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SECOND CONTAMINATION ASSESSMENT REPORT ADDENDUM FOR SITE 607NE NAS PENSACOLA FL

7/1/1994

ABB ENVIRONMENTAL

SECOND CONTAMINATION ASSESSMENT REPORT ADDENDUM

Site 607NE
Naval Aviation Depot
Naval Air Station
Pensacola, Florida

Unit Identification Code: N00204

Contract No. N62467-89-D-0317

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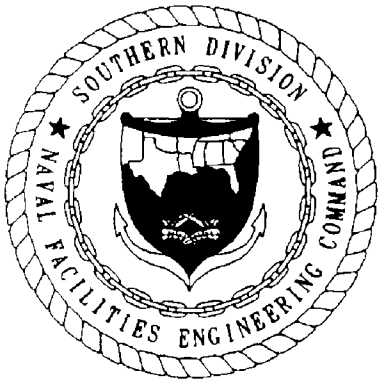


FOREWORD

Subtitle I of the Hazardous and Solid Waste Amendments (HSWA) of 1984 to the Solid Waste Disposal Act (SWDA) of 1965 established a national regulatory program for managing underground storage tanks (USTs) containing hazardous materials, especially petroleum products. Hazardous wastes stored in USTs were already regulated under the Resource Conservation and Recovery Act (RCRA) of 1976, which is also an amendment to SWDA. Subtitle I requires that the U.S. Environmental Protection Agency (USEPA) promulgate UST regulations. The program was designed to be administered by the individual States, who were allowed to develop more stringent standards, but not less stringent standards. Local governments were permitted to establish regulatory programs and standards that are more stringent, but not less stringent than either State or Federal regulations. The USEPA UST regulations are found in the Code of Federal Regulations (CFR), Title 40, Part 280 (40 CFR 280) (*Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks*) and Title 40 CFR 281 (*Approval of State Underground Storage Tank Programs*). Title 40 CFR 280 was revised and published on September 23, 1988, and became effective December 22, 1988.

The Navy's UST program policy is to comply with all Federal, State, and local regulations pertaining to USTs. This report was prepared to satisfy the requirements of Chapter 17-770, Florida Administrative Code (FAC) (*State Underground Petroleum Environmental Response*) regulations on petroleum contamination in Florida's environment as a result of spills or leaking tanks or piping.

Questions regarding this report should be addressed to the Environmental Coordinator, Naval Aviation Depot (NADEP) Pensacola, Pensacola, Florida, at 904-452-2320 or to Southern Division, Naval Facilities Engineering Command (SOUTHNAVFACENGCOM), Code 1843, at DSN 563-0613 or 803-743-0613.

EXECUTIVE SUMMARY

Site 607NE is the former location of two underground storage tanks (USTs) reportedly used for the storage of waste oil and used aviation fuel. The USTs were removed during a tank removal and replacement program implemented by the Navy in 1990. A 500-gallon, replacement UST was installed at the same location of the former USTs.

Because excessively petroleum-contaminated soil was detected during tank removal activities, a contamination assessment (CA) was conducted to investigate the extent of excessive soil contamination and possible groundwater contamination. The CA was conducted from January to March 1992. A *No Further Action Proposal (NFAP)* was recommended in a contamination assessment report (CAR), which was submitted to the Florida Department of Environmental Regulation (FDER) in June 1992. (Note: FDER is now known as the Florida Department of Environmental Protection [FDEP] and is hereafter referred to as FDEP).

Upon review of the CAR, FDEP requested documentation regarding initial remedial action (IRA) activities performed during the tank removal and installation program. Because much of this information was not available, and because it was subsequently discovered that petroleum-contaminated soils had been returned to the UST excavation during IRA activities, FDEP requested that a supplemental soil assessment be conducted around the replacement UST.

The supplemental soil assessment was conducted in January 1993. Soil borings were drilled around the perimeter of the former UST location. Soil samples were collected and analyzed for volatile organic compounds (VOCs) by organic vapor analyzer (OVA) headspace techniques, and for total recoverable petroleum hydrocarbons (TRPH) by an analytical laboratory. VOCs were not detected in any soil samples. TRPH concentrations in soil around the replacement UST varied from 12 parts per million (ppm) to 18 ppm, which only slightly exceed the State target level of 10 ppm for clean soil. A *NFAP* was resubmitted in a CAR Addendum because of the relatively low TRPH soil concentrations near the UST and because groundwater analyses from the initial CA indicated minimal groundwater contamination near the UST.

After review of the CAR Addendum, FDEP requested additional soil and groundwater assessment around the replacement UST. The second supplemental assessment was conducted concurrently with and subsequent to UST closure activities performed under the Base Realignment and Closure Initiative and was conducted from April through June 1994. This report is the second addendum to the original CAR, and presents the findings and conclusions of the second supplemental assessment.

Findings and Conclusions. The following findings and conclusions are based on the results of the initial and supplemental CAs and existing site conditions.

- Sediments are typically porous, unconsolidated, very fine-grained to fine-grained quartz sands. These sediments are part of the surficial zone of the sand-and-gravel aquifer (Roaza and others, 1991). The surficial zone is classified as a Class G-II groundwater source.

- Groundwater was encountered approximately 4 to 6 feet bls. Groundwater flow direction varies from east to southeast.

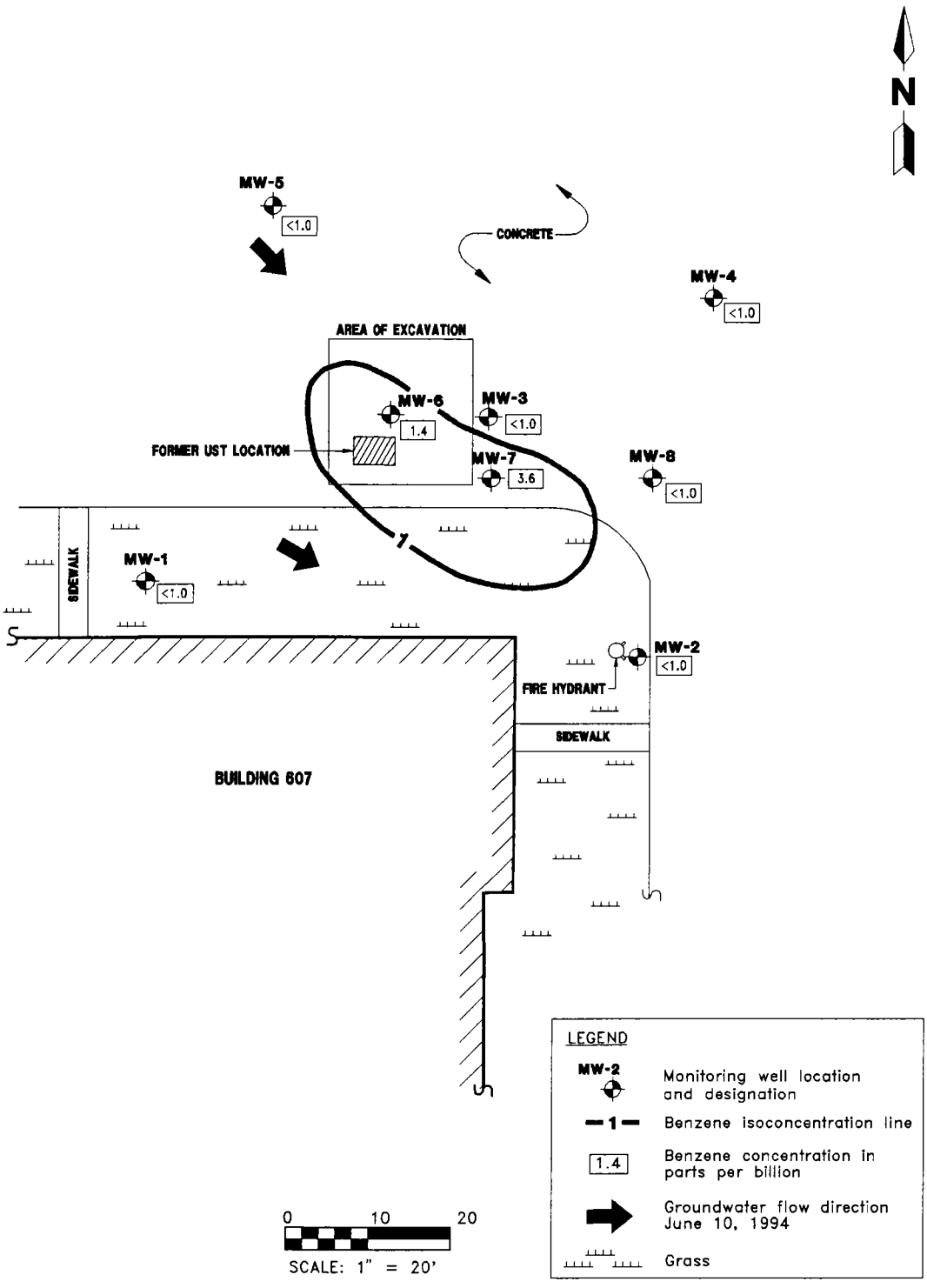
- Excessively contaminated soil was identified during UST closure activities by OVA headspace analyses. Contaminated soil was removed from the site and disposed at a landfill. Contaminated soil was replaced with clean fill material.

- Post-closure analyses indicate VOCs and metals concentrations in soil are below clean soil standards; however, excessive soil contamination was indicated by TRPH laboratory analyses. Total petroleum hydrocarbons (TPH) fingerprint analyses indicate that TRPH in soil are not related to a discharge from the former UST. Asphalt is the most likely source of TRPH in soil.

- Cadmium, chromium, and lead concentrations exceed State MCLs in unfiltered groundwater samples. However, because metals were not detected in filtered groundwater samples, the source of metals in groundwater appears to be the result of suspended, metal-bearing particulates in groundwater. The movement of metal-bearing particulates in groundwater is expected to be very localized because of filtration.

- Benzene concentrations in groundwater slightly exceed the State target level of 1 part per billion (ppb). Benzene in groundwater appears to be restricted to the former UST area and the area immediately downgradient of the UST (see Executive Summary Figure). Because benzene is the only dissolved groundwater constituent exceeding State target levels and there are no potable wells in the site vicinity, the 50 ppb *No Further Action (NFA)* target level for benzene can be applied (FDER, 1990). The highest benzene concentration (3.6 ppb) is well below the *NFA* target level.

Recommendations. Because soil contamination appears to be the result of asphalt, and because groundwater contaminant concentrations do not exceed State target levels or applied standards, a *NFAP* is recommended for Site 607NE.



EXECUTIVE SUMMARY FIGURE

SECOND CONTAMINATION ASSESSMENT REPORT ADDENDUM SITE 607NE

NADEP PENSACOLA PENSACOLA, FLORIDA

PENSCOLA/607NE.dwg/NP/7-12-94

ACKNOWLEDGMENTS

In preparing this report, The Underground Storage Tank Section of the Comprehensive Long-Term Environmental Action, Navy (CLEAN) Group at ABB Environmental Services (ABB-ES), Inc., commends the support, assistance, and cooperation provided by the personnel of the Naval Aviation Depot (NADEP) Pensacola, Florida, and Southern Division, Naval Facilities Engineering Command (SOUTHNAVFACENGCOM).

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GLOSSARY

The following list contains many of the acronyms, initialisms, abbreviations, and units of measure used in this report.

ABB-ES	ABB Environmental Services, Inc.
bls	below land surface
CA	contamination assessment
CAR	contamination assessment report
CLEAN	Comprehensive Long-Term Environmental Action, Navy
CompQAP	Comprehensive Quality Assurance Plan
CTO	Contract Task Order Number
FAC	Florida Administrative Code
FDEP	Florida Department of Environmental Protection
FDER	Florida Department of Environmental Regulation
FID	flame ionization detector
GC	gas chromatograph
HSWA	Hazardous and Solid Waste Amendments
ID	inside diameter
IRA	initial remedial action
MCL	maximum contaminant level
msl	mean sea level
NADEP	Naval Aviation Depot
NAS	Naval Air Station
ND	not detected
NFA	No Further Action
NFAP	No Further Action Proposal
NGVD	National Geodetic Vertical Datum
OD	outside diameter
OVA	organic vapor analyzer
ppb	parts per billion
ppm	parts per million
PVC	polyvinyl chloride
RCRA	Resource Conservation and Recovery Act
SOUTHNAVFACENGCOM	Southern Division, Naval Facilities Engineering Command
SWDA	Solid Waste Disposal Act
TICs	tentatively identified compounds
TPH	total petroleum hydrocarbons
TRPH	total recoverable petroleum hydrocarbons

GLOSSARY (Continued)

USC&GS	U.S. Coastal and Geodetic Survey
USEPA	U.S. Environmental Protection Agency
UST	underground storage tank
VOAs	volatile organic aromatics
VOCs	volatile organic compounds
VOHs	volatile organic halocarbons

1.0 INTRODUCTION

ABB Environmental Services, Inc. (ABB-ES), was contracted by Southern Division, Naval Facilities Engineering Command (SOUTHNAVFACENGCOM) to perform a contamination assessment (CA) and submit a contamination assessment report (CAR) for Site 607NE at the Naval Aviation Depot (NADEP), Naval Air Station (NAS), Pensacola, Florida. A CAR was submitted to the Florida Department of Environmental Regulation (FDER, now known as the Florida Department of Environmental Protection [FDEP]) in June 1992 (ABB-ES, 1992). At the request of FDEP, a supplemental assessment was performed, and a CAR Addendum was submitted to FDEP in March 1993 (ABB-ES, 1993). Upon review of the CAR Addendum, FDEP requested a second supplemental assessment at the site. This report is the second addendum to the original CAR, and presents the findings and conclusions of the second supplemental assessment. This second CAR Addendum incorporates the findings and conclusions of the second supplemental assessment in addition to the findings and conclusions of the CAR and the first CAR Addendum.

2.0 SITE BACKGROUND

2.1 SITE DESCRIPTION. Building 607 is located along the north side of Saufley Street along the south perimeter of Chevalier Field (Figure 2-1). Building 607 is used as a helicopter flight test facility, and primary site activities include final preparation of helicopters before test flights. Site 607NE is located along the northeast side of Building 607 and is the former location of two underground storage tanks (USTs) used to store waste oil and used aviation (jet) fuel.

The USTs were located approximately 30 feet northwest of the northeast corner of Building 607 (Figure 2-2). The area in the immediate UST vicinity is covered by 6-inch-thick concrete. Grassy areas are present along the north and east perimeter of Building 607. The ground surface at the site is flat. Ground elevations are approximately 8 to 9 feet above mean sea level (msl).

Numerous underground utilities are present near the former UST location. An electric line, a 20-inch diameter sewer line, and an air line are located in the grassy area north of Building 607. These lines are oriented in an east to west direction and extend under the concrete area east of the building. The air line is connected to aboveground piping near the northeast corner of the building.

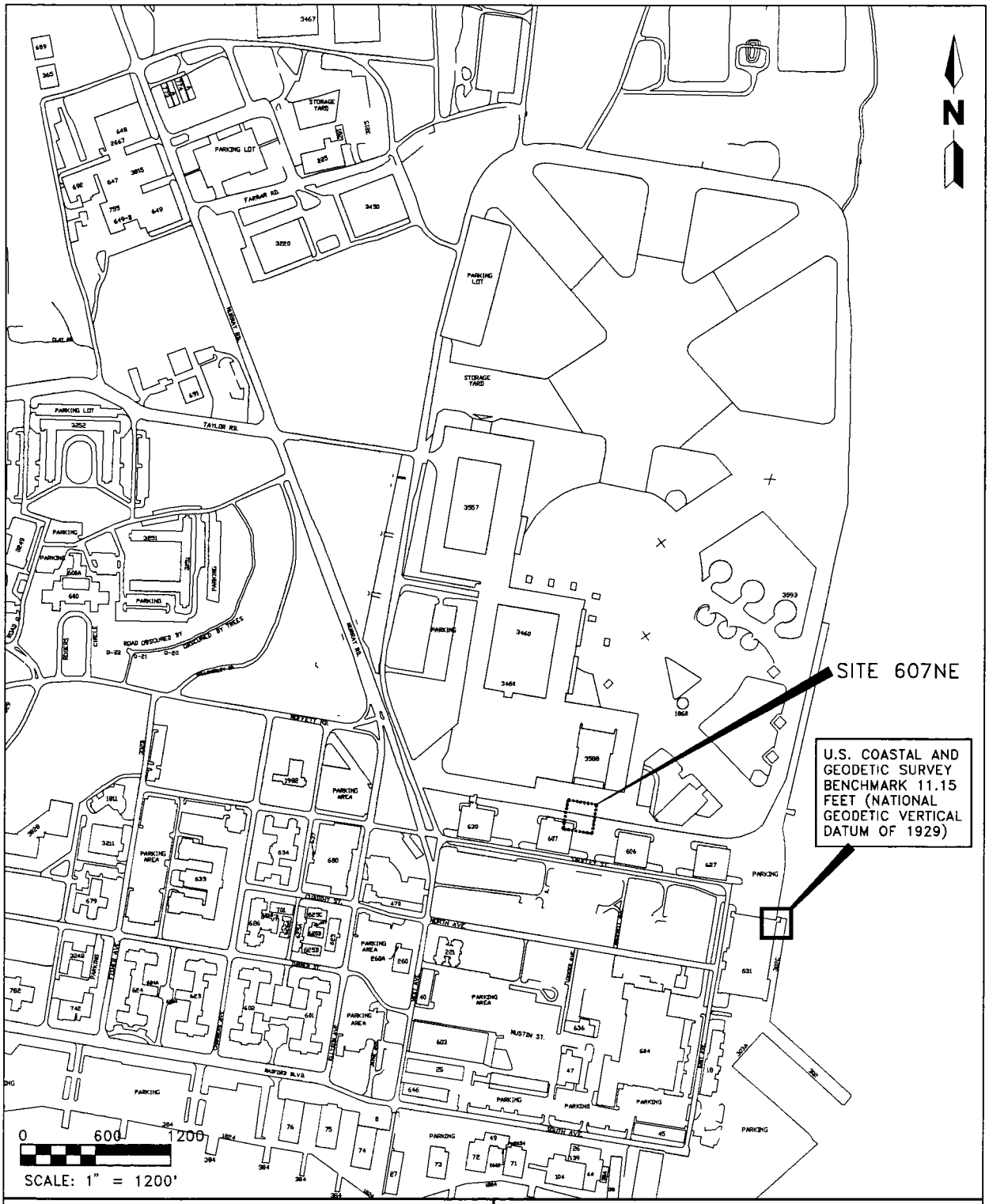
An east to west oriented stormwater line is located approximately 5 feet south of the former UST. This line connects with a north to south oriented stormwater line located approximately 20 feet east of the former UST. A north to south oriented water line is located approximately 7 feet east of the north to south stormwater line and connects to a fire hydrant in the grassy area on the east side of the building.

A concrete safety shower pad is located at the northeast corner of the building. Another concrete pad is located approximately 12 feet south of the former UST and is used to house connections from the electric line.

Underground reinforced concreted areas are present in the grassy area near the northeast corner of the building. The depth to the concrete ranges from 1 to 5 feet below land surface (bls).

2.2 SITE HISTORY. The USTs were removed from the site during a tank removal and installation program conducted by the Navy in 1990. A 500-gallon replacement UST was installed at the location of the removed USTs. Because excessively petroleum-contaminated soil was detected during tank removal activities, a CA was conducted to investigate the extent of excessive soil contamination and possible groundwater contamination (ABB-ES, 1992).

2.2.1 Initial Assessment The CA was conducted from January through March 1992. Five soil borings (SB-1 through SB-5) were advanced at the site. Monitoring wells MW-1 through MW-5 were installed in soil borings SB-1 through SB-5, respectively (Figure 2-3). Soil borings and monitoring wells were not advanced in the area south of the former UST because of the density of underground utilities in this area.



2-1
SITE LOCATION MAP

SECOND CONTAMINATION ASSESEMENT REPORT ADDENDUM SITE 607NE

NADEP PENSACOLA
PENSACOLA, FLORIDA

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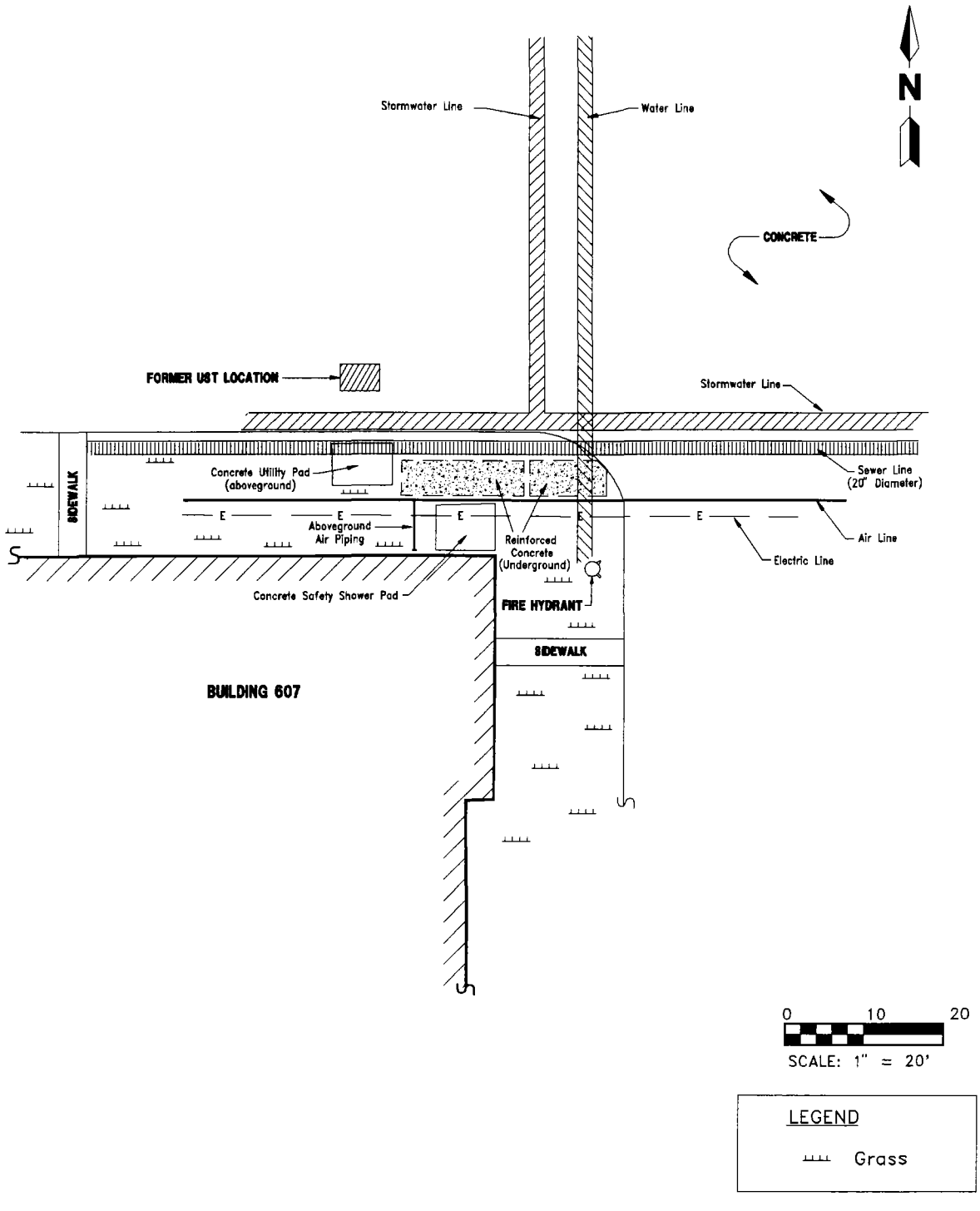

FIGURE 2-2
SITE PLAN AND UTILITY MAP

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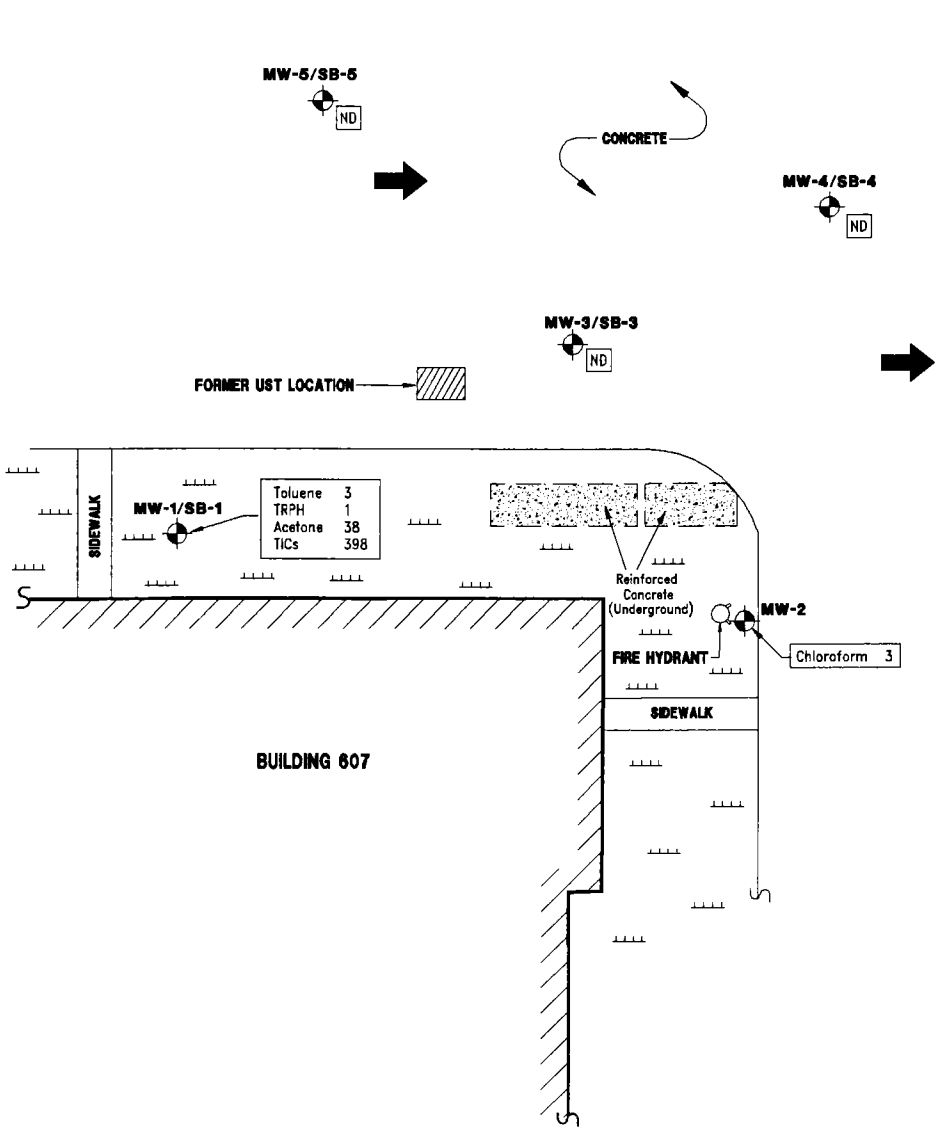
SITE 607NE

NADEP PENSACOLA
PENSACOLA, FLORIDA

PENSCOLA/607NE.dwg/NP/5-9-94



NOTES:

Concentrations are in parts per billion except TRPH which is in parts per million

TRPH Total recoverable petroleum hydrocarbons

TICs Tentatively identified compounds

ND Denotes no compounds detected

0 10 20

SCALE: 1" = 20'

LEGEND

MW-2/SB-2 Monitoring well and soil boring location

Groundwater flow direction

Grass

FIGURE 2-3
GROUNDWATER CONTAMINATION DISTRIBUTION MAP, FEBRUARY 1992

penscola/607NE/NP/07-12-94

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Soil samples were collected from each soil boring and analyzed for volatile organic compounds (VOCs) by organic vapor analyzer (OVA) headspace techniques, and for the metals arsenic, cadmium, chromium, and lead by an analytical laboratory. Groundwater samples were collected from monitoring wells in February 1992 and were analyzed for used oil constituents, as outlined in Chapter 17-770, Florida Administrative Code (FAC). The results of the CA are summarized below.

- Soil encountered at the site is typically very fine-grained to fine-grained quartz sand.

- Groundwater was encountered approximately 4 to 6 feet bls under water table conditions and is part of the surficial zone of the sand-and-gravel aquifer (Roaza and others, 1991). This zone is classified as a G-II groundwater source. Groundwater flow direction varied from east to southeast.

- VOCs in soil were not detected by OVA headspace techniques. Lead and arsenic were detected in soil, but at concentrations below FDEP (1994) standards for clean soil.

- Total recoverable petroleum hydrocarbons (TRPH), toluene, and acetone were detected in the groundwater sample from upgradient monitoring well MW-1. Chloroform was detected in the sample from downgradient monitoring well MW-2 (Figure 2-3). TRPH and toluene concentrations were below State target levels (Chapter 17-770, FAC). Acetone and chloroform concentrations were below State groundwater guidance concentrations (FDER, 1989). Sixteen tentatively identified compounds (TICs) were also detected in sample MW-1. Many of the TICs appear to be perfumes or cleansing agents, and their presence in groundwater may have resulted from dumping mop water in the grassy area near monitoring well MW-1 (ABB-ES, 1992).

- No groundwater contaminants were detected in samples MW-3 through MW-5.

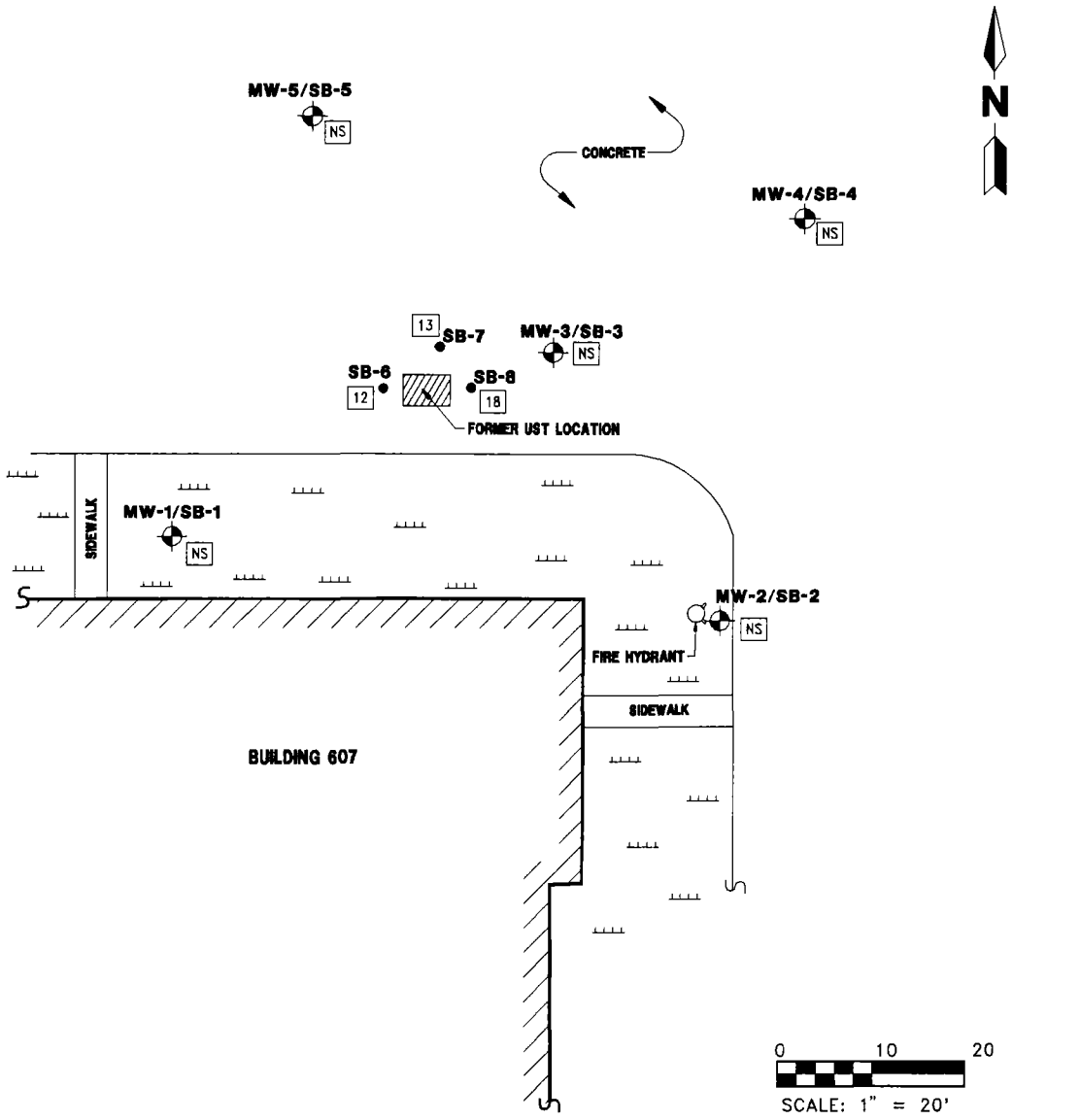
- No potable wells are located within 0.25 miles of the site.

Because of low levels of soil and groundwater contamination, a *No Further Action Proposal (NFAP)* was submitted in the CAR.

2.2.2 Supplemental Soil Assessment Upon review of the CAR, FDEP requested documentation regarding initial remedial action (IRA) activities performed during the tank removal and installation program. Because much of this information was not available, and because it was subsequently discovered that petroleum-contaminated soils had been returned to the UST excavation during IRA activities, FDEP requested that a supplemental soil assessment be conducted around the former UST.

The supplemental soil assessment was conducted in January 1993. Three additional soil borings (SB-6 through SB-8) were advanced around the perimeter of the former UST location. Soil samples were collected from each boring and analyzed for VOCs by OVA headspace techniques and for TRPH.

VOCs were not detected in any soil samples. TRPH concentrations in samples SB-6 through SB-8 were 12 parts per million (ppm), 13 ppm, and 18 ppm, respectively (Figure 2-4). TRPH concentrations from soil samples SB-6 through SB-8 slightly



NOTES:

Samples from SB-6 through SB-8 collected January 1993

FIGURE 2-4
TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (TRPH) IN SOIL, JANUARY 1993

PENSCOLA/607NE.dwg/NP/5-9-94

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exceed the State target level of 10 ppm for clean soil, but are below the State mandatory cleanup level of 50 ppm (FDER, 1992). A *NFAP* was submitted in a CAR Addendum because of the relatively low TRPH soil concentrations near the UST and because groundwater analyses from the initial CA (ABB-ES, 1992) indicated minimal groundwater contamination near the UST (ABB-ES, 1993).

2.2.3 Florida Department of Environmental Protection (FDEP) Request for Second Supplemental Assessment After review of the CAR Addendum, FDEP requested that a second supplemental assessment be conducted to address additional concerns that had not been previously discussed (see Appendix A, FDEP Correspondence, FDEP memorandum from Jorge Caspary to Eric Nuzie, dated May 5, 1993). FDEP requested that the following be performed.

- Additional soil assessment should be conducted around the former UST location.

- A soil sample should be collected approximately 5 feet south of the replacement UST. The soil sample "should be visually assessed for staining and/or spillage with representative samples collected for U.S. Environmental Protection Agency (USEPA) Methods 8240 and 9073."

- A complete round of groundwater sampling and analysis for USEPA Method 624 should be performed.

- An additional round of water table elevation measurements should be performed to verify the direction of groundwater flow and to estimate water table fluctuations.

3.0 SECOND SUPPLEMENTAL ASSESSMENT

The second supplemental assessment was conducted concurrently with and subsequent to UST closure activities performed under the Base Realignment and Closure Initiative. The second supplemental assessment activities were performed from April through June 1994. Supplemental assessment activities included the following:

- UST removal and closure,
- soil assessment around the UST location,
- additional monitoring well installation and groundwater assessment, and
- water table elevation measurements.

3.1 UNDERGROUND STORAGE TANK (UST) CLOSURE ACTIVITIES. UST closure activities involved the removal of the replacement UST and soil and groundwater assessment at the UST location. Because the former UST location approximately coincides with the location of the replacement UST (ABB-ES, 1993), the soil assessment around the former UST location requested by FDEP was performed during UST closure activities. A *Closure Assessment Form* summarizing UST closure activities was submitted by facility personnel to the district FDEP office. This form is attached in Appendix B, Closure Assessment Form. The replacement UST was removed from the site in April 1994. Soil was excavated to the depth of the water table, which was encountered at approximately 5 feet bls.

Excavated soil was monitored by OVA headspace techniques, which indicated the presence of excessively petroleum-contaminated soil. Soil contamination resulted from overfilling of a secondary containment system associated with the UST. Excavation continued laterally until OVA headspace measurements and visual inspection indicated that all excessively contaminated soil had been removed. Approximately 40 cubic yards of excessively contaminated soil were removed from the excavation. The excavation was backfilled with clean fill material after excessively contaminated soil removal.

3.1.1 Excessively Contaminated Soil Disposal Pursuant to Chapter 17-775, FAC, a pre-disposal, composite soil sample was collected from the contaminated soil stockpile and analyzed for volatile organic aromatics (VOAs), volatile organic halocarbons (VOHs), TRPH, and the metals arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver. VOAs and VOHs were analyzed by USEPA Method 8260, TRPH were analyzed by USEPA Method 9073, and metals were analyzed by USEPA Methods prescribed in Chapter 17-775, FAC. Pre-disposal soil sample analytical results are attached in Appendix C, Soil Sample Analytical Data, and are summarized in Table 3-1.

Laboratory analyses indicate that the contaminated soil meets requirements for nonhazardous soil (FDEP, 1994). Non-saturated and nonhazardous soil can be disposed at landfills (FDEP, 1994). The contaminated soil was removed from the site and disposed at Perdido Landfill.

3.1.2 Confirmatory Soil Sampling and Analyses After UST removal activities, four confirmatory soil borings (SB-9 through SB-12) were drilled by hand auger along each side of the excavation. For each boring, a soil sample was collected at 3 to 4 feet bls. OVA headspace analyses, TRPH analyses, and total metals analyses

Table 3-1
Pre-Disposal Analytical Data,
Contaminated Soil Stockpile

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Compound	Concentration[1]
Benzene	6.6
Ethylbenzene	1.8
n-Butylbenzene	30
sec-Utylbenzene	34
tert-Butylbenzene	67
Isopropylbenzene	6.6
p-Isopropyltoluene	60
Naphthalene	9
n-Propylbenzene	11
Toluene	4.6
1,2,4-T.trimethylbenzene	72
1,3,5-Trimethylbenzene	92
Xylenes	35
Barium[2]	1.04
Chromium[2]	0.03
Lead[2]	0.229

[1] Concentrations are in parts per billion.
[2] Metals concentrations are in parts per million.

for arsenic, cadmium, chromium, and lead were performed for each sample. OVA headspace and laboratory analyses of the confirmatory soil samples are summarized in Table 3-2. TRPH and total metals laboratory analytical reports are presented in Appendix B, Soil Sample Analytical Data.

Table 3-2
Volatile Organic Compounds (VOCs), Total Recoverable Petroleum Hydrocarbons (TRPH), and Lead in Soil, Confirmatory Soil Samples SB-9 through SB-12, April 1994

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Boring Designation	Depth (feet bls)	VOCs[1]	TRPH	Lead
SB-9	3 to 3.5	4	21.1	8.4
SB-10	3 to 3.5	9	23.5	6.4
SB-11	4	<1	13.6	<0.33
SB-12	3 to 3.5	1	61.7	5.9

[1] Corrected for methane.

Notes: Concentrations are in parts per million.
bls = below land surface.

No discoloration or odor was observed in any soil sample. OVA headspace concentrations varied from <1 ppm to 9 ppm; however, corresponding TRPH concentrations were higher, varying from 13.6 ppm to 61.7 ppm. Lead was the only metal detected in soil samples. The highest lead concentration of 8.4 ppm is well below the State target level of 108 ppm for clean soil (Chapter 17-775, FAC). Confirmatory soil boring locations and corresponding TRPH concentrations are presented in Figure 3-1.

3.1.3 Groundwater Assessment Around the Former UST A temporary well (TW-1) was installed in the interior of the excavation to satisfy UST closure assessment requirements outlined by FDEP (1994). A sample was collected from temporary well TW-1 and analyzed for used oil constituents as defined in Chapter 17-770, FAC. Groundwater samples were also collected from permanent monitoring wells MW-1 through MW-5 and analyzed by USEPA Method 624, as requested by FDEP. Because of the discovery of contaminated soil during UST closure assessment activities, TRPH analyses by USEPA Method 418.1 were also performed for permanent monitoring well samples. Samples were collected May 3, 1994. Groundwater analytical results are attached in Appendix D, Groundwater Sample Analytical Data.

Benzene, toluene, xylenes, di-n-butyl phthalate, TRPH, cadmium, chromium, and lead were detected in the sample from well TW-1. Eighteen TICs and five unknown compounds were also detected in sample TW-1. Many of the TICs appear to be petroleum-related compounds. No compounds were detected in the samples from monitoring wells MW-1 through MW-5. Groundwater contaminant concentrations are summarized in Table 3-3. TICs and their estimated concentrations are also summarized in Table 3-3.

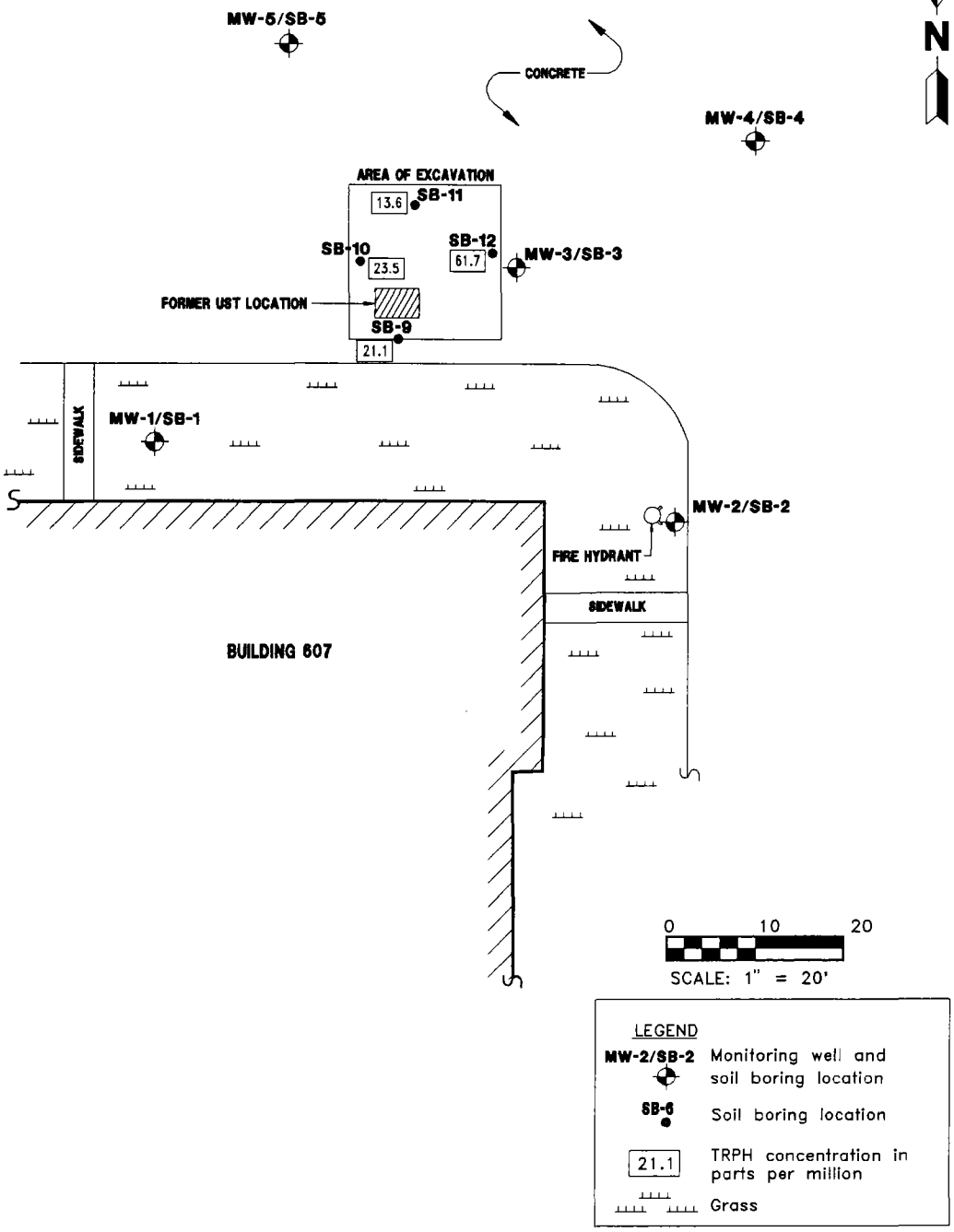

FIGURE 3-1
CONFIRMATORY SOIL BORINGS SB-9 THROUGH SB-12 AND CORRESPONDING TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (TRPH) CONCENTRATIONS

penscola/607NE/np/6-21-94

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Table 3-3
Groundwater Analytical Data, Temporary Well TW-1, May 3, 1994

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Pensacola, Florida

Compound	Applied Standard	Concentration
Benzene	[1]1	1.6
Toluene		1.4
Ethylbenzene		<1.0
Xylenes		7.9
Total VOA	[1]50	10.9
Di-n-butyl phthalate	[2]700	23
TRPH	[1]5	1.5
Arsenic	[3]50	<5.0
Cadmium	[3]5	11.7
Chromium	[3]100	330
Lead	[3]15	960

Tentatively Identified Compound (TIC)	Concentration
1,2,4-Trimethylbenzene	8
1-Ethyl-4-methylbenzene	20
Diethylbenzene	6
1-Methyl-2-(1-methylethyl)-benzene	10
1-Methyl-3-propylbenzene	7
2-Ethyl-1,3-dimethylbenzene	7
2-Ethyl-3,5-dimethylbenzene	9
4'-Methylpropiophenone	6
Methyl (1-methylethyl) benzene	16
5-Methyl-1(3H)-isobenzofuranone	13
1,2,4-Trimethylbenzene	17
1-Methyl-4-(1-methylethyl) benzene	10
1,3-Diethyl-5-methylbenzene	8
1,2,3,4-Tetramethylbenzene	9
6-Methyldodecane	7
3-Methylcyclohexanol	24
Tridecane	9
2,4,5-Trimethylbenzenemethanol	22
Unknowns (5)	48
Total TICS	256

[1] State target level for Class G-II groundwater (Chapter 17-770, FAC).
[2] Groundwater guidance concentration (FDER, February 1989).
[3] Maximum contaminant level (Chapter 17-550, FAC).

Notes: Concentrations are in parts per billion except TRPH which is reported in parts per million.
Metals samples are unfiltered.
Total VOA = total volatile organic aromatics (the sum of benzene, ethylbenzene, toluene, and xylenes).
TRPH = total recoverable petroleum hydrocarbons.

Class G-II groundwater standards (Chapter 17-770, FAC) are applied for benzene, total VOAs, and TRPH. (Note: total VOAs are the sum of benzene, ethylbenzene, toluene, and xylenes). Metals concentrations are applied to State maximum contaminant levels (MCLs) established in Chapter 17-550, FAC. Di-n-butyl phthalate concentrations are compared to State groundwater guidance concentrations (FDER, 1989). Currently, there are no applicable standards for the TICs identified.

The benzene concentration of 1.6 parts per billion (ppb) slightly exceeds the State target level of 1 ppb. Concentrations of cadmium, chromium, and lead exceed State MCLs for unfiltered samples. Total VOAs, TRPH, arsenic, and di-n-butyl phthalate concentrations are below applied standards.

3.2 POST CLOSURE ASSESSMENT. Because benzene and metals concentrations in groundwater exceed State target levels and MCLs, and because excessively contaminated soil was detected by soil TRPH analyses, additional site assessment was required pursuant to Chapter 17-770, FAC. The additional assessment was conducted in June 1994.

3.2.1 Soil Boring Advancement and Monitoring Well Installation One soil boring (SB-13) was advanced and three additional monitoring wells (MW-6 through MW-8) were installed near the former UST location. Soil boring SB-13 was advanced to 3 feet bls with a post hole digger. Monitoring well borings were advanced with a truck-mounted drill rig using rotary drilling techniques with 9-inch outside diameter (OD), hollow-stemmed augers.

Monitoring wells MW-7 and MW-8 were installed to 12 feet bls. Because of a subsurface obstruction, monitoring well MW-6 was installed to only 8 feet bls. Monitoring wells were constructed of 2-inch inside diameter (ID), Schedule 40, polyvinyl chloride (PVC) casing with flush-threaded joints. Monitoring well MW-6 contains 5 feet of 0.010-inch machine-slotted screen. Monitoring wells MW-7 and MW-8 each contain 10 feet of 0.010-inch screen. PVC well casing extends from the top of the screen to land surface. A 20/30 grade silica sand filter pack was placed in the annular space to approximately 1 foot above the top of the screened interval. A 6-inch thick bentonite seal was placed on top of the filter pack. The remaining annular space was grouted to surface with a neat cement grout. A protective traffic-bearing vault was installed to complete the well. Monitoring wells are equipped with a locking well cap and a padlock. Monitoring well installation details are presented in Figure 3-2.

3.2.2 Water Table Elevation Survey and Groundwater Flow Direction Depth to water in each monitoring well was recorded June 10, 1994. Top of casing elevations, depth to groundwater, and water table elevations are presented in Table 3-4. Total depths and screened intervals are also included. Top of casing elevations are referenced to a benchmark on the northeast face of Building 631, which is located approximately 800 feet southeast of the site (see Figure 2-1). This benchmark is part of the U.S. Coastal and Geodetic Survey benchmarking system and has an elevation of 11.15 feet above the National Geodetic Vertical Datum (NGVD) of 1929. Water table elevations indicate a southeast groundwater flow direction (Figure 3-3), which corresponds to the east to southeast flow direction observed during the previous investigations (ABB-ES, 1992).

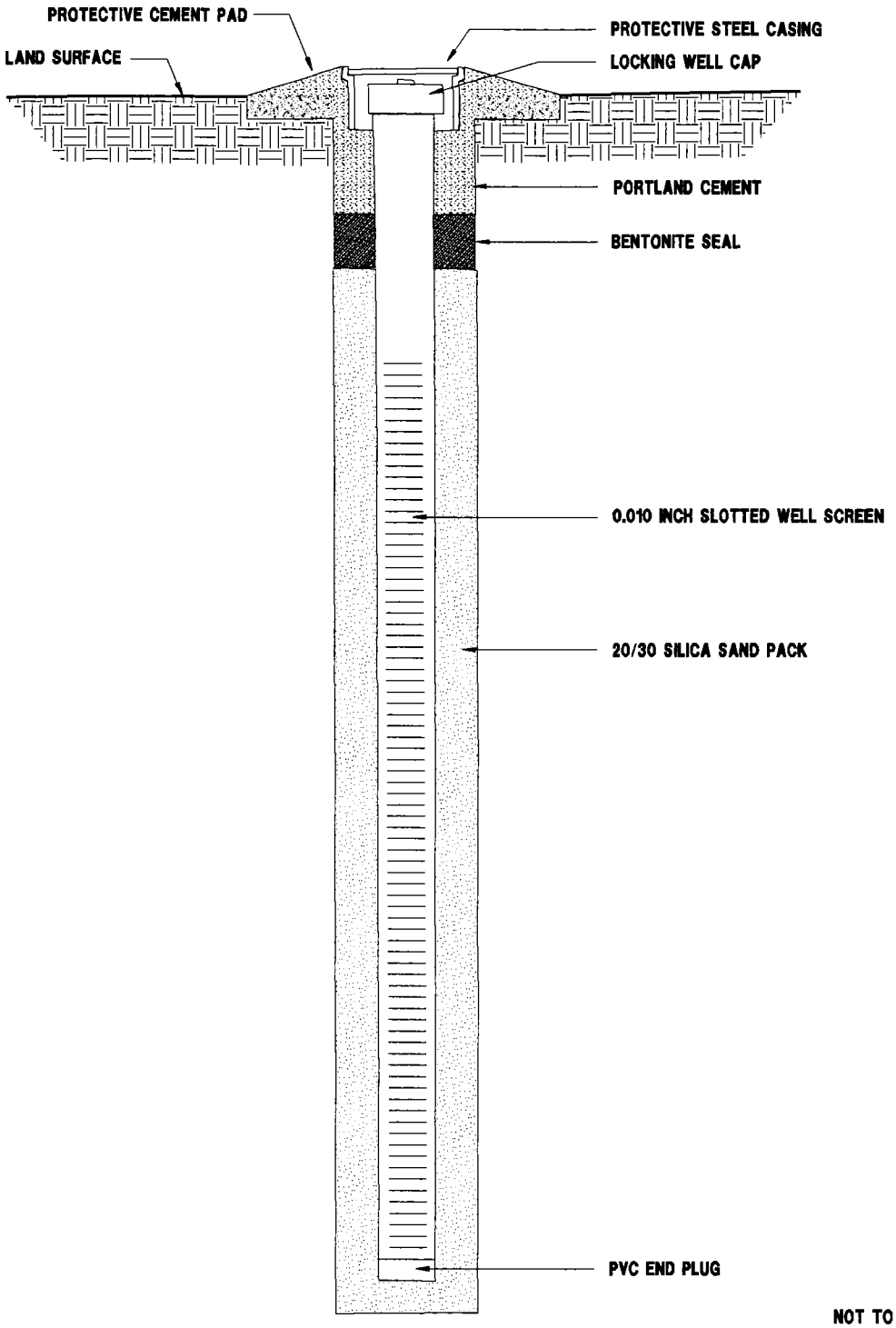


FIGURE 3-2
TYPICAL MONITORING WELL INSTALLATION DETAIL

SECOND CONTAMINATION ASSESSMENT REPORT ADDENDUM SITE 607NE

NADEP PENSACOLA
PENSACOLA, FLORIDA

PENSCOLA/WELL/WDW/07-14-94

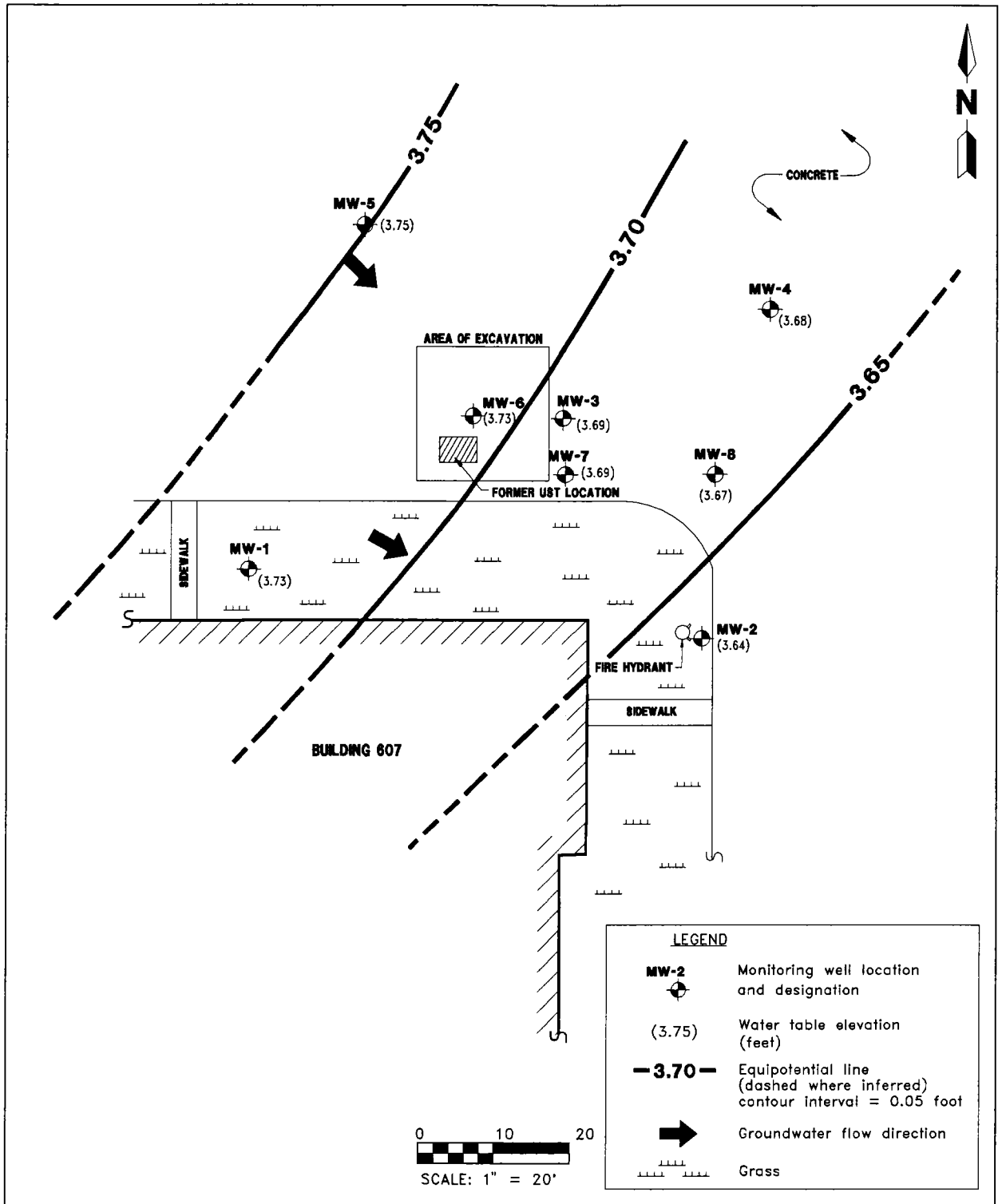


FIGURE 3-3
WATER TABLE ELEVATION CONTOUR MAP, JUNE 10, 1994

PENSCOLA/607NE.dwg/NP/5-9-94

SECOND CONTAMINATION ASSESSMENT REPORT ADDENDUM SITE 607NE

NADEP PENSACOLA PENSACOLA, FLORIDA

Table 3-4
Water Table Elevation Data,
June 10, 1994

Second Contamination Assessment Report Addendum
Site 607NE
NADEP Pensacola
Pensacola, Florida

Monitoring Well	TD (feet bls)	Screened Interval (feet bls)	TOC Elevation[1]	Depth to Groundwater (from TOC)	Water Table Elevation
MW-1	13	3 to 13	9.09	5.36	3.73
MW-2	13	3 to 13	8.90	5.26	3.64
MW-3	13	3 to 13	8.51	4.82	3.69
MW-4	13	3 to 13	8.35	4.67	3.68
MW-5	13	3 to 13	8.26	4.51	3.75
MW-6	8	3 to 8	8.19	4.46	3.73
MW-7	12	2 to 12	8.14	4.45	3.69
MW-8	12	2 to 12	8.12	4.45	3.67

[1] TOC elevations referenced to U.S.Coastal and Geodetic Survey benchmark on northeast side of Building 631 (11.15 feet National Geodetic Vertical Datum). All elevations and measurements in feet.

Notes: TD = total depth of well.
TOC = top of casing.
bls = below land surface.

3.2.3 Soil and Groundwater Sampling Program Soil samples were collected at 1 foot bls and 3 feet bls from soil boring SB-13 as well as from the boreholes for monitoring wells MW-6 through MW-8. Soil samples were analyzed for TRPH by USEPA Method 418.1 and for the metals arsenic, cadmium, chromium, and lead.

Groundwater samples collected from monitoring wells MW-6 through MW-8 were analyzed for VOCs by USEPA Method 602, for TRPH by USEPA Method 418.1, and for the metals arsenic, cadmium, chromium, and lead. Both filtered and non-filtered metals samples were analyzed from each monitoring well. Filtered and unfiltered metals samples were also collected from monitoring wells MW-2, MW-3, and MW-5.

3.2.4 Soil Assessment Results Soil sample analytical reports are attached in Appendix C, Soil Sample Analytical Data, and the results are summarized in Table 3-5. TRPH were detected in soil samples from each boring. Excessive soil contamination (TRPH concentrations > 50 ppm) was identified in samples from MW-7 and MW-8. Cadmium, chromium, and lead concentrations are below State standards for clean soil (Chapter 17-775, FAC). Arsenic was not detected.

Table 3-5
Soil Sample Analytical Data,
June 1994

Second Contamination Assessment Report Addendum
Site 607NE, Naval Aviation Depot,
Pensacola, Florida

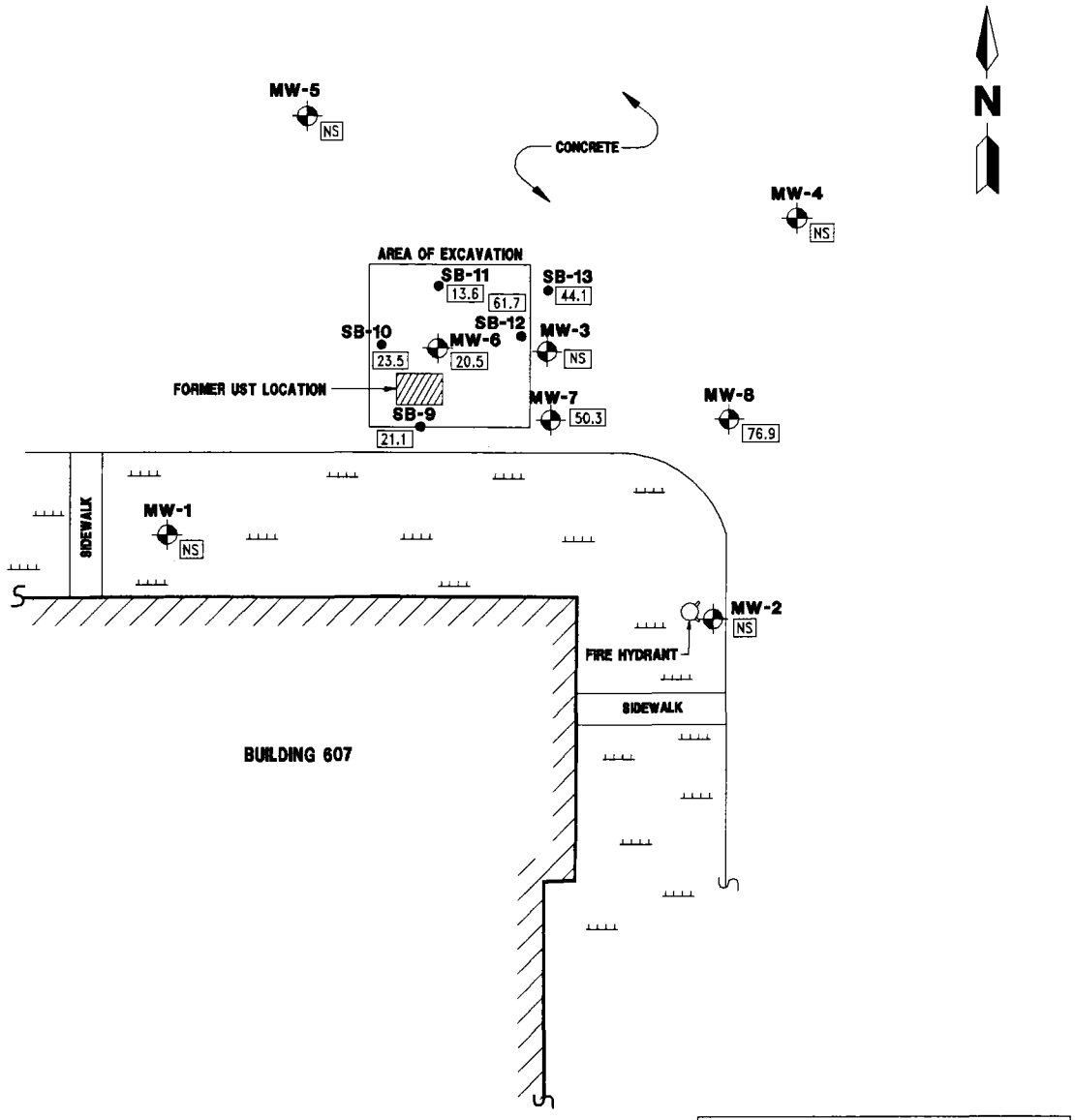
		Concentration				
Soil Sample	Depth (bls)	TRPH	Arsenic	Cadmium	Chromium	Lead
SB13-1	1	44.1	<8.4	0.54	5.3	20.8
SB13-3	3	<5.5	<8.9	<0.55	<2.8	12.0
MW6-1	1	20.5	<9.1	<0.57	7.7	<2.9
MW6-3	3	NA	NA	NA	NA	NA
MW7-1	1	22.1	<9.8	<0.62	23.4	5.8
MW7-3	3	50.3	<8.4	<0.53	<2.6	15.8
MW8-1	1	76.9	<9.6	1.2	5.4	12.4
MW8-3	3	<12.4	<9.9	<0.62	<3.1	<3.1
State target level[2]		10	10	37	50	108

Notes: Concentrations are reported in parts per million.
State target level (Chapter 17-775, Florida Administrative Code (FAC), November 1992).
bls = below land surface.
TRPH = total recoverable petroleum hydrocarbons.
NA = not analyzed (sample bottle breakage).

TRPH concentrations for soil samples collected from soil borings SB-9 through SB-12 during UST closure activities, and for the recently analyzed samples are summarized in Figure 3-4. The highest TRPH concentrations for SB-13, MW-7, and MW-8 are reported. TRPH concentrations for soil borings SB-6 through SB-8, which were drilled during the 1993 CA (ABB-ES, 1993), are omitted because soil at these locations was removed from the site during UST closure activities.

3.2.4.1 **Total Recoverable Petroleum Hydrocarbons (TRPH) in Soil** The source of TRPH in soil outside the excavated UST area is not easily explained by a release from the former UST. VOCs were not detected by OVA headspace analysis, and no odors or discoloration were observed in soil samples. Furthermore, there does not appear to be a correlation with TRPH concentrations and proximity to the former UST. The highest TRPH concentration (76.9 ppm) was collected from boring MW-8 (1 foot bls), which is located approximately 35 feet downgradient of the former UST. There is also no consistent relationship between TRPH concentrations and depth of sample collection. TRPH concentrations are higher in the shallow samples from SB-13 and MW-8, but are lower in MW-7.

3.2.4.2 **Total Petroleum Hydrocarbons (Fingerprint) Analyses** Total petroleum hydrocarbons (TPH) analyses using USEPA Method 8015 were performed for samples with the highest TRPH concentrations, sample SB-12 (TRPH = 61.7 ppm) and sample



NOTES:

SB-9 through SB-12 sampled in April 1994.

SB-13 and MW-6 through MW-8 sampled in June 1994. Values represent highest total recoverable petroleum hydrocarbon (TRPH) concentrations in samples collected from 1 to 4 feet below land surface.

FIGURE 3-4
TRPH IN SOIL AFTER UST REMOVAL

SECOND CONTAMINATION ASSESSMENT REPORT ADDENDUM SITE 607NE

NADEP PENSACOLA
PENSACOLA, FLORIDA

PENSCOLA/607NE.dwg/NP/5-9-94

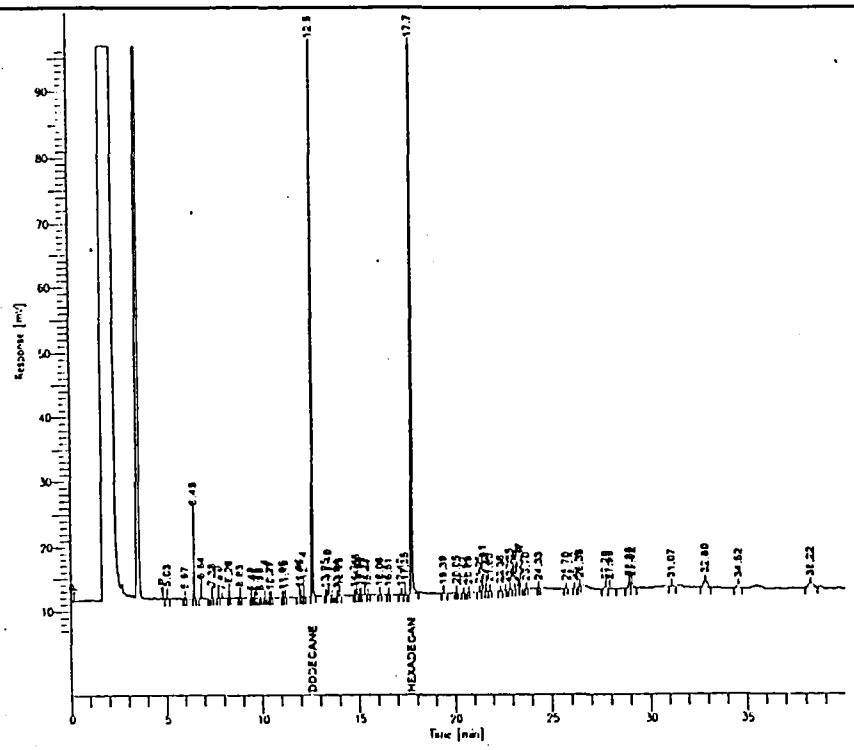
MW-8-1 (TRPH = 76.9 ppm). Samples were analyzed by Enseco-Wadsworth/ALERT Laboratories in Tampa, Florida. The analytical method used for TPH analysis is gas chromatography (GC) with flame ionization detection (FID). Petroleum hydrocarbon compounds are identified as peaks on a chromatogram. All peaks are integrated into a single total petroleum hydrocarbons (TPH) value. Soil sample chromatogram are compared to patterns of known petroleum products (e.g., used oil or asphalt), which are used as a "fingerprint" to tentatively identify the type of petroleum product in the sample. Peaks corresponding to short-chain hydrocarbon compounds appear in the early stages of the chromatogram run; long-chain petroleum compounds appear later.

Chromatograms for samples SB-12 and MW-8-1 are shown in Figure 3-5. Analyses were performed for approximately 38 minutes for sample SB-12 and for 120 minutes for sample MW-8-1. (Note: the nonane, dodecane, and hexadecane spikes at 7.4, 12.5, and 17.7 minutes, respectively, are laboratory spikes and are not indications of the presence of these compounds in the sample). TPH were not detected in either sample (<3.0 ppm), which indicates that the source of TRPH in sample SB-12 is a long-chain hydrocarbon molecule with a long GC retention time (greater than 120 minutes). The indication that TRPH in soil consist of larger hydrocarbon molecules is supported by the low OVA concentrations in soil.

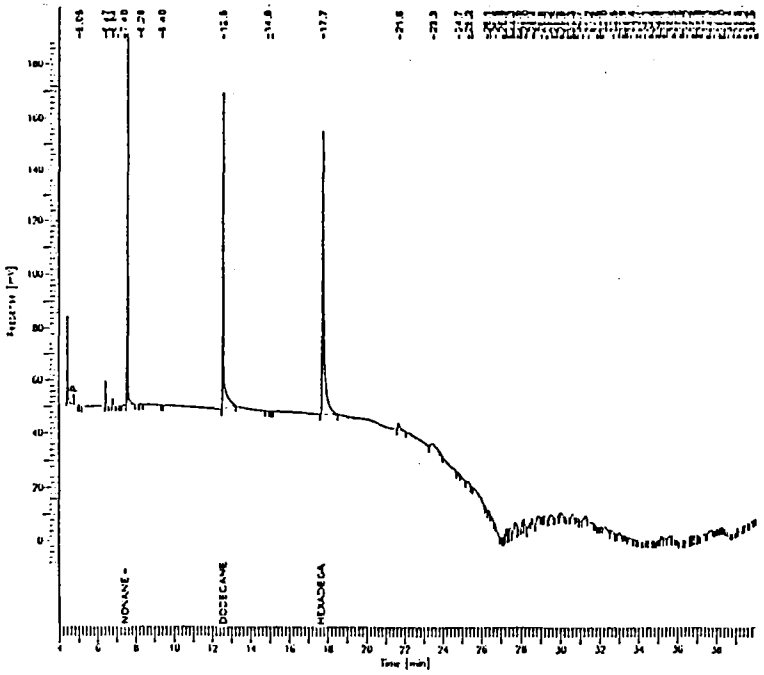
The contents of the former UST, waste oil and aviation (jet) fuel, do not appear to be the source of TRPH in soil. Sample chromatograms for aviation fuel (JP-4 jet fuel) and motor oil (which has a chromatogram similar to waste oil) are presented in Figure 3-6. Aviation fuel constituents appear as light fraction hydrocarbons (C_7 to C_{20}). Although primarily composed of long-chain hydrocarbon molecules, motor oil contains some short-chain hydrocarbon molecules in the C_7 to C_{20} range. No peaks were observed in the C_7 to C_{20} range on the chromatograms for SB-12 and MW-8-1.

3.2.4.3 **Asphalt in Soil** A possible source of TRPH in soil is asphalt, which was visible in minor quantities in soil samples at the site. The size of asphalt is typically that of very fine sand to fine gravel. Typically, a large percentage of asphalt is composed of molecules above the C_{38} range (Enseco, 1993). Because much of the material is heavier than C_{38}, quantification of asphalt is low during standard GC runs. Also, higher molecular weight hydrocarbons condense during injection into the GC, resulting in a poor response on the chromatogram (Enseco, 1993).

The low TPH response of asphalt was verified during this assessment. An asphalt sample was collected by Enseco Laboratories from a highway in Tampa, Florida. TRPH was analyzed by USEPA Method 418.1 and TPH were analyzed by GC/FID. The TRPH concentration in the asphalt sample was 67,000 ppm. Because of the high TRPH concentration, the TPH extraction was performed as a waste dilution (1 gram of asphalt was diluted with 10 milliliters of solvent). The extraction was performed for approximately 120 minutes. The resulting chromatogram is shown in Figure 3-7. TPH were not detected during the extraction. The apparent peak from approximately 25 to 35 minutes is a methodology artifact and is not an indication of the presence of petroleum constituents (Enseco, 1994; personal communication). The low TPH response indicates that samples with high TRPH concentrations due to asphalt have low to no reportable TPH by GC/FID.



SB-12



MW-8-1

FIGURE 3-5

GAS CHROMATOGRAMS FOR
SOIL SAMPLES SB-12 AND MW-8-1

CONTAMINATION ASSESSMENT
REPORT ADDENDUM
SITE 607NE

NADEP PENSACOLA
PENSACOLA, FLORIDA

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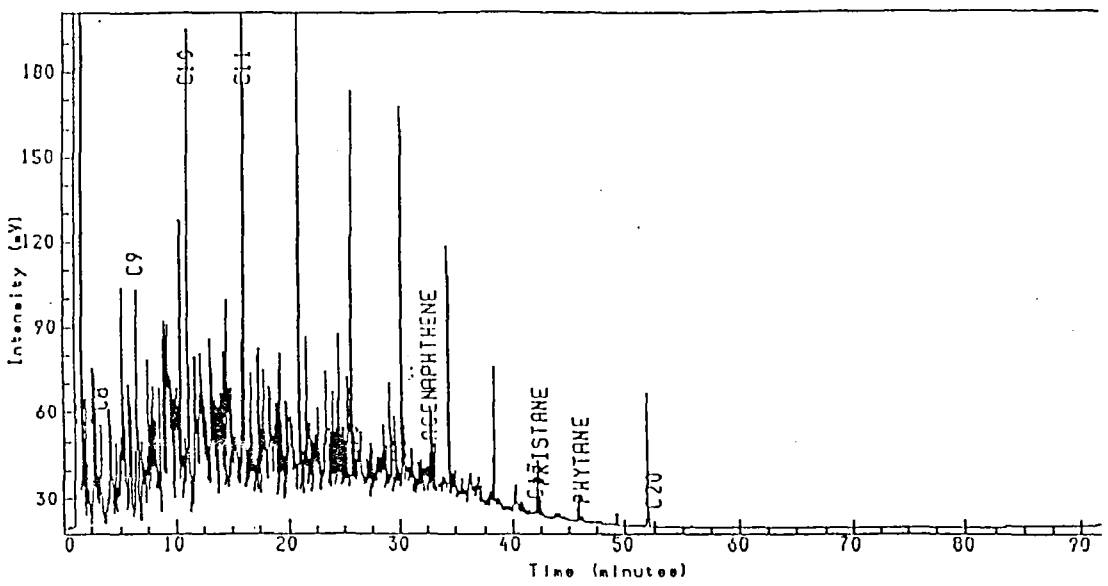
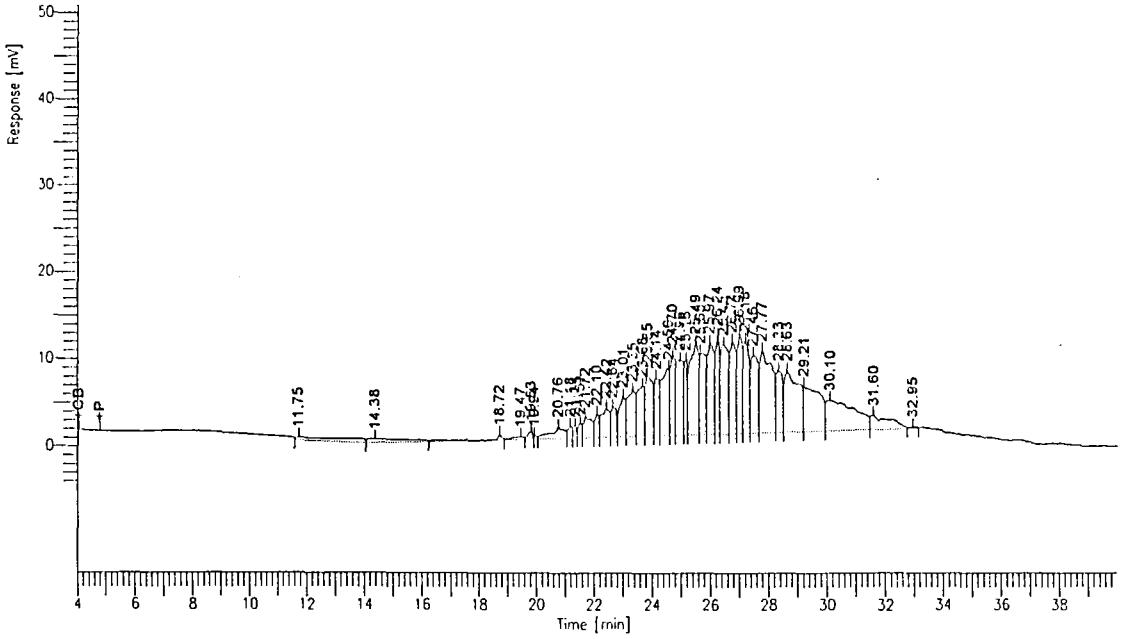


JP-4 JET FUEL



MOTOR OIL

FIGURE 3-6

GAS CHROMATOGRAMS FOR JP-4 JET FUEL AND MOTOR OIL

CONTAMINATION ASSESSMENT REPORT ADDENDUM SITE 607NE

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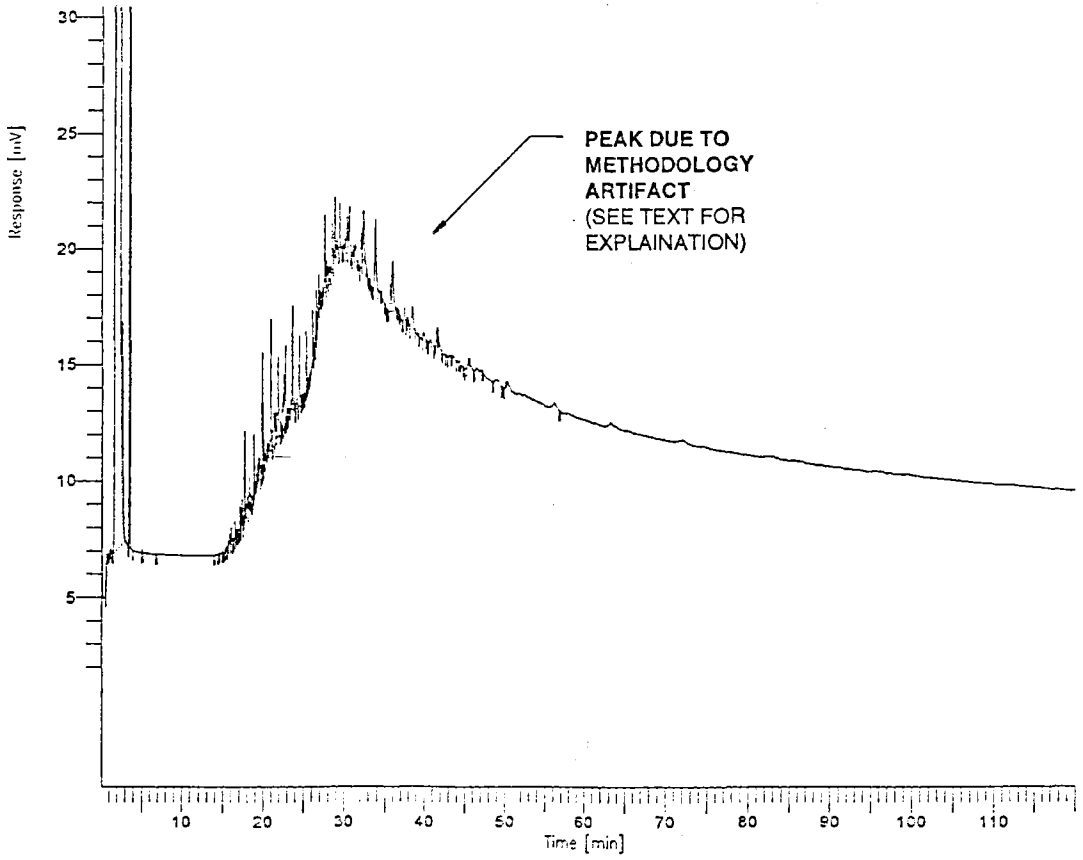

ASPHALT

FIGURE 3-7

GAS CHROMATOGRAM FOR
ASPHALT

CONTAMINATION ASSESSMENT
REPORT ADDENDUM
SITE 607NE

NADEP PENSACOLA
PENSACOLA, FLORIDA

7527-50 940713WEM

In summary, fingerprint analyses indicate that constituents of the former UST are not the source of TRPH in soil. Furthermore, there is no correlation between TRPH concentrations in soil and proximity to the former UST, which would be expected if the former UST was the source. Asphalt appears to be the most plausible source of TRPH in soil because asphalt was visually observed in soil samples, the low TPH response is consistent with asphalt-bearing samples having high TRPH concentrations, and no other potential sources were identified.

3.2.5 Groundwater Assessment Results Groundwater analyses for samples collected June 10, 1994, are attached in Appendix D, Groundwater Sample Analytical Data and are summarized in Table 3-6. For comparative purposes, the May 3, 1994, TRPH and USEPA Method 624 analyses for samples MW-1 through MW-5 are also included.

Benzene, toluene, ethylbenzene, xylenes, TRPH, arsenic, cadmium, chromium, and lead were detected in groundwater samples. Benzene concentrations slightly exceed the State target level of 1 ppb in samples from monitoring wells MW-6 and MW-7. Total VOAs and TRPH concentrations are below State target levels. Cadmium, chromium, and lead concentrations in unfiltered samples exceed respective State MCLs.

3.2.2.1 **Benzene in Groundwater** Benzene was detected in only samples from MW-6 and MW-7. The areal extent of benzene contamination is approximated by the 1 ppb isoconcentration line (isocon) in Figure 3-8. Benzene in groundwater appears to be restricted to the former UST area and the area immediately downgradient (southeast) of the UST.

3.2.2.2 **Metals in Groundwater** Metals were detected in only unfiltered samples. Unfiltered arsenic concentrations are below the State MCL of 50 ppb. Unfiltered cadmium and chromium concentrations exceed respective MCLs in only the samples from monitoring well MW-6, which is located at the former UST location. Unfiltered lead concentrations exceed the State MCL of 15 ppb in all samples except sample MW-5.

Because metals were detected only in unfiltered samples, their presence in groundwater may be the result of metal-bearing particulates suspended in groundwater at the time of sample collection. Turbidity observed in the samples collected June 10, 1994, also suggests that particulates may be a source of metals in groundwater.

To confirm if turbidity was contributing to high metals concentrations in unfiltered samples, a "non-turbid," unfiltered sample was collected from monitoring well MW-6 on July 6, 1994, and analyzed for metals. The groundwater analytical report for this sample is attached in Appendix D, Groundwater Sample Analytical Data. Arsenic, cadmium, and chromium were not detected in the sample collected July 6, 1994. The lead concentration of 8 ppb is below the State MCL of 15 ppb.

Metals concentrations in the non-turbid sample are much lower than concentrations in the June 10, 1994, sample (Table 3-6), which strongly suggests that high metals concentrations in the unfiltered groundwater samples collected in June 1994 are attributable to suspended particulates in groundwater. Filtration, resulting in the removal of suspended particles in groundwater, is typically observed in unconsolidated, porous sediments; therefore, transportation of particulates in groundwater is expected to be very localized.

Table 3-6
Groundwater Analytical Data,
May 3 and June 10, 1994

Second Contamination Assessment Report Addendum
Site 607NE, Naval Aviation Depot
Pensacola, Florida

Compound	Applied Standard[1]	MW1	MW2	MW3	MW4	MW5	MW5-DUP	MW6	MW6-DUP	MW7	MW8
Benzene	[1]1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.3	1.4	3.6	<1.0
Toluene		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.6	1.6	<1.0	<1.0
Ethylbenzene		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.9	3.0	5.4	<1.0
Xylenes		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	9.7	10	19	<1.0
Total VOA	[1]50	ND	ND	ND	ND	ND	ND	15.5	16	28	ND
TRPH	[1]5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.2	1.3	2.1	1.0
Arsenic	[2]50	NA	<5.0	<5.0	NA	<5.0	NA	5.4	5.3	<5.0	<5.0
Cadmium	[2]5	NA	5.5	<5.0	NA	<5.0	NA	7.8	8.4	<5.0	<5.0
Chromium	[2]100	NA	<50.0	<50.0	NA	<50.0	NA	81.7	114	<50.0	<50.0
Lead	[2]15	NA	17.4	84.5	NA	9.5	NA	306	440	126	84.5

[1] State target level for Class G-II groundwater (Chapter 17-770, FAC).
[2] Maximum contaminant level (Chapter 17-550, FAC).

Notes: Metals concentrations are from unfiltered samples. Metals were not detected in filtered samples.
Monitoring wells MW-1 through MW-5 sampled for TRPH and USEPA Method 624 May 3, 1994.
Monitoring wells MW-2, MW-3, and MW-5 sampled for metals June 10, 1994.
Monitoring wells MW-6 through MW-8 sampled for metals, TRPH, and USEPA Method 602 on June 10, 1994.
Concentrations are in parts per billion except TRPH which is reported in parts per million.
Total VOA = total volatile organic aromatics (the sum of benzene, ethylbenzene, toluene, and xylenes)
TRPH = total recoverable petroleum hydrocarbons
DUP = duplicate sample.
NA = not analyzed.
ND = not detected

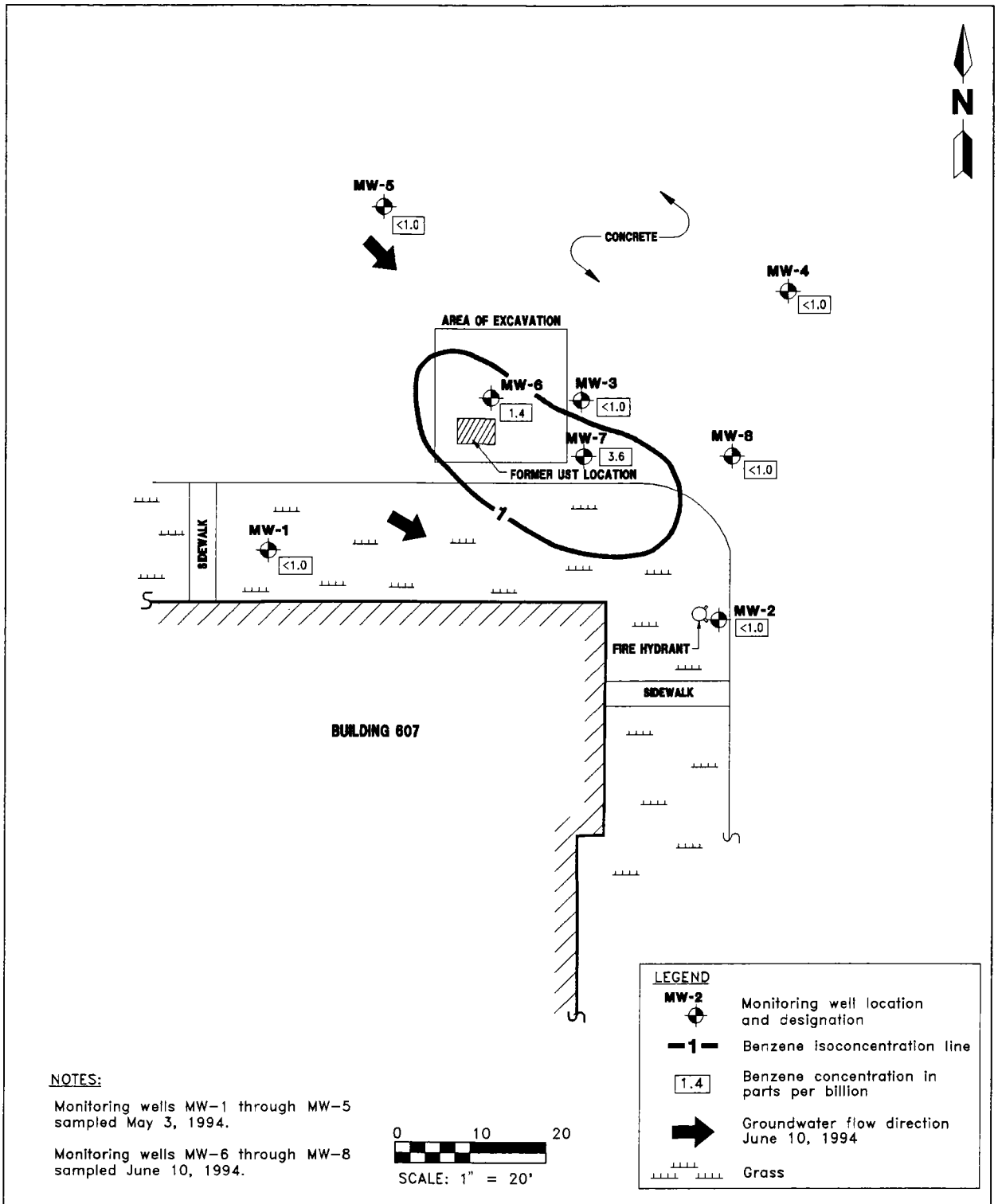

FIGURE 3-8
BENZENE IN GROUNDWATER, MAY 3 AND JUNE 10, 1994

SECOND CONTAMINATION ASSESSMENT REPORT ADDENDUM SITE 607NE

NADEP PENSACOLA PENSACOLA, FLORIDA

PENSCOLA/607NE.dwg/NP/7-14-94

4.0 SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

4.1 SUMMARY. Based on the results of the second supplemental assessment and the previous investigative results (ABB-ES, 1992; 1993), the following is a summary of conditions observed at the site.

- The site is the former location of two 500-gallon USTs used to store waste oil and used aviation fuel. These USTs were replaced by a single 500-gallon UST in 1990. The replacement UST was removed from the site during this investigation in April 1994.

- Eight monitoring wells were installed and 13 soil borings were drilled to assess soil and groundwater contamination near the UST area.

- Sediments are typically porous, unconsolidated, very fine-grained to fine-grained quartz sands. These sediments are part of the surficial zone of the sand-and-gravel aquifer (Roaza and others, 1991). The surficial zone is classified as a Class G-II groundwater source.

- Groundwater was encountered approximately 4 to 6 feet bls. Groundwater flow direction varies from east to southeast.

- Excessively contaminated soil was identified during UST closure activities by OVA headspace analyses. Contaminated soil was removed from the site and disposed at a landfill. Contaminated soil was replaced with clean fill material.

- Post-closure analyses indicate VOCs and metals concentrations in soil are below clean soil standards; however, excessive soil contamination was indicated by TRPH laboratory analyses.

- Benzene concentrations in groundwater slightly exceed the State target level of 1 ppb. Cadmium, chromium, and lead concentrations exceed State MCLs in unfiltered groundwater samples. Metals concentrations in a non-turbid, unfiltered sample collected at the former UST location are below State MCLs. Metals were not detected in filtered groundwater samples. TICs, which appear to be petroleum-related compounds, were detected in the sample from temporary well TW-1.

- There are no potable wells within 0.25 miles of the site (ABB-ES, 1992).

4.2 CONCLUSIONS. The following conclusions are based on the findings of the CA and existing site conditions.

- TPH fingerprint analyses indicate that TRPH in soil are not related to a discharge from the former UST. Asphalt is the most likely source of TRPH in soil.

- TICs in groundwater do not appear to be a concern outside the immediate area of the former UST because they were not detected in samples from other monitoring wells.

- The source of metals in groundwater appears to be the result of suspended, metal-bearing particulates in groundwater because metals were not detected in filtered samples and metals concentrations in the non-turbid, unfiltered sample from monitoring well MW-6 were much lower than turbid samples. The movement of metal-bearing particulates in groundwater is expected to be very localized because of filtration.

- Benzene in groundwater appears to be restricted to the former UST area and the area immediately downgradient of the UST (Figure 3-8). Because benzene is the only dissolved groundwater constituent exceeding State target levels and there are no potable wells in the site vicinity, the 50 ppb *No Further Action (NFA)* target level for benzene can be applied (FDER, 1990). The highest benzene concentration (3.6 ppb) is well below the *NFA* target level.

4.3 **RECOMMENDATIONS**. Because soil contamination appears to be the result of asphalt, groundwater contaminant concentrations do not exceed State target levels or applied standards, and the replacement UST has been removed from the site a *NFAP* is recommended for Site 607NE.

5.0 PROFESSIONAL REVIEW CERTIFICATION

The CA contained in this report was prepared using sound hydrogeologic principles and judgment. This CA is based on the geologic investigation and associated information detailed in the text and appended to this report. If conditions are determined to exist that differ from those described, the undersigned geologist should be notified to evaluate the effects of any additional information on the assessment described in this report. This Second CAR Addendum was developed for the waste oil and used aviation fuel tank located at Site 607NE at the Naval Aviation Depot, Naval Air Station in Pensacola, Florida, and should not be construed to apply to any other site.

Roger Durham
Professional Geologist
P.G. No. 001127

Date

6.0 REFERENCES

ABB Environmental Services, Inc., 1992, Contamination Assessment Report, Site 607NE, Naval Aviation Depot, Naval Air Station, Pensacola, Florida: prepared for Southern Division, Naval Facilities Engineering Command, Charleston, South Carolina.

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APPENDIX A

FDEP CORRESPONDENCE

For Routing To Other Than The Addressee
To: Location:
To: Location:
To: Location:
From: Date:

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

Interoffice Memorandum

TO: Eric S. Nuzie, Federal Facilities Coordinator
Bureau of Waste Cleanup

THROUGH: Dr. James J. Crane, PG III/Administrator
Technical Review Section

Tim Bahr, Professional Geologist II JJC
Technical Review Section

FROM: Jorge R. Caspary, PG I/Base Coordinator JRC
Technical Review Section

DATE: May 5, 1993

SUBJECT: Review of Contamination Assessment Report (CAR) Addendum for Site 607 NE. NADEP Pensacola. Pensacola Naval Air Station.

I have reviewed the Contamination Assersment Report (CAR) Addendum dated March 1993 (received March 18, 1993), submitted for this site. In order to meet the requirements of Chapter 17-770, Florida Administrative Code (F.A.C.), the following comments need to be addressed:

1. The soil assessment submitted as part of this CAR Addendum has been performed around the new waste oil tank not around the former tank location as requested in the September 1992 interoffice memorandum; therefore, comment No. 2 of above mentioned memorandum still needs to be implemented.

2. Due to TRPH levels around the new waste oil tank location, supplemental soil assessment in accordance with Rule 17-770.200(2), F.A.C., and the Department's May 1992 "Guidelines for Assessment and Remediation of Petroleum Contaminated Soils" should be performed approximately 5 feet south of the existing waste oil tank. The soil around the waste oil tank should be visually assessed for staining and/or spillage with representative samples collected for EPA Methods 8240 and 9073. The approximate extent of contamination [if any] should be represented in graphic form.

3. A complete round of sampling and analysis for EPA Method 624 should be performed on the site's monitoring wells. Note, additional monitoring wells should be installed if significant contaminant concentrations are detected at perimeter monitoring wells.

4. Concurrent with the sampling event, a complete set of water level measurements must be obtained in order to verify the direction of groundwater flow and to estimate fluctuations in the water table. These data must be provided in tabular form (including top of casing elevations, depths to water, and corresponding water level elevations) and in graphic form showing the consultant's interpretation of the groundwater flow direction.

The results of the supplemental assessment should be submitted to us within sixty (60) days of receipt of this request. If additional time is needed, a time extension request should be submitted, in accordance with the Navy's Petroleum Contamination Agreement Site Management Plan process for scheduling site remediations. If the Navy or its consultant should have any questions concerning this review, they can contact me at (904) 488-0190.

APPENDIX B

CLOSURE ASSESSMENT FORM

Florida Department of Environmental Regulation
Twin Towers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400

Form Title: Closure Assessment Form
Effective Date: December 10, 1990
DER Application No. _____ (Filled in by DER)

Closure Assessment Form

Owners of storage tank systems that are replacing, removing or closing in place storage tanks shall use this form to demonstrate that a storage system closure assesment was performed in accordance with Rule 17-761 or 17-762, Florida Administrative Code. Eligible Early Detection Incentive (EDI) and Reimbursement Program sites do not have to perform a closure assessment.

Please Print or Type
Complete All Applicable Blanks

1. Date: 5 May 1994
2. DER Facility ID Number: 17/9202973 3. County: Escambia
4. Facility Name: US Navy - Naval Aviation Depot
5. Facility Owner: Commanding Officer, Naval Air Station
6. Facility Address: Building 607, Naval Air Station
7. Mailing Address: 190 Radford Boulevard, Pensacola, Florida 32508-5217
8. Telephone Number: (904) 452-3094 9. Facility Operator: Mr. Paul Semmes
10. Are the Storage Tank(s): **(Circle one or both)** A. Aboveground or (B) Underground
    Type of Product(s) Stored: Waste Oil
12. Were the Tank(s): **(Circle one)** A. Replaced (B) Removed C. Closed in Place D. Upgraded (aboveground tanks only)
13. Number of Tanks Closed: 1 14. Age of Tanks: 4

Facility Assessment Information

Yes	No	Not Applicable	
☐	☒		1. Is the facility participating in the Florida Petroleum Liability Insurance and Restoration Program (FPLIRP)?
☒	☐		2. Was a Discharge Reporting Form submitted to the Department? If yes, When: 5 May 1994 Where: ECHD Pensacola
☒	☐		3. Is the depth to ground water less than 20 feet?
☒	☐	☐	4. Are monitoring wells present around the storage system? If yes, specify type: ☒ Water monitoring ☐ Vapor monitoring
☐	☒	☐	5. Is there free product present in the monitoring wells or within the excavation?
☐	☐	☒	6. Were the petroleum hydrocarbon vapor levels in the soils greater than 500 parts per million for gasoline? Specify sample type: ☐ Vapor Monitoring wells ☐ Soil sample(s)
☐	☐	☒	7. Were the petroleum hydrocarbon vapor levels in the soils greater than 50 parts per million for diesel/kerosene? Specify sample type: ☐ Vapor Monitoring wells ☐ Soil sample(s)
☒	☐	☐	8. Were the analytical laboratory results of the ground water sample(s) greater than the allowable state target levels? (See target levels on reverse side of this form and supply laboratory data sheets)
☒	☐	☐	9. If a used oil storage system, did a visual inspection detect any discolored soil indicating a release?
☐	☒		10. Are any potable wells located within ¼ of a mile radius of the facility?
☐	☒		11. Is there a surface water body within ¼ mile radius of the site? If yes, indicate distance: _____

Northwest District
160 Governmental Center
Pensacola Florida 32501 5794
904 436 8300

Northeast District
7825 Baymeadows Way Suite B 200
Jacksonville Florida 32207
904 798 4200

Central District
3319 Maguire Blvd Suite 232
Orlando Florida 32803 3767
407 894 7555

Southwest District
4520 Oak Fair Blvd
Tampa Florida 33610 7347
813 623 5561

South District
2269 Bay St
Fort Myers Florida 33901 2896
813 332 6975

Southeast District
1900 S Congress Ave Suite A
West Palm Beach Florida 33406
407 433 2650

DER Form #	17-761.900(6)
Form Title	Closure Assessment Form
Effective Date	December 10, 1990
DER Application No.	(Filled in by DER)

2. A detailed drawing or sketch of the facility that includes the storage system location, monitoring wells, buildings, storm drains, sample locations, and dispenser locations must accompany this form.
3. If a facility has a pollutant storage tank system that has both gasoline and kerosene/diesel stored on site, both EPA Method 602 and EPA Method 610 must be performed on the ground water samples obtained.
4. Amount of soils removed and receipt of proper disposal.
5. If yes is answered to any one of questions 5-9, a Discharge Reporting Form 17-761.900(1) indicating a suspected release shall be submitted to the Department within one working day.
6. A copy of this form and any attachments must be submitted to the Department's district office in your area and to the locally administered program office under contract with the Department within 60 days of completion of tank removal or filling a tank with an inert material.

Signature of Owner	Date
Paul R. Semmes, P.E.	10 May 94
Signature of Person Performing Assessment	Date
Environmental Engineer	
Title of Person Performing Assessment	

State Ground Water Target Levels That Affect A Pollutant Storage Tank System Closure Assessment

State ground water target levels are as follows:

1. For gasoline (EPA Method 602):
   a. Benzene 1 ug/l
   b. Total VOA 50 ug/l
      - Benzene
      - Toluene
      - Total Xylenes
      - Ethylbenzene
   c. Methyl Test-Butyl Ether (MTBE) 50 ug/l

2. For kerosene/diesel (EPA Method 610):
   a. Polynuclear Aromatic Hydrocarbons (PAHS) (Best achievable detection limit, 10 ug/l maximum)

APPENDIX C

SOIL SAMPLE ANALYTICAL DATA

PRE-DISPOSAL SOIL SAMPLE ANALYSES

Navy Public Works Center
Environmental Laboratory

Bldg.3297, Code 920
NAS Pensacola, FL 32508-6500
Phone 904-452-3642/4758
Autovon 922-3642

Laboratory Report
Volatiles by Method 8260

Requester: NPWC Environmental Engineering Dept.
Address: Naval Air Station Pensacola
Pensacola,FL 32508
Phone #: 452-8567
Contact: Paul Semmes

Lab ID Number: 9404094
Received Date: 20 April 94
Sample Site: Bldg 607
Job Order #: 120 6810

Sample ID#	Lab	1- 2267			2-			3-			4-		
Sample Name	Requester	UST site Bldg 607											
Collector Name		JWM											
Date/Time Collected (Military)	Comp start												
	Comp stop												
	Grab	20 April 94 @ 1149											
Sample Type	Comp/Grab	Grab											
Analyst		J. W. Moore											
Date of Analysis		27 April 94											
Sample Matrix		Soil											
Dilution		Dilution	X	1	Dilution	X	1	Dilution	X	1	Dilution	X	1
PARAMETER		ID#		Det.	ID#		Det.	ID#		Det.	ID#		Det.
Volatiles by GC/MS (Capillary)	METHOD #	1- 2267	units	Limit	2-	units	Limit	3-	units	Limit	4-	units	Limit
Benzene	EPA 8260	6.6	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1
Bromobenzene	EPA 8260	BDL	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1
Bromochloromethane	EPA 8260	BDL	ug/kg	2		ug/kg	2		ug/kg	2		ug/kg	2
Bromodichloromethane	EPA 8260	BDL	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1
Bromoform	EPA 8260	BDL	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1
Bromomethane	EPA 8260	BDL	ug/kg	2		ug/kg	2		ug/kg	2		ug/kg	2
n-Butylbenzene	EPA 8260	30	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1
sec-Butylbenzene	EPA 8260	34	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1
tert-Butylbenzene	EPA 8260	67	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1
Carbon Tetrachloride	EPA 8260	BDL	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1
Chlorobenzene	EPA 8260	BDL	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1
Chloroethane	EPA 8260	BDL	ug/kg	2		ug/kg	2		ug/kg	2		ug/kg	2
Chloroform	EPA 8260	BDL	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1
Chloromethane	EPA 8260	BDL	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1
2-Chlorotoluene	EPA 8260	BDL	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1
4-Chlorotoluene	EPA 8260	BDL	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1
Dibromochloromethane	EPA 8260	BDL	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1
1,2-Dibromo-3-chloropropane	EPA 8260	BDL	ug/kg	5		ug/kg	5		ug/kg	5		ug/kg	5
1,2-Dibromoethane	EPA 8260	BDL	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1
Dibromomethane	EPA 8260	BDL	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1
1,2-Dichlorobenzene	EPA 8260	BDL	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1
1,3-Dichlorobenzene	EPA 8260	BDL	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1
1,4-Dichlorobenzene	EPA 8260	BDL	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1
Dichlorodifluoromethane	EPA 8260	BDL	ug/kg	2		ug/kg	2		ug/kg	2		ug/kg	2
1,1-Dichloroethane	EPA 8260	BDL	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1
1,2-Dichloroethane	EPA 8260	BDL	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1
1,1-Dichloroethene	EPA 8260	BDL	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1
cis-1,2-Dichloroethene	EPA 8260	BDL	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1
trans-1,2-Dichloroethene	EPA 8260	BDL	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1
1,2-Dichloropropane	EPA 8260	BDL	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1
1,3-Dichloropropane	EPA 8260	BDL	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1
2,2-Dichloropropane	EPA 8260	BDL	ug/kg	4		ug/kg	4		ug/kg	4		ug/kg	4
1,1-Dichloropropene	EPA 8260	BDL	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1
Ethylbenzene	EPA 8260	1.8	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1
Hexachlorobutadiene	EPA 8260	BDL	ug/kg	2		ug/kg	2		ug/kg	2		ug/kg	2
Isopropylbenzene	EPA 8260	6.6	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1
p-Isopropyltoluene	EPA 8260	60	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1
Methylene chloride	EPA 8260	BDL	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1

Navy Public Works Center
Environmental Laboratory

Laboratory Report
Volatiles by Method 8260

Bldg.3297, Code 920
NAS Pensacola, Fl. 32508-6500
Phone 904-452-3642/4758
Autovon 922-3642

Requester: NPWC Environmental Engineering Dept.
Address: Naval Air Station Pensacola
Pensacola,FL 32506
Phone #: 452-8587
Contact: Paul Semmes

Lab ID Number: 9404094
Received Date: 20 April 94
Sample Site: Bldg 607
Job Order #: 120 6810

PARAMETER		ID#		Det.	ID#		Det.	ID#		Det.	ID#		Det.
Volatiles by GCMS (Capillary)	METHOD #	1- 2267	units	Limit	2-	units	Limit	3-	units	Limit	4-	units	Limit
Naphthalene	EPA 8260	9	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1
n-Propylbenzene	EPA 8260	11	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1
Styrene	EPA 8260	BDL	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1
1,1,1,2-Tetrachloroethane	EPA 8260	BDL	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1
1,1,2,2-Tetrachloroethane	EPA 8260	BDL	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1
Tetrachloroethene	EPA 8260	BDL	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1
Toluene	EPA 8260	4.6	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1
1,2,3-Trichlorobenzene	EPA 8260	BDL	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1
1,2,4-Trichlorobenzene	EPA 8260	BDL	ug/kg	2		ug/kg	2		ug/kg	2		ug/kg	2
1,1,1-Trichloroethane	EPA 8260	BDL	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1
1,1,2-Trichloroethane	EPA 8260	BDL	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1
Trichloroethene	EPA 8260	BDL	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1
Trichlorofluoromethane	EPA 8260	BDL	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1
1,2,3-Trichloropropane	EPA 8260	BDL	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1
1,2,4-Trimethylbenzene	EPA 8260	72	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1
1,3,5-Trimethylbenzene	EPA 8260	92	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1
Vinyl Chloride	EPA 8260	BDL	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1
o-Xylene	EPA 8260	24	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1
m,p-Xylene	EPA 8260	11	ug/kg	2		ug/kg	2		ug/kg	2		ug/kg	2
Methyl-tert-butyl ether	EPA 8260	BDL	ug/kg	1		ug/kg	1		ug/kg	1		ug/kg	1

Surrogate Recoveries Compound	Acceptance Limits				
1,2-Dichloroethane-d4	70-121	98			
Toluene-d8	84-138	109			
Bromofluorobenzene	59-113	176*			

Comments: Ug/kg=micrograms per kilogram. BDL=Below Detection Limit
Total purgeable petroleum hydrocarbons = (est.) 77,000 ug/kg (77 mg/kg = 77 PPM)

Approved by: _____ **Date:** 14-Jun-94 @ 09:56
Jerry Dees, Laboratory Director

Navy Public Works Center
Environmental Laboratory

Bldg.3297, Code 920
NAS Pensacola, Fl. 32508-6500
Phone 904-452-3642/4758
Autovon 922-3642

Laboratory Report
TCLP Metals

Requester: NADEP / PWC Environmental
Address: NAS Pensacola
Pensacola, FL 32508
Phone #: 452-3094
Contact: Paul Semmes

Lab ID Number: 9405117M
Sample Date: 2 May 94
Received Date: 2 May 94
Sample Site: Bldg. 607 - UST Excavation
Job Order #: 120 6810

Sample ID#	Lab	1- 2508	2-	3-	4-	Analyst(s):
Sample Name	Requester	Bldg. 607				Jim Taylor
Collector Name		J. Moore				Brian Nelson
Date/Time Collected (Military)	Comp start					
	Comp stop					Date(s) of analysis:
	Grab	2 May 94 @ 1030				19 May 94
Sample Type	Comp/Grab	Comp of four grabs				
Sample Matrix		Soil - TCLP Extract				

PARAMETER	SW-846	ID#			Det.	ID#		Det.	ID#		Det.	ID#		Det.	
TCLP Metals:	METHOD #	1- 2508		units	Limit	2-	units	Limit	3-	units	Limit	4-	units	Limit	Preservative(s)
Arsenic(As)	EPA 6010A	X	<0.13	mg/l	0.13		mg/l	0.5		mg/l	0.5		mg/l	0.5	None
Barium(Ba)	EPA 6010A	X	1.04	mg/l	0.001		mg/l	1.0		mg/l	1.0		mg/l	1.0	None
Cadmium(Cd)	EPA 6010A	X	<0.01	mg/l	0.01		mg/l	0.1		mg/l	0.1		mg/l	0.1	None
Chromium(Cr)	EPA 6010A	X	0.03	mg/l	0.02		mg/l	0.5		mg/l	0.5		mg/l	0.5	None
Lead(Pb)	EPA 6010A	X	0.229	mg/l	0.044		mg/l	0.5		mg/l	0.5		mg/l	0.5	None
Mercury(Hg)	EPA 7470	X	<0.0002	mg/l	0.0002		mg/l	0.02		mg/l	0.02		mg/l	0.02	None
Selenium(Se)	EPA 6010A	X	<0.26	mg/l	0.26		mg/l	0.1		mg/l	0.1		mg/l	0.1	None
Silver(Ag)	EPA 7761	X	<0.0005	mg/l	0.0005		mg/l	0.5		mg/l	0.5		mg/l	0.5	None

Comments: mg/l=milligrams per liter.

TCLP limits are: Arsenic<5, Barium<100, Cadmium<1, Chromium<5, Lead<5, Mercury<0.2, Selenium<1, Silver<5.

Approved by: Jerry Dees, Laboratory Director **Date/Time:** 14-Jun-94 14:51

PWC 5090/14

End of Report

SOIL SAMPLES SB-9 THROUGH SB-12

ENSECO-WADSWORTH/ALERT Laboratories
Division of Corning Lab Services, Inc.

5910 Breckenridge Parkway, Suite H
Tampa, FL 33610

813-621-0784
FAX 813-623-6021

ANALYTICAL REPORT

NADEP 607NE

KAREN HARTNETT

ABB ENVIRONMENTAL SERVICES

ENSECO-WADSWORTH/ALERT LABORATORIES
Certification Numbers: E84059,HRS84297
FDEP CompQAP: 870270G

Chris Amstutz

Chris Amstutz
Project Manager

May 6, 1994

ENSECO-WADSWORTH/ALERT
Laboratories

EXECUTIVE SUMMARY - Detection Highlights

B4D290004

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD
SB-9 (3-3.5')				
Petroleum Hydrocarbons Total Recoverable	21.1	5.7	mg/kg	MCAWW 418.1
Solids, Total (TS)	87.5	1.0	%	MCAWW 160.3
SB-10 (3-3.5')				
Petroleum Hydrocarbons Total Recoverable	23.5	5.6	mg/kg	MCAWW 418.1
Solids, Total (TS)	89.5	1.0	%	MCAWW 160.3
SB-11 (4')				
Petroleum Hydrocarbons Total Recoverable	13.6	6.6	mg/kg	MCAWW 418.1
Solids, Total (TS)	75.6	1.0	%	MCAWW 160.3
SB-12 (3-3.5')				
Petroleum Hydrocarbons Total Recoverable	61.7	6.3	mg/kg	MCAWW 418.1
Solids, Total (TS)	79.1	1.0	%	MCAWW 160.3

ENSECO-WADSWORTH/ALERT
Laboratories

ANALYTICAL METHODS SUMMARY

Enseco-Wadsworth/ALERT Laboratories utilizes only USEPA approved methods in analytical work. The methods used for the analyses presented in the following report are listed below.

Parameters	Methods
Petroleum Hydrocarbons Total Recoverable	MCAWW 418.1
Petroleum Hydrocarbons Total Recoverable	MCAWW 418.1 MODIFIED
Solids, Total (TS)	MCAWW 160.3 MODIFIED

References:

MCAWW Methods for Chemical Analysis of Water and Wastes, EMSL: Cincinnati, OH: March 1983 and its updates.

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

SB-9 (3-3.5')

WO #: M5635
LAB #: B4D290004-001
MATRIX: SOLID

DATE SAMPLED: 4/25/94
DATE RECEIVED: 4/28/94

INORGANIC ANALYTICAL REPORT

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Petroleum Hydrocarbons Total Recoverable	21.1	5.7	mg/kg	MCAWW 418.1 M	5/04- 5/05/94	4124066
Solids, Total (TS)	87.5	1.0	%	MCAWW 160.3 M	5/02/94	4122060

NOTE: AS RECEIVED

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

SB-10 (3-3.5')

WO #: M5636
LAB #: B4D290004-002
MATRIX: SOLID

DATE SAMPLED: 4/25/94
DATE RECEIVED: 4/28/94

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PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Petroleum Hydrocarbons Total Recoverable	23.5	5.6	mg/kg	MCAWW 418.1 M	5/04- 5/05/94	4124066
Solids, Total (TS)	89.5	1.0	%	MCAWW 160.3 M	5/02/94	4122060

NOTE: AS RECEIVED

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

SB-11 (4')

WO #: M5637
LAB #: B4D290004-003
MATRIX: SOLID

DATE SAMPLED: 4/25/94
DATE RECEIVED: 4/28/94

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PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Petroleum Hydrocarbons Total Recoverable	13.6	6.6	mg/kg	MCAWW 418.1 M	5/04- 5/05/94	4124066
Solids, Total (TS)	75.6	1.0	%	MCAWW 160.3 M	5/02/94	4122060

NOTE: AS RECEIVED

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

SB-12 (3-3.5')

WO #: M5639
LAB #: B4D290004-004
MATRIX: SOLID

DATE SAMPLED: 4/25/94
DATE RECEIVED: 4/28/94

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PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Petroleum Hydrocarbons Total Recoverable	61.7	6.3	mg/kg	MCAWW 418.1 M	5/04- 5/05/94	4124066
Solids, Total (TS)	79.1	1.0	%	MCAWW 160.3 M	5/02/94	4122060

NOTE: AS RECEIVED

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

EQUIPMENT BLANK

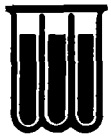
WO #: M5641
LAB #: B4D290004-005
MATRIX: WATER

DATE SAMPLED: 4/25/94
DATE RECEIVED: 4/28/94

- - - - - - - - - - - - - - - - - - **INORGANIC ANALYTICAL REPORT** - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Petroleum Hydrocarbons Total Recoverable	ND	1.0	mg/L	MCAWW 418.1	5/03/94	4124051

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT



ENSECO-WADSWORTH/ALERT
Laboratories

QUALITY CONTROL SECTION

- Quality Control Summary
- Laboratory Blanks
- Laboratory Control Sample
- Matrix Spike/Matrix Spike Duplicate Results
- Sample Custody Documentation

ENSECO-WADSWORTH/ALERT Laboratories

QUALITY ASSURANCE / QUALITY CONTROL PROGRAM SUMMARY

Wadsworth/ALERT Laboratories considers continuous analytical method performance evaluations to be an integral portion of the data package, and routinely includes the pertinent QA/QC data associated with various analytical result reports. Brief discussions of the various QA/QC procedures utilized to measure acceptable method and matrix performance follow.

Surrogate Spike Recovery Evaluations

Known concentrations of designated surrogate spikes, consisting of a number of similar, non-method compounds or method compound analogues, are added, as appropriate, to routine GC and GC/MS sample fractions prior to extraction and analysis. The percent recovery determinations calculated from the subsequent analysis is an indication of the overall method efficiency for the individual sample. This surrogate spike recovery data is displayed alongside acceptable analytical method performance limits at the bottom of each applicable analytical result report sheet.

NOTE: Acceptable method performance for Base/Neutral Acid extractables is indicated by two (2) of three (3) surrogates for each fraction with a minimum recovery of ten (10) percent each. For Pesticides one (1) of two (2) surrogates meeting performance criteria is acceptable.

Laboratory Analytical Method Blank Evaluations

Laboratory analytical method blanks are systematically prepared and analyzed in order to continuously evaluate the system interferences and background contamination levels associated with each analytical method. These method blanks include all aspects of actual laboratory method analysis (chemical reagents, glassware, etc.), substituting laboratory reagent water or solid for actual sample. The method blank must not contain any analytes above the reported detection limit. The following common laboratory contaminants are exceptions to this rule provided they are not present at greater than five times the detection limit.

Volatiles	Semi-volatiles	Metals
Methylene chloride	Dimethyl phthalate	Calcium
Toluene	Diethly phthalate	Magnesium
2-Butanone	Di-n-butyl phthalate	Sodium
Acetone	Butyl benzyl phthalate	
	Bis (2-ethylhexyl) phthalate	

A minimum of five percent (5%) of all laboratory analyses are laboratory analytical method blanks.

Laboratory Analytical Method Check Sample Evaluations

Known concentrations of designated matrix spikes (actual analytical method compounds) are added to a laboratory reagent blank prior to extraction and analysis. Percent recovery determinations demonstrate the performance of the analytical method. Failure of a check sample to meet established laboratory recovery criteria is cause to stop the analysis until the problem is resolved.

At that time all associated samples must be re-analyzed. A minimum of five percent (5%) of all laboratory analyses are laboratory analytical method check samples.

Matrix Spike (MS)/Matrix Spike Duplicate (MSD) Recovery Evaluations

Known concentrations of designated matrix spikes (actual analytical method compounds) are added to two of three separate aliquots of a sequentially predetermined sample prior to extraction and analysis. Percent recovery determinations are calculated from both of the spiked samples by comparison to the actual values generated from the unspiked sample. These percent recovery determinations indicate the accuracy of the analysis at recovering actual analytical method compounds from the matrix. Relative percent difference determinations calculated from a comparison of the MS/MSD recoveries demonstrate the precision of the analytical method. Actual percent recovery and relative percent difference data is displayed alongside their respective acceptable analytical method performance limits in the QA/QC section of the report. The MS/MSD are considered in control when the precision is within established control limits and the associated check sample has been found to be acceptable. A minimum of ten percent (10%) of all analyses are MS/MSD quality control samples.

**********EXAMPLE**********

COMPOUND	SAMPLE CONC.	MS %REC	MSD %REC	RPD	QC LIMITS RPD	QC LIMITS RECOVERY
4,4'-DDT	0	95	112	16	22	66-119
Benzene	10	86	93	8	20	39-150
(cmpd. name)	sample result	1st% recov.	2nd% recov.	Rel.% diff.	accep. method perform range	

Analytical Result Qualifiers

The following qualifiers, as defined below, may be appended to analytical results in order to allow proper interpretation of the results presented:

J - indicates an estimated concentration (typically used when a dilution, matrix interference or instrumental limitation prevents accurate quantitation of a particular analyte).

B - indicates the presence of a particular analyte in the laboratory blank analyzed concurrently with the samples. Results must be interpreted accordingly.

DIL - indicates that because of matrix interferences and/or high analyte concentrations, it was necessary to dilute the sample to a point where the surrogate or spike concentrations fell below a quantifiable amount and could not be reported.

ENSECO-WADSWORTH/ALERT Laboratories

INTRA-LAB BLANK REPORT

LAB #: B4E040000-066

- - - - - - - - - - - - - - - - - **INORGANIC ANALYTICAL REPORT** - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	PREPARATION - ANALYSIS DATE	QC BATCH
Petroleum Hydrocarbons	ND	5.0	mg/kg	5/04- 5/05/94	4124066
Petroleum Hydrocarbons	ND	1.0	mg/L	5/03/94	4124051

NOTE:

ND (NONE DETECTED)

ENSECO-WADSWORTH/ALERT Laboratories

MATRIX SPIKE REPORT

Lot #: B4D290004

- - - - - - - - - - - - - - - - - INORGANIC ANALYTICAL REPORT - - - - - - - - - - - - - - - - -

COMPOUND	RECOVERY PERCENT MS	MSD	Q/C LIMITS	RPD	RPD LIMITS	PREPARATION - ANALYSIS DATE	Q/C BATCH
Lab# B4D290004- 1 Matrix: SOLID							
Petroleum Hydrocarbons Total Recoverable	89	91	(50-140)	2.1	30	5/04- 5/05/94	4124066

ENSECO-WADSWORTH/ALERT Laboratories

CHECK SAMPLE REPORT

LAB #: B4D290004

- - - - - - - - - - - - - - - - - INORGANIC ANALYTICAL REPORT - - - - - - - - - - - - - - - - -

COMPOUND	SPIKE PERCENT RECOVERY	LIMITS	PREPARATION - ANALYSIS DATE	Q/C BATCH
Petroleum Hydrocarbons Total Recoverable	103	(63-111)	5/04- 5/05/94	4124066
Petroleum Hydrocarbons Total Recoverable	104	(69-125)	5/03/94	4124051

ENSECO-WADSWORTH/ALERT LABORATORIES
SAMPLE SHIPPER EVALUATION AND RECEIPT FORM

Client: ABB Project Name/Number: Nadep 607 NE

Samples Received By: [signature] ENSECO Date Received: 4-28-94
(Signature)

Sample Evaluation Form By: [signature] ENSECO LAB No: B4D290004
(Signature)

Type of shipping container samples received in? WAL Cooler ✓

Client Cooler ____ WAL Shipper ____ Box ____ Other ____

Any "NO" responses or discrepancies should be explained in comments section.

		YES	NO
1.	Were custody seals on shipping container(s) intact?	✓	
2.	Were custody papers properly included with samples?	✓	
3.	Were custody papers properly filled out (ink, signed, match labels)?	✓	
4.	Did all bottles arrive in good condition (unbroken)?	✓	
5.	Were all bottle labels complete (Sample No., date, signed, analysis preservatives)?	✓	
6.	Were correct bottles used for the tests indicated?	✓	
7.	Were proper sample preservation techniques indicated?	✓	
8.	Were samples received within adequate holding time?	✓	
9.	Were all VOA bottles checked for the presence of air bubbles? (If air bubbles were found indicate in comment section)	✓	
10.	Were samples in direct contact with wet ice? (NOTE TEMPERATURE BELOW)	✓	
11.	Were samples accepted into the laboratory? (If no see comments)	✓	

Cooler # ✓ Temp 5 °C Cooler # ____ Temp ____ °C

Cooler # ____ Temp ____ °C Cooler # ____ Temp ____ °C

Comments: ____

ENSECO-WADSWORTH/ALERT Laboratories
Division of Corning Lab Services, Inc.

5910 Breckenridge Parkway, Suite H
Tampa, FL 33610

813-621-0784
FAX 813-623-6021

ANALYTICAL REPORT

NADEP 607NE

MARK DIBLIN

ABB ENVIRONMENTAL SERVICES

ENSECO-WADSWORTH/ALERT LABORATORIES
Certification Numbers: E84059,HRS84297
FDEP CompQAP: 870270G

Chris Amstutz

Chris Amstutz
Project Manager

May 13, 1994

ENSECO-WADSWORTH/ALERT
Laboratories

EXECUTIVE SUMMARY - Detection Highlights

B4D290005

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD
SB-9 (3-3.5')				
Lead	8.4	2.9	mg/kg.	SW846 7421
Solids, Total (TS)	86.0	1.0	%	MCAWW 160.3
SB-10 (3-3.5')				
Lead	6.4	2.8	mg/kg	SW846 7421
Solids, Total (TS)	89.8	1.0	%	MCAWW 160.3
SB-11 (4')				
Solids, Total (TS)	75.6	1.0	%	MCAWW 160.3
SB-12 (3-3.5')				
Lead	5.9	3.1	mg/kg	SW846 7421
Solids, Total (TS)	80.5	1.0	%	MCAWW 160.3

ENSECO-WADSWORTH/ALERT
Laboratories

ANALYTICAL METHODS SUMMARY

Enseco-Wadsworth/ALERT Laboratories utilizes only USEPA approved methods in analytical work. The methods used for the analyses presented in the following report are listed below.

Parameters	Methods
Chromium	MCAWW 200.7
Arsenic	MCAWW 206.2
Lead	MCAWW 239.2
Cadmium	SW846 6010
Chromium	SW846 6010
Arsenic	SW846 7060
Lead	SW846 7421
Solids, Total (TS)	MCAWW 160.3 MODIFIED

References:

MCAWW Methods for Chemical Analysis of Water and Wastes, EMSL: Cincinnati, OH: March 1983 and its updates.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, September, 1986.

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

SB-9 (3-3.5')

WO #: M5650
LAB #: B4D290005-001
MATRIX: SOLID

DATE SAMPLED: 4/25/94
DATE RECEIVED: 4/28/94

- - - - - - - - - - - - - - - - - - REQUESTED METALS - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Cadmium	ND	0.58	mg/kg	SW846 6010	5/09- 5/10/94	4129093
Chromium	ND	2.9	mg/kg	SW846 6010	5/09- 5/10/94	4129093
Arsenic	ND	0.29	mg/kg	SW846 7060	5/09- 5/10/94	4129093
Lead	**8.4**	**2.9**	**mg/kg**	**SW846 7421**	**5/09- 5/10/94**	**4129093**

NOTE: **DRY WEIGHT**
ND **NOT DETECTED AT THE STATED REPORTING LIMIT**

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

SB-10 (3-3.5')

WO #: M5651
LAB #: B4D290005-002
MATRIX: SOLID

DATE SAMPLED: 4/25/94
DATE RECEIVED: 4/28/94

- - - - - - - - - - - - - - - - - - REQUESTED METALS - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Cadmium	ND	0.56	mg/kg	SW846 6010	5/09- 5/10/94	4129093
Chromium	ND	2.8	mg/kg	SW846 6010	5/09- 5/10/94	4129093
Arsenic	ND	0.28	mg/kg	SW846 7060	5/09- 5/10/94	4129093
Lead	**6.4**	**2.8**	**mg/kg**	**SW846 7421**	**5/09- 5/10/94**	**4129093**

NOTE: DRY WEIGHT
ND **NOT DETECTED AT THE STATED REPORTING LIMIT**

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

SB-11 (4')

WO #: M5652
LAB #: B4D290005-003
MATRIX: SOLID

DATE SAMPLED: 4/25/94
DATE RECEIVED: 4/28/94

REQUESTED METALS

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Cadmium	ND	0.66	mg/kg	SW846 6010	5/09- 5/10/94	4129093
Chromium	ND	3.3	mg/kg	SW846 6010	5/09- 5/10/94	4129093
Arsenic	ND	0.33	mg/kg	SW846 7060	5/09- 5/10/94	4129093
Lead	ND	0.33	mg/kg	SW846 7421	5/09- 5/10/94	4129093

NOTE: DRY WEIGHT
ND **NOT DETECTED AT THE STATED REPORTING LIMIT**

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

SB-12 (3-3.5')

WO #: M5653
LAB #: B4D290005-004
MATRIX: SOLID

DATE SAMPLED: 4/25/94
DATE RECEIVED: 4/28/94

- - - - - - - - - - - - - - - - - - REQUESTED METALS - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Cadmium	ND	0.62	mg/kg	SW846 6010	5/09- 5/10/94	4129093
Chromium	ND	3.1	mg/kg	SW846 6010	5/09- 5/10/94	4129093
Arsenic	ND	0.31	mg/kg	SW846 7060	5/09- 5/10/94	4129093
Lead	**5.9**	**3.1**	**mg/kg**	**SW846 7421**	**5/09- 5/10/94**	**4129093**

NOTE: **DRY WEIGHT**
ND **NOT DETECTED AT THE STATED REPORTING LIMIT**

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

EQUIPMENT BLANK

WO #: M5654
LAB #: B4D290005-005
MATRIX: WATER

DATE SAMPLED: 4/25/94
DATE RECEIVED: 4/28/94

- - - - - - - - - - - - - - - - - - REQUESTED METALS - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Chromium	ND	50.0	ug/L	MCAWW 200.7	5/05- 5/06/94	4125067
Arsenic	ND	5.0	ug/L	MCAWW 206.2	5/05/94	4125067
Lead	ND	5.0	ug/L	MCAWW 239.2	5/05/94	4125067
Cadmium	ND	5.0	ug/L	SW846 6010	5/05- 5/06/94	4125067

NOTE: AS RECEIVED
ND **NOT DETECTED AT THE STATED REPORTING LIMIT**

ENSECO-WADSWORTH/ALERT
Laboratories

QUALITY CONTROL SECTION

- Quality Control Summary
- Laboratory Blanks
- Laboratory Control Sample
- Matrix Spike/Matrix Spike Duplicate Results
- Sample Custody Documentation

ENSECO-WADSWORTH/ALERT
Laboratories

QUALITY ASSURANCE / QUALITY CONTROL PROGRAM SUMMARY

Wadsworth/ALERT Laboratories considers continuous analytical method performance evaluations to be an integral portion of the data package, and routinely includes the pertinent QA/QC data associated with various analytical result reports. Brief discussions of the various QA/QC procedures utilized to measure acceptable method and matrix performance follow.

Surrogate Spike Recovery Evaluations

Known concentrations of designated surrogate spikes, consisting of a number of similar, non-method compounds or method compound analogues, are added, as appropriate, to routine GC and GC/MS sample fractions prior to extraction and analysis. The percent recovery determinations calculated from the subsequent analysis is an indication of the overall method efficiency for the individual sample. This surrogate spike recovery data is displayed alongside acceptable analytical method performance limits at the bottom of each applicable analytical result report sheet.

NOTE: Acceptable method performance for Base/Neutral Acid extractables is indicated by two (2) of three (3) surrogates for each fraction with a minimum recovery of ten (10) percent each. For Pesticides one (1) of two (2) surrogates meeting performance criteria is acceptable.

Laboratory Analytical Method Blank Evaluations

Laboratory analytical method blanks are systematically prepared and analyzed in order to continuously evaluate the system interferences and background contamination levels associated with each analytical method. These method blanks include all aspects of actual laboratory method analysis (chemical reagents, glassware, etc.), substituting laboratory reagent water or solid for actual sample. The method blank must not contain any analytes above the reported detection limit. The following common laboratory contaminants are exceptions to this rule provided they are not present at greater than five times the detection limit.

Volatiles	Semi-volatiles	Metals
Methylene chloride	Dimethyl phthalate	Calcium
Toluene	Diethly phthalate	Magnesium
2-Butanone	Di-n-butyl phthalate	Sodium
Acetone	Butyl benzyl phthalate	
	Bis (2-ethylhexyl) phthalate	

A minimum of five percent (5%) of all laboratory analyses are laboratory analytical method blanks.

Laboratory Analytical Method Check Sample Evaluations

Known concentrations of designated matrix spikes (actual analytical method compounds) are added to a laboratory reagent blank prior to extraction and analysis. Percent recovery determinations demonstrate the performance of the analytical method. Failure of a check sample to meet established laboratory recovery criteria is cause to stop the analysis until the problem is resolved.

QUALITY ASSURANCE / QUALITY CONTROL
PROGRAM SUMMARY
(cont'd)

At that time all associated samples must be re-analyzed. A minimum of five percent (5%) of all laboratory analyses are laboratory analytical method check samples.

Matrix Spike (MS)/Matrix Spike Duplicate (MSD) Recovery Evaluations

Known concentrations of designated matrix spikes (actual analytical method compounds) are added to two of three separate aliquots of a sequentially predetermined sample prior to extraction and analysis. Percent recovery determinations are calculated from both of the spiked samples by comparison to the actual values generated from the unspiked sample. These percent recovery determinations indicate the accuracy of the analysis at recovering actual analytical method compounds from the matrix. Relative percent difference determinations calculated from a comparison of the MS/MSD recoveries demonstrate the precision of the analytical method. Actual percent recovery and relative percent difference data is displayed alongside their respective acceptable analytical method performance limits in the QA/QC section of the report. The MS/MSD are considered in control when the precision is within established control limits and the associated check sample has been found to be acceptable. A minimum of ten percent (10%) of all analyses are MS/MSD quality control samples.

**********EXAMPLE**********

COMPOUND	SAMPLE CONC.	MS %REC	MSD %REC	RPD	QC LIMITS RPD	QC LIMITS RECOVERY
4,4'-DDT	0	95	112	16	22	66-119
Benzene	10	86	93	8	20	39-150
(cmpd. name)	sample result	1st% recov.	2nd% recov.	Rel.% diff.	accep. method perform range	

Analytical Result Qualifiers

The following qualifiers, as defined below, may be appended to analytical results in order to allow proper interpretation of the results presented:

J - indicates an estimated concentration (typically used when a dilution, matrix interference or instrumental limitation prevents accurate quantitation of a particular analyte).

B - indicates the presence of a particular analyte in the laboratory blank analyzed concurrently with the samples. Results must be interpreted accordingly.

DIL - indicates that because of matrix interferences and/or high analyte concentrations, it was necessary to dilute the sample to a point where the surrogate or spike concentrations fell below a quantifiable amount and could not be reported.

ENSECO-WADSWORTH/ALERT Laboratories

INTRA-LAB BLANK REPORT

LAB #: B4D290005

METALS

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE
		BATCH:4125067			
Arsenic	ND	5.0	ug/L	MCAWW 206.2	5/05/94
Cadmium	ND	5.0	ug/L	SW846 6010	5/05- 5/06/94
Chromium	ND	50.0	ug/L	MCAWW 200.7	5/05- 5/06/94
Lead	ND	5.0	ug/L	MCAWW 239.2	5/05/94
		BATCH:4129093			
Arsenic	ND	0.25	mg/kg	SW846 7060	5/09- 5/10/94
Cadmium	ND	0.50	mg/kg	SW846 6010	5/09- 5/10/94
Chromium	ND	2.5	mg/kg	SW846 6010	5/09- 5/10/94
Lead	ND	0.25	mg/kg	SW846 7421	5/09- 5/10/94

NOTE:

ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT
Laboratories

CHECK SAMPLE REPORT

LAB #: B4D290005

METALS

COMPOUND	SPIKE PERCENT RECOVERY	Q/C LIMITS	PREPARATION - ANALYSIS DATE
	BATCH:4125067		
Arsenic	100	(71-119)	5/05/94
Cadmium	106	(80-113)	5/05- 5/06/94
Chromium	107	(79-120)	5/05- 5/06/94
Lead	104	(70-126)	5/05/94
	BATCH:4129093		
Arsenic	100	(68-111)	5/09- 5/10/94
Cadmium	84	(71-106)	5/09- 5/10/94
Chromium	91	(71-114)	5/09- 5/10/94
Lead	102	(75-107)	5/09- 5/10/94

ENSECO-WADSWORTH/ALERT LABORATORIES
SAMPLE SHIPPER EVALUATION AND RECEIPT FORM

Client: ABB Project Name/Number: NADEP 607 NE

Samples Received By: [signature] ENSECO Date Received: 4-28-94
(Signature)

Sample Evaluation Form By: [signature] ENSECO LAB No: B4D290005
(Signature)

Type of shipping container samples received in? WAL Cooler ✓

Client Cooler ____ WAL Shipper ____ Box ____ Other ____

Any "NO" responses or discrepancies should be explained in comments section.

		YES	NO
1.	Were custody seals on shipping container(s) intact?	✓	
2.	Were custody papers properly included with samples?	✓	
3.	Were custody papers properly filled out (ink, signed, match labels)?	✓	
4.	Did all bottles arrive in good condition (unbroken)?	✓	
5.	Were all bottle labels complete (Sample No., date, signed, analysis preservatives)?	✓	
6.	Were correct bottles used for the tests indicated?	✓	
7.	Were proper sample preservation techniques indicated?	✓	
8.	Were samples received within adequate holding time?	✓	
9.	Were all VOA bottles checked for the presence of air bubbles? (If air bubbles were found indicate in comment section)	✓	
10.	Were samples in direct contact with wet ice? (NOTE TEMPERATURE BELOW)	✓	
11.	Were samples accepted into the laboratory? (If no see comments)	✓	

Cooler # 1 Temp 5 °C Cooler # ____ Temp ____ °C

Cooler # ____ Temp ____ °C Cooler # ____ Temp ____ °C

00096 No

Enseco A Division of CLSI

CUSTODY SEAL ENS—1090-C

4-27-94
Date

[signature]
Signature

Enseco A Division of CLSI

No 96000

WADSWORTH/ALERT LABORATORIES
Sampling, testing, mobile labs
5910 Breckenridge Pkwy.
Suite H
Tampa, FL 33610
(813) 621-0784
Fax (813) 623-6021

Chain of Custody Record

Record 2 of 2

3166

Client: ABB-ES

Project Name / Location: NADEP / 607 NE

Sampler(s):

Project #:

Item #	Date	Time	MATRIX	Sample Location	No. Of CON-TAINERS	Parameter: VOC - 624	PAH -	METALS As, Cd, Cr, Pb	TRPH -	EDB -	Fingerprint	Remarks
1	~~4/21/94~~	~~15:00~~	~~GW~~	~~Trip blank~~	~~3~~ 3	3						
2	4/25/94	~~SB-9~~ 1245	SOIL	SB-9 (3 to 3.5')	1			1	1		1	
3	4/25/94	~~SB-10~~ 1325	SOIL	SB-10 (3 to 3.5')	1			1	1		1	
4	4/25/94	~~SB-11~~ 1340	SOIL	SB-11 (4')	1			1	1		1	
5	4/25/94	~~SB-12~~ 1355	SOIL	SB-12 (3 to 3.5)	1			1	1			
6	4/25/94	~~SB-12~~ 1355	SOIL	SB-12 (3 to 3.5)	1						1	
7	4/25/94		H_2O	EQUIPMENT BLANK	2			1	1			TRPH (HCl preserved) Metals (HNO_3)
8												
9												
10												
11												

Total Containers: 3 7

Number of Coolers in Shipment: 1

Bailers: 0

Report To: MARK DIBLIN

Additional Comments:

A031194 ltcl

Do Not Run fingerprint until TRPH Results are complete and validated

Transfer Number	Item Number(s)	Relinquished By / Company	Accepted By / Company	Date	Time
1	1	Patrick M Greco	Fed Express	4/21/94	19:00
2	1	Ryan Lehman	ABB	4/27/94	1500
3	2-7		ENSECO	4/28/94	11:00
4					
5					
6					

Original Accompanies Shipment

ORIGINAL

SOIL SAMPLES SB-13 AND MW-6 THROUGH MW-8

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

SB13-1

WO #: 00680
LAB #: B4F110003-017
MATRIX: SOLID

DATE SAMPLED: 6/08/94
DATE RECEIVED: 6/11/94

- - - - - - - - - - - - - - - - - - INORGANIC ANALYTICAL REPORT - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Petroleum Hydrocarbons Total Recoverable	44.1	5.2	mg/kg	MCAWW 418.1 M	6/13- 6/14/94	4165065
Solids, Total (TS)	95.6	1.0	%	MCAWW 160.3 M	6/14/94	4165079

NOTE: AS RECEIVED

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

SB13-1

WO #: 00680
LAB #: B4F110003-017
MATRIX: SOLID

DATE SAMPLED: 6/08/94
DATE RECEIVED: 6/11/94

- - - - - - - - - - - - - - - - - - REQUESTED METALS - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Arsenic	ND	8.4	mg/kg	SW846 6010	6/13- 6/15/94	4164009
Cadmium	0.54	0.52	mg/kg	SW846 6010	6/13- 6/15/94	4164009
Chromium	5.3	2.6	mg/kg	SW846 6010	6/13- 6/15/94	4164009
Lead	20.8	2.6	mg/kg	SW846 6010	6/13- 6/15/94	4164009

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

SB13-3

WO #: 00681
LAB #: B4F110003-018
MATRIX: SOLID

DATE SAMPLED: 6/08/94
DATE RECEIVED: 6/11/94

- - - - - - - - - - - - - - - - - - INORGANIC ANALYTICAL REPORT - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Petroleum Hydrocarbons Total Recoverable	ND	5.5	mg/kg	MCAWW 418.1 M	6/13- 6/14/94	4165065
Solids, Total (TS)	90.2	1.0	%	MCAWW 160.3 M	6/14/94	4165079

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

SB13-3

WO #: O0681
LAB #: B4F110003-018
MATRIX: SOLID

DATE SAMPLED: 6/08/94
DATE RECEIVED: 6/11/94

- - - - - - - - - - - - - - - - - - - REQUESTED METALS - - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Arsenic	ND	8.9	mg/kg	SW846 6010	6/13- 6/15/94	4164009
Cadmium	ND	0.55	mg/kg	SW846 6010	6/13- 6/15/94	4164009
Chromium	ND	2.8	mg/kg	SW846 6010	6/13- 6/15/94	4164009
Lead	12.0	2.8	mg/kg	SW846 6010	6/13- 6/15/94	4164009

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

MW6-1

WO #: O0684
LAB #: B4F110003-021
MATRIX: SOLID

DATE SAMPLED: 6/08/94
DATE RECEIVED: 6/11/94

- - - - - - - - - - - - - - - - - - INORGANIC ANALYTICAL REPORT - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Petroleum Hydrocarbons Total Recoverable	20.5	5.7	mg/kg	MCAWW 418.1 M	6/13- 6/14/94	4165065
Solids, Total (TS)	87.6	1.0	%	MCAWW 160.3 M	6/14/94	4165079

NOTE: AS RECEIVED

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

MW6-1

WO #: 00684
LAB #: B4F110003-021
MATRIX: SOLID

DATE SAMPLED: 6/08/94
DATE RECEIVED: 6/11/94

- - - - - - - - - - - - - - - - - - REQUESTED METALS - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Arsenic	ND	9.1	mg/kg	SW846 6010	6/13- 6/15/94	4164009
Cadmium	ND	0.57	mg/kg	SW846 6010	6/13- 6/15/94	4164009
Chromium	7.7	2.9	mg/kg	SW846 6010	6/13- 6/15/94	4164009
Lead	ND	2.9	mg/kg	SW846 6010	6/13- 6/15/94	4164009

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

MW7-1

WO #: O0682
LAB #: B4F110003-019
MATRIX: SOLID

DATE SAMPLED: 6/08/94
DATE RECEIVED: 6/11/94

- - - - - - - - - - - - - - - - - - INORGANIC ANALYTICAL REPORT - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Petroleum Hydrocarbons Total Recoverable	22.1	6.2	mg/kg	MCAWW 418.1 M	6/13- 6/14/94	4165065
Solids, Total (TS)	81.3	1.0	%	MCAWW 160.3 M	6/14/94	4165079

NOTE: AS RECEIVED

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

MW7-1

WO #: 00682
LAB #: B4F110003-019
MATRIX: SOLID

DATE SAMPLED: 6/08/94
DATE RECEIVED: 6/11/94

- - - - - - - - - - - - - - - - - - REQUESTED METALS - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Arsenic	ND	9.8	mg/kg	SW846 6010	6/13- 6/15/94	4164009
Cadmium	ND	0.62	mg/kg	SW846 6010	6/13- 6/15/94	4164009
Chromium	23.4	3.1	mg/kg	SW846 6010	6/13- 6/15/94	4164009
Lead	5.8	3.1	mg/kg	SW846 6010	6/13- 6/15/94	4164009

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

MW7-3

WO #: 00683
LAB #: B4F110003-020
MATRIX: SOLID

DATE SAMPLED: 6/08/94
DATE RECEIVED: 6/11/94

- - - - - - - - - - - - - - - - - - INORGANIC ANALYTICAL REPORT - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Petroleum Hydrocarbons Total Recoverable	50.3	5.3	mg/kg	MCAWW 418.1 M	6/13- 6/14/94	4165065
Solids, Total (TS)	94.7	1.0	%	MCAWW 160.3 M	6/14/94	4165079

NOTE: AS RECEIVED

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

MW7-3

WO #: 00683
LAB #: B4F110003-020
MATRIX: SOLID

DATE SAMPLED: 6/08/94
DATE RECEIVED: 6/11/94

- - - - - - - - - - - - - - - - - - REQUESTED METALS - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Arsenic	ND	8.4	mg/kg	SW846 6010	6/13- 6/15/94	4164009
Cadmium	ND	0.53	mg/kg	SW846 6010	6/13- 6/15/94	4164009
Chromium	ND	2.6	mg/kg	SW846 6010	6/13- 6/15/94	4164009
Lead	15.8	2.6	mg/kg	SW846 6010	6/13- 6/15/94	4164009

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories
Division of Corning Lab Services, Inc.

5910 Breckenridge Parkway, Suite H
Tampa, FL 33610

813-621-0784
FAX 813-623-6021

ANALYTICAL REPORT

PROJECT NO. 7527.45

NADEP PENSACOLA 607NE

KAREN HARTNETT

ABB ENVIRONMENTAL SERVICES

ENSECO-WADSWORTH/ALERT LABORATORIES
Certification Numbers: E84059,HRS84297
FDEP CompQAP: 870270G

Chris Amstutz
Project Manager

June 22, 1994

ENSECO-WADSWORTH/ALERT Laboratories

EXECUTIVE SUMMARY - Detection Highlights

B4F140005

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD
MW8-1				
Petroleum Hydrocarbons Total Recoverable	76.9	12.0	mg/kg	MCAWW 418.1
Solids, Total (TS)	83.2	1.0	%	MCAWW 160.3
Cadmium	1.2	0.60	mg/kg	SW846 6010
Chromium	5.4	3.0	mg/kg	SW846 6010
Lead	12.4	3.0	mg/kg	SW846 6010
MW8-3				
Solids, Total (TS)	80.4	1.0	%	MCAWW 160.3

ENSECO-WADSWORTH/ALERT
Laboratories

ANALYTICAL METHODS SUMMARY

Parameters	Methods
Petroleum Hydrocarbons Total Recoverable	MCAWW 418.1 MODIFIED
Arsenic	SW846 6010
Cadmium	SW846 6010
Chromium	SW846 6010
Lead	SW846 6010
Solids, Total (TS)	MCAWW 160.3 MODIFIED

References:

MCAWW Methods for Chemical Analysis of Water and Wastes, EMSL: Cincinnati, OH: March 1983 and its updates.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, September, 1986.

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

MW8-1

WO #: O1357
LAB #: B4F140005-001
MATRIX: SOLID

DATE SAMPLED: 6/09/94
DATE RECEIVED: 6/14/94

- - - - - - - - - - - - - - - - - - REQUESTED METALS - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Arsenic	ND	9.6	mg/kg	SW846 6010	6/15- 6/16/94	4166006
Cadmium	1.2	0.60	mg/kg	SW846 6010	6/15- 6/16/94	4166006
Chromium	5.4	3.0	mg/kg	SW846 6010	6/15- 6/16/94	4166006
Lead	12.4	3.0	mg/kg	SW846 6010	6/15- 6/16/94	4166006

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

MW8-1

WO #: O1357
LAB #: B4F140005-001
MATRIX: SOLID

DATE SAMPLED: 6/09/94
DATE RECEIVED: 6/14/94

- - - - - - - - - - - - - - - - - - INORGANIC ANALYTICAL REPORT - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Petroleum Hydrocarbons Total Recoverable	76.9	12.0	mg/kg	MCAWW 418.1 M	6/14- 6/15/94	4166043
Solids, Total (TS)	83.2	1.0	%	MCAWW 160.3 M	6/16/94	4167053

NOTE: AS RECEIVED

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

MW8-3

WO #: O1359
LAB #: B4F140005-002
MATRIX: SOLID

DATE SAMPLED: 6/09/94
DATE RECEIVED: 6/14/94

- - - - - - - - - - - - - - - - - - REQUESTED METALS - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Arsenic	ND	9.9	mg/kg	SW846 6010	6/15- 6/16/94	4166006
Cadmium	ND	0.62	mg/kg	SW846 6010	6/15- 6/16/94	4166006
Chromium	ND	3.1	mg/kg	SW846 6010	6/15- 6/16/94	4166006
Lead	ND	3.1	mg/kg	SW846 6010	6/15- 6/16/94	4166006

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

MW8-3

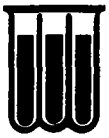
WO #: O1359
LAB #: B4F140005-002
MATRIX: SOLID

DATE SAMPLED: 6/09/94
DATE RECEIVED: 6/14/94

- - - - - - - - - - - - - - - - - - INORGANIC ANALYTICAL REPORT - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Petroleum Hydrocarbons Total Recoverable	ND	12.4	mg/kg	MCAWW 418.1 M	6/14- 6/15/94	4166043
Solids, Total (TS)	80.4	1.0	%	MCAWW 160.3 M	6/16/94	4167053

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT



ENSECO-WADSWORTH/ALERT
Laboratories

QUALITY CONTROL SECTION

- Quality Control Summary
- Laboratory Blanks
- Laboratory Control Sample
- Matrix Spike/Matrix Spike Duplicate Results
- Sample Custody Documentation

ENSECO-WADSWORTH/ALERT Laboratories

QUALITY ASSURANCE / QUALITY CONTROL PROGRAM SUMMARY

Wadsworth/ALERT Laboratories considers continuous analytical method performance evaluations to be an integral portion of the data package, and routinely includes the pertinent QA/QC data associated with various analytical result reports. Brief discussions of the various QA/QC procedures utilized to measure acceptable method and matrix performance follow.

Surrogate Spike Recovery Evaluations

Known concentrations of designated surrogate spikes, consisting of a number of similar, non-method compounds or method compound analogues, are added, as appropriate, to routine GC and GC/MS sample fractions prior to extraction and analysis. The percent recovery determinations calculated from the subsequent analysis is an indication of the overall method efficiency for the individual sample. This surrogate spike recovery data is displayed alongside acceptable analytical method performance limits at the bottom of each applicable analytical result report sheet.

NOTE: Acceptable method performance for Base/Neutral Acid extractables is indicated by two (2) of three (3) surrogates for each fraction with a minimum recovery of ten (10) percent each. For Pesticides one (1) of two (2) surrogates meeting performance criteria is acceptable.

Laboratory Analytical Method Blank Evaluations

Laboratory analytical method blanks are systematically prepared and analyzed in order to continuously evaluate the system interferences and background contamination levels associated with each analytical method. These method blanks include all aspects of actual laboratory method analysis (chemical reagents, glassware, etc.), substituting laboratory reagent water or solid for actual sample. The method blank must not contain any analytes above the reported detection limit. The following common laboratory contaminants are exceptions to this rule provided they are not present at greater than five times the detection limit.

Volatiles	Semi-volatiles	Metals
Methylene chloride	Dimethyl phthalate	Calcium
Toluene	Diethly phthalate	Magnesium
2-Butanone	Di-n-butyl phthalate	Sodium
Acetone	Butyl benzyl phthalate	
	Bis (2-ethylhexyl) phthalate	

A minimum of five percent (5%) of all laboratory analyses are laboratory analytical method blanks.

Laboratory Analytical Method Check Sample Evaluations

Known concentrations of designated matrix spikes (actual analytical method compounds) are added to a laboratory reagent blank prior to extraction and analysis. Percent recovery determinations demonstrate the performance of the analytical method. Failure of a check sample to meet established laboratory recovery criteria is cause to stop the analysis until the problem is resolved.

At that time all associated samples must be re-analyzed. A minimum of five percent (5%) of all laboratory analyses are laboratory analytical method check samples.

Matrix Spike (MS)/Matrix Spike Duplicate (MSD) Recovery Evaluations

Known concentrations of designated matrix spikes (actual analytical method compounds) are added to two of three separate aliquots of a sequentially predetermined sample prior to extraction and analysis. Percent recovery determinations are calculated from both of the spiked samples by comparison to the actual values generated from the unspiked sample. These percent recovery determinations indicate the accuracy of the analysis at recovering actual analytical method compounds from the matrix. Relative percent difference determinations calculated from a comparison of the MS/MSD recoveries demonstrate the precision of the analytical method. Actual percent recovery and relative percent difference data is displayed alongside their respective acceptable analytical method performance limits in the QA/QC section of the report. The MS/MSD are considered in control when the precision is within established control limits and the associated check sample has been found to be acceptable. A minimum of ten percent (10%) of all analyses are MS/MSD quality control samples.

**********EXAMPLE**********

COMPOUND	SAMPLE CONC.	MS %REC	MSD %REC	RPD	QC LIMITS RPD	QC LIMITS RECOVERY
4,4'-DDT	0	95	112	16	22	66-119
Benzene	10	86	93	8	20	39-150
(cmpd. name)	sample result	1st% recov.	2nd% recov.	Rel.% diff.	accep. method perform range	

Analytical Result Qualifiers

The following qualifiers, as defined below, may be appended to analytical results in order to allow proper interpretation of the results presented:

J - indicates an estimated concentration (typically used when a dilution, matrix interference or instrumental limitation prevents accurate quantitation of a particular analyte).

B - indicates the presence of a particular analyte in the laboratory blank analyzed concurrently with the samples. Results must be interpreted accordingly.

DIL - indicates that because of matrix interferences and/or high analyte concentrations, it was necessary to dilute the sample to a point where the surrogate or spike concentrations fell below a quantifiable amount and could not be reported.

ENSECO-WADSWORTH/ALERT Laboratories

INTRA-LAB BLANK REPORT

LAB #: B4F140005

METALS

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE
		BATCH:4166006			
Arsenic	ND	25.0	mg/kg	SW846 6010	6/15- 6/16/94
Cadmium	ND	0.50	mg/kg	SW846 6010	6/15- 6/16/94
Chromium	ND	2.5	mg/kg	SW846 6010	6/15- 6/16/94
Lead	ND	2.5	mg/kg	SW846 6010	6/15- 6/16/94

NOTE:

ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT
Laboratories

INTRA-LAB BLANK REPORT

LAB #: B4F150000-043

- - - - - - - - - - - - - - - - - INORGANIC ANALYTICAL REPORT - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	PREPARATION - ANALYSIS DATE	QC BATCH
Petroleum Hydrocarbons	ND	10.0	mg/kg	6/15/94	4166043

NOTE:

ND (NONE DETECTED)

ENSECO-WADSWORTH/ALERT Laboratories

CHECK SAMPLE REPORT

LAB #: B4F140005

- METALS -

COMPOUND	SPIKE PERCENT RECOVERY	Q/C LIMITS	PREPARATION - ANALYSIS DATE
	BATCH:4166006		
Arsenic	94	(68-111)	6/15- 6/16/94
Cadmium	96	(71-106)	6/15- 6/16/94
Chromium	100	(71-114)	6/15- 6/16/94
Lead	101	(72-114)	6/15- 6/16/94

ENSECO-WADSWORTH/ALERT
Laboratories

CHECK SAMPLE REPORT

LAB #: B4F140005

- - - - - - - - - - - - - - - - - INORGANIC ANALYTICAL REPORT - - - - - - - - - - - - - - - - -

COMPOUND	SPIKE PERCENT RECOVERY	LIMITS	PREPARATION - ANALYSIS DATE	Q/C BATCH
Petroleum Hydrocarbons Total Recoverable	76	(55-131)	6/15/94	4166043

ENSECO-WADSWORTH/ALERT Laboratories

MATRIX SPIKE REPORT

LAB #: B4F140005-001

- METALS -

COMPOUND	SPIKE PERCENT RECOVERY	SPIKE/DUP PERCENT RECOVERY	Q/C LIMITS	RPD	RPD LIMITS	PREPARATION - ANALYSIS DATE
BATCH:4166006 MATRIX: SOLID						
Arsenic	84	86	(80-120)	2.3	(0-20)	6/15- 6/16/94
Cadmium	96	97	(80-120)	0.47	(0-20)	6/15- 6/16/94
Chromium	99	100	(80-120)	1.3	(0-20)	6/15- 6/16/94
Lead	99	101	(80-120)	2.2	(0-20)	6/15- 6/16/94

NOTE:

Calculations are performed before rounding to avoid round-off errors in calculated results

ENSECO-WADSWORTH/ALERT LABORATORIES
SAMPLE SHIPPER EVALUATION AND RECEIPT FORM

NADEP Pensacola 607 N.

Client: ABB-ES Project Name/Number: 7521-45

Samples Received By: E. Echon (Signature) Date Received: 6/14/94

Sample Evaluation Form By: P. Tyl (Signature) LAB No: _____

Type of shipping container samples received in? WAL Cooler ✓

Client Cooler ____ WAL Shipper ____ Box ____ Other _____

Any "NO" responses or discrepancies should be explained in comments section.

		YES	NO
1.	Were custody seals on shipping container(s) intact?	✓	
2.	Were custody papers properly included with samples?	✓	
3.	Were custody papers properly filled out (ink, signed, match labels)?	✓	
4.	Did all bottles arrive in good condition (unbroken)?	✓	
5.	Were all bottle labels complete (Sample No., date, signed, analysis preservatives)?	✓	
6.	Were correct bottles used for the tests indicated?	✓	
7.	Were proper sample preservation techniques indicated?	✓	
8.	Were samples received within adequate holding time?	✓	
9.	Were all VOA bottles checked for the presence of air bubbles? (If air bubbles were found indicate in comment section)	n/a	
10.	Were samples in direct contact with wet ice? (NOTE TEMPERATURE BELOW)	✓	
11.	Were samples accepted into the laboratory? (If no see comments)	✓	

Cooler # na Temp 3° °C Cooler # _____ Temp _____ °C

Cooler # _____ Temp _____ °C Cooler # _____ Temp _____ °C

Comments: COC does not state which Metals pls quote As Cd Cr Pb

WADSWORTH/ALERT LABORATORIES
Sampling, testing, mobile labs

5910 Breckenridge Pkwy.
Suite H
Tampa, FL 33610

(813) 621-0784
Fax (813) 623-6021

Chain of Custody Record

Record _____ of _____

10571

Client:	Project Name / Location
Sampler(s)	**Project #:**

Item #	Date	Time	MATRIX	Sample Location	No. Of CON-TAINERS	Parameter: VOC –	PAH –	METALS –	TRPH –	EDB –						Remarks
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																

Total Containers: 4

Number of Coolers in Shipment: _____

Bailers: _____

Report To:	Transfer Number	Item Number(s)	Relinquished By / Company	Accepted By / Company	Date	Time
Additional Comments:	1					
	2					
	3					
	4					
	5					
	6					

Original Accompanies Shipment

SOIL TPH ANALYSES

ENSECO-WADSWORTH/ALERT Laboratories
Division of Corning Lab Services, Inc.

5910 Breckenridge Parkway, Suite H
Tampa, FL 33610

813-621-0784
FAX 813-623-6021

ANALYTICAL REPORT

NADEP 607NE

KAREN HARTNETT

ABB ENVIRONMENTAL SERVICES

ENSECO-WADSWORTH/ALERT LABORATORIES
Certification Numbers: E84059,HRS84297
FDEP CompQAP: 870270G

Chris Amstutz

Chris Amstutz
Project Manager

May 20, 1994

ENSECO-WADSWORTH/ALERT
Laboratories

ANALYTICAL METHODS SUMMARY

Enseco-Wadsworth/ALERT Laboratories utilizes only USEPA approved methods in analytical work. The methods used for the analyses presented in the following report are listed below.

Parameters	Methods
Tot.Petroleum Hydrocarbon	SW846 8015 MODIFIED
Solids, Total (TS)	MCAWW 160.3 MODIFIED

References:

MCAWW Methods for Chemical Analysis of Water and Wastes, EMSL: Cincinnati, OH: March 1983 and its updates.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, September, 1986.

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

SB-12 (3-3.5')

WO #: M8668102
LAB #: B4E090003-001
MATRIX: SOLID

DATE SAMPLED: 4/25/94
DATE RECEIVED: 4/28/94

GC Semi-Volatiles

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
TPH (Extractables)	ND	3.0	SW846 8015 M	05/09-05/19/94	4130007

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
n-Decane	58	(50 - 150)
Hexadecane	75	(50 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

12
SB-9 (3-3.5')

WO #: M8668
LAB #: B4E090003-001
MATRIX: SOLID

DATE SAMPLED: 4/25/94
DATE RECEIVED: 4/28/94

- - - - - - - - - - - - - - - - - - INORGANIC ANALYTICAL REPORT - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Solids, Total (TS)	83.0	1.0	%	MCAWW 160.3 M	5/19/94	4139039

NOTE: AS RECEIVED

ENSECO-WADSWORTH/ALERT
Laboratories

QUALITY CONTROL SECTION

- Quality Control Summary
- Laboratory Blanks
- Laboratory Control Sample
- Matrix Spike/Matrix Spike Duplicate Results
- Sample Custody Documentation

ENSECO-WADSWORTH/ALERT Laboratories

QUALITY ASSURANCE / QUALITY CONTROL PROGRAM SUMMARY

Wadsworth/ALERT Laboratories considers continuous analytical method performance evaluations to be an integral portion of the data package, and routinely includes the pertinent QA/QC data associated with various analytical result reports. Brief discussions of the various QA/QC procedures utilized to measure acceptable method and matrix performance follow.

Surrogate Spike Recovery Evaluations

Known concentrations of designated surrogate spikes, consisting of a number of similar, non-method compounds or method compound analogues, are added, as appropriate, to routine GC and GC/MS sample fractions prior to extraction and analysis. The percent recovery determinations calculated from the subsequent analysis is an indication of the overall method efficiency for the individual sample. This surrogate spike recovery data is displayed alongside acceptable analytical method performance limits at the bottom of each applicable analytical result report sheet.

NOTE: Acceptable method performance for Base/Neutral Acid extractables is indicated by two (2) of three (3) surrogates for each fraction with a minimum recovery of ten (10) percent each. For Pesticides one (1) of two (2) surrogates meeting performance criteria is acceptable.

Laboratory Analytical Method Blank Evaluations

Laboratory analytical method blanks are systematically prepared and analyzed in order to continuously evaluate the system interferences and background contamination levels associated with each analytical method. These method blanks include all aspects of actual laboratory method analysis (chemical reagents, glassware, etc.), substituting laboratory reagent water or solid for actual sample. The method blank must not contain any analytes above the reported detection limit. The following common laboratory contaminants are exceptions to this rule provided they are not present at greater than five times the detection limit.

Volatiles	Semi-volatiles	Metals
Methylene chloride	Dimethyl phthalate	Calcium
Toluene	Diethly phthalate	Magnesium
2-Butanone	Di-n-butyl phthalate	Sodium
Acetone	Butyl benzyl phthalate	
	Bis (2-ethylhexyl) phthalate	

A minimum of five percent (5%) of all laboratory analyses are laboratory analytical method blanks.

Laboratory Analytical Method Check Sample Evaluations

Known concentrations of designated matrix spikes (actual analytical method compounds) are added to a laboratory reagent blank prior to extraction and analysis. Percent recovery determinations demonstrate the performance of the analytical method. Failure of a check sample to meet established laboratory recovery criteria is cause to stop the analysis until the problem is resolved.

At that time all associated samples must be re-analyzed. A minimum of five percent (5%) of all laboratory analyses are laboratory analytical method check samples.

Matrix Spike (MS)/Matrix Spike Duplicate (MSD) Recovery Evaluations

Known concentrations of designated matrix spikes (actual analytical method compounds) are added to two of three separate aliquots of a sequentially predetermined sample prior to extraction and analysis. Percent recovery determinations are calculated from both of the spiked samples by comparison to the actual values generated from the unspiked sample. These percent recovery determinations indicate the accuracy of the analysis at recovering actual analytical method compounds from the matrix. Relative percent difference determinations calculated from a comparison of the MS/MSD recoveries demonstrate the precision of the analytical method. Actual percent recovery and relative percent difference data is displayed alongside their respective acceptable analytical method performance limits in the QA/QC section of the report. The MS/MSD are considered in control when the precision is within established control limits and the associated check sample has been found to be acceptable. A minimum of ten percent (10%) of all analyses are MS/MSD quality control samples.

**********EXAMPLE**********

COMPOUND	SAMPLE CONC.	MS %REC	MSD %REC	RPD	QC LIMITS RPD	QC LIMITS RECOVERY
4,4'-DDT	0	95	112	16	22	66-119
Benzene	10	86	93	8	20	39-150
(cmpd. name)	sample result	1st% recov.	2nd% recov.	Rel.% diff.	accep. method perform range	

Analytical Result Qualifiers

The following qualifiers, as defined below, may be appended to analytical results in order to allow proper interpretation of the results presented:

J - indicates an estimated concentration (typically used when a dilution, matrix interference or instrumental limitation prevents accurate quantitation of a particular analyte).

B - indicates the presence of a particular analyte in the laboratory blank analyzed concurrently with the samples. Results must be interpreted accordingly.

DIL - indicates that because of matrix interferences and/or high analyte concentrations, it was necessary to dilute the sample to a point where the surrogate or spike concentrations fell below a quantifiable amount and could not be reported.

ENSECO-WADSWORTH/ALERT Laboratories

INTRA-LAB BLANK REPORT

LAB #: B4E100000-007

- GC Semi-Volatiles - - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	PREPARATION - ANALYSIS DATE	QC BATCH
TPH (Extractables)	ND	2.5	5/09- 5/19/94	4130007

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
n-Decane	88	(50 - 150)
Hexadecane	95	(50 - 150)

NOTE:

ND (NONE DETECTED)

ENSECO-WADSWORTH/ALERT Laboratories

CHECK SAMPLE REPORT

QC BATCH: 4130007
LAB #: B4E100000-007 C

PREPARATION DATE: 5/09/94
DATE ANALYZED: 5/19/94

- **GC Semi-Volatiles** - - - - - - - - - - - - - - - - - -

COMPOUND	SPIKE PERCENT RECOVERY	Q/C LIMITS
TPH (Extractables)	87	(50-150)

ENSECO-WADSWORTH/ALERT LABORATORIES
SAMPLE SHIPPER EVALUATION AND RECEIPT FORM

Client: ABB Project Name/Number: NADEP 607NE

Samples Received By: D. Dost ENSECO Date Received: 4-28-94
(Signature)

Sample Evaluation Form By: D. Dost ENSECO LAB No: B4D290004
(Signature)

Type of shipping container samples received in? WAL Cooler ✓

Client Cooler ____ WAL Shipper ____ Box ____ Other ____

Any "NO" responses or discrepancies should be explained in comments section.

		YES	NO
1.	Were custody seals on shipping container(s) intact?	✓	
2.	Were custody papers properly included with samples?	✓	
3.	Were custody papers properly filled out (ink, signed, match labels)?	✓	
4.	Did all bottles arrive in good condition (unbroken)?	✓	
5.	Were all bottle labels complete (Sample No., date, signed, analysis preservatives)?	✓	
6.	Were correct bottles used for the tests indicated?	✓	
7.	Were proper sample preservation techniques indicated?	✓	
8.	Were samples received within adequate holding time?	✓	
9.	Were all VOA bottles checked for the presence of air bubbles? (If air bubbles were found indicate in comment section)	✓	
10.	Were samples in direct contact with wet ice? (NOTE TEMPERATURE BELOW)	✓	
11.	Were samples accepted into the laboratory? (If no see comments)	✓	

Cooler # 1 Temp 5 °C Cooler # _____ Temp _____ °C

Cooler # _____ Temp _____ °C Cooler # _____ Temp _____ °C

Comments: _____

WADSWORTH/ALERT LABORATORIES
Sampling, testing, mobile labs

5910 Breckenridge Pkwy.
Suite H
Tampa, FL 33610

(813) 621-0784
Fax (813) 623-6021

Record 1 of 2

3166

Client: ABB-ES

Project Name / Location: NADEP / 607 NE

Sampler(s):

Project #:

Item #	Date	Time	MATRIX	Sample Location	No. Of CON-TAINERS	Parameter: VOC-624	PAH	METALS As, Cd, Cr, Pb	TRPH	EDB	Fingerprint	Remarks
1	~~4/21/94~~	~~15:00~~	~~GW~~	~~Trip Blk~~	~~3~~	3						
2	4/25/94	~~SB-9~~ 1245	SOIL	SB-9 (3 to 3.5')	1			1	1		1	
3	4/25/94	~~SB-10~~ 1325	SOIL	SB-10 (3 to 3.5')	1			1	1		1	
4	4/25/94	~~SB-11~~ 1340	SOIL	SB-11 (4')	1			1	1		1	
5	4/25/94	~~SB-12~~ 1355	SOIL	SB-12 (3 to 3.5)	1			1	1			
6	4/25/94	~~SB-12~~ 1355	SOIL	SB-12 (3 to 3.5)	1						1	
7	4/25/94		H_2O	EQUIPMENT BLANK	2			1	1			TRPH (HCl preserved) Metals (HNO_3)
8												
9												
10												
11												

Total Containers: 3 7

Number of Coolers in Shipment: 1

Bailers: 0

Report To: MARK DIBLIN

Additional Comments:

A031194 HCl

Do not Run Fingerprint until TRPH Results are complete and validated

Transfer Number	Item Number(s)	Relinquished By / Company	Accepted By / Company	Date	Time
1	1	Patrick M. Greco	Fed Express	4/21/94	19:00
2	1	Ryan Shaw	ABB	4/27/94	1500
3	~~2~~ 2-7		ENSEC	4/28/94	11:00
4					
5					
6					

Original Accompanies Shipment

ENSECO-WADSWORTH/ALERT Laboratories
Division of Corning Lab Servies, Inc.

5910 Breckenridge Parkway, Suite H 813-621-0784
Tampa, FL 33610 FAX 813-623-6021

ANALYTICAL REPORT

NADEP

ROGER DURHAM

ABB ENVIRONMENTAL SERVICES

ENSECO-WADSWORTH/ALERT LABORATORIES
Certification Numbers: E84059,HRS84297
FDEP CompQAP: 870270G

Chris Amstutz
Project Manager

June 29, 1994

ENSECO-WADSWORTH/ALERT
Laboratories

ANALYTICAL METHODS SUMMARY

Parameters	Methods
Tot.Petroleum Hydrocarbon	SW846 8015 MODIFIED
Solids, Total (TS)	MCAWW 160.3 MODIFIED

References:

MCAWW Methods for Chemical Analysis of Water and Wastes, EMSL: Cincinnati, OH: March 1983 and its updates.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, September, 1986.

ENSECO-WADSWORTH/ALERT Laboratories

SAMPLE SUMMARY

The analytical results of the samples listed below are presented on the following pages.

WO #	LABORATORY ID	SAMPLE IDENTIFICATION
05590	B4F230023-001	MW8-1
05592	B4F230023-002	SB30A-1.5

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

MW8-1

WO #: 05590102
LAB #: B4F230023-001
MATRIX: SOLID

DATE SAMPLED: 6/09/94
DATE RECEIVED: 6/11/94

GC Semi-Volatiles

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
TPH (Extractables)	ND	3.7	SW846 8015 M	06/23-06/27/94	4175006

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

CHECK SAMPLE REPORT

QC BATCH: 4175006
LAB #: B4F240000-006 C

PREPARATION DATE: 6/23/94
DATE ANALYZED: 6/27/94

- GC Semi-Volatiles - - - - - - - - - - - - - - - - - -

COMPOUND	SPIKE PERCENT RECOVERY	Q/C LIMITS
TPH (Extractables)	112	(50-150)

APPENDIX D

GROUNDWATER SAMPLE ANALYTICAL DATA

MAY 3, 1994, SAMPLING EVENT
MW-1 THROUGH MW-5, AND TW-1

ENSECO-WADSWORTH/ALERT Laboratories
Division of Corning Lab Services, Inc.

5910 Breckenridge Parkway, Suite H
Tampa, FL 33610

813-621-0784
FAX 813-623-6021

ANALYTICAL REPORT

PROJECT NO. 7528-45

NADEP 607NE & 3557S

KAREN HARTNETT

ABB ENVIRONMENTAL SERVICES

ENSECO-WADSWORTH/ALERT LABORATORIES
Certification Numbers: E84059,HRS84297
FDEP CompQAP: 870270G

Chris Amstutz
Project Manager

May 19, 1994

ENSECO-WADSWORTH/ALERT
Laboratories

EXECUTIVE SUMMARY - Detection Highlights

B4E040035

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD
607NE-TW1				
Benzene	1.6	1.0	ug/L	USEPA 624
Toluene	1.4	1.0	ug/L	USEPA 624
Xylenes, Total	7.9	1.0	ug/L	USEPA 624
Di-n-butyl phthalate	23	10	ug/L	USEPA 625
Cadmium	11.7	5.0	ug/L	SW846 6010
Chromium	330	50.0	ug/L	MCAWW 200.7
Lead	960	100	ug/L	MCAWW 239.2
Petroleum Hydrocarbons Total Recoverable	1.5	1.0	mg/L	MCAWW 418.1
3557S-TW1				
Arsenic	14.5	5.0	ug/L	MCAWW 206.2
Cadmium	36.8	5.0	ug/L	SW846 6010
Chromium	261	50.0	ug/L	MCAWW 200.7
Lead	1,090	100	ug/L	MCAWW 239.2
Petroleum Hydrocarbons Total Recoverable	2.0	1.0	mg/L	MCAWW 418.1

ENSECO-WADSWORTH/ALERT
Laboratories

ANALYTICAL METHODS SUMMARY

Enseco-Wadsworth/ALERT Laboratories utilizes only USEPA approved methods in analytical work. The methods used for the analyses presented in the following report are listed below.

Parameters	Methods
Volatile Organics	USEPA 624
Semivolatile Organics	USEPA 625
Chromium	MCAWW 200.7
Arsenic	MCAWW 206.2
Lead	MCAWW 239.2
Petroleum Hydrocarbons Total Recoverable	MCAWW 418.1
Cadmium	SW846 6010

References:

MCAWW Methods for Chemical Analysis of Water and Wastes, EMSL: Cincinnati, OH: March 1983 and its updates.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, September, 1986.

USEPA Longbottom, J. and Lichtenberg, J., Methods for Organic Chemical Analysis of Municipal and Industrial Waste Water EMSL: Cincinnati, OH, July 1982 and its updates.

ENSECO-WADSWORTH/ALERT Laboratories

SAMPLE SUMMARY

The analytical results of the samples listed below are presented on the following pages.

WO #	LABORATORY ID	SAMPLE IDENTIFICATION
M7137	B4E040035-001	607NE-MW1
M7139	B4E040035-002	607NE-MW2
M7142	B4E040035-003	607NE-MW3
M7144	B4E040035-004	607NE-MW4
M7145	B4E040035-005	607NE-MW5
M7151	B4E040035-006	607NE-TW1
M7152	B4E040035-007	3557S-TW1
M7153	B4E040035-008	DUPLICATE
M7154	B4E040035-009	EQUIPMENT BLANK
M7155	B4E040035-010	TRIP BLANK

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

607NE-MW1

WO #: M7137102
LAB #: B4E040035-001
MATRIX: WATER

DATE SAMPLED: 5/03/94
DATE RECEIVED: 5/04/94

GC/MS Volatiles

1 OF 2

PARAMETER	RESULT (ug/L)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Acrolein	ND	10	USEPA 624	05/07/94	4131052
Acrylonitrile	ND	10	USEPA 624	05/07/94	4131052
Benzene	ND	1.0	USEPA 624	05/07/94	4131052
Bromodichloromethane	ND	1.0	USEPA 624	05/07/94	4131052
Bromoform	ND	1.0	USEPA 624	05/07/94	4131052
Bromomethane	ND	1.0	USEPA 624	05/07/94	4131052
Carbon tetrachloride	ND	1.0	USEPA 624	05/07/94	4131052
Chlorobenzene	ND	1.0	USEPA 624	05/07/94	4131052
Dibromochloromethane	ND	1.0	USEPA 624	05/07/94	4131052
Chloroethane	ND	1.0	USEPA 624	05/07/94	4131052
2-Chloroethyl vinyl ether	ND	1.0	USEPA 624	05/07/94	4131052
Chloroform	ND	1.0	USEPA 624	05/07/94	4131052
Chloromethane	ND	1.0	USEPA 624	05/07/94	4131052
1,2-Dichlorobenzene	ND	1.0	USEPA 624	05/07/94	4131052
1,3-Dichlorobenzene	ND	1.0	USEPA 624	05/07/94	4131052
1,4-Dichlorobenzene	ND	1.0	USEPA 624	05/07/94	4131052
1,1-Dichloroethane	ND	1.0	USEPA 624	05/07/94	4131052
1,2-Dichloroethane	ND	1.0	USEPA 624	05/07/94	4131052
1,1-Dichloroethene	ND	1.0	USEPA 624	05/07/94	4131052
cis-1,2-Dichloroethene	ND	1.0	USEPA 624	05/07/94	4131052
trans-1,2-Dichloroethene	ND	1.0	USEPA 624	05/07/94	4131052
1,2-Dichloropropane	ND	1.0	USEPA 624	05/07/94	4131052
cis-1,3-Dichloropropene	ND	1.0	USEPA 624	05/07/94	4131052
trans-1,3-Dichloropropene	ND	1.0	USEPA 624	05/07/94	4131052

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dichloroethane	109	(78 - 130)
Toluene-d8	101	(90 - 109)
Bromofluorobenzene	97	(81 - 117)

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

607NE-MW1

WO #: M7137102
LAB #: B4E040035-001
MATRIX: WATER

DATE SAMPLED: 5/03/94
DATE RECEIVED: 5/04/94

GC/MS Volatiles

2 OF 2

PARAMETER	RESULT (ug/L)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Ethylbenzene	ND	1.0	USEPA 624	05/07/94	4131052
Trichlorofluoromethane	ND	1.0	USEPA 624	05/07/94	4131052
Methylene chloride	ND	1.0	USEPA 624	05/07/94	4131052
1,1,2,2-Tetrachloroethane	ND	1.0	USEPA 624	05/07/94	4131052
Tetrachloroethene	ND	1.0	USEPA 624	05/07/94	4131052
Toluene	ND	1.0	USEPA 624	05/07/94	4131052
1,1,1-Trichloroethane	ND	1.0	USEPA 624	05/07/94	4131052
1,1,2-Trichloroethane	ND	1.0	USEPA 624	05/07/94	4131052
Trichloroethene	ND	1.0	USEPA 624	05/07/94	4131052
Vinyl chloride	ND	1.0	USEPA 624	05/07/94	4131052
Xylenes, Total	ND	1.0	USEPA 624	05/07/94	4131052

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dichloroethane	109	(78 - 130)
Toluene-d8	101	(90 - 109)
Bromofluorobenzene	97	(81 - 117)

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

607NE-MW1

WO #: M7137102
LAB #: B4E040035-001
MATRIX: WATER

DATE SAMPLED: 5/03/94
DATE RECEIVED: 5/04/94
DATE EXTRACTED: 5/07/94
DATE ANALYZED: 5/07/94

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS
with their estimated concentrations

PARAMETER	RESULT	UNIT	QC BATCH
None		--	4131052

OTHER COMPOUNDS

PARAMETER	RESULT	UNIT	QC BATCH
None		--	4131052

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

607NE-MW1

WO #: M7137
LAB #: B4E040035-001
MATRIX: WATER

DATE SAMPLED: 5/03/94
DATE RECEIVED: 5/04/94

- - - - - - - - - - - - - - - - - - INORGANIC ANALYTICAL REPORT - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Petroleum Hydrocarbons Total Recoverable	ND	1.0	mg/L	MCAWW 418.1	5/10/94	4130061

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

607NE-MW2

WO #: M7139102
LAB #: B4E040035-002
MATRIX: WATER

DATE SAMPLED: 5/03/94
DATE RECEIVED: 5/04/94

GC/MS Volatiles

PARAMETER	RESULT (ug/L)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Acrolein	ND	10	USEPA 624	05/07/94	4131052
Acrylonitrile	ND	10	USEPA 624	05/07/94	4131052
Benzene	ND	1.0	USEPA 624	05/07/94	4131052
Bromodichloromethane	ND	1.0	USEPA 624	05/07/94	4131052
Bromoform	ND	1.0	USEPA 624	05/07/94	4131052
Bromomethane	ND	1.0	USEPA 624	05/07/94	4131052
Carbon tetrachloride	ND	1.0	USEPA 624	05/07/94	4131052
Chlorobenzene	ND	1.0	USEPA 624	05/07/94	4131052
Dibromochloromethane	ND	1.0	USEPA 624	05/07/94	4131052
Chloroethane	ND	1.0	USEPA 624	05/07/94	4131052
2-Chloroethyl vinyl ether	ND	1.0	USEPA 624	05/07/94	4131052
Chloroform	ND	1.0	USEPA 624	05/07/94	4131052
Chloromethane	ND	1.0	USEPA 624	05/07/94	4131052
1,2-Dichlorobenzene	ND	1.0	USEPA 624	05/07/94	4131052
1,3-Dichlorobenzene	ND	1.0	USEPA 624	05/07/94	4131052
1,4-Dichlorobenzene	ND	1.0	USEPA 624	05/07/94	4131052
1,1-Dichloroethane	ND	1.0	USEPA 624	05/07/94	4131052
1,2-Dichloroethane	ND	1.0	USEPA 624	05/07/94	4131052
1,1-Dichloroethene	ND	1.0	USEPA 624	05/07/94	4131052
cis-1,2-Dichloroethene	ND	1.0	USEPA 624	05/07/94	4131052
trans-1,2-Dichloroethene	ND	1.0	USEPA 624	05/07/94	4131052
1,2-Dichloropropane	ND	1.0	USEPA 624	05/07/94	4131052
cis-1,3-Dichloropropene	ND	1.0	USEPA 624	05/07/94	4131052
trans-1,3-Dichloropropene	ND	1.0	USEPA 624	05/07/94	4131052

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dichloroethane	107	(78 - 130)
Toluene-d8	99	(90 - 109)
Bromofluorobenzene	99	(81 - 117)

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

607NE-MW2

WO #: M7139102
LAB #: B4E040035-002
MATRIX: WATER

DATE SAMPLED: 5/03/94
DATE RECEIVED: 5/04/94

GC/MS Volatiles

PARAMETER	RESULT (ug/L)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Ethylbenzene	ND	1.0	USEPA 624	05/07/94	4131052
Trichlorofluoromethane	ND	1.0	USEPA 624	05/07/94	4131052
Methylene chloride	ND	1.0	USEPA 624	05/07/94	4131052
1,1,2,2-Tetrachloroethane	ND	1.0	USEPA 624	05/07/94	4131052
Tetrachloroethene	ND	1.0	USEPA 624	05/07/94	4131052
Toluene	ND	1.0	USEPA 624	05/07/94	4131052
1,1,1-Trichloroethane	ND	1.0	USEPA 624	05/07/94	4131052
1,1,2-Trichloroethane	ND	1.0	USEPA 624	05/07/94	4131052
Trichloroethene	ND	1.0	USEPA 624	05/07/94	4131052
Vinyl chloride	ND	1.0	USEPA 624	05/07/94	4131052
Xylenes, Total	ND	1.0	USEPA 624	05/07/94	4131052

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dichloroethane	107	(78 - 130)
Toluene-d8	99	(90 - 109)
Bromofluorobenzene	99	(81 - 117)

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

607NE-MW2

WO #: M7139102
LAB #: B4E040035-002
MATRIX: WATER

DATE SAMPLED: 5/03/94
DATE RECEIVED: 5/04/94
DATE EXTRACTED: 5/07/94
DATE ANALYZED: 5/07/94

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS
with their estimated concentrations

PARAMETER	RESULT	UNIT	QC BATCH
None		--	4131052

OTHER COMPOUNDS

PARAMETER	RESULT	UNIT	QC BATCH
None		--	4131052

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

607NE-MW2

WO #: M7139
LAB #: B4E040035-002
MATRIX: WATER

DATE SAMPLED: 5/03/94
DATE RECEIVED: 5/04/94

- - - - - - - - - - - - - - - - - - INORGANIC ANALYTICAL REPORT - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Petroleum Hydrocarbons Total Recoverable	ND	1.0	mg/L	MCAWW 418.1	5/10/94	4130061

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

607NE-MW3

WO #: M7142102
LAB #: B4E040035-003
MATRIX: WATER

DATE SAMPLED: 5/03/94
DATE RECEIVED: 5/04/94

GC/MS Volatiles

PARAMETER	RESULT (ug/L)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Acrolein	ND	10	USEPA 624	05/07/94	4131052
Acrylonitrile	ND	10	USEPA 624	05/07/94	4131052
Benzene	ND	1.0	USEPA 624	05/07/94	4131052
Bromodichloromethane	ND	1.0	USEPA 624	05/07/94	4131052
Bromoform	ND	1.0	USEPA 624	05/07/94	4131052
Bromomethane	ND	1.0	USEPA 624	05/07/94	4131052
Carbon tetrachloride	ND	1.0	USEPA 624	05/07/94	4131052
Chlorobenzene	ND	1.0	USEPA 624	05/07/94	4131052
Dibromochloromethane	ND	1.0	USEPA 624	05/07/94	4131052
Chloroethane	ND	1.0	USEPA 624	05/07/94	4131052
2-Chloroethyl vinyl ether	ND	1.0	USEPA 624	05/07/94	4131052
Chloroform	ND	1.0	USEPA 624	05/07/94	4131052
Chloromethane	ND	1.0	USEPA 624	05/07/94	4131052
1,2-Dichlorobenzene	ND	1.0	USEPA 624	05/07/94	4131052
1,3-Dichlorobenzene	ND	1.0	USEPA 624	05/07/94	4131052
1,4-Dichlorobenzene	ND	1.0	USEPA 624	05/07/94	4131052
1,1-Dichloroethane	ND	1.0	USEPA 624	05/07/94	4131052
1,2-Dichloroethane	ND	1.0	USEPA 624	05/07/94	4131052
1,1-Dichloroethene	ND	1.0	USEPA 624	05/07/94	4131052
cis-1,2-Dichloroethene	ND	1.0	USEPA 624	05/07/94	4131052
trans-1,2-Dichloroethene	ND	1.0	USEPA 624	05/07/94	4131052
1,2-Dichloropropane	ND	1.0	USEPA 624	05/07/94	4131052
cis-1,3-Dichloropropene	ND	1.0	USEPA 624	05/07/94	4131052
trans-1,3-Dichloropropene	ND	1.0	USEPA 624	05/07/94	4131052

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dichloroethane	104	(78 - 130)
Toluene-d8	99	(90 - 109)
Bromofluorobenzene	97	(81 - 117)

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

607NE-MW3

WO #: M7142102
LAB #: B4E040035-003
MATRIX: WATER

DATE SAMPLED: 5/03/94
DATE RECEIVED: 5/04/94

GC/MS Volatiles

PARAMETER	RESULT (ug/L)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Ethylbenzene	ND	1.0	USEPA 624	05/07/94	4131052
Trichlorofluoromethane	ND	1.0	USEPA 624	05/07/94	4131052
Methylene chloride	ND	1.0	USEPA 624	05/07/94	4131052
1,1,2,2-Tetrachloroethane	ND	1.0	USEPA 624	05/07/94	4131052
Tetrachloroethene	ND	1.0	USEPA 624	05/07/94	4131052
Toluene	ND	1.0	USEPA 624	05/07/94	4131052
1,1,1-Trichloroethane	ND	1.0	USEPA 624	05/07/94	4131052
1,1,2-Trichloroethane	ND	1.0	USEPA 624	05/07/94	4131052
Trichloroethene	ND	1.0	USEPA 624	05/07/94	4131052
Vinyl chloride	ND	1.0	USEPA 624	05/07/94	4131052
Xylenes, Total	ND	1.0	USEPA 624	05/07/94	4131052

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dichloroethane	104	(78 - 130)
Toluene-d8	99	(90 - 109)
Bromofluorobenzene	97	(81 - 117)

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

607NE-MW3

WO #: M7142102
LAB #: B4E040035-003
MATRIX: WATER

DATE SAMPLED: 5/03/94
DATE RECEIVED: 5/04/94
DATE EXTRACTED: 5/07/94
DATE ANALYZED: 5/07/94

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS
with their estimated concentrations

PARAMETER	RESULT	UNIT	QC BATCH
None		--	4131052

OTHER COMPOUNDS

PARAMETER	RESULT	UNIT	QC BATCH
None		--	4131052

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

607NE-MW3

WO #: M7142
LAB #: B4E040035-003
MATRIX: WATER

DATE SAMPLED: 5/03/94
DATE RECEIVED: 5/04/94

INORGANIC ANALYTICAL REPORT

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Petroleum Hydrocarbons Total Recoverable	ND	1.0	mg/L	MCAWW 418.1	5/10/94	4130061

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

607NE-MW4

WO #: M7144102
LAB #: B4E040035-004
MATRIX: WATER

DATE SAMPLED: 5/03/94
DATE RECEIVED: 5/04/94

GC/MS Volatiles

PARAMETER	RESULT (ug/L)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Acrolein	ND	10	USEPA 624	05/07/94	4131052
Acrylonitrile	ND	10	USEPA 624	05/07/94	4131052
Benzene	ND	1.0	USEPA 624	05/07/94	4131052
Bromodichloromethane	ND	1.0	USEPA 624	05/07/94	4131052
Bromoform	ND	1.0	USEPA 624	05/07/94	4131052
Bromomethane	ND	1.0	USEPA 624	05/07/94	4131052
Carbon tetrachloride	ND	1.0	USEPA 624	05/07/94	4131052
Chlorobenzene	ND	1.0	USEPA 624	05/07/94	4131052
Dibromochloromethane	ND	1.0	USEPA 624	05/07/94	4131052
Chloroethane	ND	1.0	USEPA 624	05/07/94	4131052
2-Chloroethyl vinyl ether	ND	1.0	USEPA 624	05/07/94	4131052
Chloroform	ND	1.0	USEPA 624	05/07/94	4131052
Chloromethane	ND	1.0	USEPA 624	05/07/94	4131052
1,2-Dichlorobenzene	ND	1.0	USEPA 624	05/07/94	4131052
1,3-Dichlorobenzene	ND	1.0	USEPA 624	05/07/94	4131052
1,4-Dichlorobenzene	ND	1.0	USEPA 624	05/07/94	4131052
1,1-Dichloroethane	ND	1.0	USEPA 624	05/07/94	4131052
1,2-Dichloroethane	ND	1.0	USEPA 624	05/07/94	4131052
1,1-Dichloroethene	ND	1.0	USEPA 624	05/07/94	4131052
cis-1,2-Dichloroethene	ND	1.0	USEPA 624	05/07/94	4131052
trans-1,2-Dichloroethene	ND	1.0	USEPA 624	05/07/94	4131052
1,2-Dichloropropane	ND	1.0	USEPA 624	05/07/94	4131052
cis-1,3-Dichloropropene	ND	1.0	USEPA 624	05/07/94	4131052
trans-1,3-Dichloropropene	ND	1.0	USEPA 624	05/07/94	4131052

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dichloroethane	107	(78 - 130)
Toluene-d8	101	(90 - 109)
Bromofluorobenzene	96	(81 - 117)

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

607NE-MW4

WO #: M7144102
LAB #: B4E040035-004
MATRIX: WATER

DATE SAMPLED: 5/03/94
DATE RECEIVED: 5/04/94

GC/MS Volatiles

2 OF 2

PARAMETER	RESULT (ug/L)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Ethylbenzene	ND	1.0	USEPA 624	05/07/94	4131052
Trichlorofluoromethane	ND	1.0	USEPA 624	05/07/94	4131052
Methylene chloride	ND	1.0	USEPA 624	05/07/94	4131052
1,1,2,2-Tetrachloroethane	ND	1.0	USEPA 624	05/07/94	4131052
Tetrachloroethene	ND	1.0	USEPA 624	05/07/94	4131052
Toluene	ND	1.0	USEPA 624	05/07/94	4131052
1,1,1-Trichloroethane	ND	1.0	USEPA 624	05/07/94	4131052
1,1,2-Trichloroethane	ND	1.0	USEPA 624	05/07/94	4131052
Trichloroethene	ND	1.0	USEPA 624	05/07/94	4131052
Vinyl chloride	ND	1.0	USEPA 624	05/07/94	4131052
Xylenes, Total	ND	1.0	USEPA 624	05/07/94	4131052

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dichloroethane	107	(78 - 130)
Toluene-d8	101	(90 - 109)
Bromofluorobenzene	96	(81 - 117)

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

607NE-MW4

WO #: M7144102
LAB #: B4E040035-004
MATRIX: WATER

DATE SAMPLED: 5/03/94
DATE RECEIVED: 5/04/94
DATE EXTRACTED: 5/07/94
DATE ANALYZED: 5/07/94

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS
with their estimated concentrations

PARAMETER	RESULT	UNIT	QC BATCH
None		--	4131052

OTHER COMPOUNDS

PARAMETER	RESULT	UNIT	QC BATCH
None		--	4131052

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

607NE-MW4

WO #: M7144
LAB #: B4E040035-004
MATRIX: WATER

DATE SAMPLED: 5/03/94
DATE RECEIVED: 5/04/94

- - - - - - - - - - - - - - - - - - INORGANIC ANALYTICAL REPORT - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Petroleum Hydrocarbons Total Recoverable	ND	1.0	mg/L	MCAWW 418.1	5/10/94	4130061

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

607NE-MW5

WO #: M7145102
LAB #: B4E040035-005
MATRIX: WATER

DATE SAMPLED: 5/03/94
DATE RECEIVED: 5/04/94

GC/MS Volatiles

1 OF 2

PARAMETER	RESULT (ug/L)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Acrolein	ND	10	USEPA 624	05/07/94	4131052
Acrylonitrile	ND	10	USEPA 624	05/07/94	4131052
Benzene	ND	1.0	USEPA 624	05/07/94	4131052
Bromodichloromethane	ND	1.0	USEPA 624	05/07/94	4131052
Bromoform	ND	1.0	USEPA 624	05/07/94	4131052
Bromomethane	ND	1.0	USEPA 624	05/07/94	4131052
Carbon tetrachloride	ND	1.0	USEPA 624	05/07/94	4131052
Chlorobenzene	ND	1.0	USEPA 624	05/07/94	4131052
Dibromochloromethane	ND	1.0	USEPA 624	05/07/94	4131052
Chloroethane	ND	1.0	USEPA 624	05/07/94	4131052
2-Chloroethyl vinyl ether	ND	1.0	USEPA 624	05/07/94	4131052
Chloroform	ND	1.0	USEPA 624	05/07/94	4131052
Chloromethane	ND	1.0	USEPA 624	05/07/94	4131052
1,2-Dichlorobenzene	ND	1.0	USEPA 624	05/07/94	4131052
1,3-Dichlorobenzene	ND	1.0	USEPA 624	05/07/94	4131052
1,4-Dichlorobenzene	ND	1.0	USEPA 624	05/07/94	4131052
1,1-Dichloroethane	ND	1.0	USEPA 624	05/07/94	4131052
1,2-Dichloroethane	ND	1.0	USEPA 624	05/07/94	4131052
1,1-Dichloroethene	ND	1.0	USEPA 624	05/07/94	4131052
cis-1,2-Dichloroethene	ND	1.0	USEPA 624	05/07/94	4131052
trans-1,2-Dichloroethene	ND	1.0	USEPA 624	05/07/94	4131052
1,2-Dichloropropane	ND	1.0	USEPA 624	05/07/94	4131052
cis-1,3-Dichloropropene	ND	1.0	USEPA 624	05/07/94	4131052
trans-1,3-Dichloropropene	ND	1.0	USEPA 624	05/07/94	4131052

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dichloroethane	107	(78 - 130)
Toluene-d8	98	(90 - 109)
Bromofluorobenzene	98	(81 - 117)

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

607NE-MW5

WO #: M7145102
LAB #: B4E040035-005
MATRIX: WATER

DATE SAMPLED: 5/03/94
DATE RECEIVED: 5/04/94

GC/MS Volatiles

PARAMETER	RESULT (ug/L)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Ethylbenzene	ND	1.0	USEPA 624	05/07/94	4131052
Trichlorofluoromethane	ND	1.0	USEPA 624	05/07/94	4131052
Methylene chloride	ND	1.0	USEPA 624	05/07/94	4131052
1,1,2,2-Tetrachloroethane	ND	1.0	USEPA 624	05/07/94	4131052
Tetrachloroethene	ND	1.0	USEPA 624	05/07/94	4131052
Toluene	ND	1.0	USEPA 624	05/07/94	4131052
1,1,1-Trichloroethane	ND	1.0	USEPA 624	05/07/94	4131052
1,1,2-Trichloroethane	ND	1.0	USEPA 624	05/07/94	4131052
Trichloroethene	ND	1.0	USEPA 624	05/07/94	4131052
Vinyl chloride	ND	1.0	USEPA 624	05/07/94	4131052
Xylenes, Total	ND	1.0	USEPA 624	05/07/94	4131052

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dichloroethane	107	(78 - 130)
Toluene-d8	98	(90 - 109)
Bromofluorobenzene	98	(81 - 117)

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories ABB ENVIRONMENTAL SERVICES

607NE-MW5

WO #: M7145102
LAB #: B4E040035-005
MATRIX: WATER

DATE SAMPLED: 5/03/94
DATE RECEIVED: 5/04/94
DATE EXTRACTED: 5/07/94
DATE ANALYZED: 5/07/94

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS
with their estimated concentrations

PARAMETER	RESULT	UNIT	QC BATCH
None		--	4131052

OTHER COMPOUNDS

PARAMETER	RESULT	UNIT	QC BATCH
None		--	4131052

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

607NE-MW5

WO #: M7145
LAB #: B4E040035-005
MATRIX: WATER

DATE SAMPLED: 5/03/94
DATE RECEIVED: 5/04/94

- - - - - - - - - - - - - - - - - - **INORGANIC ANALYTICAL REPORT** - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Petroleum Hydrocarbons Total Recoverable	ND	1.0	mg/L	MCAWW 418.1	5/10/94	4130061

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

DUPLICATE

WO #: M7153102
LAB #: B4E040035-008
MATRIX: WATER

DATE SAMPLED: 5/03/94
DATE RECEIVED: 5/04/94

GC/MS Volatiles

PARAMETER	RESULT (ug/L)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Acrolein	ND	10	USEPA 624	05/07/94	4131052
Acrylonitrile	ND	10	USEPA 624	05/07/94	4131052
Benzene	ND	1.0	USEPA 624	05/07/94	4131052
Bromodichloromethane	ND	1.0	USEPA 624	05/07/94	4131052
Bromoform	ND	1.0	USEPA 624	05/07/94	4131052
Bromomethane	ND	1.0	USEPA 624	05/07/94	4131052
Carbon tetrachloride	ND	1.0	USEPA 624	05/07/94	4131052
Chlorobenzene	ND	1.0	USEPA 624	05/07/94	4131052
Dibromochloromethane	ND	1.0	USEPA 624	05/07/94	4131052
Chloroethane	ND	1.0	USEPA 624	05/07/94	4131052
2-Chloroethyl vinyl ether	ND	1.0	USEPA 624	05/07/94	4131052
Chloroform	ND	1.0	USEPA 624	05/07/94	4131052
Chloromethane	ND	1.0	USEPA 624	05/07/94	4131052
1,2-Dichlorobenzene	ND	1.0	USEPA 624	05/07/94	4131052
1,3-Dichlorobenzene	ND	1.0	USEPA 624	05/07/94	4131052
1,4-Dichlorobenzene	ND	1.0	USEPA 624	05/07/94	4131052
1,1-Dichloroethane	ND	1.0	USEPA 624	05/07/94	4131052
1,2-Dichloroethane	ND	1.0	USEPA 624	05/07/94	4131052
1,1-Dichloroethene	ND	1.0	USEPA 624	05/07/94	4131052
cis-1,2-Dichloroethene	ND	1.0	USEPA 624	05/07/94	4131052
trans-1,2-Dichloroethene	ND	1.0	USEPA 624	05/07/94	4131052
1,2-Dichloropropane	ND	1.0	USEPA 624	05/07/94	4131052
cis-1,3-Dichloropropene	ND	1.0	USEPA 624	05/07/94	4131052
trans-1,3-Dichloropropene	ND	1.0	USEPA 624	05/07/94	4131052

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dichloroethane	110	(78 - 130)
Toluene-d8	99	(90 - 109)
Bromofluorobenzene	100	(81 - 117)

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

DUPLICATE

WO #: M7153102
LAB #: B4E040035-008
MATRIX: WATER

DATE SAMPLED: 5/03/94
DATE RECEIVED: 5/04/94

GC/MS Volatiles

2 OF 2

PARAMETER	RESULT (ug/L)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Ethylbenzene	ND	1.0	USEPA 624	05/07/94	4131052
Trichlorofluoromethane	ND	1.0	USEPA 624	05/07/94	4131052
Methylene chloride	ND	1.0	USEPA 624	05/07/94	4131052
1,1,2,2-Tetrachloroethane	ND	1.0	USEPA 624	05/07/94	4131052
Tetrachloroethene	ND	1.0	USEPA 624	05/07/94	4131052
Toluene	ND	1.0	USEPA 624	05/07/94	4131052
1,1,1-Trichloroethane	ND	1.0	USEPA 624	05/07/94	4131052
1,1,2-Trichloroethane	ND	1.0	USEPA 624	05/07/94	4131052
Trichloroethene	ND	1.0	USEPA 624	05/07/94	4131052
Vinyl chloride	ND	1.0	USEPA 624	05/07/94	4131052
Xylenes, Total	ND	1.0	USEPA 624	05/07/94	4131052

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dichloroethane	110	(78 - 130)
Toluene-d8	99	(90 - 109)
Bromofluorobenzene	100	(81 - 117)

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories ABB ENVIRONMENTAL SERVICES

DUPLICATE

WO #: M7153102
LAB #: B4E040035-008
MATRIX: WATER

DATE SAMPLED: 5/03/94
DATE RECEIVED: 5/04/94
DATE EXTRACTED: 5/07/94
DATE ANALYZED: 5/07/94

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS
with their estimated concentrations

PARAMETER	RESULT	UNIT	QC BATCH
None		--	4131052

OTHER COMPOUNDS

PARAMETER	RESULT	UNIT	QC BATCH
None		--	4131052

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

DUPLICATE

WO #: M7153
LAB #: B4E040035-008
MATRIX: WATER

DATE SAMPLED: 5/03/94
DATE RECEIVED: 5/04/94

- - - - - - - - - - - - - - - - - - **INORGANIC ANALYTICAL REPORT** - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Petroleum Hydrocarbons Total Recoverable	ND	1.0	mg/L	MCAWW 418.1	5/10/94	4130061

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

607NE-TW1

WO #: M7151106
LAB #: B4E040035-006
MATRIX: WATER

DATE SAMPLED: 5/03/94
DATE RECEIVED: 5/04/94

GC/MS Volatiles

1 OF 2

PARAMETER	RESULT (ug/L)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Acrolein	ND	10	USEPA 624	05/07/94	4131052
Acrylonitrile	ND	10	USEPA 624	05/07/94	4131052
Benzene	**1.6**	**1.0**	**USEPA 624**	**05/07/94**	**4131052**
Bromodichloromethane	ND	1.0	USEPA 624	05/07/94	4131052
Bromoform	ND	1.0	USEPA 624	05/07/94	4131052
Bromomethane	ND	1.0	USEPA 624	05/07/94	4131052
Carbon tetrachloride	ND	1.0	USEPA 624	05/07/94	4131052
Chlorobenzene	ND	1.0	USEPA 624	05/07/94	4131052
Dibromochloromethane	ND	1.0	USEPA 624	05/07/94	4131052
Chloroethane	ND	1.0	USEPA 624	05/07/94	4131052
2-Chloroethyl vinyl ether	ND	1.0	USEPA 624	05/07/94	4131052
Chloroform	ND	1.0	USEPA 624	05/07/94	4131052
Chloromethane	ND	1.0	USEPA 624	05/07/94	4131052
1,2-Dichlorobenzene	ND	1.0	USEPA 624	05/07/94	4131052
1,3-Dichlorobenzene	ND	1.0	USEPA 624	05/07/94	4131052
1,4-Dichlorobenzene	ND	1.0	USEPA 624	05/07/94	4131052
1,1-Dichloroethane	ND	1.0	USEPA 624	05/07/94	4131052
1,2-Dichloroethane	ND	1.0	USEPA 624	05/07/94	4131052
1,1-Dichloroethene	ND	1.0	USEPA 624	05/07/94	4131052
cis-1,2-Dichloroethene	ND	1.0	USEPA 624	05/07/94	4131052
trans-1,2-Dichloroethene	ND	1.0	USEPA 624	05/07/94	4131052
1,2-Dichloropropane	ND	1.0	USEPA 624	05/07/94	4131052
cis-1,3-Dichloropropene	ND	1.0	USEPA 624	05/07/94	4131052
trans-1,3-Dichloropropene	ND	1.0	USEPA 624	05/07/94	4131052

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dichloroethane	105	(78 - 130)
Toluene-d8	101	(90 - 109)
Bromofluorobenzene	97	(81 - 117)

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

607NE-TW1

WO #: M7151106
LAB #: B4E040035-006
MATRIX: WATER

DATE SAMPLED: 5/03/94
DATE RECEIVED: 5/04/94

GC/MS Volatiles

2 OF 2

PARAMETER	RESULT (ug/L)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Ethylbenzene	ND	1.0	USEPA 624	05/07/94	4131052
Trichlorofluoromethane	ND	1.0	USEPA 624	05/07/94	4131052
Methylene chloride	ND	1.0	USEPA 624	05/07/94	4131052
1,1,2,2-Tetrachloroethane	ND	1.0	USEPA 624	05/07/94	4131052
Tetrachloroethene	ND	1.0	USEPA 624	05/07/94	4131052
Toluene	**1.4**	**1.0**	**USEPA 624**	**05/07/94**	**4131052**
1,1,1-Trichloroethane	ND	1.0	USEPA 624	05/07/94	4131052
1,1,2-Trichloroethane	ND	1.0	USEPA 624	05/07/94	4131052
Trichloroethene	ND	1.0	USEPA 624	05/07/94	4131052
Vinyl chloride	ND	1.0	USEPA 624	05/07/94	4131052
Xylenes, Total	**7.9**	**1.0**	**USEPA 624**	**05/07/94**	**4131052**

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dichloroethane	105	(78 - 130)
Toluene-d8	101	(90 - 109)
Bromofluorobenzene	97	(81 - 117)

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories ABB ENVIRONMENTAL SERVICES

607NE-TW1

WO #: M7151106
LAB #: B4E040035-006
MATRIX: WATER

DATE SAMPLED: 5/03/94
DATE RECEIVED: 5/04/94
DATE EXTRACTED: 5/07/94
DATE ANALYZED: 5/07/94

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS
with their estimated concentrations

PARAMETER	RESULT	UNIT	QC BATCH
1,2,4-Trimethylbenzene	8	ug/L	4131052
Benzene, 1-ethyl-4-methyl-	20	ug/L	4131052
Benzene, diethyl-	6	ug/L	4131052
Benzene, 1-methyl-2-(1-methylethyl)-	10	ug/L	4131052
Benzene, 1-methyl-3-propyl-	7	ug/L	4131052
Benzene, 2-ethyl-1,3-dimethyl-	7	ug/L	4131052
Benzene, 1-ethyl-3,5-dimethyl-	9	ug/L	4131052
4'-Methylpropiophenone	6	ug/L	4131052
Benzene, methyl(1-methylethyl)-	16	ug/L	4131052

OTHER COMPOUNDS

PARAMETER	RESULT	UNIT	QC BATCH
None		--	4131052

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

607NE-TW1

WO #: M7151107
LAB #: B4E040035-006
MATRIX: WATER

DATE SAMPLED: 5/03/94
DATE RECEIVED: 5/04/94

GC/MS Semi-Volatiles

PARAMETER	RESULT (ug/L)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Acenaphthene	ND	10	USEPA 625	05/06-05/12/94	4126080
Acenaphthylene	ND	10	USEPA 625	05/06-05/12/94	4126080
Anthracene	ND	10	USEPA 625	05/06-05/12/94	4126080
Benzidine	ND	50	USEPA 625	05/06-05/12/94	4126080
Benzo(a)anthracene	ND	10	USEPA 625	05/06-05/12/94	4126080
Benzo(b)fluoranthene	ND	10	USEPA 625	05/06-05/12/94	4126080
Benzo(k)fluoranthene	ND	10	USEPA 625	05/06-05/12/94	4126080
Benzo(ghi)perylene	ND	10	USEPA 625	05/06-05/12/94	4126080
Benzo(a)pyrene	ND	10	USEPA 625	05/06-05/12/94	4126080
Bis(2-chloroethoxy)methane	ND	10	USEPA 625	05/06-05/12/94	4126080
Bis(2-chloroethyl)ether	ND	10	USEPA 625	05/06-05/12/94	4126080
Bis(2-chloroisopropyl)ether	ND	10	USEPA 625	05/06-05/12/94	4126080
Bis(2-ethylhexyl)phthalate	ND	10	USEPA 625	05/06-05/12/94	4126080
4-Bromophenyl phenyl ether	ND	10	USEPA 625	05/06-05/12/94	4126080
Butyl benzyl phthalate	ND	10	USEPA 625	05/06-05/12/94	4126080
4-Chloro-3-methylphenol	ND	10	USEPA 625	05/06-05/12/94	4126080
2-Chloronaphthalene	ND	10	USEPA 625	05/06-05/12/94	4126080
2-Chlorophenol	ND	10	USEPA 625	05/06-05/12/94	4126080
4-Chlorophenyl phenyl ether	ND	10	USEPA 625	05/06-05/12/94	4126080
Chrysene	ND	10	USEPA 625	05/06-05/12/94	4126080
Dibenz(a,h)anthracene	ND	10	USEPA 625	05/06-05/12/94	4126080
Di-n-butyl phthalate	**23**	**10**	**USEPA 625**	**05/06-05/12/94**	**4126080**
1,2-Dichlorobenzene	ND	10	USEPA 625	05/06-05/12/94	4126080
1,3-Dichlorobenzene	ND	10	USEPA 625	05/06-05/12/94	4126080

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Nitrobenzene-d5	98	(26 - 131)
2-Fluorobiphenyl	89	(27 - 119)
Terphenyl-d14	38	(10 - 165)
2-Fluorophenol	98	(10 - 116)
Phenol-d5	72	(10 - 175)
2,4,6-Tribromophenol	96	(10 - 155)

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

607NE-TW1

WO #: M7151107
LAB #: B4E040035-006
MATRIX: WATER

DATE SAMPLED: 5/03/94
DATE RECEIVED: 5/04/94

GC/MS Semi-Volatiles

PARAMETER	RESULT (ug/L)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,4-Dichlorobenzene	ND	10	USEPA 625	05/06-05/12/94	4126080
3,3'-Dichlorobenzidine	ND	50	USEPA 625	05/06-05/12/94	4126080
2,4-Dichlorophenol	ND	10	USEPA 625	05/06-05/12/94	4126080
Diethyl phthalate	ND	10	USEPA 625	05/06-05/12/94	4126080
2,4-Dimethylphenol	ND	10	USEPA 625	05/06-05/12/94	4126080
Dimethyl phthalate	ND	10	USEPA 625	05/06-05/12/94	4126080
Di-n-octyl phthalate	ND	10	USEPA 625	05/06-05/12/94	4126080
4,6-Dinitro-2-methylphenol	ND	50	USEPA 625	05/06-05/12/94	4126080
2,4-Dinitrophenol	ND	50	USEPA 625	05/06-05/12/94	4126080
2,4-Dinitrotoluene	ND	10	USEPA 625	05/06-05/12/94	4126080
2,6-Dinitrotoluene	ND	10	USEPA 625	05/06-05/12/94	4126080
1,2-Diphenylhydrazine	ND	10	USEPA 625	05/06-05/12/94	4126080
Fluoranthene	ND	10	USEPA 625	05/06-05/12/94	4126080
Fluorene	ND	10	USEPA 625	05/06-05/12/94	4126080
Hexachlorobenzene	ND	10	USEPA 625	05/06-05/12/94	4126080
Hexachlorobutadiene	ND	10	USEPA 625	05/06-05/12/94	4126080
Hexachlorocyclopentadiene	ND	10	USEPA 625	05/06-05/12/94	4126080
Hexachloroethane	ND	10	USEPA 625	05/06-05/12/94	4126080
Indeno(1,2,3-cd)pyrene	ND	10	USEPA 625	05/06-05/12/94	4126080
Isophorone	ND	10	USEPA 625	05/06-05/12/94	4126080
Naphthalene	ND	10	USEPA 625	05/06-05/12/94	4126080
Nitrobenzene	ND	10	USEPA 625	05/06-05/12/94	4126080
2-Nitrophenol	ND	10	USEPA 625	05/06-05/12/94	4126080
4-Nitrophenol	ND	50	USEPA 625	05/06-05/12/94	4126080

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Nitrobenzene-d5	98	(26 - 131)
2-Fluorobiphenyl	89	(27 - 119)
Terphenyl-d14	38	(10 - 165)
2-Fluorophenol	98	(10 - 116)
Phenol-d5	72	(10 - 175)
2,4,6-Tribromophenol	96	(10 - 155)

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

607NE-TW1

WO #: M7151107 **DATE SAMPLED:** 5/03/94
LAB #: B4E040035-006 **DATE RECEIVED:** 5/04/94
MATRIX: WATER

GC/MS Semi-Volatiles

PARAMETER	RESULT (ug/L)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
N-Nitrosodimethylamine	ND	10	USEPA 625	05/06-05/12/94	4126080
N-Nitrosodi-n-propylamine	ND	10	USEPA 625	05/06-05/12/94	4126080
N-Nitrosodiphenylamine	ND	10	USEPA 625	05/06-05/12/94	4126080
Pentachlorophenol	ND	50	USEPA 625	05/06-05/12/94	4126080
Phenanthrene	ND	10	USEPA 625	05/06-05/12/94	4126080
Phenol	ND	10	USEPA 625	05/06-05/12/94	4126080
Pyrene	ND	10	USEPA 625	05/06-05/12/94	4126080
1,2,4-Trichlorobenzene	ND	10	USEPA 625	05/06-05/12/94	4126080
2,4,6-Trichlorophenol	ND	10	USEPA 625	05/06-05/12/94	4126080

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Nitrobenzene-d5	98	(26 - 131)
2-Fluorobiphenyl	89	(27 - 119)
Terphenyl-d14	38	(10 - 165)
2-Fluorophenol	98	(10 - 116)
Phenol-d5	72	(10 - 175)
2,4,6-Tribromophenol	96	(10 - 155)

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

607NE-TW1

WO #: M7151107
LAB #: B4E040035-006
MATRIX: WATER

DATE SAMPLED: 5/03/94
DATE RECEIVED: 5/04/94
DATE EXTRACTED: 5/06/94
DATE ANALYZED: 5/12/94

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS
with their estimated concentrations

PARAMETER	RESULT	UNIT	QC BATCH
1(3H)-Isobenzofuranone, 5-methyl-	13	ug/L	4126080
1,2,4-Trimethylbenzene	17	ug/L	4126080
Benzene, 1-methyl-4-(1-methylethyl)-	10	ug/L	4126080
Benzene, 1,3-diethyl-5-methyl-	8	ug/L	4126080
Benzene, 1,2,3,4-tetramethyl-	9	ug/L	4126080
Dodecane, 6-methyl-	7	ug/L	4126080
Cyclohexanol, 3-methyl-	24	ug/L	4126080
Tridecane	9	ug/L	4126080
Benzenemethanol, 2,4,5-trimethyl-22.09	UG/L		4126080
5-Unknowns	48	ug/L	4126080

OTHER COMPOUNDS

PARAMETER	RESULT	UNIT	QC BATCH
None		--	4126080

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

607NE-TW1

WO #: M7151
LAB #: B4E040035-006
MATRIX: WATER

DATE SAMPLED: 5/03/94
DATE RECEIVED: 5/04/94

- - - - - - - - - - - - - - - - - - - REQUESTED METALS - - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Chromium	330	50.0	ug/L	MCAWW 200.7	5/11- 5/12/94	4131011
Arsenic	ND	5.0	ug/L	MCAWW 206.2	5/11- 5/12/94	4131011
Lead	960	100	ug/L	MCAWW 239.2	5/11- 5/12/94	4131011
Cadmium	11.7	5.0	ug/L	SW846 6010	5/11- 5/12/94	4131011

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

607NE-TW1

WO #: M7151
LAB #: B4E040035-006
MATRIX: WATER

DATE SAMPLED: 5/03/94
DATE RECEIVED: 5/04/94

- - - - - - - - - - - - - - - - - - INORGANIC ANALYTICAL REPORT - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Petroleum Hydrocarbons Total Recoverable	1.5	1.0	mg/L	MCAWW 418.1	5/10/94	4130061

NOTE: AS RECEIVED

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

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WO #: M7154106
LAB #: B4E040035-009
MATRIX: WATER

DATE SAMPLED: 5/03/94
DATE RECEIVED: 5/04/94

GC/MS Volatiles

1 OF 2

PARAMETER	RESULT (ug/L)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Acrolein	ND	10	USEPA 624	05/07/94	4131052
Acrylonitrile	ND	10	USEPA 624	05/07/94	4131052
Benzene	ND	1.0	USEPA 624	05/07/94	4131052
Bromodichloromethane	ND	1.0	USEPA 624	05/07/94	4131052
Bromoform	ND	1.0	USEPA 624	05/07/94	4131052
Bromomethane	ND	1.0	USEPA 624	05/07/94	4131052
Carbon tetrachloride	ND	1.0	USEPA 624	05/07/94	4131052
Chlorobenzene	ND	1.0	USEPA 624	05/07/94	4131052
Dibromochloromethane	ND	1.0	USEPA 624	05/07/94	4131052
Chloroethane	ND	1.0	USEPA 624	05/07/94	4131052
2-Chloroethyl vinyl ether	ND	1.0	USEPA 624	05/07/94	4131052
Chloroform	ND	1.0	USEPA 624	05/07/94	4131052
Chloromethane	ND	1.0	USEPA 624	05/07/94	4131052
1,2-Dichlorobenzene	ND	1.0	USEPA 624	05/07/94	4131052
1,3-Dichlorobenzene	ND	1.0	USEPA 624	05/07/94	4131052
1,4-Dichlorobenzene	ND	1.0	USEPA 624	05/07/94	4131052
1,1-Dichloroethane	ND	1.0	USEPA 624	05/07/94	4131052
1,2-Dichloroethane	ND	1.0	USEPA 624	05/07/94	4131052
1,1-Dichloroethene	ND	1.0	USEPA 624	05/07/94	4131052
cis-1,2-Dichloroethene	ND	1.0	USEPA 624	05/07/94	4131052
trans-1,2-Dichloroethene	ND	1.0	USEPA 624	05/07/94	4131052
1,2-Dichloropropane	ND	1.0	USEPA 624	05/07/94	4131052
cis-1,3-Dichloropropene	ND	1.0	USEPA 624	05/07/94	4131052
trans-1,3-Dichloropropene	ND	1.0	USEPA 624	05/07/94	4131052

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dichloroethane	107	(78 - 130)
Toluene-d8	98	(90 - 109)
Bromofluorobenzene	98	(81 - 117)

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

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WO #: M7154106
LAB #: B4E040035-009
MATRIX: WATER

DATE SAMPLED: 5/03/94
DATE RECEIVED: 5/04/94

GC/MS Volatiles

2 OF 2

PARAMETER	RESULT (ug/L)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Ethylbenzene	ND	1.0	USEPA 624	05/07/94	4131052
Trichlorofluoromethane	ND	1.0	USEPA 624	05/07/94	4131052
Methylene chloride	ND	1.0	USEPA 624	05/07/94	4131052
1,1,2,2-Tetrachloroethane	ND	1.0	USEPA 624	05/07/94	4131052
Tetrachloroethene	ND	1.0	USEPA 624	05/07/94	4131052
Toluene	ND	1.0	USEPA 624	05/07/94	4131052
1,1,1-Trichloroethane	ND	1.0	USEPA 624	05/07/94	4131052
1,1,2-Trichloroethane	ND	1.0	USEPA 624	05/07/94	4131052
Trichloroethene	ND	1.0	USEPA 624	05/07/94	4131052
Vinyl chloride	ND	1.0	USEPA 624	05/07/94	4131052
Xylenes, Total	ND	1.0	USEPA 624	05/07/94	4131052

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dichloroethane	107	(78 - 130)
Toluene-d8	98	(90 - 109)
Bromofluorobenzene	98	(81 - 117)

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories ABB ENVIRONMENTAL SERVICES

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WO #: M7154106
LAB #: B4E040035-009
MATRIX: WATER

DATE SAMPLED: 5/03/94
DATE RECEIVED: 5/04/94
DATE EXTRACTED: 5/07/94
DATE ANALYZED: 5/07/94

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS
with their estimated concentrations

PARAMETER	RESULT	UNIT	QC BATCH
None		--	4131052

OTHER COMPOUNDS

PARAMETER	RESULT	UNIT	QC BATCH
None		--	4131052

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

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WO #: M7154107
LAB #: B4E040035-009
MATRIX: WATER

DATE SAMPLED: 5/03/94
DATE RECEIVED: 5/04/94

GC/MS Semi-Volatiles

PARAMETER	RESULT (ug/L)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Acenaphthene	ND	10	USEPA 625	05/06-05/14/94	4126080
Acenaphthylene	ND	10	USEPA 625	05/06-05/14/94	4126080
Anthracene	ND	10	USEPA 625	05/06-05/14/94	4126080
Benzidine	ND	50	USEPA 625	05/06-05/14/94	4126080
Benzo(a)anthracene	ND	10	USEPA 625	05/06-05/14/94	4126080
Benzo(b)fluoranthene	ND	10	USEPA 625	05/06-05/14/94	4126080
Benzo(k)fluoranthene	ND	10	USEPA 625	05/06-05/14/94	4126080
Benzo(ghi)perylene	ND	10	USEPA 625	05/06-05/14/94	4126080
Benzo(a)pyrene	ND	10	USEPA 625	05/06-05/14/94	4126080
Bis(2-chloroethoxy)methane	ND	10	USEPA 625	05/06-05/14/94	4126080
Bis(2-chloroethyl)ether	ND	10	USEPA 625	05/06-05/14/94	4126080
Bis(2-chloroisopropyl)ether	ND	10	USEPA 625	05/06-05/14/94	4126080
Bis(2-ethylhexyl)phthalate	ND	10	USEPA 625	05/06-05/14/94	4126080
4-Bromophenyl phenyl ether	ND	10	USEPA 625	05/06-05/14/94	4126080
Butyl benzyl phthalate	ND	10	USEPA 625	05/06-05/14/94	4126080
4-Chloro-3-methylphenol	ND	10	USEPA 625	05/06-05/14/94	4126080
2-Chloronaphthalene	ND	10	USEPA 625	05/06-05/14/94	4126080
2-Chlorophenol	ND	10	USEPA 625	05/06-05/14/94	4126080
4-Chlorophenyl phenyl ether	ND	10	USEPA 625	05/06-05/14/94	4126080
Chrysene	ND	10	USEPA 625	05/06-05/14/94	4126080
Dibenz(a,h)anthracene	ND	10	USEPA 625	05/06-05/14/94	4126080
Di-n-butyl phthalate	ND	10	USEPA 625	05/06-05/14/94	4126080
1,2-Dichlorobenzene	ND	10	USEPA 625	05/06-05/14/94	4126080
1,3-Dichlorobenzene	ND	10	USEPA 625	05/06-05/14/94	4126080

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Nitrobenzene-d5	64	(26 - 131)
2-Fluorobiphenyl	69	(27 - 119)
Terphenyl-d14	116	(10 - 165)
2-Fluorophenol	73	(10 - 116)
Phenol-d5	59	(10 - 175)
2,4,6-Tribromophenol	82	(10 - 155)

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

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WO #: M7154107
LAB #: B4E040035-009
MATRIX: WATER

DATE SAMPLED: 5/03/94
DATE RECEIVED: 5/04/94

GC/MS Semi-Volatiles

PARAMETER	RESULT (ug/L)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,4-Dichlorobenzene	ND	10	USEPA 625	05/06-05/14/94	4126080
3,3'-Dichlorobenzidine	ND	50	USEPA 625	05/06-05/14/94	4126080
2,4-Dichlorophenol	ND	10	USEPA 625	05/06-05/14/94	4126080
Diethyl phthalate	ND	10	USEPA 625	05/06-05/14/94	4126080
2,4-Dimethylphenol	ND	10	USEPA 625	05/06-05/14/94	4126080
Dimethyl phthalate	ND	10	USEPA 625	05/06-05/14/94	4126080
Di-n-octyl phthalate	ND	10	USEPA 625	05/06-05/14/94	4126080
4,6-Dinitro-2-methylphenol	ND	50	USEPA 625	05/06-05/14/94	4126080
2,4-Dinitrophenol	ND	50	USEPA 625	05/06-05/14/94	4126080
2,4-Dinitrotoluene	ND	10	USEPA 625	05/06-05/14/94	4126080
2,6-Dinitrotoluene	ND	10	USEPA 625	05/06-05/14/94	4126080
1,2-Diphenylhydrazine	ND	10	USEPA 625	05/06-05/14/94	4126080
Fluoranthene	ND	10	USEPA 625	05/06-05/14/94	4126080
Fluorene	ND	10	USEPA 625	05/06-05/14/94	4126080
Hexachlorobenzene	ND	10	USEPA 625	05/06-05/14/94	4126080
Hexachlorobutadiene	ND	10	USEPA 625	05/06-05/14/94	4126080
Hexachlorocyclopentadiene	ND	10	USEPA 625	05/06-05/14/94	4126080
Hexachloroethane	ND	10	USEPA 625	05/06-05/14/94	4126080
Indeno(1,2,3-cd)pyrene	ND	10	USEPA 625	05/06-05/14/94	4126080
Isophorone	ND	10	USEPA 625	05/06-05/14/94	4126080
Naphthalene	ND	10	USEPA 625	05/06-05/14/94	4126080
Nitrobenzene	ND	10	USEPA 625	05/06-05/14/94	4126080
2-Nitrophenol	ND	10	USEPA 625	05/06-05/14/94	4126080
4-Nitrophenol	ND	50	USEPA 625	05/06-05/14/94	4126080

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Nitrobenzene-d5	64	(26 - 131)
2-Fluorobiphenyl	69	(27 - 119)
Terphenyl-d14	116	(10 - 165)
2-Fluorophenol	73	(10 - 116)
Phenol-d5	59	(10 - 175)
2,4,6-Tribromophenol	82	(10 - 155)

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

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WO #: M7154107 **DATE SAMPLED:** 5/03/94
LAB #: B4E040035-009 **DATE RECEIVED:** 5/04/94
MATRIX: WATER

GC/MS Semi-Volatiles

PARAMETER	RESULT (ug/L)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
N-Nitrosodimethylamine	ND	10	USEPA 625	05/06-05/14/94	4126080
N-Nitrosodi-n-propylamine	ND	10	USEPA 625	05/06-05/14/94	4126080
N-Nitrosodiphenylamine	ND	10	USEPA 625	05/06-05/14/94	4126080
Pentachlorophenol	ND	50	USEPA 625	05/06-05/14/94	4126080
Phenanthrene	ND	10	USEPA 625	05/06-05/14/94	4126080
Phenol	ND	10	USEPA 625	05/06-05/14/94	4126080
Pyrene	ND	10	USEPA 625	05/06-05/14/94	4126080
1,2,4-Trichlorobenzene	ND	10	USEPA 625	05/06-05/14/94	4126080
2,4,6-Trichlorophenol	ND	10	USEPA 625	05/06-05/14/94	4126080

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Nitrobenzene-d5	64	(26 - 131)
2-Fluorobiphenyl	69	(27 - 119)
Terphenyl-d14	116	(10 - 165)
2-Fluorophenol	73	(10 - 116)
Phenol-d5	59	(10 - 175)
2,4,6-Tribromophenol	82	(10 - 155)

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

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WO #: M7154107
LAB #: B4E040035-009
MATRIX: WATER

DATE SAMPLED: 5/03/94
DATE RECEIVED: 5/04/94
DATE EXTRACTED: 5/06/94
DATE ANALYZED: 5/14/94

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS
with their estimated concentrations

PARAMETER	RESULT	UNIT	QC BATCH
1-Unknown	4	ug/L	4126080

OTHER COMPOUNDS

PARAMETER	RESULT	UNIT	QC BATCH
None		--	4126080

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

EQUIPMENT BLANK

WO #: M7154
LAB #: B4E040035-009
MATRIX: WATER

DATE SAMPLED: 5/03/94
DATE RECEIVED: 5/04/94

REQUESTED METALS

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Chromium	ND	50.0	ug/L	MCAWW 200.7	5/11- 5/12/94	4131011
Arsenic	ND	5.0	ug/L	MCAWW 206.2	5/11- 5/12/94	4131011
Lead	ND	5.0	ug/L	MCAWW 239.2	5/11- 5/12/94	4131011
Cadmium	ND	5.0	ug/L	SW846 6010	5/11- 5/12/94	4131011

NOTE: **AS RECEIVED**
ND **NOT DETECTED AT THE STATED REPORTING LIMIT**

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

EQUIPMENT BLANK

WO #: M7154
LAB #: B4E040035-009
MATRIX: WATER

DATE SAMPLED: 5/03/94
DATE RECEIVED: 5/04/94

INORGANIC ANALYTICAL REPORT

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Petroleum Hydrocarbons Total Recoverable	ND	1.0	mg/L	MCAWW 418.1	5/10/94	4130061

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

TRIP BLANK

WO #: M7155101
LAB #: B4E040035-010
MATRIX: WATER

DATE SAMPLED: 5/03/94
DATE RECEIVED: 5/04/94

GC/MS Volatiles

PARAMETER	RESULT (ug/L)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Acrolein	ND	10	USEPA 624	05/07/94	4131052
Acrylonitrile	ND	10	USEPA 624	05/07/94	4131052
Benzene	ND	1.0	USEPA 624	05/07/94	4131052
Bromodichloromethane	ND	1.0	USEPA 624	05/07/94	4131052
Bromoform	ND	1.0	USEPA 624	05/07/94	4131052
Bromomethane	ND	1.0	USEPA 624	05/07/94	4131052
Carbon tetrachloride	ND	1.0	USEPA 624	05/07/94	4131052
Chlorobenzene	ND	1.0	USEPA 624	05/07/94	4131052
Dibromochloromethane	ND	1.0	USEPA 624	05/07/94	4131052
Chloroethane	ND	1.0	USEPA 624	05/07/94	4131052
2-Chloroethyl vinyl ether	ND	1.0	USEPA 624	05/07/94	4131052
Chloroform	ND	1.0	USEPA 624	05/07/94	4131052
Chloromethane	ND	1.0	USEPA 624	05/07/94	4131052
1,2-Dichlorobenzene	ND	1.0	USEPA 624	05/07/94	4131052
1,3-Dichlorobenzene	ND	1.0	USEPA 624	05/07/94	4131052
1,4-Dichlorobenzene	ND	1.0	USEPA 624	05/07/94	4131052
1,1-Dichloroethane	ND	1.0	USEPA 624	05/07/94	4131052
1,2-Dichloroethane	ND	1.0	USEPA 624	05/07/94	4131052
1,1-Dichloroethene	ND	1.0	USEPA 624	05/07/94	4131052
cis-1,2-Dichloroethene	ND	1.0	USEPA 624	05/07/94	4131052
trans-1,2-Dichloroethene	ND	1.0	USEPA 624	05/07/94	4131052
1,2-Dichloropropane	ND	1.0	USEPA 624	05/07/94	4131052
cis-1,3-Dichloropropene	ND	1.0	USEPA 624	05/07/94	4131052
trans-1,3-Dichloropropene	ND	1.0	USEPA 624	05/07/94	4131052

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dichloroethane	107	(78 - 130)
Toluene-d8	102	(90 - 109)
Bromofluorobenzene	101	(81 - 117)

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

TRIP BLANK

WO #: M7155101 **DATE SAMPLED:** 5/03/94
LAB #: B4E040035-010 **DATE RECEIVED:** 5/04/94
MATRIX: WATER

GC/MS Volatiles

2 OF 2

PARAMETER	RESULT (ug/L)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Ethylbenzene	ND	1.0	USEPA 624	05/07/94	4131052
Trichlorofluoromethane	ND	1.0	USEPA 624	05/07/94	4131052
Methylene chloride	ND	1.0	USEPA 624	05/07/94	4131052
1,1,2,2-Tetrachloroethane	ND	1.0	USEPA 624	05/07/94	4131052
Tetrachloroethene	ND	1.0	USEPA 624	05/07/94	4131052
Toluene	ND	1.0	USEPA 624	05/07/94	4131052
1,1,1-Trichloroethane	ND	1.0	USEPA 624	05/07/94	4131052
1,1,2-Trichloroethane	ND	1.0	USEPA 624	05/07/94	4131052
Trichloroethene	ND	1.0	USEPA 624	05/07/94	4131052
Vinyl chloride	ND	1.0	USEPA 624	05/07/94	4131052
Xylenes, Total	ND	1.0	USEPA 624	05/07/94	4131052

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dichloroethane	107	(78 - 130)
Toluene-d8	102	(90 - 109)
Bromofluorobenzene	101	(81 - 117)

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

TRIP BLANK

WO #: M7155101
LAB #: B4E040035-010
MATRIX: WATER

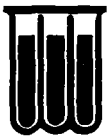
DATE SAMPLED: 5/03/94
DATE RECEIVED: 5/04/94
DATE EXTRACTED: 5/07/94
DATE ANALYZED: 5/07/94

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS
with their estimated concentrations

PARAMETER	RESULT	UNIT	QC BATCH
None		--	4131052

OTHER COMPOUNDS

PARAMETER	RESULT	UNIT	QC BATCH
None		--	4131052



ENSECO-WADSWORTH/ALERT
Laboratories

QUALITY CONTROL SECTION

- Quality Control Summary
- Laboratory Blanks
- Laboratory Control Sample
- Matrix Spike/Matrix Spike Duplicate Results
- Sample Custody Documentation

ENSECO-WADSWORTH/ALERT Laboratories

QUALITY ASSURANCE / QUALITY CONTROL PROGRAM SUMMARY

Wadsworth/ALERT Laboratories considers continuous analytical method performance evaluations to be an integral portion of the data package, and routinely includes the pertinent QA/QC data associated with various analytical result reports. Brief discussions of the various QA/QC procedures utilized to measure acceptable method and matrix performance follow.

Surrogate Spike Recovery Evaluations

Known concentrations of designated surrogate spikes, consisting of a number of similar, non-method compounds or method compound analogues, are added, as appropriate, to routine GC and GC/MS sample fractions prior to extraction and analysis. The percent recovery determinations calculated from the subsequent analysis is an indication of the overall method efficiency for the individual sample. This surrogate spike recovery data is displayed alongside acceptable analytical method performance limits at the bottom of each applicable analytical result report sheet.

NOTE: Acceptable method performance for Base/Neutral Acid extractables is indicated by two (2) of three (3) surrogates for each fraction with a minimum recovery of ten (10) percent each. For Pesticides one (1) of two (2) surrogates meeting performance criteria is acceptable.

Laboratory Analytical Method Blank Evaluations

Laboratory analytical method blanks are systematically prepared and analyzed in order to continuously evaluate the system interferences and background contamination levels associated with each analytical method. These method blanks include all aspects of actual laboratory method analysis (chemical reagents, glassware, etc.), substituting laboratory reagent water or solid for actual sample. The method blank must not contain any analytes above the reported detection limit. The following common laboratory contaminants are exceptions to this rule provided they are not present at greater than five times the detection limit.

Volatiles	Semi-volatiles	Metals
Methylene chloride	Dimethyl phthalate	Calcium
Toluene	Diethly phthalate	Magnesium
2-Butanone	Di-n-butyl phthalate	Sodium
Acetone	Butyl benzyl phthalate	
	Bis (2-ethylhexyl) phthalate	

A minimum of five percent (5%) of all laboratory analyses are laboratory analytical method blanks.

Laboratory Analytical Method Check Sample Evaluations

Known concentrations of designated matrix spikes (actual analytical method compounds) are added to a laboratory reagent blank prior to extraction and analysis. Percent recovery determinations demonstrate the performance of the analytical method. Failure of a check sample to meet established laboratory recovery criteria is cause to stop the analysis until the problem is resolved.

QUALITY ASSURANCE / QUALITY CONTROL
PROGRAM SUMMARY
(cont'd)

At that time all associated samples must be re-analyzed. A minimum of five percent (5%) of all laboratory analyses are laboratory analytical method check samples.

Matrix Spike (MS)/Matrix Spike Duplicate (MSD) Recovery Evaluations

Known concentrations of designated matrix spikes (actual analytical method compounds) are added to two of three separate aliquots of a sequentially predetermined sample prior to extraction and analysis. Percent recovery determinations are calculated from both of the spiked samples by comparison to the actual values generated from the unspiked sample. These percent recovery determinations indicate the accuracy of the analysis at recovering actual analytical method compounds from the matrix. Relative percent difference determinations calculated from a comparison of the MS/MSD recoveries demonstrate the precision of the analytical method. Actual percent recovery and relative percent difference data is displayed alongside their respective acceptable analytical method performance limits in the QA/QC section of the report. The MS/MSD are considered in control when the precision is within established control limits and the associated check sample has been found to be acceptable. A minimum of ten percent (10%) of all analyses are MS/MSD quality control samples.

**********EXAMPLE**********

COMPOUND	SAMPLE CONC.	MS %REC	MSD %REC	RPD	QC LIMITS RPD	QC LIMITS RECOVERY
4,4'-DDT	0	95	112	16	22	66-119
Benzene	10	86	93	8	20	39-150
(cmpd. name)	sample result	1st% recov.	2nd% recov.	Rel.% diff.	accep. method perform range	

Analytical Result Qualifiers

The following qualifiers, as defined below, may be appended to analytical results in order to allow proper interpretation of the results presented:

J - indicates an estimated concentration (typically used when a dilution, matrix interference or instrumental limitation prevents accurate quantitation of a particular analyte).

B - indicates the presence of a particular analyte in the laboratory blank analyzed concurrently with the samples. Results must be interpreted accordingly.

DIL - indicates that because of matrix interferences and/or high analyte concentrations, it was necessary to dilute the sample to a point where the surrogate or spike concentrations fell below a quantifiable amount and could not be reported.

ENSECO-WADSWORTH/ALERT Laboratories

INTRA-LAB BLANK REPORT

LAB #: B4E110000-052

- GC/MS Volatiles -

PARAMETER	RESULT (ug/L)	REPORTING LIMIT	PREPARATION - ANALYSIS DATE	QC BATCH
Acrolein	ND	10	5/07/94	4131052
Acrylonitrile	ND	10	5/07/94	4131052
Benzene	ND	1.0	5/07/94	4131052
Bromodichloromethane	ND	1.0	5/07/94	4131052
Bromoform	ND	1.0	5/07/94	4131052
Bromomethane	ND	1.0	5/07/94	4131052
Carbon tetrachloride	ND	1.0	5/07/94	4131052
Chlorobenzene	ND	1.0	5/07/94	4131052
Dibromochloromethane	ND	1.0	5/07/94	4131052
Chloroethane	ND	1.0	5/07/94	4131052
2-Chloroethyl vinyl ether	ND	1.0	5/07/94	4131052
Chloroform	ND	1.0	5/07/94	4131052
Chloromethane	ND	1.0	5/07/94	4131052
1,2-Dichlorobenzene	ND	1.0	5/07/94	4131052
1,3-Dichlorobenzene	ND	1.0	5/07/94	4131052
1,4-Dichlorobenzene	ND	1.0	5/07/94	4131052
1,1-Dichloroethane	ND	1.0	5/07/94	4131052
1,2-Dichloroethane	ND	1.0	5/07/94	4131052
1,1-Dichloroethene	ND	1.0	5/07/94	4131052
cis-1,2-Dichloroethene	ND	1.0	5/07/94	4131052
trans-1,2-Dichloroethene	ND	1.0	5/07/94	4131052
1,2-Dichloropropane	ND	1.0	5/07/94	4131052
cis-1,3-Dichloropropene	ND	1.0	5/07/94	4131052
trans-1,3-Dichloropropene	ND	1.0	5/07/94	4131052
Ethylbenzene	ND	1.0	5/07/94	4131052

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dichloroethane	103	(78 - 130)
Toluene-d8	99	(90 - 109)
Bromofluorobenzene	98	(81 - 117)

NOTE:

ND (NONE DETECTED)

ENSECO-WADSWORTH/ALERT Laboratories

INTRA-LAB BLANK REPORT

LAB #: B4E110000-052

- **GC/MS Volatiles** -

PARAMETER	RESULT (ug/L)	REPORTING LIMIT	PREPARATION - ANALYSIS DATE	QC BATCH
Trichlorofluoromethane	ND	1.0	5/07/94	4131052
Methylene chloride	ND	1.0	5/07/94	4131052
1,1,2,2-Tetrachloroethane	ND	1.0	5/07/94	4131052
Tetrachloroethene	ND	1.0	5/07/94	4131052
Toluene	ND	1.0	5/07/94	4131052
1,1,1-Trichloroethane	ND	1.0	5/07/94	4131052
1,1,2-Trichloroethane	ND	1.0	5/07/94	4131052
Trichloroethene	ND	1.0	5/07/94	4131052
Vinyl chloride	ND	1.0	5/07/94	4131052
Xylenes, Total	ND	1.0	5/07/94	4131052

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dichloroethane	103	(78 - 130)
Toluene-d8	99	(90 - 109)
Bromofluorobenzene	98	(81 - 117)

NOTE:

ND (NONE DETECTED)

ENSECO-WADSWORTH/ALERT Laboratories

INTRA-LAB BLANK REPORT

LAB #: B4E060000-080

- - - - - - - - - - - - - - - - - - - **GC/MS Semi-Volatiles** - - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT (ug/L)	REPORTING LIMIT	PREPARATION - ANALYSIS DATE	QC BATCH
Acenaphthene	ND	10	5/06- 5/13/94	4126080
Acenaphthylene	ND	10	5/06- 5/13/94	4126080
Anthracene	ND	10	5/06- 5/13/94	4126080
Benzidine	ND	50	5/06- 5/13/94	4126080
Benzo(a)anthracene	ND	10	5/06- 5/13/94	4126080
Benzo(b)fluoranthene	ND	10	5/06- 5/13/94	4126080
Benzo(k)fluoranthene	ND	10	5/06- 5/13/94	4126080
Benzo(ghi)perylene	ND	10	5/06- 5/13/94	4126080
Benzo(a)pyrene	ND	10	5/06- 5/13/94	4126080
Bis(2-chloroethoxy)methane	ND	10	5/06- 5/13/94	4126080
Bis(2-chloroethyl)ether	ND	10	5/06- 5/13/94	4126080
Bis(2-chloroisopropyl)ether	ND	10	5/06- 5/13/94	4126080
Bis(2-ethylhexyl)phthalate	ND	10	5/06- 5/13/94	4126080
4-Bromophenyl phenyl ether	ND	10	5/06- 5/13/94	4126080
Butyl benzyl phthalate	ND	10	5/06- 5/13/94	4126080
4-Chloro-3-methylphenol	ND	10	5/06- 5/13/94	4126080
2-Chloronaphthalene	ND	10	5/06- 5/13/94	4126080
2-Chlorophenol	ND	10	5/06- 5/13/94	4126080
4-Chlorophenyl phenyl ether	ND	10	5/06- 5/13/94	4126080
Chrysene	ND	10	5/06- 5/13/94	4126080
Dibenz(a,h)anthracene	ND	10	5/06- 5/13/94	4126080
Di-n-butyl phthalate	ND	10	5/06- 5/13/94	4126080
1,2-Dichlorobenzene	ND	10	5/06- 5/13/94	4126080
1,3-Dichlorobenzene	ND	10	5/06- 5/13/94	4126080
1,4-Dichlorobenzene	ND	10	5/06- 5/13/94	4126080

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Nitrobenzene-d5	76	(26 - 131)
2-Fluorobiphenyl	82	(27 - 119)
Terphenyl-d14	117	(10 - 165)
2-Fluorophenol	84	(10 - 116)
Phenol-d5	68	(10 - 175)
2,4,6-Tribromophenol	74	(10 - 155)

NOTE:

ND (NONE DETECTED)

ENSECO-WADSWORTH/ALERT Laboratories

INTRA-LAB BLANK REPORT

LAB #: B4E060000-080

- - - - - - - - - - - - - - - - - - GC/MS Semi-Volatiles - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT (ug/L)	REPORTING LIMIT	PREPARATION - ANALYSIS DATE	QC BATCH
3,3'-Dichlorobenzidine	ND	50	5/06- 5/13/94	4126080
2,4-Dichlorophenol	ND	10	5/06- 5/13/94	4126080
Diethyl phthalate	ND	10	5/06- 5/13/94	4126080
2,4-Dimethylphenol	ND	10	5/06- 5/13/94	4126080
Dimethyl phthalate	ND	10	5/06- 5/13/94	4126080
Di-n-octyl phthalate	ND	10	5/06- 5/13/94	4126080
4,6-Dinitro-2-methylphenol	ND	50	5/06- 5/13/94	4126080
2,4-Dinitrophenol	ND	50	5/06- 5/13/94	4126080
2,4-Dinitrotoluene	ND	10	5/06- 5/13/94	4126080
2,6-Dinitrotoluene	ND	10	5/06- 5/13/94	4126080
1,2-Diphenylhydrazine	ND	10	5/06- 5/13/94	4126080
Fluoranthene	ND	10	5/06- 5/13/94	4126080
Fluorene	ND	10	5/06- 5/13/94	4126080
Hexachlorobenzene	ND	10	5/06- 5/13/94	4126080
Hexachlorobutadiene	ND	10	5/06- 5/13/94	4126080
Hexachlorocyclopentadiene	ND	10	5/06- 5/13/94	4126080
Hexachloroethane	ND	10	5/06- 5/13/94	4126080
Indeno(1,2,3-cd)pyrene	ND	10	5/06- 5/13/94	4126080
Isophorone	ND	10	5/06- 5/13/94	4126080
Naphthalene	ND	10	5/06- 5/13/94	4126080
Nitrobenzene	ND	10	5/06- 5/13/94	4126080
2-Nitrophenol	ND	10	5/06- 5/13/94	4126080
4-Nitrophenol	ND	50	5/06- 5/13/94	4126080
N-Nitrosodimethylamine	ND	10	5/06- 5/13/94	4126080

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Nitrobenzene-d5	76	(26 - 131)
2-Fluorobiphenyl	82	(27 - 119)
Terphenyl-d14	117	(10 - 165)
2-Fluorophenol	84	(10 - 116)
Phenol-d5	68	(10 - 175)
2,4,6-Tribromophenol	74	(10 - 155)

NOTE:

ND (NONE DETECTED)

ENSECO-WADSWORTH/ALERT Laboratories

INTRA-LAB BLANK REPORT

LAB #: B4E060000-080

- - - - - - - - - - - - - - - - - - - GC/MS Semi-Volatiles - - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT (ug/L)	REPORTING LIMIT	PREPARATION - ANALYSIS DATE	QC BATCH
N-Nitrosodi-n-propylamine	ND	10	5/06- 5/13/94	4126080
N-Nitrosodiphenylamine	ND	10	5/06- 5/13/94	4126080
Pentachlorophenol	ND	50	5/06- 5/13/94	4126080
Phenanthrene	ND	10	5/06- 5/13/94	4126080
Phenol	ND	10	5/06- 5/13/94	4126080
Pyrene	ND	10	5/06- 5/13/94	4126080
1,2,4-Trichlorobenzene	ND	10	5/06- 5/13/94	4126080
2,4,6-Trichlorophenol	ND	10	5/06- 5/13/94	4126080

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Nitrobenzene-d5	76	(26 - 131)
2-Fluorobiphenyl	82	(27 - 119)
Terphenyl-d14	117	(10 - 165)
2-Fluorophenol	84	(10 - 116)
Phenol-d5	68	(10 - 175)
2,4,6-Tribromophenol	74	(10 - 155)

NOTE:

ND (NONE DETECTED)

ENSECO-WADSWORTH/ALERT
Laboratories

INTRA-LAB BLANK REPORT

LAB #: B4E040035

METALS

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE
		BATCH:4131011			
Arsenic	ND	5.0	ug/L	MCAWW 206.2	5/11/94
Cadmium	ND	5.0	ug/L	SW846 6010	5/11- 5/12/94
Chromium	ND	50.0	ug/L	MCAWW 200.7	5/11- 5/12/94
Lead	ND	5.0	ug/L	MCAWW 239.2	5/11/94

NOTE:

ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT
Laboratories

INTRA-LAB BLANK REPORT

LAB #: B4E100000-061

- - - - - - - - - - - - - - - - - **INORGANIC ANALYTICAL REPORT** - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	PREPARATION - ANALYSIS DATE	QC BATCH
Petroleum Hydrocarbons	ND	1.0	mg/L	5/10/94	4130061

NOTE:

ND (NONE DETECTED)

ENSECO-WADSWORTH/ALERT Laboratories

CHECK SAMPLE REPORT

QC BATCH: 4131052
LAB #: B4E110000-052 C

PREPARATION DATE: 5/07/94
DATE ANALYZED: 5/07/94

GC/MS Volatiles

COMPOUND	SPIKE PERCENT RECOVERY	Q/C LIMITS
Chloromethane	80	(52-146)
Vinyl chloride	104	(49-145)
Bromomethane	102	(69-145)
Chloroethane	103	(60-132)
1,1-Dichloroethene	87	(72-114)
Acetone	46	(48-130)
Carbon disulfide	107	(50-129)
Dichloromethane	90	(76-116)
trans-1,2-Dichloroethene	93	(57-129)
1,1-Dichloroethane	93	(56-116)
Vinyl acetate	69	(19-162)
2-Butanone	42	(38-142)
Chloroform	101	(58-127)
1,1,1-Trichloroethane	96	(53-134)
Carbon tetrachloride	98	(49-138)
Benzene	102	(79-115)
1,2-Dichloroethane	97	(68-132)
Trichloroethene	95	(78-116)
1,2-Dichloropropane	93	(65-119)
Bromodichloromethane	96	(66-113)
2-Chloroethyl vinyl ether	103	(60-126)
4-Methyl-2-pentanone	89	(52-131)
trans-1,3-Dichloropropene	96	(61-136)
Toluene	99	(78-116)
cis-1,3-Dichloropropene	91	(52-112)
1,1,2-Trichloroethane	96	(69-122)
2-Hexanone	89	(57-127)
Tetrachloroethene	102	(78-126)
Dibromochloromethane	97	(54-122)
Chlorobenzene	103	(80-122)
Ethylbenzene	100	(81-123)
Xylenes, Total	103	(78-125)
Styrene	102	(62-139)
Bromoform	92	(48-131)
1,1,2,2-Tetrachloroethane	96	(67-122)

ENSECO-WADSWORTH/ALERT Laboratories

CHECK SAMPLE REPORT

QC BATCH: 4126080
LAB #: B4E060000-080 C

PREPARATION DATE: 5/06/94
DATE ANALYZED: 5/13/94

- - - - - - - - - - - - - - - - - - GC/MS Semi-Volatiles - - - - - - - - - - - - - - - - -

COMPOUND	SPIKE PERCENT RECOVERY	Q/C LIMITS
Phenol	81	(17-105)
Bis(2-chloroethyl)ether	87	(28-121)
2-Chlorophenol	90	(22-106)
1,3-Dichlorobenzene	97	(33-114)
1,4-Dichlorobenzene	94	(20-116)
Benzyl alcohol	97	(22-122)
1,2-Dichlorobenzene	88	(34-110)
2-Methylphenol	84	(37-88)
Bis(2-chloroisopropyl)ether	80	(10-146)
4-Methylphenol	83	(31-98)
N-Nitrosodi-n-propylamine	82	(16-147)
Hexachloroethane	87	(35-105)
Nitrobenzene	89	(27-127)
Isophorone	78	(13-134)
2-Nitrophenol	99	(19-113)
2,4-Dimethylphenol	84	(14-98)
Benzoic acid	100	(20-144)
Bis(2-chloroethoxy)methane	89	(35-115)
2,4-Dichlorophenol	92	(17-113)
1,2,4-Trichlorobenzene	91	(21-117)
Naphthalene	97	(22-151)
4-Chloroaniline	84	(14-181)
Hexachlorobutadiene	86	(43-101)
4-Chloro-3-methylphenol	88	(13-114)
1-Methylnaphthalene	91	(33-120)
2-Methylnaphthalene	91	(39-113)
Hexachlorocyclopentadiene	63	(10-110)
2,4,6-Trichlorophenol	90	(30-108)
2,4,5-Trichlorophenol	98	(36-90)
2-Chloronaphthalene	95	(38-106)
2-Nitroaniline	101	(22-108)
Dimethyl phthalate	35	(10-110)
Acenaphthylene	96	(17-145)
2,6-Dinitrotoluene	99	(24-128)
3-Nitroaniline	111	(26-99)
Acenaphthene	98	(30-150)
2,4-Dinitrophenol	118	(10-92)
4-Nitrophenol	104	(10-150)
Dibenzofuran	99	(34-104)
2,4-Dinitrotoluene	98	(33-113)
Diethyl phthalate	52	(10-110)

ENSECO-WADSWORTH/ALERT Laboratories

CHECK SAMPLE REPORT

QC BATCH: 4126080
LAB #: B4E060000-080 C

PREPARATION DATE: 5/06/94
DATE ANALYZED: 5/13/94

GC/MS Semi-Volatiles

COMPOUND	SPIKE PERCENT RECOVERY	Q/C LIMITS
4-Chlorophenyl phenyl ether	93	(10-180)
Fluorene	95	(24-117)
4-Nitroaniline	113	(12-141)
4,6-Dinitro-2-methylphenol	117	(10-142)
N-Nitrosodiphenylamine	105	(37-134)
4-Bromophenyl phenyl ether	98	(18-144)
Hexachlorobenzene	95	(10-180)
Pentachlorophenol	105	(10-121)
Phenanthrene	99	(26-126)
Anthracene	101	(20-117)
Di-n-butyl phthalate	91	(31-111)
Fluoranthene	99	(29-118)
Pyrene	113	(34-125)
Butyl benzyl phthalate	91	(25-121)
3,3'-Dichlorobenzidine	122	(10-146)
Benzo(a)anthracene	107	(31-115)
Chrysene	100	(18-140)
Bis(2-ethylhexyl)phthalate	104	(27-128)
Di-n-octyl phthalate	111	(17-160)
Benzo(b)fluoranthene	110	(12-119)
Benzo(k)fluoranthene	102	(23-134)
Benzo(a)pyrene	106	(40-115)
Indeno(1,2,3-cd)pyrene	107	(22-95)
Dibenzo(a,h)anthracene	104	(10-93)
Benzo(ghi)perylene	109	(10-103)

ENSECO-WADSWORTH/ALERT
Laboratories

CHECK SAMPLE REPORT

LAB #: B4E040035

- METALS -

COMPOUND	SPIKE PERCENT RECOVERY	Q/C LIMITS	PREPARATION - ANALYSIS DATE
	BATCH:4131011		
Arsenic	109	(71-119)	5/11/94
Cadmium	92	(80-113)	5/11- 5/12/94
Chromium	96	(79-120)	5/11- 5/12/94
Lead	105	(70-126)	5/11/94

ENSECO-WADSWORTH/ALERT Laboratories

CHECK SAMPLE REPORT

LAB #: B4E040035

- - - - - - - - - - - - - - - - - INORGANIC ANALYTICAL REPORT - - - - - - - - - - - - - - - - -

COMPOUND	SPIKE PERCENT RECOVERY	LIMITS	PREPARATION - ANALYSIS DATE	Q/C BATCH
Petroleum Hydrocarbons Total Recoverable	98	(69-125)	5/09- 5/10/94	4130061

ENSECO-WADSWORTH/ALERT Laboratories

MATRIX SPIKE REPORT

QC BATCH: 4131052
LAB #: B4E040035-001 S
MATRIX: WATER

WO #: M7137
PREPARATION DATE: 5/07/94
DATE ANALYZED: 5/07/94

GC/MS Volatiles

COMPOUND	SPIKE PERCENT RECOVERY	SPIKE/DUP PERCENT RECOVERY	Q/C LIMITS	RPD	RPD LIMIT
Chloromethane	71	79	(41-160)	11	(0-20)
Vinyl chloride	101	107	(56-152)	5.4	(0-24)
Bromomethane	98	107	(87-110)	9.1	(0-11)
Chloroethane	86	83	(80-121)	2.7	(0-18)
1,1-Dichloroethene	81	82	(63-123)	1.6	(0-19)
Acetone	39	47	(87-115)	18	(0-15)
Carbon disulfide	93	100	(81-125)	7.3	(0-9)
Dichloromethane	86	95	(77-135)	10	(0-19)
trans-1,2-Dichloroethene	86	91	(79-109)	5.6	(0-12)
1,1-Dichloroethane	86	93	(82-109)	8.2	(0-12)
Vinyl acetate	52	60	(83-125)	13	(0-21)
2-Butanone	35	43	(14-126)	19	(0-36)
Chloroform	98	107	(87-111)	8.8	(0-15)
1,1,1-Trichloroethane	95	99	(81-110)	4.0	(0-13)
Carbon tetrachloride	98	101	(77-125)	3.4	(0-12)
Benzene	97	102	(76-126)	4.7	(0-16)
1,2-Dichloroethane	97	104	(76-128)	6.7	(0-17)
Trichloroethene	89	95	(75-115)	6.3	(0-10)
1,2-Dichloropropane	88	94	(88-118)	6.6	(0-15)
Bromodichloromethane	96	105	(67-114)	8.8	(0-15)
2-Chloroethyl vinyl ether	0	0	(61-125)	0	(0-20)
4-Methyl-2-pentanone	80	86	(63-133)	8.2	(0-23)
trans-1,3-Dichloropropene	88	95	(84-109)	7.9	(0-12)
Toluene	96	103	(75-122)	7.1	(0-23)
cis-1,3-Dichloropropene	83	89	(84-109)	6.6	(0-12)
1,1,2-Trichloroethane	94	99	(84-114)	5.1	(0-14)
2-Hexanone	82	87	(85-123)	6.0	(0-18)
Tetrachloroethene	95	97	(81-110)	2.4	(0-14)
Dibromochloromethane	104	106	(79-125)	2.6	(0-8)
Chlorobenzene	102	107	(74-113)	5.1	(0-13)
Ethylbenzene	100	106	(85-115)	6.3	(0-14)
Xylenes, Total	98	104	(83-118)	5.6	(0-17)
Styrene	93	100	(81-111)	7.5	(0-16)
Bromoform	93	98	(66-125)	5.1	(0-8)
1,1,2,2-Tetrachloroethane	96	100	(77-111)	4.7	(0-17)

Calculations are performed before rounding to avoid round-off errors in calculated results

ENSECO-WADSWORTH/ALERT Laboratories

MATRIX SPIKE REPORT

QC BATCH: 4126080
LAB #: B4E040035-006 S
MATRIX: WATER

WO #: M7151
PREPARATION DATE: 5/06/94
DATE ANALYZED: 5/12/94

- - - - - - - - - - - - - - - - - - GC/MS Semi-Volatiles - - - - - - - - - - - - - - - - - -

COMPOUND	SPIKE PERCENT RECOVERY	SPIKE/DUP PERCENT RECOVERY	Q/C LIMITS	RPD	RPD LIMIT
Phenol	65	75	(15-97)	15	(0-23)
Bis(2-chloroethyl)ether	95	94	(22-94)	0.88	(0-30)
2-Chlorophenol	75	84	(17-89)	11	(0-21)
1,3-Dichlorobenzene	97	110	(16-55)	13	(0-20)
1,4-Dichlorobenzene	87	102	(16-56)	16	(0-20)
Benzyl alcohol	0	0	(28-142)	0	(0-36)
1,2-Dichlorobenzene	88	102	(17-56)	15	(0-20)
2-Methylphenol	0	0	(20-95)	0	(0-26)
Bis(2-chloroisopropyl)ether	90	99	(34-114)	10	(0-26)
4-Methylphenol	0	0	(10-85)	0	(0-32)
N-Nitrosodi-n-propylamine	93	104	(40-127)	12	(0-29)
Hexachloroethane	85	99	(13-70)	15	(0-12)
Nitrobenzene	94	108	(23-62)	14	(0-15)
Isophorone	84	90	(26-65)	7.4	(0-15)
2-Nitrophenol	96	103	(31-100)	6.9	(0-20)
2,4-Dimethylphenol	85	93	(24-77)	9.4	(0-24)
Benzoic acid	0	0	(16-72)	0	(0-34)
Bis(2-chloroethoxy)methane	90	98	(40-98)	9.4	(0-25)
2,4-Dichlorophenol	87	93	(26-103)	7.0	(0-36)
1,2,4-Trichlorobenzene	88	94	(27-65)	6.3	(0-15)
Naphthalene	84	99	(25-97)	16	(0-23)
4-Chloroaniline	0	0	(43-91)	0	(0-17)
Hexachlorobutadiene	79	84	(16-88)	6.6	(0-21)
4-Chloro-3-methylphenol	86	93	(8.0-101)	7.9	(0-36)
1-Methylnaphthalene	87	93	(48-101)	7.4	(0-24)
2-Methylnaphthalene	86	93	(43-82)	7.8	(0-15)
Hexachlorocyclopentadiene	45	45	(2.0-55)	1.9	(0-31)
2,4,6-Trichlorophenol	101	103	(20-112)	1.9	(0-36)
2,4,5-Trichlorophenol	0	0	(20-159)	0	(0-33)
2-Chloronaphthalene	94	102	(22-77)	7.8	(0-21)
2-Nitroaniline	0	0	(52-170)	0	(0-39)
Dimethyl phthalate	25	24	(19-105)	3.1	(0-28)
Acenaphthylene	97	102	(57-104)	4.5	(0-19)
2,6-Dinitrotoluene	112	117	(19-86)	4.3	(0-24)
3-Nitroaniline	0	0	(55-172)	0	(0-39)
Acenaphthene	96	102	(57-104)	5.6	(0-24)
2,4-Dinitrophenol	132	114	(9.0-96)	14	(0-34)
4-Nitrophenol	108	108	(13-99)	0.10	(0-34)
Dibenzofuran	0	0	(85-117)	0	(0-11)

ENSECO-WADSWORTH/ALERT Laboratories

MATRIX SPIKE REPORT

QC BATCH: 4126080
LAB #: B4E040035-006 S
MATRIX: WATER

WO #: M7151
PREPARATION DATE: 5/06/94
DATE ANALYZED: 5/12/94

GC/MS Semi-Volatiles

COMPOUND	SPIKE PERCENT RECOVERY	SPIKE/DUP PERCENT RECOVERY	Q/C LIMITS	RPD	RPD LIMIT
2,4-Dinitrotoluene	103	106	(22-81)	2.6	(0-22)
Diethyl phthalate	44	43	(28-106)	2.2	(0-26)
4-Chlorophenyl phenyl ether	90	90	(41-109)	0.31	(0-37)
Fluorene	96	100	(34-118)	4.5	(0-28)
4-Nitroaniline	0	0	(74-195)	0	(0-48)
4,6-Dinitro-2-methylphenol	121	122	(29-99)	0.85	(0-35)
N-Nitrosodiphenylamine	111	121	(37-134)	8.2	(0-32)
4-Bromophenyl phenyl ether	90	94	(50-116)	3.9	(0-33)
Hexachlorobenzene	91	92	(14-98)	1.8	(0-36)
Pentachlorophenol	101	104	(13-96)	3.5	(0-42)
Phenanthrene	99	103	(36-118)	4.2	(0-27)
Anthracene	93	99	(39-124)	6.1	(0-28)
Di-n-butyl phthalate	85	83	(28-103)	1.6	(0-25)
Fluoranthene	93	96	(60-120)	3.0	(0-30)
Pyrene	101	105	(58-148)	4.4	(0-30)
Butyl benzyl phthalate	85	81	(7.0-122)	5.3	(0-38)
3,3'-Dichlorobenzidine	8.9	16	(46-127)	56	(0-40)
Benzo(a)anthracene	100	102	(36-128)	2.4	(0-31)
Chrysene	94	96	(48-118)	2.1	(0-36)
Bis(2-ethylhexyl)phthalate	99	101	(11-100)	1.9	(0-35)
Di-n-octyl phthalate	95	100	(14-93)	5.2	(0-31)
Benzo(b)fluoranthene	89	80	(43-108)	11	(0-22)
Benzo(k)fluoranthene	81	87	(28-126)	6.8	(0-33)
Benzo(a)pyrene	85	90	(35-117)	5.6	(0-27)
Indeno(1,2,3-cd)pyrene	84	83	(33-194)	1.7	(0-41)
Dibenzo(a,h)anthracene	85	84	(32-180)	1.3	(0-37)
Benzo(ghi)perylene	86	85	(29-232)	0.83	(0-51)

Calculations are performed before rounding to avoid round-off errors in calculated results

ENSECO-WADSWORTH/ALERT Laboratories

MATRIX SPIKE REPORT

LAB #: B4E040035-006

METALS

COMPOUND		SPIKE PERCENT RECOVERY	SPIKE/DUP PERCENT RECOVERY	Q/C LIMITS	RPD	RPD LIMITS		PREPARATION - ANALYSIS DATE
BATCH:4131011 MATRIX: WATER								
Arsenic		5.2	6.2	(80-119)	1.0	(0-10)	+	5/11- 5/12/94
Cadmium		92	92	(80-120)	0.25	(0-20)		5/11- 5/12/94
Chromium		90	89	(74-117)	0.33	(0-21)		5/11- 5/12/94
Lead	DIL							5/11- 5/12/94

NOTE:

DIL Diluted out

\+ THE CORRECTIVE ACTION CRITERIA IS BASED UPON THE ABSOLUTE DIFFERENCE OF THE MATRIX SPIKE AND MATRIX SPIKE DUPLICATE RECOVERIES.

Calculations are performed before rounding to avoid round-off errors in calculated results

ENSECO-WADSWORTH/ALERT LABORATORIES
SAMPLE SHIPPER EVALUATION AND RECEIPT FORM

Client: ABB-ES Project Name/Number: 7528-45

Samples Received By: Earl A. Ecker (Signature) Date Received: 5/4/94

Sample Evaluation Form By: Earl A. Ecker (Signature) LAB No: B4E040035

Type of shipping container samples received in? WAL Cooler ✓

Client Cooler ____ WAL Shipper ____ Box ____ Other ____

Any "NO" responses or discrepancies should be explained in comments section.

		YES	NO
1.	Were custody seals on shipping container(s) intact?	✓	
2.	Were custody papers properly included with samples?	✓	
3.	Were custody papers properly filled out (ink, signed, match labels)?	✓	
4.	Did all bottles arrive in good condition (unbroken)?	✓	
5.	Were all bottle labels complete (Sample No., date, signed, analysis preservatives)?	✓	
6.	Were correct bottles used for the tests indicated?	✓	
7.	Were proper sample preservation techniques indicated?	✓	
8.	Were samples received within adequate holding time?	✓	
9.	Were all VOA bottles checked for the presence of air bubbles? (If air bubbles were found indicate in comment section)	✓	
10.	Were samples in direct contact with wet ice? (NOTE TEMPERATURE BELOW)	✓	
11.	Were samples accepted into the laboratory? (If no see comments)	✓	

Cooler # — Temp 4 °C Cooler # ____ Temp ____ °C

Cooler # ✓ Temp 6 °C Cooler # ____ Temp ____ °C

Comments: VOC 624 NADEP/607/NE - air Bubble

WADSWORTH/ALERT LABORATORIES
Sampling, testing, mobile labs

5910 Breckenridge Pkwy.
Suite H
Tampa, FL 33610

(813) 621-0784
Fax (813) 623-6021

Chain of Custody Record

Record 1 of 1

10570

Client: AIR-ES

Project Name / Location: [illegible]

Sampler(s): [illegible]

Project #: [illegible]

Item #	Date	Time	MATRIX	Sample Location	No. Of CON-TAINERS	Parameter: VOC-624	PAH-625	METALS Ca, Cr, Pb	TRPH-418.1	EDB-	Remarks
1	5-3-94	720	H2O	EQUIPMENT BLANK	6	2	2	1	1		
2		745		607NE-MW1	3	2			1		
3		755		607NE-MW5	3	2			1		
4		805		607NE-MW4	3	2			1		
5		810		607NE-MW2	3	2			1		
6		815		607NE-MW3	3	2			1		
7		—		DUPLICATE	3	2			1		
8		920		607E-TW1	6	2	2	1	1		
9		940		35575-TW1	6	2	2	1	1		
10		—		TRIP BLANK	3	3					
11		—		TEMP BLANK	2						

Total Containers: 41

Number of Coolers in Shipment: 2

Bailers: N/A

Report To: KAREN HARTZELL

Additional Comments:
624 : 418.1 preserved w/ HCL.
METALS preserved w/ HNO3.
STANDARD TURNAROUND TIME.

Transfer Number	Item Number(s)	Relinquished By / Company	Accepted By / Company	Date	Time
1	1-11	RINSER/AIR-ES	FED EX	[illegible]	
2	1-11		Fed Ex Enda Echan	5/4/94	9 AM
3					
4					
5					
6					

Original Accompanies Shipment

1 OF 1

JUNE 10, 1994 SAMPLING EVENT
MW-6 THROUGH MW-8

ENSECO-WADSWORTH/ALERT Laboratories
Division of Corning Lab Services, Inc.

5910 Breckenridge Parkway, Suite H
Tampa, FL 33610

813-621-0794
FAX 813-623-6021

ANALYTICAL REPORT

PROJECT NO. 7527.45

NADEP PENSACOLA 607NE

KAREN HARTNETT

ABB ENVIRONMENTAL SERVICES

ENSECO-WADSWORTH/ALERT LABORATORIES
Certification Numbers: E84059,HRS84297
FDEP CompQAP: 870270G

Chris Amstutz
Project Manager

June 22, 1994

ENSECO-WADSWORTH/ALERT Laboratories

EXECUTIVE SUMMARY - Detection Highlights

B4F110003

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD
PEN-607NE-MW2				
Cadmium	5.5	5.0	ug/L	MCAWW 200.7
Lead	17.4	5.0	ug/L	MCAWW 239.2
PEN-607NE-MW3				
Lead	84.5	5.0	ug/L	MCAWW 239.2
PEN-607NE-MW5				
Lead	9.5	5.0	ug/L	MCAWW 239.2
PEN-607NE-MW6				
Benzene	1.3	1.0	ug/L	USEPA 602
Ethylbenzene	2.9	1.0	ug/L	USEPA 602
Toluene	1.6	1.0	ug/L	USEPA 602
Xylenes, Total	9.7	1.0	ug/L	USEPA 602
Arsenic	5.4	5.0	ug/L	MCAWW 206.2
Cadmium	7.8	5.0	ug/L	MCAWW 200.7
Chromium	81.7	50.0	ug/L	MCAWW 200.7
Lead	306	10.0	ug/L	MCAWW 239.2
Petroleum Hydrocarbons Total Recoverable	1.2	1.0	mg/L	MCAWW 418.1
PEN-607NE-MW7				
Benzene	3.6	1.0	ug/L	USEPA 602
Ethylbenzene	5.4	1.0	ug/L	USEPA 602
Xylenes, Total	19	1.0	ug/L	USEPA 602
Lead	126	5.0	ug/L	MCAWW 239.2
Petroleum Hydrocarbons Total Recoverable	2.1	1.0	mg/L	MCAWW 418.1
PEN-607NE-MW8				
Lead	84.5	5.0	ug/L	MCAWW 239.2
PEN-607NE-DUP1				
Benzene	1.4	1.0	ug/L	USEPA 602
Ethylbenzene	3.0	1.0	ug/L	USEPA 602

ENSECO-WADSWORTH/ALERT
Laboratories

EXECUTIVE SUMMARY - Detection Highlights

B4F110003

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD
Toluene	1.6	1.0	ug/L	USEPA 602
Xylenes, Total	10	1.0	ug/L	USEPA 602
Arsenic	5.3	5.0	ug/L	MCAWW 206.2
Cadmium	8.4	5.0	ug/L	MCAWW 200.7
Chromium	114	50.0	ug/L	MCAWW 200.7
Lead	440	25.0	ug/L	MCAWW 239.2
Petroleum Hydrocarbons Total Recoverable	1.3	1.0	mg/L	MCAWW 418.1
SB13-1				
Petroleum Hydrocarbons Total Recoverable	44.1	5.2	mg/kg	MCAWW 418.1
Solids, Total (TS)	95.6	1.0	%	MCAWW 160.3
Cadmium	0.54	0.52	mg/kg	SW846 6010
Chromium	5.3	2.6	mg/kg	SW846 6010
Lead	20.8	2.6	mg/kg	SW846 6010
SB13-3				
Solids, Total (TS)	90.2	1.0	%	MCAWW 160.3
Lead	12.0	2.8	mg/kg	SW846 6010
MW7-1				
Petroleum Hydrocarbons Total Recoverable	22.1	6.2	mg/kg	MCAWW 418.1
Solids, Total (TS)	81.3	1.0	%	MCAWW 160.3
Chromium	23.4	3.1	mg/kg	SW846 6010
Lead	5.8	3.1	mg/kg	SW846 6010
MW7-3				
Petroleum Hydrocarbons Total Recoverable	50.3	5.3	mg/kg	MCAWW 418.1
Solids, Total (TS)	94.7	1.0	%	MCAWW 160.3
Lead	15.8	2.6	mg/kg	SW846 6010
MW6-1				
Petroleum Hydrocarbons Total Recoverable	20.5	5.7	mg/kg	MCAWW 418.1
Solids, Total (TS)	87.6	1.0	%	MCAWW 160.3
Chromium	7.7	2.9	mg/kg	SW846 6010

ENSECO-WADSWORTH/ALERT
Laboratories

ANALYTICAL METHODS SUMMARY

Parameters	Methods
Volatile Organics	USEPA 602
Cadmium	MCAWW 200.7
Chromium	MCAWW 200.7
Arsenic	MCAWW 206.2
Lead	MCAWW 239.2
Petroleum Hydrocarbons Total Recoverable	MCAWW 418.1
Petroleum Hydrocarbons Total Recoverable	MCAWW 418.1 MODIFIED
Arsenic	SW846 6010
Cadmium	SW846 6010
Chromium	SW846 6010
Lead	SW846 6010
Solids, Total (TS)	MCAWW 160.3 MODIFIED

References:

MCAWW — Methods for Chemical Analysis of Water and Wastes, EMSL: Cincinnati, OH: March 1983 and its updates.

SW846 — "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, September, 1986.

USEPA — Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, 40CFR, Part 136, Appendix A, October 26, 1984 (and its revisions and ammendments)

ENSECO-WADSWORTH/ALERT Laboratories

SAMPLE SUMMARY

The analytical results of the samples listed below are presented on the following pages.

WO #	LABORATORY ID	SAMPLE IDENTIFICATION
00664	B4F110003-001	PEN-607NE-MW2
00665	B4F110003-002	PEN-607NE-MW2
00666	B4F110003-003	PEN-607NE-MW3
00667	B4F110003-004	PEN-607NE-MW3
00668	B4F110003-005	PEN-607NE-MW5
00669	B4F110003-006	PEN-607NE-MW5
00670	B4F110003-007	PEN-607NE-MW6
00671	B4F110003-008	PEN-607NE-MW6
00672	B4F110003-009	PEN-607NE-MW7
00673	B4F110003-010	PEN-607NE-MW7
00674	B4F110003-011	PEN-607NE-MW8
00675	B4F110003-012	PEN-607NE-MW8
00676	B4F110003-013	PEN-607NE-DUP1
00677	B4F110003-014	PEN-607NE-DUP1
00678	B4F110003-015	PEN-607NE-EB1
00679	B4F110003-016	PEN-607NE-EB2
00680	B4F110003-017	SB13-1
00681	B4F110003-018	SB13-3
00682	B4F110003-019	MW7-1
00683	B4F110003-020	MW7-3
00684	B4F110003-021	MW6-1
00685	B4F110003-022	TRIP BLANK

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

PEN-607NE-MW2

WO #: O0664
LAB #: B4F110003-001
MATRIX: WATER

DATE SAMPLED: 6/10/94
DATE RECEIVED: 6/11/94

- - - - - - - - - - - - - - - - - - - REQUESTED METALS - - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Cadmium	5.5	5.0	ug/L	MCAWW 200.7	6/13- 6/14/94	4164014
Chromium	ND	50.0	ug/L	MCAWW 200.7	6/13- 6/14/94	4164014
Arsenic	ND	5.0	ug/L	MCAWW 206.2	6/13/94	4164014
Lead	17.4	5.0	ug/L	MCAWW 239.2	6/13/94	4164014

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

PEN-607NE-MW2

WO #: 00665
LAB #: B4F110003-002
MATRIX: WATER

DATE SAMPLED: 6/10/94
DATE RECEIVED: 6/11/94

- - - - - - - - - - - - - - - - - - REQUESTED METALS - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
- - DISSOLVED METALS - -						
Cadmium	ND	5.0	ug/L	MCAWW 200.7	6/13/94	4164007
Chromium	ND	50.0	ug/L	MCAWW 200.7	6/13/94	4164007
Arsenic	ND	5.0	ug/L	MCAWW 206.2	6/13- 6/14/94	4164007
Lead	ND	5.0	ug/L	MCAWW 239.2	6/13- 6/14/94	4164007

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

PEN-607NE-MW3

WO #: O0666
LAB #: B4F110003-003
MATRIX: WATER

DATE SAMPLED: 6/10/94
DATE RECEIVED: 6/11/94

- - - - - - - - - - - - - - - - - - REQUESTED METALS - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Cadmium	ND	5.0	ug/L	MCAWW 200.7	6/13- 6/14/94	4164014
Chromium	ND	50.0	ug/L	MCAWW 200.7	6/13- 6/14/94	4164014
Arsenic	ND	5.0	ug/L	MCAWW 206.2	6/13/94	4164014
Lead	84.5	5.0	ug/L	MCAWW 239.2	6/13- 6/14/94	4164014

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

PEN-607NE-MW3

WO #: 00667
LAB #: B4F110003-004
MATRIX: WATER

DATE SAMPLED: 6/10/94
DATE RECEIVED: 6/11/94

- - - - - - - - - - - - - - - - - - REQUESTED METALS - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
- - DISSOLVED METALS - -						
Cadmium	ND	5.0	ug/L	MCAWW 200.7	6/13/94	4164007
Chromium	ND	50.0	ug/L	MCAWW 200.7	6/13/94	4164007
Arsenic	ND	5.0	ug/L	MCAWW 206.2	6/13- 6/14/94	4164007
Lead	ND	5.0	ug/L	MCAWW 239.2	6/13- 6/14/94	4164007

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

PEN-607NE-MW5

WO #: 00668
LAB #: B4F110003-005
MATRIX: WATER

DATE SAMPLED: 6/10/94
DATE RECEIVED: 6/11/94

- - - - - - - - - - - - - - - - - - REQUESTED METALS - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Cadmium	ND	5.0	ug/L	MCAWW 200.7	6/13- 6/14/94	4164014
Chromium	ND	50.0	ug/L	MCAWW 200.7	6/13- 6/14/94	4164014
Arsenic	ND	5.0	ug/L	MCAWW 206.2	6/13/94	4164014
Lead	9.5	5.0	ug/L	MCAWW 239.2	6/13- 6/14/94	4164014

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

PEN-607NE-MW5

WO #: 00669
LAB #: B4F110003-006
MATRIX: WATER

DATE SAMPLED: 6/10/94
DATE RECEIVED: 6/11/94

- - - - - - - - - - - - - - - - - - - REQUESTED METALS - - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
- - DISSOLVED METALS - -						
Cadmium	ND	5.0	ug/L	MCAWW 200.7	6/13/94	4164007
Chromium	ND	50.0	ug/L	MCAWW 200.7	6/13/94	4164007
Arsenic	ND	5.0	ug/L	MCAWW 206.2	6/13- 6/14/94	4164007
Lead	ND	5.0	ug/L	MCAWW 239.2	6/13- 6/14/94	4164007

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

PEN-607NE-MW6

WO #: O0670106
LAB #: B4F110003-007
MATRIX: WATER

DATE SAMPLED: 6/10/94
DATE RECEIVED: 6/11/94

GC Volatiles

PARAMETER	RESULT (ug/L)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Benzene	1.3	1.0	**USEPA 602**	06/15/94	4167094
Chlorobenzene	ND	1.0	USEPA 602	06/15/94	4167094
1,2-Dichlorobenzene	ND	1.0	USEPA 602	06/15/94	4167094
1,3-Dichlorobenzene	ND	1.0	USEPA 602	06/15/94	4167094
1,4-Dichlorobenzene	ND	1.0	USEPA 602	06/15/94	4167094
Ethylbenzene	2.9	1.0	**USEPA 602**	06/15/94	4167094
Toluene	1.6	1.0	**USEPA 602**	06/15/94	4167094
Xylenes, Total	9.7	1.0	**USEPA 602**	06/15/94	4167094
Methyl tert-butyl ether	ND	1.0	USEPA 602	06/15/94	4167094

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Trifluorotoluene	104	(73 - 131)

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

PEN-607NE-MW6

WO #: O0670
LAB #: B4F110003-007
MATRIX: WATER

DATE SAMPLED: 6/10/94
DATE RECEIVED: 6/11/94

- - - - - - - - - - - - - - - - - - - REQUESTED METALS - - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Cadmium	7.8	5.0	ug/L	MCAWW 200.7	6/13- 6/14/94	4164014
Chromium	81.7	50.0	ug/L	MCAWW 200.7	6/13- 6/14/94	4164014
Arsenic	5.4	5.0	ug/L	MCAWW 206.2	6/13/94	4164014
Lead	306	10.0	ug/L	MCAWW 239.2	6/13- 6/14/94	4164014

NOTE: AS RECEIVED

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

PEN-607NE-MW6

WO #: 00671
LAB #: B4F110003-008
MATRIX: WATER

DATE SAMPLED: 6/10/94
DATE RECEIVED: 6/11/94

- - - - - - - - - - - - - - - - - - - REQUESTED METALS - - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
- - DISSOLVED METALS - -						
Cadmium	ND	5.0	ug/L	MCAWW 200.7	6/13/94	4164007
Chromium	ND	50.0	ug/L	MCAWW 200.7	6/13/94	4164007
Arsenic	ND	5.0	ug/L	MCAWW 206.2	6/13- 6/14/94	4164007
Lead	ND	5.0	ug/L	MCAWW 239.2	6/13- 6/14/94	4164007

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

PEN-607NE-MW6

WO #: 00670
LAB #: B4F110003-007
MATRIX: WATER

DATE SAMPLED: 6/10/94
DATE RECEIVED: 6/11/94

- - - - - - - - - - - - - - - - - - INORGANIC ANALYTICAL REPORT - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Petroleum Hydrocarbons Total Recoverable	1.2	1.0	mg/L	MCAWW 418.1	6/13/94	4164037

NOTE: AS RECEIVED

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

PEN-607NE-MW7

WO #: 00672106
LAB #: B4F110003-009
MATRIX: WATER

DATE SAMPLED: 6/10/94
DATE RECEIVED: 6/11/94

GC Volatiles

PARAMETER	RESULT (ug/L)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Benzene	3.6	1.0	**USEPA 602**	**06/15/94**	**4167094**
Chlorobenzene	ND	1.0	USEPA 602	06/15/94	4167094
1,2-Dichlorobenzene	ND	1.0	USEPA 602	06/15/94	4167094
1,3-Dichlorobenzene	ND	1.0	USEPA 602	06/15/94	4167094
1,4-Dichlorobenzene	ND	1.0	USEPA 602	06/15/94	4167094
Ethylbenzene	5.4	1.0	**USEPA 602**	**06/15/94**	**4167094**
Toluene	ND	1.0	USEPA 602	06/15/94	4167094
Xylenes, Total	19	1.0	**USEPA 602**	**06/15/94**	**4167094**
Methyl tert-butyl ether	ND	1.0	USEPA 602	06/15/94	4167094

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Trifluorotoluene	102	(73 - 131)

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

PEN-607NE-MW7

WO #: O0672
LAB #: B4F110003-009
MATRIX: WATER

DATE SAMPLED: 6/10/94
DATE RECEIVED: 6/11/94

- - - - - - - - - - - - - - - - - - - REQUESTED METALS - - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Cadmium	ND	5.0	ug/L	MCAWW 200.7	6/13- 6/14/94	4164014
Chromium	ND	50.0	ug/L	MCAWW 200.7	6/13- 6/14/94	4164014
Arsenic	ND	5.0	ug/L	MCAWW 206.2	6/13/94	4164014
Lead	126	5.0	ug/L	MCAWW 239.2	6/13- 6/14/94	4164014

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

PEN-607NE-MW7

WO #: 00673
LAB #: B4F110003-010
MATRIX: WATER

DATE SAMPLED: 6/10/94
DATE RECEIVED: 6/11/94

- - - - - - - - - - - - - - - - - - REQUESTED METALS - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
- - DISSOLVED METALS - -						
Cadmium	ND	5.0	ug/L	MCAWW 200.7	6/13/94	4164007
Chromium	ND	50.0	ug/L	MCAWW 200.7	6/13/94	4164007
Arsenic	ND	5.0	ug/L	MCAWW 206.2	6/13- 6/14/94	4164007
Lead	ND	5.0	ug/L	MCAWW 239.2	6/13- 6/14/94	4164007

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

PEN-607NE-MW7

WO #: O0672
LAB #: B4F110003-009
MATRIX: WATER

DATE SAMPLED: 6/10/94
DATE RECEIVED: 6/11/94

- - - - - - - - - - - - - - - - - - INORGANIC ANALYTICAL REPORT - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Petroleum Hydrocarbons Total Recoverable	2.1	1.0	mg/L	MCAWW 418.1	6/13/94	4164037

NOTE: AS RECEIVED

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

PEN-607NE-MW8

WO #: O0674106
LAB #: B4F110003-011
MATRIX: WATER

DATE SAMPLED: 6/10/94
DATE RECEIVED: 6/11/94

GC Volatiles

PARAMETER	RESULT (ug/L)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Benzene	ND	1.0	USEPA 602	06/15/94	4167094
Chlorobenzene	ND	1.0	USEPA 602	06/15/94	4167094
1,2-Dichlorobenzene	ND	1.0	USEPA 602	06/15/94	4167094
1,3-Dichlorobenzene	ND	1.0	USEPA 602	06/15/94	4167094
1,4-Dichlorobenzene	ND	1.0	USEPA 602	06/15/94	4167094
Ethylbenzene	ND	1.0	USEPA 602	06/15/94	4167094
Toluene	ND	1.0	USEPA 602	06/15/94	4167094
Xylenes, Total	ND	1.0	USEPA 602	06/15/94	4167094
Methyl tert-butyl ether	ND	1.0	USEPA 602	06/15/94	4167094

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Trifluorotoluene	94	(73 - 131)

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

PEN-607NE-MW8

WO #: 00674
LAB #: B4F110003-011
MATRIX: WATER

DATE SAMPLED: 6/10/94
DATE RECEIVED: 6/11/94

- - - - - - - - - - - - - - - - - - REQUESTED METALS - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Cadmium	ND	5.0	ug/L	MCAWW 200.7	6/13- 6/14/94	4164014
Chromium	ND	50.0	ug/L	MCAWW 200.7	6/13- 6/14/94	4164014
Arsenic	ND	5.0	ug/L	MCAWW 206.2	6/13/94	4164014
Lead	84.5	5.0	ug/L	MCAWW 239.2	6/13- 6/14/94	4164014

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

PEN-607NE-MW8

WO #: 00675
LAB #: B4F110003-012
MATRIX: WATER

DATE SAMPLED: 6/10/94
DATE RECEIVED: 6/11/94

- - - - - - - - - - - - - - - - - - REQUESTED METALS - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
- - DISSOLVED METALS - -						
Cadmium	ND	5.0	ug/L	MCAWW 200.7	6/13/94	4164007
Chromium	ND	50.0	ug/L	MCAWW 200.7	6/13/94	4164007
Arsenic	ND	5.0	ug/L	MCAWW 206.2	6/13- 6/14/94	4164007
Lead	ND	5.0	ug/L	MCAWW 239.2	6/13- 6/14/94	4164007

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

PEN-607NE-MW8

WO #: O0674
LAB #: B4F110003-011
MATRIX: WATER

DATE SAMPLED: 6/10/94
DATE RECEIVED: 6/11/94

- - - - - - - - - - - - - - - - - - INORGANIC ANALYTICAL REPORT - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Petroleum Hydrocarbons Total Recoverable	ND	1.0	mg/L	MCAWW 418.1	6/13/94	4164037

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

PEN-607NE-DUP1

WO #: 00676106
LAB #: B4F110003-013
MATRIX: WATER

DATE SAMPLED: 6/10/94
DATE RECEIVED: 6/11/94

GC Volatiles

PARAMETER	RESULT (ug/L)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Benzene	**1.4**	1.0	USEPA 602	06/15/94	4167094
Chlorobenzene	ND	1.0	USEPA 602	06/15/94	4167094
1,2-Dichlorobenzene	ND	1.0	USEPA 602	06/15/94	4167094
1,3-Dichlorobenzene	ND	1.0	USEPA 602	06/15/94	4167094
1,4-Dichlorobenzene	ND	1.0	USEPA 602	06/15/94	4167094
Ethylbenzene	**3.0**	1.0	USEPA 602	06/15/94	4167094
Toluene	**1.6**	1.0	USEPA 602	06/15/94	4167094
Xylenes, Total	**10**	1.0	USEPA 602	06/15/94	4167094
Methyl tert-butyl ether	ND	1.0	USEPA 602	06/15/94	4167094

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Trifluorotoluene	99	(73 - 131)

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

PEN-607NE-DUP1

WO #: O0676
LAB #: B4F110003-013
MATRIX: WATER

DATE SAMPLED: 6/10/94
DATE RECEIVED: 6/11/94

- - - - - - - - - - - - - - - - - - REQUESTED METALS - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Cadmium	8.4	5.0	ug/L	MCAWW 200.7	6/13- 6/14/94	4164014
Chromium	114	50.0	ug/L	MCAWW 200.7	6/13- 6/14/94	4164014
Arsenic	5.3	5.0	ug/L	MCAWW 206.2	6/13/94	4164014
Lead	440	25.0	ug/L	MCAWW 239.2	6/13- 6/14/94	4164014

NOTE: AS RECEIVED

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

PEN-607NE-DUP1

WO #: O0677
LAB #: B4F110003-014
MATRIX: WATER

DATE SAMPLED: 6/10/94
DATE RECEIVED: 6/11/94

- - - - - - - - - - - - - - - - - - - REQUESTED METALS - - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
- - DISSOLVED METALS - -						
Cadmium	ND	5.0	ug/L	MCAWW 200.7	6/13/94	4164007
Chromium	ND	50.0	ug/L	MCAWW 200.7	6/13/94	4164007
Arsenic	ND	5.0	ug/L	MCAWW 206.2	6/13- 6/14/94	4164007
Lead	ND	5.0	ug/L	MCAWW 239.2	6/13- 6/14/94	4164007

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

PEN-607NE-DUP1

WO #: 00676
LAB #: B4F110003-013
MATRIX: WATER

DATE SAMPLED: 6/10/94
DATE RECEIVED: 6/11/94

- - - - - - - - - - - - - - - - - - INORGANIC ANALYTICAL REPORT - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Petroleum Hydrocarbons Total Recoverable	1.3	1.0	mg/L	MCAWW 418.1	6/13/94	4164037

NOTE: AS RECEIVED

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

PEN-607NE-EB1

WO #: O0678
LAB #: B4F110003-015
MATRIX: WATER

DATE SAMPLED: 6/09/94
DATE RECEIVED: 6/11/94

- - - - - - - - - - - - - - - - - - - REQUESTED METALS - - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Cadmium	ND	5.0	ug/L	MCAWW 200.7	6/13- 6/14/94	4164014
Chromium	ND	50.0	ug/L	MCAWW 200.7	6/13- 6/14/94	4164014
Arsenic	ND	5.0	ug/L	MCAWW 206.2	6/13/94	4164014
Lead	ND	5.0	ug/L	MCAWW 239.2	6/13- 6/14/94	4164014

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

PEN-607NE-EB1

WO #: 00678
LAB #: B4F110003-015
MATRIX: WATER

DATE SAMPLED: 6/09/94
DATE RECEIVED: 6/11/94

INORGANIC ANALYTICAL REPORT

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Petroleum Hydrocarbons Total Recoverable	ND	1.0	mg/L	MCAWW 418.1	6/13/94	4164037

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

PEN-607NE-EB2

WO #: O0679106
LAB #: B4F110003-016
MATRIX: WATER

DATE SAMPLED: 6/10/94
DATE RECEIVED: 6/11/94

GC Volatiles

PARAMETER	RESULT (ug/L)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Benzene	ND	1.0	USEPA 602	06/16/94	4168056
Chlorobenzene	ND	1.0	USEPA 602	06/16/94	4168056
1,2-Dichlorobenzene	ND	1.0	USEPA 602	06/16/94	4168056
1,3-Dichlorobenzene	ND	1.0	USEPA 602	06/16/94	4168056
1,4-Dichlorobenzene	ND	1.0	USEPA 602	06/16/94	4168056
Ethylbenzene	ND	1.0	USEPA 602	06/16/94	4168056
Toluene	ND	1.0	USEPA 602	06/16/94	4168056
Xylenes, Total	ND	1.0	USEPA 602	06/16/94	4168056
Methyl tert-butyl ether	ND	1.0	USEPA 602	06/16/94	4168056

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Trifluorotoluene	99	(73 - 131)

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

PEN-607NE-EB2

WO #: 00679
LAB #: B4F110003-016
MATRIX: WATER

DATE SAMPLED: 6/10/94
DATE RECEIVED: 6/11/94

- - - - - - - - - - - - - - - - - - REQUESTED METALS - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Cadmium	ND	5.0	ug/L	MCAWW 200.7	6/13- 6/14/94	4164014
Chromium	ND	50.0	ug/L	MCAWW 200.7	6/13- 6/14/94	4164014
Arsenic	ND	5.0	ug/L	MCAWW 206.2	6/13/94	4164014
Lead	ND	5.0	ug/L	MCAWW 239.2	6/13- 6/14/94	4164014

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

PEN-607NE-EB2

WO #: 00679
LAB #: B4F110003-016
MATRIX: WATER

DATE SAMPLED: 6/10/94
DATE RECEIVED: 6/11/94

INORGANIC ANALYTICAL REPORT

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Petroleum Hydrocarbons Total Recoverable	ND	1.0	mg/L	MCAWW 418.1	6/13/94	4164037

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

TRIP BLANK

WO #: 00685101
LAB #: B4F110003-022
MATRIX: WATER

DATE SAMPLED: 6/08/94
DATE RECEIVED: 6/11/94

GC Volatiles

PARAMETER	RESULT (ug/L)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Benzene	ND	1.0	USEPA 602	06/16/94	4168056
Chlorobenzene	ND	1.0	USEPA 602	06/16/94	4168056
1,2-Dichlorobenzene	ND	1.0	USEPA 602	06/16/94	4168056
1,3-Dichlorobenzene	ND	1.0	USEPA 602	06/16/94	4168056
1,4-Dichlorobenzene	ND	1.0	USEPA 602	06/16/94	4168056
Ethylbenzene	ND	1.0	USEPA 602	06/16/94	4168056
Toluene	ND	1.0	USEPA 602	06/16/94	4168056
Xylenes, Total	ND	1.0	USEPA 602	06/16/94	4168056
Methyl tert-butyl ether	ND	1.0	USEPA 602	06/16/94	4168056

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Trifluorotoluene	97	(73 - 131)

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT
Laboratories

QUALITY CONTROL SECTION

- Quality Control Summary
- Laboratory Blanks
- Laboratory Control Sample
- Matrix Spike/Matrix Spike Duplicate Results
- Sample Custody Documentation

ENSECO-WADSWORTH/ALERT Laboratories

QUALITY ASSURANCE / QUALITY CONTROL PROGRAM SUMMARY

Wadsworth/ALERT Laboratories considers continuous analytical method performance evaluations to be an integral portion of the data package, and routinely includes the pertinent QA/QC data associated with various analytical result reports. Brief discussions of the various QA/QC procedures utilized to measure acceptable method and matrix performance follow.

Surrogate Spike Recovery Evaluations

Known concentrations of designated surrogate spikes, consisting of a number of similar, non-method compounds or method compound analogues, are added, as appropriate, to routine GC and GC/MS sample fractions prior to extraction and analysis. The percent recovery determinations calculated from the subsequent analysis is an indication of the overall method efficiency for the individual sample. This surrogate spike recovery data is displayed alongside acceptable analytical method performance limits at the bottom of each applicable analytical result report sheet.

NOTE: Acceptable method performance for Base/Neutral Acid extractables is indicated by two (2) of three (3) surrogates for each fraction with a minimum recovery of ten (10) percent each. For Pesticides one (1) of two (2) surrogates meeting performance criteria is acceptable.

Laboratory Analytical Method Blank Evaluations

Laboratory analytical method blanks are systematically prepared and analyzed in order to continuously evaluate the system interferences and background contamination levels associated with each analytical method. These method blanks include all aspects of actual laboratory method analysis (chemical reagents, glassware, etc.), substituting laboratory reagent water or solid for actual sample. The method blank must not contain any analytes above the reported detection limit. The following common laboratory contaminants are exceptions to this rule provided they are not present at greater than five times the detection limit.

Volatiles	Semi-volatiles	Metals
Methylene chloride	Dimethyl phthalate	Calcium
Toluene	Diethly phthalate	Magnesium
2-Butanone	Di-n-butyl phthalate	Sodium
Acetone	Butyl benzyl phthalate	
	Bis (2-ethylhexyl) phthalate	

A minimum of five percent (5%) of all laboratory analyses are laboratory analytical method blanks.

Laboratory Analytical Method Check Sample Evaluations

Known concentrations of designated matrix spikes (actual analytical method compounds) are added to a laboratory reagent blank prior to extraction and analysis. Percent recovery determinations demonstrate the performance of the analytical method. Failure of a check sample to meet established laboratory recovery criteria is cause to stop the analysis until the problem is resolved.

At that time all associated samples must be re-analyzed. A minimum of five percent (5%) of all laboratory analyses are laboratory analytical method check samples.

Matrix Spike (MS)/Matrix Spike Duplicate (MSD) Recovery Evaluations

Known concentrations of designated matrix spikes (actual analytical method compounds) are added to two of three separate aliquots of a sequentially predetermined sample prior to extraction and analysis. Percent recovery determinations are calculated from both of the spiked samples by comparison to the actual values generated from the unspiked sample. These percent recovery determinations indicate the accuracy of the analysis at recovering actual analytical method compounds from the matrix. Relative percent difference determinations calculated from a comparison of the MS/MSD recoveries demonstrate the precision of the analytical method. Actual percent recovery and relative percent difference data is displayed alongside their respective acceptable analytical method performance limits in the QA/QC section of the report. The MS/MSD are considered in control when the precision is within established control limits and the associated check sample has been found to be acceptable. A minimum of ten percent (10%) of all analyses are MS/MSD quality control samples.

**********EXAMPLE**********

COMPOUND	SAMPLE CONC.	MS %REC	MSD %REC	RPD	QC LIMITS RPD	QC LIMITS RECOVERY
4,4'-DDT	0	95	112	16	22	66-119
Benzene	10	86	93	8	20	39-150
(cmpd. name)	sample result	1st% recov.	2nd% recov.	Rel.% diff.	accep. method perform range	

Analytical Result Qualifiers

The following qualifiers, as defined below, may be appended to analytical results in order to allow proper interpretation of the results presented:

J - indicates an estimated concentration (typically used when a dilution, matrix interference or instrumental limitation prevents accurate quantitation of a particular analyte).

B - indicates the presence of a particular analyte in the laboratory blank analyzed concurrently with the samples. Results must be interpreted accordingly.

DIL - indicates that because of matrix interferences and/or high analyte concentrations, it was necessary to dilute the sample to a point where the surrogate or spike concentrations fell below a quantifiable amount and could not be reported.

ENSECO-WADSWORTH/ALERT Laboratories

INTRA-LAB BLANK REPORT

LAB #: B4F160000-094

GC Volatiles

PARAMETER	RESULT (ug/L)	REPORTING LIMIT	PREPARATION - ANALYSIS DATE	QC BATCH
Benzene	ND	1.0	6/15/94	4167094
Chlorobenzene	ND	1.0	6/15/94	4167094
1,2-Dichlorobenzene	ND	1.0	6/15/94	4167094
1,3-Dichlorobenzene	ND	1.0	6/15/94	4167094
1,4-Dichlorobenzene	ND	1.0	6/15/94	4167094
Ethylbenzene	ND	1.0	6/15/94	4167094
Toluene	ND	1.0	6/15/94	4167094
Xylenes, Total	ND	1.0	6/15/94	4167094
Methyl tert-butyl ether	ND	1.0	6/15/94	4167094

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Trifluorotoluene	95	(73 - 131)

NOTE:

ND (NONE DETECTED)

ENSECO-WADSWORTH/ALERT Laboratories

INTRA-LAB BLANK REPORT

LAB #: B4F170000-056

GC Volatiles

PARAMETER	RESULT (ug/L)	REPORTING LIMIT	PREPARATION - ANALYSIS DATE	QC BATCH
Benzene	ND	1.0	6/16/94	4168056
Chlorobenzene	ND	1.0	6/16/94	4168056
1,2-Dichlorobenzene	ND	1.0	6/16/94	4168056
1,3-Dichlorobenzene	ND	1.0	6/16/94	4168056
1,4-Dichlorobenzene	ND	1.0	6/16/94	4168056
Ethylbenzene	ND	1.0	6/16/94	4168056
Toluene	ND	1.0	6/16/94	4168056
Xylenes, Total	ND	1.0	6/16/94	4168056
Methyl tert-butyl ether	ND	1.0	6/16/94	4168056

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Trifluorotoluene	96	(73 - 131)

NOTE:

ND (NONE DETECTED)

ENSECO-WADSWORTH/ALERT Laboratories

INTRA-LAB BLANK REPORT

LAB #: B4F110003

METALS

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE
		BATCH:4164009			
Arsenic	ND	25.0	mg/kg	SW846 6010	6/13- 6/15/94
Cadmium	ND	1.0	mg/kg	SW846 6010	6/13- 6/15/94
Chromium	ND	2.0	mg/kg	SW846 6010	6/13- 6/15/94
Lead	ND	20.0	mg/kg	SW846 6010	6/13- 6/15/94
		BATCH:4164014			
Arsenic	ND	5.0	ug/L	MCAWW 206.2	6/13/94
Cadmium	ND	5.0	ug/L	MCAWW 200.7	6/13- 6/14/94
Chromium	ND	50.0	ug/L	MCAWW 200.7	6/13- 6/14/94
Lead	ND	5.0	ug/L	MCAWW 239.2	6/13/94

NOTE:

ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

INTRA-LAB BLANK REPORT

LAB #: B4F110003

*** DISSOLVED METALS ***

METALS

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE
		BATCH:4164007			
Arsenic	ND	5.0	ug/L	MCAWW 206.2	6/13- 6/14/94
Cadmium	ND	5.0	ug/L	MCAWW 200.7	6/13/94
Chromium	ND	50.0	ug/L	MCAWW 200.7	6/13/94
Lead	ND	5.0	ug/L	MCAWW 239.2	6/13- 6/14/94

NOTE:

ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

INTRA-LAB BLANK REPORT

LAB #: B4F140000-065

- - - - - - - - - - - - - - - - - INORGANIC ANALYTICAL REPORT - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	PREPARATION - ANALYSIS DATE	QC BATCH
Petroleum Hydrocarbons	ND	5.0	mg/kg	6/13- 6/14/94	4165065
Petroleum Hydrocarbons	ND	1.0	mg/L	6/13/94	4164037

NOTE:

ND (NONE DETECTED)

ENSECO-WADSWORTH/ALERT Laboratories

CHECK SAMPLE REPORT

QC BATCH: 4167094
LAB #: B4F160000-094 C

PREPARATION DATE: 6/15/94
DATE ANALYZED: 6/15/94

GC Volatiles

COMPOUND	SPIKE PERCENT RECOVERY	Q/C LIMITS
Methyl tert-butyl ether	94	(70-133)
Benzene	96	(76-124)
Toluene	103	(81-120)
Chlorobenzene	106	(80-117)
Ethylbenzene	107	(89-120)
Xylenes, Total	97	(61-142)
1,3-Dichlorobenzene	101	(61-136)
1,4-Dichlorobenzene	98	(75-121)
1,2-Dichlorobenzene	98	(77-126)

ENSECO-WADSWORTH/ALERT Laboratories

CHECK SAMPLE REPORT

QC BATCH: 4168056
LAB #: B4F170000-056 C

PREPARATION DATE: 6/16/94
DATE ANALYZED: 6/16/94

GC Volatiles

COMPOUND	SPIKE PERCENT RECOVERY	Q/C LIMITS
Methyl tert-butyl ether	94	(70-133)
Benzene	99	(76-124)
Toluene	99	(81-120)
Chlorobenzene	100	(80-117)
Ethylbenzene	107	(89-120)
Xylenes, Total	97	(61-142)
1,3-Dichlorobenzene	98	(61-136)
1,4-Dichlorobenzene	96	(75-121)
1,2-Dichlorobenzene	94	(77-126)

ENSECO-WADSWORTH/ALERT Laboratories

CHECK SAMPLE REPORT

LAB #: B4F110003

- METALS -

COMPOUND	SPIKE PERCENT RECOVERY	Q/C LIMITS	PREPARATION - ANALYSIS DATE
	BATCH:4164009		
Arsenic	84	(68-111)	6/13- 6/15/94
Cadmium	88	(71-106)	6/13- 6/15/94
Chromium	93	(71-114)	6/13- 6/15/94
Lead	90	(72-114)	6/13- 6/15/94
	BATCH:4164014		
Arsenic	100	(71-119)	6/13/94
Cadmium	95	(80-113)	6/13- 6/14/94
Chromium	99	(79-120)	6/13- 6/14/94
Lead	108	(70-126)	6/13/94

ENSECO-WADSWORTH/ALERT Laboratories

CHECK SAMPLE REPORT

LAB #: B4F110003

*** DISSOLVED METALS ***

- METALS -

COMPOUND	SPIKE PERCENT RECOVERY	Q/C LIMITS	PREPARATION - ANALYSIS DATE
	BATCH:4164007		
Arsenic	101	(71-119)	6/13- 6/14/94
Cadmium	106	(80-113)	6/13/94
Chromium	108	(79-120)	6/13/94
Lead	102	(70-126)	6/13- 6/14/94

ENSECO-WADSWORTH/ALERT Laboratories

CHECK SAMPLE REPORT

LAB #: B4F110003

- - - - - - - - - - - - - - - - - INORGANIC ANALYTICAL REPORT - - - - - - - - - - - - - - - - -

COMPOUND	SPIKE PERCENT RECOVERY	LIMITS	PREPARATION - ANALYSIS DATE	Q/C BATCH
Petroleum Hydrocarbons Total Recoverable	105	(63-111)	6/13- 6/14/94	4165065
Petroleum Hydrocarbons Total Recoverable	106	(69-125)	6/13/94	4164037

ENSECO-WADSWORTH/ALERT Laboratories

MATRIX SPIKE REPORT

QC BATCH: 4167094
LAB #: B4F110003-007 S
MATRIX: WATER

WO #: 00670
PREPARATION DATE: 6/15/94
DATE ANALYZED: 6/15/94

GC Volatiles

COMPOUND	SPIKE PERCENT RECOVERY	SPIKE/DUP PERCENT RECOVERY	Q/C LIMITS	RPD	RPD LIMIT
Methyl tert-butyl ether	94	94	(75-108)	0.12	(0-16)
Benzene	101	100	(70-117)	0.94	(0-15)
Toluene	114	112	(70-117)	1.9	(0-16)
Chlorobenzene	122	121	(58-133)	0.73	(0-24)
Ethylbenzene	130	131	(84-106)	0.59	(0-10)
Xylenes, Total	109	109	(84-128)	0.050	(0-21)
1,3-Dichlorobenzene	107	106	(81-115)	0.82	(0-17)
1,4-Dichlorobenzene	101	101	(84-115)	0.26	(0-15)
1,2-Dichlorobenzene	105	104	(85-119)	0.39	(0-17)

Calculations are performed before rounding to avoid round-off errors in calculated results

ENSECO-WADSWORTH/ALERT Laboratories

MATRIX SPIKE REPORT

LAB #: B4F110003-001

METALS

COMPOUND	SPIKE PERCENT RECOVERY	SPIKE/DUP PERCENT RECOVERY	Q/C LIMITS	RPD	RPD LIMITS	PREPARATION - ANALYSIS DATE
BATCH:4164014 MATRIX: WATER						
Arsenic	109	107	(80-119)	1.6	(0-19)	6/13/94
Cadmium	92	92	(76-110)	0.52	(0-15)	6/13- 6/14/94
Chromium	96	96	(74-117)	0.18	(0-21)	6/13- 6/14/94
Lead	101	98	(76-124)	2.5	(0-24)	6/13/94

NOTE:

Calculations are performed before rounding to avoid round-off errors in calculated results

ENSECO-WADSWORTH/ALERT Laboratories

MATRIX SPIKE REPORT

LAB #: B4F110003-002

*** DISSOLVED METALS ***

- METALS -

COMPOUND	SPIKE PERCENT RECOVERY	SPIKE/DUP PERCENT RECOVERY	Q/C LIMITS	RPD	RPD LIMITS	PREPARATION - ANALYSIS DATE
		BATCH:4164007 MATRIX: WATER				
Arsenic	87	88	(80-119)	0.57	(0-19)	6/13- 6/14/94
Cadmium	113	114	(76-110)	0.44	(0-15)	6/13/94
Chromium	113	113	(74-117)	0.35	(0-21)	6/13/94
Lead	94	94	(76-124)	0	(0-24)	6/13- 6/14/94

NOTE:

Calculations are performed before rounding to avoid round-off errors in calculated results

ENSECO-WADSWORTH/ALERT LABORATORIES
SAMPLE SHIPPER EVALUATION AND RECEIPT FORM

607NE 8
35575

Client: ABB Project Name/Number: NADEP Pensacola

Samples Received By: Carol McNulty (Signature) Date Received: 6/11/94

Sample Evaluation Form By: Carol McNulty (Signature) LAB No: _____

Type of shipping container samples received in? WAL Cooler X

Client Cooler ____ WAL Shipper ____ Box ____ Other _____

Any "NO" responses or discrepancies should be explained in comments section.

		YES	NO
1.	Were custody seals on shipping container(s) intact?	X	____
2.	Were custody papers properly included with samples?	X	____
3.	Were custody papers properly filled out (ink, signed, match labels)?	X	____
4.	Did all bottles arrive in good condition (unbroken)?	X	____
5.	Were all bottle labels complete (Sample No., date, signed, analysis preservatives)?	X	____
6.	Were correct bottles used for the tests indicated?	X	____
7.	Were proper sample preservation techniques indicated?	X	____
8.	Were samples received within adequate holding time?	X	____
9.	Were all VOA bottles checked for the presence of air bubbles? (If air bubbles were found indicate in comment section) .	X	____
10.	Were samples in direct contact with wet ice? (NOTE TEMPERATURE BELOW)	X	____
11.	Were samples accepted into the laboratory? (If no see comments)	X	____

Cooler # _____ Temp 6 °C Cooler # _____ Temp 4 °C

Cooler # _____ Temp 4 °C Cooler # _____ Temp _____ °C

Comments: Only 2 bt for MS/MSD on MW 7
COC does not list metals required - per quote
As Cd Cr Pb Metals = Soil As Cd Cr Pb = Water

EDI on COC twice

WADSWORTH/ALERT LABORATORIES
Sampling, testing, mobile labs
5910 Breckenridge Pkwy.
Suite H
Tampa, FL 33610
(813) 621-0784
Fax (813) 623-6021

Chain of Custody Record

Record ____ of ____

3565

Client:	Project Name / Location	No. Of CON-TAINERS	Parameter										Remarks
			VOC-	PAH-	METALS-	TRPH-	EDB-						
Sampler(s)	Project #:												

Item #	Date	Time	MATRIX	Sample Location											
1					2		1	1							
2					2		1	1							
3					2		1	1							
4					3	-	1	1	1						
5					4	-	1	1	2						
6					3	-	1	1	1						
7	1-10-24	1540			3	2	1	1	1						
8					4	2		1	1						
9					1					1					
10					-			1	1						
11					1					1					

Total Containers: 35

Number of Coolers in Shipment:

Bailers:

Report To:	Transfer Number	Item Number(s)	Relinquished By / Company	Accepted By / Company	Date	Time
Additional Comments:	1					
	2					
	3					
	4					
	5					
	6					

Original Accompanies Shipment

WADSWORTH/ALERT LABORATORIES
Sampling, testing, mobile labs

5910 Breckenridge Pkwy.
Suite H
Tampa, FL 33610

(813) 621-0784
Fax (813) 623-6021

Chain of Custody Record

Record ______ of ______

3564

Client:	Project Name / Location
APB - CS	NADEP Pensacola Bldg 707 NC
Sampler(s): Jay Koch	Project #: 7527-15

Item #	Date	Time	MATRIX	Sample Location	No. Of CONTAINERS	VOC -	PAH -	METALS - Total	TRPH -	EDB -	Total Metals and TRPH				Remarks
1	6-8-94	1410	Soil	SB13-1	1						1				
2	6-8-94	1305	Soil	MW07-1	1						1				
3	6-8-94	1100	Soil	MW01-1	1						1				
4	6-1-94	1155	[illegible]	[illegible]	2			1	1						
5				Trip Blank	3	3									
6															
7															
8															
9															
10															
11															

Total Containers: 8

Number of Coolers in Shipment: ______ Bailers: ______

Report To: Roger Durham

Additional Comments:

Transfer Number	Item Number(s)	Relinquished By / Company	Accepted By / Company	Date	Time
1		Jay Koch / ABB	[illegible]	6/9/94	1100
2					
3					
4					
5					
6					

Original Accompanies Shipment

JULY 6, 1994 SAMPLING EVENT
MW-6

ENSECO-WADSWORTH/ALERT Laboratories
Division of Corning Lab Servies, Inc.

5910 Breckenridge Parkway, Suite H 813-621-0784
Tampa, FL 33610 FAX 813-623-6021

ANALYTICAL REPORT

NADEP 607NE

KAREN HARTNETT

ABB ENVIRONMENTAL SERVICES

ENSECO-WADSWORTH/ALERT LABORATORIES
Certification Numbers: E84059,HRS84297
FDEP CompQAP: 870270G

Chris Amstutz
Project Manager

July 11, 1994

ENSECO-WADSWORTH/ALERT
Laboratories

EXECUTIVE SUMMARY - Detection Highlights

B4G070014

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD
MW-6				
Lead	8.0	5.0	ug/L	MCAWW 239.2

ENSECO-WADSWORTH/ALERT
Laboratories

ANALYTICAL METHODS SUMMARY

Parameters	Methods
Cadmium	MCAWW 200.7
Chromium	MCAWW 200.7
Arsenic	MCAWW 206.2
Lead	MCAWW 239.2

References:

MCAWW Methods for Chemical Analysis of Water and Wastes, EMSL: Cincinnati, OH: March 1983 and its updates.

ENSECO-WADSWORTH/ALERT Laboratories

SAMPLE SUMMARY

The analytical results of the samples listed below are presented on the following pages.

WO #	LABORATORY ID	SAMPLE IDENTIFICATION
P0916	B4G070014-001	MW-6
P0917	B4G070014-002	EQUIPMENT BLANK

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

MW-6

WO #: P0916
LAB #: B4G070014-001
MATRIX: WATER

DATE SAMPLED: 7/06/94
DATE RECEIVED: 7/07/94

- - - - - - - - - - - - - - - - - - - REQUESTED METALS - - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Cadmium	ND	5.0	ug/L	MCAWW 200.7	7/08/94	4189015
Chromium	ND	50.0	ug/L	MCAWW 200.7	7/08/94	4189015
Arsenic	ND	5.0	ug/L	MCAWW 206.2	7/08/94	4189015
Lead	8.0	5.0	ug/L	MCAWW 239.2	7/08- 7/09/94	4189015

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

ABB ENVIRONMENTAL SERVICES

EQUIPMENT BLANK

WO #: P0917
LAB #: B4G070014-002
MATRIX: WATER

DATE SAMPLED: 7/06/94
DATE RECEIVED: 7/07/94

- - - - - - - - - - - - - - - - - - REQUESTED METALS - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
Cadmium	ND	5.0	ug/L	MCAWW 200.7	7/08/94	4189015
Chromium	ND	50.0	ug/L	MCAWW 200.7	7/08/94	4189015
Arsenic	ND	5.0	ug/L	MCAWW 206.2	7/08/94	4189015
Lead	ND	5.0	ug/L	MCAWW 239.2	7/08- 7/09/94	4189015

NOTE: AS RECEIVED
ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT
Laboratories

QUALITY CONTROL SECTION

- Quality Control Summary
- Laboratory Blanks
- Laboratory Control Sample
- Matrix Spike/Matrix Spike Duplicate Results
- Sample Custody Documentation

ENSECO-WADSWORTH/ALERT Laboratories

QUALITY ASSURANCE / QUALITY CONTROL PROGRAM SUMMARY

Wadsworth/ALERT Laboratories considers continuous analytical method performance evaluations to be an integral portion of the data package, and routinely includes the pertinent QA/QC data associated with various analytical result reports. Brief discussions of the various QA/QC procedures utilized to measure acceptable method and matrix performance follow.

Surrogate Spike Recovery Evaluations

Known concentrations of designated surrogate spikes, consisting of a number of similar, non-method compounds or method compound analogues, are added, as appropriate, to routine GC and GC/MS sample fractions prior to extraction and analysis. The percent recovery determinations calculated from the subsequent analysis is an indication of the overall method efficiency for the individual sample. This surrogate spike recovery data is displayed alongside acceptable analytical method performance limits at the bottom of each applicable analytical result report sheet.

NOTE: Acceptable method performance for Base/Neutral Acid extractables is indicated by two (2) of three (3) surrogates for each fraction with a minimum recovery of ten (10) percent each. For Pesticides one (1) of two (2) surrogates meeting performance criteria is acceptable.

Laboratory Analytical Method Blank Evaluations

Laboratory analytical method blanks are systematically prepared and analyzed in order to continuously evaluate the system interferences and background contamination levels associated with each analytical method. These method blanks include all aspects of actual laboratory method analysis (chemical reagents, glassware, etc.), substituting laboratory reagent water or solid for actual sample. The method blank must not contain any analytes above the reported detection limit. The following common laboratory contaminants are exceptions to this rule provided they are not present at greater than five times the detection limit.

Volatiles	Semi-volatiles	Metals
Methylene chloride	Dimethyl phthalate	Calcium
Toluene	Diethly phthalate	Magnesium
2-Butanone	Di-n-butyl phthalate	Sodium
Acetone	Butyl benzyl phthalate	
	Bis (2-ethylhexyl) phthalate	

A minimum of five percent (5%) of all laboratory analyses are laboratory analytical method blanks.

Laboratory Analytical Method Check Sample Evaluations

Known concentrations of designated matrix spikes (actual analytical method compounds) are added to a laboratory reagent blank prior to extraction and analysis. Percent recovery determinations demonstrate the performance of the analytical method. Failure of a check sample to meet established laboratory recovery criteria is cause to stop the analysis until the problem is resolved.

At that time all associated samples must be re-analyzed. A minimum of five percent (5%) of all laboratory analyses are laboratory analytical method check samples.

Matrix Spike (MS)/Matrix Spike Duplicate (MSD) Recovery Evaluations

Known concentrations of designated matrix spikes (actual analytical method compounds) are added to two of three separate aliquots of a sequentially predetermined sample prior to extraction and analysis. Percent recovery determinations are calculated from both of the spiked samples by comparison to the actual values generated from the unspiked sample. These percent recovery determinations indicate the accuracy of the analysis at recovering actual analytical method compounds from the matrix. Relative percent difference determinations calculated from a comparison of the MS/MSD recoveries demonstrate the precision of the analytical method. Actual percent recovery and relative percent difference data is displayed alongside their respective acceptable analytical method performance limits in the QA/QC section of the report. The MS/MSD are considered in control when the precision is within established control limits and the associated check sample has been found to be acceptable. A minimum of ten percent (10%) of all analyses are MS/MSD quality control samples.

**********EXAMPLE**********

COMPOUND	SAMPLE CONC.	MS %REC	MSD %REC	RPD	QC LIMITS RPD	QC LIMITS RECOVERY
4,4'-DDT	0	95	112	16	22	66-119
Benzene	10	86	93	8	20	39-150
(cmpd. name)	sample result	1st% recov.	2nd% recov.	Rel.% diff.	accep. method perform range	

Analytical Result Qualifiers

The following qualifiers, as defined below, may be appended to analytical results in order to allow proper interpretation of the results presented:

J - indicates an estimated concentration (typically used when a dilution, matrix interference or instrumental limitation prevents accurate quantitation of a particular analyte).

B - indicates the presence of a particular analyte in the laboratory blank analyzed concurrently with the samples. Results must be interpreted accordingly.

DIL - indicates that because of matrix interferences and/or high analyte concentrations, it was necessary to dilute the sample to a point where the surrogate or spike concentrations fell below a quantifiable amount and could not be reported.

ENSECO-WADSWORTH/ALERT
Laboratories

INTRA-LAB BLANK REPORT

LAB #: B4G070014

- METALS -

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE
		BATCH:4189015			
Arsenic	ND	5.0	ug/L	MCAWW 206.2	7/08/94
Cadmium	ND	5.0	ug/L	MCAWW 200.7	7/08/94
Chromium	ND	50.0	ug/L	MCAWW 200.7	7/08/94
Lead	ND	5.0	ug/L	MCAWW 239.2	7/08- 7/09/94

NOTE:

ND NOT DETECTED AT THE STATED REPORTING LIMIT

ENSECO-WADSWORTH/ALERT Laboratories

CHECK SAMPLE REPORT

LAB #: B4G070014

- METALS -

COMPOUND	SPIKE PERCENT RECOVERY	Q/C LIMITS	PREPARATION - ANALYSIS DATE
	BATCH:4189015		
Arsenic	97	(71-119)	7/08/94
Cadmium	104	(80-113)	7/08/94
Chromium	104	(79-120)	7/08/94
Lead	106	(70-126)	7/08- 7/09/94

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Laboratories

MATRIX SPIKE REPORT

LAB #: B4G070014-001

- METALS -

COMPOUND	SPIKE PERCENT RECOVERY	SPIKE/DUP PERCENT RECOVERY	Q/C LIMITS	RPD	RPD LIMITS	PREPARATION - ANALYSIS DATE
	BATCH:4189015 MATRIX: WATER					
Arsenic	81	78	(80-119)	3.8	(0-19)	7/08/94
Cadmium	86	86	(76-110)	0.79	(0-15)	7/08/94
Chromium	89	89	(74-117)	0.050	(0-21)	7/08/94
Lead	85	85	(76-124)	0.29	(0-24)	7/08- 7/09/94

NOTE:

Calculations are performed before rounding to avoid round-off errors in calculated results

ENSECO-WADSWORTH/ALERT LABORATORIES
SAMPLE SHIPPER EVALUATION AND RECEIPT FORM

607 NE/

Client: ARR-ES Project Name/Number: 9750-30

Samples Received By: Earl Q. Eckert (Signature) Date Received: 7/7/94

Sample Evaluation Form By: Earl Q. Eckert (Signature) LAB No: _____

Type of shipping container samples received in? WAL Cooler ✓

Client Cooler ____ WAL Shipper ____ Box ____ Other _____

Any "NO" responses or discrepancies should be explained in comments section.

		YES	NO
1.	Were custody seals on shipping container(s) intact?	✓	
2.	Were custody papers properly included with samples?	✓	
3.	Were custody papers properly filled out (ink, signed, match labels)?	✓	
4.	Did all bottles arrive in good condition (unbroken)?	✓	
5.	Were all bottle labels complete (Sample No., date, signed, analysis preservatives)?	✓	
6.	Were correct bottles used for the tests indicated?	✓	
7.	Were proper sample preservation techniques indicated?	✓	
8.	Were samples received within adequate holding time?	✓	
9.	Were all VOA bottles checked for the presence of air bubbles? (If air bubbles were found indicate in comment section)	✓	
10.	Were samples in direct contact with wet ice? (NOTE TEMPERATURE BELOW)	✓	
11.	Were samples accepted into the laboratory? (If no see comments)	✓	

Cooler # 4/8B Temp 6 °C Cooler # _____ Temp _____ °C

Cooler # _____ Temp _____ °C Cooler # _____ Temp _____ °C

Comments: _____

Chain of Custody Record

WADSWORTH/ALERT LABORATORIES
Sampling, testing, mobile labs

5910 Breckenridge Pkwy.
Suite H
Tampa, FL 33610

(813) 621-0784
Fax (813) 623-6021

Record _____ of _____

10572

Client: [illegible]

Project Name / Location: [illegible]

Sampler(s): [illegible]

Project #: [illegible]

Item #	Date	Time	MATRIX	Sample Location	No. Of CON-TAINERS	Parameter: VOC -	PAH -	METALS -	TRPH -	EDB -	Remarks
1	7/1/04	[illegible]	H2O	Equipment Blank	1			1			
2	7/1/04	1100	H2O	MW-6	1			1			
3											
4											
5											
6											
7											
8											
9											
10											
11											

Total Containers: 2

Number of Coolers in Shipment: 1

Bailers:

Report To: [illegible]

Additional Comments: HNO3 preserved

Transfer Number	Item Number(s)	Relinquished By / Company	Accepted By / Company	Date	Time
1		[illegible]		[illegible]	[illegible]
2			[illegible]	[illegible]	[illegible]
3					
4					
5					
6					

Original Accompanies Shipment