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FINAL

Year 10 Groundwater Monitoring Report
for
Remedial Action Implementation
Buildings C-17/20/16/50

Naval Weapons Station Earle
Colts Neck, NJ

September 2008

Prepared for:
Naval Facilities Engineering Command Mid-Atlantic

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West Chester, PA 19382

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Appendix C Correspondence, NJDEP to NORTHDIV, September 20, 2004, Year 6 Groundwater Monitoring Report for Remedial Action Implementation, Buildings C-17/20/16/50

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1.0 INTRODUCTION

1.1 Introduction

ECOR Solutions, Incorporated (ECOR) prepared The Year 10 Groundwater Monitoring Report for the Remedial Action Implementation at Buildings C-17/20/16/50, for Naval Facilities Engineering Command Mid-Atlantic (NAVFAC MIDLANT) under the Contract Number N62467-03-D-0802, Contract Task Order (CTO) No. 0017. The purpose of this report is to present the quarterly results of the Year 10 monitoring for groundwater remediation within the vicinity of Buildings C-17/20/16/50 on the Mainside area of the Naval Weapons Station (NWS) Earle. A map of this location is presented in Figure 1-1. (This report was originally adapted from the Tetra Tech NUS, Inc. (TtNUS) Year 5 Groundwater Monitoring Report for Buildings C-17/20/16/50 (TtNUS, 2003)).

An underground fuel line located in the area north of Building C-19 was used to transport diesel fuel from an underground storage tank (UST) located in the northeast corner of Building C-18 to a dispensing station north of Building C-50. A leak in the fuel line was discovered in 1977. All of the former USTs were removed from the former gas station in 1995. Part of the former underground diesel transfer line is still in place. An investigation was performed between 1995 and 1997 to delineate the extent of the contamination. The hydrogeologic investigation and site characterization for the Remedial Action Work Plan (RAWP) were completed in 1997. The New Jersey Department of Environmental Protection (NJDEP) approved the RAWP with monitored natural attenuation selected as the remedial method in 1997 (Appendix A). The Classification Exception Area (CEA) documents for this Area of Concern (AOC) were approved by NJDEP in 1998 (Appendix B). The CEA, depicted in Figure 1-2, encompasses groundwater contamination from the leaking underground fuel line used to transport diesel fuel from a UST previously located in the vicinity of Buildings C-20 and C-17.

The plume of contamination includes highly weathered free-phase diesel fuel and dissolved-phase fuel constituents. The horizontal extent of the free-phase diesel fuel, or light non-aqueous phase liquid (LNAPL), encompasses an area of approximately one acre located northwest of Buildings C-17 and C-20 and between Buildings C-16 and C-50. The Navy continues to remediate the LNAPL with bioslurping technology within the CEA.

Prior to the CEA approval, trace concentrations of dissolved-phase benzene occurring below NJDEP's Groundwater Quality Standard (GWQS) were detected in monitoring wells 16MW-02, -08, -10, and 17MW-02, all located within 150 feet outside of the northern boundary of the CEA. Concentrations of dissolved-phase benzene above the NJDEP GWQS were also detected in monitoring well 16MW-06, located approximately 265 feet north of the CEA northern boundary. Previous investigations had not confirmed a correlation between the LNAPL product and the dissolved-phase contamination at C-17 and the dissolved benzene at well 16MW-06.

This report summarizes the results of the monitored natural attenuation program for dissolved-phase contaminants. During Year 10, monitoring under the approved CEA was performed at monitoring wells 16MW-04, -05, -08, -10, -11, -15, -24, -25, 18MW-01, and two surface water locations, 16SW-01 and 16SW-02. In recent years, modifications have been made to the previous monitoring programs resulting in the deletion of certain monitoring wells from the

program and other recommended changes. These modifications leading up to the current monitoring program are detailed later in Section 3.0.

1.2 Report Organization

In addition to Section 1.0, the Introduction, this report also includes Section 2.0, which summarizes the CEA documents, and Section 3.0, which summarizes the groundwater monitoring program as proposed in the CEA documents and modifications to the program during Years 1 through 10. Section 4.0 provides a summary and discusses the Year 10 monitoring results. Conclusions and recommendations are presented in Section 5.0.

2.0 CEA SUMMARY

2.1 General Information

The CEA documents list the following general information for the C-17/20/16/50 Site:

- **Site Name/Location:** Buildings C-17/20/16/50, Naval Weapons Station Earle; Colts Neck, New Jersey.
- **Site Identification Number**: Spill Case Number 91-5-15-0941-14
- **NJDEP Case Manager**: Erica Bergman
- **Site Contact Person**: Eric Helms
- **Lead Program:** NJDEP - Bureau of Federal Case Management
- **Aquifer/Formation Impacted:** Vincentown/Vincentown
- **Aquifer Classification:** Groundwater for the Mainside area of the NWS Earle facility is classified as Class II-A.
- **Contaminants Exceeding Applicable GWQS**: Benzene, Methyl tert-butyl ether (MTBE)
- **Projected Longevity of the CEA**: 23 years.

2.2 Site Location and CEA Description

The area of concern is located at the Mainside area of the NWS Earle facility (Figure 1-2). According to the Colts Neck Township Tax Office, the entire Mainside area is designated as Block 56, Lot 1. The affected area may be described as a circular area of approximately 3,000 square feet. The area has been used in the past to store and maintain railroad cars and other heavy equipment. In general, the area is overlain by railroad tracks and paved and unpaved surfaces. The area is bordered to the south by Buildings C-17, C-20, C-18, C-19, and C-50. The area is bordered to the west by Building C-15, to the north by monitoring wells 16MW-10 and 16MW-12, and to the east by monitoring well 16MW-02 and a wetland area. The CEA boundaries and surface features are presented in Figure 1-2. The approximate center of the approved CEA is at the intersection of latitude 40° 16’ 10.3” and longitude 74° 09’ 19.4”.

3.0 GROUNDWATER MONITORING PROGRAM

3.1 CEA Monitoring Program Overview

The monitoring program provided for in the CEA consists of:

- Short-term monitoring of wells 16MW-04, -05, -08, -10, -11, -15, -24, -25, 18MW-01, and two surface water locations, 16SW-01 and 16SW-02, will occur throughout the implementation of the LNAPL recovery remedial program (Bioslurper activities).

- Reviewing data from planned recovery wells installed within the eastern portion of the CEA. If groundwater contamination is identified at levels above the GWQSs within this area, an additional sentry or monitoring well may be required.

- Long-term monitoring will be implemented only in the event that the GWQSs are not exceeded during the short-term monitoring and will last for a minimum of four and a maximum of eight consecutive quarters after Bioslurper activities have ceased.

- EPA Methods 624 and 625 will be used to analyze groundwater samples for MTBE, benzene, ethylbenzene, naphthalene, toluene, and xylenes. All analyses are performed by a state of New Jersey certified laboratory. Recently, naphthalene analysis has been omitted from certain monitoring wells, due to repeat non detections. The complete sampling and analysis summary can be found in Table 3.

- Field chemistry measurements performed during sample acquisition include; dissolved oxygen, pH, conductivity, ORP (oxidation reduction potential), turbidity, and temperature. These parameters will be measured using field instruments and recorded for all groundwater samples.

- Groundwater monitoring reports, which will be submitted to NJDEP on an annual basis. The reports will include a tabulation of all sample results received during the reporting period pursuant to New Jersey Administrative Code (N.J.A.C.) 7:26E-3.13(c)3 and will provide a brief narrative summarizing the data and presenting conclusions. In the event a non-compliance with the RAWP is identified, NJDEP will be notified as soon as possible.

3.2 Groundwater Monitoring Program: Years 1 through 9

This section presents the results of the monitoring program during each year (Years 1 through 9) that resulted in modifications to the program or additional site investigations. Historical groundwater laboratory analytical results are presented in Table 1.

3.2.1 Year 1 Monitoring Program (August 1998 - May 1999)

The Year 1 natural attenuation monitoring program included the following monitoring wells: 16MW-02, -03, -04, -05, -06, -08, -10, 17MW-01 and -02, and 18MW-01. Benzene

concentrations in excess of the GWQS (1 microgram per liter [µg/L]) were identified in all four sampling periods during Year 1 at monitoring well 16MW-06.

3.2.2 Year 2 Monitoring Program (August 1999 - May 2000)

Based on the Year 1 sampling results, the Navy modified the monitoring program for Year 2 to include monitoring well 16MW-09, located approximately 125 feet north and downgradient from monitoring well 16MW-06. During this monitoring period, benzene levels in excess of the GWQS were again identified in all four sampling periods at monitoring well 16MW-06, and in three sampling periods at monitoring well 16MW-09.

3.2.3 Year 3 Monitoring Program (August 2000 - May 2001)

Based on the Year 2 sampling results, the Navy modified this monitoring program between the August 2000 and November 2000 sampling periods to include installation and sampling of a new downgradient monitoring well, 16MW-11, located approximately 280 feet north of monitoring well 16MW-09. The results from three sampling periods indicated benzene concentrations (100 µg/L to 582 µg/L) above the GWQS. Monitoring well 16MW-11 also contained the only notable MTBE concentration outside of the LNAPL area. Therefore, in addition to this installation and sampling, the Navy performed a one-time expanded monitoring program, concurrent with the February 2001 sampling period, at six wells located at Installation Restoration Program (IRP) Site 1 (01MW-01 through 01MW-05) and two wells at IRP Site 29 (29MW-01 and 29MW-02). The monitoring wells at IRP Site 1 are located approximately 1,200 feet north and downgradient from monitoring well 16MW-11. The monitoring wells at IRP Site 29 are located approximately 240 feet southwest and side gradient from monitoring well 16MW-11. During the regular monitoring period, benzene concentrations above the GWQS were detected in monitoring wells 16MW-06, -08, -09, -10, and 17MW-01.

3.2.4 Year 4 Monitoring Program (August 2001 - May 2002)

No changes were made to the Year 4 monitoring program. During the Year 4 monitoring program, MTBE concentrations exceeded the NJDEP GWQS (70 µg/L) in at least one sampling period in monitoring wells 16MW-05 and 16MW-11. Trace MTBE concentrations were intermittently detected in monitoring wells 16MW-06, -08, and -09. Benzene exceeded the GWQS in six of seven downgradient monitoring wells throughout this monitoring period. At monitoring well 16MW-05, located in the area of LNAPL, benzene exceeded the GWQS (ranging from 180 J µg/L in August 2001 to the maximum concentration of 2,500 µg/L in November 2001). Concurrent with the Year 4 monitoring program, the Navy performed additional investigations in the area of monitoring well 16MW-11. The summary and results of these investigations were detailed in the Year 5 Groundwater Monitoring Report for Remedial Action Implementation (TtNUS, 2003). As a result of these investigations, the Navy added five new monitoring wells, 16MW-15, -16, -17, -24, -25, and two surface water sampling locations, 16SW-01 and 16SW-02, to the long term monitoring program for the site.

3.2.5 Year 5 Monitoring Program (August 2002 - May 2003)

All five of the newly added monitoring wells were sampled during the Year 5 monitoring program. However, the surface water sample locations were only sampled in three out of the four monitoring

periods. During the Year 5 monitoring program, MTBE concentrations exceeded the NJDEP GWQS during two sampling periods in monitoring well 16MW-11. Benzene concentrations exceeded the GWQS at nine monitoring wells at various sampling periods throughout Year 5. The highest benzene concentration (132 µg/L) was indicated in monitoring well 16MW-11 during the February 2003 sampling period. In the CEA, benzene exceeded the GWQS at monitoring well 16MW-05 during two sampling periods when LNAPL was not present. Naphthalene levels exceeded the GWQS (300 µg/L) in monitoring well 16MW-05 during the August 2002 sampling period.

3.2.6 Year 6 Monitoring Program (August 2003 - May 2004)

The Year 5 report recommended the removal of four monitoring wells from the program (16MW-02, -06, -16, and 17MW-02). These wells were sampled during the first two quarters and then removed from further sampling periods with the exception of monitoring well 17MW-02, which was sampled during all four quarters and maintained in the monitoring program. The NJDEP approval letter of the Year 5 Groundwater Monitoring Report for Remedial Action Implementation for this site and its conclusions and recommendations was presented in the Year 6 Groundwater Monitoring Report for Remedial Action (TtNUS, 2004a). After the August 2003 monitoring period, monitoring well 16MW-03 was abandoned in accordance with NJDEP regulations on 4 December 2003. The corresponding well abandonment report was presented in the Year 6 Annual Report (TtNUS 2004b). Monitoring well 16MW-03 was replaced by monitoring well 17MW-02 in the program. Also, as recommended by the Year 5 report, the naphthalene analysis was omitted for the following six wells and two surface water locations: 16MW-03, -09, -15, -17, -24, -25, 16SW-01, and 16SW-02. During the Year 6 monitoring program, MTBE concentrations exceeded the GWQS during one sampling event in monitoring well 16MW-05, which was only sampled once due to the presence of LNAPL, and during three sampling quarters at monitoring well 16MW-11. Benzene concentrations exceeded the GWQS at eight monitoring wells and one surface water location during at least one sampling period during Year 6. The highest benzene concentration (2,230 µg/L) was detected in monitoring well 16MW-05 during the November 2003 sampling event. Benzene concentrations exceeded the GWQS during all sampling events at monitoring wells 16MW-11, ranging from 54.8 to 68.2 µg/L, and 16MW-15, ranging from 8.8 to 233 J µg/L.

3.2.7 Year 7 Monitoring Program (August 2004 - May 2005)

Modifications to the Year 7 monitoring program include the renaming of monitoring well 17MW-02 to 16MW-12 and the removal of the naphthalene analysis for this monitoring well in the program. Also, after the Year 6 monitoring program, monitoring well 17MW-01 was renamed to 17MW-17.

During Year 7, LNAPL was detected in monitoring well 16MW-05 during three of the four sampling events at thicknesses ranging from 0.05 foot to 0.16 foot. A groundwater sample was collected during November 2004 when LNAPL was not present.

3.2.8 Year 8 Monitoring Program (August 2005 - May 2006)

During Year 8, five additional recovery wells were installed, 16MW-31 through 16MW-35, in accordance with the Bioslurper Upgrade Work Plan (ECOR, 2005) (Figure 1-2). Since installation, all recovery wells have been added to the LNAPL recovery remedial program. All additional recovery wells have had some level of product present thus far. Four of the five wells reached their maximum product thickness, ranging from 0.07 foot in 16MW-31 to 6.55 feet in 16MW-33 in January 2006. Recovery well 16MW-34 reached a maximum product thickness of 1.36 feet in March 2006.

3.2.9 Year 9 Monitoring Program (August 2006-May 2007)

No changes were made to the Year 9 monitoring program. During Year 9, LNAPL was detected in monitoring wells 16MW-04 and 16MW-05 during all four quarters. Therefore samples were not collected from these wells. Monitoring well 16MW-08 exceeded the GWQS for benzene in all four quarters. Monitoring well 16MW-11 exceeded the GWQS for benzene in all four quarters and for MTBE in three quarters. Monitoring well 16MW-15 exceeded the GWQS for benzene during all four quarters and monitoring well 16MW-24 exceeded the GWQS for benzene during all four quarters and for MTBE during one quarter. The remaining wells (16MW-10, 16MW-25, and 18MW-01) and surface water samples (16SW-01 and 16SW-02) exhibited no GWQS exceedances during any of the four quarters.

4.0 DISCUSSION OF RESULTS

4.1 Technical Overview

The Year 10 quarterly groundwater monitoring program at Buildings C-17/20/16/50 was implemented in accordance with the CEA documents and the modifications described in the preceding sections of this report. Year 10 sampling events were performed in August 2007, November 2007, February 2008, and May 2008.

4.2 Field Sampling and Analytical Methods

All field sampling activities were completed by ECOR staff during Year 10. Sampling activities were conducted in accordance with the methods described in the NJDEP Field Sampling Procedures Manual (FSPM), August 2005.

The sample logs (Appendix E) document all sample dates, times, field analysis results, depth to groundwater, monitoring well purge volumes, and site-specific observations relevant to interpretation of the analytical results.

Quality assurance (QA) samples were included during each sampling round. The QA samples included one trip blank per sample shipment group, one duplicate sample per sampling event, and one field blank per sampling event. An equipment blank was not prepared as dedicated sampling equipment was used. Sample containers and sample holding times were maintained in accordance with NJDEP guidelines.

Quarterly monitoring at C-17/20/16/50 was performed concurrently with annual monitoring at AOC R-6/7 and R-12, which have also been approved by NJDEP as CEAs with natural attenuation groundwater remediation monitoring programs. QA samples were prepared separately and are representative of each site.

4.3 Data Validation

ECOR utilized an independent data validator to review the laboratory analytical results from each quarter of the Year 10 groundwater monitoring program. The data validation was performed in accordance with U. S. Environmental Protection Agency (EPA) Region 2, NJDEP guidelines, and the Navy Installation Restoration Chemical Data Quality Manual. Data validation reports are included with the laboratory data presented in Appendix D.

No quality issues were identified that would impact the reliability of the data or the conclusions reached based on the data.

4.4 Analytical Results and Groundwater Flow Direction for Year 10

Table 1 provides a summary of the historical results through Year 10 and Table 2 provides a summary of the results for Year 10 exclusively. The sample locations and the corresponding

sample results for all four quarters sampled in Year 10 are depicted in Figure 4-1. Figures 4-2 through 4-5 present potentiometric surface maps for each sampling period.

Year 10 analytical results indicate the following:

- All levels of contaminants were "non-detect" in upgradient monitoring well 18MW-01 and downgradient monitoring well 16MW-25.

- MTBE concentrations exceeded the GWQS during four quarters in monitoring well 16MW-11. The highest MTBE level (322 µg/L) was observed during the August 2007 sampling event.

- Benzene concentrations exceeded the GWQS at three monitoring wells (16MW-08, 16MW-11, 16MW-15) during all four sampling quarters and at 16MW-24 during three out of four sampling quarters. The highest benzene level (190 µg/L) was indicated in monitoring well 16MW-11 during the May 2008 sampling event.

- The NJDEP GWQS for total xylenes was not exceeded during any of the quarterly sampling events for Year 10. Concentrations below the GWQS were detected at monitoring wells 16MW-08, 16MW-10, and 16MW-15.

- The NJDEP GWQS for ethylbenzene was not exceeded during any of the quarterly sampling events for Year 10. Concentrations below the GWQS were detected at monitoring well 16MW-08 and 16MW-15.

- The NJDEP GWQS for toluene was not exceeded during any of the quarterly sampling events for Year 10. Concentrations below the GWQS were detected at monitoring wells 16MW-08, and 16MW-15.

- The NJDEP GWQS for naphthalene was not exceeded during any of the quarterly sampling events for Year 9. Concentrations below the GWQS were detected at monitoring wells 16MW-08, 16MW-10 and 16MW-11.

- Surface water samples were collected from two sample locations during all four quarters and analyzed by EPA Method 624 for benzene, ethylbenzene, toluene, xylenes and MTBE. Neither sample exceeded the SWQS for any contaminant. Toulene was detected below the SWQS in both surface water samples during the August 2007 quarter. MTBE was detected below the SWQS during all four quarters at 16SW-02.

- 16MW-04 and 16MW-05 were not sampled during Year 9 because product was present in both wells during all four quarters.

Groundwater flow direction during Year 10 was similar to Years 1 through 9. The interpreted groundwater contours indicate that groundwater flow direction within the southern area of the CEA and north of the CEA boundary is generally from the south toward the north-northeast. Groundwater at the far northern limits of the expanded groundwater monitoring area, in the

vicinity of monitoring wells 16MW-15, 16MW-24, and 16MW-25, flows generally toward the northwest, toward the wetlands and the stream adjacent to the Family Housing area. Groundwater flow direction within the central area of the CEA during all four sampling events was in a northernly direction. The groundwater flow around the bioslurping wells varies when the LNAPL recovery system is operating and depends on which recovery wells are in use at the time of monitoring well gauging.

The synoptic event was amended to include wells 16MW-02, 16MW-16, 16MW-17 and 29MW-01. Including these wells provides additional data points for the potentiometric maps. This change was made in September after the August 2007 sampling event. In order to include these wells for each quarter of Year 10, a re-gauging event was performed in September to correspond with the August sampling event.

Laboratory analytical data for each sampling event are included in Appendix D. Appendix E contains sample logs and field notes.

4.5 Trend Analysis

Simple trend analyses, consisting of graphing the concentrations of benzene and MTBE for select monitoring wells (16MW-11, 16MW-15, and 16MW-24) over time, were prepared utilizing data collected through the fourth sampling event in Year 10. The monitoring wells selected are representative of the extent of the plume downgradient of the CEA boundary. Sufficient data was available from these three monitoring wells to accurately depict the trend analyses of the specified contaminants. The GWQS reference criterion for the chemical of concern is noted on each trend analysis graph for comparison.

Benzene concentrations over time are represented in Figures 4-6, 4-7, and 4-8 for monitoring wells 16MW-11, 16MW-15, and 16MW-24, respectively. Overall there is a decreasing trend in benzene concentrations over time for both 16MW-11 and 16MW-15. However, data from Year 9 and 10 indicate slightly elevated benzene concentrations for 16MW-11 and 16MW-15. In general data for 16MW-24 indicate an increasing trend over time with the highest concentration (114 µg/L) occurring during the August 2006 sampling event. Benzene concentrations have since returned to levels more consistent with historical data, but remain above the NJDEP GWQS.
MTBE concentrations over time are represented in Figures 4-9, 4-10, and 4-11 for the same three monitoring wells, 16MW-11, 16MW-15, and 16MW-24, respectively. MTBE trend concentrations decrease over time in both 16MW-11 and 16MW-15, though like benzene concentrations, data indicate slight concentration increases in the past two years. However, 16MW-15 has been consistently below the GWQS of 70ug/L since sampling began in August of 2002. MTBE concentrations have been above the GWQS in 16MW-11 for the past 7 quarters. MTBE trend concentrations have been increasing in 16MW-24 over time, but remain below the NJDEP GWQS (with exception of the August 2006 sampling event). Data analyses suggest that there is a direct correlation between MTBE and benzene trends for these wells (Figures 4-6 through 4-11).

Graphs showing contaminant distribution for benzene and MTBE along a transect from the source area to downgradient monitoring wells were prepared for the quarterly sampling events during Year 10. The southernmost upgradient monitoring well, 18MW-01, was utilized as the transect starting point and 16MW-25, the furthest downgradient, marks the end of the transect.

Figure 4-12 indicates elevated benzene concentrations just outside of the CEA, in monitoring well 16MW-08, during August and November of 2007. The highest benzene concentrations were detected downgradient of the CEA at monitoring well 16MW-11 during August 2007 and May 2008. The MTBE transect in Figure 4-13 indicates that the highest MTBE concentrations were detected during all quarters at monitoring well 16MW-11. Data suggest downgradient migration of soluble components (MTBE and benzene.)

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

In general, contaminant trends appear to be consistent with historical analyses. Benzene was detected above the GWQS in the following monitoring wells; 16MW-08, 16MW-11, 16MW-15, and 16-MW-24 during at three of the four quarters (Table 1). MTBE concentrations exceeded the GWQS during all four quarters in monitoring well 16MW-11. Ethylbenzene, toluene, xylene, and naphthalene were detected in at least one monitoring well during Year 10. No Contaminants of Concern (COC) were detected in monitoring wells 16MW-25 and 18MW-01 during Year 10. LNAPL continues to be present in monitoring wells 16MW-04 and 16MW-05, but the thickness appears to be diminishing over time, likely as a result of continued operation of the bioslurper remediation system.

5.2 Recommendations

ECOR recommends continuation of the short-term quarterly groundwater monitoring program. The monitoring program for Year 11 includes collecting groundwater samples from nine monitoring wells and two surface water locations (Table 3), provided that product is not present in two monitoring wells, 16MW-04 and 16MW-05.

Based on continued MTBE detections in groundwater at monitoring well 16MW-24, an additional groundwater monitoring well should be considered downgradient (northeast) of this location to delineate the extent of the MTBE plume. Otherwise, no modifications are recommended at this time.

6.0 REFERENCES

ECOR Solutions, Inc. 2005, *Bioslurper Upgrade Work Plan*, May.

TETRA TECH NUS Inc, 2003, *Year 5 Groundwater Monitoring Report for Remedial Action Implementation Buildings C-17/20/16/50*, October.

TETRA TECH NUS Inc, 2004a, *Year 6 Groundwater Monitoring Report for Remedial Action Implementation Buildings C-17/20/16/59*, August.

TETRA TECH NUS Inc, 2004b, *Year 6 Annual Report*, August.

TABLES

TABLE 1
ANALYTICAL DATA SUMMARY
YEARS 1 THROUGH 10 GROUNDWATER MONITORING
BUILDINGS C-17/20/16/50
NWS EARLE, COLTS NECK, NEW JERSEY

Location/ Duplicate	Compounds						Groundwater Levels		
	Volatiles					Semivolatiles	Elevation Top of Casing	Depth to GW	GW Elevation**
	Benzene	Ethylbenzene	MTBE	Toluene	Xylenes	Naphthalene			
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L			
NJDEP GQS	**1.0**	**700**	**70**	**1,000**	**1,000***	**300**	**ft above MSL**	**ft BGS**	**ft above MSL**
16-MW-02[1]									
Aug-98	ND	ND	NS	ND	ND	ND	98.48	7.04	91.44
Nov-98	ND	ND	NS	ND	ND	ND	98.48	7.31	91.17
Feb-99	ND	ND	NS	ND	ND	ND	98.48	6.59	91.89
May-99	ND	ND	NS	ND	ND	ND	98.48	6.40	92.08
Aug-99	ND	ND	NS	ND	ND	ND	98.48	7.52	90.96
Nov-99	ND	ND	NS	ND	ND	ND	98.48	7.17	91.31
Feb-00	ND	ND	ND	ND	ND	ND	98.48	7.13	91.35
May-00	ND	ND	ND	ND	ND	ND	98.48	6.64	91.84
Aug-00	ND	ND	ND	ND	ND	ND	98.48	6.85	91.63
Nov-00	ND	ND	ND	ND	ND	ND	98.48	7.37	91.11
Feb-01	ND	ND	ND	ND	ND	ND	98.48	6.52	91.96
May-01	ND	ND	ND	ND	ND	ND	98.48	6.44	92.04
Aug-01	ND	ND	ND	ND	ND	ND	98.48	7.58	90.90
Nov-01	ND	ND	ND	ND	ND	ND	98.48	7.96	90.52
Feb-02	ND	ND	ND	ND	ND	ND	98.48	7.68	90.80
May-02	ND	ND	ND	ND	ND	ND	98.48	7.15	91.33
Aug-02	ND	ND	ND	ND	ND	ND	98.48	8.68	89.80
Nov-02	ND	ND	ND	ND	ND	ND	98.48	7.26	91.22
Feb-03	ND	ND	ND	ND	ND	ND	98.48	6.82	91.66
May-03	ND	ND	ND	ND	ND	ND	98.48	6.32	92.16
Aug-03	ND	ND	ND	ND	ND	ND	98.48	6.23	92.25
Nov-03	ND	ND	ND	ND	ND	ND	98.48	6.81	91.67
Aug-07[8]	NS	NS	NS	NS	NS	NS	98.48	7.10	91.38
Nov-07	NS	NS	NS	NS	NS	NS	98.48	7.12	91.36
Feb-08	NS	NS	NS	NS	NS	NS	98.48	6.26	92.22
May-08	NS	NS	NS	NS	NS	NS	98.48	6.73	91.75
16-MW-03[2]									
Aug-98	**3.8**	ND	NS	ND	ND	ND	99.59	7.77	91.82
Nov-98	**2.9**	ND	NS	ND	ND	ND	99.59	7.94	91.65
Feb-99	ND	ND	NS	ND	ND	ND	99.59	7.29	92.30
May-99	ND	ND	NS	ND	ND	ND	99.59	7.10	92.49
Aug-99	ND	ND	NS	ND	ND	ND	99.59	8.48	91.11
Nov-99	ND / ND	ND / ND	NS	ND / ND	ND / ND	ND / ND	99.59	7.91	91.68
Feb-00	ND	ND	ND	ND	ND	ND	99.59	7.85	91.74
May-00	ND / ND	ND / ND	ND / ND	ND / ND	ND / ND	ND / ND	99.59	7.51	92.08
Aug-00	ND	ND	ND	ND	ND	ND	99.59	7.57	92.02
Nov-00	NS	NS	NS	NS	NS	NS	99.59	NS	NS
Feb-01	NS	NS	NS	NS	NS	NS	99.59	NS	NS
May-01	NS	NS	NS	NS	NS	NS	99.59	NS	NS
Aug-01	NS	NS	NS	NS	NS	NS	99.59	NS	NS
Nov-01	NS	NS	NS	NS	NS	NS	99.59	NS	NS
Feb-02	ND	ND	ND	ND	ND	ND	99.59	8.38	91.21
May-02	**1.8**	ND	ND	ND	ND	ND	99.59	7.99	91.60
Aug-02	**3.7 / 3.7**	ND / ND	ND / ND	ND / ND	ND / ND	ND / ND	99.59	9.39	90.20
Nov-02	ND	ND	ND	ND	ND	ND	99.59	8.00	91.59
Feb-03	ND / ND	ND / ND	ND / ND	ND / ND	ND / ND	ND / ND	99.59	7.57	92.02
May-03	**1.4**	ND	ND	ND	ND	ND	99.59	6.97	92.62
Aug-03	**2.3**	ND	ND	ND	ND	2.2 J	99.59	6.90	92.69
16-MW-04[3]									
Aug-01	**110 J**	63	13	8.7	229	270	101.23	9.15	92.08
Aug-04	NS	NS	NS	NS	NS	NS	101.23	9.30	91.93
Nov-04	NS	NS	NS	NS	NS	NS	101.23	8.65	92.58
Feb-05	NS	NS	NS	NS	NS	NS	101.23	9.65	91.58
May-05	NS	NS	NS	NS	NS	NS	101.23	8.41	92.82
Aug-05	NS	NS	NS	NS	NS	NS	101.23	10.51	90.72
Nov-05	NS	NS	NS	NS	NS	NS	101.23	NS	NS
Feb-06	NS	NS	NS	NS	NS	NS	101.23	NS	NS
May-06	NS	NS	NS	NS	NS	NS	101.23	8.05	93.18
Aug-06	NS	NS	NS	NS	NS	NS	101.23	9.10	92.13
Nov-06	NS	NS	NS	NS	NS	NS	101.23	7.80	93.43
Feb-07	NS	NS	NS	NS	NS	NS	101.23	7.81	93.42
May-07	NS	NS	NS	NS	NS	NS	101.23	6.62	94.61
Aug-07[8]	NS	NS	NS	NS	NS	NS	101.23	8.13	93.10
Nov-07	NS	NS	NS	NS	NS	NS	101.23	8.87	92.36
Feb-08	NS	NS	NS	NS	NS	NS	101.23	8.19	93.04
May-08	NS	NS	NS	NS	NS	NS	101.23	8.32	92.91
16-MW-05									
Aug-98	NS	NS	NS	NS	NS	NS	104.14	NS	NS
Nov-98	NS	NS	NS	NS	NS	NS	104.14	NS	NS
Feb-99	**1520**	147	NS	ND	103	110	104.14	NS	NS
May-99	**1140**	75.2	NS	44.3	75.1	249	104.14	10.40	93.74
Aug-99	**2230**	273	NS	238	338	125	104.14	NS	NS
Nov-99	**135**	62.9	NS	4.8	36.8	208	104.14	NS	NS
Feb-00	**47.5**	23.1	**72**	ND	16.1	81.8	104.14	NS	NS
May-00	**328**	47.4	**218**	6	30.8	213	104.14	NS	NS
Aug-00	**1770**	61.3	**250**	113	56.7	**372**	104.14	11.44	92.70
Nov-00	**1730**	109	**279**	ND	71.9	**403**	104.14	13.24	90.90
Feb-01	**230**	27	**89**	N.D	24.5	230	104.14	11.28	92.86
May-01	**300**	45 J	ND	ND	53 J	95	104.14	10.60	93.54

TABLE 1
ANALYTICAL DATA SUMMARY
YEARS 1 THROUGH 10 GROUNDWATER MONITORING
BUILDINGS C-17/20/16/50
NWS EARLE, COLTS NECK, NEW JERSEY

Location/ Duplicate	Compounds						Groundwater Levels		
	Volatiles					Semivolatiles	Elevation Top of Casing	Depth to GW	GW Elevation**
	Benzene	Ethylbenzene	MTBE	Toluene	Xylenes	Naphthalene			
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L			
NJDEP GQS	**1.0**	**700**	**70**	**1,000**	**1,000***	**300**	**ft above MSL**	**ft BGS**	**ft above MSL**
16-MW-05 continued									
Aug-01	**180J**	31	**110**	ND	57.4	200	104.14	11.89	92.25
Nov-01	**2500**	241	**278**	70.4 J	294 J	207 J	104.14	13.18	90.96
Feb-02	NA	NA	NA	NA	NA	NA	104.14	12.03	92.11
May-02	**610**	58.3	44.3	40	50J	**307**	104.14	12.50	91.64
Aug-02	**72.9 J**	59.7 J	10.6 J	4.5 J	84.6 J	**1280 J**	104.14	15.35	91.22
Nov-02	NS	NS	NS	NS	NS	NS	104.14	12.10	92.36
Feb-03	**74.5**	39.2	13.2	2.1	37.1	154	104.14	11.57	92.98
May-03	NS	NS	NS	NS	NS	NS	104.14	10.72	93.62
Aug-03	NS	NS	NS	NS	NS	NS	104.14	10.64	93.50
Nov-03	NS	88.7	**113**	84.9	86.2	75.3	104.14	11.12	93.02
Mar-04	NS	NS	NS	NS	NS	NS	104.14	10.95	93.19
May-04	NS	NS	NS	NS	NS	NS	104.14	10.07	94.07
Aug-04	NS	NS	NS	NS	NS	NS	104.14	11.55	92.59
Nov-04	NS	163 / 160	**83.5 / 88.1**	30.8 / 30.8	155 / 158	49 / 50	104.14	11.14	93.00
Feb-05	NS	NS	NS	NS	NS	NS	104.14	11.05	93.09
May-05	NS	NS	NS	NS	NS	NS	104.14	10.06	94.08
Aug-05	NS	NS	NS	NS	NS	NS	104.14	11.96	92.18
Nov-05	NS	NS	NS	NS	NS	NS	104.14	10.81	93.33
Feb-06	NS	NS	NS	NS	NS	NS	104.14	9.97	94.17
May-06	NS	NS	NS	NS	NS	NS	104.14	10.57	93.57
Aug-06	NS	NS	NS	NS	NS	NS	104.14	11.70	92.44
Nov-06	NS	NS	NS	NS	NS	NS	104.14	9.89	94.25
Feb-07	NS	NS	NS	NS	NS	NS	104.14	10.51	93.63
May-07	NS	NS	NS	NS	NS	NS	104.14	9.00	95.14
Aug-07[8]	NS	NS	NS	NS	NS	NS	104.14	10.60	93.54
Nov-07	NS	NS	NS	NS	NS	NS	104.14	11.45	92.69
Feb-08	NS	NS	NS	NS	NS	NS	104.14	10.53	93.61
May-08	NS	NS	NS	NS	NS	NS	104.14	10.82	93.32
16-MW-06[4]									
Aug-98	**20.8**	ND	NS	ND	0.84	0.91	98.73	8.33	90.40
Nov-98	**46.5**	ND	NS	ND	2.7	ND	98.73	9.26	89.47
Feb-99	**84.4**	ND	NS	0.99	3.8	19.8	98.73	7.61	91.12
May-99	**113**	3.7	NS	1.3	3.5	32.9	98.73	7.40	91.33
Aug-99	**43.6**	ND	NS	ND	0.62	3.6	98.73	9.17	89.56
Nov-99	**18.9**	ND	NS	ND	0.51	1.6	98.73	7.86	90.87
Feb-00	**11.5**	ND	1.1	ND	ND	1	98.73	7.82	90.91
May-00	**7.8**	ND	0.75	ND	ND	ND	98.73	7.71	91.02
Aug-00	**7.5 / 7.5**	ND / ND	1.8 / 1.9	ND / ND	ND / ND	ND / ND	98.73	7.74	90.99
Nov-00	**6.6**	ND	1.8	ND	ND	ND	98.73	8.06	90.67
Feb-01	**5.7**	ND	ND	ND	ND	ND	98.73	7.31	91.42
May-01	**7.9J**	ND	ND	ND	ND	ND	98.73	7.62	91.11
Aug-01	**13J**	ND	ND	ND	ND	3.3	98.73	8.57	90.16
Nov-01	**10.6**	ND	4.4	ND	ND	ND	98.73	8.91	89.82
Feb-02	**13.2**	ND	2.6	ND	ND	ND	98.73	8.33	90.40
May-02	**38.8**	40.5	ND	15.9	267	18.3	98.73	8.11	90.62
Aug-02	**15.1**	ND	5.5	ND	ND	5.4	98.73	9.54	89.19
Nov-02	**20**	ND	4.8	ND	ND	ND	98.73	8.05	90.68
Feb-03	**26.2**	ND	7.4	ND	ND	ND	98.73	7.87	90.86
May-03	**58**	ND	7.7	ND	ND	2.4 J	98.73	7.51	91.22
Aug-03	**7.2**	ND	3.1	ND	ND	ND	98.73	7.30	91.43
Nov-03	**37**	ND	10.5	0.58 J	ND	ND	98.73	7.70	91.03
16-MW-08									
Aug-98	0.55 / 0.54	ND / ND	NS	ND / ND	ND / ND	ND / ND	103.29	10.34	92.95
Nov-98	**1.5**	ND	NS	ND	ND	ND	103.29	12.24	91.05
Feb-99	N.D	ND	NS	ND	ND	ND	103.29	9.48	93.81
May-99	ND	ND	NS	ND	ND	ND	103.29	9.50	93.79
Aug-99	**76.9**	24.4	NS	1.6	45.4	131	103.29	12.29	91.00
Nov-99	**28**	6.2	NS	0.64	25.4	50.1	103.29	11.70	91.59
Feb-00	ND / ND	ND / ND	ND / ND	ND / ND	ND / ND	ND / ND	103.29	11.31	91.98
May-00	0.54	ND	ND	0.55	ND	ND	103.29	9.67	93.62
Aug-00	ND	ND	ND	ND	ND	ND	103.29	9.46	93.83
Nov-00	**42.8**	20.2	ND	ND	ND	1.7	103.29	10.34	92.95
Feb-01	ND / ND	ND / ND	ND / ND	ND / ND	ND / ND	ND / ND	103.29	9.29	94.00
May-01	**130**	38 J	ND	ND	130 J	200	103.29	9.56	93.73
Aug-01	**7.2J**	2.2	ND	ND	6.9	6.4	103.29	11.35	91.94
Nov-01	**68.5 / 73.6**	11.4 / 12.2	6.9 / 7.7	1.4 J / 1.5 J	11.2 / 12.1	130 / 116	103.29	12.54	90.75
Feb-02	ND	ND	ND	ND	ND	ND	103.29	12.11	91.18
May-02	ND	ND	1.2 J	ND	ND	ND	103.29	11.75	91.54
Aug-02	**7.2**	3.6	4.1	ND	ND	ND	103.29	13.25	90.04
Nov-02	ND / ND	ND / ND	ND / ND	ND / ND	ND / ND	ND / ND	103.29	10.24	93.05
Feb-03	**8**	ND	11	ND	ND	1J	103.29	9.81	93.48
May-03	**20**	0.56 J	4.5	ND	9.6	17.5	103.29	9.23	94.06
Aug-03	**1.1**	ND	0.51 J	ND	ND	ND	103.29	9.10	94.19
Nov-03	ND	ND	ND	ND	ND	ND	103.29	10.65	92.64
Mar-04	ND / N.D	ND / ND	ND / ND	ND / ND	ND / ND	ND / ND	103.29	9.73	93.56
May-04	ND	ND	ND	ND	ND	ND	103.29	9.71	93.58
Aug-04	**24.4 / 24.4**	7.1 / 7.9	2.2 / 2.3	ND / ND	ND / ND	4 / 2 J	103.29	11.55	91.74
Nov-04	**18.9**	4.8	3.3	ND	ND	0.80 J	103.29	11.12	92.17
Feb-05	**35**	11.5	0.51 J	ND	ND	3	103.29	11.15	92.14
May-05	**29.8**	1.5	2.6	1.0	2.0 J	17	103.29	9.41	93.88

TABLE 1
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YEARS 1 THROUGH 10 GROUNDWATER MONITORING
BUILDINGS C-17/20/16/50
NWS EARLE, COLTS NECK, NEW JERSEY

Location/ Duplicate	Compounds						Groundwater Levels		
	Volatiles					Semivolatiles	Elevation Top of Casing	Depth to GW	GW Elevation**
	Benzene	Ethylbenzene	MTBE	Toluene	Xylenes	Naphthalene			
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L			
NJDEP GQS	**1.0**	**700**	**70**	**1,000**	**1,000***	**300**	**ft above MSL**	**ft BGS**	**ft above MSL**
16-MW-08 continued									
Aug-05	**15**	1.7	4.6	0.24 J	0.58 J	4.0 J	103.29	10.81	92.48
Nov-05	**26**	10	1.6	0.56 J	4.5	20	103.29	9.81	93.48
Feb-06	**24**	7.2	0.33 J	0.43 J	2.5	30	103.29	9.04	94.25
May-06	ND	ND	ND	ND	ND	ND	103.29	9.29	94.00
Aug-06	**1.1**	ND	0.32 J	ND	ND	ND	103.29	10.51	92.78
Nov-06	**1.4 / 1.3**	ND / ND	ND / ND	ND / ND	ND / ND	ND / ND	103.29	9.76	93.53
Feb-07	**34.6**	9.6	2.5	0.70 J	ND	3	103.29	9.68	93.61
May-07	**40.1 / 36.4**	15.8 / 13.3	2.8	0.33 J / 0.28 J	1.5 J / 1.3 J	15 / 17	103.29	9.78	93.51
Aug-07[8]	**108 / 112**	47.4 / 47.6	ND / ND	2.0 / 2.1	63.4 / 61.5	128 / 134	103.29	9.87	93.42
Nov-07	**90.8**	12.3	0.97 J	1.7	56.3	48	103.29	11.95	91.34
Feb-08	**26.0**	7.8	4.2	0.37 J	9.8	61	103.29	9.31	93.98
May-08	**22.3**	2.6	2.0	ND	3.5	33	103.29	11.87	91.42
16-MW-09									
Aug-99	NS	NS	NS	NS	NS	NS	--	--	--
Nov-99	**16.2**	ND	NS	ND	ND	1.4	99.99	9.37	90.62
Feb-00	**6.7**	ND	5.7	ND	ND	ND	99.99	9.44	90.55
May-00	**2.5**	ND	4.5	ND	ND	ND	99.99	9.30	90.69
Aug-00	**3.5**	ND	3	ND	ND	4.4	99.99	8.85	91.14
Nov-00	**1.9**	ND	1.8	ND	ND	ND	99.99	9.78	90.21
Feb-01	ND	ND	ND	ND	ND	ND	99.99	8.75	91.24
May-01	ND	ND	ND	ND	ND	ND	99.99	9.34	90.65
Aug-01	**21 J**	ND	14	ND	ND	ND	99.99	10.39	89.60
Nov-01	**14**	ND	2.8	ND	ND	ND	99.99	10.45	89.54
Feb-02	**3.5**	ND	2.1	ND	ND	ND	99.99	9.83	90.16
May-02	ND	ND	ND	ND	ND	ND	99.99	9.64	90.35
Aug-02	**19.9**	ND	30.2	0.64 J	9.1	ND	99.99	11.18	88.81
Nov-02	**1.2**	ND	3.2	ND	ND	ND	99.99	9.60	90.39
Feb-03	**1.0 J**	ND	2	ND	ND	1J	99.99	9.49	90.50
May-03	**8.6**	ND	17.8	ND	ND	ND	99.99	9.22	90.77
Aug-03	**8 / 8.5**	ND / ND	6.9 / 7.5	ND / ND	ND / ND	ND / ND	99.99	8.96	91.03
Nov-03	**1.3 J / 2.3 J**	ND / ND	1.5 J / 1.5 J	ND / ND	ND / ND	ND / ND	99.99	8.27	91.72
Mar-04	0.56 J	ND	1.3 J	ND	ND	NS	99.99	9.23	90.76
May-04	ND	ND	ND	ND	ND	NS	99.99	8.90	91.09
Aug-04	**3.5**	ND	13.4	ND	ND	NS	99.99	10.06	89.93
Nov-04	0.76 J	ND	1.1	ND	ND	ND	99.99	9.40	90.59
Feb-05	**1.8**	ND	1.4	ND	ND	NS	99.99	9.31	90.68
May-05	0.65 J	ND	0.99 J	ND	ND	NS	99.99	8.60	91.39
16-MW-10									
Aug-98	N.D	ND	NS	ND	ND	0.51	100.36	9.46	90.90
Nov-98	0.53	ND	NS	ND	ND	ND	100.36	9.56	90.80
Feb-99	ND	ND	NS	ND	0.5	1.2	100.36	8.74	91.62
May-99	N.D	ND	NS	ND	ND	0.8	100.36	7.59	92.77
Aug-99	N.D / ND	ND / ND	NS	ND / ND	1.3 / 1.4	1.9 / 2.2	100.36	9.78	90.58
Nov-99	ND	ND	NS	ND	ND	1.5	100.36	9.18	91.18
Feb-00	ND	ND	ND	ND	ND	0.68	100.36	9.11	91.25
May-00	ND	ND	ND	ND	ND	ND	100.36	8.80	91.56
Aug-00	**1.2**	ND	ND	ND	1.1	1.5	100.36	9.06	91.30
Nov-00	**2.1**	ND	ND	ND	ND	ND	100.36	9.45	90.91
Feb-01	ND	ND	ND	ND	ND	ND	100.36	8.56	91.80
May-01	**3.9J**	ND	ND	ND	2.7 J	ND	100.36	8.68	91.68
Aug-01	ND	ND	ND	ND	ND	ND	100.36	9.81	90.55
Nov-01	**5.9**	ND	ND	ND	ND	1.0 J	100.36	10.09	90.27
Feb-02	**3.9**	ND	ND	ND	ND	ND	100.36	9.63	90.73
May-02	**2.6**	ND	ND	ND	ND	ND	100.36	9.30	91.06
Aug-02	**2**	ND	ND	ND	ND	ND	100.36	10.79	89.57
Nov-02	**1.3**	ND	ND	ND	ND	ND	100.36	9.31	91.05
Feb-03	**1.3**	ND	ND	ND	ND	ND	100.36	8.95	91.41
May-03	**2.5**	ND	ND	ND	ND	ND	100.36	8.53	91.83
Aug-03	**2.2**	ND	ND	ND	ND	ND	100.36	8.41	91.95
Nov-03	**1.7**	ND	ND	ND	ND	ND	100.36	8.88	91.48
Mar-04	**3.8**	ND	ND	ND	ND	ND	100.36	8.69	91.67
May-04	**3.2**	ND	ND	ND	ND	ND	100.36	8.15	92.21
Aug-04	**2.1**	ND	ND	ND	ND	ND	100.36	9.40	90.96
Nov-04	0.67 J	ND	ND	ND	1.4 J	1.0 J	100.36	8.68	91.68
Feb-05	0.60 J / 0.65 J	ND / ND	ND / ND	ND / ND	1.4 J / 1.3 J	2 J / 2 J	100.36	8.80	91.56
May-05	0.21 J / ND	ND / ND	ND / ND	ND / ND	2.8 J / 2.7 J	2 J / 2 J	100.36	7.94	92.42
Aug-05	ND	ND	ND	ND	2.0	2.0 J	100.36	9.88	90.48
Nov-05	**2.2**	ND	ND	ND	ND	2.6 J	100.36	8.77	91.59
Feb-06	**2.1**	ND	ND	ND	0.37 J	ND	100.36	8.15	92.21
May-06	ND / ND	ND / ND	ND / ND	ND / ND	ND / ND	ND / ND	100.36	8.51	91.85
Aug-06	0.46 J / 0.45 J	ND / ND	ND / ND	ND / ND	0.88 J / 1.0 J	1 J / 1 J	100.36	9.66	90.70
Nov-06	ND	ND	ND	ND	ND	ND	100.36	9.05	91.31
Feb-07	ND	ND	ND	ND	0.88 J	0.9 J	100.36	8.54	91.82
May-07	ND	ND	ND	ND	0.94 J	0.6 J	100.36	7.45	92.91
Aug-07[8]	ND	ND	ND	ND	ND	ND	100.36	9.27	91.09
Nov-07	ND	ND	ND	ND	1.5 J	1 J	100.36	9.20	91.16
Feb-08	ND / ND	ND / ND	ND / ND	ND / ND	1.2 J / 1.3 J	2 J / 2 J	100.36	8.35	92.01
May-08	ND	ND	ND	ND	1.1	2 J	100.36	8.70	91.66

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YEARS 1 THROUGH 10 GROUNDWATER MONITORING
BUILDINGS C-17/20/16/50
NWS EARLE, COLTS NECK, NEW JERSEY

Location/ Duplicate	Compounds						Groundwater Levels		
	Volatiles					Semivolatiles	Elevation Top of Casing	Depth to GW	GW Elevation**
	Benzene	Ethylbenzene	MTBE	Toluene	Xylenes	Naphthalene			
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L			
NJDEP GQS	**1.0**	**700**	**70**	**1,000**	**1,000***	**300**	**ft above MSL**	**ft BGS**	**ft above MSL**
16-MW-11									
Aug-00	NS	NS	NS	NS	NS	NS	NS	NS	NS
Nov-00	**566 / 564**	ND / ND	**997 / 872**	ND / ND	ND / ND	ND / ND	91.76	3.03	88.73
Feb-01	**580 / 470**	ND / ND	ND / ND	ND / ND	2.6 J / 2.6 J	12 J / 13	91.76	2.53	89.23
May-01	**99 J / 100**	ND / ND	**300 / 190**	ND / ND	ND / ND	ND / ND	91.76	3.18	88.58
Aug-01	**22 J / 21 J**	ND / ND	**110 / 100**	ND / ND	ND / ND	ND / ND	91.76	4.22	87.54
Nov-01	**18.3**	ND	**74.5**	ND	ND	ND	91.76	3.99	87.77
Feb-02	**83.5 / 95.2**	ND / ND	**89.3 / 114**	ND / ND	ND / ND	ND / ND	91.76	3.19	88.57
May-02	**5.2**	ND	ND	ND	ND	ND	91.76	2.92	88.84
Aug-02	**21.2**	ND	20.5	ND	ND	ND	91.81	4.87	86.94
Nov-02	**106**	ND	**75.9**	ND	ND	ND	91.81	3.12	88.69
Feb-03	**132**	ND	**74.5**	ND	ND	1.7 J	91.81	3.09	88.72
May-03	**37.1 / 34.3**	ND / ND	37.1 / 35.2	ND / ND	ND / ND	ND / ND	91.81	3.04	88.77
Aug-03	**56**	ND	63.1	ND	ND	ND	91.81	2.77	89.04
Nov-03	**60.9**	ND	**93.2**	ND	ND	ND	91.81	2.91	88.90
Mar-04	**66.8**	ND	**100**	ND	ND	ND	91.81	2.89	88.92
May-04	**54.8 / 68.2**	ND / ND	**172 / 164 J**	ND / ND	ND / ND	ND / ND	91.81	2.82	88.99
Aug-04	**50.9**	ND	**172**	ND	ND	ND	91.81	3.80	88.01
Nov-04	**36.2**	ND	**239**	ND	ND	ND	91.81	2.73	89.08
Feb-05	**4.5**	ND	60.1	ND	ND	ND	91.81	3.25	88.56
May-05	**5.7**	ND	47.2	ND	ND	ND	91.81	2.64	89.17
Aug-05	**2.6**	ND	24	ND	ND	ND	91.81	4.27	87.54
Nov-05	**15 / 15**	ND / ND	60 / 64	ND / ND	ND / ND	ND / ND	91.81	3.02	88.79
Feb-06	**13 / 12**	ND / ND	52 / 51	ND / ND	ND / ND	ND / ND	91.81	2.79	89.02
May-06	**6.4**	ND	36	ND	ND	ND	91.81	1.94	89.87
Aug-06	**3.8 / 3.8**	ND / ND	20.5 / 20.9	ND / ND	ND / ND	ND / ND	91.81	4.25	87.56
Nov-06	**19**	ND	**79**	ND	ND	ND	91.81	2.53	89.28
Feb-07	**81.4**	ND	**169**	ND	ND	ND	91.81	2.99	88.82
May-07	**159 / 164**	ND / ND	**288 / 301**	ND / ND	ND / ND	ND / 2	91.81	2.62	89.19
Aug-07[8]	**181**	ND	**322**	ND	ND	2	91.81	3.54	88.27
Nov-07	**67.5**	ND	**121**	ND	ND	1 J / 1 J	91.81	3.22	88.59
Feb-08	**61.2**	ND	**80.7**	ND	ND	ND	91.81	2.70	89.11
May-08	**190**	ND	**208**	ND	ND	1 J	91.81	2.97	88.84
16-MW-15									
Aug-02	**289**	7.4	16.5	3.3	49.5	13	91.97	5.88	86.09
Nov-02	**271**	ND	17.8	4 J	32.8	10.9	91.97	3.58	88.39
Feb-03	**21**	1 J	2 J	ND	6 J	4 J	91.97	3.65	88.32
May-03	**99.7**	2	6	ND	15.2	3.1 J	91.97	3.58	88.39
Aug-03	**233J**	10	14.1	5.2	47.9	11	91.97	3.32	88.65
Nov-03	**118**	11.8	7.5	2.3	52.6	8.4	91.97	3.38	88.59
Mar-04	**15.7**	ND	ND	ND	ND	NS	91.97	3.37	88.60
May-04	**8.8**	ND	ND	ND	ND	NS	91.97	2.32	89.65
Aug-04	**8.1**	ND	ND	ND	ND	NS	91.97	4.45	87.52
Nov-04	**20.1**	ND	0.79 J	ND	ND	NS	91.97	3.61	88.36
Feb-05	**2.7**	ND	1.1	ND	ND	NS	91.97	3.43	88.54
May-05	**12.5**	ND	0.90 J	ND	ND	NS	91.97	3.15	88.82
Aug-05	**12**	ND	ND	ND	ND	NS	91.97	5.12	86.85
Nov-05	**14**	ND	ND	ND	ND	NS	91.97	3.61	88.36
Feb-06	**7.6**	ND	0.42 J	ND	ND	NS	91.97	3.34	88.63
May-06	**13**	ND	ND	ND	ND	NS	91.97	2.72	89.25
Aug-06	**7.7**	ND	ND	ND	ND	NS	91.97	5.11	86.86
Nov-06	**6.5**	ND	ND	ND	ND	NS	91.97	3.21	88.76
Feb-07	**14.6**	ND	0.42 J	ND	ND	NS	91.97	3.90	88.07
May-07	**20.4**	ND	0.35 J	ND	ND	NS	91.97	3.51	88.46
Aug-07[8]	**25.8**	ND	0.55 J	0.21 J	1.2 J	NS	91.97	4.24	87.73
Nov-07	**43.3**	ND	2.0	0.93 J	27.4	NS	91.97	4.11	87.86
Feb-08	**6.3**	ND	1.2	ND	0.97 J	NS	91.97	3.49	88.48
May-08	**11.6**	0.99 J	4.6	ND	4.5	NS	91.97	3.85	88.12
16-MW-16[5]									
Aug-02	ND	ND	ND	ND	ND	ND	94.34	6.00	88.34
Nov-02	ND	ND	ND	ND	ND	ND	94.34	4.39	89.95
Feb-03	ND	ND	ND	ND	ND	ND	94.34	4.12	90.22
May-03	ND	ND	ND	ND	ND	ND	94.34	4.00	90.34
Aug-03	ND	ND	ND	ND	ND	ND	94.34	3.85	90.49
Nov-03	ND	ND	ND	ND	ND	ND	94.34	4.09	90.25
Aug-07[8]	NS	NS	NS	NS	NS	NS	94.34	4.63	89.71
Nov-07	NS	NS	NS	NS	NS	NS	94.34	4.33	90.01
Feb-08	NS	NS	NS	NS	NS	NS	94.34	NA	NA
May-08	NS	NS	NS	NS	NS	NS	94.34	4.02	90.32
16-MW-17									
Aug-02	ND	ND	ND	ND	ND	ND	93.94	5.86	88.08
Nov-02	ND	ND	ND	ND	ND	ND	93.94	4.30	89.64
Feb-03	ND	ND	ND	ND	ND	ND	93.94	4.03	89.91
May-03	ND	ND	ND	ND	ND	ND	93.94	3.86	90.08
Aug-03	ND	ND	ND	ND	ND	ND	93.94	3.70	90.24
Nov-03	ND	ND	ND	ND	ND	ND	93.94	3.86	90.08
Mar-04	ND	ND	ND	ND	ND	NS	93.94	3.84	90.10

TABLE 1
ANALYTICAL DATA SUMMARY
YEARS 1 THROUGH 10 GROUNDWATER MONITORING
BUILDINGS C-17/20/16/50
NWS EARLE, COLTS NECK, NEW JERSEY

Location/ Duplicate	Compounds						Groundwater Levels		
	Volatiles					Semivolatiles	Elevation Top of Casing	Depth to GW	GW Elevation**
	Benzene	Ethylbenzene	MTBE	Toluene	Xylenes	Naphthalene			
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L			
NJDEP GQS	**1.0**	**700**	**70**	**1,000**	**1,000***	**300**	**ft above MSL**	**ft BGS**	**ft above MSL**
16-MW-17 continued									
May-04	ND	ND	0.55 J	ND	ND	NS	93.94	3.69	90.25
Aug-04	ND	ND	N.D	ND	ND	NS	93.94	4.75	89.19
Nov-04	ND	ND	0.30 J	ND	ND	NS	93.94	3.81	90.13
Feb-05	ND	ND	ND	ND	ND	NS	93.94	3.20	90.74
May-05	ND	ND	0.31 J	ND	ND	NS	93.94	3.52	90.42
Aug-07[8]	NS	NS	NS	NS	NS	NS	93.94	4.58	89.36
Nov-07	NS	NS	NS	NS	NS	NS	93.94	4.35	89.59
Feb-08	NS	NS	NS	NS	NS	NS	93.94	3.93	90.01
May-08	NS	NS	NS	NS	NS	NS	93.94	4.14	89.80
16-MW-24									
Aug-02	ND	ND	3	ND	ND	ND	89.88	5.45	84.43
Nov-02	ND	ND	3.6	ND	ND	ND	89.88	4.03	85.85
Feb-03	ND	ND	1.3 J	ND	ND	ND	89.88	4.02	85.86
May-03	ND	ND	ND	ND	ND	ND	89.88	3.94	85.94
Aug-03	ND	ND	ND	ND	ND	ND	89.88	4.07	85.81
Nov-03	ND	ND	ND	ND	ND	ND	89.88	4.02	85.86
Mar-04	ND	ND	ND	ND	ND	NS	89.88	3.99	85.89
May-04	ND	ND	ND	ND	ND	NS	89.88	3.95	85.93
Aug-04	ND	ND	ND	ND	ND	NS	89.88	4.61	85.27
Nov-04	**6.2**	ND	9.2	ND	ND	NS	89.88	3.79	86.09
Feb-05	ND	ND	2.5	ND	ND	NS	89.88	3.95	85.93
May-05	ND	ND	6.1	ND	ND	NS	89.88	3.72	86.16
Aug-05	**21**	ND	28	ND	ND	NS	89.88	5.12	84.76
Nov-05	**27**	ND	33	ND	ND	NS	89.88	4.01	85.87
Feb-06	**2.8**	ND	35	0.18 J	ND	NS	89.88	3.92	85.96
May-06	**35**	ND	53	ND	ND	NS	89.88	2.38	87.50
Aug-06	**114**	ND	**90.1**	3.5	1.8 J	NS	89.88	5.12	84.76
Nov-06	**4.8**	ND	ND	ND	ND	NS	89.88	3.83	86.05
Feb-07	**6.2**	ND	13.4	ND	ND	NS	89.88	4.01	85.87
May-07	**7.6**	ND	20.9	ND	ND	NS	89.88	4.00	85.88
Aug-07[8]	**4.4**	ND	20.5 J	ND	ND	NS	89.88	4.49	85.39
Nov-07	**2.8**	ND	9.3	ND	ND	NS	89.88	4.22	85.66
Feb-08	**3.2**	ND	7.0	ND	ND	NS	89.88	4.06	85.82
May-08	ND	ND	7.2	ND	ND	NS	89.88	3.95	85.93
16-MW-25									
Aug-02	ND / ND	ND / ND	ND / ND	ND / ND	ND / ND	ND / ND	93.22	9.04	84.18
Nov-02	ND	ND	ND	ND	ND	ND	93.22	6.30	86.92
Feb-03	ND	ND	ND	ND	ND	ND	93.22	6.20	87.02
May-03	ND	ND	ND	ND	ND	ND	93.22	6.11	87.11
Aug-03	ND	ND	ND	ND	ND	ND	93.22	6.55	86.67
Nov-03	ND	ND	ND	ND	ND	ND	93.22	6.43	86.79
Mar-04	ND	ND	ND	ND	ND	NS	93.22	6.13	87.09
May-04	ND	ND	ND	ND	ND	NS	93.22	5.80	87.42
Aug-04	ND	ND	ND	ND	ND	NS	93.22	7.85	85.37
Nov-04	ND	ND	ND	ND	ND	NS	93.22	5.91	87.31
Feb-05	ND	ND	ND	ND	ND	NS	93.22	6.17	87.05
May-05	ND	ND	ND	ND	ND	NS	93.22	5.31	87.91
Aug-05	ND	ND	ND	ND	ND	NS	93.22	8.36	84.86
Nov-05	ND	ND	ND	ND	ND	NS	93.22	9.11	84.11
Feb-06	ND	ND	ND	ND	ND	NS	93.22	5.71	87.51
May-06	ND	ND	ND	ND	ND	NS	93.22	6.61	86.61
Aug-06	ND	ND	ND	ND	ND	NS	93.22	8.32	84.90
Nov-06	ND	ND	ND	ND	ND	NS	93.22	5.42	87.80
Feb-07	ND	ND	ND	ND	ND	NS	93.22	6.21	87.01
May-07	ND	ND	ND	ND	ND	NS	93.22	5.10	88.12
Aug-07[8]	ND	ND	ND	ND	ND	NS	93.22	7.88	85.34
Nov-07	2.8	ND	9.3	ND	ND	NS	93.22	7.49	85.73
Feb-08	ND	ND	ND	ND	ND	NS	93.22	6.02	87.20
May-08	ND	ND	ND	ND	ND	NS	93.22	6.68	86.54
17-MW-01[5]									
Aug-01	**44 J**	3.6	ND	3.6	121	220	101.50	8.82	92.68
17-MW-02[7]									
Aug-98	N.D	ND	NS	ND	ND	ND	98.38	7.08	91.30
Nov-98	0.96	ND	NS	ND	ND	ND	98.38	7.24	91.14
Feb-99	N.D	ND	NS	ND	ND	ND	98.38	6.02	92.36
May-99	ND	ND	NS	ND	ND	ND	98.38	6.64	91.74
Aug-99	**8.5**	3.7	NS	ND	15.8	76.7	98.38	7.60	90.78
Nov-99	ND	ND	NS	ND	ND	ND	98.38	7.19	91.19
Feb-00	0.64	ND	ND	ND	ND	0.71	98.38	6.98	91.40
May-00	ND	ND	ND	ND	ND	ND	98.38	6.28	92.10
Aug-00	ND	ND	ND	ND	ND	ND	98.38	--	--
Nov-00	**3**	ND	ND	ND	ND	2.6	98.38	7.32	91.06
Feb-01	ND	ND	ND	ND	ND	ND	98.38	5.78	92.60
May-01	ND	ND	ND	ND	ND	ND	98.38	5.80	92.58
Aug-01	**1.3 J**	ND	ND	ND	ND	ND	98.38	7.40	90.98
Nov-01	**3.1**	ND	ND	ND	ND	ND	98.38	7.90	90.48
Feb-02	**3.5**	ND	ND	ND	ND	ND	98.38	7.47	90.91
May-02	ND / ND	ND / ND	ND / ND	ND / ND	ND / ND	ND / ND	98.38	7.05	91.33

TABLE 1
ANALYTICAL DATA SUMMARY
YEARS 1 THROUGH 10 GROUNDWATER MONITORING
BUILDINGS C-17/20/16/50
NWS EARLE, COLTS NECK, NEW JERSEY

Location/ Duplicate	Compounds						Groundwater Levels		
	Volatiles					Semivolatiles	Elevation Top of Casing	Depth to GW	GW Elevation**
	Benzene	Ethylbenzene	MTBE	Toluene	Xylenes	Naphthalene			
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L			
NJDEP GQS	**1.0**	**700**	**70**	**1,000**	**1,000***	**300**	**ft above MSL**	**ft BGS**	**ft above MSL**
17-MW-02[7] continued									
Aug-02	**4.1**	ND	0.9J	ND	ND	10.6	98.38	8.60	89.78
Nov-02	ND	ND	ND	ND	ND	ND	98.38	7.13	91.25
Feb-03	ND	ND	ND	ND	ND	ND	98.38	6.54	91.84
May-03	ND	ND	ND	ND	ND	ND	98.38	5.51	92.87
Aug-03	ND	ND	ND	ND	ND	ND	98.38	5.40	92.98
Nov-03	ND	ND	ND	ND	ND	ND	98.38	6.22	92.16
Mar-04	ND	ND	ND	ND	ND	NS	98.38	6.00	92.38
May-04	ND	ND	ND	ND	ND	NS	98.38	5.01	93.37
16-MW-12 (Replaced 17-MW-02)									
Aug-04	**1.6**	ND	ND	ND	ND	NS	98.38	6.99	91.39
Nov-04	0.34 J	ND	ND	ND	ND	NS	98.38	6.65	91.73
Feb-05	**1.1**	ND	ND	ND	ND	NS	98.38	7.58	90.80
May-05	0.38 J	ND	ND	ND	ND	NS	98.38	5.07	93.31
18-MW-01									
Aug-98	N.D	ND	NS	ND	ND	ND	103.00	9.21	93.79
Nov-98	ND	ND	NS	ND	ND	ND	103.00	9.71	93.29
Feb-99	ND	ND	NS	ND	ND	ND	103.00	9.29	93.71
May-99	ND	ND	NS	ND	ND	ND	103.00	9.00	94.00
Aug-99	ND	ND	NS	ND	ND	ND	103.00	10.55	92.45
Nov-99	ND	ND	NS	ND	ND	3.0	103.00	10.19	92.81
Feb-00	ND	ND	ND	ND	ND	ND	103.00	9.88	93.12
May-00	ND	ND	ND	0.71	ND	ND	103.00	9.41	93.59
Aug-00	ND	ND	ND	ND	ND	ND	103.00	9.66	93.34
Nov-00	ND	ND	ND	ND	ND	ND	103.00	10.30	92.70
Feb-01	ND	ND	ND	ND	ND	ND	103.00	9.52	93.48
May-01	ND	ND	ND	ND	ND	ND	103.00	8.58	94.42
Aug-01	ND	ND	ND	ND	ND	2.9	103.00	9.58	93.42
Nov-01	ND	ND	ND	ND	ND	ND	103.00	10.79	92.21
Feb-02	ND	ND	ND	ND	ND	ND	103.00	10.61	92.39
May-02	ND	ND	ND	ND	ND	ND	103.00	10.18	92.82
Aug-02	ND	ND	0.55 J	ND	ND	ND	103.00	11.39	91.61
Nov-02	ND	ND	ND	ND	ND	ND	103.00	10.19	92.81
Feb-03	ND	ND	ND	ND	ND	ND	103.00	9.26	93.74
May-03	ND	ND	ND	ND	ND	ND	103.00	8.39	94.61
Aug-03	ND	ND	ND	ND	ND	ND	103.00	8.27	94.73
Nov-03	ND	ND	ND	ND	ND	ND	103.00	9.17	93.83
Mar-04	ND	ND	ND	ND	ND	ND	103.00	8.79	94.21
May-04	ND	ND	R	ND	ND	ND	103.00	8.12	94.88
Aug-04	ND	ND	0.34 J	ND	ND	ND	103.00	9.67	93.33
Nov-04	ND	ND	ND	ND	ND	ND	103.00	9.59	93.41
Feb-05	ND	ND	ND	ND	ND	ND	103.00	9.32	93.68
May-05	ND	ND	ND	ND	ND	ND	103.00	8.21	94.79
Aug-05	ND / ND	ND / ND	ND / ND	ND / ND	ND / ND	ND / ND	103.00	9.94	93.06
Nov-05	ND	ND	ND	ND	ND	ND	103.00	8.81	94.19
Feb-06	ND	ND	ND	ND	ND	ND	103.00	7.86	95.14
May-06	ND	ND	ND	ND	ND	ND	103.00	5.47	97.53
Aug-06	ND	ND	ND	ND	ND	ND	103.00	9.78	93.22
Nov-06	ND / ND	ND / ND	ND / ND	ND / ND	ND / ND	ND / ND	103.00	8.08	94.92
Feb-07	ND	ND	ND	ND	ND	ND	103.00	8.62	94.38
May-07	ND	ND	ND	ND	ND	ND	103.00	7.35	95.65
Aug-07[8]	ND	ND	ND	ND	ND	ND	103.00	9.18	93.82
Nov-07	ND / ND	ND / ND	ND / ND	ND / ND	ND / ND	ND / ND	103.00	9.99	93.01
Feb-08	ND	ND	ND	ND	ND	ND	103.00	8.73	94.27
May-08	ND / ND	ND / ND	ND / ND	ND / ND	ND / ND	ND / ND	103.00	9.03	93.97
29-MW-01									
Aug-07[8]	NS	NS	NS	NS	NS	NS	99.42	10.39	89.03
Nov-07	NS	NS	NS	NS	NS	NS	99.42	10.11	89.31
Feb-08	NS	NS	NS	NS	NS	NS	99.42	9.25	90.17
May-08	NS	NS	NS	NS	NS	NS	99.42	9.81	89.61
NJDEP SWQS	**0.15**	**3,030**	**NA**	**7,440**	**NA**	**NA**			
16-SW-01									
May-02	ND	ND	3	ND	ND	ND	--	--	--
Aug-02	NS	NS	NS	NS	NS	NS	--	--	--
Nov-02	ND	ND	ND	ND	ND	ND	--	--	--
Feb-03	ND	ND	0.56 J	ND	ND	ND	--	--	--
May-03	ND	ND	ND	ND	ND	ND	--	--	--
Aug-03	ND	ND	0.53 J	ND	ND	ND	--	--	--
Nov-03	ND	ND	ND	ND	ND	ND	--	--	--
Mar-04	ND	ND	ND	ND	ND	NS	--	--	--
May-04	ND	ND	ND	ND	ND	NS	--	--	--
Aug-04	ND	ND	2.4 J	ND	ND	NS	--	--	--
Nov-04	ND	ND	ND	ND	ND	NS	--	--	--
Feb-05	ND	ND	ND	ND	ND	NS	--	--	--
May-05	ND	ND	8	ND	ND	NS	--	--	--
Aug-05	NS	NS	NS	NS	NS	NS	--	--	--
Nov-05	ND	ND	ND	ND	ND	NS	--	--	--
Feb-06	ND	ND	ND	ND	ND	NS	--	--	--
May-06	ND	ND	ND	ND	ND	NS	--	--	--

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YEARS 1 THROUGH 10 GROUNDWATER MONITORING
BUILDINGS C-17/20/16/50
NWS EARLE, COLTS NECK, NEW JERSEY

Location/ Duplicate	Compounds						Groundwater Levels		
	Volatiles					Semivolatiles	Elevation Top of Casing	Depth to GW	GW Elevation**
	Benzene	Ethylbenzene	MTBE	Toluene	Xylenes	Naphthalene			
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L			
NJDEP GQS	**1.0**	**700**	**70**	**1,000**	**1,000***	**300**	**ft above MSL**	**ft BGS**	**ft above MSL**
NJDEP SWQS	**0.15**	**3,030**	**NA**	**7,440**	**NA**	**NA**			
16-SW-01 continued									
Aug-06	NS	NS	NS	NS	NS	NS	--	--	--
Nov-06	ND	ND	ND	ND	ND	NS	--	--	--
Feb-07	ND	ND	ND	ND	ND	NS	--	--	--
May-07	ND	ND	ND	ND	ND	NS	--	--	--
Aug-07	ND	ND	ND	0.59 J	ND	NS	--	--	--
Feb-08	ND	ND	ND	ND	ND	NS	--	--	--
May-08	ND	ND	ND	ND	ND	NS	--	--	--
16-SW-02									
May-02	ND / ND	ND / ND	3.8 / 4.4	ND / ND	ND / ND	ND / ND	--	--	--
Aug-02	NS	NS	NS	NS	NS	NS	--	--	--
Nov-02	ND / ND	ND / ND	3.8 J / 5.5 J	ND / ND	ND / ND	ND / ND	--	--	--
Feb-03	ND	ND	7.7	ND	ND	ND	--	--	--
May-03	ND / ND	ND / ND	3.9 / 4.4	ND / ND	ND / ND	ND / ND	--	--	--
Aug-03	ND / ND	ND / ND	28.4 / 33.9	ND / ND	ND / ND	ND / ND	--	--	--
Nov-03	ND / ND	ND / ND	26.4 / 23.3	ND / ND	ND / ND	ND / ND	--	--	--
Mar-04	**1.4 / 1.2**	ND / ND	11.3 / 12	0.87 J / 2.2 J	ND / ND	NS / NS	--	--	--
May-04	ND / ND	ND / ND	7.7 J / R	0.6 J / ND	ND / ND	NS / NS	--	--	--
Aug-04	0.66 J	ND	58.6	ND	ND	NS	--	--	--
Nov-04	0.20 J	ND	9.7	ND	ND	NS	--	--	--
Feb-05	ND	ND	0.79 J	ND	ND	NS	--	--	--
May-05	ND	ND	ND	ND	ND	NS	--	--	--
Aug-05	ND	ND	21	1.2	ND	NS	--	--	--
Nov-05	ND	ND	0.52J	ND	ND	NS	--	--	--
Feb-06	ND	ND	2.0	ND	ND	NS	--	--	--
May-06	ND	ND	ND	ND	ND	NS	--	--	--
Aug-06	NS	NS	NS	NS	NS	NS	--	--	--
Nov-06	ND	ND	ND	ND	ND	NS	--	--	--
Feb-07	ND	ND	19.2	ND	ND	NS	--	--	--
May-07	ND	ND	0.76 J	ND	ND	NS	--	--	--
Aug-07	ND	ND	11.0 J	4.2	ND	NS	--	--	--
Feb-08	ND	ND	0.99 J	ND	ND	NS	--	--	--
May-08	ND	ND	3.0	ND	ND	NS	--	--	--

Data previous to August 2004 was provided by Tetra Tech NUS, Incorporated (TtNUS).
Groundwater Quality Standard (GQS) and Surface Water Quality Standard (SWQS) Criteria is from the New Jersey Department of Environmental Protection (NJDEP) criteria for class II-A Groundwater (N.J.A.C. 7:9-6) and class FW2 Surface Water (N.J.A.C. 7:9B). Unless otherwise noted, the groundwater criteria used are the Higher of the Practical Quantitation Levels (PQLs) and Groundwater Quality Criteria.
Analytes with concentrations greater than the NJDEP GQS or SWQS are highlighted in bold.
*Criterion for total xylenes was raised to the NJDEP Maximum Contaminant Level (MCL) of 1,000 ug/L as of 5 February 1997. Previous reports used a value of 40 ug/L; however, the bold highlights have been updated to correspond to the current criterion.
**GW Elevation is not corrected for LNAPL (if present). Corrected GW Elevations are presented in Appendix F.
feet msl = feet above mean sea level; feet bgs = feet below ground surface
Sampling periods displaying two values for a concentration (i.e. XX/XX) indicate a duplicate sample was taken and analyzed.
H: Holding Time Exceedance
J: Estimated value due to exceedance of technical criteria or because results are less than the CRQL.
R: Surrogate recovery non-compliance
ND: Non-Detect
NS: Not Sampled
NA: Not Available
[1] Omitted from monitoring program after second quarter of Year 6.
[2] Destroyed after first quarter of Year 6.
[3] Omitted from monitoring program due to active remediation (bioslurping).
[4] Omitted from monitoring program after second quarter of Year 6.
[5] Omitted from monitoring program after second quarter of Year 6.
[6] Renamed 17-MW-17 after Year 6. Omitted due to active remediation (bioslurping).
[7] Renamed 16-MW-12 after Year 6.
[8] Samples collected Aug-07, wells gauged Sept-07

TABLE 2
Sample Data Summary
Year 10 Groundwater Monitoring
Naval Weapons Station Earle
Colts Neck, NJ

Location/ Duplicate	Compounds						Groundwater Levels				
	Volatiles					Semivolatiles					
	Benzene	Ethylbenzene	MTBE	Toluene	Xylenes	Naphthalene	Elevation Top of Casing	Depth to Product	Depth to GW	Product Thickness	Elevation GW***
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L					
NJDEP GWQS	**1.0**	**700**	**70**	**1,000**	**1,000**	**300**	**ft above MSL**	**feet BGS**	**feet BGS**	**ft**	**ft above MSL**
16MW-02	**(Not Sampled)**										
Aug-07	NS	NS	NS	NS	NS	NS	98.48	NA	7.10	NA	91.38
Nov-07	NS	NS	NS	NS	NS	NS	98.48	NA	7.12	NA	91.36
Feb-08	NS	NS	NS	NS	NS	NS	98.48	NA	6.26	NA	92.22
May-08	NS	NS	NS	NS	NS	NS	98.48	NA	6.73	NA	91.75
16MW-04	**(Not Sampled - Product Found in Well)**										
Aug-07	NS	NS	NS	NS	NS	NS	101.23	7.93	8.13	0.20	93.27
Nov-07	NS	NS	NS	NS	NS	NS	101.23	**	8.87	<0.01	92.36
Feb-08	NS	NS	NS	NS	NS	NS	101.23	**	8.19	<0.01	93.04
May-08	NS	NS	NS	NS	NS	NS	101.23	8.25	8.32	0.07	92.97
16MW-05	**(Not Sampled - Product Found in Well)**										
Aug-07	NS	NS	NS	NS	NS	NS	104.14	11.19	11.34	0.15	92.93
Nov-07	NS	NS	NS	NS	NS	NS	104.14	11.40	11.45	0.05	92.73
Feb-08	NS	NS	NS	NS	NS	NS	104.14	10.51	10.53	0.02	93.63
May-08	NS	NS	NS	NS	NS	NS	104.14	10.75	10.82	0.07	93.38
16MW-08											
Aug-07	**108**	47.4	ND	2.0	63.4	128	103.29	NA	9.87	NA	93.42
Aug-07 (DUP-1)	**112**	47.6	ND	2.1	61.5	134	103.29	NA	9.87	NA	93.42
Nov-07	**90.8**	12.3	0.97 J	1.7	56.3	48	103.29	NA	11.95	NA	91.34
Feb-08	**26.0**	7.8	4.2	0.37 J	9.8	61	103.29	NA	9.31	NA	93.98
May-08	**22.3**	2.6	2.0	ND	3.5	33	103.29	NA	11.87	NA	91.42
16MW-10											
Aug-07	ND	ND	ND	ND	ND	ND	100.36	NA	9.27	NA	91.09
Nov-07	ND	ND	ND	ND	1.5 J	1 J	100.36	NA	9.20	NA	91.16
Feb-08	ND	ND	ND	ND	1.2 J	2 J	100.36	NA	8.35	NA	92.01
Feb-08 (DUP-1)	ND	ND	ND	ND	1.3 J	2 J	100.36	NA	8.35	NA	92.01
May-08	ND	ND	ND	ND	1.1	2 J	100.36	NA	8.70	NA	91.66
16MW-11											
Aug-07	**181**	ND	**322**	ND	ND	2	91.81	NA	3.54	NA	88.27
Nov-07	**67.5**	ND	**121**	ND	ND	1 J	91.81	NA	3.22	NA	88.59
Feb-08	**61.2**	ND	**80.7**	ND	ND	ND	91.81	NA	2.70	NA	89.11
May-08	**190**	ND	**208**	ND	ND	1 J	91.81	NA	2.97	NA	88.84
16MW-15											
Aug-07	**25.8**	ND	0.55 J	0.21 J	1.2 J	NS	91.97	NA	4.24	NA	87.73
Nov-07	**43.3**	ND	2.0	0.93 J	27.4	NS	91.97	NA	4.11	NA	87.86
Feb-08	**6.3**	ND	1.2	ND	0.97 J	NS	91.97	NA	3.49	NA	88.48
May-08	**11.6**	0.99 J	4.6	ND	4.5	NS	91.97	NA	3.85	NA	88.12
16MW-16	(Not Sampled)										
Aug-07	NS	NS	NS	NS	NS	NS	94.34	NA	4.63	NA	89.71
Nov-07	NS	NS	NS	NS	NS	NS	94.34	NA	4.33	NA	90.01
Feb-08	NS	NS	NS	NS	NS	NS	94.34	NA	NA	NA	NA
May-08	NS	NS	NS	NS	NS	NS	94.34	NA	4.02	NA	90.32
16MW-17	(Not Sampled)										
Aug-07	NS	NS	NS	NS	NS	NS	93.94	NA	4.58	NA	89.36
Nov-07	NS	NS	NS	NS	NS	NS	93.94	NA	4.35	NA	89.59
Feb-08	NS	NS	NS	NS	NS	NS	93.94	NA	3.93	NA	90.01
May-08	NS	NS	NS	NS	NS	NS	93.94	NA	4.14	NA	89.80
16MW-24											
Aug-07	**4.4**	ND	20.5 J	ND	ND	NS	89.88	NA	4.49	NA	85.39
Nov-07	**2.8**	ND	9.3	ND	ND	NS	89.88	NA	4.22	NA	85.66
Feb-08	**3.2**	ND	7.0	ND	ND	NS	89.88	NA	4.06	NA	85.82
May-08	ND	ND	7.2	ND	ND	NS	89.88	NA	3.95	NA	85.93
16MW-25											
Aug-07	ND	ND	ND	ND	ND	NS	93.22	NA	7.88	NA	85.34
Nov-07	ND	ND	ND	ND	ND	NS	93.22	NA	7.49	NA	85.73
Feb-08	ND	ND	ND	ND	ND	NS	93.22	NA	6.02	NA	87.20
May-08	ND	ND	ND	ND	ND	NS	93.22	NA	6.68	NA	86.54
18MW-01											
Aug-07	ND	ND	ND	ND	ND	ND	103	NA	9.18	NA	93.82
Nov-07	ND	ND	ND	ND	ND	ND	103	NA	9.99	NA	93.01
Nov-07 (DUP-1)	ND	ND	ND	ND	ND	ND	103	NA	9.99	NA	93.01
Feb-08	ND	ND	ND	ND	ND	ND	103	NA	8.73	NA	94.27
May-08	ND	ND	ND	ND	ND	ND	103	NA	9.03	NA	93.97
May-08 (DUP-1)	ND	ND	ND	ND	ND	ND	103	NA	9.03	NA	93.97

TABLE 2
Sample Data Summary
Year 10 Groundwater Monitoring
Naval Weapons Station Earle
Colts Neck, NJ

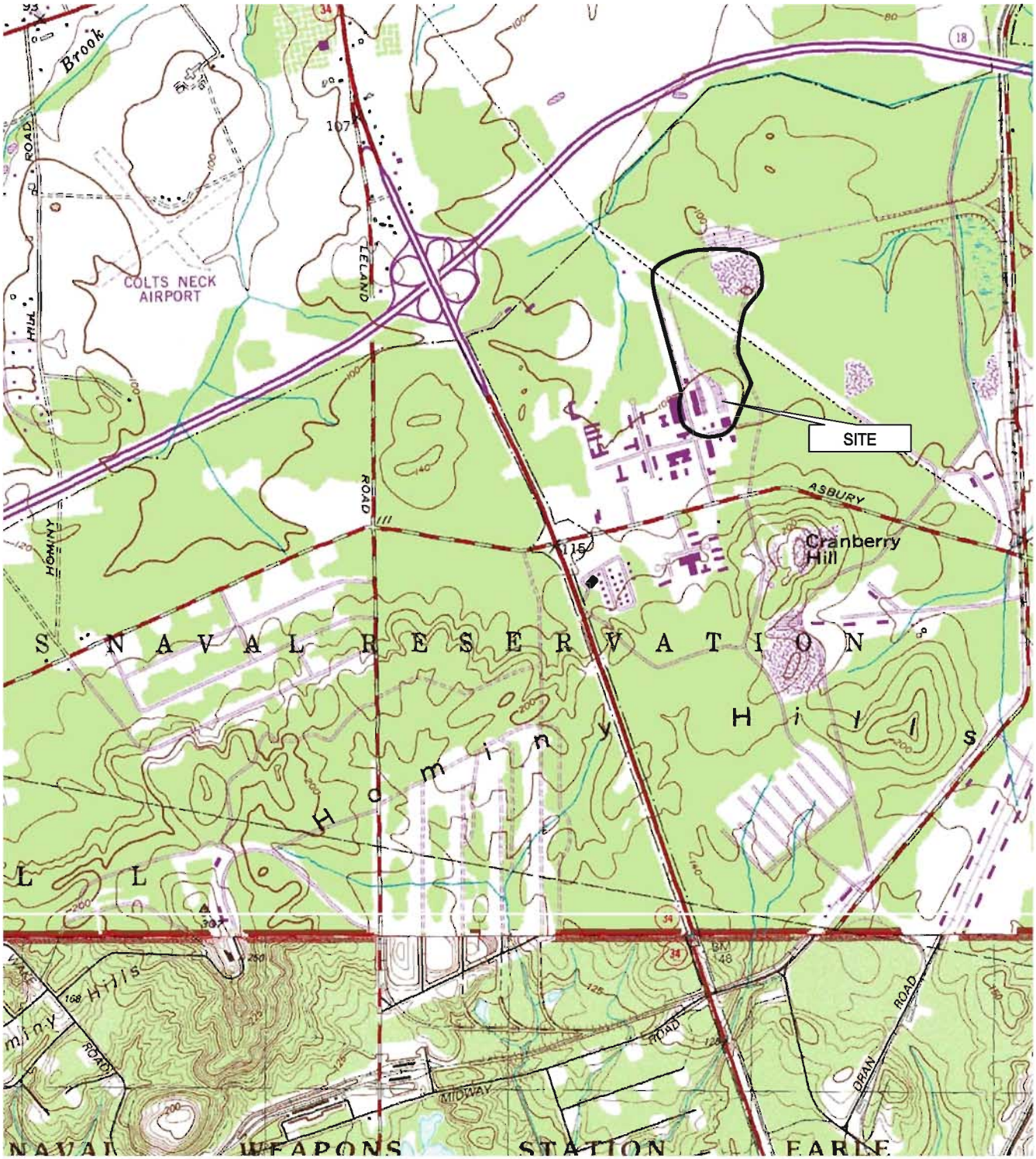
Location/ Duplicate	Compounds						Groundwater Levels				
	Volatiles					Semivolatiles					
	Benzene	Ethylbenzene	MTBE	Toluene	Xylenes	Naphthalene	Elevation Top of Casing	Depth to Product	Depth to GW	Product Thickness	Elevation GW***
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L					
NJDEP GWQS	**1.0**	**700**	**70**	**1,000**	**1,000**	**300**	**ft above MSL**	**feet BGS**	**feet BGS**	**ft**	**ft above MSL**
29MW-01	(Not Sampled)										
Aug-07	NS	NS	NS	NS	NS	NS	99.42	NA	10.39	NA	89.03
Nov-07	NS	NS	NS	NS	NS	NS	99.42	NA	10.11	NA	89.31
Feb-08	NS	NS	NS	NS	NS	NS	99.42	NA	9.25	NA	90.17
May-08	NS	NS	NS	NS	NS	NS	99.42	NA	9.81	NA	89.61
16SW-01											
Aug-07	ND	ND	ND	0.59 J	ND	NS	NA	NA	NA	NA	NA
Nov-07	ND	ND	ND	ND	ND	NS	NA	NA	NA	NA	NA
Feb-08	ND	ND	ND	ND	ND	NS	NA	NA	NA	NA	NA
May-08	ND	ND	ND	ND	ND	NS	NA	NA	NA	NA	NA
16SW-02											
Aug-07	ND	ND	11.0 J	4.2	ND	NS	NA	NA	NA	NA	NA
Nov-07	ND	ND	4.6	ND	ND	NS	NA	NA	NA	NA	NA
Feb-08	ND	ND	0.99 J	ND	ND	NS	NA	NA	NA	NA	NA
May-08	ND	ND	3.0	ND	ND	NS	NA	NA	NA	NA	NA

MSL: Mean Sea Level.
BGS: Below Ground Surface.
J: Estimated Value. Result is less than the reporting limit.
ND: Not Detected.
NS: Not Sampled.
NA: Not Available.
Bold value indicates that results exceed NJDEP GWQS.
**Sheen of Product Present; Product Thickness <0.01 foot
*** For wells with product present, groudwater elevations were calculated and corrected

TABLE 3
YEAR 10 GROUNDWATER SAMPLING AND ANALYSIS SUMMARY
BUILDINGS C-16/17/20/50

MONITORING WELL NUMBER	ANALYSIS	METHOD(S)
16MW-04 *(Sample only if floating product is not encountered)*	benzene, ethylbenezene, naphthalene, toluene, xylenes, MTBE	624/625
16MW-05 *(Sample only if floating product is not encountered)*	benzene, ethylbenezene, naphthalene, toluene, xylenes, MTBE	624/625
16MW-08	benzene, ethylbenezene, naphthalene, toluene, xylenes, MTBE	624/625
16MW-10	benzene, ethylbenezene, naphthalene, toluene, xylenes, MTBE	624/625
16MW-11	benzene, ethylbenezene, naphthalene, toluene, xylenes, MTBE	624/625
16MW-15	benzene, ethylbenezene, toluene, xylenes, MTBE	624 only
16MW-24	benzene, ethylbenezene, toluene, xylenes, MTBE	624 only
16MW-25	benzene, ethylbenezene, toluene, xylenes, MTBE	624 only
18MW-01	benzene, ethylbenezene, naphthalene, toluene, xylenes, MTBE	624/625
16SW-01	benzene, ethylbenezene, toluene, xylenes, MTBE	624 only
16SW-02	benzene, ethylbenezene, toluene, xylenes, MTBE	624 only

FIGURES



SITE LOCATION MAP

BUILDINGS C-17/20/16/50
U.S. NAVY NWS- EARLE
COLTS NECK, NJ

ECOR Solutions
1075 Andrew Drive, Suite I, West Chester, PA 19380

SCALE IN FEET	DATE	FIGURE
0 — 2000	09-27-04	1-1

SOURCE: USGS SANDY HOOK, NJ

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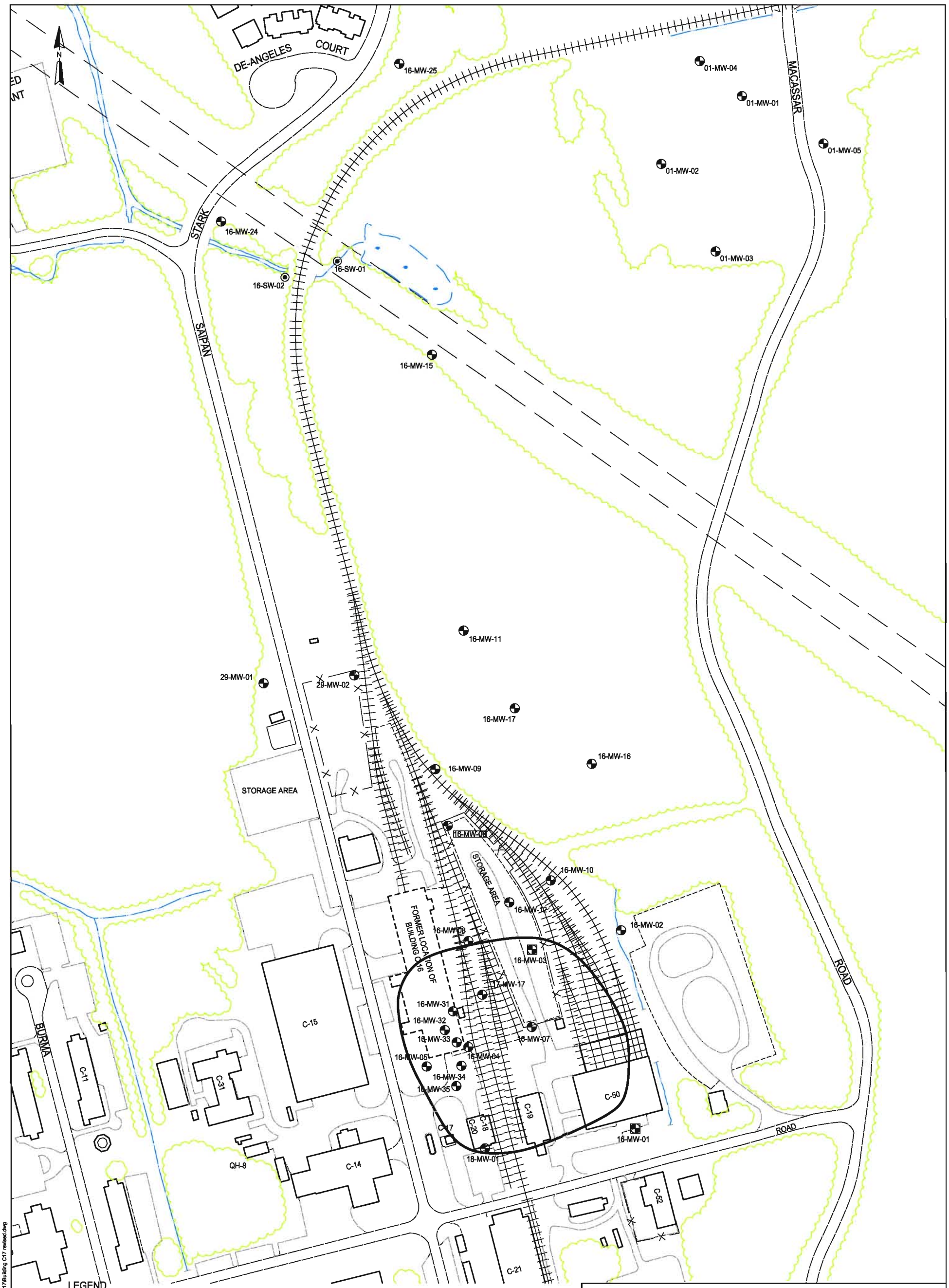

LEGEND

- FENCE
- TREELINE
- RAILROAD
- MONITORING WELL
- ABANDONED MONITORING WELL
- SURFACE WATER SITES
- CEA BOUNDARY

SOURCE: TETRATECH NVS

CEA BOUNDARY

BUILDINGS C-17/20/16/50
U.S. NAVY NWS- EARLE
COLTS NECK, NJ

ECOR Solutions
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SCALE IN FEET	DATE	FIGURE
0 — 200	09-24-06	1-2

ECOR Solutions, Inc.

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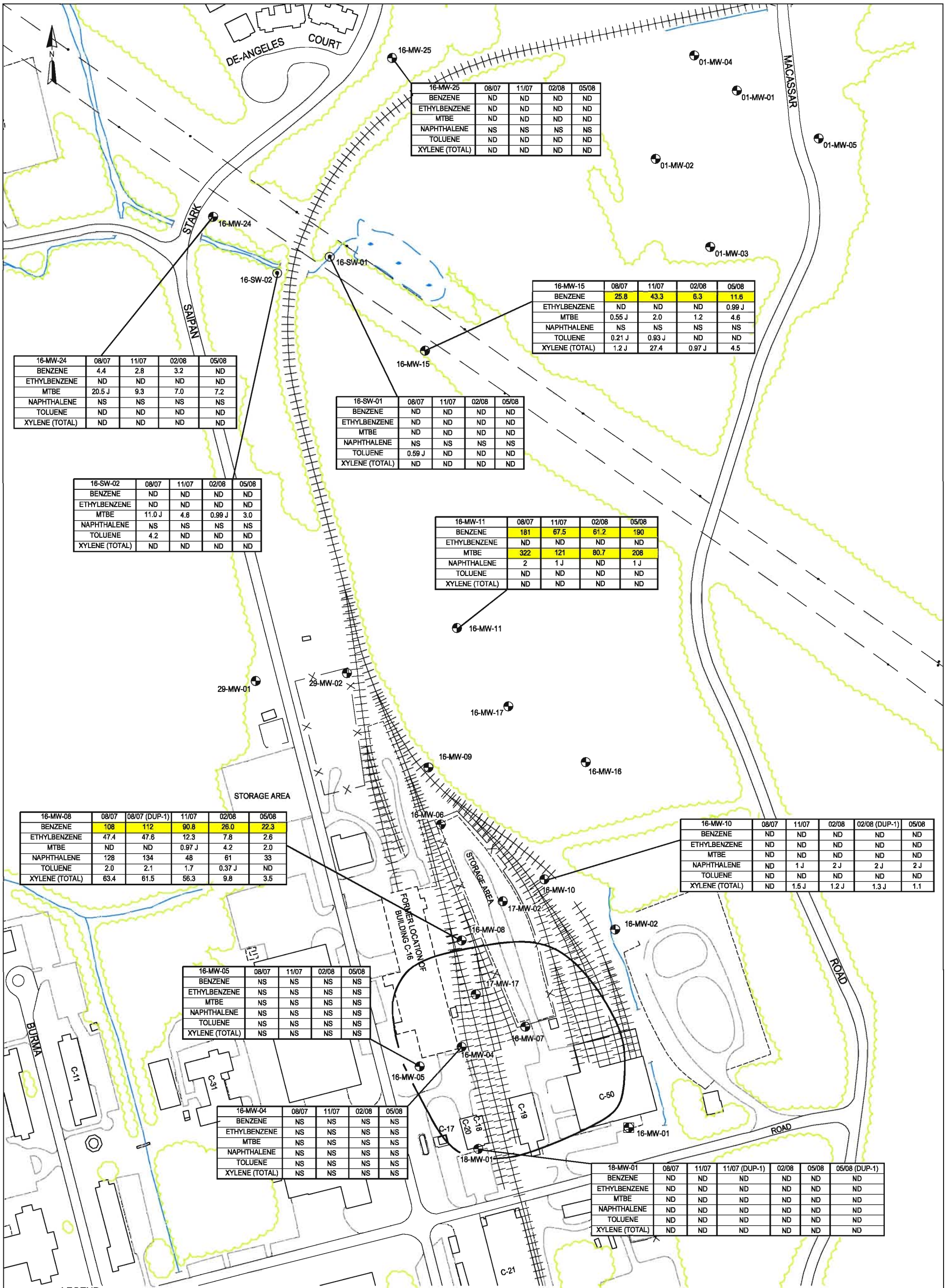

16-MW-25	08/07	11/07	02/08	05/08
BENZENE	ND	ND	ND	ND
ETHYLBENZENE	ND	ND	ND	ND
MTBE	ND	ND	ND	ND
NAPHTHALENE	NS	NS	NS	NS
TOLUENE	ND	ND	ND	ND
XYLENE (TOTAL)	ND	ND	ND	ND

16-MW-15	08/07	11/07	02/08	05/08
BENZENE	25.8	43.3	6.3	11.6
ETHYLBENZENE	ND	ND	ND	0.99 J
MTBE	0.55 J	2.0	1.2	4.6
NAPHTHALENE	NS	NS	NS	NS
TOLUENE	0.21 J	0.93 J	ND	ND
XYLENE (TOTAL)	1.2 J	27.4	0.97 J	4.5

16-MW-24	08/07	11/07	02/08	05/08
BENZENE	4.4	2.8	3.2	ND
ETHYLBENZENE	ND	ND	ND	ND
MTBE	20.5 J	9.3	7.0	7.2
NAPHTHALENE	NS	NS	NS	NS
TOLUENE	ND	ND	ND	ND
XYLENE (TOTAL)	ND	ND	ND	ND

16-SW-01	08/07	11/07	02/08	05/08
BENZENE	ND	ND	ND	ND
ETHYLBENZENE	ND	ND	ND	ND
MTBE	ND	ND	ND	ND
NAPHTHALENE	NS	NS	NS	NS
TOLUENE	0.59 J	ND	ND	ND
XYLENE (TOTAL)	ND	ND	ND	ND

16-SW-02	08/07	11/07	02/08	05/08
BENZENE	ND	ND	ND	ND
ETHYLBENZENE	ND	ND	ND	ND
MTBE	11.0 J	4.6	0.99 J	3.0
NAPHTHALENE	NS	NS	NS	NS
TOLUENE	4.2	ND	ND	ND
XYLENE (TOTAL)	ND	ND	ND	ND

16-MW-11	08/07	11/07	02/08	05/08
BENZENE	181	67.5	61.2	190
ETHYLBENZENE	ND	ND	ND	ND
MTBE	322	121	80.7	208
NAPHTHALENE	2	1 J	ND	1 J
TOLUENE	ND	ND	ND	ND
XYLENE (TOTAL)	ND	ND	ND	ND

16-MW-08	08/07	08/07 (DUP-1)	11/07	02/08	05/08
BENZENE	108	112	90.8	26.0	22.3
ETHYLBENZENE	47.4	47.6	12.3	7.8	2.6
MTBE	ND	ND	0.97 J	4.2	2.0
NAPHTHALENE	128	134	48	61	33
TOLUENE	2.0	2.1	1.7	0.37 J	ND
XYLENE (TOTAL)	63.4	61.5	56.3	9.8	3.5

16-MW-10	08/07	11/07	02/08	02/08 (DUP-1)	05/08
BENZENE	ND	ND	ND	ND	ND
ETHYLBENZENE	ND	ND	ND	ND	ND
MTBE	ND	ND	ND	ND	ND
NAPHTHALENE	ND	1 J	2 J	2 J	2 J
TOLUENE	ND	ND	ND	ND	ND
XYLENE (TOTAL)	ND	1.5 J	1.2 J	1.3 J	1.1

16-MW-05	08/07	11/07	02/08	05/08
BENZENE	NS	NS	NS	NS
ETHYLBENZENE	NS	NS	NS	NS
MTBE	NS	NS	NS	NS
NAPHTHALENE	NS	NS	NS	NS
TOLUENE	NS	NS	NS	NS
XYLENE (TOTAL)	NS	NS	NS	NS

16-MW-04	08/07	11/07	02/08	05/08
BENZENE	NS	NS	NS	NS
ETHYLBENZENE	NS	NS	NS	NS
MTBE	NS	NS	NS	NS
NAPHTHALENE	NS	NS	NS	NS
TOLUENE	NS	NS	NS	NS
XYLENE (TOTAL)	NS	NS	NS	NS

18-MW-01	08/07	11/07	11/07 (DUP-1)	02/08	05/08	05/08 (DUP-1)
BENZENE	ND	ND	ND	ND	ND	ND
ETHYLBENZENE	ND	ND	ND	ND	ND	ND
MTBE	ND	ND	ND	ND	ND	ND
NAPHTHALENE	ND	ND	ND	ND	ND	ND
TOLUENE	ND	ND	ND	ND	ND	ND
XYLENE (TOTAL)	ND	ND	ND	ND	ND	ND

LEGEND

FENCE		*J*	ESTIMATED VALUE
TREELINE		*ND*	NOT DETECTED
RAILROAD		*NA*	NOT ANALYZED
MONITORING WELL			RESULT EXCEEDS NJDEP GWQS
ABANDONED MONITORING WELL			
SURFACE WATER SITES			
CEA BOUNDARY			

YEAR 10
GROUNDWATER QUALITY MAP

BUILDINGS C-17/20/16/50
U.S. NAVY NWS- EARLE
COLTS NECK, NJ

ECOR Solutions
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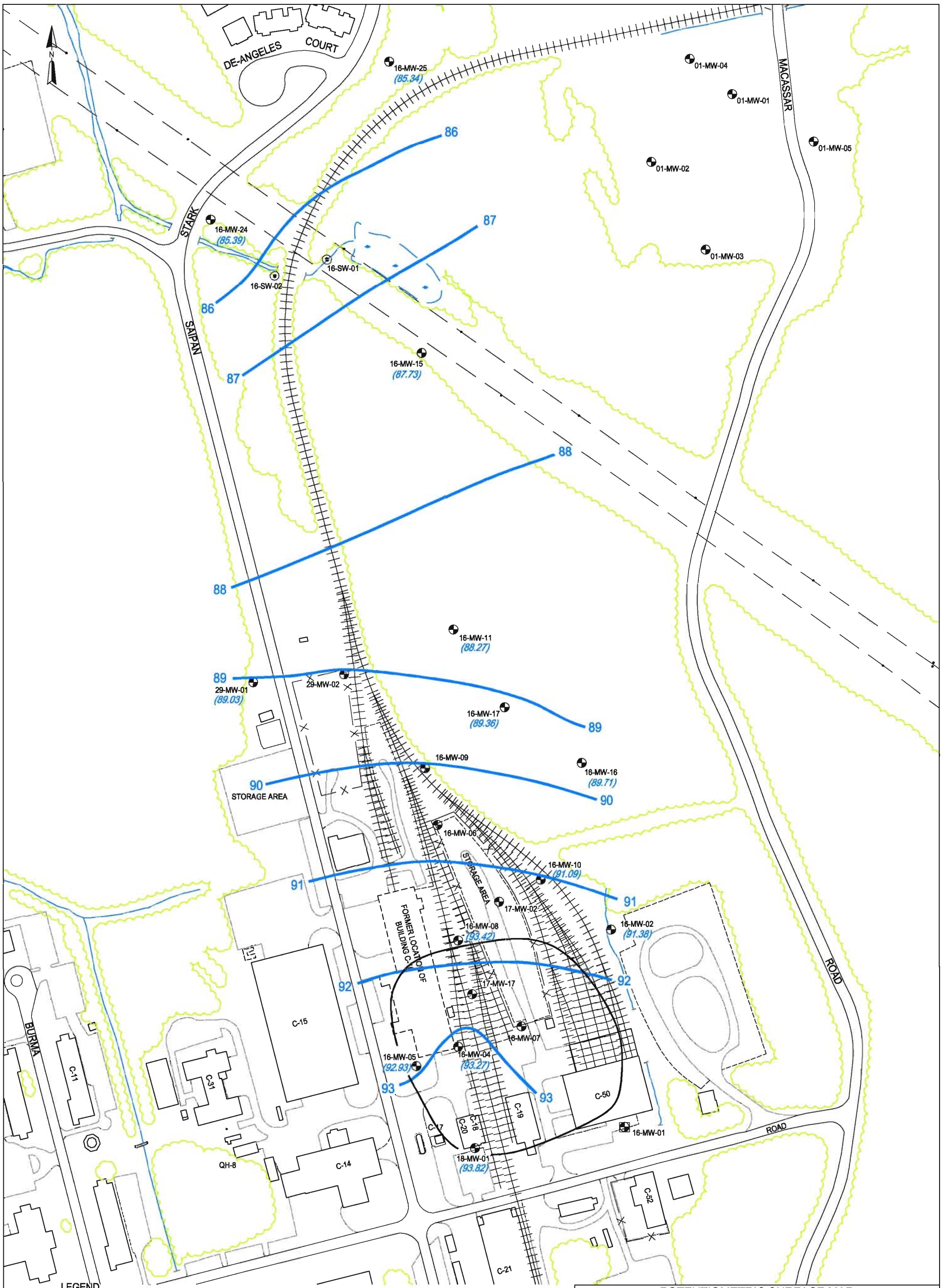
SCALE IN FEET	DATE	FIGURE
0 — 200	08-04-08	4-1

Building C17-GWQM.dwg



LEGEND

	FENCE		GROUNDWATER CONTOUR (ft)
	TREELINE		INFERRED GROUNDWATER CONTOUR (ft)
	RAILROAD	(93.27)	GROUNDWATER ELEVATION (ft)
	MONITORING WELL		
	ABANDONED MONITORING WELL		
	SURFACE WATER SITES		
	CEA BOUNDARY		

NOTE: 16-MW-08 WAS NOT USED IN CONTOURING.

POTENTIOMETRIC SURFACE MAP
SEPTEMBER 2007

BUILDINGS C-17/20/16/50
U.S. NAVY NWS- EARLE
COLTS NECK, NJ

ECOR Solutions
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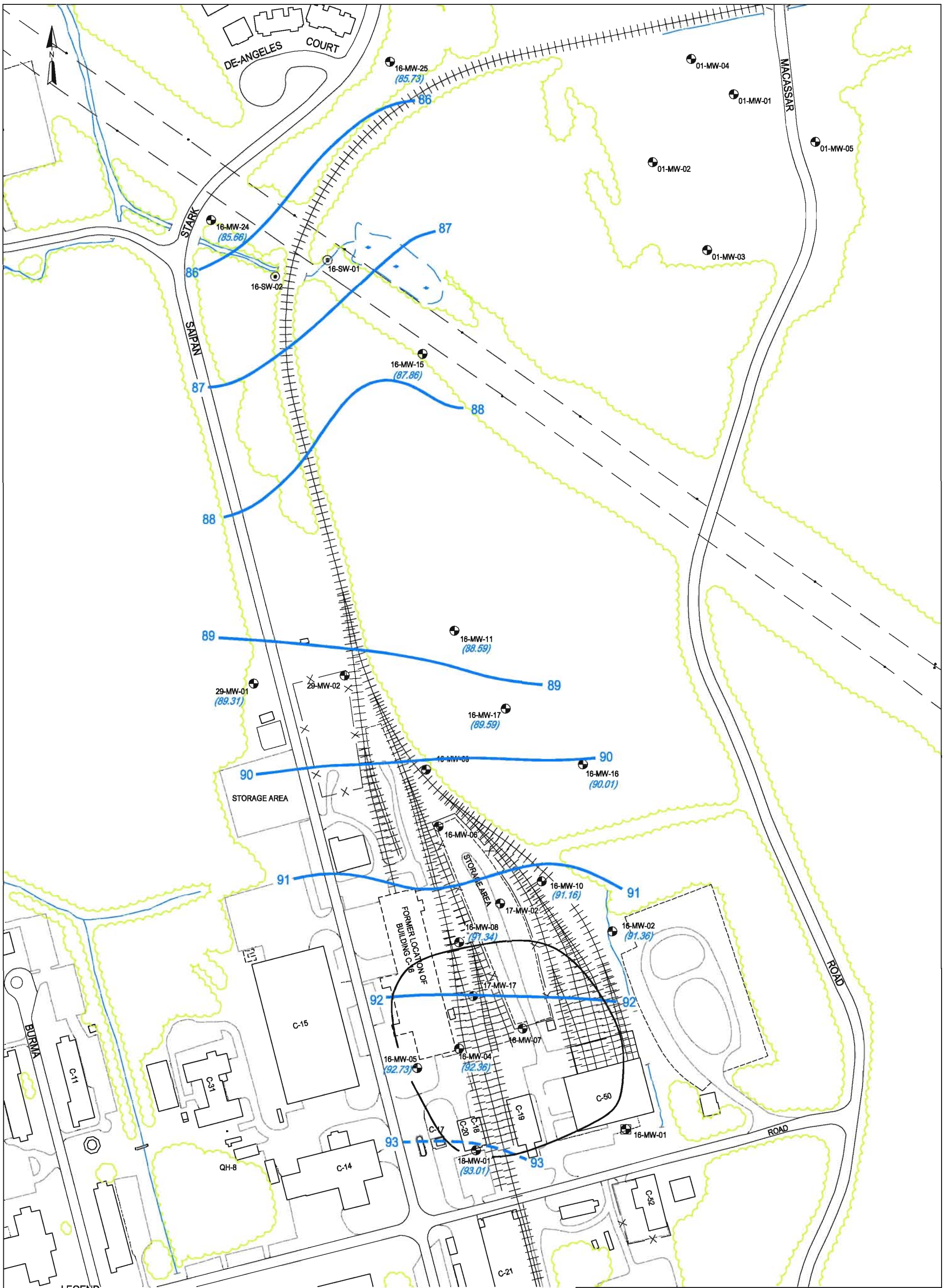
SCALE IN FEET	DATE	FIGURE
0 — 200	08-04-08	4-2

Building C17-SEPT07.dwg



LEGEND

	FENCE		GROUNDWATER CONTOUR (ft)
	TREELINE		INFERRED GROUNDWATER CONTOUR (ft)
	RAILROAD	(92.36)	GROUNDWATER ELEVATION (ft)
	MONITORING WELL		
	ABANDONED MONITORING WELL		
	SURFACE WATER SITES		
	CEA BOUNDARY		

POTENTIOMETRIC SURFACE MAP
NOVEMBER 2007

BUILDINGS C-17/20/16/50
U.S. NAVY NWS- EARLE
COLTS NECK, NJ

ECOR Solutions
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SCALE IN FEET	DATE	FIGURE
0 — 200	08-04-08	4-3

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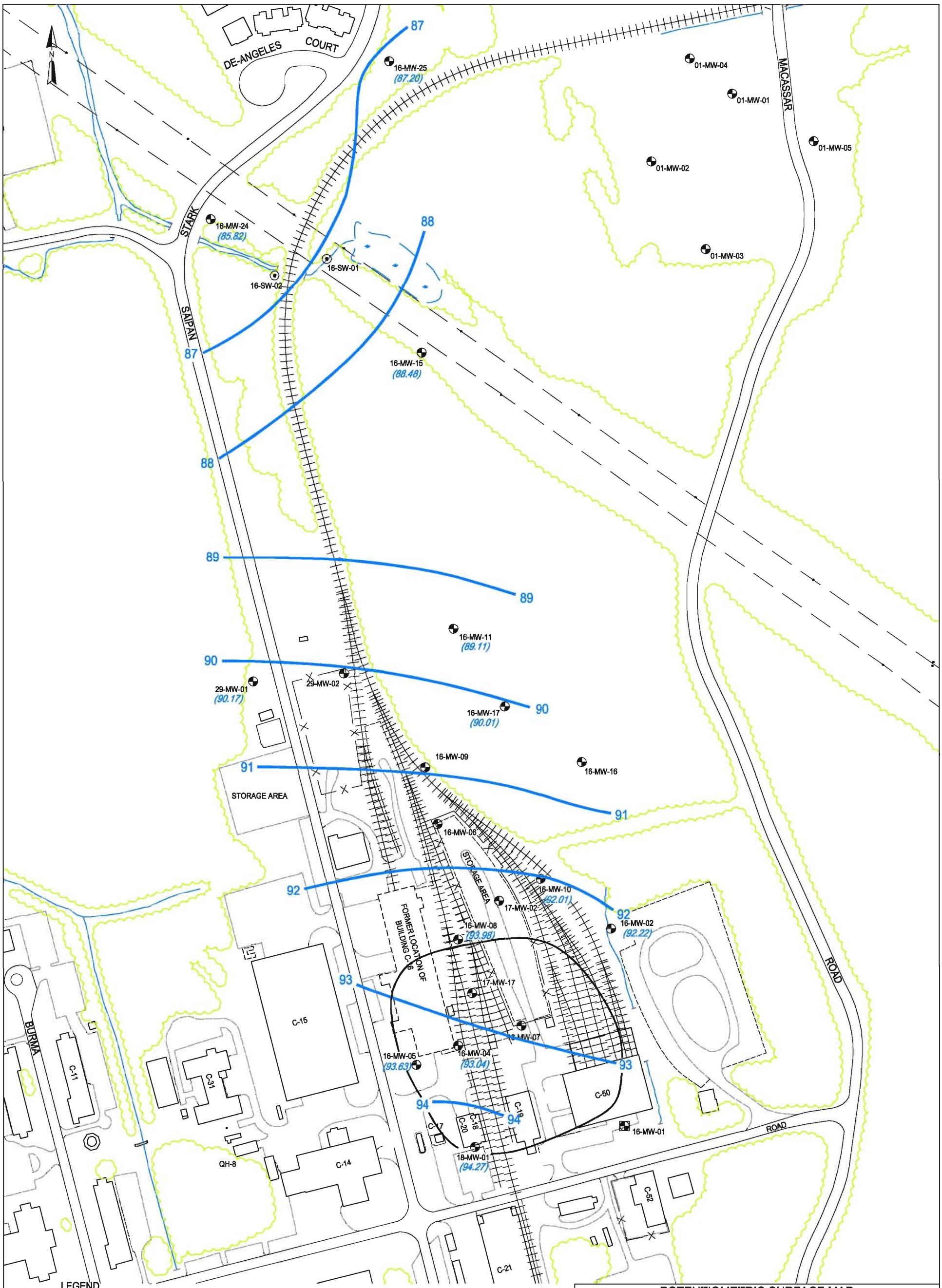
Building C17-NOV07.dwg



LEGEND

FENCE	GROUNDWATER CONTOUR (ft)
TREELINE	INFERRED GROUNDWATER CONTOUR (ft)
RAILROAD	(93.04) GROUNDWATER ELEVATION (ft)
MONITORING WELL	NOTE: 16-MW-08 WAS NOT USED IN CONTOURING.
ABANDONED MONITORING WELL	
SURFACE WATER SITES	
CEA BOUNDARY	

POTENTIOMETRIC SURFACE MAP
FEBRUARY 2008

BUILDINGS C-17/20/16/50
U.S. NAVY NWS- EARLE
COLTS NECK, NJ

ECOR Solutions
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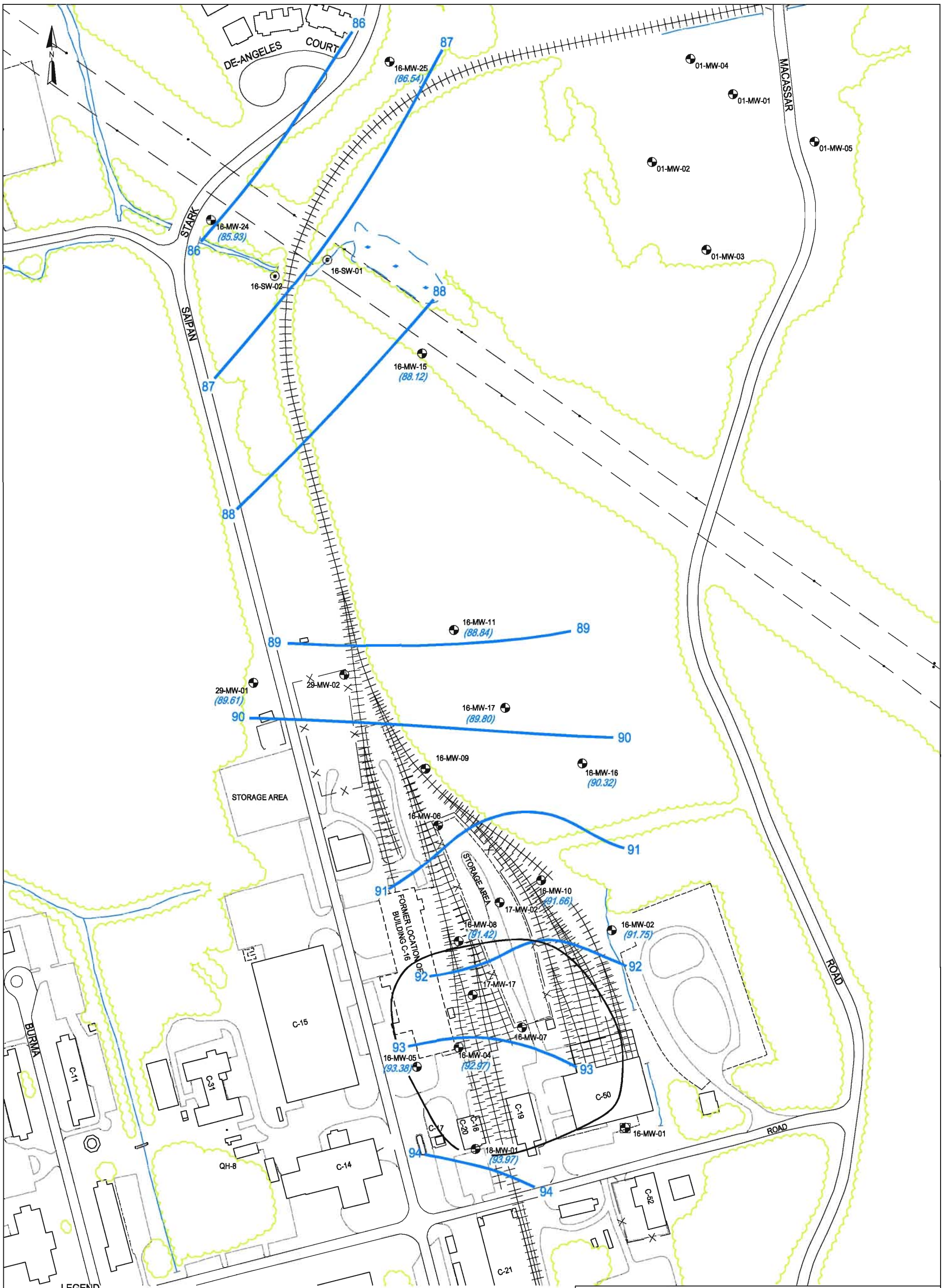
SCALE IN FEET	DATE	FIGURE
0 200	08-04-08	4-4

Building C17-FEB08.dwg



LEGEND

	FENCE		GROUNDWATER CONTOUR (ft)
	TREELINE		INFERRED GROUNDWATER CONTOUR (ft)
	RAILROAD	(92.97)	GROUNDWATER ELEVATION (ft)
	MONITORING WELL		
	ABANDONED MONITORING WELL		
	SURFACE WATER SITES		
	CEA BOUNDARY		

POTENTIOMETRIC SURFACE MAP
MAY 2008

BUILDINGS C-17/20/16/50
U.S. NAVY NWS- EARLE
COLTS NECK, NJ

ECOR Solutions
1075 Andrew Drive, Suite I, West Chester, PA 19380

SCALE IN FEET	DATE	FIGURE
0 — 200	08-04-08	4-5

Building C17-MAY08.dwg

Figure 4-6
Monitoring Well 16MW-11
Benzene Concentration Trend

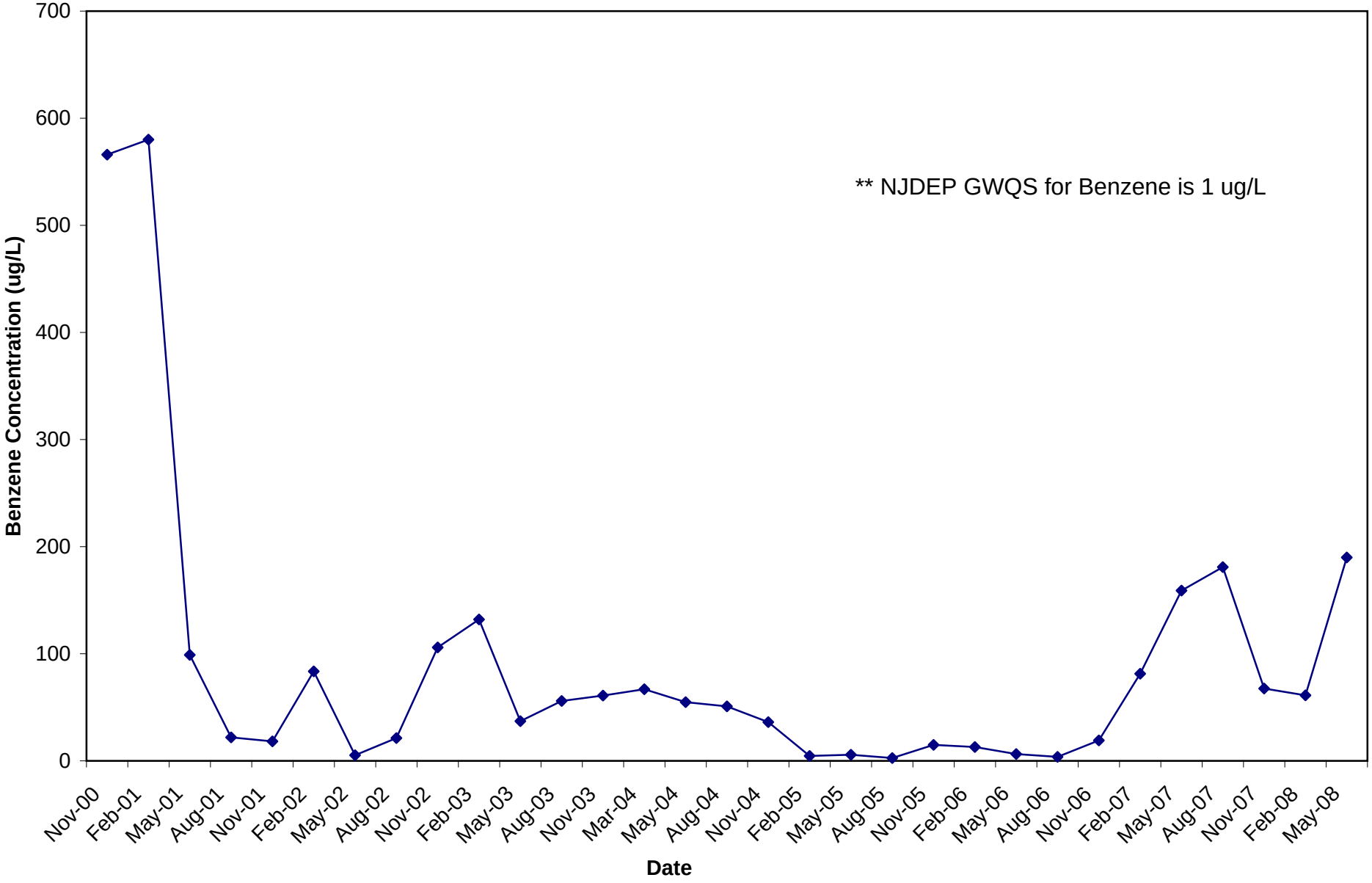


Figure 4-7
Monitoring Well 16MW-15
Benzene Concentration Trend

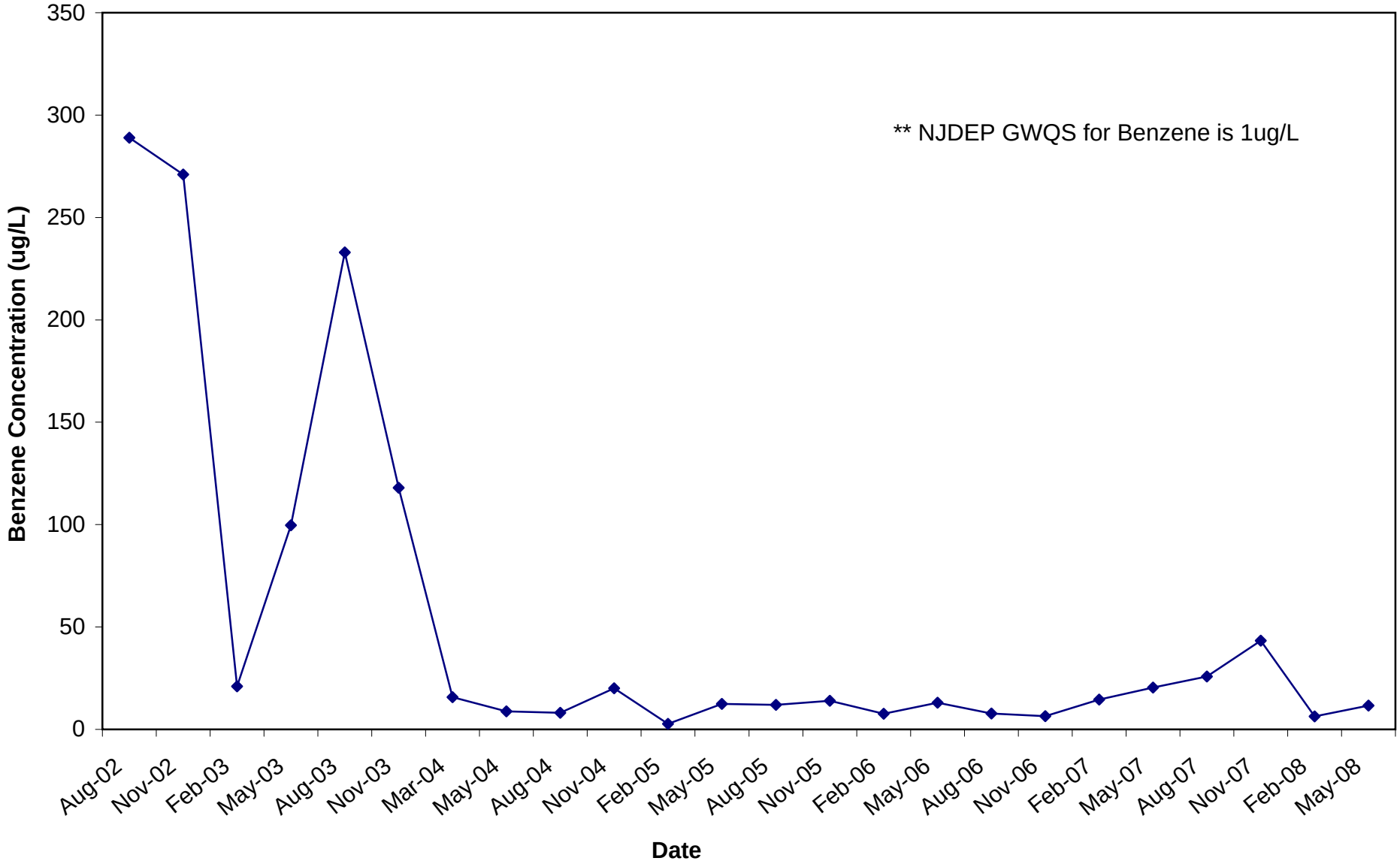


Figure 4-8
Monitoring Well 16MW-24
Benzene Concentration Trend

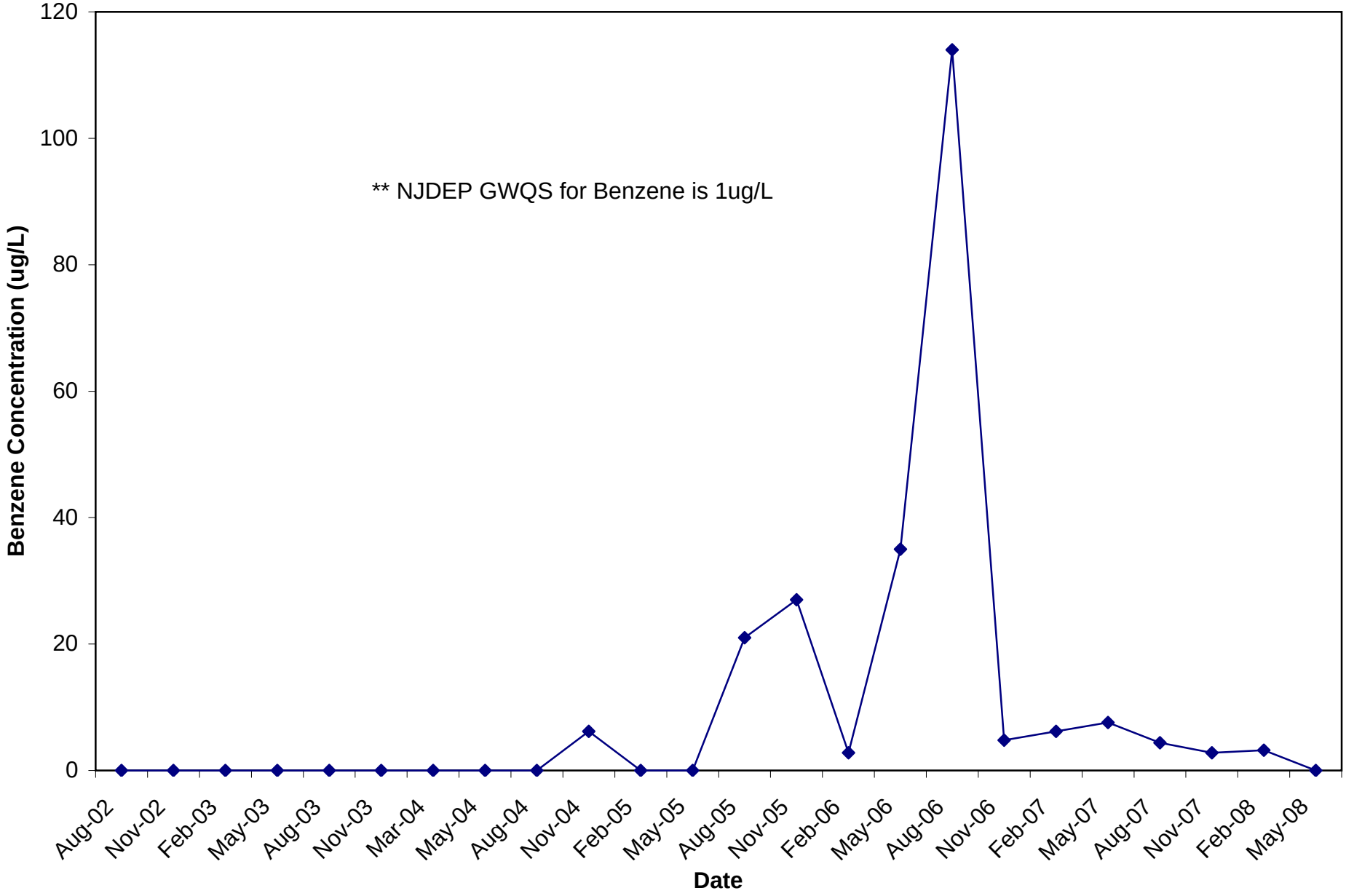


Figure 4-9
Monitoring Well 16MW-11
MTBE Concentration Trend

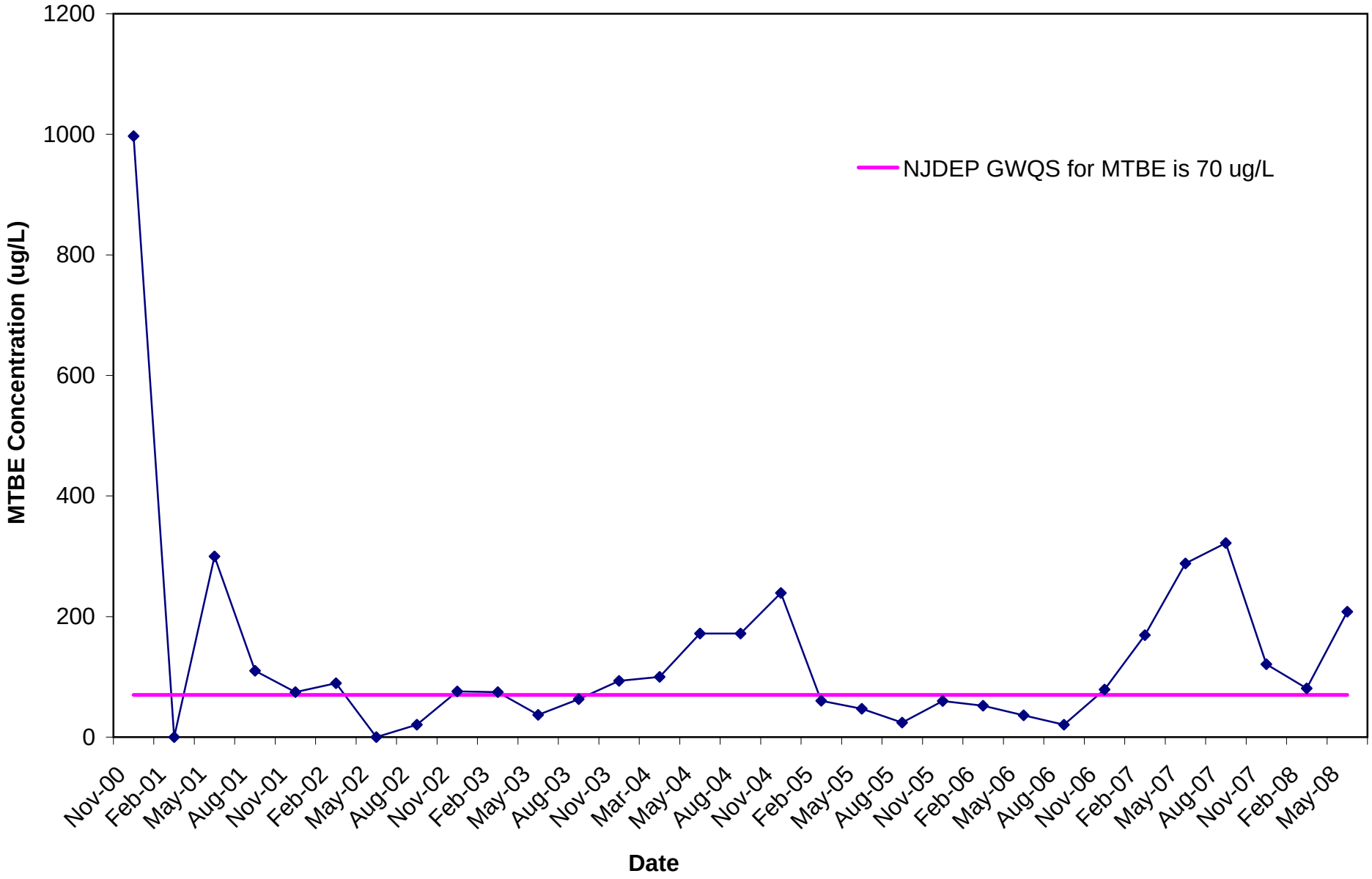


Figure 4-10
Monitoring Well 16MW-15
MTBE Concentration Trend

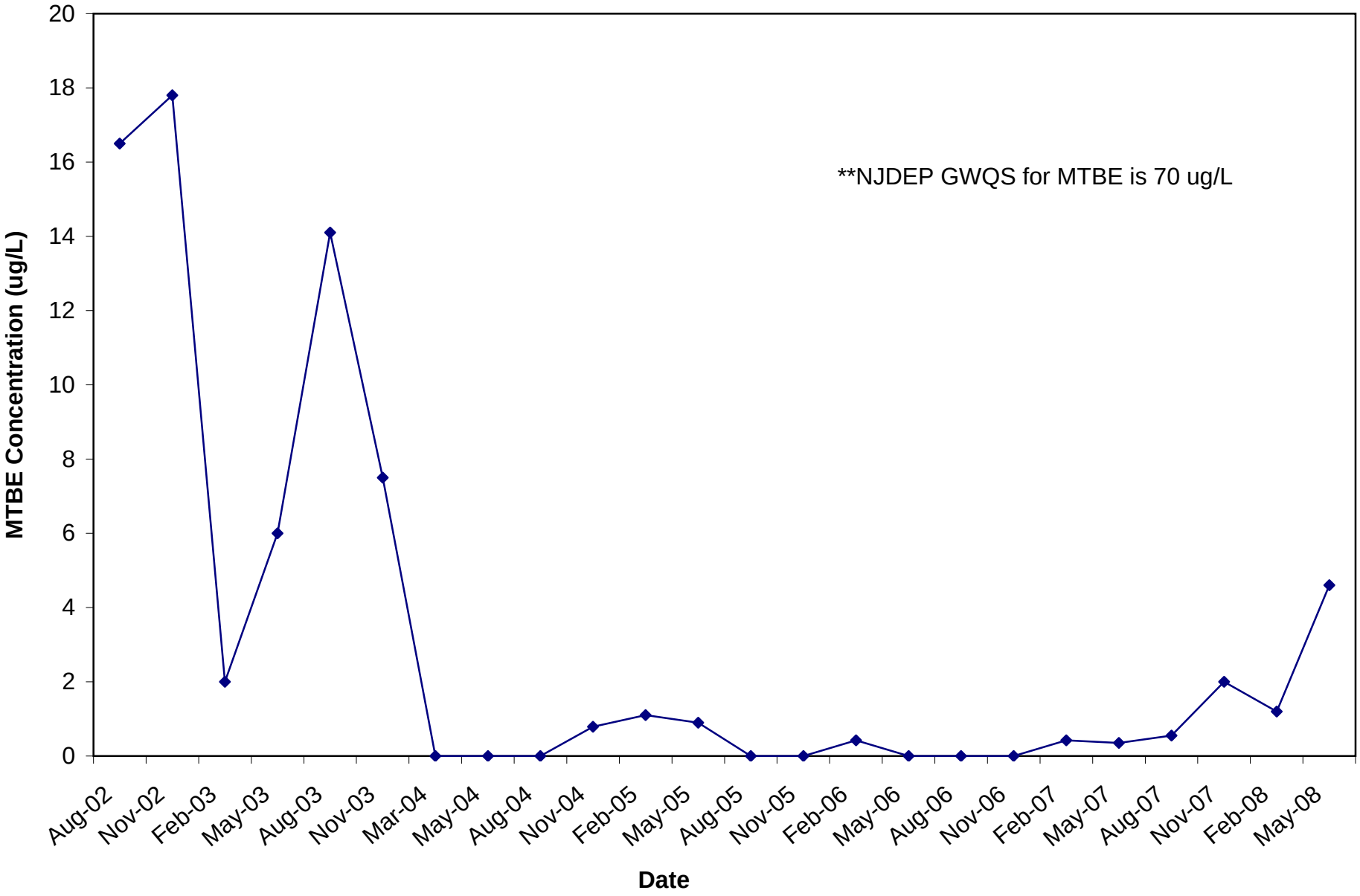


Figure 4-11
Monitoring Well 16MW-24
MTBE Concentration Trend

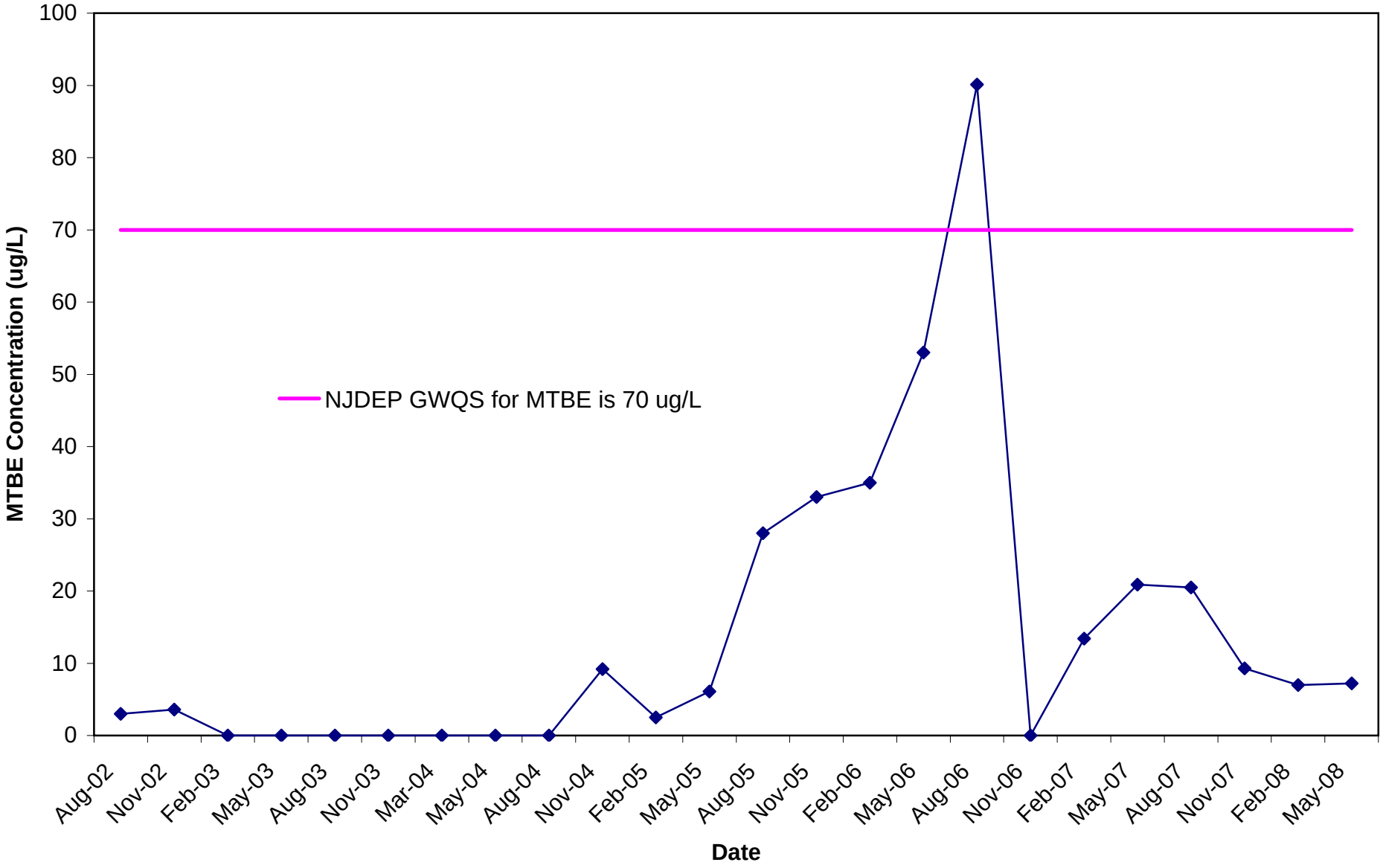


Figure 4-12
Benzene Concentration Transect
Year 10

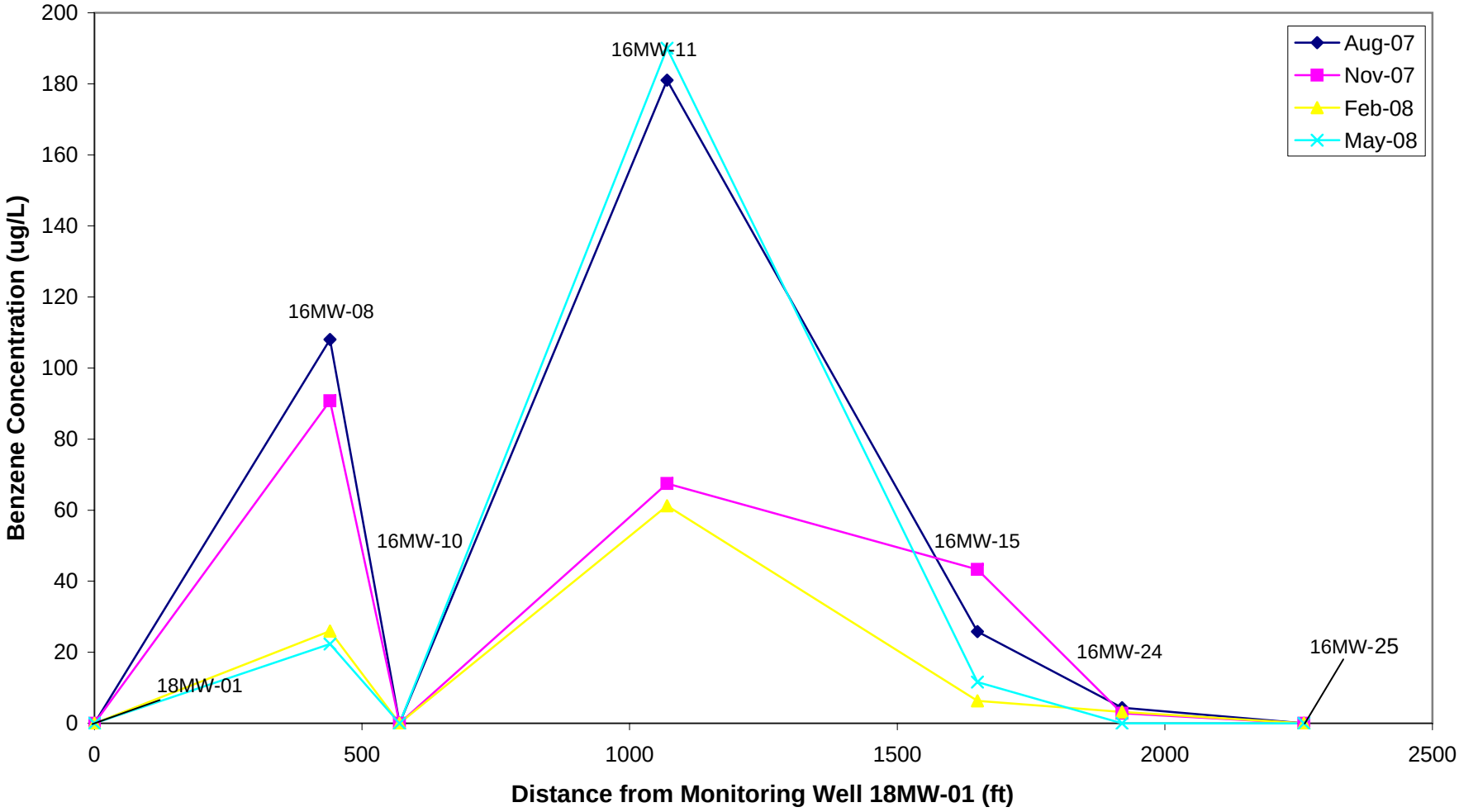
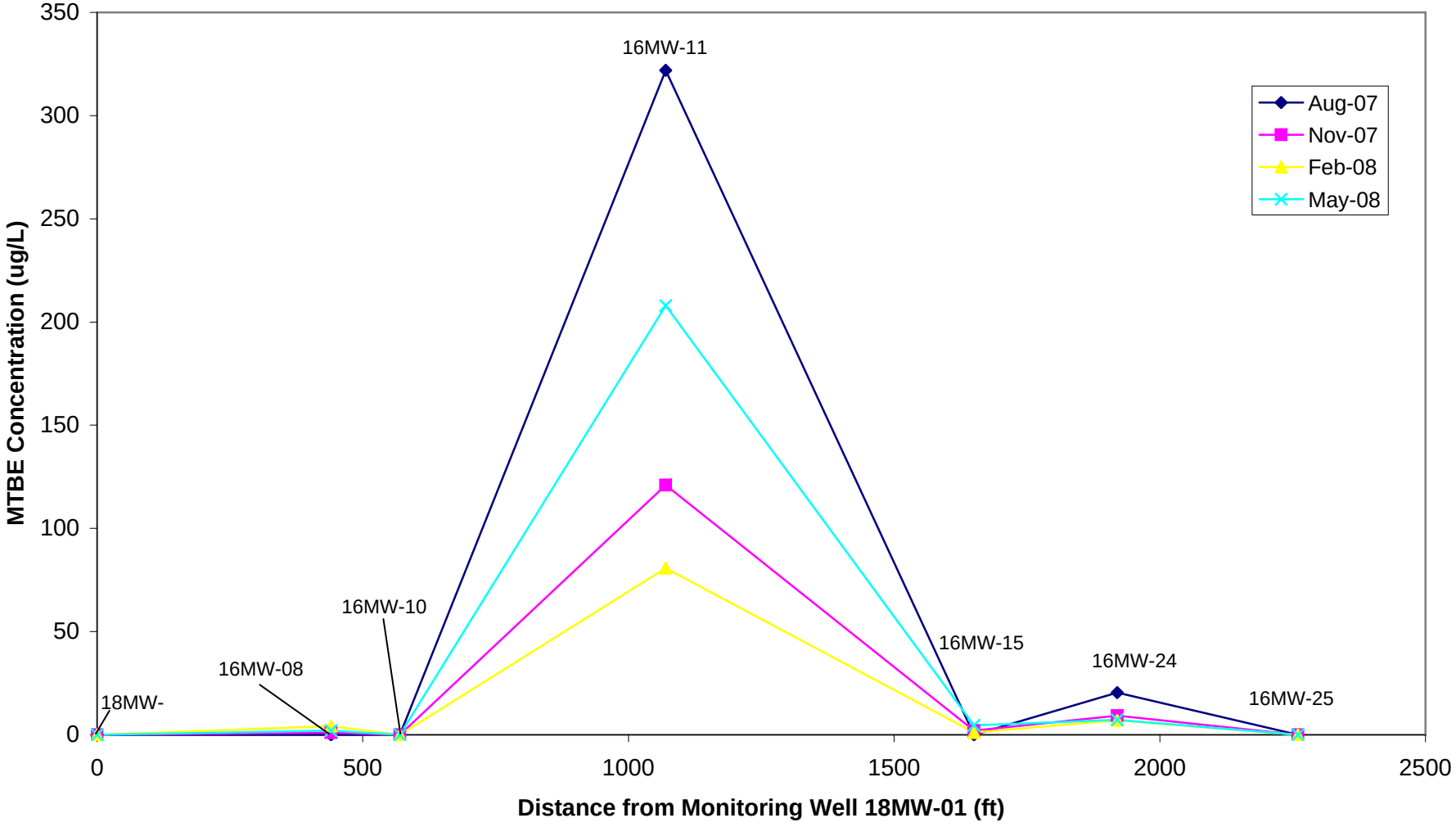


Figure 4-13
MTBE Concentration Transect
Year 10



APPENDICES

APPENDIX A

CORRESPONDENCE, NJDEP TO NORTHDIV, JANUARY 22, 1998, NJDEP APPROVAL OF THE REMEDIAL ACTION WORK PLAN FOR BUILDINGS C-17/20/16/50

State of New Jersey
Department of Environmental Protection

Christine Todd Whitman
Governor

Robert C. Shinn, Jr.
Commissioner

RECEIVED
FEB -4 [redacted]
TETRA TECH NUS

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
NO: Z 161 586 243

JAN 22 1998

Brian Helland
Northern Division
Naval Facilities Engineering Command
10 Industrial Highway, Mail Stop 82
Lester, PA 19113

Dear Mr. Helland:

Re: Focused Investigation and
Remedial Action Work Plan for
Buildings C-17/20/16/50
Naval Weapons Station Earle
Colts Neck Twp., Monmouth Co.

The New Jersey Department of Environmental Protection (Department) has reviewed the above referenced report, prepared by Brown & Root Environmental on behalf of the Naval Weapons Station Earle, dated September 1997. The report is approved pending incorporation of the following comments. The Department concurs with Brown & Root's recommendation of natural attenuation of the dissolved fraction of diesel fuel with monitoring. However, a Classification Exception Area (CEA) must be established in conjunction with the natural attenuation remedy. The following information is required for the Department to establish the CEA:

1) Lot and block numbers of impacted properties

   NOTE: Site boundaries can define the CEA perimeter if no offsite contamination is expected to occur for the duration of the CEA.

2) The CEA boundaries depicted on a USGS 7.5 minute quadrangle map;

   This information is required as a separate submittal in order for the Department to enter this information on their Geographic Information System (GIS).

3) The monitoring program should include MW16-06. This well can be substituted for MW16-07.

APPENDIX B

CORRESPONDENCE, NJDEP TO NORTHDIV, JULY 8, 1998, NJDEP APPROVAL OF THE CEA DOCUMENTATION FOR BUILDINGS 566, S106B, AND C-17/20/16/50

State of New Jersey

Christine Todd Whitman
Governor

Department of Environmental Protection

Robert C. Shinn, Jr.
Commissioner

RECEIVED
JUL 1998
TETRA TECH NUS

JUL 08 1998

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
NO: P 055 806 240

Brian Helland
Northern Division
Naval Facilities Engineering Command
10 Industrial Highway, Mail Stop 82
Lester, PA 19113

Dear Mr. Helland:

Re:
CEA Documentation for the following Sites:
Building 566, Building S-106B and Buildings C-17/20/16/50
Naval Weapons Station Earle
Colts Neck Twp., Monmouth Co.

The New Jersey Department of Environmental Protection (Department) has reviewed the aforementioned documents, prepared by Brown & Root Environmental on behalf of the Naval Weapons Station Earle, dated May 1998. The Classification Exception Areas (CEAs) are approved, no further modification of these reports are necessary.

If you have any questions, please call me at (609)-633-7327.

Sincerely,

Bob Marcolina

Bob Marcolina, Case Manager
Bureau of Federal Case Management

c: Rick Gorrell, Brown & Root Environmental
Lester Jargowsky, Monmouth County Health Dept.
Larry Burg, NWS Earle

APPENDIX C

CORRESPONDENCE, NJDEP TO NORTHDIV, SEPTEMBER 20, 2004, YEAR 6 GROUNDWATER MONITORING REPORT FOR REMEDIAL ACTION IMPLEMENTATION, BUILDINGS C-17/20/16/50

State of New Jersey

James E. McGreevey
Governor

Department of Environmental Protection

Bradley M. Campbell
Commissioner

Michele DiGeambeardino
Remedial Project Manager
Naval Facilities Engineering Command
10 Industrial Highway
Code 1821, Mail Stop 82
Lester, PA 19113-2090

Dear Mrs. DiGeambeardino:

Re: Year 6 Groundwater Monitoring Report for
Remedial Action Implementation
Buildings C-17/20/16/50
Naval Weapons Station Earle
Colts Neck Township, Monmouth Co.

The New Jersey Department of Environmental Protection (NJDEP) has reviewed the above referenced document prepared by Tetra Tech NUS Corporation, dated August 2004. The NJDEP approves this document in its current form; no further modifications are necessary. The NJDEP is in agreement with NUS's recommendations for deletion of three monitoring wells (17-MW-01, 16-MW-09 and 16-MW-17) from the monitoring program. According to the Department's records 17-MW-02 was recommended for deletion in the Year 5 Ground water monitoring report. The NJDEP is also in agreement to add the five newly installed monitoring wells from the 16-MW-11 investigation into the monitoring program in addition to surface water sampling north of well 16-MW-15.

Pursuant to N.J.S.A. 58:4A, Earle shall properly seal all monitoring wells that will no longer be used for ground water monitoring. A certified and licensed well driller shall seal the wells in accordance with the requirements of N.J.A.C. 7:9D-3.1 (et seq.). The well abandonment forms shall be completed and submitted to the Bureau of Water Allocation. Please call (609) 984-6831 for forms and information.

If you have any questions, please do not hesitate to call me at (609)-633-7237.

Sincerely,

Bob Marcolina

Bob Marcolina, Case Manager
Bureau of Case Management

cc: Alicia Hartmann, NWS Earle

APPENDIX D

VALIDATED DATA AND VALIDATION REPORTS

VOLATILE ORGANIC COMPOUNDS
USEPA Region II – Level II Data Validation

Project Name:	NWS EARLE-LTM Project
Location:	Colts Neck, NJ 07722
Project Number:	N0100.174
SDG #:	EWN-004
Client:	ECOR Solutions, Inc.
Date:	10/15/2007
Laboratory:	Analytical Laboratory Services, Inc.
Reviewer:	Samir A. Naguib

Summary:

1. Level II data validation was performed on the data for fourteen (14) water samples analyzed for Volatiles by EPA Method 624 (BETX+ MTBE).

2. The samples were collected on 08/06-07/2007. The samples were submitted to Analytical Laboratory Services, Inc. for analysis on 08/08/2007.

3. The USEPA Region II SOP HW-24, Revision 1, June 1999: Validating Volatile Organic Compounds by SW-846 Method 8260B and EPA Method 624 were used in evaluating the Volatiles data in this summary report.

4. In general, the data are valid as reported and may be used for decision-making purposes. Selected data points were qualified due to nonconformance of certain Quality Control criteria (See discussion below).

H&S ENVIRONMENTAL

Samples:

The samples included in this review are listed below:

Client Sample ID	Laboratory Sample ID	Analysis	Matrix	Sample Status
16-MW-15	967291001	VOA	Water	
16-SW-01	9697291002	VOA	Water	
16-SW-02	9697291003	VOA	Water	
16-MW-25	9697291004	VOA	Water	
16-MW-24	9697291005	VOA	Water	
FB-1	9697291006	VOA	Water	
TB-1	9697291007	VOA	Water	
16-MW-11	9697291008	VOA	Water	
16-MW-08	9697291009	VOA	Water	
DUP-1	9697291010	VOA	Water	Field Duplicate of Sample 16-MW-08
16-MW-10	9697291011	VOA	Water	
18-MW-01	9697291012	VOA	Water	
FB-2	9697291013	VOA	Water	
TB-2	9697291014	VOA	Water	

Sample Conditions/Problems:

1. The Traffic Reports/Chain-of-Custody Records, Sampling Report and/or Laboratory Case Narrative did not indicate any problems with sample receipt, condition of samples, analytical problems or special circumstances affecting the quality of the data. No qualifications were required.

Holding Times:

1. All water samples were analyzed within 14days from sample collection. No qualifications were required.

2. All water samples were properly preserved (pH<2.0). No qualifications were required.

GC/MS Tuning:

1. All of the BFB tunes in the initial and continuing calibrations met the percent relative abundance criteria. No qualifications were required.

Initial Calibration:

1. Initial calibration curve analyzed on instrument "MS03" (07/25/2007) exhibited acceptable %RSD (≤35%) for all compounds of interest. No qualifications were required.

2. Initial calibration curve analyzed on instrument "MS03" (08/14/2007) exhibited acceptable %RSD (≤35%) for all compounds of interest. No qualifications were required.

Continuing Calibration Verification (CCV):

1. CCV analyzed on instrument "MS03" (08/10/2007) exhibited acceptable %D with the following exception:

   1.1 Methyl –t-Butyl Ether (%D: 23.5)

Client Sample ID	Laboratory Sample ID	Compound	Action
16-MW-15	967291001	Methyl-t-Butyl Ether	J
16-SW-01	9697291002	Methyl-t-Butyl Ether	UJ
16-SW-02	9697291003	Methyl-t-Butyl Ether	J
16-MW-25	9697291004	Methyl-t-Butyl Ether	UJ
16-MW-24	9697291005	Methyl-t-Butyl Ether	J
FB-1	9697291006	Methyl-t-Butyl Ether	UJ
TB-1	9697291007	Methyl-t-Butyl Ether	UJ
16-MW-08	9697291009	Methyl-t-Butyl Ether	UJ
DUP-1	9697291010	Methyl-t-Butyl Ether	UJ
16-MW-10	9697291011	Methyl-t-Butyl Ether	UJ
18-MW-01	9697291012	Methyl-t-Butyl Ether	UJ
FB-2	9697291013	Methyl-t-Butyl Ether	UJ
TB-2	9697291014	Methyl-t-Butyl Ether	UJ

2. CCV analyzed on instrument "MS03" (08/15/2007) exhibited acceptable %D for Benzene and Methyl-t-Butyl Ether associated with sample 16-MW-11 (9697291008) reanalyzed at 5x dilution.

Surrogates:

1. All surrogates %REC's values for all water samples and associated QC were within the laboratory control limits. No qualifications were required.

Internal Standard (IS) Area Performance:

1. All samples exhibited acceptable area count for all three internal standards. No qualifications were required.

Method Blank, Trip, Field, Equipment Blank:

1. Method Blank (388200) analyzed on 08/10/2007 was free contaminations. No qualifications were required.

2. Trip Blank (TB-1) associated with the samples collected on 08/06/2007 and analyzed on 08/10/2007 was free of contaminations. No qualifications were required.

3. Field Blank (FB-1) associated with the samples collected on 08/06/2007 and analyzed on 08/10/2007 was free of contaminations. No qualifications were required.

4. Trip Blank (TB-2) associated with the samples collected on 08/07/2007 and analyzed on 08/10/2007 was free of contaminations. No qualifications were required.

5. Field Blank (FB-2) associated with the samples collected on 08/07/2007 and analyzed on 08/10/2007 was free of contaminations. No qualifications were required.

6. Method Blank (389335) associated with sample 16-MW-11 (5x dilution) analyzed on 08/15/2007 was free contaminations. No qualifications were required.

Laboratory Control Sample (LCS)/ Laboratory Control Sample Duplicate (LCSD):

1. All %REC's in Laboratory Control Sample (388201) associated with samples analyzed 08/10/2007 were within the QC limits. No qualifications were required.

2. All %REC's in Laboratory Control Sample (389336) associated with samples analyzed 08/15/2007 were within the QC limits. No qualifications were required.

Field Duplicate:

1. Sample DUP-1 was collected as field duplicate for sample 16-MW-08. All RPD's were <30%. No qualifications were required.

Compound	16-MW-08 (µg/L)	DUP-2 (µg/L)	RPD	Action
Benzene	108	112	3.64	None
Ethyl Benzene	47.4	47.6	0.42	None
Toluene	2	2.1	4.88	None
Total Xylenes	63	61.5	3.04	None

Matrix Spike (MS)/ Matrix Spike Duplicate (MSD):

1. Matrix Spike (MS) and Matrix Spike duplicate (MSD) performed on sample 16-MW-15 (9697291009). All %REC's and RPD's were within the QC limits. No qualifications were required.

Compound Quantitation and Reported Detection Limits:

1. Sample 16-MW-11 (9697291008) was re-analyzed at 5x dilution in order to bring Benzene and Methyl-t-Butyl Ether within the linear calibration range. No qualifications were required.

SEMI-VOLATILE ORGANIC COMPOUNDS
USEPA Region II – Level II Data Validation

Project Name:	NWS EARLE-LTM
Location:	Colts Neck, NJ 07722
Project Number:	N0100.177
SDG #:	EWN-004
Client:	ECOR Solutions, Inc.
Date:	10/15/2007
Laboratory:	Analytical Laboratory Services, Inc.
Reviewer:	Samir A. Naguib

Summary:

1. Level II data validation was performed on the data for six (6) water samples analyzed for Semi-volatiles (Naphthalene only) by EPA Method 625.

2. The samples were collected on 08/07/2007. The samples were submitted to Analytical Laboratory Services, Inc. for analysis on 08/08/2007.

3. The USEPA Region II SOP HW-22, Revision 2, June 2001: Validating Semi-volatile Organic Compounds by SW-846 Method 8270C and EPA Method 625 were used in evaluating the Semi-volatiles data in this summary report.

4. In general, the data are valid as reported and may be used for decision making purposes. Selected data points were qualified due to nonconformance of certain Quality Control criteria (See discussion below).

H&S ENVIRONMENTAL

Samples:

The samples included in this review are listed below:

Client Sample ID	Laboratory Sample ID	Analysis	Matrix	Sample Status
16-MW-11	9697291008	SVO	Water	
16-MW-08	9697291009	SVO	Water	
DUP-1	9697291010	SVO	Water	Field Duplicate for Sample 16-MW-08
16-MW-10	9697291011	SVO	Water	
18-MW-01	9697291012	SVO	Water	
FB-2	9697291013	SVO	Water	

Sample Conditions/Problems:

1. The Traffic Reports/Chain-of-Custody Records, Sampling Report and/or Laboratory Case Narrative did not indicate any problems with sample receipt, condition of samples, analytical problems or special circumstances affecting the quality of the data. No qualifications were required.

Holding Times:

1. All water samples were extracted within 7days from sample collection and analyzed within 40days following sample extraction. No qualifications were required.

GC/MS Tuning:

1. All of the DFTPP tunes in the initial and continuing calibrations met the percent relative abundance Pentachlorophenol and Benzidine tailing factors were acceptable. No qualifications were required.

Initial Calibration:

1. Initial calibration curve analyzed instrument (MS04) (08/09/2007) exhibited acceptable %RSD (≤35%) for Naphthalene. No qualifications were required.

2. Initial calibration curve analyzed instrument (MS02) (08/20/2007) exhibited acceptable %RSD (≤35%) for Naphthalene. No qualifications were required.

Continuing Calibration Verification (CCV):

1. The CCV (MS04) analyzed on 08/14/2007@ 15:30 exhibited acceptable %D (≤20%) for Naphthalene. No qualifications were required.

2. The CCV (MS02) analyzed on 08/23/2007@ 03:10 exhibited acceptable %D (≤20%) for Naphthalene. No qualifications were required.

Method Blank:

1. Method Blank (388618) associated with the water samples extracted on 08/13/2007 and analyzed on 08/14/2007 was free of contaminations. No qualifications were required.

Trip, Field, Equipment (Rinsate) Blank:

1. Field Blank (FB-2) associated with the water samples collected on 08/07/2007 and analyzed on 08/14/2007 was free of contaminations. No qualifications were required.

Surrogates:

1. All surrogate %REC values in the original extracts were within the laboratory control limits. No qualifications were required.

Internal Standard (IS) Area Performance:

1. All samples exhibited acceptable area count for all six internal standards. No qualifications were required.

Laboratory Control Sample (LCS)/ Laboratory Control Sample Duplicate (LCSD):

1. Laboratory Control Sample (388619) associated with the water samples analyzed on 08/14/2007 was within the QC limits. No qualifications were required.

Field Duplicate:

1. Sample DUP-2 was collected as field duplicate for sample 16-MW-08. Naphthalene RPD was <30%. No qualifications were required.

Compound	16-MW-08 (µg/L)	DUP-1 (µg/L)	RPD	Action
Naphthalene	128	134	4.58	None

Matrix Spike (MS)/Matrix Spike Duplicate (MSD):

1. Matrix Spike (MS) and Matrix Spike Duplicate (MSD) were performed on sample 16-MW-08 (9697291009). %REC in the MSD was outside the QC limits due to laboratory error (double spike the amount). However %REC in the MS was acceptable. No qualifications were required.

Compound Quantitation and Reported Detection Limits:

1. No QC deviations were observed.

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NELAP Accredited
PA 22-293 NJ PA010
34 Dogwood Lane - Middletown, PA 17057 Phone: 717-944-5541 Fax: 717-944-1430

ANALYTICAL RESULTS

Workorder 9697291 EWN004|NWS EARLE

Lab ID: 9697291001 Date Collected: 8/6/2007 13:33 Matrix: Waste Water
Sample ID: 16-MW-15 Date Received: 8/8/2007 12:30

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr	RegLmt
VOLATILE ORGANICS	DV Qual.										
Benzene	25.8		ug/L	1.0	EPA 624			8/10/07 10:53	JAH	A	
Ethylbenzene	1.0 U		ug/L	1.0	EPA 624			8/10/07 10:53	JAH	A	
Methyl t-Butyl Ether	0.55J	J	ug/L	1.0	EPA 624			8/10/07 10:53	JAH	A	
Toluene	0.21J		ug/L	1.0	EPA 624			8/10/07 10:53	JAH	A	
Total Xylenes	1.2J		ug/L	3.0	EPA 624			8/10/07 10:53	JAH	A	
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*	*RegLmt*
1,2-Dichloroethane-d4 (S)	78.1		%	72-142	EPA 624			8/10/07 10:53	JAH	A	
4-Bromofluorobenzene (S)	89.6		%	73-119	EPA 624			8/10/07 10:53	JAH	A	
Dibromofluoromethane (S)	83.8		%	74-132	EPA 624			8/10/07 10:53	JAH	A	
Toluene-d8 (S)	101		%	75-133	EPA 624			8/10/07 10:53	JAH	A	

Sample Comments:

Raymond J. Martrano
Laboratory Manager

10/15/07 SN

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34 Dogwood Lane - Middletown, PA 17057 Phone: 717-944-5541 Fax: 717-944-1430

ANALYTICAL RESULTS

Workorder 9697291 EWN004|NWS EARLE

Lab ID: 9697291002 Date Collected: 8/6/2007 13:45 Matrix: Waste Water

Sample ID: 16-SW-01 Date Received: 8/8/2007 12:30

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr	RegLmt
VOLATILE ORGANICS		DV Qual.									
Benzene	1.0 U		ug/L	1.0	EPA 624			8/10/07 11:29	JAH	A	
Ethylbenzene	1.0 U		ug/L	1.0	EPA 624			8/10/07 11:29	JAH	A	
Methyl t-Butyl Ether	1.0 U	UJ	ug/L	1.0	EPA 624			8/10/07 11:29	JAH	A	
Toluene	0.59J		ug/L	1.0	EPA 624			8/10/07 11:29	JAH	A	
Total Xylenes	3.0 U		ug/L	3.0	EPA 624			8/10/07 11:29	JAH	A	

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*	*RegLmt*
1,2-Dichloroethane-d4 (S)	79.1		%	72-142	EPA 624			8/10/07 11:29	JAH	A	
4-Bromofluorobenzene (S)	88.8		%	73-119	EPA 624			8/10/07 11:29	JAH	A	
Dibromofluoromethane (S)	80.9		%	74-132	EPA 624			8/10/07 11:29	JAH	A	
Toluene-d8 (S)	103		%	75-133	EPA 624			8/10/07 11:29	JAH	A	

Sample Comments:

Raymond J. Martrano
Laboratory Manager

10/15/07 SN

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34 Dogwood Lane - Middletown, PA 17057 Phone: 717-944-5541 Fax: 717-944-1430

ANALYTICAL RESULTS

Workorder 9697291 EWN004|NWS EARLE

Lab ID: 9697291003 Date Collected: 8/6/2007 13:50 Matrix: Waste Water

Sample ID: 16-SW-02 Date Received: 8/8/2007 12:30

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr	RegLmt
VOLATILE ORGANICS		DV flag.									
Benzene	1.0	U	ug/L	1.0	EPA 624			8/10/07 12:04	JAH	A	
Ethylbenzene	1.0	U	ug/L	1.0	EPA 624			8/10/07 12:04	JAH	A	
Methyl t-Butyl Ether	11.0	J	ug/L	1.0	EPA 624			8/10/07 12:04	JAH	A	
Toluene	4.2		ug/L	1.0	EPA 624			8/10/07 12:04	JAH	A	
Total Xylenes	3.0	U	ug/L	3.0	EPA 624			8/10/07 12:04	JAH	A	

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*	*RegLmt*
1,2-Dichloroethane-d4 (S)	78.4		%	72-142	EPA 624			8/10/07 12:04	JAH	A	
4-Bromofluorobenzene (S)	87.3		%	73-119	EPA 624			8/10/07 12:04	JAH	A	
Dibromofluoromethane (S)	83.1		%	74-132	EPA 624			8/10/07 12:04	JAH	A	
Toluene-d8 (S)	102		%	75-133	EPA 624			8/10/07 12:04	JAH	A	

Sample Comments:

Raymond J. Martrano
Laboratory Manager

10/15/07 SN

ANALYTICAL LABORATORY SERVICES, INC.
www.analyticallab.com
NELAP Accredited
PA 22-293 NJ PA010
34 Dogwood Lane - Middletown, PA 17057 Phone: 717-944-5541 Fax: 717-944-1430

ANALYTICAL RESULTS

Workorder 9697291 EWN004|NWS EARLE

Lab ID: 9697291004 Date Collected: 8/6/2007 14:48 Matrix: Waste Water

Sample ID: 16-MW-25 Date Received: 8/8/2007 12:30

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr	RegLmt
VOLATILE ORGANICS		DV Sigh									
Benzene	1.0 U		ug/L	1.0	EPA 624			8/10/07 12:39	JAH	A	
Ethylbenzene	1.0 U		ug/L	1.0	EPA 624			8/10/07 12:39	JAH	A	
Methyl t-Butyl Ether	1.0 U	UJ	ug/L	1.0	EPA 624			8/10/07 12:39	JAH	A	
Toluene	1.0 U		ug/L	1.0	EPA 624			8/10/07 12:39	JAH	A	
Total Xylenes	3.0 U		ug/L	3.0	EPA 624			8/10/07 12:39	JAH	A	

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*	*RegLmt*
1,2-Dichloroethane-d4 (S)	78.4		%	72-142	EPA 624			8/10/07 12:39	JAH	A	
4-Bromofluorobenzene (S)	88.8		%	73-119	EPA 624			8/10/07 12:39	JAH	A	
Dibromofluoromethane (S)	81.2		%	74-132	EPA 624			8/10/07 12:39	JAH	A	
Toluene-d8 (S)	106		%	75-133	EPA 624			8/10/07 12:39	JAH	A	

Sample Comments:

Raymond J. Martrano
Laboratory Manager

10/16/07 SN

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ANALYTICAL RESULTS

Workorder 9697291 EWN004|NWS EARLE

Lab ID: 9697291005 Date Collected: 8/6/2007 15:49 Matrix. Waste Water

Sample ID: 16-MW-24 Date Received: 8/8/2007 12:30

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr	RegLmt
VOLATILE ORGANICS											
Benzene	4.4	DV 9491.	ug/L	1.0	EPA 624			8/10/07 13:15	JAH	A	
Ethylbenzene	1.0 U		ug/L	1.0	EPA 624			8/10/07 13:15	JAH	A	
Methyl t-Butyl Ether	20.5	J	ug/L	1.0	EPA 624			8/10/07 13:15	JAH	A	
Toluene	1.0 U		ug/L	1.0	EPA 624			8/10/07 13:15	JAH	A	
Total Xylenes	3.0 U		ug/L	3.0	EPA 624			8/10/07 13:15	JAH	A	
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*	*RegLmt*
1,2-Dichloroethane-d4 (S)	78.1		%	72-142	EPA 624			8/10/07 13:15	JAH	A	
4-Bromofluorobenzene (S)	87.7		%	73-119	EPA 624			8/10/07 13:15	JAH	A	
Dibromofluoromethane (S)	78.5		%	74-132	EPA 624			8/10/07 13:15	JAH	A	
Toluene-d8 (S)	102		%	75-133	EPA 624			8/10/07 13:15	JAH	A	

Sample Comments:

Raymond J. Martrano
Laboratory Manager

10/15/07

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ANALYTICAL RESULTS

Workorder 9697291 EWN004|NWS EARLE

Lab ID: 9697291006 Date Collected: 8/6/2007 16:15 Matrix: Waste Water

Sample ID. FB-1 Date Received: 8/8/2007 12:30

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr	RegLmt
VOLATILE ORGANICS		DV Qual.									
Benzene	1.0 U		ug/L	1.0	EPA 624			8/10/07 09:07	JAH	A	
Ethylbenzene	1.0 U		ug/L	1.0	EPA 624			8/10/07 09:07	JAH	A	
Methyl t-Butyl Ether	1.0 U	UJ	ug/L	1.0	EPA 624			8/10/07 09:07	JAH	A	
Toluene	1.0 U		ug/L	1.0	EPA 624			8/10/07 09:07	JAH	A	
Total Xylenes	3.0 U		ug/L	3.0	EPA 624			8/10/07 09:07	JAH	A	
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*	*RegLmt*
1,2-Dichloroethane-d4 (S)	79.6		%	72-142	EPA 624			8/10/07 09:07	JAH	A	
4-Bromofluorobenzene (S)	86.5		%	73-119	EPA 624			8/10/07 09:07	JAH	A	
Dibromofluoromethane (S)	81.3		%	74-132	EPA 624			8/10/07 09:07	JAH	A	
Toluene-d8 (S)	99.8		%	75-133	EPA 624			8/10/07 09:07	JAH	A	

Sample Comments:

Raymond J. Martrano
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ANALYTICAL RESULTS

Workorder 9697291 EWN004|NWS EARLE

Lab ID. 9697291007 Date Collected: 8/8/2007 12:30 Matrix: Waste Water

Sample ID: TB-1 Date Received: 8/8/2007 12:30

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr	RegLmt
VOLATILE ORGANICS		DV 9/4/10									
Benzene	1.0 U		ug/L	1.0	EPA 624			8/10/07 08:31	JAH	A	
Ethylbenzene	1.0 U		ug/L	1.0	EPA 624			8/10/07 08:31	JAH	A	
Methyl t-Butyl Ether	1.0 U	UJ	ug/L	1.0	EPA 624			8/10/07 08:31	JAH	A	
Toluene	1.0 U		ug/L	1.0	EPA 624			8/10/07 08:31	JAH	A	
Total Xylenes	3.0 U		ug/L	3.0	EPA 624			8/10/07 08:31	JAH	A	

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*	*RegLmt*
1,2-Dichloroethane-d4 (S)	79.3		%	72-142	EPA 624			8/10/07 08:31	JAH	A	
4-Bromofluorobenzene (S)	93.8		%	73-119	EPA 624			8/10/07 08:31	JAH	A	
Dibromofluoromethane (S)	82.5		%	74-132	EPA 624			8/10/07 08:31	JAH	A	
Toluene-d8 (S)	102		%	75-133	EPA 624			8/10/07 08:31	JAH	A	

Sample Comments:

Raymond J. Martrano
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ANALYTICAL RESULTS

Workorder 9697291 EWN004|NWS EARLE

Lab ID: 9697291008 Date Collected: 8/7/2007 08:27 Matrix: Waste Water

Sample ID: 16-MW-11 Date Received: 8/8/2007 12:30

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr	RegLmt
VOLATILE ORGANICS											
Benzene	181		ug/L	5.0	EPA 624			8/15/07 15:18	JAH	B	
Ethylbenzene	1.0 U		ug/L	1.0	EPA 624			8/10/07 23:49	JAH	A	
Methyl t-Butyl Ether	322		ug/L	5.0	EPA 624			8/15/07 15:18	JAH	B	
Toluene	1.0 U		ug/L	1.0	EPA 624			8/10/07 23:49	JAH	A	
Total Xylenes	3.0 U		ug/L	3.0	EPA 624			8/10/07 23:49	JAH	A	
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*	*RegLmt*
1,2-Dichloroethane-d4 (S)	75		%	72-142	EPA 624			8/10/07 23:49	JAH	A	
4-Bromofluorobenzene (S)	89		%	73-119	EPA 624			8/10/07 23:49	JAH	A	
Dibromofluoromethane (S)	76		%	74-132	EPA 624			8/10/07 23:49	JAH	A	
Toluene-d8 (S)	102		%	75-133	EPA 624			8/10/07 23:49	JAH	A	
1,2-Dichloroethane-d4 (S)	109		%	72-142	EPA 624			8/15/07 15:18	JAH	B	
Dibromofluoromethane (S)	101		%	74-132	EPA 624			8/15/07 15:18	JAH	B	
Toluene-d8 (S)	121		%	75-133	EPA 624			8/15/07 15:18	JAH	B	
4-Bromofluorobenzene (S)	100		%	73-119	EPA 624			8/15/07 15:18	JAH	B	
SEMIVOLATILES											
Naphthalene	2		ug/L	1	EPA 625	8/13/07	CJW	8/22/07 00:14	DRS	D1	
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*	*RegLmt*
2-Fluorobiphenyl (S)	72.6		%	41-114	EPA 625	8/13/07	CJW	8/22/07 00:14	DRS	D1	
Nitrobenzene-d5 (S)	86.8		%	33-140	EPA 625	8/13/07	CJW	8/22/07 00:14	DRS	D1	
Terphenyl-d14 (S)	88.4		%	14-185	EPA 625	8/13/07	CJW	8/22/07 00:14	DRS	D1	

Sample Comments:

Raymond J. Martrano
Laboratory Manager

10/15/07 SN

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ANALYTICAL RESULTS

Workorder 9697291 EWN004|NWS EARLE

Lab ID: 9697291009 Date Collected: 8/7/2007 10:50 Matrix: Waste Water

Sample ID: 16-MW-08 Date Received: 8/8/2007 12:30

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr	RegLmt
VOLATILE ORGANICS	DV 9/4/07										
Benzene	108		ug/L	1.0	EPA 624			8/10/07 13:50	JAH	A	
Ethylbenzene	47.4		ug/L	1.0	EPA 624			8/10/07 13:50	JAH	A	
Methyl t-Butyl Ether	1.0 U	UJ	ug/L	1.0	EPA 624			8/10/07 13:50	JAH	A	
Toluene	2.0		ug/L	1.0	EPA 624			8/10/07 13:50	JAH	A	
Total Xylenes	63.4	J	ug/L	3.0	EPA 624			8/10/07 13:50	JAH	A	
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*	*RegLmt*
1,2-Dichloroethane-d4 (S)	75.4		%	72-142	EPA 624			8/10/07 13:50	JAH	A	
4-Bromofluorobenzene (S)	84.5		%	73-119	EPA 624			8/10/07 13:50	JAH	A	
Dibromofluoromethane (S)	79.4		%	74-132	EPA 624			8/10/07 13:50	JAH	A	
Toluene-d8 (S)	101		%	75-133	EPA 624			8/10/07 13:50	JAH	A	
SEMIVOLATILES	J										
Naphthalene	128	J	ug/L	15	EPA 625	8/13/07	CJW	8/23/07 12:50	DRS	H1	
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*	*RegLmt*
2-Fluorobiphenyl (S)	75.5		%	41-114	EPA 625	8/13/07	CJW	8/23/07 12:50	DRS	H1	
Nitrobenzene-d5 (S)	79.7		%	33-140	EPA 625	8/13/07	CJW	8/23/07 12:50	DRS	H1	
Terphenyl-d14 (S)	94.4	J	%	14-185	EPA 625	8/13/07	CJW	8/23/07 12:50	DRS	H1	

Sample Comments:

Naphthalene for the EPA 625 analysis was recovered outside of the quality control limits due to sample matrix interferences. The LCS sample associated to this sample was within control limits.

Raymond J. Martrano
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ANALYTICAL RESULTS

Workorder 9697291 EWN004|NWS EARLE

Lab ID: 9697291010 Date Collected: 8/7/2007 00:00 Matrix. Waste Water

Sample ID: DUP-1 Date Received: 8/8/2007 12:30

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr	RegLmt
VOLATILE ORGANICS	DV qual.										
Benzene	112		ug/L	1.0	EPA 624			8/10/07 14:26	JAH	A	
Ethylbenzene	47.6		ug/L	1.0	EPA 624			8/10/07 14:26	JAH	A	
Methyl t-Butyl Ether	1.0 U	UJ	ug/L	1.0	EPA 624			8/10/07 14:26	JAH	A	
Toluene	2.1		ug/L	1.0	EPA 624			8/10/07 14:26	JAH	A	
Total Xylenes	61.5		ug/L	3.0	EPA 624			8/10/07 14:26	JAH	A	
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*	*RegLmt*
1,2-Dichloroethane-d4 (S)	79.4		%	72-142	EPA 624			8/10/07 14:26	JAH	A	
4-Bromofluorobenzene (S)	83.1		%	73-119	EPA 624			8/10/07 14:26	JAH	A	
Dibromofluoromethane (S)	81		%	74-132	EPA 624			8/10/07 14:26	JAH	A	
Toluene-d8 (S)	100		%	75-133	EPA 624			8/10/07 14:26	JAH	A	
SEMIVOLATILES											
Naphthalene	134		ug/L	15	EPA 625	8/13/07	CJW	8/23/07 12:01	DRS	D1	
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*	*RegLmt*
2-Fluorobiphenyl (S)	86		%	41-114	EPA 625	8/13/07	CJW	8/23/07 12:01	DRS	D1	
Nitrobenzene-d5 (S)	81.2		%	33-140	EPA 625	8/13/07	CJW	8/23/07 12:01	DRS	D1	
Terphenyl-d14 (S)	97		%	14-185	EPA 625	8/13/07	CJW	8/23/07 12:01	DRS	D1	

Sample Comments:

Raymond J. Martrano
Laboratory Manager

10/15/07

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ANALYTICAL RESULTS

Workorder 9697291 EWN004|NWS EARLE

Lab ID: 9697291011 Date Collected: 8/7/2007 12:12 Matrix: Waste Water

Sample ID: 16-MW-10 Date Received: 8/8/2007 12:30

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr	RegLmt
VOLATILE ORGANICS	DV flag										
Benzene	1.0 U		ug/L	1.0	EPA 624			8/10/07 15:01	JAH	A	
Ethylbenzene	1.0 U		ug/L	1.0	EPA 624			8/10/07 15:01	JAH	A	
Methyl t-Butyl Ether	1.0 U	UJ	ug/L	1.0	EPA 624			8/10/07 15:01	JAH	A	
Toluene	1.0 U		ug/L	1.0	EPA 624			8/10/07 15:01	JAH	A	
Total Xylenes	3.0 U		ug/L	3.0	EPA 624			8/10/07 15:01	JAH	A	
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*	*RegLmt*
1,2-Dichloroethane-d4 (S)	78		%	72-142	EPA 624			8/10/07 15:01	JAH	A	
4-Bromofluorobenzene (S)	87.5		%	73-119	EPA 624			8/10/07 15:01	JAH	A	
Dibromofluoromethane (S)	81.4		%	74-132	EPA 624			8/10/07 15:01	JAH	A	
Toluene-d8 (S)	101		%	75-133	EPA 624			8/10/07 15:01	JAH	A	
SEMIVOLATILES											
Naphthalene	1 U		ug/L	1	EPA 625	8/13/07	CJW	8/22/07 03:32	DRS	D1	
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*	*RegLmt*
2-Fluorobiphenyl (S)	82.5		%	41-114	EPA 625	8/13/07	CJW	8/22/07 03:32	DRS	D1	
Nitrobenzene-d5 (S)	90.9		%	33-140	EPA 625	8/13/07	CJW	8/22/07 03:32	DRS	D1	
Terphenyl-d14 (S)	86.8		%	14-185	EPA 625	8/13/07	CJW	8/22/07 03:32	DRS	D1	

Sample Comments:

Raymond J. Martrano
Laboratory Manager

10/15/07 SN

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ANALYTICAL RESULTS

Workorder 9697291 EWN004|NWS EARLE

Lab ID: 9697291012 Date Collected: 8/7/2007 14:09 Matrix: Waste Water

Sample ID: 18-MW-01 Date Received: 8/8/2007 12:30

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr	RegLmt
VOLATILE ORGANICS		DV 9/4/08									
Benzene	1.0 U		ug/L	1.0	EPA 624			8/10/07 15:36	JAH	A	
Ethylbenzene	1.0 U		ug/L	1.0	EPA 624			8/10/07 15:36	JAH	A	
Methyl t-Butyl Ether	1.0 U	4J	ug/L	1.0	EPA 624			8/10/07 15:36	JAH	A	
Toluene	1.0 U		ug/L	1.0	EPA 624			8/10/07 15:36	JAH	A	
Total Xylenes	3.0 U		ug/L	3.0	EPA 624			8/10/07 15:36	JAH	A	
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*	*RegLmt*
1,2-Dichloroethane-d4 (S)	80.5		%	72-142	EPA 624			8/10/07 15:36	JAH	A	
4-Bromofluorobenzene (S)	89.3		%	73-119	EPA 624			8/10/07 15:36	JAH	A	
Dibromofluoromethane (S)	83		%	74-132	EPA 624			8/10/07 15:36	JAH	A	
Toluene-d8 (S)	102		%	75-133	EPA 624			8/10/07 15:36	JAH	A	
SEMIVOLATILES											
Naphthalene	2 U		ug/L	2	EPA 625	8/13/07	CJW	8/23/07 15:19	DRS	D1	
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*	*RegLmt*
2-Fluorobiphenyl (S)	80.8		%	41-114	EPA 625	8/13/07	CJW	8/23/07 15:19	DRS	D1	
Nitrobenzene-d5 (S)	85.9		%	33-140	EPA 625	8/13/07	CJW	8/23/07 15:19	DRS	D1	
Terphenyl-d14 (S)	88.8		%	14-185	EPA 625	8/13/07	CJW	8/23/07 15:19	DRS	D1	

Sample Comments:

Raymond J. Martrano
Laboratory Manager

10/16/07

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ANALYTICAL RESULTS

Workorder 9697291 EWN004|NWS EARLE

Lab ID: 9697291013 Date Collected: 8/7/2007 14:30 Matrix: Waste Water
Sample ID: FB-2 Date Received: 8/8/2007 12:30

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr	RegLmt
VOLATILE ORGANICS											
Benzene	1.0 U		ug/L	1.0	EPA 624			8/10/07 09:43	JAH	A	
Ethylbenzene	1.0 U		ug/L	1.0	EPA 624			8/10/07 09:43	JAH	A	
Methyl t-Butyl Ether	1.0 U	UJ	ug/L	1.0	EPA 624			8/10/07 09:43	JAH	A	
Toluene	1.0 U		ug/L	1.0	EPA 624			8/10/07 09:43	JAH	A	
Total Xylenes	3.0 U		ug/L	3.0	EPA 624			8/10/07 09:43	JAH	A	
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*	*RegLmt*
1,2-Dichloroethane-d4 (S)	79.1		%	72-142	EPA 624			8/10/07 09:43	JAH	A	
4-Bromofluorobenzene (S)	87.7		%	73-119	EPA 624			8/10/07 09:43	JAH	A	
Dibromofluoromethane (S)	80		%	74-132	EPA 624			8/10/07 09:43	JAH	A	
Toluene-d8 (S)	105		%	75-133	EPA 624			8/10/07 09:43	JAH	A	
SEMIVOLATILES											
Naphthalene	2 U		ug/L	2	EPA 625	8/13/07	CJW	8/23/07 16:08	DRS	D1	
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*	*RegLmt*
2-Fluorobiphenyl (S)	80.4		%	41-114	EPA 625	8/13/07	CJW	8/23/07 16:08	DRS	D1	
Nitrobenzene-d5 (S)	84.6		%	33-140	EPA 625	8/13/07	CJW	8/23/07 16:08	DRS	D1	
Terphenyl-d14 (S)	91.1		%	14-185	EPA 625	8/13/07	CJW	8/23/07 16:08	DRS	D1	

Sample Comments:

Raymond J. Martrano
Laboratory Manager

10/15/07 EN

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ANALYTICAL RESULTS

Workorder 9697291 EWN004|NWS EARLE

Lab ID: 9697291014 Date Collected: 8/8/2007 12:30 Matrix: Waste Water

Sample ID: TB-2 Date Received: 8/8/2007 12:30

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr	RegLmt
VOLATILE ORGANICS		DV Qual									
Benzene	1.0 U		ug/L	1.0	EPA 624			8/10/07 10:18	JAH	A	
Ethylbenzene	1.0 U		ug/L	1.0	EPA 624			8/10/07 10:18	JAH	A	
Methyl t-Butyl Ether	1.0 U	UJ	ug/L	1.0	EPA 624			8/10/07 10:18	JAH	A	
Toluene	1.0 U		ug/L	1.0	EPA 624			8/10/07 10:18	JAH	A	
Total Xylenes	3.0 U		ug/L	3.0	EPA 624			8/10/07 10:18	JAH	A	
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*	*RegLmt*
1,2-Dichloroethane-d4 (S)	79		%	72-142	EPA 624			8/10/07 10:18	JAH	A	
4-Bromofluorobenzene (S)	88.1		%	73-119	EPA 624			8/10/07 10:18	JAH	A	
Dibromofluoromethane (S)	82.7		%	74-132	EPA 624			8/10/07 10:18	JAH	A	
Toluene-d8 (S)	98		%	75-133	EPA 624			8/10/07 10:18	JAH	A	

Sample Comments:

Raymond J. Martrano
Laboratory Manager

10/15/07 SN

Project: Earle Long Term Monitoring
Laboratory: Analytical Laboratory Services, Inc.
Sample Delivery Group: EWN009/EWN010/EWN011
Fraction: Organic
Matrix: Aqueous
Report Date: 2/18/2008

This analytical quality assurance report is based upon a review of analytical data generated for groundwater samples. The sample locations, laboratory identification numbers, sample collection dates, sample matrix, and analyses performed are presented in Table 1.

The samples were analyzed for volatile organic compounds: benzene toluene, ethylbenzene, xylene, and methyl-tert-butyl ether and semivolatile organic compound, naphthalene. The sample analyses were performed in accordance with the procedures outlined in "40 CFR Part 136".

All sample analyses have undergone an analytical quality assurance review to ensure adherence to the required protocols. Results have been validated or qualified according to general guidance provided in the Region III modifications to "Laboratory Data Validation Functional Guidelines for Validating Organic Analyses", USEPA 9/94. This document specifies procedures for validating data generated for CLP analyses. Therefore, the quality control requirements specified in the methods and associated acceptance criteria were also used to evaluate the non-CLP data. The parameters presented on the following page were evaluated.

X	•	Data Completeness
X	•	Chain of Custody Documentation
X	•	Holding Times
X	•	Instrument Performance
X	•	Initial and Continuing Calibration Summaries
X	•	Laboratory and Field Blank Analysis Results
X	•	Surrogate Compound Recoveries
X	•	Matrix Spike/Matrix Spike Duplicate Recoveries and Reproducibility
X	•	Field Duplicate Analysis Results
X	•	Laboratory Control Sample Results
X	•	Internal Standard Performance
X	•	Qualitative Identification
X	•	Quantitation/Reporting Limits

X - Denotes parameter evaluated.

It is recommended that the data only be used according to the qualifiers presented, and discussed in this report. All other data should be considered qualitatively and quantitatively valid as reported by the laboratory, based on the items evaluated.

Report Approved By:

Shawne M Rodgers

Shawne M. Rodgers
President

2/19/2008

Date

1.0 DATA COMPLETENESS

The data package was complete.

2.0 CHAIN OF CUSTODY DOCUMENTATION

The chain of custody documentation was complete.

3.0 HOLDING TIMES

All criteria were met. No qualifiers were applied.

4.0 INSTRUMENT PERFORMANCE

All criteria were met. No qualifiers were applied.

5.0 INITIAL AND CONTINUING CALIBRATIONS

All criteria were met. No qualifiers were applied.

6.0 LABORATORY AND FIELD BLANK ANALYSIS RESULTS

All criteria were met. No qualifiers were applied.

7.0 SURROGATE COMPOUNDS

All criteria were met. No qualifiers were applied.

8.0 *MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERIES AND REPRODUCIBILITY*

All criteria were met. No qualifiers were applied.

9.0 *FIELD DUPLICATE RESULTS*

Duplicate sample pairs 18-MW-01 and DUP-1, and MW-106 and DUP-2 were submitted to the laboratory to evaluate sampling and analytical precision for those organic compounds determined to be present. There were no positive results for samples 18-MW-01 and DUP-1. Results for samples MW-106 and DUP-2 are presented in Table 2. Precision is evaluated by calculating the relative percent difference (%RPD) between duplicate pair results. There are no USEPA-established acceptance criteria for field duplicate samples. EDQ uses internal acceptance criteria of twenty percent for volatile detected compounds (and 25 percent for extractable compounds) to evaluate field duplicate samples.

10.0 *LABORATORY CONTROL SAMPLE RESULTS*

All criteria were met. No qualifiers were applied.

11.0 *INTERNAL STANDARD PERFORMANCE*

All criteria were met. No qualifiers were applied.

12.0 *QUALITATIVE IDENTIFICATION*

All criteria were met. No qualifiers were applied.

13.0 *QUANTITATION/REPORTING LIMITS*

As required by USEPA protocol, all compounds, which were qualitatively identified at concentrations below their respective Quantitation Limits (QLs), have been marked with "J" qualifiers to indicate that they are quantitative estimates.

METHODOLOGY REFERENCES

Analysis	Reference
Volatile Organic Compounds	Method 624, "40 CFR Part 136
Semivolatile Organic Compounds	Method 625, "40 CFR Part 136

Table 1 Samples For Data Validation Review
Earle Long Term Monitoring
Groundwater Samples Collected November 2007
Analytical Laboratory Services Sample Delivery Group EWN 009

Sample Location	Laboratory ID		Date Collected	Matrix	Analyses Performed	
					VOC	SVOC
16-MW-25	EWN009	001	11/13/2007	Groundwater	X	
16-MW-24	EWN009	002	11/13/2007	Groundwater	X	
FB-1	EWN009	003	11/13/2007	Field Blank	X	X
TB-1	EWN009	004	11/14/2007	Trip Blank	X	
16-SW-01	EWN009	005	11/13/2007	Groundwater	X	
16-SW-02	EWN009	006	11/13/2007	Groundwater	X	
16-MW-11	EWN009	007	11/13/2007	Groundwater	X	X
16-MW-15	EWN009	008	11/13/2007	Groundwater	X	

VOC Methyl tert-butyl Ether, Benzene, Toluene, Ethylbenzene, total Xylenes
SVOC Naphthalene

Table 1 Samples For Data Validation Review
Earle Long Term Monitoring
Groundwater Samples Collected November 2007
Analytical Laboratory Services Sample Delivery Group EWN 010

Sample Location	Laboratory ID		Date Collected	Matrix	Analyses Performed	
					VOC	SVOC
16-MW-08	9712043	001	11/14/2007	Groundwater	X	X
16-MW-10	9712043	002	11/14/2007	Groundwater	X	X
18-MW-01	9712043	003	11/14/2007	Groundwater	X	X
DUP-1	9712043	004	11/14/2007	Groundwater	X	X
FB-2	9712043	005	11/14/2007	Field Blank	X	X
TB-2	9712043	006	11/14/2007	Trip Blank	X	

VOC Methyl tert-butyl Ether, Benzene, Toluene, Ethylbenzene, total Xylenes
SVOC Naphthalene

Table 1 Samples For Data Validation Review
Earle Long Term Monitoring
Groundwater Samples Collected November 2007
Analytical Laboratory Services Sample Delivery Group EWN 011

Sample Location	Laboratory ID		Date Collected	Matrix	Analyses Performed
					VOC
MW-102	9712043	001	11/15/2007	Groundwater	X
MW-106	9712043	002	11/15/2007	Groundwater	X
MW-107	9712043	003	11/15/2007	Groundwater	X
DUP-2	9712043	004	11/15/2007	Groundwater	X
FB-3	9712043	005	11/15/2007	Field Blank	X
TB-3	9712043	006	11/15/2007	Trip Blank	X

VOC Methyl tert-butyl Ether, Benzene, Toluene, Ethylbenzene, total Xylenes

Table 2 Field Duplicate Sample Results for Organic Analyses
Duplicate Samples MW-106 and DUP-2

	MW-106 (µg/L)		DUP-2 (µg/L)		RPD	Comments
Methyl t-Butyl Ether	0.58	J	0.52	J	10.9	

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ANALYTICAL RESULTS

Workorder: 9711486 EWN009|NWS EARLE LTM PROJ

Lab ID: **9711486001** Date Collected: 11/13/2007 14:39 Matrix: Water
Sample ID: **16-MW-25** Date Received: 11/14/2007 11:55

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr	RegLmt
VOLATILE ORGANICS											
Benzene	1.0 U		ug/L	1.0	EPA 624			11/26/07 10:05	JAH	A	
Ethylbenzene	1.0 U		ug/L	1.0	EPA 624			11/26/07 10:05	JAH	A	
Methyl t-Butyl Ether	1.0 U		ug/L	1.0	EPA 624			11/26/07 10:05	JAH	A	
Toluene	1.0 U		ug/L	1.0	EPA 624			11/26/07 10:05	JAH	A	
Total Xylenes	3.0 U		ug/L	3.0	EPA 624			11/26/07 10:05	JAH	A	
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*	*RegLmt*
1,2-Dichloroethane-d4 (S)	104		%	72-142	EPA 624			11/26/07 10:05	JAH	A	
4-Bromofluorobenzene (S)	95.5		%	73-119	EPA 624			11/26/07 10:05	JAH	A	
Dibromofluoromethane (S)	104		%	74-132	EPA 624			11/26/07 10:05	JAH	A	
Toluene-d8 (S)	110		%	75-133	EPA 624			11/26/07 10:05	JAH	A	

Sample Comments:

Raymond J. Martrano
Laboratory Manager

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ANALYTICAL RESULTS

Workorder: 9711486 EWN009|NWS EARLE LTM PROJ

Lab ID: **9711486002** Date Collected: 11/13/2007 15:30 Matrix: Water
Sample ID: **16-MW-24** Date Received: 11/14/2007 11:55

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr	RegLmt
VOLATILE ORGANICS											
Benzene	2.8		ug/L	1.0	EPA 624			11/26/07 10:41	JAH	A	
Ethylbenzene	1.0 U		ug/L	1.0	EPA 624			11/26/07 10:41	JAH	A	
Methyl t-Butyl Ether	9.3		ug/L	1.0	EPA 624			11/26/07 10:41	JAH	A	
Toluene	1.0 U		ug/L	1.0	EPA 624			11/26/07 10:41	JAH	A	
Total Xylenes	3.0 U		ug/L	3.0	EPA 624			11/26/07 10:41	JAH	A	
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*	*RegLmt*
1,2-Dichloroethane-d4 (S)	103		%	72-142	EPA 624			11/26/07 10:41	JAH	A	
4-Bromofluorobenzene (S)	90.1		%	73-119	EPA 624			11/26/07 10:41	JAH	A	
Dibromofluoromethane (S)	105		%	74-132	EPA 624			11/26/07 10:41	JAH	A	
Toluene-d8 (S)	110		%	75-133	EPA 624			11/26/07 10:41	JAH	A	

Sample Comments:

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Laboratory Manager

SMK 2/18/2008

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ANALYTICAL RESULTS

Workorder: 9711486 EWN009|NWS EARLE LTM PROJ

Lab ID: **9711486003** Date Collected: 11/13/2007 16:15 Matrix: Water

Sample ID: **FB-1** Date Received: 11/14/2007 11:55

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr	RegLmt
VOLATILE ORGANICS											
Benzene	1.0 U		ug/L	1.0	EPA 624			11/26/07 07:42	JAH	D	
Ethylbenzene	1.0 U		ug/L	1.0	EPA 624			11/26/07 07:42	JAH	D	
Methyl t-Butyl Ether	1.0 U		ug/L	1.0	EPA 624			11/26/07 07:42	JAH	D	
Toluene	1.0 U		ug/L	1.0	EPA 624			11/26/07 07:42	JAH	D	
Total Xylenes	3.0 U		ug/L	3.0	EPA 624			11/26/07 07:42	JAH	D	
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*	*RegLmt*
1,2-Dichloroethane-d4 (S)	100		%	72-142	EPA 624			11/26/07 07:42	JAH	D	
4-Bromofluorobenzene (S)	90.1		%	73-119	EPA 624			11/26/07 07:42	JAH	D	
Dibromofluoromethane (S)	99.9		%	74-132	EPA 624			11/26/07 07:42	JAH	D	
Toluene-d8 (S)	108		%	75-133	EPA 624			11/26/07 07:42	JAH	D	
SEMIVOLATILES											
Naphthalene	3 U		ug/L	3	EPA 625	11/20/07	MES	12/2/07 06:14	DRS	A1	
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*	*RegLmt*
2-Fluorobiphenyl (S)	75.6		%	41-114	EPA 625	11/20/07	MES	12/2/07 06:14	DRS	A1	
Nitrobenzene-d5 (S)	90.5		%	33-140	EPA 625	11/20/07	MES	12/2/07 06:14	DRS	A1	
Terphenyl-d14 (S)	78.2		%	14-185	EPA 625	11/20/07	MES	12/2/07 06:14	DRS	A1	

Sample Comments:

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ANALYTICAL RESULTS

Workorder: 9711486 EWN009|NWS EARLE LTM PROJ

Lab ID: **9711486004** Date Collected: 11/14/2007 11:55 Matrix: Water

Sample ID: **TB-1** Date Received: 11/14/2007 11:55

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr	RegLmt
VOLATILE ORGANICS											
Benzene	1.0 U		ug/L	1.0	EPA 624			11/27/07 20:28	JAH	A	
Ethylbenzene	1.0 U		ug/L	1.0	EPA 624			11/27/07 20:28	JAH	A	
Methyl t-Butyl Ether	1.0 U		ug/L	1.0	EPA 624			11/27/07 20:28	JAH	A	
Toluene	1.0 U		ug/L	1.0	EPA 624			11/27/07 20:28	JAH	A	
Total Xylenes	3.0 U		ug/L	3.0	EPA 624			11/27/07 20:28	JAH	A	
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*	*RegLmt*
1,2-Dichloroethane-d4 (S)	102		%	72-142	EPA 624			11/27/07 20:28	JAH	A	
4-Bromofluorobenzene (S)	92.3		%	73-119	EPA 624			11/27/07 20:28	JAH	A	
Dibromofluoromethane (S)	100		%	74-132	EPA 624			11/27/07 20:28	JAH	A	
Toluene-d8 (S)	110		%	75-133	EPA 624			11/27/07 20:28	JAH	A	

Sample Comments:

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ANALYTICAL RESULTS

Workorder: 9711486 EWN009|NWS EARLE LTM PROJ

Lab ID: **9711486005** Date Collected: 11/13/2007 11:10 Matrix: Water

Sample ID: **16-SW-01** Date Received: 11/14/2007 11:55

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr	RegLmt
VOLATILE ORGANICS											
Benzene	1.0 U		ug/L	1.0	EPA 624			11/26/07 11:17	JAH	A	
Ethylbenzene	1.0 U		ug/L	1.0	EPA 624			11/26/07 11:17	JAH	A	
Methyl t-Butyl Ether	1.0 U		ug/L	1.0	EPA 624			11/26/07 11:17	JAH	A	
Toluene	1.0 U		ug/L	1.0	EPA 624			11/26/07 11:17	JAH	A	
Total Xylenes	3.0 U		ug/L	3.0	EPA 624			11/26/07 11:17	JAH	A	
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*	*RegLmt*
1,2-Dichloroethane-d4 (S)	103		%	72-142	EPA 624			11/26/07 11:17	JAH	A	
4-Bromofluorobenzene (S)	93.1		%	73-119	EPA 624			11/26/07 11:17	JAH	A	
Dibromofluoromethane (S)	104		%	74-132	EPA 624			11/26/07 11:17	JAH	A	
Toluene-d8 (S)	112		%	75-133	EPA 624			11/26/07 11:17	JAH	A	

Sample Comments:

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SMH 2/18/08

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ANALYTICAL RESULTS

Workorder: 9711486 EWN009|NWS EARLE LTM PROJ

Lab ID: **9711486006** Date Collected: 11/13/2007 11:15 Matrix: Water

Sample ID: **16-SW-02** Date Received: 11/14/2007 11:55

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr	RegLmt
VOLATILE ORGANICS											
Benzene	1.0 U		ug/L	1.0	EPA 624			11/26/07 12:28	JAH	A	
Ethylbenzene	1.0 U		ug/L	1.0	EPA 624			11/26/07 12:28	JAH	A	
Methyl t-Butyl Ether	4.6		ug/L	1.0	EPA 624			11/26/07 12:28	JAH	A	
Toluene	1.0 U		ug/L	1.0	EPA 624			11/26/07 12:28	JAH	A	
Total Xylenes	3.0 U		ug/L	3.0	EPA 624			11/26/07 12:28	JAH	A	
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*	*RegLmt*
1,2-Dichloroethane-d4 (S)	104		%	72-142	EPA 624			11/26/07 12:28	JAH	A	
4-Bromofluorobenzene (S)	90.3		%	73-119	EPA 624			11/26/07 12:28	JAH	A	
Dibromofluoromethane (S)	103		%	74-132	EPA 624			11/26/07 12:28	JAH	A	
Toluene-d8 (S)	109		%	75-133	EPA 624			11/26/07 12:28	JAH	A	

Sample Comments:

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SMM 2/18/2008

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ANALYTICAL RESULTS

Workorder: 9711486 EWN009|NWS EARLE LTM PROJ

Lab ID: **9711486007** Date Collected: 11/13/2007 16:37 Matrix: Water
Sample ID: **16-MW-11** Date Received: 11/14/2007 11:55

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr	RegLmt
VOLATILE ORGANICS											
Benzene	67.5		ug/L	1.0	EPA 624			11/26/07 14:51	JAH	D	
Ethylbenzene	1.0 U		ug/L	1.0	EPA 624			11/26/07 14:51	JAH	D	
Methyl t-Butyl Ether	121		ug/L	1.0	EPA 624			11/26/07 14:51	JAH	D	
Toluene	1.0 U		ug/L	1.0	EPA 624			11/26/07 14:51	JAH	D	
Total Xylenes	3.0 U		ug/L	3.0	EPA 624			11/26/07 14:51	JAH	D	
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*	*RegLmt*
1,2-Dichloroethane-d4 (S)	102		%	72-142	EPA 624			11/26/07 14:51	JAH	D	
4-Bromofluorobenzene (S)	91.4		%	73-119	EPA 624			11/26/07 14:51	JAH	D	
Dibromofluoromethane (S)	101		%	74-132	EPA 624			11/26/07 14:51	JAH	D	
Toluene-d8 (S)	112		%	75-133	EPA 624			11/26/07 14:51	JAH	D	
SEMIVOLATILES											
Naphthalene	1J		ug/L	3	EPA 625	11/20/07	MES	12/2/07 07:04	DRS	A1	
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*	*RegLmt*
2-Fluorobiphenyl (S)	73.9		%	41-114	EPA 625	11/20/07	MES	12/2/07 07:04	DRS	A1	
Nitrobenzene-d5 (S)	83.1		%	33-140	EPA 625	11/20/07	MES	12/2/07 07:04	DRS	A1	
Terphenyl-d14 (S)	82.1		%	14-185	EPA 625	11/20/07	MES	12/2/07 07:04	DRS	A1	

Sample Comments:

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ANALYTICAL RESULTS

Workorder: 9711486 EWN009|NWS EARLE LTM PROJ

Lab ID: **9711486008** Date Collected: 11/13/2007 12:25 Matrix: Water

Sample ID: **16-MW-15** Date Received: 11/14/2007 11:55

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr	RegLmt
VOLATILE ORGANICS											
Benzene	43.3		ug/L	1.0	EPA 624			11/26/07 23:46	JAH	A	
Ethylbenzene	1.0 U		ug/L	1.0	EPA 624			11/26/07 23:46	JAH	A	
Methyl t-Butyl Ether	2.0		ug/L	1.0	EPA 624			11/26/07 23:46	JAH	A	
Toluene	0.93J		ug/L	1.0	EPA 624			11/26/07 23:46	JAH	A	
Total Xylenes	27.4		ug/L	3.0	EPA 624			11/26/07 23:46	JAH	A	
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*	*RegLmt*
1,2-Dichloroethane-d4 (S)	102		%	72-142	EPA 624			11/26/07 23:46	JAH	A	
4-Bromofluorobenzene (S)	90.2		%	73-119	EPA 624			11/26/07 23:46	JAH	A	
Dibromofluoromethane (S)	99.8		%	74-132	EPA 624			11/26/07 23:46	JAH	A	
Toluene-d8 (S)	111		%	75-133	EPA 624			11/26/07 23:46	JAH	A	

Sample Comments:

Raymond J. Martrano
Laboratory Manager

SMA 2/18/2008

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ANALYTICAL RESULTS

Workorder 9712043 EWN010|NWS EARLE LTM PROJECT

Lab ID: **9712043001** Date Collected: 11/14/2007 12:32 Matrix: Water

Sample ID: **16-MW-08** Date Received: 11/16/2007 12:00

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr	RegLmt
VOLATILE ORGANICS											
Benzene	90.8		ug/L	1.0	EPA 624			11/27/07 00:57	JAH	A	
Ethylbenzene	12.3		ug/L	1.0	EPA 624			11/27/07 00:57	JAH	A	
Methyl t-Butyl Ether	0.97J		ug/L	1.0	EPA 624			11/27/07 00:57	JAH	A	
Toluene	1.7		ug/L	1.0	EPA 624			11/27/07 00:57	JAH	A	
Total Xylenes	56.3		ug/L	3.0	EPA 624			11/27/07 00:57	JAH	A	
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*	*RegLmt*
1,2-Dichloroethane-d4 (S)	104		%	72-142	EPA 624			11/27/07 00:57	JAH	A	
4-Bromofluorobenzene (S)	87		%	73-119	EPA 624			11/27/07 00:57	JAH	A	
Dibromofluoromethane (S)	101		%	74-132	EPA 624			11/27/07 00:57	JAH	A	
Toluene-d8 (S)	111		%	75-133	EPA 624			11/27/07 00:57	JAH	A	
SEMIVOLATILES											
Naphthalene	48		ug/L	3	EPA 625	11/21/07	MES	12/1/07 12:09	DHF	C1	
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*	*RegLmt*
2-Fluorobiphenyl (S)	70.6		%	41-114	EPA 625	11/21/07	MES	12/1/07 12:09	DHF	C1	
Nitrobenzene-d5 (S)	72.7		%	33-140	EPA 625	11/21/07	MES	12/1/07 12:09	DHF	C1	
Terphenyl-d14 (S)	71.2		%	14-185	EPA 625	11/21/07	MES	12/1/07 12:09	DHF	C1	

Sample Comments:

Raymond J. Martrano
Laboratory Manager

SML 5/18/2008

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ANALYTICAL RESULTS

Workorder 9712043 EWN010|NWS EARLE LTM PROJECT

Lab ID: **9712043002** Date Collected: 11/14/2007 10:08 Matrix: Water

Sample ID: **16-MW-10** Date Received: 11/16/2007 12:00

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr	RegLmt
VOLATILE ORGANICS											
Benzene	1.0 U		ug/L	1.0	EPA 624			11/27/07 01:32	JAH	A	
Ethylbenzene	1.0 U		ug/L	1.0	EPA 624			11/27/07 01:32	JAH	A	
Methyl t-Butyl Ether	1.0 U		ug/L	1.0	EPA 624			11/27/07 01:32	JAH	A	
Toluene	1.0 U		ug/L	1.0	EPA 624			11/27/07 01:32	JAH	A	
Total Xylenes	1.5J		ug/L	3.0	EPA 624			11/27/07 01:32	JAH	A	
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*	*RegLmt*
1,2-Dichloroethane-d4 (S)	106		%	72-142	EPA 624			11/27/07 01:32	JAH	A	
4-Bromofluorobenzene (S)	91		%	73-119	EPA 624			11/27/07 01:32	JAH	A	
Dibromofluoromethane (S)	104		%	74-132	EPA 624			11/27/07 01:32	JAH	A	
Toluene-d8 (S)	109		%	75-133	EPA 624			11/27/07 01:32	JAH	A	
SEMIVOLATILES											
Naphthalene	1J		ug/L	3	EPA 625	11/21/07	MES	12/1/07 13:00	DHF	C1	
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*	*RegLmt*
2-Fluorobiphenyl (S)	72.8		%	41-114	EPA 625	11/21/07	MES	12/1/07 13:00	DHF	C1	
Nitrobenzene-d5 (S)	76		%	33-140	EPA 625	11/21/07	MES	12/1/07 13:00	DHF	C1	
Terphenyl-d14 (S)	74.5		%	14-185	EPA 625	11/21/07	MES	12/1/07 13:00	DHF	C1	

Sample Comments:

Raymond J. Martrano
Laboratory Manager

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ANALYTICAL RESULTS

Workorder 9712043 EWN010|NWS EARLE LTM PROJECT

Lab ID: 9712043003 Date Collected: 11/14/2007 15:15 Matrix: Water
Sample ID: 18-MW-01 Date Received: 11/16/2007 12:00

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr	RegLmt
VOLATILE ORGANICS											
Benzene	1.0 U		ug/L	1.0	EPA 624			11/27/07 02:08	JAH	A	
Ethylbenzene	1.0 U		ug/L	1.0	EPA 624			11/27/07 02:08	JAH	A	
Methyl t-Butyl Ether	1.0 U		ug/L	1.0	EPA 624			11/27/07 02:08	JAH	A	
Toluene	1.0 U		ug/L	1.0	EPA 624			11/27/07 02:08	JAH	A	
Total Xylenes	3.0 U		ug/L	3.0	EPA 624			11/27/07 02:08	JAH	A	
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*	*RegLmt*
1,2-Dichloroethane-d4 (S)	104		%	72-142	EPA 624			11/27/07 02:08	JAH	A	
4-Bromofluorobenzene (S)	90		%	73-119	EPA 624			11/27/07 02:08	JAH	A	
Dibromofluoromethane (S)	102		%	74-132	EPA 624			11/27/07 02:08	JAH	A	
Toluene-d8 (S)	107		%	75-133	EPA 624			11/27/07 02:08	JAH	A	
SEMIVOLATILES											
Naphthalene	3 U		ug/L	3	EPA 625	11/21/07	MES	12/1/07 13:50	DHF	G1	
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*	*RegLmt*
2-Fluorobiphenyl (S)	77.6		%	41-114	EPA 625	11/21/07	MES	12/1/07 13:50	DHF	G1	
Nitrobenzene-d5 (S)	87.5		%	33-140	EPA 625	11/21/07	MES	12/1/07 13:50	DHF	G1	
Terphenyl-d14 (S)	79.6		%	14-185	EPA 625	11/21/07	MES	12/1/07 13:50	DHF	G1	

Sample Comments:

Raymond J. Martrano
Laboratory Manager

SMM 2/18/2008

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ANALYTICAL RESULTS

Workorder 9712043 EWN010|NWS EARLE LTM PROJECT

Lab ID: **9712043004** Date Collected: 11/14/2007 00:00 Matrix: Water

Sample ID: **DUP-1** Date Received: 11/16/2007 12:00

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr	RegLmt
VOLATILE ORGANICS											
Benzene	1.0 U		ug/L	1.0	EPA 624			11/27/07 22:50	JAH	A	
Ethylbenzene	1.0 U		ug/L	1.0	EPA 624			11/27/07 22:50	JAH	A	
Methyl t-Butyl Ether	1.0 U		ug/L	1.0	EPA 624			11/27/07 22:50	JAH	A	
Toluene	1.0 U		ug/L	1.0	EPA 624			11/27/07 22:50	JAH	A	
Total Xylenes	3.0 U		ug/L	3.0	EPA 624			11/27/07 22:50	JAH	A	
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*	*RegLmt*
1,2-Dichloroethane-d4 (S)	102		%	72-142	EPA 624			11/27/07 22:50	JAH	A	
4-Bromofluorobenzene (S)	92		%	73-119	EPA 624			11/27/07 22:50	JAH	A	
Dibromofluoromethane (S)	100		%	74-132	EPA 624			11/27/07 22:50	JAH	A	
Toluene-d8 (S)	107		%	75-133	EPA 624			11/27/07 22:50	JAH	A	
SEMIVOLATILES											
Naphthalene	3 U		ug/L	3	EPA 625	11/21/07	MES	12/1/07 16:19	DHF	C1	
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*	*RegLmt*
2-Fluorobiphenyl (S)	62.4		%	41-114	EPA 625	11/21/07	MES	12/1/07 16:19	DHF	C1	
Nitrobenzene-d5 (S)	60.8		%	33-140	EPA 625	11/21/07	MES	12/1/07 16:19	DHF	C1	
Terphenyl-d14 (S)	71.7		%	14-185	EPA 625	11/21/07	MES	12/1/07 16:19	DHF	C1	

Sample Comments:

Raymond J. Martrano
Laboratory Manager

SMM 2/8/2008

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ANALYTICAL RESULTS

Workorder 9712043 EWN010|NWS EARLE LTM PROJECT

Lab ID: **9712043005** Date Collected: 11/14/2007 17:30 Matrix: Water

Sample ID: **FB-2** Date Received: 11/16/2007 12:00

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr	RegLmt
VOLATILE ORGANICS											
Benzene	1.0 U		ug/L	1.0	EPA 624			11/27/07 22:14	JAH	A	
Ethylbenzene	1.0 U		ug/L	1.0	EPA 624			11/27/07 22:14	JAH	A	
Methyl t-Butyl Ether	1.0 U		ug/L	1.0	EPA 624			11/27/07 22:14	JAH	A	
Toluene	1.0 U		ug/L	1.0	EPA 624			11/27/07 22:14	JAH	A	
Total Xylenes	3.0 U		ug/L	3.0	EPA 624			11/27/07 22:14	JAH	A	
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*	*RegLmt*
1,2-Dichloroethane-d4 (S)	101		%	72-142	EPA 624			11/27/07 22:14	JAH	A	
4-Bromofluorobenzene (S)	94		%	73-119	EPA 624			11/27/07 22:14	JAH	A	
Dibromofluoromethane (S)	99		%	74-132	EPA 624			11/27/07 22:14	JAH	A	
Toluene-d8 (S)	107		%	75-133	EPA 624			11/27/07 22:14	JAH	A	
SEMIVOLATILES											
Naphthalene	3 U		ug/L	3	EPA 625	11/21/07	MES	12/1/07 17:10	DHF	C1	
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*	*RegLmt*
2-Fluorobiphenyl (S)	87.4		%	41-114	EPA 625	11/21/07	MES	12/1/07 17:10	DHF	C1	
Nitrobenzene-d5 (S)	91.4		%	33-140	EPA 625	11/21/07	MES	12/1/07 17:10	DHF	C1	
Terphenyl-d14 (S)	85.9		%	14-185	EPA 625	11/21/07	MES	12/1/07 17:10	DHF	C1	

Sample Comments:

Raymond J. Martrano
Laboratory Manager

SMM 2/18/2008

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ANALYTICAL RESULTS

Workorder 9712043 EWN010|NWS EARLE LTM PROJECT

Lab ID: **9712043006** Date Collected: 11/16/2007 12:00 Matrix: Water

Sample ID: **TB-2** Date Received: 11/16/2007 12:00

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr	RegLmt
VOLATILE ORGANICS											
Benzene	1.0 U		ug/L	1.0	EPA 624			11/26/07 09:30	JAH	A	
Ethylbenzene	1.0 U		ug/L	1.0	EPA 624			11/26/07 09:30	JAH	A	
Methyl t-Butyl Ether	1.0 U		ug/L	1.0	EPA 624			11/26/07 09:30	JAH	A	
Toluene	1.0 U		ug/L	1.0	EPA 624			11/26/07 09:30	JAH	A	
Total Xylenes	3.0 U		ug/L	3.0	EPA 624			11/26/07 09:30	JAH	A	
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*	*RegLmt*
1,2-Dichloroethane-d4 (S)	102		%	72-142	EPA 624			11/26/07 09:30	JAH	A	
4-Bromofluorobenzene (S)	93		%	73-119	EPA 624			11/26/07 09:30	JAH	A	
Dibromofluoromethane (S)	102		%	74-132	EPA 624			11/26/07 09:30	JAH	A	
Toluene-d8 (S)	108		%	75-133	EPA 624			11/26/07 09:30	JAH	A	

Sample Comments:

Raymond J. Martrano
Laboratory Manager

SMM 2/18/2008

Project: Earle Long Term Monitoring
Laboratory: Analytical Laboratory Services, Inc.
Sample Delivery Group: EWN012/EWN013
Fraction: Organic
Matrix: Aqueous
Report Date: 4/29/2008

This analytical quality assurance report is based upon a review of analytical data generated for groundwater samples. The sample locations, laboratory identification numbers, sample collection dates, sample matrix, and analyses performed are presented in Table 1.

The samples were analyzed for volatile organic compounds: benzene toluene, ethylbenzene, xylene, and methyl-tert-butyl ether and semivolatile organic compound, naphthalene. The sample analyses were performed in accordance with the procedures outlined in "40 CFR Part 136".

All sample analyses have undergone an analytical quality assurance review to ensure adherence to the required protocols. Results have been validated or qualified according to general guidance provided in the Region III modifications to "Laboratory Data Validation Functional Guidelines for Validating Organic Analyses", USEPA 9/94. This document specifies procedures for validating data generated for CLP analyses. Therefore, the quality control requirements specified in the methods and associated acceptance criteria were also used to evaluate the non-CLP data. The parameters presented on the following page were evaluated.

X	•	Data Completeness
X	•	Chain of Custody Documentation
X	•	Holding Times
X	•	Instrument Performance
X	•	Initial and Continuing Calibration Summaries
X	•	Laboratory and Field Blank Analysis Results
X	•	Surrogate Compound Recoveries
X	•	Matrix Spike/Matrix Spike Duplicate Recoveries and Reproducibility
X	•	Field Duplicate Analysis Results
X	•	Laboratory Control Sample Results
X	•	Internal Standard Performance
X	•	Qualitative Identification
X	•	Quantitation/Reporting Limits

X - Denotes parameter evaluated.

It is recommended that the data only be used according to the qualifiers presented, and discussed in this report. All other data should be considered qualitatively and quantitatively valid as reported by the laboratory, based on the items evaluated.

Report Approved By:

Shawne M. Rodgers
President

4/29/2008

Date

1.0 DATA COMPLETENESS

The data package was complete.

2.0 CHAIN OF CUSTODY DOCUMENTATION

The chain of custody documentation was complete.

3.0 HOLDING TIMES

All criteria were met. No qualifiers were applied.

4.0 INSTRUMENT PERFORMANCE

All criteria were met. No qualifiers were applied.

5.0 INITIAL AND CONTINUING CALIBRATIONS

All criteria were met. No qualifiers were applied.

6.0 LABORATORY AND FIELD BLANK ANALYSIS RESULTS

All criteria were met. No qualifiers were applied.

7.0 SURROGATE COMPOUNDS

All criteria were met. No qualifiers were applied.

8.0 *MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERIES AND REPRODUCIBILITY*

All criteria were met. No qualifiers were applied.

9.0 *FIELD DUPLICATE RESULTS*

Duplicate samples 16-MW-10 and DUP-1 were submitted to the laboratory to evaluate sampling and analytical precision for those organic compounds determined to be present. Results for the duplicate samples are presented in Table 2. Precision is evaluated by calculating the relative percent difference (%RPD) between duplicate pair results. There are no USEPA-established acceptance criteria for field duplicate samples. EDQ uses internal acceptance criteria of twenty percent for volatile detected compounds (and 25 percent for extractable compounds) to evaluate field duplicate samples.

10.0 *LABORATORY CONTROL SAMPLE RESULTS*

All criteria were met. No qualifiers were applied.

11.0 *INTERNAL STANDARD PERFORMANCE*

All criteria were met. No qualifiers were applied.

12.0 *QUALITATIVE IDENTIFICATION*

All criteria were met. No qualifiers were applied.

13.0 *QUANTITATION/REPORTING LIMITS*

As required by USEPA protocol, all compounds, which were qualitatively identified at concentrations below their respective Quantitation Limits (QLs), have been marked with "J" qualifiers to indicate that they are quantitative estimates.

METHODOLOGY REFERENCES

Analysis	Reference
Volatile Organic Compounds	Method 624, "40 CFR Part 136
Semivolatile Organic Compounds	Method 625, "40 CFR Part 136

Table 1 Samples For Data Validation Review
Earle Long Term Monitoring
Groundwater Samples Collected February 2008
Analytical Laboratory Services Sample Delivery Group EWN 013

Sample Location	Laboratory ID		Date Collected	Matrix	Analyses Performed	
					VOC	SVOC
16-MW-08	9721891	001	2/5/2008	Groundwater	X	X
16-MW-10	9721891	002	2/5/2008	Groundwater	X	X
DUP-1	9721891	003	2/5/2008	Groundwater	X	X
18-MW-01	9721891	004	2/5/2008	Groundwater	X	X
FB-2	9721891	005	2/5/2008	Field Blank	X	X
TB-2	9721891	006	2/6/2008	Trip Blank	X	

VOC Methyl tert-butyl Ether, Benzene, Toluene, Ethylbenzene, total Xylenes
SVOC Naphthalene

Table 1 Samples For Data Validation Review
Earle Long Term Monitoring
Groundwater Samples Collected February 2008
Analytical Laboratory Services Sample Delivery Group EWN 012

Sample Location	Laboratory ID		Date Collected	Matrix	Analyses Performed	
					VOC	SVOC
16-MW-11	9721653	001	2/4/2008	Groundwater	X	X
16-MW-15	9721653	002	2/4/2008	Groundwater	X	
16-MW-24	9721653	003	2/4/2008	Groundwater	X	
16-MW-25	9721653	004	2/4/2008	Groundwater	X	
16-SW-01	9721653	005	2/4/2008	Groundwater	X	
16-SW-02	9721653	006	2/4/2008	Groundwater	X	
FB-1	9721653	007	2/4/2008	Field Blank	X	X
TB-1	9721653	008	2/5/2008	Trip Blank	X	
					8	2

VOC Methyl tert-butyl Ether, Benzene, Toluene, Ethylbenzene, total Xylenes
SVOC Naphthalene

Table 2 **Field Duplicate Sample Results for Organic Analyses**
Duplicate Samples 16-MW-10 and DUP-1

	16-MW-10 (µg/L)		DUP-1 (µg/L)		RPD	Comments
Total Xylenes	1.2	J	1.3	J	8	
Naphthalene	1.7	J	1.5	J	13	

FORM 1 ECOR Solutions SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

TB-01

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: EWN012

Matrix: (soil/water) WATER Lab Sample ID: 9721653008

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 3021406

Level: (low/med) LOW Date Received: 02/05/08

% Moisture: not dec. _____ Date Analyzed: 02/14/08

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
108-88-3	Toluene	1.0	U
95-47-6	o-Xylene	1.0	U
108383/106423	mp-Xylene	2.0	U
1330-20-7	Total Xylenes	3.0	U
1634-04-4	Methyl t-Butyl Ether	1.0	U

FORM I VOA

SMM 02/21/2008

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ECOR Solutions SAMPLE NO.

FB-01

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: EWN012

Matrix: (soil/water) WATER Lab Sample ID: 9721653007

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 3021407

Level: (low/med) LOW Date Received: 02/05/08

% Moisture: not dec. _____ Date Analyzed: 02/14/08

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
108-88-3	Toluene	1.0	U
95-47-6	o-Xylene	1.0	U
108383/106423	mp-Xylene	2.0	U
1330-20-7	Total Xylenes	3.0	U
1634-04-4	Methyl t-Butyl Ether	1.0	U

FORM I VOA

Spm 4/29/2008

FORM 1 ECOR Solutions SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

16-MW-11

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: EWN012

Matrix: (soil/water) WATER Lab Sample ID: 9721653001

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 3021416

Level: (low/med) LOW Date Received: 02/05/08

% Moisture: not dec. _____ Date Analyzed: 02/14/08

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	61.2	
100-41-4	Ethylbenzene	1.0	U
108-88-3	Toluene	1.0	U
95-47-6	o-Xylene	1.0	U
108383/106423	mp-Xylene	2.0	U
1330-20-7	Total Xylenes	3.0	U
1634-04-4	Methyl t-Butyl Ether	80.7	

FORM 1 VOA

SML 02/29/2008

FORM 1 ECOR Solutions SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

16-MW-15

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: EWN012

Matrix: (soil/water) WATER Lab Sample ID: 9721653002

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 3021417

Level: (low/med) LOW Date Received: 02/05/08

% Moisture: not dec. _____ Date Analyzed: 02/14/08

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	6.3	
100-41-4	Ethylbenzene	1.0	U
108-88-3	Toluene	1.0	U
95-47-6	o-Xylene	0.62	J
108383/106423	mp-Xylene	0.35	J
1330-20-7	Total Xylenes	0.97	J
1634-04-4	Methyl t-Butyl Ether	1.2	

FORM I VOA

smt 11/29/2006

FORM 1 ECOR Solutions SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

16-MW-24

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: EWN012

Matrix: (soil/water) WATER Lab Sample ID: 9721653003

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 3021418

Level: (low/med) LOW Date Received: 02/05/08

% Moisture: not dec. _____ Date Analyzed: 02/14/08

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	3.2	
100-41-4	Ethylbenzene	1.0	U
108-88-3	Toluene	1.0	U
95-47-6	o-Xylene	1.0	U
108383/106423	mp-Xylene	2.0	U
1330-20-7	Total Xylenes	3.0	U
1634-04-4	Methyl t-Butyl Ether	7.0	

FORM I VOA

SMM 4/29/2008

FORM 1 ECOR Solutions SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

16-MW-25

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: EWN012

Matrix: (soil/water) WATER Lab Sample ID: 9721653004

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 3021422

Level: (low/med) LOW Date Received: 02/05/08

% Moisture: not dec. _____ Date Analyzed: 02/14/08

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
108-88-3	Toluene	1.0	U
95-47-6	o-Xylene	1.0	U
108383/106423	mp-Xylene	2.0	U
1330-20-7	Total Xylenes	3.0	U
1634-04-4	Methyl t-Butyl Ether	1.0	U

FORM I VOA

SMK 02/28/2008

FORM 1 ECOR Solutions SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

16-SW-01

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: EWN012

Matrix: (soil/water) WATER Lab Sample ID: 9721653005

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 3021423

Level: (low/med) LOW Date Received: 02/05/08

% Moisture: not dec. _____ Date Analyzed: 02/15/08

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
108-88-3	Toluene	1.0	U
95-47-6	o-Xylene	1.0	U
108383/106423	mp-Xylene	2.0	U
1330-20-7	Total Xylenes	3.0	U
1634-04-4	Methyl t-Butyl Ether	1.0	U

SMH 11/21/2008

FORM 1 ECOR Solutions SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

16-SW-02

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: EWN012

Matrix: (soil/water) WATER Lab Sample ID: 9721653006

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 3021424

Level: (low/med) LOW Date Received: 02/05/08

% Moisture: not dec. _____ Date Analyzed: 02/15/08

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
108-88-3	Toluene	1.0	U
95-47-6	o-Xylene	1.0	U
108383/106423	mp-Xylene	2.0	U
1330-20-7	Total Xylenes	3.0	U
1634-04-4	Methyl t-Butyl Ether	0.99	J

FORM 1 VOA

3/24/2008

FORM 1 ECOR Solutions SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

16-MW-11

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: EWN012

Matrix: (soil/water) WATER Lab Sample ID: 9721653001

Sample wt/vol: 990.0 (g/mL) ML Lab File ID: 4021317

Level: (low/med) LOW Date Received: 02/05/08

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 02/11/08

Concentrated Extract Volume: 1000(uL) Date Analyzed: 02/13/08

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
91-20-3	Naphthalene	3.0	U

FORM I SV

SMK 4/29/2008

FORM 1 ECOR Solutions SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

| FB-01 |

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: EWN012

Matrix: (soil/water) WATER Lab Sample ID: 9721653007

Sample wt/vol: 910.0 (g/mL) ML Lab File ID: 4021318

Level: (low/med) LOW Date Received: 02/05/08

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 02/11/08

Concentrated Extract Volume: 1000(uL) Date Analyzed: 02/13/08

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
91-20-3	Naphthalene	3.3	U

FORM I SV

SMM 11/19/2008

FORM 1 ECOR Solutions SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

TB-2

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: EWN013

Matrix: (soil/water) WATER Lab Sample ID: 9721891006

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 3021814

Level: (low/med) LOW Date Received: 02/06/08

% Moisture: not dec. _____ Date Analyzed: 02/18/08

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
108-88-3	Toluene	1.0	U
95-47-6	o-Xylene	1.0	U
108383/106423	mp-Xylene	2.0	U
1330-20-7	Total Xylenes	3.0	U
1634-04-4	Methyl t-Butyl Ether	1.0	U

FORM 1 VOA

SMM 02/29/2008

FORM 1 ECOR Solutions SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

FB-2

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: EWN013

Matrix: (soil/water) WATER Lab Sample ID: 9721891005

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 3021815

Level: (low/med) LOW Date Received: 02/06/08

% Moisture: not dec. _____ Date Analyzed: 02/18/08

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
108-88-3	Toluene	1.0	U
95-47-6	o-Xylene	1.0	U
108383/106423	mp-Xylene	2.0	U
1330-20-7	Total Xylenes	3.0	U
1634-04-4	Methyl t-Butyl Ether	1.0	U

FORM I VOA

smh 02/29/2008

FORM 1 ECOR Solutions SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

16-MW-08

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: EWN013

Matrix: (soil/water) WATER Lab Sample ID: 9721891001

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 3021816

Level: (low/med) LOW Date Received: 02/06/08

% Moisture: not dec. _____ Date Analyzed: 02/18/08

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	26.0	
100-41-4	Ethylbenzene	7.8	
108-88-3	Toluene	0.37	J
95-47-6	o-Xylene	1.0	U
108383/106423	mp-Xylene	9.8	
1330-20-7	Total Xylenes	9.8	
1634-04-4	Methyl t-Butyl Ether	4.2	

SMK 4/29/08

FORM 1 ECOR Solutions SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

16-MW-10

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: EWN013

Matrix: (soil/water) WATER Lab Sample ID: 9721891002

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 3021817

Level: (low/med) LOW Date Received: 02/06/08

% Moisture: not dec. _____ Date Analyzed: 02/18/08

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
108-88-3	Toluene	1.0	U
95-47-6	o-Xylene	0.45	J
108383/106423	mp-Xylene	0.78	J
1330-20-7	Total Xylenes	1.2	J
1634-04-4	Methyl t-Butyl Ether	1.0	U

FORM I VOA

SMA 4/29/2008

FORM 1 ECOR Solutions SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

18-MW-01

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: EWN013

Matrix: (soil/water) WATER Lab Sample ID: 9721891004

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 3021819

Level: (low/med) LOW Date Received: 02/06/08

% Moisture: not dec. _____ Date Analyzed: 02/18/08

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
108-88-3	Toluene	1.0	U
95-47-6	o-Xylene	1.0	U
108383/106423	mp-Xylene	2.0	U
1330-20-7	Total Xylenes	3.0	U
1634-04-4	Methyl t-Butyl Ether	1.0	U

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ANALYTICAL RESULTS

Workorder 9721891 EWN013|NWS Earle LTM

Lab ID: **9721891003** Date Collected: 2/5/2008 00:00 Matrix: Water

Sample ID: **DUP-1** Date Received: 2/6/2008 10:47

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr	RegLmt
VOLATILE ORGANICS											
Benzene	1.0 U		ug/L	1.0	EPA 624			2/18/08 20:02	DXN	A	
Ethylbenzene	1.0 U		ug/L	1.0	EPA 624			2/18/08 20:02	DXN	A	
Methyl t-Butyl Ether	1.0 U		ug/L	1.0	EPA 624			2/18/08 20:02	DXN	A	
Toluene	1.0 U		ug/L	1.0	EPA 624			2/18/08 20:02	DXN	A	
Total Xylenes	1.3J		ug/L	3.0	EPA 624			2/18/08 20:02	DXN	A	
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*	*RegLmt*
1,2-Dichloroethane-d4 (S)	99.4		%	72-142	EPA 624			2/18/08 20:02	DXN	A	
4-Bromofluorobenzene (S)	101		%	73-119	EPA 624			2/18/08 20:02	DXN	A	
Dibromofluoromethane (S)	98.6		%	74-132	EPA 624			2/18/08 20:02	DXN	A	
Toluene-d8 (S)	111		%	75-133	EPA 624			2/18/08 20:02	DXN	A	
SEMIVOLATILES											
Naphthalene	2J		ug/L	3	EPA 625	2/11/08	CAC	2/13/08 17:05	DHF	D1	
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*	*RegLmt*
2-Fluorobiphenyl (S)	75.2		%	41-114	EPA 625	2/11/08	CAC	2/13/08 17:05	DHF	D1	
Nitrobenzene-d5 (S)	81.9		%	33-140	EPA 625	2/11/08	CAC	2/13/08 17:05	DHF	D1	
Terphenyl-d14 (S)	69.4		%	14-185	EPA 625	2/11/08	CAC	2/13/08 17:05	DHF	D1	

Sample Comments:

Raymond J. Martrano
Laboratory Manager

SMM 4/29/2008

FORM 1 ECOR Solutions SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

16-MW-08

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: EWN013

Matrix: (soil/water) WATER Lab Sample ID: 9721891001

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 4021308

Level: (low/med) LOW Date Received: 02/06/08

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 02/11/08

Concentrated Extract Volume: 1000(uL) Date Analyzed: 02/13/08

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
91-20-3	Naphthalene	60.9	

FORM I SV

SMM 4/29/08

FORM 1 ECOR Solutions SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

| 16-MW-10 |

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: EWN013

Matrix: (soil/water) WATER Lab Sample ID: 9721891002

Sample wt/vol: 1020 (g/mL) ML Lab File ID: 4021309

Level: (low/med) LOW Date Received: 02/06/08

% Moisture: _____ decanted: (Y/N)____ Date Extracted: 02/11/08

Concentrated Extract Volume: 1000(uL) Date Analyzed: 02/13/08

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
91-20-3	Naphthalene	1.7	J

FORM I SV

8/8

SMA 4/29/2008

FORM 1 ECOR Solutions SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

DUP-1

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: EWN013

Matrix: (soil/water) WATER Lab Sample ID: 9721891003

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 4021310

Level: (low/med) LOW Date Received: 02/06/08

% Moisture: _____ decanted: (Y/N)____ Date Extracted: 02/11/08

Concentrated Extract Volume: 1000(uL) Date Analyzed: 02/13/08

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
91-20-3	Naphthalene	1.5	J

FORM I SV

4156

SMK 4/29/2008

FORM 1 ECOR Solutions SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

18-MW-01

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: EWN013

Matrix: (soil/water) WATER Lab Sample ID: 9721891004

Sample wt/vol: 1030 (g/mL) ML Lab File ID: 4021311

Level: (low/med) LOW Date Received: 02/06/08

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 02/11/08

Concentrated Extract Volume: 1000(uL) Date Analyzed: 02/13/08

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
91-20-3	Naphthalene	2.9	U

FORM I SV

SMM 1/29/2008

FORM 1 ECOR Solutions SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

FB-2

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: EWN013

Matrix: (soil/water) WATER Lab Sample ID: 9721891005

Sample wt/vol: 1010 (g/mL) ML Lab File ID: 4021314

Level: (low/med) LOW Date Received: 02/06/08

% Moisture: _____ decanted: (Y/N)____ Date Extracted: 02/11/08

Concentrated Extract Volume: 1000(uL) Date Analyzed: 02/13/08

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
91-20-3	Naphthalene	3.0	U

FORM I SV

SMK 02/19/08

Project: Earle Long Term Monitoring
Laboratory: Analytical Laboratory Services, Inc.
Sample Delivery Group: EWN014/EWN015
Fraction: Organic
Matrix: Aqueous
Report Date: 7/31/2008

This analytical quality assurance report is based upon a review of analytical data generated for groundwater samples. The sample locations, laboratory identification numbers, sample collection dates, sample matrix, and analyses performed are presented in Table 1.

The samples were analyzed for volatile organic compounds: benzene toluene, ethylbenzene, xylene, and methyl-tert-butyl ether and semivolatile organic compound, naphthalene. The sample analyses were performed in accordance with the procedures outlined in "40 CFR Part 136".

All sample analyses have undergone an analytical quality assurance review to ensure adherence to the required protocols. Results have been validated or qualified according to general guidance provided in the Region III modifications to "Laboratory Data Validation Functional Guidelines for Validating Organic Analyses", USEPA 9/94. This document specifies procedures for validating data generated for CLP analyses. Therefore, the quality control requirements specified in the methods and associated acceptance criteria were also used to evaluate the non-CLP data. The parameters presented on the following page were evaluated.

X	•	Data Completeness
X	•	Chain of Custody Documentation
X	•	Holding Times
X	•	Instrument Performance
X	•	Initial and Continuing Calibration Summaries
X	•	Laboratory and Field Blank Analysis Results
X	•	Surrogate Compound Recoveries
X	•	Matrix Spike/Matrix Spike Duplicate Recoveries and Reproducibility
X	•	Field Duplicate Analysis Results
X	•	Laboratory Control Sample Results
X	•	Internal Standard Performance
X	•	Qualitative Identification
X	•	Quantitation/Reporting Limits

X - Denotes parameter evaluated.

It is recommended that the data only be used according to the qualifiers presented, and discussed in this report. All other data should be considered qualitatively and quantitatively valid as reported by the laboratory, based on the items evaluated.

Report Approved By:

Shawne M. Rodgers
President

7/31/2006

Date

1.0 DATA COMPLETENESS

The data package was complete.

2.0 CHAIN OF CUSTODY DOCUMENTATION

The chain of custody documentation was complete.

3.0 HOLDING TIMES

All criteria were met. No qualifiers were applied.

4.0 INSTRUMENT PERFORMANCE

All criteria were met. No qualifiers were applied.

5.0 INITIAL AND CONTINUING CALIBRATIONS

All criteria were met. No qualifiers were applied.

6.0 LABORATORY AND FIELD BLANK ANALYSIS RESULTS

All criteria were met. No qualifiers were applied.

7.0 SURROGATE COMPOUNDS

All criteria were met. No qualifiers were applied.

8.0 MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERIES AND REPRODUCIBILITY

All criteria were met. No qualifiers were applied.

9.0 FIELD DUPLICATE RESULTS

Duplicate samples 16-MW-10 and DUP-1 were submitted to the laboratory to evaluate sampling and analytical precision for those organic compounds determined to be present. Results for the duplicate samples are presented in Table 2. Precision is evaluated by calculating the relative percent difference (%RPD) between duplicate pair results. There are no USEPA-established acceptance criteria for field duplicate samples. EDQ uses internal acceptance criteria of twenty percent for volatile detected compounds (and 25 percent for extractable compounds) to evaluate field duplicate samples.

10.0 LABORATORY CONTROL SAMPLE RESULTS

All criteria were met. No qualifiers were applied.

11.0 INTERNAL STANDARD PERFORMANCE

All criteria were met. No qualifiers were applied.

12.0 QUALITATIVE IDENTIFICATION

All criteria were met. No qualifiers were applied.

13.0 QUANTITATION/REPORTING LIMITS

Sample 16-MW-11 was re-analyzed at a five-fold dilution for volatile organic compounds. The reanalysis was performed because the responses

for methyl tert-butyl ether exceeded the linear range of the GC/MS instrument for the initial analysis. The affected result was reported from the dilution analysis. All other results have been reported from the initial analysis.

As required by USEPA protocol, all compounds, which were qualitatively identified at concentrations below their respective Quantitation Limits (QLs), have been marked with "J" qualifiers to indicate that they are quantitative estimates.

METHODOLOGY REFERENCES

Analysis	Reference
Volatile Organic Compounds	Method 624, "40 CFR Part 136
Semivolatile Organic Compounds	Method 625, "40 CFR Part 136

Table 1 Samples For Data Validation Review
Earle Long Term Monitoring
Groundwater Samples Collected May 2008
Analytical Laboratory Services Sample Delivery Group EWN-014

Sample Location	Laboratory ID		Date Collected	Matrix	Analyses Performed	
					VOC	SVOC
16-MW-15	9734912	001	5/5/2008	Groundwater	X	
16-MW-25	9734912	002	5/5/2008	Groundwater	X	
16-MW-24	9734912	003	5/5/2008	Groundwater	X	
16-MW-11	9734912	004	5/5/2008	Groundwater	X	X
16-SW-01	9734912	005	5/5/2008	Groundwater	X	
16-SW-02	9734912	006	5/5/2008	Groundwater	X	
FB-1	9734912	007	5/5/2008	Field Blank	X	X
TB-1	9734912	008	5/5/2008	Trip Blank	X	

VOC Methyl tert-butyl Ether, Benzene, Toluene, Ethylbenzene, total Xylenes
SVOC Naphthalene

Table 1 Samples For Data Validation Review
Earle Long Term Monitoring
Groundwater Samples Collected May 2008
Analytical Laboratory Services Sample Delivery Group EWN-015

Sample Location	Laboratory ID		Date Collected	Matrix	Analyses Performed	
					VOC	SVOC
16-MW-08	9735141	001	5/6/2008	Groundwater	X	X
16-MW-10	9735141	002	5/6/2008	Groundwater	X	X
18-MW-01	9735141	003	5/6/2008	Groundwater	X	X
FB-2	9735141	004	5/6/2008	Field Blank	X	X
TB-2	9735141	005	5/7/2008	Field Blank	X	
DUP-1	9735141	006	5/6/2008	Groundwater	X	X

VOC Methyl tert-butyl Ether, Benzene, Toluene, Ethylbenzene, total Xylenes
SVOC Naphthalene

Table 2 Field Duplicate Sample Results for Organic Analyses
Duplicate Samples 16-MW-10 and DUP-1

	16-MW-10 (µg/L)		DUP-1 (µg/L)	RPD	Comments
o-Xylene	0.41	J	ND		
mp-Xylene	0.70	J	ND		
Naphthalene	2.0	J	ND		

FORM 1 ECOR Solutions SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

FB-1

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: EWN014

Matrix: (soil/water) WATER Lab Sample ID: 9734912007

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 3051525

Level: (low/med) LOW Date Received: 05/06/08

% Moisture: not dec. _____ Date Analyzed: 05/15/08

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
108-88-3	Toluene	1.0	U
95-47-6	o-Xylene	1.0	U
108383/106423	mp-Xylene	2.0	U
1330-20-7	Total Xylenes	3.0	U
1634-04-4	Methyl t-Butyl Ether	1.0	U

FORM I VOA

SMM 7/31/2008

FORM 1 ECOR Solutions SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

TB-1

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: EWN014

Matrix: (soil/water) WATER Lab Sample ID: 9734912008

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 3051526

Level: (low/med) LOW Date Received: 05/06/08

% Moisture: not dec. _____ Date Analyzed: 05/15/08

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
108-88-3	Toluene	1.0	U
95-47-6	o-Xylene	1.0	U
108383/106423	mp-Xylene	2.0	U
1330-20-7	Total Xylenes	3.0	U
1634-04-4	Methyl t-Butyl Ether	1.0	U

FORM I VOA

SMM 7/31/2008

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ECOR Solutions SAMPLE NO.

16-MW-25

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: EWN014

Matrix: (soil/water) WATER Lab Sample ID: 9734912002

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 3051529

Level: (low/med) LOW Date Received: 05/06/08

% Moisture: not dec. _____ Date Analyzed: 05/15/08

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
108-88-3	Toluene	1.0	U
95-47-6	o-Xylene	1.0	U
108383/106423	mp-Xylene	2.0	U
1330-20-7	Total Xylenes	3.0	U
1634-04-4	Methyl t-Butyl Ether	1.0	U

FORM I VOA

SMH 7/21/2008

FORM 1 ECOR Solutions SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

16-MW-15

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: EWN014

Matrix: (soil/water) WATER Lab Sample ID: 9734912001

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 3051531

Level: (low/med) LOW Date Received: 05/06/08

% Moisture: not dec. _____ Date Analyzed: 05/15/08

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	11.6	j
100-41-4	Ethylbenzene	0.98	J
108-88-3	Toluene	1.0	U
95-47-6	o-Xylene	2.0	
108383/106423	mp-Xylene	2.4	
1330-20-7	Total Xylenes	4.5	
1634-04-4	Methyl t-Butyl Ether	4.6	

FORM I VOA

SMM 7/31/08

FORM 1 ECOR Solutions SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

16-MW-24

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: EWN014

Matrix: (soil/water) WATER Lab Sample ID: 9734912003

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 3051532

Level: (low/med) LOW Date Received: 05/06/08

% Moisture: not dec. _____ Date Analyzed: 05/15/08

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
108-88-3	Toluene	1.0	U
95-47-6	o-Xylene	1.0	U
108383/106423	mp-Xylene	2.0	U
1330-20-7	Total Xylenes	3.0	U
1634-04-4	Methyl t-Butyl Ether	7.2	

FORM I VOA

SMY 7/31/2008

FORM 1 ECOR Solutions SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

16-MW-11

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: EWN014

Matrix: (soil/water) WATER Lab Sample ID: 9734912004

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 3051533

Level: (low/med) LOW Date Received: 05/06/08

% Moisture: not dec. _____ Date Analyzed: 05/15/08

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	190	
100-41-4	Ethylbenzene	1.0	U
108-88-3	Toluene	1.0	U
95-47-6	o-Xylene	1.0	U
108383/106423	mp-Xylene	2.0	U
1330-20-7	Total Xylenes	3.0	U
1634-04-4	Methyl t-Butyl Ether	~~202~~	~~E~~

Report from dilution

FORM I VOA

SMM 7/31/2008

FORM 1 ECOR Solutions SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

16-MW-11

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: EWN014

Matrix: (soil/water) WATER Lab Sample ID: 9734912004

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 3052020

Level: (low/med) LOW Date Received: 05/06/08

% Moisture: not dec. _____ Date Analyzed: 05/21/08

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 5.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	176	
100-41-4	Ethylbenzene	5.0	U
108-88-3	Toluene	1.2	J
95-47-6	o-Xylene	5.0	U
108383/106423	mp-Xylene	10.0	U
1330-20-7	Total Xylenes	15.0	U
1634-04-4	Methyl t-Butyl Ether	208	

Report

FORM I VOA

FORM 1 ECOR Solutions SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

16-SW-01

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: EWN014

Matrix: (soil/water) WATER Lab Sample ID: 9734912005

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 3051534

Level: (low/med) LOW Date Received: 05/06/08

% Moisture: not dec. _____ Date Analyzed: 05/15/08

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
108-88-3	Toluene	1.0	U
95-47-6	o-Xylene	1.0	U
108383/106423	mp-Xylene	2.0	U
1330-20-7	Total Xylenes	3.0	U
1634-04-4	Methyl t-Butyl Ether	1.0	U

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SMK 7/31/2008

FORM 1 ECOR Solutions SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

16-SW-02

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: EWN014

Matrix: (soil/water) WATER Lab Sample ID: 9734912006

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 3051535

Level: (low/med) LOW Date Received: 05/06/08

% Moisture: not dec. _____ Date Analyzed: 05/15/08

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
108-88-3	Toluene	1.0	U
95-47-6	o-Xylene	1.0	U
108383/106423	mp-Xylene	2.0	U
1330-20-7	Total Xylenes	3.0	U
1634-04-4	Methyl t-Butyl Ether	3.0	

FORM I VOA

SMC 7/3/2008

09/08

FORM 1 ECOR Solutions SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

| 16-MW-11 |

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: EWN014

Matrix: (soil/water) WATER Lab Sample ID: 9734912004

Sample wt/vol: 1040 (g/mL) ML Lab File ID: 6051305

Level: (low/med) LOW Date Received: 05/06/08

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/07/08

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/13/08

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
91-20-3	Naphthalene	0.95	J

FORM I SV

SMM 7/3/2008

FORM 1 ECOR Solutions SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

FB-1

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: EWN014

Matrix: (soil/water) WATER Lab Sample ID: 9734912007

Sample wt/vol: 1035 (g/mL) ML Lab File ID: 6051306

Level: (low/med) LOW Date Received: 05/06/08

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/07/08

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/13/08

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
91-20-3	Naphthalene	2.9	U

FORM I SV

SMH 7/3/2008

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

ECOR Solutions SAMPLE NO.

FB-2

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: EWN015

Matrix: (soil/water) WATER Lab Sample ID: 9735141004

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 3051606

Level: (low/med) LOW Date Received: 05/07/08

% Moisture: not dec. _____ Date Analyzed: 05/16/08

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
108-88-3	Toluene	1.0	U
95-47-6	o-Xylene	1.0	U
108383/106423	mp-Xylene	2.0	U
1330-20-7	Total Xylenes	3.0	U
1634-04-4	Methyl t-Butyl Ether	1.0	U

FORM I VOA

SML 7/8/2008

FORM 1 ECOR Solutions SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

TB-2

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: EWN015

Matrix: (soil/water) WATER Lab Sample ID: 9735141005

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 3051607

Level: (low/med) LOW Date Received: 05/07/08

% Moisture: not dec. _____ Date Analyzed: 05/16/08

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
108-88-3	Toluene	1.0	U
95-47-6	o-Xylene	1.0	U
108383/106423	mp-Xylene	2.0	U
1330-20-7	Total Xylenes	3.0	U
1634-04-4	Methyl t-Butyl Ether	1.0	U

FORM I VOA

SMM 7/31/2008

FORM 1 ECOR Solutions SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

16-MW-08

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: EWN015

Matrix: (soil/water) WATER Lab Sample ID: 9735141001

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 3051621

Level: (low/med) LOW Date Received: 05/07/08

% Moisture: not dec. _____ Date Analyzed: 05/16/08

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	22.3	
100-41-4	Ethylbenzene	2.6	
108-88-3	Toluene	1.0	U
95-47-6	o-Xylene	1.0	U
108383/106423	mp-Xylene	3.5	
1330-20-7	Total Xylenes	3.5	
1634-04-4	Methyl t-Butyl Ether	2.0	

FORM I VOA

SMM 7/31/2008

FORM 1 ECOR Solutions SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

16-MW-10

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: EWN015

Matrix: (soil/water) WATER Lab Sample ID: 9735141002

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 3051622

Level: (low/med) LOW Date Received: 05/07/08

% Moisture: not dec. _____ Date Analyzed: 05/16/08

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
108-88-3	Toluene	1.0	U
95-47-6	o-Xylene	0.41	J
108383/106423	mp-Xylene	0.70	J
1330-20-7	Total Xylenes	1.1	J
1634-04-4	Methyl t-Butyl Ether	1.0	U

FORM I VOA

SMM 7/31/2008

0057

FORM 1 ECOR Solutions SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

DUP-1

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: EWN015

Matrix: (soil/water) WATER Lab Sample ID: 9735141006

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 3051624

Level: (low/med) LOW Date Received: 05/07/08

% Moisture: not dec. _____ Date Analyzed: 05/16/08

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
108-88-3	Toluene	1.0	U
95-47-6	o-Xylene	1.0	U
108383/106423	mp-Xylene	2.0	U
1330-20-7	Total Xylenes	3.0	U
1634-04-4	Methyl t-Butyl Ether	1.0	U

FORM I VOA

SMM 7/31/2008

FORM 1 ECOR Solutions SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

18-MW-01

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: EWN015

Matrix: (soil/water) WATER Lab Sample ID: 9735141003

Sample wt/vol: 5.000 (g/ml) ML Lab File ID: 3052006

Level: (low/med) LOW Date Received: 05/07/08

% Moisture: not dec. _____ Date Analyzed: 05/20/08

GC Column: RTX-VRX ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
108-88-3	Toluene	1.0	U
95-47-6	o-Xylene	1.0	U
108383/106423	mp-Xylene	2.0	U
1330-20-7	Total Xylenes	3.0	U
1634-04-4	Methyl t-Butyl Ether	1.0	U

FORM I VOA

SMM 7/31/2008

FORM 1 ECOR Solutions SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

16-MW-08

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: EWN015

Matrix: (soil/water) WATER Lab Sample ID: 9735141001

Sample wt/vol: 1010 (g/mL) ML Lab File ID: 6051307

Level: (low/med) LOW Date Received: 05/07/08

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/07/08

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/13/08

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
91-20-3	Naphthalene	32.8	

FORM I SV

SMM 7/3/2008

FORM 1 ECOR Solutions SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

| 16-MW-10 |

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: EWN015

Matrix: (soil/water) WATER Lab Sample ID: 9735141002

Sample wt/vol: 1045 (g/mL) ML Lab File ID: 6051308

Level: (low/med) LOW Date Received: 05/07/08

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/07/08

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/13/08

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
91-20-3	Naphthalene	2.0	J

FORM I SV

SMM 7/13/2008

FORM 1 ECOR Solutions SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

| 18-MW-01 |

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: EWN015

Matrix: (soil/water) WATER Lab Sample ID: 9735141003

Sample wt/vol: 945.0 (g/mL) ML Lab File ID: 6051309

Level: (low/med) LOW Date Received: 05/07/08

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/07/08

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/13/08

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
91-20-3	Naphthalene	3.2	U

FORM I SV

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FORM 1 ECOR Solutions SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

FB-2

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: EWN015

Matrix: (soil/water) WATER Lab Sample ID: 9735141004

Sample wt/vol: 1010 (g/mL) ML Lab File ID: 6051312

Level: (low/med) LOW Date Received: 05/07/08

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/07/08

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/13/08

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
91-20-3	Naphthalene	3.0	U

FORM I SV

SMM 7/3/2008

0198

FORM 1 ECOR Solutions SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

DUP-1

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: EWN015

Matrix: (soil/water) WATER Lab Sample ID: 9735141006

Sample wt/vol: 965.0 (g/mL) ML Lab File ID: 6051313

Level: (low/med) LOW Date Received: 05/07/08

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/07/08

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/13/08

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
91-20-3	Naphthalene	3.1	U

FORM I SV

SMK 7/3/2008

APPENDIX E

SAMPLE LOGS AND CHAINS OF CUSTODY

GROUNDWATER LEVEL MEASUREMENT SHEET

ECOR Solutions Inc.

Project Name:	NWS Earle LTM	Project No.:	N0100.177
Location:	Colts Neck, NJ	Personnel:	GF, JG
Weather Conditions:	cloudy, breezy, ~75°F	Measuring Device:	Solinst 122 Interface Probe
Tidally Influenced:	Yes ___ No X	Remarks:	

Monitoring Well ID	Date	Time	Elevation of Reference Point (feet)*	Total Well Depth (feet)*	Depth to Water (feet)*	Depth to ~~Thickness of~~ Free Product (feet)*	Groundwater Elevation (feet)*	Comments
16-MW-05	8/6/07	0935	101.23		10.60	10.68		
16-MW-06		0940	104.14		←	8.04	sheen of product	
16-MW-08		1025	103.29		9.49			
16-MW-10		1000	100.36		8.72			
16-MW-11		1040	91.81		3.25			
16-MW-15		1140	91.97		3.79			
16-MW-24		1045	89.88		4.28			
16-MW-25		1049	93.22		7.14			
18-MW-01		0950	103		8.79			

*All measurements to the nearest 0.01 foot

ECOR Solutions Inc.

GROUNDWATER LEVEL MEASUREMENT SHEET

(Re-Gauge Event)

Project Name: NWS Earle (pertains to Aug Qtrly event)
Location: Colts Neck, NJ
Weather Conditions:
Tidally Influenced: Yes ___ No X

Project No.: N0100.177
Personnel: G. Fitch, J. Good
Measuring Device:
Remarks:

Monitoring Well ID	Date	Time	Depth to ~~Elevation of~~ Reference Point (feet)* Product	Total Well Depth (feet)*	Depth to Water (feet)*	Thickness of Free Product (feet)*	Groundwater Elevation (feet)*	~~Comments~~
16-MW-01	9/13/07		~~NA~~		~~9.18~~			
18-MW-01		1340	NA		9.18			
16-MW-35								
16-MW-34								
16-MW-05		1010	11.19	20.15	11.34			old monitoring well
* 16-MW-04			7.93		8.13	DTP 9.05	DTW 9.85	
16-MW-07								
16-MW-33								
16-MW-32								
16-MW-31								
17-MW-17								
16-MW-03								
16-MW-08		1028	NA	19.48	9.87			
16-MW-12								
S? 16-MW-02		1326	NA	16.92	7.10			
16-MW-10		1053	NA		9.27			
16-MW-06								
16-MW-09								
16-MW-16		1204		14.60	4.63			
16-MW-17		1217		12.75	4.58			
29-MW-01		1305		12.28	10.39			
29-MW-02				~~16.92~~	~~16.92~~	~~7.10~~		
16-MW-11		1230			3.54			
16-MW-15		1325			4.24			
16-MW-24		1335			4.49			
16-MW-25		1315			7.88			
01-MW-04								
01-MW-01								
01-MW-02								
01-MW-03								
01-MW-05								

*All measurements to the nearest 0.01 foot

* bioslurper

ECOR Solutions Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWS Earle
Project No.: N0100. 177

Sample ID No.: 18-MW-01
Sample Location: Colts Neck, NJ
Sampled By: GF, JG

SAMPLING DATA:

Date: 8/7/07
Time: 1409
Purge Method: Micropurge

FINAL VALUES:

Color (Visual)	Ph (Standard)	S.C. (mS/cm)	Temp (°C)	Turbidity (NTU)	DO (mg/l)	ORP (MV)
Clear	5.56	0.228	14.87	3.66	1.36	109.9

PURGE DATA:

Date: 8/7/07
Purge Method: Micropurge
PID Reading (ppm): —
Well Casing Diameter & Material: 4" PVC
Total Well Depth (TD): 20.28
Static Water Level (DTW): 8.79
Static Product Level (DTP) 11.5 x .65 = 7.48 x 3 = 22.5 gal = 3 volumes
One Casing Volume (gal): —
Start Purge (hrs): 1254
End Purge (hrs): 1409
Total Purge Time (min): 75
Total Vol. Purged (gal/L): 231 gal

Purge Calculations:

1": 0.04080	6": 1.46869
2": 0.16319	8": 2.61101
3": 0.36717	10": 4.07970
4": 0.65275	12": 5.87477

Purge Vol = 3 × PF × (DTW - TD)

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
624 + MTBE	HCl	40 mL CG	2x2 = 4
625	—	1 L. AG	2x2 = 4

OBSERVATIONS/NOTES:

FB-2 collected @ 1430

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

ECOR Solutions Inc.

PURGE DATA SHEET

Date: 8/7/07

Sample ID No.: 18-MW-01

Time (hrs)	Water Level (ft. below TOC)	Flow (mL/min)	pH (SU)	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celsius)	ORP (mV)	Comments
1259	9.60	1620	5.62	0.078	13.1	1.63	14.87	151.4	
1304			5.56	0.079	9.57	1.36	14.86	147.4	
1309	9.72		5.54	0.079	7.29	1.14	14.84	149.0	
1314			5.54	0.092	6.20	0.98	14.80	128.1	~8.3 gal
1319			5.58	0.092	4.88	0.91	14.83	110.4	
1324	9.72		5.60	0.128	5.69	0.92	14.84	105.1	
1329			5.60	0.140	5.20	0.92	14.80	103.0	
1334			5.60	0.156	4.11	0.94	14.79	101.8	~16.6 gal
1339			5.59	0.172	3.99	0.99	14.81	102.9	
1344			5.58	0.187	3.90	1.06	14.80	101.4	
1349			5.59	0.197	3.80	1.07	15.02	104.8	~22.8 gal
1354			5.60	0.211	3.65	2.20	14.89	101.9	~~[illegible]~~ switch out
1359			5.57	0.221	3.73	1.37	14.89	108.0	YSI shut off CO2 tank
1404			5.57	0.224	3.70	1.40	14.89	109.4	restarted @ 1354
1409			5.50	0.228	3.66	1.36	14.87	109.9	~31.1 gal

Signature(s):

GROUNDWATER SAMPLE LOG SHEET

ECOR Solutions Inc.

Project Site Name: NWS Earle
Project No.: N0100.177

Sample ID No.: 16-MW-10
Sample Location: Colts Neck, NJ
Sampled By: GF, JG

SAMPLING DATA:

Date: 8/7/07
Time: 1212
Purge Method: Micropurge

FINAL VALUES:

Color (Visual)	Ph (Standard)	S.C. (mS/cm)	Temp (°C)	Turbidity (NTU)	DO (mg/l)	ORP (MV)
Clear	5.72	0.492	16.13	7.60	0.51	65.0

PURGE DATA:

Date: 8/7/07
Purge Method: Micropurge
PID Reading (ppm): —
Well Casing Diameter & Material: 2" PVC
Total Well Depth (TD): 19.00
Static Water Level (DTW): 8.72
Static Product Level (DTP) —
One Casing Volume (gal): 10.3 x .16 ≈ 1.65 x 3 ≈ 5.0 gal = 3 volumes
Start Purge (hrs): 1137
End Purge (hrs): 1212
Total Purge Time (min): 35
Total Vol. Purged (gal/L): ~9 gal

Purge Calculations:

1":	0.04080	6":	1.46869
2":	0.16319	8":	2.61101
3":	0.36717	10":	4.07970
4":	0.65275	12":	5.87477

Purge Vol = 3 × PF × (DTW - TD)

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
624 + MTBE	HCl	40 mL CG	2
625	—	1 L AG	2

OBSERVATIONS/NOTES:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

ECOR Solutions Inc.

PURGE DATA SHEET

Date: 16-MW-10

Sample ID No.: 8/7/07

Time (hrs)	Water Level (ft. below TOC)	Flow (mL/min)	pH (SU)	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celsius)	ORP (mV)	Comments
1142		1000	5.78	0.496	30.6	1.22	16.46	82.2	
1147	9.10		5.82	0.493	43.0	0.93	16.37	79.0	~2.5 gal
1152			5.83	0.496	14.8	0.71	16.33	74.4	
1157	9.05		5.80	0.493	10.7	0.62	16.22	70.3	~5 gal
1202			5.74	0.493	8.25	0.55	16.17	68.6	
1207			5.72	0.493	7.82	0.52	16.19	66.5	
1212			5.72	0.492	7.60	0.51	16.13	65.0	

Signature(s):

ECOR Solutions Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWS Earle LTM
Project No.: N0100.177

Sample ID No.: 16-MW-08
Sample Location: Colts Neck, NJ
Sampled By: GF, JG

SAMPLING DATA:

Date: 8/7/17
Time: 1050
Purge Method: Micropurge

FINAL VALUES:

Color (Visual)	Ph (Standard)	S.C. (mS/cm)	Temp (°C)	Turbidity (NTU)	DO (mg/l)	ORP (MV)
clear colorless	6.07	0.303	15.95	13.7	0.44	-1.5

PURGE DATA:

Date: 8/7/17
Purge Method: Micropurge
PID Reading (ppm): —
Well Casing Diameter & Material: 2" PVC
Total Well Depth (TD): 19.45
Static Water Level (DTW): 9.49
Static Product Level (DTP) —
One Casing Volume (gal): 9.96(0.16319)(3) ≈ 5 gal = 3 vols
Start Purge (hrs): 0850
End Purge (hrs): 1050
Total Purge Time (min): 2 hrs
Total Vol. Purged (gal/L):

Purge Calculations:

1": 0.04080	6": 1.46869
2": 0.16319	8": 2.61101
3": 0.36717	10": 4.07970
4": 0.65275	12": 5.87477

Purge Vol = 3 × PF × (DTW - TD)

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
624 + MTBE	HCl	40 ml glass vial	2x4 = 8
625	none	1L amber glass	2x4 = 8

OBSERVATIONS/NOTES:

NEEDS NEW LOCK!

Circle if Applicable: MS/MSD

Duplicate ID No.: DUP-1

Signature(s): Grace Fitch

ECOR Solutions Inc.

PURGE DATA SHEET

Date: 8/7/17

Sample ID No.: 16-MW-08

Time (hrs)	Water Level (ft. below TOC)	Flow (mL/min)	pH (SU)	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celsius)	ORP (mV)	Comments
0850	9.49	1350	5.10	0.055	>1200	1.55	17.34	157.0	
0855	12.30		5.17	0.053	>1200	1.43	17.08	152.4	
0900			5.42	0.052	>1200	1.18	16.54	135.1	
0905	Change out CO_2 tank								
0910			5.18	0.057	188	1.03	16.48	144.1	
0915			5.46	0.055	52.3	0.79	16.08	102.2	
0920	11.95		5.51	0.060	36.6	0.72	16.06	87.6	
0925			5.57	0.085	30.2	0.69	16.01	72.9	
0930			5.65	0.106	24.5	0.65	15.99	60.2	
0935			5.66	0.107	24.2	0.66	16.01	60.0	
0940			5.72	0.132	25.9	0.64	16.00	48.7	
0945	11.95		5.77	0.153	20.9	0.60	16.01	41.2	
0950			5.80	0.171	20.7	0.62	16.02	37.2	
0955			5.86	0.190	21.1	0.64	16.00	29.3	
1000			5.88	0.205	17.2	0.59	15.97	24.7	
1005			5.91	0.220	14.5	0.57	15.92	19.8	
1010			5.92	0.240	16.7	0.53	15.98	14.1	
1015			5.98	0.251	14.8	0.51	16.11	7.8	
1020			5.95	0.256	15.6	0.50	16.10	10.7	
1025			6.03	0.270	15.2	0.47	16.06	7.2	
1030			6.03	0.279	15.5	0.46	16.02	4.8	
1035			6.04	0.283	15.4	0.45	16.00	3.6	
1040			6.06	0.292	14.0	0.44	15.96	1.3	
1045			6.06	0.300	13.5	0.46	15.96	-0.6	
1050			6.07	0.303	13.7	0.44	15.95	-1.5	

Signature(s): Grace Fitch

ECOR Solutions Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWS Earle
Project No.: N0100. 177

Sample ID No.: 16-MW-11
Sample Location: Colts Neck, NJ
Sampled By: GF, JG

SAMPLING DATA:

Date: 8/7/07
Time: 0827
Purge Method: micropurge

FINAL VALUES:

Color (Visual)	Ph (Standard)	S.C. (mS/cm)	Temp (°C)	Turbidity (NTU)	DO (mg/l)	ORP (MV)
Clear	3.97	0.343	14.25	1.04	0.86	266.4

PURGE DATA:

Date: 8/7/07
Purge Method: micropurge
PID Reading (ppm): —
Well Casing Diameter & Material: 2" pvc
Total Well Depth (TD): 15.35
Static Water Level (DTW): 3.25
Static Product Level (DTP) —
One Casing Volume (gal): 12.1 x .16 x 1.94 x 3 = 5.8 gal = 3 volumes
Start Purge (hrs): 0737
End Purge (hrs): 0827
Total Purge Time (min): 50
Total Vol. Purged (gal/L): ~28 gal

Purge Calculations:

1": 0.04080	6": 1.46869
2": 0.16319	8": 2.61101
3": 0.36717	10": 4.07970
4": 0.65275	12": 5.87477

Purge Vol = 3 × PF × (DTW - TD)

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
624 + MTBE	HCl	40 mL CG	2
625	—	1 L AG	2

OBSERVATIONS/NOTES:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

ECOR Solutions Inc.

PURGE DATA SHEET

Date: 8/7/07

Sample ID No.: 16-MW-11

Time (hrs)	Water Level (ft. below TOC)	Flow (mL/min)	pH (SU)	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celsius)	ORP (mV)	Comments
0742	3.52	1460	3.95	0.360	372	3.16	14.20	256.6	
0747			3.96	0.350	163	1.70	14.19	261.0	~3.5 gal
0752	3.57		3.97	0.347	51.3	1.37	14.20	262.7	
0757			3.97	0.345	17.2	1.15	14.21	263.7	~7 gal
0802			3.97	0.345	10.1	1.07	14.25	264.4	
0807	3.57		3.97	0.344	6.23	1.01	14.19	264.9	
0812			3.97	0.343	3.57	0.96	14.22	265.5	
0817			3.97	0.344	1.80	0.92	14.24	265.8	
0822			3.98	0.344	1.07	0.89	14.23	266.1	
0827			3.97	0.343	1.04	0.86	14.25	266.4	

Signature(s):

ECOR Solutions Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWS Earle
Project No.: N0100177

Sample ID No.: ~~HW~~ 16-MW-15
Sample Location: Colts Neck, NJ
Sampled By: GF, JG

SAMPLING DATA:

Date: 8/6/07
Time: 1333
Purge Method: micropurge

FINAL VALUES:

Color (Visual)	Ph (Standard)	S.C. (mS/cm)	Temp (°C)	Turbidity (NTU)	DO (mg/l)	ORP (MV)
clear, colorless	4.56	0.235	18.79	0.42	0.60	231.7

PURGE DATA:

Date: 8/6/07
Purge Method: micropurge
PID Reading (ppm):
Well Casing Diameter & Material: 2" PVC
Total Well Depth (TD): 11.38
Static Water Level (DTW): 3.79
~~Static Product Level (DTP)~~
One Casing Volume (gal): 7.59(.16319)(3) = 3.7 gal = 3 vols
Start Purge (hrs): 1133
End Purge (hrs): ~~1333~~ 1333
Total Purge Time (min): 2 hrs
Total Vol. Purged (gal/L):

Purge Calculations:

1": 0.04080	6": 1.46869
2": 0.16319	8": 2.61101
3": 0.36717	10": 4.07970
4": 0.65275	12": 5.87477

Purge Vol = 3 × PF × (DTW - TD)

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
624 + MTBE	HCl	40 ml glass vial	2

OBSERVATIONS/NOTES:

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s): Grace Fitch

ECOR Solutions Inc

PURGE DATA SHEET

Date: 8/6/07

Sample ID No.: 16-MW-15

Time (hrs)	Water Level (ft. below TOC)	Flow (mL/min)	pH (SU)	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celsius)	ORP (mV)	Comments
1043		65	4.69	0.218	2.22	2.01	18.40	209.2	
1148			4.68	0.220	1.57	1.88	18.28	210.7	
1153			4.66	0.223	3.52	1.56	18.25	214.3	
1158			4.64	0.226	4.04	1.38	18.23	216.1	
1203			4.62	0.229	3.26	1.17	18.23	219.9	
1208			4.59	0.231	2.97	0.92	18.22	223.3	
1213			4.59	0.232	3.08	0.86	18.25	224.7	
1218			4.58	0.233	3.23	0.83	18.29	225.4	
1223			4.58	0.233	3.56	0.79	18.16	226.3	
1228			4.57	0.234	3.87	0.79	18.19	226.7	
1233			4.57	0.233	2.44	0.80	18.17	223.9	
1238			4.56	0.233	1.23	0.80	18.13	210.8	
1243			4.55	0.233	1.36	0.77	18.07	220.4	
1248			4.55	0.233	1.49	0.74	18.01	223.2	
1253			4.54	0.233	1.11	0.77	18.03	227.0	
1258			4.55	0.232	1.08	0.66	18.00	228.3	
1303			4.55	0.234	1.96	0.65	18.24	228.6	
1308			4.56	0.235	1.25	0.62	18.28	229.3	
1313			4.56	0.235	1.04	0.63	18.34	229.7	
1318			4.56	0.233	0.86	0.60	18.12	230.8	
1323			4.56	0.234	1.02	0.59	18.31	231.2	
1328			4.55	0.234	0.76	0.57	18.39	231.6	
1333			4.56	0.235	0.42	0.60	18.79	231.7	

Signature(s): Grace Fitch

ECOR Solutions Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWS Earle
Project No.: N0100. 177

Sample ID No.: 16-MW-25
Sample Location: Colts Neck, NJ
Sampled By: GF, JG

SAMPLING DATA:

Date: 8/6/07
Time: 1448
Purge Method: Micropurge

FINAL VALUES:

Color (Visual)	Ph (Standard)	S.C. (mS/cm)	Temp (°C)	Turbidity (NTU)	DO (mg/l)	ORP (MV)
clear colorless	4.36	0.063	13.52	5.26	2.06	228.9

PURGE DATA:

Date: 8/6/07
Purge Method: Micropurge
PID Reading (ppm): —
Well Casing Diameter & Material: 2" PVC
Total Well Depth (TD): 18.70
Static Water Level (DTW): 7.14
Static Product Level (DTP) —
One Casing Volume (gal): 11.6 x .16 ≈ 1.86 x 3 ≈ 5.58 gal
Start Purge (hrs): 1358
End Purge (hrs): 1448
Total Purge Time (min): 50 min
Total Vol. Purged (gal/L):

Purge Calculations:

1": 0.04080	6": 1.46869
2": 0.16319	8": 2.61101
3": 0.36717	10": 4.07970
4": 0.65275	12": 5.87477

Purge Vol = 3 × PF × (DTW - TD)

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
624 + MTBE	HCl	40 ml glass vial	2

OBSERVATIONS/NOTES:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s): Grace Fitch

ECOR Solutions Inc.

PURGE DATA SHEET

Date: 8/6/07

Sample ID No.: 16-MW-25

Time (hrs)	Water Level (ft. below TOC)	Flow (mL/min)	pH (SU)	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celsius)	ORP (mV)	Comments
1403	6.80		4.96	0.088	38.9	4.27	19.04	234.5	
1408		600	4.13	0.078	31.3	3.68	18.88	229.7	
1413			4.33	0.064	28.8	2.24	13.99	230.3	
1418			4.35	0.063	13.6	1.98	13.80	228.6	
1423			4.36	0.064	9.63	1.96	13.85	228.5	
1428			4.37	0.063	8.04	2.01	13.72	227.9	
1433			4.37	0.060	6.46	2.04	13.69	228.0	
1438			4.38	0.063	5.45	2.05	13.66	228.0	
1443 → ~~1453~~			4.37	0.063	5.03	2.00	13.55	228.6	
1448			4.36	0.063	5.26	2.06	13.52	228.9	

Signature(s): Grace Fitch

ECOR Solutions Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWS Earle
Project No.: N0100.177

Sample ID No.: 16-MW-24
Sample Location: Colts Neck, NJ
Sampled By: GF, JG

SAMPLING DATA:

Date: 8/6/07
Time: 1549
Purge Method: micropurge

FINAL VALUES:

Color (Visual)	Ph (Standard)	S.C. (mS/cm)	Temp (°C)	Turbidity (NTU)	DO (mg/l)	ORP (MV)
clear, colorless	5.25	0.109	13.27	0.69	0.64	82.2

PURGE DATA:

Date: 8/6/07
Purge Method: micropurge
PID Reading (ppm):
Well Casing Diameter & Material: 2" PVC
Total Well Depth (TD): 16.88
Static Water Level (DTW): 4.69
Static Product Level (DTP) ——
One Casing Volume (gal): 12.19 (0.16319)(3) ≈ 6 gal
Start Purge (hrs): 1509
End Purge (hrs): 1549
Total Purge Time (min): 40 min
Total Vol. Purged (gal/L):

Purge Calculations:

1": 0.04080	6": 1.46869
2": 0.16319	8": 2.61101
3": 0.36717	10": 4.07970
4": 0.65275	12": 5.87477

Purge Vol = 3 × PF × (DTW - TD)

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
624 + MTBE	HCl	40 ml glass vial	2

OBSERVATIONS/NOTES:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s): Grace Fitch

ECOR Solutions Inc.

PURGE DATA SHEET

Date: 8/16/07

Sample ID No.: 16-MW-24

Time (hrs)	Water Level (ft. below TOC)	Flow (mL/min)	pH (SU)	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celsius)	ORP (mV)	Comments
1514	4.69	1500	5.44	0.111	8.77	1.90	13.52	63.2	
1519			5.37	0.112	1.31	1.22	13.37	64.9	
1524	4.80		5.33	0.111	1.15	0.93	13.34	69.9	
1529			5.31	0.111	0.97	0.79	13.29	72.8	
1534			5.29	0.110	0.88	0.72	13.28	75.7	
1539			5.27	0.109	0.72	0.68	13.26	78.1	
1544			5.26	0.109	0.65	0.64	13.29	81.1	
1549			5.25	0.109	0.69	0.64	13.27	82.2	

Signature(s): Grace Fitch

Analytical Laboratory Services, Inc.
Environmental • Industrial Hygiene • Field Services
34 Dogwood Lane • Middletown, PA 17057 • 717.944.5541 • Fax: 717.944.1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Courier:
Tracking #:
COC#

Co. Name: ECOR Solutions, Inc.
Contact (Report to): Amanda Bell
Phone: 484-887-7510
Address: 21 S. High Street West Chester, PA 19382

Bill to (if different than Report to): N0100.177
PO#:
Project Name/#: NWS Earle
ALSI Quote #:
TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALSI approval and surcharges.
Date Required:
Approved By:
Email? -Y
Fax? -Y No.:

***Container Type	glass vial	amber glass															
***Container Size	40ml	1L															
*** Preservative	HCl	none															
			624 + MTBE	625													

ANALYSES/METHOD REQUESTED

	Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	624 + MTBE	625									
1	16-MW-15		8/6/07	1333	G	GW	2										
2	16-SW-01			1345			2										
3	16-SW-02			1350			2										
4	16-MW-25			1448			2										
5	16-MW-24			1549			2										
6	FB-1			1605			2										
7	TB-1						2										
8	16-MW-11		8/7/07	827	G	GW	2	2									

Enter Number of Containers Per Analysis

Receipt Information (completed by Sample Receiving)
Performed by: INITIAL HERE
Cooler Temp:
Therm. ID:
No. of Coolers:
Notes:

Circle appropriate Y or N.	Correct containers?	Correct sample volume?	Correct preservation?	Headspace/Volatiles?
N	N	N	N	N
Y	Y	Y	Y	Y

Circle appropriate Y or N.	Custody seals Present?	(if present) Seals intact?	Received on ice?	COC/Labels complete/accurate?	Container in good condition?
N	N	N	N	N	N
Y	Y	Y	Y	Y	Y

SAMPLED BY (Please Print): Grace Fitch, Jen Good
LOGGED BY(signature): DATE: TIME:
REVIEWED BY(signature): DATE: TIME:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 Grace Fitch	8/7/07	1530	2		
3			4		
5			6		
7			8		
9			10		

Data Deliverables: [ ] Standard [ ] CLP-like [ ] NJ-Reduced [ ] NJ-Full [ ] other
SDWA Forms?: yes [ ] yes [ ] yes [ ] yes [ ]
State Samples Collected In?: MD [ ] NJ [X] NY [ ] PA [ ]
EDDs Required? [ ] If yes, format type: Other
Enter PWSID No.
DOD Criteria Required?

ALSI FIELD SERVICES
[ ] Pickup
[ ] Labor
[ ] Composite Sampling
[ ] Rental Equipment
[ ] Other:

* G=Grab; C=Composite
**Matrix: Al=Air; DW=Drinking Water; GW=Groundwater; Ol=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY

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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page 2 of 2
Courier:
Tracking #:
COC#

Co. Name: ECOR Solutions, Inc.
Contact (Report to): Amanda Bell
Phone: 484-887-7510
Address: 21 S. High Street, West Chester, PA 19382

Bill to (if different than Report to): NO100.177
PO#:
Project Name/#: NWS Earle
ALSI Quote #:
TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALSI approval and surcharges.
Date Required:
Approved By:
Email? [ ] -Y
Fax? [ ] -Y No.:

					***Container Type	glass	amber glass																
					***Container Size	40ml	1 L																
					*** Preservative	HCl	none																
					ANALYSES/METHOD REQUESTED																		
Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	624 + MTBE	625																
						Enter Number of Containers Per Analysis																	
1 16-MW-08		8/7/07	1050	G	GW	6	6																
2 DUP-1		↓	0000	↓	↓	2	2																
3 16-MW-10		↓	1212	↓	↓	2	2																
4 18-MW-01		↓	1409	↓	↓	2	2																
5 FB-2		↓	1430	↓	↓	2	2																
6 TB-2						2																	
7																							
8																							

Receipt Information (completed by Sample Receiver)
Performed by: INITIAL HERE
Cooler Temp:
Therm. ID:
No. of Coolers:
Notes:

Circle appropriate Y or N.				
Correct containers?	Correct sample volume?	Correct preservation?	Headspace/Volatiles?	
N	N	N	N	
Y	Y	Y	Y	
Custody seals Present?	(if present) Seals intact?	Received on ice?	COC/Labels complete/accurate?	Container in good condition?
N	N	N	N	N
Y	Y	Y	Y	Y

SAMPLED BY (Please Print): Grace Fitch, Jen Gord
LOGGED BY(signature): DATE: TIME:
REVIEWED BY(signature): DATE: TIME:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 Grace Fitch	8/9/07	1530	2		
3			4		
5			6		
7			8		
9			10		

Data Deliverables: [ ] Standard [ ] CLP-like [ ] NJ-Reduced [ ] NJ-Full [ ] (other)
EDDs Required? [ ] If yes, format type:
DOD Criteria Required?
SDWA Forms?⇨ yes [ ] yes [ ] yes [ ] yes [ ]
State Samples Collected In? MD [ ] NJ [X] NY [ ] PA [ ]
Other
⇨Enter PWSID No.

ALSI FIELD SERVICES
[ ] Pickup
[ ] Labor
[ ] Composite Sampling
[ ] Rental Equipment
[ ] Other:

* G=Grab; C=Composite
**Matrix: AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY

Rev 6/07

ECOR Solutions Inc.

GROUNDWATER LEVEL MEASUREMENT SHEET

Project Name: NWS Earle Annual LTM
Location: Colts Neck, NJ
Weather Conditions: overcast, chilly/rainy
Tidally Influenced: Yes ___ No X

Project No.: N0100.177
Personnel: GF, JG
Measuring Device: solinst interface meter
Remarks:

	Monitoring Well ID	Date	Time	Elevation of Reference Point (feet)*	Total Well Depth (feet)*	Depth to Water (feet)*	Thickness of Free Product (feet)*	Groundwater Elevation (feet)*	~~Comments~~ DT Product
X	16-MW-05	11/13/07	0852		20.18	11.45			11.40
X	16-MW-04		0907			8.87			< .10 — sheen of product
	16-MW-08		0910		19.45	11.95			
	16-MW-10		0915		18.93	9.20			
•	16-MW-02		0919		16.91	7.12			
	18-MW-01		0930		20.02	9.99			
	16-MW-11		0943		15.33	3.22			
•	16-MW-17		0947		12.74	4.35			
•	16-MW-16		0951		14.70	4.33			
•	29-MW-01		0958		17.76	10.11			
	16-MW-24		1010		16.84	4.22			16.84
	16-MW-25		1004		18.70	7.49			
	16-MW-15		1028		11.40	4.11			

*All measurements to the nearest 0.01 foot

X = do not sample; product present
• = not in sample schedule; additional data for potentiometric surface map

ECOR Solutions Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWS Earle Annual LTM
Project No.: N0100.177

Sample ID No.: 16-MW-15
Sample Location: Colts Neck, NJ
Sampled By: GF, JG

SAMPLING DATA:

Date: 11/13/07
Time: 1225
Purge Method: low flow

FINAL VALUES:

Color (Visual)	Ph (Standard)	S.C. (mS/cm)	Turbidity (NTU)	DO (mg/l)	Temp (°C)	ORP (MV)
clear, colorless	4.56	0.240	5.41	0.28	13.91	97.7

PURGE DATA:

Date: 11/13/07
Purge Method: low flow
PID Reading (ppm):
Well Casing Diameter & Material: 2" PVC
Total Well Depth (TD): 11.40
Static Water Level (DTW): 4.11
Static Product Level (DTP)
One Casing Volume (gal):
Start Purge (hrs): 1025
End Purge (hrs): 1225
Total Purge Time (min): 2 hrs
Total Vol. Purged (gal/L):

Purge Calculations:

1": 0.04080	6": 1.46869
2": 0.16319	8": 2.61101
3": 0.36717	10": 4.07970
4": 0.65275	12": 5.87477

Purge Vol = 3 × PF × (DTW - TD)

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
624+MTBE	HCl	40 ml glass vial	2

OBSERVATIONS/NOTES:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s): Grace Fitch

ECOR Solutions Inc.

PURGE DATA SHEET

Date: 11/13/07

Sample ID No.: 16-MW-15

Time (hrs)	Water Level (ft. below TOC)	Flow (mL/min)	pH (SU)	Cond.* (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celsius)	ORP (mV)	Comments
1035	4.11		5.20	0.124			12.79	92.5	*specific conductivity
1040		70	4.87	0.234	87.5	5.56	12.85	110.3	used - only cond.
1045			4.73	0.239	128	3.05	13.01	125.4	available on rental
1050			4.67	0.243	115	2.36	13.13	127.1	unit (mS/cm(c))
1055			4.65	0.240	81.8	1.24	13.24	123.1	
1100			4.62	0.245	76.5	0.92	13.31	119.7	
1105			4.60	0.240	44.4	0.69	13.35	113.8	
1110			4.60	0.244	33.2	0.53	13.37	109.2	
1115			4.59	0.245	24.3	0.47	13.35	105.4	
1120			4.58	0.241	17.1	0.37	13.37	103.0	
1125			4.58	0.239	13.7	0.36	13.39	101.0	
1130			4.57	0.239	12.4	0.34	13.43	100.9	
1135			4.57	0.238	9.95	0.34	13.48	99.7	
1140			4.57	0.243	8.21	0.32	13.54	98.9	
1145			4.57	0.243	7.95	0.31	13.61	98.4	
1150			4.57	0.245	6.97	0.29	13.70	98.1	
1155			4.57	0.241	7.53	0.29	13.72	97.7	
1200			4.57	0.243	6.51	0.29	13.74	97.4	
1205			4.56	0.241	6.38	0.29	13.73	96.8	
1210			4.56	0.243	6.06	0.28	13.73	97.4	
1215			4.56	0.242	5.90	0.27	13.77	97.5	
1220			4.56	0.239	5.66	0.27	13.83	97.7	
1225			4.56	0.240	5.41	0.28	13.91	97.7	
~~1230~~ GP									
~~1235~~ GP									

Signature(s): Grace Fitch

GROUNDWATER SAMPLE LOG SHEET

Project Site Name:	NWS Earle Annual LTM	Sample ID No.:	16-MW-25
Project No.:	N0100.177	Sample Location:	Colts Neck, NJ
		Sampled By:	GF, JG

SAMPLING DATA:

Date: 11/13/07
Time: 1439
Purge Method: low flow

FINAL VALUES:

Color (Visual)	Ph (Standard)	S.C. (mS/cm)	Turbidity (NTU)	DO (mg/l)	Temp (°C)	ORP (MV)
Clear, Colorless	4.23	0.085	7.00	1.61	13.90	176.7

PURGE DATA:

Date: 11/13/07
Purge Method: low flow
PID Reading (ppm):
Well Casing Diameter & Material: 2" PVC
Total Well Depth (TD): 18.70
Static Water Level (DTW): 7.49
Static Product Level (DTP)
One Casing Volume (gal): 0.16319(3)(18.7-7.49) = 5.5 gal = 3vols
Start Purge (hrs): 1319
End Purge (hrs): 1439
Total Purge Time (min): 1hr 20 min
Total Vol. Purged (gal/L):

Purge Calculations:

1": 0.04080	6": 1.46869
2": 0.16319	8": 2.61101
3": 0.36717	10": 4.07970
4": 0.65275	12": 5.87477

Purge Vol = 3 × PF × (DTW - TD)

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
624 + MTBE	HCl	40 ml glass vial	2

OBSERVATIONS/NOTES:

sulfurous odor

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s): Grace Fitch

LA209

ECOR Solutions Inc.

PURGE DATA SHEET

Date: 11/13/07

Sample ID No.: 116-MW-25

Time	Water Level	Flow	pH	Cond. *	Turb.	DO	Temp.	ORP	Comments
			+/- .2	+/- 3%	+/- 10%	+/- 10%	+/- 3%	+/- 10mV	
(hrs)	(ft. below TOC)	(mL/min)	(SU)	(mS/cm)	(NTU)	(mg/L)	(Celsius)	(mV)	
1319		940	4.37	0.084	73.2	0.78	14.03	12.2	
1324			4.37	0.084	56.3	0.90	13.99	25.8	1.2 gal
1329	6.15		4.36	0.084	34.2	0.94	13.96	30.6	2.4 gal
1334	6.25		4.81	0.083	25.9	1.14	13.94	45.1	3.6 gal
1339			4.29	0.083	24.5	1.29	13.93	56.6	4.8 gal
1344			4.28	0.084	18.7	1.41	13.93	72.4	GF ~~6.0~~ 6.0 gal
1349			4.28	0.085	16.3	1.60	13.92	89.1	
1354			4.31	0.084	15.3	1.46	13.90	91.3	
1359	6.25		4.25	0.100	14.8	1.33	13.85	101.2	
1404			4.26	0.085	11.2	1.53	13.89	117.6	
1409			4.25	0.086	9.03	1.53	13.89	131.6	
1414			4.25	0.085	9.63	1.54	13.89	143.0	
1419			4.25	0.085	9.10	1.64	13.90	150.2	
1424			4.24	0.084	7.54	1.62	13.91	159.0	
1429			4.24	0.085	7.04	1.60	13.90	167.8	
1434			4.23	0.085	7.18	1.60	13.90	175.8	
1439			4.23	0.085	7.00	1.61	13.90	176.7	

* specific cond. only rding available on rental YSI (mS/cm(c))

Signature(s): Grace Gitch

ECOR Solutions Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWS Earle Annual LTM
Project No.: N0100.177

Sample ID No.: 16-MW-24
Sample Location: Colts Neck, NJ
Sampled By: GF, JG

SAMPLING DATA:

Date: 11/13/07
Time: 1530
Purge Method: low flow

FINAL VALUES:

Color (Visual)	Ph (Standard)	S.C. (mS/cm)	Turbidity (NTU)	DO (mg/l)	Temp (°C)	ORP (MV)
clear, colorless	5.03	0.138	3.09	0.11	13.96	16.3

PURGE DATA:

Date: 11/13/07
Purge Method: low flow
PID Reading (ppm):
Well Casing Diameter & Material: 2" PVC
Total Well Depth (TD): 16.84
Static Water Level (DTW): 4.22
Static Product Level (DTP)
One Casing Volume (gal): 0.16319 (3)(16.84-4.22) = 6.2 gals = 3vols
Start Purge (hrs): 1505
End Purge (hrs): 1530
Total Purge Time (min): 25 min
Total Vol. Purged (gal/L):

Purge Calculations:

1": 0.04080	6": 1.46869
2": 0.16319	8": 2.61101
3": 0.36717	10": 4.07970
4": 0.65275	12": 5.87477

Purge Vol = 3 × PF × (DTW - TD)

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
624 + MTBE	HCl	40 ml glass vial	2

OBSERVATIONS/NOTES:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s): Grace Fitch

ECOR Solutions Inc.

PURGE DATA SHEET

Date: 16-MW-24

Sample ID No.: 11/13/07

Time (hrs)	Water Level (ft. below TOC)	Flow (mL/min)	pH (SU)	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celsius)	ORP (mV)	Comments
~~16~~ 1505	4.52	1360	5.23	0.130	34.7	1.29	13.79	75.2	
1510			5.17	0.138	7.30	0.20	13.92	33.3	1.7
1515			5.02	0.138	4.52	0.13	13.94	19.9	3.4
1520	4.52		5.01	0.138	3.30	0.12	13.94	17.9	5.1
1525			5.02	0.135	3.36	0.11	13.95	16.4	6.8
1530			5.03	0.138	3.09	0.11	13.96	16.3	

Signature(s): Grace Fitch

ECOR Solutions Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWS Earle Annual LTM
Project No.: N0100.177

Sample ID No.: 16-MW-11
Sample Location: Colts Neck, NJ
Sampled By: GF, JG

SAMPLING DATA:

Date: 11/13/07
Time: 1637
Purge Method: low flow

FINAL VALUES:

Color (Visual)	Ph (Standard)	S.C. (mS/cm)	Turbidity (NTU)	DO (mg/l)	Temp (°C)	ORP (MV)
clear colorless	4.05	0.391	4.32	0.20	14.35	115.1

PURGE DATA:

Date: 11/13/07
Purge Method: low flow
PID Reading (ppm):
Well Casing Diameter & Material: 2" PVC
Total Well Depth (TD): 15.33
Static Water Level (DTW): 3.22
Static Product Level (DTP) —
One Casing Volume (gal): ~6.0 gal = 3 vols
Start Purge (hrs): 1545
End Purge (hrs): 1637
Total Purge Time (min): 52 min
Total Vol. Purged (gal/L):

Purge Calculations:

1": 0.04080	6": 1.46869
2": 0.16319	8": 2.61101
3": 0.36717	10": 4.07970
4": 0.65275	12": 5.87477

Purge Vol = 3 × PF × (DTW - TD)

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
624 + MTBE	HCl	40 ml glass vial	2
625 (Naphthalene)	None	1 L amber glass	2

OBSERVATIONS/NOTES:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s): Grace Fitch

ECOR Solutions Inc.

PURGE DATA SHEET

Date: 11/13/07

Sample ID No.: 16-MW-11

Time (hrs)	Water Level (ft. below TOC)	Flow (mL/min)	pH (SU)	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celsius)	ORP (mV)	Comments
15~~16~~47		1460	4.04	0.398	287	0.39	14.33	138.0	
15~~16~~52			4.05	0.400	206	0.20	14.35	128.5	1.8
15~~16~~57			4.05	0.400	69.8	0.19	14.33	125.6	3.6
16~~17~~02			4.05	0.401	42.4	0.20	14.33	125.0	5.4
1607			4.04	0.398	24.0	0.19	14.34	123.0	7.2
1602			4.05	0.394	16.0	0.17	14.35	120.8	
1617			4.05	0.393	8.63	0.18	14.35	118.9	
1622			4.05	0.392	5.89	0.19	14.36	117.0	
1627			4.05	0.391	4.58	0.20	14.35	115.8	
1632			4.05	0.391	4.27	0.20	14.35	115.4	
1637			4.05	0.391	4.32	0.20	14.35	115.1	

Signature(s): Grace Fitch

ECOR Solutions Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWS Earle Annual LTM
Project No.: N0100.177

Sample ID No.: 16-MW-10
Sample Location: Colts Neck, NJ
Sampled By: GF, JG

SAMPLING DATA:

Date: 11/14/07
Time: 1008
Purge Method: low flow

FINAL VALUES:

Color (Visual)	Ph (Standard)	S.C. (mS/cm)	Turbidity (NTU)	DO (mg/l)	Temp (°C)	ORP (MV)
clear, colorless	5.68	0.530	9.03	0.21	17.20	-10.2

PURGE DATA:

Date: 11/14/07
Purge Method: low flow
PID Reading (ppm):
Well Casing Diameter & Material: 2" PVC
Total Well Depth (TD): 18.93
Static Water Level (DTW): 9.20
Static Product Level (DTP)
One Casing Volume (gal): ≈1.6(3) = 4.8 gal = 3 vols
Start Purge (hrs): 0853
End Purge (hrs): 1008
Total Purge Time (min): 1 hr 10 min
Total Vol. Purged (gal/L):

Purge Calculations:

1": 0.04080	6": 1.46869
2": 0.16319	8": 2.61101
3": 0.36717	10": 4.07970
4": 0.65275	12": 5.87477

Purge Vol = 3 × PF × (DTW - TD)

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
624 + MTBE	HCl	40 mL glass vial	2
625 (Naphthalene)	Ø	1L amber glass	2

OBSERVATIONS/NOTES:

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s): Grace Fitch

ECOR Solutions Inc.

PURGE DATA SHEET

Date: 11/14/07

Sample ID No.: 16-MW-10

Time (hrs)	Water Level (ft. below TOC)	Flow (mL/min)	pH (SU)	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celsius)	ORP (mV)	Comments
0853	9.16	1400	5.54	0.476	226	0.89	17.08	76.9	
0858	9.29		5.56	0.546	537	0.25	17.20	58.3	1.8 gal
~~0903~~ 0903			5.57	0.543	245	0.21	17.19	46.3	3.6 gal
~~0908~~ 0908			5.58	0.540	108.1	0.22	17.17	36.5	5.4 gal
~~0913~~ 0913			5.61	0.538	57.6	0.21	17.18	26.9	
~~0918~~ 0918	9.26		5.62	0.537	37.2	0.21	17.15	18.3	
~~0923~~ 0923			5.63	0.535	29.7	0.21	17.17	13.8	
~~0928~~ 0928			5.65	0.536	23.8	0.21	17.16	8.5	
~~0933~~ 0933			5.66	0.534	19.5	0.21	17.14	3.7	
~~0938~~ 0938			5.66	0.534	18.0	0.21	17.13	0.8	
09 ~~1043~~ 1043			5.67	0.533	15.5	0.20	17.17	-2.5	
~~0948~~ 0948			5.68	0.532	14.6	0.16	17.22	-4.1	
~~0953~~ 0953			5.68	0.531	13.1	0.22	17.23	-5.9	
~~0958~~ 0958			5.70	0.533	9.50	0.20	17.22	-8.3	
1003			5.70	0.531	9.16	0.21	17.19	-9.4	
1008			5.68	0.530	9.03	0.21	17.20	-10.2	

Signature(s): Grace Jutch

ECOR Solutions Inc.

GROUNDWATER SAMPLE LOG SHEET

page ___ of ___

Project Site Name: NWS Earle Annual LTM
Project No.: N0100.177

Sample ID No.: 16-MW-08
Sample Location: Colts Neck, NJ
Sampled By: GF, JG

SAMPLING DATA:

Date: 11/14/07
Time: 1232
Purge Method: low flow

FINAL VALUES:

Color (Visual)	Ph (Standard)	S.C. (mS/cm)	Turbidity (NTU)	DO (mg/l)	Temp (°C)	ORP (MV)
clear	5.55	0.379	18.6	0.42	16.80	-1.2

coloness

PURGE DATA:

Date: 11/14/07
Purge Method: low flow
PID Reading (ppm):
Well Casing Diameter & Material: 2" PVC
Total Well Depth (TD): 19.45
Static Water Level (DTW): 11.95
Static Product Level (DTP)
One Casing Volume (gal): 3vol ≈ 3.8 gal
Start Purge (hrs): 1032
End Purge (hrs): 1232
Total Purge Time (min): 2 hrs
Total Vol. Purged (gal/L):

Purge Calculations:

1": 0.04080	6": 1.46869
2": 0.16319	8": 2.61101
3": 0.36717	10": 4.07970
4": 0.65275	12": 5.87477

Purge Vol = 3 × PF × (DTW - TD)

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
624 +MTBE	HCl	40 ml glass vial	2
625 Naphthalene	Ø	1 L amber glass	2

OBSERVATIONS/NOTES:

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s): Grace Litch

ECOR Solutions Inc.

PURGE DATA SHEET

Date: 11/14/07

Sample ID No.: 16-MW-08

Time (hrs)	Water Level (ft. below TOC)	Flow (mL/min)	pH (SU)	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celsius)	ORP (mV)	Comments
1037	11.90	500	5.29	0.071	>1200	0.44	16.87	111.3	
1042			5.20	0.069	>1200	0.21	16.84	130.3	1.25
1047			5.06	0.073	668	0.17	16.84	142.9	
1052			5.14	0.071	255	0.18	16.83	118.2	2.50
1057			5.11	0.077	140	0.17	16.84	95.4	
1102			5.07	0.086	94.7	0.19	16.83	83.4	3.75
1107			5.05	0.099	56.8	0.41	16.80	76.3	4.25
1112			5.09	0.128	38.6	0.28	16.81	65.9	~~5.00~~ GF
1117			5.12	0.145	30.1	0.30	16.80	58.4	
1122			5.18	0.170	25.9	0.31	16.80	50.9	
1127			5.23	0.198	20.9	0.31	16.79	43.6	
1132			5.29	0.221	19.3	0.30	16.79	35.4	
1137			5.35	0.242	17.4	0.47	16.77	28.6	
1142			5.38	0.263	18.8	0.36	16.78	23.6	
1147			5.44	0.281	19.1	0.31	16.77	17.3	
1152			5.46	0.298	16.2	0.30	16.79	14.1	
1157			5.47	0.314	17.6	0.31	16.79	12.0	
1202			5.49	0.326	20.3	0.30	16.81	8.6	
1207			5.46	0.342	22.4	0.31	16.79	10.2	pump change out
1212			5.44	0.348	27.4	1.32	16.82	12.3	
1217			5.56	0.361	24.9	0.80	16.82	2.6	
1222			5.55	0.373	19.9	0.53	16.79	-0.1	
1227			5.55	0.379	19.1	0.40	16.80	-1.2	
1232			5.55	0.379	18.6	0.42	16.80		

Signature(s): Grace Fitch

ECOR Solutions Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWS Earle Annual LTM
Project No.: N0100.177

Sample ID No.: 18-MW-01
Sample Location: Colts Neck, NJ
Sampled By: GF, JG

SAMPLING DATA:

Date: 11/14/07
Time: 1515
Purge Method: low flow

FINAL VALUES:

Color (Visual)	Ph (Standard)	S.C. (mS/cm)	Turbidity (NTU)	DO (mg/l)	Temp (°C)	ORP (MV)
Clear, colorless	5.43	0.412	1.39	1.35	16.52	74.4

PURGE DATA:

Date: 11/14/07
Purge Method: low flow
PID Reading (ppm):
Well Casing Diameter & Material: 20.02
Total Well Depth (TD): 4" steel/metal
Static Water Level (DTW): 9.99
Static Product Level (DTP)
One Casing Volume (gal): 3 vols ≈ 19.5 gal
Start Purge (hrs): 1340
End Purge (hrs): 1515
Total Purge Time (min): 1 hr 35 min
Total Vol. Purged (gal/L):

Purge Calculations:

1": 0.04080	6": 1.46869
2": 0.16319	8": 2.61101
3": 0.36717	10": 4.07970
4": 0.65275	12": 5.87477

Purge Vol = 3 × PF × (DTW - TD)

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
624 + MTBE	HCl	40 ml glass vial	2×4 = 8
625 (Naphthalene)	Ø	1 L amber glass	2×4 = 8

OBSERVATIONS/NOTES:

dup & ms/msd collected

Circle if Applicable:

MS/MSD

Duplicate ID No.: DUP-1

Signature(s): Grace Fitch

ECOR Solutions Inc.

PURGE DATA SHEET

Date: 11/14/07

Sample ID No.: 18-MW-01

Time (hrs)	Water Level (ft. below TOC)	Flow (mL/min)	pH (SU)	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celsius)	ORP (mV)	Comments
13~~14~~40	9.90	1200	5.35	0.227		0.43	16.61	127.8	
13~~14~~45			5.35	0.222	9.34	0.24	16.63	136.5	1.5
13~~14~~50			5.36	0.240	6.03	0.17	16.59	132.8	3.0
13~~14~~55			5.39	0.258	4.30	0.15	16.58	86.9	
14~~15~~00			5.41	0.281	3.42	0.21	16.56	54.5	6.0
14~~15~~05			5.43	0.317	2.96	0.26	16.56	48.6	
14~~15~~10			5.44	0.336	2.58	0.30	16.55	45.6	9.0
14~~15~~15	10.33		5.42	0.343	2.23	0.32	16.55	49.0	
1420			5.44	0.354	2.31	0.48	16.55	51.3	12.0
1425			5.43	0.362	2.13	0.53	16.55	57.2	
1430			5.43	0.369	2.04	0.63	16.54	59.9	15.0
1435			5.43	0.375	1.95	0.81	16.54	62.9	
1440			5.44	0.382	2.04	0.98	16.54	67.4	18.0
1445			5.42	0.388	1.82	0.97	16.53	70.5	19.5 gal = 3 vols
1450			5.42	0.394	1.52	0.99	16.53	71.7	* change out pump
1455			5.43	0.406	1.63	1.04	16.51	71.3	
1500			5.42	0.398	1.74	1.17	16.54	74.3	
~~1505~~	1505		5.43	0.408	1.49	1.25	16.53	75.2	
1510			5.43	0.411	1.45	1.31	16.52	74.3	
1515			5.43	0.412	1.39	1.35	16.52	74.4	

Signature(s): Grace Fitch

Analytical Laboratory Services, Inc.
Environmental • Industrial Hygiene • Field Services
34 Dogwood Lane • Middletown, PA 17057 • 717.944.5541 • Fax: 717.944.1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page 1 of 1

Courier:

Tracking #:

COC#

Co. Name: ECOR Solutions, Inc.

Contact (Report to): Grace Fitch

Phone: (cell) 484-753-1933

Address: 21 S. High Street, West Chester, PA 19382

Bill to (if different than Report to):

PO#: N0100.177

Project Name/#: NWS Earle Annual LTM

ALSI Quote #:

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALSI approval and surcharges.

Date Required:

Approved By:

Email? [✓] -Y fitch@ecor-solutions.com

Fax? [ ] -Y No.:

	***Container Type	***Container Size	*** Preservative
1	Glass vial	40mL	HCl
2	Amber glass	1 L	Ø

ANALYSES/METHOD REQUESTED: 624+MTBE; 625 (Naphthalene)

	Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	624+MTBE	625 (Naphthalene)
1	16-MW-15		11/13/07	1225	G	GW	2	Ø
2	16-MW-25		↓	1439	↓	↓	↓	
3	16-MW-24		↓	1530	↓	↓	↓	
4	FB-1		↓	1615	↓	↓	↓	2
5	TB-1				↓	↓	↓	
6	16-SW-01		11/13/07	1110	↓	GW	↓	
7	16-SW-02		↓	1115	↓	↓	↓	
8	16-MW-11		↓	1637	↓	↓	2	2

Enter Number of Containers Per Analysis

Receipt Information (completed by Sample Receiver)

Performed by:

Cooler Temp:

Therm. ID:

No. of Coolers:

Notes:

Circle appropriate Y or N.	Y	N
Correct containers?	Y	N
Correct sample volume?	Y	N
Correct preservation?	Y	N
Headspace/Volatiles?	Y	N
Custody seals Present?	Y	N
(if present) Seals intact?	Y	N
Received on ice?	Y	N
COC/Labels complete/accurate?	Y	N
Container in good condition?	Y	N

SAMPLED BY (Please Print): G. Fitch, J. Good

LOGGED BY(signature): DATE

REVIEWED BY(signature): DATE

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 Grace Fitch / ECOR	11/13/07	1715	2		
3			4		
5			6		
7			8		
9			10		

Data Deliverables: [ ] Standard [ ] CLP-like [ ] NJ-Reduced [ ] NJ-Full [ ] other

EDDs Required? [ ] If yes, format type:

DDD Criteria Required?

SDWA forms?⇒ yes [ ] yes [ ] yes [ ] yes [ ]

State Samples Collected In? MD [ ] NJ [X] NY [ ] PA [ ]

Other

⇒Enter PWSID No.

ALSI FIELD SERVICES: [ ] Pickup [ ] Labor [ ] Composite Sampling [ ] Rental Equipment [ ] Other:

* G=Grab; C=Composite

**Matrix: Al=Air; DW=Drinking Water; GW=Groundwater; Ol=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY

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Environmental • Industrial Hygiene • Field Services
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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page 1 of 2
Courier:
Tracking #:
COC#

Co. Name: ECOR Solutions, Inc.
Contact (Report to): Grace Fitch Phone: 484-887-7512
Address: 21 S. High St., 2nd Floor West Chester, PA 19382

Bill to (if different than Report to): PO#: NO100.177

Project Name/#: NWS Earle LTM ALSI Quote #:

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALSI approval and surcharges.
Date Required:
Approved By:

Email? [ ] -Y
Fax? [ ] -Y No.:

***Container Type	CG	AG																					
***Container Size	40mL	1 L																					
*** Preservative	HCl	Ø																					
ANALYSES/METHOD REQUESTED			624 + MTBE	625																			

	Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	624 + MTBE	625															
							Enter Number of Containers Per Analysis																
1	16-MW-08		11/14/17	1232	G	GW	2	2															
2	16-MW-10			1008			2	2															
3	18-MW-01	MS/MSD		1515			6	6															
4	DUP-1			0000			2	2															
5	FB-2			1730			2	2															
6	TB-2						2																
7																							
8																							

Receipt Information (completed by Sample Receiving)
Performed by: INITIAL HERE
Cooler Temp:
Therm. ID:
No. of Coolers:
Notes:

Correct containers?	Correct sample volume?	Correct preservation?	Headspace/Volatiles?	Circle appropriate Y or N.	
N	N	N	N		
Y	Y	Y	Y		
Custody seals Present?	(if present) Seals intact?	Received on ice?	COC/Labels complete/accurate?	Container in good condition?	
N	N	N	N	N	
Y	Y	Y	Y	Y	

SAMPLED BY (Please Print): J. Good, G. Fitch
LOGGED BY(signature): DATE TIME
REVIEWED BY(signature): DATE TIME

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 J. Good / ECOR	11/14/17	1500	2		
3			4		
5			6		
7			8		
9			10		

Data Deliverables: [ ] Standard [ ] CLP-like [ ] NJ-Reduced [ ] NJ-Full [ ] (other)
EDDs Required? [ ] If yes, format type:
SDWA Forms?⇒ yes [ ] yes [ ] yes [ ] yes [ ]
State Samples Collected In? MD [ ] NJ [X] NY [ ] PA [ ]
Other
⇒ Enter PWSID No.
DOD Criteria Required?

ALSI FIELD SERVICES
[ ] Pickup
[ ] Labor
[ ] Composite Sampling
[ ] Rental Equipment
[ ] Other:

* G=Grab; C=Composite **Matrix: AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY ***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page 2 of 2

Courier:

Tracking #:

COC#

Co. Name: ECOR Solutions, Inc.

Contact (Report to): Grace Fitch

Phone: 484-887-7510

Address: 21 S. High St., 2nd Floor West Chester, PA 19382

Bill to (if different than Report to):

PO#: NO100.177

Project Name/#: NWS Earle Annual LTM

ALSI Quote #:

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALSI approval and surcharges.

Date Required:

Approved By:

Email? [X] -Y fitch@ecor-solutions.com

Fax? [ ] -Y No.:

***Container Type	CG															
***Container Size	40mL															
*** Preservative	HCl															
ANALYSES/METHOD REQUESTED			624 + MTBE													

Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	Enter Number of Containers Per Analysis										
1 MW-102	time	11/6/07	1136	G	GW	2										
2 MW-106	MS/MSD · please note, on bottles is incorrect		1259			6										
3 MW-107			1013			2										
4 DUP-2			0000			2										
5 FB-3			1115			2										
6 TB-3						2										
7																
8																

Receipt Information (completed by Sample Receiving)

Performed by: INITIAL HERE

Cooler Temp:

Therm. ID:

No. of Coolers:

Notes:

Circle appropriate Y or N.				
Correct containers?	Correct sample volume?	Correct preservation?	Headspace/Volatiles?	
Y N	Y N	Y N	Y N	
Custody seals Present?	(if present) Seals intact?	Received on ice?	COC/Labels complete/accurate?	Container in good condition?
Y N	Y N	Y N	Y N	Y N

SAMPLED BY (Please Print):

LOGGED BY(signature): DATE TIME

REVIEWED BY(signature): DATE TIME

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 G. Fitch, J. Good	11/6/07	1500	2		
3 Grace Fitch			4		
5			6		
7			8		
9			10		

Data Deliverables: [ ] Standard [ ] CLP-like [ ] NJ-Reduced [ ] NJ-Full [ ] other

SDWA Forms?: yes [ ] yes [ ] yes [ ] yes [ ]

State Samples Collected In?: MD [ ] NJ [X] NY [ ] PA [ ] Other

EDDs Required? [ ] If yes, format type:

Enter PWSID No.

DOD Criteria Required?

ALSI FIELD SERVICES: [ ] Pickup [ ] Labor [ ] Composite Sampling [ ] Rental Equipment [ ] Other:

* G=Grab; C=Composite **Matrix: Al=Air; DW=Drinking Water; GW=Groundwater; Ol=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY ***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

Rev 6/07

ECOR Solutions Inc.

GROUNDWATER LEVEL MEASUREMENT SHEET

Project Name:	NWS Earle LTM	Project No.:	N0100.177
Location:	Earle, NJ	Personnel:	GF, JG
Weather Conditions:	cold, rainy, cloudy	Measuring Device:	heron dipper T
Tidally Influenced:	Yes ___ No X	Remarks:	

Date 2/4/08

Monitoring Well ID	Date	Time	Elevation of Reference Point (feet)*	Total Well Depth (feet)*	Depth to Water (feet)*	Thickness of Free Product (feet)*	Groundwater Elevation (feet)*	Comments
16-MW-08	2/4/08	10:42		19.48	9.31	—		
16-MW-10		1050		19.00	8.35	—		
16-MW-02		1054		16.87	6.26	—		
18-MW-01		1100		20.35	~~8.55~~ ← 8.73			
16-MW-05		1110		20.18	10.53	—		10.51 ← DTP
16-MW-11		1118		15.33	2.70	—		
16-MW-17		1121		12.73	3.93	—		
29-MW-01		1140		17.77	9.25			
16-MW-15		1210		11.41	3.49			
16-MW-25		1220		18.72	6.02			
16-MW-24		1230		16.83	4.06			
16-MW-04	↓	1242			8.19	←		Sheen of Product

*All measurements to the nearest 0.01 foot

GROUNDWATER SAMPLE LOG SHEET

page ___ of ___

Project Site Name: NWS Earle IJM
Project No.: N0100.177

Sample ID No.: 16-MW-24
Sample Location: Earle, NJ
Sampled By: GF, JG

SAMPLING DATA:	FINAL VALUES:						
Date: 2/4/08	Color (Visual)	Ph (Standard)	S.C. (mS/cm)	Temp (°C)	Turbidity (NTU)	DO (mg/l)	ORP (MV)
Time: 1535							
Purge Method: low flow	Clear	4.80	0.112	9.61	7.26	0.09	69.5

PURGE DATA:

Date: 2/4/08
Purge Method: low flow
PID Reading (ppm): —
Well Casing Diameter & Material: 2" PVC
Total Well Depth (TD): 16.83
Static Water Level (DTW): 4.06
Static Product Level (DTP) —
One Casing Volume (gal): —
Start Purge (hrs): 1515
End Purge (hrs): 1535
Total Purge Time (min): 20
Total Vol. Purged (gal/L): —

Purge Calculations:

1": 0.04080	6": 1.46869
2": 0.16319	8": 2.61101
3": 0.36717	10": 4.07970
4": 0.65275	12": 5.87477

Purge Vol = 3 × PF × (DTW - TD)

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
624 MTBE + BTEX	HCl	40mL glass vial	2

OBSERVATIONS/NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): Grace Fitch

ECOR Solutions Inc.

PURGE DATA SHEET

Date: 2/4/08

Sample ID No.: 16-MW-24

Time (hrs)	Water Level (ft. below TOC)	Flow (mL/min)	pH (SU)	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celsius)	ORP (mV)	Comments
1515 ~~1601~~	4.06	1560	4.93	0.102	28.5	0.30	9.27	84.4	
1520	4.06		4.88	0.100	13.3	0.11	9.55	65.0	
1525			4.88	0.110	7.95	0.09	9.61	65.5	
1530	4.06		4.84	0.111	7.38	0.09	9.62	68.3	
1535			4.80	0.112	7.26	0.09	9.61	69.5	

Signature(s): Grace Gitch

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWS Earle LTM
Project No.: N0100.177

Sample ID No.: 16-MW-15
Sample Location: Earle, NJ
Sampled By: GF, JG

SAMPLING DATA:	FINAL VALUES:						
Date: 2/4/08	Color (Visual)	Ph (Standard)	S.C. (mS/cm)	Temp (°C)	Turbidity (NTU)	DO (mg/l)	ORP (MV)
Time: 1329							
Purge Method: low flow	clear, colorless	4.23	0.185	8.09	15.8	0.92	306.6

PURGE DATA:

Date: 2/4/08
Purge Method: low flow / micropurge
PID Reading (ppm):
Well Casing Diameter & Material: 1" PVC
Total Well Depth (TD): 11.41
Static Water Level (DTW): 3.49
Static Product Level (DTP)
One Casing Volume (gal): NA
Start Purge (hrs): 1208
End Purge (hrs): 1329
Total Purge Time (min): 1hr 21 min
Total Vol. Purged (gal/L):

Purge Calculations:

1": 0.04080	6": 1.46869
2": 0.16319	8": 2.61101
3": 0.36717	10": 4.07970
4": 0.65275	12": 5.87477

Purge Vol = 3 × PF × (DTW - TD)

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
~~Method 624 VOCs~~ GF			
624 (MTBE+BTEX)	HCl	40 mL glass vial	2

OBSERVATIONS/NOTES:

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s): Grace Fitch

ECOR Solutions Inc.

PURGE DATA SHEET

Date: 2/4/08

Sample ID No.: 16-MW-15

Time	Water Level	Flow	pH	Cond.	Turb.	DO	Temp.	ORP	Comments
			+/- .2	+/- 3%	+/- 10%	+/- 10%	+/- 3%	+/- 10mV	
(hrs)	(ft. below TOC)	(mL/min)	(SU)	(mS/cm)	(NTU)	(mg/L)	(Celsius)	(mV)	
1214	3.60	80	5.30	0.117	13.9	13.01	7.52	230.1	
1219			4.42	0.197	18.8	5.54	7.72	261.9	
1224			4.32	0.191	73.3	5.12	7.80	267.0	
1229			4.26	0.194	85.7	3.97	7.81	271.9	
1234	3.59		4.22	0.195	73.2	3.28	7.87	279.1	
~~1240~~ ←	1239		4.12	0.186	58.1	2.98	7.93	283.2	
~~1245~~ ←	1244		4.09	0.187	54.2	2.87	8.03	289.4	
~~1250~~ ←	1249		4.15	0.189	44.2	2.52	8.10	292.3	
1254			4.32	0.182	38.8	2.39	8.13	295.9	
1259			4.29	0.185	35.3	2.21	8.10	298.1	
1304			4.12	0.188	27.2	1.87	8.13	301.2	
1309			4.30	0.186	24.9	1.58	8.15	301.7	
1314			4.20	0.187	21.0	1.43	8.09	303.2	
1319			4.14	0.187	17.2	1.02	8.08	306.0	
1324			4.24	0.186	17.0	0.97	8.08	306.4	
1329			4.23	0.185	15.8	0.92	8.09	306.6	

Signature(s): Grace Fitch

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWS Earle LTM
Project No.: N0100.177

Sample ID No.: 16-MW-25
Sample Location: Colts Neck, NJ
Sampled By: JT, GF

SAMPLING DATA:

Date: 2/4/08
Time: 1445
Purge Method: low flow

FINAL VALUES:

Color (Visual)	Ph (Standard)	S.C. (mS/cm)	Temp (°C)	Turbidity (NTU)	DO (mg/l)	ORP (MV)
	3.81	0.082	9.94	6.25	2.30	310.3

PURGE DATA:

Date: 2/4/08
Purge Method: low flow / micropurge
PID Reading (ppm): —
Well Casing Diameter & Material: 2" PVC
Total Well Depth (TD): 18.72
Static Water Level (DTW): 6.02
Static Product Level (DTP) —
One Casing Volume (gal): —
Start Purge (hrs): 1345
End Purge (hrs): 1445
Total Purge Time (min): 1hr
Total Vol. Purged (gal/L):

Purge Calculations:

1": 0.04080	6": 1.46869
2": 0.16319	8": 2.61101
3": 0.36717	10": 4.07970
4": 0.65275	12": 5.87477

Purge Vol = 3 × PF × (DTW - TD)

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
BTEX + MTBE (624)	HCl	40 mL CG	2

OBSERVATIONS/NOTES:

Sulfurous odor

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s): Grace Fitch

ECOR Solutions Inc.

PURGE DATA SHEET

Date: 2/4/08

Sample ID No.: 16-MW-25

Time (hrs)	Water Level (ft. below TOC)	Flow (mL/min)	pH (SU)	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celsius)	ORP (mV)	Comments
1350	6.02	1400	3.64	0.092	41.9	5.03	9.68	310.1	
1355			3.77	0.087	41.6	3.99	9.90	176.8	
1400	6.02		3.77	0.085	27.5	3.26	9.89	198.2	
1405			3.77	0.084	17.9	3.18	9.95	211.3	
1410			3.76	0.084	11.6	2.88	9.96	256.9	
1415			3.78	0.084	10.07	2.74	9.94	271.8	
1420			3.79	0.083	8.90	2.61	9.94	293.6	
1425			3.80	0.083	8.00	2.49	9.94	301.6	
1430									→ change out tank
1435			3.78	0.085	6.55	2.35	9.85	303.2	
1440			3.81	0.082	6.78	2.29	9.93	309.6	
1445			3.81	0.082	6.25	2.30	9.94	310.3	

Signature(s): Grace Fitch

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWS Earle LTM
Project No.: ND100.177

Sample ID No.: 16-MW-11
Sample Location: Earle, NJ
Sampled By: GF, JG

SAMPLING DATA:	FINAL VALUES:						
Date: 2/4/08	Color (Visual)	Ph (Standard)	S.C. (mS/cm)	Temp (°C)	Turbidity (NTU)	DO (mg/l)	ORP (MV)
Time: 1730							
Purge Method: low flow	clear, colorless	3.76	0.357	10.94	60.8	0.27	368.7

PURGE DATA:

Date: 2/4/08
Purge Method: low flow
PID Reading (ppm): —
Well Casing Diameter & Material: 2" PVC
Total Well Depth (TD): 15.33
Static Water Level (DTW): 2.70
Static Product Level (DTP) —
One Casing Volume (gal): —
Start Purge (hrs): 1554
End Purge (hrs): 1730
Total Purge Time (min): 1 hr 36 min
Total Vol. Purged (gal/L):

Purge Calculations:

1": 0.04080	6": 1.46869
2": 0.16319	8": 2.61101
3": 0.36717	10": 4.07970
4": 0.65275	12": 5.87477

Purge Vol = 3 × PF × (DTW - TD)

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
624 (MTBE + BTEX)	HCl	40 ml glass vial	2
625 (Naphthalene	Ø	1 L amber glass	2

OBSERVATIONS/NOTES:

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s): Grace Fitch

ECOR Solutions Inc.

PURGE DATA SHEET

Date: 16-MW-11

Sample ID No.: 2/4/08

Time (hrs)	Water Level (ft. below TOC)	Flow (mL/min)	pH (SU)	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celsius)	ORP (mV)	Comments
1554		1500	3.78	0.369	585	1.45	10.73	210.7	
1559			3.86	0.418	>1200	0.19	11.45	250.2	
1604			3.87	0.409	>1200	0.15	11.45	270.7	
1609									look @ pump
1615			3.72	0.369	>1200	0.58	11.03	304.5	
1620			3.72	0.360	>1200	0.36	10.95	317.3	
1625	2.75		3.72	0.360	>1200	0.29	10.93	326.1	
1630			3.73	0.359	1067	0.25	10.93	337.0	
1635			3.73	0.361	824	0.25	10.93	343.6	
1640			3.74	0.358	652	0.25	10.91	349.9	
1645			3.74	0.356	448	0.25	10.90	353.8	
1650			3.74	0.355	298	0.25	10.91	357.7	
1655			3.75	0.357	204	0.26	10.92	360.8	
1700			3.75	0.359	145	0.26	10.93	363.0	
1705			3.75	0.358	112	0.26	10.92	365.0	
1710			3.75	0.356	95.5	0.27	10.92	366.7	
1715			3.76	0.358	68.4	0.27	10.94	367.9	
1720			3.75	0.360	62.4	0.27	10.95	368.6	
1725			3.76	0.359	61.1	0.27	10.95	368.6	
1730			3.76	0.357	60.8	0.27	10.94	368.7	

Signature(s): Grace Fitch

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWS Earle LTM
Project No.: N0100.177

Sample ID No.: 16-MW-08
Sample Location: Earle, NJ
Sampled By: GF, JG

SAMPLING DATA:	FINAL VALUES:						
Date: 2/5/08	Color (Visual)	Ph (Standard)	S.C. (mS/cm)	Temp (°C)	Turbidity (NTU)	DO (mg/l)	ORP (MV)
Time: 1110							
Purge Method: low flow	clear, coloriess	5.51	0.249	12.83	25.2	0.00	36

PURGE DATA:

Date: 2/5/08
Purge Method: low flow
PID Reading (ppm): ——
Well Casing Diameter & Material: 2" PVC
Total Well Depth (TD): 19.48
Static Water Level (DTW): 9.31
Static Product Level (DTP) ——
One Casing Volume (gal): ——
Start Purge (hrs): 0915
End Purge (hrs): 1110
Total Purge Time (min): 1hr 55 min
Total Vol. Purged (gal/L):

Purge Calculations:

1": 0.04080	6": 1.46869
2": 0.16319	8": 2.61101
3": 0.36717	10": 4.07970
4": 0.65275	12": 5.87477

Purge Vol = 3 × PF × (DTW - TD)

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
624 (BTEX+MTBE)	HCl	40 ml glass vial	2
625 (Naphthalene)	Ø	1L amber glass	2

OBSERVATIONS/NOTES:

*using a rented Horriba U-22

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): Grace Fitch

ECOR Solutions Inc.

PURGE DATA SHEET

Date: 2/5/08

Sample ID No.: 16-MW-08

Time (hrs)	Water Level (ft. below TOC)	Flow (mL/min)	pH (SU)	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celsius)	ORP (mV)	Comments
0915	9.72	720	4.42	0.037	>1200	0.00	11.47	147	
0920	11.30		4.55	0.029	449.0	0.00	12.40	139	
0925			4.55	0.029	416.0	0.00	12.57	132	
0930			4.55	0.031	318.0	0.00	12.63	127	
0935			4.49	0.035	177.0	0.00	12.60	124	
0940			4.53	0.038	111.0	0.00	12.66	121	
0945			4.50	0.044	77.5	0.00	12.64	118	
0950			4.56	0.048	80.7	0.00	12.65	112	
0955			4.66	0.057	45.1	0.00	12.64	105	
1000			4.69	0.067	35.8	0.00	12.60	104	
1005			4.73	0.078	33.4	0.43	12.62	99	
1010			4.79	0.093	31.7	0.00	12.64	93	
1015			4.87	0.107	27.8	0.00	12.66	89	
1020			4.95	0.120	26.3	0.00	12.65	84	
1025			5.13	0.145	26.6	0.00	12.75	73	
1030			5.17	0.160	26.3	0.00	12.72	66	
1035			5.17	0.175	26.9	0.00	12.70	62	
1040			5.27	0.191	25.0	0.00	12.83	56	
1045			5.34	0.205	24.5	0.00	12.86	51	
1050			5.34	0.218	25.2	0.00	12.84	47	
1055			5.43	0.232	24.8	0.00	12.84	42	
1100			5.48	0.242	24.1	0.00	12.86	37	
1105			5.49	0.245	26.1	0.00	12.85	37	
1110			5.51	0.249	25.2	0.00	12.83	36	
~~GF 1115~~									

Signature(s): Grace Fitch

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWS Earle LTM
Project No.: N0100.177

Sample ID No.: 16-MW-10
Sample Location: Earle, NJ
Sampled By: GF, JG

SAMPLING DATA:	FINAL VALUES:						
Date: 2/5/08	Color (Visual)	Ph (Standard)	S.C. (mS/cm)	Temp (°C)	Turbidity (NTU)	DO (mg/l)	ORP (MV)
Time: 1245							
Purge Method: low flow	clear, colorless	5.85	0.373	13.62	37.5	0.00	-2

PURGE DATA:

Date: 2/5/08
Purge Method: low flow
PID Reading (ppm): —
Well Casing Diameter & Material: 2" PVC
Total Well Depth (TD): 19.00
Static Water Level (DTW): 8.35
Static Product Level (DTP) —
One Casing Volume (gal): —
Start Purge (hrs): 1140
End Purge (hrs): 1245
Total Purge Time (min): 1hr 5min
Total Vol. Purged (gal/L):

Purge Calculations:

1": 0.04080	6": 1.46869
2": 0.16319	8": 2.61101
3": 0.36717	10": 4.07970
4": 0.65275	12": 5.87477

Purge Vol = 3 × PF × (DTW - TD)

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
624 (MTBE + BTEX)	HCl	40 mL glass vial	2×2 = 4
625 Naphthalene	None	1 L amber glass	2×2 = 4

OBSERVATIONS/NOTES:

DUP-1 collected

*used Horriba U-22 rented

Circle if Applicable:

MS/MSD

Duplicate ID No.: DUP-1

Signature(s): Grace Fitch

ECOR Solutions Inc.

PURGE DATA SHEET

Date: 16-MW-10

Sample ID No.: 2/5/08

Time (hrs)	Water Level (ft. below TOC)	Flow (mL/min)	pH (SU)	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celsius)	ORP (mV)	Comments
1140	8.70	1200	5.70	0.327	284.0	1.16	13.13	39	
1145	8.51		5.68	0.353	585.0	0.00	13.37	32	
1150	8.72		5.69	0.359	342.0	0.00	13.40	29	
1155			5.72	0.363	161.0	0.00	13.51	24	
1200			5.76	0.365	92.8	0.00	13.55	18	
1205			5.78	0.367	77.6	0.00	13.57	17	
1210			5.78	0.367	69.2	0.00	13.58	14	
1215			5.82	0.368	58.8	0.00	13.60	10	
1220			5.82	0.368	53.2	0.00	13.62	7	
1225			5.86	0.371	49.2	0.00	13.60	4	
1230			5.84	0.370	46.1	0.00	13.58	3	
1235			5.85	0.372	40.2	0.00	13.60	1	
1240			5.87	0.373	38.9	0.00	13.60	0	
1245			5.85	0.373	37.5	0.00	13.62	-2	

Signature(s): Grace Fitch

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWS Earle LTM
Project No.: N0100.177

Sample ID No.: 18-MW-01
Sample Location: Earle, NJ
Sampled By: GF, JG

SAMPLING DATA:

Date: 2/5/08
Time: 1533
Purge Method: low flow

FINAL VALUES:

Color (Visual)	Ph (Standard)	S.C. (mS/cm)	Temp (°C)	Turbidity (NTU)	DO (mg/l)	ORP (MV)
Clear, colorless	5.02	0.103	13.78	7.4	0.00	168

PURGE DATA:

Date: 2/5/08
Purge Method: low flow
PID Reading (ppm): —
Well Casing Diameter & Material: 4" Steel
Total Well Depth (TD): 20.35
Static Water Level (DTW): 8.73
Static Product Level (DTP) —
One Casing Volume (gal): —
Start Purge (hrs): 1348
End Purge (hrs): 1533
Total Purge Time (min): 1 hr 45 min
Total Vol. Purged (gal/L):

Purge Calculations:

1": 0.04080	6": 1.46869
2": 0.16319	8": 2.61101
3": 0.36717	10": 4.07970
4": 0.65275	12": 5.87477

Purge Vol = 3 × PF × (DTW - TD)

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
624 (MTBE + BTEX)	HCl	40mL glass vial	2×3=6
625 (naphthalene)	Ø	1L glass (amber)	2×3=6

OBSERVATIONS/NOTES:

– MS/MSD collected –

Circle if Applicable: MS/MSD

Duplicate ID No.:

Signature(s): Grace Fitch

ECOR Solutions Inc.

PURGE DATA SHEET

Date: 2/5/08

Sample ID No.: 18-MW-01

Time (hrs)	Water Level (ft. below TOC)	Flow (mL/min)	pH (SU)	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celsius)	ORP (mV)	Comments
1348		1120	5.36	0.058	41.9	6.36	13.46	110	
1353	9.30		5.17	0.055	28.6	5.38	13.45	139	
1358			5.03	0.054	18.2	4.65	13.52	158	
1403			5.00	0.053	17.1	4.17	13.55	165	
1408			5.01	0.051	14.5	3.72	13.61	170	
1413			5.03	0.051	17.4	3.43	13.57	171	
1418			4.99	0.047	15.4	2.85	13.63	173	
1423			5.02	0.047	15.5	2.34	13.69	170	
1428			4.97	0.046	13.2	2.01	13.68	170	switch out tank
1433			5.00	0.046	12.5	1.66	13.68	171	
1438			5.01	0.047	11.1	1.45	13.66	174	
1443			5.04	0.051	11.3	1.09	13.71	171	
1448			4.99	0.054	11.4	0.72	13.72	166	
1453			5.04	0.058	9.6	0.53	13.73	169	
1458			5.03	0.067	9.7	0.33	13.74	169	
1503			5.02	0.073	9.4	0.17	13.76	165	
1508			5.04	0.081	8.6	0.12	13.77	166	
1513			5.02	0.089	8.4	0.06	13.79	168	
1518			5.02	0.103	7.5	0.05	13.77	164	
1523			5.06	0.101	7.8	0.00	13.76	167	
1528			5.07	0.103	7.6	0.00	13.78	165	
1533			5.02	0.103	7.4	0.00	13.78	168	

Signature(s): Grace Fitch

Analytical Laboratory Services, Inc.
Environmental • Industrial Hygiene • Field Services
34 Dogwood Lane • Middletown, PA 17057 • 717.944.5541 • Fax: 717.944.1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page 1 of 1
Courier:
Tracking #:
COC#

Co. Name: ECOR Solutions, Inc.
Contact (Report to): Grace Fitch Phone: 484-887-7510
Address: 21 S. High St., 2nd Floor West Chester, PA 19382

Bill to (if different than Report to): PO#: N0100.177

Project Name/#: NAS Earle LTM / N0100.177 ALSI Quote #:

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALSI approval and surcharges.
Date Required:
Approved By:

Email? [ ] -Y
Fax? [ ] -Y No.:

	Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	G24 (BTEX + MTBE)	G25 (Naphthalene)								
	***Container Type						CG	AG								
	***Container Size						40mL	1L								
	*** Preservative						HCl	~~0~~								
1	16-MW-11		2/4/08	1730	G	GW	2	2								
2	16-MW-15			1329												
3	16-MW-24			1535												
4	16-MW-25			1445												
5	16-SW-01			1255		SW										
6	16-SW-02			1300		SW										
7	FB-1			1745		GW		2								
8	TB-1															

ANALYSES/METHOD REQUESTED — Enter Number of Containers Per Analysis

	Correct containers?	Correct sample volume?	Correct preservation?	Headspace/Volatiles?	Circle appropriate Y or N.
	N	N	N	N	
	Y	Y	Y	Y	
	Custody seals Present?	(if present) Seals intact?	Received on ice?	COC/Labels complete/accurate?	Container in good condition?
	N	N	N	N	N
	Y	Y	Y	Y	Y

Receipt Information (completed by Sample Receiving)
Performed by: INITIAL HERE
Cooler Temp:
Therm. ID:
No. of Coolers:
Notes:

SAMPLED BY (Please Print): G. Fitch, J. Geed
LOGGED BY(signature): DATE TIME
REVIEWED BY(signature): DATE TIME

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 Grace Fitch / ECOR Solutions	2/4/08	1800	2		
3			4		
5			6		
7			8		
9			10		

Data Deliverables: [ ] Standard [ ] CLP-like [ ] NJ-Reduced [X] NJ-Full [ ] other
EDDs Required? [ ] If yes, format type:
DOD Criteria Required?

SDWA Forms?⇒ yes [ ] yes [ ] yes [ ] yes [ ]
State Samples Collected in? MD [ ] NJ [X] NY [ ] PA [ ]
Other
⇒ Enter PWSID No.

ALSI FIELD SERVICES
[ ] Pickup
[ ] Labor
[ ] Composite Sampling
[ ] Rental Equipment
[ ] Other:

* G=Grab; C=Composite
**Matrix: AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY

Rev 6/07

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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page 1 of 1
Courier:
Tracking #:
COC#

Co. Name: ECOR Solutions Inc.
Contact (Report to): Grace Fitch
Phone: 484-887-7510
Address: 21 S. High Street, 2nd Floor West Chester, PA 19382

Bill to (if different than Report to):
PO#: N0100.177
Project Name/#: NWS Earle LTM/N0100.177
ALSI Quote #:
TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALSI approval and surcharges.
Date Required:
Approved By:
Email? -Y
Fax? -Y No.

***Container Type	CG	AG
***Container Size	40mL	1L
***Preservative	HCl	Ø

ANALYSES/METHOD REQUESTED — Enter Number of Containers Per Analysis

	Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	624 (BTEX+MTBE)	625 (Naphthalene)
1	16-MW-08		2/5/08	1110	G	GW	2	2
2	16-MW-10		↓	1245	↓	↓	↓	↓
3	DUP-1		↓	0000	↓	↓	↓	↓
4	18-MW-01	MS/MSD Collected	↓	1533	↓	↓	6	6
5	FB-2		↓	1600	↓	↓	2	2
6	TB-2						2	
7								
8								

Receipt Information (completed by Sample Receiving)
Performed by: INITIAL HERE
Cooler Temp:
Therm. ID:
No. of Coolers:
Notes:
Correct containers? Y N
Correct sample volume? Y N
Correct preservation? Y N
Headspace/Volatiles? Y N
Circle appropriate 'Y' or N.
Custody seals Present? Y N
(if present) Seals intact? Y N
Received on ice? Y N
COC/Labels complete/accurate? Y N
Container in good condition? Y N

SAMPLED BY (Please Print): G. Fitch, J. Good
LOGGED BY(signature): DATE TIME
REVIEWED BY(signature): DATE TIME

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 Grace Fitch / ECOR	2/5/08	1730	2		
3			4		
5			6		
7			8		
9			10		

Data Deliverables: [ ] Standard [ ] CLP-like [ ] NJ-Reduced [ ] NJ-Full [ ] other
SDWA Forms? yes [ ] yes [ ] yes [ ] yes [ ]
State Samples Collected In? MD [ ] NJ [X] NY [ ] PA [ ]
EDDs Required? [ ] If yes, format type: Other
⇒ Enter PWSID No.
DOD Criteria Required?

ALSI FIELD SERVICES
[ ] Pickup
[ ] Labor
[ ] Composite Sampling
[ ] Rental Equipment
[ ] Other:

* G=Grab; C=Composite
**Matrix: AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY

Rev 6/07

ECOR Solutions Inc.

GROUNDWATER LEVEL MEASUREMENT SHEET

Project Name: NWS Earle LTM Q4
Location: Earle, NJ
Weather Conditions: warm, sunny, 70° F
Tidally Influenced: Yes ___ No X

Project No.: N0100.177
Personnel: GF, JG
Measuring Device: ~~Solo~~ heron dipper T
Remarks:

Monitoring Well ID	Date	Time	Elevation of Reference Point (feet)*	Total Well Depth (feet)*	Depth to Water (feet)*	~~Thickness of Free Product (feet)*~~ DTP	Groundwater Elevation (feet)*	Comments
16-MW-08	0949	5/5/08			11.87	~~1~~		
16-MW-10	0944				8.70			
16-MW-02	0952				6.73			
18-MW-01	1007				9.03			
16-MW-05	0935				10.82	10.75		
16-MW-11	1002				2.97			
16-MW-17	0958				4.14			
29-MW-01	1005				9.81			
16-MW-15	1042				3.85			
16-MW-25	1034				6.68			
16-MW-24	1039				3.95			
16-MW-04	0930				8.32	8.25		
16-MW-16	0955				4.02			

*All measurements to the nearest 0.01 foot

ECOR Solutions Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWS Earle LTM Q4
Project No.: N0100.177

Sample ID No.: 16-MW-15
Sample Location: Earle, NJ
Sampled By: GF, JG

SAMPLING DATA:

Date: 5/5/08
Time: 1207
Purge Method: low flow

FINAL VALUES:

Color (Visual)	Ph (Standard)	S.C. (mS/cm)	Turbidity (NTU)	DO (mg/l)	ORP (MV)	Temp (°C)
clear, colorless	4.68	0.224	9.47	0.16	284.8	13.48

PURGE DATA:

Date: 5/5/08
Purge Method: low flow
PID Reading (ppm):
Well Casing Diameter & Material: 2" PVC
Total Well Depth (TD):
Static Water Level (DTW): 3.85
Static Product Level (DTP) ——
One Casing Volume (gal): ——
Start Purge (hrs): 1052
End Purge (hrs): 1207
Total Purge Time (min): 1 hr 15 min
Total Vol. Purged (gal/L):

Purge Calculations:

1": 0.04080	6": 1.46869
2": 0.16319	8": 2.61101
3": 0.36717	10": 4.07970
4": 0.65275	12": 5.87477

Purge Vol = 3 × PF × (DTW - TD)

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
~~8260 B (VOCs)~~ 624 + MTBE	HCl	40 ml glass vial	2

OBSERVATIONS/NOTES:

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s): Grace Fitch

ECOR Solutions Inc.

PURGE DATA SHEET

Date: 5/5/08

Sample ID No.: 16-MW-15

Time (hrs)	Water Level (ft. below TOC)	Flow (mL/min)	pH (SU)	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celsius)	ORP (mV)	Comments
1057		75	4.83	0.405	18.0	6.37	14.35	161.1	
1102			4.64	0.305	15.1	3.04	13.62	171.8	
1107			4.61	0.317	17.9	1.29	13.43	180.8	
1112			4.65	0.236	15.8	0.61	13.15	192.8	
1117	3.93		4.64	0.233	28.4	0.56	13.06	194.7	
1122			4.67	0.228	23.6	0.43	13.21	205.0	
1127			4.66	0.227	21.7	0.31	13.24	219.4	
1132			4.66	0.230	18.1	0.26	13.14	232.5	
1137	3.93		4.66	0.227	16.5	0.27	13.02	243.6	
1142			4.69	0.227	15.1	0.28	13.46	256.8	
1147			4.72	0.226	12.7	0.23	13.41	260.9	
1152			4.71	0.224	12.0	0.18	13.46	267.8	
1157			4.68	0.228	10.18	0.16	13.28	274.9	
1202			4.67	0.224	9.58	0.17	13.45	283.8	
1207			4.68	0.224	9.47	0.16	13.48	284.8	

Signature(s): Shane Fitch

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWS Earle LTM
Project No.: N0100.177

Sample ID No.: 116-MW-25
Sample Location: Earle, NJ
Sampled By: GF, JG

SAMPLING DATA:	FINAL VALUES:						
Date: 5/5/08	Color (Visual)	Ph (Standard)	S.C. (mS/cm)	Turbidity (NTU)	DO (mg/l)	ORP (MV)	Temp (°C)
Time: 1313							
Purge Method: low flow	clear	4.49	0.075	7.29	2.23	169.4	10.16
PURGE DATA:	colorless						

Date: 5/5/08
Purge Method: low flow/micropurger
PID Reading (ppm): —
Well Casing Diameter & Material: 2" PVC
Total Well Depth (TD): —
Static Water Level (DTW): 6.68
Static Product Level (DTP)
One Casing Volume (gal):
Start Purge (hrs): 1224
End Purge (hrs): 1313
Total Purge Time (min): 49 min
Total Vol. Purged (gal/L):

Purge Calculations:

1": 0.04080	6": 1.46869
2": 0.16319	8": 2.61101
3": 0.36717	10": 4.07970
4": 0.65275	12": 5.87477

Purge Vol = 3 × PF × (DTW - TD)

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
~~8260B (VOCs)~~ 624 + MTBE	HCl	40 ml glass vial	2

OBSERVATIONS/NOTES:

Circle if Applicable:		Signature(s):
MS/MSD	Duplicate ID No.:	Grace Fitch

ECOR Solutions Inc.

PURGE DATA SHEET

Date: 5/5/08

Sample ID No.: 16-MW-25

Time (hrs)	Water Level (ft. below TOC)	Flow (mL/min)	pH (SU)	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celsius)	ORP (mV)	Comments
1228		1400	4.54	0.078	39.2	0.74	10.26	126.3	
1233			4.50	0.074	15.3	1.49	10.20	128.5	
1238			4.49	0.075	11.9	1.72	10.18	132.9	
1243	5.28		4.51	0.075	10.01	1.90	10.14	138.6	
1248			4.46	0.075	8.87	2.04	10.17	146.7	
1253			4.46	0.075	8.45	2.11	10.18	151.9	
1258			4.45	0.075	7.73	2.15	10.16	157.0	
1303			4.46	0.075	7.97	2.19	10.15	162.6	
1308	5.40		4.48	0.075	7.42	2.22	10.16	167.3	
1313			4.49	0.075	7.29	2.23	10.16	169.4	

Signature(s): Grace Fitch

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWS Earle LTM
Project No.: N0100.177

Sample ID No.: 16-MW-24
Sample Location: Earle, NJ
Sampled By: GF, JG

SAMPLING DATA:

Date: 5/5/08
Time: 1400
Purge Method: micropurge

FINAL VALUES:

Color (Visual)	Ph (Standard)	S.C. (mS/cm)	Turbidity (NTU)	DO (mg/l)	ORP (MV)	Temp (°C)
clear, colorless	4.88	0.122	7.08	0.15	81.2	10.49

PURGE DATA:

Date: 5/5/08
Purge Method: micropurge
PID Reading (ppm):
Well Casing Diameter & Material: 2" PVC
Total Well Depth (TD):
Static Water Level (DTW): 3.95
Static Product Level (DTP)
One Casing Volume (gal):
Start Purge (hrs): 1325
End Purge (hrs): 1400
Total Purge Time (min): 35 min
Total Vol. Purged (gal/L):

Purge Calculations:

1": 0.04080	6": 1.46869
2": 0.16319	8": 2.61101
3": 0.36717	10": 4.07970
4": 0.65275	12": 5.87477

Purge Vol = 3 × PF × (DTW - TD)

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
~~8260B (VOCs)~~ 1624 + MTBE	HCl	40 mL glass vial	2

OBSERVATIONS/NOTES:

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s): Grace Fitch

ECOR Solutions Inc.

PURGE DATA SHEET

Date: 5/5/08

Sample ID No.: 16-MW-24

Time (hrs)	Water Level (ft. below TOC)	Flow (mL/min)	pH (SU)	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celsius)	ORP (mV)	Comments
1325	3.95	790	5.20	0.087	37.3	1.00	10.57	92.0	
1330	4.22		4.77	0.105	13.7	0.23	10.43	92.1	
1335			5.06	0.115	11.4	0.18	10.34	86.0	
1340			5.02	0.111	8.91	0.17	10.37	84.0	
1345			4.98	0.110	8.00	0.16	10.39	82.8	
1350			4.85	0.121	7.78	0.15	10.52	82.3	
1355	4.15		4.81	0.120	7.31	0.16	10.49	81.6	
1400			4.88	0.122	7.08	0.15	10.49	81.2	

Signature(s): Grace Fitch

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWS Earle LTM
Project No.: N0100177

Sample ID No.: 116-MW-11
Sample Location: Earle, NJ
Sampled By: GF, JG

SAMPLING DATA:	FINAL VALUES:						
Date: 5/5/08	Color (Visual)	Ph (Standard)	S.C. (mS/cm)	Turbidity (NTU)	DO (mg/l)	ORP (MV)	Temp (°C)
Time: 1547							
Purge Method: micropurge	clear colorless	4.15	0.458	9.85	0.13	192.4	11.40

PURGE DATA:

Date: 5/5/08
Purge Method: micropurge
PID Reading (ppm): ——
Well Casing Diameter & Material: 2" PVC
Total Well Depth (TD): ——
Static Water Level (DTW): 2.90
Static Product Level (DTP): ——
One Casing Volume (gal): ——
Start Purge (hrs): 1420
End Purge (hrs): 1547
Total Purge Time (min): 1 hr 27 min
Total Vol. Purged (gal/L):

Purge Calculations:

1": 0.04080	6": 1.46869
2": 0.16319	8": 2.61101
3": 0.36717	10": 4.07970
4": 0.65275	12": 5.87477

Purge Vol = 3 × PF × (DTW - TD)

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
~~8260B (VOCs)~~	HCl	40 ml glass vial	~~2~~ 2
624 + MTBE			
625	Ø	1L Amber Glass	2

OBSERVATIONS/NOTES:

Pump needs fixed; shoots water up + out

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s): Grace Fitch

ECOR Solutions Inc.

PURGE DATA SHEET

Date: 5/5/08

Sample ID No.: 16-MW-11

Time (hrs)	Water Level (ft. below TOC)	Flow (mL/min)	pH (SU)	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celsius)	ORP (mV)	Comments
1422		630	4.23	0.445	197	5.58	~~11.6~~ 12.33	148.8	
1427			4.12	0.460	434	0.20	11.57	162.4	
1432			4.13	0.461	334	0.14	11.53	166.6	
1437			4.16	0.459	241	0.13	11.47	169.2	
1442			4.17	0.454	155	0.12	11.45	171.7	
1447			4.18	0.454	102	0.12	11.44	~~174.5~~ ← 174.5	
1452	2.65		4.19	0.455	81.8	0.12	11.40	176.6	
1457			4.19	0.457	81.9	0.13	11.43	178.6	
~~11~~ 1502			4.20	0.462	57.5	0.12	11.47	180.5	
1507			4.21	0.458	41.0	0.13	11.46	182.1	
1512			4.19	0.460	30.2	0.13	11.40	183.9	
1517			4.19	0.458	23.2	0.12	11.43	185.0	
1522			4.18	0.458	18.3	0.12	11.42	186.3	
1527			4.17	0.456	15.4	0.13	11.40	187.9	
1532			4.16	0.456	13.8	0.12	11.37	189.5	
1537			4.15	0.458	10.60	0.13	11.39	190.8	
1542			4.15	0.458	10.31	0.13	11.40	192.3	
1547			4.15	0.458	9.85	0.13	11.40	192.4	

Signature(s): Grace Fitch

GROUNDWATER SAMPLE LOG SHEET

ECOR Solutions Inc.

Project Site Name: NWS Earle LTM Q4FY07
Project No.: N0100.177
Sample ID No.: 16-MW-08
Sample Location: Earle, NJ
Sampled By: GF, JG

SAMPLING DATA:

Date: 5/6/08
Time: 1053
Purge Method: micropurge

FINAL VALUES:

Color (Visual)	Ph (Standard)	S.C. (mS/cm)	Turbidity (NTU)	DO (mg/l)	ORP (MV)	Temp (°C)
	5.04	0.376	31.3	0.07	97.2	12.54

PURGE DATA:

Date: 5/6/08
Purge Method: micropurge
PID Reading (ppm): ——
Well Casing Diameter & Material: 2" PVC
Total Well Depth (TD): ——
Static Water Level (DTW): 11.87
Static Product Level (DTP) ——
One Casing Volume (gal): ——
Start Purge (hrs): 0853
End Purge (hrs): 1053
Total Purge Time (min): 2hr
Total Vol. Purged (gal/L): ——

Purge Calculations:

1": 0.04080	6": 1.46869
2": 0.16319	8": 2.61101
3": 0.36717	10": 4.07970
4": 0.65275	12": 5.87477

Purge Vol = 3 × PF × (DTW - TD)

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
624 + MTBE	HCl	40 ml glass vial	2
625	Ø	1L amber glass	2

OBSERVATIONS/NOTES:

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s): Grace Fitch

May 15th 845

ECOR Solutions Inc.

PURGE DATA SHEET

Date: 5/6/08

Sample ID No.: 16-MW-08

Time (hrs)	Water Level (ft. below TOC)	Flow (mL/min)	pH (SU)	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celsius)	ORP (mV)	Comments
0853	10.72		5.08	0.085	>1200	2.33	13.58	98.7	
0858		500	4.36	0.074	>1200	0.36	12.38	137.9	
0903			4.34	0.067	>1200	0.16	12.47	157.7	
0908			4.59	0.069	>1200	0.15	12.59	139.6	
0913			4.65	0.072	>1200	0.13	12.57	136.6	
0918			4.66	0.077	278	0.14	12.57	135.2	
0923			4.65	0.087	256	0.16	12.55	136.5	
0928			4.66	0.098	195	0.15	12.63	135.0	
0933	11.10		4.68	0.112	150	0.15	12.70	133.5	
0938			4.70	0.132	164	0.18	12.64	132.4	
0943			4.73	0.156	74.4	0.16	12.67	129.3	
0948			4.80	0.169	107.9	0.14	12.62	127.7	
0953			4.84	0.194	129	0.13	12.77	122.1	
0958			4.76	0.206	87.6	0.11	12.60	127.1	
1003			4.83	0.225	121	0.07	12.51	124.0	
1008			4.87	0.247	61.9	0.07	12.52	121.5	
1013			4.91	0.249	57.0	0.07	12.54	117.6	
1018			4.95	0.293	45.5	0.06	12.59	117.0	
1023			4.98	0.309	50.8	0.07	12.54	108.2	
1028			4.98	0.311	67.1	0.07	12.54	108.8	
1033			5.07	0.345	53.8	0.07	12.65	104.1	
1038			5.07	0.361	73.1	0.06	12.54	101.9	
1043			5.08	0.376	58.2	0.06	12.61	97.0	
1048			5.06	0.376	45.6	0.07	12.59	97.1	
1053			5.04	0.376	31.3	0.07	12.54	97.2	

Signature(s): Grace Fitch

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWS Earle
Project No.: N0100.177

Sample ID No.: 16-MW-10
Sample Location: Colts Neck, NJ
Sampled By: GF, JF

SAMPLING DATA:

Date: 5/6/08
Time: 1224
Purge Method: micropurge

FINAL VALUES:

Color (Visual)	Ph (Standard)	S.C. (mS/cm)	Turbidity (NTU)	DO (mg/l)	ORP (MV)	Temp (°C)
clear, colorless	5.33	0.416	75.6	0.19	53.7	12.62

PURGE DATA:

Date: 5/6/08
Purge Method: Micropurge
PID Reading (ppm): —
Well Casing Diameter & Material: 2" PVC
Total Well Depth (TD): —
Static Water Level (DTW): 8.70
Static Product Level (DTP) —
One Casing Volume (gal): —
Start Purge (hrs): 1104
End Purge (hrs): 1224
Total Purge Time (min): 1hr 20 min
Total Vol. Purged (gal/L): —

Purge Calculations:

1": 0.04080	6": 1.46869
2": 0.16319	8": 2.61101
3": 0.36717	10": 4.07970
4": 0.65275	12": 5.87477

Purge Vol = 3 × PF × (DTW - TD)

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
624 + MTBE	HCl	40 mL CG	2
625	Ø	1 L AG	2

OBSERVATIONS/NOTES:

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s): Grace Fitch

ECOR Solutions Inc.

PURGE DATA SHEET

Date: 5/6/08

Sample ID No.: 16-MW-10

Time (hrs)	Water Level (ft. below TOC)	Flow (mL/min)	pH (SU)	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celsius)	ORP (mV)	Comments
1109		1040	5.09	0.353	323	0.26	12.62	102.6	
1114	8.95		5.11	0.390	821	0.17	12.54	89.6	
1119			5.15	0.395	503	0.18	12.56	81.8	
1124			5.19	0.401	309	0.31	12.55	75.7	
1129			5.22	0.405	200	0.16	12.58	69.0	
1134			5.23	0.404	194	0.15	12.58	67.9	
1139			5.25	0.410	168	0.15	12.57	62.3	
1144			5.26	0.412	157	0.17	12.59	60.9	
1149	8.95		5.30	0.411	132	0.22	12.50	59.0	
1154			5.29	0.417	120	0.21	12.54	56.9	
1159			5.28	0.413	107.6	0.20	12.55	56.2	
1204			5.28	0.413	90.0	0.20	12.61	55.1	
1209			5.26	0.413	85.1	0.21	12.64	55.9	
1214			5.33	0.418	73.7	0.19	12.63	53.4	
1219			5.32	0.413	70.1	0.20	12.60	53.6	
1224			5.33	0.416	75.6	0.19	12.62	53.7	

Signature(s): Grace Fitch

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWS Earle LTM 04FY07
Project No.: N0100.177
Sample ID No.: 18-MW-01
Sample Location: Earle, NJ
Sampled By: GF, JG

SAMPLING DATA:

Date: 5/6/08
Time: 1410
Purge Method: micropurge

FINAL VALUES:

Color (Visual)	Ph (Standard)	S.C. (mS/cm)	Turbidity (NTU)	DO (mg/l)	ORP (MV)	Temp (°C)
clear	5.22	0.426	4.43	2.37	149.5	12.45

PURGE DATA:

Date: 5/6/08
Purge Method: micropurge
PID Reading (ppm): —
Well Casing Diameter & Material: ~~6" Steel~~ 4" Steel
Total Well Depth (TD): —
Static Water Level (DTW):
Static Product Level (DTP) —
One Casing Volume (gal): —
Start Purge (hrs): 1240
End Purge (hrs): 1410
Total Purge Time (min): 90
Total Vol. Purged (gal/L):

Purge Calculations:

1": 0.04080	6": 1.46869
2": 0.16319	8": 2.61101
3": 0.36717	10": 4.07970
4": 0.65275	12": 5.87477

Purge Vol = 3 × PF × (DTW - TD)

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
624+MTBE	HCl	40mL CG	2x4=8
625	Ø	1L AG	2x4=8

OBSERVATIONS/NOTES:

MS/MSD + DUP-1 collected

Circle if Applicable: MS/MSD

Duplicate ID No.: DUP-1

Signature(s): Grace Fitch

ECOR Solutions Inc.

PURGE DATA SHEET

Date: 5/6/08

Sample ID No.: 18-MW-01

Time (hrs)	Water Level (ft. below TOC)	Flow (mL/min)	pH (SU)	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celsius)	ORP (mV)	Comments
1245		1120	5.06	0.247	25.2	0.99	12.31	132.3	
1250			5.06	0.248	17.5	0.91	12.30	133.9	
1255			5.14	0.282	12.2	0.69	12.28	139.9	
1300			5.17	0.301	10.44	0.66	12.27	141.4	
1305	9.58		5.19	0.321	8.11	0.66	12.26	142.0	
1310			5.21	0.337	6.82	0.69	12.27	142.0	
1315			5.22	0.351	6.63	0.91	12.47	140.9	Change out tanks
1320			5.19	0.352	6.37	0.93	12.30	143.2	
1325			5.22	0.365	6.08	1.04	12.34	144.1	
1330			5.23	0.372	5.94	1.21	12.35	144.1	
1335			5.24	0.382	5.02	1.42	12.35	144.9	
1340			5.22	0.392	5.47	1.55	12.39	145.5	
1345			5.24	0.405	5.64	1.75	12.43	146.0	
1350			5.22	0.410	5.39	1.89	12.43	146.9	
1355			5.23	0.415	5.28	2.14	12.46	147.6	
1400			5.22	0.424	4.75	2.38	12.51	148.4	
1405			5.22	0.426	4.77	2.36	12.49	148.7	
1410			5.22	0.426	4.43	2.37	12.45	149.5	

Signature(s): Grace Fitch

Analytical Laboratory Services, Inc.
Environmental • Industrial Hygiene • Field Services
34 Dogwood Lane • Middletown, PA 17057 • 717.944.5541 • Fax: 717.944.1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page 1 of 1
Courier:
Tracking #:
COC#

Co. Name: ECOR Solutions, Inc.
Contact (Report to): Grace Fitch
Phone: 484-753-1933
Address: 21 S. High St. West Chester, PA 19382

Bill to (if different than Report to):
PO#:

Project Name/#: NWS Earle LTM/N0100.177
ALSI Quote #:

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALSI approval and surcharges.
Date Required:
Approved By:

Email? [X] -Y fitchg@ecor-solutions.com
Fax? [ ] -Y No.:

	Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	624+MTBE	625 (Naphthalene)								
	***Container Type				CG	AG										
	***Container Size				40mL	1L										
	*** Preservative				HCl	Ø										
1	16-MW-15		5/5/08	1207	G	GW	2									
2	16-MW-25			1313												
3	16-MW-24			1400												
4	16-MW-11			1547				2								
5	~~SW~~ 16-SW-01			1200												
6	16-SW-02			1205												
7	FB-1			1445				2								
8	TB-1															

ANALYSES/METHOD REQUESTED — Enter Number of Containers Per Analysis

Receipt Information (completed by Sample Receiving)
Performed by: INITIAL HERE
Cooler Temp:
Therm. ID:
No. of Coolers:
Notes:

Circle appropriate Y or N.	
Correct containers?	Y / N
Correct sample volume?	Y / N
Correct preservation?	Y / N
Headspace/Volatiles?	Y / N
Custody seals Present?	Y / N
(If present) Seals intact?	Y / N
Received on ice?	Y / N
COC/Labels complete/accurate?	Y / N
Container in good condition?	Y / N

SAMPLED BY (Please Print): G. Fitch, J. Good
LOGGED BY(signature): DATE TIME
REVIEWED BY(signature): DATE TIME

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 Grace Fitch / ECOR	5/5/08	1700	2		
3			4		
5			6		
7			8		
9			10		

Data Deliverables: [ ] Standard [ ] CLP-like [ ] NJ-Reduced [ ] NJ-Full [ ] Other
EDDs Required? [ ] If yes, format type:
SDWA Forms? ⇒ yes [ ] yes [ ] yes [ ] yes [ ]
State Samples Collected In? MD [ ] NJ [X] NY [ ] PA [ ]
Other
⇒ Enter PWSID No.
DOD Criteria Required?

ALSI FIELD SERVICES
[ ] Pickup
[ ] Labor
[ ] Composite Sampling
[ ] Rental Equipment
[ ] Other:

* G=Grab; C=Composite
**Matrix: Al=Air; DW=Drinking Water; GW=Groundwater; Ol=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY

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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page 1 of 1
Courier:
Tracking #:
COC#

Co. Name: ECOR Solutions, Inc.
Contact (Report to): Grace Fitch
Phone: 484-887-7510
Address: 21 S. High St. West Chester, PA 19382

Bill to (if different than Report to):
PO#: N0100.177

Project Name/#: NWS Earle LTM / N0100.177
ALSI Quote #:

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALSI approval and surcharges.
Date Required:
Approved By:

Email? [X] -Y fitch@ecor-solutions.com
Fax? [ ] -Y No.:

	***Container Type	***Container Size	*** Preservative	*G or C	**Matrix	624+MTBE	625 (Naphthalene)									
	CG	40ml	HCl				AG	1L	Ø							

ANALYSES/METHOD REQUESTED

	Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	624+MTBE	625 (Naphthalene)									
							Enter Number of Containers Per Analysis										
1	16-MW-08		5/6/08	1053	G	GW	2	2									
2	16-MW-10		↓	1224	↓	↓	2	2									
3	18-MW-01	MS/MSD collected	↓	1410	↓	↓	6	6									
4	FB-2		↓	1130	↓	↓	2	2									
5	TB-2						2	Ø									
6	DUP-1		5/6/08	2000	G	GW	2	2									
7																	
8																	

Receipt Information (completed by Sample Receiver)
Performed by: INITIAL HERE
Cooler Temp:
Therm. ID:
No. of Coolers:
Notes:

Circle appropriate Y or N.				
Correct containers?	Correct sample volume?	Correct preservation?	Headspace/Volatiles?	
N	N	N	N	
Y	Y	Y	Y	
Custody seals Present?	(if present) Seals intact?	Received on ice?	COC/Labels complete/accurate?	Container in good condition?
N	N	N	N	N
Y	Y	Y	Y	Y

SAMPLED BY (Please Print): G. Fitch, J. Good
LOGGED BY (signature): DATE: TIME:
REVIEWED BY (signature): DATE: TIME:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 Grace Fitch / ECOR	5/6/08		2		
3			4		
5			6		
7			8		
9			10		

Data Deliverables: [ ] Standard [ ] CLP-like [ ] NJ-Reduced [ ] NJ-Full [ ] Other
EDDs Required? [ ] If yes, format type:
DOD Criteria Required?

SDWA Forms?⇒ yes [ ] yes [ ] yes [ ] yes [ ]
State Samples Collected In? MD [ ] NJ [X] NY [ ] PA [ ] Other
⇒Enter PWSID No.

ALSI FIELD SERVICES
[ ] Pickup
[ ] Labor
[ ] Composite Sampling
[ ] Rental Equipment
[ ] Other:

* G=Grab; C=Composite
**Matrix: Al=Air; DW=Drinking Water; GW=Groundwater; Ol=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

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