2 Topsoil 2 by the ton
Location: TWO

Gross:	72560	lb	MAN WT
Tare:	28320	lb	STORED
Net:	<u>44240</u>	lb	
	22.120	tn	Out 7:30 am

Material \$	
Delivery \$	
Misc \$	
Tax \$	
Total \$	<hr/>

Remarks:
Thanks

Customer

Ben's Quarry, LLC

Ben's Quarry LLC

303 E. Ingram Road

Springville, IN 47462

Phone : (812)824-3730 Fax : (812)824-3732

Weigh Master: ETTA

Hauler:

Customer: YOU100

Young Trucking Inc.

8647 E. St. Rd. 45

Unionville, IN 47468

Ticket No : 15054773

Date : 7/22/13

Order No : 25

Truck : 01YOU Young Trucking

Material: TOPSOIL2 Topsoil 2 by the ton

Location: TWO

Gross:	72680	lb	MAN WT
Tare:	28320	lb	STORED
Net:	44360	lb	
	22.180	tn	Out 7:37 am

Material \$

Delivery \$

Misc \$

Tax \$

Total \$ _____

Remarks:

Thanks

Customer