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NORTHSIDE LONG-TERM GROUNDWATER MONITORING REPORT
NSA MID-SOUTH RCRA FACILITY INVESTIGATION
EVENT 8

CTO-094
SOUTHNAVFACENGCOM
CONTRACT NUMBER: N62467-89-D-0318

Prepared for:

Department of the Navy
Southern Division
Naval Facilities Engineering Command
North Charleston, South Carolina

Prepared by:

5724 Summer Trees Drive
Memphis, Tennessee 38134
(901) 372-7962
www.ensafe.com

The Contractor, EnSafe Inc. , hereby certifies that, to the best of its knowledge and belief, the technical data delivered herewith under Contract No. N62467-89-D-0318 is complete, accurate, and complies with all requirements of the contract.

Date: April 11, 2003
Signature: Philip P. Atkinson for
Name: John Stedman
Title: Task Order Manager

ENSAFE

EnSafe Inc. Environmental and Management Consultants

5724 Summer Trees Drive • Memphis, Tennessee 38134 • Telephone 901-372-7962 • Facsimile 901-372-2454 • www.ensafe.com

April 11, 2003

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By: John Stedman
Task Order Manager

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Title: Task Order Manager

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NSA MID-SOUTH RCRA FACILITY INVESTIGATION — EVENT 8 — March 14, 2003

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NORTHSIDE LONG-TERM GROUNDWATER MONITORING REPORT
NSA MID-SOUTH RCRA FACILITY INVESTIGATION — Event 8 — March 14, 2003

Table of Contents

1.0 INTRODUCTION 1-1

2.0 SAMPLING AND ANALYTICAL METHODS 2-1
- 2.1 Groundwater Sampling 2-1
- 2.2 Analytical Methods 2-2
- 2.3 QA/QC Samples 2-3

3.0 GROUNDWATER RESULTS 3-1

4.0 REFERENCES 4-1

List of Figures

Figure 1-1 Site Map with Well Locations 1-2
Figure 1-2 Groundwater Monitoring Well Locations, Building N-6 1-3
Figure 1-3 September 2002 Fluvial Deposits Potentionmetric Map 1-5

List of Tables

Table 1-1 Selected Northside Groundwater Monitoring Wells for Sampling and Analysis 1-6
Table 3-1 Detection Ranges for Exceedances 3-1
Table 3-2 Monitoring Wells at AOC A (SWMU 7 and N-6) in Which Analytes Exceed PRG and/or MCL Values 3-3

List of Attachments

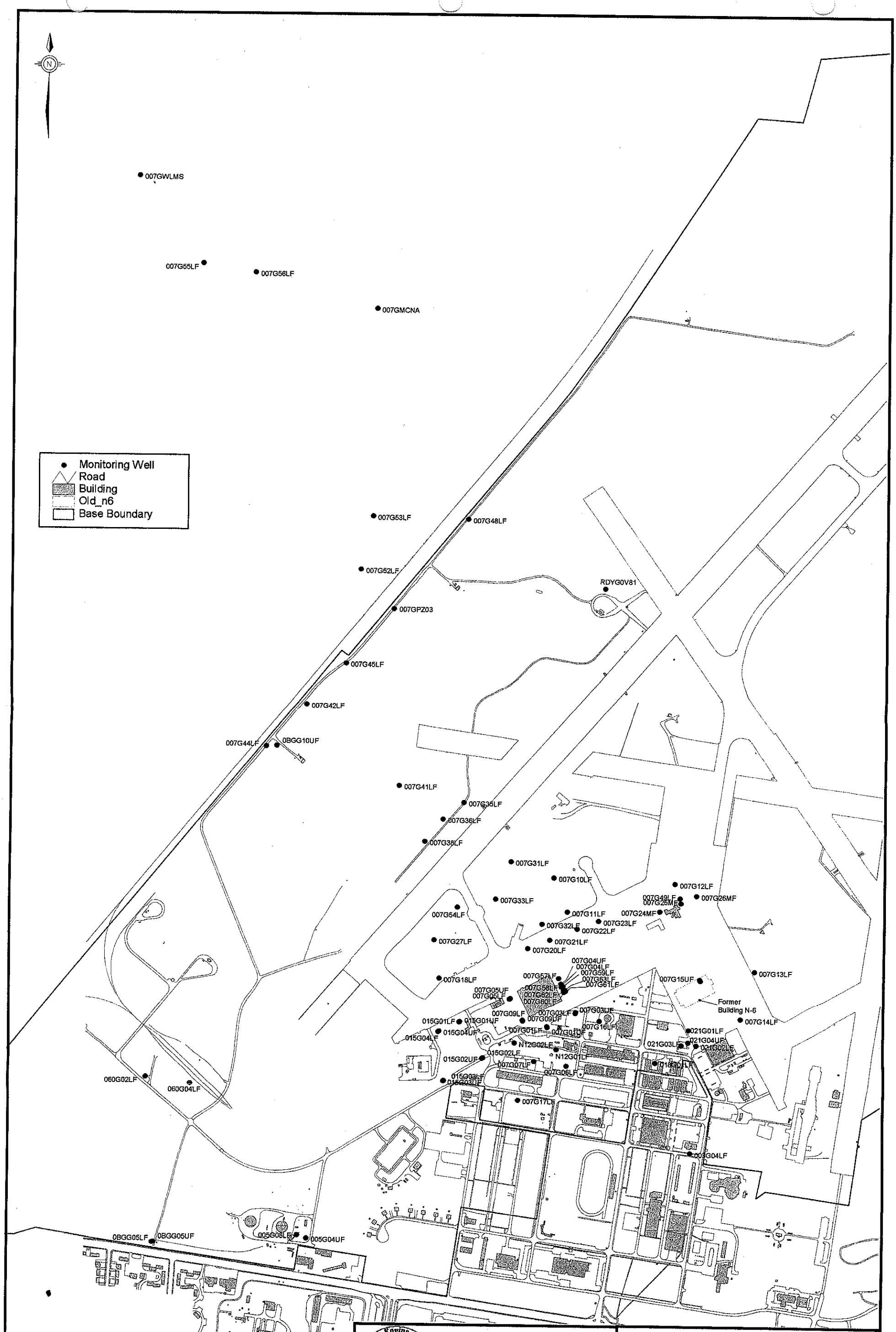
Attachment 1 Water Level and Well Stabilization Data
Attachment 2 Field and Laboratory MNA and BIO Data
Attachment 3 VOC Anadata Tables
Attachment 4 VOC Summary Table
Attachment 5 TCE Trends in Fluvial Deposits Groundwater

1.0 INTRODUCTION

In September 2002, EnSafe conducted groundwater sampling Event 8 as part of the long-term monitoring for volatile organic compounds (VOCs) as outlined in the May 2000 EnSafe technical memorandum *Northside RFI Monitoring Well Abandonment and Long-Term Monitoring Recommendations*. The following groundwater monitoring report presents groundwater data from the September 2002 sampling, which was conducted at select monitoring wells on the Northside of Naval Support Activity (NSA) Mid-South. Site maps (Figures 1-1 and 1-2) show locations of selected groundwater monitoring wells used in the Northside long-term groundwater monitoring.

The wells are located at the following Solid Waste Management Units (SWMUs) and investigation-related areas located on the Northside:

AOC A	Northside Fluvial Groundwater
SWMU 3	Building N-121 Plating Shop Dry Well
SWMU 5	Aircraft Fire-Fighting Training Area
SWMU 7	N-126 Plating Shop Dry Well
SWMU 15	N-94 Underground Tank Farm
SWMU 18	N-112 Underground Waste Tank
SWMU 21	N-10 Underground Waste Tank
SWMU 60	Northside Landfill (Western Portion)
Runway Well	Airfield Area
N-12	N-12 Tank Site
N-6	Vegetable Oil Pilot Study Wells
Background Wells	



NSA Mid-South
Millington, Tennessee
Northside Long Term Event 8
Groundwater Monitoring Report

Figure 1-1
Site Map with Well Locations

DATE: 03/14/03 | NAME:

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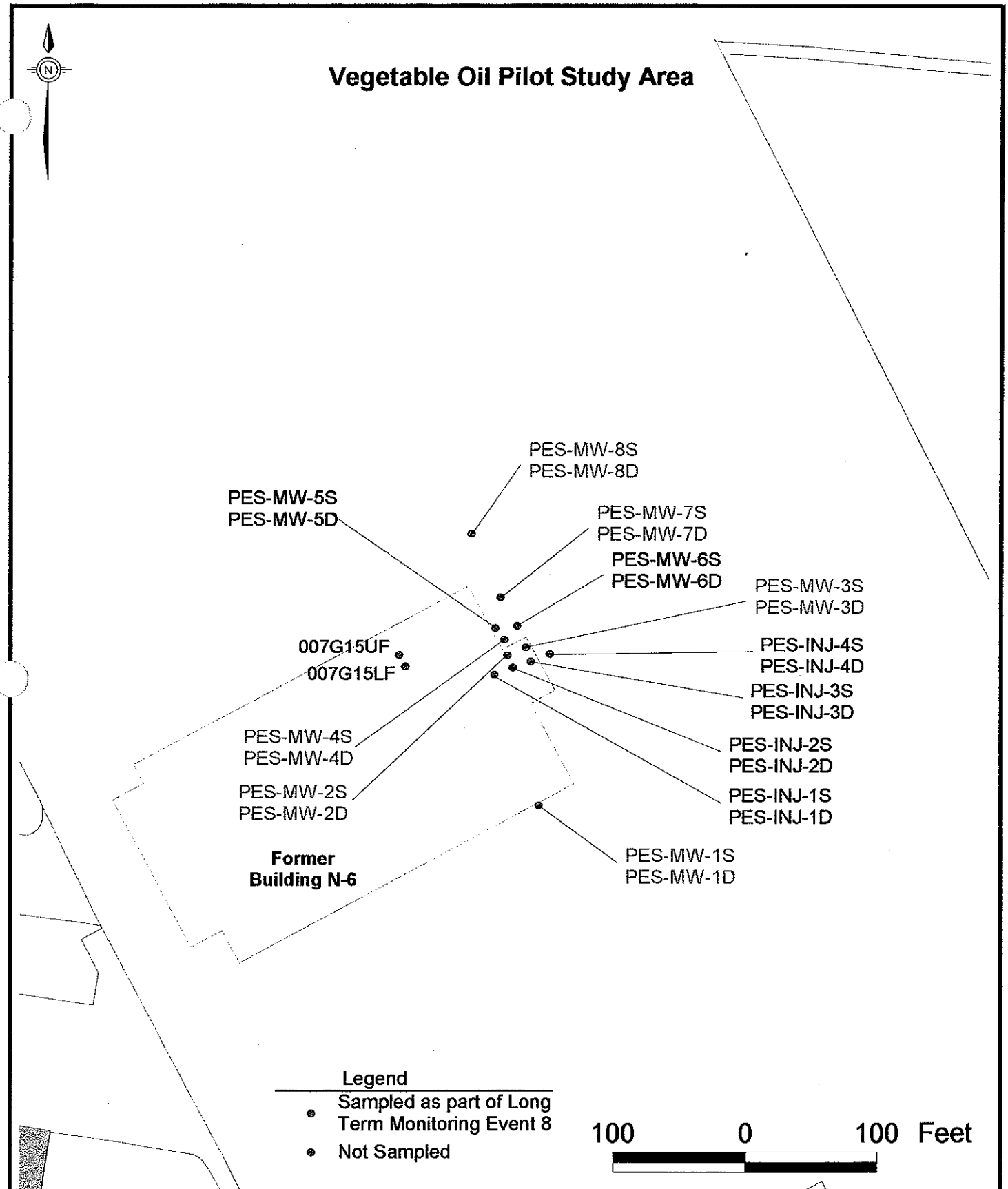

NSA Mid-South
Millington, Tennessee
Northside Long Term Event 8
Groundwater Monitoring Report

Figure 1-2
Groundwater Monitoring Well Locations, Building N-6

DATE: 03/14/03 | NAME:

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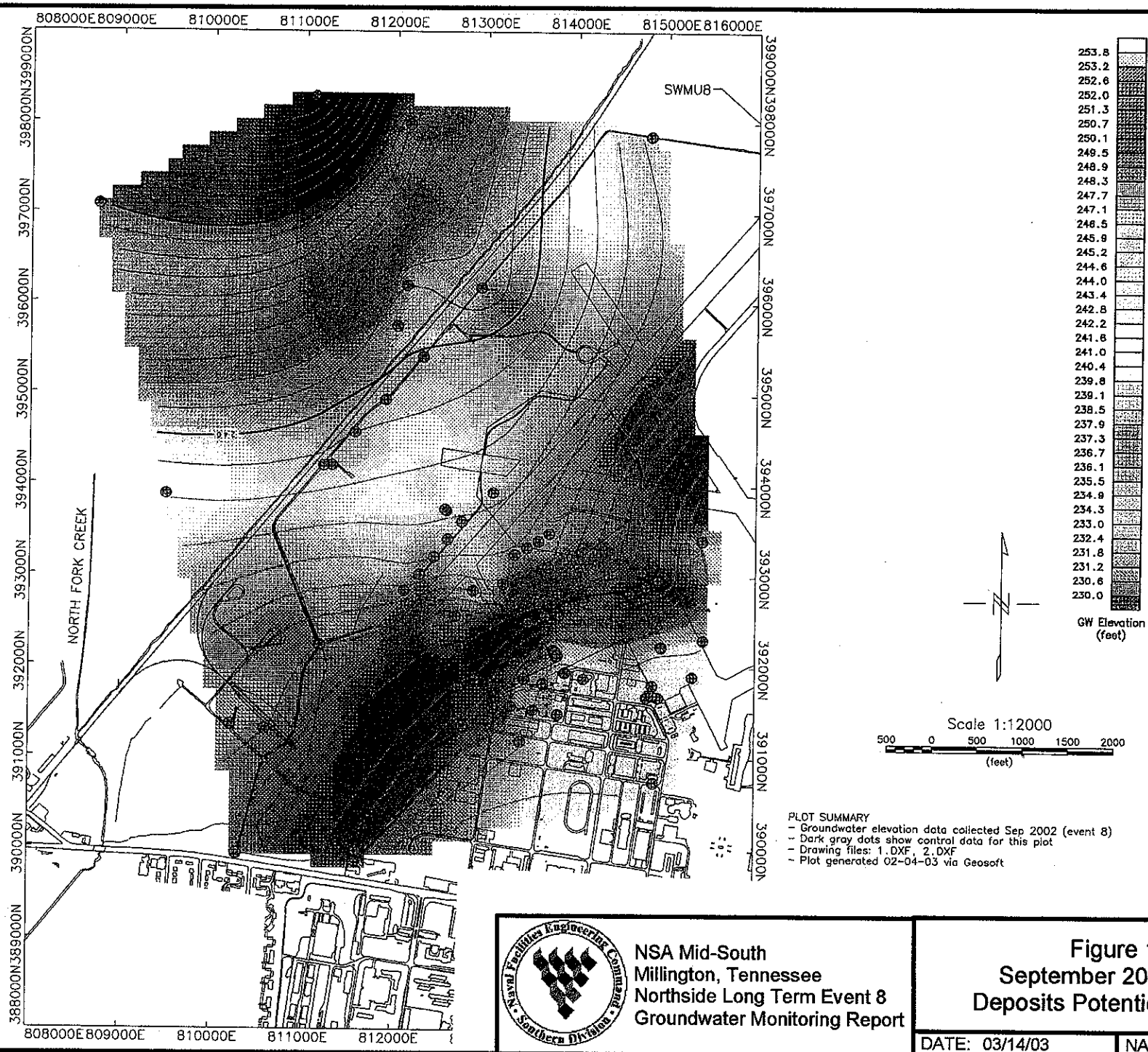
In all 91 monitoring wells (Table 1-1) associated with the SWMUs and investigation-related areas were selected for sampling during this event. This included five off-site monitoring wells associated with SWMU 7/AOC A, which are located on private property adjacent to the northwest side of the Northside (007G52LF, 007G53LF, 007G56LF, 007GMCMNA, and 007GWLMS). Twelve wells that were used for the vegetable oil pilot study were included in this sampling event. Groundwater elevation data from all the Northside monitoring wells (105 total) were used to produce the potentiometric map shown in Figure 1-3. Water level measurements and well stabilization data are provided in Attachment 1.



PLOT SUMMARY
- Groundwater elevation data collected Sep 2002 (event 8)
- Dark gray dots show control data for this plot
- Drawing files: 1.DXF, 2.DXF
- Plot generated 02-04-03 via Geosoft

NSA Mid-South
Millington, Tennessee
Northside Long Term Event 8
Groundwater Monitoring Report

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Figure 1-3
September 2002 Fluvial Deposits Potentiometric Map

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Table 1-1
Selected Northside Groundwater Monitoring Wells for Sampling and Analysis

Well ID	Volatile Organic Compound Analysis	Monitored Natural Attenuation Analysis
Background Wells		
0BGG05UF	Yes	No
0BGG05LF	Yes	No
0BGG10UF	Yes	No
SWMU 3		
003G04LF	Yes	No
SWMU 5		
005G04UF	Yes	Yes
005G08LF	Yes	Yes
SWMU 7		
007G01UF	Yes	Yes
007G01LF	Yes	Yes
007G03UF	Yes	Yes
007G03LF	Yes	Yes [a]
007G04UF	Yes	Yes
007G04LF	Yes	Yes
007G05UF	Yes	Yes
007G05LF	Yes	Yes
007G06LF	Yes	Yes
007G07LF	Yes	No
007G09UF	Yes	Yes
007G09LF	Yes	Yes
007G10LF	Yes	Yes
007G11LF	Yes	Yes
007G12LF	Yes	No
007G14LF	Yes	Yes
007G15UF	Yes	Yes
007G15LF	Yes	Yes
007G15UF (Oct. 02) [c]	Yes	Yes [a b]
007G15LF (Oct. 02) [c]	Yes	Yes [a b]
007G16LF	Yes	Yes
007G17LF	Yes	Yes [a]
007G18LF	Yes	Yes
007G20LF	Yes	Yes

Table 1-1
Selected Northside Groundwater Monitoring Wells for Sampling and Analysis

Well ID	Volatile Organic Compound Analysis	Monitored Natural Attenuation Analysis
SWMU 7 (Continued)		
007G21LF	Yes	Yes[a b]
007G22LF	Yes	Yes
007G23LF	Yes	No
007G24MF	Yes	Yes
007G25MF	Yes	Yes [a]
007G26MF	Yes	Yes [a]
007G27LF	Yes	No
007G31LF	Yes	Yes
007G32LF	Yes	Yes
007G33LF	Yes	No
007G35LF	well covered over or destroyed — unable to locate	
007G36LF	Yes	Yes
007G38LF	Yes	Yes
007G41LF	Yes	Yes
007G42LF	Yes	Yes
007G44LF	Yes	No
007G45LF	Yes	Yes [a]
007G48LF	Yes	No
007G49LF	Yes	Yes
007G52LF	Yes	Yes
007G53LF	Yes	Yes
007G54LF	Yes	Yes
007G55LF[b]	No	No
007G56LF	Yes	No
007G57LF	Yes	Yes
007G58LF	Yes	Yes
007G59LF	Yes	Yes[a b]
007G60LF	Yes	Yes[a b]
007G61LF	Yes	Yes
007G62LF	Yes	Yes
007G63LF	Yes	Yes[a b]
007GPZ03	Yes	No
007GWLMS	Yes	No
007GMCNA	Yes	No

Table 1-1
Selected Northside Groundwater Monitoring Wells for Sampling and Analysis

Well ID	Volatile Organic Compound Analysis	Monitored Natural Attenuation Analysis
SWMU 15		
015G01UF	Yes	No
015G01LF	Yes	Yes
015G02UF	Yes	Yes
015G02LF	Yes	Yes
015G03UF	Yes	No
015G03LF	Yes	No
015G04UF	Yes	No
015G04LF	Yes	No
SWMU 18		
018G01LF	Yes	Yes
SWMU 21		
021G01LF	Yes	No
021G02LF	Yes	No
021G03LF	Yes	No
021G04UF	Yes	No
SWMU 60		
060G02LF	Yes	No
060G04LF	Yes	No
Building N12		
N12G01LF	Yes	No
N12G02LF	Yes	No
Runway Well		
RDYGOV81	Yes	No
Veggie Oil Pilot Study (Building N-6)		
PESGMW1D	Yes	Yes[a b]
PESGMW1S	Yes	Yes[a b]
PESGMW2S	Yes	Yes[a b]
PESGMW2D	Yes	Yes[a b]
PESGMW3S	Yes	Yes[a b]
PESGMW3D	Yes	Yes[a b]
PESGMW4S	Yes	Yes[a b]
PESGMW4D	Yes	Yes[a b]
PESGMW7S	Yes	Yes[a b]

Table 1-1
Selected Northside Groundwater Monitoring Wells for Sampling and Analysis

Well ID	Volatile Organic Compound Analysis	Monitored Natural Attenuation Analysis
Veggie Oil Pilot Study (Building N-6) (Continued)		
PESGMW7D	Yes	Yes[a b]
PESGMW8S	Yes	Yes[a]
PESGMW8D	Yes	Yes[a]

Notes:
[a] Additional parameter analysis performed by Microseeps, Inc.
[b] Additional parameter analysis performed by Microbial Insights, Inc.
[c] Wells were sampled again in October 2002 as part of the Building N-6 vegetable oil pilot study.

2.0 SAMPLING AND ANALYTICAL METHODS

2.1 Groundwater Sampling

When sampling personnel arrive at a monitoring well, they inspect general well conditions and review the well identification tag to verify the well ID. The well is then opened and the water level allowed to equalize. An initial water level reading is recorded and a three-well water volume is calculated. All measurements are recorded on the well sampling form. A submersible Durham or Fultz pump attached to a dedicated Teflon tubing is lowered to approximately 5 feet from the bottom of the well and the pump is started and adjusted to maintain a flow rate (low-flow) equivalent to or just below the formation's recharge capacity. The water level in the well is monitored with a water-level indicator as low-flow is established to ensure that the purge water rate will not result in draw-down in excess of 0.3 foot.

Once the purge rate has been adjusted to match recharge rate, pumping is continued for at least 15 to 20 minutes and stabilization parameters are measured with a multiprobe water quality analyzer every 3 to 5 minutes. Temperature, dissolved oxygen (DO), pH, specific conductance, oxidation-reduction potential (ORP), and turbidity were used as the stabilization parameters during this sampling event and recorded on the sampling form. Purging continues until parameters stabilize.

A well is considered stable when pH remains constant within 0.1 standard unit, conductivity varies no more than 10%, and temperature is essentially constant for three consecutive readings. Turbidity should also show stabilization and be less than 10 nephelometric turbidity units (NTUs), if possible. As soon as parameters stabilize, samples are collected. If a low flow rate could not be established during initial purging, three well volumes of water are purged from the well instead and parameters recorded every 3 to 5 minutes. After removal of three volumes, the samples are then collected. Well stabilization and water level data are included in Attachment 1 of this report.

2.2 Analytical Methods

Wells were selected for sampling in accordance with the recommendations in the *Northside RFI Monitoring Well Abandonment and Long-Term Monitoring Recommendations Technical Memorandum* (EnSafe, 2000). Samples collected from selected wells were analyzed for VOCs using EPA method 8260B. Samples were analyzed in accordance with Section 4.10 of the *Comprehensive RFI Work Plan* (EnSafe/Allen & Hoshall, 1994) by Mitkem Laboratories Inc. of Warrick, Rhode Island. Data were validated by Heartland Environmental Services, Inc. of St. Charles, Missouri, or an EnSafe chemist in accordance with *USEPA Contract Laboratory Program National Function Guidelines for Organic and Inorganic Data Review* (February 1994).

Additionally, 64 wells were also field and laboratory analyzed for biogeochemical (BIO) parameters as part of the monitored natural attenuation (MNA) study conducted on the Northside fluvial deposits groundwater. The following BIO parameters were tested in the field: pH, temperature, dissolved oxygen (DO), ORP, ferrous iron, sulfide, alkalinity, and carbon dioxide. Samples from all Northside wells, except those at N-6, were also tested for sulfate and chloride. Additionally, a Hach/DR 2010 spectrophotometer was used to analyze ferrous iron, sulfide, and sulfate; Hach individual test kits were used to measure chloride, alkalinity, and carbon dioxide; and a YSI 95 or 55 DO meter was used to measure DO; and an Orion 250A ORP meter was used to measure ORP levels for these wells. For the N-6 wells, Chemetrics individual test kits were used to measure dissolved oxygen, ferrous iron, sulfide, alkalinity, and carbon dioxide in the field. All field groundwater samples were analyzed within one hour of sample collection. All Northside wells except those at N–6 were measured by Mitkem for the BIO parameters total iron, methane, nitrate, and total organic carbon (TOC). N–6 wells were analyzed for bromide, chloride, inorganic carbon, manganese, nitrate, nitrate+nitrite, sulfate, and TOC.

Dissolved gases samples were collected from 11 SWMU monitoring wells and submitted to Microseeps, Inc. of Pittsburgh, Pennsylvania, for hydrogen analysis. Additionally, nine N-6 monitoring wells were sampled and analyzed by Microseeps for ethane, ethene, hydrogen, and methane. Field and laboratory results are summarized in Attachment 2 of this report.

Thirteen wells (five at SWMU 7 and eight at N-6) were sampled and analyzed for polar lipid fatty acids (PLFA), volatile fatty acids (VFA), denaturing gradient gel electrophoresis (DGGE), and targeted gene detection (DHE). These samples were analyzed by Microbial Insights, Inc. of Rockford, Tennessee. These results are included in Attachment 2 of this report.

2.3 QA/QC Samples

The following field quality assurance/quality control (QA/QC) samples were collected in accordance with the *Comprehensive RFI Work Plan* (E/A&H, 1994) for NSA Mid-South.

Duplicate samples:	10% of groundwater samples
Field and equipment rinse blanks:	one per sample delivery group (SDG), 20 samples
Matrix spikes/matrix spike duplicates:	5% of the total samples collected
Trip blanks:	submitted with each cooler containing VOC samples

Duplicates are included in the data tables in Attachment 3 that are sorted by sample delivery groups. However, duplicate results were not included for comparison in the VOC summary table in Attachment 4.

2.4 Problems Encountered

No samples were collected from monitoring well 007G35LF. The well could not be located during this sampling event because construction activities in the airfield apparently covered or destroyed the well.

3.0 GROUNDWATER RESULTS

The following section summarizes VOC detections from the September 2002 sampling event. Attachment 4 of this report compares Event 8 results with results from the August 2001, July 2000, and March 1999 sampling events. The results are also compared to benchmarks obtained from *USEPA Region 9 Preliminary Remediation Goals (PRGs) October 2002* and the *USEPA National Primary Drinking Water Standards, July 2002* for tap-water maximum contaminant levels (MCLs).

Additionally, wells from select areas have been plotted graphically to illustrate TCE trends over time. Attachment 5 shows TCE trends from the following areas: (1) Building N-126 where a sequential anaerobic-aerobic pilot study injection system operated between March and December 2000, (2) Building N-6 where a pilot study consisting of vegetable oil injection has been underway since November 2000, and (3) monitoring wells at the downgradient perimeter of the AOC-A TCE plume.

Exceedance Summary

Thirteen VOCs were detected with concentrations exceeding either the PRG value or the PRG *and* MCL values. The range of detected concentrations are shown in Table 3-1 in micrograms per liter (µg/L). Current and historical detections for individual wells can be viewed in the long-term groundwater monitoring VOC summary table in Attachment 4 of this report. The *Frequency, Range* and *Mean* columns for that table are representative of all known sample data collected at each well and not just sample data shown under the sampling events columns.

Table 3-1
Detection Ranges for Exceedances

Detected Analytes	Range (µg/L)	PRG	MCL
1,1,2-trichloroethane	0.5 - 0.50.2	5	
1,1-dichloroethene	0.5 - 460	340	7
1,2-dichloroethane	0.3 - 60	0.12	5
Benzene	0.2 - 2,100	0.34	5
Bromodichloromethane	0.2 - 0.30.18	80	
Carbon tetrachloride	0.2 - 220	0.17	5
Chloroform	0.2 - 130	6.2	80
cis-1,2-dichloroethene	0.3 - 890	61	70
Dibromochloromethane	0.7 - 3	0.13	80
Ethylbenzene	44 - 46	2.9	700
Tetrachloroethene	0.2 - 170	0.66	5
Trichloroethene	0.2 - 1,000	0.028	5
Vinyl chloride	0.4 - 380	0.02	2

Background Wells

During Event 8, three background monitoring wells (0BGG05LF, 0BGG05UF, and 0BGG10UF) were sampled for VOCs analysis only. In two wells (0BGG05LF, 0BGG05UF) tetrachloroethene (PCE) and carbon tetrachloride exceeded the listed PRG and MCL values, and 0BGG05LF exceeded the PRG for trichloroethene. The source of the PCE is suspected from an off-site dry cleaners (Jetway) which is currently being investigated through TDEC Division of Superfund's Dry Cleaner Environmental Response Program.

SWMU 3

One well (003G04LF) was sampled during this event and analyzed for VOCs only. Results were below the PRG and MCL values.

SWMU 5

Two wells (005G04UF and 005G08LF) were sampled for VOCs and BIO parameters analysis. In well 005G04UF, which is screened in the upper fluvial deposits, carbon tetrachloride was detected at a concentration exceeding the listed PRG and MCL values. In well 005G08LF, screened in the lower fluvial deposits, carbon tetrachloride was detected at a concentration which exceeded the PRG only.

AOC A (SWMU 7 and N-6)

Twelve wells screened in the upper fluvial deposits were sampled for VOCs and BIO analysis. Forty-five wells screened in the lower fluvial deposits were sampled and analyzed for either (1) VOCs and BIO, (2) VOCs, BIO, and hydrogen, or (3) VOCs only. Four of these wells were sampled at two different depth intervals, as designated with either a LFA or LFB in the well ID (43 feet below the top of casing) or (5 feet from the bottom of the well). Three wells screened in the middle fluvial deposits were sampled for analysis of one of the following: VOCs, and BIO, or hydrogen. One piezometer (007GPZ03) was sampled for VOC analysis only. Additionally, five off-site wells (007G52LF, 007G53LF, 007G56LF, 007GMCMNA, and 007GWLMS) were sampled for VOC analysis only.

Table 3-2 lists wells in which analytes exceeded the PRG and/or MCL values in the SWMU 7 and N-6 wells. N-6 wells contain the "PES-" (Parson's Environmental Services) prefix, the Navy contractor that implemented the vegetable oil pilot study at former Building N-6 in November 2000.

Table 3-2
Monitoring Wells at AOC A (SWMU 7 and N-6) in Which Analytes Exceed PRG and/or MCL Values

Analyte	Wells Exceeding the PRG	Wells Exceeding the MCL
1,1,2-trichloroethane	007G03LF	
1,1-dichloroethene	007G15UF	007G03LF 007G04LF 007G06LF 007G15UF 007G57LF) PES-MW8S(D 007G58LFA(B) 007G59LFA(B) PES-MW1S PES-MW2S(D) PES-MW3S PES-MW4S(D) PES-MW7S(D)
1,2-dichloroethane	007G03LF 007G05LF 007G15UF 007G18LF 007G27LF 007G52LF 007G54LF	007G03LF
Benzene	007G01UF 007G15UF 007G22LF 007G62LFB PES-MW1S PES-MW2S PES-MW3S PES-MW4S PES-MW7S(D) PES-MW8S(D)	007G15UF PES-MW2S
Bromodichloromethane	007G16LF 007G21LF	
Carbon tetrachloride	007G03LF 007G04LF 007G05LF 007G07LF 007G10LF 007G11LF 007G12LF 007G15LF 007G15UF 007G18LF 007G21LF 007G22LF 007G23LF 007G25MF 007G31LF 007G36LF 007G38LF 007G41LF 007G42LF 007G45LF 007G49LF 007G52LF 007G53LF 007G54LF 007GPZ03 PES-MW2S PES-MW3S PES-MW7S(D) PES-MW7D PES-MW8S(D)	007G03LF 007G10LF 007G15LF 007G11LF 007G15UF 007G23LF 007G38LF PES-MW2S PES-MW7D PES-MW8S(D)
Chloroform	007G03LF 007G11LF 007G15LF 007G15UF PES-MW2S PES-MW4S PES-MW7D PES-MW8S(D)	
cis-1,2-dichloroethene	007G04LF 007G58LFA(B) 007G59LFA(B) 007G62LFB PES-MW2S	007G04LF 007G58LFA(B) 007G59LFA(B) 007G62LFB PES-MW2S
Dibromochloromethane	007G03UF 007G15UF 007G16UF 007G21LF 007G24MF 007G42LF 007G48LF	

Table 3-2
Monitoring Wells at AOC A (SWMU 7 and N-6) in Which Analytes Exceed PRG and/or MCL Values

Analyte	Wells Exceeding the PRG	Wells Exceeding the MCL
Tetrachloroethene	007G01UF 007G03LF 007G04LF 007G05LF 007G06LF 007G07LF 007G09LF 007G10LF 007G11LF 007G15UF 007G21LF 007G22LF 007G23LF 007G31LF 007G32LF 007G38LF 007G41LF 007G52LF 007G54LF 007G58LFA 007G59LFA 007G62LFB 007GPZ03 PES-MW4S	007G01UF 007G03LF 007G04LF 007G06LF 007G07LF 007G09LF 007G10LF 007G11LF 007G21LF 007G22LF 007G31LF 007G52LF 007G57LF
Trichloroethene	007G01LF 007G01UF 007G03LF 007G04LF 007G04UF 007G05LF 007G06LF 007G07LF 007G09LF 007G10LF 007G11LF 007G15LF 007G15UF 007G18LF 007G21LF 007G22LF 007G23LF 007G25MF 007G27LF 007G31LF 007G32LF 007G33LF 007G36LF 007G38LF 007G41LF 007G42LF 007G45LF 007G49LF 007G53LF 007G54LF 007G58LFA(B) 007G59LFA(B) 007G60LF 007G62LFA(B) 007G63LFA(B) 007GPZ03 PES-MW1S(D) PES-MW2S(D) PES-MW3S(D) PES-MW4S(D) PES-MW7S(D) PES-MW8S(D)	007G04LF 007G03LF 007G07LF 007G09LF 007G10LF 007G06LF 007G15LF 007G15UF 007G18LF 007G21LF 007G22LF 007G23LF 007G25MF 007G31LF 007G32LF 007G38LF 007G41LF 007G52LF 007G54LF 007G58LFA(B) 007G59LFA(B) 007G62LFB 007G42LF 007G57LF PES-MW1S PES-MW2S PES-MW3S PES-MW4S(D) PES-MW7S(D) PES-MW8S(D)
Vinyl chloride	007G04LF 007G09LF 007G25MF 007G58LFA(B) 007G59LFA(B) 007G60LF 007G61LF 007G62LFA(B) 007G63LFA(B) 007GMCNA	007G58LFA(B) 007G59LFA(B) 007G60LF 007G61LF 007G62LFA(B) 007G63LFA(B) 007GMCNA

SWMU 15

Eight monitoring wells, four screened in the upper fluvial deposits and four screened in the lower fluvial deposits were sampled for analysis of VOCs and BIO or VOCs only. TCE exceeded the PRG and MCL in 015G01LF. TCE exceeded the PRG, but not the MCL in 015G02LF and 015G04LF. In well 015G01UF, benzene exceeded both PRG and MCL values; in well 015G02UF, it exceeded the PRG only. In wells 015G01UF and 015G02UF ethylbenzene exceeded the PRG only. PCE exceeded the PRG and MCL and carbon tetrachloride exceeded the PRG only in well 015G01LF. In well 015G03LF, dibromochloromethane exceeded the PRG value only.

SWMU 18

The only well (018G01LF) at SWMU 18 screened in the lower fluvial deposits was sampled for VOC and BIO analyses. PCE exceeded both the PRG and MCL. Carbon tetrachloride and TCE exceeded the PRG only.

SWMU 21

Three wells (021G01LF, 021G02LF, and 021G03LF) screened in the lower fluvial deposits were sampled for VOCs analysis. One well (021G04UF) screened in the upper fluvial deposits was also sampled for VOCs analysis. In well 021G04UF, carbon tetrachloride exceeded both the PRG and MCL values. Bromoform was detected in all four wells at concentrations below the PRG and MCL values.

SWMU 60

Both wells (060G02LF and 060G04LF) at SWMU 60 are screened in the lower fluvial deposits; they were sampled for VOCs analysis. VOCs were not detected during this sampling event.

N-12 Tank Site

The two wells (N12G01LF, N12G02LF) screened in the lower fluvial deposits were sampled for VOCs analysis only. In both wells, carbon tetrachloride, PCE, and TCE exceeded both their PRG and MCL values. 1,1-dichloroethane, bromoform, chloroform, and *cis*-1,2-dichloroethene were detected in well N12G01LF at concentrations below their MCL and PRG. In well N12G02LF, 1,1-dichloroethane, chloroform, and *cis*-1,2-dichloroethene were detected below their MCLs and PRGs.

Runway Well

Well RDYGOV81 was sampled for VOCs analysis only. In the sample from this well, 1,2-dichloroethane, PCE, and TCE exceeded the PRG value only.

4.0 REFERENCES

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Attachment 1
Water Level Data and Well Stabilization Data

NSA Mid-South Northside Water Level Data — Event 8				
Well ID	Initial Water Level (Ft) (below TOC)	Date Measured	TOC Elevation (Ft)	Groundwater Elevation (Ft)
0BGG01LF	NM	—	286.57	—
0BGG01UF	NM	—	286.68	—
0BGG05UF	19.26	9/9/02	268.18	248.92
0BGG05LF	20.03	9/9/02	268.02	247.99
0BGG07UC	NM	—	323.23	—
0BGG08UF	NM	—	299.67	—
0BGG09MF	NM	—	314.82	—
0BGG10UF	34.19	9/9/02	275.50	241.31
0BGG13UF	NM	—	292.28	—
003G04LF	29.40	9/9/02	284.27	254.87
003G06UF	NM	—	288.66	—
005G03UF	7.63	9/9/02	267.52	259.89
005G04UF	16.18	9/9/02	269.03	252.85
005G05LF	8.98	9/9/02	271.22	262.24
005G08LF	6.92	9/9/02	270.38	263.46
007G01UF	31.00	9/9/02	285.00	254.00
007G01LF	30.90	9/9/02	284.91	254.01
007G01UC	31.35	9/9/02	284.64	253.29
007G02UC	31.00	9/9/02	283.18	252.18
007G03UF	28.75	9/9/02	283.26	254.51
007G03LF	29.12	9/9/02	283.32	254.20
007G03UC	30.26	9/9/02	283.47	253.21
007G04UF	29.32	9/9/02	283.21	253.89
007G04LF	29.18	9/9/02	283.12	253.94
007G05UF	28.79	9/9/02	282.43	253.64
007G05LF	29.95	9/9/02	282.28	252.33
007G05UC	30.59	9/9/02	282.39	251.80
007G06UF	31.05	9/9/02	286.48	255.43

NSA Mid-South Northside Water Level Data — Event 8				
Well ID	**Initial Water Level (Ft) (below TOC)**	**Date Measured**	**TOC Elevation (Ft)**	**Groundwater Elevation (Ft)**
007G06LF	31.25	9/9/02	286.52	255.27
007G07LF	30.08	9/9/02	283.98	253.90
007G08UF	29.65	9/9/02	282.93	253.28
007G08LF	29.86	9/9/02	282.92	253.06
007G09UF	29.00	9/9/02	282.90	253.90
007G09LF	29.41	9/9/02	282.65	253.24
007G09UC	30.18	9/9/02	282.55	252.37
007G10LF	37.18	9/9/02	282.01	244.83
007G11LF	34.47	9/9/02	282.94	248.47
007G12LF	39.42	9/9/02	288.78	249.36
007G13LF	39.02	9/9/02	292.96	253.94
007G14LF	42.18	9/9/02	296.43	254.25
007G15UF	38.65	9/9/02	292.91	254.26
007G15LF	39.80	9/9/02	293.36	253.56
007G16LF	NM	—	287.63	—
007G17LF	29.33	9/9/02	283.20	253.87
007G18LF	28.89	9/9/02	277.58	248.69
007G19LF	37.99	9/9/02	291.58	253.59
007G20LF	31.96	9/9/02	282.70	250.74
007G21LF	32.79	9/9/02	283.66	250.87
007G22LF	34.42	9/9/02	284.86	250.44
007G22UC	33.12	9/9/02	284.83	251.71
007G23LF	34.94	9/9/02	285.89	250.95
007G24MF	38.84	9/9/02	289.06	250.22
007G25MF	39.81	9/9/02	289.97	250.16
007G26MF	40.14	9/9/02	290.13	249.99
007G27LF	27.81	9/9/02	276.77	248.96
007G28LF	37.70	9/9/02	281.91	244.21

NSA Mid-South Northside Water Level Data — Event 8				
Well ID	**Initial Water Level (Ft) (below TOC)**	**Date Measured**	**TOC Elevation (Ft)**	**Groundwater Elevation (Ft)**
007G29LF	38.01	9/9/02	282.29	244.28
007G30LF	38.29	9/9/02	282.99	244.70
007G31LF	36.60	9/9/02	282.99	246.39
007G32LF	33.36	9/9/02	281.97	248.61
007G33LF	35.00	9/9/02	279.55	244.55
007G34LF	40.44	9/9/02	283.22	242.78
007G35LF*	Unable to Locate		281.77	—
007G36LF*	37.63	9/9/02	281.00	243.09
007G37F1*	37.44	9/9/02	280.29	242.85
007G37L1*	25.71	9/9/02	280.13	254.42
007G37L2*	19.93	9/9/02	280.22	260.29
007G37LF*	37.56	9/9/02	280.59	243.03
007G37UC	42.91	9/9/02	280.42	237.91
007G38LF*	36.62	9/9/02	279.96	243.34
007G39LF*	23.97	9/9/02	284.91	260.94
007G40LF*	34.97	9/9/02	279.03	244.06
007G41LF*	30.17	9/9/02	281.89	251.72
007G42LF*	35.89	9/9/02	277.01	241.12
007G43LF*	32.88	9/9/02	277.25	244.37
007G44LF*	33.14	9/9/02	274.41	241.27
007G45LF*	NM	—	276.90	—
007G46LF*	30.74	9/9/02	275.92	245.18
007G47LF*	57.70	9/9/02	302.04	244.34
007G48LF*	NM	—	279.71	—
007G49LF*	29.75	9/9/02	289.68	259.93
007G50LF*	29.22	9/9/02	271.11	241.89
007G51LF*	48.61	9/9/02	278.83	230.22
007G52LF*	38.36	9/9/02	278.20	239.84

NSA Mid-South Northside Water Level Data — Event 8				
Well ID	**Initial Water Level (Ft) (below TOC)**	**Date Measured**	**TOC Elevation (Ft)**	**Groundwater Elevation (Ft)**
007G53LF	40.96	9/9/02	280.16	239.20
007G54LF	32.73	9/9/02	278.64	245.91
007G56LF	58.90	9/9/02	280.63	221.73
007G57LF	28.00	9/9/02	281.71	253.71
007G58LF	29.41	9/9/02	283.21	253.80
007G59LF	29.38	9/9/02	283.19	253.81
007G60LF	28.60	9/9/02	282.42	253.82
007G61LF	28.73	9/9/02	282.55	253.82
007G62LF	29.59	9/9/02	283.37	253.78
007G63LF	29.58	9/9/02	283.40	253.82
007GMCNA	56.40	9/9/02	289.59	233.19
007GPZ03	NM	—	278.18	—
007GPZ04	22.51	9/9/02	269.58	247.07
015G01UF	30.23	9/9/02	282.06	251.83
015G01LF	30.80	9/9/02	281.90	251.10
015G02UF	31.18	9/9/02	283.00	251.82
015G02LF	30.41	9/9/02	282.85	252.44
015G03UF	29.72	9/9/02	282.36	252.64
015G03LF	30.40	9/9/02	282.55	252.15
015G04UF	29.00	9/9/02	280.55	251.55
015G04LF	29.75	9/9/02	280.41	250.66
018G01LF	34.56	9/9/02	289.07	254.51
021G01LF	38.90	9/9/02	293.42	254.52
021G02LF	40.00	9/9/02	294.57	254.57
021G03LF	39.73	9/9/02	294.43	254.70
021G04UF	41.08	9/9/02	295.71	254.63
060G02LF	24.35	9/9/02	270.90	246.58
060G04LF	NM	—	272.31	—

NSA Mid-South Northside Water Level Data — Event 8				
Well ID	**Initial Water Level (Ft) (below TOC)**	**Date Measured**	**TOC Elevation (Ft)**	**Groundwater Elevation (Ft)**
N12G01LF	31.41	9/9/02	285.30	253.89
N12G02LF	32.89	9/9/02	285.84	252.95
RDYG0V81	NM	—	294.11	—
PES-INJ-1S	NM	—	293.44	—
PES-INJ-1D	NM	—	293.44	—
PES-INJ-2S	NM	—	293.20	—
PES-INJ-2D	NM	—	293.21	—
PES-INJ-3S	NM	—	293.09	—
PES-INJ-3D	NM	—	293.12	—
PES-INJ-4S	NM	—	293.44	—
PES-INJ-4D	NM	—	293.40	—
PES-MW-1S	39.27	9/30/02	293.37	254.10
PES-MW-1D	39.45	9/30/02	293.33	253.88
PES-MW-2S	39.42	9/30/02	293.38	253.96
PES-MW-2D	39.80	9/30/02	293.32	253.52
PES-MW-3S	39.40	10/1/02	293.39	253.99
PES-MW-3D	39.75	10/1/02	293.40	253.65
PES-MW-4S	39.08	9/27/02	293.34	254.26
PES-MW-4D	39.70	9/26/02	293.34	253.64
PES-MW-5S	NM	—	293.27	—
PES-MW-5D	NM	—	293.27	—
PES-MW-6S	NM	—	293.28	—
PES-MW-6D	NM	—	293.31	—
PES-MW-7S	38.90	9/27/02	293.10	254.20
PES-MW-7D	39.40	9/27/02	293.08	253.68
PES-MW-8S	39.35	9/27/02	292.94	253.59
PES-MW-8D	39.48	9/27/02	292.94	253.46

Notes:

With the exception of the "PES" wells, groundwater elevations collected from the wells listed in the above Table were collected 1 day prior to the sampling portion of Event 8. Water level data from these wells were used to produce the potentiometric map. Not all wells listed above were included in the sampling portion of the event.

*	=	Denotes a monitoring well that is screened throughout the full thickness of the fluvial deposits
TOC	=	Top of casing
NM	=	Not Measured

SWMU 3 Well Stabilization Data — Event 8								
Well ID	Date	Time	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity NTU	D.O. (mg/L)	ORP (mV)
003G04LF08	9/19/02	0840	7.15	0.367	20.2	186.0	7.16	48
		0843	7.11	0.367	20.1	176.0	4.85	49
		0845	7.09	0.366	19.9	109.0	4.06	47
		0848	7.11	0.366	19.7	55.5	3.83	42

SWMU 5 Well Stabilization Data — Event 8								
Well ID	Date	Time	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity NTU	D.O. (mg/L)	ORP (mV)
005G04UF08	9/11/02	1100	5.40	0.339	19.4	19.9	4.13	75
		1104	5.39	0.342	19.5	22.8	3.72	70
		1107	5.40	0.347	19.7	35.8	3.48	68
		1110	5.41	0.348	20.0	37.0	3.45	67
005G08LF08	9/11/02	0955	5.62	0.304	20.1	699	4.24	60
		0958	5.60	0.305	20.2	707	4.28	61
		1002	5.59	0.305	20.2	708	4.34	62
		1005	5.58	0.306	20.2	708	4.44	64

SWMU 7 Well Stabilization Data — Event 8								
Well ID	Date	Time	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity NTU	D.O. (%)	ORP (mV)
007G01LF08	9/11/02	1025	7.26	0.327	23.07	-4.9	14.22	86
		1028	7.25	0.327	23.10	-5.0	14.12	87
		1031	7.26	0.333	23.23	-4.8	13.72	93
007G01UF08	9/11/02	1046	5.76	0.171	23.23	5.9	2.47	91
		1049	5.76	0.171	23.38	3.4	1.89	95
		1052	5.71	0.171	23.39	2.4	1.78	94

SWMU 7 Well Stabilization Data — Event 8								
Well ID	**Date**	**Time**	**pH**	**Conductivity (mS/cm)**	**Temperature (°C)**	**Turbidity NTU**	**D.O. (%)**	**ORP (mV)**
007G03LF15	9/16/02	1005	6.26	0.306	20.8	-10	6.08	129
		1008	6.28	0.292	20.7	-10	5.39	118
		1010	6.34	0.287	20.7	-10	4.66	103
		1013	6.40	0.285	20.7	-10	4.67	108
		1018	6.43	0.284	20.7	-10	4.63	83
007G03UF08	9/16/02	1043	6.62	6.94	23.4	-4.7	9.68	65
		1047	6.66	7.14	23.5	-4.6	5.85	59
		1052	6.67	7.20	23.6	-5.8	4.94	55
		1055	6.68	7.34	23.8	-7.5	3.47	44
		1100	6.68	7.90	24.0	-7.8	3.22	40
007G04LF15	9/12/02	1403	8.28	0.187	23.18	-0.4	6.20	-6
		1406	8.28	0.240	23.07	-0.4	5.65	42
		1409	6.36	0.262	22.81	-0.5	2.29	100
		1412	6.36	0.262	22.61	-0.5	1.77	105
007G04UF15	9/12/02	1433	6.48	0.464	22.81	84.0	13.16	110
		1436	6.44	0.463	22.63	52.7	12.52	109
		1439	6.44	0.463	22.36	45.3	12.24	105
007G05UF08	9/11/02	1320	6.45	0.487	24.70	32.5	7.69	81
		1324	6.42	0.487	24.95	25.7	7.05	76
		1328	6.42	0.486	24.97	28.4	7.01	75
007G05LF08	9/11/02	1343	6.44	0.121	23.45	0.3	3.24	103
		1346	6.42	0.141	23.38	2.8	3.27	103
		1349	6.42	0.142	23.45	3.9	2.86	102
007G06LF08	9/11/02	1313	6.64	0.235	23.22	-1.2	14.06	96
		1316	6.48	0.235	22.82	-1.8	13.09	102
		1319	6.41	0.247	22.45	-2.0	12.61	105
		1322	6.42	0.248	22.34	-2.1	12.51	107
007G07LF08	9/13/02	1405	6.47	0.244	21.81	0.7	9.03	110
		1410	6.09	0.232	21.36	1.0	5.46	121
		1415	6.02	0.253	21.19	2.7	5.14	123
		1420	5.99	0.254	21.16	4.6	4.65	123
007G09LF08	09/11/02	0952	6.37	.185	23.11	-2.9	4.11	-60
		0956	6040	.204	22.50	-3.7	3.05	-76

SWMU 7 Well Stabilization Data — Event 8								
Well ID	**Date**	**Time**	**pH**	**Conductivity (mS/cm)**	**Temperature (°C)**	**Turbidity NTU**	**D.O. (%)**	**ORP (mV)**
		1000	6036	.213	22.51	-3.7	3.34	-73
007G09UF08	9/11/02	0952	6.37	0.185	23.11	-2.9	4.11	-60
		0956	6.40	0.204	22.50	-3.7	3.05	-76
		1000	6.36	0.213	22.51	-3.7	3.34	-73
007G10LF08	9/18/02	1118	7.26	0.435	23.5	47.5	13.19	22
		1121	7.13	0.547	20.7	72.7	14.48	22
		1124	7.08	0.668	18.40	47.6	4.29	-1
		1127	7.08	0.669	18.40	48.6	4.11	-2
		1130	7.07	0.669	18.14	48.5	3.97	-2
007G11LF08	9/16/02	1320	6.80	0.328	23.64	26.7	3.62	115
		1323	6.83	0.348	23.30	20.5	2.17	123
		1326	6.83	0.348	23.11	17.3	1.81	126
007G12LF08	9/13/02	1235	7.13	0.299	22.1	0.5	8.29	11
		1237	7.12	0.312	22.0	0.0	6.34	6
		1240	7.11	0.322	21.9	0.1	5.75	5
		1242	7.10	0.327	21.8	0.2	5.35	4
007G14LF08	9/17/02	1235	6.95	0.430	21.6	-3.2	9.08	21
		1238	6.94	0.443	21.8	-0.8	6.62	19
		1242	6.92	0.447	21.7	7.2	5.20	15
		1245	6.92	0.448	21.7	6.7	5.13	15
007G15LF08	9/17/02	1015	6.93	0.346	21.6	2.7	7.37	20
		1018	6.94	0.358	21.5	8.6	6.00	15
		1022	6.95	0.366	21.5	8.6	5.05	11
		1025	6.93	0.363	21.5	5.5	4.41	8
007G15UF08	9/17/02	1050	6.88	0.520	23.0	45.2	6.10	28
		1053	6.87	0.518	23.0	20.4	5.68	22
		1058	6.87	0.513	23.1	2.3	4.67	17
		1102	6.87	0.511	23.1	0.5	4.69	16
007G16LF08	9/23/02	0940	6.64	0.140	19.7	-7.2	6.30	47
		0943	6.61	0.162	19.8	-9.0	6.78	48
		0945	6.62	0.166	19.8	-8.8	6.78	47
		0947	6.62	0.172	19.8	-8.7	6.79	48
007G17LF08	9/10/02	1109	5.07	0.95	20.0	6.5	3.11	111

SWMU 7 Well Stabilization Data — Event 8								
Well ID	**Date**	**Time**	**pH**	**Conductivity (mS/cm)**	**Temperature (°C)**	**Turbidity NTU**	**D.O. (%)**	**ORP (mV)**
		1110	5.09	0.95	20.0	5.0	2.60	105
		1111	5.10	0.95	19.9	3.3	2.16	99
007G18LF08	9/10/02	1330	5.48	0.427	20.9	-0.4	5.95	34
		1334	4.05	0.429	20.7	-0.3	3.99	23
		1337	5.46	0.429	21.0	-0.4	3.92	24
		1340	5.46	0.430	21.2	-0.4	3.85	24
007G20LF08	9/16/02	1017	6.72	0.724	23.90	4.8	2.07	-206
		1020	6.78	0.749	23.66	6.5	1.34	-212
		1023	6.72	0.748	23.50	7.1	1.22	-202
007G21LF08	9/16/02	1203	8.40	0.429	25.42	16.8	4.90	-89
		1206	8.43	0.425	25.02	12.7	3.99	-34
		1209	8.45	0.426	24.65	10.0	3.80	-6
007G22LF08	9/16/02	1236	10.34	0.366	24.0	10.6	2.06	-125
		1239	10.29	0.380	23.68	4.6	1.60	-124
		1242	10.28	0.380	23.64	3.0	1.19	-124
007G23LF08	9/13/02	1315	6.97	0.421	22.0	0.1	4.47	30
		1317	6.96	0.435	22.1	0.1	4.30	24
		1320	6.96	0.450	21.9	0.2	4.25	23
		1322	6.96	0.467	22.0	0.5	4.18	21
007G24MF08	9/17/02	1420	7.01	0.755	23.1	61.9	8.03	17
		1423	6.98	0.848	22.6	44.9	4.43	12
		1425	6.99	0.892	22.8	29.5	3.93	6
		1428	6.99	0.892	22.9	30.1	3.84	5
007G25MF08	9/12/02	1132	6.60	0.268	22.5	13.2	5.09	61
		1134	6.68	0.268	22.5	13.3	5.07	60
		1136	6.70	0.272	22.9	13.3	2.89	40
		1138	6.70	0.273	22.1	13.3	2.88	38
007G26MF08	9/17/02	1340	7.05	0.549	23.0	-9.6	7.46	-6
		1343	7.10	0.563	23.0	-9.1	6.15	-24
		1346	7.13	0.572	22.8	-5.5	4.40	-38
		1349	7.04	0.580	22.6	-3.7	3.06	-27

SWMU 7 Well Stabilization Data — Event 8								
Well ID	**Date**	**Time**	**pH**	**Conductivity (mS/cm)**	**Temperature (°C)**	**Turbidity NTU**	**D.O. (%)**	**ORP (mV)**
007G27LF08	9/18/02	1255	7.10	.510	18.9	65.0	3.92	-4
		1258	7.07	0.511	18.9	64.0	3.54	-6
		1301	7.06	.513	18.9	61.2	3.19	-7
		1305	7.05	.514	19.0	61.0	3.01	-8
007G31LF08	9/18/02	1033	7.21	0.752	19.9	-2.7	5.58	-2
		1035	7.30	0.973	19.4	5.0	4.56	-40
		1038	7.23	0.910	19.4	9.9	4.48	-38
		1040	7.17	0.940	19.5	16.6	4.55	-30
		1043	7.13	0.930	18.3	12.5	3.92	-32
007G32LF08	9/18/02	0925	7.16	0.224	20.3	5.3	8.66	7
		0927	7.14	0.247	20.9	1.8	8.18	6
		0930	7.13	0.481	21.1	-2.8	7.01	2
		0932	7.13	0.381	21.1	-3.6	6.93	1
		0935	7.13	0.501	21.1	-7.7	6.06	2
007G33LF08	9/13/02	1419	7.17	0.91	18.6	4.2	5.44	-39
		1422	7.16	0.93	18.5	3.5	4.94	-37
		1425	7.14	0.96	18.5	3.2	4.65	-34
		1428	7.12	0.97	18.5	3.0	4.46	-30
007G35LF08	—	Well could not be located during long-term monitoring.						
007G36LF08	9/12/02	1025	6.16	0.86	20.75	15.0	2.29	-95
		1028	6.14	0.84	20.49	14.2	1.83	-97
		1031	6.12	0.84	20.36	13.5	2.08	-99
007G38LF08	9/12/02	0955	5.86	0.629	20.02	136.0	2.40	150
		0958	5.87	0.621	19.09	84.3	1.51	122
		1001	5.86	0.621	19.47	91.2	1.81	122
007G41LF08	9/10/02	1103	6.11	0.661	19.18	39.0	10.68	23
		1106	6.10	0.661	19.16	40.7	10.43	22
		1109	6.10	0.657	19.15	41.8	10.20	26
007G42LF08	9/23/02	1135	6.78	0.882	17.9	37.6	8.16	-3
		1137	6.69	0.890	17.6	44.1	3.50	-50
		1140	6.72	0.887	17.5	36.3	3.04	-50
		1142	6.72	0.887	17.5	33.2	3.03	-53
007G44LF08	9/13/02	1135	6.54	0.628	17.66	618	1.47	—

SWMU 7 Well Stabilization Data — Event 8								
Well ID	**Date**	**Time**	**pH**	**Conductivity (mS/cm)**	**Temperature (°C)**	**Turbidity NTU**	**D.O. (%)**	**ORP (mV)**
		1140	6.46	0.620	17.68	206	0.55	-64
		1145	6.42	0.618	18.0	163	0.76	-61
007G45LF08	9/19/02	1110	6.78	0.476	20.59	85.4	5.53	-20
		1113	6.28	0.494	19.71	28.3	3.08	-24
		1116	6.28	0.505	19.40	69.6	1.09	-24
007G48LF08	9/18/02	1028	6.0	0.643	19.51	228.0	12.52	-46
		1031	6.0	0.642	19.53	220.1	12.39	-46
		1034	5.9	0.599	19.39	155.0	11.86	-45
007G49LF08	9/12/02	1254	6.90	0.440	22.8	96.5	8.50	54
		1251	7.07	0.516	21.8	353	4.35	86
		1300	7.07	0.506	21.5	273	3.78	78
		1303	7.08	0.486	21.5	230	2.94	69
007G52LF08	9/10/02	1410	6.82	0.427	18.76	1.6	6.92	-166
		1414	6.68	0.483	17.85	-9	6.09	-177
		1418	6.65	0.482	17.74	-9	5.87	-175
007G53LF08	9/10/02	1330	6.40	0.472	19.58	1.6	1.59	-204
		1333	6.38	0.475	19.65	1.5	1.54	-202
		1336	6.38	0.473	19.69	1.3	1.51	-200
007G54LF08	9/18/02	1210	7.02	0.426	18.6	89.7	3.40	7
		1213	7.02	0.467	18.7	352	3.07	6
		1216	7.02	0.504	18.7	12.1	2.79	2
		1220	7.02	0.505	18.7	11.8	2.75	3
007G56LF08	9/19/02	1255	6.23	0.423	21.61	19.1	12.55	-109
		1258	6.23	0.422	20.79	19.4	11.68	-111
		1301	6.21	0.422	20.74	19.6	11.46	-111
007G57LF	—	The extraction pump was lodged in the well during long-term monitoring. The pump was removed in October 2002, and the groundwater will be sampled during the next NSA Mid-South fluvial monitoring event.						
007G58LFAF	9/19/02	1115	7.18	0.622	22.6	-8.8	5.22	35
		1118	7.34	0.673	22.7	-10	3.42	-3
		1120	7.37	0.674	22.8	-10	3.0	-38
		1122	7.37	0.674	23.8	-9.8	2.94	-41
007G58LFBF	9/19/02	7.34	0.816	21.6	-5.0	3.60	3.60	-65
		7.35	0.810	21.7	0.7	3.16	3.16	-71

SWMU 7 Well Stabilization Data — Event 8								
Well ID	**Date**	**Time**	**pH**	**Conductivity (mS/cm)**	**Temperature (°C)**	**Turbidity NTU**	**D.O. (%)**	**ORP (mV)**
		7.34	0.777	21.8	6.9	2.71	2.71	-80
		7.33	0.774	21.8	9.0	2.69	2.69	-81
007G59LFAF	9/16/02	7.16	0.570	24.0	54.9	3.11	4.13	-42
		7.15	0.571	24.5	56.5	3.46	3.75	-43
		7.14	0.571	24.5	56.5	3.75	3.46	-48
		7.11	0.571	24.5	57.5	4.13	3.11	-52
007G59LFBF	9/16/02	1315	7.08	0.628	23.8	-10	4.33	-28
		1320	7.08	0.629	23.8	-10	4.17	-27
		1325	7.02	0.628	23.7	-10	3.48	-25
		1330	7.01	0.627	23.7	-10	3.41	-1
		1335	7.01	0.628	23.7	-10	3.42	4
007G60LF15	9/17/02	0845	7.33	0.487	21.8	17.4	6.71	-103
		0850	7.32	0.521	21.5	46.6	2.82	-106
		0855	7.32	0.507	21.4	83.6	2.49	-108
		0900	7.31	0.490	21.4	152.0	2.39	-109
		0905	7.27	0.448	21.4	147	2.27	-104
		0910	7.28	0.448	21.4	124	2.32	-103
		0915	7.05	0.445	21.4	148	2.37	-100
		0920	7.24	0.438	21.4	170	2.28	-100
007G61LF15	9/19/02	1214	7.55	0.735	24.6	-0.7	3.86	-100
		1217	7.53	0.765	26.1	11.5	2.93	-129
		1220	7.53	0.772	26.3	16.6	2.81	-134
		1223	7.54	0.775	26.4	19.8	2.73	-137
007G62LFAF	9/18/02	1334	6.02	0.413	23.18	2.3	1.39	-147
		1336	5.92	0.409	23.73	-0.4	1.07	-150
		1337	5.91	0.410	23.77	-0.5	0.98	-151
		1339	5.91	0.408	23.18	-1.0	0.7	-154
007G62LFBF	9/18/02	1426	6.13	0.391	23.72	0	2.06	-147
		1431	6.00	0.392	23.25	0	1.07	-149
		1435	5.96	0.391	23.11	0	1.00	-149
		1439	5.96	0.389	23.30	0	1.00	-151
007G63LFAF	9/16/02	1420	7.32	0.615	27.2	-10	8.54	-43
		1424	7.22	0.605	26.1	-10	4.15	-68

SWMU 7 Well Stabilization Data — Event 8								
Well ID	**Date**	**Time**	**pH**	**Conductivity (mS/cm)**	**Temperature (°C)**	**Turbidity NTU**	**D.O. (%)**	**ORP (mV)**
		1427	7.13	0.608	25.5	-10	3.46	-76
		1430	7.07	0.615	25.7	-10	3.11	-81
007G63LFBF	9/16/02	1444	7.02	0.683	23.0	-10	3.48	-62
		1450	7.03	0.683	23.1	-10	3.38	-65
		1455	6.99	0.684	23.0	-10	3.02	-73
		1500	6.99	0.683	23.0	-10	2.95	-75
007GPZ0308	9/19/02	Three well volumes were removed prior to sampling.						
007GWLMS08	9/19/02	The samples were collected directly from the nursery spigot.						
007GMCNA08	9/19/02	1330	6.37	0.505	23.15	15.6	11.01	-154
		1333	6.38	0.505	23.12	14.3	11.01	-155
		1336	6.36	0.508	22.22	11.3	6.12	-142

SWMU 15 Well Stabilization Data — Event 8								
Well ID	**Date**	**Time**	**pH**	**Conductivity (mS/cm)**	**Temperature (°C)**	**Turbidity NTU**	**D.O. (%)**	**ORP (mV)**
015G01LF08	9/18/02	1348	6.96	0.652	19.8	1.6	5.14	25
		1352	6.96	0.641	20.4	3.0	4.78	21
		1355	6.95	0.628	20.6	3.2	4.66	19
		1358	6.96	0.627	20.6	3.3	4.64	19
015G01UF08	9/18/02	1420	7.23	1.05	20.1	-5.3	7.46	-72
015G02LF08	9/11/02	1313	5.51	0.825	21.0	30.8	4.19	67
		1315	5.59	1.25	20.9	26.5	3.06	51
		1317	5.61	1.29	20.9	24.1	2.60	33
		1319	5.62	1.30	20.9	21.9	2.33	25
015G02UF08	9/11/02	1337	5.65	0.681	21.0	25.8	2.63	22
		1342	5.65	0.657	20.7	0.4	1.90	-22
		1345	5.65	0.654	20.7	0.3	1.70	-31
015G03LF08	9/17/02	1008	6.62	0.737	19.19	8.7	11.95	-10
		1011	6.42	0.742	18.95	8.9	11.07	24
		1014	6.36	0.743	19.05	10.7	10.49	41
		1017	6.30	0.745	19.07	10.6	10.15	46
015G03UF08	9/17/02	1103	6.56	0.985	21.02	19.1	3.33	42
		1107	6.56	0.983	21.62	17.23	3.49	52

Well ID	Date	Time	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity NTU	D.O. (%)	ORP (mV)
		1111	6.55	0.986	22.00	18.0	4.14	56
		1115	6.49	0.989	22.07	30.0	4.68	34
015G04LF08	9/19/02	1020	7.0	1.01	19.6	3.8	5.05	70
		1022	7.12	1.15	19.5	-9.9	4.88	51
		1025	7.14	1.16	19.5	-10.0	4.37	42
		1028	7.16	1.17	19.6	-9.9	3.98	33
015G04UF08	9/19/02	1040	6.94	0.577	22.5	3.7	12.91	84
		1043	6.99	0.580	21.7	11.6	7.58	73
		1045	7.00	0.581	21.8	11.8	7.02	67
		1048	7.01	0.582	22.2	11.5	6.41	64

SWMU 18
Well Stabilization Data — Event 8

Well ID	Date	Time	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity NTU	D.O. (%)	ORP (mV)
018G01LF08	9/12/02	0950	6.27	0.151	20.5	102	3.13	146
		0952	6.28	0.152	20.5	85.4	2.81	139
		0954	6.44	0.147	20.9	143	3.60	115
		0956	6.43	0.147	20.9	102	2.83	104
		0958	6.42	0.147	20.9	83.9	2.56	98

SWMU 21
Well Stabilization Data — Event 8

Well ID	Date	Time	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity NTU	D.O. (%)	ORP (mV)
021G01LF08	9/13/02	1118	7.03	0.373	20.6	3.1	5.07	15
		1120	7.02	0.375	20.6	4.4	4.94	13
		1124	7.01	0.375	20.6	6.4	4.64	11
		1127	7.01	0.376	20.6	6.5	4.63	11
021G02LF08	9/13/02	0930	7.02	0.388	20.0	22.4	5.36	18
		0934	7.02	0.387	20.0	16.5	5.00	17
		0937	7.00	0.387	20.0	12.5	4.62	16
		0940	7.01	0.387	20.0	11.7	4.73	15
021G03LF08	9/13/02	1029	6.88	0.362	20.3	19.6	11.16	49
		1032	6.93	0.354	20.3	9.2	7.06	40
		1035	6.95	0.355	20.2	7.5	6.31	34
		1038	6.97	0.356	20.2	6.6	5.68	31
021G04UF08	9/13/02	1005	6.76	0.165	20.4	109	8.61	54

SWMU 21 Well Stabilization Data — Event 8								
Well ID	Date	Time	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity NTU	D.O. (%)	ORP (mV)
		1007	6.77	0.172	20.3	105	8.35	54
		1010	6.76	0.177	20.3	91.3	8.06	54
		1013	6.76	0.178	20.3	75.0	8.18	54

SWMU 60 Well Stabilization Data — Event 8								
Well ID	Date	Time	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity NTU	D.O. (%)	ORP (mV)
060G02LF08	9/17/02	1415	6.53	0.322	19.31	7.5	2.69	100
		1419	6.41	0.318	19.77	8.4	2.13	105
		1423	6.35	0.316	19.33	11.8	2.04	108
		1427	6.29	0.315	19.29	14.1	1.96	110
060G04LF08	9/17/02	1504	6.46	0.284	19.18	33.0	2.95	112
		1508	6.34	0.283	18.80	30.9	2.14	112
		1512	6.28	0.284	18.65	16.5	1.89	114
		1516	6.24	0.284	18.64	13.2	1.84	115

N-12 Tank Site Well Stabilization Data — Event 8								
Well ID	Date	Time	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity NTU	D.O. (%)	ORP (mV)
N12G01LF08	9/17/02	1155	11.14	1.71	21.60	34.5	8.40	-104
		1200	10.64	0.440	21.38	52.8	7.19	-80
		1205	8.75	0.242	21.28	39.9	7.27	26
		1210	7.62	0.282	20.90	37.5	13.62	82
		1215	7.15	0.270	20.96	68.2	13.44	106
		1220	7.03	0.268	21.54	9.9	12.77	111
N12G02LF08	9/17/02	1320	6.52	7.81	20.02	10.6	5.10	127
		1325	6.33	2.78	19.99	5.7	3.62	123
		1330	6.27	2.60	20.06	6.2	3.83	120

Background Wells Well Stabilization Data — Event 8								
Well ID	**Date**	**Time**	**pH**	**Conductivity (mS/cm)**	**Temperature (°C)**	**Turbidity NTU**	**D.O. (%)**	**ORP (mV)**
0BGG05LF08	9/13/02	1240	6.30	0.252	20.65	40.3	15.13	129
		1244	6.04	0.246	19.93	24.0	12.54	130
		1248	5.99	0.244	19.97	16.6	11.68	128
		1252	5.96	0.246	19.73	13.1	11.33	127
0BGG05UF08	9/13/02	1315	6.24	0.267	20.21	12.9	15.53	121
		1320	6.18	0.266	20.92	12.0	12.92	121
		1325	6.02	0.268	20.88	12.5	12.52	124
		1330	5.93	0.272	20.63	35.7	12.16	125
		1335	5.91	0.274	20.54	30.9	12.07	125
0BGG10UF08	9/13/02	0925	6.56	0.444	17.91	1.9	6.83	23
		0930	6.36	0.452	17.86	1.9	5.70	23
		0935	6.29	0.458	18.06	2.4	3.71	31
		0940	6.31	0.462	18.01	2.9	3.21	35

Runway Well Well Stabilization Data — Event 8								
Well ID	**Date**	**Time**	**pH**	**Conductivity (mS/cm)**	**Temperature (°C)**	**Turbidity NTU**	**D.O. (%)**	**ORP (mV)**
RDYGOV8108	9/19/02	0935	7.02	0.369	22.8	-9.5	8.73	66
		0938	7.02	0.372	21.8	-10	7.75	62
		0940	7.01	0.366	21.4	-9.7	7.22	60
		0942	7.01	0.365	21.3	-9.6	7.08	60

Vegetable Study Wells Well Stabilization Data — Event 8								
Well ID	**Date**	**Time**	**pH**	**Conductivity (mS/cm)**	**Temperature (°C)**	**Turbidity NTU**	**D.O. (%)**	**ORP (mV)**
PES-MW1S	9/30/02	1422	5.62	.429	23.4	26.1	9.12	—
		1426	5.66	.422	23.3	23.9	6.64	—
		1430	5.65	.415	23.3	26.3	6.03	—
		1434	5.64	.412	23.4	38.6	2.84	—
PES-MW1D	9/30/02	1312	5.15	.129	22.8	185	6.96	—
		1318	5.25	.128	22.4	118	3.38	—
		1322	5.32	.127	22.2	91.6	3.15	—

Well ID	Date	Time	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity NTU	D.O. (%)	ORP (mV)
		1326	5.33	.127	22.0	82.9	2.97	–
		1330	5.31	0.127	22	79.1	2.85	–
PES-MW2S	9/30/02	1101	5.49	.640	22.7	8.2	2.90	–
		1105	5.49	.659	22.5	7.0	2.42	–
		1109	5.50	.669	22.4	7.0	2.19	–
		1113	5.50	.673	22.4	8.1	2.07	–
PES-MW2D	9/30/02	0955	5.39	.373	22.1	17.0	3.56	–
		1000	5.44	.391	22.0	8.8	2.39	–
		1004	5.44	.404	22.1	14.3	2.21	–
		1008	5.47	.415	22.0	19.3	2.10	–
PES-MW3S	10/1/02	1016	4.90	.575	22.1	14.1	2.95	–
		1019	4.90	.577	21.9	13.4	2.47	–
		1022	4.92	.578	21.8	12.5	2.34	–
		1025	4.94	.580	21.8	15.3	2.36	–
PES-MW3D	10/1/02	0917	5.37	1.72	22.5	26.4	2.59	–
		0921	5.36	1.72	22.3	36.3	2.11	–
		0925	5.36	1.74	22.1	63.0	1.87	–
		0928	5.36	1.75	22.0	63.1	1.84	–
PES-MW4S	09/27/02	0940	5.31	.780	22.5	2.9	3.28	–
		0944	5.30	.007	23.3	1.1	2.65	–
		0949	5.32	.984	22.2	2.7	2.41	–
		0953	5.32	.900	22.2	0	2.06	–
PES-MW4D	9/26/02	1231	4.91	.363	21.1	10.6	1.99	–
		1235	4.96	.386	21.0	16.0	1.82	–
		1239	5.01	.416	21.0	17.5	1.76	–
		1243	5.05	.448	21.0	22.3	1.72	–
		1247	5.06	0.457	20.9	23	1.69	–
PES-MW7S	09/27/02	1104	5.31	.800	23.6	22.5	2.44	–
		1109	5.35	.808	23.6	29.9	2.29	–
		1113	5.34	.813	23.2	32.8	2.09	–
		1118	5.37	.812	23.3	33.6	1.92	–
PES-MW7D	09/27/02	1231	5.30	.557	22.8	8.1	8.62	–
		1238	5.40	.562	22.7	4.1	5.10	–
		1247	5.44	.556	22.8	4.2	4.36	–
		1251	5.45	.555	22.7	3.2	4.43	–

Well ID	Date	Time	pH	Conductivity (mS/cm)	Temperature (°C)	Turbidity NTU	D.O. (%)	ORP (mV)
PES-MW8S	9/27/02	1502	5.57	.802	25.5	100.0	2.48	–
		1506	5.60	.807	27.1	107.0	2.43	–
		1511	5.61	.807	28.2	110.0	2.51	–
		1515	5.62	.813	27.9	171.0	2.54	–
		1519	5.6	0.822	27.1	180	2.83	–
PES-MW8D	09/27/02	1409	5.34	.516	23.1	22.3	6.86	–
		1413	5.39	.512	22.7	9.9	3.12	–
		1419	5.43	.511	22.6	3.6	2.47	–
		1422	5.45	.505	22.6	4.1	2.38	–
007G15UF	10/01/02	1108	5.02	.507	23.1	345.0	6.44	–
		1112	5.06	.498	22.6	191.0	3.16	–
		1115	5.08	.491	22.5	97.8	2.63	–
		1118	5.09	.488	22.4	55.2	2.36	–
007G15LF	10/01/02	1208	5.16	.347	22.4	79.7	4.64	–
		1212	5.18	.355	22.1	74.3	3.46	–
		1215	5.19	.357	21.9	88.5	3.20	–
		1218	5.18	.357	21.8	100.0	3.04	–

Notes:

mS/cm = milli-Siemens per centimeter
NTU = Nephelometric Turbidity Units
D.O. = Dissolved oxygen
ORP = Oxidation-Reduction Potential
mV = milli-Volts

Attachment 2
Field and Laboratory MNA and Bio Data

Natural Attenuation Field Parameter Evaluation (Event 8)

Well ID	Date	pH	Temp. (°C)	DO (mg/L)	ORP (mVs)	Ferrous Iron (mg/L)	Sulfide (mg/L)	Sulfate (mg/L)	Chlor. (mg/L)	Alk. (mg/L)	CO2 (mg/L)
SWMU 3											
003G04LF08	9/19/2002	7.11	19.7	3.20	32.7						
SWMU 5											
005G04UF08	9/11/2002	5.41	20	2.63	46.6	0.2	0.025	65	30	480	52
005G08LF08	9/11/2002	5.58	20.2	4.14	30.6	0.03	0.027	5	20	440	38
SWMU 7											
007G01UF08	9/11/2002	6.15	24.5	4.25	39.8	0.13	0.008	8	10	100	40
007G01LF08	9/11/2002	6.18	25.7	6.23	37.7	0.01	0.003	29	10	220	40
007G03UF08	9/16/2002	6.68	24	2.46	149.9	0.11	0.019	26	15	1100	106
007G03LF15	9/16/2002	4.66	20.7	3.84	97.3	0.03	0.003	-32	25	380	66
007G04UF08	9/12/2002	5.92	25.8	4.00	52.7	0.1	0.177	30	15	240	50
007G04LF08	9/12/2002	5.37	26.7	5.74	72.5	0.04	0.003	8	10	180	45
007G05UF08	9/11/2002	4.09	25.7	6.65	160.2	0.01	0.069	10	15	300	55
007G05LF08	9/11/2002	6.24	25.7	4.17	34.2	0.21	0.101	0	10	180	45
007G06LF08	9/11/2002	6.34	24	6.27	27.9	0.01	0.01	17	10	140	50
007G07LF08	9/13/2002	5.99	21.16	5.85	121.3						
007G09UF08	9/11/2002	5.96	23.7	5.02	51.2	0.38	0.147	5	10	80	40
007G09LF08	9/11/2002	6.12	23.3	4.65	40.2	0.13	0.006	17	4	140	65
007G10LF08	9/18/2002	7.07	18.14	3.25	-30.9	0.02	0.007	15	20	1020	78

Natural Attenuation Field Parameter Evaluation (Event 8)

Well ID	Date	pH	Temp. (°C)	DO (mg/L)	ORP (mVs)	Ferrous Iron (mg/L)	Sulfide (mg/L)	Sulfate (mg/L)	Chlor. (mg/L)	Alk. (mg/L)	CO2 (mg/L)
007G11LF08	9/16/2002	5.60	26.2	4.68	70.5	0.07	0.026	10	10	220	45
007G12LF08	9/13/2002	7.10	21.8	1.77	95.6						
007G14LF08	9/17/2002	6.92	21.7	5.07	96.1	0.09	0.008	6	10	680	94
007G15UF08	9/17/2002	6.87	23.1	4.79	112.5	0.27	0.030	22	25	680	158
007G15LF08	9/17/2002	6.93	21.5	4.23	89.9	0.44	0.041	13	15	720	52
007G16LF08	9/23/2002	6.62	19.8	6.79	166	0.09	0.011	12	20	200	78
007G17LF08	9/10/2002	5.10	19.9	1.83	13.6	0.12	0.008	2	20	1982	84
007G18LF08	9/10/2002	5.46	21.2	2.77	16.6	0.29	0.046	41	25	620	66
007G20LF08	9/16/2002	10.31	24.2	5.04	-142.1	0.57	0.285	41	20	420	95
007G21LF08	9/16/2002	5.72	27.2	4.83	65.2	0.07	0.024	20	10	260	45
007G22LF08	9/16/2002	6.83	29.4	3.54	-31.3	2.73	0.018	7	10	140	20
007G23LF08	9/13/2002	6.96	22	2.90	193.4						
007G24MF08	9/17/2002	6.99	22.9	3.29	56.1	0.85	0.096	17	20	1460	158
07G25MF08	9/12/2002	6.70	22.1	1.44	6.85	0.27	-0.001	8	15	420	46
07G26MF08	9/17/2002	7.04	22.6	1.74	-61.6	0.71	0.033	21	20	840	94
007G27LF08	9/18/2002	7.05	19	2.23	-28.5						
007G31LF08	9/18/2002	7.13	18.3	2.89	-49.5	0.30	0.043	26	20	1600	126

Natural Attenuation Field Parameter Evaluation (Event 8)

Well ID	Date	pH	Temp. (°C)	DO (mg/L)	ORP (mVs)	Ferrous Iron (mg/L)	Sulfide (mg/L)	Sulfate (mg/L)	Chlor. (mg/L)	Alk. (mg/L)	CO2 (mg/L)
007G32LF08	9/18/2002	7.13	21.1	6.88	85.9	0.10	0.006	180	15	920	52
007G33LF08	9/13/2002	7.12	18.5	1.76	-86.6						
007G35LF08	Not able to locate monitoring well										
007G36LF08	9/12/2002	8.83	23.6	3.14	-82.6	1.50	0.070	3	5	40	20
007G38LF08	9/12/2002	3.69	21.9	5.90	183.3	0.14	0.266	14	45	300	50
007G41LF08	9/10/2002	9.18	21.7	7.41	-100.3	0.11	0.087	21	45	NT	55
007G42LF08	9/23/2002	6.72	17.5	1.12	-40.9	2.53	0.059	75	30	1100	106
007G44LF08	9/13/2002	6.42	18	3.55	24.3						
007G45LF08	9/19/2002	3.18	23.4	3.86	208.7	0.62	0.072	32	25	280	100
007G48LF08	9/19/2002	5.99	19.39	4.75	190.2						
007G49LF08	9/12/2002	7.08	21.5	1.72	32.5	1.48	0.212	43	15	680	72
007G52LF08	9/10/2002	10.81	23.8	3.53	-161	0.65	0.084	40	45	260	75
007G53LF08	9/10/2002	9.43	26	4.28	-127.6	0.09	0.139	43	25	260	55
007G54LF08	9/18/2002	7.02	18.7	2.02	11.9	1.32	0.031	18	20	640	116
007G56LF08	9/19/2002	6.43	23.1	6.65	285						
007G57LF08	Extraction pump lodged in monitoring well										
007G58LFAF	9/19/2002	7.37	22.6	1.16	-86.3	2.47	0.029	3	20	1080	102
007G58LFBF	9/19/2002	7.33	21.8	0.78	-110.4	3.25	0.054	2	20	1180	86

Natural Attenuation Field Parameter Evaluation (Event 8)

Well ID	Date	pH	Temp. (°C)	DO (mg/L)	ORP (mVs)	Ferrous Iron (mg/L)	Sulfide (mg/L)	Sulfate (mg/L)	Chlor. (mg/L)	Alk. (mg/L)	CO2 (mg/L)
007G59LFAF	9/16/2002	7.11	24	0.90	60.2	2.52	0.013	6	15	960	62
007G59LFBF	9/16/2002	7.01	23.7	2.14	-87.7	0.60	-0.005	4	20	840	62
007G60LF15	9/17/2002	7.24	21.4	1.09	-133.7	2.07	0.007	3	25	920	96
007G61LF15	9/19/2002	7.54	26.4	0.74	-136.1	2.95	0.011	-35	20	1300	136
007G62LFAF	9/18/2002	4.28	23.18	0.77	-73.8	4.22	0.039	3	15	260	45
007G62LFBF	9/18/2002	5.96	23.3	3.87	-109.9	3.66	0.019	0	15	240	40
007G63LFAF	9/16/2002	7.07	25.7	1.94	-118.6	2.06	0.013	5	20	1060	114
007G63LFBF	9/16/2002	6.99	23	1.39	-117.5	2.14	0.011	-21	20	340	94
007GMCNA	9/19/2002	6.10	21.8	5.95	42.4						
007GPZ0308	9/19/2002	Field/MNA parameters not taken									
SWMU 15											
015G01UF08	9/18/2002	7.23	20.1	7.46	-72						
015G01LF08	9/18/2002	6.96	20.6	4.48	106.2	0.16	0.028	25	55	740	68
015G02UF08	9/11/2002	5.65	20.7	1.48	15.9	1.79	0.034	-2	20	112	60
015G02LF08	9/11/2002	5.62	20.9	0.97	25.7	-0.02	0.003	15	215	1040	106
015G03LF08	9/17/2002	6.30	19.07	5.70	99.6						
015G03UF08	9/17/2002	6.49	22.07	4.69	47.3						
015G04LF08	9/19/2002	7.16	19.6	2.90	102.5						

Natural Attenuation Field Parameter Evaluation (Event 8)

Well ID	Date	pH	Temp. (°C)	DO (mg/L)	ORP (mVs)	Ferrous Iron (mg/L)	Sulfide (mg/L)	Sulfate (mg/L)	Chlor. (mg/L)	Alk. (mg/L)	CO2 (mg/L)
015G04UF08	9/19/2002	7.01	22.2	6.10	90.2						
SWMU 18											
018G01LF08	9/12/2002	6.42	20.9	2.56	NT	0.99	0.110	17	20	340	880
SWMU 21											
021G01LF08	9/13/2002	7.01	20.6	3.12	191.4						
021G02LF08	9/13/2002	7.01	20	3.44	174.4						
021G03LF08	9/13/2002	6.97	20.2	4.17	165.5						
021G04UF08	9/13/2002	6.76	20.3	8.19	177.2						
N-6											
PESGMW1D01	9/30/2002	5.31	22	2.85	99.8	1	0.05			45	80
PESGMW1S01	9/30/2002	5.64	23.4	2.84	-64.5	45	0.05			52	120
PESGMW2S01	9/30/2002	5.50	22.4	2.07	-43.6	16	0.05			90	50
PESGMW2D01	9/30/2002	5.47	22	2.10	-51.6	9	0.05			125	43
PESGMW3S01	10/1/2002	4.94	21.8	2.36	9.5	10	0.05			150	100
PESGMW3D01	10/1/2002	5.36	22	1.84	-86.2	>100	0.1			350	600
PESGMW4S01	9/27/2002	5.32	22.2	2.06	0	>10/20	0.05			230	80
PESGMW4D01	9/26/2002	5.06	20.9	1.69	-7.6	6	0.1			135	28
PESGMW7S01	9/27/2002	5.37	23.3	1.92	-33.9	10	0.05			230	50
PESGMW7D01	9/27/2002	5.45	22.7	4.43	57.3	0.01	0.05			115	26

Natural Attenuation Field Parameter Evaluation (Event 8)

Well ID	Date	pH	Temp. (°C)	DO (mg/L)	ORP (mVs)	Ferrous Iron (mg/L)	Sulfide (mg/L)	Sulfate (mg/L)	Chlor. (mg/L)	Alk. (mg/L)	CO2 (mg/L)
PESGMW8S01	9/27/2002	5.60	27.1	2.83	16.3	2	0.05			250	27
PESGMW8D01	9/27/2002	5.45	22.6	2.38	54.1	0.05	0.05			90	30
007G15UF09	10/1/2002	5.09	22.4	2.36	109.4						
007G15LF09	10/1/2002	5.18	21.8	3.04	133.5						
SWMU 60											
060G02LF08	9/17/2002	6.29	19.29	1.96	135.2						
060G04LF08	9/17/2002	6.24	18.64	1.84	117.8						
N-12											
N12G01LF08	9/17/2002	7.03	21.54	12.77	95.6						
N12G02LF08	9/17/2002	6.27	20.06	3.83	116.4						
Background Wells											
0BGG05UF08	9/13/2002	5.91	20.54	12.07	108.5						
0BGG05LF08	9/13/2002	5.96	19.73	11.33	87.4						
0BGG10UF08	9/13/2002	6.31	18.01	3.21	35.6						
Runway Well											
RDYG0V8108	9/19/2002	7.01	21.3	7.56	87.9						

NSA Mid-South
Long Term Monitoring
MNA Laboratory Parameters Summary
September 2002

Sample ID	Sample Date	Iron (µg/L)	Methane (µg/L)	Nitrate (mg/L)	TOC (mg/L)
005G04UF08	9/11/2002	352	11 U	1.7	8.5
005G08LF08	9/11/2002	193 J	11 U	1.4	11
007G01LF08	9/11/2002	35 J	11 U	0.099	11
007G01UF08	9/11/2002	293	8 J	0.31	17
007G03LF15	9/16/2002	35 U	11 U	1.3	7.3
007G03UF08	9/16/2002	384	11 U	6.1	17
007G04LF15	9/12/2002	37.7 J	11 U	0.75	7.7
007G04UF08	9/12/2002	4030	11 U	3.3	7.5
007G05LF08	9/11/2002	345	11 U	1.7	9.4
007G05UF08	9/11/2002	324	11 U	0.071	18
007G06LF08	9/11/2002	120 J	11 U	1.2	11
007G09LF08	9/11/2002	59.1 J	10 J	0.03 J	11
007G09UF08	9/11/2002	4120	11 U	1	8.7
007G10LF08	9/18/2002	1370	11 U	0.31	3 J
007G11LF08	9/16/2002	331	11 U	0.42	12
007G14LF08	9/17/2002	333	11 U	0.73	10
007G15LF08	9/17/2002	2100	11 U	1.9	9.2
007G15UF08	9/17/2002	925	24	0.75	14
007G16LF08	9/23/2002	310	11 U	0.95	6 U
007G17LF08	9/10/2002	119 J	11 U	0.054	36
007G18LF08	9/10/2002	375	11 U	1.1	10
007G20LF08	9/16/2002	621	250	0.3 J	21
007G21LF15	9/16/2002	69.2 J	11 U	0.2	11
007G22LF08	9/16/2002	3540	11 U	0.054	8
007G24MF08	9/17/2002	3090	11 U	0.24	22
007G25MF08	9/12/2002	293	11 U	0.47	0.81
007G26MF08	9/17/2002	734	7 J	0.05 U	14
007G31LF08	9/18/2002	1210	11 U	0.02 J	3 J
007G32LF08	9/18/2002	129 J	11 U	0.05 J	11
007G36LF08	9/12/2002	3060	46	0.5 U	10
007G38LF08	9/12/2002	44500	11 U	0.4	16
007G41LF08	9/10/2002	3350	11 U	0.16	24
007G42LF08	9/23/2002	6810	11 U	0.05 U	3 J
007G45LF08	9/19/2002	3810	17	0.13	6 U
007G49LF08	9/12/2002	17000	11 U	0.074	8.3
007G52LF08	9/10/2002	823	11 U	0.05 U	16
007G53LF08	9/10/2002	144 J	11 U	0.33	15
007G54LF08	9/18/2002	3160	11 U	0.26	12
007G58LFAF	9/19/2002	6100	690	0.2 J	3 J
007G58LFBF	9/19/2002	8130	1500 J	1 U	6 U
007G59LFAF	9/16/2002	6340	8 J	1 U	11
007G59LFBF	9/16/2002	5140	30	0.5 U	12
007G60LF15	9/17/2002	19700	2200 J	1.3 U	15
007G61LF15	9/19/2002	30300	6900 J	0.5 U	4 J
007G62LFAF	9/18/2002	8710	150	1 U	3 J
007G62LFBF	9/18/2002	8430	49	1 U	16
007G63LFAF	9/16/2002	9970	920	0.5 U	13
007G63LFBF	9/16/2002	9560	1100 J	1 U	16
015G01LF08	9/18/2002	158 J	11 U	1.1	8.1
015G01UF08	9/18/2002	9500	3500 J	1 U	6.7
015G02LF08	9/11/2002	6030	6200 J	0.25 U	38
015G02UF08	9/11/2002	126 J	11 U	0.32	17
018G01LF08	9/12/2002	7010	11 U	0.69	9.3

Notes:
ug/L = micrograms per Liter
mg/L = milligrams per Liter
U = Non detect
J = Estimated Value

NSA Mid-South
N6 MNA Laboratory Parameters Summary
September 2002

Sample ID	Sample Date	Bromide (mg/L)	Chloride (mg/L)	Inorganic Carbon (mg/L)	Manganese (µg/L)	Nitrate (mg/L)	Nitrate+Nitrite (mg/L)	Sulfate (mg/L)	TOC (mg/L)
007G15LF09	10/1/2002	0.17 J	6	56	80.2	2	1.8	0.72 J	3 J
007G15UF09	10/1/2002	0.16 J	12	99	51.1	0.66	0.62	5.8	8.3
PESGMW1D01	9/30/2002	0.26 J	2.4	47	23.7 J	0.1	0.14	0.25 J	3 J
PESGMW1S01	9/30/2002	1 U	7.1	68	9260	0.012 J	0.1 U	11	11
PESGMW2D01	9/30/2002	0.59 J	4.1	75	3460	0.1 U	0.1 U	0.37 J	18
PESGMW2S01	9/30/2002	1.1	13	110	909	0.017 J	0.74	2.1	35
PESGMW3D01	10/1/2002	3.2	15	140	90700	0.1 U	0.1 U	0.34 J	670
PESGMW3S01	10/1/2002	0.25 J	14	130	3050	0.1 U	0.05 U	9.8	15
PESGMW4D01	9/26/2002	1.3	7.7	65	3310	0.039 J	0.07 J	1.0 U	21
PESGMW4S01	9/27/2002	0.77 J	14	70	663	0.1 U	0.25 U	0.19 J	120
PESGMW7D01	9/27/2002	0.13 J	26	70	57	2.7	3	1.4	3 J
PESGMW7S01	9/27/2002	0.14 J	11	130	1380	0.023 J	0.03 J	9.2	3 J
PESGMW8D01	9/27/2002	1 U	24	62	50.7	3.5	4	3.2	6 U
PESGMW8S01	9/27/2002	0.05 J	15	110	377	0.056 J	0.2 J	12	5 J

Sample ID	Sample Date	Ethane (ng/L)	Ethene (ng/L)	Methane (ng/L)	Hydrogen (nm)
007G15UF09	10/1/2002	7	36	5.2	1.5
PESGMW2D01	9/30/2002	5 U	170	2300	2.5
PESGMW2S01	9/30/2002	79	390	1400	6.8
PESGMW3D01	10/1/2002	5 U	82	9200	2.7
PESGMW3S01	10/1/2002	29	530	1800	1.2
PESGMW4D01	9/26/2002	44	380	920	7.5
PESGMW4S01	9/27/2002	150	760	870	11
PESGMW7D01	9/27/2002	100	260	140	1.3
PESGMW7S01	9/27/2002	68	780	42	1.4

microbial insights

2340 Stock Creek Blvd.
Rockford TN 37853-3044
Phone (865) 573-8188
Fax: (865) 573-8133
Email: microbe@microbe.com

Microbial Analysis Report

Client: John Stedman
EnSafe
5724 Summer Trees
Memphis, TN 38134

Phone: (901) 372-7962

Fax: (901) 377-2454

MI Identifier: 6ens **Date Rec.:** 9/17/02 **Report Date:** 11/12/02

Analysis Requested: PLFA, DGGE, DHE, and VFA

Project: NSA MidSouth

Comments:

All samples within this data package were analyzed under U.S. EPA Good Laboratory Practice Standards: Toxic Substances Control Act (40 CFR part 790). All samples were processed according to standard operating procedures. Test results submitted in this data package meet the quality assurance requirements established by Microbial Insights, Inc.

Reported by:

(Data Analyst)

Reviewed by:

(Director)

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2340 Stock Creek Blvd.
Rockford TN 37853-3044
Phone (865) 573-8188
Fax: (865) 573-8133
Email: microbe@microbe.com

Microbial Analysis Report

Executive Summary

Five water samples were submitted for analysis representative of a transect across a bioremediation site where acetate had been injected 2 years ago. 007G03LF15 was from up-gradient of treatment; 007G60LF15 from the injection well; 007G63LFBF from ~10 feet and 007G59LFBF from ~55 feet down-gradient of the injection well; and 007G21LF15 from down-gradient of the treatment area. The microbial communities of these samples were characterized by

- polar lipid fatty acid analysis (PLFA),
- volatile fatty acid analysis (VFA),
- denaturing gradient gel electrophoresis (DGGE) of a variable region of the 16S rDNA, and
- targeted gene detection for *Dehalococcoides ethenogenes* (DHE).

The results of PLFA, VFA, DGGE, and targeted gene for DHE are revealed the following:

- The up-gradient sample, 007G03LF15, had a relatively low biomass since the subsurface community there had not been stimulated by the addition of acetate.
- The injection well sample, 007G60LF15, where the acetate had been added, contained by far the highest biomass. The anaerobe *Dehalococcoides ethenogenes* was detected in this sample, but this location was most likely aerobic since the DGGE sequences that were recovered were both for aerobes and there was no VFA detected. In this sample, it is likely that the injected acetate has been swept down-aquifer, but the *Dehalococcoides ethenogenes* still remains from earlier anaerobic conditions. It is reasonable to postulate that the Eukaryotes detected in the PLFA and the putative Cytophagales detected by DGGE were growing on the biomass from the earlier acetate biostimulation.
- The sample 10 feet down-gradient of the injection well, 007G63LFBF, was more anaerobic than the injection well, with some VFA and a Chlorobi sequence detected by DGGE which probably lives by anaerobic respiration.
- The sample approximately 55 feet down-gradient of the injection well, 007G59LFBF, was more anaerobic with more VFA and 2 clones detected by DGGE, both of which respire by reductive dechlorination at the expense of hydrogen.
- The sample down-gradient of the treatment area, 007G21LF15, had the highest VFA. Unless there is a source of dissolved organic carbon between this sample and the injection well, this is the remnant of the injected acetate rather than the product of anaerobic fermentation. Evidence that this sample was aerobic includes that both strains detected by DGGE were heterotrophic aerobes and that *Dehalococcoides ethenogenes* was not detected. The very high level of the starvation/stress biomarker Cy/cis may signal the presence of organic contaminants.

Methods Employed

Polar Lipid Fatty Acid Analysis

Characterization of the polar lipid fatty acids (PLFA) in environmental samples is an effective tool for monitoring microbial responses to their environment. They are essential components of the membranes of all cells (except for the Archea, a minor component of most environments), so their sum includes all important actors of most microbial communities. There are four different types of information in PLFA profiles – biomass, community structure, diversity, and physiological status.

Biomass. PLFA analysis is the most reliable and accurate method available for the determination of viable microbial biomass. Since polar lipids break down rapidly upon cell death (21, 23), the PLFA biomass does not contain 'fossil' lipids of dead cells. The sum of the PLFA, expressed as picomoles (1 picomole = 1×10^{-12} mole), is proportional to the number of cells. The proportion used in this report, 20,000 cells/pmole, is taken from cells grown in laboratory media, and varies somewhat with type of organism and environmental conditions. Starving bacterial cells have the lowest cells/pmole, and healthy eukaryote cells the highest.

Community Structure. An environmental PLFA profile is the sum of the sample's microbial community's PLFA profiles. PLFA profiles are routinely used to classify bacteria and fungi (19), and are one of the characteristics used to describe new bacterial species (25). Specific groups of microbes have different fatty acid profiles making it possible to distinguish between them(4, 5, 22, 24). Table 1 describes the six major structural groups employed.

Table 1. Description of PLFA Structural Groups.

PLFA Structural Group	General classification
Monoenoic (Monos)	Abundant in Proteobacteria (Gram negative bacteria), typically fast growing, utilize many carbon sources, and adapt quickly to a variety of environments.
Terminally Branched Saturated (TerBrSats)	Characteristic of Firmicutes (Low G+C Gram-positive bacteria), and also found in Bacteriodes, and some Gram-negative bacteria.
Branched Monoenoic (BrMonos)	Found in the cell membranes of micro-aerophiles and anaerobes, such as sulfate- or iron-reducing bacteria
Mid-Chain Branched Saturated (MidBrSats)	Common in Actinobacteria (High G+C Gram-positive bacteria), and some sulfate-reducing bacteria.
Normal Saturated (Nsats)	Found in all organisms.
Polyenoic	Found in Eukaryotes such as fungi, protozoa, algae, higher plants, and animals.

Diversity. The diversity of a microbial community is a measure of the number of different organisms and the evenness of their distribution. Natural communities in an undisturbed environment tend to have high diversity. Contamination with toxic compounds will reduce the diversity by killing all but the resistant organisms. Addition of a large amount of a food source will initially reduce the diversity as the opportunists (usually Proteobacteria) over-grow organisms less able to reproduce rapidly. The formulas used to calculate microbial community diversity from PLFA profiles have been adapted from those applied to communities of macro-organisms (8).

Physiological status. The membrane of a microbe must adapt to the changing conditions of it's environment, and these changes are reflected in the PLFA. Toxic compounds or environmental conditions which disrupt the membrane cause some bacteria to make *trans* fatty acids from the usual *cis* fatty acids (7). Many Proteobacteria and others respond to starvation or highly toxic conditions by making cyclopropyl (7) or mid-

chain branched fatty acids (20). The physiological status biomarkers *trans/cis* and Cy/*cis* are formed by dividing the amount of the stress-induced fatty acid by the amount of it's biosynthetic precursor.

PLFA are analyzed by extraction of the total lipid (21) and then separation of the polar lipids by column chromatography (6). The polar lipids are transesterified to the fatty acid methyl esters, which are quantified using gas chromatography (15). Fatty acid structures are verified by chromatography/mass spectrometry and equivalent chain length analysis.

Volatile Fatty Acids

The volatile fatty acids (VFA) pyruvate, lactate, formate, acetate, propionate, and butyrate are used as biomarkers of anaerobic metabolism. Anaerobic bacteria produce these compounds by fermentation, while under aerobic conditions, these compounds are rapidly oxidized for carbon and energy by aerobic bacteria. The VFA are analyzed by ion chromatography.

Denaturing gradient gel electrophoresis (DGGE)

A denaturing gradient gel electrophoresis (DGGE) analysis is a powerful method to detect and identify organisms from environmental samples (1, 18, 12). The total DNA in a sample is isolated, and then amplified using primers specific for the DNA sequence coding for the 16S ribosomal RNA (rDNA) gene(s) of Bacteria. This sequence is targeted since some parts of it evolve slowly and others more quickly, allowing precise classification of each isolated sequence. The amplified sequences are separated into bands using a denaturing gradient gel. Bacterial populations can be detected if they are at least 1 to 2% of the community, so the bacterial strains reported may not be the most abundant or the most important, but are an example of a member of the microbial community. The banding pattern and relative intensities of the bands provide a measure of differences among samples. Major bands from each sample are excised, sequenced, and the closest described relative of each is reported. Phylogenetic affiliations are determined by comparing the rDNA sequences from samples to known bacterial sequences in the National Center for Biotechnology Information database (GenBank) (13).

Targeted Gene Detection

Specific DNA primers for a conserved region of the 16S rDNA gene were used to detect *Dehalococcoides ethenogenes*, based upon the method of Loffler *et. al.* (10). The sensitivity is ~10^3 cells per milliliter or gram of sample. Two amplification controls were used to ensure the validity of the results: negative control; *E. coli* and positive control; *D. ethenogenes.*

(Variable and Conserved Regions)

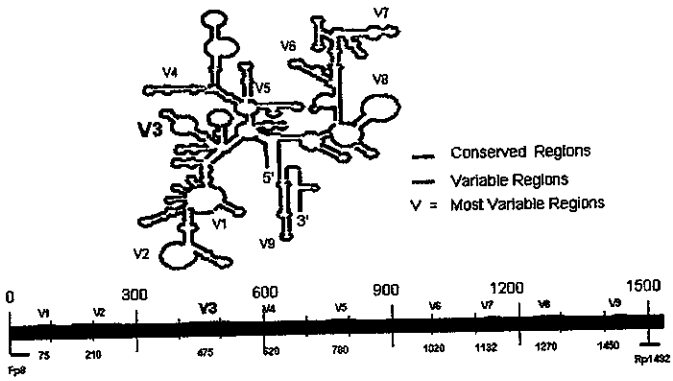

Figure 1. Diagram detailing the variable and conserved regions of the 16S rDNA gene (9). Specific primers directed to a variable region of the 16S rDNA gene of *Dehalococcoides ethenogenes* was used to determine its presence.

Results

Polar Lipid Fatty Acids

The lowest viable microbial biomass was up-gradient of the injection well, increasing considerably at the injection well and then decreasing with distance down-gradient from there (Table 3). This likely indicates a greatly increased microbial biomass due to acetate injection 2 years previously. Sample 007G03LF15, up-gradient of the injection well, had a very low biomass that allowed the detection of only one fatty acid. The community structure of that sample is at least somewhat similar to the others, since the one fatty acid detected was the most abundant fatty acid in 3 out of 4 of the other samples. Since only one fatty acid was detected in this sample, no information on it's community structure, diversity, or physiological status is available.

The most abundant PLFA in the water samples were the monounsaturated fatty acids, consistent with a community dominated by Proteobacteria. Only low levels of terminally branched fatty acids were found, so these samples could only have had very low proportions of Firmicutes (Low G+C Gram Positives). The injection well sample, 007G60LF15, contained the highest proportions of eukaryotic biomarkers. The PLFA profile of the sample from approximately 55 feet down-gradient, 007G59LFBF, had a high proportion of the biomarker 10Me16:0, which often indicates anaerobic metal reducing bacteria.

The diversity of the microbial communities was lowest in the sample 10 feet down-gradient of the injection well, within the range of heterogeneity of fatty acids (H_{FA}) found for pure cultures, and was highest for the sample approximately 55 feet down-gradient.

Biomarkers for physiological status varied greatly between these samples. The injection well sample was the only one with a *trans/cis* ratio over 0.1 (the threshold level for membrane stress). The samples from the injection well and from 10 and approximately 55 feet down-gradient of the injection well had levels of the starvation markers typical of subsurface microbial communities, while the sample from down-gradient of the treatment area had much higher levels.

Table 3. Viable microbial biomass expressed as picomoles PLFA per mL and as cells per mL, fatty acid structural groups as percent of total, and physiological status biomarkers as mole ratio. "-" indicates data not available.

Samples		Biomass		Community Structure (% of total PLFA)						Physiological Status	
Name	Description	pmole/mL	Cells/mL	Firmicutes (TerBrSats)	Proteobacteria (Monos)	Anaerobic metal reducers (BrMonos)	Actinomycetes (MidBrSats)	General (Nsats)	Eukaryotes (polyenoics)	Toxic, trans/cis	Starvation, Cy/cis
007G03LF15	Up-Gradient	0.01	2.4 E+02	-	100.0	-	-	-	-	-	-
007G60LF15	Injection	30.78	6.2 E+05	3.5	75.4	1.8	1.6	9.0	8.8	0.14	0.20
007G63LFBF	10 feet	5.23	1.0 E+05	2.9	90.1	0.2	1.1	3.9	1.9	0.02	0.17
007G59LFBF	~55 feet	0.22	4.3 E+03	0.0	68.5	0.0	10.7	20.8	0.0	0	0.21
007G21LF15	Down-Gradient	0.49	9.8 E+03	4.1	79.7	0.0	0.0	16.2	0.0	0	4.5

Volatile Fatty Acid Analysis

Volatile fatty acids were below the limit of detection in the up-gradient and injection well samples (Table 4). In the other samples, the sum of VFA's was higher the further down-gradient the sample was taken. This indicates that environmental conditions were increasingly anaerobic down-gradient of the injection well.

Table 4. Volatile fatty acids and presence of *Dehalococcoides ethenogenes*.

	Up-Gradient 007G03LF15	Injection 007G60LF15	10 feet 007G63LFBF	~55 feet 007G59LFBF	Down-Gradient 007G21LF15
			Volatile Fatty Acids, mg/L		
Pyruvic	< 4	< 4	< 4	< 4	< 4
Lactic	< 1	< 1	< 1	1.5	3.9
Formic	< 1	< 1	< 1	1.6	2.1
Acetic	< 1	< 1	2.5	3.9	20.0
Propionic	< 1	< 1	< 1	< 1	< 1
Butyric	< 1	< 1	< 1	< 1	< 1
Sum	< 5	< 5	2.5	6.0	25.0
			Dehalcoccoides ethenogenes		
Presence	-	+++	+++	+++	-

Dehalococcoides ethenogenes (DHE)

Using the targeted gene detection approach revealed the presence of DHE in samples 007G60LF15, 007G63LFBF, and 007G59LFBF.

Denaturing Gradient Gel Electrophoresis

The DGGE profiles differed among sampling locations, indicating differences among the bacterial communities. Seven DGGE bands from this sample set were sequenced: 1 from 10 feet down-gradient of the injection well, 2 from the injection well, 2 from ~55 feet down-gradient of the injection well, and 2 from down-gradient of the treatment area. No bands abundant enough to sequence were recovered from up-gradient of the treatment area (Figure 2). The identification of these bands and characteristics of the closest described relative are presented in Table 5.

Injection Well (007G60LF15): Band F was a novel sequence with no close relatives in the available databases. Band G was related to an uncultured freshwater bacterium that is affiliated with Cytophaga bacteria. These aerobic or facultative anaerobic bacteria are widespread in soil and water, often being present in great abundance. Cytophaga digest high molecular weight organics such as cellulose, agar, or chitin. Some Cytophaga use nitrate as a terminal electron acceptor.

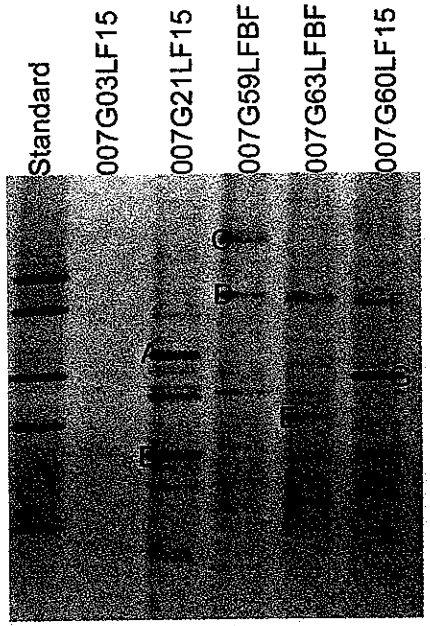

Figure 2. Image of the DGGE gel. Bands represent amplified Bacterial rDNA. Banding patterns and relative intensities provide a measure of the Bacterial community. Species must constitute at least 1-2% of the total to form a visible band. Labeled bands were excised and sequenced (Table 5).

Table 5. Sequence results for excised bands (Figure 5). Information was taken from the NCBI database (13) except where referenced. Entries in parentheses ( ) are possible characteristics based upon known near relatives.

	Up-Gradient	Injection Well		10 feet	~55 feet		Down-Gradient	
	007G03LF15	007G60LF15		007G63LFBF	007G59LFBF		007G21LF15	
Band	none	F	G	E	C	D	A	B
Closest Match	-	Novel sequence	Uncultured freshwater bacterium	green sulfur bacterium	clone SHA-95	*Dehalococcoides* sp.	*Burkholderia* sp.	*Meiothermus* sp.
Similarity, base pairs	-	-	96% 166	98% 99	96% 150	100% 148	95% 166	88% 144
Phylogenic Affiliation	-	unknown	(Cytophagales)	Chlorobi grp.	Epsilon Proteobacteria	Gram Positive	Beta Proteobacteria	Thermus grp.
Electron Donors			large organics	(sulfide)	(H_2)	H_2	organics	organics
Electron Acceptors			O_2	(sulfur)	1,2-DCP [a]	PCE, TCE, DCE, VC [b]	O_2, (nitrate)	O_2, (nitrate)
Habitat			lakes, aerobic bioreactors	anaerobic, mining-impacted soil & water	bioreactor reductively dechlorinating 1,2-DCP [a]	soils	soils	soils
Reference			2	14	16	11	3	17

[a] 1,2-dichloropropane
[b] tetrachloroethene, trichloroethene, dichloroethene, vinyl chloride

10 Feet Down-Gradient (007G63LFBF). Band E is related to an uncultured green sulfur bacterium. Green sulfur bacteria are strict anaerobes and most are obligately photosynthetic, though subsurface heterotrophs have been reported.

Approximately 55 Feet Down-Gradient (007G59LFBF). Band C was closely related to an uncultured bacterium found in a 1,2-dichloropropane dechlorinating bioreactor. Other close relatives of this sequence have been found in subsurface communities contaminated with crude oil and landfill leachate.

Band D has been strongly associated with a *Dehalococcoides* species of bacteria. Certain strains of *Dehalococcoides* catalyze the complete reductive dechlorination of PCE to the nontoxic terminal product ethane using hydrogen as an electron donor.

Down-Gradient of the Treatment Area (007G21LF15). Band A has a close affiliation with an uncultured *Burkholderia* (formerly *Pseudomonas*) species. This group of common soil Bacteria can metabolize a wide variety of organic compounds using oxygen as the terminal electron acceptor. *Burkholderia* is also often isolated from ultra-pure water systems.

Band B was associated with an uncultured bacterial clone taken from a forest wetland impacted by reject coal effluent as well as with a *Meiothermus* species, a member of the Deinococcus-Thermus group of bacteria.

Quality Assurance

Sample Arrival and Holding Times:

Eight samples were received on 9/18/02, accompanied by a chain of custody form. All arrival conditions and required holding times were acceptable according to SOP #SREC.

Sample Analysis and QA/QC Parameters:

Samples were analyzed under the U.S. EPA Good Laboratory Practice Standards: Toxic Substances Control Act (40 CFR part 790). All samples were processed according to standard operating procedures.

Notes: No QC or analytical problems were encountered

Calibrations and Solvent Checks:

All laboratory equipment and instruments utilized throughout the analyses were calibrated and operating within acceptable ranges. The instruments were calibrated according to Standard Operating Procedures (EQ4). All solvents used in these analyses were validated for purity.

Data Validation:

All data analyses were performed correctly. All calculations and transcriptions of raw and final data were verified.

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2340 Stock Creek Blvd.
Rockford TN 37853-3044
Phone (865) 573-8188
Fax: (865) 573-8133
Email: microbe@microbe.com

Analytical Analysis Report

Client: Ensafe
John Stedman
5724 Summer Trees
Memphis, TN 38134

Phone: 901-372-7962

Fax: 901-377-2454

MI Identifier: 6ENS **Date Rec.:** 09/17/02 **Report Date:** 10/03/02

Analysis Requested: Volatile Fatty Acids

Project: NSA MIDSOUTH

Comments:

All samples within this data package were analyzed under U.S. EPA Good Laboratory Practice Standards: Toxic Substances Control Act (40 CFR part 790). All samples were processed according to standard operating procedures. Test results submitted in this data package meet the quality assurance requirements established by Microbial Insights, Inc.

Reported by:

(Data Analyst)

Reviewed by:

(Director)

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2340 Stock Creek Blvd.
Rockford TN 37853-3044
Phone (865) 573-8188
Fax: (865) 573-8133
Email: microbe@microbe.com

Analysis Summary Report

	Condition			Metabolic Acids (mg/L)					
Sample Name	Date Sampled	Date Received	Arrival Condition	Pyruvic	Lactic	Formic	Acetic	Proprionic	Butyric
03LF15	09/16/02	09/18/02	Good, Cold, Intact	<4	<1	<1	<1	<1	<1
21LF15	09/16/02	09/18/02	Good, Cold, Intact	<4	3.9	2.1	20.0	<1	<1
59LF	09/16/02	09/18/02	Good, Cold, Intact	<4	1.5	1.6	3.9	<1	<1
63LF	09/16/02	09/18/02	Good, Cold, Intact	<4	<1	<1	2.5	<1	<1
60LF15	09/17/02	09/18/02	Good, Cold, Intact	<4	<1	<1	<1	<1	<1

Quality Control Report

Compound	MS Recovery %	MSD Recovery %	RPD %	LCS Recovery %
Pyruvic	99.2	95.4	3.9	82.3
Lactic	86.8	87.7	0.8	88.6
Formic	94.6	96.8	2.3	84.3
Acetic	85.8	89.8	4.6	83.3
Proprionic	82.6	86.9	5.1	83.9
Butyric	83.5	84.3	0.9	83.3

Comments: No problems with QC.

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2340 Stock Creek Blvd.
Rockford TN 37853-3044
Phone (865) 573-8188
Fax: (865) 573-8133
Email: microbe@microbe.com

Microbial Analysis Report

Client: John Stedman
EnSafe
5724 Summer Trees
Memphis, TN 38134

Phone: (901) 372-7962

Fax: (901) 377-2454

MI Identifier: 7ens **Date Rec.:** 9/28-10/2 **Report Date:** 12/4/02

Analysis Requested: PLFA, DGGE, DHE, and VFA

Project: Sample Set 7, Vegatable Oil Field Test, Millington, TN

Comments:

All samples within this data package were analyzed under U.S. EPA Good Laboratory Practice Standards: Toxic Substances Control Act (40 CFR part 790). All samples were processed according to standard operating procedures. Test results submitted in this data package meet the quality assurance requirements established by Microbial Insights, Inc.

Reported by:

(Data Analyst)

Reviewed by:

(Director)

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Rockford TN 37853-3044
Phone (865) 573-8188
Fax: (865) 573-8133
Email: microbe@microbe.com

Microbial Analysis Report

Executive Summary

The sampling site had previously had subsurface injection of vegetable oil to stimulate reductive dechlorination. 14 water samples from 2 depths at each of 7 monitoring wells were analyzed for polar lipid fatty acids (PLFA) and volatile fatty acids (VFA). Denaturing gradient gel electrophoresis (DGGE) and targeted gene detection (TGD) for Dehalococcoides ethenogenes (DHE) was performed on 2 of theses samples. Six of the monitoring wells form a transect from upgradient to downgradient of the injection area, the last monitoring well is off-gradient of treatments.

The following results were found:

- Samples from wells within 22 feet downgradient of the vegetable oil injection generally had higher microbial biomass and the bacteria were less starved than the other samples.
- These samples were anaerobic as evidenced by a higher proportion of terminally branched PLFA, detectable VFA, and anaerobic bacteria detected by DGGE.
- MW-3S differed from the other downgradient samples near the injection area in not having a high biomass and not having detectable VFA, which may indicate that this community was not stimulated as much by the vegetable oil amendment.
- MW-1D was upgradient of the injection well, but compared to it's corresponding shallow well and the off-gradient sample it had higher biomass, a community structure more like the downgradient samples, and a lower value for the starvation biomarker.

Methods Employed

Polar Lipid Fatty Acid Analysis

Determination of the polar lipid fatty acids (PLFA) in environmental samples is an effective tool for monitoring microbial responses to their environment. PLFA are essential components of the membranes of all cells (except for the Archea, a minor component of most environments), so their sum includes all important actors of most microbial communities. There are four different types of information in PLFA profiles – biomass, community structure, diversity, and physiological status.

Biomass. PLFA analysis is the most reliable and accurate method available for the determination of viable microbial biomass. Since polar lipids breakdown rapidly upon cell death (18, 20) the PLFA biomass does not contain 'fossil' lipids of dead cells. The sum of the PLFA, expressed as picomoles (1 picomole = 1×10^{-12} mole) is proportional to the number of cells. The proportion used in this report, 20,000 cells/pmole, is taken from cells grown in laboratory media, and varies somewhat with type of organism and environmental conditions. Starving bacterial cells have the lowest cells/pmole, and healthy eukaryote cells have the highest.

Community Structure. The polar lipid fatty acids in an environmental sample are the sum of the microbial community's PLFA. Cellular fatty acids are routinely used to classify bacteria and fungi (16), and are one of the characteristics used to describe new bacterial species (22). Specific groups of microbes have different fatty acid profiles, making it possible to distinguish between them (4, 5, 19, 21). Table 1 describes the fatty acid structural groups employed in this report.

Table 1. Fatty acid structural groups.

Structural Group	General classification
Monounsaturates (Monos)	Abundant in Proteobacteria (Gram negative bacteria), typically fast growing, utilize many carbon sources, and adapt quickly to a variety of environments.
Terminally Branched Saturated (TerBrSats)	Characteristic of Firmicutes (Low G+C Gram-positive bacteria), Bacteriodes, and some Gram-negative bacteria.
Branched Monoenoic (BrMonos)	Found in micro-aerophiles and anaerobes, such as sulfate- or iron-reducing bacteria
Mid-Chain Branched Saturated (MidBrSats)	Common in Actinobacteria (High G+C Gram-positive bacteria), and some sulfate-reducing bacteria.
Normal Saturated (Nsats)	Found in all organisms.
Polyenoic	Found in Eukaryotes such as fungi, protozoa, algae, higher plants, and animals.

Diversity. The diversity of a microbial community is a measure of the number of different organisms and the evenness of their distribution. Natural environments tend to have high diversity. Contamination with toxic compounds will reduce the diversity by killing all but the resistant organisms. The addition of a large amount of a food source will initially reduce the diversity as the opportunists (usually Proteobacteria) over-grow organisms less able to reproduce rapidly. The formulas used to calculate microbial community diversity from PLFA profiles have been adapted from those applied to communities of macro-organisms (8).

Physiological status. The membrane of a microbe must adapt to the changing conditions of it's environment, and these changes are reflected in the PLFA. Toxic compounds or environmental conditions which disrupt the membrane cause Proteobacteria to transform monounsaturates to *trans* and cyclopropyl fatty acids (7). The physiological status biomarkers are calculated by dividing the amount of the stress-induced fatty acid by the amount of it's biosynthetic precursor.

PLFA are analyzed by extraction of the total lipid (18) and then separation of the polar lipids by column chromatography (6). The polar lipids are transesterified to the fatty acid methyl esters, which are quantified using gas chromatography (14). Fatty acid structures are verified by chromatography/mass spectrometry and equivalent chain length analysis.

Volatile Fatty Acids

The volatile fatty acids (VFA) pyruvate, lactate, formate, acetate, propionate, and butyrate are used as biomarkers of anaerobic metabolism. They are produced by fermentative bacteria while under aerobic conditions, and are rapidly oxidized for carbon and energy by aerobic bacteria (2). The VFA are analyzed by ion chromatography.

Denaturing gradient gel electrophoresis (DGGE)

A denaturing gradient gel electrophoresis (DGGE) analysis is a powerful method to detect and identify organisms from environmental samples (1, 15, 12). The total DNA in a sample is isolated, and then amplified using primers specific for the DNA sequence coding for the 16S ribosomal RNA (rDNA) of Bacteria. This sequence is targeted since some parts of it evolve slowly and others more quickly, allowing precise classification of each isolated sequence. The amplified sequences are separated into bands using a denaturing gradient gel. Numerically dominant members of the microbial community (>1 to 2% of the community) can be detected, so the bacterial strains reported may not be the most abundant or the most important, but are an example of a member of the microbial community. The banding pattern and relative intensities of the bands provide a measure of differences between samples. Major bands from each sample are excised, sequenced, and the closest described relative of each is reported. Phylogenetic affiliations are determined by comparing the rDNA sequences from samples to known bacterial sequences in the National Center for Biotechnology Information database (GenBank) (13). Recent progress in classifying Bacteria has caused many of the names used for bacteria and groups of bacteria to be changed. This can be a source of confusion since most scientists and engineers were trained when the earlier nomenclature was used. Table 2 shows the current names used in this report, and the corresponding obsolete terminology.

Table 2. Names for bacteria and bacterial groups used in this report and the corresponding obsolete forms.

Current Names	Older Names
	Phylogenic Groups
Actinobacteria	High G+C Gram positive bacteria such as *Actinomycetes, Mycobacterium, Rhodococcus*
Chlorobi	Green sulfur bacteria, the well-characterized members are anaerobic photosynthetics
Chloroflexi	Green non-sulfur bacteria, common in subsurface sediments, the well-characterized members are anaerobic photosynthetics
Eukaryotes	Fungi, protozoa, algae, flowering plants, and animals
Firmicutes	Low G+C Gram positive bacteria such as *Bacillus* and *Clostridia*
Proteobacteria	Gram-negative bacteria
	Species
Dehalococcus restrictus	A strict anaerobe which reductively dechlorinates tetrachloroethene and trichloroethene to *cis*-1,2-dichloroethene

Targeted Gene Detection

Specific DNA primers for a conserved region of the 16S rDNA gene were used to detect *Dehalococcoides ethenogenes* (DHE), based on the method of Loffler *et. al.* (11). The sensitivity is ~10^3 cells per milliliter or gram of sample. Positive (DHE) and negative (*E.* coli) reaction controls were used for quality control purposes.

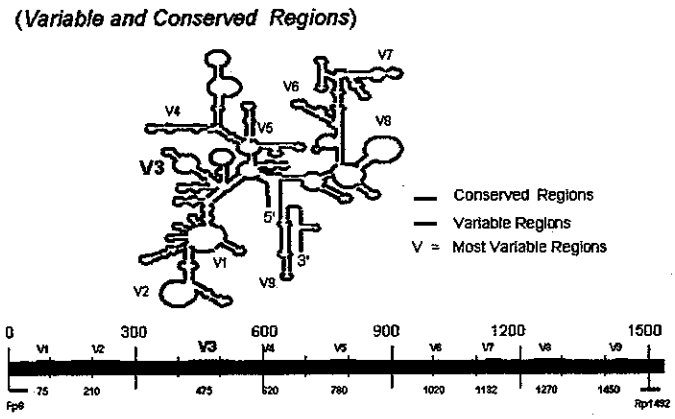

Figure 1. Diagram detailing the variable and conserved regions of the 16S rDNA gene (10). Specific primers directed to a specific region of the 16S rDNA gene of *Dehalococcoides ethenogenes* was used to determine its presence.

Results

Polar Lipid Fatty Acids

The biomass and diversity of the microbial communities analyzed are presented in Figure 2. Five of the six samples from the 3 wells immediately downgradient of the injection well (MW-2, -3, & -4) showed over twice the biomass levels of the others samples. The subsurface microbial communities downgradient of the injection well also had higher diversities, probably due to the injected amendments stimulating the growth of minor components of the native community, without killing the original dominant members.

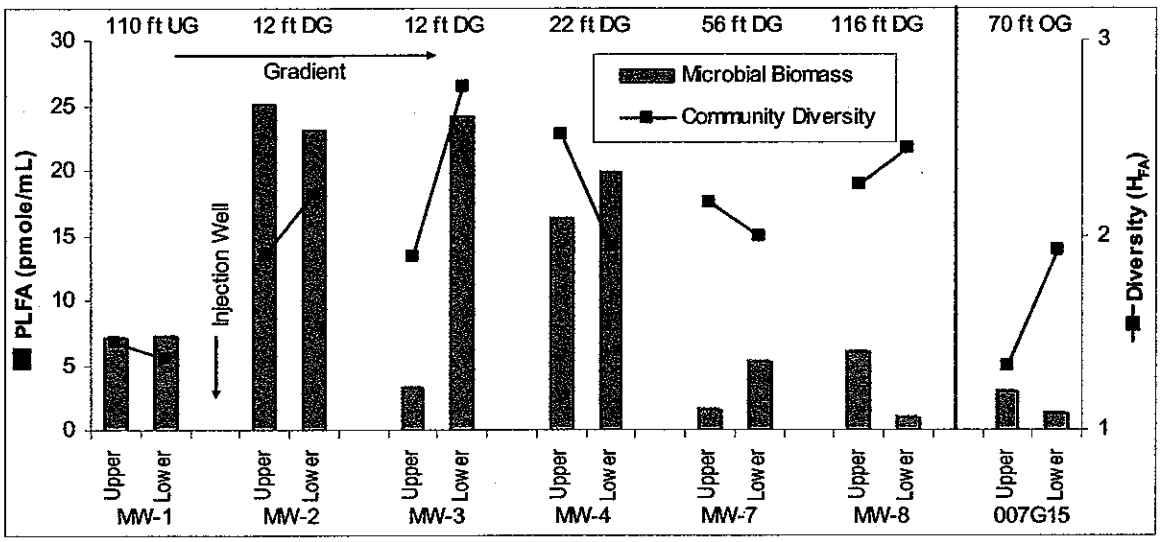

Figure 2. Microbial biomass and community diversity. UG, DG, and OG refer to monitoring wells up-, down-, or off-gradient of the injection well. Distances were estimated from a map.

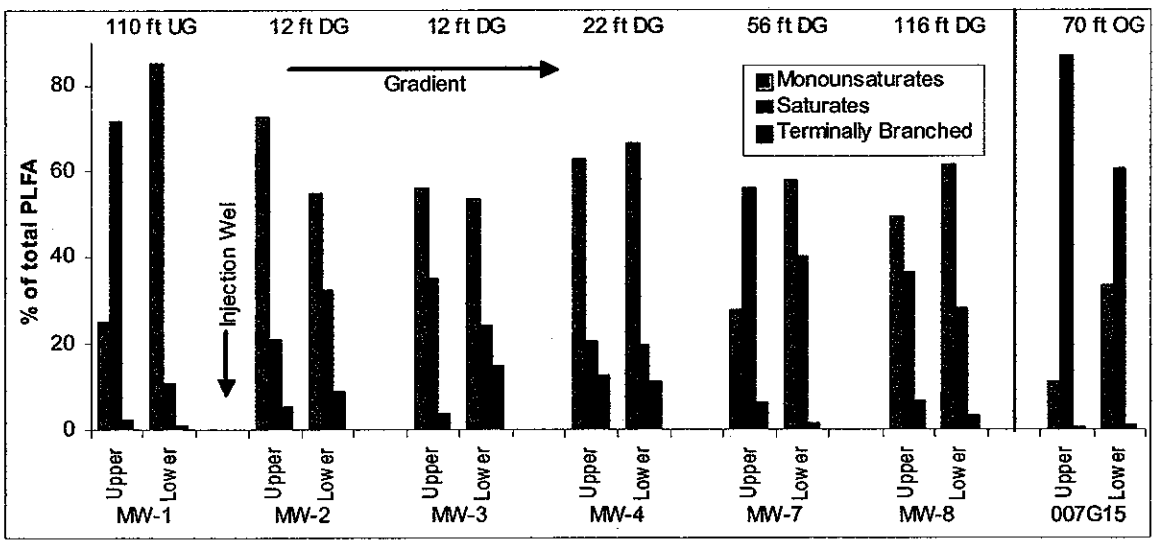

Figure 3. Microbial community structure as shown by PLFA structural groups.

The microbial community structure also responded to treatment (Figure 3). Monounsaturates dominated all of the 6 samples taken within 22 feet downgradient of the injection well, while those from further downgradient, up- or off-gradient had mostly either monounsaturates or saturates. Monounsaturates are abundant in proteobacteria, which often rapidly reproduce to take advantage of available organic carbon, such as vegetable oil. The high proportion of saturated fatty acids in the off-gradient samples and one of the upgradient samples may indicate the presence of Chloroflexi (green non-sulfur bacteria), which are common subsurface bacteria. Terminally branched fatty acids (*iso*- and *anteiso*-branched) were higher in all but one of the downgradient samples than they were in the up- or off-gradient samples. These are most commonly due to Firmicutes (*Clostridia*-like Gram positive bacteria). An increase in the terminally branched fatty acids is often seen in environmental transects from more aerobic to more anaerobic conditions, so this may signal anaerobic conditions downgradient of injection. The fatty acid structural groups for mid-chain branched, branched monounsaturated, and polyunsaturated fatty acids were all low or undetected in these samples, therefore the Actinobacteria and Eukaryotes were not significant proportions of these communities.

The toxic stress biomarker was high (> 0.1) in all samples except those off-gradient, which is probably due to exposure to the chlorinated volatiles (Figure 4). The value of the toxic stress biomarker in MW-2S is unusually high, and may locate the highest concentration of chlorinated volatiles. The starvation biomarker was generally lower in the samples within 22 feet downgradient of the vegetable oil injection than in the other samples.

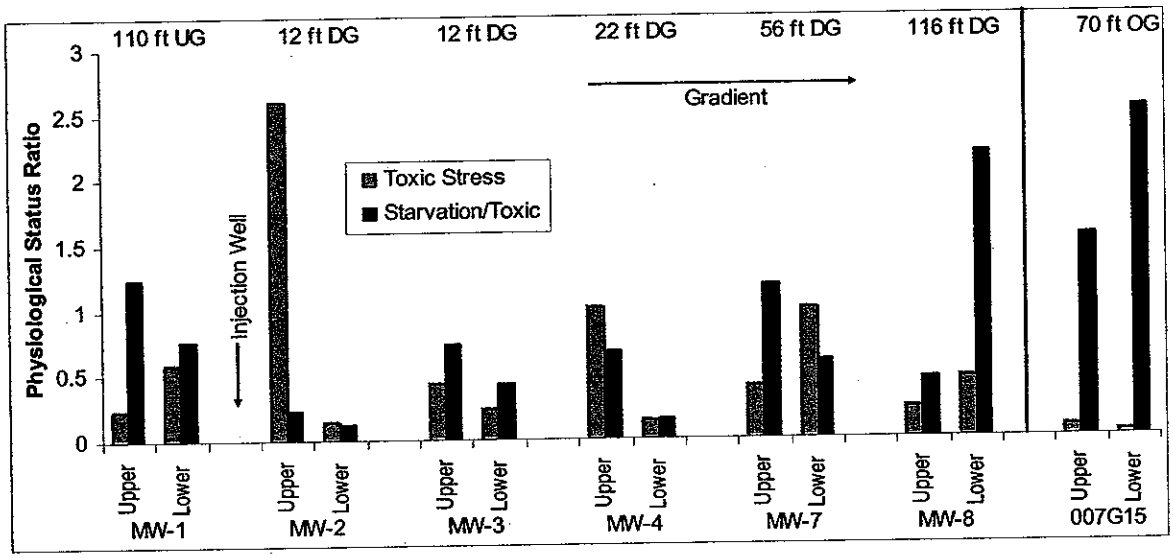

Figure 4. Microbial physiological stress markers. UG, DG, and OG refer to monitoring wells up-, down-, or off-gradient of the injection well.

Table 3. Viable microbial biomass expressed as picomoles PLFA per mL and as cells per mL, fatty acid structural groups as percent of total, and physiological status biomarkers as mole ratio. "-" indicates data not available.

Samples		Biomass		Community Structure (% of total PLFA)						Physiological Status	
Sample Name	Sample Date	pmole/mL	cells/mL	Firmicutes (TerBrSats)	Proteobacteria (Monos)	Anaerobic metal reducers (BrMonos)	Actinomycetes (MidBrSats)	General (Nsats)	Eukaryotes (polyenoics)	Starved cy/cis	Stress, trans/cis
PES-MW1S	9/30/02	8	1.52E+05	2.2	24.8	0.6	1.0	71.4	0.0	1.24	0.23
PES-MW1D	9/30/02	8	1.52E+05	1.1	84.9	0.5	2.5	10.5	0.5	0.77	0.59
PES-MW2S	9/30/02	27	5.34E+05	4.9	72.6	0.8	0.9	20.7	0.1	0.23	2.61
PES-MW2D	9/30/02	24	4.89E+05	8.6	55.0	2.3	1.5	32.1	0.5	0.12	0.14
PES-MW3S	10/1/02	3	6.61E+04	3.9	55.7	0.6	1.0	35.1	3.7	0.74	0.43
PES-MW3D	10/1/002	26	5.23E+05	14.8	53.7	4.1	2.0	24.2	1.2	0.43	0.24
PES-MW4S	9/27/02	18	3.52E+05	12.3	62.9	1.6	2.7	20.4	0.2	0.68	1.01
PES-MW4D	9/26/02	22	4.38E+05	11.1	66.5	1.0	1.6	19.5	0.2	0.16	0.14
PES-MW7S	9/27/02	2	3.08E+04	6.0	27.6	2.2	6.0	56.0	2.0	1.18	0.40
PES-MW7D	9/27/02	5	1.09E+05	1.3	57.5	0.6	0.3	40.3	0.0	0.60	0.99
PES-MW8S	9/27/02	6	1.29E+05	6.7	49.3	0.9	5.2	36.7	1.2	0.46	0.24
PES-MW8D	9/27/02	1	1.75E+04	3.2	61.2	1.2	4.0	28.3	2.1	2.19	0.46
007G15UF	10/1/02	3	6.06E+04	0.5	11.2	0.0	1.1	86.7	0.5	1.54	0.07
007G15LF	10/1/02	1	2.49E+04	0.9	33.1	0.9	2.9	60.5	1.8	2.53	0.03

Volatile Fatty Acid Analysis

The only samples to have detectable levels of VFA were those from within 22 feet downgradient of injection (Figure 5). The only one of these to not have detectable VFA (MW-3S) was also the only one not to have a significant increase in biomass (Figure 2). This may be due to poor delivery of amendments to that location or that community not responding as well as the other locations to the amendment. MW-3D, the corresponding deep sampling well, had by far the most VFA and the highest proportion of terminally branched fatty acids (Figure 3), supporting the interpretation of terminally branched fatty acids as anaerobes.

Table 4. Detection of Volatile fatty acids.

		Metabolic Acids (mg/L)					
Sample Name	Sample Date	Pyruvic	Lactic	Formic	Acetic	Proprionic	Butyric
MW4D	9/26/2002	<4	<1	<1	14.3	16	<1
MW4S	9/27/2002	<4	<1	<1	30.7	130	<1
MW7S	9/27/2002	<4	<1	<1	<1	<1	<1
MW7D	9/27/2002	<4	<1	<1	<1	<1	<1
MW8D	9/27/2002	<4	<1	<1	<1	<1	<1
MW8S	9/27/2002	<4	<1	<1	<1	<1	<1
MW2D	9/30/2002	<4	<1	<1	10.3	7.3	<1
MW2S	9/30/2002	<4	<1	<1	15.8	25.5	<1
MW1D	9/30/2002	<4	<1	<1	<1	<1	<1
MW1S	9/30/2002	<4	<1	<1	<1	<1	<1
MW3D	10/1/2002	<4	<1	<1	216.8	517.2	24.3
MW3S	10/1/2002	<4	<1	<1	<1	<1	<1
G15UF	10/1/2002	<4	<1	<1	<1	<1	<1
G15LF	10/1/2002	<4	<1	<1	<1	<1	<1

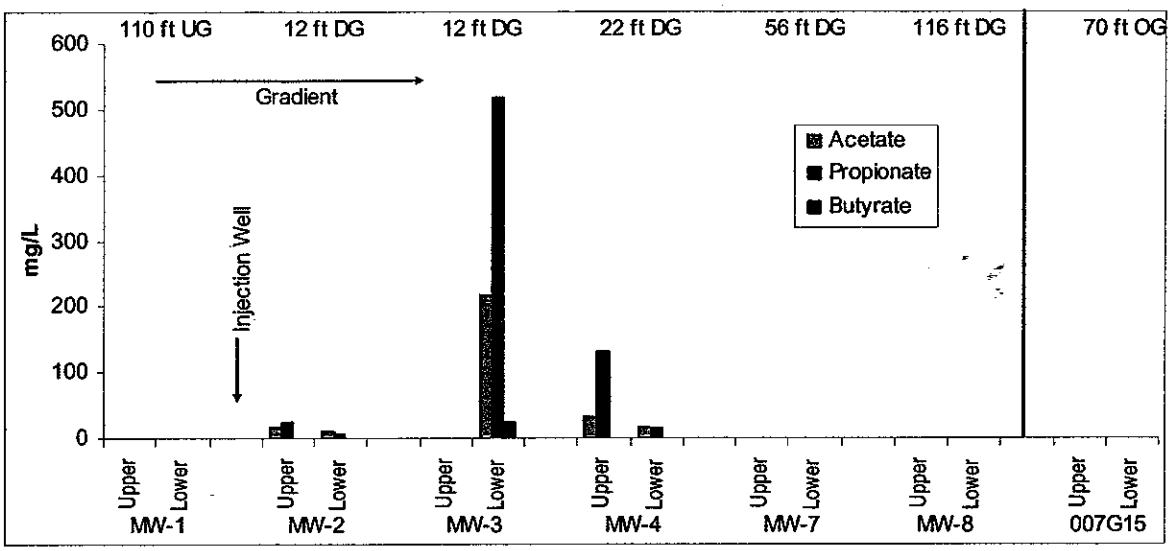

Figure 5. Volatile fatty acids. UG, DG, and OG refer to monitoring wells up-, down-, or off-gradient of the injection well.

Denaturing Gradient Gel Electrophoresis

The sequences found in the 2 samples analyzed are presented in Table 5. Most of them were most closely related to uncultured representatives of little-known groups, as such little can be deduced from their presence. Two bands (D & E) were identified in sample MW-1D, upgradient of the injection well. D was a novel sequence with no close relatives (closest match 92%). Band E was an uncultured member of the Chlorobi. The well-known members of this group are anaerobic photosynthetic bacteria; very little is known about the sub-surface Chlorobi.

Bands A, B, and C were found in MW-2S, a shallow well downgradient of the injection well. All 3 were most closely related to anaerobes. Band A was *Dehalococcus restrictus*, a strict anaerobe which reductively dechlorinates tetrachloroethene and trichloroethene to *cis*-1,2-dichloroethene (17). Band B was an uncultured representative of the Chloroflexi, a little known group of bacteria commonly found in the subsurface (9). The matching sequence was from an anaerobic biofilm. Band C was a 100% match to 2 spirochetes, both found in subsurface samples where reductive dechlorination of chloro-ethenes was occurring.

Table 5. Sequence results for bands excised from DGGE. Information from the NCBI database (13) except where referenced. Entries in parentheses ( ) are possible characteristics based upon known near relatives. A dash "-" indicates unknown.

Sample	Band	Closest Match	Similarity (base pairs)	Phylogenic Affiliation	Electron Acceptors	Electron Donors	Habitat	Ref.
MW-1D	D	Novel sequence	-	-	-	-	-	
	E	Uncultured bacterium	98% (99)	Chlorobi (green sulfur bacteria)				
MW-2S	A	*Dehalococcus restrictus*	94% (173)	Firmicutes (low G+C Gram positive)	PCE, TCE[a]	H_2	non-fermentative anaerobe	17
	B	Uncultured bacterium	98% (148)	Chlorofilexi (green non-sulfur bacteria)	-	-	anaerobic	9
	C	Uncultured bacterium	100% (167)	Spirochaetales	-	-	anaerobic, chloro-ethene degrading	3

[a] tetrachloroethene, trichloroethene

Targeted Gene Detection

DHE was not detected in either sample (MW-1D or MW-2S).

Table 6. Results from DNA amplification using primers specific for *Dehalococcoides ethenogenes*. Specific primers directed to a variable region of the 16S rRNA gene of *Dehalococcoides ethenogenes* was used to determine its presence. Sensitivity of these primers is ~10^3 cells/mL or g of sample. Presence is noted with a plus sign and the relative abundance determined by the number of plus signs.

Sample	Dehalococcoides ethenogenes
MW – 1D	-
MW – 2S	-
Dehalococcoides etheneogenes positive control	+++
E.coli negative control	-
negative control	-

Quality Assurance

Sample Arrival and Holding Times:

Fourteen samples were received between 9/28/02 and 10/2/02 , accompanied by a chain of custody form. All arrival conditions and required holding times were acceptable according to SOP #SREC.

Sample Analysis and QA/QC Parameters:

Samples were analyzed under the U.S. EPA Good Laboratory Practice Standards: Toxic Substances Control Act (40 CFR part 790). All samples were processed according to standard operating procedures.

Notes: No QC or analytical problems were encountered

Calibrations and Solvent Checks:

All laboratory equipment and instruments utilized throughout the analyses were calibrated and operating within acceptable ranges. The instruments were calibrated according to Standard Operating Procedures (EQ4). All solvents used in these analyses were validated for purity.

Data Validation:

All data analyses were performed correctly. All calculations and transcriptions of raw and final data were verified.

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2340 Stock Creek Blvd.
Rockford TN 37853-3044
Phone (865) 573-8188
Fax: (865) 573-8133
Email: microbe@microbe.com

Analytical Analysis Report

Client: Ensafe
John Stedman
5724 Summer Trees
Memphis, TN 38134

Phone: 901-372-7962

Fax: 901-377-2454

MI Identifier: 7ENS **Date Rec.:** 09/28/02 **Report Date:** 10/14/02

Analysis Requested: Volatile Fatty Acids

Project: NSA MIDSOUTH

Comments:

All samples within this data package were analyzed under U.S. EPA Good Laboratory Practice Standards: Toxic Substances Control Act (40 CFR part 790). All samples were processed according to standard operating procedures. Test results submitted in this data package meet the quality assurance requirements established by Microbial Insights, Inc.

Reported by:

(Data Analyst)

Reviewed by:

(Director)

NOTICE: This report is intended only for the addressee shown above and may contain confidential or privileged information. If the recipient of this material is not the intended recipient or if you have received this in error, please notify Microbial Insights, Inc. immediately. The data and other information in this report represent only the sample(s) analyzed and are rendered upon condition that it is not to be reproduced without approval from Microbial Insights, Inc. Thank you for your cooperation.

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2340 Stock Creek Blvd.
Rockford TN 37853-3044
Phone (865) 573-8188
Fax: (865) 573-8133
Email: microbe@microbe.com

Analysis Summary Report

		Condition		Metabolic Acids (mg/L)					
Sample Name	Date Sampled	Date Received	Arrival Condition	Pyruvic	Lactic	Formic	Acetic	Proprionic	Butyric
MW4D	09/26/02	09/28/02	Good, Cold, Intact	<4	<1	<1	14.3	16.0	<1
MW4S	09/27/02	09/28/02	Good, Cold, Intact	<4	<1	<1	30.7	130.0	<1
MW7S	09/27/02	09/28/02	Good, Cold, Intact	<4	<1	<1	<1	<1	<1
MW7D	09/27/02	09/28/02	Good, Cold, Intact	<4	<1	<1	<1	<1	<1
MW8D	09/27/02	09/28/02	Good, Cold, Intact	<4	<1	<1	<1	<1	<1
MW8S	09/27/02	09/28/02	Good, Cold, Intact	<4	<1	<1	<1	<1	<1
MW2D	09/30/02	10/01/02	Good, Cold, Intact	<4	<1	<1	10.3	7.3	<1
MW2S	09/30/02	10/01/02	Good, Cold, Intact	<4	<1	<1	15.8	25.5	<1
MW1D	09/30/02	10/01/02	Good, Cold, Intact	<4	<1	<1	<1	<1	<1
MW1S	09/30/02	10/01/02	Good, Cold, Intact	<4	<1	<1	<1	<1	<1
MW3D	10/01/02	10/02/02	Good, Cold, Intact	<4	<1	<1	216.8	517.2	24.3
MW3S	10/01/02	10/02/02	Good, Cold, Intact	<4	<1	<1	<1	<1	<1
G15UF	10/01/02	10/02/02	Good, Cold, Intact	<4	<1	<1	<1	<1	<1
G15LF	10/01/02	10/02/02	Good, Cold, Intact	<4	<1	<1	<1	<1	<1

Quality Control Report

Compound	MS Recovery %	MSD Recovery %	RPD %	LCS Recovery %
Pyruvic	93.5	102.5	9.2	99.7
Lactic	89.4	82.6	8.0	90.7
Formic	97.9	93.4	4.7	89.2
Acetic	90.6	75.3	18.5	87.5
Proprionic	87.3	68.7	23.9	84.2
Butyric	90.6	71.8	23.2	82

Comments:

Attachment 3
VOC Anadata Tables

Sample IDs and Corresponding Sample Delivery Groups (SDGs)

Sample ID	SDG	Sample ID	SDG
003G04LF08	A1368	007G54LF08	A1368
005G04UF08	A1343	007G56LF08	A1368
005G08LF08	A1343	007G58LFAF	A1368
007G01LF08	A1343	007G58LFBF	A1368
007G01UF08	A1343	007G59LFAF	A1357
007G03LF15	A1357	007G59LFBF	A1357
007G03UF08	A1357	007G60LF15	A1357
007G04LF15	A1346	007G61LF15	A1368
007G04UF08	A1346	007G62LFAF	A1368
007H04UF08	A1346	007G62LFBF	A1368
007G05LF08	A1343	007G63LFAF	A1357
007G05UF08	A1343	007G63LFBF	A1357
007G06LF08	A1343	007GMCNA08	A1368
007G07LF08	A1346	007GPZ0308	A1368
007G09LF08	A1343	007GWLMS08	A1368
007G09UF08	A1343	015G01LF08	A1368
007G10LF08	A1368	015G01UF08	A1368
007H10LF08	A1368	015G02LF08	A1343
007G11LF08	A1357	015G02UF08	A1343
007G12LF08	A1346	015G03LF08	A1357
007G14LF08	A1357	015G03UF08	A1357
007G15LF08	A1357	015G04LF08	A1368
007G15LF09	A1438	015G04UF08	A1368
007G15UF08	A1357	018G01LF08	A1346
007G15UF09	A1438	021G01LF08	A1346
007G16LF08	A1391	021G02LF08	A1346
007G17LF08	A1337	021G03LF08	A1346
007G18LF08	A1337	021G04UF08	A1346
007G20LF08	A1357	021H04UF08	A1346
007G21LF15	A1357	060G02LF08	A1357
007G22LF08	A1357	060G04LF08	A1357
007H22LF08	A1357	060H04LF08	A1357
007G23LF08	A1346	0BGG05LF08	A1346
007H23LF08	A1346	0BGG05UF08	A1346
007G24MF08	A1357	0BGG10UF08	A1346
007G25MF08	A1346	N12G01LF08	A1357
007G26MF08	A1357	N12G02LF08	A1357
007G27LF08	A1368	PESGMW1D01	A1438
007G31LF08	A1368	PESGMW1S01	A1438
007G32LF08	A1368	PESGMW2D01	A1438
007G33LF08	A1346	PESGMW2S01	A1438
007G36LF08	A1346	PESGMW3D01	A1438
007G38LF08	A1346	PESHMW3D01	A1438
007G41LF08	A1337	PESGMW3S01	A1438
007G42LF08	A1391	PESGMW4D01	A1428
007G44LF08	A1346	PESGMW4S01	A1428
007G45LF08	A1368	PESGMW7D01	A1428
007G48LF08	A1368	PESGMW7S01	A1428
007G49LF08	A1346	PESGMW8D01	A1428
007G52LF08	A1337	PESGMW8S01	A1428
007G53LF08	A1337	RDYG0V8108	A1368
007G57LF15	B0343		

SDG A1337

Sample ID	Sample Type
007G17LF08	Groundwater
007G18LF08	Groundwater
007G41LF08	Groundwater
007G52LF08	Groundwater
007G53LF08	Groundwater

NSA MID-SOUTH
LONG TERM MONITORING
September 2002

A1337 VOA	SAMPLE ID ------->	007-G-17LF-08		007-G-18LF-08		007-G-41LF-08		007-G-52LF-08		007-G-53LF-08	
	ORIGINAL ID ----->	007G17LF08		007G18LF08		007G41LF08		007G52LF08		007G53LF08	
	LAB SAMPLE ID --->	A1337-01B		A1337-07B		A1337-03B		A1337-06B		A1337-04B	
	SAMPLE DATE ----->	09/10/02		09/10/02		09/10/02		09/10/02		09/10/02	
	DATE EXTRACTED -->	09/17/02		09/18/02		09/17/02		09/18/02		09/17/02	
	DATE ANALYZED --->	09/17/02		09/18/02		09/17/02		09/18/02		09/17/02	
	MATRIX ---------->	Water		Water		Water		Water		Water	
	UNITS ---------->	UG/L	A	UG/L	A	UG/L	A	UG/L	A	UG/L	A
CAS #	Parameter										
71-55-6	1,1,1-Trichloroethane	1.	U	1.	U	1.	U	1.	U	1.	U
79-34-5	1,1,2,2-Tetrachloroethane	1.	U	1.	U	1.	U	1.	U	1.	U
79-00-5	1,1,2-Trichloroethane	1.	U	1.	U	1.	U	1.	U	1.	U
75-34-3	1,1-Dichloroethane	1.	U	1.	U	1.		2.		1.	U
75-35-4	1,1-Dichloroethene	1.	U	1.	U	0.5	J	0.8	J	1.	U
107-06-2	1,2-Dichloroethane	1.	U	0.7	J	1.	U	0.5	J	1.	U
78-87-5	1,2-Dichloropropane	1.	U	1.	U	1.	U	1.	U	1.	U
78-93-3	2-Butanone (MEK)	10.	U	10.	U	10.	U	10.	U	10.	U
591-78-6	2-Hexanone	10.	U	10.	U	10.	U	10.	U	10.	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	10.	U	10.	U	10.	U	10.	U	10.	U
67-64-1	Acetone	25.	UR	25.	UR	25.	UR	25.	UR	25.	UR
71-43-2	Benzene	1.	U	0.2	J	1.	U	1.	U	1.	U
75-27-4	Bromodichloromethane	1.	U	1.	U	1.	U	1.	U	1.	U
75-25-2	Bromoform	1.	U	2.	U	1.	U	1.	U	1.	U
74-83-9	Bromomethane	1.	U	1.	U	1.	U	1.	U	1.	U
75-15-0	Carbon disulfide	1.	U	1.	U	1.	U	1.	U	1.	U
56-23-5	Carbon tetrachloride	1.	U	0.5	J	3.		2.		2.	
108-90-7	Chlorobenzene	1.	U	1.	U	1.	U	1.	U	1.	U
75-00-3	Chloroethane	1.	U	1.	U	1.	U	1.	U	1.	U
67-66-3	Chloroform	1.	U	1.		2.		3.		0.8	J
74-87-3	Chloromethane	1.	U	1.	U	1.	U	1.	U	1.	U
124-48-1	Dibromochloromethane	1.	U	1.	U	1.	U	1.	U	1.	U
100-41-4	Ethylbenzene	1.	U	1.	U	1.	U	1.	U	1.	U
75-09-2	Methylene chloride	5.	U	5.	U	5.	U	5.	U	5.	U
100-42-5	Styrene	1.	U	1.	U	1.	U	1.	U	1.	U
127-18-4	Tetrachloroethene	1.	U	0.4	J	2.		7.		0.5	J
108-88-3	Toluene	1.	U	1.	U	1.	U	1.	U	1.	U
79-01-6	Trichloroethene	1.	U	6.		10.		10.		0.2	J
75-01-4	Vinyl chloride	1.	U	1.	U	1.	U	1.	U	1.	U
1330-20-7	Xylene (Total)	2.	U	2.	U	2.	U	2.	U	2.	U
156-59-2	cis-1,2-Dichloroethene	1.	U	1.	U	3.		5.		1.	U
10061-01-5	cis-1,3-Dichloropropene	1.	U	1.	U	1.	U	1.	U	1.	U
9999900-05-0	m+p Xylene	1.	U	1.	U	1.	U	1.	U	1.	U
95-47-6	o-Xylene	1.	U	1.	U	1.	U	1.	U	1.	U
156-60-5	trans-1,2-Dichloroethene	1.	U	1.	U	1.	U	1.	U	1.	U
10061-02-6	trans-1,3-Dichloropropene	1.	U	1.	U	1.	U	1.	U	1.	U

*** Validation Complete ***

SDG A1343

Sample ID	Sample Type
005G04UF08	Groundwater
005G08LF08	Groundwater
007G01LF08	Groundwater
007G01UF08	Groundwater
007G05LF08	Groundwater
007G05UF08	Groundwater
007G06LF08	Groundwater
007G09LF08	Groundwater
007G09UF08	Groundwater
015G02LF08	Groundwater
015G02UF08	Groundwater

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LONG TERM MONITORING
September 2002

A1343 VOA	SAMPLE ID ------->	005-G-04UF-08		005-G-08LF-08		007-G-01LF-08		007-G-01UF-08		007-G-05LF-08		007-G-05UF-08	
	ORIGINAL ID ----->	005G04UF08		005G08LF08		007G01LF08		007G01UF08		007G05LF08		007G05UF08	
	LAB SAMPLE ID --->	A1343-06A		A1343-07A		A1343-05A		A1343-04A		A1343-12A		A1343-11A	
	SAMPLE DATE ----->	09/11/02		09/11/02		09/11/02		09/11/02		09/11/02		09/11/02	
	DATE EXTRACTED -->	09/18/02		09/18/02		09/18/02		09/18/02		09/18/02		09/18/02	
	DATE ANALYZED --->	09/18/02		09/18/02		09/18/02		09/18/02		09/18/02		09/18/02	
	MATRIX ---------->	Water		Water		Water		Water		Water		Water	
	UNITS ---------->	UG/L	A	UG/L	A	UG/L	A	UG/L	A	UG/L	A	UG/L	A
CAS #	Parameter												
71-55-6	1,1,1-Trichloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
79-34-5	1,1,2,2-Tetrachloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
79-00-5	1,1,2-Trichloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-34-3	1,1-Dichloroethane	1.	U	1.	U	4.		15.		1.	U	1.	U
75-35-4	1,1-Dichloroethene	1.	U	1.	U	5.		1.		0.5	J	1.	U
107-06-2	1,2-Dichloroethane	1.	U	1.	U	1.	U	1.	U	0.7	J	1.	U
78-87-5	1,2-Dichloropropane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
78-93-3	2-Butanone (MEK)	10.	U	10.	U	10.	U	10.	U	10.	U	10.	U
591-78-6	2-Hexanone	10.	U	10.	U	10.	U	10.	U	10.	U	10.	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	10.	U	10.	U	10.	U	10.	U	10.	U	10.	U
67-64-1	Acetone	25.	UR	25.	UR	25.	UR	25.	UR	25.	UR	25.	UR
71-43-2	Benzene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-27-4	Bromodichloromethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-25-2	Bromoform	1.		2.		1.	U	0.9	J	1.	J	1.	
74-83-9	Bromomethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-15-0	Carbon disulfide	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
56-23-5	Carbon tetrachloride	7.		2.		1.	U	1.	U	4.	J	1.	U
108-90-7	Chlorobenzene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-00-3	Chloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
67-66-3	Chloroform	1.		0.5	J	1.	U	1.	U	2.	J	1.	U
74-87-3	Chloromethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
124-48-1	Dibromochloromethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
100-41-4	Ethylbenzene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-09-2	Methylene chloride	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
100-42-5	Styrene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
127-18-4	Tetrachloroethene	1.	U	1.	U	1.	U	5.		3.	J	1.	U
108-88-3	Toluene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
79-01-6	Trichloroethene	1.	U	1.	U	2.		3.		47.	DJ	1.	U
75-01-4	Vinyl chloride	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
1330-20-7	Xylene (Total)	2.	U	2.	U	2.	U	2.	U	2.	U	2.	U
156-59-2	cis-1,2-Dichloroethene	1.	U	1.	U	1.		5.		1.	U	1.	U
10061-01-5	cis-1,3-Dichloropropene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
9999900-05-0	m+p Xylene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
95-47-6	o-Xylene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
156-60-5	trans-1,2-Dichloroethene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
10061-02-6	trans-1,3-Dichloropropene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U

*** Validation Complete ***

NSA MID-SOUTH
LONG TERM MONITORING
September 2002

A1343 VOA	SAMPLE ID ------->	007-G-06LF-08		007-G-09LF-08		007-G-09UF-08		015-G-02LF-08		015-G-02UF-08	
	ORIGINAL ID ----->	007G06LF08		007G09LF08		007G09UF08		015G02UF08		015G02LF08	
	LAB SAMPLE ID --->	A1343-10A		A1343-03A		A1343-02A		A1343-09A		A1343-08A	
	SAMPLE DATE ----->	09/11/02		09/11/02		09/11/02		09/11/02		09/11/02	
	DATE EXTRACTED -->	09/18/02		09/18/02		09/18/02		09/18/02		09/18/02	
	DATE ANALYZED --->	09/18/02		09/18/02		09/18/02		09/18/02		09/18/02	
	MATRIX ---------->	Water		Water		Water		Water		Water	
	UNITS ---------->	UG/L	A	UG/L	A	UG/L	A	UG/L	A	UG/L	A
CAS #	Parameter										
71-55-6	1,1,1-Trichloroethane	1.	U	1.	U	1.	U	1.	U	1.	U
79-34-5	1,1,2,2-Tetrachloroethane	1.	U	1.	U	1.	U	1.	U	1.	U
79-00-5	1,1,2-Trichloroethane	1.	U	1.	U	1.	U	1.	U	1.	U
75-34-3	1,1-Dichloroethane	1.	U	1.		1.	U	1.		1.	U
75-35-4	1,1-Dichloroethene	9.		2.		1.	U	0.9	J	1.	U
107-06-2	1,2-Dichloroethane	1.	U	1.	U	1.	U	1.	U	1.	U
78-87-5	1,2-Dichloropropane	1.	U	1.	U	1.	U	1.	U	1.	U
78-93-3	2-Butanone (MEK)	10.	U	10.	U	10.	U	10.	U	10.	U
591-78-6	2-Hexanone	10.	U	10.	U	10.	U	10.	U	10.	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	10.	U	10.	U	10.	U	10.	U	10.	U
67-64-1	Acetone	25.	UR	25.	UR	25.	UR	25.	UR	25.	UR
71-43-2	Benzene	1.	U	1.	U	1.	U	1.	U	2.	
75-27-4	Bromodichloromethane	1.	U	1.	U	1.	U	1.	U	1.	U
75-25-2	Bromoform	2.		3.		1.		6.		1.	U
74-83-9	Bromomethane	1.	U	1.	U	1.	U	1.	U	1.	U
75-15-0	Carbon disulfide	1.	U	1.	U	1.	U	1.	U	1.	U
56-23-5	Carbon tetrachloride	1.	U	1.	U	1.	U	1.	U	1.	U
108-90-7	Chlorobenzene	1.	U	1.	U	1.	U	1.	U	1.	U
75-00-3	Chloroethane	1.	U	1.	U	1.	U	1.	U	1.	U
67-66-3	Chloroform	1.	U	1.	U	3.		1.	U	1.	U
74-87-3	Chloromethane	1.	U	1.	U	1.	U	1.	U	1.	U
124-48-1	Dibromochloromethane	1.	U	1.	U	1.	U	2.		1.	U
100-41-4	Ethylbenzene	1.	U	1.	U	1.	U	1.	U	44.	D
75-09-2	Methylene chloride	5.	U	5.	U	5.	U	5.	U	5.	U
100-42-5	Styrene	1.	U	1.	U	1.	U	1.	U	1.	U
127-18-4	Tetrachloroethene	15.		19.		1.	U	1.	U	1.	U
108-88-3	Toluene	1.	U	1.	U	1.	U	1.	U	1.	U
79-01-6	Trichloroethene	2.		6.		1.	U	0.6	J	1.	U
75-01-4	Vinyl chloride	1.	U	0.9	J	1.	U	1.	U	1.	U
1330-20-7	Xylene (Total)	2.	U	2.	U	2.	U	2.	U	2.	
156-59-2	cis-1,2-Dichloroethene	1.	U	18.		1.	U	1.	U	1.	U
10061-01-5	cis-1,3-Dichloropropene	1.	U	1.	U	1.	U	1.	U	1.	U
9999900-05-0	m+p Xylene	1.	U	1.	U	1.	U	1.	U	2.	
95-47-6	o-Xylene	1.	U	1.	U	1.	U	1.	U	1.	U
156-60-5	trans-1,2-Dichloroethene	1.	U	1.	U	1.	U	1.	U	1.	U
10061-02-6	trans-1,3-Dichloropropene	1.	U	1.	U	1.	U	1.	U	1.	U

*** Validation Complete ***

SDG A1346

Sample ID	Sample Type
007G04LF15	Groundwater
007G04UF08	Groundwater
007H04UF08	Field Dup of 007G04UF08
007G07LF08	Groundwater
007G12LF08	Groundwater
007G23LF08	Groundwater
007H23LF08	Field Dup of 007G23LF08
007G25MF08	Groundwater
007G33LF08	Groundwater
007G36LF08	Groundwater
007G38LF08	Groundwater
007G44LF08	Groundwater
007G49LF08	Groundwater
018G01LF08	Groundwater
021G01LF08	Groundwater
021G02LF08	Groundwater
021G03LF08	Groundwater
021G04UF08	Groundwater
021H04UF08	Field Dup of 021G04UF08
0BGG05LF08	Groundwater
0BGG05UF08	Groundwater
0BGG10UF08	Groundwater

NSA MID-SOUTH
LONG TERM MONITORING
September 2002

A1346 VOA	SAMPLE ID ------->	007-G-04LF-15		007-G-04UF-08		007-H-04UF-08		007-G-07LF-08		007-G-12LF-08		007-G-23LF-08	
	ORIGINAL ID ----->	007G04LF15		007G04UF08		007H04UF08		007G07LF08		007G12LF08		007G23LF08	
	LAB SAMPLE ID --->	A1346-06B		A1346-08B		A1346-09A		A1346-17A		A1346-21A		A1346-22A	
	SAMPLE DATE ----->	09/12/02		09/12/02		09/12/02		09/13/02		09/13/02		09/13/02	
	DATE EXTRACTED -->	09/20/02		09/20/02		09/20/02		09/20/02		09/20/02		09/20/02	
	DATE ANALYZED --->	09/20/02		09/20/02		09/20/02		09/20/02		09/20/02		09/20/02	
	MATRIX ---------->	Water		Water		Water		Water		Water		Water	
	UNITS ---------->	UG/L	A	UG/L	A	UG/L	A	UG/L	A	UG/L	A	UG/L	A
CAS #	Parameter												
71-55-6	1,1,1-Trichloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
79-34-5	1,1,2,2-Tetrachloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
79-00-5	1,1,2-Trichloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-34-3	1,1-Dichloroethane	0.9	J	1.	U	1.	U	0.6	J	1.	U	1.	U
75-35-4	1,1-Dichloroethene	23.		1.	U	1.	U	1.	U	1.	U	1.	U
107-06-2	1,2-Dichloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
78-87-5	1,2-Dichloropropane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
78-93-3	2-Butanone (MEK)	10.	U	10.	U	10.	U	10.	U	10.	U	10.	U
591-78-6	2-Hexanone	10.	U	10.	U	10.	U	10.	U	10.	U	10.	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	10.	U	10.	U	10.	U	10.	U	10.	U	10.	U
67-64-1	Acetone	25.	UR	25.	UR	25.	UR	25.	UR	25.	UR	25.	UR
71-43-2	Benzene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-27-4	Bromodichloromethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-25-2	Bromoform	1.	U	0.3	J	0.5	J	1.		1.	U	0.9	J
74-83-9	Bromomethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-15-0	Carbon disulfide	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
56-23-5	Carbon tetrachloride	3.		1.	U	1.	U	0.3	J	0.5	J	38.	
108-90-7	Chlorobenzene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-00-3	Chloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
67-66-3	Chloroform	2.		1.	U	1.	U	0.6	J	0.3	J	5.	
74-87-3	Chloromethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
124-48-1	Dibromochloromethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
100-41-4	Ethylbenzene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-09-2	Methylene chloride	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
100-42-5	Styrene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
127-18-4	Tetrachloroethene	24.		1.	U	1.	U	18.		1.	U	4.	
108-88-3	Toluene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
79-01-6	Trichloroethene	960.	D	0.5	J	0.5	J	5.		1.	U	22.	
75-01-4	Vinyl chloride	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
1330-20-7	Xylene (Total)	2.	U	2.	U	2.	U	2.	U	2.	U	2.	U
156-59-2	cis-1,2-Dichloroethene	250.	D	1.	U	1.	U	0.8	J	1.	U	0.4	J
10061-01-5	cis-1,3-Dichloropropene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
9999900-05-0	m+p Xylene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
95-47-6	o-Xylene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
156-60-5	trans-1,2-Dichloroethene	0.3	J	1.	U	1.	U	1.	U	1.	U	1.	U
10061-02-6	trans-1,3-Dichloropropene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U

*** Validation Complete ***

NSA MID-SOUTH
LONG TERM MONITORING
September 2002

A1346 VOA	SAMPLE ID ------->	007-H-23LF-08		007-G-25MF-08		007-G-33LF-08		007-G-36LF-08		007-G-38LF-08		007-G-44LF-08	
	ORIGINAL ID ----->	007H23LF08		007G25MF08		007G33LF08		007G36LF08		007G38LF08		007G44LF08	
	LAB SAMPLE ID --->	A1346-24A		A1346-03B		A1346-23A		A1346-05B		A1346-04B		A1346-18A	
	SAMPLE DATE ----->	09/13/02		09/12/02		09/13/02		09/12/02		09/12/02		09/13/02	
	DATE EXTRACTED -->	09/20/02		09/20/02		09/20/02		09/20/02		09/20/02		09/20/02	
	DATE ANALYZED --->	09/20/02		09/20/02		09/20/02		09/20/02		09/20/02		09/20/02	
	MATRIX ---------->	Water		Water		Water		Water		Water		Water	
	UNITS ---------->	UG/L	A	UG/L	A	UG/L	A	UG/L	A	UG/L	A	UG/L	A
CAS #	Parameter												
71-55-6	1,1,1-Trichloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
79-34-5	1,1,2,2-Tetrachloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
79-00-5	1,1,2-Trichloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-34-3	1,1-Dichloroethane	1.	U	0.8	J	1.	U	0.2	J	0.6	J	1.	U
75-35-4	1,1-Dichloroethene	1.	U	6.		1.	U	1.	U	1.	U	1.	U
107-06-2	1,2-Dichloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
78-87-5	1,2-Dichloropropane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
78-93-3	2-Butanone (MEK)	10.	U	10.	U	10.	U	10.	U	10.	U	10.	U
591-78-6	2-Hexanone	10.	U	10.	U	10.	U	10.	U	10.	U	10.	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	10.	U	10.	U	10.	U	10.	U	10.	U	10.	U
67-64-1	Acetone	25.	UR	25.	UR	25.	UR	25.	UR	25.	UR	25.	UR
71-43-2	Benzene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-27-4	Bromodichloromethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-25-2	Bromoform	1.		2.		1.	U	1.	U	1.	U	1.	U
74-83-9	Bromomethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-15-0	Carbon disulfide	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
56-23-5	Carbon tetrachloride	39.		2.		1.	U	0.4	J	5.		1.	U
108-90-7	Chlorobenzene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-00-3	Chloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
67-66-3	Chloroform	5.		2.		0.2	J	0.2	J	3.		1.	U
74-87-3	Chloromethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
124-48-1	Dibromochloromethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
100-41-4	Ethylbenzene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-09-2	Methylene chloride	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
100-42-5	Styrene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
127-18-4	Tetrachloroethene	4.		0.3	J	1.	U	0.5	J	0.7	J	1.	U
108-88-3	Toluene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
79-01-6	Trichloroethene	22.		16.		1.		2.		6.		1.	U
75-01-4	Vinyl chloride	1.	U	0.4	J	1.	U	1.	U	1.	U	1.	U
1330-20-7	Xylene (Total)	2.	U	2.	U	2.	U	2.	U	2.	U	2.	U
156-59-2	cis-1,2-Dichloroethene	0.4	J	0.4	J	1.	U	0.8	J	1.		1.	U
10061-01-5	cis-1,3-Dichloropropene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
9999900-05-0	m+p Xylene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
95-47-6	o-Xylene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
156-60-5	trans-1,2-Dichloroethene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
10061-02-6	trans-1,3-Dichloropropene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U

*** Validation Complete ***

NSA MID-SOUTH
LONG TERM MONITORING
September 2002

A1346 VOA	SAMPLE ID ------->	007-G-49LF-08		018-G-01LF-08		021-G-01LF-08		021-G-02LF-08		021-G-03LF-08		021-G-04UF-08	
	ORIGINAL ID ----->	007G49LF08		018G01LF08		021G01LF08		021G02LF08		021G03LF08		021G04UF08	
	LAB SAMPLE ID --->	A1346-07B		A1346-02B		A1346-11A		A1346-12A		A1346-13A		A1346-14A	
	SAMPLE DATE ----->	09/12/02		09/12/02		09/13/02		09/13/02		09/13/02		09/13/02	
	DATE EXTRACTED -->	09/20/02		09/20/02		09/20/02		09/20/02		09/20/02		09/20/02	
	DATE ANALYZED --->	09/20/02		09/20/02		09/20/02		09/20/02		09/20/02		09/20/02	
	MATRIX ---------->	Water		Water		Water		Water		Water		Water	
	UNITS ---------->	UG/L	A	UG/L	A	UG/L	A	UG/L	A	UG/L	A	UG/L	A
CAS #	Parameter												
71-55-6	1,1,1-Trichloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
79-34-5	1,1,2,2-Tetrachloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
79-00-5	1,1,2-Trichloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-34-3	1,1-Dichloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-35-4	1,1-Dichloroethene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
107-06-2	1,2-Dichloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
78-87-5	1,2-Dichloropropane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
78-93-3	2-Butanone (MEK)	10.	U	10.	U	10.	U	10.	U	10.	U	10.	U
591-78-6	2-Hexanone	10.	U	10.	U	10.	U	10.	U	10.	U	10.	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	10.	U	10.	U	10.	U	10.	U	10.	U	10.	U
67-64-1	Acetone	25.	UR	25.	UR	25.	UR	25.	UR	25.	UR	25.	UR
71-43-2	Benzene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-27-4	Bromodichloromethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-25-2	Bromoform	0.7	J	1.		2.		2.		0.3	J	0.8	J
74-83-9	Bromomethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-15-0	Carbon disulfide	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
56-23-5	Carbon tetrachloride	0.3	J	0.3	J	1.	U	1.	U	1.	U	22.	
108-90-7	Chlorobenzene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-00-3	Chloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
67-66-3	Chloroform	1.	U	6.		1.	U	1.	U	1.	U	1.	U
74-87-3	Chloromethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
124-48-1	Dibromochloromethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
100-41-4	Ethylbenzene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-09-2	Methylene chloride	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
100-42-5	Styrene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
127-18-4	Tetrachloroethene	1.	U	150.	D	1.	U	1.	U	1.	U	1.	U
108-88-3	Toluene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
79-01-6	Trichloroethene	0.8	J	4.		1.	U	1.	U	1.	U	1.	U
75-01-4	Vinyl chloride	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
1330-20-7	Xylene (Total)	2.	U	2.	U	2.	U	2.	U	2.	U	2.	U
156-59-2	cis-1,2-Dichloroethene	1.	U	0.9	J	1.	U	1.	U	1.	U	1.	U
10061-01-5	cis-1,3-Dichloropropene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
9999900-05-0	m+p Xylene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
95-47-6	o-Xylene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
156-60-5	trans-1,2-Dichloroethene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
10061-02-6	trans-1,3-Dichloropropene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U

*** Validation Complete ***

NSA MID-SOUTH
LONG TERM MONITORING
September 2002

A1346 VOA	SAMPLE ID ------->	021-H-04UF-08		OBG-G-05LF-08		OBG-G-05UF-08		OBG-G-10UF-08			
	ORIGINAL ID ----->	021H04UF08		OBGG05LF08		OBGG05UF08		OBGG10UF08			
	LAB SAMPLE ID --->	A1346-16A		A1346-20A		A1346-19A		A1346-15A			
	SAMPLE DATE ----->	09/13/02		09/13/02		09/13/02		09/13/02			
	DATE EXTRACTED -->	09/20/02		09/20/02		09/20/02		09/20/02			
	DATE ANALYZED --->	09/20/02		09/20/02		09/20/02		09/20/02			
	MATRIX ---------->	Water		Water		Water		Water			
	UNITS ---------->	UG/L	A	UG/L	A	UG/L	A	UG/L	A		
CAS #	Parameter										
71-55-6	1,1,1-Trichloroethane	1.	U	1.	U	1.	U	1.	U		
79-34-5	1,1,2,2-Tetrachloroethane	1.	U	1.	U	1.	U	1.	U		
79-00-5	1,1,2-Trichloroethane	1.	U	1.	U	1.	U	1.	U		
75-34-3	1,1-Dichloroethane	1.	U	1.	U	1.	U	1.	U		
75-35-4	1,1-Dichloroethene	1.	U	1.	U	1.	U	1.	U		
107-06-2	1,2-Dichloroethane	1.	U	1.	U	1.	U	1.	U		
78-87-5	1,2-Dichloropropane	1.	U	1.	U	1.	U	1.	U		
78-93-3	2-Butanone (MEK)	10.	U	10.	U	10.	U	10.	U		
591-78-6	2-Hexanone	10.	U	10.	U	10.	U	10.	U		
108-10-1	4-Methyl-2-Pentanone (MIBK)	10.	U	10.	U	10.	U	10.	U		
67-64-1	Acetone	25.	UR	25.	UR	25.	UR	25.	UR		
71-43-2	Benzene	1.	U	1.	U	1.	U	1.	U		
75-27-4	Bromodichloromethane	1.	U	1.	U	1.	U	1.	U		
75-25-2	Bromoform	1.		1.		2.		2.			
74-83-9	Bromomethane	1.	U	1.	U	1.	U	1.	U		
75-15-0	Carbon disulfide	1.	U	1.	U	1.	U	1.	U		
56-23-5	Carbon tetrachloride	22.		0.3	J	0.2	J	1.	U		
108-90-7	Chlorobenzene	1.	U	1.	U	1.	U	1.	U		
75-00-3	Chloroethane	1.	U	1.	U	1.	U	1.	U		
67-66-3	Chloroform	1.	U	1.	U	1.	U	1.	U		
74-87-3	Chloromethane	1.	U	1.	U	1.	U	1.	U		
124-48-1	Dibromochloromethane	1.	U	1.	U	1.	U	1.	U		
100-41-4	Ethylbenzene	1.	U	1.	U	1.	U	1.	U		
75-09-2	Methylene chloride	5.	U	5.	U	5.	U	5.	U		
100-42-5	Styrene	1.	U	1.	U	1.	U	1.	U		
127-18-4	Tetrachloroethene	1.	U	56.	D	38.		1.	U		
108-88-3	Toluene	1.	U	1.	U	1.	U	1.	U		
79-01-6	Trichloroethene	1.	U	0.2	J	1.	U	1.	U		
75-01-4	Vinyl chloride	1.	U	1.	U	1.	U	1.	U		
1330-20-7	Xylene (Total)	2.	U	2.	U	2.	U	2.	U		
156-59-2	cis-1,2-Dichloroethene	1.	U	1.	U	1.	U	1.	U		
10061-01-5	cis-1,3-Dichloropropene	1.	U	1.	U	1.	U	1.	U		
9999900-05-0	m+p Xylene	1.	U	1.	U	1.	U	1.	U		
95-47-6	o-Xylene	1.	U	1.	U	1.	U	1.	U		
156-60-5	trans-1,2-Dichloroethene	1.	U	1.	U	1.	U	1.	U		
10061-02-6	trans-1,3-Dichloropropene	1.	U	1.	U	1.	U	1.	U		

*** Validation Complete ***

SDG A1357

Sample ID	Sample Type
007G03LF15	Groundwater
007G03UF08	Groundwater
007G11LF08	Groundwater
007G14LF08	Groundwater
007G15LF08	Groundwater
007G15UF08	Groundwater
007G20LF08	Groundwater
007G21LF15	Groundwater
007G22LF08	Groundwater
007H22LF08	Field Dup of 007G22LF08
007G24MF08	Groundwater
007G26MF08	Groundwater
007G59LFAF	Groundwater
007G59LFBF	Groundwater
007G60LF15	Groundwater
007G63LFAF	Groundwater
007G63LFBF	Groundwater
015G03LF08	Groundwater
015G03UF08	Groundwater
060G02LF08	Groundwater
060G04LF08	Groundwater
060H04LF08	Field Dup of 060G04LF08
N12G01LF08	Groundwater
N12G02LF08	Groundwater

NSA MID-SOUTH
LONG TERM MONITORING
September 2002

A1357 VOA	SAMPLE ID ------->	007-G-03LF-15		007-G-03UF-08		007-G-11LF-08		007-G-14LF-08		007-G-15LF-08		007-G-15UF-08	
	ORIGINAL ID ----->	007G03LF15		007G03UF08		007G11LF08		007G14LF08		007G15LF08		007G15UF08	
	LAB SAMPLE ID --->	A1357-02A		A1357-01A		A1357-11A		A1357-18A		A1357-17A		A1357-16A	
	SAMPLE DATE ----->	09/16/02		09/16/02		09/16/02		09/17/02		09/17/02		09/17/02	
	DATE EXTRACTED -->	09/20/02		09/20/02		09/28/02		09/24/02		09/28/02		09/24/02	
	DATE ANALYZED --->	09/20/02		09/20/02		09/28/02		09/24/02		09/28/02		09/24/02	
	MATRIX ---------->	Water		Water		Water		Water		Water		Water	
	UNITS ---------->	UG/L	A	UG/L	A	UG/L	A	UG/L	A	UG/L	A	UG/L	A
CAS #	Parameter												
71-55-6	1,1,1-Trichloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
79-34-5	1,1,2,2-Tetrachloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
79-00-5	1,1,2-Trichloroethane	0.5	J	1.	U	1.	U	1.	U	1.	U	1.	U
75-34-3	1,1-Dichloroethane	1.	U	1.	U	1.	U	1.	U	1.		82.	D
75-35-4	1,1-Dichloroethene	1.	U	1.	U	1.	U	1.	U	3.		460.	D
107-06-2	1,2-Dichloroethane	60.	D	1.	U	1.	U	1.	U	1.	U	0.9	J
78-87-5	1,2-Dichloropropane	1.	U	1.	U	0.5	U	1.	U	0.5	U	0.5	U
78-93-3	2-Butanone (MEK)	10.	U	10.	U	10.	U	10.	U	10.	U	10.	U
591-78-6	2-Hexanone	10.	U	10.	U	10.	U	10.	U	10.	U	10.	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	10.	U	10.	U	10.	U	10.	U	10.	U	10.	U
67-64-1	Acetone	25.	UR	25.	UR	25.	UR	25.	UR	25.	UR	25.	UR
71-43-2	Benzene	0.2	J	1.	U	1.	U	1.	U	1.	U	5.	
75-27-4	Bromodichloromethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-25-2	Bromoform	2.		4.		2.		1.	U	1.	U	2.	U
74-83-9	Bromomethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-15-0	Carbon disulfide	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
56-23-5	Carbon tetrachloride	42.	D	1.	U	11.		1.	U	28.		10.	
108-90-7	Chlorobenzene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-00-3	Chloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
67-66-3	Chloroform	32.		1.	U	8.		1.	U	7.		20.	
74-87-3	Chloromethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
124-48-1	Dibromochloromethane	1.	U	1.		1.	U	1.	U	1.	U	1.	
100-41-4	Ethylbenzene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-09-2	Methylene chloride	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
100-42-5	Styrene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
127-18-4	Tetrachloroethene	170.	D	0.3	J	10.		1.	U	1.	U	1.	
108-88-3	Toluene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
79-01-6	Trichloroethene	240.	D	1.	U	24.		1.	U	4.		630.	D
75-01-4	Vinyl chloride	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
1330-20-7	Xylene (Total)	2.	U	2.	U	2.	U	2.	U	2.	U	2.	U
156-59-2	cis-1,2-Dichloroethene	8.		1.	U	0.7	J	1.	U	0.5	J	18.	
10061-01-5	cis-1,3-Dichloropropene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
9999900-05-0	m+p Xylene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
95-47-6	o-Xylene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
156-60-5	trans-1,2-Dichloroethene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
10061-02-6	trans-1,3-Dichloropropene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U

*** Validation Complete ***

NSA MID-SOUTH
LONG TERM MONITORING
September 2002

A1357 VOA	SAMPLE ID ------->	007-G-20LF-08		007-G-21LF-15		007-G-22LF-08		007-H-22LF-08		007-G-24MF-08		007-G-26MF-08	
	ORIGINAL ID ----->	007G20LF08		007G21LF15		007G22LF08		007H22LF08		007G24MF08		007G26MF08	
	LAB SAMPLE ID --->	A1357-08A		A1357-07A		A1357-09A		A1357-10A		A1357-19A		A1357-20A	
	SAMPLE DATE ----->	09/16/02		09/16/02		09/16/02		09/16/02		09/17/02		09/17/02	
	DATE EXTRACTED -->	09/24/02		09/24/02		09/24/02		09/24/02		09/24/02		09/24/02	
	DATE ANALYZED --->	09/24/02		09/24/02		09/24/02		09/24/02		09/24/02		09/24/02	
	MATRIX ---------->	Water		Water		Water		Water		Water		Water	
	UNITS ---------->	UG/L	A	UG/L	A	UG/L	A	UG/L	A	UG/L	A	UG/L	A
CAS #	Parameter												
71-55-6	1,1,1-Trichloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
79-34-5	1,1,2,2-Tetrachloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
79-00-5	1,1,2-Trichloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-34-3	1,1-Dichloroethane	1.	U	0.5	J	1.	U	1.	U	1.	U	1.	U
75-35-4	1,1-Dichloroethene	1.	U	0.5	J	1.	U	1.	U	1.	U	1.	U
107-06-2	1,2-Dichloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
78-87-5	1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	1.	U
78-93-3	2-Butanone (MEK)	10.	U	10.	U	10.	U	10.	U	10.	U	10.	U
591-78-6	2-Hexanone	10.	U	10.	U	10.	U	10.	U	10.	U	10.	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	10.	U	10.	U	10.	U	10.	U	10.	U	10.	U
67-64-1	Acetone	25.	UR	25.	UR	25.	UR	25.	UR	25.	UR	25.	UR
71-43-2	Benzene	1.	U	1.	U	2.		2.		1.	U	1.	U
75-27-4	Bromodichloromethane	1.	U	0.2	J	1.	U	1.	U	1.	U	1.	U
75-25-2	Bromoform	1.	U	5.		1.	U	0.7	J	4.	U	1.	U
74-83-9	Bromomethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-15-0	Carbon disulfide	1.	U	1.	U	2.		1.		1.	U	1.	U
56-23-5	Carbon tetrachloride	1.	U	0.6	J	2.		2.		1.	U	1.	U
108-90-7	Chlorobenzene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-00-3	Chloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
67-66-3	Chloroform	1.	U	0.5	J	2.		2.		1.	U	1.	U
74-87-3	Chloromethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
124-48-1	Dibromochloromethane	1.	U	2.		1.	U	1.	U	3.		1.	U
100-41-4	Ethylbenzene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-09-2	Methylene chloride	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
100-42-5	Styrene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
127-18-4	Tetrachloroethene	1.	U	18.		75.	D	84.	J	1.	U	1.	U
108-88-3	Toluene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
79-01-6	Trichloroethene	1.	U	180.	D	170.	D	190.	J	1.	U	1.	U
75-01-4	Vinyl chloride	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
1330-20-7	Xylene (Total)	2.	U	2.	U	2.	U	2.	U	2.	U	2.	U
156-59-2	cis-1,2-Dichloroethene	1.	U	0.6	J	4.		4.		1.	U	1.	U
0061-01-5	cis-1,3-Dichloropropene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
9900-05-0	m+p Xylene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
95-47-6	o-Xylene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
156-60-5	trans-1,2-Dichloroethene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
0061-02-6	trans-1,3-Dichloropropene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U

*** Validation Complete ***

NSA MID-SOUTH
LONG TERM MONITORING
September 2002

A1357 VOA	SAMPLE ID ------->	007-G-59LF-AF		007-G-59LF-BF		007-G-60LF-15		007-G-63LF-AF		007-G-63LF-BF		015-G-03LF-08	
	ORIGINAL ID ----->	007G59LFAF		007G59LFBF		007G60LF15		007G63LFAF		007G63LFBF		015G03LF08	
	LAB SAMPLE ID --->	A1357-05A		A1357-04A		A1357-15A		A1357-12A		A1357-13A		A1357-22A	
	SAMPLE DATE ----->	09/16/02		09/16/02		09/17/02		09/16/02		09/16/02		09/17/02	
	DATE EXTRACTED -->	09/20/02		09/20/02		09/24/02		09/24/02		09/24/02		09/25/02	
	DATE ANALYZED --->	09/20/02		09/20/02		09/24/02		09/24/02		09/24/02		09/25/02	
	MATRIX ---------->	Water		Water		Water		Water		Water		Water	
	UNITS ---------->	UG/L	A	UG/L	A	UG/L	A	UG/L	A	UG/L	A	UG/L	A
CAS #	Parameter												
71-55-6	1,1,1-Trichloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
79-34-5	1,1,2,2-Tetrachloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
79-00-5	1,1,2-Trichloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-34-3	1,1-Dichloroethane	2.		2.		1.		2.		1.		1.	U
75-35-4	1,1-Dichloroethene	41.	J	34.		0.6	J	1.		1.	U	1.	U
107-06-2	1,2-Dichloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
78-87-5	1,2-Dichloropropane	1.	U	1.	U	0.5	U	0.5	U	0.5	U	0.5	U
78-93-3	2-Butanone (MEK)	10.	U	10.	U	10.	U	10.	U	10.	U	10.	U
591-78-6	2-Hexanone	10.	U	10.	U	10.	U	10.	U	10.	U	10.	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	10.	U	10.	U	10.	U	10.	U	10.	U	10.	U
67-64-1	Acetone	25.	UR	25.	UR	25.	UR	25.	UR	25.	UR	25.	UR
71-43-2	Benzene	0.2	J	0.2	J	1.	U	0.2	J	1.	U	1.	U
75-27-4	Bromodichloromethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-25-2	Bromoform	0.2	J	0.2	J	1.	U	1.	U	1.	U	2.	U
74-83-9	Bromomethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-15-0	Carbon disulfide	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
56-23-5	Carbon tetrachloride	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
108-90-7	Chlorobenzene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-00-3	Chloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
67-66-3	Chloroform	0.6	J	1.	U	1.	U	1.	U	1.	U	1.	U
74-87-3	Chloromethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
124-48-1	Dibromochloromethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	
100-41-4	Ethylbenzene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-09-2	Methylene chloride	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
100-42-5	Styrene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
127-18-4	Tetrachloroethene	0.8	J	0.4	J	0.2	J	0.2	J	1.	U	1.	U
108-88-3	Toluene	1.	U	1.	U	0.2	J	1.	U	1.	U	1.	U
79-01-6	Trichloroethene	23.		12.		0.3	J	0.8	J	0.4	J	1.	U
75-01-4	Vinyl chloride	110.	D	200.	D	150.	D	260.	D	230.	D	1.	U
1330-20-7	Xylene (Total)	2.	U	2.	U	2.	U	2.	U	2.	U	2.	U
156-59-2	cis-1,2-Dichloroethene	890.	D	810.	D	19.		40.	D	14.		1.	U
10061-01-5	cis-1,3-Dichloropropene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
9999900-05-0	m+p Xylene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
95-47-6	o-Xylene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
156-60-5	trans-1,2-Dichloroethene	3.		2.		1.	U	0.2	J	1.	U	1.	U
10061-02-6	trans-1,3-Dichloropropene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U

*** Validation Complete ***

NSA MID-SOUTH
LONG TERM MONITORING
September 2002

A1357 VOA	SAMPLE ID ------->	015-G-03UF-08		060-G-02LF-08		060-G-04LF-08		060-H-04LF-08		N12-G-01LF-08		N12-G-02LF-08	
	ORIGINAL ID ----->	015G03UF08		060G02LF08		060G04LF08		060H04LF08		N12G01LF08		N12G02LF08	
	LAB SAMPLE ID --->	A1357-21A		A1357-25A		A1357-26A		A1357-27A		A1357-23A		A1357-24A	
	SAMPLE DATE ----->	09/17/02		09/17/02		09/17/02		09/17/02		09/17/02		09/17/02	
	DATE EXTRACTED -->	09/25/02		09/25/02		09/25/02		09/25/02		09/25/02		09/25/02	
	DATE ANALYZED --->	09/25/02		09/25/02		09/25/02		09/25/02		09/25/02		09/25/02	
	MATRIX ---------->	Water		Water		Water		Water		Water		Water	
	UNITS ---------->	UG/L	A	UG/L	A	UG/L	A	UG/L	A	UG/L	A	UG/L	A
CAS #	Parameter												
71-55-6	1,1,1-Trichloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
79-34-5	1,1,2,2-Tetrachloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
79-00-5	1,1,2-Trichloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-34-3	1,1-Dichloroethane	1.	U	1.	U	1.	U	1.	U	2.		1.	
75-35-4	1,1-Dichloroethene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
107-06-2	1,2-Dichloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
78-87-5	1,2-Dichloropropane	1.	U	0.5	U	1.	U	1.	U	1.	U	1.	U
78-93-3	2-Butanone (MEK)	10.	U	10.	U	10.	U	10.	U	10.	U	10.	U
591-78-6	2-Hexanone	10.	U	10.	U	10.	U	10.	U	10.	U	10.	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	10.	U	10.	U	10.	U	10.	U	10.	U	10.	U
67-64-1	Acetone	25.	UR	25.	UR	25.	UR	25.	UR	25.	UR	25.	UR
71-43-2	Benzene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-27-4	Bromodichloromethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-25-2	Bromoform	1.	U	1.	U	2.	U	2.	U	0.5	J	2.	U
74-83-9	Bromomethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-15-0	Carbon disulfide	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
56-23-5	Carbon tetrachloride	1.	U	1.	U	1.	U	1.	U	2.		1.	
108-90-7	Chlorobenzene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-00-3	Chloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
67-66-3	Chloroform	1.	U	1.	U	1.	U	1.	U	2.		0.5	J
74-87-3	Chloromethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
124-48-1	Dibromochloromethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
100-41-4	Ethylbenzene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-09-2	Methylene chloride	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
100-42-5	Styrene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
127-18-4	Tetrachloroethene	1.	U	1.	U	1.	U	1.	U	10.		6.	
108-88-3	Toluene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
79-01-6	Trichloroethene	1.	U	1.	U	1.	U	1.	U	10.		10.	
75-01-4	Vinyl chloride	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
1330-20-7	Xylene (Total)	2.	U	2.	U	2.	U	2.	U	2.	U	2.	U
156-59-2	cis-1,2-Dichloroethene	1.	U	1.	U	1.	U	1.	U	1.		12.	
10061-01-5	cis-1,3-Dichloropropene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
9999900-05-0	m+p Xylene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
95-47-6	o-Xylene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
156-60-5	trans-1,2-Dichloroethene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
10061-02-6	trans-1,3-Dichloropropene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U

*** Validation Complete ***

SDG A1368

Sample ID	Sample Type
003G04LF08	Groundwater
007G10LF08	Groundwater
007H10LF08	Field Dup of 007G10LF08
007G27LF08	Groundwater
007G31LF08	Groundwater
007G32LF08	Groundwater
007G45LF08	Groundwater
007G48LF08	Groundwater
007G54LF08	Groundwater
007G56LF08	Groundwater
007G58LFAF	Groundwater
007G58LFBF	Groundwater
007G61LF15	Groundwater
007G62LFAF	Groundwater
007G62LFBF	Groundwater
007GMCNA08	Groundwater
007GPZ0308	Groundwater
007GWLMS08	Groundwater
015G01LF08	Groundwater
015G01UF08	Groundwater
015G04LF08	Groundwater
015G04UF08	Groundwater
RDYG0V8108	Groundwater

NSA MID-SOUTH
LONG TERM MONITORING
September 2002

A1368 VOA	SAMPLE ID ------->	003-G-04LF-08		007-G-10LF-08		007-H-10LF-08		007-G-27LF-08		007-G-31LF-08		007-G-32LF-08	
	ORIGINAL ID ----->	003G04LF08		007G10LF08		007H10LF08		007G27LF08		007G31LF08		007G32LF08	
	LAB SAMPLE ID --->	A1368-19A		A1368-03A		A1368-05A		A1368-07A		A1368-04A		A1368-02A	
	SAMPLE DATE ----->	09/19/02		09/18/02		09/18/02		09/18/02		09/18/02		09/18/02	
	DATE EXTRACTED -->	09/28/02		09/27/02		09/28/02		09/27/02		09/27/02		09/27/02	
	DATE ANALYZED --->	09/28/02		09/27/02		09/28/02		09/27/02		09/27/02		09/27/02	
	MATRIX ---------->	Water		Water		Water		Water		Water		Water	
	UNITS ---------->	UG/L	A	UG/L	A	UG/L	A	UG/L	A	UG/L	A	UG/L	A
CAS #	Parameter												
71-55-6	1,1,1-Trichloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
79-34-5	1,1,2,2-Tetrachloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
79-00-5	1,1,2-Trichloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-34-3	1,1-Dichloroethane	1.	U	1.	U	1.	U	0.2	J	0.8	J	1.	U
75-35-4	1,1-Dichloroethene	1.	U	1.	U	1.	U	1.	U	1.		1.	U
107-06-2	1,2-Dichloroethane	1.	U	1.	U	1.	U	0.5	J	1.	U	1.	U
78-87-5	1,2-Dichloropropane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
78-93-3	2-Butanone (MEK)	10.	U	10.	U	10.	U	10.	U	10.	U	10.	U
591-78-6	2-Hexanone	10.	U	10.	U	10.	U	10.	U	10.	U	10.	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	10.	U	10.	U	10.	U	10.	U	10.	U	10.	U
67-64-1	Acetone	25.	UR	25.	UR	25.	UR	25.	UR	25.	UR	25.	UR
71-43-2	Benzene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-27-4	Bromodichloromethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-25-2	Bromoform	0.3	J	0.5	J	1.		0.9	J	1.	U	1.	U
74-83-9	Bromomethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-15-0	Carbon disulfide	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
56-23-5	Carbon tetrachloride	1.	U	14.		15.		1.	U	0.6	J	1.	U
108-90-7	Chlorobenzene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-00-3	Chloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
67-66-3	Chloroform	1.	U	6.		6.		1.	U	0.5	J	1.	U
74-87-3	Chloromethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
124-48-1	Dibromochloromethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
100-41-4	Ethylbenzene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-09-2	Methylene chloride	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
100-42-5	Styrene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
127-18-4	Tetrachloroethene	1.	U	17.		19.		0.2	J	8.		1.	
108-88-3	Toluene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
79-01-6	Trichloroethene	1.	U	31.		35.		2.		91.	D	7.	
75-01-4	Vinyl chloride	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
1330-20-7	Xylene (Total)	2.	U	2.	U	2.	U	2.	U	2.	U	2.	U
156-59-2	cis-1,2-Dichloroethene	1.	U	0.3	J	0.4	J	0.7	J	1.	U	1.	U
10061-01-5	cis-1,3-Dichloropropene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
9999900-05-0	m+p Xylene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
95-47-6	o-Xylene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
156-60-5	trans-1,2-Dichloroethene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
10061-02-6	trans-1,3-Dichloropropene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U

*** Validation Complete ***

NSA MID-SOUTH
LONG TERM MONITORING
September 2002

A1368 VOA	SAMPLE ID ------->	007-G-45LF-08		007-G-48LF-08		007-G-54LF-08		007-G-56LF-08		007-G-58LF-AF		007-G-58LF-BF	
	ORIGINAL ID ----->	007G45LF08		007G48LF08		007G54LF08		007G56LF08		007G58LFAF		007G58LFBF	
	LAB SAMPLE ID --->	A1368-23A		A1368-22A		A1368-06A		A1368-24A		A1368-13A		A1368-14A	
	SAMPLE DATE ----->	09/19/02		09/19/02		09/18/02		09/19/02		09/19/02		09/19/02	
	DATE EXTRACTED -->	09/28/02		09/28/02		09/27/02		09/28/02		09/28/02		09/28/02	
	DATE ANALYZED --->	09/28/02		09/28/02		09/27/02		09/28/02		09/28/02		09/28/02	
	MATRIX ---------->	Water		Water		Water		Water		Water		Water	
	UNITS ---------->	UG/L	A	UG/L	A	UG/L	A	UG/L	A	UG/L	A	UG/L	A
CAS #	Parameter												
71-55-6	1,1,1-Trichloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
79-34-5	1,1,2,2-Tetrachloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
79-00-5	1,1,2-Trichloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-34-3	1,1-Dichloroethane	0.4	J	1.	U	0.9	J	1.	U	0.9	J	1.	
75-35-4	1,1-Dichloroethene	1.	U	1.	U	1.	U	1.	U	15.		10.	
107-06-2	1,2-Dichloroethane	1.	U	1.	U	1.		1.	U	1.	U	1.	U
78-87-5	1,2-Dichloropropane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
78-93-3	2-Butanone (MEK)	10.	U	10.	U	10.	U	10.	U	10.	U	10.	U
591-78-6	2-Hexanone	10.	U	10.	U	10.	U	10.	U	10.	U	10.	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	10.	U	10.	U	10.	U	10.	U	10.	U	10.	U
67-64-1	Acetone	25.	UR	25.	UR	25.	UR	25.	UR	25.	UR	25.	UR
71-43-2	Benzene	1.	U	1.	U	1.	U	1.	U	0.2	J	1.	U
75-27-4	Bromodichloromethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-25-2	Bromoform	0.3	J	1.		0.7	J	1.	U	1.	U	1.	U
74-83-9	Bromomethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-15-0	Carbon disulfide	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
56-23-5	Carbon tetrachloride	2.		1.	U	1.		1.	U	1.	U	1.	U
108-90-7	Chlorobenzene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-00-3	Chloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
67-66-3	Chloroform	1.		1.	U	2.		1.	U	0.3	J	1.	U
74-87-3	Chloromethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
124-48-1	Dibromochloromethane	1.	U	0.7	J	1.	U	1.	U	1.	U	1.	U
100-41-4	Ethylbenzene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-09-2	Methylene chloride	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
100-42-5	Styrene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
127-18-4	Tetrachloroethene	0.4	J	1.	U	3.		1.	U	0.8	J	0.2	J
108-88-3	Toluene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
79-01-6	Trichloroethene	4.		1.	U	9.		1.	U	30.		9.	
75-01-4	Vinyl chloride	1.	U	1.	U	1.	U	1.	U	210.	D	380.	D
1330-20-7	Xylene (Total)	2.	U	2.	U	2.	U	2.	U	2.	U	2.	U
156-59-2	cis-1,2-Dichloroethene	0.9	J	1.	U	4.		1.	U	560.	D	320.	D
10061-01-5	cis-1,3-Dichloropropene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
99900-05-0	m+p Xylene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
95-47-6	o-Xylene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
156-60-5	trans-1,2-Dichloroethene	1.	U	1.	U	1.	U	1.	U	1.		0.4	J
10061-02-6	trans-1,3-Dichloropropene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U

*** Validation Complete ***

NSA MID-SOUTH
LONG TERM MONITORING
September 2002

A1368 VOA	SAMPLE ID ------->	007-G-61LF-15		007-G-62LF-AF		007-G-62LF-BF		007-G-MCNA-08		007-G-PZ03-08		007-G-WLMS-08	
	ORIGINAL ID ----->	007G61LF15		007G62LFAF		007G62LFBF		007GMCNA08		007GPZ0308		007GWLMS08	
	LAB SAMPLE ID --->	A1368-15A		A1368-10A		A1368-11A		A1368-21A		A1368-25A		A1368-20A	
	SAMPLE DATE ----->	09/19/02		09/18/02		09/18/02		09/19/02		09/19/02		09/19/02	
	DATE EXTRACTED -->	09/28/02		09/27/02		09/28/02		09/28/02		09/28/02		09/28/02	
	DATE ANALYZED --->	09/28/02		09/27/02		09/28/02		09/28/02		09/28/02		09/28/02	
	MATRIX ---------->	Water		Water		Water		Water		Water		Water	
	UNITS ---------->	UG/L	A	UG/L	A	UG/L	A	UG/L	A	UG/L	A	UG/L	A
CAS #	Parameter												
71-55-6	1,1,1-Trichloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
79-34-5	1,1,2,2-Tetrachloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
79-00-5	1,1,2-Trichloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-34-3	1,1-Dichloroethane	0.5	J	1.		1.		1.	U	0.7	J	1.	U
75-35-4	1,1-Dichloroethene	1.	U	0.6	J	2.		1.	U	1.	U	1.	U
107-06-2	1,2-Dichloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
78-87-5	1,2-Dichloropropane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
78-93-3	2-Butanone (MEK)	10.	U	10.	U	10.	U	10.	U	10.	U	10.	U
591-78-6	2-Hexanone	10.	U	10.	U	10.	U	10.	U	10.	U	10.	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	10.	U	10.	U	10.	U	10.	U	10.	U	10.	U
67-64-1	Acetone	25.	UR	25.	UR	25.	UR	25.	UR	25.	UR	25.	UR
71-43-2	Benzene	0.2	J	1.	U	0.5	J	1.	U	1.	U	1.	U
75-27-4	Bromodichloromethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-25-2	Bromoform	1.	U	1.	U	0.4	J	0.4	J	0.2	J	2.	
74-83-9	Bromomethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-15-0	Carbon disulfide	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
56-23-5	Carbon tetrachloride	1.	U	1.	U	1.	U	1.	U	4.		1.	U
108-90-7	Chlorobenzene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-00-3	Chloroethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
67-66-3	Chloroform	1.	U	1.	U	1.	U	1.	U	1.		1.	U
74-87-3	Chloromethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
124-48-1	Dibromochloromethane	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
100-41-4	Ethylbenzene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
75-09-2	Methylene chloride	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
100-42-5	Styrene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
127-18-4	Tetrachloroethene	1.	U	0.6	J	1.		1.	U	4.		1.	U
108-88-3	Toluene	0.4	J	1.	U	1.	U	1.	U	1.	U	1.	U
79-01-6	Trichloroethene	1.	U	3.		18.		1.	U	3.		1.	U
75-01-4	Vinyl chloride	140.	D	250.	D	250.	D	9.		1.	U	1.	U
1330-20-7	Xylene (Total)	2.	U	2.	U	2.	U	2.	U	2.	U	2.	U
156-59-2	cis-1,2-Dichloroethene	0.3	J	15.		70.	D	1.	U	2.		1.	U
10061-01-5	cis-1,3-Dichloropropene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
9999900-05-0	m+p Xylene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
95-47-6	o-Xylene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
156-60-5	trans-1,2-Dichloroethene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U
10061-02-6	trans-1,3-Dichloropropene	1.	U	1.	U	1.	U	1.	U	1.	U	1.	U

*** Validation Complete ***

NSA MID-SOUTH
LONG TERM MONITORING
September 2002

A1368 VOA	SAMPLE ID ------->	015-G-01LF-08		015-G-01UF-08		015-G-04LF-08		015-G-04UF-08		RDY-G-0V81-08	
	ORIGINAL ID ----->	015G01LF08		015G01UF08		015G04LF08		015G04UF08		RDYG0V8108	
	LAB SAMPLE ID --->	A1368-08A		A1368-09A		A1368-16A		A1368-17A		A1368-18A	
	SAMPLE DATE ----->	09/18/02		09/18/02		09/19/02		09/19/02		09/19/02	
	DATE EXTRACTED -->	09/27/02		09/28/02		09/28/02		09/28/02		09/28/02	
	DATE ANALYZED --->	09/27/02		09/28/02		09/28/02		09/28/02		09/28/02	
	MATRIX ---------->	Water		Water		Water		Water		Water	
	UNITS ---------->	UG/L	A	UG/L	A	UG/L	A	UG/L	A	UG/L	A
CAS #	Parameter										
71-55-6	1,1,1-Trichloroethane	1.	U	1.	U	1.	U	1.	U	1.	U
79-34-5	1,1,2,2-Tetrachloroethane	1.	U	1.	U	1.	U	1.	U	1.	U
79-00-5	1,1,2-Trichloroethane	1.	U	1.	U	1.	U	1.	U	1.	U
75-34-3	1,1-Dichloroethane	2.	J	1.	U	1.		1.	U	1.	U
75-35-4	1,1-Dichloroethene	2.	J	1.	U	1.	U	1.	U	1.	U
107-06-2	1,2-Dichloroethane	1.	U	1.	U	1.	U	1.	U	0.3	J
78-87-5	1,2-Dichloropropane	1.	U	1.	U	1.	U	1.	U	1.	U
78-93-3	2-Butanone (MEK)	10.	U	10.	U	10.	U	10.	U	10.	U
591-78-6	2-Hexanone	10.	U	10.	U	10.	U	10.	U	10.	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	10.	U	10.	U	10.	U	10.	U	10.	U
67-64-1	Acetone	25.	UR	25.	UR	25.	UR	25.	UR	25.	UR
71-43-2	Benzene	1.	U	2100.	D	1.	U	1.	U	1.	U
75-27-4	Bromodichloromethane	1.	U	1.	U	1.	U	1.	U	1.	U
75-25-2	Bromoform	0.8	J	2.		2.		2.		2.	
74-83-9	Bromomethane	1.	U	1.	U	1.	U	1.	U	1.	U
75-15-0	Carbon disulfide	1.	U	1.	U	1.	U	1.	U	1.	U
56-23-5	Carbon tetrachloride	2.	J	1.	U	1.	U	1.	U	1.	U
108-90-7	Chlorobenzene	1.	U	1.	U	1.	U	1.	U	1.	U
75-00-3	Chloroethane	1.	U	1.	U	1.	U	1.	U	1.	U
67-66-3	Chloroform	0.9	J	1.	U	1.	U	1.	U	1.	U
74-87-3	Chloromethane	1.	U	1.	U	1.	U	1.	U	1.	U
124-48-1	Dibromochloromethane	1.	U	2.		1.	U	1.	U	1.	U
100-41-4	Ethylbenzene	1.	U	46.	D	1.	U	1.	U	1.	U
75-09-2	Methylene chloride	5.	U	5.	U	5.	U	5.	U	5.	U
100-42-5	Styrene	1.	U	1.	U	1.	U	1.	U	1.	U
127-18-4	Tetrachloroethene	9.	J	1.	U	1.	U	1.	U	5.	
108-88-3	Toluene	1.	U	2.		1.	U	1.	U	1.	U
79-01-6	Trichloroethene	10.	J	1.	U	1.		1.	U	0.3	J
75-01-4	Vinyl chloride	1.	U	1.	U	1.	U	1.	U	1.	U
1330-20-7	Xylene (Total)	2.	U	6.		2.	U	2.	U	2.	U
156-59-2	cis-1,2-Dichloroethene	1.	J	1.	U	0.5	J	1.	U	1.	U
10061-01-5	cis-1,3-Dichloropropene	1.	U	1.	U	1.	U	1.	U	1.	U
9999900-05-0	m+p Xylene	1.	U	6.		1.	U	1.	U	1.	U
95-47-6	o-Xylene	1.	U	1.	U	1.	U	1.	U	1.	U
156-60-5	trans-1,2-Dichloroethene	1.	U	1.	U	1.	U	1.	U	1.	U
10061-02-6	trans-1,3-Dichloropropene	1.	U	1.	U	1.	U	1.	U	1.	U

*** Validation Complete ***

SDG A1391

Sample ID	Sample Type
007G16LF08	Groundwater
007G42LF08	Groundwater

NSA MID-SOUTH
LONG TERM MONITORING
September 2002

A1391 VOA													
		SAMPLE ID ------->	007-G-16LF-08			007-G-42LF-08							
		ORIGINAL ID ----->	007G16LF08			007G42LF08							
		LAB SAMPLE ID --->	A1391-02A			A1391-03A							
		SAMPLE DATE ----->	09/23/02			09/23/02							
		DATE EXTRACTED -->	09/30/02			09/30/02							
		DATE ANALYZED --->	09/30/02			09/30/02							
		MATRIX ---------->	Water			Water							
		UNITS ---------->	UG/L		A	UG/L		A					
CAS #	Parameter												
71-55-6	1,1,1-Trichloroethane		1.	U		1.	U						
79-34-5	1,1,2,2-Tetrachloroethane		1.	U		1.	U						
79-00-5	1,1,2-Trichloroethane		1.	U		1.	U						
75-34-3	1,1-Dichloroethane		1.	U		0.4	J						
75-35-4	1,1-Dichloroethene		1.	U		1.	U						
107-06-2	1,2-Dichloroethane		1.	U		1.	U						
78-87-5	1,2-Dichloropropane		1.	U		1.	U						
78-93-3	2-Butanone (MEK)		10.	U		10.	U						
591-78-6	2-Hexanone		10.	U		10.	U						
108-10-1	4-Methyl-2-Pentanone (MIBK)		10.	U		10.	U						
67-64-1	Acetone		25.	UR		25.	UR						
71-43-2	Benzene		1.	U		1.	U						
75-27-4	Bromodichloromethane		0.3	J		1.	U						
75-25-2	Bromoform		2.			0.9	J						
74-83-9	Bromomethane		1.	U		1.	U						
75-15-0	Carbon disulfide		1.	U		1.	U						
56-23-5	Carbon tetrachloride		1.	U		0.2	J						
108-90-7	Chlorobenzene		1.	U		1.	U						
75-00-3	Chloroethane		1.	U		1.	U						
67-66-3	Chloroform		1.	U		0.2	J						
74-87-3	Chloromethane		1.	U		1.	U						
124-48-1	Dibromochloromethane		3.			1.							
100-41-4	Ethylbenzene		1.	U		1.	U						
75-09-2	Methylene chloride		0.5	J		5.	U						
100-42-5	Styrene		1.	U		1.	U						
127-18-4	Tetrachloroethene		1.	U		1.	U						
108-88-3	Toluene		1.	U		1.	U						
79-01-6	Trichloroethene		1.	U		1.							
75-01-4	Vinyl chloride		1.	U		1.	U						
1330-20-7	Xylene (Total)		2.	U		2.	U						
156-59-2	cis-1,2-Dichloroethene		1.	U		0.3	J						
10061-01-5	cis-1,3-Dichloropropene		1.	U		1.	U						
9999900-05-0	m+p Xylene		1.	U		1.	U						
95-47-6	o-Xylene		1.	U		1.	U						
156-60-5	trans-1,2-Dichloroethene		1.	U		1.	U						
10061-02-6	trans-1,3-Dichloropropene		1.	U		1.	U						

*** Validation Complete ***

SDG A1428

Sample ID	Sample Type
PESGMW4D01	Groundwater
PESGMW4S01	Groundwater
PESGMW7D01	Groundwater
PESGMW7S01	Groundwater
PESGMW8D01	Groundwater
PESGMW8S01	Groundwater

NSA MID-SOUTH
LONG TERM MONITORING
September 2002

A1428 VOA	SAMPLE ID ------->	PES-G-MW4D-01		PES-G-MW4S-01		PES-G-MW7D-01		PES-G-MW7S-01		PES-G-MW8D-01		PES-G-MW8S-01	
	ORIGINAL ID ----->	PESMW4D		PESMW4S		PESMW7D		PESMW7S		PESMW8D		PESMW8S	
	LAB SAMPLE ID --->	A1428-01A		A1428-02A		A1428-04A		A1428-03A		A1428-05A		A1428-06A	
	SAMPLE DATE ----->	09/26/02		09/27/02		09/27/02		09/27/02		09/27/02		09/27/02	
	DATE EXTRACTED -->	10/03/02		10/03/02		10/03/02		10/04/02		10/03/02		10/04/02	
	DATE ANALYZED --->	10/03/02		10/03/02		10/03/02		10/04/02		10/03/02		10/04/02	
	MATRIX ---------->	Water		Water		Water		Water		Water		Water	
	UNITS ---------->	UG/L	A	UG/L	A	UG/L	A	UG/L	A	UG/L	A	UG/L	A
CAS #	Parameter												
71-55-6	1,1,1-Trichloroethane	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
75-34-3	1,1-Dichloroethane	4.	J	31.		11.		99.		6.		25.	
75-35-4	1,1-Dichloroethene	22.		140.		60.		120.		34.		49.	
87-61-6	1,2,3-Trichlorobenzene	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
96-18-4	1,2,3-Trichloropropane	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
120-82-1	1,2,4-Trichlorobenzene	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
107-06-2	1,2-Dichloroethane	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
78-87-5	1,2-Dichloropropane	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
78-93-3	2-Butanone (MEK)	5.	U	56.		5.	U	5.	U	5.	U	5.	U
591-78-6	2-Hexanone	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
67-64-1	Acetone	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
71-43-2	Benzene	5.	U	3.	J	2.	J	1.	J	1.	J	0.4	J
74-97-5	Bromochloromethane	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
75-27-4	Bromodichloromethane	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
75-25-2	Bromoform	5.	U	5.	U	2.	J	5.	U	1.	J	5.	U
74-83-9	Bromomethane	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
75-15-0	Carbon disulfide	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
56-23-5	Carbon tetrachloride	5.	U	7.	U	220.	D	0.7	J	110.		22.	
108-90-7	Chlorobenzene	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
75-00-3	Chloroethane	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
67-66-3	Chloroform	2.	J	33.		130.		1.	J	89.		11.	
74-87-3	Chloromethane	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
124-48-1	Dibromochloromethane	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
100-41-4	Ethylbenzene	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
75-09-2	Methylene chloride	5.	U	4.	J	1.	J	5.	U	5.	U	5.	U
100-42-5	Styrene	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
127-18-4	Tetrachloroethene	5.	U	0.7	J	0.6	J	5.	U	5.	U	5.	U
108-88-3	Toluene	1.	J	5.	U	5.	U	5.	U	5.	U	5.	U
79-01-6	Trichloroethene	7.		380.	D	1000.	D	180.		750.	D	170.	
75-01-4	Vinyl chloride	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
1330-20-7	Xylene (Total)	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
156-59-2	cis-1,2-Dichloroethene	31.		14.		8.		15.		4.	J	1.	J
10061-01-5	cis-1,3-Dichloropropene	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
104-51-8	n-Butylbenzene	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U

*** Validation Complete ***

NSA MID-SOUTH
LONG TERM MONITORING
September 2002

A1428 VOA	SAMPLE ID ------->	PES-G-MW4D-01		PES-G-MW4S-01		PES-G-MW7D-01		PES-G-MW7S-01		PES-G-MW8D-01		PES-G-MW8S-01	
	ORIGINAL ID ----->	PESMW4D		PESMW4S		PESMW7D		PESMW7S		PESMW8D		PESMW8S	
	LAB SAMPLE ID --->	A1428-01A		A1428-02A		A1428-04A		A1428-03A		A1428-05A		A1428-06A	
	SAMPLE DATE ----->	09/26/02		09/27/02		09/27/02		09/27/02		09/27/02		09/27/02	
	DATE EXTRACTED -->	10/03/02		10/03/02		10/03/02		10/04/02		10/03/02		10/04/02	
	DATE ANALYZED --->	10/03/02		10/03/02		10/03/02		10/04/02		10/03/02		10/04/02	
	MATRIX ---------->	Water		Water		Water		Water		Water		Water	
	UNITS ---------->	UG/L	A	UG/L	A	UG/L	A	UG/L	A	UG/L	A	UG/L	A
CAS #	Parameter												
135-98-8	sec-Butylbenzene	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
156-60-5	trans-1,2-Dichloroethene	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U

*** Validation Complete ***

SDG A1438

Sample ID	Sample Type
007G15LF09	Groundwater
007G15UF09	Groundwater
PESGMW1D01	Groundwater
PESGMW1S01	Groundwater
PESGMW2D01	Groundwater
PESGMW2S01	Groundwater
PESGMW3D01	Groundwater
PESHMW3D01	Field Dup of PESGMW3D01
PESGMW3S01	Groundwater

NSA MID-SOUTH
LONG TERM MONITORING
September 2002

A1438 VOA	SAMPLE ID ------->	007-G-15LF-09		007-G-15UF-09		PES-G-MW1D-01		PES-G-MW1S-01		PES-G-MW2D-01		PES-G-MW2S-01	
	ORIGINAL ID ----->	007G15LF		007G15UF		PESMW1D		PESMW1S		PESMW2D		PESMW2S	
	LAB SAMPLE ID --->	A1438-10A		A1438-09A		A1438-04A		A1438-05A		A1438-02A		A1438-03A	
	SAMPLE DATE ----->	10/01/02		10/01/02		09/30/02		09/30/02		09/30/02		09/30/02	
	DATE EXTRACTED -->	10/07/02		10/04/02		10/04/02		10/04/02		10/04/02		10/04/02	
	DATE ANALYZED --->	10/07/02		10/04/02		10/04/02		10/04/02		10/04/02		10/04/02	
	MATRIX ---------->	Water		Water		Water		Water		Water		Water	
	UNITS ---------->	UG/L	A	UG/L	A	UG/L	A	UG/L	A	UG/L	A	UG/L	A
CAS #	Parameter												
71-55-6	1,1,1-Trichloroethane	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
75-34-3	1,1-Dichloroethane	5.	U	89.	J	5.	U	21.		4.	J	34.	
75-35-4	1,1-Dichloroethene	5.		380.	D	5.	U	41.		18.		190.	D
87-61-6	1,2,3-Trichlorobenzene	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
96-18-4	1,2,3-Trichloropropane	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
120-82-1	1,2,4-Trichlorobenzene	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
107-06-2	1,2-Dichloroethane	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
78-87-5	1,2-Dichloropropane	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
78-93-3	2-Butanone (MEK)	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
591-78-6	2-Hexanone	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
67-64-1	Acetone	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
71-43-2	Benzene	5.	U	5.	J	5.	U	0.5	J	5.	U	6.	
74-97-5	Bromochloromethane	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
75-27-4	Bromodichloromethane	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
75-25-2	Bromoform	2.	J	5.	U	5.	U	5.	U	5.	U	5.	U
74-83-9	Bromomethane	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
75-15-0	Carbon disulfide	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
56-23-5	Carbon tetrachloride	33.		12.	J	5.	U	5.	U	5.	U	18.	
108-90-7	Chlorobenzene	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
75-00-3	Chloroethane	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
67-66-3	Chloroform	8.		24.	J	5.	U	5.	U	0.4	J	57.	
74-87-3	Chloromethane	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
124-48-1	Dibromochloromethane	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
100-41-4	Ethylbenzene	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
75-09-2	Methylene chloride	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
100-42-5	Styrene	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
127-18-4	Tetrachloroethene	5.	U	0.7	J	5.	U	5.	U	5.	U	0.4	J
108-88-3	Toluene	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
79-01-6	Trichloroethene	7.		530.	D	0.7	J	13.		3.	J	350.	D
75-01-4	Vinyl chloride	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
1330-20-7	Xylene (Total)	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
156-59-2	cis-1,2-Dichloroethene	1.	J	18.	J	5.	U	27.		10.		480.	D
10061-01-5	cis-1,3-Dichloropropene	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
104-51-8	n-Butylbenzene	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U

*** Validation Complete ***

NSA MID-SOUTH
LONG TERM MONITORING
September 2002

A1438 VOA	SAMPLE ID ------->	007-G-15LF-09		007-G-15UF-09		PES-G-MW1D-01		PES-G-MW1S-01		PES-G-MW2D-01		PES-G-MW2S-01	
	ORIGINAL ID ----->	007G15LF		007G15UF		PESMW1D		PESMW1S		PESMW2D		PESMW2S	
	LAB SAMPLE ID --->	A1438-10A		A1438-09A		A1438-04A		A1438-05A		A1438-02A		A1438-03A	
	SAMPLE DATE ----->	10/01/02		10/01/02		09/30/02		09/30/02		09/30/02		09/30/02	
	DATE EXTRACTED -->	10/07/02		10/04/02		10/04/02		10/04/02		10/04/02		10/04/02	
	DATE ANALYZED --->	10/07/02		10/04/02		10/04/02		10/04/02		10/04/02		10/04/02	
	MATRIX ---------->	Water		Water		Water		Water		Water		Water	
	UNITS ---------->	UG/L	A	UG/L	A	UG/L	A	UG/L	A	UG/L	A	UG/L	A
CAS #	Parameter												
135-98-8	sec-Butylbenzene	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U
156-60-5	trans-1,2-Dichloroethene	5.	U	5.	U	5.	U	27.		5.	U	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U	5.	U	5.	U	5.	U	5.	U	5.	U

*** Validation Complete ***

NSA MID-SOUTH
LONG TERM MONITORING
September 2002

A1438 VOA	SAMPLE ID ------->	PES-G-MW3D-01		PES-H-MW3D-01		PES-G-MW3S-01	
	ORIGINAL ID ----->	PESMW3D		PESMW3DH		PESMW3S	
	LAB SAMPLE ID --->	A1438-06A		A1438-07A		A1438-08A	
	SAMPLE DATE ----->	10/01/02		10/01/02		10/01/02	
	DATE EXTRACTED -->	10/04/02		10/04/02		10/04/02	
	DATE ANALYZED --->	10/04/02		10/04/02		10/04/02	
	MATRIX ---------->	Water		Water		Water	
	UNITS ---------->	UG/L	A	UG/L	A	UG/L	A
CAS #	Parameter						
71-55-6	1,1,1-Trichloroethane	5.	U	5.	U	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U	5.	U	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U	5.	U	5.	U
75-34-3	1,1-Dichloroethane	5.	U	5.	U	49.	
75-35-4	1,1-Dichloroethene	5.		5.		170.	D
87-61-6	1,2,3-Trichlorobenzene	5.	U	5.	U	5.	U
96-18-4	1,2,3-Trichloropropane	5.	U	5.	U	5.	U
120-82-1	1,2,4-Trichlorobenzene	5.	U	5.	U	5.	U
107-06-2	1,2-Dichloroethane	5.	U	5.	U	5.	U
78-87-5	1,2-Dichloropropane	5.	U	5.	U	5.	U
78-93-3	2-Butanone (MEK)	74.		72.		5.	U
591-78-6	2-Hexanone	5.	U	5.	U	5.	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.	U	5.	U	5.	U
67-64-1	Acetone	40.		38.		5.	U
71-43-2	Benzene	5.	U	5.	U	3.	J
74-97-5	Bromochloromethane	5.	U	5.	U	5.	U
75-27-4	Bromodichloromethane	5.	U	5.	U	5.	U
75-25-2	Bromoform	5.	U	5.	U	5.	U
74-83-9	Bromomethane	5.	U	5.	U	5.	U
75-15-0	Carbon disulfide	5.	U	5.	U	5.	U
56-23-5	Carbon tetrachloride	5.	U	5.	U	0.7	J
108-90-7	Chlorobenzene	5.	U	5.	U	5.	U
75-00-3	Chloroethane	5.	U	5.	U	5.	U
67-66-3	Chloroform	5.	U	5.	U	2.	J
74-87-3	Chloromethane	5.	U	5.	U	5.	U
124-48-1	Dibromochloromethane	5.	U	5.	U	5.	U
100-41-4	Ethylbenzene	5.	U	5.	U	5.	U
75-09-2	Methylene chloride	5.	U	5.	U	5.	U
100-42-5	Styrene	5.	U	5.	U	5.	U
127-18-4	Tetrachloroethene	5.	U	5.	U	0.6	J
108-88-3	Toluene	5.	U	5.	U	5.	U
79-01-6	Trichloroethene	1.	J	1.	J	320.	D
75-01-4	Vinyl chloride	5.	U	5.	U	5.	U
1330-20-7	Xylene (Total)	5.	U	5.	U	5.	U
156-59-2	cis-1,2-Dichloroethene	26.		25.		13.	
10061-01-5	cis-1,3-Dichloropropene	5.	U	5.	U	5.	U
104-51-8	n-Butylbenzene	5.	U	5.	U	5.	U

*** Validation Complete ***

NSA MID-SOUTH
LONG TERM MONITORING
September 2002

A1438 VOA	SAMPLE ID ------->	PES-G-MW3D-01		PES-H-MW3D-01		PES-G-MW3S-01				
	ORIGINAL ID ----->	PESMW3D		PESMW3DH		PESMW3S				
	LAB SAMPLE ID --->	A1438-06A		A1438-07A		A1438-08A				
	SAMPLE DATE ----->	10/01/02		10/01/02		10/01/02				
	DATE EXTRACTED -->	10/04/02		10/04/02		10/04/02				
	DATE ANALYZED --->	10/04/02		10/04/02		10/04/02				
	MATRIX ---------->	Water		Water		Water				
	UNITS ---------->	UG/L	A	UG/L	A	UG/L	A			
CAS #	Parameter									
135-98-8	sec-Butylbenzene	5.	U	5.	U	5.	U			
156-60-5	trans-1,2-Dichloroethene	5.	U	5.	U	5.	U			
10061-02-6	trans-1,3-Dichloropropene	5.	U	5.	U	5.	U			

*** Validation Complete ***

SDG B0343

Sample ID	Sample Type
007G57LF15	Groundwater

NSA MID-SOUTH
LONG TERM MONITORING
February 2003

VOA							
		SHORT ID -------->					
		SAMPLE ID ------->	007-G-57LF-15				
		ORIGINAL ID ----->	007G57LF15				
		LAB SAMPLE ID --->	B0343-06A				
		ID FROM REPORT -->	007G57LF15				
		SAMPLE DATE ----->	02/28/03				
		DATE EXTRACTED -->	03/04/03				
		DATE ANALYZED --->	03/04/03				
		MATRIX ---------->	Water				
		UNITS ---------->	UG/L				
CAS #	Parameter	B0343	VAL				
630-20-6	1,1,1,2-Tetrachloroethane	NR					
71-55-6	1,1,1-Trichloroethane	10.	U				
79-34-5	1,1,2,2-Tetrachloroethane	10.	U				
79-00-5	1,1,2-Trichloroethane	10.	U				
75-34-3	1,1-Dichloroethane	10.	U				
75-35-4	1,1-Dichloroethene	28.					
563-58-6	1,1-Dichloropropene	NR					
87-61-6	1,2,3-Trichlorobenzene	NR					
96-18-4	1,2,3-Trichloropropane	NR					
120-82-1	1,2,4-Trichlorobenzene	NR					
96-12-8	1,2-Dibromo-3-Chloropropane	NR					
106-93-4	1,2-Dibromoethane	NR					
95-50-1	1,2-Dichlorobenzene	NR					
107-06-2	1,2-Dichloroethane	10.	U				
540-59-0	1,2-Dichloroethene (total)	NR					
78-87-5	1,2-Dichloropropane	10.	U				
108-67-8	Benzene, 1,3,5-trimethyl-	NR					
541-73-1	1,3-Dichlorobenzene	NR					
142-28-9	1,3-Dichloropropane	NR					
542-75-6	1,3-Dichloropropene	NR					
9999900-00-7	1,4-Dichloro-2-butane	NR					
764-41-0	1,4-Dichloro-2-butene	NR					
106-46-7	1,4-Dichlorobenzene	NR					
594-20-7	2,2-Dichloropropane	NR					
78-93-3	2-Butanone (MEK)	100.	U				
110-75-8	2-Chloroethylvinylether	NR					
95-49-8	2-Chlorotoluene	NR					
591-78-6	2-Hexanone	100.	U				
106-43-4	4-Chlorotoluene	NR					
108-10-1	4-Methyl-2-Pentanone (MIBK)	100.	U				
67-64-1	Acetone	250.	U				
75-05-8	Acetonitrile	NR					
107-02-8	Acrolein	NR					
107-13-1	Acrylonitrile	NR					
71-43-2	Benzene	10.	U				

*** Validation Complete ***

NSA MID-SOUTH
LONG TERM MONITORING
February 2003

VOA

SHORT ID -------->	
SAMPLE ID ------->	007-G-57LF-15
ORIGINAL ID ----->	007G57LF15
LAB SAMPLE ID --->	B0343-06A
ID FROM REPORT -->	007G57LF15
SAMPLE DATE ----->	02/28/03
DATE EXTRACTED -->	03/04/03
DATE ANALYZED --->	03/04/03
MATRIX ---------->	Water
UNITS ----------->	UG/L

CAS #	Parameter	B0343	VAL
95-63-6	Benzene, 1,2,4-trimethyl	NR	
108-67-8	Benzene, 1,3,5-trimethyl-	NR	
98-82-8	Isopropylbenzene	NR	
108-86-1	Bromobenzene	NR	
74-97-5	Bromochloromethane	NR	
75-27-4	Bromodichloromethane	10.	U
75-25-2	Bromoform	10.	U
74-83-9	Bromomethane	10.	U
75-15-0	Carbon disulfide	10.	U
56-23-5	Carbon tetrachloride	10.	U
108-90-7	Chlorobenzene	10.	U
75-00-3	Chloroethane	10.	U
67-66-3	Chloroform	10.	U
74-87-3	Chloromethane	10.	U
124-48-1	Dibromochloromethane	10.	U
74-95-3	Dibromomethane	NR	
75-71-8	Dichlorodifluoromethane	NR	
75-43-4	Dichlorofluoromethane	NR	
64-17-5	Ethanol	NR	
141-78-6	Ethyl acetate	NR	
97-63-2	Ethyl methacrylate	NR	
100-41-4	Ethylbenzene	10.	U
87-68-3	Hexachlorobutadiene	NR	
98-82-8	Isopropylbenzene	NR	
74-88-4	Methyl iodide	NR	
1634-04-4	Methyl tert-butyl ether	NR	
75-09-2	Methylene chloride	50.	U
91-20-3	Naphthalene	NR	
100-42-5	Styrene	10.	U
127-18-4	Tetrachloroethene	30.	
108-88-3	Toluene	10.	U
79-01-6	Trichloroethene	1200.	
75-69-4	Trichlorofluoromethane	NR	
108-05-4	Vinyl acetate	NR	
75-01-4	Vinyl chloride	10.	U

*** Validation Complete ***

NSA MID-SOUTH
LONG TERM MONITORING
February 2003

VOA

SHORT ID -------->	
SAMPLE ID ------->	007-G-57LF-15
ORIGINAL ID ----->	007G57LF15
LAB SAMPLE ID --->	B0343-06A
ID FROM REPORT -->	007G57LF15
SAMPLE DATE ----->	02/28/03
DATE EXTRACTED -->	03/04/03
DATE ANALYZED --->	03/04/03
MATRIX ---------->	Water
UNITS ---------->	UG/L

CAS #	Parameter	B0343	VAL
1330-20-7	Xylene (Total)	20.	U
156-59-2	cis-1,2-Dichloroethene	13.	
10061-01-5	cis-1,3-Dichloropropene	10.	U
9999900-05-0	m+p Xylene	10.	U
108-38-3	m-Xylene	NR	
104-51-8	n-Butylbenzene	NR	
103-65-1	n-Propylbenzene	NR	
95-47-6	o-Xylene	10.	U
99-87-6	p-Isopropyltoluene	NR	
106-42-3	p-Xylene	NR	
135-98-8	sec-Butylbenzene	NR	
98-06-6	tert-Butylbenzene	NR	
156-60-5	trans-1,2-Dichloroethene	10.	U
10061-02-6	trans-1,3-Dichloropropene	10.	U
110-57-6	trans-1,4-Dichloro-2-butene	NR	

*** Validation Complete ***

Attachment 4
VOC Summary Table

SEPTEMBER 2002
NSA MID-SOUTH NORTHSIDE
LONG-TERM GROUNDWATER MONITORING RESULTS
VOLATILE ORGANIC COMPOUNDS (ug/L)
(DETECTS ONLY)*

Well ID	Cas No.	Parameter	PRGs (ug/L)	MCLs (ug/L)	MAR_99	JUL_00	AUG_01	SEP_02	Frequency	Range**	Mean of Detections**
003G04LF	67641	Acetone	610			5 U	25 U	25 UR	1 / 8	160 - 160	160.00
	71432	Benzene	0.34	5		5 U	1 U	1 U	1 / 8	1.8 - 1.8	1.80
	75252	Bromoform	8.5	80		5 U	1 U	0.3 J	1 / 8	0.3 - 0.3	0.30
	67663	Chloroform	6.2	80		5 U	1 U	1 U	1 / 8	2 - 2	2.00
	108883	Toluene	720	1000		5 U	0.74 J	1 U	1 / 8	0.74 - 0.74	0.74
005G04UF	67641	Acetone	610			5 U	25 U	25 UR	1 / 10	54 - 54	54.00
	75252	Bromoform	8.5	80		5 U	1 U	1	1 / 10	1 - 1	1.00
	56235	Carbon tetrachloride	0.17	5		**10**	**9.2**	**7**	7 / 10	1 - 10	5.54
	67663	Chloroform	6.2	80		5 U	0.96 J	1	3 / 10	0.87 - 1	0.94
005G08LF	78933	2-Butanone (MEK)	1900			5 U	10 U	10 U	1 / 4	27 - 27	27.00
	71432	Benzene	0.34	5		5 U	0.13 J	1 U	1 / 4	0.13 - 0.13	0.13
	75252	Bromoform	8.5	80		5 U	1 U	2	1 / 4	2 - 2	2.00
	56235	Carbon tetrachloride	0.17	5		5 U	**1.5**	**2**	2 / 4	1.5 - 2	1.75
	67663	Chloroform	6.2	80		5 U	0.45 J	0.5 J	2 / 4	0.45 - 0.5	0.48
007G01LF	75343	1,1-Dichloroethane	810			5 U	1.7	4	8 / 10	1.7 - 5	3.30
	75354	1,1-Dichloroethene	340	7		4 J	2.1	5	9 / 10	2.1 - 9	4.80
	71432	Benzene	0.34	5		5 U	0.18 J	1 U	1 / 10	0.18 - 0.18	0.18
	56235	Carbon tetrachloride	0.17	5		5 U	1 U	1 U	6 / 10	3.4 - 10	6.52
	67663	Chloroform	6.2	80		1 J	1	1 U	7 / 10	1 - 2	1.51
	156592	cis-1,2-Dichloroethene	61	70			0.7 J	1	2 / 2	0.7 - 1	0.85
	75092	Methylene chloride	4.3	5		5 U	0.43 J	5 U	1 / 10	0.43 - 0.43	0.43
	79016	Trichloroethene	0.028	5		**3 J**	**2.6**	**2**	10 / 10	2 - 10	6.16
007G01UF	75343	1,1-Dichloroethane	810			14	14	15	11 / 11	14 - 75	28.55
	75354	1,1-Dichloroethene	340	7		2 J	1.6	1	11 / 11	1 - 9	5.86
	78875	1,2-Dichloropropane	0.16	5		5 U	1 U	1 U	3 / 11	0.93 - 2	1.64
	71432	Benzene	0.34	5		5 U	0.23 J	1 U	1 / 11	0.23 - 0.23	0.23
	75252	Bromoform	8.5	80		5 U	1 U	0.9 J	1 / 11	0.9 - 0.9	0.90
	156592	cis-1,2-Dichloroethene	61	70			3.3	5	2 / 2	3.3 - 5	5.65
	127184	Tetrachloroethene	0.66	5		5 U	**1.3**	**5**	10 / 11	1.3 - 9.1	6.65
	79016	Trichloroethene	0.028	5		**3 J**	**2.8**	**3**	11 / 11	2.8 - 19	8.79
007G03LF	79005	1,1,2-Trichloroethane	0.2	5		3 U	1 U	**0.5 J**	1 / 20	0.5 - 0.5	0.50
	107062	1,2-Dichloroethane	0.12	5		3 U	1 U	**60 D**	5 / 20	0.92 - 60	17.00
	78933	2-Butanone (MEK)	1900			10 U	10 U	10 U	1 / 20	20 - 20	20.00
	67641	Acetone	610			10 U	25 U	25 UR	2 / 20	2 - 78	40.00
	71432	Benzene	0.34	5		3 U	1 U	0.2 J	1 / 20	0.2 - 0.2	0.20
	75252	Bromoform	8.5	80		3 U	1 U	2	1 / 20	2 - 2	2.00
	56235	Carbon tetrachloride	0.17	5		**4**	**9.3**	**42 D**	20 / 20	4 - 42	14.33
	67663	Chloroform	6.2	80		**4**	4.7	**32**	20 / 20	3.7 - 32	7.83
	156592	cis-1,2-Dichloroethene	61	70		3 U	1 U	8	1 / 14	8 - 8	8.00
	127184	Tetrachloroethene	0.66	5		**91**	**44**	**170 D**	20 / 20	1 - 170	66.21
	79016	Trichloroethene	0.028	5		**14**	**29**	**240 D**	20 / 20	12 - 240	57.35
007G03UF	67641	Acetone	610			5 U	25 U	25 UR	2 / 10	12 - 39	25.50
	75252	Bromoform	8.5	80		5 U	1 U	4	1 / 10	4 - 4	4.00
	75150	Carbon disulfide	1000			5 U	1 U	1 U	1 / 10	3 - 3	3.00
	124481	Dibromochloromethane	0.13	80		5 U	1 U	1	1 / 10	1 - 1	1.00
	127184	Tetrachloroethene	0.66	5		5 U	**2.7**	0.3 J	2 / 10	0.3 - 2.7	1.50
	79016	Trichloroethene	0.028	5		5 U	**12**	1 U	1 / 10	12 - 12	12.00
007G04LF	75343	1,1-Dichloroethane	810		1 J	60 U	1 U	0.9 J	8 / 24	0.9 - 1	0.99
	75354	1,1-Dichloroethene	340	7	**45**	**36 J**	**29**	**23**	20 / 24	0.96 - 56	24.81
	67641	Acetone	610		5 UR	200 U	25 U	25 UR	2 / 23	83 - 95	89.00
	71432	Benzene	0.34	5	**3 J**	60 U	1 U	1 U	1 / 24	3 - 3	3.00
	56235	Carbon tetrachloride	0.17	5	**2 J**	60 U	**3.1**	**3**	19 / 24	2 - 32	8.96
	67663	Chloroform	6.2	80	5	60 U	2.4	2	18 / 24	1.8 - 6	3.46
	156592	cis-1,2-Dichloroethene	61	70		60 U	**510 D**	**250 D**	13 / 15	1 - 540	161.00
	75092	Methylene chloride	4.3	5	3 U	60 U	0.49 J	5 U	2 / 24	0.49 - 1	0.75
	127184	Tetrachloroethene	0.66	5	**51**	**35 J**	**12**	**24**	22 / 24	3.6 - 110	30.45
	156605	trans-1,2-Dichloroethene	120	100		60 U	0.76 J	0.3 J	5 / 15	0.3 - 5	2.01

SEPTEMBER 2002
NSA MID-SOUTH NORTHSIDE
LONG-TERM GROUNDWATER MONITORING RESULTS
VOLATILE ORGANIC COMPOUNDS (ug/L)
(DETECTS ONLY)*

Well ID	Cas No.	Parameter	PRGs (ug/L)	MCLs (ug/L)	MAR_99	JUL_00	AUG_01	SEP_02	Frequency	Range**	Mean of Detections**
	79016	Trichloroethene	0.028	5	**4400 D**	**2400**	**720 D**	**960 D**	24 / 24	2 - 4400	1398.13
	75014	Vinyl chloride	0.02	2	3 U	60 U	**10**	1 U	1 / 24	10 - 10	10.00
007G04UF	75343	1,1-Dichloroethane	810		3 U	3 U	1 U	1 U	2 / 23	1 - 1	1.00
	75354	1,1-Dichloroethene	340	7	3 U	3 U	0.96 J	1 U	5 / 23	0.96 - 37	11.39
	67641	Acetone	610		5 UR	10 U	25 U	25 UR	3 / 23	18 - 240	96.00
	71432	Benzene	0.34	5	**1 J**	3 U	1 U	1 U	2 / 23	0.21 - 1	0.61
	75252	Bromoform	8.5	80	3 U	3 U	1 U	0.3 J	1 / 23	0.3 - 0.3	0.30
	56235	Carbon tetrachloride	0.17	5	3 U	3 U	1 U	1 U	2 / 23	2 - 4	3.00
	67663	Chloroform	6.2	80	3 U	3 U	1 U	1 U	3 / 23	1 - 4	2.33
	156592	cis-1,2-Dichloroethene	61	70		3 U	1 U	1 U	8 / 14	2 - 580	77.54
	75092	Methylene chloride	4.3	5	3 U	3 U	5 U	5 U	1 / 23	2 - 2	2.00
	127184	Tetrachloroethene	0.66	5	3 U	3 U	1 U	1 U	4 / 23	2 - 15	7.50
	156605	trans-1,2-Dichloroethene	120	100		3 U	1 U	1 U	1 / 14	1 - 1	1.00
	79016	Trichloroethene	0.028	5	3 U	**15**	**2.5**	**0.5 J**	17 / 23	0.5 - 800	142.75
007G05LF	75343	1,1-Dichloroethane	810			5 U	0.39 J	1 U	1 / 10	0.39 - 0.39	0.39
	75354	1,1-Dichloroethene	340	7		5 U	1 U	0.5 J	1 / 10	0.5 - 0.5	0.50
	107062	1,2-Dichloroethane	0.12	5		5 U	**1.4**	**0.7 J**	8 / 10	0.7 - 4	2.50
	67641	Acetone	610			5 U	25 U	25 UR	1 / 10	11 - 11	11.00
	75252	Bromoform	8.5	80		5 U	1 U	1 J	1 / 10	1 - 1	1.00
	56235	Carbon tetrachloride	0.17	5		**4 J**	**4.9**	**4 J**	10 / 10	4 - 11	6.16
	67663	Chloroform	6.2	80		2 J	2.5	2 J	9 / 10	2 - 5	3.22
	127184	Tetrachloroethene	0.66	5		**1 J**	**2**	**3 J**	8 / 10	1 - 3	1.48
	79016	Trichloroethene	0.028	5		**32**	**37**	**47 DJ**	10 / 10	22 - 47	31.20
007G05UF	78933	2-Butanone (MEK)	1900			5 U	10 U	10 U	1 / 10	1 - 1	1.00
	67641	Acetone	610			5 U	25 U	25 UR	1 / 10	98 - 98	98.00
	75252	Bromoform	8.5	80		5 U	1 U	1	1 / 10	1 - 1	1.00
007G06LF	75354	1,1-Dichloroethene	340	7		1 J	0.44 J	**9**	3 / 9	0.44 - 9	3.48
	67641	Acetone	610			5 U	25 U	25 UR	3 / 9	5 - 46	18.67
	71432	Benzene	0.34	5		5 U	0.17 J	1 U	1 / 9	0.17 - 0.17	0.17
	75252	Bromoform	8.5	80		5 U	1 U	2	1 / 9	2 - 2	2.00
	127184	Tetrachloroethene	0.66	5		**7**	**5.8**	**15**	9 / 9	1 - 15	4.90
	79016	Trichloroethene	0.028	5		**2 J**	**1.2**	**2**	9 / 9	1.2 - 2.4	1.97
007G07LF	75343	1,1-Dichloroethane	810			5 U	1.6 J	0.6 J	4 / 9	0.6 - 2	1.30
	75354	1,1-Dichloroethene	340	7		3 J	2.5	1 U	6 / 9	1 - 3	2.13
	67641	Acetone	610			5 U	25 U	25 UR	1 / 9	33 - 33	33.00
	75274	Bromodichloromethane	0.18	80		5 U	**1.4**	1 U	1 / 9	1.4 - 1.4	1.40
	75252	Bromoform	8.5	80		5 U	1 U	1	1 / 9	1 - 1	1.00
	75150	Carbon disulfide	1000			5 U	1 U	1 U	1 / 9	1 - 1	1.00
	56235	Carbon tetrachloride	0.17	5		5 U	**1 J**	**0.3 J**	5 / 9	0.3 - 1.2	0.90
	67663	Chloroform	6.2	80		5 U	0.88 J	0.6 J	2 / 9	0.6 - 0.88	0.74
	156592	cis-1,2-Dichloroethene	61	70			0.86 J	0.8 J	2 / 2	0.8 - 0.86	0.83
	127184	Tetrachloroethene	0.66	5		**16**	**14 J**	**18**	9 / 9	3 - 18	11.00
	79016	Trichloroethene	0.028	5		**14**	**8.9**	**5**	9 / 9	5 - 14	7.59
007G09LF	75343	1,1-Dichloroethane	810			5 U	1 U	1	2 / 9	1 - 2	1.50
	75354	1,1-Dichloroethene	340	7		1 J	2.1	2	4 / 9	1 - 2.1	1.53
	107062	1,2-Dichloroethane	0.12	5		5 U	1 U	1 U	1 / 9	2 - 2	2.00
	108101	4-Methyl-2-Pentanone (MIB	160			5 U	10 U	10 U	1 / 9	120 - 120	120.00
	71432	Benzene	0.34	5		5 U	1 U	1 U	1 / 9	2 - 2	2.00
	75252	Bromoform	8.5	80		5 U	1 U	3	1 / 9	3 - 3	3.00
	67663	Chloroform	6.2	80		5 U	0.42 J	1 U	3 / 9	0.42 - 2	1.14
	156592	cis-1,2-Dichloroethene	61	70			6.9	18	2 / 2	6.9 - 18	12.45
	75092	Methylene chloride	4.3	5		**5**	5 U	5 U	1 / 9	5 - 5	5.00
	127184	Tetrachloroethene	0.66	5		**2 J**	**9.7**	**19**	8 / 9	2 - 40	14.71
	79016	Trichloroethene	0.028	5		**1 J**	**4.1**	**6**	7 / 9	1 - 8.5	4.51
	75014	Vinyl chloride	0.02	2		5 U	**0.57 J**	**0.9 J**	2 / 9	0.57 - 0.9	0.74
	1330207	Xylene (Total)	210	10000		5 U	2 U	2 U	1 / 9	3 - 3	3.00
007G09UF	75343	1,1-Dichloroethane	810			5 U	0.5 J	1 U	2 / 9	0.5 - 1	0.75

SEPTEMBER 2002
NSA MID-SOUTH NORTHSIDE
LONG-TERM GROUNDWATER MONITORING RESULTS
VOLATILE ORGANIC COMPOUNDS (ug/L)
(DETECTS ONLY)*

Well ID	Cas No.	Parameter	PRGs (ug/L)	MCLs (ug/L)	MAR_99	JUL_00	AUG_01	SEP_02	Frequency	Range**	Mean of Detections**
	67641	Acetone	610			5 U	25 U	25 UR	2 / 9	26 - 47	36.50
	75252	Bromoform	8.5	80		5 U	1 U	1	1 / 9	1 - 1	1.00
	74839	Bromomethane	8.7			5 UR	1 U	1 U	1 / 9	1 - 1	1.00
	67663	Chloroform	6.2	80		5 U	1.8	3	2 / 9	1.8 - 3	2.40
	156592	cis-1,2-Dichloroethene	61	70			0.66 J	1 U	1 / 2	0.66 - 0.66	0.66
	75092	Methylene chloride	4.3	5		1 J	5 U	5 U	1 / 9	1 - 1	1.00
007G10LF	108101	4-Methyl-2-Pentanone (MIB	160			5 U	10 U	10 U	1 / 8	2 - 2	2.00
	75252	Bromoform	8.5	80		5 U	1 U	0.5 J	1 / 9	0.5 - 0.5	0.50
	56235	Carbon tetrachloride	0.17	5		5 U	**17**	**14**	8 / 9	7.2 - 17	12.00
	67663	Chloroform	6.2	80		4 J	5.2	6	9 / 9	4 - 9	6.07
	156592	cis-1,2-Dichloroethene	61	5			1 U	0.3 J	1 / 3	0.3 - 0.3	0.30
	127184	Tetrachloroethene	0.66	5		**5 J**	**11 J**	**17**	9 / 9	5 - 21	11.11
	79016	Trichloroethene	0.028	5		**7**	**21**	**31**	9 / 9	7 - 45	20.11
007G11LF	71432	Benzene	0.34	5	3 U	5 U	0.15 J	1 U	1 / 10	0.15 - 0.15	0.15
	75252	Bromoform	8.5	80	3 U	5 U	1 U	2	1 / 10	2 - 2	2.00
	56235	Carbon tetrachloride	0.17	5	**12**	5 U	**6.1**	**11**	8 / 10	4 - 12	6.94
	67663	Chloroform	6.2	80	**12**	6	5.9	**8**	10 / 10	5.9 - 12	8.73
	156592	cis-1,2-Dichloroethene	61	70			1.1	0.7 J	2 / 3	0.7 - 1.1	0.90
	127184	Tetrachloroethene	0.66	5	3 U	**36 J**	**31**	**10**	9 / 10	4 - 150	52.44
	79016	Trichloroethene	0.028	5	3 U	**100**	**87**	**24**	9 / 10	11 - 340	119.11
007G12LF	56235	Carbon tetrachloride	0.17	5		5 U	1 U	**0.5 J**	1 / 9	0.5 - 0.5	0.50
	67663	Chloroform	6.2	80		5 U	1 U	0.3 J	1 / 9	0.3 - 0.3	0.30
007G14LF	71432	Benzene	0.34	5		5 U	0.15 J	1 U	1 / 7	0.15 - 0.15	0.15
	100414	Ethylbenzene	2.9	700		5 U	0.25 J	1 U	1 / 7	0.25 - 0.25	0.25
	156605	trans-1,2-Dichloroethene	120	100			0.32 J	1 U	1 / 2	0.32 - 0.32	0.32
	79016	Trichloroethene	0.028	5		5 U	**0.28 J**	1 U	1 / 7	0.28 - 0.28	0.28
	1330207	Xylene (Total)	210	10000		5 U	0.61 J	2 U	1 / 7	0.61 - 0.61	0.61
007G15LF	75343	1,1-Dichloroethane	810			5 U	1.2	1	3 / 9	1 - 2	1.40
	75354	1,1-Dichloroethene	340	7		7	3.1	3	7 / 9	3 - 7	4.90
	75252	Bromoform	8.5	80		5 U	1 U	1 U	1 / 9	2 - 2	2.00
	56235	Carbon tetrachloride	0.17	5		**24 J**	**22**	**28**	8 / 9	2.8 - 27	22.85
	67663	Chloroform	6.2	80		**7**	5.1	**7**	9 / 9	2.7 - 10	6.42
	156592	cis-1,2-Dichloroethene	61	70			1 U	0.5 J	2 / 3	0.5 - 1	0.75
	127184	Tetrachloroethene	0.66	5		5 U	1 U	1 U	1 / 9	1.1 - 1.1	1.10
	79016	Trichloroethene	0.028	5		**11**	**3.2**	**4**	8 / 9	3.2 - 13	8.59
007G15UF	75343	1,1-Dichloroethane	810			51	70	82 D	9 / 9	43 - 70	62.78
	75354	1,1-Dichloroethene	340	7		**310 D**	**430**	**460 D**	8 / 9	280 - 430	356.25
	107062	1,2-Dichloroethane	0.12	5		5 U	4 U	**0.9 J**	1 / 9	0.9 - 0.9	0.90
	67641	Acetone	610			5 U	100 U	25 UR	1 / 9	93 - 93	93.00
	71432	Benzene	0.34	5		**3 J**	**4.4**	**5**	9 / 9	3 - 7	5.13
	56235	Carbon tetrachloride	0.17	5		**4 J**	**8.9**	**10**	9 / 9	4 - 20	11.33
	67663	Chloroform	6.2	80		**10**	**22**	**20**	9 / 9	10 - 70	33.33
	156592	cis-1,2-Dichloroethene	61	70			15	18	3 / 3	15 - 18	17.00
	124481	Dibromochloromethane	0.13	80		5 U	4 U	**1**	1 / 9	1 - 1	1.00
	75092	Methylene chloride	4.3	5		5 U	1.4 J	5 U	1 / 9	1.4 - 1.4	1.40
	127184	Tetrachloroethene	0.66	5		5 U	4 U	**1**	4 / 9	0.58 - 1	0.77
	79016	Trichloroethene	0.028	5		**400 D**	**580**	**630 D**	9 / 9	400 - 840	615.56
007G16LF	75274	Bromodichloromethane	0.18	80		5 U	1 U	**0.3 J**	1 / 7	0.3 - 0.3	0.30
	75252	Bromoform	8.5	80		5 U	1 U	2	1 / 7	2 - 2	2.00
	56235	Carbon tetrachloride	0.17	5		**16**	**17**	1 U	6 / 7	16 - 37	25.00
	67663	Chloroform	6.2	80		4 J	3.4	1 U	6 / 7	3.4 - 8	5.13
	124481	Dibromochloromethane	0.13	80		5 U	1 U	**3**	1 / 7	3 - 3	3.00
	75092	Methylene chloride	4.3	5		5 U	5 U	0.5 J	1 / 7	0.5 - 0.5	0.50
	79016	Trichloroethene	0.028	5		**19**	**10**	1 U	6 / 7	7 - 19	12.00
007G17LF	67641	Acetone	610			5 U	25 U	25 UR	1 / 7	7 - 7	7.00
00[illegible]3LF	75343	1,1-Dichloroethane	810		3 U	5 U	1 U	1 U	1 / 8	2.2 - 2.2	2.20
	75354	1,1-Dichloroethene	340	7	3 U	5 U	0.88 J	1 U	2 / 8	0.88 - 5.3	3.09

SEPTEMBER 2002
NSA MID-SOUTH NORTHSIDE
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VOLATILE ORGANIC COMPOUNDS (ug/L)
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Well ID	Cas No.	Parameter	PRGs (ug/L)	MCLs (ug/L)	MAR_99	JUL_00	AUG_01	SEP_02	Frequency	Range**	Mean of Detections**
	107062	1,2-Dichloroethane	0.12	5	**3**	5 U	**1.8**	**0.7 J**	3 / 8	0.7 - 3	1.83
	108101	4-Methyl-2-Pentanone (MIB	160		5 U	5 U	10 U	10 U	1 / 8	1 - 1	1.00
	71432	Benzene	0.34	5	3 U	**1 J**	**2**	0.2 J	3 / 8	0.2 - 2	1.07
	75150	Carbon disulfide	1000		3 U	5 U	0.56 J	1 U	1 / 8	0.56 - 0.56	0.56
	56235	Carbon tetrachloride	0.17	5	**4**	5 U	**1.5**	**0.5 J**	6 / 8	0.5 - 27	5.83
	67663	Chloroform	6.2	80	3	2 J	2	1	8 / 8	1 - 7.8	2.70
	156592	cis-1,2-Dichloroethene	61	70			0.56 J	1 U	1 / 2	0.56 - 0.56	0.56
	127184	Tetrachloroethene	0.66	5	3 U	5 U	**1.8**	0.4 J	3 / 8	0.4 - 1.8	1.07
	156605	trans-1,2-Dichloroethene	120	100			0.2 J	1 U	1 / 2	0.2 - 0.2	0.20
	79016	Trichloroethene	0.028	5	**17**	**6**	**13**	**6**	8 / 8	6 - 17	9.31
007G20LF	71432	Benzene	0.34	5	3 U	5 U	0.2 J	1 U	1 / 6	0.2 - 0.2	0.20
007G21LF	75343	1,1-Dichloroethane	810		3 U	3 U	1 U	0.5 J	1 / 15	0.5 - 0.5	0.50
	75354	1,1-Dichloroethene	340	7	3 U	3 U	1 U	0.5 J	2 / 15	0.24 - 0.5	0.37
	78933	2-Butanone (MEK)	1900		5 UR	10 U	10 U	10 U	1 / 14	17 - 17	17.00
	71432	Benzene	0.34	5	3 U	3 U	0.28 J	1 U	1 / 15	0.28 - 0.28	0.28
	75274	Bromodichloromethane	0.18	80	3 U	3 U	1 U	**0.2 J**	1 / 15	0.2 - 0.2	0.20
	75252	Bromoform	8.5	80	3 U	3 U	1 U	5	1 / 15	5 - 5	5.00
	56235	Carbon tetrachloride	0.17	5	3 U	3 U	**0.36 J**	**0.6 J**	3 / 15	0.26 - 0.6	0.41
	67663	Chloroform	6.2	80	3 U	3 U	0.27 J	0.5 J	2 / 15	0.27 - 0.5	0.39
	156592	cis-1,2-Dichloroethene	61	70		3 U	0.51 J	0.6 J	3 / 13	0.51 - 1	0.70
	124481	Dibromochloromethane	0.13	80	3 U	3 U	1 U	**2**	1 / 15	2 - 2	2.00
	75092	Methylene chloride	4.3	5	3 U	3 U	0.48 J	5 U	1 / 15	0.48 - 0.48	0.48
	127184	Tetrachloroethene	0.66	5	**6**	**7**	**9.4**	**18**	15 / 15	4.1 - 18	7.74
	79016	Trichloroethene	0.028	5	**25**	**25**	**43**	**180 D**	12 / 15	13 - 180	41.50
22LF	71432	Benzene	0.34	5	3 U	5 U	0.14 J	**2**	2 / 6	0.14 - 0.2	0.17
	75150	Carbon disulfide	1000		3 U	5 U	1 U	2	1 / 5	2 - 2	2.00
	56235	Carbon tetrachloride	0.17	5	3 U	5 U	**13**	**2**	4 / 6	2 - 16	10.50
	67663	Chloroform	6.2	80	4	2 J	**6.4**	2	6 / 6	2 - 9.5	4.98
	156592	cis-1,2-Dichloroethene	61	70			2.6	4	2 / 3	2.6 - 4	3.30
	75092	Methylene chloride	4.3	5	3 U	5 U	0.36 J	5 U	1 / 6	0.36 - 0.36	0.36
	127184	Tetrachloroethene	0.66	5	**94**	**80 J**	**44**	**75 D**	5 / 6	12 - 80	44.80
	79016	Trichloroethene	0.028	5	**80**	**120**	**92**	**170 D**	6 / 6	9 - 170	80.50
007G23LF	75252	Bromoform	8.5	80	3 U	5 U	1 U	0.9 J	1 / 6	0.9 - 0.9	0.90
	75150	Carbon disulfide	1000		3 U	2 J	1 U	1 U	1 / 5	2 - 2	2.00
	56235	Carbon tetrachloride	0.17	5	**21**	**13 J**	**22**	**38**	6 / 6	13 - 38	23.67
	67663	Chloroform	6.2	80	4	2 J	2.5	5	5 / 6	2 - 5	3.30
	156592	cis-1,2-Dichloroethene	61	70			1 U	0.4 J	1 / 3	0.4 - 0.4	0.40
	127184	Tetrachloroethene	0.66	5	**3 J**	**2 J**	**2 J**	**4**	4 / 6	2 - 4	2.75
	79016	Trichloroethene	0.028	5	**25**	**25**	**23**	**22**	6 / 6	22 - 30	24.67
007G24MF	124481	Dibromochloromethane	0.13	80		5 U	1 U	**3**	1 / 5	3 - 3	3.00
007G25MF	75343	1,1-Dichloroethane	810			5 U	1 U	0.8 J	1 / 5	0.8 - 0.8	0.80
	75354	1,1-Dichloroethene	340	7		5 U	3.4	6	4 / 5	2 - 6	3.58
	75252	Bromoform	8.5	80		5 U	1 U	2	1 / 5	2 - 2	2.00
	56235	Carbon tetrachloride	0.17	5		5 U	**1.5**	**2**	2 / 5	1.5 - 2	1.75
	67663	Chloroform	6.2	80		2 J	2.9	2	4 / 5	2 - 2.9	2.23
	156592	cis-1,2-Dichloroethene	61	70			0.65 J	0.4 J	2 / 3	0.4 - 0.65	0.53
	127184	Tetrachloroethene	0.66	5		5 U	1 U	0.3 J	1 / 5	0.3 - 0.3	0.30
	79016	Trichloroethene	0.028	5		**27**	**25**	**16**	5 / 5	13 - 27	19.80
	75014	Vinyl chloride	0.02	2		5 U	1 U	**0.4 J**	1 / 5	0.4 - 0.4	0.40
007G26MF	75354	1,1-Dichloroethene	340	7		5 U	0.73 J	1 U	1 / 5	0.73 - 0.73	0.73
	108883	Toluene	720	1000		5 U	1.5	1 U	1 / 5	1.5 - 1.5	1.50
	79016	Trichloroethene	0.028	5		**7**	**2.8**	1 U	4 / 5	1.8 - 7	3.90
007G27LF	75343	1,1-Dichloroethane	810		3 U	5 U	1 U	0.2 J	1 / 5	0.2 - 0.2	0.20
	107062	1,2-Dichloroethane	0.12	5	3 U	5 U	1 U	**0.5 J**	1 / 5	0.5 - 0.5	0.50
	75252	Bromoform	8.5	80	3 U	5 U	1 U	0.9 J	1 / 5	0.9 - 0.9	0.90
	156592	cis-1,2-Dichloroethene	61	70			1 U	0.7 J	1 / 2	0.7 - 0.7	0.70
	75092	Methylene chloride	4.3	5	3 U	3 J	5 U	5 U	1 / 5	3 - 3	3.00

SEPTEMBER 2002
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Well ID	Cas No.	Parameter	PRGs (ug/L)	MCLs (ug/L)	MAR_99	JUL_00	AUG_01	SEP_02	Frequency	Range**	Mean of Detections**
	127184	Tetrachloroethene	0.66	5	3 U	5 UJ	1 U	0.2 J	1 / 5	0.2 - 0.2	0.20
	79016	Trichloroethene	0.028	5	3 U	**1 J**	**1.1**	**2**	3 / 5	1 - 2	1.37
007G31LF	75343	1,1-Dichloroethane	810		3 U	5 U	1.4	0.8 J	2 / 6	0.8 - 1.4	1.10
	75354	1,1-Dichloroethene	340	7	2 J	2 J	1.9	1	5 / 6	1 - 2	1.73
	75150	Carbon disulfide	1000		3 U	5 U	0.48 J	1 U	1 / 5	0.48 - 0.48	0.48
	56235	Carbon tetrachloride	0.17	5	3 U	5 U	**0.75 J**	**0.6 J**	2 / 6	0.6 - 0.75	0.68
	67663	Chloroform	6.2	80	3 U	5 U	0.34 J	0.5 J	2 / 6	0.34 - 0.5	0.42
	127184	Tetrachloroethene	0.66	5	**4**	**4 J**	**5.6 J**	**8**	5 / 6	3 - 8	4.92
	79016	Trichloroethene	0.028	5	**28**	**37**	**68**	**91 D**	5 / 6	17 - 91	48.20
007G32LF	75343	1,1-Dichloroethane	810		3 U	5 U	0.86 J	1 U	1 / 6	0.86 - 0.86	0.86
	75354	1,1-Dichloroethene	340	7	3 U	5 U	0.61 J	1 U	1 / 6	0.61 - 0.61	0.61
	71432	Benzene	0.34	5	3 U	5 U	0.18 J	1 U	1 / 6	0.18 - 0.18	0.18
	75150	Carbon disulfide	1000		3 U	5 U	0.9 J	1 U	1 / 5	0.9 - 0.9	0.90
	56235	Carbon tetrachloride	0.17	5	3 U	**3 J**	**3.7**	1 U	3 / 6	3 - 6	4.23
	67663	Chloroform	6.2	80	3 U	5 U	1.2	1 U	1 / 6	1.2 - 1.2	1.20
	127184	Tetrachloroethene	0.66	5	3 U	**4 J**	**13**	**1**	4 / 6	1 - 13	6.25
	79016	Trichloroethene	0.028	5	3 U	**16**	**85**	**7**	4 / 6	7 - 85	32.50
007G33LF	67663	Chloroform	6.2	80	3 U	5 U	1 U	0.2 J	1 / 6	0.2 - 0.2	0.20
	79016	Trichloroethene	0.028	5	3 U	5 U	**0.84 J**	**1**	2 / 6	0.84 - 1	0.92
007G35LF	56235	Carbon tetrachloride	0.17	5	3 U	5 U	**0.43 J**		1 / 5	0.43 - 0.43	0.43
	67663	Chloroform	6.2	80	3 U	5 U	0.4 J		1 / 5	0.4 - 0.4	0.40
	127184	Tetrachloroethene	0.66	5	3 U	5 U	0.59 J		1 / 5	0.59 - 0.59	0.59
	79016	Trichloroethene	0.028	5	**7**	**10**	**5.5**		3 / 5	5.5 - 6	5.70
007G36LF	75343	1,1-Dichloroethane	810		4	4 J	4.6	0.2 J	6 / 7	0.2 - 4.6	3.54
	75354	1,1-Dichloroethene	340	7	1 J	1 J	1.4	1 U	4 / 7	1 - 1.4	1.19
	56235	Carbon tetrachloride	0.17	5	**10**	**6 J**	**7.7**	**0.4 J**	6 / 7	0.4 - 11.4	7.75
	67663	Chloroform	6.2	80	3	3 J	3	0.2 J	7 / 7	0.2 - 4.41	2.84
	156592	cis-1,2-Dichloroethene	61	70			7.8	0.8 J	4 / 5	0.8 - 10	7.12
	127184	Tetrachloroethene	0.66	5	**6**	**5 J**	**4.8 J**	0.5 J	6 / 7	0.5 - 6	4.56
	79016	Trichloroethene	0.028	5	**26**	**32**	**26**	**2**	7 / 7	1.69 - 36	22.51
007G38LF	75343	1,1-Dichloroethane	810		3 U	5 U	1 U	0.6 J	2 / 5	0.6 - 2.52	1.56
	56235	Carbon tetrachloride	0.17	5	3 U	**5 J**	**4.9**	**5**	4 / 5	4.9 - 6.32	5.31
	67663	Chloroform	6.2	80	4	2 J	1.6	3	5 / 5	2 - 3.9	2.90
	156592	cis-1,2-Dichloroethene	61	70			0.63 J	1	3 / 3	0.63 - 5.78	2.47
	127184	Tetrachloroethene	0.66	5	3 U	5 U	0.58 J	**0.7 J**	3 / 5	0.58 - 5.86	2.38
	79016	Trichloroethene	0.028	5	**1 J**	**2 J**	**2.8**	**6**	4 / 5	1 - 16.1	6.27
007G41LF	75343	1,1-Dichloroethane	810		3 U	5 U	1 U	1	2 / 5	1 - 1.77	1.39
	75354	1,1-Dichloroethene	340	7	3 U	5 U	1 U	0.5 J	1 / 5	0.5 - 0.5	0.50
	56235	Carbon tetrachloride	0.17	5	3 U	5 U	**2**	**3**	3 / 5	1.89 - 3	2.30
	67663	Chloroform	6.2	80	3 U	5 U	1	2	3 / 5	1 - 3.63	2.21
	156592	cis-1,2-Dichloroethene	61	70			1 J	3	3 / 3	1 - 3.36	2.45
	127184	Tetrachloroethene	0.66	5	3 U	**1 J**	**1.2**	**2**	4 / 5	1 - 3.07	1.82
	79016	Trichloroethene	0.028	5	3 U	**4 J**	**5**	**10**	4 / 5	4 - 12	7.75
007G42LF	75343	1,1-Dichloroethane	810		3 U	5 U	1 U	0.4 J	1 / 5	0.4 - 0.4	0.40
	56235	Carbon tetrachloride	0.17	5	3 U	5 U	1 U	**0.2 J**	1 / 5	0.2 - 0.2	0.20
	67663	Chloroform	6.2	80	3 U	5 U	0.28 J	0.2 J	3 / 5	0.2 - 2.52	1.00
	156592	cis-1,2-Dichloroethene	61	70			1 U	0.3 J	1 / 3	0.3 - 0.3	0.30
	124481	Dibromochloromethane	0.13	80	3 U	5 U	1 U	**1**	1 / 5	1 - 1	1.00
	79016	Trichloroethene	0.028	5	3 U	5 U	**2.1**	**1**	3 / 5	1 - 2.1	1.54
007G44LF	75150	Carbon disulfide	1000		3 U	5 U	0.41 J	1 U	1 / 5	0.41 - 0.41	0.41
	67663	Chloroform	6.2	80	3 U	5 U	1 U	1 U	1 / 5	2.55 - 2.55	2.55
007G45LF	75343	1,1-Dichloroethane	810		3 U	5 U	1 U	0.4 J	1 / 5	0.4 - 0.4	0.40
	71432	Benzene	0.34	5	3 U	5 U	0.22 J	1 U	1 / 5	0.22 - 0.22	0.22
	75252	Bromoform	8.5	80	3 U	5 U	1 U	0.3 J	1 / 5	0.3 - 0.3	0.30
	75150	Carbon disulfide	1000		3 U	5 U	0.62 J	1 U	1 / 5	0.62 - 0.62	0.62
	56235	Carbon tetrachloride	0.17	5	3 U	5 U	**0.3 J**	**2**	2 / 5	0.3 - 2	1.15
	67663	Chloroform	6.2	80	3 U	5 U	0.24 J	1	3 / 5	0.24 - 3	1.41

SEPTEMBER 2002
NSA MID-SOUTH NORTHSIDE
LONG-TERM GROUNDWATER MONITORING RESULTS
VOLATILE ORGANIC COMPOUNDS (ug/L)
(DETECTS ONLY)*

Well ID	Cas No.	Parameter	PRGs (ug/L)	MCLs (ug/L)	MAR_99	JUL_00	AUG_01	SEP_02	Frequency	Range**	Mean of Detections**
	156592	cis-1,2-Dichloroethene	61	70			1 U	0.9 J	2 / 3	0.9 - 1.45	1.18
	75092	Methylene chloride	4.3	5	3 U	35 U	0.38 J	5 U	1 / 5	0.38 - 0.38	0.38
	127184	Tetrachloroethene	0.66	5	3 U	**1 J**	0.52 J	0.4 J	3 / 5	0.4 - 1	0.64
	79016	Trichloroethene	0.028	5	3 U	**8**	**0.49 J**	**4**	4 / 5	0.49 - 8	4.58
007G48LF	75252	Bromoform	8.5	80	3 U	5 U	1 U	1	1 / 5	1 - 1	1.00
	67663	Chloroform	6.2	80	3 U	5 U	1 U	1 U	1 / 5	1.41 - 1.41	1.41
	124481	Dibromochloromethane	0.13	80	3 U	5 U	1 U	**0.7 J**	1 / 5	0.7 - 0.7	0.70
007G49LF	75252	Bromoform	8.5	80		5 U	1 U	0.7 J	1 / 4	0.7 - 0.7	0.70
	56235	Carbon tetrachloride	0.17	5		5 U	**0.44 J**	**0.3 J**	2 / 4	0.3 - 0.44	0.37
	79016	Trichloroethene	0.028	5		5 U	**0.82 J**	**0.8 J**	3 / 4	0.82 - 2	1.21
007G52LF	75343	1,1-Dichloroethane	810			5 U	1.4	2	2 / 4	1.4 - 2	1.70
	75354	1,1-Dichloroethene	340	7		5 U	1 U	0.8 J	1 / 4	0.8 - 0.8	0.80
	107062	1,2-Dichloroethane	0.12	5		5 U	1 U	**0.5 J**	1 / 4	0.5 - 0.5	0.50
	75150	Carbon disulfide	1000			5 U	0.38 J	1 U	1 / 4	0.38 - 0.38	0.38
	56235	Carbon tetrachloride	0.17	5		5 U	**3**	**2**	3 / 4	2 - 3.29	2.76
	67663	Chloroform	6.2	80		5 U	2.8	3	3 / 4	2.8 - 3.35	3.05
	156592	cis-1,2-Dichloroethene	61	70			2.1	5	3 / 3	1.98 - 5	3.03
	127184	Tetrachloroethene	0.66	5		5 U	**4.9 J**	**7**	3 / 4	4.72 - 7	5.54
	108883	Toluene	720	1000		5 U	1 U	1 U	1 / 4	1.44 - 1.44	1.44
	79016	Trichloroethene	0.028	5		5 U	**4.6**	**10**	3 / 4	3.74 - 10	6.11
007G53LF	75150	Carbon disulfide	1000			5 U	0.64 J	1 U	1 / 4	0.64 - 0.64	0.64
	56235	Carbon tetrachloride	0.17	5		5 U	**1.7**	**2**	2 / 4	1.7 - 2	1.85
	67663	Chloroform	6.2	80		5 U	0.47 J	0.8 J	2 / 4	0.47 - 0.8	0.64
	127184	Tetrachloroethene	0.66	5		5 U	1 U	0.5 J	1 / 4	0.5 - 0.5	0.50
	108883	Toluene	720	1000		5 U	1 U	1 U	1 / 4	1.54 - 1.54	1.54
	79016	Trichloroethene	0.028	5		5 U	1 U	**0.2 J**	1 / 4	0.2 - 0.2	0.20
007G54LF	75343	1,1-Dichloroethane	810			5 U	1.1	0.9 J	1 / 4	0.9 - 0.9	0.90
	107062	1,2-Dichloroethane	0.12	5		5 U	1 U	**1**	1 / 4	1 - 1	1.00
	75252	Bromoform	8.5	80		5 U	1 U	0.7 J	1 / 4	0.7 - 0.7	0.70
	56235	Carbon tetrachloride	0.17	5		5 U	**1.8**	**1**	1 / 4	1 - 1	1.00
	67663	Chloroform	6.2	80		2 J	1.5	2	4 / 4	1.5 - 2	1.77
	156592	cis-1,2-Dichloroethene	61	70			2.5 J	4	3 / 3	2.31 - 4	2.94
	127184	Tetrachloroethene	0.66	5		**2 J**	**2.1**	**3**	4 / 4	2 - 3	2.45
	79016	Trichloroethene	0.028	5		**8**	**7.2**	**9**	4 / 4	7.9 - 9	8.03
007G57LF	75343	1,1-Dichloroethane	810			150 U	5 U		8 / 13	1 - 2.4	1.55
	75354	1,1-Dichloroethene	340	7		**72 J**	**48**		12 / 13	5 - 95	42.33
	67641	Acetone	610			500 U	120 U		1 / 13	1 - 1	1.00
	56235	Carbon tetrachloride	0.17	5		150 U	5 U		7 / 13	1 - 3	2.09
	67663	Chloroform	6.2	80		150 U	3 J		9 / 13	2 - 5.1	3.34
	156592	cis-1,2-Dichloroethene	61	70		150 U	**86**		12 / 13	2 - 86	25.53
	124481	Dibromochloromethane	0.13	80		150 U	5 U		1 / 13	17 - 17	17.00
	100414	Ethylbenzene	2.9	700		150 U	5 U		3 / 13	3 - 74	26.67
	127184	Tetrachloroethene	0.66	5		**70 J**	**41**		13 / 13	5.2 - 97	43.09
	108883	Toluene	720	1000		150 U	5 U		1 / 13	2 - 2	2.00
	156605	trans-1,2-Dichloroethene	120	100		150 U	5 U		1 / 13	1 - 1	1.00
	79016	Trichloroethene	0.028	5		**2300**	**1200 D**		13 / 13	160 - 4400	1849.23
	75014	Vinyl chloride	0.02	2		150 U	5 U		1 / 13	3 - 3	3.00
	1330207	Xylene (Total)	210	10000		150 U	10 U		3 / 13	16 - 370	134.00
007G58LFA	75343	1,1-Dichloroethane	810			60 U	10 U	0.9 J	7 / 13	0.9 - 1	0.99
	75354	1,1-Dichloroethene	340	7		**56 J**	**32**	**15**	12 / 13	3.2 - 56	30.77
	71432	Benzene	0.34	5		60 U	10 U	0.2 J	1 / 13	0.2 - 0.2	0.20
	56235	Carbon tetrachloride	0.17	5		60 U	10 U	1 U	8 / 13	2 - 35	10.75
	67663	Chloroform	6.2	80		60 U	3.2 J	0.3 J	11 / 13	0.3 - 6	3.45
	156592	cis-1,2-Dichloroethene	61	70		60 U	**980**	**560 D**	11 / 13	2.1 - 980	393.83
	127184	Tetrachloroethene	0.66	5		**55 J**	**5.9 J**	**0.8 J**	13 / 13	0.8 - 55	20.81
	156605	trans-1,2-Dichloroethene	120	100		60 U	4.3 J	**1**	7 / 13	1 - 11	4.19
	79016	Trichloroethene	0.028	5		**2700**	**150**	**30**	13 / 13	30 - 2700	1045.92

SEPTEMBER 2002
NSA MID-SOUTH NORTHSIDE
LONG-TERM GROUNDWATER MONITORING RESULTS
VOLATILE ORGANIC COMPOUNDS (ug/L)
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Well ID	Cas No.	Parameter	PRGs (ug/L)	MCLs (ug/L)	MAR_99	JUL_00	AUG_01	SEP_02	Frequency	Range**	Mean of Detections**
	75014	Vinyl chloride	0.02	2		60 U	**4.1 J**	**210 D**	2 / 13	4.1 - 210	107.05
007G58LFB	75343	1,1-Dichloroethane	810			60 U	10 U	1	6 / 14	1 - 1	1.00
	75354	1,1-Dichloroethene	340	7		**61**	**34**	**10**	13 / 14	4.9 - 61	30.30
	56235	Carbon tetrachloride	0.17	5		60 U	10 U	1 U	6 / 14	2 - 32	13.33
	67663	Chloroform	6.2	80		60 U	10 U	1 U	7 / 14	2 - 5	3.54
	156592	cis-1,2-Dichloroethene	61	70		60 U	**990**	**320 D**	12 / 14	2 - 1300	496.06
	127184	Tetrachloroethene	0.66	5		**63**	**6.3 J**	0.2 J	13 / 14	0.2 - 63	19.69
	156605	trans-1,2-Dichloroethene	120	100		60 U	3.8 J	0.4 J	8 / 14	0.4 - 7	2.68
	79016	Trichloroethene	0.028	5		**2600**	**88**	**9**	14 / 14	9 - 2600	871.57
	75014	Vinyl chloride	0.02	2		60 U	**3.3 J**	**380 D**	3 / 14	3.3 - 380	181.10
007G59LFA	75343	1,1-Dichloroethane	810			60 U	10 U	2	8 / 13	1 - 2	1.13
	75354	1,1-Dichloroethene	340	7		**33 J**	**25**	**41 J**	12 / 13	6 - 41	29.17
	67641	Acetone	610			200 U	250 U	25 UR	1 / 13	6 - 6	6.00
	71432	Benzene	0.34	5		60 U	10 U	0.2 J	1 / 13	0.2 - 0.2	0.20
	75252	Bromoform	8.5	80		60 U	10 U	0.2 J	1 / 13	0.2 - 0.2	0.20
	56235	Carbon tetrachloride	0.17	5		60 U	10 U	1 U	8 / 13	1 - 6.3	2.66
	67663	Chloroform	6.2	80		60 U	10 U	0.6 J	10 / 13	0.6 - 6	2.68
	156592	cis-1,2-Dichloroethene	61	70		60 U	**850**	**890 D**	12 / 13	1 - 890	298.84
	75092	Methylene chloride	4.3	5		60 U	50 U	5 U	1 / 13	1 - 1	1.00
	127184	Tetrachloroethene	0.66	5		60 U	10 U	**0.8 J**	11 / 13	0.8 - 49	20.90
	156605	trans-1,2-Dichloroethene	120	100		60 U	10 U	3	5 / 13	2 - 4	2.80
	79016	Trichloroethene	0.028	5		**2000**	**9.4 J**	**23**	13 / 13	9.4 - 2100	1058.18
	75014	Vinyl chloride	0.02	2		60 U	10 U	**110 D**	1 / 13	110 - 110	110.00
007G59LFB	75343	1,1-Dichloroethane	810			60 U	10 U	2	8 / 14	1 - 2	1.13
	75354	1,1-Dichloroethene	340	7		**45 J**	**35**	**34**	14 / 14	2 - 48	28.71
	67641	Acetone	610			200 U	250 U	25 UR	1 / 14	2 - 2	2.00
	71432	Benzene	0.34	5		60 U	10 U	0.2 J	1 / 14	0.2 - 0.2	0.20
	75252	Bromoform	8.5	80		60 U	10 U	0.2 J	1 / 14	0.2 - 0.2	0.20
	75150	Carbon disulfide	1000			60 U	10 U	1 U	1 / 14	1 - 1	1.00
	56235	Carbon tetrachloride	0.17	5		60 U	10 U	1 U	7 / 14	1 - 10	3.57
	67663	Chloroform	6.2	80		60 U	10 U	1 U	7 / 14	1 - 5	2.74
	156592	cis-1,2-Dichloroethene	61	70		60 U	**1100**	**810 D**	12 / 14	2 - 1100	446.08
	75092	Methylene chloride	4.3	5		60 U	50 U	5 U	1 / 14	1 - 1	1.00
	127184	Tetrachloroethene	0.66	5		**46 J**	**5.7 J**	0.4 J	13 / 14	0.4 - 55	20.87
	156605	trans-1,2-Dichloroethene	120	100		60 U	10 U	2	7 / 14	1 - 5	2.70
	79016	Trichloroethene	0.028	5		**2400**	**19**	**12**	14 / 14	12 - 2500	993.07
	75014	Vinyl chloride	0.02	2		60 U	**17**	**200 D**	3 / 14	17 - 200	119.00
007G60LF	75343	1,1-Dichloroethane	810			60 U	1 U	1	7 / 12	1 - 2	1.40
	75354	1,1-Dichloroethene	340	7		**56 J**	1 U	0.6 J	9 / 12	0.6 - 56	32.51
	78933	2-Butanone (MEK)	1900			200 U	10 U	10 U	1 / 12	4 - 4	4.00
	56235	Carbon tetrachloride	0.17	5		60 U	1 U	1 U	7 / 12	1 - 5.1	3.44
	67663	Chloroform	6.2	80		60 U	1 U	1 U	5 / 12	3 - 11	5.24
	156592	cis-1,2-Dichloroethene	61	70		60 U	1 U	19	8 / 12	2 - 54	15.96
	100414	Ethylbenzene	2.9	700		60 U	1 U	1 U	1 / 12	1 - 1	1.00
	75092	Methylene chloride	4.3	5		60 U	5 U	5 U	1 / 12	1 - 1	1.00
	127184	Tetrachloroethene	0.66	5		**66**	1 U	0.2 J	9 / 12	0.2 - 66	37.36
	108883	Toluene	720	1000		60 U	0.59 J	0.2 J	2 / 12	0.2 - 0.59	0.40
	79016	Trichloroethene	0.028	5		**2100**	**0.61 J**	**0.3 J**	12 / 12	0.3 - 3000	1222.45
	75014	Vinyl chloride	0.02	2		60 U	**190 D**	**150 D**	4 / 12	3.8 - 540	220.95
	1330207	Xylene (Total)	210	10000		60 U	2 U	2 U	1 / 12	1 - 1	1.00
007G61LF	75343	1,1-Dichloroethane	810			60 U	1 U	0.5 J	8 / 12	0.5 - 2	1.18
	75354	1,1-Dichloroethene	340	7		**62**	1 U	1 U	6 / 12	4 - 62	41.33
	78933	2-Butanone (MEK)	1900			200 U	10 U	10 U	3 / 12	3 - 210	79.67
	67641	Acetone	610			200 U	25 U	25 UR	1 / 12	6 - 6	6.00
	71432	Benzene	0.34	5		60 U	1 U	0.2 J	2 / 12	0.2 - 0.21	0.21
	56235	Carbon tetrachloride	0.17	5		60 U	1 U	1 U	4 / 12	3 - 8	5.40
	75003	Chloroethane	4.6			60 U	1 U	1 U	1 / 12	0.54 - 0.54	0.54

SEPTEMBER 2002
NSA MID-SOUTH NORTHSIDE
LONG-TERM GROUNDWATER MONITORING RESULTS
VOLATILE ORGANIC COMPOUNDS (ug/L)
(DETECTS ONLY)*

Well ID	Cas No.	Parameter	PRGs (ug/L)	MCLs (ug/L)	MAR_99	JUL_00	AUG_01	SEP_02	Frequency	Range**	Mean of Detections**
	67663	Chloroform	6.2	80		60 U	1 U	1 U	5 / 12	3 - 4.5	3.70
	156592	cis-1,2-Dichloroethene	61	70		60 U	1 U	0.3 J	8 / 12	0.3 - 57	13.70
	75092	Methylene chloride	4.3	5		60 U	0.45 J	5 U	2 / 12	0.45 - 2	1.23
	127184	Tetrachloroethene	0.66	5		**75**	1 U	1 U	7 / 12	6 - 75	44.14
	108883	Toluene	720	1000		60 U	0.72 J	0.4 J	3 / 12	0.4 - 0.72	0.58
	79016	Trichloroethene	0.028	5		**2200**	1 U	1 U	8 / 12	300 - 3400	1862.50
	75014	Vinyl chloride	0.02	2		60 U	**200**	**140 D**	4 / 12	140 - 480	252.50
007G62LFA	75343	1,1-Dichloroethane	810				1 U	1	5 / 8	1 - 2	1.20
	75354	1,1-Dichloroethene	340	7			2.4	0.6 J	8 / 8	0.6 - 47	27.25
	74839	Bromomethane	8.7				1 U	1 U	1 / 8	2 - 2	2.00
	75003	Chloroethane	4.6				1 U	1 U	1 / 8	1 - 1	1.00
	67663	Chloroform	6.2	80			1 U	1 U	2 / 8	3 - 3	3.00
	156592	cis-1,2-Dichloroethene	61	70			**69**	15	8 / 8	15 - 1100	775.50
	75092	Methylene chloride	4.3	5			5 U	5 U	2 / 8	1 - 1	1.00
	127184	Tetrachloroethene	0.66	5			**0.72 J**	0.6 J	6 / 8	0.6 - 22	8.89
	156605	trans-1,2-Dichloroethene	120	100			1 U	1 U	3 / 8	2 - 8	5.67
	79016	Trichloroethene	0.028	5			1 U	**3**	7 / 8	2 - 700	212.43
	75014	Vinyl chloride	0.02	2			**38**	**250 D**	3 / 8	38 - 250	123.00
007G62LFB	75343	1,1-Dichloroethane	810				5 U	1	5 / 9	1 - 2	1.40
	75354	1,1-Dichloroethene	340	7			**12**	2	9 / 9	1.9 - 47	25.77
	71432	Benzene	0.34	5			5 U	**0.5 J**	1 / 9	0.5 - 0.5	0.50
	75252	Bromoform	8.5	80			5 U	0.4 J	1 / 9	0.4 - 0.4	0.40
	67663	Chloroform	6.2	80			5 U	1 U	2 / 9	3 - 3	3.00
	156592	cis-1,2-Dichloroethene	61	70			**480**	**70 D**	9 / 9	40 - 1100	740.00
	75092	Methylene chloride	4.3	5			25 U	5 U	2 / 9	1 - 1	1.00
	127184	Tetrachloroethene	0.66	5			5 U	**1**	5 / 9	1 - 28	12.20
	156605	trans-1,2-Dichloroethene	120	100			5 U	1 U	3 / 9	3 - 14	8.67
	79016	Trichloroethene	0.028	5			5 U	**18**	7 / 9	1 - 820	251.86
	75014	Vinyl chloride	0.02	2			**190**	**250 D**	3 / 9	190 - 510	260.50
007G63LFA	75343	1,1-Dichloroethane	810				1 U	2	7 / 8	1 - 2	1.43
	75354	1,1-Dichloroethene	340	7			1 U	1	7 / 8	1 - 40	29.86
	71432	Benzene	0.34	5			1 U	0.2 J	1 / 8	0.2 - 0.2	0.20
	74839	Bromomethane	8.7				1 U	1 U	1 / 8	1 - 1	1.00
	67663	Chloroform	6.2	80			1 U	1 U	2 / 8	4 - 4	4.00
	74873	Chloromethane	1.5				1 U	1 U	1 / 8	3 - 3	3.00
	156592	cis-1,2-Dichloroethene	61	70			0.78 J	40 D	8 / 8	0.78 - 1000	267.85
	75092	Methylene chloride	4.3	5			5 U	5 U	2 / 8	1 - 1	1.00
	127184	Tetrachloroethene	0.66	5			1 U	0.2 J	6 / 8	0.2 - 50	31.20
	156605	trans-1,2-Dichloroethene	120	100			1 U	0.2 J	4 / 8	0.2 - 5	2.80
	79016	Trichloroethene	0.028	5			1 U	**0.8 J**	7 / 8	0.8 - 1800	920.11
	75014	Vinyl chloride	0.02	2			**700 D**	**260 D**	2 / 8	260 - 700	480.00
007G63LFB	75343	1,1-Dichloroethane	810				1 U	1	5 / 9	1 - 1.4	1.08
	75354	1,1-Dichloroethene	340	7			1 U	1 U	7 / 9	6 - 44	30.57
	71432	Benzene	0.34	5			1 U	1 U	1 / 9	0.2 - 0.2	0.20
	67663	Chloroform	6.2	80			1 U	1 U	3 / 9	2 - 4	3.00
	156592	cis-1,2-Dichloroethene	61	70			1 U	14	8 / 9	14 - 1200	313.38
	75092	Methylene chloride	4.3	5			5 U	5 U	1 / 9	1 - 1	1.00
	127184	Tetrachloroethene	0.66	5			1 U	1 U	6 / 9	0.74 - 53	31.62
	156605	trans-1,2-Dichloroethene	120	100			1 U	1 U	4 / 9	0.47 - 4	1.75
	79016	Trichloroethene	0.028	5			1 U	**0.4 J**	7 / 9	0.4 - 1700	912.77
	75014	Vinyl chloride	0.02	2			1 U	**230 D**	3 / 9	4 - 420	284.67
007GMCNA	78875	1,2-Dichloropropane	0.16	5		5 U	**4.8**	1 U	1 / 5	4.8 - 4.8	4.80
	67641	Acetone	610			5 UR	25 U	25 UR	1 / 5	17.5 - 17.5	17.50
	75252	Bromoform	8.5	80		5 U	1 U	0.4 J	1 / 5	0.4 - 0.4	0.40
	108883	Toluene	720	1000		5 U	1 U	1 U	1 / 5	1.12 - 1.12	1.12
	75014	Vinyl chloride	0.02	2		5 U	**2.2**	**9**	4 / 5	1.66 - 9	4.83
0 Z03	75343	1,1-Dichloroethane	810		2 J	5 U		0.7 J	3 / 5	0.7 - 2	1.34

SEPTEMBER 2002
NSA MID-SOUTH NORTHSIDE
LONG-TERM GROUNDWATER MONITORING RESULTS
VOLATILE ORGANIC COMPOUNDS (ug/L)
(DETECTS ONLY)*

Well ID	Cas No.	Parameter	PRGs (ug/L)	MCLs (ug/L)	MAR_99	JUL_00	AUG_01	SEP_02	Frequency	Range**	Mean of Detections**
	75252	Bromoform	8.5	80	3 U	5 U		0.2 J	1 / 5	0.2 - 0.2	0.20
	56235	Carbon tetrachloride	0.17	5	**11**	**6 J**		**4**	4 / 5	4 - 11	7.47
	67663	Chloroform	6.2	80	2 J	2 J		1	4 / 5	1 - 3.19	2.17
	156592	cis-1,2-Dichloroethene	61	70				2	2 / 3	2 - 3.04	2.52
	127184	Tetrachloroethene	0.66	5	**8**	**3 J**		**4**	4 / 5	3 - 8	5.37
	79016	Trichloroethene	0.028	5	**6**	**4 J**		**3**	4 / 5	3 - 6.08	4.77
007GWLMS	75252	Bromoform	8.5	80		5 U	1 U	2	1 / 3	2 - 2	2.00
015G01LF	75343	1,1-Dichloroethane	810			5 U	4.7	2 J	3 / 7	1 - 4.7	2.57
	75354	1,1-Dichloroethene	340	7		5 U	3.9	2 J	3 / 7	1 - 3.9	2.30
	71432	Benzene	0.34	5		**5 J**	1 U	1 U	1 / 7	5 - 5	5.00
	75252	Bromoform	8.5	80		5 U	1 U	0.8 J	1 / 7	0.8 - 0.8	0.80
	56235	Carbon tetrachloride	0.17	5		5 U	1 U	**2 J**	5 / 7	1.8 - 2.4	2.04
	108907	Chlorobenzene	110	100		5 U	0.12 J	1 U	1 / 7	0.12 - 0.12	0.12
	67663	Chloroform	6.2	80		5 U	1 U	0.9 J	1 / 7	0.9 - 0.9	0.90
	156592	cis-1,2-Dichloroethene	61	70			1.4	1 J	1 / 2	1 - 1	1.00
	75092	Methylene chloride	4.3	5		5 U	5 U	5 U	1 / 7	3.8 - 3.8	3.80
	127184	Tetrachloroethene	0.66	5		**4 J**	**0.83 J**	**9 J**	5 / 7	0.83 - 9	3.35
	108883	Toluene	720	1000		5 U	0.42 J	1 U	1 / 7	0.42 - 0.42	0.42
	79016	Trichloroethene	0.028	5		**7**	**1.9**	**10 J**	7 / 7	1.9 - 10	7.06
	75014	Vinyl chloride	0.02	2		5 U	**0.34 J**	1 U	1 / 7	0.34 - 0.34	0.34
	1330207	Xylene (Total)	210	10000		5 U	0.73 J	2 U	1 / 7	0.73 - 0.73	0.73
015G01UF	107062	1,2-Dichloroethane	0.12	5		**84**	25 U	1 U	1 / 7	84 - 84	84.00
	67641	Acetone	610			100	620 U	25 UR	1 / 7	100 - 100	100.00
	71432	Benzene	0.34	5		**2100 D**	**3800**	**2100 D**	7 / 7	2100 - 4900	3585.71
	75252	Bromoform	8.5	80		5 U	25 U	2	1 / 7	2 - 2	2.00
	124481	Dibromochloromethane	0.13	80		5 U	25 U	**2**	1 / 7	2 - 2	2.00
	100414	Ethylbenzene	2.9	700		**32**	**150**	**46 D**	7 / 7	21 - 130	61.94
	108883	Toluene	720	1000		5 U	25 U	2	2 / 7	1.6 - 2	1.80
	1330207	Xylene (Total)	210	10000		5 U	**40 J**	6	2 / 7	6 - 40	23.00
015G02LF	75343	1,1-Dichloroethane	810			7	4	1	4 / 7	1 - 7	3.50
	75354	1,1-Dichloroethene	340	7		**8 J**	3.7	0.9	5 / 7	0.9 - 8	3.06
	71432	Benzene	0.34	5		5 U	1 U	1 U	2 / 7	3 - 3.2	3.10
	75252	Bromoform	8.5	80		5 U	1 U	6	1 / 7	6 - 6	6.00
	75150	Carbon disulfide	1000			5 U	0.42 J	1 U	2 / 7	0.42 - 7	3.71
	156592	cis-1,2-Dichloroethene	61	70			1.2	1 U	1 / 2	1.2 - 1.2	1.20
	124481	Dibromochloromethane	0.13	80		5 U	1 U	**2**	1 / 7	2 - 2	2.00
	127184	Tetrachloroethene	0.66	5		5 U	0.58 J	1 U	1 / 7	0.58 - 0.58	0.58
	79016	Trichloroethene	0.028	5		5 U	**1.6**	**0.6 J**	4 / 7	1 - 1.6	1.20
015G02UF	75343	1,1-Dichloroethane	810			4 J	0.67 J	1 U	4 / 7	0.67 - 8.4	4.26
	75354	1,1-Dichloroethene	340	7		4 J	1 U	1 U	1 / 7	4 - 4	4.00
	67641	Acetone	610			5 U	25 U	25 UR	1 / 7	240 - 240	240.00
	71432	Benzene	0.34	5		5 U	**4**	**2**	6 / 7	2 - 34	13.83
	100414	Ethylbenzene	2.9	700		5 U	**39**	**44 D**	6 / 7	5 - 92	49.80
	108883	Toluene	720	1000		5 U	0.5 J	1 U	3 / 7	0.5 - 3	1.50
	1330207	Xylene (Total)	210	10000		5 U	4.9	2	5 / 7	2 - 12	6.40
015G03LF	124481	Dibromochloromethane	0.13	80		5 U	1 U	**1**	1 / 7	1 - 1	1.00
015G03UF	67641	Acetone	610			5 U	25 U	25 UR	1 / 7	68 - 68	68.00
015G04LF	75343	1,1-Dichloroethane	810			5 U	1 U	1	1 / 7	1 - 1	1.00
	75354	1,1-Dichloroethene	340	7		5 U	1.4	1 U	1 / 7	1.4 - 1.4	1.40
	67641	Acetone	610			5 UR	25 U	25 UR	1 / 7	7 - 7	7.00
	75252	Bromoform	8.5	80		5 U	1 U	2	1 / 7	2 - 2	2.00
	156592	cis-1,2-Dichloroethene	61	70			0.56 J	0.5 J	2 / 2	0.5 - 0.56	0.53
	79016	Trichloroethene	0.028	5		5 U	**2**	**1**	6 / 7	1 - 2	1.65
015G04UF	67641	Acetone	610			5 UR	25 U	25 UR	1 / 7	120 - 120	120.00
	75252	Bromoform	8.5	80		5 U	1 U	2	1 / 7	2 - 2	2.00
[illegible]1LF	67641	Acetone	610			5 U	25 U	25 UR	1 / 4	540 - 540	540.00
	71432	Benzene	0.34	5		5 U	0.16 J	1 U	1 / 4	0.16 - 0.16	0.16

SEPTEMBER 2002
NSA MID-SOUTH NORTHSIDE
LONG-TERM GROUNDWATER MONITORING RESULTS
VOLATILE ORGANIC COMPOUNDS (ug/L)
(DETECTS ONLY)*

Well ID	Cas No.	Parameter	PRGs (ug/L)	MCLs (ug/L)	MAR_99	JUL_00	AUG_01	SEP_02	Frequency	Range**	Mean of Detections**
	75252	Bromoform	8.5	80		5 U	1 U	1	1 / 4	1 - 1	1.00
	75252	Bromoform	8.5	80		5 U	1 U	2	1 / 7	2 - 2	2.00
	56235	Carbon tetrachloride	0.17	5		5 U	**0.64 J**	**0.3 J**	2 / 4	0.3 - 0.64	0.47
	67663	Chloroform	6.2	80		2 J	3.6	6	3 / 4	2 - 6	3.87
	156592	cis-1,2-Dichloroethene	61	70			2.9	0.9 J	2 / 2	0.9 - 2.9	1.90
	75092	Methylene chloride	4.3	5		2 J	0.8 J	5 U	2 / 4	0.8 - 2	1.40
	127184	Tetrachloroethene	0.66	5		**8**	**70**	**150 D**	4 / 4	8 - 170	99.50
	108883	Toluene	720	1000		5 U	0.72 J	1 U	1 / 7	0.72 - 0.72	0.72
	79016	Trichloroethene	0.028	5		**27**	**29**	**4**	4 / 4	4 - 29	19.50
021G01LF	75252	Bromoform	8.5	80		5 U	1 U	2	1 / 7	2 - 2	2.00
	108883	Toluene	720	1000		5 U	0.72 J	1 U	1 / 7	0.72 - 0.72	0.72
021G02LF	75252	Bromoform	8.5	80		5 U	1 U	2	1 / 6	2 - 2	2.00
	127184	Tetrachloroethene	0.66	5		**4 J**	1 U	1 U	1 / 6	4 - 4	4.00
	108883	Toluene	720	1000		5 U	0.56 J	1 U	1 / 6	0.56 - 0.56	0.56
	79016	Trichloroethene	0.028	5		**4 J**	1 U	1 U	1 / 6	4 - 4	4.00
021G03LF	75252	Bromoform	8.5	80		5 U	1 U	0.3 J	1 / 6	0.3 - 0.3	0.30
	67663	Chloroform	6.2	80		2 J	1 U	1 U	1 / 6	2 - 2	2.00
	127184	Tetrachloroethene	0.66	5		**6 J**	1 U	1 U	1 / 6	6 - 6	6.00
	108883	Toluene	720	1000		5 U	0.47 J	1 U	1 / 6	0.47 - 0.47	0.47
	79016	Trichloroethene	0.028	5		**4 J**	1 U	1 U	1 / 6	4 - 4	4.00
021G04UF	75252	Bromoform	8.5	80		5 U	1 U	0.8 J	1 / 6	0.8 - 0.8	0.80
	67641	Acetone	610			5 UJ	25 U	25 U	1 / 6	15 - 15	15.00
	56235	Carbon tetrachloride	0.17	5		5 U	**9.9**	**22**	5 / 6	2 - 22	8.82
060G02LF	71556	1,1,1-Trichloroethane	540	200		5 U	1 U	1 U	1 / 10	210 - 210	210.00
	75343	1,1-Dichloroethane	810			5 U	1 U	1 U	1 / 10	89 - 89	89.00
	75354	1,1-Dichloroethene	340	7		5 U	1 U	1 U	1 / 10	4.6 - 4.6	4.60
	78933	2-Butanone (MEK)	1900			5 UR	10 U	10 U	1 / 10	110 - 110	110.00
	108101	4-Methyl-2-Pentanone (MIB	160			5 U	10 U	10 U	1 / 10	21 - 21	21.00
	67641	Acetone	610			5 U	25 U	25 UR	1 / 10	150 - 150	150.00
	67663	Chloroform	6.2	80		5 U	1 U	1 U	1 / 10	1 - 1	1.00
	100414	Ethylbenzene	2.9	700		5 U	1 U	1 U	1 / 10	25 - 25	25.00
	75092	Methylene chloride	4.3	5		5 U	5 U	5 U	1 / 10	17 - 17	17.00
	108883	Toluene	720	1000		5 U	0.51 J	1 U	2 / 10	0.51 - 230	115.26
	1330207	Xylene (Total)	210	10000		5 U	2 U	2 U	1 / 10	98 - 98	98.00
060G04LF	56235	Carbon tetrachloride	0.17	5		5 U	**0.34 J**	1 U	1 / 9	0.34 - 0.34	0.34
0BGG05LF	75252	Bromoform	8.5	80		5 U	1 U	1	1 / 6	1 - 1	1.00
	56235	Carbon tetrachloride	0.17	5		5 U	1 U	**0.3 J**	1 / 6	0.3 - 0.3	0.30
	127184	Tetrachloroethene	0.66	5		**36 J**	**35 J**	**56 D**	6 / 6	24 - 56	33.67
	79016	Trichloroethene	0.028	5		5 U	1 U	**0.2 J**	1 / 6	0.2 - 0.2	0.20
0BGG05UF	75252	Bromoform	8.5	80		5 U	1 U	2	1 / 7	2 - 2	2.00
	56235	Carbon tetrachloride	0.17	5		5 U	1 U	**0.2 J**	1 / 7	0.2 - 0.2	0.20
	127184	Tetrachloroethene	0.66	5		**16 J**	**20 J**	**38**	7 / 7	16 - 38	22.43
0BGG10UF	75252	Bromoform	8.5	80		5 U	1 U	2	1 / 5	2 - 2	2.00
	75150	Carbon disulfide	1000			5 U	0.66 J	1 U	1 / 5	0.66 - 0.66	0.66
N12G01LF	75343	1,1-Dichloroethane	810			5 U	6.6	2	3 / 4	2 - 7.5	5.37
	75354	1,1-Dichloroethene	340	7		5 U	2.2	1 U	2 / 4	1.9 - 2.2	2.05
	75252	Bromoform	8.5	80		5 U	1 U	0.5 J	1 / 4	0.5 - 0.5	0.50
	56235	Carbon tetrachloride	0.17	5		5 U	**5.5**	**2**	3 / 4	2 - 7.1	4.87
	67663	Chloroform	6.2	80		5 U	1.7	2	2 / 4	1.7 - 2	1.85
	156592	cis-1,2-Dichloroethene	61	70			1.5 J	1	2 / 2	1 - 1.5	1.25
	127184	Tetrachloroethene	0.66	5		5 U	**4.1**	**10**	3 / 4	4.1 - 10	6.83
	79016	Trichloroethene	0.028	5		**4 J**	**19**	**10**	4 / 4	4 - 28	15.25
N12G02LF	75343	1,1-Dichloroethane	810			5 U	1.1	1	2 / 4	1 - 1.1	1.05
	67641	Acetone	610			9 J	25 U	25 UR	1 / 4	9 - 9	9.00
	71432	Benzene	0.34	5		5 U	0.16 J	1 U	1 / 4	0.16 - 0.16	0.16
	56235	Carbon tetrachloride	0.17	5		5 U	**0.96 J**	**1**	3 / 4	0.82 - 1	0.93
	67663	Chloroform	6.2	80		5 U	0.41 J	0.5 J	2 / 4	0.41 - 0.5	0.46

SEPTEMBER 2002
NSA MID-SOUTH NORTHSIDE
LONG-TERM GROUNDWATER MONITORING RESULTS
VOLATILE ORGANIC COMPOUNDS (ug/L)
(DETECTS ONLY)*

Well ID	Cas No.	Parameter	PRGs (ug/L)	MCLs (ug/L)	MAR_99	JUL_00	AUG_01	SEP_02	Frequency	Range**	Mean of Detections**
	156592	cis-1,2-Dichloroethene	61	70			21	12	2 / 2	12 - 21	16.50
	75092	Methylene chloride	4.3	5		5 U	5 U	5 U	1 / 4	2.2 - 2.2	2.20
	127184	Tetrachloroethene	0.66	5		**3 J**	**2.7**	**6**	4 / 4	1.8 - 6	3.38
	156605	trans-1,2-Dichloroethene	120	100			0.26 J	1 U	1 / 2	0.26 - 0.26	0.26
	79016	Trichloroethene	0.028	5		**13**	**13**	**10**	4 / 4	9.4 - 13	11.35
RDYG0V81	107062	1,2-Dichloroethane	0.12	5	3 U	5 U	1 U	**0.3 J**	1 / 4	0.3 - 0.3	0.30
	75252	Bromoform	8.5	80	3 U	5 U	1 U	2	1 / 4	2 - 2	2.00
	75092	Methylene chloride	4.3	5	3 U	**40**	5 U	5 U	1 / 4	40 - 40	40.00
	127184	Tetrachloroethene	0.66	5	**5**	**5**	**4.3 J**	**5**	4 / 4	4.3 - 5	4.83
	79016	Trichloroethene	0.028	5	3 U	5 U	**0.19 J**	**0.3 J**	2 / 4	0.19 - 0.3	0.25

Note:
ug/L = micrograms/Liter
PRGs = EPA Region 9 Preliminary Remediation Goals (PRGs) dated October 2002.
MCLs = EPA Maximum Contaminant Level (MCL) for Drinking Water
Frequency = Total number of detects/Total number of samples collected and analyzed
* = Only monitoring wells that were sampled at least once during the three most recent long-term monitoring events and displayed at least one detection during all sampling events are included in this table.
** = Frequency, Range and Mean are based on all data analyzed (i.e., all events) and not just the data shown on this table.
B = Analyte was found in associated lab blank as well as the sample
D = Dilution of sample required for analysis
J = Estimated Value
U = Non detect
Blank cell denotes that the well was not sampled.
Bold = Exceeds PRG and/or MCL.

SEPTEMBER 2002
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LONG-TERM GROUNDWATER MONITORING RESULTS
VOLATILE ORGANIC COMPOUNDS (ug/L)
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Well ID	Cas No.	Parameter	PRGs (ug/L)	MCLs (ug/L)	MAR_99	JUL_00	AUG_01	SEP_02	Frequency	Range**	Mean of Detections**
003G04LF	67641	Acetone	610			5 U	25 U	25 UR	1 / 8	160 - 160	160.00
	71432	Benzene	0.34	5		5 U	1 U	1 U	1 / 8	1.8 - 1.8	1.80
	75252	Bromoform	8.5	80		5 U	1 U	0.3 J	1 / 8	0.3 - 0.3	0.30
	67663	Chloroform	6.2	80		5 U	1 U	1 U	1 / 8	2 - 2	2.00
	108883	Toluene	720	1000		5 U	0.74 J	1 U	1 / 8	0.74 - 0.74	0.74
005G04UF	67641	Acetone	610			5 U	25 U	25 UR	1 / 10	54 - 54	54.00
	75252	Bromoform	8.5	80		5 U	1 U	1	1 / 10	1 - 1	1.00
	56235	Carbon tetrachloride	0.17	5		**10**	**9.2**	**7**	7 / 10	1 - 10	5.54
	67663	Chloroform	6.2	80		5 U	0.96 J	1	3 / 10	0.87 - 1	0.94
005G08LF	78933	2-Butanone (MEK)	1900			5 U	10 U	10 U	1 / 4	27 - 27	27.00
	71432	Benzene	0.34	5		5 U	0.13 J	1 U	1 / 4	0.13 - 0.13	0.13
	75252	Bromoform	8.5	80		5 U	1 U	2	1 / 4	2 - 2	2.00
	56235	Carbon tetrachloride	0.17	5		5 U	**1.5**	**2**	2 / 4	1.5 - 2	1.75
	67663	Chloroform	6.2	80		5 U	0.45 J	0.5 J	2 / 4	0.45 - 0.5	0.48
007G01LF	75343	1,1-Dichloroethane	810			5 U	1.7	4	8 / 10	1.7 - 5	3.30
	75354	1,1-Dichloroethene	340	7		4 J	2.1	5	9 / 10	2.1 - 9	4.80
	71432	Benzene	0.34	5		5 U	0.18 J	1 U	1 / 10	0.18 - 0.18	0.18
	56235	Carbon tetrachloride	0.17	5		5 U	1 U	1 U	6 / 10	3.4 - 10	6.52
	67663	Chloroform	6.2	80		1 J	1	1 U	7 / 10	1 - 2	1.51
	156592	cis-1,2-Dichloroethene	61	70			0.7 J	1	2 / 2	0.7 - 1	0.85
	75092	Methylene chloride	4.3	5		5 U	0.43 J	5 U	1 / 10	0.43 - 0.43	0.43
	79016	Trichloroethene	0.028	5		**3 J**	**2.6**	**2**	10 / 10	2 - 10	6.16
007G01UF	75343	1,1-Dichloroethane	810			14	14	15	11 / 11	14 - 75	28.55
	75354	1,1-Dichloroethene	340	7		2 J	1.6	1	11 / 11	1 - 9	5.86
	78875	1,2-Dichloropropane	0.16	5		5 U	1 U	1 U	3 / 11	0.93 - 2	1.64
	71432	Benzene	0.34	5		5 U	0.23 J	1 U	1 / 11	0.23 - 0.23	0.23
	75252	Bromoform	8.5	80		5 U	1 U	0.9 J	1 / 11	0.9 - 0.9	0.90
	156592	cis-1,2-Dichloroethene	61	70			3.3	5	2 / 2	3.3 - 5	5.65
	127184	Tetrachloroethene	0.66	5		5 U	**1.3**	**5**	10 / 11	1.3 - 9.1	6.65
	79016	Trichloroethene	0.028	5		**3 J**	**2.8**	**3**	11 / 11	2.8 - 19	8.79
007G03LF	79005	1,1,2-Trichloroethane	0.2	5		3 U	1 U	**0.5 J**	1 / 20	0.5 - 0.5	0.50
	107062	1,2-Dichloroethane	0.12	5		3 U	1 U	**60 D**	5 / 20	0.92 - 60	17.00
	78933	2-Butanone (MEK)	1900			10 U	10 U	10 U	1 / 20	20 - 20	20.00
	67641	Acetone	610			10 U	25 U	25 UR	2 / 20	2 - 78	40.00
	71432	Benzene	0.34	5		3 U	1 U	0.2 J	1 / 20	0.2 - 0.2	0.20
	75252	Bromoform	8.5	80		3 U	1 U	2	1 / 20	2 - 2	2.00
	56235	Carbon tetrachloride	0.17	5		**4**	**9.3**	**42 D**	20 / 20	4 - 42	14.33
	67663	Chloroform	6.2	80		4	4.7	**32**	20 / 20	3.7 - 32	7.83
	156592	cis-1,2-Dichloroethene	61	70		3 U	1 U	8	1 / 14	8 - 8	8.00
	127184	Tetrachloroethene	0.66	5		**91**	**44**	**170 D**	20 / 20	1 - 170	66.21
	79016	Trichloroethene	0.028	5		**14**	**29**	**240 D**	20 / 20	12 - 240	57.35
007G03UF	67641	Acetone	610			5 U	25 U	25 UR	2 / 10	12 - 39	25.50
	75252	Bromoform	8.5	80		5 U	1 U	4	1 / 10	4 - 4	4.00
	75150	Carbon disulfide	1000			5 U	1 U	1 U	1 / 10	3 - 3	3.00
	124481	Dibromochloromethane	0.13	80		5 U	1 U	**1**	1 / 10	1 - 1	1.00
	127184	Tetrachloroethene	0.66	5		5 U	**2.7**	0.3 J	2 / 10	0.3 - 2.7	1.50
	79016	Trichloroethene	0.028	5		5 U	**12**	1 U	1 / 10	12 - 12	12.00
007G04LF	75343	1,1-Dichloroethane	810		1 J	60 U	1 U	0.9 J	8 / 24	0.9 - 1	0.99
	75354	1,1-Dichloroethene	340	7	**45**	**36 J**	**29**	**23**	20 / 24	0.96 - 56	24.81
	67641	Acetone	610		5 UR	200 U	25 U	25 UR	2 / 23	83 - 95	89.00
	71432	Benzene	0.34	5	**3 J**	60 U	1 U	1 U	1 / 24	3 - 3	3.00
	56235	Carbon tetrachloride	0.17	5	**2 J**	60 U	**3.1**	**3**	19 / 24	2 - 32	8.96
	67663	Chloroform	6.2	80	5	60 U	2.4	2	18 / 24	1.8 - 6	3.46
	156592	cis-1,2-Dichloroethene	61	70		60 U	**510 D**	**250 D**	13 / 15	1 - 540	161.00
	75092	Methylene chloride	4.3	5	3 U	60 U	0.49 J	5 U	2 / 24	0.49 - 1	0.75
	127184	Tetrachloroethene	0.66	5	**51**	**35 J**	**12**	**24**	22 / 24	3.6 - 110	30.45
	156605	trans-1,2-Dichloroethene	120	100		60 U	0.76 J	0.3 J	5 / 15	0.3 - 5	2.01

SEPTEMBER 2002
NSA MID-SOUTH NORTHSIDE
LONG-TERM GROUNDWATER MONITORING RESULTS
VOLATILE ORGANIC COMPOUNDS (ug/L)
(DETECTS ONLY)*

Well ID	Cas No.	Parameter	PRGs (ug/L)	MCLs (ug/L)	MAR_99	JUL_00	AUG_01	SEP_02	Frequency	Range**	Mean of Detections**
	79016	Trichloroethene	0.028	5	**4400 D**	**2400**	**720 D**	**960 D**	24 / 24	2 - 4400	1398.13
	75014	Vinyl chloride	0.02	2	3 U	60 U	**10**	1 U	1 / 24	10 - 10	10.00
007G04UF	75343	1,1-Dichloroethane	810		3 U	3 U	1 U	1 U	2 / 23	1 - 1	1.00
	75354	1,1-Dichloroethene	340	7	3 U	3 U	0.96 J	1 U	5 / 23	0.96 - 37	11.39
	67641	Acetone	610		5 UR	10 U	25 U	25 UR	3 / 23	18 - 240	96.00
	71432	Benzene	0.34	5	**1 J**	3 U	1 U	1 U	2 / 23	0.21 - 1	0.61
	75252	Bromoform	8.5	80	3 U	3 U	1 U	0.3 J	1 / 23	0.3 - 0.3	0.30
	56235	Carbon tetrachloride	0.17	5	3 U	3 U	1 U	1 U	2 / 23	2 - 4	3.00
	67663	Chloroform	6.2	80	3 U	3 U	1 U	1 U	3 / 23	1 - 4	2.33
	156592	cis-1,2-Dichloroethene	61	70		3 U	1 U	1 U	8 / 14	2 - 580	77.54
	75092	Methylene chloride	4.3	5	3 U	3 U	5 U	5 U	1 / 23	2 - 2	2.00
	127184	Tetrachloroethene	0.66	5	3 U	3 U	1 U	1 U	4 / 23	2 - 15	7.50
	156605	trans-1,2-Dichloroethene	120	100		3 U	1 U	1 U	1 / 14	1 - 1	1.00
	79016	Trichloroethene	0.028	5	3 U	**15**	**2.5**	**0.5 J**	17 / 23	0.5 - 800	142.75
007G05LF	75343	1,1-Dichloroethane	810			5 U	0.39 J	1 U	1 / 10	0.39 - 0.39	0.39
	75354	1,1-Dichloroethene	340	7		5 U	1 U	0.5 J	1 / 10	0.5 - 0.5	0.50
	107062	1,2-Dichloroethane	0.12	5		5 U	**1.4**	**0.7 J**	8 / 10	0.7 - 4	2.50
	67641	Acetone	610			5 U	25 U	25 UR	1 / 10	11 - 11	11.00
	75252	Bromoform	8.5	80		5 U	1 U	1 J	1 / 10	1 - 1	1.00
	56235	Carbon tetrachloride	0.17	5		**4 J**	**4.9**	**4 J**	10 / 10	4 - 11	6.16
	67663	Chloroform	6.2	80		2 J	2.5	2 J	9 / 10	2 - 5	3.22
	127184	Tetrachloroethene	0.66	5		**1 J**	**2**	**3 J**	8 / 10	1 - 3	1.48
	79016	Trichloroethene	0.028	5		**32**	**37**	**47 DJ**	10 / 10	22 - 47	31.20
G05UF	78933	2-Butanone (MEK)	1900			5 U	10 U	10 U	1 / 10	1 - 1	1.00
	67641	Acetone	610			5 U	25 U	25 UR	1 / 10	98 - 98	98.00
	75252	Bromoform	8.5	80		5 U	1 U	1	1 / 10	1 - 1	1.00
007G06LF	75354	1,1-Dichloroethene	340	7		1 J	0.44 J	**9**	3 / 9	0.44 - 9	3.48
	67641	Acetone	610			5 U	25 U	25 UR	3 / 9	5 - 46	18.67
	71432	Benzene	0.34	5		5 U	0.17 J	1 U	1 / 9	0.17 - 0.17	0.17
	75252	Bromoform	8.5	80		5 U	1 U	2	1 / 9	2 - 2	2.00
	127184	Tetrachloroethene	0.66	5		**7**	**5.8**	**15**	9 / 9	1 - 15	4.90
	79016	Trichloroethene	0.028	5		**2 J**	**1.2**	**2**	9 / 9	1.2 - 2.4	1.97
007G07LF	75343	1,1-Dichloroethane	810			5 U	1.6 J	0.6 J	4 / 9	0.6 - 2	1.30
	75354	1,1-Dichloroethene	340	7		3 J	2.5	1 U	6 / 9	1 - 3	2.13
	67641	Acetone	610			5 U	25 U	25 UR	1 / 9	33 - 33	33.00
	75274	Bromodichloromethane	0.18	80		5 U	**1.4**	1 U	1 / 9	1.4 - 1.4	1.40
	75252	Bromoform	8.5	80		5 U	1 U	1	1 / 9	1 - 1	1.00
	75150	Carbon disulfide	1000			5 U	1 U	1 U	1 / 9	1 - 1	1.00
	56235	Carbon tetrachloride	0.17	5		5 U	**1 J**	**0.3 J**	5 / 9	0.3 - 1.2	0.90
	67663	Chloroform	6.2	80		5 U	0.88 J	0.6 J	2 / 9	0.6 - 0.88	0.74
	156592	cis-1,2-Dichloroethene	61	70			0.86 J	0.8 J	2 / 2	0.8 - 0.86	0.83
	127184	Tetrachloroethene	0.66	5		**16**	**14 J**	**18**	9 / 9	3 - 18	11.00
	79016	Trichloroethene	0.028	5		**14**	**8.9**	**5**	9 / 9	5 - 14	7.59
007G09LF	75343	1,1-Dichloroethane	810			5 U	1 U	1	2 / 9	1 - 2	1.50
	75354	1,1-Dichloroethene	340	7		1 J	2.1	2	4 / 9	1 - 2.1	1.53
	107062	1,2-Dichloroethane	0.12	5		5 U	1 U	1 U	1 / 9	2 - 2	2.00
	108101	4-Methyl-2-Pentanone (MIB	160			5 U	10 U	10 U	1 / 9	120 - 120	120.00
	71432	Benzene	0.34	5		5 U	1 U	1 U	1 / 9	2 - 2	2.00
	75252	Bromoform	8.5	80		5 U	1 U	3	1 / 9	3 - 3	3.00
	67663	Chloroform	6.2	80		5 U	0.42 J	1 U	3 / 9	0.42 - 2	1.14
	156592	cis-1,2-Dichloroethene	61	70			6.9	18	2 / 2	6.9 - 18	12.45
	75092	Methylene chloride	4.3	5		**5**	5 U	5 U	1 / 9	5 - 5	5.00
	127184	Tetrachloroethene	0.66	5		**2 J**	**9.7**	**19**	8 / 9	2 - 40	14.71
	79016	Trichloroethene	0.028	5		**1 J**	**4.1**	**6**	7 / 9	1 - 8.5	4.51
	75014	Vinyl chloride	0.02	2		5 U	**0.57 J**	**0.9 J**	2 / 9	0.57 - 0.9	0.74
	1330207	Xylene (Total)	210	10000		5 U	2 U	2 U	1 / 9	3 - 3	3.00
007G09UF	75343	1,1-Dichloroethane	810			5 U	0.5 J	1 U	2 / 9	0.5 - 1	0.75

SEPTEMBER 2002
NSA MID-SOUTH NORTHSIDE
LONG-TERM GROUNDWATER MONITORING RESULTS
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Well ID	Cas No.	Parameter	PRGs (ug/L)	MCLs (ug/L)	MAR_99	JUL_00	AUG_01	SEP_02	Frequency	Range**	Mean of Detections**
	67641	Acetone	610			5 U	25 U	25 UR	2 / 9	26 - 47	36.50
	75252	Bromoform	8.5	80		5 U	1 U	1	1 / 9	1 - 1	1.00
	74839	Bromomethane	8.7			5 UR	1 U	1 U	1 / 9	1 - 1	1.00
	67663	Chloroform	6.2	80		5 U	1.8	3	2 / 9	1.8 - 3	2.40
	156592	cis-1,2-Dichloroethene	61	70			0.66 J	1 U	1 / 2	0.66 - 0.66	0.66
	75092	Methylene chloride	4.3	5		1 J	5 U	5 U	1 / 9	1 - 1	1.00
007G10LF	108101	4-Methyl-2-Pentanone (MIB	160			5 U	10 U	10 U	1 / 8	2 - 2	2.00
	75252	Bromoform	8.5	80		5 U	1 U	0.5 J	1 / 9	0.5 - 0.5	0.50
	56235	Carbon tetrachloride	0.17	5		5 U	**17**	**14**	8 / 9	7.2 - 17	12.00
	67663	Chloroform	6.2	80		4 J	5.2	6	9 / 9	4 - 9	6.07
	156592	cis-1,2-Dichloroethene	61	5			1 U	0.3 J	1 / 3	0.3 - 0.3	0.30
	127184	Tetrachloroethene	0.66	5		**5 J**	**11 J**	**17**	9 / 9	5 - 21	11.11
	79016	Trichloroethene	0.028	5		**7**	**21**	**31**	9 / 9	7 - 45	20.11
007G11LF	71432	Benzene	0.34	5	3 U	5 U	0.15 J	1 U	1 / 10	0.15 - 0.15	0.15
	75252	Bromoform	8.5	80	3 U	5 U	1 U	2	1 / 10	2 - 2	2.00
	56235	Carbon tetrachloride	0.17	5	**12**	5 U	**6.1**	**11**	8 / 10	4 - 12	6.94
	67663	Chloroform	6.2	80	**12**	6	5.9	**8**	10 / 10	5.9 - 12	8.73
	156592	cis-1,2-Dichloroethene	61	70			1.1	0.7 J	2 / 3	0.7 - 1.1	0.90
	127184	Tetrachloroethene	0.66	5	3 U	**36 J**	**31**	**10**	9 / 10	4 - 150	52.44
	79016	Trichloroethene	0.028	5	3 U	**100**	**87**	**24**	9 / 10	11 - 340	119.11
007G12LF	56235	Carbon tetrachloride	0.17	5		5 U	1 U	**0.5 J**	1 / 9	0.5 - 0.5	0.50
	67663	Chloroform	6.2	80		5 U	1 U	0.3 J	1 / 9	0.3 - 0.3	0.30
007G14LF	71432	Benzene	0.34	5		5 U	0.15 J	1 U	1 / 7	0.15 - 0.15	0.15
	100414	Ethylbenzene	2.9	700		5 U	0.25 J	1 U	1 / 7	0.25 - 0.25	0.25
	156605	trans-1,2-Dichloroethene	120	100			0.32 J	1 U	1 / 2	0.32 - 0.32	0.32
	79016	Trichloroethene	0.028	5		5 U	**0.28 J**	1 U	1 / 7	0.28 - 0.28	0.28
	1330207	Xylene (Total)	210	10000		5 U	0.61 J	2 U	1 / 7	0.61 - 0.61	0.61
007G15LF	75343	1,1-Dichloroethane	810			5 U	1.2	1	3 / 9	1 - 2	1.40
	75354	1,1-Dichloroethene	340	7		7	3.1	3	7 / 9	3 - 7	4.90
	75252	Bromoform	8.5	80		5 U	1 U	1 U	1 / 9	2 - 2	2.00
	56235	Carbon tetrachloride	0.17	5		**24 J**	**22**	**28**	8 / 9	2.8 - 27	22.85
	67663	Chloroform	6.2	80		**7**	5.1	**7**	9 / 9	2.7 - 10	6.42
	156592	cis-1,2-Dichloroethene	61	70			1 U	0.5 J	2 / 3	0.5 - 1	0.75
	127184	Tetrachloroethene	0.66	5		5 U	1 U	1 U	1 / 9	1.1 - 1.1	1.10
	79016	Trichloroethene	0.028	5		**11**	**3.2**	**4**	8 / 9	3.2 - 13	8.59
007G15UF	75343	1,1-Dichloroethane	810			51	70	82 D	9 / 9	43 - 70	62.78
	75354	1,1-Dichloroethene	340	7		**310 D**	**430**	**460 D**	8 / 9	280 - 430	356.25
	107062	1,2-Dichloroethane	0.12	5		5 U	4 U	**0.9 J**	1 / 9	0.9 - 0.9	0.90
	67641	Acetone	610			5 U	100 U	25 UR	1 / 9	93 - 93	93.00
	71432	Benzene	0.34	5		**3 J**	**4.4**	**5**	9 / 9	3 - 7	5.13
	56235	Carbon tetrachloride	0.17	5		**4 J**	**8.9**	**10**	9 / 9	4 - 20	11.33
	67663	Chloroform	6.2	80		**10**	**22**	**20**	9 / 9	10 - 70	33.33
	156592	cis-1,2-Dichloroethene	61	70			15	18	3 / 3	15 - 18	17.00
	124481	Dibromochloromethane	0.13	80		5 U	4 U	**1**	1 / 9	1 - 1	1.00
	75092	Methylene chloride	4.3	5		5 U	1.4 J	5 U	1 / 9	1.4 - 1.4	1.40
	127184	Tetrachloroethene	0.66	5		5 U	4 U	**1**	4 / 9	0.58 - 1	0.77
	79016	Trichloroethene	0.028	5		**400 D**	**580**	**630 D**	9 / 9	400 - 840	615.56
007G16LF	75274	Bromodichloromethane	0.18	80		5 U	1 U	**0.3 J**	1 / 7	0.3 - 0.3	0.30
	75252	Bromoform	8.5	80		5 U	1 U	2	1 / 7	2 - 2	2.00
	56235	Carbon tetrachloride	0.17	5		**16**	**17**	1 U	6 / 7	16 - 37	25.00
	67663	Chloroform	6.2	80		4 J	3.4	1 U	6 / 7	3.4 - 8	5.13
	124481	Dibromochloromethane	0.13	80		5 U	1 U	**3**	1 / 7	3 - 3	3.00
	75092	Methylene chloride	4.3	5		5 U	5 U	0.5 J	1 / 7	0.5 - 0.5	0.50
	79016	Trichloroethene	0.028	5		**19**	**10**	1 U	6 / 7	7 - 19	12.00
007G17LF	67641	Acetone	610			5 U	25 U	25 UR	1 / 7	7 - 7	7.00
007G18LF	75343	1,1-Dichloroethane	810		3 U	5 U	1 U	1 U	1 / 8	2.2 - 2.2	2.20
	75354	1,1-Dichloroethene	340	7	3 U	5 U	0.88 J	1 U	2 / 8	0.88 - 5.3	3.09

SEPTEMBER 2002
NSA MID-SOUTH NORTHSIDE
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VOLATILE ORGANIC COMPOUNDS (ug/L)
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Well ID	Cas No.	Parameter	PRGs (ug/L)	MCLs (ug/L)	MAR_99	JUL_00	AUG_01	SEP_02	Frequency	Range**	Mean of Detections**
	107062	1,2-Dichloroethane	0.12	5	**3**	5 U	**1.8**	**0.7 J**	3 / 8	0.7 - 3	1.83
	108101	4-Methyl-2-Pentanone (MIB	160		5 U	5 U	10 U	10 U	1 / 8	1 - 1	1.00
	71432	Benzene	0.34	5	3 U	**1 J**	**2**	0.2 J	3 / 8	0.2 - 2	1.07
	75150	Carbon disulfide	1000		3 U	5 U	0.56 J	1 U	1 / 8	0.56 - 0.56	0.56
	56235	Carbon tetrachloride	0.17	5	**4**	5 U	**1.5**	**0.5 J**	6 / 8	0.5 - 27	5.83
	67663	Chloroform	6.2	80	3	2 J	2	1	8 / 8	1 - 7.8	2.70
	156592	cis-1,2-Dichloroethene	61	70			0.56 J	1 U	1 / 2	0.56 - 0.56	0.56
	127184	Tetrachloroethene	0.66	5	3 U	5 U	**1.8**	0.4 J	3 / 8	0.4 - 1.8	1.07
	156605	trans-1,2-Dichloroethene	120	100			0.2 J	1 U	1 / 2	0.2 - 0.2	0.20
	79016	Trichloroethene	0.028	5	**17**	**6**	**13**	**6**	8 / 8	6 - 17	9.31
007G20LF	71432	Benzene	0.34	5	3 U	5 U	0.2 J	1 U	1 / 6	0.2 - 0.2	0.20
007G21LF	75343	1,1-Dichloroethane	810		3 U	3 U	1 U	0.5 J	1 / 15	0.5 - 0.5	0.50
	75354	1,1-Dichloroethene	340	7	3 U	3 U	1 U	0.5 J	2 / 15	0.24 - 0.5	0.37
	78933	2-Butanone (MEK)	1900		5 UR	10 U	10 U	10 U	1 / 14	17 - 17	17.00
	71432	Benzene	0.34	5	3 U	3 U	0.28 J	1 U	1 / 15	0.28 - 0.28	0.28
	75274	Bromodichloromethane	0.18	80	3 U	3 U	1 U	**0.2 J**	1 / 15	0.2 - 0.2	0.20
	75252	Bromoform	8.5	80	3 U	3 U	1 U	5	1 / 15	5 - 5	5.00
	56235	Carbon tetrachloride	0.17	5	3 U	3 U	**0.36 J**	**0.6 J**	3 / 15	0.26 - 0.6	0.41
	67663	Chloroform	6.2	80	3 U	3 U	0.27 J	0.5 J	2 / 15	0.27 - 0.5	0.39
	156592	cis-1,2-Dichloroethene	61	70		3 U	0.51 J	0.6 J	3 / 13	0.51 - 1	0.70
	124481	Dibromochloromethane	0.13	80	3 U	3 U	1 U	**2**	1 / 15	2 - 2	2.00
	75092	Methylene chloride	4.3	5	3 U	3 U	0.48 J	5 U	1 / 15	0.48 - 0.48	0.48
	127184	Tetrachloroethene	0.66	5	**6**	**7**	**9.4**	**18**	15 / 15	4.1 - 18	7.74
	79016	Trichloroethene	0.028	5	**25**	**25**	**43**	**180 D**	12 / 15	13 - 180	41.50
[illegible]22LF	71432	Benzene	0.34	5	3 U	5 U	0.14 J	**2**	2 / 6	0.14 - 0.2	0.17
	75150	Carbon disulfide	1000		3 U	5 U	1 U	2	1 / 5	2 - 2	2.00
	56235	Carbon tetrachloride	0.17	5	3 U	5 U	**13**	**2**	4 / 6	2 - 16	10.50
	67663	Chloroform	6.2	80	4	2 J	**6.4**	2	6 / 6	2 - 9.5	4.98
	156592	cis-1,2-Dichloroethene	61	70			2.6	4	2 / 3	2.6 - 4	3.30
	75092	Methylene chloride	4.3	5	3 U	5 U	0.36 J	5 U	1 / 6	0.36 - 0.36	0.36
	127184	Tetrachloroethene	0.66	5	**94**	**80 J**	**44**	**75 D**	5 / 6	12 - 80	44.80
	79016	Trichloroethene	0.028	5	**80**	**120**	**92**	**170 D**	6 / 6	9 - 170	80.50
007G23LF	75252	Bromoform	8.5	80	3 U	5 U	1 U	0.9 J	1 / 6	0.9 - 0.9	0.90
	75150	Carbon disulfide	1000		3 U	2 J	1 U	1 U	1 / 5	2 - 2	2.00
	56235	Carbon tetrachloride	0.17	5	**21**	**13 J**	**22**	**38**	6 / 6	13 - 38	23.67
	67663	Chloroform	6.2	80	4	2 J	2.5	5	5 / 6	2 - 5	3.30
	156592	cis-1,2-Dichloroethene	61	70			1 U	0.4 J	1 / 3	0.4 - 0.4	0.40
	127184	Tetrachloroethene	0.66	5	**3 J**	**2 J**	**2 J**	**4**	4 / 6	2 - 4	2.75
	79016	Trichloroethene	0.028	5	**25**	**25**	**23**	**22**	6 / 6	22 - 30	24.67
007G24MF	124481	Dibromochloromethane	0.13	80		5 U	1 U	**3**	1 / 5	3 - 3	3.00
007G25MF	75343	1,1-Dichloroethane	810			5 U	1 U	0.8 J	1 / 5	0.8 - 0.8	0.80
	75354	1,1-Dichloroethene	340	7		5 U	3.4	6	4 / 5	2 - 6	3.58
	75252	Bromoform	8.5	80		5 U	1 U	2	1 / 5	2 - 2	2.00
	56235	Carbon tetrachloride	0.17	5		5 U	**1.5**	**2**	2 / 5	1.5 - 2	1.75
	67663	Chloroform	6.2	80		2 J	2.9	2	4 / 5	2 - 2.9	2.23
	156592	cis-1,2-Dichloroethene	61	70			0.65 J	0.4 J	2 / 3	0.4 - 0.65	0.53
	127184	Tetrachloroethene	0.66	5		5 U	1 U	0.3 J	1 / 5	0.3 - 0.3	0.30
	79016	Trichloroethene	0.028	5		**27**	**25**	**16**	5 / 5	13 - 27	19.80
	75014	Vinyl chloride	0.02	2		5 U	1 U	**0.4 J**	1 / 5	0.4 - 0.4	0.40
007G26MF	75354	1,1-Dichloroethene	340	7		5 U	0.73 J	1 U	1 / 5	0.73 - 0.73	0.73
	108883	Toluene	720	1000		5 U	1.5	1 U	1 / 5	1.5 - 1.5	1.50
	79016	Trichloroethene	0.028	5		**7**	**2.8**	1 U	4 / 5	1.8 - 7	3.90
007G27LF	75343	1,1-Dichloroethane	810		3 U	5 U	1 U	0.2 J	1 / 5	0.2 - 0.2	0.20
	107062	1,2-Dichloroethane	0.12	5	3 U	5 U	1 U	**0.5 J**	1 / 5	0.5 - 0.5	0.50
	75252	Bromoform	8.5	80	3 U	5 U	1 U	0.9 J	1 / 5	0.9 - 0.9	0.90
	156592	cis-1,2-Dichloroethene	61	70			1 U	0.7 J	1 / 2	0.7 - 0.7	0.70
	75092	Methylene chloride	4.3	5	3 U	3 J	5 U	5 U	1 / 5	3 - 3	3.00

SEPTEMBER 2002
NSA MID-SOUTH NORTHSIDE
LONG-TERM GROUNDWATER MONITORING RESULTS
VOLATILE ORGANIC COMPOUNDS (ug/L)
(DETECTS ONLY)*

Well ID	Cas No.	Parameter	PRGs (ug/L)	MCLs (ug/L)	MAR_99	JUL_00	AUG_01	SEP_02	Frequency	Range**	Mean of Detections**
	127184	Tetrachloroethene	0.66	5	3 U	5 UJ	1 U	0.2 J	1 / 5	0.2 - 0.2	0.20
	79016	Trichloroethene	0.028	5	3 U	**1 J**	**1.1**	**2**	3 / 5	1 - 2	1.37
007G31LF	75343	1,1-Dichloroethane	810		3 U	5 U	1.4	0.8 J	2 / 6	0.8 - 1.4	1.10
	75354	1,1-Dichloroethene	340	7	2 J	2 J	1.9	1	5 / 6	1 - 2	1.73
	75150	Carbon disulfide	1000		3 U	5 U	0.48 J	1 U	1 / 5	0.48 - 0.48	0.48
	56235	Carbon tetrachloride	0.17	5	3 U	5 U	**0.75 J**	**0.6 J**	2 / 6	0.6 - 0.75	0.68
	67663	Chloroform	6.2	80	3 U	5 U	0.34 J	0.5 J	2 / 6	0.34 - 0.5	0.42
	127184	Tetrachloroethene	0.66	5	**4**	**4 J**	**5.6 J**	**8**	5 / 6	3 - 8	4.92
	79016	Trichloroethene	0.028	5	**28**	**37**	**68**	**91 D**	5 / 6	17 - 91	48.20
007G32LF	75343	1,1-Dichloroethane	810		3 U	5 U	0.86 J	1 U	1 / 6	0.86 - 0.86	0.86
	75354	1,1-Dichloroethene	340	7	3 U	5 U	0.61 J	1 U	1 / 6	0.61 - 0.61	0.61
	71432	Benzene	0.34	5	3 U	5 U	0.18 J	1 U	1 / 6	0.18 - 0.18	0.18
	75150	Carbon disulfide	1000		3 U	5 U	0.9 J	1 U	1 / 5	0.9 - 0.9	0.90
	56235	Carbon tetrachloride	0.17	5	3 U	**3 J**	**3.7**	1 U	3 / 6	3 - 6	4.23
	67663	Chloroform	6.2	80	3 U	5 U	1.2	1 U	1 / 6	1.2 - 1.2	1.20
	127184	Tetrachloroethene	0.66	5	3 U	**4 J**	**13**	**1**	4 / 6	1 - 13	6.25
	79016	Trichloroethene	0.028	5	3 U	**16**	**85**	**7**	4 / 6	7 - 85	32.50
007G33LF	67663	Chloroform	6.2	80	3 U	5 U	1 U	0.2 J	1 / 6	0.2 - 0.2	0.20
	79016	Trichloroethene	0.028	5	3 U	5 U	**0.84 J**	**1**	2 / 6	0.84 - 1	0.92
007G35LF	56235	Carbon tetrachloride	0.17	5	3 U	5 U	**0.43 J**		1 / 5	0.43 - 0.43	0.43
	67663	Chloroform	6.2	80	3 U	5 U	0.4 J		1 / 5	0.4 - 0.4	0.40
	127184	Tetrachloroethene	0.66	5	3 U	5 U	0.59 J		1 / 5	0.59 - 0.59	0.59
	79016	Trichloroethene	0.028	5	**7**	**10**	**5.5**		3 / 5	5.5 - 6	5.70
36LF	75343	1,1-Dichloroethane	810		4	4 J	4.6	0.2 J	6 / 7	0.2 - 4.6	3.54
	75354	1,1-Dichloroethene	340	7	1 J	1 J	1.4	1 U	4 / 7	1 - 1.4	1.19
	56235	Carbon tetrachloride	0.17	5	**10**	**6 J**	**7.7**	**0.4 J**	6 / 7	0.4 - 11.4	7.75
	67663	Chloroform	6.2	80	3	3 J	3	0.2 J	7 / 7	0.2 - 4.41	2.84
	156592	cis-1,2-Dichloroethene	61	70			7.8	0.8 J	4 / 5	0.8 - 10	7.12
	127184	Tetrachloroethene	0.66	5	**6**	**5 J**	**4.8 J**	0.5 J	6 / 7	0.5 - 6	4.56
	79016	Trichloroethene	0.028	5	**26**	**32**	**26**	**2**	7 / 7	1.69 - 36	22.51
007G38LF	75343	1,1-Dichloroethane	810		3 U	5 U	1 U	0.6 J	2 / 5	0.6 - 2.52	1.56
	56235	Carbon tetrachloride	0.17	5	3 U	**5 J**	**4.9**	**5**	4 / 5	4.9 - 6.32	5.31
	67663	Chloroform	6.2	80	4	2 J	1.6	3	5 / 5	2 - 3.9	2.90
	156592	cis-1,2-Dichloroethene	61	70			0.63 J	1	3 / 3	0.63 - 5.78	2.47
	127184	Tetrachloroethene	0.66	5	3 U	5 U	0.58 J	**0.7 J**	3 / 5	0.58 - 5.86	2.38
	79016	Trichloroethene	0.028	5	**1 J**	**2 J**	**2.8**	**6**	4 / 5	1 - 16.1	6.27
007G41LF	75343	1,1-Dichloroethane	810		3 U	5 U	1 U	1	2 / 5	1 - 1.77	1.39
	75354	1,1-Dichloroethene	340	7	3 U	5 U	1 U	0.5 J	1 / 5	0.5 - 0.5	0.50
	56235	Carbon tetrachloride	0.17	5	3 U	5 U	**2**	**3**	3 / 5	1.89 - 3	2.30
	67663	Chloroform	6.2	80	3 U	5 U	1	2	3 / 5	1 - 3.63	2.21
	156592	cis-1,2-Dichloroethene	61	70			1 J	3	3 / 3	1 - 3.36	2.45
	127184	Tetrachloroethene	0.66	5	3 U	**1 J**	**1.2**	**2**	4 / 5	1 - 3.07	1.82
	79016	Trichloroethene	0.028	5	3 U	**4 J**	**5**	**10**	4 / 5	4 - 12	7.75
007G42LF	75343	1,1-Dichloroethane	810		3 U	5 U	1 U	0.4 J	1 / 5	0.4 - 0.4	0.40
	56235	Carbon tetrachloride	0.17	5	3 U	5 U	1 U	**0.2 J**	1 / 5	0.2 - 0.2	0.20
	67663	Chloroform	6.2	80	3 U	5 U	0.28 J	0.2 J	3 / 5	0.2 - 2.52	1.00
	156592	cis-1,2-Dichloroethene	61	70			1 U	0.3 J	1 / 3	0.3 - 0.3	0.30
	124481	Dibromochloromethane	0.13	80	3 U	5 U	1 U	**1**	1 / 5	1 - 1	1.00
	79016	Trichloroethene	0.028	5	3 U	5 U	**2.1**	**1**	3 / 5	1 - 2.1	1.54
007G44LF	75150	Carbon disulfide	1000		3 U	5 U	0.41 J	1 U	1 / 5	0.41 - 0.41	0.41
	67663	Chloroform	6.2	80	3 U	5 U	1 U	1 U	1 / 5	2.55 - 2.55	2.55
007G45LF	75343	1,1-Dichloroethane	810		3 U	5 U	1 U	0.4 J	1 / 5	0.4 - 0.4	0.40
	71432	Benzene	0.34	5	3 U	5 U	0.22 J	1 U	1 / 5	0.22 - 0.22	0.22
	75252	Bromoform	8.5	80	3 U	5 U	1 U	0.3 J	1 / 5	0.3 - 0.3	0.30
	75150	Carbon disulfide	1000		3 U	5 U	0.62 J	1 U	1 / 5	0.62 - 0.62	0.62
	56235	Carbon tetrachloride	0.17	5	3 U	5 U	**0.3 J**	**2**	2 / 5	0.3 - 2	1.15
	67663	Chloroform	6.2	80	3 U	5 U	0.24 J	1	3 / 5	0.24 - 3	1.41

SEPTEMBER 2002
NSA MID-SOUTH NORTHSIDE
LONG-TERM GROUNDWATER MONITORING RESULTS
VOLATILE ORGANIC COMPOUNDS (ug/L)
(DETECTS ONLY)*

Well ID	Cas No.	Parameter	PRGs (ug/L)	MCLs (ug/L)	MAR_99	JUL_00	AUG_01	SEP_02	Frequency	Range**	Mean of Detections**
	156592	cis-1,2-Dichloroethene	61	70			1 U	0.9 J	2 / 3	0.9 - 1.45	1.18
	75092	Methylene chloride	4.3	5	3 U	35 U	0.38 J	5 U	1 / 5	0.38 - 0.38	0.38
	127184	Tetrachloroethene	0.66	5	3 U	**1 J**	0.52 J	0.4 J	3 / 5	0.4 - 1	0.64
	79016	Trichloroethene	0.028	5	3 U	**8**	**0.49 J**	**4**	4 / 5	0.49 - 8	4.58
007G48LF	75252	Bromoform	8.5	80	3 U	5 U	1 U	1	1 / 5	1 - 1	1.00
	67663	Chloroform	6.2	80	3 U	5 U	1 U	1 U	1 / 5	1.41 - 1.41	1.41
	124481	Dibromochloromethane	0.13	80	3 U	5 U	1 U	**0.7 J**	1 / 5	0.7 - 0.7	0.70
007G49LF	75252	Bromoform	8.5	80		5 U	1 U	0.7 J	1 / 4	0.7 - 0.7	0.70
	56235	Carbon tetrachloride	0.17	5		5 U	**0.44 J**	**0.3 J**	2 / 4	0.3 - 0.44	0.37
	79016	Trichloroethene	0.028	5		5 U	**0.82 J**	**0.8 J**	3 / 4	0.82 - 2	1.21
007G52LF	75343	1,1-Dichloroethane	810			5 U	1.4	2	2 / 4	1.4 - 2	1.70
	75354	1,1-Dichloroethene	340	7		5 U	1 U	0.8 J	1 / 4	0.8 - 0.8	0.80
	107062	1,2-Dichloroethane	0.12	5		5 U	1 U	**0.5 J**	1 / 4	0.5 - 0.5	0.50
	75150	Carbon disulfide	1000			5 U	0.38 J	1 U	1 / 4	0.38 - 0.38	0.38
	56235	Carbon tetrachloride	0.17	5		5 U	**3**	**2**	3 / 4	2 - 3.29	2.76
	67663	Chloroform	6.2	80		5 U	2.8	3	3 / 4	2.8 - 3.35	3.05
	156592	cis-1,2-Dichloroethene	61	70			2.1	5	3 / 3	1.98 - 5	3.03
	127184	Tetrachloroethene	0.66	5		5 U	**4.9 J**	**7**	3 / 4	4.72 - 7	5.54
	108883	Toluene	720	1000		5 U	1 U	1 U	1 / 4	1.44 - 1.44	1.44
	79016	Trichloroethene	0.028	5		5 U	**4.6**	**10**	3 / 4	3.74 - 10	6.11
007G53LF	75150	Carbon disulfide	1000			5 U	0.64 J	1 U	1 / 4	0.64 - 0.64	0.64
	56235	Carbon tetrachloride	0.17	5		5 U	**1.7**	**2**	2 / 4	1.7 - 2	1.85
	67663	Chloroform	6.2	80		5 U	0.47 J	0.8 J	2 / 4	0.47 - 0.8	0.64
	127184	Tetrachloroethene	0.66	5		5 U	1 U	0.5 J	1 / 4	0.5 - 0.5	0.50
	108883	Toluene	720	1000		5 U	1 U	1 U	1 / 4	1.54 - 1.54	1.54
	79016	Trichloroethene	0.028	5		5 U	1 U	**0.2 J**	1 / 4	0.2 - 0.2	0.20
354LF	75343	1,1-Dichloroethane	810			5 U	1.1	0.9 J	1 / 4	0.9 - 0.9	0.90
	107062	1,2-Dichloroethane	0.12	5		5 U	1 U	**1**	1 / 4	1 - 1	1.00
	75252	Bromoform	8.5	80		5 U	1 U	0.7 J	1 / 4	0.7 - 0.7	0.70
	56235	Carbon tetrachloride	0.17	5		5 U	**1.8**	**1**	1 / 4	1 - 1	1.00
	67663	Chloroform	6.2	80		2 J	1.5	2	4 / 4	1.5 - 2	1.77
	156592	cis-1,2-Dichloroethene	61	70			2.5 J	4	3 / 3	2.31 - 4	2.94
	127184	Tetrachloroethene	0.66	5		**2 J**	**2.1**	**3**	4 / 4	2 - 3	2.45
	79016	Trichloroethene	0.028	5		**8**	**7.2**	**9**	4 / 4	7.9 - 9	8.03
007G57LF	75343	1,1-Dichloroethane	810			150 U	5 U	10 U	8 / 14	1 - 2.4	1.55
	75354	1,1-Dichloroethene	340	7		**72 J**	**48**	**28**	12 / 14	5 - 95	42.33
	67641	Acetone	610			500 U	120 U	250 U	1 / 14	1 - 1	1.00
	56235	Carbon tetrachloride	0.17	5		150 U	5 U	10 U	7 / 14	1 - 3	2.09
	67663	Chloroform	6.2	80		150 U	3 J	10 U	9 / 14	2 - 5.1	3.34
	156592	cis-1,2-Dichloroethene	61	70		150 U	**86**	13	12 / 14	2 - 86	25.53
	124481	Dibromochloromethane	0.13	80		150 U	5 U	10 U	1 / 14	17 - 17	17.00
	100414	Ethylbenzene	2.9	700		150 U	5 U	10 U	3 / 14	3 - 74	26.67
	127184	Tetrachloroethene	0.66	5		**70 J**	**41**	**30**	13 / 14	5.2 - 97	43.09
	108883	Toluene	720	1000		150 U	5 U	10 U	1 / 14	2 - 2	2.00
	156605	trans-1,2-Dichloroethene	120	100		150 U	5 U	10 U	1 / 14	1 - 1	1.00
	79016	Trichloroethene	0.028	5		**2300**	**1200 D**	**10 U**	13 / 14	160 - 4400	1849.23
	75014	Vinyl chloride	0.02	2		150 U	5 U	10 U	1 / 14	3 - 3	3.00
	1330207	Xylene (Total)	210	10000		150 U	10 U	20 U	3 / 14	16 - 370	134.00
007G58LFA	75343	1,1-Dichloroethane	810			60 U	10 U	0.9 J	7 / 13	0.9 - 1	0.99
	75354	1,1-Dichloroethene	340	7		**56 J**	**32**	**15**	12 / 13	3.2 - 56	30.77
	71432	Benzene	0.34	5		60 U	10 U	0.2 J	1 / 13	0.2 - 0.2	0.20
	56235	Carbon tetrachloride	0.17	5		60 U	10 U	1 U	8 / 13	2 - 35	10.75
	67663	Chloroform	6.2	80		60 U	3.2 J	0.3 J	11 / 13	0.3 - 6	3.45
	156592	cis-1,2-Dichloroethene	61	70		60 U	**980**	**560 D**	11 / 13	2.1 - 980	393.83
	127184	Tetrachloroethene	0.66	5		**55 J**	**5.9 J**	**0.8 J**	13 / 13	0.8 - 55	20.81
	156605	trans-1,2-Dichloroethene	120	100		60 U	4.3 J	1	7 / 13	1 - 11	4.19
	79016	Trichloroethene	0.028	5		**2700**	**150**	**30**	13 / 13	30 - 2700	1045.92

SEPTEMBER 2002
NSA MID-SOUTH NORTHSIDE
LONG-TERM GROUNDWATER MONITORING RESULTS
VOLATILE ORGANIC COMPOUNDS (ug/L)
(DETECTS ONLY)*

Well ID	Cas No.	Parameter	PRGs (ug/L)	MCLs (ug/L)	MAR_99	JUL_00	AUG_01	SEP_02	Frequency	Range**	Mean of Detections**
	75014	Vinyl chloride	0.02	2		60 U	**4.1 J**	**210 D**	2 / 13	4.1 - 210	107.05
007G58LFB	75343	1,1-Dichloroethane	810			60 U	10 U	1	6 / 14	1 - 1	1.00
	75354	1,1-Dichloroethene	340	7		**61**	**34**	**10**	13 / 14	4.9 - 61	30.30
	56235	Carbon tetrachloride	0.17	5		60 U	10 U	1 U	6 / 14	2 - 32	13.33
	67663	Chloroform	6.2	80		60 U	10 U	1 U	7 / 14	2 - 5	3.54
	156592	cis-1,2-Dichloroethene	61	70		60 U	**990**	**320 D**	12 / 14	2 - 1300	496.06
	127184	Tetrachloroethene	0.66	5		**63**	**6.3 J**	0.2 J	13 / 14	0.2 - 63	19.69
	156605	trans-1,2-Dichloroethene	120	100		60 U	3.8 J	0.4 J	8 / 14	0.4 - 7	2.68
	79016	Trichloroethene	0.028	5		**2600**	**88**	**9**	14 / 14	9 - 2600	871.57
	75014	Vinyl chloride	0.02	2		60 U	**3.3 J**	**380 D**	3 / 14	3.3 - 380	181.10
007G59LFA	75343	1,1-Dichloroethane	810			60 U	10 U	2	8 / 13	1 - 2	1.13
	75354	1,1-Dichloroethene	340	7		**33 J**	**25**	**41 J**	12 / 13	6 - 41	29.17
	67641	Acetone	610			200 U	250 U	25 UR	1 / 13	6 - 6	6.00
	71432	Benzene	0.34	5		60 U	10 U	0.2 J	1 / 13	0.2 - 0.2	0.20
	75252	Bromoform	8.5	80		60 U	10 U	0.2 J	1 / 13	0.2 - 0.2	0.20
	56235	Carbon tetrachloride	0.17	5		60 U	10 U	1 U	8 / 13	1 - 6.3	2.66
	67663	Chloroform	6.2	80		60 U	10 U	0.6 J	10 / 13	0.6 - 6	2.68
	156592	cis-1,2-Dichloroethene	61	70		60 U	**850**	**890 D**	12 / 13	1 - 890	298.84
	75092	Methylene chloride	4.3	5		60 U	50 U	5 U	1 / 13	1 - 1	1.00
	127184	Tetrachloroethene	0.66	5		60 U	10 U	**0.8 J**	11 / 13	0.8 - 49	20.90
	156605	trans-1,2-Dichloroethene	120	100		60 U	10 U	3	5 / 13	2 - 4	2.80
	79016	Trichloroethene	0.028	5		**2000**	**9.4 J**	**23**	13 / 13	9.4 - 2100	1058.18
	75014	Vinyl chloride	0.02	2		60 U	10 U	**110 D**	1 / 13	110 - 110	110.00
007G59LFB	75343	1,1-Dichloroethane	810			60 U	10 U	2	8 / 14	1 - 2	1.13
	75354	1,1-Dichloroethene	340	7		**45 J**	**35**	**34**	14 / 14	2 - 48	28.71
	67641	Acetone	610			200 U	250 U	25 UR	1 / 14	2 - 2	2.00
	71432	Benzene	0.34	5		60 U	10 U	0.2 J	1 / 14	0.2 - 0.2	0.20
	75252	Bromoform	8.5	80		60 U	10 U	0.2 J	1 / 14	0.2 - 0.2	0.20
	75150	Carbon disulfide	1000			60 U	10 U	1 U	1 / 14	1 - 1	1.00
	56235	Carbon tetrachloride	0.17	5		60 U	10 U	1 U	7 / 14	1 - 10	3.57
	67663	Chloroform	6.2	80		60 U	10 U	1 U	7 / 14	1 - 5	2.74
	156592	cis-1,2-Dichloroethene	61	70		60 U	**1100**	**810 D**	12 / 14	2 - 1100	446.08
	75092	Methylene chloride	4.3	5		60 U	50 U	5 U	1 / 14	1 - 1	1.00
	127184	Tetrachloroethene	0.66	5		**46 J**	**5.7 J**	0.4 J	13 / 14	0.4 - 55	20.87
	156605	trans-1,2-Dichloroethene	120	100		60 U	10 U	2	7 / 14	1 - 5	2.70
	79016	Trichloroethene	0.028	5		**2400**	**19**	**12**	14 / 14	12 - 2500	993.07
	75014	Vinyl chloride	0.02	2		60 U	**17**	**200 D**	3 / 14	17 - 200	119.00
007G60LF	75343	1,1-Dichloroethane	810			60 U	1 U	1	7 / 12	1 - 2	1.40
	75354	1,1-Dichloroethene	340	7		**56 J**	1 U	0.6 J	9 / 12	0.6 - 56	32.51
	78933	2-Butanone (MEK)	1900			200 U	10 U	10 U	1 / 12	4 - 4	4.00
	56235	Carbon tetrachloride	0.17	5		60 U	1 U	1 U	7 / 12	1 - 5.1	3.44
	67663	Chloroform	6.2	80		60 U	1 U	1 U	5 / 12	3 - 11	5.24
	156592	cis-1,2-Dichloroethene	61	70		60 U	1 U	19	8 / 12	2 - 54	15.96
	100414	Ethylbenzene	2.9	700		60 U	1 U	1 U	1 / 12	1 - 1	1.00
	75092	Methylene chloride	4.3	5		60 U	5 U	5 U	1 / 12	1 - 1	1.00
	127184	Tetrachloroethene	0.66	5		**66**	1 U	0.2 J	9 / 12	0.2 - 66	37.36
	108883	Toluene	720	1000		60 U	0.59 J	0.2 J	2 / 12	0.2 - 0.59	0.40
	79016	Trichloroethene	0.028	5		**2100**	**0.61 J**	**0.3 J**	12 / 12	0.3 - 3000	1222.45
	75014	Vinyl chloride	0.02	2		60 U	**190 D**	**150 D**	4 / 12	3.8 - 540	220.95
	1330207	Xylene (Total)	210	10000		60 U	2 U	2 U	1 / 12	1 - 1	1.00
007G61LF	75343	1,1-Dichloroethane	810			60 U	1 U	0.5 J	8 / 12	0.5 - 2	1.18
	75354	1,1-Dichloroethene	340	7		**62**	1 U	1 U	6 / 12	4 - 62	41.33
	78933	2-Butanone (MEK)	1900			200 U	10 U	10 U	3 / 12	3 - 210	79.67
	67641	Acetone	610			200 U	25 U	25 UR	1 / 12	6 - 6	6.00
	71432	Benzene	0.34	5		60 U	1 U	0.2 J	2 / 12	0.2 - 0.21	0.21
	56235	Carbon tetrachloride	0.17	5		60 U	1 U	1 U	4 / 12	3 - 8	5.40
	75003	Chloroethane	4.6			60 U	1 U	1 U	1 / 12	0.54 - 0.54	0.54

SEPTEMBER 2002
NSA MID-SOUTH NORTHSIDE
LONG-TERM GROUNDWATER MONITORING RESULTS
VOLATILE ORGANIC COMPOUNDS (ug/L)
(DETECTS ONLY)*

Well ID	Cas No.	Parameter	PRGs (ug/L)	MCLs (ug/L)	MAR_99	JUL_00	AUG_01	SEP_02	Frequency	Range**	Mean of Detections**
	67663	Chloroform	6.2	80		60 U	1 U	1 U	5 / 12	3 - 4.5	3.70
	156592	cis-1,2-Dichloroethene	61	70		60 U	1 U	0.3 J	8 / 12	0.3 - 57	13.70
	75092	Methylene chloride	4.3	5		60 U	0.45 J	5 U	2 / 12	0.45 - 2	1.23
	127184	Tetrachloroethene	0.66	5		**75**	1 U	1 U	7 / 12	6 - 75	44.14
	108883	Toluene	720	1000		60 U	0.72 J	0.4 J	3 / 12	0.4 - 0.72	0.58
	79016	Trichloroethene	0.028	5		**2200**	1 U	1 U	8 / 12	300 - 3400	1862.50
	75014	Vinyl chloride	0.02	2		60 U	**200**	**140 D**	4 / 12	140 - 480	252.50
007G62LFA	75343	1,1-Dichloroethane	810				1 U	1	5 / 8	1 - 2	1.20
	75354	1,1-Dichloroethene	340	7			2.4	0.6 J	8 / 8	0.6 - 47	27.25
	74839	Bromomethane	8.7				1 U	1 U	1 / 8	2 - 2	2.00
	75003	Chloroethane	4.6				1 U	1 U	1 / 8	1 - 1	1.00
	67663	Chloroform	6.2	80			1 U	1 U	2 / 8	3 - 3	3.00
	156592	cis-1,2-Dichloroethene	61	70			**69**	15	8 / 8	15 - 1100	775.50
	75092	Methylene chloride	4.3	5			5 U	5 U	2 / 8	1 - 1	1.00
	127184	Tetrachloroethene	0.66	5			**0.72 J**	0.6 J	6 / 8	0.6 - 22	8.89
	156605	trans-1,2-Dichloroethene	120	100			1 U	1 U	3 / 8	2 - 8	5.67
	79016	Trichloroethene	0.028	5			1 U	**3**	7 / 8	2 - 700	212.43
	75014	Vinyl chloride	0.02	2			**38**	**250 D**	3 / 8	38 - 250	123.00
007G62LFB	75343	1,1-Dichloroethane	810				5 U	1	5 / 9	1 - 2	1.40
	75354	1,1-Dichloroethene	340	7			**12**	2	9 / 9	1.9 - 47	25.77
	71432	Benzene	0.34	5			5 U	**0.5 J**	1 / 9	0.5 - 0.5	0.50
	75252	Bromoform	8.5	80			5 U	0.4 J	1 / 9	0.4 - 0.4	0.40
	67663	Chloroform	6.2	80			5 U	1 U	2 / 9	3 - 3	3.00
	156592	cis-1,2-Dichloroethene	61	70			**480**	**70 D**	9 / 9	40 - 1100	740.00
	75092	Methylene chloride	4.3	5			25 U	5 U	2 / 9	1 - 1	1.00
	127184	Tetrachloroethene	0.66	5			5 U	**1**	5 / 9	1 - 28	12.20
	156605	trans-1,2-Dichloroethene	120	100			5 U	1 U	3 / 9	3 - 14	8.67
	79016	Trichloroethene	0.028	5			5 U	**18**	7 / 9	1 - 820	251.86
	75014	Vinyl chloride	0.02	2			**190**	**250 D**	3 / 9	190 - 510	260.50
007G63LFA	75343	1,1-Dichloroethane	810				1 U	2	7 / 8	1 - 2	1.43
	75354	1,1-Dichloroethene	340	7			1 U	1	7 / 8	1 - 40	29.86
	71432	Benzene	0.34	5			1 U	0.2 J	1 / 8	0.2 - 0.2	0.20
	74839	Bromomethane	8.7				1 U	1 U	1 / 8	1 - 1	1.00
	67663	Chloroform	6.2	80			1 U	1 U	2 / 8	4 - 4	4.00
	74873	Chloromethane	1.5				1 U	1 U	1 / 8	3 - 3	3.00
	156592	cis-1,2-Dichloroethene	61	70			0.78 J	40 D	8 / 8	0.78 - 1000	267.85
	75092	Methylene chloride	4.3	5			5 U	5 U	2 / 8	1 - 1	1.00
	127184	Tetrachloroethene	0.66	5			1 U	0.2 J	6 / 8	0.2 - 50	31.20
	156605	trans-1,2-Dichloroethene	120	100			1 U	0.2 J	4 / 8	0.2 - 5	2.80
	79016	Trichloroethene	0.028	5			1 U	**0.8 J**	7 / 8	0.8 - 1800	920.11
	75014	Vinyl chloride	0.02	2			**700 D**	**260 D**	2 / 8	260 - 700	480.00
007G63LFB	75343	1,1-Dichloroethane	810				1 U	1	5 / 9	1 - 1.4	1.08
	75354	1,1-Dichloroethene	340	7			1 U	1 U	7 / 9	6 - 44	30.57
	71432	Benzene	0.34	5			1 U	1 U	1 / 9	0.2 - 0.2	0.20
	67663	Chloroform	6.2	80			1 U	1 U	3 / 9	2 - 4	3.00
	156592	cis-1,2-Dichloroethene	61	70			1 U	14	8 / 9	14 - 1200	313.38
	75092	Methylene chloride	4.3	5			5 U	5 U	1 / 9	1 - 1	1.00
	127184	Tetrachloroethene	0.66	5			1 U	1 U	6 / 9	0.74 - 53	31.62
	156605	trans-1,2-Dichloroethene	120	100			1 U	1 U	4 / 9	0.47 - 4	1.75
	79016	Trichloroethene	0.028	5			1 U	**0.4 J**	7 / 9	0.4 - 1700	912.77
	75014	Vinyl chloride	0.02	2			1 U	**230 D**	3 / 9	4 - 420	284.67
007GMCNA	78875	1,2-Dichloropropane	0.16	5		5 U	**4.8**	1 U	1 / 5	4.8 - 4.8	4.80
	67641	Acetone	610			5 UR	25 U	25 UR	1 / 5	17.5 - 17.5	17.50
	75252	Bromoform	8.5	80		5 U	1 U	0.4 J	1 / 5	0.4 - 0.4	0.40
	108883	Toluene	720	1000		5 U	1 U	1 U	1 / 5	1.12 - 1.12	1.12
	75014	Vinyl chloride	0.02	2		5 U	**2.2**	**9**	4 / 5	1.66 - 9	4.83
PZ03	75343	1,1-Dichloroethane	810		2 J	5 U		0.7 J	3 / 5	0.7 - 2	1.34

SEPTEMBER 2002
NSA MID-SOUTH NORTHSIDE
LONG-TERM GROUNDWATER MONITORING RESULTS
VOLATILE ORGANIC COMPOUNDS (ug/L)
(DETECTS ONLY)*

Well ID	Cas No.	Parameter	PRGs (ug/L)	MCLs (ug/L)	MAR_99	JUL_00	AUG_01	SEP_02	Frequency	Range**	Mean of Detections**
	75252	Bromoform	8.5	80	3 U	5 U		0.2 J	1 / 5	0.2 - 0.2	0.20
	56235	Carbon tetrachloride	0.17	5	**11**	**6 J**		**4**	4 / 5	4 - 11	7.47
	67663	Chloroform	6.2	80	2 J	2 J		1	4 / 5	1 - 3.19	2.17
	156592	cis-1,2-Dichloroethene	61	70				2	2 / 3	2 - 3.04	2.52
	127184	Tetrachloroethene	0.66	5	**8**	**3 J**		**4**	4 / 5	3 - 8	5.37
	79016	Trichloroethene	0.028	5	**6**	**4 J**		**3**	4 / 5	3 - 6.08	4.77
007GWLMS	75252	Bromoform	8.5	80		5 U	1 U	2	1 / 3	2 - 2	2.00
015G01LF	75343	1,1-Dichloroethane	810			5 U	4.7	2 J	3 / 7	1 - 4.7	2.57
	75354	1,1-Dichloroethene	340	7		5 U	3.9	2 J	3 / 7	1 - 3.9	2.30
	71432	Benzene	0.34	5		**5 J**	1 U	1 U	1 / 7	5 - 5	5.00
	75252	Bromoform	8.5	80		5 U	1 U	0.8 J	1 / 7	0.8 - 0.8	0.80
	56235	Carbon tetrachloride	0.17	5		5 U	1 U	**2 J**	5 / 7	1.8 - 2.4	2.04
	108907	Chlorobenzene	110	100		5 U	0.12 J	1 U	1 / 7	0.12 - 0.12	0.12
	67663	Chloroform	6.2	80		5 U	1 U	0.9 J	1 / 7	0.9 - 0.9	0.90
	156592	cis-1,2-Dichloroethene	61	70			1.4	1 J	1 / 2	1 - 1	1.00
	75092	Methylene chloride	4.3	5		5 U	5 U	5 U	1 / 7	3.8 - 3.8	3.80
	127184	Tetrachloroethene	0.66	5		**4 J**	**0.83 J**	**9 J**	5 / 7	0.83 - 9	3.35
	108883	Toluene	720	1000		5 U	0.42 J	1 U	1 / 7	0.42 - 0.42	0.42
	79016	Trichloroethene	0.028	5		**7**	**1.9**	**10 J**	7 / 7	1.9 - 10	7.06
	75014	Vinyl chloride	0.02	2		5 U	**0.34 J**	1 U	1 / 7	0.34 - 0.34	0.34
	1330207	Xylene (Total)	210	10000		5 U	0.73 J	2 U	1 / 7	0.73 - 0.73	0.73
015G01UF	107062	1,2-Dichloroethane	0.12	5		**84**	25 U	1 U	1 / 7	84 - 84	84.00
	67641	Acetone	610			100	620 U	25 UR	1 / 7	100 - 100	100.00
	71432	Benzene	0.34	5		**2100 D**	**3800**	**2100 D**	7 / 7	2100 - 4900	3585.71
	75252	Bromoform	8.5	80		5 U	25 U	2	1 / 7	2 - 2	2.00
	124481	Dibromochloromethane	0.13	80		5 U	25 U	**2**	1 / 7	2 - 2	2.00
	100414	Ethylbenzene	2.9	700		**32**	**150**	**46 D**	7 / 7	21 - 130	61.94
	108883	Toluene	720	1000		5 U	25 U	2	2 / 7	1.6 - 2	1.80
	1330207	Xylene (Total)	210	10000		5 U	40 J	6	2 / 7	6 - 40	23.00
015G02LF	75343	1,1-Dichloroethane	810			7	4	1	4 / 7	1 - 7	3.50
	75354	1,1-Dichloroethene	340	7		**8 J**	3.7	0.9	5 / 7	0.9 - 8	3.06
	71432	Benzene	0.34	5		5 U	1 U	1 U	2 / 7	3 - 3.2	3.10
	75252	Bromoform	8.5	80		5 U	1 U	6	1 / 7	6 - 6	6.00
	75150	Carbon disulfide	1000			5 U	0.42 J	1 U	2 / 7	0.42 - 7	3.71
	156592	cis-1,2-Dichloroethene	61	70			1.2	1 U	1 / 2	1.2 - 1.2	1.20
	124481	Dibromochloromethane	0.13	80		5 U	1 U	**2**	1 / 7	2 - 2	2.00
	127184	Tetrachloroethene	0.66	5		5 U	0.58 J	1 U	1 / 7	0.58 - 0.58	0.58
	79016	Trichloroethene	0.028	5		5 U	**1.6**	**0.6 J**	4 / 7	1 - 1.6	1.20
015G02UF	75343	1,1-Dichloroethane	810			4 J	0.67 J	1 U	4 / 7	0.67 - 8.4	4.26
	75354	1,1-Dichloroethene	340	7		4 J	1 U	1 U	1 / 7	4 - 4	4.00
	67641	Acetone	610			5 U	25 U	25 UR	1 / 7	240 - 240	240.00
	71432	Benzene	0.34	5		5 U	**4**	**2**	6 / 7	2 - 34	13.83
	100414	Ethylbenzene	2.9	700		5 U	**39**	**44 D**	6 / 7	5 - 92	49.80
	108883	Toluene	720	1000		5 U	0.5 J	1 U	3 / 7	0.5 - 3	1.50
	1330207	Xylene (Total)	210	10000		5 U	4.9	2	5 / 7	2 - 12	6.40
015G03LF	124481	Dibromochloromethane	0.13	80		5 U	1 U	**1**	1 / 7	1 - 1	1.00
015G03UF	67641	Acetone	610			5 U	25 U	25 UR	1 / 7	68 - 68	68.00
015G04LF	75343	1,1-Dichloroethane	810			5 U	1 U	1	1 / 7	1 - 1	1.00
	75354	1,1-Dichloroethene	340	7		5 U	1.4	1 U	1 / 7	1.4 - 1.4	1.40
	67641	Acetone	610			5 UR	25 U	25 UR	1 / 7	7 - 7	7.00
	75252	Bromoform	8.5	80		5 U	1 U	2	1 / 7	2 - 2	2.00
	156592	cis-1,2-Dichloroethene	61	70			0.56 J	0.5 J	2 / 2	0.5 - 0.56	0.53
	79016	Trichloroethene	0.028	5		5 U	**2**	**1**	6 / 7	1 - 2	1.65
015G04UF	67641	Acetone	610			5 UR	25 U	25 UR	1 / 7	120 - 120	120.00
	75252	Bromoform	8.5	80		5 U	1 U	2	1 / 7	2 - 2	2.00
015G01LF	67641	Acetone	610			5 U	25 U	25 UR	1 / 4	540 - 540	540.00
	71432	Benzene	0.34	5		5 U	0.16 J	1 U	1 / 4	0.16 - 0.16	0.16

SEPTEMBER 2002
NSA MID-SOUTH NORTHSIDE
LONG-TERM GROUNDWATER MONITORING RESULTS
VOLATILE ORGANIC COMPOUNDS (ug/L)
(DETECTS ONLY)*

Well ID	Cas No.	Parameter	PRGs (ug/L)	MCLs (ug/L)	MAR_99	JUL_00	AUG_01	SEP_02	Frequency	Range**	Mean of Detections**
	75252	Bromoform	8.5	80		5 U	1 U	1	1 / 4	1 - 1	1.00
	75252	Bromoform	8.5	80		5 U	1 U	2	1 / 7	2 - 2	2.00
	56235	Carbon tetrachloride	0.17	5		5 U	**0.64 J**	**0.3 J**	2 / 4	0.3 - 0.64	0.47
	67663	Chloroform	6.2	80		2 J	3.6	6	3 / 4	2 - 6	3.87
	156592	cis-1,2-Dichloroethene	61	70			2.9	0.9 J	2 / 2	0.9 - 2.9	1.90
	75092	Methylene chloride	4.3	5		2 J	0.8 J	5 U	2 / 4	0.8 - 2	1.40
	127184	Tetrachloroethene	0.66	5		**8**	**70**	**150 D**	4 / 4	8 - 170	99.50
	108883	Toluene	720	1000		5 U	0.72 J	1 U	1 / 7	0.72 - 0.72	0.72
	79016	Trichloroethene	0.028	5		**27**	**29**	**4**	4 / 4	4 - 29	19.50
021G01LF	75252	Bromoform	8.5	80		5 U	1 U	2	1 / 7	2 - 2	2.00
	108883	Toluene	720	1000		5 U	0.72 J	1 U	1 / 7	0.72 - 0.72	0.72
021G02LF	75252	Bromoform	8.5	80		5 U	1 U	2	1 / 6	2 - 2	2.00
	127184	Tetrachloroethene	0.66	5		**4 J**	1 U	1 U	1 / 6	4 - 4	4.00
	108883	Toluene	720	1000		5 U	0.56 J	1 U	1 / 6	0.56 - 0.56	0.56
	79016	Trichloroethene	0.028	5		**4 J**	1 U	1 U	1 / 6	4 - 4	4.00
021G03LF	75252	Bromoform	8.5	80		5 U	1 U	0.3 J	1 / 6	0.3 - 0.3	0.30
	67663	Chloroform	6.2	80		2 J	1 U	1 U	1 / 6	2 - 2	2.00
	127184	Tetrachloroethene	0.66	5		**6 J**	1 U	1 U	1 / 6	6 - 6	6.00
	108883	Toluene	720	1000		5 U	0.47 J	1 U	1 / 6	0.47 - 0.47	0.47
	79016	Trichloroethene	0.028	5		**4 J**	1 U	1 U	1 / 6	4 - 4	4.00
021G04UF	75252	Bromoform	8.5	80		5 U	1 U	0.8 J	1 / 6	0.8 - 0.8	0.80
	67641	Acetone	610			5 UJ	25 U	25 U	1 / 6	15 - 15	15.00
	56235	Carbon tetrachloride	0.17	5		5 U	**9.9**	**22**	5 / 6	2 - 22	8.82
[illegible]02LF	71556	1,1,1-Trichloroethane	540	200		5 U	1 U	1 U	1 / 10	210 - 210	210.00
	75343	1,1-Dichloroethane	810			5 U	1 U	1 U	1 / 10	89 - 89	89.00
	75354	1,1-Dichloroethene	340	7		5 U	1 U	1 U	1 / 10	4.6 - 4.6	4.60
	78933	2-Butanone (MEK)	1900			5 UR	10 U	10 U	1 / 10	110 - 110	110.00
	108101	4-Methyl-2-Pentanone (MIB	160			5 U	10 U	10 U	1 / 10	21 - 21	21.00
	67641	Acetone	610			5 U	25 U	25 UR	1 / 10	150 - 150	150.00
	67663	Chloroform	6.2	80		5 U	1 U	1 U	1 / 10	1 - 1	1.00
	100414	Ethylbenzene	2.9	700		5 U	1 U	1 U	1 / 10	25 - 25	25.00
	75092	Methylene chloride	4.3	5		5 U	5 U	5 U	1 / 10	17 - 17	17.00
	108883	Toluene	720	1000		5 U	0.51 J	1 U	2 / 10	0.51 - 230	115.26
	1330207	Xylene (Total)	210	10000		5 U	2 U	2 U	1 / 10	98 - 98	98.00
060G04LF	56235	Carbon tetrachloride	0.17	5		5 U	**0.34 J**	1 U	1 / 9	0.34 - 0.34	0.34
0BGG05LF	75252	Bromoform	8.5	80		5 U	1 U	1	1 / 6	1 - 1	1.00
	56235	Carbon tetrachloride	0.17	5		5 U	1 U	**0.3 J**	1 / 6	0.3 - 0.3	0.30
	127184	Tetrachloroethene	0.66	5		**36 J**	**35 J**	**56 D**	6 / 6	24 - 56	33.67
	79016	Trichloroethene	0.028	5		5 U	1 U	**0.2 J**	1 / 6	0.2 - 0.2	0.20
0BGG05UF	75252	Bromoform	8.5	80		5 U	1 U	2	1 / 7	2 - 2	2.00
	56235	Carbon tetrachloride	0.17	5		5 U	1 U	**0.2 J**	1 / 7	0.2 - 0.2	0.20
	127184	Tetrachloroethene	0.66	5		**16 J**	**20 J**	**38**	7 / 7	16 - 38	22.43
0BGG10UF	75252	Bromoform	8.5	80		5 U	1 U	2	1 / 5	2 - 2	2.00
	75150	Carbon disulfide	1000			5 U	0.66 J	1 U	1 / 5	0.66 - 0.66	0.66
N12G01LF	75343	1,1-Dichloroethane	810			5 U	6.6	2	3 / 4	2 - 7.5	5.37
	75354	1,1-Dichloroethene	340	7		5 U	2.2	1 U	2 / 4	1.9 - 2.2	2.05
	75252	Bromoform	8.5	80		5 U	1 U	0.5 J	1 / 4	0.5 - 0.5	0.50
	56235	Carbon tetrachloride	0.17	5		5 U	**5.5**	**2**	3 / 4	2 - 7.1	4.87
	67663	Chloroform	6.2	80		5 U	1.7	2	2 / 4	1.7 - 2	1.85
	156592	cis-1,2-Dichloroethene	61	70			1.5 J	1	2 / 2	1 - 1.5	1.25
	127184	Tetrachloroethene	0.66	5		5 U	**4.1**	**10**	3 / 4	4.1 - 10	6.83
	79016	Trichloroethene	0.028	5		**4 J**	**19**	**10**	4 / 4	4 - 28	15.25
N12G02LF	75343	1,1-Dichloroethane	810			5 U	1.1	1	2 / 4	1 - 1.1	1.05
	67641	Acetone	610			9 J	25 U	25 UR	1 / 4	9 - 9	9.00
	71432	Benzene	0.34	5		5 U	0.16 J	1 U	1 / 4	0.16 - 0.16	0.16
	56235	Carbon tetrachloride	0.17	5		5 U	**0.96 J**	**1**	3 / 4	0.82 - 1	0.93
	67663	Chloroform	6.2	80		5 U	0.41 J	0.5 J	2 / 4	0.41 - 0.5	0.46

SEPTEMBER 2002
NSA MID-SOUTH NORTHSIDE
LONG-TERM GROUNDWATER MONITORING RESULTS
VOLATILE ORGANIC COMPOUNDS (ug/L)
(DETECTS ONLY)*

Well ID	Cas No.	Parameter	PRGs (ug/L)	MCLs (ug/L)	MAR_99	JUL_00	AUG_01	SEP_02	Frequency	Range**	Mean of Detections**
	156592	cis-1,2-Dichloroethene	61	70			21	12	2 / 2	12 - 21	16.50
	75092	Methylene chloride	4.3	5		5 U	5 U	5 U	1 / 4	2.2 - 2.2	2.20
	127184	Tetrachloroethene	0.66	5		**3 J**	**2.7**	**6**	4 / 4	1.8 - 6	3.38
	156605	trans-1,2-Dichloroethene	120	100			0.26 J	1 U	1 / 2	0.26 - 0.26	0.26
	79016	Trichloroethene	0.028	5		**13**	**13**	**10**	4 / 4	9.4 - 13	11.35
RDYG0V81	107062	1,2-Dichloroethane	0.12	5	3 U	5 U	1 U	**0.3 J**	1 / 4	0.3 - 0.3	0.30
	75252	Bromoform	8.5	80	3 U	5 U	1 U	2	1 / 4	2 - 2	2.00
	75092	Methylene chloride	4.3	5	3 U	**40**	5 U	5 U	1 / 4	40 - 40	40.00
	127184	Tetrachloroethene	0.66	5	**5**	**5**	**4.3 J**	**5**	4 / 4	4.3 - 5	4.83
	79016	Trichloroethene	0.028	5	3 U	5 U	**0.19 J**	**0.3 J**	2 / 4	0.19 - 0.3	0.25

Note:
ug/L = micrograms/Liter
PRGs = EPA Region 9 Preliminary Remediation Goals (PRGs) dated October 2002.
MCLs = EPA Maximum Contaminant Level (MCL) for Drinking Water
Frequency = Total number of detects/Total number of samples collected and analyzed
* = Only monitoring wells that were sampled at least once during the three most recent long-term monitoring events and displayed at least one detection during all sampling events are included in this table.
** = Frequency, Range and Mean are based on all data analyzed (i.e., all events) and not just the data shown on this table.
B = Analyte was found in associated lab blank as well as the sample
D = Dilution of sample required for analysis
J = Estimated Value
U = Non detect
Blank cell denotes that the well was not sampled.
Bold = Exceeds PRG and/or MCL.

SEPTEMBER 2002
NSA MID-SOUTH N-6
VOLATILE ORGANIC COMPOUNDS (ug/L)
(DETECTS ONLY)*

Well ID	CAS no.	Parameter	PRGs (µg/L)	MCL (µg/L)	Sep/Oct_02
007G15LF	75354	1,1-Dichloroethene	340	7	5
	75252	Bromoform	8.5		2 J
	56235	Carbon tetrachloride	0.17	5	**33**
	67663	Chloroform	6.2		**8**
	156592	cis-1,2-Dichloroethene	61	70	1 J
	79016	Trichloroethene	0.028	5	**7**
007G15UF	75343	1,1-Dichloroethane	810		89 J
	75354	1,1-Dichloroethene	340	7	**380 D**
	71432	Benzene	0.34	5	**5 J**
	56235	Carbon tetrachloride	0.17	5	**12 J**
	67663	Chloroform	6.2		**24 J**
	156592	cis-1,2-Dichloroethene	61	70	18 J
	127184	Tetrachloroethene	0.66	5	**0.7 J**
	79016	Trichloroethene	0.028	5	**530 D**
PES-MW1D	79016	Trichloroethene	0.028	5	**0.7 J**
PES-MW1S	75343	1,1-Dichloroethane	810		21
	75354	1,1-Dichloroethene	340	7	**41**
	71432	Benzene	0.34	5	**0.5 J**
	156592	cis-1,2-Dichloroethene	61	70	27
	156605	trans-1,2-Dichloroethene	120	100	27
	10061026	trans-1,3-Dichloropropene			5 U
	79016	Trichloroethene	0.028	5	**13**
PES-MW2D	75343	1,1-Dichloroethane	810		4 J
	75354	1,1-Dichloroethene	340	7	**18**
	67663	Chloroform	6.2		0.4 J
	156592	cis-1,2-Dichloroethene	61	70	10
	79016	Trichloroethene	0.028	5	**3 J**
PES-MW2S	75343	1,1-Dichloroethane	810		34
	75354	1,1-Dichloroethene	340	7	**190 D**
	71432	Benzene	0.34	5	**6**
	56235	Carbon tetrachloride	0.17	5	**18**
	67663	Chloroform	6.2		**57**
	156592	cis-1,2-Dichloroethene	61	70	**480 D**
	127184	Tetrachloroethene	0.66	5	0.4 J
	79016	Trichloroethene	0.028	5	**350 D**
PES-MW3D	75354	1,1-Dichloroethene	340	7	5
	78933	2-Butanone (MEK)	1900		74
	67641	Acetone	610		40
	156592	cis-1,2-Dichloroethene	61	70	26
	79016	Trichloroethene	0.028	5	**1 J**
PES-MW3S	75343	1,1-Dichloroethane	810		49

SEPTEMBER 2002
NSA MID-SOUTH N-6
VOLATILE ORGANIC COMPOUNDS (ug/L)
(DETECTS ONLY)*

Well ID	CAS no.	Parameter	PRGs (µg/L)	MCL (µg/L)	Sep/Oct_02
	75354	1,1-Dichloroethene	340	7	**170 D**
	71432	Benzene	0.34	5	**3 J**
	56235	Carbon tetrachloride	0.17	5	**0.7 J**
	67663	Chloroform	6.2		2 J
	156592	cis-1,2-Dichloroethene	61	70	13
	127184	Tetrachloroethene	0.66	5	0.6 J
	79016	Trichloroethene	0.028	5	**320 D**
PES-MW4D	75343	1,1-Dichloroethane	810		4 J
	75354	1,1-Dichloroethene	340	7	**22**
	67663	Chloroform	6.2		2 J
	156592	cis-1,2-Dichloroethene	61	70	31
	108883	Toluene	720	1000	1 J
	79016	Trichloroethene	0.028	5	**7**
PES-MW4S	75343	1,1-Dichloroethane	810		31
	75354	1,1-Dichloroethene	340	7	**140**
	78933	2-Butanone (MEK)	1900		56
	71432	Benzene	0.34	5	**3 J**
	67663	Chloroform	6.2		**33**
	156592	cis-1,2-Dichloroethene	61	70	14
	75092	Methylene chloride	4.3	5	4 J
	127184	Tetrachloroethene	0.66	5	**0.7 J**
	79016	Trichloroethene	0.028	5	**380 D**
PES-MW7D	75343	1,1-Dichloroethane	810		11
	75354	1,1-Dichloroethene	340	7	**60**
	71432	Benzene	0.34	5	**2 J**
	75252	Bromoform	8.5		2 J
	56235	Carbon tetrachloride	0.17	5	**220 D**
	67663	Chloroform	6.2		**130**
	156592	cis-1,2-Dichloroethene	61	70	8
	75092	Methylene chloride	4.3	5	1 J
	127184	Tetrachloroethene	0.66	5	0.6 J
	79016	Trichloroethene	0.028	5	**1000 D**
PES-MW7S	75343	1,1-Dichloroethane	810		99
	75354	1,1-Dichloroethene	340	7	**120**
	71432	Benzene	0.34	5	**1 J**
	56235	Carbon tetrachloride	0.17	5	**0.7 J**
	67663	Chloroform	6.2		1 J
	156592	cis-1,2-Dichloroethene	61	70	15
	79016	Trichloroethene	0.028	5	**180**
PES-MW8D	75343	1,1-Dichloroethane	810		6
	75354	1,1-Dichloroethene	340	7	**34**

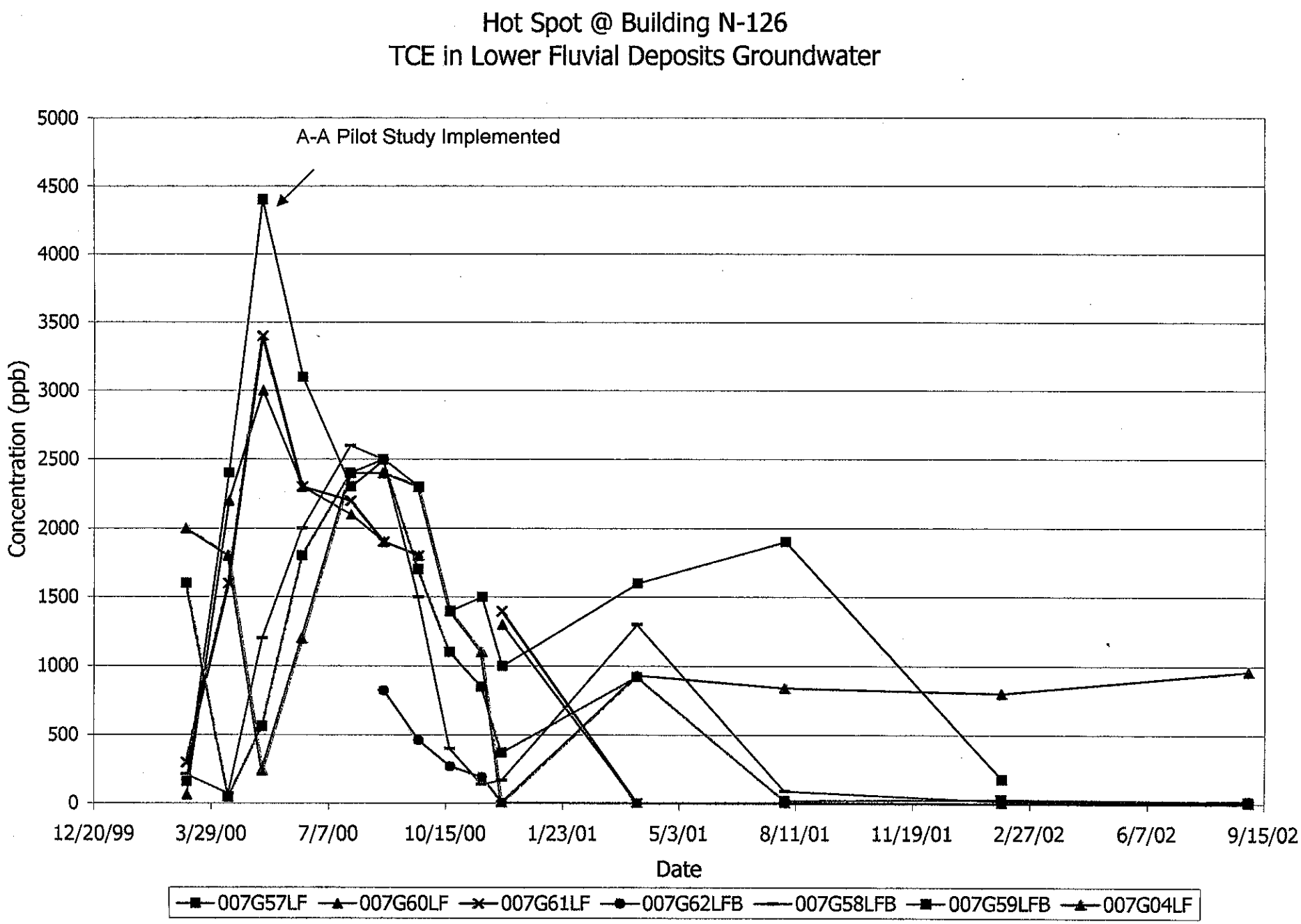
SEPTEMBER 2002
NSA MID-SOUTH N-6
VOLATILE ORGANIC COMPOUNDS (ug/L)
(DETECTS ONLY)*

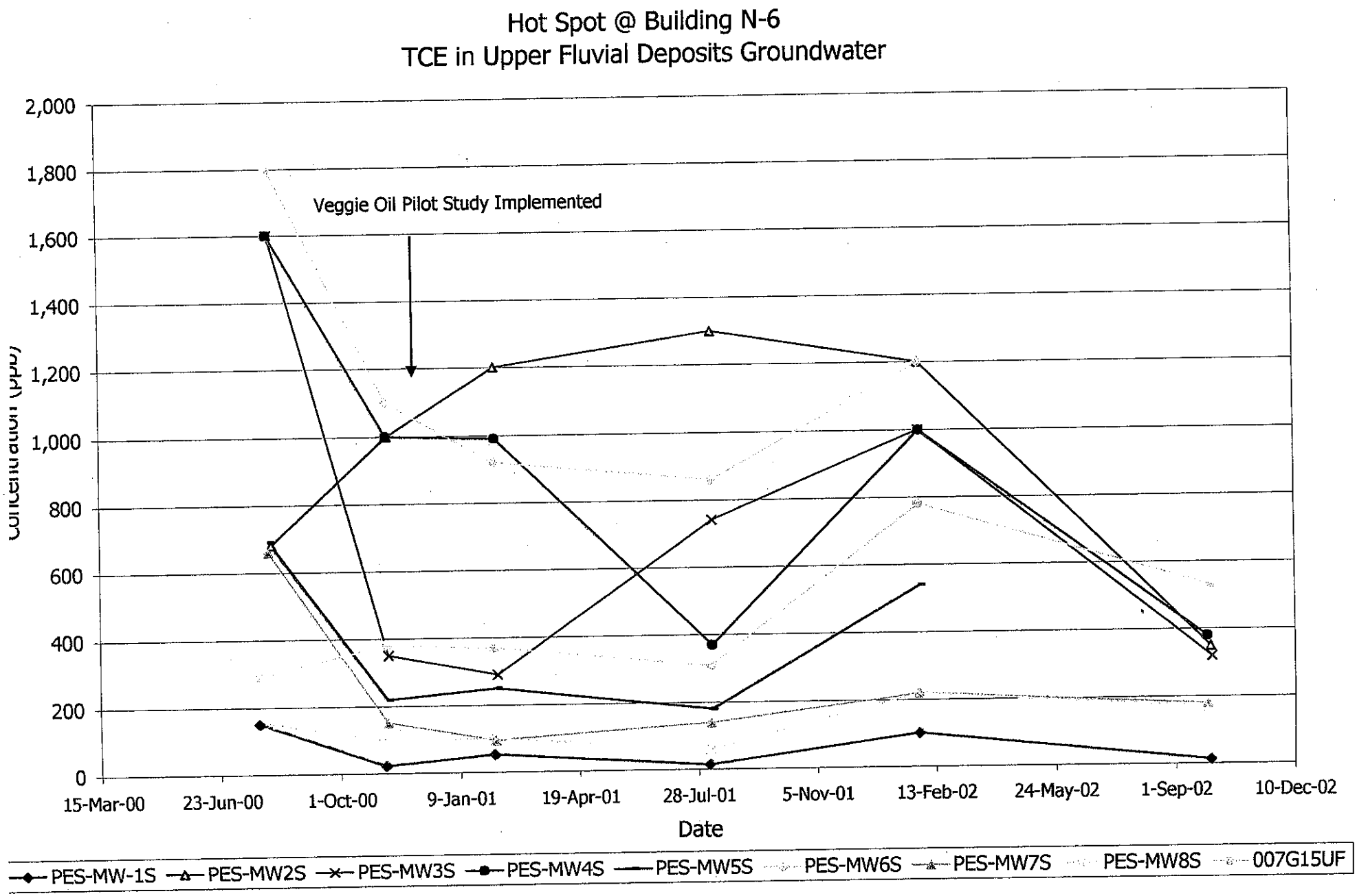
Well ID	CAS no.	Parameter	PRGs (µg/L)	MCL (µg/L)	Sep/Oct_02
	71432	Benzene	0.34	5	**1 J**
	75252	Bromoform	8.5		1 J
	56235	Carbon tetrachloride	0.17	5	**110**
	67663	Chloroform	6.2		**89**
	156592	cis-1,2-Dichloroethene	61	70	4 J
	79016	Trichloroethene	0.028	5	**750 D**
PES-MW8S	75343	1,1-Dichloroethane	810		25
	75354	1,1-Dichloroethene	340	7	**49**
	71432	Benzene	0.34	5	**0.4 J**
	56235	Carbon tetrachloride	0.17	5	**22**
	67663	Chloroform	6.2		**11**
	156592	cis-1,2-Dichloroethene	61	70	1 J
	79016	Trichloroethene	0.028	5	**170**

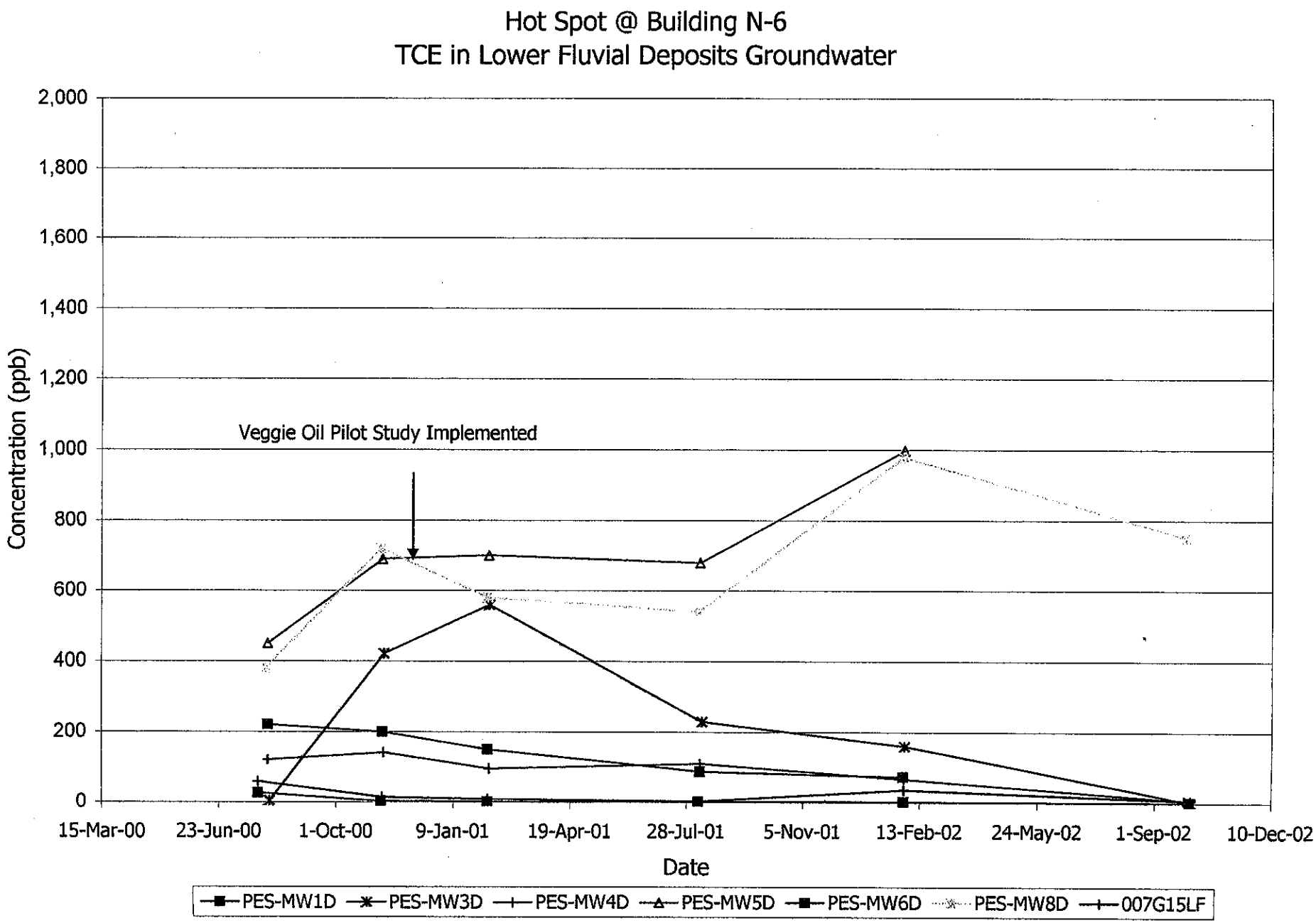
Notes:
ug/L = micrograms/Liter
PRGs = EPA Region 9 Preliminary Remediation Goals (PRGs) dated October 2002.
MCLs = EPA Maximum Contaminant Level (MCL) for Drinking Water dated July 2002.
Frequency = Total number of detects/Total number of samples collected and analyzed
* = Only compounds that displayed a detection during this sampling event are included in this table.
D = Dilution of sample required for analysis
J = Estimated Value
U = Non detect
A blank cell denotes that the well was not sampled.
Bold = Exceeds PRG and/or MCL.

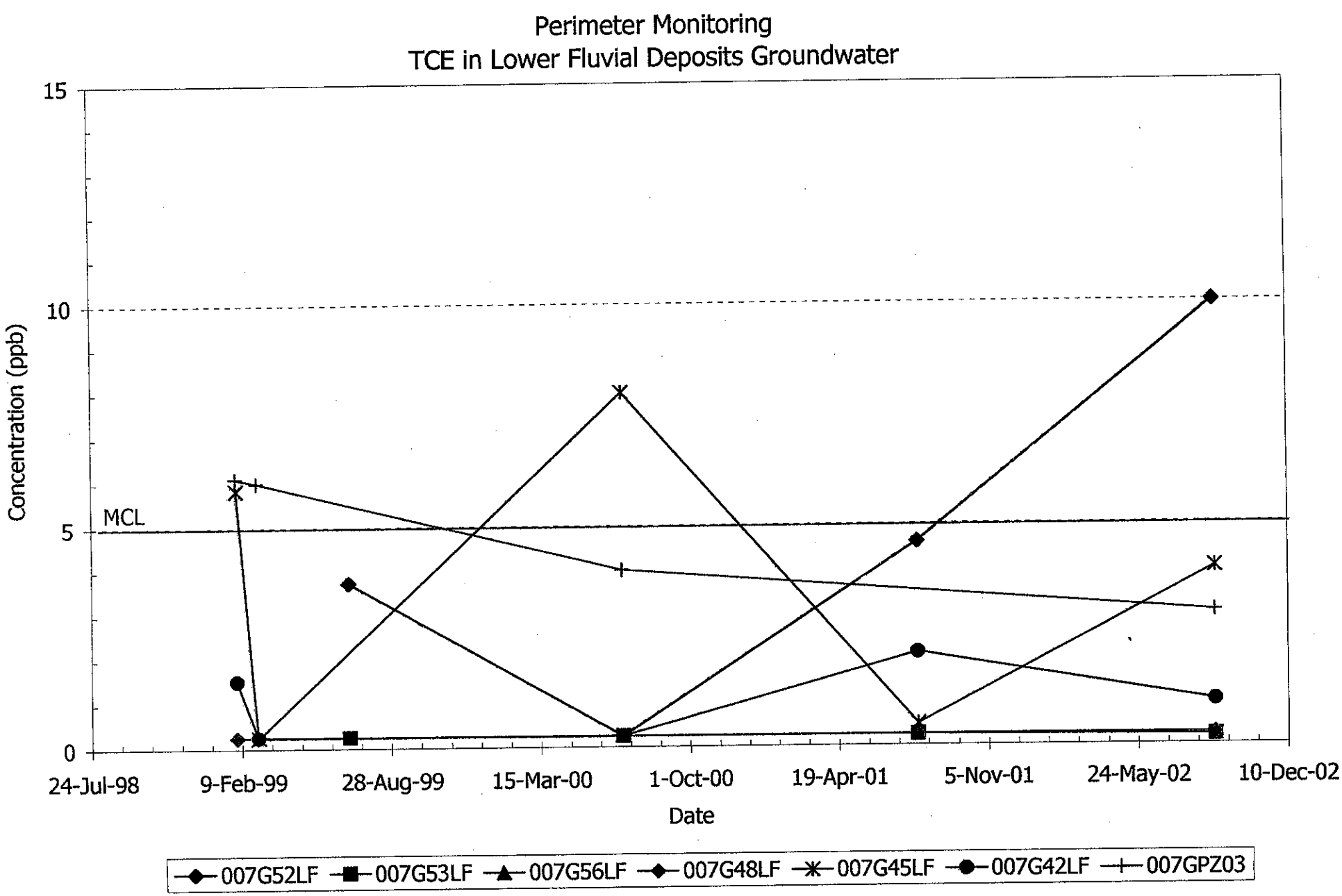
Attachment 5
TCE Trends in Fluvial Deposits Groundwater

- **Building N–126**
- **Building N–6**
- **Perimeter Monitoring Wells**


Hot Spot @ Building N-126
TCE in Lower Fluvial Deposits Groundwater
A-A Pilot Study Implemented
Concentration (ppb)
5000
4500
4000
3500
3000
2500
2000
1500
1000
500
0
12/20/99
3/29/00
7/7/00
10/15/00
1/23/01
5/3/01
8/11/01
11/19/01
2/27/02
6/7/02
9/15/02
Date
007G57LF
007G60LF
007G61LF
007G62LFB
007G58LFB
007G59LFB
007G04LF


Hot Spot @ Building N-6
TCE in Upper Fluvial Deposits Groundwater
Veggie Oil Pilot Study Implemented
2,000
1,800
1,600
1,400
1,200
1,000
800
600
400
200
0
15-Mar-00
23-Jun-00
1-Oct-00
9-Jan-01
19-Apr-01
28-Jul-01
5-Nov-01
13-Feb-02
24-May-02
1-Sep-02
10-Dec-02
Date
PES-MW-1S
PES-MW2S
PES-MW3S
PES-MW4S
PES-MW5S
PES-MW6S
PES-MW7S
PES-MW8S
007G15UF


Hot Spot @ Building N-6
TCE in Lower Fluvial Deposits Groundwater
Concentration (ppb)
2,000
1,800
1,600
1,400
1,200
1,000
800
600
400
200
0
Veggie Oil Pilot Study Implemented
15-Mar-00
23-Jun-00
1-Oct-00
9-Jan-01
19-Apr-01
28-Jul-01
5-Nov-01
13-Feb-02
24-May-02
1-Sep-02
10-Dec-02
Date
PES-MW1D
PES-MW3D
PES-MW4D
PES-MW5D
PES-MW6D
PES-MW8D
007G15LF


Perimeter Monitoring
TCE in Lower Fluvial Deposits Groundwater
Concentration (ppb)
15
10
5
0
MCL
24-Jul-98
9-Feb-99
28-Aug-99
15-Mar-00
1-Oct-00
19-Apr-01
5-Nov-01
24-May-02
10-Dec-02
Date
007G52LF
007G53LF
007G56LF
007G48LF
007G45LF
007G42LF
007GPZ03