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CONTAMINATION ASSESSMENT REPORT FOR NAVY SUPPLY CENTER FUEL FARM
WITH TRANSMITTAL LETTER NS MAYPORT FL
11/19/1997
BHATE ENVIRONMENTAL

NAVAL STATION MAYPORT
MAYPORT, FLORIDA
BHATE PROJECT NO.: 9970082
FL-COMPQAP NO.: 970052

CONTAMINATION ASSESSMENT REPORT
NSC FUEL FARM

Prepared for:

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NOVEMBER 19, 1997

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Attention: Ms. Beverly S. Washington

Subject: Contamination Assessment Report
NSC Fuel Farm
Naval Station Mayport
Mayport, Florida
Contract No. N62467-96-D-0976
BHATE Project No.: 9970082

Dear Ms. Washington:

Bhate Environmental Associates (BHATE) is pleased to submit final copies of the following report summarizing a Contamination Assessment at the above referenced site. The report, prepared on behalf of the Southern Division of the Naval Facilities Engineering Command, describes a soil and groundwater investigation and the extent of petroleum related contamination. The scope of work was prepared to comply with the Florida Department of Environmental Protection (FDEP) regulations pertaining to Corrective Actions (FAC 62-770).

Additional groundwater level measurements and analyses of samples collected on October 9 and 10, 1997 have been incorporated into this report.

If you have any questions or need additional information, please contact us at your earliest convenience at 1 (800) 806-4001.

Respectfully Submitted,

BHATE ENVIRONMENTAL ASSOCIATES, INC.

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ACRONYMS, ABBREVIATIONS, AND UNITS OF MEASURE

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

BBL	barrels
BDL	below detection limits
BETX	benzene, ethylbenzene, toluene, and xylenes
bls	below land surface
CAR	Contamination Assessment Report
FAC	Florida Administrative Code
FID	Flame Ionization Detector
FDEP	Florida Department of Environmental Protection
FL-PRO	Florida Petroleum Residual Organics
GC	Gas Chromatograph
k	hydraulic conductivity
mg/kg	milligrams per kilogram
mg/l	milligrams per liter
msl	mean sea level
NSC	Navy Supply Center
OVA	Organic Vapor Analyzer
ppb	parts per billion
ppm	parts per million
PAH	polynuclear aromatic hydrocarbons
PVC	polyvinyl chloride
RAP	Remedial Action Plan
T	transmissivity
TPH	total petroleum hydrocarbons
ug/l	micrograms per liter
UST	underground storage tank

1.0 INTRODUCTION

Bhate was engaged, under Contract Number N62467-96-D-0976, by the Naval Supply Center to perform a contamination assessment of an area at the Navy Supply Center (NSC) Fuel Farm located at the Naval Station Mayport. The area of the Fuel Farm included in this assessment contained four cut and cover bulk fuel storage tanks. The tanks are scheduled to be demolished and replaced in 1999. The objective of this investigation was to determine the extent of suspected soil and groundwater contamination in the area of monitoring well MPT-16-MW02S and the NSC Fuel Farm. This Contamination Assessment Report has been prepared to document contamination results for submittal to the Florida Department of Environmental Protection (FDEP).

The assessment began with implementation of a reconnaissance soil gas survey, to locate potential sources of contamination. Installation and sampling of monitoring wells was conducted, to verify the extent of groundwater contamination. A soil sampling program was carried out, to identify the locations and estimate the volumes of petroleum contaminated soil across the area.

The general site location is illustrated in Figure 1. The specific area of investigation is indicated on Figure 2. Locations of previous spills and other locations giving evidence of petroleum contaminants were identified prior to sampling. Monitoring wells had been installed at locations across the site, during previous investigations by others. Petroleum product was discovered within monitoring well MPT-16-MW02S. That discovery prompted a detailed investigation of soil and groundwater in the area of the free product.

The work presented in this contamination assessment report was performed in compliance with Chapter 62-770, Florida Administrative Code (FAC) and Florida Department of Environmental Protection (FDEP) "Guidelines for Assessment and Remediation of Petroleum Contaminated Soils" and "Guidelines for the Preparation of Contamination Assessment Reports for Petroleum Contaminated Sites."

2.0 BACKGROUND

2.1 Location and Area of Investigation

The assessment site is located at the Mayport Naval Station in Mayport, Duval County, Florida (Figure 1). More specifically, the site is the NSC Fuel Farm and is situated at the northern end of the Naval Station, along the southern bank of the St. Johns River.

The NSC Fuel Farm assessment area contains cut and cover bulk fuel storage tanks (Figure 2). The tanks are buried to approximate depths of 2.5 feet beneath existing soil cover, which rises to heights some fifteen to twenty feet above the surrounding surface. The ground at the assessment site is relatively flat, with steep slopes over the covered tanks. Access to the bulk tanks is restricted by a chain link fence that surrounds the area. Surface drainage is generally toward ditches and culverts that drain to the St. Johns River.

The assessment was conducted within the fenced area of bulk storage tanks 201, 202, 203 and 204 and in the area around monitoring well MPT-16-MW02S (Figure 2). Tanks 201 and 202, each have 13,500 barrel (BBL) or 567,000-gallon capacity for storage of JP-5 fuel and are positioned on the north side of the assessment area. Tanks 203 and 204 each have 27,000 barrel or 1,134,000-gallon capacity for storage of marine diesel fuel and are on the south side of the assessment area. The two tank compounds are separated by an asphalt paved road.

2.2 Underground Utilities

Prior to beginning subsurface exploration, personnel with the NSC Fuel Farm were contacted to determine the location of underground utilities. The utility locations were necessary for precautionary purposes, prior to subsurface exploration. It also served to indicate whether any underground utilities might act as contaminant migration pathways. Various underground utilities were identified at the site. They include the oily waste distribution lines, fuel distribution lines and water lines (Figure 2).

2.3 Site History

Numerous monitoring wells were installed at the site, during previous investigations under the Navy's Installation Restoration (IR) Program. Pre-existing wells within the area of assessment are identified on Figure 2. Free petroleum product was measured in monitoring well MPT-16-MW02S and a Discharge Notification Form was sent to FDEP in October 1996. Hydrocarbon Fuel Analysis results indicated that the petroleum was kerosene-based. The source of the product was unknown. Four other previously installed monitoring wells and one piezometer in the area did not contain free product (Figure 2).

3.0 SITE CONDITIONS

3.1 Physiography

Duval County topography is gently variable to flat, being dominated by a series of ancient marine terraces (Cooke, 1945; Leve, 1966; Fairchild, 1972). These features formed during the Pleistocene, as declining sea levels caused the progressive emergence of off-shore sea floor. The terraces trend parallel to the present Atlantic shoreline and become higher to the west. The Mayport Naval Station contains areas categorized as Silver Bluff Terrace and Pamlico Terrace. Elevations are generally less than about twelve feet above mean sea level (MSL). The site lies at the mouth of the St. Johns River, in the Eastern Valley geomorphological division of the northern Florida Coastal Lowlands (Puri and Vernon, 1964; White, 1970; Scott, 1992).

3.2 Regional Hydrogeology

Portions of three major aquifer systems underlie northern Florida. The Surficial system and the Floridan system are regionally important aquifers along the entire South Carolina-Georgia-Florida coast. The Southern Coastal Plain aquifer is thought to extend into Nassau and Duval Counties from widespread occurrences further north. The following remarks were summarized from information provided by Leve (1966), Krause and Randolph (1989), and Miller (1990).

Rocks of the Surficial aquifer system are late Miocene to Holocene in age and generally contain water under unconfined conditions. Constituent beds are primarily unconsolidated sand, shelly sand, and shell. Northeastern Florida accumulations are typically less than fifty feet, although thicknesses up to 150 feet are known in eastern St. Johns County. Most of the groundwater taken from this system goes for public supply or domestic/commercial uses.

The Floridan system is one of the most productive aquifers in the world. Average freshwater withdrawals in 1988 exceeded three billion gallons per day. Floridan rocks are Paleocene to Miocene series Tertiary carbonates. Northeastern Florida constituent formations contain groundwater under confined conditions and range in thickness between 1,400 and 2,300 feet. Floridan units underlie the Surficial system and are separated from it by a clay-rich confining layer of variable thickness. In most places, the system can be divided into Upper and Lower Floridan aquifers. A second, less-permeable confining unit intervenes between the two.

The Southeastern Coastal Plain aquifer system consists of regional aquifers that are composed primarily of Cretaceous to late Tertiary clastic rocks. At some localities, it lies below the Floridan system. At others, it grades laterally into the Floridan. Both the Surficial and Floridan aquifers are known to underlie Duval County. Elements of the Southeastern Coastal Plain system may also be present.

3.3 Site Hydrogeology

The ground surface at the Fuel Farm is mainly uncovered and grassed. Surface soils consist of a tan to light brown, fine sand with minor amounts of silt and organics. Visual characterization of samples collected from depths of five to ten feet during Geoprobe and monitoring well installation defined soils consisting of a tan, loose, well-sorted, well-rounded, fine quartz sand with varying amounts of shell fragments. Soils encountered near groundwater were a light gray, firm, fine sand with varying shell fragments. Soils are saturated at depths approximately nine (9) feet below the surface, in the immediate area of monitoring well MPT-16-MW02. An interval of medium gray, fine sandy clay was encountered at a depth of approximately ten feet bls. The clay was not consistent across the site, however, and does not appear to be a confining unit.

3.4 Well Inventory

A total of five deep wells are utilized at Naval Station Mayport. Four (N-1 through N-4) are used for potable water and one (D-236) is used for irrigation. Information and location of the wells was obtained from the Environmental Division of the Mayport Naval Station and the St. Johns Water Management District. A summary of potable well data is provided in Table 1.

Well locations relative to the Fuel Farm are provided on Figure 3. All identified wells are greater than 1/2 mile from the site.

The extent of groundwater contaminant migration and the general direction of groundwater movement does not pose a threat to the potable supply wells identified.

Three wells were identified in the town of Mayport, Florida, which is southwest of the subject site. Two wells are utilized by the City of Jacksonville, Department of Public Utilities for household purposes. One well is utilized by the Jacksonville Department of Transportation, Mayport Ferry Service for Commercial/Industrial Services. Each well is greater than 1/2 mile from the subject site.

4.0 SITE ASSESSMENT METHODS

4.1 Soil Gas Survey

A soil gas survey was conducted in an effort to find the source of petroleum in well MPT-16-MW02S and to help evaluate soil and groundwater conditions around Tanks 201, 202, 203, and 204. The Emflux Soil Gas Detection System was used. On May 2, 1997, a total of 75 collectors were developed across the entire fuel farm area upgradient of well MPT-16 -MW02S. Collectors were also developed along product lines and along an oil line near the river. The locations of the collectors are indicated on Figure 9.

Approximately 20 of the 75 collectors were considered to be contingency collectors. The contingency collectors were held by the testing laboratory until analysis of the remaining 55 collectors were reviewed. After review of the initial results, nine (9) contingency samples were selected for analysis.

Vegetation was cleared at each deployment location, exposing the ground surface. Using a hammer and a ¾ inch diameter pointed metal stake, a hole approximately three inches deep was created.

The solid plastic cap was then removed from the collector (a glass vial containing an adsorbent cartridge with a length of wire attached to the vial for retrieval) and replaced with a sampling cap (a plastic cap with a hole covered by screen meshing). The collector was inserted into the hole with the sampling cap end facing down. It was then covered with local soils. The collector's location, time and date of emplacement, and other relevant information were recorded on a Field Deployment Form.

As a quality control check, during emplacement and retrieval, four ambient air control samples were collected and records of the date, time and location of each were noted. One trip blank was also included as a quality control procedure.

The collectors were retrieved on May 8, 1997. At each location, the collector was withdrawn from its hole and the outside of the vial was wiped clean with gauze cloth. Following removal of the sampling cap, the threads of the vial were also cleaned. A solid plastic cap was screwed onto the vial and the sampling location number was written on the label. The sample point location, date, time and other relevant information were recorded on the Field Deployment Form.

Following retrieval, the collectors were shipped to the Quadrel Services, Inc. laboratory for analyses of benzene, toluene, ethylbenzene and xylene (BTEX), methytertiary butylether, naphthalene, 1, 2, 4 - trimethylbenzene, 1, 3, 5, - trimethylbenzene, and for Total Petroleum Hydrocarbon volatiles (TPH). The TPH value reflects aromatic hydrocarbons from benzene through naphthalene and aliphatic hydrocarbons in the C_2 through C_{16} range.

4.2 Soil Sample Collection

On June 6, 1997, BHATE began the collection of soil samples at designated locations across the site. The sampling locations were selected based, in part, on the results of the soil gas survey. The soil samples were collected using Geoprobe sampling systems and an auger drilling rig.

A total of 32 Geoprobe soil probes were installed at the base and on the sloped cover of the four fuel storage tanks. The Geoprobe sample locations are indicated on Figure 4. Soils were collected at approximate five foot sampling intervals to depths adequate to encounter groundwater. Sampling was discontinued after encountering groundwater.

The test probes were installed utilizing both a Geoprobe ATV and a van mounted, direct push sampling system, each equipped with a hydraulic hammer. The Geoprobe soil sampler consists of a hollow steel 1.5 inch outside diameter soil sampler attached to one (1)-inch steel probe rods. A reusable, decontaminated Teflon sample liner was placed inside the soil sampler, prior to collection of each sample. The soil sampler was driven to the designated sample depth using the hydraulic hammer. After reaching the sample depth, the sampler was opened and the sampling tube was driven an additional two (2) feet to collect a continuous soil sample. The rods and sampling tube were then retrieved from the probe hole. Drill cuttings are not generated using the Geoprobe System.

A total of eight shallow borings were advanced at the site using a 4 1/4 inch inside diameter (ID), continuous flight, hollow stem auger drill rig. A deep boring was advanced with 8 1/4 inch ID, continuous flight, hollow stem augers and mud rotary drilling procedures. Soil samples were collected through the hollow stem augers with a 24 inch split spoon soil sampler. The shallow borings were advanced to depths between fourteen and nineteen feet below the ground surface. The deep boring was taken to a depth of twenty-five feet. Shallow boring samples were collected at approximate depths of one to three, four to six and eight to ten feet. Samples were taken from the deep boring at five foot intervals.

Following retrieval, the soil samples were examined by a geologist for visual and olfactory evidence of petroleum hydrocarbons. The samples were transferred from the Teflon liners into decontaminated glass jars. The jars were covered with aluminum foil and allowed to stabilize for five minutes. Volatile organic concentrations were assessed by organic vapor analyzer (OVA) headspace screening techniques. A flame ionization detector (FID) was used to field screen the soil gas headspace of each sample. Carbon filters were used on the FID to aid in distinguishing naturally occurring methane from hydrocarbon vapors. The soil sample collected from immediately above groundwater and one additional sample chosen by the site geologist from each boring were submitted for laboratory analysis. These samples were representative of the most potentially contaminated intervals, as indicated by the FID screening.

Soil samples submitted for analyses were put into laboratory supplied clean glass jars, sealed with Teflon-lined lids, and cooled to approximately 4°C. All soil samples were delivered under chain of custody to V.O.C. Analytical Laboratories in Boca Raton, Florida for analysis. Samples were analyzed for the following parameter:

- Florida Petroleum Residual Organics (FL-PRO) - Method TPH (C8 - C40)

4.3 Monitoring Well Installation and Development

Monitoring wells were installed in the nine site auger borings, at locations shown on Figure 5. Monitoring well construction logs are presented in Appendix A. Pertinent data on the monitoring wells can also be found in Table 2.

The shallow wells were constructed of 2-inch diameter flush threaded, Schedule 40 PVC pipe with ten (10) feet of 0.01- inch slotted screen. Construction procedures consisted of drilling the augers to a designated depth within groundwater adequate for monitoring well screen placement. The casing and screen were placed inside the augers, driving the end plug from the augers. The annular space around the screen was filled with 20/30 grade filter sand, as the augers were removed. The sand pack extended from approximately 0.5 to 1.5 feet above the top of the well screen. The upper surface of the sand pack was sealed with bentonite pellets. The thickness of the bentonite seal was approximately 1.5 to 2.0 feet. The bentonite pellets were hydrated with potable water, prior to introducing grout into the borehole. The annular space above the bentonite seal was grouted to the ground surface. A steel manhole assembly was placed over each completed well and secured in the grout column. The PVC well casings were fitted with lockable expansion caps, and the caps were secured with padlocks. A flush mounted, two foot concrete pad was completed at the ground surface of each well.

The deep monitoring well was installed in the area of the highest contaminant concentrations, to define the vertical extent of the hydrocarbon plume. A six inch diameter PVC surface casing was installed to a depth of approximately twenty feet, using 8 1/4 inch ID hollow stem augers. The PVC casing was grouted in place and allowed to set for forty-eight hours. After allowing the grout to cure, the boring was further advanced to a depth of twenty-five feet, using a six inch tri-cone bit and mud rotary drilling techniques. A five-foot section of PVC screen was installed through the six inch casing and the well was completed using the shallow well construction protocol.

Representative composite samples of auger cuttings were collected during drilling activities and an OVA headspace analysis was conducted on each sample. Results of the analyses were utilized in soil disposal. Soils with representative headspace analyses less than 50 ppm were spread on site, in the immediate area of the well. Soils with headspace analytical results greater than 50 ppm were contained within 55-gallon drums for disposal off site.

The monitoring wells were developed by purging with a 2-inch submersible Geopump, which was decontaminated between each well development. The wells were developed until they were relatively clear of fine-grained sediment. The deep monitoring well was developed until all drilling fluid had been removed from the well formation. Wells inside the fenced area could not be developed with a power operated system, due to explosive potential. These wells were developed with Teflon bailers.

4.4 Groundwater Sampling

On June 2, 1997, groundwater samples were collected from four monitoring wells installed during previous investigations at the site. Monitoring well MPT-16-MW02S, contained a sheen (less than 1/32 inch) of free petroleum product and was not sampled. On June 17, 1997, groundwater samples were collected from the nine newly installed monitoring wells.

To ensure representative groundwater samples, the wells were purged prior to sampling. This removed stagnant groundwater. Decontaminated Teflon bailers were used to purge each well. Purging continued until three well volumes had been removed, or until stabilization of field parameters had occurred. Copies of the Water Sampling Logs are provided in Appendix C. Groundwater in each well was allowed to return to the equilibrium level, prior to sample collection.

Groundwater samples were collected with the Teflon bailer utilized for purging. Prior to sample collection, each monitoring well was observed for the presence of separate phase petroleum hydrocarbons (free product). Free product was not detected in the groundwater collected from any wells other than MPT-16-MW02S. Groundwater samples were placed in appropriate containers, cooled on wet ice, and transported under chain of custody to V.O.C Analytical Laboratories. Samples were analyzed for the following:

- Polynuclear Aromatic Hydrocarbons (PAH), by EPA Method 8270;
- Benzene, Toluene, Ethylbenzene and Xylene (BTEX) compounds, by Method 8020;
- Lead, by Method 6010A.

On October 8, 9, and 10, 1997, additional groundwater samples were collected from the previously sampled monitoring wells. In addition, monitoring well MPT-16-MW02S, was sampled. This was the well which had contained petroleum product. Free product was not measured during this sampling event.

Samples were taken from all wells in October. Each was analyzed for purgeable Halocarbon (including 1,2-Dichloroethane) by EPA Method 601, for 1,2-Dibromoethane (EDB) and Dibromochloropropane (DBCP) by EPA Method 504.1, and for TRPH using the Florida PRO method. Wells which had exhibited high lead concentrations in June were tested for that component as well.

Each well as purged prior to sampling. Wells re-sampled for Total Lead were purged using the quiescent technique, at a low flow rate of less than one liter per minute. This method was used to reduce turbidity of the samples. At least three well volumes were evacuated from each well. The Lead samples were collected using a peristaltic pump. All other groundwater samples were collected using decontaminated Teflon bailers.

Groundwater evacuated during development and sampling of the monitoring wells was contained in 55-gallon drums. The water will be disposed as non-hazardous petroleum contaminated waste.

4.5 Groundwater Flow Direction and Gradient

All wells were located with respect to horizontal and vertical data. The survey was supervised and certified by a Registered Land Surveyor. All elevations refer to mean sea level (msl).

Groundwater levels were measured on June 18, 1997, July 16, 1997 and October 8, 1997. Water-level measurements were obtained with an electronic water-level indicator. They were taken to the nearest 0.01 foot and are referenced to a point on top of the well casing. Relative groundwater elevations were calculated and are summarized in Table 2.

Groundwater was measured in the monitoring wells at depths of seven to ten feet bls, in the area east of Tank 202. Groundwater mean sea level elevations across the site ranged from 0.77 feet, at FF-M2-6, to 6.45 feet, at MPT-8-P01. These values were used to prepare water table contour maps (Figure 5 and Figure 6). Based on the data shown on the water table contour maps, the primary direction of groundwater movement is to the north and northeast, toward the St. Johns River. The St. Johns River is approximately sixty feet from monitoring well FF-MW-6.

The groundwater flow direction is estimated from flow lines drawn perpendicular to the elevation contours. The hydraulic gradient of the groundwater was determined by calculating the difference in water table elevation between two data points on the same flow line and dividing the elevation difference by the distance between the two points. The average hydraulic gradient is approximately 0.006 ft/ft.

4.6 Slug Test Hydraulic Conductivity

Slug tests have been conducted in a total of thirteen monitoring wells across the Naval Station. Two of these involved Fuel Farm wells FF-MW-2 and FF-MW-5. The other eleven involved wells at locations indicated in Figure 8. Slug tests were performed to provide data used for the estimation of hydraulic conductivity of soils around the respective wells.

In slug tests, the groundwater level is raised or lowered and the water levels in the wells are measured for a period of time following the initial change. The procedures used to conduct the tests were as follows:

1. The depth to water in the monitoring well was recorded.

2. A Solinst Levelogger pressure transducer was lowered into the well to a depth slightly above the well bottom. The water level was then allowed to re-equilibrate.

3. A section of solid PVC rod was lowered into the well, causing water to rise. Depths to water at specific time intervals were then recorded by the pressure transducer, as the equilibrium level was again regained.

5. The PVC pipe was then removed from the well, causing the water level to fall. Rising water levels were recorded until they reached the original static point.

The data obtained by the procedures outlined above were evaluated using methods described by Bouwer and Rice (1976) and Bouwer (1989) for estimation of hydraulic conductivity, k. Test results from across the Naval Station are presented in Appendix F. Calculated conductivities are summarized in Table 3.

Using groundwater gradient (dh/dl), the hydraulic conductivity (k) and effective porosity (n), Darcy's Law can be used to estimate an average linear flow velocity. The average gradient across the area of study was determined to be 0.006 ft/ft (Section 4.5). The estimated average porosity of the soils as described in the boring logs is approximately 30 %. Using these values and a mean k value of 2.82×10^{-4} ft./sec (Table 3), the average linear velocity of site groundwater flow may be approximated from the equation Average Linear Velocity = (dh/dl)k/n. The rate in question is about 178 feet per year.

5.0 RESULTS OF THE CONTAMINATION ASSESSMENT

5.1 Soil Gas Survey Results

The laboratory report with tables summarizing the soil-gas analytical results is found in Appendix B. The report also includes the Field Deployment Forms and the chain-of-custody for the soil gas collectors.

Overall results were more suggestive than definitive. Each analyte species was encountered in the study area, at highly variable concentrations. Indications of TPH, volatiles and toluene were ubiquitous. The other BTEX components, MTBE, naphthalene, and trimethylbenzene were less often found and generally occurred at lesser concentrations.

Certain basic elements were visible in the distribution patterns of each gas, however. Significant areas to the east and west of Tank 202 and smaller areas near Tanks 201 and 203 exhibited the greatest degree of activity. Values encountered around Tank 204 were generally lower by comparison. The 1,2,4-Trimethylbenzene contour map of Figure 9, for example, illustrates these features.

The soil gas survey indicated that Tank 202 is the most probable source of site hydrocarbon releases. Less well-defined points of concern were implied for the vicinities of the other vessels. The distribution of soil and groundwater sampling locations ultimately selected was based, in part, on recognition of the soil gas intensity patterns.

5.2 Soil Analytical Results

Results of the OVA headspace analysis of soil samples taken during the assessment are provided in Table 4. Several sampling intervals across the site detected methane-corrected organic vapor concentrations above 10 ppm. Elevated headspace values were generally detected in the vicinity of Tank 202, at depths just above the water table. Releases from the tank and/or associated piping are again implied.

Outside of the Tank 202 area, only two isolated locations (GP-10 = 67 ppm; GP-22 = 40 ppm) exhibited corrected headspace readings above 10 ppm. Each sample was collected near the groundwater interface and each reportedly had organic odors. Modest impacts to restricted points near Tanks 202 and 203 are suggested. GP-10 is adjacent to a location thought by facility personnel to have been the source of a small surface spill. GP-22 may represent a similar circumstance.

Elevated FL-PRO TPH values were detected in soils taken from three borings near Tank 202. FL-PRO analytical results are presented in Table 5 and Figure 10. In general the results mirror those discussed above. Tank 202 appears to be a hydrocarbon source. Samples from near Tank 201 are not obviously affected, but shallow soils near Tank 203 (GP-12) bear evidence of a localized release at the surface. Note that recently approved FDEP site cleanup criteria list a 2500 ppm target level for worker industrial exposure (Chapter 62-770 F.A.C.). Soils from Geoprobe sampling point GP-25, immediately east of Tank 202, contain the only TPH concentrations exceeding that target level.

5.3 Groundwater Analytical Results

Summaries of laboratory analytical results for groundwater samples collected from site monitoring wells are presented in Tables 6 and 7 and in Figures 11 and 12. Copies of the laboratory analytical reports and chain-of-custody records are provided in Appendix E.

Regarding groundwater samples collected in June, PAH components were detected in only two of the monitoring wells (FF-MW-5 and FF-MW-6). BTEX was not found in any of them. Naphthalene, detected at FF-MW-5, is an FDEP regulated parameter with a newly established cleanup target level of 20 parts per billion (ppb). The concentration of 1.4 ppb in FF-MW-5 is below that limit. The methlynaphthalene constituents detected in groundwater from FF-MW-5 are not regulated under the new Chapter 62-770 groundwater cleanup criteria.

The additional groundwater samples collected in October, did not contain concentrations of Purgeable Halocarbons 1,2-Dichlorethane, EDB above the detection limits. TPH was not detected within any of the monitoring wells except, MPT-16-MW02S at 41 ppm, FF-MW-5 at 2.2 ppm, and FF-MW-6 at 2.4 ppm. Monitoring well MPT-16-MW02S contained PAH constituents of Methylnaphthalene and Fluorene. The PAH concentrations do not exceed regulatory MCL's. The TPH concentration of 41 ppm exceeds the regulatory MCL of 5 ppm.

Concentrations of total lead in groundwater samples collected from seven wells in June exceeded the FDEP MCL of 15 ppb. The samples were not filtered and were not taken by way of quiescent sampling techniques. Analytical results for total lead in the October re-sampling were all less than the regulatory MCL.

On June 2, 1997, a sheen of petroleum product less than 1/32 of an inch thick was measured in monitoring well MPT-16-MW02S. On July 16th and October 9, 1997, there was no measurable product thickness. Only a slight petroleum odor was noticed. Free product has not been encountered in any of the other site wells.

On the basis of the various analytical results cited above, it is apparent that site groundwater potentially affected by petroleum hydrocarbons in a significant way is restricted to the vicinity of Tank 202 and downgradient areas. The estimated extent of impacted groundwater is illustrated in Figures 11 and 12. Known concentrations of regulated hydrocarbon constituents are generally below levels of concern. The area around well MPT-16-MW02S is still suspect, however, since it recently contained a sheen of free product.

The profile of Figure 13 allows visualization of subsurface conditions in the critical Tank 202 area. Further than about fifty feet upgradient and ninety feet downgradient of the tank, FL-PRO and headspace analyses suggest no hydrocarbon impacts at any depth. Somewhat closer to the tank (GP-19; FF-MW-5), only soils within two feet of the water table are impacted. Closer yet (GP-25), both water table and shallower soils are affected. This suggests releases from Tank 202 and/or associated piping, dispersed descent of fluids, contact with the water table, and ultimate downgradient transport of free product and dissolved components.

6.0 QUALITY ASSURANCE/QUALITY CONTROL

BHATE maintained a stringent QA/QC program for all activities, during data acquisition through report preparation. All appropriate Geoprobe drilling and sampling equipment was decontaminated by appropriate FDEP procedures. Auger drilling equipment was steam cleaned, prior to drilling and between each boring. All soil and groundwater sampling equipment was decontaminated with laboratory-grade detergent, appropriate solvent and alcohol wash and then rinsed with deionized and analyte-free water before each sample collection.

Duplicate groundwater samples were collected during each of three (3) sampling events. Sample 16MW03SA was collected from well 16MW03S on June 2, 1997, FF-MW-9A from well FF-MW-9 on June 17, 1997 and FF-MW-10 from well FF-MW-6 on October 8, 1997.

7.0 SAFETY CONSIDERATIONS

Prior to implementation of drilling activities, a survey of underground utilities was conducted at the site. All BHATE and subcontractor field personnel have received OSHA-approved health and safety training. A Health and Safety Plan was prepared specifically for the site, in accordance with OSHA guidelines. Subcontractors working at the facility reviewed the Health and Safety Plan. Before beginning work, a health-and-safety meeting was held at the site by the BHATE site coordinator. During this meeting, personnel were told of on-site hazards and all safety equipment (hard hats, steel-toed boots, protective clothing, etc.) required. An "exclusion zone" was maintained around the drilling areas. Unauthorized personnel were not allowed in this area. Air quality in the exclusion zone was monitored regularly, to assure the safety of the field crew.

8.0 SUMMARY AND CONCLUSIONS

8.1 Summary

The following points summarize significant site conditions, based on the results of field and laboratory investigations:

- A soil gas survey detected organic parameters at a variety of points across the site. The results suggested that Tank 202 is a likely source of petroleum release. Soil and groundwater sampling locations were based, in part, on the soil gas results.

- Corrected soil organic headspace concentrations greater than 50 ppm give evidence of excessive kerosene group contamination. Such concentrations were found in a few soil samples collected from the groundwater capillary fringe, near Tank 202. One isolated location, near Tank 203, had a corrected reading of 67 ppm, also in the capillary fringe.

- Soil samples contained elevated FL-PRO concentrations in the area around Tank 202. Most of these were at depths within the groundwater capillary fringe. Some occurred in shallower soils, including a 5,300 ppm value immediately east of Tank 202.

- PAH components were detected in groundwater collected from monitoring wells FF-MW-5, FF-MW-6 and MPT-16-MW02S. These constituents were below FDEP guidance requirements. BTEX was not detected in any of the wells sampled.

- TRPH within monitoring well MPT-16-MW02S was 41 ppm and exceeded the regulatory MCL of 5 ppm established for groundwater target clean up values. All other wells were below 5 ppm for TRPH.

- Free product of less than 1/32 of an inch in thickness was present in monitoring well MPT-16-MW02S, on June 18, 1997. Free product was not present on October 8, 1997.

- Total lead in seven monitoring wells exceeded the Primary FDEP MCL when sampled by non-quiescent techniques. Re-sampling with a low flow technique gave results below the regulatory MCL.

- Groundwater was encountered at depths of approximately seven to fifteen feet, bls. The direction of groundwater movement appears to be to the north and northeast, toward the St. Johns River.

- No potable water supply wells are identified within 1/4 mile of the assessment site.

8.2 Conclusions

- Soil and groundwater contamination is essentially localized in extent to an area around Tank 202. The tank and associated piping are the suspected sources of contamination. Isolated occurrences of hydrocarbons in soils near Tanks 201 and 203 are thought to be the results of small surface spills.

- The time-variability of Fuel Farm monitoring well water levels (Table 2) suggests that those levels are influenced by coastal tides. Any free product that reaches the water table will tend to be smeared through a vertical interval of one to two feet.

- In June, monitoring well MPT-16-MW-2S contained a sheen of free product. In July, it did not. This effect may reflect a small, vertically smeared volume of product at that location. Given the tidal influence on depths to the water table, it is possible that groundwater may couple with and de-couple from free product, as it rises and falls.

- FID headspace analyses of samples from above the capillary fringe do not exceed the Kerosene Group excessively contaminated soil limit of 50 ppm. However, FL-PRO results from GP-25 soils six feet above the water table do exceed the cleanup target level of 2,500 ppm. This indicates a release from the eastern side of Tank 202.

- Elevated headspace and FL-PRO results immediately west of Tank 202 probably reflect releases from that side of the vessel, as well. Descent of fluids through the unsaturated zone would undergo some degree of lateral dispersion, accounting for impacts on the upgradient side of the tank.

- Analyses of site monitoring well samples indicate that groundwater at those locations is not significantly affected by petroleum hydrocarbons. Re-sampling of wells using a low flow technique reduces total lead concentrations to values below the regulatory MCL.

9.0 RECOMMENDATIONS

On the basis of findings and conclusions discussed above, Bhate recommends the following:

- periodic sampling and analysis of groundwater from existing site wells, in order to more firmly establish groundwater quality conditions and the degree to which free product may be distributed downgradient of Tank 202 sources.

- preparation of a Remedial Action Plan, to address the removal of any free product present and the treatment of soils affected to levels in excess of regulatory limits. All four tanks in the study area will be decommissioned by the Spring of 1999. Each will be removed and replaced with above ground storage tanks. Removal of soils from the site for treatment elsewhere might correspond to construction efforts scheduled for that time. Since the soils will be physically removed, a risk assessment is not recommended.

10.0 CLOSING REMARKS

This Contamination Assessment Report has been prepared on behalf of the Department of Navy, Southern Division for specific application to the subject site. Future environmental conditions at the subject site can change, subject to changes in operations and land usage. The opinions and findings of this report reflect the conditions apparent at the times and dates the work was performed. New regulations, changes in surrounding land use, altered geologic conditions and other factors may also result in changed site conditions.

The work described in this report has been conducted in accordance with current FDEP UST regulations and with standard industry practice. No other warranty is implied or expressed.

LITERATURE REFERENCES

Bouwer, H., 1989. The Bouwer and Rice slug test - an update. Groundwater, v.27, no.3, p.304-309.

Bouwer, H. and Rice, R.C., 1976. A slug test for determining hydraulic conductivity of unconfined aquifers with completely or partially penetration wells. Water Resources Research, v.12, no.3, p. 423-428.

Cooke, C.W., 1945. "Geology of Florida". Florida Geological Survey Bulletin 29, 339 p.

Fairchild, R.W., 1972. "The Shallow-Aquifer System in Duval County, Florida". Florida Bureau of Geology Report of Investigations No. 59. 50 p.

Krause, R.E. and Randolph, R.B., 1989. "Hydrogeology of the Floridan Aquifer System in Southeast Georgia and Adjacent Parts of Florida and South Carolina". U. S. Geological Survey Professional Paper 1403-D. 65 p.

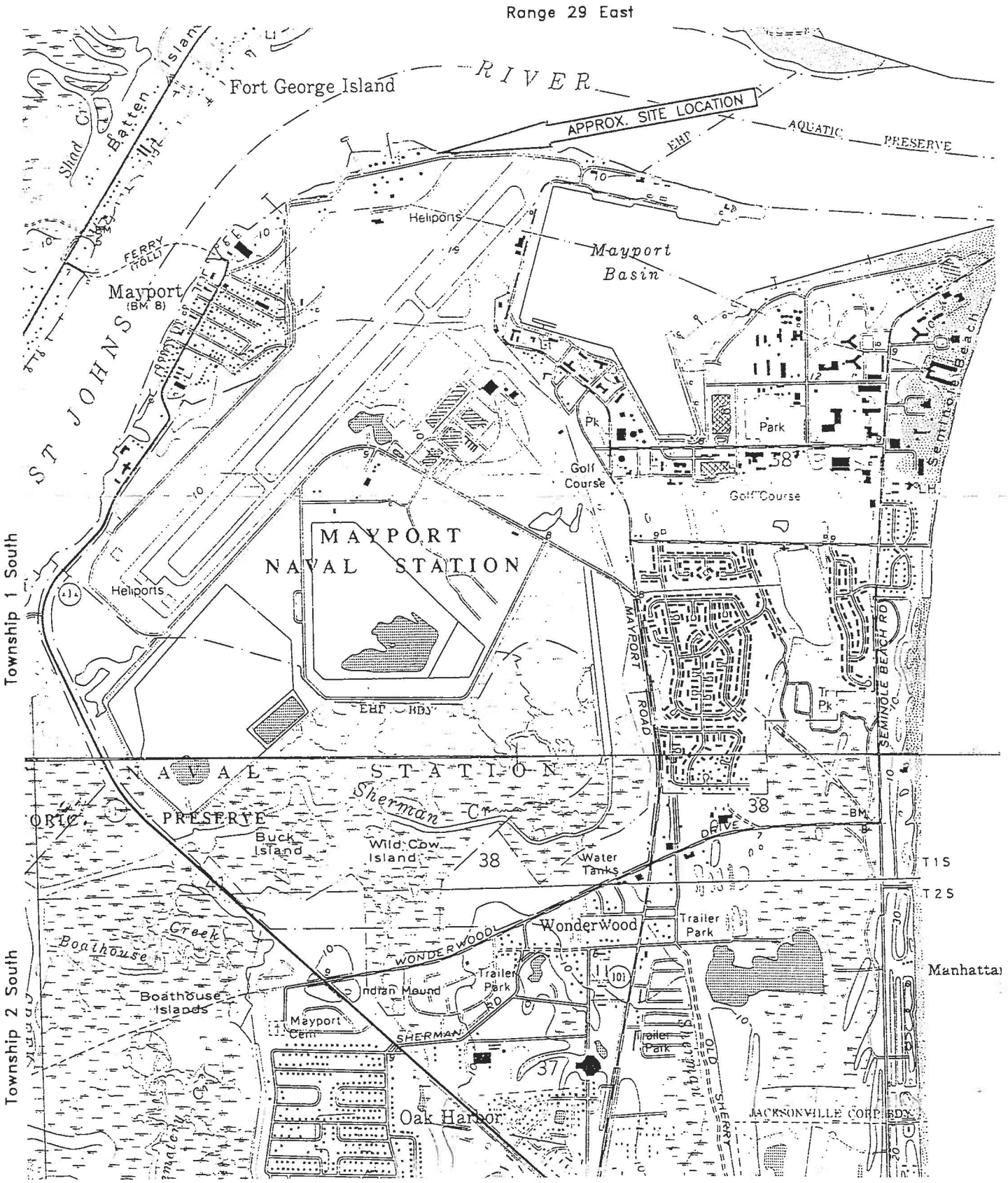
Leve, G.W., 1966. "Ground Water in Duval and Nassau Counties, Florida". Florida Geological Survey Report of Investigations No. 43. 91 p.

Miller, J.A., 1990. "Ground Water Atlas of the United States; Segment 6 - Alabama, Florida, Georgia, South Carolina". U. S. Geological Survey Hydrologic Investigations Atlas 730-G. 28 p.

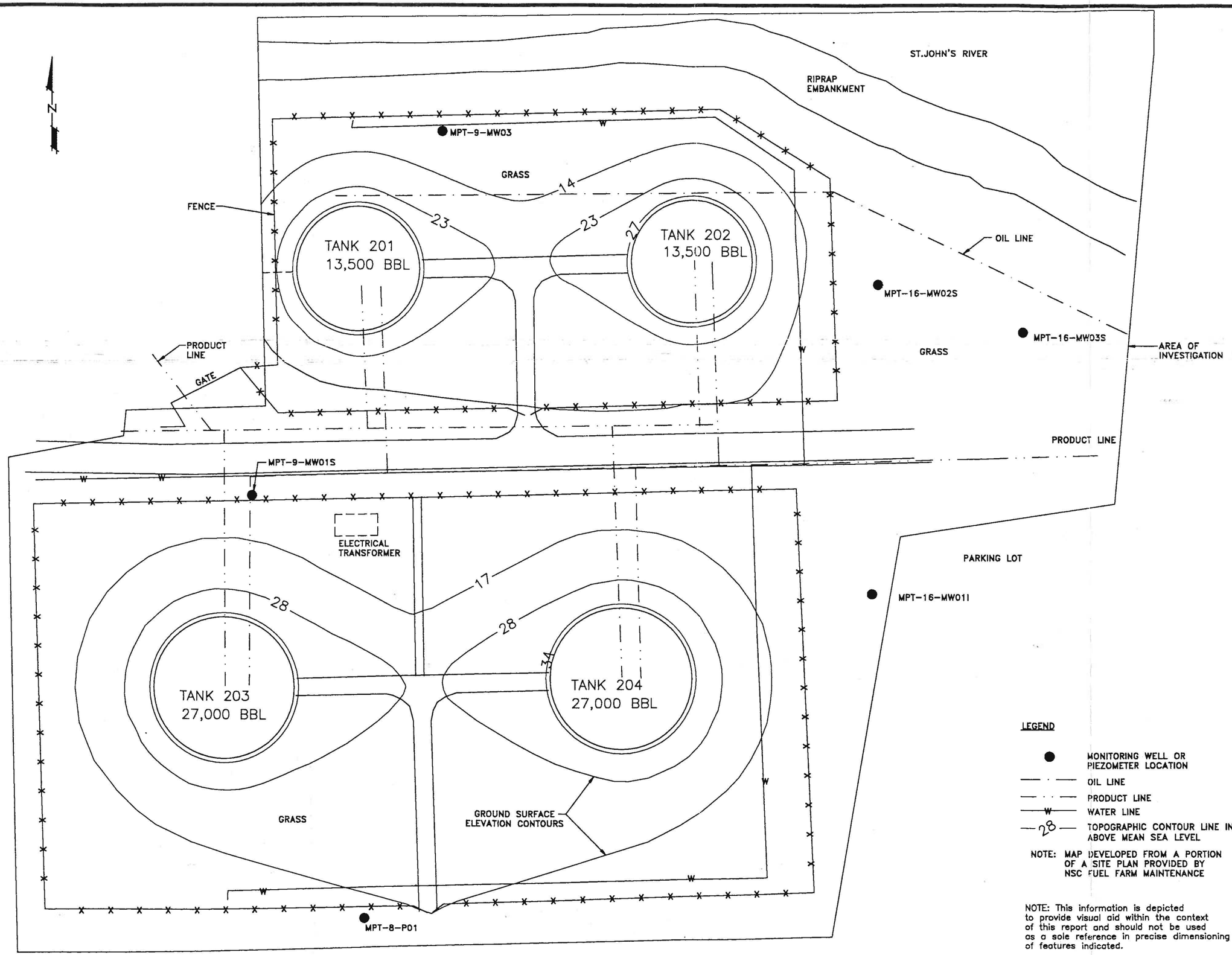
Puri, H.S. and Vernon, R.O., 1964. "Summary of the Geology of Florida". Florida Geological Survey Special Publication 5 (Revised). 312 p.

Scott, T.M., 1992. "A Geological Overview of Florida". Florida Geological Survey Open File Report No. 50. 78 p.

White, W.A., 1970. "Geomorphology of the Florida Peninsula". Florida Geological Survey Bulletin 51. 164 p.



BEA Bhate Environmental Associates, Inc. Environmental Engineers & Scientists	Source: USGS 7.5 Minute Topographic Map Mayport, Florida Quadrangle, Revised 1992 Jacksonville Beach, Florida, Revised 1992 SITE LOCATION DIAGRAM			Contamination Assessment Report NSC FUEL FARM Department of the Navy Naval Station Mayport Mayport, Florida
	PROJECT NO.: 9970058	SCALE: 1:24,000	DATE: 3/19/97	DRAWN BY: USGS DRAWING NO: 1552F1
				Figure 1



LEGEND

- MONITORING WELL OR PIEZOMETER LOCATION
- OIL LINE
- PRODUCT LINE
- WATER LINE
- 28 TOPOGRAPHIC CONTOUR LINE IN FEET ABOVE MEAN SEA LEVEL

NOTE: MAP DEVELOPED FROM A PORTION OF A SITE PLAN PROVIDED BY NSC FUEL FARM MAINTENANCE

NOTE: This information is depicted to provide visual aid within the context of this report and should not be used as a sole reference in precise dimensioning of features indicated.

Contamination Assessment Report
NSC FUEL FARM
Naval Station Mayport
Mayport, Florida
Figure 2

SITE MAP WITH UTILITY LOCATIONS

DRAWN BY:	DRAWING NO:
CLL	82-F2

DATE	SCALE	PROJECT NO.
4/17/97	APPROX. 1"=65'	9970082

BEA
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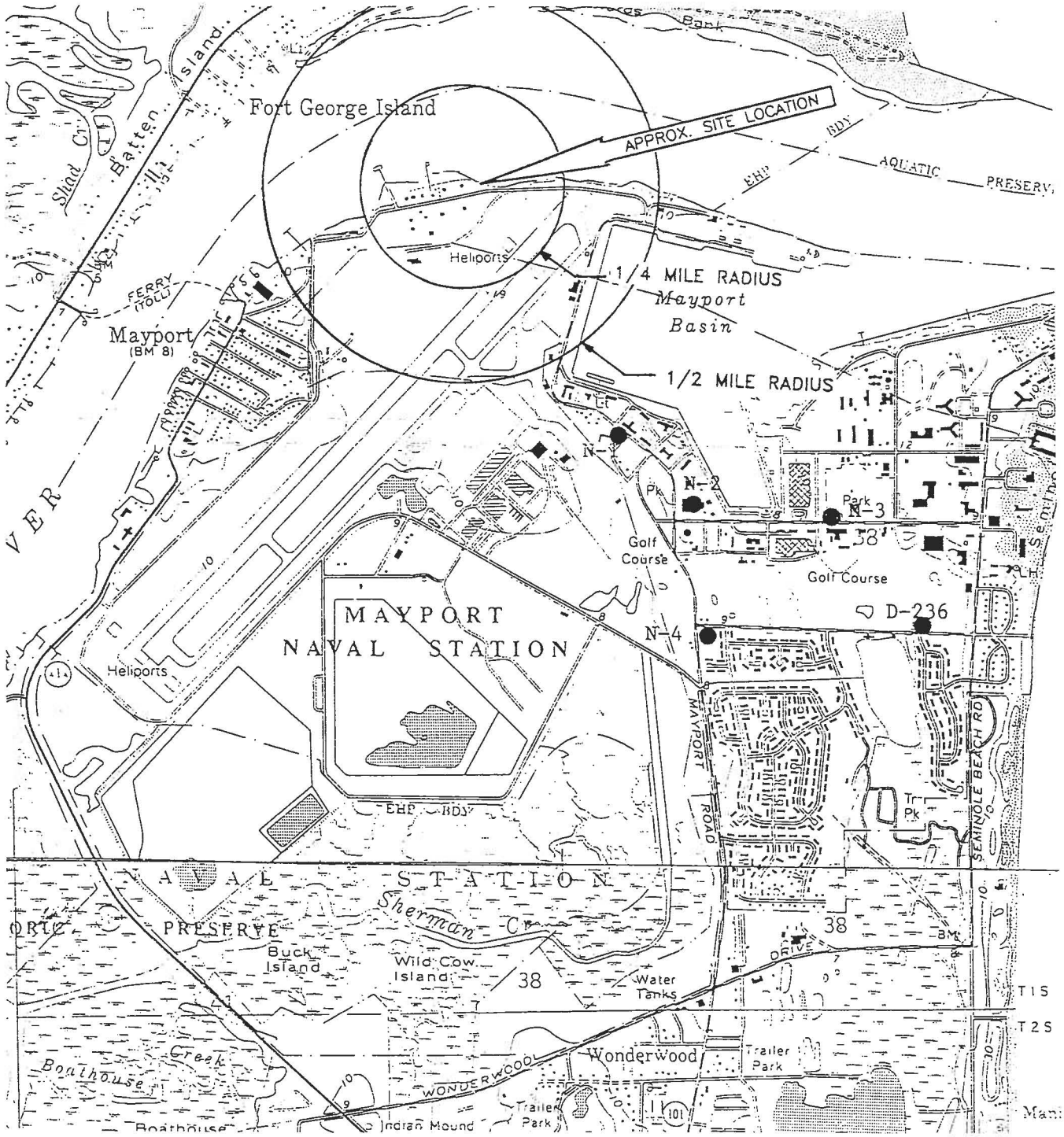
Range 29 East



BEA Bhate Environmental Associates, Inc. Environmental Engineers & Scientists	Source: USGS 7.5 Minute Topographic Map Mayport, Florida Quadrangle, Revised 1992 Jacksonville Beach, Florida, Revised 1992 LOCATIONS OF POTABLE WATER WELLS	Contamination Assessment Report NSC FUEL FARM Department of the Navy Naval Station Mayport Mayport, Florida

PROJECT NO.	SCALE	DATE	DRAWN BY:	DRAWING NO:
9970082	1:24,000	3/19/97	USGS	fig-3

Figure 3

N

ST.JOHN'S RIVER

RIPRAP EMBANKMENT

MPT-9-MW03

GP-31 GP-30 GP-29 GP-28 GP-27

FF-MW-8

FF-MW-7

FF-MW-6

GRASS

14

FENCE

23

TANK 201
13,500 BBL

GP-22 GP-23 GP-24 GP-25

23

27

TANK 202
13,500 BBL

OIL LINE

FF-MW-3

FF-MW-9
D

FF-MW-5

MPT-16-MW02S
(WELL WITH PRODUCT)

GP-20 GP-19 GP-17

MPT-16-MW03S

PRODUCT LINE

GATE

GP-32 GP-21 GP-18

FF-MW-1

GRASS

AREA OF INVESTIGATION

FF-MW-4

PRODUCT LINE

MPT-9-MW01S

GP-10 GP-12 GP-15

GP-13

GP-11

17

28

28

GP-14

PARKING LOT

MPT-16-MW01I

GP-8 GP-9

34

34

GP-7

GP-16

TANK 203
27,000 BBL

TANK 204
27,000 BBL

GP-6

GP-3

GP-5

GP-1

GP-2

GRASS

FF-MW-2

GP-4

MPT-8-P01

LEGEND

- PRE-EXISTING MONITORING WELL OR PIEZOMETER LOCATION
- NEW MONITOR WELL LOCATION
- GEOPROBE SOIL SAMPLE LOCATION
- D = DEEP
- OIL LINE
- PRODUCT LINE

NOTE: MAP DEVELOPED FROM A PORTION OF A SITE PLAN PROVIDED BY NSC FUEL FARM MAINTENANCE

NOTE: This information is depicted to provide visual aid within the context of this report and should not be used as a sole reference in precise dimensioning of features indicated.

Contamination Assessment Report
NSC FUEL FRAM
Naval Station Mayport
Mayport, Florida

Figure 4

SOIL BORING AND MONITORING WELL SAMPLING LOCATIONS

DRAWN BY: CLL

DRAWING NO: 82-F5

DATE 4/17/97

SCALE APPROX. 1"=65'

PROJECT NO. 9970082

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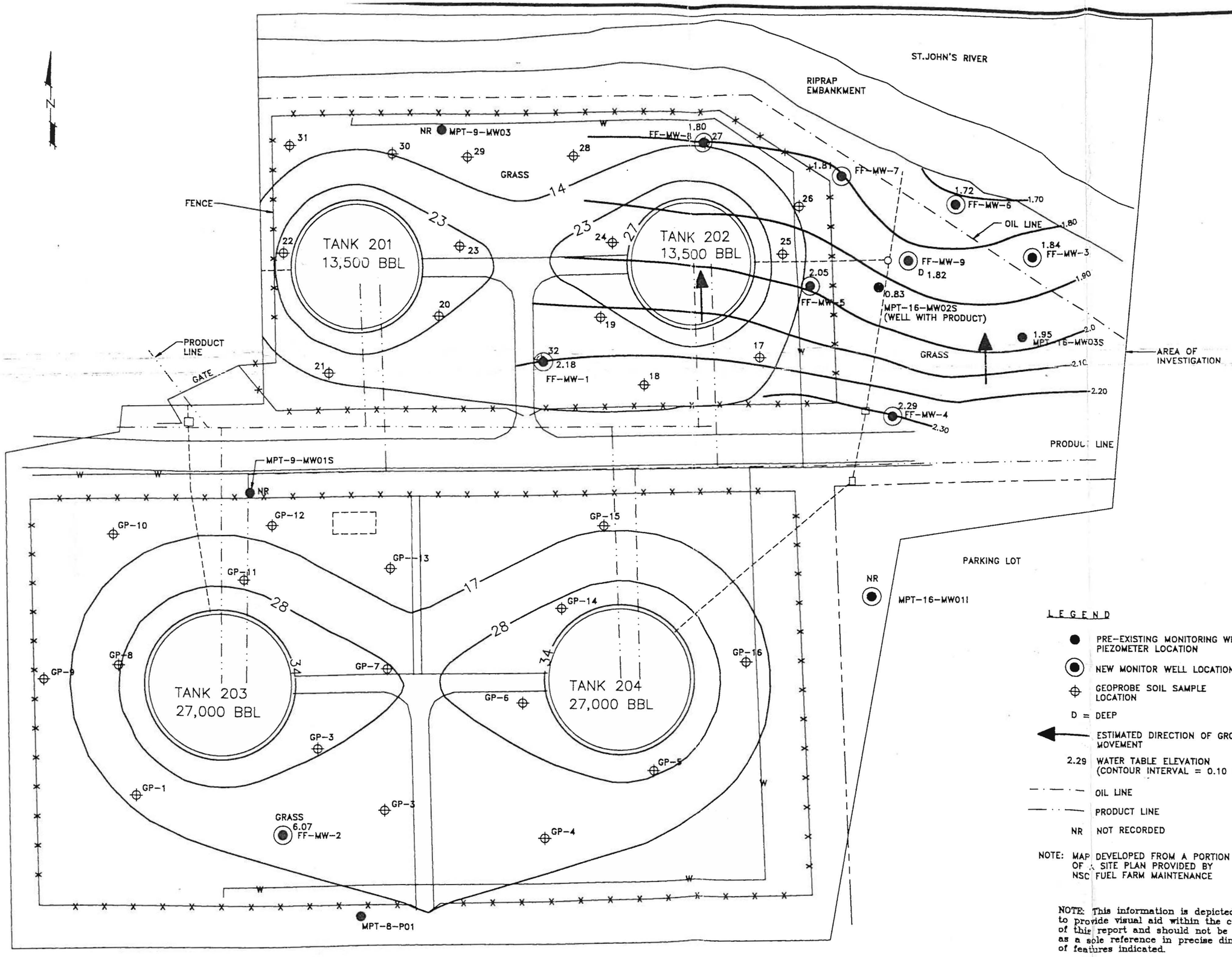

Contamination Assessment Report
NSC FUEL FRAM
Naval Station Mayport
Mayport, Florida
Figure 5

WATER TABLE CONTOUR MAP
JUNE 18, 1997

PROJECT NO	SCALE	DATE	DRAWN BY:	DRAWING NO:
9970082	APPROX. 1"=65'	4/17/97	CLL	82-F6

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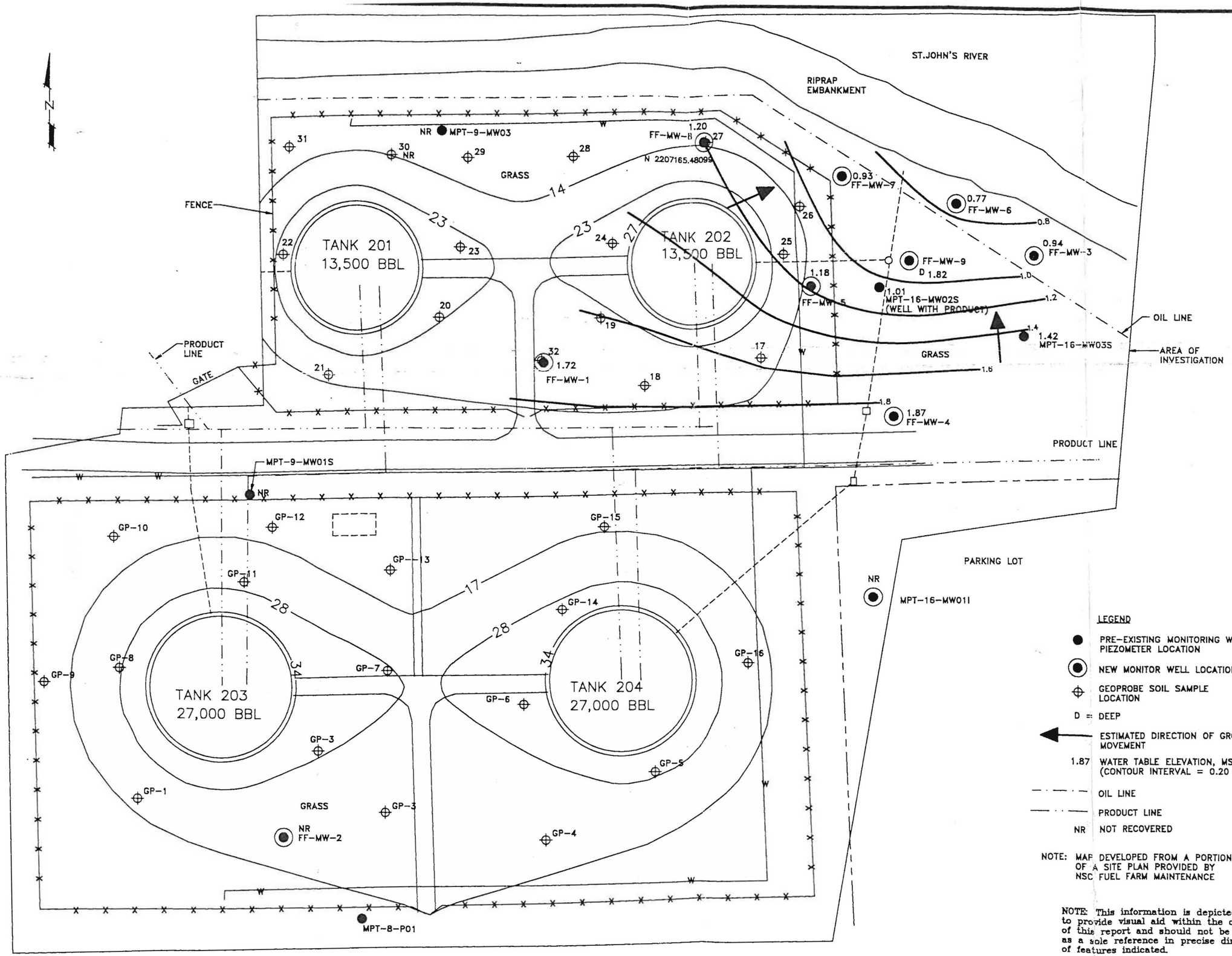
Environmental Engineers & Scientists



LEGEND

- PRE-EXISTING MONITORING WELL OR PIEZOMETER LOCATION
- NEW MONITOR WELL LOCATION
- GEOPROBE SOIL SAMPLE LOCATION
- D = DEEP
- ESTIMATED DIRECTION OF GROUNDWATER MOVEMENT
- 1.87 WATER TABLE ELEVATION, MSL (CONTOUR INTERVAL = 0.20 FEET)
- OIL LINE
- PRODUCT LINE
- NR NOT RECOVERED

NOTE: MAP DEVELOPED FROM A PORTION OF A SITE PLAN PROVIDED BY NSC FUEL FARM MAINTENANCE

NOTE: This information is depicted to provide visual aid within the context of this report and should not be used as a sole reference in precise dimensioning of features indicated.

Contamination Assessment Report
NSC FUEL FRAM
Naval Station Mayport
Mayport, Florida

Figure 6

WATER TABLE CONTOUR MAP
JULY 16, 1997

DRAWN BY:	DRAWING NO:
CLL	82-F7

SCALE	DATE
APPROX. 1"=65'	4/17/97

PROJECT NO: 9970082

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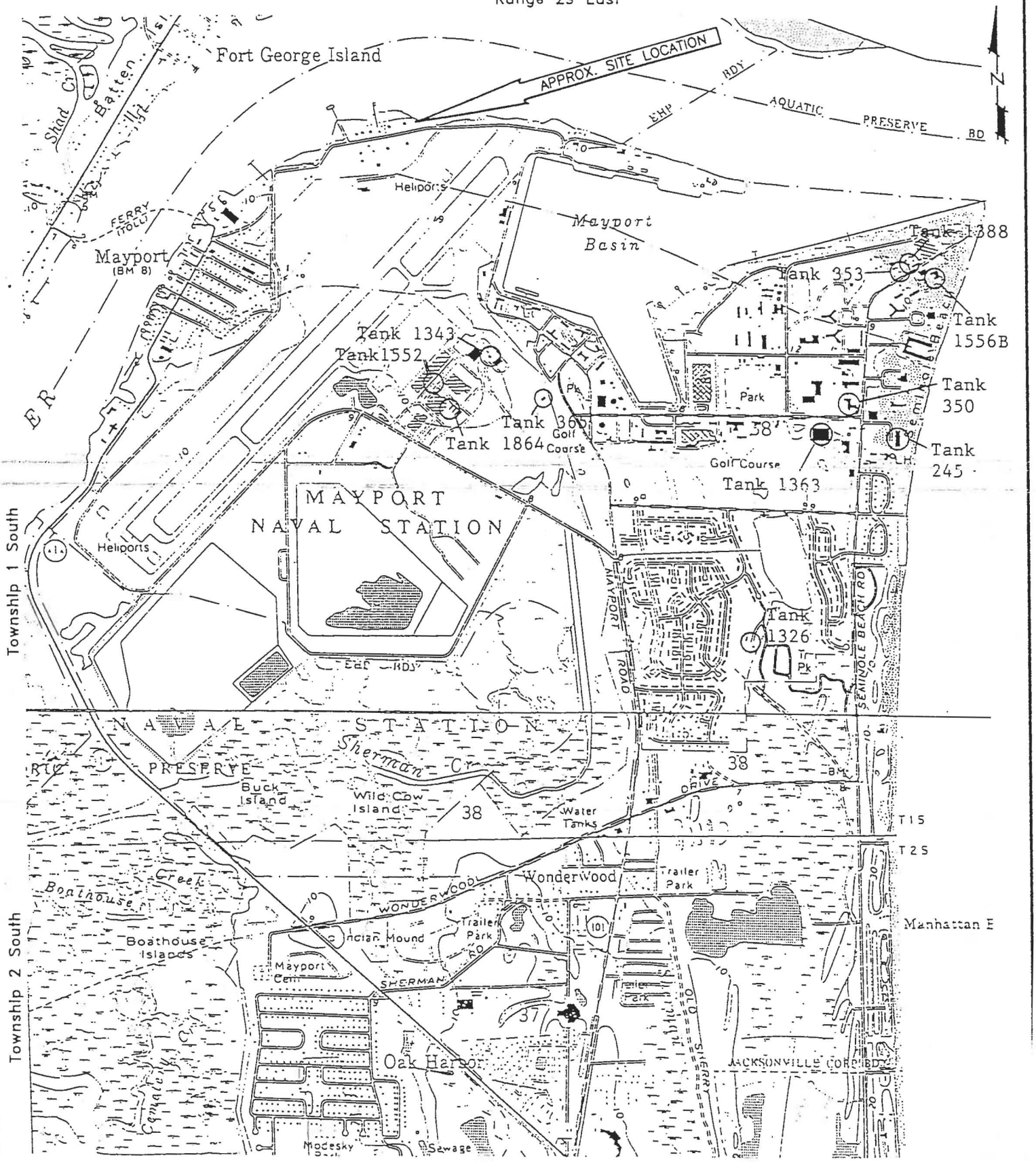

BEA
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Environmental Engineers & Scientists

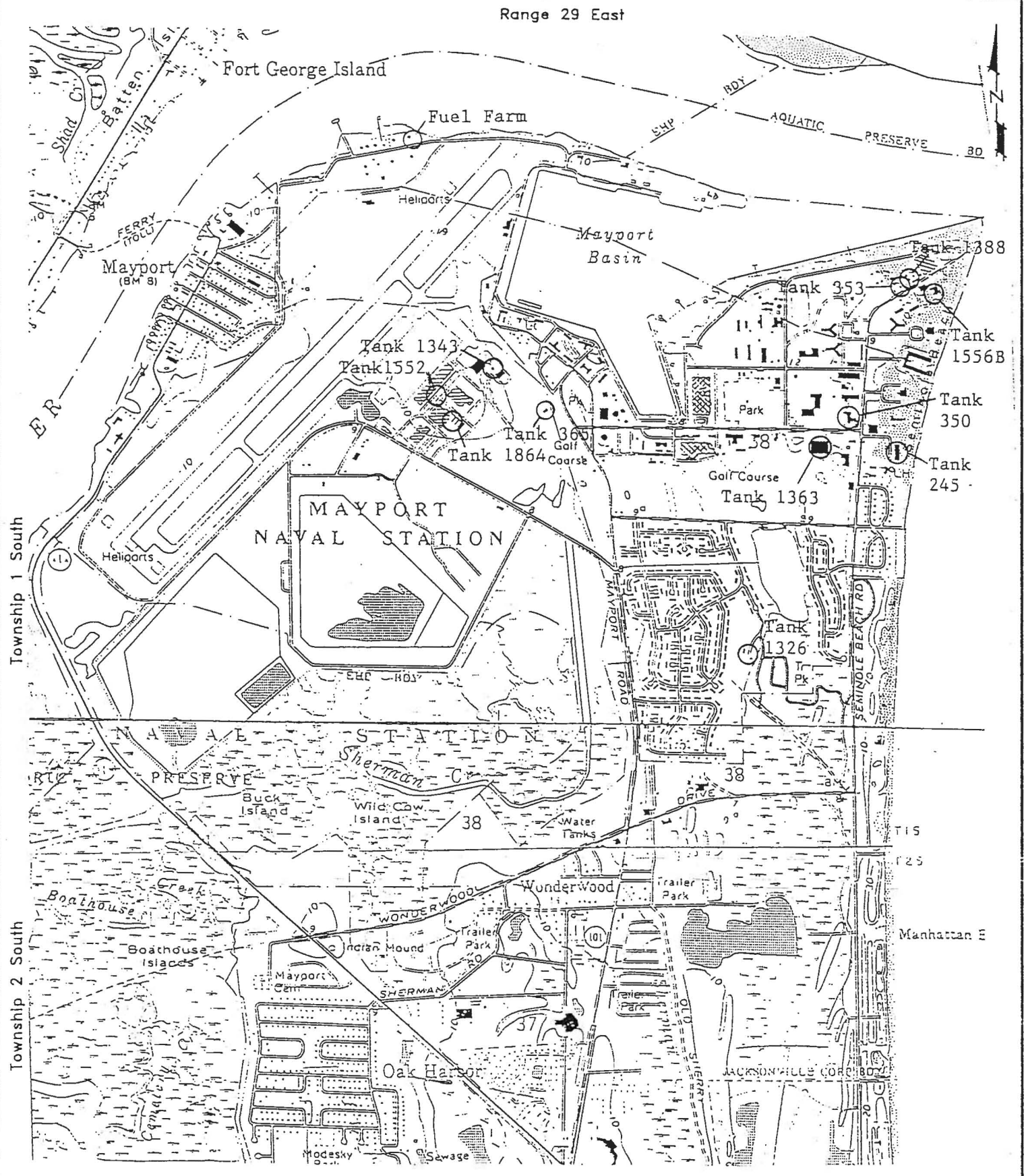
Source: USGS 7.5 Minute Topographic Map
Mayport, Florida Quadrangle, Revised 1992
Jacksonville Beach, Florida, Revised 1992

SLUG TEST LOCATIONS

PROJECT NO.	SCALE	DATE	DRAWN BY:
9970058	1:24,000	3/19/97	USGS
			DRAWING NO: fig1

Contamination Assessment Report
NSC FUEL FARM
Department of the Navy
Naval Station Mayport
Mayport, Florida

Figure 7



BEA Bhate Environmental Associates, Inc. Environmental Engineers & Scientists	Source: USGS 7.5 Minute Topographic Map Mayport, Florida Quadrangle, Revised 1992 Jacksonville Beach, Florida, Revised 1992 SLUG TEST LOCATIONS			Contamination Assessment Report NSC FUEL FARM Department of the Navy Naval Station Mayport Mayport, Florida
	PROJECT NO.: 9970058	SCALE: 1:24,000	DATE: 3/19/97	DRAWN BY: USGS DRAWING NO: fig1
				Figure 8

Contamination Assessment Report
NSC FUEL FRAM
Naval Station Mayport
Mayport, Florida

Figure 9

ST.JOHN'S RIVER

RIPRAP EMBANKMENT

TANK 201
13,500 BBL

TANK 202
13,500 BBL

TANK 203
27,000 BBL

TANK 204
27,000 BBL

NR MPT-9-MW03

FF-MW-8 1.20

FF-MW-7

FF-MW-6

FF-MW-5

FF-MW-9

FF-MW-3

FF-MW-1

FF-MW-2

FF-MW-4

MPT-16-MW02S (WELL WITH PRODUCT)

MPT-16-MW03S

MPT-16-MW01I

MPT-9-MW01S

MPT-8-P01

GRASS

FENCE

GATE

OIL LINE

PRODUCT LINE

AREA OF INVESTIGATION

PARKING LOT

1	1'-3'	BDL
	5'-7'	BDL
2	5'-7'	BDL
	8'-10'	BDL
3	1'-3'	BDL
	5'-7'	BDL
4	5'-7'	BDL
	8'-10'	BDL
5	1'-3'	BDL
	5'-7'	BDL
6	1'-3'	BDL
	5'-7'	BDL
7	8'-10'	BDL
	13'-15'	14,000
8	13'-15'	BDL
	18'-20'	BDL
9	13'-15'	BDL
	18'-20'	BDL
10	8'-10'	BDL
	13'-15'	BDL
11	5'-7'	BDL
	10'-12'	BDL
12	13'-15'	BDL
	18'-20'	1100
13	8'-10'	BDL
	10'-12'	BDL
14	1'-3'	BDL
	5'-7'	BDL
15	5'-7'	BDL
	10'-12'	BDL
16	13'-15'	BDL
	18'-20'	BDL
17	4'-6'	37
	8'-10'	440
18	4'-6'	BDL
	8'-10'	BDL
19	1'-3'	BDL
	4'-6'	BDL
20	4'-6'	BDL
	8'-10'	BDL
21	4'-6'	BDL
	8'-10'	BDL
22	1'-3'	BDL
	4'-6'	BDL
23	4'-6'	BDL
	8'-10'	BDL
24	8'-10'	BDL
	13'-15'	BDL
25	13'-15'	BDL
	18'-20'	BDL
26	8'-10'	BDL
	10'-12'	BDL
27	6'-8'	BDL
	8'-10'	BDL
28	3'-5'	BDL
	8'-10'	BDL
29	10'-12'	BDL
	15'-17'	BDL
30	5'-7'	BDL
	10'-12'	BDL
31	1'-3'	BDL
	5'-7'	BDL
32	1'-3'	BDL
	5'-7'	BDL
GP-1	1'-3'	BDL
	5'-7'	BDL
GP-2	13'-15'	BDL
	18'-20'	BDL
GP-3	13'-15'	BDL
	18'-20'	BDL
GP-4	18'-20'	BDL
	23'-25'	BDL
GP-5	13'-15'	BDL
	18'-20'	BDL
GP-6	13'-15'	BDL
	18'-20'	BDL
GP-7	13'-15'	BDL
	18'-20'	BDL
GP-8	13'-15'	BDL
	18'-20'	BDL
GP-9	1'-3'	BDL
	5'-7'	BDL
GP-10	1'-3'	BDL
	5'-7'	BDL
GP-11	8'-10'	BDL
	13'-15'	BDL
GP-12	1'-3'	21
	5'-7'	BDL
GP-13	1'-3'	BDL
	5'-7'	BDL
GP-14	13'-15'	BDL
	18'-20'	BDL
GP-15	5'-7'	BDL
	10'-12'	BDL
GP-16	8'-10'	BDL
	18'-20'	BDL

LEGEND

- PRE-EXISTING MONITORING WELL OR PIEZOMETER LOCATION
- NEW MONITOR WELL LOCATION
- GEOPROBE SOIL SAMPLE LOCATION
- D = DEEP
- FL-PRO FLORIDA PETROLEUM RESIDUAL ORGANICS IN PARTS PER MILLION
- BDL BELOW DETECTION LIMIT
- OIL LINE
- PRODUCT LINE
- NR NOT RECOVERED

NOTE: MAP DEVELOPED FROM A PORTION OF A SITE PLAN PROVIDED BY NSC FUEL FARM MAINTENANCE

NOTE: This information is depicted to provide visual aid within the context of this report and should not be used as a sole reference in precise dimensioning of features indicated.

FL-PRO ANALYTICAL RESULTS OF SOIL SAMPLES

DRAWN BY: CLL

DRAWING NO: 82-F8

DATE 4/17/97

SCALE APPROX. 1"=65'

PROJECT NO 9970082

BEA
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PAH	BDL
BTEX	BDL
TL	0.0076

PAH	BDL
BTEX	BDL
TL	0.021

ST.JOHN'S RIVER

RIPRAP EMBANKMENT

PAH	BDL
BTEX	BDL
TL	0.034

PAH	1-Methylnaphthalene 2.0
BTEX	BDL
TL	0.059

N

MPT-9-MW03

FF-MW-8

GP-31 GP-30 GP-29 GP-28 GP-27

GRASS

FF-MW-7

FENCE

GP-26

FF-MW-6 1.72

A'

GP-22

TANK 201
13,500 BBL

GP-23

GP-24

TANK 202
13,500 BBL

GP-25

PMW-3 1.84

FF-MW-9

PAH	BDL
BTEX	BDL
TL	0.0087

PAH	BDL
BTEX	BDL
TL	0.038

MPT-16-MW02S (WELL WITH PRODUCT)

FF-MW-5 2.05

GP-20

GP-32

GP-19

PAH	BDL
BTEX	BDL
TL	0.010

MPT-16-MW03S

PRODUCT LINE

GATE

GP-21

A

FF-MW-1

GP-18

GP-17

GRASS

AREA OF INVESTIGATION

PAH	BDL
BTEX	BDL
TL	0.019

PAH	BDL
BTEX	BDL
TL	0.0071

FF-MW-4

PAH	BDL
BTEX	BDL
TL	0.023

PAH	Naphthalene 1.4 2-Methylnaphthalene 72 1-Methylnaphthalene 87
BTEX	BDL
TL	0.012

PRODUCT LINE

MPT-9-MW01S

GP-10 GP-12 GP-13 GP-15

GP-11

GP-14

GP-8 GP-9

TANK 203
27,000 BBL

GP-7

GP-6

TANK 204
27,000 BBL

GP-15

GP-3

GP-5

GRASS

FF-MW-2

PAH	BDL
BTEX	BDL
TL	0.027

GP-2

GP-4

GP-1

MPT-8-P01

PARKING LOT

NR

MPT-16-MW01I

PAH	BDL
BTEX	BDL
TL	BDL

LEGEND

- PRE-EXISTING MONITORING WELL OR PIEZOMETER LOCATION
- NEW MONITOR WELL LOCATION
- GEOPROBE SOIL SAMPLE LOCATION
- D — DEEP
- PAH — POLYNUCLEAR AROMATIC HYDROCARBONS IN PARTS PER BILLION (ug/l)
- BTEX — BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, MTBE IN PARTS PER BILLION (ug/l)
- TL — TOTAL LEAD IN PARTS PER MILLION (mg/l)
- BDL — BELOW DETECTION LIMIT
- PRODUCT LINE
- APPROXIMATE AREA OF POTENTIALLY AFFECTED GROUNDWATER
- A ——— A' — TRACE OF FIGURE 11 PROFILE

NOTE: MAP DEVELOPED FROM A PORTION OF A SITE PLAN PROVIDED BY NSC FUEL FARM MAINTENANCE

NOTE: This information is depicted to provide visual aid within the context of this report and should not be used as a sole reference in precise dimensioning of features indicated.

Department of the Navy
Naval Station Mayport
Mayport, Florida

Figure 10

MONITORING WELL GROUNDWATER
ANALYTICAL RESULTS

DRAWN BY:	DRAWING NO:
-	82-F9

PROJECT NO	SCALE	DATE
9970082	Approx. 1"=65'	7/15/93

BEA
Bhate Environmental Associates, Inc.
Environmental Engineers & Scientists

PAH	BDL
BTEX	BDL
TL	0.0076

PAH	BDL
BTEX	BDL
TL	0.021

ST.JOHN'S RIVER

RIPRAP EMBANKMENT

PAH	BDL
BTEX	BDL
TL	0.034

PAH	1-Methylnaphthalene 2.0
BTEX	BDL
TL	0.059

OIL LINE

N

MPT-9-MW03

FF-MW-8

GP-31 GP-30 GP-29 GP-28 GP-27

GRASS

FF-MW-7

FF-MW-6 1.72

A'

FENCE

GP-22

TANK 201
13,500 BBL

GP-23

TANK 202
13,500 BBL

GP-24 GP-25 GP-26

FF-MW-9

PMW-3 1.84

PAH	BDL
BTEX	BDL
TL	0.038

PAH	BDL
BTEX	BDL
TL	0.0087

MPT-16-MW02S (WELL WITH PRODUCT)

FF-MW-5 2.05

GP-20

GP-32 GP-19 GP-17 GP-18

A

FF-MW-1

PAH	BDL
BTEX	BDL
TL	0.019

PAH	BDL
BTEX	BDL
TL	0.010

MPT-16-MW03S

PRODUCT LINE

GATE

GP-21

GRASS

AREA OF INVESTIGATION

PAH	BDL
BTEX	BDL
TL	0.0071

FF-MW-4

PAH	BDL
BTEX	BDL
TL	0.023

PAH	Naphthalene 1.4 2-Methylnaphthalene 72 1-Methylnaphthalene 87
BTEX	BDL
TL	0.012

PRODUCT LINE

MPT-9-MW01S

GP-10 GP-12 GP-13 GP-15

ELECTRICAL TRANSFORMER

GP-11

17

28

GP-14

NR

MPT-16-MW01I

PAH	BDL
BTEX	BDL
TL	BDL

GP-8 GP-9

34

GP-7

TANK 203
27,000 BBL

TANK 204
27,000 BBL

GP-6 GP-15

GP-3 GP-5

GRASS

FF-MW-2

PAH	BDL
BTEX	BDL
TL	0.027

GP-2 GP-4 GP-1

MPT-8-P01

LEGEND

PARKING LOT	
●	PRE-EXISTING MONITORING WELL OR PIEZOMETER LOCATION
◉	NEW MONITOR WELL LOCATION
⊕	GEOPROBE SOIL SAMPLE LOCATION
D	DEEP
PAH	POLYNUCLEAR AROMATIC HYDROCARBONS IN PARTS PER BILLION (ug/l)
BTEX	BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, MTBE IN PARTS PER BILLION (ug/l)
TL	TOTAL LEAD IN PARTS PER MILLION (mg/l)
BDL	BELOW DETECTION LIMIT
——·——	PRODUCT LINE
—28—	TOPOGRAPHIC CONTOUR LINE IN FEET ABOVE MEAN SEA LEVEL
A ▭	APPROXIMATE AREA OF POTENTIALLY AFFECTED GROUNDWATER
——— A'	TRACE OF FIGURE 11 PROFILE

NOTE: MAP DEVELOPED FROM A PORTION OF A SITE PLAN PROVIDED BY NSC FUEL FARM MAINTENANCE

NOTE: This information is depicted to provide visual aid within the context of features indicated of this report and should not be used as a sole reference in precise dimensioning

Department of the Navy
Naval Station Mayport
Mayport, Florida

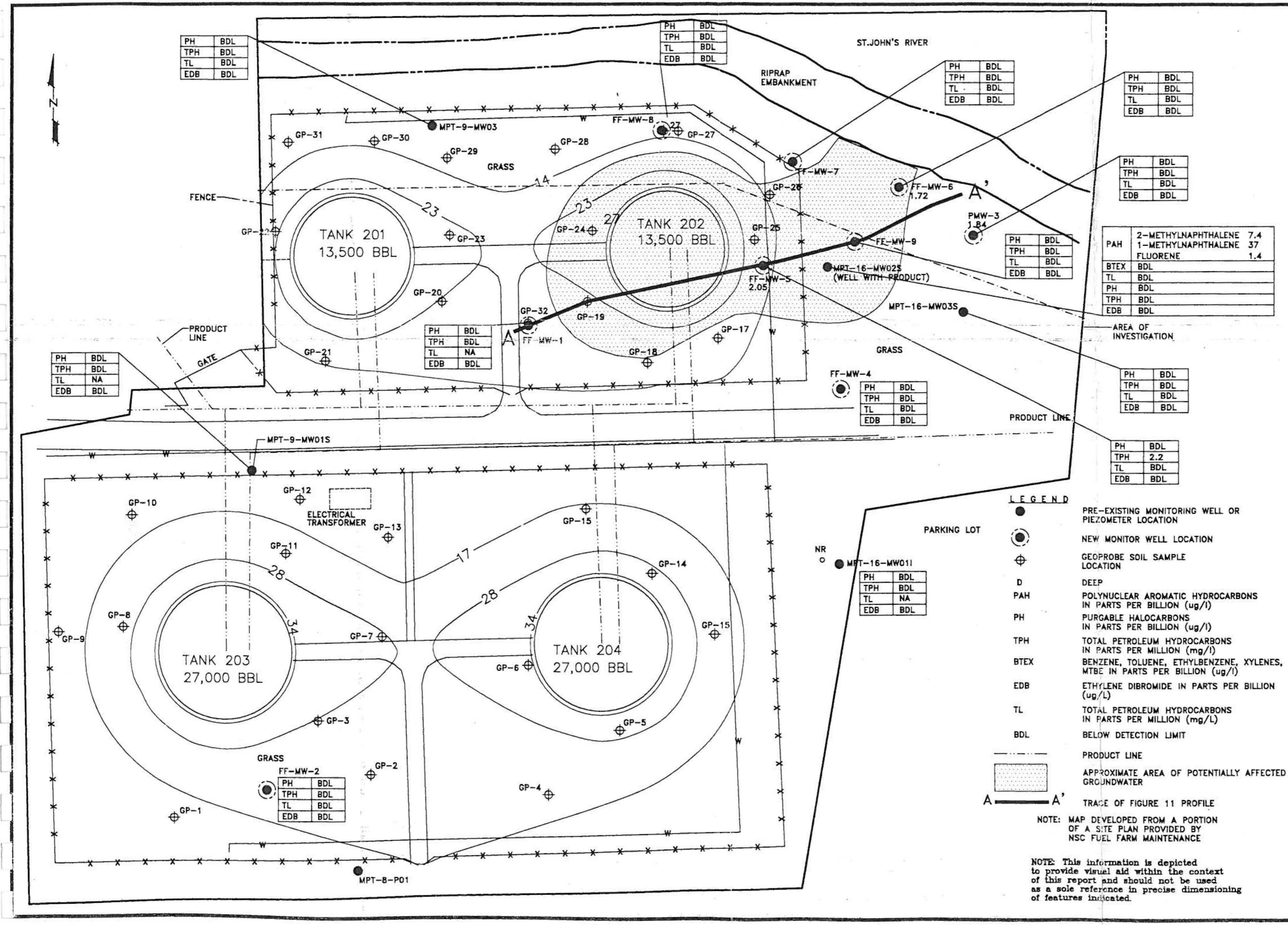
Figure 11

MONITORING WELL GROUNDWATER
ANALYTICAL RESULTS
6/2/97 AND 6/17/97

DRAWN BY:	DRAWING NO.
--	82-F9

DATE	SCALE	PROJECT NO.
7/15/93	Approx. 1"=65'	9970082

BEA
Bhate Environmental Associates, Inc.
Environmental Engineers & Scientists



Department of the Navy
Naval Station Mayport
Mayport, Florida

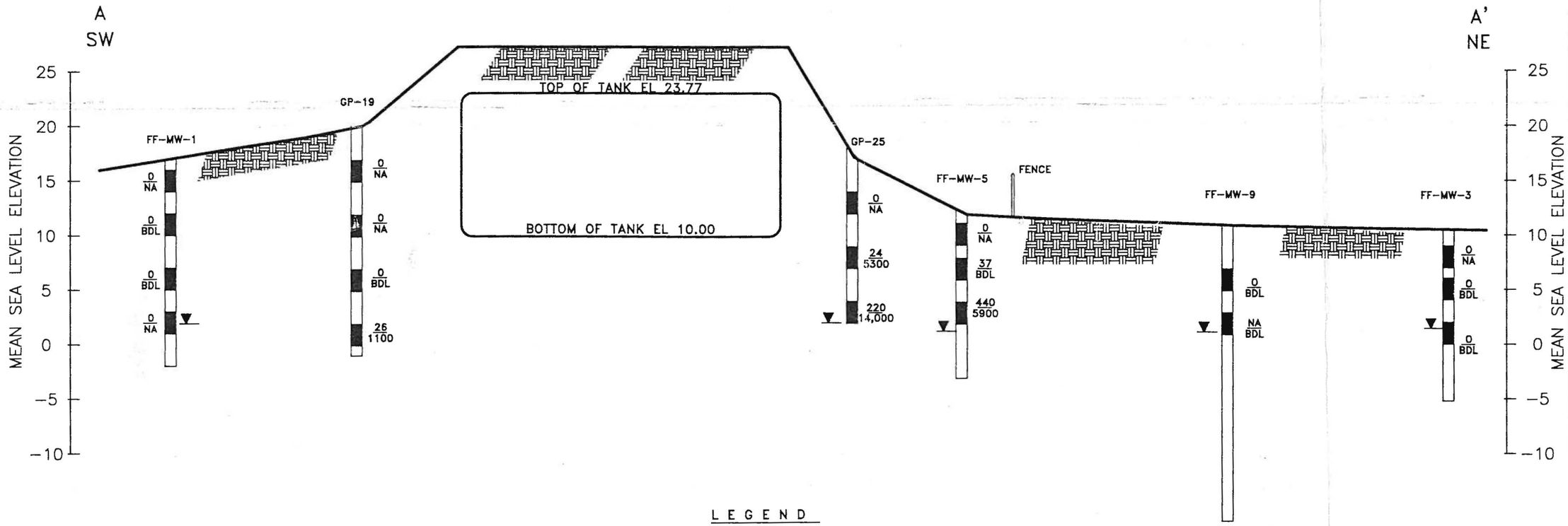
Figure 12

MONITORING WELL GROUNDWATER
ANALYTICAL RESULTS
10/8/97-10/10/97

DRAWN BY:	DRAWING NO:
–	82-F12

PROJECT NO.	SCALE	DATE
9970082	Approx. 1"=65'	7/15/93

BEA
Bhate Environmental Associates, Inc.
Environmental Engineers & Scientists



LEGEND

440 / 5400	FID HEADSPACE RESULTS (ppm) FL PRO ANALYTICAL RESULTS (ppm)
BDL	BELOW DETECTION LIMIT
NA	NOT ANALYZED
FL-PRO	FLORIDA PETROLEUM RESIDUAL ORGANICS IN PARTS PER MILLION (ppm)
FID	FLAME IONIZATION DETECTOR IN PARTS PER MILLION (ppm)
▮	SOIL SAMPLE
▼	GROUNDWATER ELEVATION ON JUNE 18, 1997
▦	INDICATES SOIL BELOW SURFACE

CONTAMINATION ASSESSMENT REPORT
NSC FUEL FRAM
Department of the Navy
Naval Station Mayport
Mayport, Florida

Figure 13

TANK 202 PROFILE

DRAWN BY:	D.T., H.O./KDH
DRAWING NO:	82-F10
DATE	7/9/97
SCALE	H:1"=30' V:1"=10'
PROJECT NO.	9970082

BEA
Bhate Environmental Associates, Inc.
Environmental Engineers & Scientists

TABLE 1
POTABLE WELL SURVEY DATA
CONTAMINATION ASSESSMENT REPORT
NSC FUEL FARM
BEA PROJECT NO.: 9970082

WELL DESTINATION	OWNER	INSTALLATION DATE	CASING DIAMETER	SURFACE ELEVATION	TOTAL DEPTH	SCREENED INTERVAL	WATER USAGE
N-1	U.S. NAVY	1961	12	10	1,001	435-1,001	POTABLE
N-2	U.S. NAVY	1958	12	10	1,000	435-1,000	POTABLE
N-3	U.S. NAVY	1979	16	10	1,000	435-1,000	POTABLE
N-4	U.S. NAVY	1979	16	10	1,000	419-1,000	POTABLE
D-236	U.S. NAVY	1962	6	9	814	440-814	IRRIGATION
Dept. of Public Utilities A	City of Jacksonville	1994	6	NA	1,000	Floridan Aquifer	POTABLE
Dept. of Public Utilities B	City of Jacksonville	1994	6	NA	1,000	Floridan Aquifer	POTABLE
Mayport Ferry Service A	Dept. of Transportation	1995	8	NA	NA	Floridan Aquifer	POTABLE

TABLE 2
MONITORING WELL CONSTRUCTION DATA AND WATER LEVEL DATA
CONTAMINATION ASSESSMENT REPORT
NSC FUEL FARM
NAVAL STATION MAYPORT

WELL NO.	DATE	TOTAL DEPTHS OF WELL BLS (ft.)	TOP OF CASING BLS (ft.)	SURVEYED TOP OF CASING ELEVATION (MSL)*	SCREENED INTERVAL DEPTH BLS (ft.)	DEPTH TO WATER FROM TOP OF CASING (ft.)	ELEVATION OF WATER TABLE (MSL)*
FF-MW-1	10/8/97	18.8	0.17	16.37	8.62-18.12	14.56	1.81
	7/16/97	18.8	0.17	16.37	8.62-18.12	14.65	1.72
	6/18/97	18.8	0.17	16.37	8.62-18.12	14.19	2.18
FF-MW-2	10/8/97	17.4	0.21	18.46	7.37-16.87	12.83	5.63
	7/16/97	17.4	0.21	18.46	7.37-16.87	NR	NR
	6/18/97	17.4	0.21	18.46	7.37-16.87	12.39	6.07
FF-MW-3	10/8/97	14.30	0.24	10.25	4.09-13.59	9.18	1.07
	7/16/97	14.30	0.25	10.25	4.09-13.59	9.31	0.94
	6/18/97	14.30	0.25	10.25	4.09-13.59	8.41	1.84
FF-MW-4	10/8/97	14.90	0.25	12.15	3.81-13.31	10.11	2.04
	7/16/97	14.90	0.25	12.15	3.81-13.31	10.28	1.87
	6/18/97	14.90	0.25	12.15	3.81-13.31	9.86	2.29
FF-MW-5	10/8/97	15.2	0.25	11.83	4.99-14.49	10.42	1.41
	7/16/97	15.2	0.25	11.83	4.99-14.49	10.65	1.18
	6/18/97	15.2	0.25	11.83	4.99-14.49	9.78	2.05
FF-MW-6	10/8/97	14.96	0.21	9.91	3.6-13.10	9.02	0.89
	7/16/97	14.96	0.21	9.91	3.6-13.10	9.14	0.77
	6/18/97	14.96	0.21	9.91	3.6-13.10	8.19	1.72
FF-MW-7	10/8/97	15.05	0.17	9.43	4.84-14.34	8.34	1.09
	7/16/97	15.05	0.17	9.43	4.84-14.34	8.50	0.93
	6/18/97	15.05	0.17	9.43	4.84-14.34	7.62	1.81
FF-MW-8	10/8/97	15.17	0.17	8.98	4.96-14.46	7.71	1.27
	7/16/97	15.17	0.17	8.98	4.96-14.46	7.78	1.20
	6/18/97	15.17	0.17	8.98	4.96-14.46	7.18	1.80

TABLE 2
MONITORING WELL CONSTRUCTION DATA AND WATER LEVEL DATA
CONTAMINATION ASSESSMENT REPORT
NSC FUEL FARM
NAVAL STATION MAYPORT

WELL NO.	DATE	TOTAL DEPTHS OF WELL BLS (ft.)	TOP OF CASING BLS (ft.)	SURVEYED TOP OF CASING ELEVATION (MSL)*	SCREENED INTERVAL DEPTH BLS (ft.)	DEPTH TO WATER FROM TOP OF CASING (ft.)	ELEVATION OF WATER TABLE (MSL)*
FF-MW-9	10/8/97	24.79	0.21	10.08	21.98-24.29	8.99	1.09
	7/16/97	24.79	0.21	10.08	21.98-24.29	9.15	0.93
	6/18/97	24.79	0.21	10.08	21.98-24.29	8.26	1.82
MPT16MW02S	10/8/97	15.50	0.28	10.74	5.0-15.0	9.46	1.28
	7/16/97	15.50	0.28	10.74	5.0-15.0	9.73	1.01
	6/18/97	15.50	0.28	10.74	5.0-15.0	9.91	0.83
MPT16MW03S	10/8/97	15.50	0.40	11.27	5.0-15.0	9.68	1.59
	7/16/97	15.50	0.40	11.27	5.0-15.0	9.85	1.42
	6/18/97	15.50	0.40	11.27	5.0-15.0	9.32	1.95
MPT-8-PO1	10/8/97	15.0	NR	12.89**	10.0-15.0	6.44	6.45
MPT-9-MW03	10/8/97	15.0	NR	11.49**	5.0-15.0	10.32	1.17
MPT-16-MW01I	10/8/97	30.0	NR	12.84**	25-30.0	10.96	1.88
MPT-9-MW01S	10/8/97	20.0	NR	14.39	5.0-20.0	12.45	1.93

Notes:
NR = Not recorded
BLS = Below Land Surface
* = Elevations referenced to MSL (Mean Sea Level)
** = Elevations obtained from previous reports by others
Water level measurement were obtained on June 3, July 16 and October 8, 1997

TABLE 3
SUMMARY OF HYDRAULIC CONDUCTIVITIES
NAVAL STATION MAYPORT
NSC FUEL FARM

UST LOCATION	WELL NUMBER	k (cm/sec)	k (ft/sec)
Fuel Farm	MW-2	8.46×10^{-3}	2.78×10^{-4}
Fuel Farm	MW-5	1.47×10^{-2}	4.82×10^{-4}
UST-245	MW-3	5.16×10^{-3}	1.69×10^{-4}
UST-350	MW-3	1.42×10^{-2}	4.65×10^{-4}
UST-353	MW-3	2.55×10^{-2}	8.35×10^{-4}
UST-365	MW-3	2.07×10^{-3}	6.78×10^{-4}
UST-1326	MW-3	3.66×10^{-2}	1.20×10^{-3}
UST-1343	MW-2	3.18×10^{-3}	1.04×10^{-4}
UST-1363	MW-3	6.07×10^{-3}	1.99×10^{-4}
UST-1388	MW-2	2.35×10^{-2}	7.72×10^{-4}
UST-1552	MW-1	3.82×10^{-3}	1.25×10^{-4}
UST-1556	MW-3	1.79×10^{-2}	5.86×10^{-4}
UST-1864	MW-2	2.63×10^{-3}	8.64×10^{-5}
Geometric Mean - all sites		8.61×10^{-3}	2.82×10^{-4}

Notes:
ppm = parts per million
NR = not recorded
OVA = Organic Vapor Analyzer

TABLE 4
SUMMARY OF SOIL HEADSPACE ANALYSES
NSC FUEL FARM
NAVAL STATION MAYPORT
MAYPORT, FLORIDA

Boring	Depth (ft.)	OVA Headspace Unfiltered (ppm)	OVA Headspace Filtered (ppm)	OVA Headspace Corrected (ppm)	Field Notes
GP-1	1-3	0	---	0	Dry to damp. No odor.
	5-7	0	---	0	Dry to damp. No odor.
	10-12	0	---	0	Wet. No odor.
GP-2	1-3	0	---	0	No odor.
	5-7	0	---	0	No odor.
	10-12	0	---	0	No odor.
	15-17	0	---	0	Saturated. No odor.
GP-3	3-5	0	---	0	Dry. No odor.
	8-10	0	---	0	Dry. No odor.
	13-15	0	---	0	Dry. No odor.
	18-20	0	---	0	Damp. No odor.
	23-25	0	---	0	Wet. No odor.
GP-4	3-5	0	---	0	Dry to damp. No odor.
	8-10	0	---	0	Dry to damp. No odor.
	13-15	0	---	0	Wet. No odor
GP-5	3-5	0	---	0	No odor.
	8-10	0	---	0	No odor.
	13-15	0	---	0	No odor.
GP-6	3-5	2	0	2	No odor.
	8-10	0	---	0	No odor.
	13-15	0	---	0	No odor.
	18-20	0	---	0	No odor.
	23-25	0	---	0	No odor.

TABLE 4—Continued
SUMMARY OF SOIL HEADSPACE ANALYSES

NSC FUEL FARM
NAVAL STATION MAYPORT
MAYPORT, FLORIDA

Boring	Depth (ft.)	OVA Headspace Unfiltered (ppm)	OVA Headspace Filtered (ppm)	OVA Headspace Corrected (ppm)	Field Notes
GP-7	3-5	0	---	0	Dry. No odor.
	8-10	0	---	0	Dry. No odor.
	13-15	0	---	0	Damp. No odor.
	18-20	0	---	0	Damp. No odor.
	23-25	0	---	0	Wet. No odor.
GP-8	5-7	1.5	0	1.5	No odor.
	8-10	0	---	0	No odor.
	13-15	0	---	0	No odor.
	18-20	0	---	0	No odor.
GP-9	1-3	0	---	0	Dry. No odor.
	5-7	0	---	0	Dry to damp. No odor.
	10-12	1	0	1	Wet. No odor.
GP-10	1-3	0	---	-	Dry. No odor.
	5-7	0	---	0	Dry. No odor.
	10-12	70	3	67	Wet. Moderate Organic odor.
GP-11	3-5	0	---	0	No odor.
	8-10	0	---	0	No odor.
	13-15	0	--	0	No odor.
	18-20	<1	0	<1	No odor.
GP-12	1-3	0	---	0	Dry to damp. No odor.
	5-7	0	---	0	Damp. No odor.
	10-12	200	200	0	Wet. Moderate to strong organic odor.

TABLE 4---Continued
SUMMARY OF SOIL HEADSPACE ANALYSES

NSC FUEL FARM
NAVAL STATION MAYPORT
MAYPORT, FLORIDA

Boring	Depth (ft.)	OVA Headspace Unfiltered (ppm)	OVA Headspace Filtered (ppm)	OVA Headspace Corrected (ppm)	Field Notes
GP-13	1-3	0	---	0	Dry to damp. No odor.
	5-7	0	---	0	Dry to damp. No odor.
	10-12	0	---	0	Wet. Possible slight organic odor.
GP-14	3-5	0	---	0	Damp. No odor.
	8-10	0	---	0	Damp. No odor
	13-15	0	---	0	Damp. No odor.
	18-20	0	---	0	Damp. No odor.
	23-25	0	---	0	Wet. No odor.
GP-15	10-12	0	---	0	No odor.
	15-17	0	---	0	Saturated. No odor.
GP-16	3-5	0	---	0	No odor.
	8-10	0	---	0	Slight Stain. No odor.
	13-15	0	---	0	No odor.
	18-20	0	---	0	No odor.
GP-17	3-5	0	---	0	No odor
	8-10	0	---	0	No odor
	10-12	0	---	0	No odor
GP-18	1-3	0	---	0	Dry to Damp. No odor.
	5-7	0	---	0	Damp. No odor.
	10-12	5	0	5	Wet in the last foot. Moderate odor.
GP-19	3-5	0	---	0	No odor.
	8-10	0	---	0	No odor.
	13-15	0	---	0	Damp. No odor.

TABLE 4—Continued
SUMMARY OF SOIL HEADSPACE ANALYSES
NSC FUEL FARM
NAVAL STATION MAYPORT
MAYPORT, FLORIDA

Boring	Depth (ft.)	OVA Headspace Unfiltered (ppm)	OVA Headspace Filtered (ppm)	OVA Headspace Corrected (ppm)	Field Notes
GP-20	3-5	0	---	0	Damp. No odor
	8-10	0	---	0	Damp. No odor
	13-15	0	---	0	Damp. No odor
GP-21	1-3	1	0	1	No odor.
	5-7	0	---	0	No odor.
	10-12	0	---	0	No odor.
GP-22	3-5	0	---	0	Dry to damp. No odor.
	8-10	0	---	0	Damp. No odor.
	13-15	0	---	0	Damp. No odor.
	18-20	Interval	Not	Sampled	--------
	20-22	520	480	40	Wet. Strong organic odor.
GP-23	3-5	0	---	0	Damp. No odor.
	8-10	0	---	0	Damp. No odor.
	13-15	0	---	0	Damp. No odor.
	18-20	0	---	0	Damp. No odor.
GP-24	3-5	0	---	0	No odor.
	8-10	0	---	0	No odor.
	13-15	0	---	0	No odor.
	18-20	24	0	24	Slight odor.
	23-25	>1000	>1000	Unknown	Strong organic odor
GP-25	3-5	0	---	0	No odor.
	8-10	78	54	24	Moderate. No odor.
	13-15	760	540	220	Moist. Moderate odor and staining.

TABLE 4—Continued
SUMMARY OF SOIL HEADSPACE ANALYSES
NSC FUEL FARM
NAVAL STATION MAYPORT
MAYPORT, FLORIDA

Boring	Depth (ft.)	OVA Headspace Unfiltered (ppm)	OVA Headspace Filtered (ppm)	OVA Headspace Corrected (ppm)	Field Notes
GP-26	1-3	0	---	0	Dry. No odor.
	5-7	0	---	0	Dry. No odor.
	10-12	1	0	1	Wet. Slight organic odor.
GP-27	1-3	0	---	0	Dry. No odor.
	5-7	0	---	0	No odor.
	10-12	0	---	0	Wet. Slight organic odor.
GP-28	1-3	0	---	0	No odor.
	5-7	0	---	0	No odor.
	8-10	4	0	4	No odor.
GP-29	1-3	0	---	0	Dry to damp. No odor.
	5-7	0	---	0	Dry to damp. No odor.
	10-12	0	---	0	Dry to damp. No odor.
GP-30	1-3	0	---	0	No odor.
	5-7	0	---	0	No odor.
	8-10	0	---	0	Saturated. No odor.
GP-31	1-3	0	---	0	Dry. No odor.
	5-7	0	---	0	Dry to damp. No odor.
	10-12	12	10	2	Wet. Very slight odor.
GP-32	1-3	0	---	0	Dry. No odor.
	5-7	0	---	0	Damp. Very slight odor.
	10-12	0	---	0	Damp. No odor.
	14-16	0	---	0	Wet. No odor.
FF-MW-2	1-3	0	---	0	No odor.
	5-7	0	---	0	No odor.
	10-12	0	---	0	No odor.

TABLE 4—Continued
SUMMARY OF SOIL HEADSPACE ANALYSES

NSC FUEL FARM
NAVAL STATION MAYPORT
MAYPORT, FLORIDA

Boring	Depth (ft.)	OVA Headspace Unfiltered (ppm)	OVA Headspace Filtered (ppm)	OVA Headspace Corrected (ppm)	Field Notes
FF-MW-3	1-3	0	---	0	No odor.
	4-6	0	---	0	No odor.
	8-10	0	---	0	No odor.
FF-MW-4	4-6	0	---	0	No odor.
	6-8	0	---	0	No odor.
	8-10	0	---	0	No odor.
FF-MW-5	1-3	0	---	0	No odor
	4-6	38	1	37	Slight odor.
	8-10	460	20	440	Petroleum odor.
FF-MW-6	1-3	0	---	0	No odor.
	4-6	0	---	0	No odor.
	8-10	3	0	3	Slight odor

TABLE 4—Continued
SUMMARY OF SOIL HEADSPACE ANALYSES

NSC FUEL FARM
NAVAL STATION MAYPORT
MAYPORT, FLORIDA

Boring	Depth (ft.)	OVA Headspace Unfiltered (ppm)	OVA Headspace Filtered (ppm)	OVA Headspace Corrected (ppm)	Field Notes
FF-MW-7	1-3	0	---	0	No odor.
	4-6	0	---	0	No odor.
	8-10	0	---	0	No odor.
FF-MW-8	1-3	0	---	0	No odor.
	4-6	0	---	0	No odor.
	8-10	0	---	0	No odor.
FF-MW-9	4-6	0	---	0	No odor.

TABLE 5
SUMMARY OF SOIL TPH CONCENTRATIONS
THE RESULTS OF FL-PRO ANALYSES

NSC FUEL FARM
NAVAL STATION MAYPORT
MAYPORT, FLORIDA

Boring	Depth (ft.)	TPH (mg/kg)
GP-1	1-3	BDL
	5-7	BDL
GP-2	10-12	BDL
	15-17	BDL
GP-3	13-15	BDL
	18-20	BDL
GP-4	3-5	BDL
	8-10	BDL
GP-5	13-15	BDL
	18-20	BDL
GP-6	18-20	BDL
	23-25	BDL
GP-7	13-15	BDL
	18-20	BDL
GP-8	13-15	BDL
	18-20	BDL
GP-9	1-3	BDL
	5-7	BDL
GP-10	1-3	BDL
	5-7	BDL
GP-11	8-10	BDL
	13-15	BDL

TABLE 5—Continued
SUMMARY OF SOIL TPH CONCENTRATIONS
THE RESULTS OF FL-PRO ANALYSES

NSC FUEL FARM
NAVAL STATION MAYPORT
MAYPORT, FLORIDA

Boring	Depth (ft.)	TPH (mg/kg)
GP-12	1-3	21
	5-7	BDL
GP-13	1-3	BDL
	5-7	BDL
GP-14	13-15	BDL
	18-20	BDL
GP-15	5-7	BDL
	10-12	BDL
GP-16	8-10	BDL
	18-20	BDL
GP-17	8-10	BDL
	10-12	BDL
GP-18	1-3	BDL
	5-7	BDL
GP-19	13-15	BDL
	18-20	1,100
GP-20	8-10	BDL
	13-15	BDL
GP-21	5-7	BDL
	10-12	BDL
GP-22	8-10	BDL
	13-15	BDL

TABLE 5—Continued
SUMMARY OF SOIL TPH CONCENTRATIONS
THE RESULTS OF FL-PRO ANALYSES

NSC FUEL FARM
NAVAL STATION MAYPORT
MAYPORT, FLORIDA

Boring	Depth (ft.)	TPH (mg/kg)
GP-23	13-15	BDL
	18-20	BDL
GP-24	13-15	BDL
	18-20	BDL
GP-25	8-10	5,300
	13-15	14,000
GP-26	1-3	BDL
	5-7	BDL
GP-27	1-3	BDL
	5-7	BDL
GP-28	5-7	BDL
	8-10	BDL
GP-29	1-3	BDL
	5-7	BDL
GP-30	5-7	BDL
	8-10	BDL
GP-31	1-3	BDL
	5-7	BDL
GP-32	5-7	BDL
	10-12	BDL
FF-MW-2*	5-7	BDL
	10-12	BDL

TABLE 5—Continued
SUMMARY OF SOIL TPH CONCENTRATIONS
THE RESULTS OF FL-PRO ANALYSES
NSC FUEL FARM
NAVAL STATION MAYPORT
MAYPORT, FLORIDA

Boring	Depth (ft.)	TPH (mg/kg)
FF-MW-3	4-6	BDL
	8-10	BDL
FF-MW-4	6-8	BDL
	8-10	BDL
FF-MW-5	4-6	BDL
	8-10	5,900
FF-MW-6	4-6	BDL
	8-10	600
FF-MW-7	1-3	BDL
	4-6	BDL
FF-MW-8	4-6	BDL
	8-10	BDL
FF-MW-9	4-6	BDL
	8-10	BDL

FL-PRO= Florida Petroleum Residual Organics
TPH = Total Petroleum Hydrocarbons
***Appendix laboratory analysis sheets refers to "FF-MW-2" by the designation "PMW-2".**

TABLE 6
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS FROM EXISTING WELLS
NSC FUEL FARM
NAVAL STATION MAYPORT
MAYPORT, FLORIDA

POLYNUCLEAR AROMATIC HYDROCARBONS (Method 8270)

PARAMETER	16MW03S 6/02/97	16MW01I 6/02/97	9MW01S 6/02/97	9MW03 6/02/97	16MW02S 10/09/97
Naphthalene ug/l	BDL	BDL	BDL	BDL	BDL
2-Methylnaphthalene ug/l	BDL	BDL	BDL	BDL	7.4
1-Methylnaphthalene ug/l	BDL	BDL	BDL	BDL	37
Acenaphthylene ug/l	BDL	BDL	BDL	BDL	BDL
Acenaphthene ug/l	BDL	BDL	BDL	BDL	BDL
Fluorene ug/l	BDL	BDL	BDL	BDL	1.4
Phenanthrene ug/l	BDL	BDL	BDL	BDL	BDL
Anthracene ug/l	BDL	BDL	BDL	BDL	BDL
Fluoranthene ug/l	BDL	BDL	BDL	BDL	BDL
Pyrene ug/l	BDL	BDL	BDL	BDL	BDL
Benzo(a)anthracene ug/l	BDL	BDL	BDL	BDL	BDL
Chrysene ug/l	BDL	BDL	BDL	BDL	BDL
Benzo(b)Fluoranthene ug/l	BDL	BDL	BDL	BDL	BDL
Benzo(k)Fluoranthene ug/l	BDL	BDL	BDL	BDL	BDL
Benzo(a)pyrene ug/l	BDL	BDL	BDL	BDL	BDL

BDL = Below Detection Limit

TABLE 6-Continued
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS FROM EXISTING WELLS
NSC FUEL FARM
NAVAL STATION MAYPORT
MAYPORT, FLORIDA

POLYNUCLEAR AROMATIC HYDROCARBONS (Continued)					
PARAMETER	**16MW03S 6/02/97**	**16MW01I 6/02/97**	**9MW01S 6/02/97**	**9MW03 6/02/97**	**16MW02 S 10/09/97**
Dibenzo(a,h)Anthracene ug/l	BDL	BDL	BDL	BDL	BDL
Indeno(1,2,3-c,d)pyrene ug/l	BDL	BDL	BDL	BDL	BDL
Benzo(g,h,i)perylene ug/l	BDL	BDL	BDL	BDL	BDL
PURGEABLE AROMATICS (Method 602)					
Benzene ug/l	BDL	BDL	BDL	BDL	BDL
Chlorobenzene ug/l	BDL	BDL	BDL	BDL	BDL
1,2-Dichlorobenzene ug/l	BDL	BDL	BDL	BDL	BDL
1,3-Dichlorobenzene ug/l	BDL	BDL	BDL	BDL	BDL
1,4-Dichlorobenzene ug/l	BDL	BDL	BDL	BDL	BDL
Ethylbenzene ug/l	BDL	BDL	BDL	BDL	BDL
Toluene ug/l	BDL	BDL	BDL	BDL	BDL
Total Xylenes ug/l	BDL	BDL	BDL	BDL	BDL
Total BTEX ug/l	BDL	BDL	BDL	BDL	BDL
MTBE ug/l	BDL	BDL	BDL	BDL	BDL
METALS					
LEAD mg/l	0.010	BDL	0.0071	0.0076	BDL

BDL = Below Detection Limit

TABLE 6-Continued
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS FROM EXISTING WELLS
NSC FUEL FARM
NAVAL STATION MAYPORT
MAYPORT, FLORIDA

PURGEABLE HALOCARBONS (METHOD 601)

PARAMETER	16MW03S 10/09/97	16MWO1I 10/09/97	9MWO1S 10/10/97	9MW03 10/10/97	16-MW-02S 10/09/97
Bromodichloromethane ug/l	BDL	BDL	BDL	BDL	BDL
Bromoform ug/l	BDL	BDL	BDL	BDL	BDL
Bromomethane ug/l	BDL	BDL	BDL	BDL	BDL
Carbon Tetrachloride ug/l	BDL	BDL	BDL	BDL	BDL
Chlorobenzene ug/l	BDL	BDL	BDL	BDL	BDL
Chloroethane ug/l	BDL	BDL	BDL	BDL	BDL
2-Chloroethylvinyl Ether ug/l	BDL	BDL	BDL	BDL	BDL
Chloroform ug/l	BDL	BDL	BDL	BDL	BDL
Chloromethane ug/l	BDL	BDL	BDL	BDL	BDL
Dibromochloromethane ug/l	BDL	BDL	BDL	BDL	BDL
1,2-Dichlorobenzene ug/l	BDL	BDL	BDL	BDL	BDL
1,3-Dichlorobenzene ug/l	BDL	BDL	BDL	BDL	BDL
1,4-Dichlorobenzene ug/l	BDL	BDL	BDL	BDL	BDL
Dichlorodifluoromethane ug/l	BDL	BDL	BDL	BDL	BDL

BDL = Below Detection Limit

TABLE 6-Continued
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS FROM EXISTING WELLS
NSC FUEL FARM
NAVAL STATION MAYPORT
MAYPORT, FLORIDA

PURGEABLE HALOCARBONS (METHOD 601)					
PARAMETER	**16MW03S 10/09/97**	**16MW01I 10/09/97**	**9MW01S 10/10/97**	**9MW03 10/10/97**	**16MW02SS 10/09/97**
1,1 Dichloroethane ug/l	BDL	BDL	BDL	BDL	BDL
1,2-Dichloroethane ug/l	BDL	BDL	BDL	BDL	BDL
1,1-Dichloroethene	BDL	BDL	BDL	BDL	BDL
Cis - 1,2-Dichloroethene ug/l	BDL	BDL	BDL	BDL	BDL
Trans-1,2-Dichloroethene ug/l	BDL	BDL	BDL	BDL	BDL
1,2-Dichloropropane ug/l	BDL	BDL	BDL	BDL	BDL
Cis - 1,3-Dichloropropen ug/l	BDL	BDL	BDL	BDL	BDL
Trans - 1,3-Dichloropropen ug/l	BDL	BDL	BDL	BDL	BDL
Methylene Chloride ug/l	BDL	BDL	BDL	BDL	BDL
1,1,2,2-Tetrachloroethan ug/l	BDL	BDL	BDL	BDL	BDL
Tetrachloroethene ug/l	BDL	BDL	BDL	BDL	BDL
1,1,1-Trichloroethane ug/l	BDL	BDL	BDL	BDL	BDL
1,1,2-Trichloroethane ug/l	BDL	BDL	BDL	BDL	BDL
Trichloroethene ug/l	BDL	BDL	BDL	BDL	BDL
Trichlorofluoromethane ug/l	BDL	BDL	BDL	BDL	BDL
Vinyl Chloride ug/l	BDL	BDL	BDL	BDL	BDL

BDL = Below Detection Limit

TABLE 6-Continued
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS FROM EXISTING WELLS
NSC FUEL FARM
NAVAL STATION MAYPORT
MAYPORT, FLORIDA

EDB/DBCP (METHOD 504.1)					
PARAMETER	**16MW03S 10/09/97**	**16MW01I 10/9/97**	**9MW01S 10/10/97**	**9MW03 10/10/97**	**16MW02S 10/09/97**
EDB ug/l	BDL	BDL	BDL	BDL	BDL
DBCP ug/l	BDL	BDL	BDL	BDL	BDL
TOTAL PETROLEUM HYDROCARBONS (METHOD FL-PRO)					
TPH	BDL	BDL	BDL	BDL	41

BDL = Below Detection Limit

TABLE 7
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS FROM ASSESSMENT WELLS
NSC FUEL FARM
NAVAL STATION MAYPORT
MAYPORT, FLORIDA

POLYNUCLEAR AROMATIC HYDROCARBONS (Method 8270)

PARAMETER	DATE	FF-MW-1	FF-MW-2	FF-MW-3	FF-MW-4	FF-MW-5	FF-MW-6	FF-MW-7	FF-MW-8	FF-MW-9
Naphthalene ug/l	6/17/97	BDL	BDL	BDL	BDL	1.4	BDL	BDL	BDL	BDL
2-Methylnaphthalene ug/l	6/17/97	BDL	BDL	BDL	BDL	72.0	BDL	BDL	BDL	BDL
1-Methylnaphthalene ug/l	6/17/97	BDL	BDL	BDL	BDL	87.0	2.0	BDL	BDL	BDL
Acenaphthylene ug/l	6/17/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Acenaphthene ug/l	6/17/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluorene ug/l	6/17/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenanthrene ug/l	6/17/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Anthracene ug/l	6/17/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluoranthene ug/l	6/17/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Pyrene ug/l	6/17/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)anthracene ug/l	6/17/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chrysene ug/l	6/17/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(b)Fluoranthene ug/l	6/17/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(k)Fluoranthene ug/l	6/17/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)pyrene ug/l	6/17/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

BDL = Below Detection Limit

TABLE 7 - Continued
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS ASSESSMENT WELLS
NSC FUEL FARM
NAVAL STATION MAYPORT
MAYPORT, FLORIDA

PARAMETER	DATE	FF-MW-1	FF-MW-2	FF-MW-3	FF-MW-4	FF-MW-5	FF-MW-6	FF-MW-7	FF-MW-8	FF-MW-9
POLYNUCLEAR AROMATIC HYDROCARBONS (Continued)										
Dibenzo(a,h)Anthracene ug/l	6/17/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Indeno(1,2,3-c,d)pyrene ug/l	6/17/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(g,h,i)perylene ug/l	6/17/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
BTEX COMPOUNDS (METHOD 8020)										
Benzene ug/l	6/17/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene ug/l	6/17/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene ug/l	6/17/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Total Xylenes ug/l	6/17/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Total BTEX ug/l	6/17/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MTBE ug/l	6/17/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
METALS										
LEAD mg/l	6/17/97	0.019	0.027	0.038	0.023	0.012	0.059	0.034	0.021	0.0087
	10/8-9/97	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA

BDL = Below Detection Limit
NA = Not Analyzed

TABLE 7
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS FROM ASSESSMENT WELLS
(CONTINUED)
NSC FUEL FARM
NAVAL STATION MAYPORT
MAYPORT, FLORIDA

PURGEABLE HALOCARBONS

PARAMETER	DATE	FF-MW-1	FF-MW-2	FF-MW-3	FF-MW-4	FF-MW-5	FF-MW-6	FF-MW-7	FF-MW-8	FF-MW-9
Bromodichloromethane ug/l	10/08/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bromoform ug/l	10/08/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bromomethane ug/l	10/08/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Carbon Tetrachloride ug/l	10/08/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chlorobenzene ug/l	10/08/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroethane ug/l	10/08/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-Chloroethylvinyl Ether ug/l	10/08/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroform ug/l	10/08/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloromethane ug/l	10/08/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Dibromochloromethane ug/l	10/08/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2-Dichlorobenzene ug/l	10/08/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,3-Dichlorobenzene ug/l	10/08/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,4-Dichlorobenzene ug/l	10/08/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Dichlorodifluoromethane ug/l	10/08/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

BDL = Below Detection Limit

TABLE 7
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS FROM ASSESSMENT WELLS
(CONTINUED)
NSC FUEL FARM
NAVAL STATION MAYPORT
MAYPORT, FLORIDA

PURGEABLE HALOCARBONS

PARAMETER	DATE	FF-MW-1	FF-MW-2	FF-MW-3	FF-MW-4	FF-MW-5	FF-MW-6	FF-MW-7	FF-MW-8	FF-MW-9
1,1-Dichloroethene	10/08/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Cis - 1,2-Dichloroethene ug/l	10/08/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trans-1,2-Dichloroethene ug/l	10/08/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2-Dichloropropane ug/l	10/08/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Cis - 1,3-Dichloropropene ug/l	10/08/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trans - 1,3-Dichloropropen ug/l	10/08/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylene Chloride ug/l	10/08/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1,2,2-Tetrachloroethan ug/l	10/08/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Tetrachloroethene ug/l	10/08/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1,1-Trichloroethane ug/l	10/08/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1,2-Trichloroethane ug/l	10/08/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichloroethene ug/l	10/08/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichlorofluoromethane ug/l	10/08/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Vinyl Chloride ug/l	10/08/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

BDL = Below Detection Limit

TABLE 7-Continued
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS FROM EXISTING WELLS
NSC FUEL FARM
NAVAL STATION MAYPORT
MAYPORT, FLORIDA

EDB/DBCP (METHOD 504.1)										
PARAMETER	**DATE**	**FF-MW-1**	**FF-MW-2**	**FF-MW-3**	**FF-MW-4**	**FF-MW-5**	**FF-MW-6**	**FF-MW-7**	**FF-MW-8**	**FF-MW-9**
EDB ug/l	10/08/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DBCP ug/l	10/08/97	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
TOTAL PETROLEUM HYDROCARBONS (METHOD FL-PRO)										
TPH mg/l	10/08/97	BDL	BDL	BDL	BDL	2.2	2.4	BDL	BDL	BDL
GENERAL CHEMISTRY										
TURBIDITY	10/08/97	NA	22	2.1	0.67	23	46	24	2.3	NA

BDL = Below Detection Limit
NA = Not analyzed

Bhate Environmental, Inc.
Environmental Engineers & Scientists

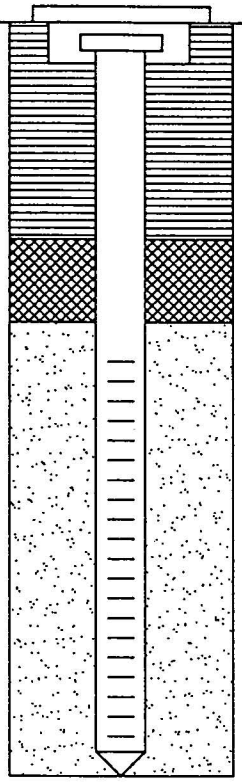
MONITORING WELL LOG

BORING NO: FF-MW-1
PROJECT NO: 9970082

PROJECT NAME: NAVSTA MAYPORT CLIENT: U.S. NAVY
PROJECT LOCATION: FUEL FARM
DRILLING MTHD: 4 1/2 INCH ID HOLLOW STEM AUGER SAMPLE MTHD: 24 INCH GEOPROBE SAMPLER
DATE STARTED: 6/13/97 DATE FINISHED: 6/13/97 ENGINEER/GEOLOGIST: D. TRAPP

ELEV.	LITHOLOGIC DESCRIPTION	DEPTH. (FT.)	SAMPLE	FL-PRO RESULTS	WATER LEVEL
	Light brown, fine to medium sand with shell fragments, grassed at surface	0.0			
	2 inches of dark brown, silty very fine grained sand (light petroleum odor)	5.0		BDL	
	Numerous shell fragments (no odor)	10.0		BDL	
	Light brown, wet, fine to medium sand with shell fragments (no petroleum odor) (organic odor)	15.0			6/16/97
	BORING TERMINATED @ 19 FEET BELOW GROUND SURFACE	20.0			
		25.0			
		30.0			

WELL SECTION



ANNULAR AND WELL CONSTRUCTION MATERIALS

FLUSH MOUNTED COVER WITH WATER TIGHT LOCKING CAP

Approximately 5.5 feet of cement grout

Well Casing consist of a 2-inch diameter Schedule 40 PVC Section

Approximately 2.0 feet thick Bentonite Seal

Sand packed Material of 20/30 gradation

Well Screen Consists of a 10-foot section Schedule 40 0.010 inch factory slotted screen (2-inch diameter)

BOTTOM OF TEST BORING: 19.0' BGS

BGS = BELOW GROUND SURFACE

BDL = BELOW DETECTION LIMIT

Bhate Environmental, Inc.
Environmental Engineers & Scientists

MONITORING WELL LOG

BORING NO: FF-MW-2
PROJECT NO: 9970082

PROJECT NAME: NAVSTA MAYPORT CLIENT: U.S. NAVY
PROJECT LOCATION: FUEL FARM
DRILLING MTHD: 4 1/2 INCH ID HOLLOW STEM AUGER SAMPLE MTHD: 24 INCH GEOPROBE SAMPLER
DATE STARTED: 6/13/97 DATE FINISHED: 6/13/97 ENGINEER/GEOLOGIST: D. TRAPP

ELEV.	LITHOLOGIC DESCRIPTION	DEPTH. (FT.)	SAMPLE	FL-PRO RESULTS	WATER LEVEL	WELL SECTION	ANNULAR AND WELL CONSTRUCTION MATERIALS
							FLUSH MOUNTED COVER WITH WATER TIGHT LOCKING CAP
	Tan, loose, dry, fine sand with shell fragments	0.0					Approximately 4.0 feet of cement grout
		5.0		BDL			Well Casing consist of a 2-inch diameter Schedule 40 PVC Section Approximately 2.0 feet thick Bentonite Seal
	Tan, loose, moiste, fine sand with shell fragments and occasional clay lenses	10.0		BDL	6/18/97		Sand packed Material of 20/30 gradation
		15.0					Well Screen Consists of a 10-foot section Schedule 40 0.010 inch factory slotted screen (2-inch diameter)
	BORING TERMINATED @ 17.5 FEET BELOW GROUND SURFACE	20.0					
		25.0					
		30.0					

BOTTOM OF TEST BORING: 19.0' BGS

BGS = BELOW GROUND SURFACE

BDL = BELOW DETECTION LIMIT

Bhate Environmental, Inc.
Environmental Engineers & Scientists

MONITORING WELL LOG

BORING NO: FF-MW-3
PROJECT NO: 9970082

PROJECT NAME: NAVSTA MAYPORT CLIENT: U.S. NAVY
PROJECT LOCATION: FUEL FARM
DRILLING MTHD: 4 1/2 INCH ID HOLLOW STEM AUGER SAMPLE MTHD: SPLIT SPOON
DATE STARTED: 6/13/97 DATE FINISHED: 6/13/97 ENGINEER/GEOLOGIST: D. TRAPP

ELEV.	LITHOLOGIC DESCRIPTION	DEPTH. (FT.)	SAMPLE	FL-PRO RESULTS	WATER LEVEL	WELL SECTION	ANNULAR AND WELL CONSTRUCTION MATERIALS
							FLUSH MOUNTED COVER WITH WATER TIGHT LOCKING CAP
	Tan, loose, dry, silty fine sand, grassed at surface	0.0					Approximately 2.0 feet of cement grout
	Dark brown, loose, dry, fine sand with asphalt fill material (no odor)						Well Casing consist of a 2-inch diameter Schedule 40 PVC Section
		5.0		BDL			Approximately 2.0 feet thick Bentonite Seal
	Tan, loose, dry, fine sand with shell fragments (no odor)						
				BDL	6/18/97		
		10.0					Sand packed Material of 20/30 gradation
	Light brown, loose, wet, fine sand with numerous shell fragments (no odor)						Well Screen Consists of a 10-foot section Schedule 40 0.010 inch factory slotted screen (2-inch diameter)
	BORING TERMINATED @ 15.0 FEET BELOW GROUND SURFACE	15.0					
		20.0					
		25.0					
		30.0					

BOTTOM OF TEST BORING: 15.0' BGS

BGS = BELOW GROUND SURFACE

BDL = BELOW DETECTION LIMIT

Bhate Environmental, Inc.
Environmental Engineers & Scientists

MONITORING WELL LOG

BORING NO: FF-MW-4
PROJECT NO: 9970082

PROJECT NAME: NAVSTA MAYPORT CLIENT: U.S. NAVY
PROJECT LOCATION: FUEL FARM
DRILLING MTHD: 4 1/2 INCH ID HOLLOW STEM AUGER SAMPLE MTHD: SPLIT SPOON
DATE STARTED: 6/13/97 DATE FINISHED: 6/13/97 ENGINEER/GEOLOGIST: D. TRAPP

ELEV.	LITHOLOGIC DESCRIPTION	DEPTH. (FT.)	SAMPLE	FL-PRO RESULTS	WATER LEVEL	WELL SECTION	ANNULAR AND WELL CONSTRUCTION MATERIALS
							FLUSH MOUNTED COVER WITH WATER TIGHT LOCKING CAP
	Organic sand, light gray to tan with grass	0.0					Approximately 1.5 feet of cement grout
	Tan, loose, dry, well sorted, quartz, fine sand	5.0					Approximately 1.5 feet thick Bentonite Seal Well Casing consist of a 2-inch diameter Schedule 40 PVC Section
	Tan, loose, well sorted, quartz, fine sand with shell fragments			BDL			
				BDL			
	Tan, loose, well sorted, quartz, fine sand with shell fragments	10.0			6/18/97		Sand packed Material of 20/30 gradation Well Screen Consists of a 10-foot section Schedule 40 0.010 inch factory slotted screen (2-inch diameter)
	BORING TERMINATED @ 15.0 FEET BELOW GROUND SURFACE	15.0					
		20.0					
		25.0					
		30.0					

BOTTOM OF TEST BORING: 15.0' BGS

BGS = BELOW GROUND SURFACE
BDL = BELOW DETECTION LIMIT

Bhate Environmental, Inc.
Environmental Engineers & Scientists

MONITORING WELL LOG

BORING NO: FF-MW-5
PROJECT NO: 9970082

PROJECT NAME: NAVSTA MAYPORT CLIENT: U.S. NAVY
PROJECT LOCATION: FUEL FARM
DRILLING MTHD: 4 1/2 INCH ID HOLLOW STEM AUGER SAMPLE MTHD: SPLIT SPOON
DATE STARTED: 6/12/97 DATE FINISHED: 6/12/97 ENGINEER/GEOLOGIST: D. TRAPP

ELEV.	LITHOLOGIC DESCRIPTION	DEPTH. (FT.)	SAMPLE	FL-PRO RESULTS	WATER LEVEL	WELL SECTION	ANNULAR AND WELL CONSTRUCTION MATERIALS
							FLUSH MOUNTED COVER WITH WATER TIGHT LOCKING CAP
	Tan, loose, dry, fine sand with shell fragments	0.0					Approximately 2.0 feet of cement grout
							Approximately 2.0 feet thick Bentonite Seal
	Slight petroleum odor	5.0		BDL			Well Casing consist of a 2-inch diameter Schedule 40 PVC Section
	Light gray, loose, moist, fine sand with shell fragments			5,900			
		10.0			6/18/97		Sand packed Material of 20/30 gradation
							Well Screen Consists of a 10-foot section Schedule 40 0.010 inch factory slotted screen (2-inch diameter)
	BORING TERMINATED @ 15.0 FEET BELOW GROUND SURFACE	15.0					
		20.0					
		25.0					
		30.0					

BOTTOM OF TEST BORING: 15.0' BGS

BGS = BELOW GROUND SURFACE
BDL = BELOW DETECTION LIMIT

Bhate Environmental, Inc.
Environmental Engineers & Scientists

MONITORING WELL LOG

BORING NO: FF-MW-6
PROJECT NO: 9970082

PROJECT NAME: NAVSTA MAYPORT
CLIENT: U.S. NAVY
PROJECT LOCATION: FUEL FARM
DRILLING MTHD: 4 1/2 INCH ID HOLLOW STEM AUGER
SAMPLE MTHD: SPLIT SPOON
DATE STARTED: 6/12/97 DATE FINISHED: 6/12/97
ENGINEER/GEOLOGIST: D. TRAPP

ELEV.	LITHOLOGIC DESCRIPTION	DEPTH. (FT.)	SAMPLE	FL-PRO RESULTS	WATER LEVEL	WELL SECTION	ANNULAR AND WELL CONSTRUCTION MATERIALS
							FLUSH MOUNTED COVER WITH WATER TIGHT LOCKING CAP
	Tan, loose, dry, fine sand with shell fragments, concrete fragments in upper 2-feet grassed surface	0.0					Approximately 1.5 feet cement grout
							Approximately 1.5 feet thick Bentonite Seal
		5.0		BDL			Well Casing consist of a 2-inch diameter Schedule 40 PVC Section
					6/18/97		
				600			
	Light gray and tan, loose moist to wet, fine sand with shell fragments (slight petroleum odor)	10.0					Sand pack material of 20/30 gradation
							Well Screen Consists of a 10-foot section Schedule 40 0.010 inch factory slotted screen (2-inch diameter)
	BORING TERMINATED @ 15.0 FEET BELOW GROUND SURFACE	15.0					
		20.0					
		25.0					
		30.0					

BOTTOM OF TEST BORING: 15.0' BGS

BGS = BELOW GROUND SURFACE
BDL = BELOW DETECTION LIMIT

Bhate Environmental, Inc.
Environmental Engineers & Scientists

MONITORING WELL LOG

BORING NO: FF-MW-7
PROJECT NO: 9970082

PROJECT NAME: NAVSTA MAYPORT CLIENT: U.S. NAVY
PROJECT LOCATION: FUEL FARM
DRILLING MTHD: 4 1/2 INCH ID HOLLOW STEM AUGER SAMPLE MTHD: SPLIT SPOON
DATE STARTED: 6/13/97 DATE FINISHED: 6/13/97 ENGINEER/GEOLOGIST: D. TRAPP

ELEV.	LITHOLOGIC DESCRIPTION	DEPTH. (FT.)	SAMPLE	FL-PRO RESULTS	WATER LEVEL	WELL SECTION	ANNULAR AND WELL CONSTRUCTION MATERIALS
							FIUSH MOUNTED COVER WITH WATER TIGHT LOCKING CAP
	Light brown, loose, dry fine sand with shell fragments, grassed at surface	0.0		BDL			Approximately 1.5 feet of cement grout
		5.0		BDL			Approximately 1.5 feet thick Bentonite Seal
	Tan loose, dry, fine sand				6/18/97		Well Casing consist of a 2-inch diameter Schedule 40 PVC Section
	Light gray, loose, moist to wet, fine sand with shell fragments	10.0					Sand pack material of 20/30 gradation
	BORING TERMINATED @ 15.0 FEET BELOW GROUND SURFACE	15.0					Well Screen Consists of a 10-foot section Schedule 40 0.010 inch factory slotted screen (2-inch diameter)
		20.0					
		25.0					
		30.0					

BOTTOM OF TEST BORING: 15.0' BGS

BGS = BELOW GROUND SURFACE
BDL = BELOW DETECTION LIMIT

Bhate Environmental, Inc.
Environmental Engineers & Scientists

MONITORING WELL LOG

BORING NO: FF-MW-8
PROJECT NO: 9970082

PROJECT NAME: NAVSTA MAYPORT CLIENT: U.S. NAVY
PROJECT LOCATION: FUEL FARM
DRILLING MTHD: 4 1/2 INCH ID HOLLOW STEM AUGER SAMPLE MTHD: SPLIT SPOON
DATE STARTED: 6/13/97 DATE FINISHED: 6/13/97 ENGINEER/GEOLOGIST: D. TRAPP

ELEV.	LITHOLOGIC DESCRIPTION	DEPTH. (FT.)	SAMPLE	FL-PRO RESULTS	WATER LEVEL	WELL SECTION	ANNULAR AND WELL CONSTRUCTION MATERIALS
							FLUSH MOUNTED COVER WITH WATER TIGHT LOCKING CAP
	Light brown, loose, dry, fine sand with shell fragments grassed at surface	0.0					Approximately 1.5 feet of cement grout
							Approximately 2.0 feet thick Bentonite Seal
	Tan loose, dry, fine sand	5.0		BDL			Well Casing consist of a 2-inch diameter Schedule 40 PVC Section
					6/18/97		
	Tan and light gray, loose, moist, fine sand with shell fragments	10.0		BDL			Sand pack material of 20/30 gradation
							Well Screen Consists of a 10-foot section Schedule 40 0.010 inch factory slotted screen (2-inch diameter)
	BORING TERMINATED @ 15.0 FEET BELOW GROUND SURFACE	15.0					
		20.0					
		25.0					
		30.0					

BOTTOM OF TEST BORING: 15.0' BGS

BGS = BELOW GROUND SURFACE
BDL = BELOW DETECTION LIMIT

Bhate Environmental, Inc.
Environmental Engineers & Scientists

MONITORING WELL LOG

BORING NO: FF-MW-9
PROJECT NO: 9970082

PROJECT NAME: NAVSTA MAYPORT CLIENT: U.S. NAVY
PROJECT LOCATION: FUEL FARM SAMPLE MTHD: SPLIT SPOON
DRILLING MTHD: 8 1/4" ID HOLLOW STEM AUGER AND 6" TRI CONE BIT
DATE STARTED: 6/10/97 DATE FINISHED: 6/10/97 ENGINEER/GEOLOGIST: D. TRAPP

ELEV.	LITHOLOGIC DESCRIPTION	DEPTH. (FT.)	SAMPLE	FL-PRO RESULTS	WATER LEVEL	WELL SECTION	ANNULAR AND WELL CONSTRUCTION MATERIALS
							FLUSH MOUNTED COVER WITH WATER TIGHT LOCKING CAP
	Tan and light brown, loose dry, fine sand with shell fragments, grassed at surface	0.0					Approximately 19.5 feet of cement grout
		5.0					Well Casing consist of a 6-inch diameter Schedule 40 PVC Section
					6/18/97		
	Tan, loose, wet fine sand with shell fragments (strong petroleum odor)	10.0					Inner Well casing Consists of a 2-inch diameter Schedule 40 PVC section
	Medium gray with occasional tan, firm, wet fine sand with numerous shell fragments and occasional clay	15.0					
	Light olive gray, firm, wet fine sand (slight odor)	20.0					Approximately 2.0 feet thick Bentonite Seal Sand pack material of 20/30 gradation Well Screen Consists of a 2.5-foot section Schedule 40 0.010 inch factory slotted screen (2-inch diameter)
	BORING TERMINATED @ 15.0 FEET BELOW GROUND SURFACE	25.0					
		30.0					

BOTTOM OF TEST BORING: 15.0' BGS

BGS = BELOW GROUND SURFACE

BDL = BELOW DETECTION LIMIT

TITLE: Mayport Naval Station, Mayport, FL	LOG of WELL: MPT-80-P1	BORING NO. MPT-80-P1
CLIENT: SOUTHERN DIVISION, NAVFACENGCOM		PROJECT NO: 7533-81
CONTRACTOR: GROUNDWATER PROTECTION, INC.	DATE STARTED: 1/23/92	COMPLTD: 1/23/92
METHOD: H.S.A.	CASE SIZE: 2" / SCREEN INT.: 10-15'	PROTECTION LEVEL: D
TOC ELEV.: 12.89 FT.	MONITOR INST.: FID / TOT DPTH: 15FT.	DPTH TO ∇ 8.00 FT.
LOGGED BY: Randy Holloway	WELL DEVELOPMENT DATE: N/A	SITE: #80

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					SAND-fine, gray, w/ a few shell fragements		SP		
5			2/2	7.5	SAND-as above			11,12,11,14	
10			1/2	8.5	SAND-as above, saturated			8,7,7,3	
15					Boring terminated @ 15'				
20									
25									
30									

TITLE: Mayport Naval Station, Mayport, FL	LOG of WELL: MPT-9-MW3S	BORING NO. MPT-9-3
CLIENT: SOUTHERN DIVISION, NAVFACENGCOM		PROJECT NO: 5087-04
CONTRACTOR: NONITOR TESTING	DATE STARTED: 9/18/87	COMPL.TD: 9/18/87
METHOD: H.S.A.	CASE SIZE: 2"	SCREEN INT.: 5-15'
PROTECTION LEVEL: D		
TOC ELEV.: 11.48 FT.	MONITOR INST.: Hnu	TOT DPTH: 15.0FT.
DPTH TO ∑ 8.00 FT.		
LOGGED BY: M. C. Qiblin	WELL DEVELOPMENT DATE: 9/18/87	SITE: #9

DEPTH FT.	LABORATORY SAMPLE I.D.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
		SS1	1.5/2'		Sand-fine to medium, uniform, with 0.4' top organic soil and vegitation, bottom/ light tan, shell fragments		SP	4,13,27,29	
		SS2	1.8/2'		Sand-same as above, 0.1' thick clayey sand layer, dry			18,20,20,18	
		SS3	1.5/2'		Sand-same as above, 0.35' thick layer of interbedded brown clay, red sand with shells			22,13,11,12	
5	YES	SS4	1.55/2'					12,8,8,7	
			1.8/2'		Sand-fine to medium, tan, 50 % shelly, grading very fine, light tan sand at the bottom				
10		SS5						7,22,22,35	
15		SS8	2.0/2'		Sand-fine to medium, grey, many shells and fragments			7,11,22,30	
20									
25									
30									

TITLE: Mayport Naval Station, Mayport, FL	LOG of WELL: MPT-9-MW1S	BORING NO. MPT-9-1
CLIENT: SOUTHERN DIVISION, NAVFACENGCOM		PROJECT NO: 5087-04
CONTRACTOR: MONITOR TESTING	DATE STARTED: 9/15/87	COMPLTD: 9/15/87
METHOD: H.S.A.	CASE SIZE: 2"	SCREEN INT.: 8-18'
TOC ELEV.: 14.39 FT.	MONITOR INST.: Hnu	TOT DPTH: 20.0FT.
LOGGED BY: M. C. Diblin	WELL DEVELOPMENT DATE: 9/15/87	SITE: #9

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
		SS1	1.5/2'		Sand-top (0.8')/ medium to coarse, light to dark grey, shell fragments bottom/ fine to medium, light tan, shell fragments		SP	7,11,21,27	
		SS2	1.2/2'		Sand-same as above				
		SS3	1.7/2'		Sand-same as above, bottom dark brown, dry			20,22,28,31	
5	YES	SS4	1.3/2'		Sand-top (0.8')/ same as above			7,13,14,19	
					Clay-uniform, plastic, grey mottled with brown stringers of clay, dry middle (1-1.4')/ fine to medium, white, shell fragments		CL SC	18,21,27,17	
		SS5	1.8/2'		Sandy Clay-grey, plastic, moist				
10									
15		SS6	2.0/2'		Sand-fine to medium sand, light gray, shells		SP	8,32,50/ST	
20									
25									
30									

TITLE: Mayport Naval Station, Mayport, FL	**LOG of WELL:** MPT-18-NWII		**BORING NO.** MPT-18-NWII
CLIENT: SOUTHERN DIVISION, NAVFACENGCOM			**PROJECT NO:** 7533-84
CONTRACTOR: GROUNDWATER PROTECTION, INC.		**DATE STARTED:** 1/14/93	**COMPLTD:** 1/14/93
METHOD: H.S.A.	**CASE SIZE:** 2"	**SCREEN INT.:** 25-30'	**PROTECTION LEVEL:** D
TOC ELEV.: 12.04 FT.	**MONITOR INST.:** F.I.D.	**TOT DPTH:** 30.5FT.	**DPTH TO Z:** 10.76 FT.
LOGGED BY: Felix Rizk	**WELL DEVELOPMENT DATE:** 1/17/93		**SITE:** #18

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
	MPT18 MSOI-2	X	100%	0.0	ARTIFICIAL SOIL - crushed limestone (top 8") over ORGANIC SOIL - black, loamy, dry (3") over SAND - fine, tan, w/ shell fragments		OL SP	28,30,38,47*	
5			100%	0.0	SAND- fine, tan, shelly, moist			3,10,10,10	
			75%	0.0	SAND - fine, tan, w/ decreasing shell content			3,12,5,10	
			100%	0.0	SAND- fine, tan, w/ coarse shell fragments (*Use of the non-standard 3" split spoon for sample recovery is reflected in the higher blow counts at these depths)			14,40,38,22*	
10	MPT18 MSOI-8	X	50%	0.0	SAND - fine to med.,tan, laminated,wet			8,6,7,10	
			80%	0.0	SAND - fine to med.,tan, shelly, wet			3,2,3,8	
			100%	0.0	SHELL - shell hash unit (top 8") over SANDY SHELL unit (14") over SAND - fine, gray, wet (2")		GP GM	3,4,4,8	
15			75%	0.0	SAND - fine, lt. gray to dark gray, w/ occas. shell		SP	10,13,14,15	
			100%	0.0	SAND - fine, dark grey, w/ some shell frag.			8,13,10,18	
20			100%	0.0	SAND - same as above			4,16,18,20	
			100%	0.0	SAND - same as above			10,12,16,14	
25			100%	20.0	SAND - same as above			4,7,5,10	
			80%	45.0	SAND - same as above			28,39,40,38	
30			100%	0.0	SAND - same as above			18,25,20,24	
					Boring Terminated at 30.5 feet				

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TITLE: Mayport Naval Station, Mayport, Fl.		LOG of WELL: MPT-18-MW2S	BORING NO. MPT-18-MW2S
CLIENT: SOUTHERN DIVISION, NAVFACENGCOM			PROJECT NO: 7533-84
CONTRACTOR: GROUNDWATER PROTECTION, INC.		DATE STARTED: 1/14/93	COMPLTD: 1/14/93
METHOD: H.S.A.	CASE SIZE: 2"	SCREEN INT.: 5-15'	PROTECTION LEVEL: D
TOC ELEV.: 10.85 FT.	MONITOR INST.: F.I.D.	TOT DPTH: 15.5FT.	DPTH TO ▽ 9.44 FT.
LOGGED BY: Felix Rizk	WELL DEVELOPMENT DATE: 1/17/93		SITE: #18

DEPTH FT.	LABORATORY SAMPLE NO.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
	MPT18 MS02-2	X	86%	0.0	ORGANIC SOIL- sandy, w/ plant matter (3 inch.) over SAND - fine, silty, tan w/ asphalt gravel (1 ft.) over SAND - fine, silty, w/ some whole shell		SM / GM / SM	21,13,13,12*	
5			70%	0.0	SAND - fine, laminated, tan, shelly, moist		SP	5,8,11,11	
10	MPT18 MS02-8	X	85%	810	SAND - fine, tan to lt. gray, shelly w/ hydrocarb. odor over CLAY - med. plasticity, olive gray to black over SAND - fine, lt. gray, wet		CL / SP	11,11,17,18*	▽
15					Boring Terminated at 15.5 feet				
20					*Use of non-standard 3" split-spoon for sample recovery is reflected in the higher blow counts at these depths				
25									
30									

TITLE: Mayport Naval Station, Mayport, Fl.		LOG of WELL: MPT-16-MW3S	BORING NO. MPT-16-MW3S
CLIENT: SOUTHERN DIVISION; NAVFACENGCOM			PROJECT NO: 7533-84
CONTRACTOR: GROUNDWATER PROTECTION, INC.		DATE STARTED: 1/14/93	COMPLTD: 1/14/93
METHOD: H.S.A.	CASE SIZE: 2"	SCREEN INT.: 5-15'	PROTECTION LEVEL: D
TOC ELEV.: 11.59 FT.	MONITOR INST.: F.I.D.	TOT DPTH: 15.5FT.	DPTH TO ▽ 9.80 FT.
LOGGED BY: Felix Rizk	WELL DEVELOPMENT DATE: 1/17/93		SITE: #16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
	MPT16 MS03-2	X	75%	0.0	ORGANIC SOIL - dark brown, loamy, w/ some asphalt rubble		OL	17,18,12,10*	
							SP		
5			80%	0.0	SAND - fine, tan, shelly, moist with a 3" stringer of ORGANIC SOIL - dark brown, loamy		OL	2,3,2,4	
							SP		
	MPT16 MS03-8	X	100%	0.0	SAND - fine to medium, tan, shelly, wet			5,12,15,15*	
10									▽
15					Boring Terminated at 15.5 feet				
20					*Use of non-standard 3" split-spoon sampler for sample recovery is reflected in the higher blow counts at these depths				
25									
30									

Quadrel Report No. QS2362

EMFLUX® Passive, Non-Invasive Soil-Gas Survey

NAVAL STATION MAYPORT SITE
MAYPORT, FLORIDA

Prepared for

Bhate Environmental Associates, Inc.
1608 13th Avenue South, Suite 300
Birmingham, AL 35205

by

Quadrel Services, Inc.
1896 Urbana Pike
Suite 20
Clarksburg, MD 20871-8517

May 29, 1997

Applying Results from Soil-Gas Surveys

The utility of soil-gas surveys is directly proportional to their accuracy in reflecting and representing changes in the subsurface concentrations of source compounds. A soil-gas survey, however, measures vapor-phase concentrations; and vapor-phase concentrations are never equivalent to the concentrations of their source compounds, essentially being dilute "extracts" of those compounds. As a matter of convenience, therefore, the units used in reporting volatile detections are usually smaller than those employed for source-compound concentrations. For example, where source concentrations are expressed in mg/kg (or parts per million), concentrations of the derivative gas may more conveniently be measured in nanograms per liter (parts per trillion).

The critical fact is that, whatever the relative concentrations of source and associated soil gas, best results are realized when the ratio of soil-gas measurements to actual subsurface concentrations remains as close to constant as the real world permits. It is the reliability and consistency of this ratio, not the particular units of mass (*e.g.*, nanograms) or units of concentration (*e.g.*, ng/L) that determine usefulness. Thus, Quadrel emphasizes the necessity of conducting -- at minimum -- follow-on intrusive sampling at one or two points which show relatively high EMFLUX® values to obtain corresponding concentrations of soil and ground-water contaminants. These correspondent values furnish the basis for approximating the required ratio. Once that ratio is established, it can be used in conjunction with EMFLUX® measurements (regardless of the units adopted) to estimate subsurface contaminant concentrations across the survey field. It is important to keep in mind, however, that specific conditions at individual sample points, including soil porosity and permeability, depth to contamination, and perched ground water, can have significant impact on soil-gas measurements at those locations.

When EMFLUX® Surveys are handled in this way, the data provide information which can yield substantial savings in drilling costs and in time. They furnish, among other things, a checklist of compounds expected at each survey location and help to determine how and where drilling budgets can most effectively be spent.

EMFLUX® Survey Number: OS2362

Naval Station Mayport Site
Mayport, Florida

This EMFLUX® Soil-Gas Survey Report has been prepared for Bhate Environmental Associates, Inc. (Bhate) by Quadrel Services, Inc. (Quadrel) in accordance with the terms of the Technical Services Agreement dated April 29, 1997. Quadrel's principal technical contact at Bhate for this project has been Mr. Emmett Beers.

1. Objectives

To screen the Naval Station Mayport Site for the presence of targeted compounds in the gas phase. Results will be used to profile contamination in soil and/or ground water at the site, thereby determining the distribution and relative strength of detected contaminants.

2. Target Compounds

This survey targeted BTEX components (Benzene, Toluene, Ethylbenzene, and Xylenes) and Total Petroleum Hydrocarbon (TPH) Volatiles. Data for additional compounds of possible interest (MTBE, Naphthalene, 1,2,4-Trimethylbenzene, and 1,3,5-Trimethylbenzene) have also been provided. **Attachment 1** supplies the raw laboratory data in nanograms (ng) of specific compound per sampler.

3. Survey Description

• No. of Field Sample Points:	55
• No. of Contingency Field Sample Points:	20
• No. of Ambient-Air Control Samples:	4
• No. of Trip Blanks:	1
• Total No. of EMFLUX® Cartridges:	80

4. Field Work

Quadrel provided Bhate an EMFLUX® Field Kit with the equipment needed to conduct a 75-point EMFLUX® Soil-Gas Survey. Twenty of the field samples were deployed as contingency samples to be analyzed only at Bhate's request, after their review of data from the initial samples. Collectors were deployed on May 2, 1997 and retrieved May 8, 1997. **Attachment 2** describes the field procedures used. Individual deployment and retrieval times will be found in the Field Deployment Report (**Attachment 3**).

5. Analysis and Reporting Dates

- Quadrel received the 80 sample cartridges on May 9, 1997.

Note: Quadrel's laboratory received two contingency samples labeled 46C and did not receive a sample labeled 49. Consequently, no information is available for sample location 49. [Bhate did not request the analysis of either sample labeled 46C].

- Analysis of the initial 54 field samples was completed on May 15, 1997. Preliminary data for these samples were provided to Bhate on May 21, 1997.
- After review of the initial data, Bhate requested the analysis of contingency samples 1C, 8C, 9C, 18C, 37C, 65C, 66C, 70C, and 73C. Analysis of these samples was completed on May 23, 1997 and preliminary laboratory data for these samples were provided to Bhate the same day.
- The laboratory analyzed all samples for the specified compounds, using thermal desorption and a capillary-column gas chromatograph with a flame ionization detector (FID) and a photoionization detector (PID) in accordance with EPA Method 8015B/8020 (Modified), as described in **Attachment 4**.

6. Data Treatment

- **Table 1** provides the survey results in soil-gas concentrations in nanograms per liter (ng/L, or parts per trillion). Laboratory values were converted to soil-gas concentrations using the following formula:

$$C = 10^3 KW/TR$$

where:
- C = Avg. soil-gas conc. in collector (ng/L)
- K = Cartridge collection constant (1.0 sec/cm^3)
- W = Contaminant mass (ng)
- T = Collection period (sec)
- R = Adsorbent recovery factor (decimal fraction)

The specific collection period for each sample is given in the Field Deployment Report. Adsorbent recovery factors are provided in **Attachment 5**, values in **Table 1** have been corrected for recovery factors.

Note: Quadrel's derivation of the EMFLUX® cartridge collection constant, K, involved (i) adoption of 0.05 cm^2/sec as a typical diffusion coefficient, D, for VOCs in free air and (ii) evaluation of experimental laboratory data to determine the ratio between collection area, A, and diffusion distance, Z. The latter relationship, based on work done to date, appears to be A/Z = 20.2 cm. Given these values, Quadrel has computed the value of the constant to be:

$$
\begin{aligned}
K &= 1/[D(A/Z)]\ sec/cm^3 \\
&= 1/[0.05(20.2)]\ sec/cm^3 \\
&= 1/1.01\ sec/cm^3 \\
&\approx 1.0\ sec/cm^3
\end{aligned}
$$

7. Report Notes and Quality Assurance/Quality Control Factors

- **Table 1** provides survey results in soil-gas concentrations by sample-point number and compound name. The quantitation levels (Q.L.) represent values above which quantitative laboratory results can be achieved within specified limits of precision and with a high degree of confidence. The quantitation level of each compound, therefore, provides a reliable basis for comparison of the relative strength of individual detections of that compound.

- The **Chain-of-Custody** form, which was shipped with the samples for this survey, is supplied as **Attachment 6**.

- **Laboratory QA/QC procedures** consist of control blanks and verifications, as well as system calibration, as specified for EPA Method 8015B/8020 (Modified). Laboratory personnel conducted internal control blank and verification analyses daily to ensure that the system was contaminant free and properly calibrated. The system was calibrated using external-standard procedures to at least five different concentrations for each compound targeted (**Attachment 4**).

- The **trip blank** is a cartridge prepared, transported, and analyzed with other samples but intentionally not exposed. Contamination on this field QA/QC sample is subtracted from measurements of the same compounds on other samples prior to data treatment. Here, the trip blank (so labeled in **Attachment 1**) recorded none of the targeted compounds, indicating that the survey site itself is the source of detected contamination.

- **Control samples** are field QA/QC samples which serve to identify compounds present in ambient air during deployment and retrieval of collection devices. An average of the contamination found on the control samples is subtracted from measurements of the same compounds on field samples prior to their conversion to soil-gas concentrations. The following table shows the contaminants recorded on the ambient air control samples and the values subtracted from field samples.

Control Sample	Contaminants Detected	Average Contaminant Values Subtracted from Field Samples
A	—	38 ng of Benzene 89 ng of TPH Volatiles.
B	151 ng of Benzene 183 ng of TPH Volatiles	
C	173 ng of TPH Volatiles	
D	—	

- **Survey findings** are relative exclusively to this project and should not routinely be compared with results of other EMFLUX® Surveys. *To establish a relationship between reported soil-gas concentrations and actual subsurface contaminant concentrations, which will indicate those detections representing significant subsurface contamination, Quadrel recommends the guidelines on the inside front cover of this report.*

- The following **Attachments** are included:

  -1- Laboratory Reports
  -2- EMFLUX® Field Procedures
  -3- Field Deployment Report
  -4- Laboratory Procedures
  -5- Adsorbent Recovery Factors
  -6- Chain-of-Custody Form

Table 1

Soil-Gas Concentrations (ng/L)
Naval Station Mayport Site
Mayport, Florida

SAMPLE LOCATION	Q.L.	1C	2	3	4	5	7	8C	9C
CONTAMINANTS									
Benzene	0.10	--	--	--	--	--	1.22	--	--
Toluene	0.06	0.25	0.80	0.08	0.38	0.23	0.16	0.56	2.70
Ethylbenzene	0.06	--	0.08	--	--	--	--	--	--
Xylenes (total)	0.06	--	--	--	--	--	--	--	--
Total BTEX	0.06	0.25	0.88	0.08	0.38	0.23	1.38	0.56	2.70
MTBE	0.10	--	1.97	--	--	--	--	--	--
Naphthalene	0.10	0.11	--	--	--	--	--	--	--
1,2,4-Trimethylbenzene	0.06	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	0.06	--	--	--	--	--	--	--	--
TPH Volatiles	0.28	0.28	22.17	--	0.37	0.38	1.02	0.40	2.54

SAMPLE LOCATION	Q.L.	10	11	12	13	14	15	16	17
CONTAMINANTS									
Benzene	0.10	--	--	--	--	--	--	--	--
Toluene	0.06	0.14	0.45	1.03	0.11	0.95	0.18	0.29	--
Ethylbenzene	0.06	--	--	--	--	--	--	--	--
Xylenes (total)	0.06	--	--	--	--	--	--	--	--
Total BTEX	0.06	0.14	0.45	1.03	0.11	0.95	0.18	0.29	--
MTBE	0.10	--	--	--	--	--	--	--	--
Naphthalene	0.10	--	--	--	--	--	--	--	--
1,2,4-Trimethylbenzene	0.06	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	0.06	--	--	--	--	--	--	--	--
TPH Volatiles	0.28	1.04	1.11	2.90	0.20	3.82	0.81	0.52	0.13

NOTES:

1) Values listed under "Q.L." are reported soil-gas concentration quantitation levels.
2) "--" denotes absence of detections above the reported quantitation level.
3) At Bhate's request, contingency sample 6C was not analyzed.

Table 1
(continued)
Soil-Gas Concentrations (ng/L)
Naval Station Mayport Site
Mayport, Florida

SAMPLE LOCATION	Q.L.	18C	19	20	21	22	23	24	26
CONTAMINANTS									
Benzene	0.10	--	0.39	--	--	--	1.62	--	--
Toluene	0.06	0.50	0.35	0.11	0.06	--	0.38	0.10	0.69
Ethylbenzene	0.06	--	--	--	--	--	--	--	--
Xylenes (total)	0.06	--	--	--	--	--	--	--	--
Total BTEX	0.06	0.50	0.74	0.11	0.06	--	2.00	0.10	0.69
MTBE	0.10	--	--	--	--	--	--	--	--
Naphthalene	0.10	--	--	--	--	--	--	--	--
1,2,4-Trimethylbenzene	0.06	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	0.06	--	--	--	--	--	--	--	--
TPH Volatiles	0.28	0.34	0.96	0.39	--	--	3.48	--	0.52

SAMPLE LOCATION	Q.L.	28	29	31	33	34	36	37C	38
CONTAMINANTS									
Benzene	0.10	--	--	--	--	--	--	--	--
Toluene	0.06	1.06	--	0.17	0.33	0.17	0.17	0.47	0.56
Ethylbenzene	0.06	--	--	--	--	--	--	--	--
Xylenes (total)	0.06	--	--	--	0.08	--	--	--	--
Total BTEX	0.06	1.06	--	0.17	0.41	0.17	0.17	0.47	0.56
MTBE	0.10	--	--	--	--	--	--	--	--
Naphthalene	0.10	--	--	--	--	--	--	--	--
1,2,4-Trimethylbenzene	0.06	0.40	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	0.06	0.26	--	--	0.39	--	0.29	--	--
TPH Volatiles	0.28	1.53	0.43	0.18	0.63	--	0.29	0.30	0.39

NOTES:

1) Values listed under "Q.L." are reported soil-gas concentration quantitation levels.
2) "--" denotes absence of detections above the reported quantitation level.
3) At Bhate's request, contingency samples 25C, 27C, 30C, 32C, and 35C were not analyzed.

Table 1
(continued)
Soil-Gas Concentrations (ng/L)
Naval Station Mayport Site
Mayport, Florida

SAMPLE LOCATION	Q.L.	39	40	41	42	43	45	47	51
CONTAMINANTS									
Benzene	0.10	--	--	--	--	--	--	--	--
Toluene	0.06	0.06	0.77	0.61	0.79	0.47	0.27	0.51	0.24
Ethylbenzene	0.06	--	--	--	--	--	--	--	--
Xylenes (total)	0.06	--	1.19	0.90	--	--	--	0.31	--
Total BTEX	0.06	0.06	1.96	1.51	0.79	0.47	0.27	0.82	0.24
MTBE	0.10	--	--	--	--	--	--	--	--
Naphthalene	0.10	--	--	--	--	--	--	--	--
1,2,4-Trimethylbenzene	0.06	--	--	0.39	--	--	--	--	--
1,3,5-Trimethylbenzene	0.06	--	--	--	--	--	--	--	--
TPH Volatiles	0.28	0.34	17.21	13.08	0.63	0.31	--	0.73	--

SAMPLE LOCATION	Q.L.	52	53	54	55	56	57	58	59
CONTAMINANTS									
Benzene	0.10	--	--	--	--	--	0.73	--	--
Toluene	0.06	0.09	0.75	0.95	0.53	1.32	--	0.20	0.44
Ethylbenzene	0.06	--	--	--	--	--	0.10	--	--
Xylenes (total)	0.06	--	--	0.08	0.17	--	--	--	--
Total BTEX	0.06	0.09	0.75	1.03	0.70	1.32	0.83	0.20	0.44
MTBE	0.10	--	--	--	--	--	0.11	--	--
Naphthalene	0.10	--	--	--	--	--	--	0.99	--
1,2,4-Trimethylbenzene	0.06	--	--	0.20	0.12	0.46	0.25	--	0.07
1,3,5-Trimethylbenzene	0.06	--	--	0.08	--	0.23	--	--	--
TPH Volatiles	0.28	--	0.78	1.22	0.71	1.94	0.76	0.65	0.34

NOTES:
1) Values listed under "Q.L." are reported soil-gas concentration quantitation levels.
2) "--" denotes absence of detections above the reported quantitation level.
3) At Bhate's request, contingency samples 44C, 46C, 48C, and 50C were not analyzed.
4) Sample 49 was not returned to Quadrel for anlaysis (see Section 5).

Table 1
(continued)
Soil-Gas Concentrations (ng/L)
Naval Station Mayport Site
Mayport, Florida

SAMPLE LOCATION	Q.L.	60	61	62	63	64	65C	66C	67
CONTAMINANTS									
Benzene	0.10	--	--	--	--	--	--	0.18	--
Toluene	0.06	0.92	0.81	0.51	0.80	--	0.10	0.68	--
Ethylbenzene	0.06	--	--	--	0.12	--	--	0.07	--
Xylenes (total)	0.06	--	--	--	0.50	--	--	1.80	--
Total BTEX	0.06	0.92	0.81	0.51	1.42	--	0.10	2.73	--
MTBE	0.10	--	--	--	--	--	--	--	--
Naphthalene	0.10	--	--	--	--	--	--	0.15	--
1,2,4-Trimethylbenzene	0.06	0.06	0.42	--	0.44	--	--	0.25	0.06
1,3,5-Trimethylbenzene	0.06	--	--	--	0.23	--	--	0.34	--
TPH Volatiles	0.28	0.88	1.37	0.35	3.53	--	--	16.35	--

SAMPLE LOCATION	Q.L.	68	69	70C	71	72	73C	74
CONTAMINANTS								
Benzene	0.10	--	--	--	--	--	0.76	--
Toluene	0.06	0.14	0.99	0.40	0.71	--	0.36	0.61
Ethylbenzene	0.06	--	--	--	--	--	--	--
Xylenes (total)	0.06	--	0.41	0.07	0.18	1.50	--	--
Total BTEX	0.06	0.14	1.40	0.47	0.89	1.50	1.12	0.61
MTBE	0.10	--	--	--	--	--	--	--
Naphthalene	0.10	--	--	--	--	--	--	--
1,2,4-Trimethylbenzene	0.06	--	0.65	--	0.44	--	--	--
1,3,5-Trimethylbenzene	0.06	--	0.46	--	0.32	--	--	--
TPH Volatiles	0.28	--	2.35	0.36	1.50	45.93	0.69	1.51

NOTES:
1) Values listed under "Q.L." are reported soil-gas concentration quantitation levels.
2) "--" denotes absence of detections above the reported quantitation level.

Attachment 1

Laboratory Reports

Attachment 1

Laboratory Report
Results in Nanograms (ng)
Analysis Completed: **May 15, 1997**

Quadrel Project No. QS2362

In this analysis 59 EMFLUX® samples were analyzed under the requirements of EPA Method 8015B/8020 using an **SRI 8610B Gas Chromatograph** equipped with a **thermal desorber** and a **photoionization detector** in series with a **flame ionization detector.**

SAMPLE NO.	2	3	4	5	7	10
COMPOUNDS						
Benzene	U	U	U	U	371	U
Ethylbenzene	44	U	U	U	U	U
MTBE	580	U	U	U	U	U
Naphthalene	U	U	U	U	U	U
Toluene	434	43	207	125	89	77
1,2,4-Trimethylbenzene	U	U	U	U	U	U
1,3,5-Trimethylbenzene	U	U	U	U	U	U
Xylenes (total)	U	U	U	U	U	U
TPH Volatiles	**12,153**	**U**	**291**	**296**	**639**	**652**

SAMPLE NO.	11	12	13	14	15	16
COMPOUNDS						
Benzene	U	U	U	U	U	U
Ethylbenzene	U	U	U	U	U	U
MTBE	U	U	U	U	U	U
Naphthalene	U	U	U	U	U	U
Toluene	242	561	57	516	97	158
1,2,4-Trimethylbenzene	U	U	U	U	U	U
1,3,5-Trimethylbenzene	U	U	U	U	U	U
Xylenes (total)	U	U	U	U	U	U
TPH Volatiles	**691**	**1,664**	**197**	**2,154**	**526**	**370**

Reported Quantitation Level = 30 nanograms (for specific compounds)
Reported Quantitation Level = 150 nanograms (for TPH Volatiles)
U = Below Reported Quantitation Level
NOTE: Samples 1, 6, 8, and 9 are contingency samples which were held for possible later analysis at the request of Bhate Environmental Associates.

Attachment 1 (cont.)

Laboratory Report
Results in Nanograms (ng)
Analysis Completed: **May 15, 1997**

Quadrel Project No. QS2362

SAMPLE NO.	17	19	20	21	22	23
COMPOUNDS						
Benzene	U	157	U	U	U	527
Ethylbenzene	U	U	U	U	U	U
MTBE	U	U	U	U	U	U
Naphthalene	U	U	U	U	U	U
Toluene	U	191	58	31	U	204
1,2,4-Trimethylbenzene	U	U	U	U	U	U
1,3,5-Trimethylbenzene	U	U	U	U	U	U
Xylenes (total)	U	U	U	U	U	U
TPH Volatiles	**157**	**608**	**297**	**U**	**U**	**1,966**

SAMPLE NO.	24	26	28	29	31	33
COMPOUNDS						
Benzene	U	U	U	U	U	U
Ethylbenzene	U	U	U	U	U	U
MTBE	U	U	U	U	U	U
Naphthalene	U	U	U	U	U	U
Toluene	53	371	571	U	90	181
1,2,4-Trimethylbenzene	U	U	205	U	U	U
1,3,5-Trimethylbenzene	U	U	138	U	U	208
Xylenes (total)	U	U	U	U	U	43
TPH Volatiles	**U**	**371**	**914**	**325**	**188**	**433**

Reported Quantitation Level = 30 nanograms (for specific compounds)
Reported Quantitation Level = 150 nanograms (for TPH Volatiles)
U = Below Reported Quantitation Level
NOTE: Samples 18, 25, 27, 30, and 32 are contingency samples which were held for possible later analysis at the request of Bhate Environmental Associates.

Attachment 1 (cont.)

Laboratory Report
Results in Nanograms (ng)
Analysis Completed: **May 15, 1997**

Quadrel Project No. QS2362

SAMPLE NO.	34	36	38	39	40	41
COMPOUNDS						
Benzene	U	U	U	U	64	U
Ethylbenzene	U	U	U	U	U	U
MTBE	U	U	U	U	U	U
Naphthalene	U	U	U	U	U	U
Toluene	89	93	300	32	415	330
1,2,4-Trimethylbenzene	U	U	U	U	U	199
1,3,5-Trimethylbenzene	U	155	U	U	U	U
Xylenes (total)	U	U	U	U	639	487
TPH Volatiles	**U**	**248**	**300**	**272**	**9,351**	**7,130**

SAMPLE NO.	42	43	45	47	51	52
COMPOUNDS						
Benzene	U	U	U	40	U	U
Ethylbenzene	U	U	U	U	U	U
MTBE	U	U	U	U	U	U
Naphthalene	U	U	U	U	U	U
Toluene	426	255	142	273	128	48
1,2,4-Trimethylbenzene	U	U	U	U	U	U
1,3,5-Trimethylbenzene	U	U	U	U	U	U
Xylenes (total)	U	U	U	169	U	U
TPH Volatiles	**426**	**255**	**U**	**482**	**U**	**U**

Reported Quantitation Level = 30 nanograms (for specific compounds)
Reported Quantitation Level = 150 nanograms (for TPH Volatiles)
U = Below Reported Quantitation Level
NOTE: Samples 35, 37, 44, 46, 48, and 50 are contingency samples which were held for possible later analysis at the request of Bhate Environmental Associates; sample 49 was not returned to Quadrel for analysis.

Attachment 1 (cont.)

Laboratory Report
Results in Nanograms (ng)
Analysis Completed: **May 15, 1997**

Quadrel Project No. QS2362

SAMPLE NO.	53	54	55	56	57	58
COMPOUNDS						
Benzene	U	52	U	U	257	U
Ethylbenzene	U	U	U	U	54	U
MTBE	U	U	U	U	31	U
Naphthalene	U	U	U	U	U	297
Toluene	400	500	278	696	U	108
1,2,4-Trimethylbenzene	U	99	61	233	129	U
1,3,5-Trimethylbenzene	U	42	U	118	U	U
Xylenes (total)	U	41	89	U	U	U
TPH Volatiles	**505**	**734**	**466**	**1,112**	**497**	**436**

SAMPLE NO.	59	60	61	62	63	64
COMPOUNDS						
Benzene	U	U	U	U	U	U
Ethylbenzene	U	U	U	U	65	U
MTBE	U	U	U	U	U	U
Naphthalene	U	U	U	U	U	U
Toluene	239	494	435	272	425	U
1,2,4-Trimethylbenzene	36	32	215	U	221	U
1,3,5-Trimethylbenzene	U	U	U	U	117	U
Xylenes (total)	U	U	U	U	263	U
TPH Volatiles	**275**	**566**	**823**	**278**	**1,957**	**U**

Reported Quantitation Level = 30 nanograms (for specific compounds)
Reported Quantitation Level = 150 nanograms (for TPH Volatiles)
U = Below Reported Quantitation Level

Attachment 1 (cont.)

Laboratory Report
Results in Nanograms (ng)
Analysis Completed: **May 15, 1997**

Quadrel Project No. QS2362

SAMPLE NO.	67	68	69	71	72	74
COMPOUNDS						
Benzene	U	U	U	U	U	32
Ethylbenzene	U	U	U	U	U	U
MTBE	U	U	U	U	U	U
Naphthalene	U	U	U	U	U	U
Toluene	U	75	522	377	U	327
1,2,4-Trimethylbenzene	31	U	329	224	U	U
1,3,5-Trimethylbenzene	U	U	238	167	U	U
Xylenes (total)	U	U	219	93	792	U
TPH Volatiles	**U**	**U**	**1,329**	**880**	**24,365**	**899**

SAMPLE NO.	A	B	C	D	TRIP BLANK
COMPOUNDS					
Benzene	U	151	U	U	U
Ethylbenzene	U	U	U	U	U
MTBE	U	U	U	U	U
Naphthalene	U	U	U	U	U
Toluene	U	U	U	U	U
1,2,4-Trimethylbenzene	U	U	U	U	U
1,3,5-Trimethylbenzene	U	U	U	U	U
Xylenes (total)	U	U	U	U	U
TPH Volatiles	**U**	**183**	**173**	**U**	**U**

Reported Quantitation Level = 30 nanograms (for specific compounds)
Reported Quantitation Level = 150 nanograms (for TPH Volatiles)
U = Below Reported Quantitation Level
NOTE: Samples 65, 66, 70, 73, and 75 are contingency samples which were held for possible later analysis at the request of Bhate Environmental Associates.

Attachment 1

Laboratory Report
Results in Nanograms (ng)
Analysis Completed: **May 23, 1997**

Quadrel Project No. QS2362

In this analysis nine EMFLUX® samples were analyzed under the requirements of EPA Method 8015B/8020 using an **SRI 8610B Gas Chromatograph** equipped with a **thermal desorber** and a **photoionization detector** in series with a **flame ionization detector.**

SAMPLE NO.	1C	8C	9C	18C	37C	65C	66C	70C	73C
COMPOUNDS									
Benzene	67	U	U	U	U	U	90	31	264
Ethylbenzene	U	U	U	U	U	U	38	U	U
MTBE	U	U	U	U	U	U	U	U	U
Naphthalene	35	U	U	U	U	U	45	U	U
Toluene	138	304	1,467	272	254	52	359	211	192
1,3,5-Trimethylbenzene	U	U	U	U	U	U	177	U	U
1,2,4-Trimethylbenzene	U	U	U	U	U	U	128	U	U
Xylenes (total)	U	U	U	U	U	U	954	36	U
TPH Volatiles	**240**	**304**	**1,467**	**272**	**254**	**U**	**8,733**	**278**	**456**

Reported Quantitation Level = 30 nanograms (for specific compounds)
Reported Quantitation Level = 150 nanograms (for TPH Volatiles)
U = Below Reported Quantitation Level
NOTE: These samples are contingency samples which have been analyzed at the request of Bhate Environmental Consultants.

Attachment 2

FIELD PROCEDURES FOR EMFLUX® SOIL-GAS SURVEYS

The following field procedures are routinely used during EMFLUX® Soil-Gas Surveys. Modifications can be and are incorporated from time to time in response to individual project requirements. In all instances, Quadrel adheres to EPA-approved Quality Assurance and Quality Control practices.

A. Field personnel carry EMFLUX® system components and support equipment to the site and deploy the EMFLUX® Collectors in a prearranged survey pattern. Although EMFLUX® Collectors require only one person for emplacement and retrieval, the specific number of field personnel required depends upon the scope and schedule of the project. Each Collector emplacement generally takes less than two minutes.

B. For those sample locations covered with soils or vegetation, a field technician clears vegetation and debris exposing the ground surface. Using a hammer and a ¾-inch-diameter pointed metal stake, the technician creates a hole approximately three inches deep. For those locations covered with an asphalt or concrete cap, the field technician drills a one-inch-diameter hole through the cap to the soils beneath. (If necessary, the Collector can be sleeved with a ¾-inch i.d. copper pipe for either capped or uncapped locations).

C. The technician then removes the solid plastic cap from an EMFLUX® Collector (a glass vial containing an adsorbent cartridge with a length of wire attached to the vial for retrieval) and replaces it with a Sampling Cap (a plastic cap with a hole covered by screen meshing). The technician inserts the Collector, with the Sampling Cap end facing down, into the hole (**see attached figure**). The Collector is then covered with either local soils for uncapped locations or, for capped locations, aluminum foil and a concrete patch. The Collector's location, time and date of emplacement, and other relevant information are recorded on the Field Deployment Form.

D. As a quality-control check during emplacement and retrieval, the technician takes periodic ambient-air control samples and records the date, time, and location of each. (One or more trip blanks are also included as part of the quality-control procedures).

E. Once all EMFLUX® Collectors have been deployed, field personnel schedule Collector recovery (approximately 72 hours after emplacement) and depart, taking all no-longer-needed equipment and materials with them.

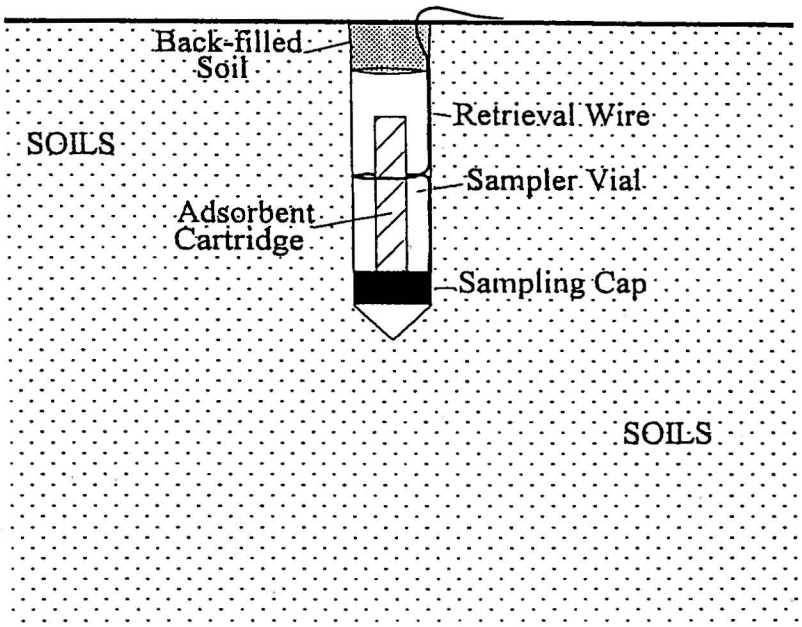
F. Field personnel retrieve the Collectors at the end of the 72-hour exposure period. At each location, a field technician withdraws the Collector from its hole and wipes the outside of the vial clean using gauze cloth; following removal of the Sampling Cap, the threads of the vial are also cleaned. A solid plastic cap is screwed onto the vial and the sample location number is written on the label. The technician then records sample-point location, date, time, etc. on the Field Deployment Form.

G. Sampling holes are refilled with soil, sand, or other suitable material. If Collectors have been installed through asphalt or concrete, the hole if filled to grade with a plug of cold patch or cement.

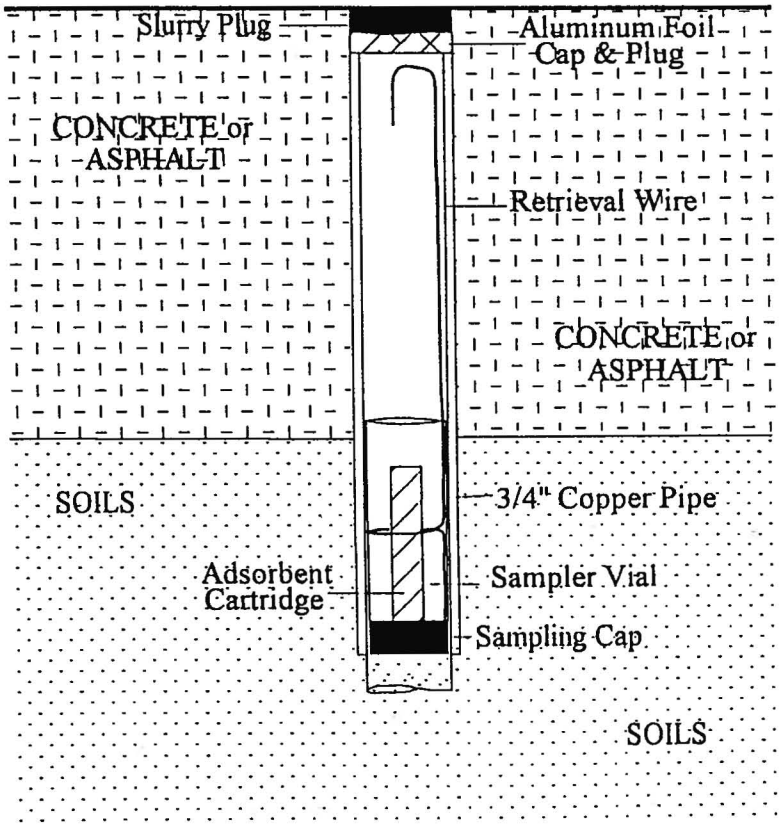
H. Following retrieval, field personnel ship or carry the EMFLUX® Collectors to analytical laboratories under contract to Quadrel Services. The remaining equipment is returned to Quadrel's preparation facility.

EMFLUX® COLLECTOR

DEPLOYMENT IN SOILS



DEPLOYMENT THROUGH AN ASPHALT/CONCRETE CAP



Attachment 3

Field Deployment Report

QUADREL SERVICES, INC.
FIELD DEPLOYMENT REPORT

PROJECT #:	CLIENT:	SITE:
QS-2362	BHATE ENVIRONMENTAL ASSOC.	NAVAL STATION MAYPORT, FL

INDIVIDUAL SAMPLE INFORMATION

EMPLACEMENT DATE: 5/2/97 | RETRIEVAL DATE: 5/8/97

SAMPLE NUMBER	TIME		FIELD NOTES (e.g., asphalt/concrete covering, description of sample location, cartridge/vial condition)
	Emplaced	Retrieved	
(A) 1C	7:59	1519	ODOR OF FUEL THRU-OUT SAMPLING AREA
2	8:08	1516	" " " " "
3	8:10	1513	" " " " " " "
4	8:11	1435	NO ODOR, ODOR WOULD PICK UP & WIND
5	8:13	1439	" "
6C	8:16	1441	" "
7	8:19	1438	" "
8C	8:21	1437	
9C	8:24	1515	
10	8:26	1516	
11	8:29	1522	
12	8:30	1531	
13	9:06	1454	
14	8:36	1452	CHECK LOCATIONS ON MAP (Samples is on w side of stairs)
15	8:41	1450	
16	8:44	1444	HEAVY ODOR - VENT AREA
17	8:46	1442	NO ODOR

SAMPLE NUMBER	TIME		FIELD NOTES (e.g., asphalt/concrete covering, description of sample location, cartridge/vial condition)
	Emplaced	Retrieved	
(B) 18 C	9:35	1533	
19	8:51	1445	
20	8:54	1449	
21	9:02	1528	
22	9:04	1456	
23	9:08	1458	
24	9:10	1500	
25 C	9:11	1503	
26	9:14	1501	
27 C	9:21	1625	
28	9:16	1457	
29	9:23	1624	
30 C	9:24	1623	
31	9:26	1620	
32 C	9:28	1619	
33	9:29	1606	
34	9:18	1447	
35 C	9:31	1608	
36	9:33	1609	
37 C	9:39	1610	
38	9:40	1537	
39	9:45	1538	

SAMPLE NUMBER	TIME		FIELD NOTES (e.g., asphalt/concrete covering, description of sample location, cartridge/vial condition)
	Emplaced	Retrieved	
40	10:24	~~1550~~ 1554	
41	10:23	~~1550~~ 1552	
42	10 21	1556	
43	10:19	1558	
44 C	10:17	~~1406~~ 1600	
45	10:49	14 11	
46 C	10:42	~~1406~~ 1601	
47	10:47	1622	
48 C	1046	1628	
49	11:19	1406	
50 C	11:32	1626	
(C)	1053	1419	
52	10:52	1414	
53	10:51	1413	
54	11:26	1416	ODOR
55	1122	1408	
56	11:15	1403	
57	10:32	1547	
58	10:28	15 41	
59	10:26	1542	
60	9:46	1540	
61	10:30	15~~40~~44	

QUADREL SERVICES, INC.
FIELD DEPLOYMENT REPORT

PROJECT #:	CLIENT:	SITE:
QS2362	BHATE ENVIRONMENTAL ASSOC	NAVAL STATION MAYPORT, FL

INDIVIDUAL SAMPLE INFORMATION

EMPLACEMENT DATE: 5/2/97 RETRIEVAL DATE: 5/8/97

SAMPLE NUMBER	TIME		FIELD NOTES (e.g., asphalt/concrete covering, description of sample location, cartridge/vial condition)
	Emplaced	Retrieved	
(D) 62	10:33	1545	
63	11:13	1401	
64	11:09	1356	
65 C	11:07	1353	
66 C	11:16	1405	
67	10:57	1422	
68	11:29	13:45	
69	10:59	1347	
70 C	11:01	1351	
71	11:04	1352	
72	11:05	1355	
73 C	11:10	1358	
74	10:37	1549	
75 C	9:42	1535	
A	7:59	1519	AT ~~1~~ 1C
B	9:35	1534	AT - 18C
C	10:54	1419	AT - 51

SAMPLE NUMBER	TIME		FIELD NOTES (*e.g.*, asphalt/concrete covering, description of sample location, cartridge/vial condition)
	Emplaced	Retrieved	
D	10:34	1544	AT 62
Trip Blank			

Attachment 4

LABORATORY PROCEDURES FOR EMFLUX® ADSORBENT CARTRIDGES

Following are laboratory procedures used with the EMFLUX® Soil-Gas System, a screening technology for expedited site investigation. After exposure, EMFLUX® cartridges are analyzed using U.S. EPA Method 8015B/8020 as described in the Solid Waste Manual (SW-846) for screening purposes, which involves the use of a capillary gas chromatograph (GC) equipped with a photoionization detector (PID) and a flame ionization detection (FID). The method has been modified to accommodate thermal desorption screening of the adsorbent cartridges. This procedure is summarized below:

A. EMFLUX® cartridges are placed in the thermal desorbtion chamber at ambient temperature, purged with carrier gas, then, desorbed at temperatures up to 400°C for five minutes. The analytes are cryofocused at the front of the GC column using liquid CO2. Analytes are detected with a PID and then an FID.

B. The laboratory uses a 60-m, 0.53-mm-i.d., 5 μm-film-thickness MXT-5 capillary column for separation during analysis.

C. The PID and FID are set at high gain; the air pressure is set at 10 psi and the hydrogen pressure is set at 24 psi.

D. Lab personnel conduct internal control blank and internal control verification analyses daily to ensure that the system is contaminant free and properly calibrated. The system is calibrated using the external standard calibration procedure to at least five different concentration levels for each compound targeted, with the lowest concentration level at or near the method detection limit.

E. The instrumentation used for these analyses is an SRI 8610 Gas Chromatograph, connected to a PID in series with an FID and equipped with a manually actuated thermal desorber.

Attachment 5

ADSORBENT RECOVERY FACTORS

Quadrel maintains an ongoing laboratory-based program to quantify recovery factors for the adsorbents used in EMFLUX® field collection devices. This program is designed to determine adsorbent affinity (a combination of attraction and retention characteristics) for a broad spectrum of compounds, including each of the VOCs targeted in this survey. The adsorbent with the highest overall affinity for the targeted VOCs was utilized for this survey, and the recovery factors of those compounds that were detected are as follows:

Compound	Percent Recovered
Benzene	56
Ethylbenzene	100
MTBE	54
Naphthalene	56
Toluene	100
1,2,4-Trimethylbenzene	96
1,3,5-Trimethylbenzene	98
Xylenes (total)	100
TPH Volatiles	100

Attachment 6

Chain-of-Custody Form

QUADREL SERVICES, INC.
CHAIN-OF-CUSTODY FORM

PROJECT NUMBER: QS 2362 | PROJECT NAME: NAVAL STATION

LOCATION: MAYPORT, FL | CLIENT: BHATE ENVIR, ASSOC.

TARGET COMPOUNDS: BTEX & TPH

SAMPLE NUMBER	LAB ID No. (for lab use only)	REMARKS — Condition of sample or vial	* RETRIEVAL DATA: Date*	Time*	Init.
1C			5/8/97	1519	EAV
2				1516	
3				1513	
4				1435	
5				1439	
6C				1444	
7				1438	
8C				1437	
9C				1515	
10				1516	
11				1522	
12				1531	
13				1451	
14				1452	
15				1450	
16				1444	
17				1442	
18C				1533	
19				1445	
20				1449	
21				1528	
22				1456	
23				1458	
24				1500	
25C				1503	
26				1501	
27C				1625	
28				1457	
29				1604	
30C				1623	
31				1620	
32C				1619	

RELINQUISHED BY — Signature	Printed Name	DATE	TIME	RECEIVED BY — Signature	Printed Name
Dan Smith	DAN SMITH	4-29-97	15:00	FEDEX	
FEDEX		5-1-97	12:30	Emmett Beers	Emmett Beers
Emmett Beers	Emmett Beers	5-2-97	12:30 pm	KRK	K.R. KIULIN
KRK	KRKIULIN	5-7-97	11:00 Am	EVICTOR	E. VICTOR
EVICTOR	E. VICTOR	5-8-97	18:30	FED EX	TO LAB
FEDEX		5-9-97	1400	HOUSTON	

1 of 2 Boxes

QUADREL SERVICES, INC.
CHAIN-OF-CUSTODY FORM

PROJECT NUMBER: QS 2362 | PROJECT NAME: NAVAL STATION

LOCATION: MAYPORT, FL | CLIENT: BHATE ENVIR. ASSOC.

TARGET COMPOUNDS: BTEX & TPH

SAMPLE NUMBER	LAB ID No. (for lab use only)	REMARKS: Condition of sample or vial	Date	Time	Init.
33			5/8/97	1606	EAV
34				1447	
35C				1608	
36				1609	
37C				1610	
38				1537	
39				1538	
40				1554	
41				1553	
42				1556	
43				1558	
44 C				1600	
45				1411	
46C		TWO SAMPLES LABELED 46C HSO 5/9/97		1601	
47				1622	
48C				1628	
49		NO SAMPLE HSO 5/9/97		1406	
50C				1626	
51				1419	
52				1414	
53				1413	
54				1410	
55				1408	
56				1403	
57				1647	
58				1641	
59				1642	
60				1540	
61				1544	
62				1545	
63				1401	
64				1356	

RELINQUISHED BY: Signature	Printed Name	DATE	TIME	RECEIVED BY: Signature	Printed Name
Dan Smith	DAN SMITH	4-29-97	15:00	FEDEX	
FEDEX		5-1-97	12:30	Emmett Beers	Emmett Beers
Emmett Beers	Emmett Beers	5-2-97	7:30 pm	K.R.KIVLIN	K.R.KIVLIN
K.R.KIVLIN	K.R.KIVLIN	5-7-97	11:00 AM	E.VICTOR	E.VICTOR
E.VICTOR	E. VICTOR	5-8-97	1830	FEDEX TO LAB	
FEDEX		5-9-97	1400	H.O'Neil	

1 of 2 boxes

QUADREL SERVICES, INC.
CHAIN-OF-CUSTODY FORM

PROJECT NUMBER: QS 2362 | PROJECT NAME: NAVAL STATION

LOCATION: MAYPORT, FL | CLIENT: BHATE ENVIR. ASSOC.

TARGET COMPOUNDS: BTEX & TPH

SAMPLE NUMBER	LAB ID No. (for lab use only)	REMARKS: Condition of sample or vial	Date	Time	Init.
65C			5/8/97	1353	EAV
66C				1405	
67				1422	
68				1345	
69				1347	
70C				1357	
71				1352	
72				1355	
73C				1358	
74				1549	
75C				1535	
A				1519	
B				1534	
C				1419	
D			↓	1544	↓
Trip Blank					

E. VICTOR

RELINQUISHED BY: Signature	Printed Name	DATE	TIME	RECEIVED BY: Signature	Printed Name
Dan Smith	DAN SMITH	4-29-97	15:00	FEDEX	
FEDEX		5-1-97	12:30	Emmett Beau	Emmett Beau
Emmett Beau	Emmett Beau	5-2-97	7:30 am	KRKivlin	KRKivlin
KRKivlin	KRKivlin	5-7-97	11:00 am	E. VICTOR	E. VICTOR
E. VICTOR	E. VICTOR	5-8-97	1530	FED EX, TO	LAB
FEDEX		5-9-97	1400	H. O'Neill	H. O'Neill

1 of 2 boxes

DEP Form # 62-770.900(1)
Form Title: Petroleum or Petroleum Products Water Sampling Log
Effective Date:

Petroleum or Petroleum Products
Water Sampling Log

FDEP FACILITY NO.: FC	WELL NO.: 1	SAMPLE ID:	DATE: 6/17/97
SITE NAME:	SITE LOCATION: MW1 Perk		

PURGE DATA

WELL DIAMETER (in): 2"	TOTAL WELL DEPTH (ft): 18.9	DEPTH TO WATER (ft): 14.11	WELL CAPACITY (gal/ft): 0.79

1 WELL VOLUME (gal) = (TOTAL WELL DEPTH – DEPTH TO WATER) x WELL CAPACITY = 0.8

= (–) x =

PURGE METHOD:	PURGING INITIATED AT:	PURGING ENDED AT:
	PURGE RATE (gpm):	TOTAL VOLUME PURGED (gal):

WELL VOLS. PURGED	CUMUL. VOLUME PURGED (gal)	pH	TEMP. (°C)	COND. (µmhos)	COLOR	ODOR	APPEARANCE	OTHER
1	1	7.74		15	GRAY	NO		
2	2	7.70		9	"	"		
3	3	7.68		4	"	"		

SAMPLING DATA

SAMPLED BY / AFFILIATION	SAMPLER(S) SIGNATURE(S)	
SAMPLING METHOD(S):	SAMPLING INITIATED AT:	SAMPLING ENDED AT:

FIELD DECONTAMINATION: Y N | FIELD-FILTERED: Y N | DUPLICATE: Y N

SAMPLE CONTAINER SPECIFICATIONS			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (ml)	FINAL pH	

REMARKS:

MATERIAL CODES: AG = AMBER GLASS; CG = CLEAR GLASS; HDP = HIGH DENSITY POLYETHYLENE; O = OTHER (SPECIFY)

WELL CAPACITY: 1.25" = 0.06 gal/ft; 2" = 0.16 gal/ft; 4" = 0.65 gal/ft; 6" = 1.47 gal/ft; 8" = 2.61 gal/ft; 12" = 5.88 gal/ft

NOTE: this does not constitute all the information required by Chapter 62-160, F.A.C.

JUN-04-97 WED 04:17 PM SHAKE ENVIRONMENTAL FAX NO. 205 918 4050 P. 04

DEP Form # 62-770.900(3)
Form Title: Petroleum or Petroleum Products Water Sampling Log
Effective Date: _____

Petroleum or Petroleum Products
Water Sampling Log

FDEP FACILITY NO.: FF	WELL NO.: 2	SAMPLE ID:	DATE: 6/17/97
SITE NAME: Wayport	SITE LOCATION:		

PURGE DATA

WELL DIAMETER (in): 2"	TOTAL WELL DEPTH (ft): 17.2	DEPTH TO WATER (ft): 12.34	WELL CAPACITY (gal/ft): 0.16

1 WELL VOLUME (gal) = (TOTAL WELL DEPTH - DEPTH TO WATER) x WELL CAPACITY = 0.82

= (-) x =

PURGE METHOD:					PURGING INITIATED AT:		PURGING ENDED AT:	
WELL VOLS. PURGED	CUMUL. VOLUME PURGED (gal)	pH	TEMP. (°C)	COND. (µmhos)	PURGE RATE (gpm): COLOR	ODOR	TOTAL VOLUME PURGED (gal): APPEARANCE	OTHER
1	1	7.91		22	Brn	N/O		
2	2	7.82		4	"	"		
3	3	7.80		1	"	"		

SAMPLING DATA

SAMPLED BY / AFFILIATION		SAMPLER(S) SIGNATURE(S)	
SAMPLING METHOD(S):		SAMPLING INITIATED AT:	SAMPLING ENDED AT:

FIELD DECONTAMINATION: Y N | FIELD-FILTERED: Y N | DUPLICATE: Y N

SAMPLE CONTAINER SPECIFICATIONS			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (ml)	FINAL pH	

REMARKS:

MATERIAL CODES: AG = AMBER GLASS; CG = CLEAR GLASS; HDP = HIGH DENSITY POLYETHYLENE; O = OTHER (SPECIFY)

WELL CAPACITY: 1.25" = 0.06 gal/ft; 2" = 0.16 gal/ft; 4" = 0.65 gal/ft; 6" = 1.47 gal/ft; 8" = 2.61 gal/ft; 12" = 5.88 gal/ft

NOTE: this does not constitute all the information required by Chapter 62-160, F.A.C.

JUN-04-97 WED 04:17 PM SHAFE ENVIRONMENTAL FAX NO. 205 918 4050 P.04

FDEP Form # 62-770.900(3)
Form Title: Petroleum or Petroleum Products Water Sampling Log
Effective Date: _____

Petroleum or Petroleum Products
Water Sampling Log

FDEP FACILITY NO.: FF	WELL NO.: 3	SAMPLE ID:	DATE: 6/17/97
SITE NAME:	SITE LOCATION:		

PURGE DATA

WELL DIAMETER (in): 2"	TOTAL WELL DEPTH (ft): 14.	DEPTH TO WATER (ft): 9.85	WELL CAPACITY (gal/ft): 4.15

1 WELL VOLUME (gal) = (TOTAL WELL DEPTH – DEPTH TO WATER) x WELL CAPACITY = 0.70

= (–) x =

PURGE METHOD:	PURGING INITIATED AT:	PURGING ENDED AT:
	PURGE RATE (gpm):	TOTAL VOLUME PURGED (gal):

WELL VOLS. PURGED	CUMUL. VOLUME PURGED (gal)	pH	TEMP. (°C)	COND. (umhos)	COLOR	ODOR	APPEARANCE	OTHER
1	1	7.74	ooc	3	GRAY/BRW	N/O		
2	2	7.60		0	"	"		
3	3	7.64		1	"	"		

SAMPLING DATA

SAMPLED BY / AFFILIATION:	SAMPLER(S) SIGNATURE(S):	
SAMPLING METHOD(S):	SAMPLING INITIATED AT:	SAMPLING ENDED AT:

FIELD DECONTAMINATION: Y N | FIELD-FILTERED: Y N | DUPLICATE: Y N

SAMPLE CONTAINER SPECIFICATIONS			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (ml)	FINAL pH	

REMARKS:

MATERIAL CODES: AG = AMBER GLASS; CG = CLEAR GLASS; HDP = HIGH DENSITY POLYETHYLENE; O = OTHER (SPECIFY)

WELL CAPACITY: 1.25" = 0.06 gal/ft; 2" = 0.16 gal/ft; 4" = 0.65 gal/ft; 6" = 1.47 gal/ft; 8" = 2.61 gal/ft; 12" = 5.88 gal/ft

NOTE: this does not constitute all the information required by Chapter 62-160, F.A.C.

JUN-04-97 WED 04:17 PM SHAKE ENVIRONMENTAL FAX NO. 205 918 4050 P.04

DEP Form # 62-770.900(3)
Form Title: Petroleum or Petroleum Products Water Sampling Log
Effective Date:

Petroleum or Petroleum Products
Water Sampling Log

FDEP FACILITY NO.: FF	WELL NO.: 34	SAMPLE ID:	DATE: 6/17/97
SITE NAME:	SITE LOCATION:		

PURGE DATA

WELL DIAMETER (in): 2"	TOTAL WELL DEPTH (ft): 14.91	DEPTH TO WATER (ft): 8.34	WELL CAPACITY (gal/ft): 6.57

1 WELL VOLUME (gal) = (TOTAL WELL DEPTH - DEPTH TO WATER) x WELL CAPACITY = 1.12

= (-) x =

PURGE METHOD:	PURGING INITIATED AT:	PURGING ENDED AT:
	PURGE RATE (gpm):	TOTAL VOLUME PURGED (gal):

WELL VOLS. PURGED	CUMUL. VOLUME PURGED (gal)	pH	TEMP. (°C)	COND. (umhos)	COLOR	ODOR	APPEARANCE	OTHER
1	1.25	7.71		10				
2	2.50	7.60		8				
3	3.75	7.57		8				

SAMPLING DATA

SAMPLED BY / AFFILIATION	SAMPLER(S) SIGNATURE(S)	
SAMPLING METHOD(S):	SAMPLING INITIATED AT:	SAMPLING ENDED AT:

FIELD DECONTAMINATION: Y N	FIELD-FILTERED: Y N	DUPLICATE: Y N

SAMPLE CONTAINER SPECIFICATIONS			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (ml)	FINAL pH	

REMARKS:

MATERIAL CODES: AG = AMBER GLASS; CG = CLEAR GLASS; HDP = HIGH DENSITY POLYETHYLENE; O = OTHER (SPECIFY)

WELL CAPACITY: 1.25" = 0.06 gal/ft; 2" = 0.16 gal/ft; 4" = 0.65 gal/ft; 6" = 1.47 gal/ft; 8" = 2.61 gal/ft; 12" = 5.88 gal/ft

NOTE: this does not constitute all the information required by Chapter 62-160, F.A.C.

JUN-04-97 WED 04:17 PM SHAW ENVIRONMENTAL FAX NO. 205 918 4050 P.04

DEP Form # 62-770.900(3)
Form Title: Petroleum or Petroleum Products Water Sampling Log
Effective Date: _____

Petroleum or Petroleum Products
Water Sampling Log

FDEP FACILITY NO.: FF	WELL NO.: 5	SAMPLE ID:	DATE: 6/17/97
SITE NAME:	SITE LOCATION:		

PURGE DATA

WELL DIAMETER (in):	TOTAL WELL DEPTH (ft): 15	DEPTH TO WATER (ft): 9.64	WELL CAPACITY (gal/ft): 5.36

1 WELL VOLUME (gal) = (TOTAL WELL DEPTH – DEPTH TO WATER) x WELL CAPACITY = 0.91

= (–) x =

PURGE METHOD:	PURGING INITIATED AT:	PURGING ENDED AT:
	PURGE RATE (gpm):	TOTAL VOLUME PURGED (gal):

WELL VOLS. PURGED	CUMUL. VOLUME PURGED (gal)	pH	TEMP. (°C)	COND. (umhos)	COLOR	ODOR	APPEARANCE	OTHER
1	1	7.37		14	GRAY	FUGL		
2	2	7.35		10	"	"		
3	3	7.34		2	"	"		

SAMPLING DATA

SAMPLED BY / AFFILIATION	SAMPLER(S) SIGNATURE(S)	
SAMPLING METHOD(S):	SAMPLING INITIATED AT:	SAMPLING ENDED AT:

FIELD DECONTAMINATION: Y N	FIELD-FILTERED: Y N	DUPLICATE: Y N

SAMPLE CONTAINER SPECIFICATIONS			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (ml)	FINAL pH	

REMARKS:

MATERIAL CODES: AG = AMBER GLASS; CG = CLEAR GLASS; HDP = HIGH DENSITY POLYETHYLENE; O = OTHER (SPECIFY)

WELL CAPACITY: 1.25" = 0.06 gal/ft; 2" = 0.16 gal/ft; 4" = 0.65 gal/ft; 6" = 1.47 gal/ft; 8" = 2.61 gal/ft; 12" = 5.88 gal/ft

NOTE: this does not constitute all the information required by Chapter 62-160, F.A.C.

JUN-04-97 WED 04:17 PM SHAFE ENVIRONMENTAL FAX NO. 205 918 4050 P.04

DEP Form # 62-770.900(1)
Form Title: Petroleum or Petroleum Products Water Sampling Log
Effective Date:

Petroleum or Petroleum Products
Water Sampling Log

FDEP FACILITY NO.: FF	WELL NO.: 6	SAMPLE ID:	DATE: 6/17/97
SITE NAME:	SITE LOCATION:		

PURGE DATA

WELL DIAMETER (in):	TOTAL WELL DEPTH (ft): 14.79	DEPTH TO WATER (ft): 7.83	WELL CAPACITY (gal/ft): 6.96

1 WELL VOLUME (gal) = (TOTAL WELL DEPTH – DEPTH TO WATER) x WELL CAPACITY = 1.18

= (–) x =

PURGE METHOD:	PURGING INITIATED AT:	PURGING ENDED AT:
	PURGE RATE (gpm):	TOTAL VOLUME PURGED (gal):

WELL VOLS. PURGED	CUMUL. VOLUME PURGED (gal)	pH	TEMP. (°C)	COND. (µmhos)	COLOR	ODOR	APPEARANCE	OTHER
1	1.25	7.39		1	CLEAR	FUEL		
2	2.50	7.46		1	"	"		
3	3.75	7.39		0	"	"		

SAMPLING DATA

SAMPLED BY / AFFILIATION	SAMPLER(S) SIGNATURE(S)	
SAMPLING METHOD(S):	SAMPLING INITIATED AT:	SAMPLING ENDED AT:

FIELD DECONTAMINATION: Y N | FIELD-FILTERED: Y N | DUPLICATE: Y N

SAMPLE CONTAINER SPECIFICATIONS			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (ml)	FINAL pH	

REMARKS:

MATERIAL CODES: AG = AMBER GLASS; CG = CLEAR GLASS; HDP = HIGH DENSITY POLYETHYLENE; O = OTHER (SPECIFY)

WELL CAPACITY: 1.25" = 0.06 gal/ft; 2" = 0.16 gal/ft; 4" = 0.65 gal/ft; 6" = 1.47 gal/ft; 8" = 2.61 gal/ft; 12" = 5.88 gal/ft

NOTE: this does not constitute all the information required by Chapter 62-160, F.A.C.

JUN-04-97 WED 04:17 PM SHAW ENVIRONMENTAL FAX NO. 205 918 4050 P.04

DEP Form # 62-770.900(3)
Form Title: Petroleum or Petroleum Products Water Sampling Log
Effective Date: _____

Petroleum or Petroleum Products
Water Sampling Log

FDEP FACILITY NO.: FF	WELL NO.: 7	SAMPLE ID:	DATE: 6/17/97
SITE NAME:	SITE LOCATION:		

PURGE DATA

WELL DIAMETER (in):	TOTAL WELL DEPTH (ft): 14.85	DEPTH TO WATER (ft): 7.43	WELL CAPACITY (gal/ft): 7.42

1 WELL VOLUME (gal) = (TOTAL WELL DEPTH – DEPTH TO WATER) x WELL CAPACITY = 1.26

= (–) x =

PURGE METHOD:	PURGING INITIATED AT:	PURGING ENDED AT:
	PURGE RATE (gpm):	TOTAL VOLUME PURGED (gal):

WELL VOLS. PURGED	CUMUL. VOLUME PURGED (gal)	pH	TEMP. (°C)	COND. (umhos)	COLOR	ODOR	APPEARANCE	OTHER
1	1.50	7.53		0	L-Gray	0/0		
2	3.00	7.54		0	"	"		
3	4.50	7.50		0	"	"		

SAMPLING DATA

SAMPLED BY / AFFILIATION	SAMPLER(S) SIGNATURE(S)	
SAMPLING METHOD(S):	SAMPLING INITIATED AT:	SAMPLING ENDED AT:

FIELD DECONTAMINATION: Y N | FIELD-FILTERED: Y N | DUPLICATE: Y N

SAMPLE CONTAINER SPECIFICATIONS			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (ml)	FINAL pH	

REMARKS:

MATERIAL CODES: AG = AMBER GLASS; CG = CLEAR GLASS; HDP = HIGH DENSITY POLYETHYLENE; O = OTHER (SPECIFY)

WELL CAPACITY: 1.25" = 0.06 gal/ft; 2" = 0.16 gal/ft; 4" = 0.65 gal/ft; 6" = 1.47 gal/ft; 8" = 2.61 gal/ft; 12" = 5.88 gal/ft

NOTE: this does not constitute all the information required by Chapter 62-160, F.A.C.

JUN-04-97 WED 04:17 PM SHAKE ENVIRONMENTAL FAX NO. 205 818 4050 P. 04

FLORIDA

DEP Form # 62-770.900(3)
Form Title: Petroleum or Petroleum Products Water Sampling Log
Effective Date:

Petroleum or Petroleum Products
Water Sampling Log

FDEP FACILITY NO.: FF	WELL NO.: 8	SAMPLE ID:	DATE: 6 11 97
SITE NAME: May Point	SITE LOCATION:		

PURGE DATA

WELL DIAMETER (in):	TOTAL WELL DEPTH (ft): 15.00	DEPTH TO WATER (ft): 6.59	WELL CAPACITY (gal/ft): 0.89811

1 WELL VOLUME (gal) = (TOTAL WELL DEPTH − DEPTH TO WATER) x WELL CAPACITY = 1.38

= (−) x =

PURGE METHOD:	PURGING INITIATED AT:	PURGING ENDED AT:
	PURGE RATE (gpm):	TOTAL VOLUME PURGED (gal):

WELL VOLS. PURGED	CUMUL. VOLUME PURGED (gal)	pH	TEMP. (°C)	COND. (µmhos)	COLOR	ODOR	APPEARANCE	OTHER
1	1.50	7.59	00C	10	D GRAY	NO		
2	3.00	7.52		5	"	"		
3	4.50	7.52		0	"	"		

SAMPLING DATA

SAMPLED BY / AFFILIATION	SAMPLER(S) SIGNATURE(S)	
SAMPLING METHOD(S):	SAMPLING INITIATED AT:	SAMPLING ENDED AT:

FIELD DECONTAMINATION: Y N | FIELD-FILTERED: Y N | DUPLICATE: Y N

SAMPLE CONTAINER SPECIFICATIONS			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (ml)	FINAL pH	

REMARKS:

MATERIAL CODES: AG = AMBER GLASS; CG = CLEAR GLASS; HDP = HIGH DENSITY POLYETHYLENE; O = OTHER (SPECIFY)

WELL CAPACITY: 1.25" = 0.06 gal/ft; 2" = 0.16 gal/ft; 4" = 0.65 gal/ft; 6" = 1.47 gal/ft; 8" = 2.61 gal/ft; 12" = 5.88 gal/ft

NOTE: this does not constitute all the information required by Chapter 62-160, F.A.C.

JUN-04-97 WED 04:17 PM BHATE ENVIRONMENTAL FAX NO. 205 918 4050 P.04

FLORIDA

DEP Form # 62-770.900(3)
Form Title: Petroleum or Petroleum Products Water Sampling Log
Effective Date:

Petroleum or Petroleum Products
Water Sampling Log

FDEP FACILITY NO.: Fuel Farm	WELL NO.: 9	SAMPLE ID:	DATE: 6 11 97
SITE NAME:	SITE LOCATION:		

PURGE DATA

WELL DIAMETER (in): 2"	TOTAL WELL DEPTH (ft): 24.98	DEPTH TO WATER (ft): 7.93	WELL CAPACITY (gal/ft): 17.05

1 WELL VOLUME (gal) = (TOTAL WELL DEPTH – DEPTH TO WATER) x WELL CAPACITY = 2.9

= (–) x =

PURGE METHOD:	PURGING INITIATED AT:	PURGING ENDED AT:
	PURGE RATE (gpm):	TOTAL VOLUME PURGED (gal):

WELL VOLS. PURGED	CUMUL. VOLUME PURGED (gal)	pH	TEMP. (°C)	COND. (µmhos)	COLOR	ODOR	APPEARANCE	OTHER
1.00	3	8.34	20C	5	Clear	N/D	Cloudy	
2.00	6	8.36		1	"	"	"	
3	9	8.42		1	"	"	"	

SAMPLING DATA

SAMPLED BY / AFFILIATION	SAMPLER(S) SIGNATURE(S)	
SAMPLING METHOD(S):	SAMPLING INITIATED AT:	SAMPLING ENDED AT:

FIELD DECONTAMINATION: Y N | FIELD-FILTERED: Y N | DUPLICATE: Y N

SAMPLE CONTAINER SPECIFICATIONS			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (ml)	FINAL pH	

REMARKS:

MATERIAL CODES: AG = AMBER GLASS; CG = CLEAR GLASS; HDP = HIGH DENSITY POLYETHYLENE; O = OTHER (SPECIFY)

WELL CAPACITY: 1.25" = 0.06 gal/ft; 2" = 0.16 gal/ft; 4" = 0.65 gal/ft; 6" = 1.47 gal/ft; 8" = 2.61 gal/ft; 12" = 5.88 gal/ft

NOTE: this does not constitute all the information required by Chapter 62-160, F.A.C.

Site Name: NAV STA MAYPORT
Location: NSC FUEL FARM

Sampled By: KRK
Date: 6-2-97

pH Meter Calibration:

	4.0	7.0	10.0
Standard			
Reading	___	7.83	___
Calibrated to	___	7.83	___

Conductivity Meter Calibration:

Standard	0
Reading	Ø
Calibrated to	Ø

Well Volume in Gallons:
2" 1 vol = H_2O Column (ft) x .16 gal/ft
4" 1 vol = H_2O Column (ft) x .65 gal/ft
6" 1 vol = H_2O Column (ft) x 1.47gal/ft

MW-MPT 16MW035 Depth to Water (ft btc): 9.45 Time Started: 0925 Well Volume
Diameter (inches): 2" Water Column (ft): 5.7 Time Ended: 1055 (gals): .91
Well Depth (ft btc): 15.15 Purging Technique: Bailing Time on Label: 1055

Volume	Temp (°C)	Conductivity (ms)	pH	Comments
1gg	17.0	11	7.84	CLOUDY NO PETRO ODOR
2gg	17.4	8	8.12	
3gg	17.5	7	8.33	
3.5gg	17.4	Ø	8.54	
4gg	17.3	Ø	8.59	
5gg	17.4	Ø	8.65	

MW-16 II Depth to Water (ft btc): 10.93 Time Started: 11:24 Well Volume
Diameter (inches): 2" Water Column (ft): 19.37 Time Ended: 1224 (gals): 3
Well Depth (ft btc): 30.3 Purging Technique: BAILING Time on Label: 1220

Volume	Temp (°C)	Conductivity (ms)	pH	Comments
3gg	19.4	Ø	7.44	CLEAR NO PETRO ODOR
6gg	18.5	Ø	7.67	
9gg	18.7	Ø	7.81	

MW-9MW1S Depth to Water (ft btc): 12.35 Time Started: 1300 Well Volume
Diameter (inches): 2" Water Column (ft): 8.47 Time Ended: 1335 (gals): 1.4
Well Depth (ft btc): 20.82 Purging Technique: Bailing Time on Label: 1330

Volume	Temp (°C)	Conductivity (ms)	pH	Comments
1.5gg	18.1	9	7.61	VERY CLOUDY NO ODOR
3gg	17.6	Ø	7.61	
4.5gg	17.8	Ø	7.62	

GROUNDWATER SAMPLING LOG

Site Name: NAVSTA MAYPORT
Location: NSC FUEL FARM

Sampled By: KRK
Date: 6-2-97

pH Meter Calibration:

Standard	4.0	7.0	10.0
Reading	___	7.83	___
Calibrated to	___	7.83	___

Conductivity Meter Calibration:

Standard	0
Reading	Ø
Calibrated to	Ø

Well Volume in Gallons:
2" 1 vol = H_2O Column (ft) x .16 gal/ft
4" 1 vol = H_2O Column (ft) x .65 gal/ft
6" 1 vol = H_2O Column (ft) x 1.47gal/ft

MW-9DMW03 | Depth to Water (ft btc): 10.5 | Time Started: 1400 | Well Volume (gals): 1gg
Diameter (inches): 2" | Water Column (ft): 6.4 | Time Ended: 1430
Well Depth (ft btc): 16.9 | Purging Technique: Bailing | Time on Label: 1430

Volume	Temp (°C)	Conductivity (ms)	pH	Comments
1gg	17.4	Ø	7.55	HEAVY & SEDIMENT L. BRN NO ODOR
2gg	18.1	Ø	7.59	
3gg	18.1	Ø	7.64	

MW-___ | Depth to Water (ft btc): _____ | Time Started: _____ | Well Volume (gals): _____
Diameter (inches): _____ | Water Column (ft): _____ | Time Ended: _____
Well Depth (ft btc): _____ | Purging Technique: _____ | Time on Label: _____

Volume	Temp (°C)	Conductivity (ms)	pH	Comments

MW-___ | Depth to Water (ft btc): _____ | Time Started: _____ | Well Volume (gals): _____
Diameter (inches): _____ | Water Column (ft): _____ | Time Ended: _____
Well Depth (ft btc): _____ | Purging Technique: _____ | Time on Label: _____

Volume	Temp (°C)	Conductivity (ms)	pH	Comments

GROUNDWATER SAMPLING LOG

(1)

Site Name: Mayport Fueling Fac. Sampled By: EN D
Location: Date:

pH Meter Calibration: Conductivity Meter Calibration:
Standard 4.0 7.0 10.0 Standard 0
Reading 4.02 7.0 / Reading
Calibrated to 4.0 7.0 / Calibrated to

Well Volume in Gallons:
2" 1 vol = H_2O Column (ft) x .16 gal/ft
4" 1 vol = H_2O Column (ft) x .65 gal/ft
6" 1 vol = H_2O Column (ft) x 1.47gal/ft

10/7

MW- 7 Depth to Water (ft btc): 7.34 Time Started: 1430 Well Volume
Diameter (inches): 2" Water Column (ft): 7.31 Time Ended: 1515 (gals):
Well Depth (ft btc): 14.65 Purging Technique: PP/SM Time on Label: 1500

Volume	Temp (°C)	Conductivity (ms)	pH	Comments
1.14	~~25~~	~~600~~ 760	~~6.~~ 6.19	clear
2.5	25	740	6.31	
3.73	26	770	6.88*	
4.9	26	780	~~7.60~~ 6.88	

Note - Not preserved for VOCs
601 FL PRO
EDB
Pb

FF MW-7 | Total Pb, EDB, 8010, ~~BTEX/MTBE~~, 610/8100, FL PRO. (NRB.)
Initial | 26 | 670 | 6.18 | clear VOCs

*Readings taken several minutes after sample had been silty.

MW- FF MW-6 Depth to Water (ft btc): 7.79 Time Started: 1537 Well Volume
Diameter (inches): Water Column (ft): 7.21 Time Ended: 1640 (gals):
Well Depth (ft btc): 15 Purging Technique: PP-1 Time on Label: 1615

Volume	Temp (°C)	Conductivity (ms)	pH	Comments
~~1~~ II	26	940	6.36	Clear
1.22 ~~II~~	26	920	6.60	
1.44 ~~366~~	26	970	6.63	
366 2	26	110		

601
EDB
FL PRO
Pb

Duplicate collected from this well FF-MW-10 time on label 1700

366 Pb, 8010, FL PRO (+NRB)

Depth from ledge

MW- FF-MW-3 Depth to Water (ft btc): 8.34 Time Started: 1645 Well Volume
Diameter (inches): 2" Water Column (ft): 5.66 Time Ended: 1730 (gals):
Well Depth (ft btc): 14 Purging Technique: PP-1 Time on Label: 1710

Volume	Temp (°C)	Conductivity (ms)	pH	Comments
2	26	510	~~9.~~ 9.99	Clear - sl. lt. grey.
.94	26	550	7.59	clear " "
1.92	26	550	7.85	"
2.88	26	560	7.83	

Pb
601
EDB
FL PRO.

Pb, FL PRO, 601. EDB

GROUNDWATER SAMPLING LOG

(7)

Site Name: _____ Sampled By: _____

Location: _____ Date: _____

pH Meter Calibration:

Standard	4.0	7.0	10.0
Reading	___	___	___
Calibrated to	___	___	___

Conductivity Meter Calibration:

Standard	0
Reading	___
Calibrated to	___

Well Volume in Gallons:
2" 1 vol = H_2O Column (ft) x .16 gal/ft
4" 1 vol = H_2O Column (ft) x .65 gal/ft
6" 1 vol = H_2O Column (ft) x 1.47gal/ft

MW- FF+M W-4 Depth to Water (ft btc): 10.53 Time Started: 1810 Well Volume

Diameter (inches): 2 Water Column (ft): 4.58 Time Ended: 1840 (gals): _____

Well Depth (ft btc): 14.91 Purging Technique: P.Pump Time on Label: 1840

Volume	Temp (°C)	Conductivity (ms)	pH	Comments
~~.5~~	26	760	7.88	Clear
~~1.7~~ 8.3	26	770	7.88	"
~~2.5~~ 1.7	26	~~760~~ 760	8.00	"
2.5	26	760	7.86	"

Pb, 601, EDB, FL PRO, NRB

10/8/97

MW- FF-MW-9 Depth to Water (ft btc): 8.99 Time Started: _____ Well Volume

Diameter (inches): _____ Water Column (ft): _____ Time Ended: _____ (gals): _____

Well Depth (ft btc): _____ Purging Technique: _____ Time on Label: _____

Volume	Temp (°C)	Conductivity (ms)	pH	Comments

MW-___ Depth to Water (ft btc): _____ Time Started: _____ Well Volume

Diameter (inches): _____ Water Column (ft): _____ Time Ended: _____ (gals): _____

Well Depth (ft btc): _____ Purging Technique: _____ Time on Label: _____

Volume	Temp (°C)	Conductivity (ms)	pH	Comments

GROUNDWATER SAMPLING LOG

(3)

Site Name: Newport
Location:

Sampled By:
Date:

pH Meter Calibration:

Standard	4.0	7.0	10.0
Reading	/	7.0	10.01
Calibrated to	/	7.0	10.01

Conductivity Meter Calibration:

Standard	0
Reading	
Calibrated to	

Well Volume in Gallons:
2" 1 vol = H_2O Column (ft) x .16 gal/ft
4" 1 vol = H_2O Column (ft) x .65 gal/ft
6" 1 vol = H2O Column (ft) x 1.47gal/ft

10/9

MW- PF-MW-9 Depth to Water (ft btc): 8.99 Time Started: 0750 Well Volume in
Diameter (inches): Water Column (ft): 15.91 Time Ended: 0900 (gals):
Well Depth (ft btc): 24.98 Purging Technique: P Pump Time on Label: 0830

Volume	Cumulative Value	Temp (°C)	Conductivity (µs)	pH	Comments
~~2.70~~		25	1090	7.74	601, EDB, FLPRO Clean
2.70		24	1080	7.80	
5.4.		24	1170	7.79	
8.10		24	1140	7.73	

RINSATE A COLLECTED PRIOR TO FF - MW-9 - LABLED TIME AS 900

MW- ~~PF-MW-9~~ MPT-16-MW03 Depth to Water (ft btc): 9.46 Time Started: 0943 Well Volume in
Diameter (inches): Water Column (ft): 5.54 Time Ended: 1013 (gals):
Well Depth (ft btc): 15 Purging Technique: T. Bailer Time on Label: 1000

Volume	Cumulative Value	Temp (°C)	Conductivity (µs)	pH	Comments
0	~~3.40~~	26	740	7.17	Clear Some black fleces in well
.94		25	710	7.16	first ~~flow~~ water had debris -
1.88		25.	670	7.20	Organic material
7.82		25	680	7.18	

MW- MPT-16-MW035 Depth to Water (ft btc): 9.68 Time Started: 1020 Well Volume in
Diameter (inches): Water Column (ft): 5.47 Time Ended: 1037 (gals):
Well Depth (ft btc): 15.15 Purging Technique: Time on Label: 1045

Volume	Cumulative Value	Temp (°C)	Conductivity (µs)	pH	Comments
		26	560	7.70	Clear
.92		25	590	7.67	"
1.85		25	580	7.53	"
2.76		25	570	7.50	"

MW- MPT-16-MW01I Depth to Water (ft btc): 10.96 Time Started: 1045 Well Volume in
Diameter (inches): 2 Water Column (ft): 19.34 Time Ended: 1118 (gals): 3
Well Depth (ft btc): 30.3 Purging Technique: Time on Label: 1115

Volume	Cumulative Value	Temp (°C)	Conductivity (µs)	pH	Comments
0		25	480	7.50	Clear.
3		24	490	7.44	possible odor
6		25	510	7.45	
9		25	490	7.43	

GROUNDWATER SAMPLING LOG

(4)

Site Name: _____ Sampled By: _____

Location: _____ Date: _____

pH Meter Calibration:

	4.0	7.0	10.0
Standard			
Reading	____	____	____
Calibrated to	____	____	____

Conductivity Meter Calibration:

Standard	0
Reading	____
Calibrated to	____

Well Volume in Gallons:

2" 1 vol = H_2O Column (ft) x .16 gal/ft

4" 1 vol = H_2O Column (ft) x .65 gal/ft

6" 1 vol = H_2O Column (ft) x 1.47gal/ft

10/9

MW-1 Depth to Water (ft btc): 14.65 Time Started: 1130 Well Volume in

Diameter (inches): _____ Water Column (ft): 4.35 Time Ended: 1150 (gals): _____

Well Depth (ft btc): 189 Purging Technique: _____ Time on Label: 1205

Volume	Cumulative Value	Temp (°C)	Conductivity (µs)	pH	Comments
~~.220~~		24	650	7.18	Clear 601
~~0.29~~		25	660	7.19	EOB
1.44		25	650	7.19	FL Rec.
2.16		25	670	7.17	

MW-5 Depth to Water (ft btc): 10.42 Time Started: 1150 Well Volume in

Diameter (inches): 2 Water Column (ft): 4.5 Time Ended: 1250 (gals): _____

Well Depth (ft btc): 15 Purging Technique: _____ Time on Label: 1230

Volume	Cumulative Value	Temp (°C)	Conductivity (µs)	pH	Comments
~~.77~~		26	970	6.74	Clear
~~1.6~~ .77		26	1010	6.73	
~~2.3~~ 1.6		26	1020	6.73	
2.3		26	1010	6.73	

RINSATE B (A) 1300

MW-3 Depth to Water (ft btc): 7.71 Time Started: 1300 Well Volume in

Diameter (inches): _____ Water Column (ft): 7.29 Time Ended: _____ (gals): _____

Well Depth (ft btc): 15.0 Purging Technique: _____ Time on Label: 1330

Volume	Cumulative Value	Temp (°C)	Conductivity (µs)	pH	Comments
~~1.2~~		26	700	6.95	Clear
1.2		26	700	6.96	
2.4		26	710	6.96	
3.6		26	720	6.97	

MW-2 Depth to Water (ft btc): 12.83 Time Started: 1405 Well Volume in

Diameter (inches): _____ Water Column (ft): 4.37 Time Ended: 1440 (gals): _____

Well Depth (ft btc): 17.2 Purging Technique: Pump Time on Label: 1450

Volume	Cumulative Value	Temp (°C)	Conductivity (µs)	pH	Comments
0		27	420	7.54	Clear
.74		26	390	7.61	
1.48		26	400	7.66	
2.22		26	400	7.67	

GROUNDWATER SAMPLING LOG

(5)

Site Name: _____ Sampled By: _____

Location: _____ Date: 10/10/91

pH Meter Calibration:

Standard	4.01	7.0	10.01
Reading	____	6.96	10.04
Calibrated to	____	7.0	10.01

Conductivity Meter Calibration:

Standard	0
Reading	____
Calibrated to	____

Well Volume in Gallons:
2" 1 vol = H_2O Column (ft) x .16 gal/ft
4" 1 vol = H_2O Column (ft) x .65 gal/ft
6" 1 vol = H2O Column (ft) x 1.47gal/ft

~~MW-~~ MPT-9-01S Depth to Water (ft btc): 12.46 Time Started: 1240 Well Volume in

Diameter (inches): _____ Water Column (ft): 8.5 Time Ended: 1203 (gals): _____

Well Depth (ft btc): 20.8 Purging Technique: _____ Time on Label: 1200

Volume	Cumulative Value	Temp (°C)	Conductivity (µs)	pH	Comments
~~1.41~~0		24	540	7.47	clear 601
1.41		26	530	7.55	FL PRO
2.67		26	560	7.31	EDB
4.23		24	550	7.32	

~~MW-~~ MPT-16-03 Depth to Water (ft btc): 10.44 Time Started: 1045 Well Volume in

Diameter (inches): _____ Water Column (ft): 6.56 Time Ended: 1130 (gals): _____

Well Depth (ft btc): 17.0 Purging Technique: _____ Time on Label: 1100

Volume	Cumulative Value	Temp (°C)	Conductivity (µs)	pH	Comments
0		26	590	7.66	Clear 601
1.12		26	610	7.51	FL PRO
2.2		26	630	7.46	EDB
3.3		26	620	7.42	

MW-____ Depth to Water (ft btc): _____ Time Started: _____ Well Volume in

Diameter (inches): _____ Water Column (ft): _____ Time Ended: _____ (gals): _____

Well Depth (ft btc): _____ Purging Technique: _____ Time on Label: _____

Volume	Cumulative Value	Temp (°C)	Conductivity (µs)	pH	Comments

MW-____ Depth to Water (ft btc): _____ Time Started: _____ Well Volume in

Diameter (inches): _____ Water Column (ft): _____ Time Ended: _____ (gals): _____

Well Depth (ft btc): _____ Purging Technique: _____ Time on Label: _____

Volume	Cumulative Value	Temp (°C)	Conductivity (µs)	pH	Comments

RECEIVED
JUN 30 1997

Our Quality Control Is Your Quality Assurance

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Ave South
Suite 300
Birmingham, AL 35205
Dewey Trapp

Page: Page 1 of 1
Date: 06/25/97
Log #: L20532-1

Sample Description:

Mayport NS -Fuel Farm

Label: PMW-2 (5-7)
Date Sampled: 06/12/97
Time Sampled: 09:05
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	93	%	SM2540B	0.10	06/14	06/14	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/19	06/21	SP
Dilution Factor	1.0		FLPRO		06/19	06/21	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20532-1

RECEIVED
JUN 30 1997

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Ave South
Suite 300
Birmingham, AL 35205
Dewey Trapp

Page: Page 1 of 1
Date: 06/25/97
Log #: L20532-2

Sample Description:

Mayport NS -Fuel Farm

Label: PMW-2 (10-12)
Date Sampled: 06/12/97
Time Sampled: 09:05
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	80	%	SM2540B	0.10	06/14	06/14	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/19	06/21	SP
Dilution Factor	1.0		FLPRO		06/19	06/21	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,

Project Manager

L20532-2

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 06/27/97
Log #: L20535-3

Sample Description:

Nav Sta Mayport /Fuel Farm
9970082

Label: FF-MW-3(4'-6')
Date Sampled: 06/13/97
Time Sampled: 10:08
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	95	%	SM2540B	0.10	06/14	06/14	SMP
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/23	06/25	JS
Dilution Factor	1.0		FLPRO		06/23	06/25	JS

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,

Project Manager

L20535-3

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 06/27/97
Log #: L20535-4

Sample Description:

Nav Sta Mayport /Fuel Farm
9970082

Label: FF-MW-3(8'-10')
Date Sampled: 06/13/97
Time Sampled: 10:12
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	85	%	SM2540B	0.10	06/14	06/14	SMP
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/23	06/25	JS
Dilution Factor	1.0		FLPRO		06/23	06/25	JS

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20535-4

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 07/01/97
Log #: L20536-3

Sample Description:

Nav Na Mayport /Fuel Farm

Label: FF-MW-4 (6-8)
Date Sampled: 06/10/97
Time Sampled: 14:10
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	92	%	SM2540B	0.10	06/14	06/14	SMP
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/17	06/30	SP
Dilution Factor	1.0		FLPRO		06/17	06/30	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20536-3

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 07/01/97
Log #: L20536-4

Sample Description:

Nav Na Mayport /Fuel Farm

Label: FF-MW-4 (8-10)
Date Sampled: 06/10/97
Time Sampled: 14:15
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	89	%	SM2540B	0.10	06/14	06/14	SMP
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/17	06/30	SP
Dilution Factor	1.0		FLPRO		06/17	06/30	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,

Project Manager

L20536-4

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 07/01/97
Log #: L20536-5

Sample Description:

Nav Na Mayport /Fuel Farm

Label: FF-MW-5 (4-6)
Date Sampled: 06/12/97
Time Sampled: 11:35
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	91	%	SM2540B	0.10	06/14	06/14	SMP
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/17	06/30	SP
Dilution Factor	1.0		FLPRO		06/17	06/30	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,

Project Manager
L20536-5

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 07/01/97
Log #: L20536-6

Sample Description:

Nav Na Mayport /Fuel Farm

Label: FF-MW-5 (8-10)
Date Sampled: 06/12/97
Time Sampled: 11:50
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	88	%	SM2540B	0.10	06/14	06/14	SMP
Petroleum Range Organics							
TPH(C8-C40)	5900 L	mg/kg	FLPRO	10	06/17	06/30	SP
Dilution Factor	1.0		FLPRO		06/17	06/30	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20536-6

Our Quality Control Is Your Quality Assurance

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 06/27/97
Log #: L20535-1

Sample Description:

Nav Sta Mayport /Fuel Farm
9970082

Label: FF-MW-6(4'-6')
Date Sampled: 06/13/97
Time Sampled: 08:48
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	86	%	SM2540B	0.10	06/14	06/14	SMP
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/23	06/25	JS
Dilution Factor	1.0		FLPRO		06/23	06/25	JS

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,

Project Manager
L20535-1

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 06/27/97
Log #: L20535-2

Sample Description:

Nav Sta Mayport /Fuel Farm
9970082

Label: FF-MW-6(8'-10')
Date Sampled: 06/13/97
Time Sampled: 09:13
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	78	%	SM2540B	0.10	06/14	06/14	SMP
Petroleum Range Organics							
TPH(C8-C40)	600	mg/kg	FLPRO	200	06/23	06/25	JS
Dilution Factor	20		FLPRO		06/23	06/25	JS

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20535-2

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 07/01/97
Log #: L20536-9

Sample Description:

Nav Na Mayport /Fuel Farm

Label: FF-MW-7 (1-3)
Date Sampled: 06/13/97
Time Sampled: 07:45
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	90	%	SM2540B	0.10	06/14	06/14	SMP
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/17	06/30	SP
Dilution Factor	1.0		FLPRO		06/17	06/30	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20536-9

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 07/01/97
Log #: L20536-10

Sample Description:

Nav Na Mayport /Fuel Farm

Label: FF-MW-7 (4-6)
Date Sampled: 06/13/97
Time Sampled: 08:07
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	87	%	SM2540B	0.10	06/14	06/14	SMP
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/17	06/30	SP
Dilution Factor	1.0		FLPRO		06/17	06/30	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,

Project Manager
L20536-10

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 07/01/97
Log #: L20536-7

Sample Description:

Nav Na Mayport /Fuel Farm

Label: FF-MW-8 (4-6)
Date Sampled: 06/13/97
Time Sampled: 14:35
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	93	%	SM2540B	0.10	06/14	06/14	SMP
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/17	06/30	SP
Dilution Factor	1.0		FLPRO		06/17	06/30	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20536-7

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 07/01/97
Log #: L20536-8

Sample Description:

Nav Na Mayport /Fuel Farm

Label: FF-MW-8 (8-10)
Date Sampled: 06/13/97
Time Sampled: 14:40
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	85	%	SM2540B	0.10	06/14	06/14	SMP
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/17	06/30	SP
Dilution Factor	1.0		FLPRO		06/17	06/30	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,

Project Manager

L20536-8

Our Quality Control Is Your Quality Assurance

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 07/01/97
Log #: L20536-1

Sample Description:

Nav Na Mayport /Fuel Farm

Label: FF-MW-9 (4-6)
Date Sampled: 06/10/97
Time Sampled: 10:40
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	86	%	SM2540B	0.10	06/14	06/14	SMP
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/17	06/30	SP
Dilution Factor	1.0		FLPRO		06/17	06/30	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20536-1

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JUL 07 1997

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 07/01/97
Log #: L20536-2

Sample Description:

Nav Na Mayport /Fuel Farm

Label: FF-MW-9 (8-10)
Date Sampled: 06/10/97
Time Sampled: 10:55
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	83	%	SM2540B	0.10	06/14	06/14	SMP
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/17	06/30	SP
Dilution Factor	1.0		FLPRO		06/17	06/30	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,

Project Manager

L20536-2

CHAIN-OF-CUSTODY

NO.. 001

Page: ___ of ___

C20536

RECEIVED 6-4-97

BHATE Environmental Engineers and Scientists

1608 13th Avenue South
Birmingham, Alabama 35205
(205) 918-4000 (FAX) (205) 918-4050

PROJECT NO.: 9970082 | PROJECT NAME: NAVSTA MAYPORT / Fuel Farm

P.O. NO.: | LAB DESTINATION: V.O.C

SAMPLER(s) NAME: Dewey Tramp

TITLE:

CONTAINERS

Preserved (Code)

Iced (yes/no)

Code: A – None, B – HN03, C – H_2SO_4, D – NaOH, E – HCl, F –

Lab Code – for Lab use only	Yr. ___ Date ___	Time	Comp	Grab	Sample No./ Sample Location	SOIL	WATER	SOLID OTHER	NON-AQUEOUS LIQUID	No.	Volume	Type	TEST: METHOD: EPA 418	TEST: METHOD:	TEST: METHOD:	TEST: METHOD:	TEST: METHOD:	REMARKS
	6/10/97	1040		✓	FF-MW-9(4FT-6FT)	☑	☐	☐	☐	1	8oz	G	✓					
	6/10/97	1055		✓	FF-MW-9(8FT-10FT)	☑	☐	☐	☐	1	8oz	G	✓					
	6/10/97	1410		✓	FF-MW-4(6FT-8FT)	☑	☐	☐	☐	1	8oz	G	✓					
	6/10/97	1415		✓	FF-MW-4(8FT-10FT)	☑	☐	☐	☐	1	8oz	G	✓					
	6/12/97	1135		✓	FF-MW-5(4FT-6FT)	☑	☐	☐	☐	1	8oz	G	✓					
	6/12/97	1150		✓	FF-MW-5(8FT-10FT)	☑	☐	☐	☐	1	8oz	G	✓					
	6/13/97	1435		✓	FF-MW-8(4FT-6FT)	☑	☐	☐	☐	1	8oz	G	✓					
	6/13/97	1440		✓	FF-MW-8(8FT-10FT)	☑	☐	☐	☐	1	8oz	G	✓					
	6/13/97	0745		✓	FF-MW-7(1FT-3FT)	☐	☐	☐	☐	1	8oz	P	✓					
	6/13/97	0807		✓	FF-MW-7(4FT-6FT)	☐	☐	☐	☐	1	8oz	G	/					

Relinquished by: (Signature):	Date:	Time:	Received by: (Signature):	Date:	Time:
Dewey Tramp	6/13/97	1640	Michelle Harold	6/13/97	1640
Relinquished by: (Signature):	Date:	Time:	Received by: (Signature):	Date:	Time:
MWBay CO	6/13	1720			
Relinquished by: (Signature):	Date:	Time:	Received for Laboratory by: (Signature):	Date:	Time:
			Linda Pace	6-14-97	1250

LAB COMMENTS

3°C

REMARKS ON SAMPLE RECEIVED BY LAB:		SAMPLE SHIPPING METHOD		SAMPLE CONTAINER TYPE
Bottle Intact:	☐	Hand Delivery	☐	P = Plastic
Preserved:	☐	Air (specify)	☐	G = Glass
Chilled:	☐	Other (specify)	☐	GA = Glass Amber
Other:	☐			

DISTRIBUTION: WHITE COPY - Project File YELLOW COPY - Lab copy PINK COPY - Working File

F:\DWG\BLOCK\BCHAIN

CHAIN-OF-CUSTODY

L20535

Page: 1

BHATE
Environmental Engineers and Scientists
1608 13th Avenue South
Birmingham, Alabama 35205
(205) 918-4000 (FAX) (205) 918-4050

FAXED 6-14-97

PROJECT NO.: 9970082 PROJECT NAME: NAVSTA Maypaso Fuel Farm

P.O. NO.: LAB DESTINATION: V.O.A

SAMPLER(s) NAME: Dewey Trapp

TITLE:

CONTAINERS

Preserved (yes/no): HCl

Iced (yes/no): yes

Code: A – None, B – HNO3, C – H_2SO_4, D – NaOH, E – HCl, F –

Lab Code – for Lab use only	Yr. ___ Date ___	Time	Comp	Grab	Sample No./ Sample Location	SOIL	WATER	SOLID OTHER	NON-AQUEOUS LIQUID	No.	Volume	Type	TEST: METHOD: 624	TEST: METHOD: 8260	TEST: METHOD:	TEST: METHOD:	TEST: METHOD:	REMARKS
	6/13/97	0848			FF-MW-6(4FT-6FT)	☑	☐	☐	☐	1	80z	G	✓					
	6/13/97	0913			FF-MW-6(8FT-10FT)	☑	☐	☐	☐	1	80z	G	✓					
	6/13/97	1008			FF-MW-3/4FT-6FT)	☑	☐	☐	☐	1	80z	G	✓					
	6/13/97	1012			FF-MW-3(8FT-10FT)	☑	☐	☐	☐	1	80z	G	✓					
						☐	☐	☐	☐									
						☐	☐	☐	☐									
						☐	☐	☐	☐									
						☐	☐	☐	☐									
						☐	☐	☐	☐									
						☐	☐	☐	☐									

Relinquished by: (Signature):	Date:	Time:	Received by: (Signature):	Date:	Time:
Dewey Trapp	6/13/97	1700	Michelle Hasld	6/13/97	1700
MW by CB	6/13	1700			
			Received for Laboratory by: (Signature): Lucia Paul	6-14-97	1250

LAB COMMENTS: 3 ° C ✓

REMARKS ON SAMPLE RECEIVED BY LAB:		SAMPLE SHIPPING METHOD		SAMPLE CONTAINER TYPE
Bottle Intact:	☐	Hand Delivery	☐	P = Plastic
Preserved:	☐	Air (specify)	☐	G = Glass
Chilled:	☐	Other (specify)	☐	GA = Glass Amber
Other:	☐			

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Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 07/01/97
Log #: L20461-13

Sample Description:

NS Mayport, Fuel Farm
970082

Label: GP-1 (1-3)
Date Sampled: 06/11/97
Time Sampled: 13:55
Date Received: 06/11/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	91	%	SM2540B	0.10	06/13	06/13	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/21	06/27	SP
Dilution Factor	1.0		FLPRO		06/21	06/27	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20461-13

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 07/01/97
Log #: L20461-14

Sample Description:

NS Mayport, Fuel Farm
970082

Label: GP-1 (5-7)
Date Sampled: 06/11/97
Time Sampled: 13:50
Date Received: 06/11/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	94	%	SM2540B	0.10	06/13	06/13	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/21	06/27	SP
Dilution Factor	1.0		FLPRO		06/21	06/27	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,

Project Manager

L20461-14

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Ave South
Suite 300
Birmingham, AL 35205
Dewey Trapp

Page: Page 1 of 1
Date: 06/25/97
Log #: L20532-3

Sample Description:

Mayport NS -Fuel Farm

Label: GP-2 (10-12)
Date Sampled: 06/12/97
Time Sampled: 09:10
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	95	%	SM2540B	0.10	06/14	06/14	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/19	06/21	SP
Dilution Factor	1.0		FLPRO		06/19	06/21	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G
SUB HRS# 86122,86109,E86048
SC CERT# 96031
ELPAT# 13801
VA CERT# 00395
HRS# E86240,86356
ADEM ID# 40850
TN CERT# 02985
CA CERT# I-1068
AZ CERT# AZ0529
NC CERT# 444
ND CERT# R-148
CT CERT# PH-0122
USACE CERT
MA CERT# M-FL449

Respectfully submitted,

Project Manager

L20532-3

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Ave South
Suite 300
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Dewey Trapp

Page: Page 1 of 1
Date: 06/25/97
Log #: L20532-4

Sample Description:

Mayport NS -Fuel Farm

Label: GP-2 (15-17)
Date Sampled: 06/12/97
Time Sampled: 09:10
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	82	%	SM2540B	0.10	06/14	06/14	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/19	06/21	SP
Dilution Factor	1.0		FLPRO		06/19	06/21	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444	Respectfully submitted,
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148	
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122	Project Manager
ELPAT# 13801	CA CERT# I-1068	USACE CERT	L20532-4
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449	

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Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 07/01/97
Log #: L20531-1

Sample Description:

Mayport NS -Fuel Farm

Label: GP-3 (13-15)
Date Sampled: 06/12/97
Time Sampled: 08:00
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	95	%	SM2540B	0.10	06/14	06/14	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/18	06/25	SP
Dilution Factor	1.0		FLPRO		06/18	06/25	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,

Project Manager

L20531-1

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 07/01/97
Log #: L20531-2

Sample Description:

Mayport NS -Fuel Farm

Label: GP-3 (18-20)
Date Sampled: 06/12/97
Time Sampled: 08:15
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	93	%	SM2540B	0.10	06/14	06/14	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/18	06/25	SP
Dilution Factor	1.0		FLPRO		06/18	06/25	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,

Project Manager

L20531-2

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Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 07/01/97
Log #: L20461-1

Sample Description:

NS Mayport, Fuel Farm
970082

Label: GP-4 (3-5)
Date Sampled: 06/11/97
Time Sampled: 08:45
Date Received: 06/11/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	87	%	SM2540B	0.10	06/13	06/13	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/21	06/28	SP
Dilution Factor	1.0		FLPRO		06/21	06/28	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1069	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20461-1

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Client #: MOB-97-020803
Address: Bhate Environmental
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Emmett Beers

Page: Page 1 of 1
Date: 07/01/97
Log #: L20461-2

Sample Description:

NS Mayport, Fuel Farm
970082

Label: GP-4 (8-10)
Date Sampled: 06/11/97
Time Sampled: 08:40
Date Received: 06/11/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	94	%	SM2540B	0.10	06/13	06/13	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/21	06/28	SP
Dilution Factor	1.0		FLPRO		06/21	06/28	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20461-2

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
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Emmett Beers

Page: Page 1 of 1
Date: 06/23/97
Log #: L20530-3

Sample Description:

Nav Sta Mayport
9970082

Label: GP-5 (13'-15')
Date Sampled: 06/11/97
Time Sampled: 09:40
Date Received: 06/13/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	92	%	SM2540B	0.10	06/14	06/14	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/18	06/20	JS
Dilution Factor	1.0		FLPRO		06/18	06/20	JS

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20530-3

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 06/23/97
Log #: L20530-4

Sample Description:

Nav Sta Mayport
9970082

Label: GP-5 (18'-20')
Date Sampled: 06/11/97
Time Sampled: 09:57
Date Received: 06/13/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	92	%	SM2540B	0.10	06/14	06/14	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/18	06/20	JS
Dilution Factor	1.0		FLPRO		06/18	06/20	JS

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G
SUB HRS# 86122,86109,E86048
SC CERT# 96031
ELPAT# 13801
VA CERT# 00395
HRS# E86240,86356
ADEM ID# 40850
TN CERT# 02985
CA CERT# I-1068
AZ CERT# AZ0529
NC CERT# 444
ND CERT# R-148
CT CERT# PH-0122
USACE CERT
MA CERT# M-FL449

Respectfully submitted,

Project Manager

L20530-4

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Ave South
Suite 300
Birmingham, AL 35205
Dewey Trapp

Page: Page 1 of 1
Date: 06/25/97
Log #: L20532-5

Sample Description:

Mayport NS -Fuel Farm

Label: GP-6 (18-20)
Date Sampled: 06/12/97
Time Sampled: 10:50
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	84	%	SM2540B	0.10	06/14	06/14	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/19	06/21	SP
Dilution Factor	1.0		FLPRO		06/19	06/21	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G
SUB HRS# 86122,86109,E86048
SC CERT# 96031
ELPAT# 13801
VA CERT# 00395

HRS# E86240,86356
ADEM ID# 40850
TN CERT# 02985
CA CERT# I-1068
AZ CERT# AZ0529

NC CERT# 444
ND CERT# R-148
CT CERT# PH-0122
USACE CERT
MA CERT# M-FL449

Respectfully submitted,

Project Manager

L20532-5

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Ave South
Suite 300
Birmingham, AL 35205
Dewey Trapp

Page: Page 1 of 1
Date: 06/25/97
Log #: L20532-6

Sample Description:

Mayport NS -Fuel Farm

Label: GP-6 (23-25)
Date Sampled: 06/12/97
Time Sampled: 10:50
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	94	%	SM2540B	0.10	06/14	06/14	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/19	06/21	SP
Dilution Factor	1.0		FLPRO		06/19	06/21	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,

Project Manager

L20532-6

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 07/01/97
Log #: L20531-3

Sample Description:

Mayport NS -Fuel Farm

Label: GP-7 (13-15)
Date Sampled: 06/12/97
Time Sampled: 09:20
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	95	%	SM2540B	0.10	06/14	06/14	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/18	06/25	SP
Dilution Factor	1.0		FLPRO		06/18	06/25	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20531-3

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 07/01/97
Log #: L20531-4

Sample Description:

Mayport NS -Fuel Farm

Label: GP-7 (18-20)
Date Sampled: 06/12/97
Time Sampled: 09:30
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	97	%	SM2540B	0.10	06/14	06/14	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/18	06/25	SP
Dilution Factor	1.0		FLPRO		06/18	06/25	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20531-4

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Address: Bhate Environmental
1608 13th Ave South
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Birmingham, AL 35205
Dewey Trapp

Page: Page 1 of 1
Date: 06/25/97
Log #: L20534-1

Sample Description:

NAV USTA Mayport Fuel Farm
9970082

Label: GP-8 (13-15)
Date Sampled: 06/11/97
Time Sampled: 12:35
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	92	%	SM2540B	0.10	06/14	06/14	SMP
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/17	06/21	SPH
Dilution Factor	1.0		FLPRO		06/17	06/21	SPH

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20534-1

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Ave South
Suite 300
Birmingham, AL 35205
Dewey Trapp

Page: Page 1 of 1
Date: 06/25/97
Log #: L20534-2

Sample Description:

NAV USTA Mayport Fuel Farm
9970082

Label: GP-8 (18-20)
Date Sampled: 06/13/97
Time Sampled: 08:00
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	90	%	SM2540B	0.10	06/14	06/14	SMP
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/17	06/21	SPH
Dilution Factor	1.0		FLPRO		06/17	06/21	SPH

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,

Project Manager

L20534-2

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 07/01/97
Log #: L20461-11

Sample Description:

NS Mayport, Fuel Farm
970082

Label: GP-9 (1-3)
Date Sampled: 06/11/97
Time Sampled: 13:00
Date Received: 06/11/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	94	%	SM2540B	0.10	06/13	06/13	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/21	06/27	SP
Dilution Factor	1.0		FLPRO		06/21	06/27	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20461-11

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 07/01/97
Log #: L20461-12

Sample Description:

NS Mayport, Fuel Farm
970082

Label: GP-9 (5-7)
Date Sampled: 06/11/97
Time Sampled: 13:15
Date Received: 06/11/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	90	%	SM2540B	0.10	06/13	06/13	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/21	06/27	SP
Dilution Factor	1.0		FLPRO		06/21	06/27	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20461-12

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 07/01/97
Log #: L20461-9

Sample Description:

NS Mayport, Fuel Farm
970082

Label: GP-10 (1-3)
Date Sampled: 06/11/97
Time Sampled: 11:30
Date Received: 06/11/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	94	%	SM2540B	0.10	06/13	06/13	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/21	06/28	SP
Dilution Factor	1.0		FLPRO		06/21	06/28	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20461-9

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 07/01/97
Log #: L20461-10

Sample Description:

NS Mayport, Fuel Farm
970082

Label: GP-10 (5-7)
Date Sampled: 06/11/97
Time Sampled: 11:45
Date Received: 06/11/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	94	%	SM2540B	0.10	06/13	06/13	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/21	06/27	SP
Dilution Factor	1.0		FLPRO		06/21	06/27	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20461-10

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 06/23/97
Log #: L20530-5

Sample Description:

Nav Sta Mayport
9970082

Label: GP-11 (8'-10')
Date Sampled: 06/11/97
Time Sampled: 10:42
Date Received: 06/13/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	92	%	SM2540B	0.10	06/14	06/14	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/18	06/20	JS
Dilution Factor	1.0		FLPRO		06/18	06/20	JS

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,

Project Manager

L20530-5

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 06/23/97
Log #: L20530-6

Sample Description:

Nav Sta Mayport
9970082

Label: GP-11 (13'-15')
Date Sampled: 06/11/97
Time Sampled: 11:04
Date Received: 06/13/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	93	%	SM2540B	0.10	06/14	06/14	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/18	06/20	JS
Dilution Factor	1.0		FLPRO		06/18	06/20	JS

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G
SUB HRS# 86122,86109,E86048
SC CERT# 96031
ELPAT# 13801
VA CERT# 00395
HRS# E86240,86356
ADEM ID# 40850
TN CERT# 02985
CA CERT# I-1068
AZ CERT# AZ0529
NC CERT# 444
ND CERT# R-148
CT CERT# PH-0122
USACE CERT
MA CERT# M-FL449

Respectfully submitted,

Project Manager

L20530-6

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 07/01/97
Log #: L20461-7

Sample Description:

NS Mayport, Fuel Farm
970082

Label: GP-12 (1-3)
Date Sampled: 06/11/97
Time Sampled: 11:00
Date Received: 06/11/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	96	%	SM2540B	0.10	06/13	06/13	MS
Petroleum Range Organics							
TPH(C8-C40)	21	mg/kg	FLPRO	10	06/21	06/27	SP
Dilution Factor	1.0		FLPRO		06/21	06/27	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20461-7

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 07/01/97
Log #: L20461-8

Sample Description:

NS Mayport, Fuel Farm
970082

Label: GP-12 (5-7)
Date Sampled: 06/11/97
Time Sampled: 11:10
Date Received: 06/11/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	93	%	SM2540B	0.10	06/13	06/13	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/21	06/27	SP
Dilution Factor	1.0		FLPRO		06/21	06/27	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20461-8

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 07/01/97
Log #: L20461-5

Sample Description:

NS Mayport, Fuel Farm
970082

Label: GP-13 (1-3)
Date Sampled: 06/11/97
Time Sampled: 10:15
Date Received: 06/11/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	93	%	SM2540B	0.10	06/13	06/13	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/21	06/28	SP
Dilution Factor	1.0		FLPRO		06/21	06/28	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20461-5

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 07/01/97
Log #: L20461-6

Sample Description:

NS Mayport, Fuel Farm
970082

Label: GP-13 (5-7)
Date Sampled: 06/11/97
Time Sampled: 10:30
Date Received: 06/11/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	92	%	SM2540B	0.10	06/13	06/13	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/21	06/28	SP
Dilution Factor	1.0		FLPRO		06/21	06/28	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20461-6

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 06/19/97
Log #: L20390-5

Sample Description:

NS Mayport Fuel Farm
9970082

Label: GP-14 (13-15)
Date Sampled: 06/10/97
Time Sampled: 11:00
Date Received: 06/10/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	93	%	SM2540B	0.10	06/12	06/12	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/18	06/19	SP
Dilution Factor	1.0		FLPRO		06/18	06/19	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20390-5

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 06/19/97
Log #: L20390-6

Sample Description:

NS Mayport Fuel Farm
9970082

Label: GP-14 (18-20)
Date Sampled: 06/10/97
Time Sampled: 11:00
Date Received: 06/10/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	89	%	SM2540B	0.10	06/12	06/12	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/18	06/19	SP
Dilution Factor	1.0		FLPRO		06/18	06/19	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20390-6

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 07/01/97
Log #: L20461-3

Sample Description:

NS Mayport, Fuel Farm
970082

Label: GP-15 (5-7)
Date Sampled: 06/11/97
Time Sampled: 08:40
Date Received: 06/11/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	92	%	SM2540B	0.10	06/13	06/13	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/21	06/28	SP
Dilution Factor	1.0		FLPRO		06/21	06/28	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20461-3

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 07/01/97
Log #: L20461-4

Sample Description:

NS Mayport, Fuel Farm
970082

Label: GP-15 (10-12)
Date Sampled: 06/11/97
Time Sampled: 09:40
Date Received: 06/11/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	88	%	SM2540B	0.10	06/13	06/13	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/21	06/28	SP
Dilution Factor	1.0		FLPRO		06/21	06/28	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20461-4

Our Quality Control Is Your Quality Assurance

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 06/23/97
Log #: L20530-1

Sample Description:

Nav Sta Mayport
9970082

Label: GP-16 (8'-10')
Date Sampled: 06/11/97
Time Sampled: 08:07
Date Received: 06/13/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analys
Percent Solids							
Percent Solid	92	%	SM2540B	0.10	06/14	06/14	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/18	06/20	JS
Dilution Factor	1.0		FLPRO		06/18	06/20	JS

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,

Project Manager

L20530-1

RECEIVED
JUN 26 '97

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 06/23/97
Log #: L20530-2

Sample Description:

Nav Sta Mayport
9970082

Label: GP-16 (18'-20')
Date Sampled: 06/11/97
Time Sampled: 08:50
Date Received: 06/13/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	81	%	SM2540B	0.10	06/14	06/14	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/18	06/20	JS
Dilution Factor	1.0		FLPRO		06/18	06/20	JS

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,

Project Manager
L20530-2

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Ave South
Suite 300
Birmingham, AL 35205
Dewey Trapp

Page: Page 1 of 1
Date: 06/25/97
Log #: L20534-5

Sample Description:

NAV USTA Mayport Fuel Farm
9970082

Label: GP-17 (8-10)
Date Sampled: 06/13/97
Time Sampled: 09:40
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	92	%	SM2540B	0.10	06/14	06/14	SMP
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/17	06/21	SPH
Dilution Factor	1.0		FLPRO		06/17	06/21	SPH

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G
SUB HRS# 86122,86109,E86048
SC CERT# 96031
ELPAT# 13801
VA CERT# 00395

HRS# E86240,86356
ADEM ID# 40850
TN CERT# 02985
CA CERT# I-1068
AZ CERT# AZ0529

NC CERT# 444
ND CERT# R-148
CT CERT# PH-0122
USACE CERT
MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20534-5

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Ave South
Suite 300
Birmingham, AL 35205
Dewey Trapp

Page: Page 1 of 1
Date: 06/25/97
Log #: L20534-6

Sample Description:

NAV USTA Mayport Fuel Farm
9970082

Label: GP-17 (10-12)
Date Sampled: 06/13/97
Time Sampled: 09:52
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	94	%	SM2540B	0.10	06/14	06/14	SMP
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/17	06/21	SPH
Dilution Factor	1.0		FLPRO		06/17	06/21	SPH

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20534-6

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 07/01/97
Log #: L20461-15

Sample Description:

NS Mayport, Fuel Farm
970082

Label: GP-18 (1-3)
Date Sampled: 06/11/97
Time Sampled: 14:20
Date Received: 06/11/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	94	%	SM2540B	0.10	06/13	06/13	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/21	06/27	SP
Dilution Factor	1.0		FLPRO		06/21	06/27	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20461-15

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 07/01/97
Log #: L20461-16

Sample Description:

NS Mayport, Fuel Farm
970082

Label: GP-18 (5-7)
Date Sampled: 06/11/97
Time Sampled: 14:30
Date Received: 06/11/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	94	%	SM2540B	0.10	06/13	06/13	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/21	06/28	SP
Dilution Factor	1.0		FLPRO		06/21	06/28	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20461-16

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Ave South
Suite 300
Birmingham, AL 35205
Dewey Trapp

Page: Page 1 of 1
Date: 06/25/97
Log #: L20534-3

Sample Description:

NAV USTA Mayport Fuel Farm
9970082

Label: GP-19 (13-15)
Date Sampled: 06/13/97
Time Sampled: 08:30
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	91	%	SM2540B	0.10	06/14	06/14	SMP
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/17	06/21	SPH
Dilution Factor	1.0		FLPRO		06/17	06/21	SPH

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,

Project Manager

L20534-3

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Ave South
Suite 300
Birmingham, AL 35205
Dewey Trapp

Page: Page 1 of 1
Date: 06/25/97
Log #: L20534-4

Sample Description:

NAV USTA Mayport Fuel Farm
9970082

Label: GP-19 (18-20)
Date Sampled: 06/13/97
Time Sampled: 09:18
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	90	%	SM2540B	0.10	06/14	06/14	SMP
Petroleum Range Organics							
TPH(C8-C40)	1100 L	mg/kg	FLPRO	10	06/17	06/21	SPH
Dilution Factor	1.0		FLPRO		06/17	06/21	SPH

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20534-4

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
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Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 07/01/97
Log #: L20531-15

Sample Description:

Mayport NS -Fuel Farm

Label: GP-20 (8-10)
Date Sampled: 06/12/97
Time Sampled: 14:40
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	93	%	SM2540B	0.10	06/14	06/14	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/19	06/27	SP
Dilution Factor	1.0		FLPRO		06/19	06/27	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,

Project Manager

L20531-15

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
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Emmett Beers

Page: Page 1 of 1
Date: 07/01/97
Log #: L20531-16

Sample Description:

Mayport NS -Fuel Farm

Label: GP-20 (13-15)
Date Sampled: 06/12/97
Time Sampled: 14:45
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	95	%	SM2540B	0.10	06/14	06/14	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/19	06/27	SP
Dilution Factor	1.0		FLPRO		06/19	06/27	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,

Project Manager

L20531-16

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Ave South
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Dewey Trapp

Page: Page 1 of 1
Date: 06/25/97
Log #: L20532-11

Sample Description:

Mayport NS -Fuel Farm

Label: GP-21 (5-7)
Date Sampled: 06/12/97
Time Sampled: 13:50
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	95	%	SM2540B	0.10	06/14	06/14	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/19	06/21	SP
Dilution Factor	1.0		FLPRO		06/19	06/21	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,

Project Manager

L20532-11

Client #: MOB-97-020803
Address: Bhate Environmental
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Page: Page 1 of 1
Date: 06/25/97
Log #: L20532-12

Sample Description:

Mayport NS -Fuel Farm

Label: GP-21 (10-12)
Date Sampled: 06/12/97
Time Sampled: 13:50
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	84	%	SM2540B	0.10	06/14	06/14	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/19	06/21	SP
Dilution Factor	1.0		FLPRO		06/19	06/21	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,

Project Manager
L20532-12

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
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Emmett Beers

Page: Page 1 of 1
Date: 06/19/97
Log #: L20390-3

Sample Description:

NS Mayport Fuel Farm
9970082

Label: GP-22 (8-10)
Date Sampled: 06/10/97
Time Sampled: 11:00
Date Received: 06/10/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	92	%	SM2540B	0.10	06/12	06/12	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	100	06/18	06/19	SP
Dilution Factor	10		FLPRO		06/18	06/19	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20390-3

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 06/19/97
Log #: L20390-4

Sample Description:

NS Mayport Fuel Farm
9970082

Label: GP-22 (13-15)
Date Sampled: 06/10/97
Time Sampled: 11:00
Date Received: 06/10/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	93	%	SM2540B	0.10	06/12	06/12	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/18	06/19	SP
Dilution Factor	1.0		FLPRO		06/18	06/19	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20390-4

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
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Emmett Beers

Page: Page 1 of 1
Date: 07/01/97
Log #: L20531-13

Sample Description:

Mayport NS -Fuel Farm

Label: GP-23 (13-15)
Date Sampled: 06/12/97
Time Sampled: 13:20
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	78	%	SM2540B	0.10	06/14	06/14	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/19	06/27	SP
Dilution Factor	1.0		FLPRO		06/19	06/27	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20531-13

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
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Emmett Beers

Page: Page 1 of 1
Date: 07/01/97
Log #: L20531-14

Sample Description:

Mayport NS -Fuel Farm

Label: GP-23 (18-20)
Date Sampled: 06/12/97
Time Sampled: 13:30
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	91	%	SM2540B	0.10	06/14	06/14	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/19	06/27	SP
Dilution Factor	1.0		FLPRO		06/19	06/27	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,

Project Manager

L20531-14

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Ave South
Suite 300
Birmingham, AL 35205
Dewey Trapp

Page: Page 1 of 1
Date: 06/25/97
Log #: L20532-13

Sample Description:

Mayport NS -Fuel Farm

Label: GP-24 (13-15)
Date Sampled: 06/12/97
Time Sampled: 15:00
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	95	%	SM2540B	0.10	06/14	06/14	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/19	06/21	SP
Dilution Factor	1.0		FLPRO		06/19	06/21	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20532-13

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Ave South
Suite 300
Birmingham, AL 35205
Dewey Trapp

Page: Page 1 of 1
Date: 06/25/97
Log #: L20532-14

Sample Description:

Mayport NS -Fuel Farm

Label: GP-24 (18-20)
Date Sampled: 06/12/97
Time Sampled: 15:00
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	93	%	SM2540B	0.10	06/14	06/14	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/19	06/21	SP
Dilution Factor	1.0		FLPRO		06/19	06/21	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20532-14

Our Quality Control Is Your Quality Assurance

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 06/19/97
Log #: L20390-1

Sample Description:

NS Mayport Fuel Farm
9970082

Label: GP-25 (8-10)
Date Sampled: 06/10/97
Time Sampled: 11:00
Date Received: 06/10/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	91	%	SM2540B	0.10	06/12	06/12	MS
Petroleum Range Organics							
TPH(C8-C40)	5300 L	mg/kg	FLPRO	10	06/18	06/19	SP
Dilution Factor	1.0		FLPRO		06/18	06/19	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20390-1

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Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 06/19/97
Log #: L20390-2

Sample Description:

NS Mayport Fuel Farm
9970082

Label: GP-25 (13-15)
Date Sampled: 06/10/97
Time Sampled: 11:00
Date Received: 06/10/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	87	%	SM2540B	0.10	06/12	06/12	MS
Petroleum Range Organics							
TPH(C8-C40)	14000 L	mg/kg	FLPRO	10	06/18	06/19	SP
Dilution Factor	1.0		FLPRO		06/18	06/19	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20390-2

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 07/01/97
Log #: L20531-7

Sample Description:

Mayport NS -Fuel Farm

Label: GP-26 (1-3)
Date Sampled: 06/12/97
Time Sampled: 11:00
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	94	%	SM2540B	0.10	06/14	06/14	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/18	06/25	SP
Dilution Factor	1.0		FLPRO		06/18	06/25	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,

Project Manager

L20531-7

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Date: 07/01/97
Log #: L20531-8

Sample Description:

Mayport NS -Fuel Farm

Label: GP-26 (5-7)
Date Sampled: 06/12/97
Time Sampled: 11:15
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	93	%	SM2540B	0.10	06/14	06/14	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/18	06/25	SP
Dilution Factor	1.0		FLPRO		06/18	06/25	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20531-8

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 07/01/97
Log #: L20531-5

Sample Description:

Mayport NS -Fuel Farm

Label: GP-27(1-3)
Date Sampled: 06/12/97
Time Sampled: 10:20
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	93	%	SM2540B	0.10	06/14	06/14	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/18	06/25	SP
Dilution Factor	1.0		FLPRO		06/18	06/25	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G
SUB HRS# 86122,86109,E86048
SC CERT# 96031
ELPAT# 13801
VA CERT# 00395

HRS# E86240,86356
ADEM ID# 40850
TN CERT# 02985
CA CERT# I-1068
AZ CERT# AZ0529

NC CERT# 444
ND CERT# R-148
CT CERT# PH-0122
USACE CERT
MA CERT# M-FL449

Respectfully submitted,

Project Manager
L20531-5

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 07/01/97
Log #: L20531-6

Sample Description:

Mayport NS -Fuel Farm

Label: GP-27(5-7)
Date Sampled: 06/12/97
Time Sampled: 10:30
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	92	%	SM2540B	0.10	06/14	06/14	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/18	06/25	SP
Dilution Factor	1.0		FLPRO		06/18	06/25	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20531-6

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Ave South
Suite 300
Birmingham, AL 35205
Dewey Trapp

Page: Page 1 of 1
Date: 06/25/97
Log #: L20532-7

Sample Description:

Mayport NS -Fuel Farm

Label: GP-28 (5-7)
Date Sampled: 06/12/97
Time Sampled: 11:30
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	96	%	SM2540B	0.10	06/14	06/14	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/19	06/21	SP
Dilution Factor	1.0		FLPRO		06/19	06/21	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,

Project Manager

L20532-7

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Ave South
Suite 300
Birmingham, AL 35205
Dewey Trapp

Page: Page 1 of 1
Date: 06/25/97
Log #: L20532-8

Sample Description:

Mayport NS -Fuel Farm

Label: GP-28 (8-10)
Date Sampled: 06/12/97
Time Sampled: 11:30
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	82	%	SM2540B	0.10	06/14	06/14	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/19	06/21	SP
Dilution Factor	1.0		FLPRO		06/19	06/21	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20532-8

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 07/01/97
Log #: L20531-9

Sample Description:

Mayport NS -Fuel Farm

Label: GP-29 (1-3)
Date Sampled: 06/12/97
Time Sampled: 11:30
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	93	%	SM2540B	0.10	06/14	06/14	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/18	06/25	SP
Dilution Factor	1.0		FLPRO		06/18	06/25	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,

Project Manager

L20531-9

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 07/01/97
Log #: L20531-10

Sample Description:

Mayport NS -Fuel Farm

Label: GP-29 (5-7)
Date Sampled: 06/12/97
Time Sampled: 11:40
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	92	%	SM2540B	0.10	06/14	06/14	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/19	06/25	SP
Dilution Factor	1.0		FLPRO		06/19	06/25	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,

Project Manager
L20531-10

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Ave South
Suite 300
Birmingham, AL 35205
Dewey Trapp

Page: Page 1 of 1
Date: 06/25/97
Log #: L20532-9

Sample Description:

Mayport NS -Fuel Farm

Label: GP-30 (5-7)
Date Sampled: 06/12/97
Time Sampled: 11:50
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	91	%	SM2540B	0.10	06/14	06/14	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/19	06/21	SP
Dilution Factor	1.0		FLPRO		06/19	06/21	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,

Project Manager

L20532-9

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Ave South
Suite 300
Birmingham, AL 35205
Dewey Trapp

Page: Page 1 of 1
Date: 06/25/97
Log #: L20532-10

Sample Description:

Mayport NS -Fuel Farm

Label: GP-30 (8-10)
Date Sampled: 06/12/97
Time Sampled: 11:50
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	85	%	SM2540B	0.10	06/14	06/14	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/19	06/21	SP
Dilution Factor	1.0		FLPRO		06/19	06/21	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G
SUB HRS# 86122,86109,E86048
SC CERT# 96031
ELPAT# 13801
VA CERT# 00395

HRS# E86240,86356
ADEM ID# 40850
TN CERT# 02985
CA CERT# I-1068
AZ CERT# AZ0529

NC CERT# 444
ND CERT# R-148
CT CERT# PH-0122
USACE CERT
MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20532-10

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 07/01/97
Log #: L20531-11

Sample Description:

Mayport NS -Fuel Farm

Label: GP-31 (1-3)
Date Sampled: 06/12/97
Time Sampled: 12:30
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	93	%	SM2540B	0.10	06/14	06/14	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/19	06/27	SP
Dilution Factor	1.0		FLPRO		06/19	06/27	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,

Project Manager

L20531-11

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 07/01/97
Log #: L20531-12

Sample Description:

Mayport NS -Fuel Farm

Label: GP-31 (5-7)
Date Sampled: 06/12/97
Time Sampled: 12:45
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	91	%	SM2540B	0.10	06/14	06/14	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/19	06/27	SP
Dilution Factor	1.0		FLPRO		06/19	06/27	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20531-12

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 07/01/97
Log #: L20461-17

Sample Description:

NS Mayport, Fuel Farm
970082

Label: GP-32 (10-12)
Date Sampled: 06/11/97
Time Sampled: 15:20
Date Received: 06/11/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	95	%	SM2540B	0.10	06/13	06/13	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/21	06/28	SP
Dilution Factor	1.0		FLPRO		06/21	06/28	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,

Project Manager

L20461-17

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 07/01/97
Log #: L20461-18

Sample Description:

NS Mayport, Fuel Farm
970082

Label: GP-32 (5-7)
Date Sampled: 06/11/97
Time Sampled: 15:25
Date Received: 06/11/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Percent Solids							
Percent Solid	91	%	SM2540B	0.10	06/13	06/13	MS
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/kg	FLPRO	10	06/21	06/28	SP
Dilution Factor	1.0		FLPRO		06/21	06/28	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,

Project Manager
L20461-18

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Ave South
Suite 300
Birmingham, AL 35205
Dewey Trapp

Page: Page 1 of 1
Date: 06/25/97
Log #: L20534-7

Sample Description:

NAV USTA Mayport Fuel Farm
9970082

Label: EQR-6 (Equip Rinse)
Date Sampled: 06/13/97
Time Sampled: 10:48
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/l	FLPRO	0.65	06/18	06/18	SPH
Dilution Factor	1.0		FLPRO		06/18	06/18	SPH

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20534-7

BHATE
Environmental Engineers and Scientists

1608 13th Avenue South
Birmingham, Alabama 35205
(205) 918-4000 (FAX) (205) 918-4050

CHAIN-OF-CUSTODY

L20403 L20390

NO.: J01
Page: 1 of 1

PROJECT NO.: 970082 PROJECT NAME: NS Maypolt- Fuel Farm
P.O. NO.: LAB DESTINATION: VOC Laboratories
SAMPLER(s) NAME: E. VICTOR
TITLE:

Preserved (Code) A
Iced (yes/no)

Code: A – None, B – HNO3, C – H_2SO_4, D – NaOH, E – HCl, F –

Lab Code – for Lab use only	Yr. 97 Date 4/10	Time	Comp	Grab	Sample No./ Sample Location	Matrix: SOIL / WATER / SOLID OTHER / NON-AQUEOUS LIQUID	CONTAINERS: No.	Volume	Type	TEST: FL PRO METHOD:	TEST: METHOD:	TEST: METHOD:	TEST: METHOD:	TEST: METHOD:	REMARKS
		1100		X	GP-25 (8-10)	X	1			X					
		1105		X	GP-25 (13-15)	X	1			X					
		1235		X	GP-22 (8-10)	X	1			X					
		1240		X	GP-22 (13-15)	X	1			X					
		1515		X	GP-14 (13-15)	X	1			X					
		1520		X	GP-14 (18-20)	X	1			X					

Relinquished by: (Signature):	Date:	Time:	Received by: (Signature):	Date:	Time:
E. Victor	4/9/97	1710		4/10/97	1710
	Date:	Time:	Received by: (Signature):	Date:	Time:
	4/11/97	1700		4/11/97	1700
Relinquished by: (Signature):	Date:	Time:	Received for Laboratory by: (Signature):	Date:	Time:
				4/12/97	1120

LAB COMMENTS
3 coc #

REMARKS ON SAMPLE RECEIVED BY LAB:		SAMPLE SHIPPING METHOD		SAMPLE CONTAINER TYPE
Bottle Intact:	☐	Hand Delivery	X	P = Plastic
Preserved:	☐	Air (specify)	☐	G = Glass
Chilled:	☐	Other (specify)	☐	GA = Glass Amber
Other:	☐			

DISTRIBUTION: WHITE COPY - Project File YELLOW COPY - Lab copy PINK COPY - Working File

F:\DWG\BLOCK\BCHAIN

BHATE
Environmental Engineers and Scientists

1608 13th Avenue South
Birmingham, Alabama 35205
(205) 918-4000 (FAX) (205) 918-4050

CHAIN-OF-CUSTODY

L20530

NO.: 00001
Page: 1 of ___

F16-14-97 L

PROJECT NO.: 9970082	PROJECT NAME: NAVSTA MAYPORT
P.O. NO.:	LAB DESTINATION: V.O.C
SAMPLER(s) NAME: DEWEY TRAPP	
TITLE: GEOLOGIST	

Code: A – None, B – HN03, C – H_2SO_4, D – NaOH, E – HCl, F –

Lab Code – for Lab use only	Yr. 97 Date	Time	Comp	Grab	Sample No./ Sample Location	SOIL	WATER	SOLID OTHER	NON-AQUEOUS LIQUID	CONTAINERS No.	Volume	Type	TEST: FL PRO METHOD:	TEST: METHOD:	TEST: METHOD:	TEST: METHOD:	TEST: METHOD:	Preserved (Code)	Iced (yes/no)	REMARKS
	6/11/97	0807		✓	GP-16(8FT-10FT)	☑	☐	☐	☐	1	8oz	G	✓						yes	
	6/11/97	0850		✓	GP-16 (18FT-20FT)	☑	☐	☐	☐	1	8oz	G	✓							
	6/11/97	0940		✓	GP-5(13FT-15FT)	☑	☐	☐	☐	1	8oz	G	✓							
	6/11/97	0957		✓	GP-5(18FT-20FT)	☑	☐	☐	☐	1	8oz	G	✓							
	6/11/97	1042		✓	GP-11(8FT-10FT)	☑	☐	☐	☐	1	8oz	G	✓							
	6/11/97	1104		✓	GP-11(13FT-15FT)	☑	☐	☐	☐	1	8oz	G	✓							
	6/11/97			✓	GP-8(	☑	☐	☐	☐	1	8oz	G	✓							
	6/11/97			✓	GP-8(	☑	☐	☐	☐	1	8oz	G	✓							
						☐	☐	☐	☐											
						☐	☐	☐	☐											

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Dawn Ingram	6/13/97	0801	Michelle Harold	6/13/97	0801
Michelle Harold by CD	6/13/97	1702			
			Received for Laboratory by: (Signature):	6-14-97	1200

LAB COMMENTS

REMARKS ON SAMPLE RECEIVED BY LAB:		SAMPLE SHIPPING METHOD		SAMPLE CONTAINER TYPE
Bottle Intact:	☐	Hand Delivery	☐	P = Plastic
Preserved:	☐	Air (specify)	☐	G = Glass
Chilled:	☐	Other (specify)	☐	GA = Glass Amber
Other:	☐			

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CHAIN-OF-CUSTODY

NO.: 0001
Page: 2 of 2

PROJECT NO.: 9970082 | PROJECT NAME: Maypoff NS, Fuel Farm
P.O. NO.: | LAB DESTINATION: VOC Laboratories
SAMPLER(s) NAME: E. VICTOR
TITLE:

Lab Code – for Lab use only	Yr. 97 Date 6/11	Time	Comp	Grab	Sample No./ Sample Location	SOIL	WATER	SOLID OTHER	NON-AQUEOUS LIQUID	No.	Volume	Type	TEST: METHOD: FL PRO	TEST: METHOD:	TEST: METHOD:	TEST: METHOD:	TEST: METHOD:	REMARKS
		1300		X	GP-9 (1-3)	X				1			X					
		1315		X	GP-9 (5-7)	X				1			X					
		1355		X	~~GP-1 (EN~~ GP-1 (5-7)	X				1			X					
		1350		X	GP-1 (1-3)	X				1			X					
		1420		X	GP-18 (1-3)	X				1			X					
		1430		X	GP-18 (5-7)	X				1			X					
		1520		X	GP-32 (10-12)	X				1			X					
	↓	1525		X	GP-32 (5-7)	X				1			X					
													EN					

Preserved (Code)
Iced (yes/no)

Code: A – None
B – HNO3
C – H_2SO_4
D – NaOH
E – HCl
F –

Relinquished by: (Signature):	Date:	Time:	Received by: (Signature):	Date:	Time:
E VICTOR	6/11/97	1545	Dawn Tapp		
Dawn Tapp	6/11/97	1910	Michelle Harold	6/11/97	1910
Michelle Harold by CD	6/12/97	1700	Received for Laboratory by: (Signature): Linda Pearl	6/13/97	1237

LAB COMMENTS: wetice

REMARKS ON SAMPLE RECEIVED BY LAB:
Bottle Intact: ☐
Preserved: ☐
Chilled: ☐
Other: ☐

SAMPLE SHIPPING METHOD
Hand Delivery ☑
Air (specify) ☐
Other (specify) ☐

SAMPLE CONTAINER TYPE
P = Plastic
G = Glass
GA = Glass Amber

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CHAIN-OF-CUSTODY

NO.: 001
Page: 1 of 2

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PROJECT NO.: 9970082 | PROJECT NAME: NS Bayport, Fuel Farm
P.O. NO.: | LAB DESTINATION: VOC Labs
SAMPLER(s) NAME: E. VICTOR
TITLE:

CONTAINERS: Volume | Type | TEST: METHOD: FL PRO | TEST: METHOD: | TEST: METHOD: | TEST: METHOD: | TEST: METHOD: | TEST: METHOD:

Preserved (Code): N | Iced (yes/no): Y

Code: A – None; B – HNO3; C – H_2SO_4; D – NaOH; E – HCl; F –

Lab Code – for Lab use only	Yr. 97 Date 6/11	Time	Comp	Grab	Sample No./ Sample Location	SOIL	WATER	SOLID OTHER	NON-AQUEOUS LIQUID	No.	REMARKS
		0845		X	GP-4 (3-5)	X				(1)	
		0840		X	GP-4 (8-10)	X				1	
		0940		X	GP-15 (5-7)	X				1	
		0945		X	GP-15 (10-12)	X				1	
		1015		X	GP-13 (1-3)	X				1	
		1030		X	GP-13 (5-7)	X				1	
		1100		X	GP-12 (1-3)	X				1	
		1110		X	GP-12 (5-7)	X				1	
		1130		X	GP-10 (1-3)	X				1	
		1145		X	GP-10 (5-7	X				1	

Relinquished by: (Signature):	Date:	Time:	Received by: (Signature):	Date:	Time:
ENGR	6/11/97	1545			
Relinquished by: (Signature):	Date:	Time:	Received by: (Signature):	Date:	Time:
	6/11/97	1910	Michelle Harold	6/11/97	1910
Relinquished by: (Signature):	Date:	Time:	Received for Laboratory by: (Signature):	Date:	Time:
Michelle Harold BY CD	6/12/97	1700		6/13/97	1237

LAB COMMENTS: Wet ice

REMARKS ON SAMPLE RECEIVED BY LAB:
Bottle Intact: ☐
Preserved: ☐
Chilled: ☐
Other: ☐

SAMPLE SHIPPING METHOD:
Hand Delivery: ☒
Air (specify): ☐
Other (specify): ☐

SAMPLE CONTAINER TYPE:
P = Plastic
G = Glass
GA = Glass Amber

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CHAIN-OF-CUSTODY

L20531

NO.: 00001
Page: 2 of 2

16-14-97

PROJECT NO.:	PROJECT NAME: Mayport NS - Fuel Farm
P.O. NO.:	LAB DESTINATION: VOC Laboratories
SAMPLER(s) NAME:	
TITLE:	

Lab Code – for Lab use only	Yr. 97 Date 6/12	Time	Comp	Grab	Sample No./ Sample Location	SOIL	WATER	SOLID OTHER	NON-AQUEOUS LIQUID	CONTAINERS No.	Volume	Type	TEST: METHOD: FL-PRO	TEST: METHOD: NO	TEST: METHOD:	TEST: METHOD:	TEST: METHOD:	Preserved (Code)	Iced (yes/no)	REMARKS
		1230		X	GP-31 (1-3)	X				1			X							
		1245		X	GP-31 (5-7)	X				1			X							
		1320		X	GP-23 (13-15)	X				1			X							
		1330		X	GP-23 (18-20)	X				1			X							
		1440		X	GP-20 (8-10)	X				1			X							
	↓	1445		X	GP-20 (13-15)	X				1			X							

Code: A – None
B – HNO3
C – H_2SO_4
D – NaOH
E – HCl
F –

Relinquished by: (Signature):	Date:	Time:	Received by: (Signature):	Date:	Time:
EM Clark	6/12/97	1526	Dawn Tripp	6/12/97	1526
Relinquished by: (Signature):	Date:	Time:	Received by: (Signature):	Date:	Time:
Dawn Tripp	6/13/97	0801	Michelle Harold	6/13/97	0801
Relinquished by: (Signature):	Date:	Time:	Received for Laboratory by: (Signature):	Date:	Time:
Michelle Harold by FD	6/13/97	1700	[signature]	6-14-97	1245

LAB COMMENTS
3°C UP

REMARKS ON SAMPLE RECEIVED BY LAB:		SAMPLE SHIPPING METHOD		SAMPLE CONTAINER TYPE
Bottle Intact:	☐	Hand Delivery	☒	P = Plastic
Preserved:	☐	Air (specify)	☐	G = Glass
Chilled:	☐	Other (specify)	☐	GA = Glass Amber
Other:	☐			

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L20531

NO.: 00001
Page: 1 of 2

0-14-97

PROJECT NO.:
PROJECT NAME: Mayport NS - Fuel Farm
P.O. NO.:
LAB DESTINATION: VOC Laboratories
SAMPLER(s) NAME: E. Victor
TITLE:

Preserved (Code) ND
Iced (yes/no)

Code: A – None, B – HNO3, C – H_2SO_4, D – NaOH, E – HCl, F –

Lab Code – for Lab use only	Yr. 97 Date 6/12	Time	Comp	Grab	Sample No./ Sample Location	Matrix: SOIL	WATER	SOLID OTHER	NON-AQUEOUS LIQUID	CONTAINERS: No.	Volume	Type	TEST: METHOD: FL PRO	TEST: METHOD:	TEST: METHOD:	TEST: METHOD:	TEST: METHOD:	REMARKS
	97. 6/12	0800		X	GP-3(13-15)	X				1			X					
		0815		X	GP-3(18-20)	X				1			X					
		0420		X	GP-7 (~~18-15~~ 13-15) (FAV)	X				1			X					
		0430		X	GP-7 (18-20)	X				1			X					
		1020		X	GP-27 (1-3)	X				1			X					
		1030		X	GP-27 (5-7)	X				1			X					
		1100		X	GP-26 (1-3)	X				1			X					
		1115		X	GP-26 (5-7)	X				1			X					
		1130		X	GP-29 (1-3)	X				1			X					
	↓	1140		X	GP-29 (5-7	X				1			X					

Relinquished by: (Signature):	Date:	Time:	Received by: (Signature):	Date:	Time:
EM ATR	6/12/97	1526	Dewey Jungs	6/12/97	1526
Dewey Jungs	6/13/97	0801	Michelle Harold	6/13	0801
Michelle Harold by CD	6/13/97	1700	Received for Laboratory by: (Signature): Linda Pool	6-14-97	1245

LAB COMMENTS: 3°C UP

REMARKS ON SAMPLE RECEIVED BY LAB:		SAMPLE SHIPPING METHOD		SAMPLE CONTAINER TYPE
Bottle Intact:	☐	Hand Delivery	☐	P = Plastic
Preserved:	☐	Air (specify)	☐	G = Glass
Chilled:	☐	Other (specify)	☐	GA = Glass Amber
Other:	☐			

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L20532

6-14-97

NO.: 00001
Page: 1 of 2

Preserved (Code) None A
Iced (yes/no)

PROJECT NO.:
PROJECT NAME: MAYPORT NS - FUEL FARM
P.O. NO.:
LAB DESTINATION:
SAMPLER(s) NAME: Louis Knight
TITLE:

Code: A – None, B – HNO3, C – H_2SO_4, D – NaOH, E – HCl, F –

Lab Code – for Lab use only	Yr. 97 Date 6/12	Time	Comp	Grab	Sample No./ Sample Location	SOIL	WATER	SOLID OTHER	NON-AQUEOUS LIQUID	CONTAINERS No.	Volume	Type	TEST: METHOD: FL PRO	TEST: METHOD: Field Services	TEST: METHOD: NA	TEST: METHOD:	TEST: METHOD:	REMARKS
	1	0905		X	PMW-2 (5-7)	☒	☐	☐	☐	1			X	X				
	2	0905		X	PMW-2 (10-12)	☒	☐	☐	☐	1			X					
	3	0910		X	GP-2 (10-12)	☒	☐	☐	☐	1			X					
	4	0910		X	GP-2 (15-17)	☒	☐	☐	☐	1			X					
	5	1050		X	GP-6 (18-20)	☒	☐	☐	☐	1			X					
	6	1050		X	GP-6 (23-25)	☒	☐	☐	☐	1			X					
	7	1130		X	GP-28 (5-7)	☒	☐	☐	☐	1			X					
	8	1130		X	GP-28 (8-10)	☒	☐	☐	☐	1			X					
	9	1150		X	GP-30 (5-7)	☒	☐	☐	☐	1			X					
	10	1150		X	GP-30 (8-10)	☒	☐	☐	☐	1			X					

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Louis Knight	6/12/97	1700	Dana Ingram	6/12/97	1700
Dana Ingram	6/13/97	0801	Michelle Herald	6/13/97	0807
Michelle Herald by CD	6/13/97	1700	Received for Laboratory by: (Signature): Linda Reed	6-14-97	1245

LAB COMMENTS
3°C LP

REMARKS ON SAMPLE RECEIVED BY LAB:		SAMPLE SHIPPING METHOD		SAMPLE CONTAINER TYPE
Bottle Intact:	☐	Hand Delivery	☐	P = Plastic
Preserved:	☐	Air (specify)	☐	G = Glass
Chilled:	☐	Other (specify)	☐	GA = Glass Amber
Other:	☐			

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CHAIN-OF-CUSTODY

6-14-97 D

L20532

NO.: 00001
Page: 2 of 2

PROJECT NO.:
PROJECT NAME: MAYPORT NS - FUEL FARM
P.O. NO.:
LAB DESTINATION:
SAMPLER(s) NAME: Louis Knight
TITLE:

Preserved (Code) A
Iced (yes/no)

Code: A – None, B – HN03, C – H_2SO_4, D – NaOH, E – HCl, F –

Lab Code – for Lab use only	Yr. 97 Date 6/12	Time	Comp	Grab	Sample No./ Sample Location	SOIL	WATER	SOLID OTHER	NON-AQUEOUS LIQUID	CONTAINERS No.	Volume	Type	TEST: METHOD: FL PRO	TEST: METHOD:	TEST: METHOD:	TEST: METHOD:	TEST: METHOD:	REMARKS
	11	1350		X	GP-21 (5-7)	X				1			X					
	12	1350		X	GP-21 (10-12)	X				1			X					
	13	1500		X	GP-24 (13-15)	X				1			X					
	14	1500		X	GP-24 (18-20)	X				1			X					

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Louis Knight	6/12/97	1700	Dewey Jupp	6/13/97	1700
Dewey Jupp	6/13/97	0801	Michelle Harold	6/13/97	0801
Michelle Harold	6/13/97	1700	Received for Laboratory by: (Signature)	6-14-97	1245

LAB COMMENTS
3°C LP

REMARKS ON SAMPLE RECEIVED BY LAB:		SAMPLE SHIPPING METHOD		SAMPLE CONTAINER TYPE
Bottle Intact:	☐	Hand Delivery	☐	P = Plastic
Preserved:	☐	Air (specify)	☐	G = Glass
Chilled:	☐	Other (specify)	☐	GA = Glass Amber
Other:	☐			

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L20534

6-14-97

NO.: [illegible]001
Page: ___ of ___

PROJECT NO.: 970082
PROJECT NAME: NAVSTA MAYPORT / FUEL FARM
P.O. NO.:
LAB DESTINATION: V.O.C
SAMPLER(s) NAME: DEWEY TRAPP
TITLE: MATT THOMAS

Preserved (Code): Yes
Iced (yes/no): Yes

Code: A – None; B – HNO3; C – H_2SO_4; D – NaOH; E – HCl; F –

Lab Code – for Lab use only	Yr. / Date	Time	Comp	Grab	Sample No./ Sample Location	SOIL	WATER	SOLID OTHER	NON-AQUEOUS LIQUID	No.	Volume	Type	TEST: METHOD: EDB	TEST: METHOD:	TEST: METHOD:	TEST: METHOD:	TEST: METHOD:	REMARKS
	6/12/97	1235			GP-8 (13FT-15FT)	☑	☐	☐	☐	1	8oz	G						
	6/12/97	0800		✓	GP-8 (18FT-20FT)	☑	☐	☐	☐	1	8oz	G						
	6/13/97	0830		✓	GP-19 (13FT-15FT)	☑	☐	☐	☐	1	8oz	G						
	6/13/97	0918		✓	GP-19 (18FT-20FT)	☑	☐	☐	☐	1	8oz	G						
	6/13/97	0940		✓	GP-17 (8FT-10FT)	☑	☐	☐	☐	1	8oz	G						
	6/13/97	0952		✓	GP-17 (18FT-20FT)	☑	☐	☐	☐	1	8oz	G						
	6/13/97	1048			EQR-6 (Equip Rinse)	☐	☑	☐	☐	1	1L	GA						
						☐	☐	☐	☐									
						☐	☐	☐	☐									
						☐	☐	☐	☐									

Relinquished by: (Signature):	Date:	Time:	Received by: (Signature):	Date:	Time:
Dewey Trapp	6/13/97	1700	Michelle Harold	6/13/97	1700
Relinquished by: (Signature):	Date:	Time:	Received by: (Signature):	Date:	Time:
Mw By CP	6/13	1700			
Relinquished by: (Signature):	Date:	Time:	Received for Laboratory by: (Signature):	Date:	Time:
			Linda Pond	6-14-97	1245

LAB COMMENTS
3°C UP

REMARKS ON SAMPLE RECEIVED BY LAB:		SAMPLE SHIPPING METHOD		SAMPLE CONTAINER TYPE
Bottle Intact:	☐	Hand Delivery	☐	P = Plastic
Preserved:	☐	Air (specify)	☐	G = Glass
Chilled:	☐	Other (specify)	☐	GA = Glass Amber
Other:	☐			

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Address: Bhate Environmental
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Suite 300
Birmingham, AL 35205
Dewey Trapp

Page: Page 1 of 1
Date: 06/25/97
Log #: L20533-1

Sample Description:

Nav Sta Mayprot / Fuel
9970082

Label: EQr -5
Date Sampled: 06/12/97
Time Sampled: 17:25
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/l	FLPRO	0.65	06/18	06/20	SP
Dilution Factor	1.0		FLPRO		06/18	06/20	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20533-1

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NO.: 001
Page: ___ of ___

6-14-97

PROJECT NO.: 9770082 PROJECT NAME: NAVSTA Mayport/Fael

P.O. NO.: LAB DESTINATION: V.O.C

SAMPLER(s) NAME: Dewey TRAPP

TITLE:

Lab Code – for Lab use only	Yr. ___ Date ___	Time	Comp	Grab	Sample No./ Sample Location	SOIL	WATER	SOLID OTHER	NON-AQUEOUS LIQUID	CONTAINERS No.	Volume	Type	TEST: METHOD: 1,2 PRO	TEST: METHOD:	TEST: METHOD:	TEST: METHOD:	TEST: METHOD:	REMARKS
	6/12/97	1725		✓	EQR-5		X			1	1L	GA	✓					

Preserved (Code)
Iced (yes/no) yes

Code: A – None
B – HNO3
C – H_2SO_4
D – NaOH
E – HCl
F –

Relinquished by: (Signature):	Date:	Time:	Received by: (Signature):	Date:	Time:
Dewey Trapp	6/13/97	1490	Michelle Hardd	6/13/97	1640
Relinquished by: (Signature):	Date:	Time:	Received by: (Signature):	Date:	Time:
	6/13	1700			
Relinquished by: (Signature):	Date:	Time:	Received for Laboratory by: (Signature):	Date:	Time:
			Linda Pace	6-14-97	1200

LAB COMMENTS
3°C ✓

REMARKS ON SAMPLE RECEIVED BY LAB:		SAMPLE SHIPPING METHOD		SAMPLE CONTAINER TYPE
Bottle Intact:	☐	Hand Delivery	☐	P = Plastic
Preserved:	☐	Air (specify)	☐	G = Glass
Chilled:	☐	Other (specify)	☐	GA = Glass Amber
Other:	☐			

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Address: Bhate Environmental
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Suite 300
Birmingham, AL 35205
Dewey Trapp

Page: Page 1 of 1
Date: 06/25/97
Log #: L20529-1

Sample Description:

NAV STA Mayport/ Fuel Farm
9970082

Label: EQR-1 (CHEM)
Date Sampled: 06/12/97
Time Sampled: 07:10
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/l	FLPRO	0.65	06/18	06/20	SP
Dilution Factor	1.0		FLPRO		06/18	06/20	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20529-1

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Ave South
Suite 300
Birmingham, AL 35205
Dewey Trapp

Page: Page 1 of 1
Date: 06/25/97
Log #: L20529-2

Sample Description:

NAV STA Mayport/ Fuel Farm
9970082

Label: EQR-2 (GEO)
Date Sampled: 06/12/97
Time Sampled: 07:20
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/l	FLPRO	0.65	06/18	06/20	SP
Dilution Factor	1.0		FLPRO		06/18	06/20	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20529-2

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Ave South
Suite 300
Birmingham, AL 35205
Dewey Trapp

Page: Page 1 of 1
Date: 06/25/97
Log #: L20529-3

Sample Description:

NAV STA Mayport/ Fuel Farm
9970082

Label: EQR-3 (CHEM)
Date Sampled: 06/12/97
Time Sampled: 15:10
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/l	FLPRO	0.65	06/18	06/20	SP
Dilution Factor	1.0		FLPRO		06/18	06/20	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20529-3

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Ave South
Suite 300
Birmingham, AL 35205
Dewey Trapp

Page: Page 1 of 1
Date: 06/25/97
Log #: L20529-4

Sample Description:

NAV STA Mayport/ Fuel Farm
9970082

Label: EQR-4 (GEO)
Date Sampled: 06/12/97
Time Sampled: 16:49
Date Received: 06/14/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/l	FLPRO	0.65	06/18	06/20	SP
Dilution Factor	1.0		FLPRO		06/18	06/20	SP

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20529-4

BHATE
Environmental Engineers and Scientists

1608 13th Avenue South
Birmingham, Alabama 35205
(205) 91 -4000 (FAX) (205) 918-4050

CHAIN-OF-CUSTODY L20529

NO.: 00001
Page: 1 of ___

FAXED 6-14-97

PROJECT NO.: 9970092 | PROJECT NAME: NAVSTA MAYPORT/ FUEL FARM
P.O. NO.: | LAB DESTINATION: V.O.C
SAMPLER(s) NAME: Dewey Trapp
TITLE:

Code: A – None, B – HN03, C – H_2SO_4, D – NaOH, E – HCl, F –

Lab Code – for Lab use only	Yr. ___ Date___	Time	Comp	Grab	Sample No./ Sample Location	SOIL	WATER	SOLID OTHER	NON-AQUEOUS LIQUID	No.	Volume	Type	TEST: METHOD: FL-PRO	TEST: METHOD:	TEST: METHOD:	TEST: METHOD:	TEST: METHOD:	REMARKS
	6/12/97	0710		✓	EQR-1 (Chem)		☑			1	1l	W	✓					Preserved (Code): yes; Iced (yes/no): yes
	6/12/97	0720		✓	EQR-2 (Geo)		☑			1	1l	W	✓					
	6/12/97	1510		✓	EQR-3 (Chem)		☑			1	1l	W	✓					
	6/12/97	1649		✓	EQR-4 (Geo)		☑			1	1l	W	✓					

Relinquished by: (Signature):	Date:	Time:	Received by: (Signature):	Date:	Time:
Dewey Trapp	6/13/97	0801	Michelle Harold	6/13/97	0801
Relinquished by: (Signature): Michelle Harold by CD	6/13/97	1780	Received by: (Signature):	Date:	Time:
Relinquished by: (Signature):	Date:	Time:	Received for Laboratory by: (Signature):	Date:	Time:
				6-14-97	1250

LAB COMMENTS: 3°C ice

REMARKS ON SAMPLE RECEIVED BY LAB:		SAMPLE SHIPPING METHOD		SAMPLE CONTAINER TYPE
Bottle Intact:	☐	Hand Delivery	☐	P = Plastic
Preserved:	☐	Air (specify)	☐	G = Glass
Chilled:	☐	Other (specify)	☐	GA = Glass Amber
Other:	☐			

DISTRIBUTION: WHITE COPY - Project File YELLOW COPY - Lab copy PINK COPY - Working File F:\DWG\BLOCK\BCHAIN

RECEIVED
JUN 13 1997

Our Quality Control Is Your Quality Assurance

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Ave South
Suite 300
Birmingham, AL 35205
Dewey Trapp

Date: 06/09/97
Log #: L19997-1

Sample Description:

NAVSTA Mayport
#9970082

Label: 16WWO35SA
Date Sampled: 06/02/97
Time Sampled: 10:45
Date Received: 06/02/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Metals							
Lead	0.011	mg/l	3010/6010A	0.0050	06/03	06/03	GP
Polynuclear Aromatic Hydrocarbons							
Naphthalene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
2-Methylnaphthalene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
1-Methylnaphthalene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Acenaphthylene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Acenaphthene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Fluorene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Phenanthrene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Anthracene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Fluoranthene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Pyrene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Benzo(a)anthracene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Chrysene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Benzo(b)fluoranthene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Benzo(k)fluoranthene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Benzo(a)pyrene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Dibenzo(a,h)Anthracene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Indeno(1,2,3-c,d)pyrene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Benzo(g,h,i)perylene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Dilution Factor	1.0		3510/8270		06/04	06/05	SW
Surrogate Recoveries:							
Nitrobenzene-d5	61.0	%	3510/8270	35-114	06/04	06/05	SW
2-Fluorobiphenyl	60.0	%	3510/8270	43-116	06/04	06/05	SW
Terphenyl-d14	69.0	%	3510/8270	33-141	06/04	06/05	SW
Purgeable Aromatics							
Benzene	BDL	ug/l	602	1.0	06/05	06/05	ME
Chlorobenzene	BDL	ug/l	602	1.0	06/05	06/05	ME

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Ave South
Suite 300
Birmingham, AL 35205
Dewey Trapp

Date: 06/09/97
Log #: L19997-1

Sample Description:

NAVSTA Mayport
#9970082

Label: 16WWO3SA
Date Sampled: 06/02/97
Time Sampled: 10:45
Date Received: 06/02/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Purgeable Aromatics (continued)							
1,2-Dichlorobenzene	BDL	ug/l	602	1.0	06/05	06/05	ME
1,3-Dichlorobenzene	BDL	ug/l	602	1.0	06/05	06/05	ME
1,4-Dichlorobenzene	BDL	ug/l	602	1.0	06/05	06/05	ME
Ethylbenzene	BDL	ug/l	602	1.0	06/05	06/05	ME
Toluene	BDL	ug/l	602	1.0	06/05	06/05	ME
Total Xylenes	BDL	ug/l	602	1.0	06/05	06/05	ME
Total BTEX	BDL	ug/l	602	1.0	06/05	06/05	ME
MTBE	BDL	ug/l	602	1.0	06/05	06/05	ME
Dilution Factor	1.0		602		06/05	06/05	ME
Surrogate Recoveries:							
a,a,a-Trifluorotoluene	93.0	%	602	50-150	06/05	06/05	ME

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G
SUB HRS# 86122,86109,E86048
SC CERT# 96031
ELPAT# 13801
VA CERT# 00395

HRS# E86240,86356
ADEM ID# 40850
TN CERT# 02985
CA CERT# I-1068
AZ CERT# AZ0529

NC CERT# 444
ND CERT# R-148
CT CERT# PH-0122
USACE CERT
MA CERT# M-FL449

Respectfully submitted,

Project Manager

L19997-1

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Ave South
Suite 300
Birmingham, AL 35205
Dewey Trapp

Date: 06/09/97
Log #: L19997-5

Sample Description:

NAVSTA Mayport
#9970082

Label: 9MW1S
Date Sampled: 06/02/97
Time Sampled: 13:30
Date Received: 06/02/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Metals							
Lead	0.0071	mg/l	3010/6010A	0.0050	06/03	06/03	GP
Polynuclear Aromatic Hydrocarbons							
Naphthalene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
2-Methylnaphthalene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
1-Methylnaphthalene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Acenaphthylene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Acenaphthene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Fluorene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Phenanthrene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Anthracene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Fluoranthene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Pyrene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Benzo(a)anthracene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Chrysene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Benzo(b)fluoranthene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Benzo(k)fluoranthene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Benzo(a)pyrene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Dibenzo(a,h)Anthracene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Indeno(1,2,3-c,d)pyrene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Benzo(g,h,i)perylene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Dilution Factor	1.0		3510/8270		06/04	06/05	SW
Surrogate Recoveries:							
Nitrobenzene-d5	58.0	%	3510/8270	35-114	06/04	06/05	SW
2-Fluorobiphenyl	59.0	%	3510/8270	43-116	06/04	06/05	SW
Terphenyl-d14	67.0	%	3510/8270	33-141	06/04	06/05	SW
Purgeable Aromatics							
Benzene	BDL	ug/l	602	1.0	06/05	06/05	ME
Chlorobenzene	BDL	ug/l	602	1.0	06/05	06/05	ME

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Ave South
Suite 300
Birmingham, AL 35205
Dewey Trapp

Date: 06/09/97
Log #: L19997-5

Sample Description:

NAVSTA Mayport
#9970082

Label: 9MW1S
Date Sampled: 06/02/97
Time Sampled: 13:30
Date Received: 06/02/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Purgeable Aromatics (continued)							
1,2-Dichlorobenzene	BDL	ug/l	602	1.0	06/05	06/05	ME
1,3-Dichlorobenzene	BDL	ug/l	602	1.0	06/05	06/05	ME
1,4-Dichlorobenzene	BDL	ug/l	602	1.0	06/05	06/05	ME
Ethylbenzene	BDL	ug/l	602	1.0	06/05	06/05	ME
Toluene	BDL	ug/l	602	1.0	06/05	06/05	ME
Total Xylenes	BDL	ug/l	602	1.0	06/05	06/05	ME
Total BTEX	BDL	ug/l	602	1.0	06/05	06/05	ME
MTBE	BDL	ug/l	602	1.0	06/05	06/05	ME
Dilution Factor	1.0		602		06/05	06/05	ME
Surrogate Recoveries:							
a,a,a-Trifluorotoluene	100	%	602	50-150	06/05	06/05	ME

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
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All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,

Project Manager

L19997-5

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Ave South
Suite 300
Birmingham, AL 35205
Dewey Trapp

Page: Page 1 of 2
Date: 06/09/97
Log #: L19997-6

Sample Description:

NAVSTA Mayport
#9970082

Label: 9MW03
Date Sampled: 06/02/97
Time Sampled: 14:30
Date Received: 06/02/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Metals							
Lead	0.0076	mg/l	3010/6010A	0.0050	06/03	06/03	GP
Polynuclear Aromatic Hydrocarbons							
Naphthalene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
2-Methylnaphthalene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
1-Methylnaphthalene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Acenaphthylene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Acenaphthene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Fluorene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Phenanthrene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Anthracene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Fluoranthene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Pyrene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Benzo(a)anthracene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Chrysene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Benzo(b)fluoranthene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Benzo(k)fluoranthene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Benzo(a)pyrene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Dibenzo(a,h)Anthracene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Indeno(1,2,3-c,d)pyrene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Benzo(g,h,i)perylene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Dilution Factor	1.0		3510/8270		06/04	06/05	SW
Surrogate Recoveries:							
Nitrobenzene-d5	58.0	%	3510/8270	35-114	06/04	06/05	SW
2-Fluorobiphenyl	59.0	%	3510/8270	43-116	06/04	06/05	SW
Terphenyl-d14	62.0	%	3510/8270	33-141	06/04	06/05	SW
Purgeable Aromatics							
Benzene	BDL	ug/l	602	1.0	06/05	06/05	ME
Chlorobenzene	BDL	ug/l	602	1.0	06/05	06/05	ME

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Ave South
Suite 300
Birmingham, AL 35205
Dewey Trapp

Date: 06/09/97
Log #: L19997-6

Sample Description:

NAVSTA Mayport
#9970082

Label: 9MW03
Date Sampled: 06/02/97
Time Sampled: 14:30
Date Received: 06/02/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Purgeable Aromatics (continued)							
1,2-Dichlorobenzene	BDL	ug/l	602	1.0	06/05	06/05	ME
1,3-Dichlorobenzene	BDL	ug/l	602	1.0	06/05	06/05	ME
1,4-Dichlorobenzene	BDL	ug/l	602	1.0	06/05	06/05	ME
Ethylbenzene	BDL	ug/l	602	1.0	06/05	06/05	ME
Toluene	BDL	ug/l	602	1.0	06/05	06/05	ME
Total Xylenes	BDL	ug/l	602	1.0	06/05	06/05	ME
Total BTEX	BDL	ug/l	602	1.0	06/05	06/05	ME
MTBE	BDL	ug/l	602	1.0	06/05	06/05	ME
Dilution Factor	1.0		602		06/05	06/05	ME
Surrogate Recoveries:							
a,a,a-Trifluorotoluene	96.0	%	602	50-150	06/05	06/05	ME

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G
SUB HRS# 86122,86109,E86048
SC CERT# 96031
ELPAT# 13801
VA CERT# 00395
HRS# E86240,86356
ADEM ID# 40850
TN CERT# 02985
CA CERT# I-1068
AZ CERT# AZ0529
NC CERT# 444
ND CERT# R-148
CT CERT# PH-0122
USACE CERT
MA CERT# M-FL449

Respectfully submitted,

Project Manager

L19997-6

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Ave South
Suite 300
Birmingham, AL 35205
Dewey Trapp

Date: 06/09/97
Log #: L19997-2

Sample Description:

NAVSTA Mayport
#9970082

Label: 16WWO3S
Date Sampled: 06/02/97
Time Sampled: 10:55
Date Received: 06/02/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Metals							
Lead	0.010	mg/l	3010/6010A	0.0050	06/03	06/03	GP
Polynuclear Aromatic Hydrocarbons							
Naphthalene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
2-Methylnaphthalene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
1-Methylnaphthalene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Acenaphthylene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Acenaphthene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Fluorene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Phenanthrene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Anthracene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Fluoranthene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Pyrene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Benzo(a)anthracene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Chrysene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Benzo(b)fluoranthene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Benzo(k)fluoranthene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Benzo(a)pyrene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Dibenzo(a,h)Anthracene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Indeno(1,2,3-c,d)pyrene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Benzo(g,h,i)perylene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Dilution Factor	1.0		3510/8270		06/04	06/05	SW
Surrogate Recoveries:							
Nitrobenzene-d5	57.0	%	3510/8270	35-114	06/04	06/05	SW
2-Fluorobiphenyl	58.0	%	3510/8270	43-116	06/04	06/05	SW
Terphenyl-d14	64.0	%	3510/8270	33-141	06/04	06/05	SW
Purgeable Aromatics							
Benzene	BDL	ug/l	602	1.0	06/05	06/05	ME
Chlorobenzene	BDL	ug/l	602	1.0	06/05	06/05	ME

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Ave South
Suite 300
Birmingham, AL 35205
Dewey Trapp

Date: 06/09/97
Log #: L19997-2

Sample Description:

NAVSTA Mayport
#9970082

Label: 16WWO35
Date Sampled: 06/02/97
Time Sampled: 10:55
Date Received: 06/02/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Purgeable Aromatics (continued)							
1,2-Dichlorobenzene	BDL	ug/l	602	1.0	06/05	06/05	ME
1,3-Dichlorobenzene	BDL	ug/l	602	1.0	06/05	06/05	ME
1,4-Dichlorobenzene	BDL	ug/l	602	1.0	06/05	06/05	ME
Ethylbenzene	BDL	ug/l	602	1.0	06/05	06/05	ME
Toluene	BDL	ug/l	602	1.0	06/05	06/05	ME
Total Xylenes	BDL	ug/l	602	1.0	06/05	06/05	ME
Total BTEX	BDL	ug/l	602	1.0	06/05	06/05	ME
MTBE	BDL	ug/l	602	1.0	06/05	06/05	ME
Dilution Factor	1.0		602		06/05	06/05	ME
Surrogate Recoveries:							
a,a,a-Trifluorotoluene	92.0	%	602	50-150	06/05	06/05	ME

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G
SUB HRS# 86122,86109,E86048
SC CERT# 96031
ELPAT# 13801
VA CERT# 00395
HRS# E86240,86356
ADEM ID# 40850
TN CERT# 02985
CA CERT# I-1068
AZ CERT# AZ0529
NC CERT# 444
ND CERT# R-148
CT CERT# PH-0122
USACE CERT
MA CERT# M-FL449

Respectfully submitted,

Project Manager

L19997-2

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Ave South
Suite 300
Birmingham, AL 35205
Dewey Trapp

Date: 06/09/97
Log #: L19997-4

Sample Description:

NAVSTA Mayport
#9970082

Label: 16MWII
Date Sampled: 06/02/97
Time Sampled: 12:20
Date Received: 06/02/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Metals							
Lead	BDL	mg/l	3010/6010A	0.0050	06/03	06/03	GP
Polynuclear Aromatic Hydrocarbons							
Naphthalene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
2-Methylnaphthalene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
1-Methylnaphthalene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Acenaphthylene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Acenaphthene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Fluorene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Phenanthrene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Anthracene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Fluoranthene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Pyrene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Benzo(a)anthracene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Chrysene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Benzo(b)fluoranthene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Benzo(k)fluoranthene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Benzo(a)pyrene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Dibenzo(a,h)Anthracene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Indeno(1,2,3-c,d)pyrene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Benzo(g,h,i)perylene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Dilution Factor	1.0		3510/8270		06/04	06/05	SW
Surrogate Recoveries:							
Nitrobenzene-d5	58.0	%	3510/8270	35-114	06/04	06/05	SW
2-Fluorobiphenyl	58.0	%	3510/8270	43-116	06/04	06/05	SW
Terphenyl-d14	62.0	%	3510/8270	33-141	06/04	06/05	SW
Purgeable Aromatics							
Benzene	BDL	ug/l	602	1.0	06/05	06/05	ME
Chlorobenzene	BDL	ug/l	602	1.0	06/05	06/05	ME

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Ave South
Suite 300
Birmingham, AL 35205
Dewey Trapp

Date: 06/09/97
Log #: L19997-4

Sample Description:

NAVSTA Mayport
#9970082

Label: 16MWII
Date Sampled: 06/02/97
Time Sampled: 12:20
Date Received: 06/02/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Purgeable Aromatics (continued)							
1,2-Dichlorobenzene	BDL	ug/l	602	1.0	06/05	06/05	ME
1,3-Dichlorobenzene	BDL	ug/l	602	1.0	06/05	06/05	ME
1,4-Dichlorobenzene	BDL	ug/l	602	1.0	06/05	06/05	ME
Ethylbenzene	BDL	ug/l	602	1.0	06/05	06/05	ME
Toluene	BDL	ug/l	602	1.0	06/05	06/05	ME
Total Xylenes	BDL	ug/l	602	1.0	06/05	06/05	ME
Total BTEX	BDL	ug/l	602	1.0	06/05	06/05	ME
MTBE	BDL	ug/l	602	1.0	06/05	06/05	ME
Dilution Factor	1.0		602		06/05	06/05	ME
Surrogate Recoveries:							
a,a,a-Trifluorotoluene	86.0	%	602	50-150	06/05	06/05	ME

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,
Project Manager
L19997-4

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Ave South
Suite 300
Birmingham, AL 35205
Dewey Trapp

Page: Page 1 of 2
Date: 06/09/97
Log #: L19997-3

Sample Description:

NAVSTA Mayport
#9970082

Label: RA
Date Sampled: 06/02/97
Time Sampled: 11:45
Date Received: 06/02/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Metals							
Lead	BDL	mg/l	3010/6010A	0.0050	06/03	06/03	GP
Polynuclear Aromatic Hydrocarbons							
Naphthalene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
2-Methylnaphthalene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
1-Methylnaphthalene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Acenaphthylene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Acenaphthene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Fluorene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Phenanthrene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Anthracene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Fluoranthene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Pyrene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Benzo(a)anthracene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Chrysene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Benzo(b)fluoranthene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Benzo(k)fluoranthene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Benzo(a)pyrene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Dibenzo(a,h)Anthracene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Indeno(1,2,3-c,d)pyrene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Benzo(g,h,i)perylene	BDL	ug/l	3510/8270	1.0	06/04	06/05	SW
Dilution Factor	1.0		3510/8270		06/04	06/05	SW
Surrogate Recoveries:							
Nitrobenzene-d5	59.0	%	3510/8270	35-114	06/04	06/05	SW
2-Fluorobiphenyl	58.0	%	3510/8270	43-116	06/04	06/05	SW
Terphenyl-d14	64.0	%	3510/8270	33-141	06/04	06/05	SW
Purgeable Aromatics							
Benzene	BDL	ug/l	602	1.0	06/05	06/05	ME
Chlorobenzene	BDL	ug/l	602	1.0	06/05	06/05	ME

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Ave South
Suite 300
Birmingham, AL 35205
Dewey Trapp

Date: 06/09/97
Log #: L19997-3

Sample Description:

NAVSTA Mayport
#9970082

Label: RA
Date Sampled: 06/02/97
Time Sampled: 11:45
Date Received: 06/02/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Purgeable Aromatics (continued)							
1,2-Dichlorobenzene	BDL	ug/l	602	1.0	06/05	06/05	ME
1,3-Dichlorobenzene	BDL	ug/l	602	1.0	06/05	06/05	ME
1,4-Dichlorobenzene	BDL	ug/l	602	1.0	06/05	06/05	ME
Ethylbenzene	BDL	ug/l	602	1.0	06/05	06/05	ME
Toluene	BDL	ug/l	602	1.0	06/05	06/05	ME
Total Xylenes	BDL	ug/l	602	1.0	06/05	06/05	ME
Total BTEX	BDL	ug/l	602	1.0	06/05	06/05	ME
MTBE	BDL	ug/l	602	1.0	06/05	06/05	ME
Dilution Factor	1.0		602		06/05	06/05	ME
Surrogate Recoveries:							
a,a,a-Trifluorotoluene	84.0	%	602	50-150	06/05	06/05	ME

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,

Project Manager

L19997-3

BHATE
Environmental Engineers and Scientists

1608 13th Avenue South
Birmingham, Alabama 35205
(205) 918-4000 (FAX) (205) 918-4050

CHAIN-OF-CUSTODY

6-3-97

219997

RUSH

NO.: 000017
Page: 2 of 3

PROJECT NO.: 9970082 | PROJECT NAME: NAVSTA MAYPORT/NSC FUEL FARM

P.O. NO.: | LAB DESTINATION: V.O.C ANALYTICAL LABORATORIES

SAMPLER(s) NAME:

TITLE: KR Kivlin

Preserved (Code)
Iced (yes/no)

Code: A – None, B – HNO3, C – H_2SO_4, D – NaOH, E – HCl, F –

Lab Code – for Lab use only	Yr. 97 Date	Time	Comp	Grab	Sample No./ Sample Location	SOIL	WATER	SOLID	OTHER NON-AQUEOUS LIQUID	CONTAINERS No.	Volume	Type	TEST: METHOD: 6020	TEST: METHOD: 6010	TEST: METHOD: 9060	TEST: METHOD:	TEST: METHOD:	TEST: METHOD:	REMARKS
	6/2	1145			RA-1		X						X						
					RA-2		X						X						
3					RA-3		X						X						
					RA-4		X							X					
					RA5		X								X				
		1220			16 MW II-1		X						X						Clear No Odor
					16 MW II-2		X						X						
4					16 MW II-3		X						X						
					16 MW II 4		X							X					
					16 MW II 5		X								X				

Relinquished by: (Signature):	Date:	Time:	Received by: (Signature):	Date:	Time:
KR Kivlin KRK	6/2/97	1605		6/2/97	1605
	6/2/97	1700		6/2/97	1700
			Received for Laboratory by: (Signature):	6/03/97	1024

LAB COMMENTS: wet ice

REMARKS ON SAMPLE RECEIVED BY LAB:		SAMPLE SHIPPING METHOD		SAMPLE CONTAINER TYPE
Bottle Intact:	☐	Hand Delivery	☐	P = Plastic
Preserved:	☐	Air (specify)	☐	G = Glass
Chilled:	☐	Other (specify)	☐	GA = Glass Amber
Other:	☐			

DISTRIBUTION: WHITE COPY - Project File YELLOW COPY - Lab copy PINK COPY - Working File

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BHATE
Environmental Engineers and Scientists

1608 13th Avenue South
Birmingham, Alabama 35205
(205) 918-4000 (FAX) (205) 918-4050

FAXED 6-3-97

CHAIN-OF-CUSTODY

L19997

NO.: 00001

Page: 1 of 2

RUSH

PROJECT NO.: 9970082 | PROJECT NAME: NAVSTA Mayport / NSC Fuel Farm

P.O. NO.: | LAB DESTINATION: V.O.C. Analytical Laboratories

SAMPLER(s) NAME:

TITLE: KRKivlin

Lab Code – for Lab use only	Yr. 97 Date	Time	Comp	Grab	Sample No./ Sample Location	SOIL	WATER	SOLID OTHER	NON-AQUEOUS LIQUID	No.	Volume	Type	TEST: METHOD:	TEST: METHOD:	TEST: METHOD:	TEST: METHOD:	TEST: METHOD:	TEST: METHOD:	REMARKS
					CONTAINERS								6 2 0	6 1 0	P 6				
					Preserved (Code)								✓ ✓	✓ ✓	✓ ✓				
					Iced (yes/no)														
	6/2	1045			16WW03SA-1		X			1			X						Cloudy, NO odor
					16WW03SA-2		X			1			X						
					16WW03SA-3		X			1			X						
					16WW03SA-4		X			1				X					
					16WW03SA-5		X			1					X				
	6/2	1055			16WW03S-1		X			1			X						
					16WW03S-2		X			1			X						
					16WW03S-3		X			1			X						
					16WW03S-4		X			1				X					
					16WW03S-5		X			1					X				

Relinquished by: (Signature):	Date:	Time:	Received by: (Signature):	Date:	Time:
KRKivlin KRK	6/2/97	1605		6/2/97	1605
Relinquished by: (Signature):	Date:	Time:	Received by: (Signature):	Date:	Time:
	6/2/97	1700		6/2/97	1700
Relinquished by: (Signature):	Date:	Time:	Received for Laboratory by: (Signature):	Date:	Time:
				6/3/97	1024

LAB COMMENTS

wetice

REMARKS ON SAMPLE RECEIVED BY LAB:		SAMPLE SHIPPING METHOD		SAMPLE CONTAINER TYPE
Bottle Intact:	☐	Hand Delivery	☐	P = Plastic
Preserved:	☐	Air (specify)	☐	G = Glass
Chilled:	☐	Other (specify)	☐	GA = Glass Amber
Other:	☐			

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BHATE
Environmental Engineers and Scientists
1608 13th Avenue South
Birmingham, Alabama 35205
(205) 918-4000 (FAX) (205) 918-4050

FAXED 6-3-97

CHAIN-OF-CUSTODY

L19997

NO.: 00007
Page: 3 of 3

RUSH

PROJECT NO.: 9970082
PROJECT NAME: NAVSTA MAYPORT NSCFUEL Farm
P.O. NO.:
LAB DESTINATION: Voc Lab
SAMPLER(s) NAME: KR Kwlin
TITLE:

Preserved (Code)
Iced (yes/no)

Code: A – None, B – HNO3, C – H_2SO_4, D – NaOH, E – HCl, F –

Lab Code – for Lab use only	Yr. 97 Date	Time	Comp	Grab	Sample No./ Sample Location	Soil	Water	Solid Other	Non-Aqueous Liquid	No.	Volume	Type	CONTAINERS Test: Method:	Test: Method:	Test: Method:	Test: Method:	Test: Method:	REMARKS
	6/2	1330			9MW1S-1		X			1			X					V. Cloudy No Odor
					9MW1S-2		X			1			X					
					9MW1S-3		X			1			X					
					9MW1S-4		X			1				X				
					9MW1S5		X			1				X				
	6/2	1430			9MW03-1		X			1			X					L. Brown No odor
					9MW03-2		X			1			X					
					9MW03-3		X			1			X					
					9MW03-4		X			1				X				
					9MW03-5		X			1					X			

Relinquished by: (Signature):	Date:	Time:	Received by: (Signature):	Date:	Time:
KR Kwlin	6/2/97	1605		6/2/97	1605
	6/2/97	1700		6/2/97	1700
			Received for Laboratory by: (Signature):	6/3/97	1024

LAB COMMENTS: notice w

REMARKS ON SAMPLE RECEIVED BY LAB:		SAMPLE SHIPPING METHOD		SAMPLE CONTAINER TYPE
Bottle Intact:	☐	Hand Delivery	☐	P = Plastic
Preserved:	☐	Air (specify)	☐	G = Glass
Chilled:	☐	Other (specify)	☐	GA = Glass Amber
Other:	☐			

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F:\DWG\BLOCK\BCHAIN

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Date: 07/01/97
Log #: L20631-10

Sample Description:

NAVSTA Mayport
9970082

Label: FF MW1
Date Sampled: 06/17/97
Time Sampled: 12:10
Date Received: 06/17/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Metals							
Lead	0.019	mg/l	3010/6010A	0.0050	06/19	06/20	DM
Polynuclear Aromatic Hydrocarbons							
Naphthalene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
2-Methylnaphthalene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
1-Methylnaphthalene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Acenaphthylene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Acenaphthene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Fluorene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Phenanthrene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Anthracene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Fluoranthene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Pyrene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Benzo(a)anthracene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Chrysene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Benzo(b)fluoranthene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Benzo(k)fluoranthene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Benzo(a)pyrene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Dibenzo(a,h)Anthracene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Indeno(1,2,3-c,d)pyrene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Benzo(g,h,i)perylene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Dilution Factor	1.0		3510/8270		06/23	06/25	SW
Surrogate Recoveries:							
Nitrobenzene-d5	48.0	%	3510/8270	35-114	06/23	06/25	SW
2-Fluorobiphenyl	44.0	%	3510/8270	43-116	06/23	06/25	SW
Terphenyl-d14	67.0	%	3510/8270	33-141	06/23	06/25	SW
BTEX Compounds							
Benzene	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Toluene	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Date: 07/01/97
Log #: L20631-10

Sample Description:

NAVSTA Mayport
9970082

Label: FF MW1
Date Sampled: 06/17/97
Time Sampled: 12:10
Date Received: 06/17/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
BTEX Compounds (continued)							
Ethylbenzene	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Total Xylenes	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Total BTEX	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
MTBE	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Dilution Factor	1.0		5030/8020		06/27	06/27	PB
Surrogate Recoveries:							
a,a,a-Trifluorotoluene	121	%	5030/8020	50-150	06/27	06/27	PB

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
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QAP# 900376G
SUB HRS# 86122,86109,E86048
SC CERT# 96031
ELPAT# 13801
VA CERT# 00395

HRS# E86240,86356
ADEM ID# 40850
TN CERT# 02985
CA CERT# I-1068
AZ CERT# AZ0529

NC CERT# 444
ND CERT# R-148
CT CERT# PH-0122
USACE CERT
MA CERT# M-FL449

Respectfully submitted,

Project Manager
L20631-10

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Date: 07/01/97
Log #: L20631-9

Sample Description:

NAVSTA Mayport
9970082

Label: FF MW2
Date Sampled: 06/17/97
Time Sampled: 13:00
Date Received: 06/17/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Metals							
Lead	0.027	mg/l	3010/6010A	0.0050	06/19	06/20	DM
Polynuclear Aromatic Hydrocarbons							
Naphthalene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
2-Methylnaphthalene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
1-Methylnaphthalene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Acenaphthylene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Acenaphthene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Fluorene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Phenanthrene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Anthracene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Fluoranthene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Pyrene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Benzo(a)anthracene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Chrysene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Benzo(b)fluoranthene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Benzo(k)fluoranthene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Benzo(a)pyrene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Dibenzo(a,h)Anthracene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Indeno(1,2,3-c,d)pyrene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Benzo(g,h,i)perylene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Dilution Factor	1.0		3510/8270		06/23	06/25	SW
Surrogate Recoveries:							
Nitrobenzene-d5	31.0	%	3510/8270	35-114	06/23	06/25	SW
2-Fluorobiphenyl	36.0	%	3510/8270	43-116	06/23	06/25	SW
Terphenyl-d14	61.0	%	3510/8270	33-141	06/23	06/25	SW
BTEX Compounds							
Benzene	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Toluene	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Date: 07/01/97
Log #: L20631-9

Sample Description:

NAVSTA Mayport
9970082

Label: FF MW2
Date Sampled: 06/17/97
Time Sampled: 13:00
Date Received: 06/17/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
BTEX Compounds (continued)							
Ethylbenzene	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Total Xylenes	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Total BTEX	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
MTBE	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Dilution Factor	1.0		5030/8020		06/27	06/27	PB
Surrogate Recoveries:							
a,a,a-Trifluorotoluene	121	%	5030/8020	50-150	06/27	06/27	PB

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G | HRS# E86240,86356 | NC CERT# 444
SUB HRS# 86122,86109,E86048 | ADEM ID# 40850 | ND CERT# R-148
SC CERT# 96031 | TN CERT# 02985 | CT CERT# PH-0122
ELPAT# 13801 | CA CERT# I-1068 | USACE CERT
VA CERT# 00395 | AZ CERT# AZ0529 | MA CERT# M-FL449

Respectfully submitted,
Project Manager

L20631-9

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Date: 07/01/97
Log #: L20631-3

Sample Description:

NAVSTA Mayport
9970082

Label: FF MW3
Date Sampled: 06/17/97
Time Sampled: 08:50
Date Received: 06/17/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Metals							
Lead	0.038	mg/l	3010/6010A	0.0050	06/19	06/20	DM
Polynuclear Aromatic Hydrocarbons							
Naphthalene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
2-Methylnaphthalene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
1-Methylnaphthalene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Acenaphthylene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Acenaphthene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Fluorene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Phenanthrene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Anthracene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Fluoranthene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Pyrene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Benzo(a)anthracene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Chrysene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Benzo(b)fluoranthene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Benzo(k)fluoranthene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Benzo(a)pyrene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Dibenzo(a,h)Anthracene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Indeno(1,2,3-c,d)pyrene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Benzo(g,h,i)perylene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Dilution Factor	1.0		3510/8270		06/23	06/25	SW
Surrogate Recoveries:							
Nitrobenzene-d5	56.0	%	3510/8270	35-114	06/23	06/25	SW
2-Fluorobiphenyl	61.0	%	3510/8270	43-116	06/23	06/25	SW
Terphenyl-d14	80.0	%	3510/8270	33-141	06/23	06/25	SW
BTEX Compounds							
Benzene	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Toluene	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Date: 07/01/97
Log #: L20631-3

Sample Description:

NAVSTA Mayport
9970082

Label: FF MW3
Date Sampled: 06/17/97
Time Sampled: 08:50
Date Received: 06/17/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
BTEX Compounds (continued)							
Ethylbenzene	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Total Xylenes	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Total BTEX	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
MTBE	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Dilution Factor	1.0		5030/8020		06/27	06/27	PB
Surrogate Recoveries:							
a,a,a-Trifluorotoluene	121	%	5030/8020	50-150	06/27	06/27	PB

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,

Project Manager

L20631-3

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Date: 07/01/97
Log #: L20631-5

Sample Description:

NAVSTA Mayport
9970082

Label: FF MW4
Date Sampled: 06/17/97
Time Sampled: 10:00
Date Received: 06/17/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Metals							
Lead	0.023	mg/l	3010/6010A	0.0050	06/19	06/20	DM
Polynuclear Aromatic Hydrocarbons							
Naphthalene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
2-Methylnaphthalene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
1-Methylnaphthalene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Acenaphthylene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Acenaphthene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Fluorene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Phenanthrene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Anthracene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Fluoranthene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Pyrene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Benzo(a)anthracene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Chrysene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Benzo(b)fluoranthene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Benzo(k)fluoranthene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Benzo(a)pyrene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Dibenzo(a,h)Anthracene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Indeno(1,2,3-c,d)pyrene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Benzo(g,h,i)perylene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Dilution Factor	1.0		3510/8270		06/23	06/25	SW
Surrogate Recoveries:							
Nitrobenzene-d5	63.0	%	3510/8270	35-114	06/23	06/25	SW
2-Fluorobiphenyl	69.0	%	3510/8270	43-116	06/23	06/25	SW
Terphenyl-d14	83.0	%	3510/8270	33-141	06/23	06/25	SW
BTEX Compounds							
Benzene	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Toluene	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Date: 07/01/97
Log #: L20631-5

Sample Description:

NAVSTA Mayport
9970082

Label: FF MW4
Date Sampled: 06/17/97
Time Sampled: 10:00
Date Received: 06/17/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
BTEX Compounds (continued)							
Ethylbenzene	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Total Xylenes	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Total BTEX	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
MTBE	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Dilution Factor	1.0		5030/8020		06/27	06/27	PB
Surrogate Recoveries:							
a,a,a-Trifluorotoluene	123	%	5030/8020	50-150	06/27	06/27	PB

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,

Project Manager

L20631-5

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Date: 07/01/97
Log #: L20632-2

Sample Description:

Groundwater Analysis

Label: FF MW5
Date Sampled: 06/17/97
Time Sampled: 11:30
Date Received: 06/17/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Metals							
Lead	0.012	mg/l	3010/6010A	0.0050	06/20	06/20	DM
Polynuclear Aromatic Hydrocarbons							
Naphthalene	1.4	ug/l	3510/8270	1.0	06/20	06/25	SW
2-Methylnaphthalene	72	ug/l	3510/8270	1.0	06/20	06/25	SW
1-Methylnaphthalene	87	ug/l	3510/8270	1.0	06/20	06/25	SW
Acenaphthylene	BDL	ug/l	3510/8270	1.0	06/20	06/25	SW
Acenaphthene	BDL	ug/l	3510/8270	1.0	06/20	06/25	SW
Fluorene	BDL	ug/l	3510/8270	1.0	06/20	06/25	SW
Phenanthrene	BDL	ug/l	3510/8270	1.0	06/20	06/25	SW
Anthracene	BDL	ug/l	3510/8270	1.0	06/20	06/25	SW
Fluoranthene	BDL	ug/l	3510/8270	1.0	06/20	06/25	SW
Pyrene	BDL	ug/l	3510/8270	1.0	06/20	06/25	SW
Benzo(a)anthracene	BDL	ug/l	3510/8270	1.0	06/20	06/25	SW
Chrysene	BDL	ug/l	3510/8270	1.0	06/20	06/25	SW
Benzo(b)fluoranthene	BDL	ug/l	3510/8270	1.0	06/20	06/25	SW
Benzo(k)fluoranthene	BDL	ug/l	3510/8270	1.0	06/20	06/25	SW
Benzo(a)pyrene	BDL	ug/l	3510/8270	1.0	06/20	06/25	SW
Dibenzo(a,h)Anthracene	BDL	ug/l	3510/8270	1.0	06/20	06/25	SW
Indeno(1,2,3-c,d)pyrene	BDL	ug/l	3510/8270	1.0	06/20	06/25	SW
Benzo(g,h,i)perylene	BDL	ug/l	3510/8270	1.0	06/20	06/25	SW
Dilution Factor	1.0		3510/8270		06/20	06/25	SW
Surrogate Recoveries:							
Nitrobenzene-d5	36.0	%	3510/8270	35-114	06/20	06/25	SW
2-Fluorobiphenyl	34.0	%	3510/8270	43-116	06/20	06/25	SW
Terphenyl-d14	69.0	%	3510/8270	33-141	06/20	06/25	SW
BTEX Compounds							
Benzene	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Toluene	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Date: 07/01/97
Log #: L20632-2

Sample Description:

Groundwater Analysis

Label: FF MW5
Date Sampled: 06/17/97
Time Sampled: 11:30
Date Received: 06/17/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
BTEX Compounds (continued)							
Ethylbenzene	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Total Xylenes	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Total BTEX	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
MTBE	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Dilution Factor	1.0		5030/8020		06/27	06/27	PB
Surrogate Recoveries:							
1,4-Difluorobenzene	n/a	%	5030/8020	49-136	06/27	06/27	PB
a,a,a-Trifluorotoluene	100	%	5030/8020	50-150	06/27	06/27	PB
Dibromofluoromethane	n/a	%	5030/8020	58-146	06/27	06/27	PB
Toluene-D8	n/a	%	5030/8020	76-119	06/27	06/27	PB
Bromochloromethane	n/a	%	5030/8020	-	06/27	06/27	PB
4-Bromofluorobenzene	n/a	%	5030/8020	76-130	06/27	06/27	PB

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,

Project Manager

L20632-2

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 2
Date: 07/01/97
Log #: L20631-4

Sample Description:

NAVSTA Mayport
9970082

Label: FF MW6
Date Sampled: 06/17/97
Time Sampled: 09:10
Date Received: 06/17/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Metals							
Lead	0.059	mg/l	3010/6010A	0.0050	06/19	06/20	DM
Polynuclear Aromatic Hydrocarbons							
Naphthalene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
2-Methylnaphthalene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
1-Methylnaphthalene	2.0	ug/l	3510/8270	1.0	06/23	06/25	SW
Acenaphthylene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Acenaphthene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Fluorene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Phenanthrene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Anthracene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Fluoranthene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Pyrene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Benzo(a)anthracene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Chrysene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Benzo(b)fluoranthene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Benzo(k)fluoranthene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Benzo(a)pyrene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Dibenzo(a,h)Anthracene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Indeno(1,2,3-c,d)pyrene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Benzo(g,h,i)perylene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Dilution Factor	1.0		3510/8270		06/23	06/25	SW
Surrogate Recoveries:							
Nitrobenzene-d5	13.0	%	3510/8270	35-114	06/23	06/25	SW
2-Fluorobiphenyl	14.0	%	3510/8270	43-116	06/23	06/25	SW
Terphenyl-d14	16.0	%	3510/8270	33-141	06/23	06/25	SW
BTEX Compounds							
Benzene	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Toluene	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Date: 07/01/97
Log #: L20631-4

Sample Description:

NAVSTA Mayport
9970082

Label: FF MW6
Date Sampled: 06/17/97
Time Sampled: 09:10
Date Received: 06/17/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
BTEX Compounds (continued)							
Ethylbenzene	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Total Xylenes	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Total BTEX	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
MTBE	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Dilution Factor	1.0		5030/8020		06/27	06/27	PB
Surrogate Recoveries:							
a,a,a-Trifluorotoluene	119	%	5030/8020	50-150	06/27	06/27	PB

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G | HRS# E86240,86356 | NC CERT# 444
SUB HRS# 86122,86109,E86048 | ADEM ID# 40850 | ND CERT# R-148
SC CERT# 96031 | TN CERT# 02985 | CT CERT# PH-0122
ELPAT# 13801 | CA CERT# I-1068 | USACE CERT
VA CERT# 00395 | AZ CERT# AZ0529 | MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20631-4

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 2
Date: 07/01/97
Log #: L20631-6

Sample Description:

NAVSTA Mayport
9970082

Label: FF MW7
Date Sampled: 06/17/97
Time Sampled: 09:30
Date Received: 06/17/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Metals							
Lead	0.034	mg/l	3010/6010A	0.0050	06/19	06/20	DM
Polynuclear Aromatic Hydrocarbons							
Naphthalene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
2-Methylnaphthalene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
1-Methylnaphthalene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Acenaphthylene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Acenaphthene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Fluorene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Phenanthrene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Anthracene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Fluoranthene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Pyrene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Benzo(a)anthracene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Chrysene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Benzo(b)fluoranthene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Benzo(k)fluoranthene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Benzo(a)pyrene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Dibenzo(a,h)Anthracene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Indeno(1,2,3-c,d)pyrene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Benzo(g,h,i)perylene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Dilution Factor	1.0		3510/8270		06/23	06/25	SW
Surrogate Recoveries:							
Nitrobenzene-d5	31.0	%	3510/8270	35-114	06/23	06/25	SW
2-Fluorobiphenyl	29.0	%	3510/8270	43-116	06/23	06/25	SW
Terphenyl-d14	39.0	%	3510/8270	33-141	06/23	06/25	SW
BTEX Compounds							
Benzene	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Toluene	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Date: 07/01/97
Log #: L20631-6

Sample Description:

NAVSTA Mayport
9970082

Label: FF MW7
Date Sampled: 06/17/97
Time Sampled: 09:30
Date Received: 06/17/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
BTEX Compounds (continued)							
Ethylbenzene	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Total Xylenes	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Total BTEX	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
MTBE	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Dilution Factor	1.0		5030/8020		06/27	06/27	PB
Surrogate Recoveries:							
a,a,a-Trifluorotoluene	119	%	5030/8020	50-150	06/27	06/27	PB

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G
SUB HRS# 86122,86109,E86048
SC CERT# 96031
ELPAT# 13801
VA CERT# 00395

HRS# E86240,86356
ADEM ID# 40850
TN CERT# 02985
CA CERT# I-1068
AZ CERT# AZ0529

NC CERT# 444
ND CERT# R-148
CT CERT# PH-0122
USACE CERT
MA CERT# M-FL449

Respectfully submitted,

Project Manager
L20631-6

Our Quality Control Is Your Quality Assurance

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 2
Date: 07/01/97
Log #: L20632-1

Sample Description:

Groundwater Analysis

Label: FF MW8
Date Sampled: 06/17/97
Time Sampled: 10:50
Date Received: 06/17/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Metals							
Lead	0.021	mg/l	3010/6010A	0.0050	06/20	06/20	DM
Polynuclear Aromatic Hydrocarbons							
Naphthalene	BDL	ug/l	3510/8270	1.0	06/20	06/25	SW
2-Methylnaphthalene	BDL	ug/l	3510/8270	1.0	06/20	06/25	SW
1-Methylnaphthalene	BDL	ug/l	3510/8270	1.0	06/20	06/25	SW
Acenaphthylene	BDL	ug/l	3510/8270	1.0	06/20	06/25	SW
Acenaphthene	BDL	ug/l	3510/8270	1.0	06/20	06/25	SW
Fluorene	BDL	ug/l	3510/8270	1.0	06/20	06/25	SW
Phenanthrene	BDL	ug/l	3510/8270	1.0	06/20	06/25	SW
Anthracene	BDL	ug/l	3510/8270	1.0	06/20	06/25	SW
Fluoranthene	BDL	ug/l	3510/8270	1.0	06/20	06/25	SW
Pyrene	BDL	ug/l	3510/8270	1.0	06/20	06/25	SW
Benzo(a)anthracene	BDL	ug/l	3510/8270	1.0	06/20	06/25	SW
Chrysene	BDL	ug/l	3510/8270	1.0	06/20	06/25	SW
Benzo(b)fluoranthene	BDL	ug/l	3510/8270	1.0	06/20	06/25	SW
Benzo(k)fluoranthene	BDL	ug/l	3510/8270	1.0	06/20	06/25	SW
Benzo(a)pyrene	BDL	ug/l	3510/8270	1.0	06/20	06/25	SW
Dibenzo(a,h)Anthracene	BDL	ug/l	3510/8270	1.0	06/20	06/25	SW
Indeno(1,2,3-c,d)pyrene	BDL	ug/l	3510/8270	1.0	06/20	06/25	SW
Benzo(g,h,i)perylene	BDL	ug/l	3510/8270	1.0	06/20	06/25	SW
Dilution Factor	1.0		3510/8270		06/20	06/25	SW
Surrogate Recoveries:							
Nitrobenzene-d5	49.0	%	3510/8270	35-114	06/20	06/25	SW
2-Fluorobiphenyl	50.0	%	3510/8270	43-116	06/20	06/25	SW
Terphenyl-d14	70.0	%	3510/8270	33-141	06/20	06/25	SW
BTEX Compounds							
Benzene	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Toluene	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Date: 07/01/97
Log #: L20632-1

Sample Description:

Groundwater Analysis

Label: FF MW8
Date Sampled: 06/17/97
Time Sampled: 10:50
Date Received: 06/17/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
BTEX Compounds (continued)							
Ethylbenzene	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Total Xylenes	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Total BTEX	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
MTBE	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Dilution Factor	1.0		5030/8020		06/27	06/27	PB
Surrogate Recoveries:							
1,4-Difluorobenzene	n/a	%	5030/8020	49-136	06/27	06/27	PB
a,a,a-Trifluorotoluene	124	%	5030/8020	50-150	06/27	06/27	PB
Dibromofluoromethane	n/a	%	5030/8020	58-146	06/27	06/27	PB
Toluene-D8	n/a	%	5030/8020	76-119	06/27	06/27	PB
Bromochloromethane	n/a	%	5030/8020	-	06/27	06/27	PB
4-Bromofluorobenzene	n/a	%	5030/8020	76-130	06/27	06/27	PB

BDL = Below Detection Limits
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Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	AZ CERT# AZ0529	MA CERT# M-FL449

Respectfully submitted,

Project Manager

L20632-1

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Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 2
Date: 07/01/97
Log #: L20631-1

Sample Description:

NAVSTA Mayport
9970082

Label: FF MW9
Date Sampled: 06/17/97
Time Sampled: 08:00
Date Received: 06/17/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Metals							
Lead	0.0087	mg/l	3010/6010A	0.0050	06/19	06/20	DM
Polynuclear Aromatic Hydrocarbons							
Naphthalene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
2-Methylnaphthalene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
1-Methylnaphthalene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Acenaphthylene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Acenaphthene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Fluorene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Phenanthrene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Anthracene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Fluoranthene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Pyrene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Benzo(a)anthracene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Chrysene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Benzo(b)fluoranthene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Benzo(k)fluoranthene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Benzo(a)pyrene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Dibenzo(a,h)Anthracene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Indeno(1,2,3-c,d)pyrene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Benzo(g,h,i)perylene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Dilution Factor	1.0		3510/8270		06/23	06/25	SW
Surrogate Recoveries:							
Nitrobenzene-d5	60.0	%	3510/8270	35-114	06/23	06/25	SW
2-Fluorobiphenyl	60.0	%	3510/8270	43-116	06/23	06/25	SW
Terphenyl-d14	81.0	%	3510/8270	33-141	06/23	06/25	SW
BTEX Compounds							
Benzene	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Toluene	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB

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Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Date: 07/01/97
Log #: L20631-1

Sample Description:

NAVSTA Mayport
9970082

Label: FF MW9
Date Sampled: 06/17/97
Time Sampled: 08:00
Date Received: 06/17/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
BTEX Compounds (continued)							
Ethylbenzene	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Total Xylenes	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Total BTEX	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
MTBE	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Dilution Factor	1.0		5030/8020		06/27	06/27	PB
Surrogate Recoveries:							
a,a,a-Trifluorotoluene	121	%	5030/8020	50-150	06/27	06/27	PB

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
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All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G
SUB HRS# 86122,86109,E86048
SC CERT# 96031
ELPAT# 13801
VA CERT# 00395

HRS# E86240,86356
ADEM ID# 40850
TN CERT# 02985
CA CERT# I-1068
AZ CERT# AZ0529

NC CERT# 444
ND CERT# R-148
CT CERT# PH-0122
USACE CERT
MA CERT# M-FL449

Respectfully submitted,

Project Manager

L20631-1

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Date: 07/01/97
Log #: L20631-2

Sample Description:

NAVSTA Mayport
9970082

Label: FF MW9A
Date Sampled: 06/17/97
Time Sampled: 08:00
Date Received: 06/17/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Metals							
Lead	0.0077	mg/l	3010/6010A	0.0050	06/19	06/20	DM
Polynuclear Aromatic Hydrocarbons							
Naphthalene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
2-Methylnaphthalene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
1-Methylnaphthalene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Acenaphthylene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Acenaphthene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Fluorene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Phenanthrene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Anthracene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Fluoranthene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Pyrene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Benzo(a)anthracene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Chrysene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Benzo(b)fluoranthene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Benzo(k)fluoranthene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Benzo(a)pyrene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Dibenzo(a,h)Anthracene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Indeno(1,2,3-c,d)pyrene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Benzo(g,h,i)perylene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Dilution Factor	1.0		3510/8270		06/23	06/25	SW
Surrogate Recoveries:							
Nitrobenzene-d5	65.0	%	3510/8270	35-114	06/23	06/25	SW
2-Fluorobiphenyl	70.0	%	3510/8270	43-116	06/23	06/25	SW
Terphenyl-d14	91.0	%	3510/8270	33-141	06/23	06/25	SW
BTEX Compounds							
Benzene	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Toluene	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Date: 07/01/97
Log #: L20631-2

Sample Description:

NAVSTA Mayport
9970082

Label: FF MW9A
Date Sampled: 06/17/97
Time Sampled: 08:00
Date Received: 06/17/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
BTEX Compounds (continued)							
Ethylbenzene	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Total Xylenes	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Total BTEX	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
MTBE	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Dilution Factor	1.0		5030/8020		06/27	06/27	PB
Surrogate Recoveries:							
a,a,a-Trifluorotoluene	119	%	5030/8020	50-150	06/27	06/27	PB

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G | HRS# E86240,86356 | NC CERT# 444
SUB HRS# 86122,86109,E86048 | ADEM ID# 40850 | ND CERT# R-148
SC CERT# 96031 | TN CERT# 02985 | CT CERT# PH-0122
ELPAT# 13801 | CA CERT# I-1068 | USACE CERT
VA CERT# 00395 | AZ CERT# AZ0529 | MA CERT# M-FL449

Respectfully submitted,
Project Manager

L20631-2

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 1
Date: 07/01/97
Log #: L20631-7

Sample Description:

NAVSTA Mayport
9970082

Label: FF TRIP BLANK
Date Sampled: 06/17/97
Time Sampled: 07:20
Date Received: 06/17/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
BTEX Compounds							
Benzene	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Toluene	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Ethylbenzene	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Total Xylenes	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Total BTEX	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
MTBE	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Dilution Factor	1.0		5030/8020		06/27	06/27	PB
Surrogate Recoveries:							
a,a,a-Trifluorotoluene	126	%	5030/8020	50-150	06/27	06/27	PB

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G
SUB HRS# 86122,86109,E86048
SC CERT# 96031
ELPAT# 13801
VA CERT# 00395

HRS# E86240,86356
ADEM ID# 40850
TN CERT# 02985
CA CERT# I-1068
AZ CERT# AZ0529

NC CERT# 444
ND CERT# R-148
CT CERT# PH-0122
USACE CERT
MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20631-7

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Date: 07/01/97
Log #: L20631-8

Sample Description:

NAVSTA Mayport
9970082

Label: FF R/A
Date Sampled: 06/17/97
Time Sampled: 10:05
Date Received: 06/17/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Metals							
Lead	BDL	mg/l	3010/6010A	0.0050	06/19	06/20	DM
Polynuclear Aromatic Hydrocarbons							
Naphthalene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
2-Methylnaphthalene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
1-Methylnaphthalene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Acenaphthylene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Acenaphthene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Fluorene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Phenanthrene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Anthracene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Fluoranthene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Pyrene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Benzo(a)anthracene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Chrysene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Benzo(b)fluoranthene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Benzo(k)fluoranthene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Benzo(a)pyrene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Dibenzo(a,h)Anthracene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Indeno(1,2,3-c,d)pyrene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Benzo(g,h,i)perylene	BDL	ug/l	3510/8270	1.0	06/23	06/25	SW
Dilution Factor	1.0		3510/8270		06/23	06/25	SW
Surrogate Recoveries:							
Nitrobenzene-d5	54.0	%	3510/8270	35-114	06/23	06/25	SW
2-Fluorobiphenyl	58.0	%	3510/8270	43-116	06/23	06/25	SW
Terphenyl-d14	80.0	%	3510/8270	33-141	06/23	06/25	SW
BTEX Compounds							
Benzene	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Toluene	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 2 of 2
Date: 07/01/97
Log #: L20631-8

Sample Description:

NAVSTA Mayport
9970082

Label: FF R/A
Date Sampled: 06/17/97
Time Sampled: 10:05
Date Received: 06/17/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
EX Compounds (continued)							
hylbenzene	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Total Xylenes	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
tal BTEX	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
BE	BDL	ug/l	5030/8020	1.0	06/27	06/27	PB
Dilution Factor	1.0		5030/8020		06/27	06/27	PB
rrogate Recoveries:							
a,a-Trifluorotoluene	121	%	5030/8020	50-150	06/27	06/27	PB

BDL = Below Detection Limits
ompounds are Screened Only, with an estimated detection limit.
analyses were performed using EPA, ASTM, USGS, or Standard Methods.
ll analyses were performed within EPA holding times unless otherwise noted.
lyses are reported in dry weight unless otherwise indicated by units.

AP# 900376G
UB HRS# 86122,86109,E86048
ERT# 96031
I# 13801
A CERT# 00395

HRS# E86240,86356
ADEM ID# 40850
TN CERT# 02985
CA CERT# I-1068
AZ CERT# AZ0529

NC CERT# 444
ND CERT# R-148
CT CERT# PH-0122
USACE CERT
MA CERT# M-FL449

Respectfully submitted,
Project Manager
L20631-8

Environmental Engineers and Scientists
1608 13th Avenue South
Birmingham, Alabama 35205
(205) 918-4000 (FAX) (205) 918-4050

CHAIN-OF-CUSTODY

L20631

PROJECT NO.: 9970082 PROJECT NAME: NAVSTA Wayfont

P.O. NO.: LAB DESTINATION:

SAMPLER(s) NAME:

TITLE: KWLin

CONTAINERS

Preserved (Code): U / / /

Iced (yes/no): Y / / /

Code: A – None; B – HNO3; C – H_2SO_4; D – NaOH; E – HCl; F –

Lab Code – for Lab use only	Yr. 97 Date	Time	Comp	Grab	Sample No./ Sample Location	SOIL	WATER	SOLID OTHER	NON-AQUEOUS LIQUID	No.	Volume	Type	TEST: METHOD:	TEST: METHOD:	TEST: METHOD:	TEST: METHOD:	TEST: METHOD:	REMARKS
	6/17	0800			FFmw9		X			5			3	1	1			
		0800			FFmw9A		X			5			3	1	1			
		0850			FFmw3		X			5			3	1	1			
		0910			FFmw6		X			5			3	1	1			
		1000			FFmw4		X			5			3	1	1			
		0930			FFmw7		X			5			3	1	1			
		0720			FF TBlanks		X			3			3	–	–			
		1005			FF R/A		X			5			3	1	1			
		1300			FFmw2		X			5			3	1	1			
		1210			FFmw1		X			5			3	1	1			

Relinquished by: (Signature):	Date:	Time:	Received by: (Signature):	Date:	Time:
	6/17/97	1430		6/17/97	1430
Relinquished by: (Signature):	Date:	Time:	Received by: (Signature):	Date:	Time:
	6/17/97	1700		6/17/97	1700
Relinquished by: (Signature):	Date:	Time:	Received for Laboratory by: (Signature):	Date:	Time:
				6-18-97	1053

LAB COMMENTS: wet ice

REMARKS ON SAMPLE RECEIVED BY LAB:
- Bottle Intact: ☐
- Preserved: ☐
- Chilled: ☐
- Other: ☐

SAMPLE SHIPPING METHOD:
- Hand Delivery ☐
- Air (specify) ☐
- Other (specify) ☐

SAMPLE CONTAINER TYPE:
- P = Plastic
- G = Glass
- GA = Glass Amber

DISTRIBUTION: WHITE COPY - Project File YELLOW COPY - Lab copy PINK COPY - Working File

F:\DWG\BLOCK\BCHAIN

Chain of Custody Record

LAB USE ONLY

V.O.C Log # _____

BAR CODE

V.O.C. Analytical Laboratories

Login L # 20632

FAXED

Company Name BHATE

Address

City State Zip

Attn: fax #

Project Name / Number

Sampler Name / Signature KRKiuL

LAB ANALYSIS

#	Sample Label (Client ID)	Collected Date	Collected Time	Matrix Code*	#of Cont	Sample	pH	Pres Codes	Parameters			Field Filtered (Y/N)	Integrity OK (Y/N)	Comments
						1	1							
						610 8	Pb 2							
									6	6	f			
									6	1				
									2	0	b			
1	FFmw8	6/17/97	1050	GW	5				3	1	1			
2	FFmw5	"	1120	GW	5				3	1	1			
3														
4														
5														
6														
7														
8														
9														
0														

Matrix Codes *

S	Solid Waste	SW	Surface Water
GW	Ground Water	OL	Oil
EFF	Effluent	SL	Sludge
AFW	Analyte Free H2O	SO	Soil Sediment
WW	Waste Water	O	Other (Please Specify)
DW	Drinking Water		

Short Hold Y ___ N ✓

Ice Y ✓ N ___

Pres Codes **

A- None	F- MeOH
B- HNO_3	I - Ice
C- H_2SO_4	O- Other
D- NaOH	
E- HCl	

QA/QC Report Level

None ___ 1 ___ 2 ___ 3 ___ Other ___

COC OK (Y) N Initials

T.A.T. Request	RUSH 17	Custody Seals	Temp Control	Local Job
Standard	Date required	(Y) N	WBL C	Y (N)

Item	Relinquished by	Date	Time	Received by	Date	Time
	KRKiuL	6/17/97	1430		6/17/97	1450
		6/17/97	1700		6/17/97	1900
				Linda Rel	6-18-97	1053

Page ___ of 1

V.O.C. Analytical Laboratories
3231 N.W. 7th Avenue • Boca Raton, FL 33431
1-(888) VOC-LABS • Fax 1-888-456-4846

C.O.C. # 003218

ORIGINAL

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Date: 10/17/97
Log #: L24630-10

Sample Description:

Mayport NAVSTA/ Fuel Farm
9970082

Label: FF-MW-1
Date Sampled: 10/09/97
Time Sampled: 12:00
Date Received: 10/09/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Purgeable Halocarbons							
Bromodichloromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Bromoform	BDL	ug/l	601	1.0	10/14	10/14	MP
Bromomethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Carbon Tetrachloride	BDL	ug/l	601	1.0	10/14	10/14	MP
Chlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
Chloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
2-Chloroethylvinyl Ether	BDL	ug/l	601	50	10/14	10/14	MP
Chloroform	BDL	ug/l	601	1.0	10/14	10/14	MP
Chloromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Dibromochloromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,2-Dichlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,3-Dichlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,4-Dichlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
Dichlorodifluoromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1-Dichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,2-Dichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1-Dichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
Cis-1,2-Dichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
Trans-1,2-Dichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,2-Dichloropropane	BDL	ug/l	601	1.0	10/14	10/14	MP
Cis-1,3-Dichloropropene	BDL	ug/l	601	1.0	10/14	10/14	MP
Trans-1,3-Dichloropropen	BDL	ug/l	601	1.0	10/14	10/14	MP
Methylene Chloride	BDL	ug/l	601	5.0	10/14	10/14	MP
1,1,2,2-Tetrachloroethan	BDL	ug/l	601	1.0	10/14	10/14	MP
Tetrachloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1,1-Trichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1,2-Trichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Trichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
Trichlorofluoromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Vinyl Chloride	BDL	ug/l	601	1.0	10/14	10/14	MP

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Date: 10/17/97
Log #: L24630-10

Sample Description:

Mayport NAVSTA/ Fuel Farm
9970082

Label: FF-MW-1
Date Sampled: 10/09/97
Time Sampled: 12:00
Date Received: 10/09/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Purgeable Halocarbons	(continued)						
Dilution Factor	1.0		601		10/14	10/14	MP
Surrogate Recoveries:							
Dibromofluoromethane	n/a	%	601	58-146	10/14	10/14	MP
Toluene-D8	n/a	%	601	76-119	10/14	10/14	MP
4-Bromofluorobenzene	n/a	%	601	76-130	10/14	10/14	MP
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/l	FLPRO	0.65	10/13	10/14	JS
Dilution Factor	1.0		FLPRO		10/13	10/14	JS
Surrogate Recoveries:							
o-Terphenyl	133	%	FLPRO	50-150	10/13	10/14	JS
EDB/DBCP							
EDB	BDL	ug/l	504.1	0.020	10/13	10/15	DM
DBCP	BDL	ug/l	504.1	0.020	10/13	10/15	DM
Dilution Factor	1.0		504.1		10/13	10/15	DM

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	RI CERT# 191	MA CERT# M-FL449

Respectfully submitted,
Rhonda Moll
Senior Project Manager

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Ave South
Suite 300
Birmingham, AL 35205
Dewey Trapp

Date: 10/29/97
Log #: L24630-14

Sample Description:

Mayport NAVSTA/ Fuel Farm
9970082

Label: FF-MW-2
Date Sampled: 10/09/97
Time Sampled: 14:30
Date Received: 10/09/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Purgeable Halocarbons							
Bromodichloromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Bromoform	BDL	ug/l	601	1.0	10/14	10/14	MP
Bromomethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Carbon Tetrachloride	BDL	ug/l	601	1.0	10/14	10/14	MP
Chlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
Chloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
2-Chloroethylvinyl Ether	BDL	ug/l	601	50	10/14	10/14	MP
Chloroform	BDL	ug/l	601	1.0	10/14	10/14	MP
Chloromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Dibromochloromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,2-Dichlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,3-Dichlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,4-Dichlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
Dichlorodifluoromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1-Dichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,2-Dichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1-Dichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
Cis-1,2-Dichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
Trans-1,2-Dichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,2-Dichloropropane	BDL	ug/l	601	1.0	10/14	10/14	MP
Cis-1,3-Dichloropropene	BDL	ug/l	601	1.0	10/14	10/14	MP
Trans-1,3-Dichloropropen	BDL	ug/l	601	1.0	10/14	10/14	MP
Methylene Chloride	BDL	ug/l	601	5.0	10/14	10/14	MP
1,1,2,2-Tetrachloroethan	BDL	ug/l	601	1.0	10/14	10/14	MP
Tetrachloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1,1-Trichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1,2-Trichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Trichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
Trichlorofluoromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Vinyl Chloride	BDL	ug/l	601	1.0	10/14	10/14	MP

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Ave South
Suite 300
Birmingham, AL 35205
Dewey Trapp

Date: 10/29/97
Log #: L24630-14

Sample Description:

Mayport NAVSTA/ Fuel Farm
9970082

Label: FF-MW-2
Date Sampled: 10/09/97
Time Sampled: 14:30
Date Received: 10/09/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Purgeable Halocarbons	(continued)						
Dilution Factor	1.0		601		10/14	10/14	MP
Surrogate Recoveries:							
Dibromofluoromethane	n/a	%	601	58-146	10/14	10/14	MP
Toluene-D8	n/a	%	601	76-119	10/14	10/14	MP
4-Bromofluorobenzene	n/a	%	601	76-130	10/14	10/14	MP
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/l	FLPRO	0.65	10/13	10/14	JS
Dilution Factor	1.0		FLPRO		10/13	10/14	JS
Surrogate Recoveries:							
o-Terphenyl	60.0	%	FLPRO	50-150	10/13	10/14	JS
Metals							
Lead	BDL	mg/l	3010/6010	0.0050	10/11	10/13	DM
General Chemistry							
Turbidity	22		180.1	0.10	10/10	10/10	RH
EDB/DBCP							
EDB	BDL	ug/l	504.1	0.020	10/13	10/15	DM
DBCP	BDL	ug/l	504.1	0.020	10/13	10/15	DM
Dilution Factor	1.0		504.1		10/13	10/15	DM

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G
SUB HRS# 86122,86109,E86048
SC CERT# 96031
ELPAT# 13801
VA CERT# 00395
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ADEM ID# 40850
TN CERT# 02985
CA CERT# I-1068
RI CERT# 191
NC CERT# 444
ND CERT# R-148
CT CERT# PH-0122
USACE CERT
MA CERT# M-FL449

Respectfully submitted,

Rhonda Moll
Senior Project Manager

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Date: 10/17/97
Log #: L24630-4

Sample Description:

Mayport NAVSTA/ Fuel Farm
9970082

Label: FF-MW-3
Date Sampled: 10/08/97
Time Sampled: 17:10
Date Received: 10/09/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Purgeable Halocarbons							
Bromodichloromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Bromoform	BDL	ug/l	601	1.0	10/14	10/14	MP
Bromomethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Carbon Tetrachloride	BDL	ug/l	601	1.0	10/14	10/14	MP
Chlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
Chloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
2-Chloroethylvinyl Ether	BDL	ug/l	601	50	10/14	10/14	MP
Chloroform	BDL	ug/l	601	1.0	10/14	10/14	MP
Chloromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Dibromochloromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,2-Dichlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,3-Dichlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,4-Dichlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
Dichlorodifluoromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1-Dichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,2-Dichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1-Dichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
Cis-1,2-Dichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
Trans-1,2-Dichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,2-Dichloropropane	BDL	ug/l	601	1.0	10/14	10/14	MP
Cis-1,3-Dichloropropene	BDL	ug/l	601	1.0	10/14	10/14	MP
Trans-1,3-Dichloropropen	BDL	ug/l	601	1.0	10/14	10/14	MP
Methylene Chloride	BDL	ug/l	601	5.0	10/14	10/14	MP
1,1,2,2-Tetrachloroethan	BDL	ug/l	601	1.0	10/14	10/14	MP
Tetrachloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1,1-Trichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1,2-Trichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Trichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
Trichlorofluoromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Vinyl Chloride	BDL	ug/l	601	1.0	10/14	10/14	MP

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Date: 10/17/97
Log #: L24630-4

Sample Description:

Mayport NAVSTA/ Fuel Farm
9970082

Label: FF-MW-3
Date Sampled: 10/08/97
Time Sampled: 17:10
Date Received: 10/09/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Purgeable Halocarbons	(continued)						
Dilution Factor	1.0		601		10/14	10/14	MP
Surrogate Recoveries:							
Dibromofluoromethane	n/a	%	601	58-146	10/14	10/14	MP
Toluene-D8	n/a	%	601	76-119	10/14	10/14	MP
4-Bromofluorobenzene	n/a	%	601	76-130	10/14	10/14	MP
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/l	FLPRO	0.65	10/13	10/14	JS
Dilution Factor	1.0		FLPRO		10/13	10/14	JS
Surrogate Recoveries:							
o-Terphenyl	111	%	FLPRO	50-150	10/13	10/14	JS
Metals							
Lead	BDL	mg/l	3010/6010	0.0050	10/11	10/13	DM
General Chemistry							
Turbidity	2.1		180.1	0.10	10/10	10/10	RH
EDB/DBCP							
EDB	BDL	ug/l	504.1	0.020	10/13	10/15	DM
DBCP	BDL	ug/l	504.1	0.020	10/13	10/15	DM
Dilution Factor	1.0		504.1		10/13	10/15	DM

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G | HRS# E86240,86356 | NC CERT# 444
SUB HRS# 86122,86109,E86048 | ADEM ID# 40850 | ND CERT# R-148
SC CERT# 96031 | TN CERT# 02985 | CT CERT# PH-0122
ELPAT# 13801 | CA CERT# I-1068 | USACE CERT
VA CERT# 00395 | RI CERT# 191 | MA CERT# M-FL449

Respectfully submitted,
Rhonda Moll
Senior Project Manager

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Date: 10/17/97
Log #: L24630-5

Sample Description:

Mayport NAVSTA/ Fuel Farm
9970082

Label: FF-MW-4
Date Sampled: 10/08/97
Time Sampled: 18:40
Date Received: 10/09/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Purgeable Halocarbons							
Bromodichloromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Bromoform	BDL	ug/l	601	1.0	10/14	10/14	MP
Bromomethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Carbon Tetrachloride	BDL	ug/l	601	1.0	10/14	10/14	MP
Chlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
Chloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
2-Chloroethylvinyl Ether	BDL	ug/l	601	50	10/14	10/14	MP
Chloroform	BDL	ug/l	601	1.0	10/14	10/14	MP
Chloromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Dibromochloromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,2-Dichlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,3-Dichlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,4-Dichlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
Dichlorodifluoromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1-Dichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,2-Dichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1-Dichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
Cis-1,2-Dichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
Trans-1,2-Dichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,2-Dichloropropane	BDL	ug/l	601	1.0	10/14	10/14	MP
Cis-1,3-Dichloropropene	BDL	ug/l	601	1.0	10/14	10/14	MP
Trans-1,3-Dichloropropen	BDL	ug/l	601	1.0	10/14	10/14	MP
Methylene Chloride	BDL	ug/l	601	5.0	10/14	10/14	MP
1,1,2,2-Tetrachloroethan	BDL	ug/l	601	1.0	10/14	10/14	MP
Tetrachloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1,1-Trichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1,2-Trichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Trichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
Trichlorofluoromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Vinyl Chloride	BDL	ug/l	601	1.0	10/14	10/14	MP

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 2 of 2
Date: 10/17/97
Log #: L24630-5

Sample Description:

Mayport NAVSTA/ Fuel Farm
9970082

Label: FF-MW-4
Date Sampled: 10/08/97
Time Sampled: 18:40
Date Received: 10/09/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Purgeable Halocarbons	(continued)						
Dilution Factor	1.0		601		10/14	10/14	MP
Surrogate Recoveries:							
Dibromofluoromethane	n/a	%	601	58-146	10/14	10/14	MP
Toluene-D8	n/a	%	601	76-119	10/14	10/14	MP
4-Bromofluorobenzene	n/a	%	601	76-130	10/14	10/14	MP
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/l	FLPRO	0.65	10/13	10/14	JS
Dilution Factor	1.0		FLPRO		10/13	10/14	JS
Surrogate Recoveries:							
o-Terphenyl	127	%	FLPRO	50-150	10/13	10/14	JS
Metals							
Lead	BDL	mg/l	3010/6010	0.0050	10/11	10/13	DM
General Chemistry							
Turbidity	0.67		180.1	0.10	10/10	10/10	RH
EDB/DBCP							
EDB	BDL	ug/l	504.1	0.020	10/13	10/15	DM
DBCP	BDL	ug/l	504.1	0.020	10/13	10/15	DM
Dilution Factor	1.0		504.1		10/13	10/15	DM

BDL = Below Detection Limits
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QAP# 900376G
SUB HRS# 86122,86109,E86048
SC CERT# 96031
ELPAT# 13801
VA CERT# 00395
HRS# E86240,86356
ADEM ID# 40850
TN CERT# 02985
CA CERT# I-1068
RI CERT# 191
NC CERT# 444
ND CERT# R-148
CT CERT# PH-0122
USACE CERT
MA CERT# M-FL449

Respectfully submitted,
Rhonda Moll
Senior Project Manager

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Ave South
Suite 300
Birmingham, AL 35205
Dewey Trapp

Date: 10/29/97
Log #: L24630-12

Sample Description:

Mayport NAVSTA/ Fuel Farm
9970082

Label: FF-MW-5
Date Sampled: 10/09/97
Time Sampled: 12:30
Date Received: 10/09/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Purgeable Halocarbons							
Bromodichloromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Bromoform	BDL	ug/l	601	1.0	10/14	10/14	MP
Bromomethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Carbon Tetrachloride	BDL	ug/l	601	1.0	10/14	10/14	MP
Chlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
Chloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
2-Chloroethylvinyl Ether	BDL	ug/l	601	50	10/14	10/14	MP
Chloroform	BDL	ug/l	601	1.0	10/14	10/14	MP
Chloromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Dibromochloromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,2-Dichlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,3-Dichlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,4-Dichlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
Dichlorodifluoromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1-Dichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,2-Dichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1-Dichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
Cis-1,2-Dichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
Trans-1,2-Dichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,2-Dichloropropane	BDL	ug/l	601	1.0	10/14	10/14	MP
Cis-1,3-Dichloropropene	BDL	ug/l	601	1.0	10/14	10/14	MP
Trans-1,3-Dichloropropen	BDL	ug/l	601	1.0	10/14	10/14	MP
Methylene Chloride	BDL	ug/l	601	5.0	10/14	10/14	MP
1,1,2,2-Tetrachloroethan	BDL	ug/l	601	1.0	10/14	10/14	MP
Tetrachloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1,1-Trichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1,2-Trichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Trichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
Trichlorofluoromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Vinyl Chloride	BDL	ug/l	601	1.0	10/14	10/14	MP

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Ave South
Suite 300
Birmingham, AL 35205
Dewey Trapp

Date: 10/29/97
Log #: L24630-12

Sample Description:

Mayport NAVSTA/ Fuel Farm
9970082

Label: FF-MW-5
Date Sampled: 10/09/97
Time Sampled: 12:30
Date Received: 10/09/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Purgeable Halocarbons	**(continued)**						
Dilution Factor	1.0		601		10/14	10/14	MP
Surrogate Recoveries:							
Dibromofluoromethane	n/a	%	601	58-146	10/14	10/14	MP
Toluene-D8	n/a	%	601	76-119	10/14	10/14	MP
4-Bromofluorobenzene	n/a	%	601	76-130	10/14	10/14	MP
Petroleum Range Organics							
TPH(C8-C40)	2.2	mg/l	FLPRO	0.65	10/13	10/14	JS
Dilution Factor	1.0		FLPRO		10/13	10/14	JS
Surrogate Recoveries:							
o-Terphenyl	90.0	%	FLPRO	50-150	10/13	10/14	JS
Metals							
Lead	BDL	mg/l	3010/6010	0.0050	10/11	10/13	DM
General Chemistry							
Turbidity	23		180.1	0.10	10/10	10/10	RH
EDB/DBCP							
EDB	BDL	ug/l	504.1	0.020	10/13	10/15	DM
DBCP	BDL	ug/l	504.1	0.020	10/13	10/15	DM
Dilution Factor	1.0		504.1		10/13	10/15	DM

BDL = Below Detection Limits
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Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	RI CERT# 191	MA CERT# M-FL449

Respectfully submitted,
Rhonda Moll
Senior Project Manager

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Date: 10/17/97
Log #: L24630-2

Sample Description:

Mayport NAVSTA/ Fuel Farm
9970082

Label: FF-MW-6
Date Sampled: 10/08/97
Time Sampled: 16:15
Date Received: 10/09/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Purgeable Halocarbons							
Bromodichloromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Bromoform	BDL	ug/l	601	1.0	10/14	10/14	MP
Bromomethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Carbon Tetrachloride	BDL	ug/l	601	1.0	10/14	10/14	MP
Chlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
Chloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
2-Chloroethylvinyl Ether	BDL	ug/l	601	50	10/14	10/14	MP
Chloroform	BDL	ug/l	601	1.0	10/14	10/14	MP
Chloromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Dibromochloromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,2-Dichlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,3-Dichlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,4-Dichlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
Dichlorodifluoromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1-Dichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,2-Dichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1-Dichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
Cis-1,2-Dichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
Trans-1,2-Dichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,2-Dichloropropane	BDL	ug/l	601	1.0	10/14	10/14	MP
Cis-1,3-Dichloropropene	BDL	ug/l	601	1.0	10/14	10/14	MP
Trans-1,3-Dichloropropen	BDL	ug/l	601	1.0	10/14	10/14	MP
Methylene Chloride	BDL	ug/l	601	5.0	10/14	10/14	MP
1,1,2,2-Tetrachloroethan	BDL	ug/l	601	1.0	10/14	10/14	MP
Tetrachloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1,1-Trichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1,2-Trichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Trichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
Trichlorofluoromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Vinyl Chloride	BDL	ug/l	601	1.0	10/14	10/14	MP

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Date: 10/17/97
Log #: L24630-2

Sample Description:

Mayport NAVSTA/ Fuel Farm
9970082

Label: FF-MW-6
Date Sampled: 10/08/97
Time Sampled: 16:15
Date Received: 10/09/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Purgeable Halocarbons	**(continued)**						
Dilution Factor	1.0		601		10/14	10/14	MP
Surrogate Recoveries:							
Dibromofluoromethane	n/a	%	601	58-146	10/14	10/14	MP
Toluene-D8	n/a	%	601	76-119	10/14	10/14	MP
4-Bromofluorobenzene	n/a	%	601	76-130	10/14	10/14	MP
Petroleum Range Organics							
TPH(C8-C40)	2.4	mg/l	FLPRO	0.65	10/13	10/14	JS
Dilution Factor	1.0		FLPRO		10/13	10/14	JS
Surrogate Recoveries:							
o-Terphenyl	142	%	FLPRO	50-150	10/13	10/14	JS
Metals							
Lead	BDL	mg/l	3010/6010	0.0050	10/11	10/13	DM
General Chemistry							
Turbidity	46		180.1	0.10	10/10	10/10	RH
EDB/DBCP							
EDB	BDL	ug/l	504.1	0.020	10/13	10/15	DM
DBCP	BDL	ug/l	504.1	0.020	10/13	10/15	DM
Dilution Factor	1.0		504.1		10/13	10/15	DM

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
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Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G
SUB HRS# 86122,86109,E86048
SC CERT# 96031
ELPAT# 13801
VA CERT# 00395
HRS# E86240,86356
ADEM ID# 40850
TN CERT# 02985
CA CERT# I-1068
RI CERT# 191
NC CERT# 444
ND CERT# R-148
CT CERT# PH-0122
USACE CERT
MA CERT# M-FL449

Respectfully submitted,
Rhonda Moll
Senior Project Manager

Our Quality Control Is Your Quality Assurance

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Date: 10/17/97
Log #: L24630-1

Sample Description:

Mayport NAVSTA/ Fuel Farm
9970082

Label: FF-MW-7
Date Sampled: 10/08/97
Time Sampled: 15:00
Date Received: 10/09/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Purgeable Halocarbons							
Bromodichloromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Bromoform	BDL	ug/l	601	1.0	10/14	10/14	MP
Bromomethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Carbon Tetrachloride	BDL	ug/l	601	1.0	10/14	10/14	MP
Chlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
Chloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
2-Chloroethylvinyl Ether	BDL	ug/l	601	50	10/14	10/14	MP
Chloroform	BDL	ug/l	601	1.0	10/14	10/14	MP
Chloromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Dibromochloromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,2-Dichlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,3-Dichlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,4-Dichlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
Dichlorodifluoromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1-Dichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,2-Dichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1-Dichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
Cis-1,2-Dichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
Trans-1,2-Dichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,2-Dichloropropane	BDL	ug/l	601	1.0	10/14	10/14	MP
Cis-1,3-Dichloropropene	BDL	ug/l	601	1.0	10/14	10/14	MP
Trans-1,3-Dichloropropen	BDL	ug/l	601	1.0	10/14	10/14	MP
Methylene Chloride	BDL	ug/l	601	5.0	10/14	10/14	MP
1,1,2,2-Tetrachloroethan	BDL	ug/l	601	1.0	10/14	10/14	MP
Tetrachloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1,1-Trichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1,2-Trichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Trichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
Trichlorofluoromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Vinyl Chloride	BDL	ug/l	601	1.0	10/14	10/14	MP

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Date: 10/17/97
Log #: L24630-1

Sample Description:

Mayport NAVSTA/ Fuel Farm
9970082

Label: FF-MW-7
Date Sampled: 10/08/97
Time Sampled: 15:00
Date Received: 10/09/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Purgeable Halocarbons	(continued)						
Dilution Factor	1.0		601		10/14	10/14	MP
Surrogate Recoveries:							
Dibromofluoromethane	n/a	%	601	58-146	10/14	10/14	MP
Toluene-D8	n/a	%	601	76-119	10/14	10/14	MP
4-Bromofluorobenzene	n/a	%	601	76-130	10/14	10/14	MP
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/l	FLPRO	0.65	10/13	10/14	JS
Dilution Factor	1.0		FLPRO		10/13	10/14	JS
Surrogate Recoveries:							
o-Terphenyl	91.0	%	FLPRO	50-150	10/13	10/14	JS
Metals							
Lead	BDL	mg/l	3010/6010	0.0050	10/11	10/13	DM
General Chemistry							
Turbidity	24		180.1	0.10	10/10	10/10	RH
EDB/DBCP							
EDB	BDL	ug/l	504.1	0.020	10/13	10/15	DM
DBCP	BDL	ug/l	504.1	0.020	10/13	10/15	DM
Dilution Factor	1.0		504.1		10/13	10/15	DM

BDL = Below Detection Limits
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QAP# 900376G
SUB HRS# 86122,86109,E86048
SC CERT# 96031
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HRS# E86240,86356
ADEM ID# 40850
TN CERT# 02985
CA CERT# I-1068
RI CERT# 191

NC CERT# 444
ND CERT# R-148
CT CERT# PH-0122
USACE CERT
MA CERT# M-FL449

Respectfully submitted,
Rhonda Moll
Senior Project Manager

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Ave South
Suite 300
Birmingham, AL 35205
Dewey Trapp

Date: 10/29/97
Log #: L24630-13

Sample Description:

Mayport NAVSTA/ Fuel Farm
9970082

Label: FF-MW-8
Date Sampled: 10/09/97
Time Sampled: 13:30
Date Received: 10/09/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Purgeable Halocarbons							
Bromodichloromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Bromoform	BDL	ug/l	601	1.0	10/14	10/14	MP
Bromomethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Carbon Tetrachloride	BDL	ug/l	601	1.0	10/14	10/14	MP
Chlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
Chloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
2-Chloroethylvinyl Ether	BDL	ug/l	601	50	10/14	10/14	MP
Chloroform	BDL	ug/l	601	1.0	10/14	10/14	MP
Chloromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Dibromochloromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,2-Dichlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,3-Dichlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,4-Dichlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
Dichlorodifluoromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1-Dichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,2-Dichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1-Dichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
Cis-1,2-Dichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
Trans-1,2-Dichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,2-Dichloropropane	BDL	ug/l	601	1.0	10/14	10/14	MP
Cis-1,3-Dichloropropene	BDL	ug/l	601	1.0	10/14	10/14	MP
Trans-1,3-Dichloropropen	BDL	ug/l	601	1.0	10/14	10/14	MP
Methylene Chloride	BDL	ug/l	601	5.0	10/14	10/14	MP
1,1,2,2-Tetrachloroethan	BDL	ug/l	601	1.0	10/14	10/14	MP
Tetrachloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1,1-Trichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1,2-Trichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Trichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
Trichlorofluoromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Vinyl Chloride	BDL	ug/l	601	1.0	10/14	10/14	MP

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Ave South
Suite 300
Birmingham, AL 35205
Dewey Trapp

Date: 10/29/97
Log #: L24630-13

Sample Description:

Mayport NAVSTA/ Fuel Farm
9970082

Label: FF-MW-8
Date Sampled: 10/09/97
Time Sampled: 13:30
Date Received: 10/09/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Purgeable Halocarbons	(continued)						
Dilution Factor	1.0		601		10/14	10/14	MP
Surrogate Recoveries:							
Dibromofluoromethane	n/a	%	601	58-146	10/14	10/14	MP
Toluene-D8	n/a	%	601	76-119	10/14	10/14	MP
4-Bromofluorobenzene	n/a	%	601	76-130	10/14	10/14	MP
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/l	FLPRO	0.65	10/13	10/14	JS
Dilution Factor	1.0		FLPRO		10/13	10/14	JS
Surrogate Recoveries:							
o-Terphenyl	50.0	%	FLPRO	50-150	10/13	10/14	JS
Metals							
Lead	BDL	mg/l	3010/6010	0.0050	10/11	10/13	DM
General Chemistry							
Turbidity	2.3		180.1	0.10	10/10	10/10	RH
EDB/DBCP							
EDB	BDL	ug/l	504.1	0.020	10/13	10/15	DM
DBCP	BDL	ug/l	504.1	0.020	10/13	10/15	DM
Dilution Factor	1.0		504.1		10/13	10/15	DM

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G
SUB HRS# 86122,86109,E86048
SC CERT# 96031
ELPAT# 13801
VA CERT# 00395

HRS# E86240,86356
ADEM ID# 40850
TN CERT# 02985
CA CERT# I-1068
RI CERT# 191

NC CERT# 444
ND CERT# R-148
CT CERT# PH-0122
USACE CERT
MA CERT# M-FL449

Respectfully submitted,
Rhonda Moll
Senior Project Manager

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Date: 10/17/97
Log #: L24630-6

Sample Description:

Mayport NAVSTA/ Fuel Farm
9970082

Label: FF-MW-9
Date Sampled: 10/09/97
Time Sampled: 08:30
Date Received: 10/09/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Purgeable Halocarbons							
Bromodichloromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Bromoform	BDL	ug/l	601	1.0	10/14	10/14	MP
Bromomethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Carbon Tetrachloride	BDL	ug/l	601	1.0	10/14	10/14	MP
Chlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
Chloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
2-Chloroethylvinyl Ether	BDL	ug/l	601	50	10/14	10/14	MP
Chloroform	BDL	ug/l	601	1.0	10/14	10/14	MP
Chloromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Dibromochloromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,2-Dichlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,3-Dichlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,4-Dichlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
Dichlorodifluoromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1-Dichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,2-Dichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1-Dichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
Cis-1,2-Dichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
Trans-1,2-Dichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,2-Dichloropropane	BDL	ug/l	601	1.0	10/14	10/14	MP
Cis-1,3-Dichloropropene	BDL	ug/l	601	1.0	10/14	10/14	MP
Trans-1,3-Dichloropropen	BDL	ug/l	601	1.0	10/14	10/14	MP
Methylene Chloride	BDL	ug/l	601	5.0	10/14	10/14	MP
1,1,2,2-Tetrachloroethan	BDL	ug/l	601	1.0	10/14	10/14	MP
Tetrachloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1,1-Trichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1,2-Trichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Trichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
Trichlorofluoromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Vinyl Chloride	BDL	ug/l	601	1.0	10/14	10/14	MP

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Date: 10/17/97
Log #: L24630-6

Sample Description:

Mayport NAVSTA/ Fuel Farm
9970082

Label: FF-MW-9
Date Sampled: 10/09/97
Time Sampled: 08:30
Date Received: 10/09/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Purgeable Halocarbons	(continued)						
Dilution Factor	1.0		601		10/14	10/14	MP
Surrogate Recoveries:							
Dibromofluoromethane	n/a	%	601	58-146	10/14	10/14	MP
Toluene-D8	n/a	%	601	76-119	10/14	10/14	MP
4-Bromofluorobenzene	n/a	%	601	76-130	10/14	10/14	MP
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/l	FLPRO	0.65	10/13	10/14	JS
Dilution Factor	1.0		FLPRO		10/13	10/14	JS
Surrogate Recoveries:							
o-Terphenyl	56.0	%	FLPRO	50-150	10/13	10/14	JS
EDB/DBCP							
EDB	BDL	ug/l	504.1	0.020	10/13	10/15	DM
DBCP	BDL	ug/l	504.1	0.020	10/13	10/15	DM
Dilution Factor	1.0		504.1		10/13	10/15	DM

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
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Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G
SUB HRS# 86122,86109,E86048
SC CERT# 96031
ELPAT# 13801
VA CERT# 00395
HRS# E86240,86356
ADEM ID# 40850
TN CERT# 02985
CA CERT# I-1068
RI CERT# 191
NC CERT# 444
ND CERT# R-148
CT CERT# PH-0122
USACE CERT
MA CERT# M-FL449

Respectfully submitted,
Rhonda Moll
Senior Project Manager

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Date: 10/17/97
Log #: L24630-3

Sample Description:

Mayport NAVSTA/ Fuel Farm
9970082

Label: FF-MW-10
Date Sampled: 10/08/97
Time Sampled: 17:00
Date Received: 10/09/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Purgeable Halocarbons							
Bromodichloromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Bromoform	BDL	ug/l	601	1.0	10/14	10/14	MP
Bromomethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Carbon Tetrachloride	BDL	ug/l	601	1.0	10/14	10/14	MP
Chlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
Chloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
2-Chloroethylvinyl Ether	BDL	ug/l	601	50	10/14	10/14	MP
Chloroform	BDL	ug/l	601	1.0	10/14	10/14	MP
Chloromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Dibromochloromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,2-Dichlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,3-Dichlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,4-Dichlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
Dichlorodifluoromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1-Dichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,2-Dichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1-Dichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
Cis-1,2-Dichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
Trans-1,2-Dichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,2-Dichloropropane	BDL	ug/l	601	1.0	10/14	10/14	MP
Cis-1,3-Dichloropropene	BDL	ug/l	601	1.0	10/14	10/14	MP
Trans-1,3-Dichloropropen	BDL	ug/l	601	1.0	10/14	10/14	MP
Methylene Chloride	BDL	ug/l	601	5.0	10/14	10/14	MP
1,1,2,2-Tetrachloroethan	BDL	ug/l	601	1.0	10/14	10/14	MP
Tetrachloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1,1-Trichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1,2-Trichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Trichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
Trichlorofluoromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Vinyl Chloride	BDL	ug/l	601	1.0	10/14	10/14	MP

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Date: 10/17/97
Log #: L24630-3

Sample Description:

Mayport NAVSTA/ Fuel Farm
9970082

Label: FF-MW-10
Date Sampled: 10/08/97
Time Sampled: 17:00
Date Received: 10/09/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Purgeable Halocarbons	(continued)						
Dilution Factor	1.0		601		10/14	10/14	MP
Surrogate Recoveries:							
Dibromofluoromethane	n/a	%	601	58-146	10/14	10/14	MP
Toluene-D8	n/a	%	601	76-119	10/14	10/14	MP
4-Bromofluorobenzene	n/a	%	601	76-130	10/14	10/14	MP
Petroleum Range Organics							
TPH(C8-C40)	1.5	mg/l	FLPRO	0.65	10/13	10/14	JS
Dilution Factor	1.0		FLPRO		10/13	10/14	JS
Surrogate Recoveries:							
o-Terphenyl	88.0	%	FLPRO	50-150	10/13	10/14	JS
Metals							
Lead	BDL	mg/l	3010/6010	0.0050	10/11	10/13	DM
General Chemistry							
Turbidity	32		180.1	0.10	10/10	10/10	RH
EDB/DBCP							
EDB	BDL	ug/l	504.1	0.020	10/13	10/15	DM
DBCP	BDL	ug/l	504.1	0.020	10/13	10/15	DM
Dilution Factor	1.0		504.1		10/13	10/15	DM

BDL = Below Detection Limits
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Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G
SUB HRS# 86122,86109,E86048
SC CERT# 96031
ELPAT# 13801
VA CERT# 00395
HRS# E86240,86356
ADEM ID# 40850
TN CERT# 02985
CA CERT# I-1068
RI CERT# 191
NC CERT# 444
ND CERT# R-148
CT CERT# PH-0122
USACE CERT
MA CERT# M-FL449

Respectfully submitted,
Rhonda Moll
Senior Project Manager

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Date: 10/17/97
Log #: L24630-15

Sample Description:

Mayport NAVSTA/ Fuel Farm
9970082

Label: MPT-16-MW02S
Date Sampled: 10/09/97
Time Sampled: 10:00
Date Received: 10/09/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Purgeable Hydrocarbons							
Bromodichloromethane	BDL	ug/l	601/602	5.0	10/14	10/14	MP
Bromoform	BDL	ug/l	601/602	5.0	10/14	10/14	MP
Bromomethane	BDL	ug/l	601/602	5.0	10/14	10/14	MP
Carbon Tetrachloride	BDL	ug/l	601/602	5.0	10/14	10/14	MP
Chlorobenzene	BDL	ug/l	601/602	5.0	10/14	10/14	MP
Chloroethane	BDL	ug/l	601/602	5.0	10/14	10/14	MP
2-Chloroethylvinyl Ether	BDL	ug/l	601/602	250	10/14	10/14	MP
Chloroform	BDL	ug/l	601/602	5.0	10/14	10/14	MP
Chloromethane	BDL	ug/l	601/602	5.0	10/14	10/14	MP
Dibromochloromethane	BDL	ug/l	601/602	5.0	10/14	10/14	MP
1,2-Dichlorobenzene	BDL	ug/l	601/602	5.0	10/14	10/14	MP
1,3-Dichlorobenzene	BDL	ug/l	601/602	5.0	10/14	10/14	MP
1,4-Dichlorobenzene	BDL	ug/l	601/602	5.0	10/14	10/14	MP
Dichlorodifluoromethane	BDL	ug/l	601/602	5.0	10/14	10/14	MP
1,1-Dichloroethane	BDL	ug/l	601/602	5.0	10/14	10/14	MP
1,2-Dichloroethane	BDL	ug/l	601/602	5.0	10/14	10/14	MP
1,1-Dichloroethene	BDL	ug/l	601/602	5.0	10/14	10/14	MP
Cis-1,2-Dichloroethene	BDL	ug/l	601/602	5.0	10/14	10/14	MP
Trans-1,2-Dichloroethene	BDL	ug/l	601/602	5.0	10/14	10/14	MP
1,2-Dichloropropane	BDL	ug/l	601/602	5.0	10/14	10/14	MP
Trans-1,3-Dichloropropen	BDL	ug/l	601/602	5.0	10/14	10/14	MP
Cis-1,3-Dichloropropene	BDL	ug/l	601/602	5.0	10/14	10/14	MP
Methylene Chloride	BDL	ug/l	601/602	25	10/14	10/14	MP
1,1,2,2-Tetrachloroethan	BDL	ug/l	601/602	5.0	10/14	10/14	MP
Tetrachloroethene	BDL	ug/l	601/602	5.0	10/14	10/14	MP
1,1,1-Trichloroethane	BDL	ug/l	601/602	5.0	10/14	10/14	MP
1,1,2-Trichloroethane	BDL	ug/l	601/602	5.0	10/14	10/14	MP
Trichloroethene	BDL	ug/l	601/602	5.0	10/14	10/14	MP
Trichlorofluoromethane	BDL	ug/l	601/602	5.0	10/14	10/14	MP
Vinyl Chloride	BDL	ug/l	601/602	5.0	10/14	10/14	MP

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Date: 10/17/97
Log #: L24630-15

Sample Description:

Mayport NAVSTA/ Fuel Farm
9970082

Label: MPT-16-MW02S
Date Sampled: 10/09/97
Time Sampled: 10:00
Date Received: 10/09/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Purgeable Hydrocarbons	(continued)						
Benzene	BDL	ug/l	601/602	5.0	10/14	10/14	MP
Ethylbenzene	BDL	ug/l	601/602	5.0	10/14	10/14	MP
Toluene	BDL	ug/l	601/602	5.0	10/14	10/14	MP
Total Xylenes	BDL	ug/l	601/602	5.0	10/14	10/14	MP
MTBE	BDL	ug/l	601/602	50	10/14	10/14	MP
Dilution Factor	5.0		601/602		10/14	10/14	MP
Surrogate Recoveries:							
1-Bromo-3-Chloropropane	111	%	601/602	50-150	10/14	10/14	MP
a,a,a-Trifluorotoluene	119	%	601/602	50-150	10/14	10/14	MP
Polynuclear Aromatic Hydrocarbons							
Naphthalene	BDL	ug/l	3510/8270	1.0	10/14	10/14	SW
2-Methylnaphthalene	7.4	ug/l	3510/8270	1.0	10/14	10/14	SW
1-Methylnaphthalene	37	ug/l	3510/8270	1.0	10/14	10/14	SW
Acenaphthylene	BDL	ug/l	3510/8270	1.0	10/14	10/14	SW
Acenaphthene	BDL	ug/l	3510/8270	1.0	10/14	10/14	SW
Fluorene	1.4	ug/l	3510/8270	1.0	10/14	10/14	SW
Phenanthrene	BDL	ug/l	3510/8270	1.0	10/14	10/14	SW
Anthracene	BDL	ug/l	3510/8270	1.0	10/14	10/14	SW
Fluoranthene	BDL	ug/l	3510/8270	1.0	10/14	10/14	SW
Pyrene	BDL	ug/l	3510/8270	1.0	10/14	10/14	SW
Benzo(a)anthracene	BDL	ug/l	3510/8270	1.0	10/14	10/14	SW
Chrysene	BDL	ug/l	3510/8270	1.0	10/14	10/14	SW
Benzo(b)fluoranthene	BDL	ug/l	3510/8270	1.0	10/14	10/14	SW
Benzo(k)fluoranthene	BDL	ug/l	3510/8270	1.0	10/14	10/14	SW
Benzo(a)pyrene	BDL	ug/l	3510/8270	1.0	10/14	10/14	SW
Dibenzo(a,h)Anthracene	BDL	ug/l	3510/8270	1.0	10/14	10/14	SW
Indeno(1,2,3-c,d)pyrene	BDL	ug/l	3510/8270	1.0	10/14	10/14	SW
Benzo(g,h,i)perylene	BDL	ug/l	3510/8270	1.0	10/14	10/14	SW
Dilution Factor	1.0		3510/8270		10/14	10/14	SW
Surrogate Recoveries:							
Nitrobenzene-d5	35.0	%	3510/8270	35-114	10/14	10/14	SW
2-Fluorobiphenyl	54.0	%	3510/8270	43-116	10/14	10/14	SW
Terphenyl-d14	60.0	%	3510/8270	33-141	10/14	10/14	SW
Petroleum Range Organics							
TPH(C8-C40)	41	mg/l	FLPRO	13	10/13	10/15	JS
Dilution Factor	20		FLPRO		10/13	10/15	JS
Surrogate Recoveries:							
o-Terphenyl	n/a	%	FLPRO	50-150	10/13	10/15	JS

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 3 of 3
Date: 10/17/97
Log #: L24630-15

Sample Description:

Mayport NAVSTA/ Fuel Farm
9970082

Label: MPT-16-MW02S
Date Sampled: 10/09/97
Time Sampled: 10:00
Date Received: 10/09/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Metals							
Lead	BDL	mg/l	3010/6010	0.0050	10/11	10/13	DM
EDB/DBCP							
EDB	BDL	ug/l	504.1	0.020	10/13	10/15	DM
DBCP	BDL	ug/l	504.1	0.020	10/13	10/15	DM
Dilution Factor	1.0		504.1		10/13	10/15	DM

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	RI CERT# 191	MA CERT# M-FL449

Respectfully submitted,

Rhonda Moll
Senior Project Manager

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Ave South
Suite 300
Birmingham, AL 35205
Dewey Trapp

Date: 10/29/97
Log #: L24705-2

Sample Description:

Mayport NAVSTA/Fuel Farm
9970082

Label: MPT-16-03
Date Sampled: 10/10/97
Time Sampled: 11:00
Date Received: 10/10/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Purgeable Halocarbons							
Bromodichloromethane	BDL	ug/l	601	1.0	10/15	10/15	MP
Bromoform	BDL	ug/l	601	1.0	10/15	10/15	MP
Bromomethane	BDL	ug/l	601	1.0	10/15	10/15	MP
Carbon Tetrachloride	BDL	ug/l	601	1.0	10/15	10/15	MP
Chlorobenzene	BDL	ug/l	601	1.0	10/15	10/15	MP
Chloroethane	BDL	ug/l	601	1.0	10/15	10/15	MP
2-Chloroethylvinyl Ether	BDL	ug/l	601	50	10/15	10/15	MP
Chloroform	BDL	ug/l	601	1.0	10/15	10/15	MP
Chloromethane	BDL	ug/l	601	1.0	10/15	10/15	MP
Dibromochloromethane	BDL	ug/l	601	1.0	10/15	10/15	MP
1,2-Dichlorobenzene	BDL	ug/l	601	1.0	10/15	10/15	MP
1,3-Dichlorobenzene	BDL	ug/l	601	1.0	10/15	10/15	MP
1,4-Dichlorobenzene	BDL	ug/l	601	1.0	10/15	10/15	MP
Dichlorodifluoromethane	BDL	ug/l	601	1.0	10/15	10/15	MP
1,1-Dichloroethane	BDL	ug/l	601	1.0	10/15	10/15	MP
1,2-Dichloroethane	BDL	ug/l	601	1.0	10/15	10/15	MP
1,1-Dichloroethene	BDL	ug/l	601	1.0	10/15	10/15	MP
Cis-1,2-Dichloroethene	BDL	ug/l	601	1.0	10/15	10/15	MP
Trans-1,2-Dichloroethene	BDL	ug/l	601	1.0	10/15	10/15	MP
1,2-Dichloropropane	BDL	ug/l	601	1.0	10/15	10/15	MP
Cis-1,3-Dichloropropene	BDL	ug/l	601	1.0	10/15	10/15	MP
Trans-1,3-Dichloropropen	BDL	ug/l	601	1.0	10/15	10/15	MP
Methylene Chloride	BDL	ug/l	601	5.0	10/15	10/15	MP
1,1,2,2-Tetrachloroethan	BDL	ug/l	601	1.0	10/15	10/15	MP
Tetrachloroethene	BDL	ug/l	601	1.0	10/15	10/15	MP
1,1,1-Trichloroethane	BDL	ug/l	601	1.0	10/15	10/15	MP
1,1,2-Trichloroethane	BDL	ug/l	601	1.0	10/15	10/15	MP
Trichloroethene	BDL	ug/l	601	1.0	10/15	10/15	MP
Trichlorofluoromethane	BDL	ug/l	601	1.0	10/15	10/15	MP
Vinyl Chloride	BDL	ug/l	601	1.0	10/15	10/15	MP

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Ave South
Suite 300
Birmingham, AL 35205
Dewey Trapp

Date: 10/29/97
Log #: L24705-2

Sample Description:

Mayport NAVSTA/Fuel Farm
9970082

Label: MPT-16-03
Date Sampled: 10/10/97
Time Sampled: 11:00
Date Received: 10/10/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Purgeable Halocarbons	(continued)						
Dilution Factor	1.0		601		10/15	10/15	MP
Surrogate Recoveries:							
Dibromofluoromethane	n/a	%	601	58-146	10/15	10/15	MP
Toluene-D8	n/a	%	601	76-119	10/15	10/15	MP
4-Bromofluorobenzene	n/a	%	601	76-130	10/15	10/15	MP
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/l	FLPRO	0.65	10/17	10/20	JS
Dilution Factor	1.0		FLPRO		10/17	10/20	JS
Surrogate Recoveries:							
o-Terphenyl	100	%	FLPRO	50-150	10/17	10/20	JS
EDB/DBCP							
EDB	BDL	ug/l	504.1	0.020	10/13	10/16	DM
DBCP	BDL	ug/l	504.1	0.020	10/13	10/16	DM
Dilution Factor	1.0		504.1		10/13	10/16	DM

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	RI CERT# 191	MA CERT# M-FL449

Respectfully submitted,
Rhonda Moll
Senior Project Manager

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 2
Date: 10/17/97
Log #: L24630-8

Sample Description:

Mayport NAVSTA/ Fuel Farm
9970082

Label: MPT-16-MW03S
Date Sampled: 10/09/97
Time Sampled: 10:45
Date Received: 10/09/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Purgeable Halocarbons							
Bromodichloromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Bromoform	BDL	ug/l	601	1.0	10/14	10/14	MP
Bromomethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Carbon Tetrachloride	BDL	ug/l	601	1.0	10/14	10/14	MP
Chlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
Chloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
2-Chloroethylvinyl Ether	BDL	ug/l	601	50	10/14	10/14	MP
Chloroform	BDL	ug/l	601	1.0	10/14	10/14	MP
Chloromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Dibromochloromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,2-Dichlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,3-Dichlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,4-Dichlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
Dichlorodifluoromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1-Dichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,2-Dichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1-Dichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
Cis-1,2-Dichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
Trans-1,2-Dichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,2-Dichloropropane	BDL	ug/l	601	1.0	10/14	10/14	MP
Cis-1,3-Dichloropropene	BDL	ug/l	601	1.0	10/14	10/14	MP
Trans-1,3-Dichloropropen	BDL	ug/l	601	1.0	10/14	10/14	MP
Methylene Chloride	BDL	ug/l	601	5.0	10/14	10/14	MP
1,1,2,2-Tetrachloroethan	BDL	ug/l	601	1.0	10/14	10/14	MP
Tetrachloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1,1-Trichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1,2-Trichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Trichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
Trichlorofluoromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Vinyl Chloride	BDL	ug/l	601	1.0	10/14	10/14	MP

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Date: 10/17/97
Log #: L24630-8

Sample Description:

Mayport NAVSTA/ Fuel Farm
9970082

Label: MPT-16-MW03S
Date Sampled: 10/09/97
Time Sampled: 10:45
Date Received: 10/09/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Purgeable Halocarbons	(continued)						
Dilution Factor	1.0		601		10/14	10/14	MP
Surrogate Recoveries:							
Dibromofluoromethane	n/a	%	601	58-146	10/14	10/14	MP
Toluene-D8	n/a	%	601	76-119	10/14	10/14	MP
4-Bromofluorobenzene	n/a	%	601	76-130	10/14	10/14	MP
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/l	FLPRO	0.65	10/13	10/14	JS
Dilution Factor	1.0		FLPRO		10/13	10/14	JS
Surrogate Recoveries:							
o-Terphenyl	112	%	FLPRO	50-150	10/13	10/14	JS
EDB/DBCP							
EDB	BDL	ug/l	504.1	0.020	10/13	10/15	DM
DBCP	BDL	ug/l	504.1	0.020	10/13	10/15	DM
Dilution Factor	1.0		504.1		10/13	10/15	DM

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G | HRS# E86240,86356 | NC CERT# 444
SUB HRS# 86122,86109,E86048 | ADEM ID# 40850 | ND CERT# R-148
SC CERT# 96031 | TN CERT# 02985 | CT CERT# PH-0122
ELPAT# 13801 | CA CERT# I-1068 | USACE CERT
VA CERT# 00395 | RI CERT# 191 | MA CERT# M-FL449

Respectfully submitted,

Rhonda Moll
Senior Project Manager

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Date: 10/17/97
Log #: L24630-9

Sample Description:

Mayport NAVSTA/ Fuel Farm
9970082

Label: MPT-16-MW01I
Date Sampled: 10/09/97
Time Sampled: 11:15
Date Received: 10/09/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Purgeable Halocarbons							
Bromodichloromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Bromoform	BDL	ug/l	601	1.0	10/14	10/14	MP
Bromomethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Carbon Tetrachloride	BDL	ug/l	601	1.0	10/14	10/14	MP
Chlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
Chloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
2-Chloroethylvinyl Ether	BDL	ug/l	601	50	10/14	10/14	MP
Chloroform	BDL	ug/l	601	1.0	10/14	10/14	MP
Chloromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Dibromochloromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,2-Dichlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,3-Dichlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,4-Dichlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
Dichlorodifluoromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1-Dichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,2-Dichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1-Dichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
Cis-1,2-Dichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
Trans-1,2-Dichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,2-Dichloropropane	BDL	ug/l	601	1.0	10/14	10/14	MP
Cis-1,3-Dichloropropene	BDL	ug/l	601	1.0	10/14	10/14	MP
Trans-1,3-Dichloropropen	BDL	ug/l	601	1.0	10/14	10/14	MP
Methylene Chloride	BDL	ug/l	601	5.0	10/14	10/14	MP
1,1,2,2-Tetrachloroethan	BDL	ug/l	601	1.0	10/14	10/14	MP
Tetrachloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1,1-Trichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1,2-Trichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Trichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
Trichlorofluoromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Vinyl Chloride	BDL	ug/l	601	1.0	10/14	10/14	MP

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 2 of 2
Date: 10/17/97
Log #: L24630-9

Sample Description:

Mayport NAVSTA/ Fuel Farm
9970082

Label: MPT-16-MW01I
Date Sampled: 10/09/97
Time Sampled: 11:15
Date Received: 10/09/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Purgeable Halocarbons	(continued)						
Dilution Factor	1.0		601		10/14	10/14	MP
Surrogate Recoveries:							
Dibromofluoromethane	n/a	%	601	58-146	10/14	10/14	MP
Toluene-D8	n/a	%	601	76-119	10/14	10/14	MP
4-Bromofluorobenzene	n/a	%	601	76-130	10/14	10/14	MP
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/l	FLPRO	0.65	10/13	10/14	JS
Dilution Factor	1.0		FLPRO		10/13	10/14	JS
Surrogate Recoveries:							
o-Terphenyl	99.0	%	FLPRO	50-150	10/13	10/14	JS
EDB/DBCP							
EDB	BDL	ug/l	504.1	0.020	10/13	10/15	DM
DBCP	BDL	ug/l	504.1	0.020	10/13	10/15	DM
Dilution Factor	1.0		504.1		10/13	10/15	DM

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	RI CERT# 191	MA CERT# M-FL449

Respectfully submitted,
Rhonda Moll
Senior Project Manager

Our Quality Control Is Your Quality Assurance

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Ave South
Suite 300
Birmingham, AL 35205
Dewey Trapp

Page: Page 1 of 2
Date: 10/20/97
Log #: L24705-1

Sample Description:

Mayport NAVSTA/Fuel Farm
9970082

Label: MPT-9-01S
Date Sampled: 10/10/97
Time Sampled: 12:00
Date Received: 10/10/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Purgeable Halocarbons							
Bromodichloromethane	BDL	ug/l	601	1.0	10/15	10/15	MP
Bromoform	BDL	ug/l	601	1.0	10/15	10/15	MP
Bromomethane	BDL	ug/l	601	1.0	10/15	10/15	MP
Carbon Tetrachloride	BDL	ug/l	601	1.0	10/15	10/15	MP
Chlorobenzene	BDL	ug/l	601	1.0	10/15	10/15	MP
Chloroethane	BDL	ug/l	601	1.0	10/15	10/15	MP
2-Chloroethylvinyl Ether	BDL	ug/l	601	50	10/15	10/15	MP
Chloroform	BDL	ug/l	601	1.0	10/15	10/15	MP
Chloromethane	BDL	ug/l	601	1.0	10/15	10/15	MP
Dibromochloromethane	BDL	ug/l	601	1.0	10/15	10/15	MP
1,2-Dichlorobenzene	BDL	ug/l	601	1.0	10/15	10/15	MP
1,3-Dichlorobenzene	BDL	ug/l	601	1.0	10/15	10/15	MP
1,4-Dichlorobenzene	BDL	ug/l	601	1.0	10/15	10/15	MP
Dichlorodifluoromethane	BDL	ug/l	601	1.0	10/15	10/15	MP
1,1-Dichloroethane	BDL	ug/l	601	1.0	10/15	10/15	MP
1,2-Dichloroethane	BDL	ug/l	601	1.0	10/15	10/15	MP
1,1-Dichloroethene	BDL	ug/l	601	1.0	10/15	10/15	MP
Cis-1,2-Dichloroethene	BDL	ug/l	601	1.0	10/15	10/15	MP
Trans-1,2-Dichloroethene	BDL	ug/l	601	1.0	10/15	10/15	MP
1,2-Dichloropropane	BDL	ug/l	601	1.0	10/15	10/15	MP
Cis-1,3-Dichloropropene	BDL	ug/l	601	1.0	10/15	10/15	MP
Trans-1,3-Dichloropropen	BDL	ug/l	601	1.0	10/15	10/15	MP
Methylene Chloride	BDL	ug/l	601	5.0	10/15	10/15	MP
1,1,2,2-Tetrachloroethan	BDL	ug/l	601	1.0	10/15	10/15	MP
Tetrachloroethene	BDL	ug/l	601	1.0	10/15	10/15	MP
1,1,1-Trichloroethane	BDL	ug/l	601	1.0	10/15	10/15	MP
1,1,2-Trichloroethane	BDL	ug/l	601	1.0	10/15	10/15	MP
Trichloroethene	BDL	ug/l	601	1.0	10/15	10/15	MP
Trichlorofluoromethane	BDL	ug/l	601	1.0	10/15	10/15	MP
Vinyl Chloride	BDL	ug/l	601	1.0	10/15	10/15	MP

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Ave South
Suite 300
Birmingham, AL 35205
Dewey Trapp

Page: Page 2 of 2
Date: 10/20/97
Log #: L24705-1

Sample Description:

Mayport NAVSTA/Fuel Farm
9970082

Label: MPT-9-01S
Date Sampled: 10/10/97
Time Sampled: 12:00
Date Received: 10/10/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Purgeable Halocarbons	(continued)						
Dilution Factor	1.0		601		10/15	10/15	MP
Surrogate Recoveries:							
Dibromofluoromethane	n/a	%	601	58-146	10/15	10/15	MP
Toluene-D8	n/a	%	601	76-119	10/15	10/15	MP
4-Bromofluorobenzene	n/a	%	601	76-130	10/15	10/15	MP
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/l	FLPRO	0.65	10/17	10/20	JS
Dilution Factor	1.0		FLPRO		10/17	10/20	JS
Surrogate Recoveries:							
o-Terphenyl	104	%	FLPRO	50-150	10/17	10/20	JS
EDB/DBCP							
EDB	BDL	ug/l	504.1	0.020	10/13	10/16	DM
DBCP	BDL	ug/l	504.1	0.020	10/13	10/16	DM
Dilution Factor	1.0		504.1		10/13	10/16	DM

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	RI CERT# 191	MA CERT# M-FL449

Respectfully submitted,
Rhonda Moll
Senior Project Manager

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Ave South
Suite 300
Birmingham, AL 35205
Dewey Trapp

Page: Page 1 of 2
Date: 11/07/97
Log #: L24705-2

Sample Description:

Mayport NAVSTA/Fuel Farm
9970082

Label: MPT-9-03
Date Sampled: 10/10/97
Time Sampled: 11:00
Date Received: 10/10/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Purgeable Halocarbons							
Bromodichloromethane	BDL	ug/l	601	1.0	10/15	10/15	MP
Bromoform	BDL	ug/l	601	1.0	10/15	10/15	MP
Bromomethane	BDL	ug/l	601	1.0	10/15	10/15	MP
Carbon Tetrachloride	BDL	ug/l	601	1.0	10/15	10/15	MP
Chlorobenzene	BDL	ug/l	601	1.0	10/15	10/15	MP
Chloroethane	BDL	ug/l	601	1.0	10/15	10/15	MP
2-Chloroethylvinyl Ether	BDL	ug/l	601	50	10/15	10/15	MP
Chloroform	BDL	ug/l	601	1.0	10/15	10/15	MP
Chloromethane	BDL	ug/l	601	1.0	10/15	10/15	MP
Dibromochloromethane	BDL	ug/l	601	1.0	10/15	10/15	MP
1,2-Dichlorobenzene	BDL	ug/l	601	1.0	10/15	10/15	MP
1,3-Dichlorobenzene	BDL	ug/l	601	1.0	10/15	10/15	MP
1,4-Dichlorobenzene	BDL	ug/l	601	1.0	10/15	10/15	MP
Dichlorodifluoromethane	BDL	ug/l	601	1.0	10/15	10/15	MP
1,1-Dichloroethane	BDL	ug/l	601	1.0	10/15	10/15	MP
1,2-Dichloroethane	BDL	ug/l	601	1.0	10/15	10/15	MP
1,1-Dichloroethene	BDL	ug/l	601	1.0	10/15	10/15	MP
Cis-1,2-Dichloroethene	BDL	ug/l	601	1.0	10/15	10/15	MP
Trans-1,2-Dichloroethene	BDL	ug/l	601	1.0	10/15	10/15	MP
1,2-Dichloropropane	BDL	ug/l	601	1.0	10/15	10/15	MP
Cis-1,3-Dichloropropene	BDL	ug/l	601	1.0	10/15	10/15	MP
Trans-1,3-Dichloropropen	BDL	ug/l	601	1.0	10/15	10/15	MP
Methylene Chloride	BDL	ug/l	601	5.0	10/15	10/15	MP
1,1,2,2-Tetrachloroethan	BDL	ug/l	601	1.0	10/15	10/15	MP
Tetrachloroethene	BDL	ug/l	601	1.0	10/15	10/15	MP
1,1,1-Trichloroethane	BDL	ug/l	601	1.0	10/15	10/15	MP
1,1,2-Trichloroethane	BDL	ug/l	601	1.0	10/15	10/15	MP
Trichloroethene	BDL	ug/l	601	1.0	10/15	10/15	MP
Trichlorofluoromethane	BDL	ug/l	601	1.0	10/15	10/15	MP
Vinyl Chloride	BDL	ug/l	601	1.0	10/15	10/15	MP

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Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Ave South
Suite 300
Birmingham, AL 35205
Dewey Trapp

Date: 11/07/97
Log #: L24705-2

Sample Description:

Mayport NAVSTA/Fuel Farm
9970082

Label: MPT-9-03
Date Sampled: 10/10/97
Time Sampled: 11:00
Date Received: 10/10/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Purgeable Halocarbons	(continued)						
Dilution Factor	1.0		601		10/15	10/15	MP
Surrogate Recoveries:							
Dibromofluoromethane	n/a	%	601	58-146	10/15	10/15	MP
Toluene-D8	n/a	%	601	76-119	10/15	10/15	MP
4-Bromofluorobenzene	n/a	%	601	76-130	10/15	10/15	MP
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/l	FLPRO	0.65	10/17	10/20	JS
Dilution Factor	1.0		FLPRO		10/17	10/20	JS
Surrogate Recoveries:							
o-Terphenyl	100	%	FLPRO	50-150	10/17	10/20	JS
EDB/DBCP							
EDB	BDL	ug/l	504.1	0.020	10/13	10/16	DM
DBCP	BDL	ug/l	504.1	0.020	10/13	10/16	DM
Dilution Factor	1.0		504.1		10/13	10/16	DM

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	RI CERT# 191	MA CERT# M-FL449

Respectfully submitted,

Rhonda Moll
Senior Project Manager

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 1 of 4
Date: 10/17/97
Log #: L24630-7

Sample Description:

Mayport NAVSTA/ Fuel Farm
9970082

Label: Rinsate A
Date Sampled: 10/09/97
Time Sampled: 09:00
Date Received: 10/09/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Purgeable Hydrocarbons							
Bromodichloromethane	BDL	ug/l	601/602	1.0	10/14	10/14	MP
Bromoform	BDL	ug/l	601/602	1.0	10/14	10/14	MP
Bromomethane	BDL	ug/l	601/602	1.0	10/14	10/14	MP
Carbon Tetrachloride	BDL	ug/l	601/602	1.0	10/14	10/14	MP
Chlorobenzene	BDL	ug/l	601/602	1.0	10/14	10/14	MP
Chloroethane	BDL	ug/l	601/602	1.0	10/14	10/14	MP
2-Chloroethylvinyl Ether	BDL	ug/l	601/602	50	10/14	10/14	MP
Chloroform	BDL	ug/l	601/602	1.0	10/14	10/14	MP
Chloromethane	BDL	ug/l	601/602	1.0	10/14	10/14	MP
Dibromochloromethane	BDL	ug/l	601/602	1.0	10/14	10/14	MP
1,2-Dichlorobenzene	BDL	ug/l	601/602	1.0	10/14	10/14	MP
1,3-Dichlorobenzene	BDL	ug/l	601/602	1.0	10/14	10/14	MP
1,4-Dichlorobenzene	BDL	ug/l	601/602	1.0	10/14	10/14	MP
Dichlorodifluoromethane	BDL	ug/l	601/602	1.0	10/14	10/14	MP
1,1-Dichloroethane	BDL	ug/l	601/602	1.0	10/14	10/14	MP
1,2-Dichloroethane	BDL	ug/l	601/602	1.0	10/14	10/14	MP
1,1-Dichloroethene	BDL	ug/l	601/602	1.0	10/14	10/14	MP
Cis-1,2-Dichloroethene	BDL	ug/l	601/602	1.0	10/14	10/14	MP
Trans-1,2-Dichloroethene	BDL	ug/l	601/602	1.0	10/14	10/14	MP
1,2-Dichloropropane	BDL	ug/l	601/602	1.0	10/14	10/14	MP
Trans-1,3-Dichloropropen	BDL	ug/l	601/602	1.0	10/14	10/14	MP
Cis-1,3-Dichloropropene	BDL	ug/l	601/602	1.0	10/14	10/14	MP
Methylene Chloride	BDL	ug/l	601/602	5.0	10/14	10/14	MP
1,1,2,2-Tetrachloroethan	BDL	ug/l	601/602	1.0	10/14	10/14	MP
Tetrachloroethene	BDL	ug/l	601/602	1.0	10/14	10/14	MP
1,1,1-Trichloroethane	BDL	ug/l	601/602	1.0	10/14	10/14	MP
1,1,2-Trichloroethane	BDL	ug/l	601/602	1.0	10/14	10/14	MP
Trichloroethene	BDL	ug/l	601/602	1.0	10/14	10/14	MP
Trichlorofluoromethane	BDL	ug/l	601/602	1.0	10/14	10/14	MP
Vinyl Chloride	BDL	ug/l	601/602	1.0	10/14	10/14	MP

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Date: 10/17/97
Log #: L24630-7

Sample Description:

Mayport NAVSTA/ Fuel Farm
9970082

Label: Rinsate A
Date Sampled: 10/09/97
Time Sampled: 09:00
Date Received: 10/09/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Purgeable Hydrocarbons	(continued)						
Benzene	BDL	ug/l	601/602	1.0	10/14	10/14	MP
Ethylbenzene	BDL	ug/l	601/602	1.0	10/14	10/14	MP
Toluene	BDL	ug/l	601/602	1.0	10/14	10/14	MP
Total Xylenes	BDL	ug/l	601/602	1.0	10/14	10/14	MP
MTBE	BDL	ug/l	601/602	10	10/14	10/14	MP
Dilution Factor	1.0		601/602		10/14	10/14	MP
Surrogate Recoveries:							
1-Bromo-3-Chloropropane	118	%	601/602	50-150	10/14	10/14	MP
a,a,a-Trifluorotoluene	103	%	601/602	50-150	10/14	10/14	MP
Semivolatile Organic Compounds							
N-Nitrosodimethylamine	BDL	ug/l	3510/8270	10	10/14	10/15	GM
Aniline	BDL	ug/l	3510/8270	10	10/14	10/15	GM
Phenol	BDL	ug/l	3510/8270	10	10/14	10/15	GM
Bis(2-Chloroethyl) Ether	BDL	ug/l	3510/8270	10	10/14	10/15	GM
2-Chlorophenol	BDL	ug/l	3510/8270	10	10/14	10/15	GM
1,3-Dichlorobenzene	BDL	ug/l	3510/8270	10	10/14	10/15	GM
1,4-Dichlorobenzene	BDL	ug/l	3510/8270	10	10/14	10/15	GM
Benzyl Alcohol	BDL	ug/l	3510/8270	10	10/14	10/15	GM
1,2-Dichlorobenzene	BDL	ug/l	3510/8270	10	10/14	10/15	GM
2-Methylphenol	BDL	ug/l	3510/8270	10	10/14	10/15	GM
Bis(2-Chloroisopropyl) E	BDL	ug/l	3510/8270	10	10/14	10/15	GM
N-Nitrosodi-n-propylamin	BDL	ug/l	3510/8270	10	10/14	10/15	GM
3&4-Methylphenol	BDL	ug/l	3510/8270	10	10/14	10/15	GM
Hexachloroethane	BDL	ug/l	3510/8270	10	10/14	10/15	GM
Nitrobenzene	BDL	ug/l	3510/8270	10	10/14	10/15	GM
Isophorone	BDL	ug/l	3510/8270	10	10/14	10/15	GM
2-Nitrophenol	BDL	ug/l	3510/8270	10	10/14	10/15	GM
2,4-Dimethylphenol	BDL	ug/l	3510/8270	10	10/14	10/15	GM
Bis(2-Chloroethoxy)metha	BDL	ug/l	3510/8270	10	10/14	10/15	GM
Benzoic Acid	BDL	ug/l	3510/8270	50	10/14	10/15	GM
2,4-Dichlorophenol	BDL	ug/l	3510/8270	10	10/14	10/15	GM
1,2,4-Trichlorobenzene	BDL	ug/l	3510/8270	10	10/14	10/15	GM
Naphthalene	BDL	ug/l	3510/8270	10	10/14	10/15	GM
4-Chloroaniline	BDL	ug/l	3510/8270	10	10/14	10/15	GM
Hexachlorobutadiene	BDL	ug/l	3510/8270	10	10/14	10/15	GM
4-Chloro-3-Methylphenol	BDL	ug/l	3510/8270	10	10/14	10/15	GM
2-Methylnaphthalene	BDL	ug/l	3510/8270	10	10/14	10/15	GM
1-Methylnaphthalene	BDL	ug/l	3510/8270	10	10/14	10/15	GM
Hexachlorocyclopentadien	BDL	ug/l	3510/8270	10	10/14	10/15	GM

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Page: Page 3 of 4
Date: 10/17/97
Log #: L24630-7

Sample Description:

Mayport NAVSTA/ Fuel Farm
9970082

Label: Rinsate A
Date Sampled: 10/09/97
Time Sampled: 09:00
Date Received: 10/09/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Semivolatile Organic Compounds (continued)							
2,4,6-Trichlorophenol	BDL	ug/l	3510/8270	10	10/14	10/15	GM
2,4,5-Trichlorophenol	BDL	ug/l	3510/8270	10	10/14	10/15	GM
2-Chloronaphthalene	BDL	ug/l	3510/8270	10	10/14	10/15	GM
2-Nitroaniline	BDL	ug/l	3510/8270	50	10/14	10/15	GM
Dimethylphthalate	BDL	ug/l	3510/8270	10	10/14	10/15	GM
2,6-Dinitrotoluene	BDL	ug/l	3510/8270	10	10/14	10/15	GM
Acenaphthylene	BDL	ug/l	3510/8270	10	10/14	10/15	GM
3-Nitroaniline	BDL	ug/l	3510/8270	50	10/14	10/15	GM
Acenaphthene	BDL	ug/l	3510/8270	10	10/14	10/15	GM
2,4-Dinitrophenol	BDL	ug/l	3510/8270	50	10/14	10/15	GM
Dibenzofuran	BDL	ug/l	3510/8270	10	10/14	10/15	GM
2,4-Dinitrotoluene	BDL	ug/l	3510/8270	10	10/14	10/15	GM
4-Nitrophenol	BDL	ug/l	3510/8270	50	10/14	10/15	GM
Diethylphthalate	BDL	ug/l	3510/8270	10	10/14	10/15	GM
Fluorene	BDL	ug/l	3510/8270	10	10/14	10/15	GM
4-Chlorophenyl-phenyleth	BDL	ug/l	3510/8270	10	10/14	10/15	GM
4-Nitroaniline	BDL	ug/l	3510/8270	50	10/14	10/15	GM
4,6-Dinitro-2-Methylphen	BDL	ug/l	3510/8270	50	10/14	10/15	GM
N-Nitrosodiphenylamine	BDL	ug/l	3510/8270	10	10/14	10/15	GM
1,2-Diphenylhydrazine	BDL	ug/l	3510/8270	10	10/14	10/15	GM
4-Bromophenyl-phenylethe	BDL	ug/l	3510/8270	10	10/14	10/15	GM
Hexachlorobenzene	BDL	ug/l	3510/8270	10	10/14	10/15	GM
Pentachlorophenol	BDL	ug/l	3510/8270	50	10/14	10/15	GM
Anthracene	BDL	ug/l	3510/8270	10	10/14	10/15	GM
Phenanthrene	BDL	ug/l	3510/8270	10	10/14	10/15	GM
Carbazole	BDL	ug/l	3510/8270	10	10/14	10/15	GM
Di-N-Butylphthalate	BDL	ug/l	3510/8270	10	10/14	10/15	GM
Fluoranthene	BDL	ug/l	3510/8270	10	10/14	10/15	GM
Benzidine	BDL	ug/l	3510/8270	80	10/14	10/15	GM
Pyrene	BDL	ug/l	3510/8270	10	10/14	10/15	GM
Butylbenzylphthalate	BDL	ug/l	3510/8270	10	10/14	10/15	GM
Benzo[a]anthracene	BDL	ug/l	3510/8270	10	10/14	10/15	GM
3,3'-Dichlorobenzidine	BDL	ug/l	3510/8270	20	10/14	10/15	GM
Chrysene	BDL	ug/l	3510/8270	10	10/14	10/15	GM
Bis(2-Ethylhexyl)Phthala	BDL	ug/l	3510/8270	10	10/14	10/15	GM
Di-N-Octylphthalate	BDL	ug/l	3510/8270	10	10/14	10/15	GM
Benzo[b]fluoranthene	BDL	ug/l	3510/8270	10	10/14	10/15	GM
Benzo[k]fluoranthene	BDL	ug/l	3510/8270	10	10/14	10/15	GM
Benzo[a]pyrene	BDL	ug/l	3510/8270	10	10/14	10/15	GM
Indeno[1,2,3-cd]pyrene	BDL	ug/l	3510/8270	10	10/14	10/15	GM

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Date: 10/17/97
Log #: L24630-7

Sample Description:

Mayport NAVSTA/ Fuel Farm
9970082

Label: Rinsate A
Date Sampled: 10/09/97
Time Sampled: 09:00
Date Received: 10/09/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Semivolatile Organic Compounds (continued)							
Dibenzo[a,h]Anthracene	BDL	ug/l	3510/8270	10	10/14	10/15	GM
Benzo[g,h,i]perylene	BDL	ug/l	3510/8270	10	10/14	10/15	GM
Dilution Factor	1.0		3510/8270		10/14	10/15	GM
Surrogate Recoveries:							
2-Fluorophenol	40.0	%	3510/8270	21-110	10/14	10/15	GM
Phenol-d5	26.0	%	3510/8270	10-110	10/14	10/15	GM
Nitrobenzene-d5	54.0	%	3510/8270	35-114	10/14	10/15	GM
2-Fluorobiphenyl	53.0	%	3510/8270	43-116	10/14	10/15	GM
2,4,6-Tribromophenol	60.0	%	3510/8270	10-123	10/14	10/15	GM
Terphenyl-d14	78.0	%	3510/8270	33-141	10/14	10/15	GM
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/l	FLPRO	0.65	10/13	10/14	JS
Dilution Factor	1.0		FLPRO		10/13	10/14	JS
Surrogate Recoveries:							
o-Terphenyl	84.0	%	FLPRO	50-150	10/13	10/14	JS
EDB/DBCP							
EDB	BDL	ug/l	504.1	0.020	10/13	10/15	DM
DBCP	BDL	ug/l	504.1	0.020	10/13	10/15	DM
Dilution Factor	1.0		504.1		10/13	10/15	DM

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	RI CERT# 191	MA CERT# M-FL449

Respectfully submitted,
Rhonda Moll
Senior Project Manager

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Date: 10/17/97
Log #: L24630-11

Sample Description:

Mayport NAVSTA/ Fuel Farm
9970082

Label: Rinsate B
Date Sampled: 10/09/97
Time Sampled: 13:00
Date Received: 10/09/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Purgeable Halocarbons							
Bromodichloromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Bromoform	BDL	ug/l	601	1.0	10/14	10/14	MP
Bromomethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Carbon Tetrachloride	BDL	ug/l	601	1.0	10/14	10/14	MP
Chlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
Chloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
2-Chloroethylvinyl Ether	BDL	ug/l	601	50	10/14	10/14	MP
Chloroform	BDL	ug/l	601	1.0	10/14	10/14	MP
Chloromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Dibromochloromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,2-Dichlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,3-Dichlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,4-Dichlorobenzene	BDL	ug/l	601	1.0	10/14	10/14	MP
Dichlorodifluoromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1-Dichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,2-Dichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1-Dichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
Cis-1,2-Dichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
Trans-1,2-Dichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,2-Dichloropropane	BDL	ug/l	601	1.0	10/14	10/14	MP
Cis-1,3-Dichloropropene	BDL	ug/l	601	1.0	10/14	10/14	MP
Trans-1,3-Dichloropropen	BDL	ug/l	601	1.0	10/14	10/14	MP
Methylene Chloride	BDL	ug/l	601	5.0	10/14	10/14	MP
1,1,2,2-Tetrachloroethan	BDL	ug/l	601	1.0	10/14	10/14	MP
Tetrachloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1,1-Trichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
1,1,2-Trichloroethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Trichloroethene	BDL	ug/l	601	1.0	10/14	10/14	MP
Trichlorofluoromethane	BDL	ug/l	601	1.0	10/14	10/14	MP
Vinyl Chloride	BDL	ug/l	601	1.0	10/14	10/14	MP

Client #: MOB-97-020803
Address: Bhate Environmental
1608 13th Avenue South
Suite 300
Birmingham, AL 35205
Emmett Beers

Date: 10/17/97
Log #: L24630-11

Sample Description:

Mayport NAVSTA/ Fuel Farm
9970082

Label: Rinsate B
Date Sampled: 10/09/97
Time Sampled: 13:00
Date Received: 10/09/97
Collected By: Client

Parameter	Results	Units	Method	Reportable Limit	Extr. Date	Analysis Date	Analyst
Purgeable Halocarbons	(continued)						
Dilution Factor	1.0		601		10/14	10/14	MP
Surrogate Recoveries:							
Dibromofluoromethane	n/a	%	601	58-146	10/14	10/14	MP
Toluene-D8	n/a	%	601	76-119	10/14	10/14	MP
4-Bromofluorobenzene	n/a	%	601	76-130	10/14	10/14	MP
Petroleum Range Organics							
TPH(C8-C40)	BDL	mg/l	FLPRO	0.65	10/13	10/14	JS
Dilution Factor	1.0		FLPRO		10/13	10/14	JS
Surrogate Recoveries:							
o-Terphenyl	104	%	FLPRO	50-150	10/13	10/14	JS
Metals							
Lead	BDL	mg/l	3010/6010	0.0050	10/11	10/13	DM
General Chemistry							
Turbidity	4.4		180.1	0.10	10/10	10/10	RH
EDB/DBCP							
EDB	BDL	ug/l	504.1	0.020	10/13	10/15	DM
DBCP	BDL	ug/l	504.1	0.020	10/13	10/15	DM
Dilution Factor	1.0		504.1		10/13	10/15	DM

BDL = Below Detection Limits
* Compounds are Screened Only, with an estimated detection limit.
All analyses were performed using EPA, ASTM, USGS, or Standard Methods.
All analyses were performed within EPA holding times unless otherwise noted.
Analyses are reported in dry weight unless otherwise indicated by units.

QAP# 900376G	HRS# E86240,86356	NC CERT# 444
SUB HRS# 86122,86109,E86048	ADEM ID# 40850	ND CERT# R-148
SC CERT# 96031	TN CERT# 02985	CT CERT# PH-0122
ELPAT# 13801	CA CERT# I-1068	USACE CERT
VA CERT# 00395	RI CERT# 191	MA CERT# M-FL449

Respectfully submitted,
Rhonda Moll
Senior Project Manager

BHATE
Environmental Engineers and Scientists

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CHAIN-OF-CUSTODY

SHORT-HOLD L24630

NO.: 00001
Page: 1 of 2

PROJECT NO.: 9970082 | PROJECT NAME: MAYPORT NAVSTA / FUEL FARM
P.O. NO.: 33972283 | LAB DESTINATION: V.O.C LABORATORIES
SAMPLER(s) NAME: D. TRAPP / E. VICTOR
TITLE:

Lab Code – for Lab use only	Yr. / Date	Time	Comp	Grab	Sample No./ Sample Location	Matrix: SOIL	WATER	SOLID OTHER	NON-AQUEOUS LIQUID	CONTAINERS: No.	Volume	Type	TEST: METHOD: 601	TEST: METHOD: EDB	TEST: METHOD: TPH FLPRO	TEST: METHOD: LEAD 6010A	TEST: METHOD: TURBIDITY	8270	602	BTEX (MTBE)	REMARKS
	10/8/97	1500		✓	FF-MW-7		☑			8			3 ✓	2 ✓	1 ✓	1 ✓	1 ✓				
	10/8/97	1615		✓	FF-MW-6		☑			8			3 ✓	2 ✓	1 ✓	1 ✓	1 ✓				
	10/8/97	1700		✓	FF-MW-10		☑			8			3 ✓	2 ✓	1 ✓	1 ✓	1 ✓				
	10/8/97	1710		✓	FF-MW-3		☑			8			3 ✓	2 ✓	1 ✓	1 ✓	1 ✓				
	10/8/97	1840		✓	FF-MW-4		☑			8			3 ✓	2 ✓	1 ✓	1 ✓	1 ✓				
	10/9/97	0830		✓	FF-MW-9		☑			6			3 ✓	2 ✓	1 ✓						
	10/9/97	0900 ~~1000~~		✓	~~Rinsate~~ ~~FF-Mobile~~ A		☑			6			3 ✓	2 ✓	1 ✓	NO ✓		✓	✓		
	10/9/97	1045		✓	MPT-16-MW03S		☑			6			3 ✓	2 ✓	1 ✓						
	10/9/97	1115		✓	MPT-16-MW01I		☑			6			3 ✓	2 ✓	1 ✓						
	10/9/97	1200		✓	FF-MW-1		☑			6			3 ✓	2 ✓	1 ✓						

Preserved (Code): E Y | A Y | A Y | B Y | A Y
Iced (yes/no)

Code: A – None; ~~B~~ – ~~HNO3~~; C – H_2SO_4; D – NaOH; E – HCl; F –

Relinquished by: (Signature):	Date:	Time:	Received by: (Signature):	Date:	Time:
E. VICTOR / G. BROOKINS	10/9/97	4:16p		10/9/97	1616
	10/9	1700		10/9	1700
			Received for Laboratory by: (Signature):	10/10/97	0950

LAB COMMENTS

REMARKS ON SAMPLE RECEIVED BY LAB:		SAMPLE SHIPPING METHOD		SAMPLE CONTAINER TYPE
Bottle Intact:	☐	Hand Delivery	☐	P = Plastic
Preserved:	☐	Air (specify)	☐	G = Glass
Chilled:	☐	Other (specify)	☐	GA = Glass Amber
Other:	☐			

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CHAIN-OF-CUSTODY

NO.: 00001
Page: 2 of 2

L24630

PROJECT NO.: 9970082 | PROJECT NAME: MAYPORT NAVSTA / FUEL FARM
P.O. NO.: 33972283 | LAB DESTINATION: V.O.C. LABORATORIES
SAMPLER(s) NAME: D. TRAPP / E. VICTOR
TITLE:

CONTAINERS

Lab Code – for Lab use only	Yr. / Date	Time	Comp	Grab	Sample No./ Sample Location	SOIL	WATER	SOLID	OTHER / NON-AQUEOUS LIQUID	No.	Volume	Type	TEST: PAH METHOD: 8270	TEST: 602 METHOD: BTEX/MTBE	TEST: 601 METHOD: EDB	TEST: TPH METHOD: FL PRO	Lead	Turbidity	REMARKS
	10/9/97	1300			RINSATE A B		☑			8					3 ✓	2 ✓	1 ✓	1 ✓	1 ✓	
	10/9/97	1230			FFMW-5		☑			8					3 ✓	2 ✓	1 ✓	1 ✓	1 ✓	
	10/9/97	1330			FF-MW-8		☑			8					3 ✓	2 ✓	1 ✓	1 ✓	1 ✓	
	10/9/97	1430			FF-MW-2		☑			8			ND	ND	3 ✓	2 ✓	1 ✓	1 ✓	1 ✓	
	10/6/97	1000			MPT-16-MW02S		☑			9			1 ✓	3 ✓	3 ✓	2 ✓	1 ✓	1 ✓	1 ✓	
	10/9/97				TRIP A		☑			1				✓						
	10/9/97				TRIP B		☑			1				✓						
	10/9/97				TRIP C		☑			1	EPA			✓						

Preserved (Code): A Y | E Y | E Y | A Y | A Y | B Y | A Y
Iced (yes/no)

A – None
B – HNO3
C – H_2SO_4
D – NaOH
E – HCl
F –

Relinquished by: (Signature):	Date:	Time:	Received by: (Signature):	Date:	Time:
ENCTR / G.B Robbins	10/9/97	4:10p		10/9/97	1610
	10/9/97	1700		10/9/97	1700
			Received for Laboratory by: (Signature):	10/10/97	0950

LAB COMMENTS

REMARKS ON SAMPLE RECEIVED BY LAB:		SAMPLE SHIPPING METHOD		SAMPLE CONTAINER TYPE
Bottle Intact:	☐	Hand Delivery	☐	P = Plastic
Preserved:	☐	Air (specify)	☐	G = Glass
Chilled:	☐	Other (specify)	☐	GA = Glass Amber
Other:	☐			

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(205) 918-4000 (FAX) (205) 918-4050

CHAIN-OF-CUSTODY

NO.: 00001
Page: 1 of 1

VOC LOG# L24705

PROJECT NO.: 9970082 | PROJECT NAME: MAYPORT NAVSTA / FUEL FARM
P.O. NO.: 33972283 | LAB DESTINATION: V.O.C. LABORATORIES
SAMPLER(s) NAME: D. TRAPP / E. VICTOR
TITLE:

Lab Code – for Lab use only	Yr. 97 Date	Time	Comp	Grab	Sample No./ Sample Location	Matrix: SOIL	WATER	SOLID OTHER	NON-AQUEOUS LIQUID	CONTAINERS: No.	Volume	Type	TEST: METHOD:	TEST: METHOD: EDB	TEST: METHOD: TPH FL.PID	TEST: METHOD: LEAD 6010A	TEST: METHOD: TPH 8015 GC	REMARKS
	10/10	1200		X	MPT-9-01S		X			6				2 ✓	1 ✓		3 ✓	
	10/10	1100		X	MPT-~~9~~ 9DT -03		X			6				2 ✓	1 ✓		3 ✓	

Preserved (Code): A A E
Iced (yes/no): Y Y Y

Code: A – None; B – HNO3; C – H_2SO_4; D – NaOH; E – HCl; F –

Relinquished by: (Signature):	Date:	Time:	Received by: (Signature):	Date:	Time:
E. VICTOR / G.B. Robbins	10/10/97	1322		10/10/97	1330
	10/10/97	1700		10/10/97	1700
			Received for Laboratory by: (Signature):	10/11/97	1600

LAB COMMENTS

REMARKS ON SAMPLE RECEIVED BY LAB:		SAMPLE SHIPPING METHOD		SAMPLE CONTAINER TYPE
Bottle Intact:	☐	Hand Delivery	☐	P = Plastic
Preserved:	☐	Air (specify)	☐	G = Glass
Chilled:	☐	Other (specify)	☐	GA = Glass Amber
Other:	☐			

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HYDROCON - 1.2
HYDRAULIC CONDUCTIVITY
Bouwer and Rice Method

Well: MW-2

PROJECT NAME: NAVSTA Mayport - Fuel Farm MW-2 USER NAME: cvc
PROJECT NUMBER: 9970058 DATE: 07-28-1997
FIELD WORK DATE(S):

Rw - BORING RADIUS (IN): 5.2 Rc - WELL RADIUS (IN): 1
L - SCREEN LENGTH (FT): 9.5 D - AQUIFER THICKNESS (FT)
HT - SCREEN BASE TO WATER TABLE (FT): 4.07 STATIC WATER LEVEL (FT):
START TIME (H,M,S): 0,0,0

Rc was corrected for response in well screen filter material to 2.969 i

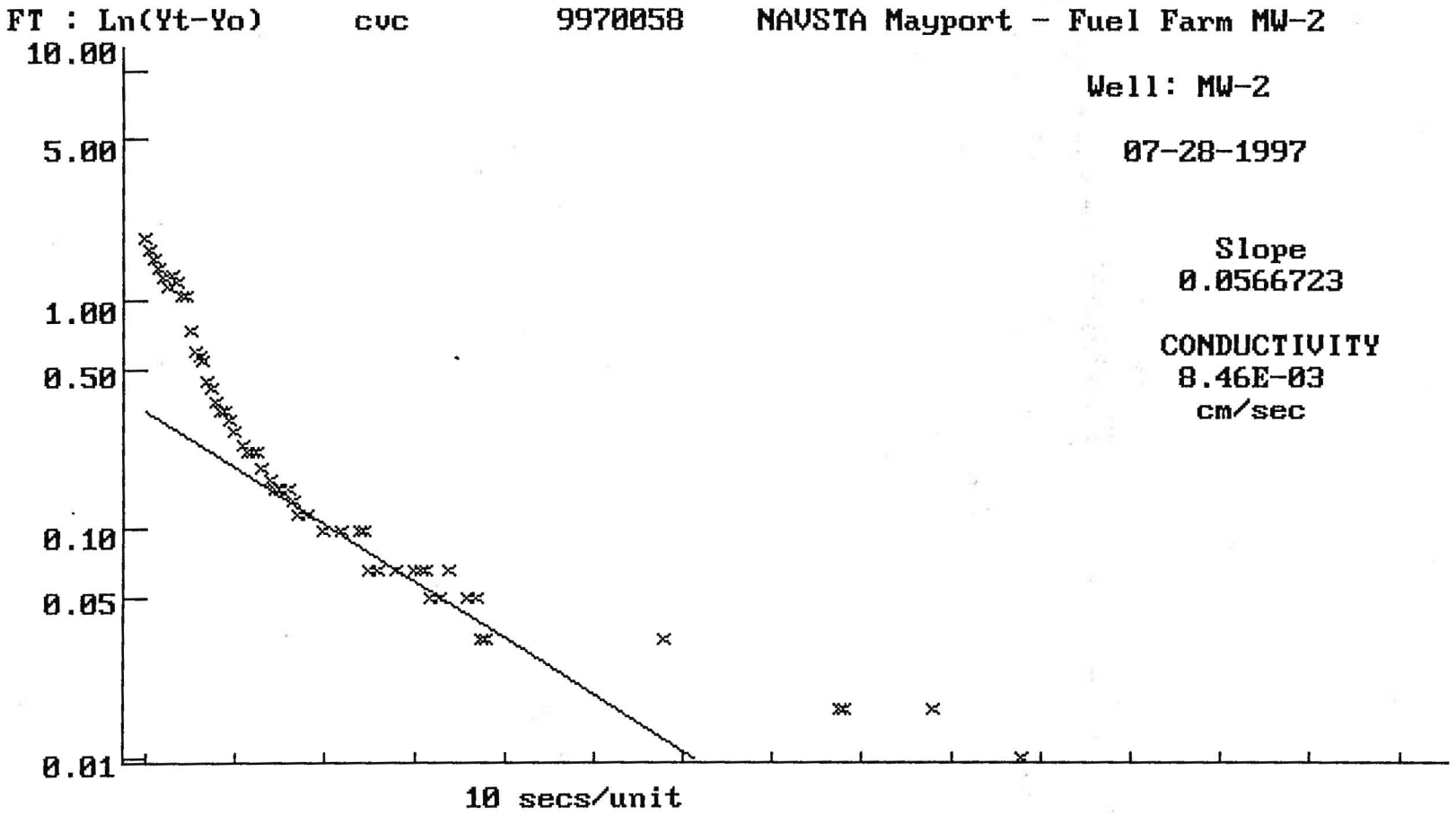
---

TIME (H,M,S)	DEPTH (FT)	TIME (H,M,S)	DEPTH (FT)
0,0,0	14.2232	0,0,16.5	12.5012
0,0,.5	14.0264	0,0,17	12.4848
0,0,1	13.8624	0,0,18	12.4848
0,0,1.5	13.7476	0,0,20	12.4684
0,0,2	13.6328	0,0,22	12.4684
0,0,2.5	13.5016	0,0,24	12.4684
0,0,3	13.6492	0,0,24.5	12.4684
0,0,3.5	13.5672	0,0,25	12.4356
0,0,4	13.4196	0,0,26	12.4356
0,0,4.5	13.4032	0,0,28	12.4356
0,0,5	13.108	0,0,30	12.4356
0,0,5.5	12.9604	0,0,31	12.4356
0,0,6	12.944	0,0,31.5	12.4356
0,0,6.5	12.9112	0,0,32	12.4192
0,0,7	12.8128	0,0,33	12.4192
0,0,7.5	12.78	0,0,34	12.4356
0,0,8	12.7308	0,0,36	12.4192
0,0,8.5	12.698	0,0,37	12.4192
0,0,9	12.698	0,0,37.5	12.4028
0,0,9.5	12.6652	0,0,38	12.4028
0,0,10	12.6324	0,0,58	12.4028
0,0,11	12.5996	0,1,17.5	12.3864
0,0,11.5	12.5832	0,1,18	12.3864
0,0,12	12.5832	0,1,28	12.3864
0,0,12.5	12.5832	0,1,38	12.37
0,0,13	12.5504		
0,0,14	12.534		
0,0,14.5	12.5176		
0,0,15	12.5176		
0,0,16	12.5176		

(1/t) (ln(Yo/Yt))= 0.0566723

PARTIALLY PENETRATING: A= 2.26 B= 0.36

HYDRAULIC CONDUCTIVITY: 2.78E-04 ft/sec
8.46E-03 cm/sec


FT : Ln(Yt-Yo)
cvc
9970058
NAVSTA Mayport - Fuel Farm MW-2
Well: MW-2
07-28-1997
Slope
0.0566723
CONDUCTIVITY
8.46E-03
cm/sec
10.00
5.00
1.00
0.50
0.10
0.05
0.01
10 secs/unit

HYDROCON - 1.2
HYDRAULIC CONDUCTIVITY
Bouwer and Rice Method

Well: MW-5

PROJECT NAME: NAVSTA Mayport - Fuel Farm MW-5 USER NAME: cvc
PROJECT NUMBER: 9970058 DATE: 07-28-1997
FIELD WORK DATE(S):

Rw - BORING RADIUS (IN): 5.07 Rc - WELL RADIUS (IN): 1
L - SCREEN LENGTH (FT): 9.5 D - AQUIFER THICKNESS (FT)
HT - SCREEN BASE TO WATER TABLE (FT): 4.14 STATIC WATER LEVEL (FT):
START TIME (H,M,S): 0,0,0

Rc was corrected for response in well screen filter material to 2.900 i

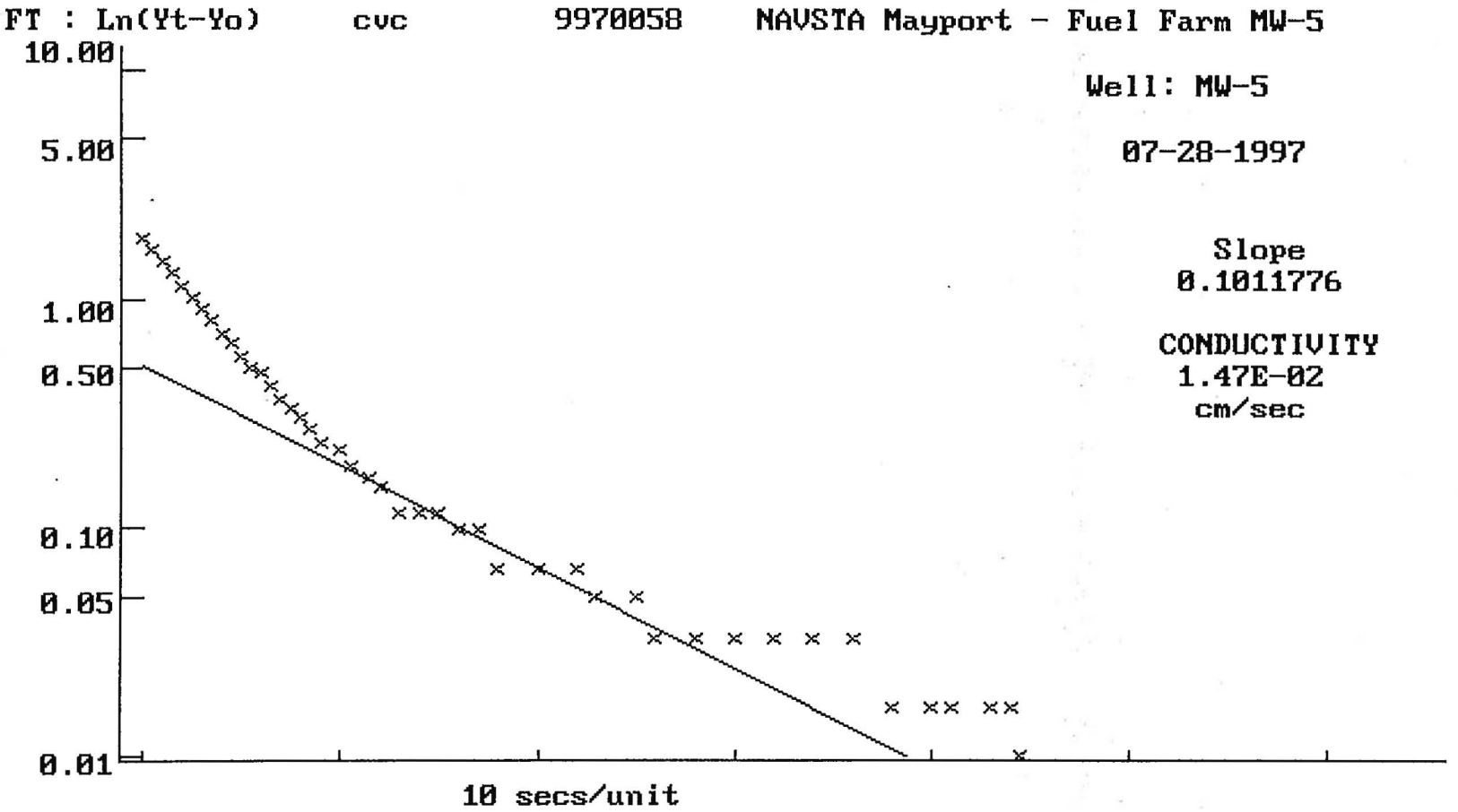
---

TIME (H,M,S)	DEPTH (FT)	TIME (H,M,S)	DEPTH (FT)
0,0,0	11.8232	0,0,22	10.0356
0,0,.5	11.6264	0,0,23	10.0192
0,0,1	11.4296	0,0,25	10.0192
0,0,1.5	11.282	0,0,26	10.0028
0,0,2	11.118	0,0,28	10.0028
0,0,2.5	10.9868	0,0,30	10.0028
0,0,3	10.872	0,0,32	10.0028
0,0,3.5	10.7736	0,0,34	10.0028
0,0,4	10.6752	0,0,36	10.0028
0,0,4.5	10.6096	0,0,38	9.9864
0,0,5	10.5276	0,0,40	9.9864
0,0,5.5	10.462	0,0,41	9.9864
0,0,6	10.4456	0,0,43	9.9864
0,0,6.5	10.38	0,0,44	9.9864
0,0,7	10.3308	0,0,44.5	9.97
0,0,7.5	10.298		
0,0,8	10.2652		
0,0,8.5	10.2324		
0,0,9	10.1996		
0,0,10	10.1832		
0,0,10.5	10.1504		
0,0,11.5	10.134		
0,0,12	10.1176		
0,0,13	10.0848		
0,0,14	10.0848		
0,0,15	10.0848		
0,0,16	10.0684		
0,0,17	10.0684		
0,0,18	10.0356		
0,0,20	10.0356		

(1/t) (ln(Yo/Yt))= 0.1011776

PARTIALLY PENETRATING: A= 2.27 B= 0.36

HYDRAULIC CONDUCTIVITY: 4.82E-04 ft/sec
1.47E-02 cm/sec


FT : Ln(Yt-Yo)
cvc
9970058
NAVSTA Mayport - Fuel Farm MW-5
Well: MW-5
07-28-1997
Slope
0.1011776
CONDUCTIVITY
1.47E-02
cm/sec
10.00
5.00
1.00
0.50
0.10
0.05
0.01
10 secs/unit

HYDROCON - 1.2
HYDRAULIC CONDUCTIVITY
Bouwer and Rice Method

Well: MW-3

PROJECT NAME: NAVSTA Mayport - UST 245
PROJECT NUMBER: 9970058
FIELD WORK DATE(S): 06-14-1997

USER NAME: cvc
DATE: 07-24-1997

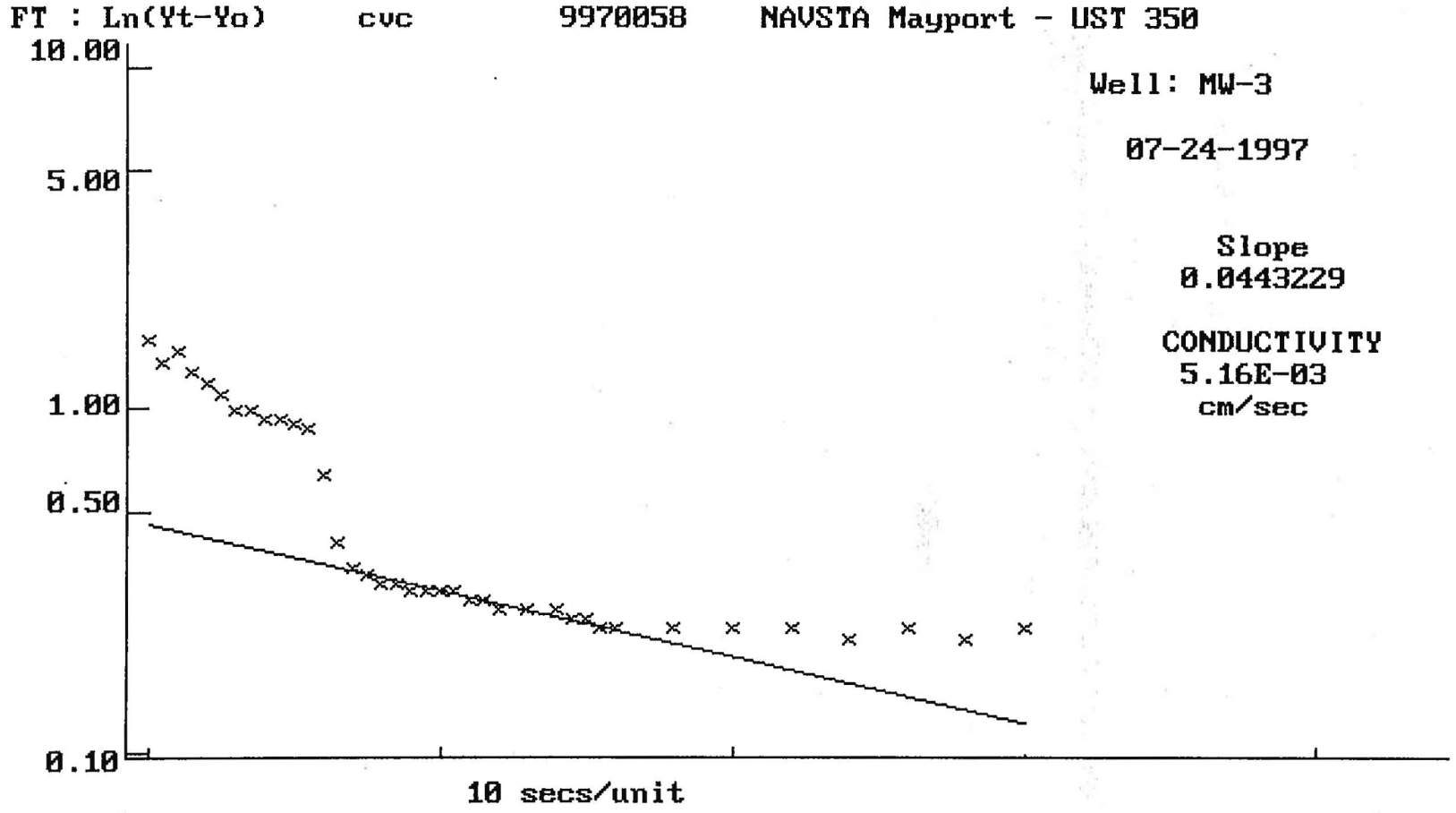
Rw - BORING RADIUS (IN): 4.88
L - SCREEN LENGTH (FT): 9.5
HT - SCREEN BASE TO WATER TABLE (FT): 8.44
START TIME (H,M,S): 0,0,0

Rc - WELL RADIUS (IN): 1
D - AQUIFER THICKNESS (FT)
STATIC WATER LEVEL (FT):

Rc was corrected for response in well screen filter material to 2.801 i

---

TIME (H,M,S)	DEPTH (FT)
0,0,0	5.6004
0,0,.5	5.3544
0,0,1	5.0592
0,0,1.5	4.8296
0,0,2	4.6328
0,0,2.5	4.4852
0,0,3	4.354
0,0,3.5	4.272
0,0,4	4.2228
0,0,4.5	4.1572
0,0,5	4.0916
0,0,5.5	4.0588
0,0,6	4.026
0,0,6.5	4.0096
0,0,7	3.9604
0,0,7.5	3.9604
0,0,8	3.944
0,0,8.5	3.9276
0,0,9	3.9112
0,0,9.5	3.8948
0,0,10	3.8948
0,0,10.5	3.8948
0,0,11	3.8948
0,0,12	3.8784
0,0,12.5	3.862
0,0,13	3.862
0,0,14	3.862
0,0,15	3.862
0,0,15.5	3.8292
0,0,16	3.8292
0,0,18	3.8292
0,0,20	3.8292
0,0,22	3.8292
0,0,24	3.8292
0,0,24.5	3.8292
0,0,25	3.8128
0,0,28	3.8128
0,0,30	3.8128


FT : Ln(Yt-Yo)
cvc
9970058
NAVSTA Mayport - UST 350
Well: MW-3
07-24-1997
Slope
0.0443229
CONDUCTIVITY
5.16E-03
cm/sec
10.00
5.00
1.00
0.50
0.10
10 secs/unit

(1/t) (ln(Yo/Yt))= 0.0443229

PARTIALLY PENETRATING: A= 2.51 B= 0.40

HYDRAULIC CONDUCTIVITY: 1.69E-04 ft/sec
5.16E-03 cm/sec

HYDROCON - 1.2
HYDRAULIC CONDUCTIVITY
Bouwer and Rice Method

Well: MW-3

PROJECT NAME: NAVSTA Mayport - UST 350
PROJECT NUMBER: 9970058
FIELD WORK DATE(S): 06-14-1997

USER NAME: cvc
DATE: 07-24-1997

Rw - BORING RADIUS (IN): 3.72
L - SCREEN LENGTH (FT): 9.5
HT - SCREEN BASE TO WATER TABLE (FT): 8.7
START TIME (H,M,S): 0,0,0

Rc - WELL RADIUS (IN): 1
D - AQUIFER THICKNESS (FT)
STATIC WATER LEVEL (FT):

Rc was corrected for response in well screen filter material to 2.203 i

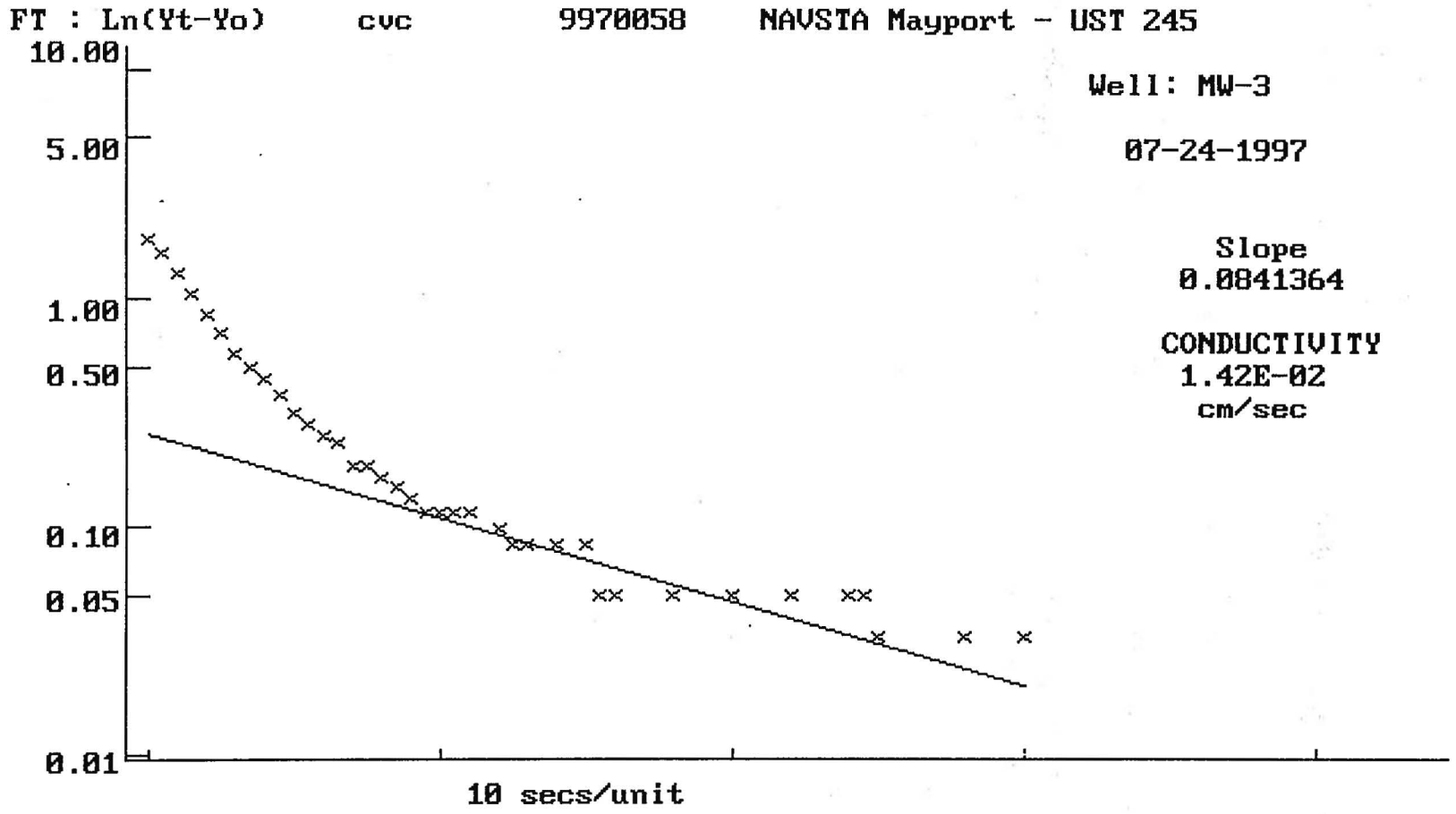
---

TIME (H,M,S)	DEPTH (FT)
0,0,0	6.4472
0,0,.5	6.2012
0,0,1	6.316
0,0,1.5	6.1192
0,0,2	6.0372
0,0,2.5	5.9388
0,0,3	5.824
0,0,3.5	5.824
0,0,4	5.7748
0,0,4.5	5.7748
0,0,5	5.742
0,0,5.5	5.7092
0,0,6	5.4796
0,0,6.5	5.25
0,0,7	5.1844
0,0,7.5	5.168
0,0,8	5.1516
0,0,8.5	5.1516
0,0,9	5.1352
0,0,9.5	5.1352
0,0,10	5.1352
0,0,10.5	5.1352
0,0,11	5.1188
0,0,11.5	5.1188
0,0,12	5.1024
0,0,13	5.1024
0,0,14	5.1024
0,0,14.5	5.086
0,0,15	5.086
0,0,15.5	5.0696
0,0,16	5.0696
0,0,18	5.0696
0,0,20	5.0696
0,0,22	5.0696
0,0,24	5.0532
0,0,26	5.0696
0,0,28	5.0532
0,0,30	5.0696

(1/t) (ln(Yo/Yt))= 0.0841364

PARTIALLY PENETRATING: A= 2.30 B= 0.36

HYDRAULIC CONDUCTIVITY: 4.65E-04 ft/sec
1.42E-02 cm/sec


FT : Ln(Yt-Yo)
cvc
9970058
NAVSTA Mayport - UST 245
Well: MW-3
07-24-1997
Slope
0.0841364
CONDUCTIVITY
1.42E-02
cm/sec
10.00
5.00
1.00
0.50
0.10
0.05
0.01
10 secs/unit

HYDROCON - 1.2
HYDRAULIC CONDUCTIVITY
Bouwer and Rice Method

Well: MW-3

PROJECT NAME: NAVSTA Mayport - UST 353
PROJECT NUMBER: 3970058
FIELD WORK DATE(S): 06-17-1997

USER NAME: cvc
DATE: 07-24-1997

Rw - BORING RADIUS (IN): 5.94
L - SCREEN LENGTH (FT): 9.5
HT - SCREEN BASE TO WATER TABLE (FT): 8.96
START TIME (H,M,S): 0,0,0

Rc - WELL RADIUS (IN): 1
D - AQUIFER THICKNESS (FT)
STATIC WATER LEVEL (FT):

Rc was corrected for response in well screen filter material to 3.359 i

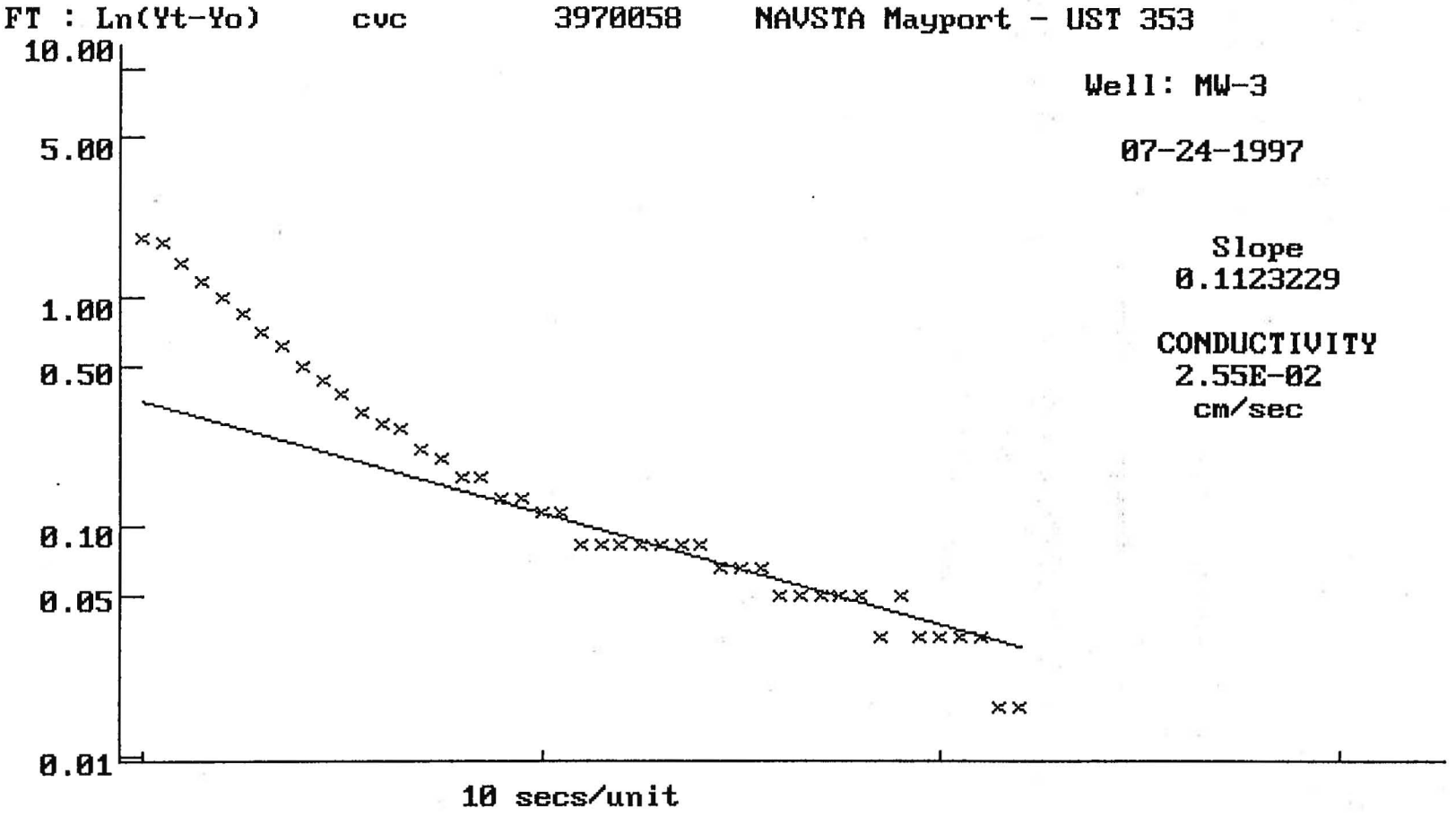
---

TIME (H,M,S)	DEPTH (FT)	TIME (H,M,S)	DEPTH (FT)
0,0,0	4.6404	0,0,15	2.8856
0,0,.5	4.542	0,0,15.5	2.8856
0,0,1	4.2304	0,0,16	2.8692
0,0,1.5	4.0008	0,0,16.5	2.8692
0,0,2	3.804	0,0,17	2.8692
0,0,2.5	3.6564	0,0,17.5	2.8692
0,0,3	3.5252	0,0,18	2.8692
0,0,3.5	3.4268	0,0,18.5	2.8528
0,0,4	3.312	0,0,19	2.8692
0,0,4.5	3.2464	0,0,19.5	2.8528
0,0,5	3.1972	0,0,20	2.8528
0,0,5.5	3.1316	0,0,20.5	2.8528
0,0,6	3.0988	0,0,21	2.8528
0,0,6.5	3.0824	0,0,21.5	2.8364
0,0,7	3.0332	0,0,22	2.8364
0,0,7.5	3.0168		
0,0,8	2.984		
0,0,8.5	2.984		
0,0,9	2.9512		
0,0,9.5	2.9512		
0,0,10	2.9348		
0,0,10.5	2.9348		
0,0,11	2.902		
0,0,11.5	2.902		
0,0,12	2.902		
0,0,12.5	2.902		
0,0,13	2.902		
0,0,13.5	2.902		
0,0,14	2.902		
0,0,14.5	2.8856		

(1/t) (ln(Yo/Yt))= 0.1123229

PARTIALLY PENETRATING: A= 2.17 B= 0.34

HYDRAULIC CONDUCTIVITY: 8.35E-04 ft/sec
2.55E-02 cm/sec


FT : Ln(Yt-Yo)
cvc
3970058
NAVSTA Mayport - UST 353
Well: MW-3
07-24-1997
Slope
0.1123229
CONDUCTIVITY
2.55E-02
cm/sec
10.00
5.00
1.00
0.50
0.10
0.05
0.01
10 secs/unit

HYDROCON - 1.2
HYDRAULIC CONDUCTIVITY
Bouwer and Rice Method

Well: MW-3

PROJECT NAME: NAVSTA Mayport - UST 365
PROJECT NUMBER: 9970058
FIELD WORK DATE(S): 06-14-1997

USER NAME: cvc
DATE: 07-28-1997

Rw - BORING RADIUS (IN): 5.02
L - SCREEN LENGTH (FT): 9.5
HT - SCREEN BASE TO WATER TABLE (FT): 9.63
START TIME (H,M,S): 0,0,0

Rc - WELL RADIUS (IN): 1
D - AQUIFER THICKNESS (FT)
STATIC WATER LEVEL (FT):

Rc was corrected for response in well screen filter material to 2.874 i

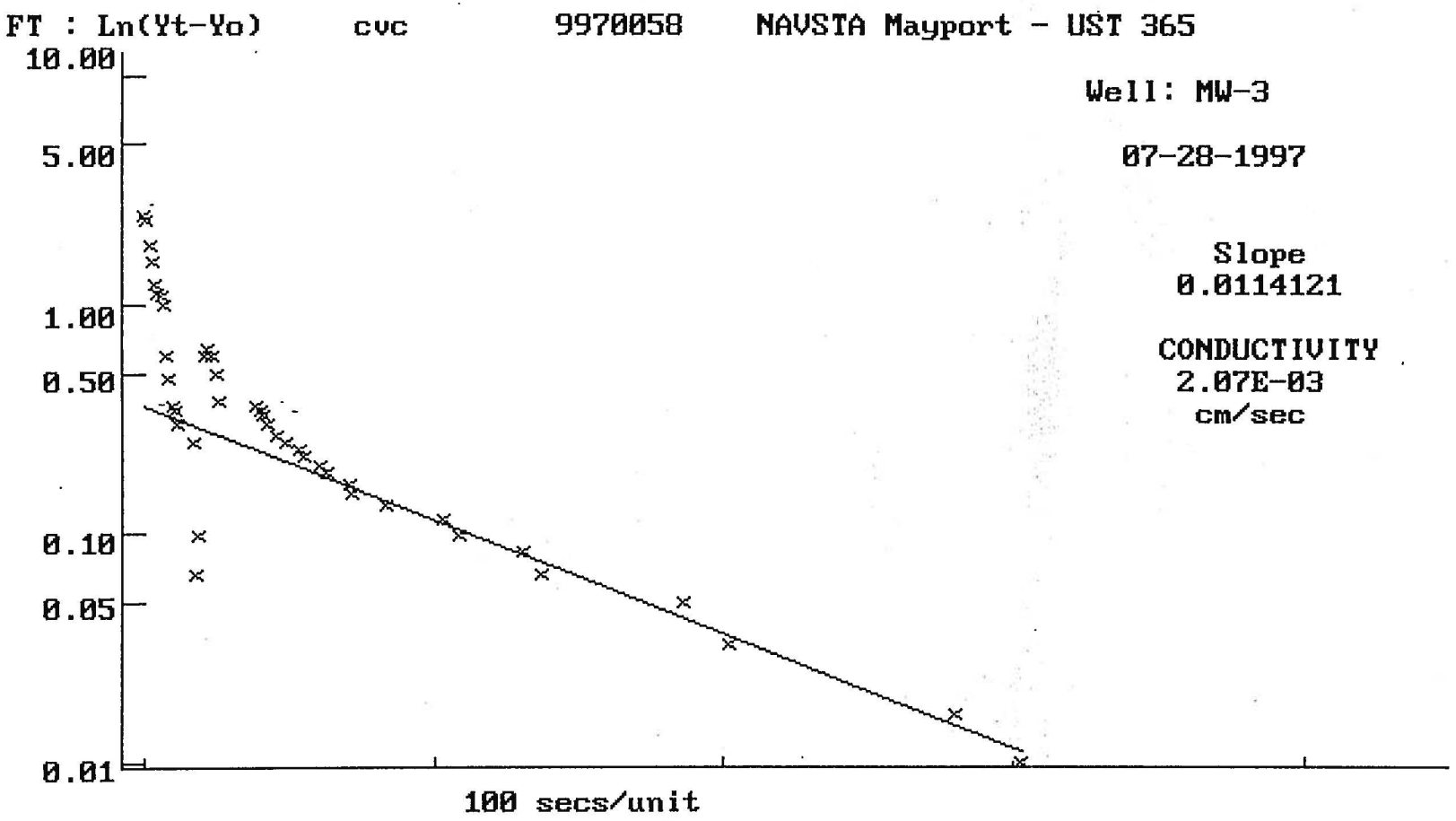
---

TIME (H,M,S)	DEPTH (FT)	TIME (H,M,S)	DEPTH (FT)
0,0,0	5.8464	0,1,3	3.5504
0,0,1	5.7316	0,1,11	3.534
0,0,2	5.174	0,1,12	3.5176
0,0,3	4.9116	0,1,24	3.5012
0,0,4	4.6	0,1,43	3.4848
0,0,5	4.4852	0,1,49	3.4684
0,0,6	4.4524	0,2,11	3.452
0,0,7	4.3704	0,2,17	3.4356
0,0,8	3.9604	0,3,6	3.4192
0,0,9	3.8456	0,3,22	3.4028
0,0,10	3.7308	0,4,40	3.3864
0,0,11	3.7144	0,5,3	3.37
0,0,12	3.6652		
0,0,17	3.616		
0,0,18	3.4356		
0,0,19	3.4684		
0,0,21	3.9604		
0,0,22	4.0096		
0,0,24	3.9604		
0,0,25	3.862		
0,0,26	3.7472		
0,0,39	3.7308		
0,0,40	3.7144		
0,0,41	3.698		
0,0,43	3.6652		
0,0,46	3.6324		
0,0,49	3.616		
0,0,54	3.5996		
0,0,55	3.5832		
0,1,1	3.5668		

(1/t) (ln(Yo/Yt))= 0.0114121

PARTIALLY PENETRATING: A= 2.28 B= 0.36

HYDRAULIC CONDUCTIVITY: 6.78E-05 ft/sec
2.07E-03 cm/sec


FT : Ln(Yt-Yo)
cvc
9970058
NAVSTA Mayport - UST 365
Well: MW-3
07-28-1997
Slope
0.0114121
CONDUCTIVITY
2.07E-03
cm/sec
10.00
5.00
1.00
0.50
0.10
0.05
0.01
100 secs/unit

HYDROCON - 1.2
HYDRAULIC CONDUCTIVITY
Bouwer and Rice Method

Well: MW-3

PROJECT NAME: NAVSTA Mayport - UST 1326 USER NAME: cvc
PROJECT NUMBER: 9970058 DATE: 07-24-1997
FIELD WORK DATE(S): 06-18-1997

Rw - BORING RADIUS (IN): 4.28 Rc - WELL RADIUS (IN): 1
L - SCREEN LENGTH (FT): 9.5 D - AQUIFER THICKNESS (FT)
HT - SCREEN BASE TO WATER TABLE (FT): 10.34 STATIC WATER LEVEL (FT):
START TIME (H,M,S): 0,0,0

Rc was corrected for response in well screen filter material to 2.489 i

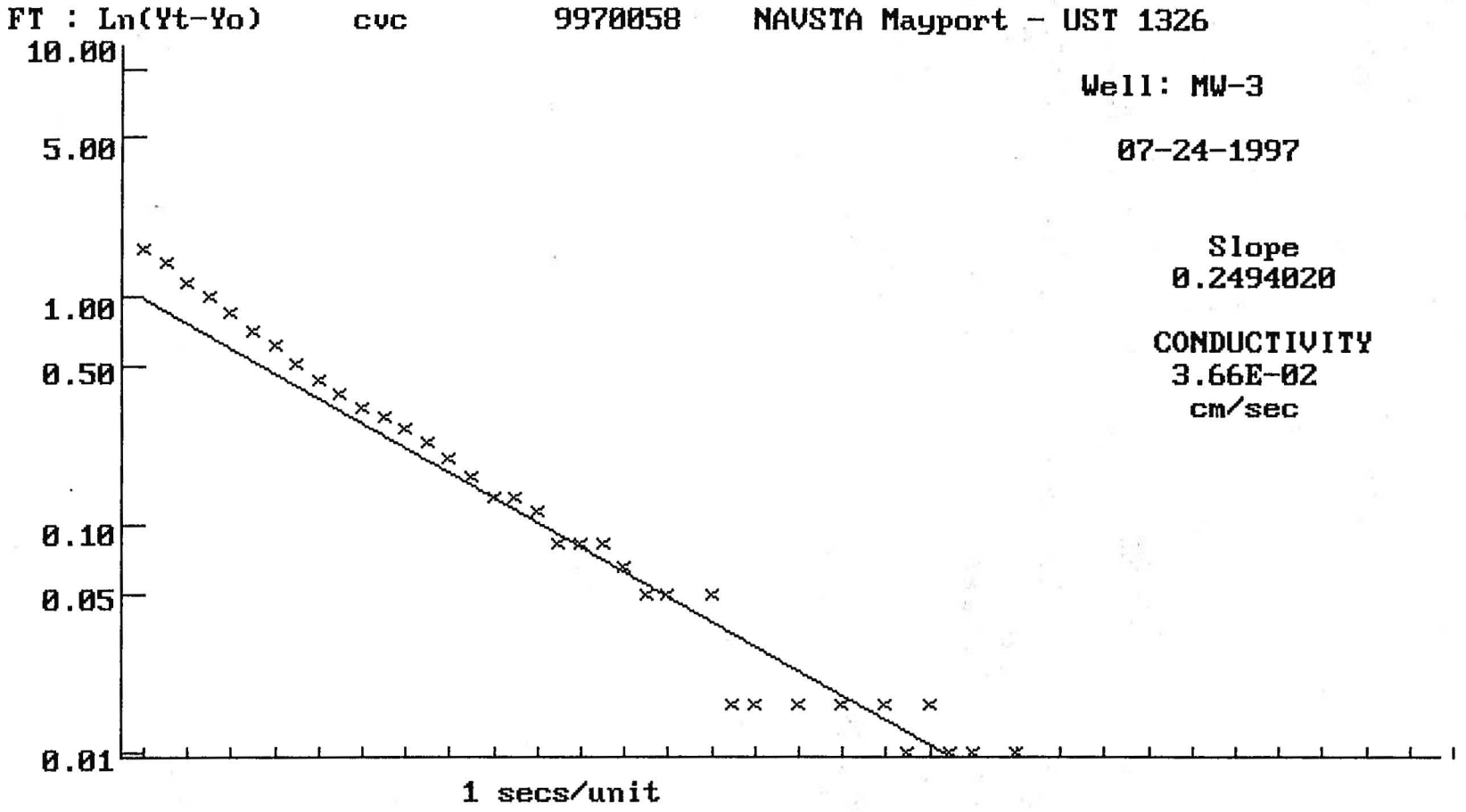
---

TIME (H,M,S)	DEPTH (FT)	TIME (H,M,S)	DEPTH (FT)
0,0,0	3.6136	0,0,17	2.0064
0,0,.5	3.384	0,0,17.5	1.99
0,0,1	3.138	0,0,18	2.0064
0,0,1.5	2.974	0,0,18.5	1.99
0,0,2	2.8264	0,0,19	1.99
0,0,2.5	2.6952	0,0,20	1.99
0,0,3	2.5968		
0,0,3.5	2.4984		
0,0,4	2.4164		
0,0,4.5	2.3672		
0,0,5	2.318		
0,0,5.5	2.2852		
0,0,6	2.2524		
0,0,6.5	2.2196		
0,0,7	2.1868		
0,0,7.5	2.154		
0,0,8	2.1212		
0,0,8.5	2.1212		
0,0,9	2.1048		
0,0,9.5	2.072		
0,0,10	2.072		
0,0,10.5	2.072		
0,0,11	2.0556		
0,0,11.5	2.0392		
0,0,12	2.0392		
0,0,13	2.0392		
0,0,13.5	2.0064		
0,0,14	2.0064		
0,0,15	2.0064		
0,0,16	2.0064		

(1/t) (ln(Yo/Yt))= 0.2494020

PARTIALLY PENETRATING: A= 2.40 B= 0.38

HYDRAULIC CONDUCTIVITY: 1.20E-03 ft/sec
3.66E-02 cm/sec

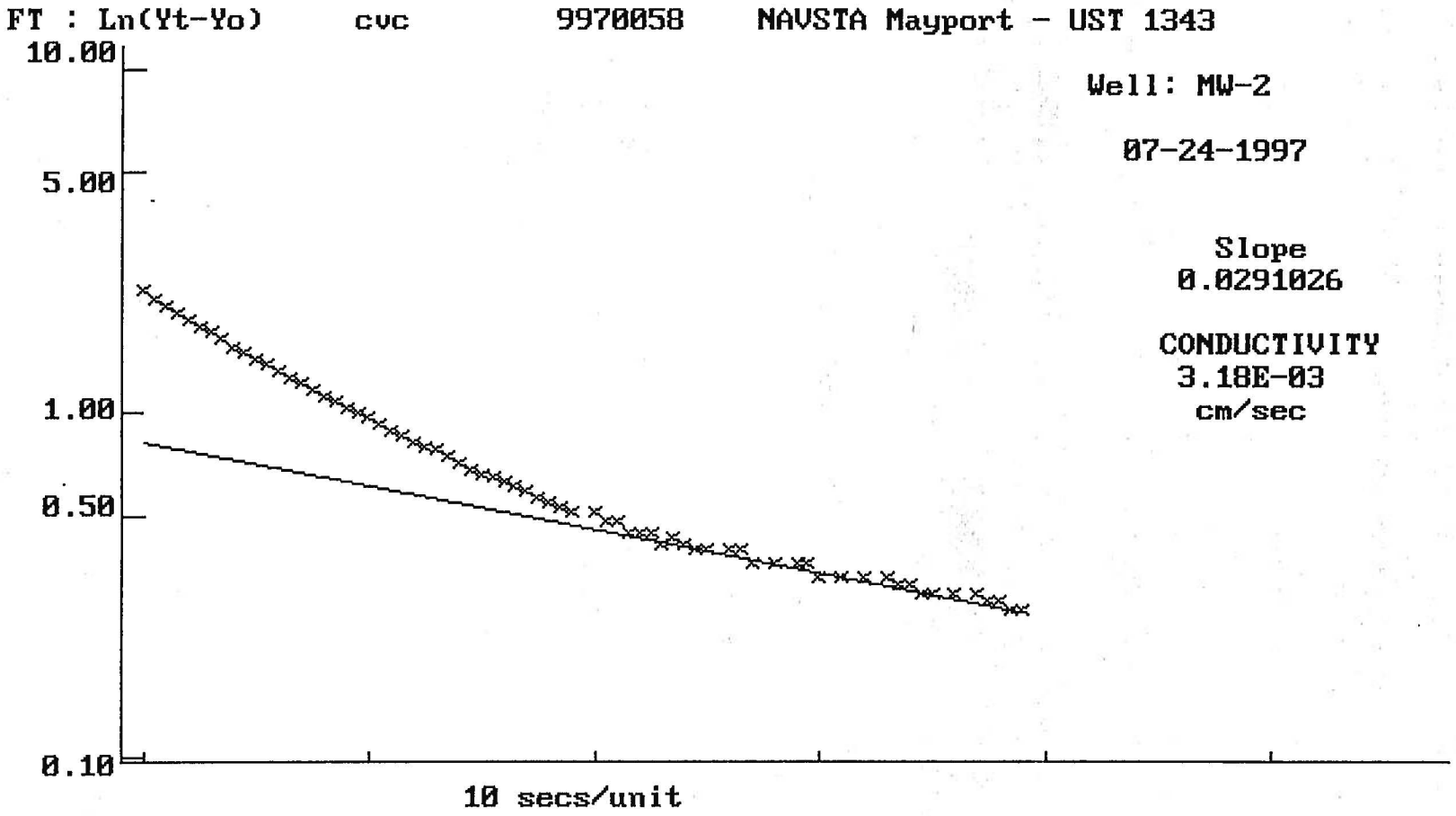

FT : Ln(Yt-Yo)
cvc
9970058
NAVSTA Mayport - UST 1326
Well: MW-3
07-24-1997
Slope
0.2494020
CONDUCTIVITY
3.66E-02
cm/sec
10.00
5.00
1.00
0.50
0.10
0.05
0.01
1 secs/unit

TIME (H,M,S)	DEPTH (FT)
0,0,33.5	4.4688
0,0,34	4.4688
0,0,34.5	4.4524
0,0,35	4.4524
0,0,36	4.4524
0,0,37	4.4524
0,0,37.5	4.436
0,0,38	4.436
0,0,38.5	4.4196
0,0,39	4.4196

(1/t) (ln(Yo/Yt))= 0.0291026

PARTIALLY PENETRATING: A= 2.55 B= 0.42

HYDRAULIC CONDUCTIVITY: 1.04E-04 ft/sec
3.18E-03 cm/sec


FT : Ln(Yt-Yo)
cvc
9970058
NAVSTA Mayport - UST 1343
Well: MW-2
07-24-1997
Slope
0.0291026
CONDUCTIVITY
3.18E-03
cm/sec
10.00
5.00
1.00
0.50
0.10
10 secs/unit

HYDROCON - 1.2
HYDRAULIC CONDUCTIVITY
Bouwer and Rice Method

Well: MW-3

PROJECT NAME: NAVSTA Mayport - UST 1363
PROJECT NUMBER: 9970058
FIELD WORK DATE(S): 07-18-1997

USER NAME: cvc
DATE: 07-22-1997

Rw - BORING RADIUS (IN): 4.55
L - SCREEN LENGTH (FT): 9.5
HT - SCREEN BASE TO WATER TABLE (FT): 10.03
START TIME (H,M,S): 0,0,0

Rc - WELL RADIUS (IN): 1
D - AQUIFER THICKNESS (FT)
STATIC WATER LEVEL (FT):

Rc was corrected for response in well screen filter material to 2.629 i

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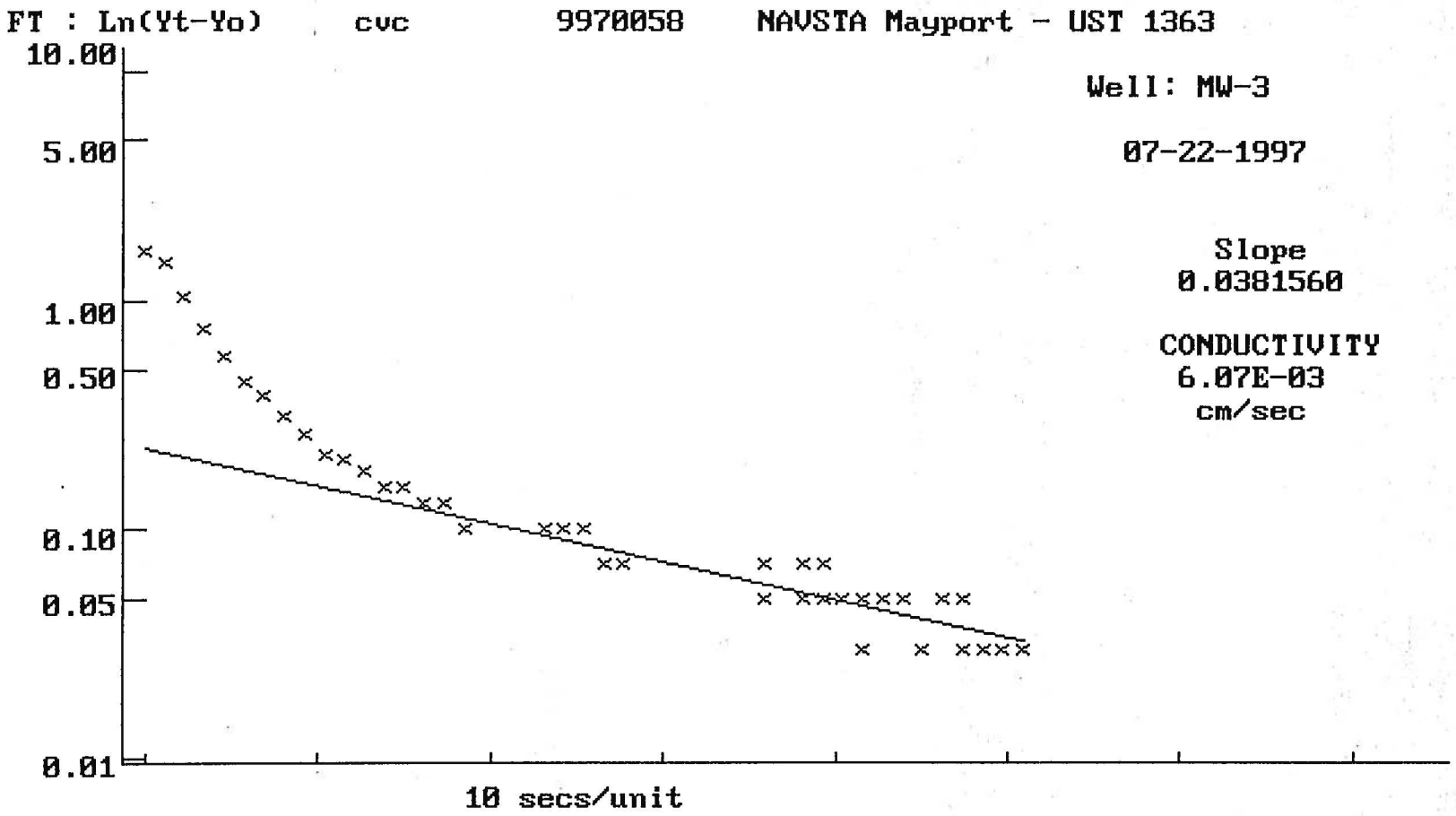
TIME (H,M,S)	DEPTH (FT)
0,0,0	4.91
0,0,1.16	4.72
0,0,2.32	4.29
0,0,3.48	3.99
0,0,4.63	3.81
0,0,5.79	3.68
0,0,6.94	3.62
0,0,8.11	3.55
0,0,9.26	3.5
0,0,10.42	3.45
0,0,11.58	3.44
0,0,12.73	3.42
0,0,13.89	3.39
0,0,15.05	3.39
0,0,16.21	3.37
0,0,17.36	3.37
0,0,18.52	3.34
0,0,23.15	3.34
0,0,24.31	3.34
0,0,25.46	3.34
0,0,26.63	3.31
0,0,27.78	3.31
0,0,35.88	3.31
0,0,35.88	3.29
0,0,38.2	3.29
0,0,38.2	3.31
0,0,39.36	3.29
0,0,39.36	3.31
0,0,40.51	3.29
0,0,40.51	3.29
0,0,41.67	3.29
0,0,41.67	3.27
0,0,42.83	3.29
0,0,42.83	3.29
0,0,43.98	3.29
0,0,43.98	3.29
0,0,45.14	3.27
0,0,45.14	3.27
0,0,46.3	3.29
0,0,46.3	3.29
0,0,47.46	3.27
0,0,47.46	3.29
0,0,48.61	3.27
0,0,48.61	3.27
0,0,49.77	3.27
0,0,49.77	3.27
0,0,50.93	3.27

(1/t) (ln(Yo/Yt))= 0.0381560

PARTIALLY PENETRATING: A= 2.35 B= 0.37

HYDRAULIC CONDUCTIVITY: 1.99E-04 ft/sec
6.07E-03 cm/sec


FT : Ln(Yt-Yo)
cvc
9970058
NAVSTA Mayport - UST 1363
Well: MW-3
07-22-1997
Slope
0.0381560
CONDUCTIVITY
6.07E-03
cm/sec
10.00
5.00
1.00
0.50
0.10
0.05
0.01
10 secs/unit

HYDROCON - 1.2
HYDRAULIC CONDUCTIVITY
Bouwer and Rice Method

Well: MW-2

PROJECT NAME: NAVSTA Mayport - UST 1388
PROJECT NUMBER: 9970058
FIELD WORK DATE(S): 06-17-1997

USER NAME: cvc
DATE: 07-28-1997

Rw - BORING RADIUS (IN): 5.49
L - SCREEN LENGTH (FT): 9.5
HT - SCREEN BASE TO WATER TABLE (FT): 8.13
START TIME (H,M,S): 0,0,0

Rc - WELL RADIUS (IN): 1
D - AQUIFER THICKNESS (FT)
STATIC WATER LEVEL (FT):

Rc was corrected for response in well screen filter material to 3.121 i

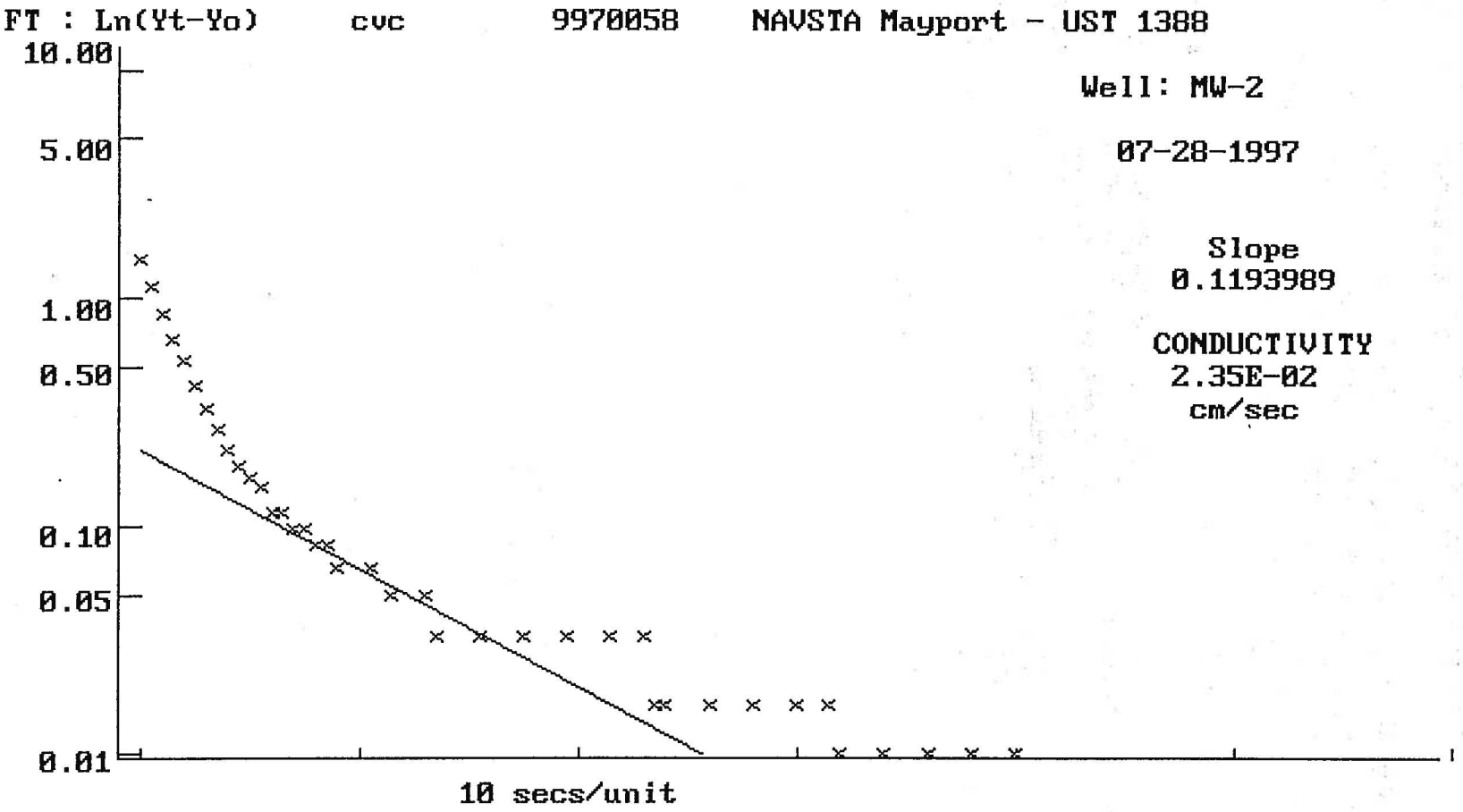
---

TIME (H,M,S)	DEPTH (FT)
0,0,0	5.3696
0,0,.5	5.0252
0,0,1	4.7628
0,0,1.5	4.566
0,0,2	4.4348
0,0,2.5	4.32
0,0,3	4.238
0,0,3.5	4.1724
0,0,4	4.1232
0,0,4.5	4.0904
0,0,5	4.074
0,0,5.5	4.0576
0,0,6	4.0248
0,0,6.5	4.0248
0,0,7	4.0084
0,0,7.5	4.0084
0,0,8	3.992
0,0,8.5	3.992
0,0,9	3.9756
0,0,10.5	3.9756
0,0,11.5	3.9592
0,0,13	3.9592
0,0,13.5	3.9428
0,0,15.5	3.9428
0,0,17.5	3.9428
0,0,19.5	3.9428
0,0,21.5	3.9428
0,0,23	3.9428
0,0,23.5	3.9264
0,0,24	3.9264
0,0,26	3.9264
0,0,28	3.9264
0,0,30	3.9264
0,0,31.5	3.9264
0,0,32	3.91
0,0,34	3.91
0,0,36	3.91
0,0,38	3.91
0,0,40	3.91

(1/t) (ln(Yo/Yt))= 0.1193989

PARTIALLY PENETRATING: A= 2.22 B= 0.35

HYDRAULIC CONDUCTIVITY: 7.72E-04 ft/sec
2.35E-02 cm/sec


FT : Ln(Yt-Yo)
cvc
9970058
NAVSTA Mayport - UST 1388
Well: MW-2
07-28-1997
Slope
0.1193989
CONDUCTIVITY
2.35E-02
cm/sec
10.00
5.00
1.00
0.50
0.10
0.05
0.01
10 secs/unit

HYDROCON - 1.2
HYDRAULIC CONDUCTIVITY
Bouwer and Rice Method

Well: MW-1

PROJECT NAME: NAVSTA Mayport - UST 1552
PROJECT NUMBER: 9970058
FIELD WORK DATE(S): 06-16-1997

USER NAME: cvc
DATE: 07-24-1997

Rw - BORING RADIUS (IN): 3.37
L - SCREEN LENGTH (FT): 9.5
HT - SCREEN BASE TO WATER TABLE (FT): 8.93
START TIME (H,M,S): 0,0,0

Rc - WELL RADIUS (IN): 1
D - AQUIFER THICKNESS (FT)
STATIC WATER LEVEL (FT):

Rc was corrected for response in well screen filter material to 2.027 i

---

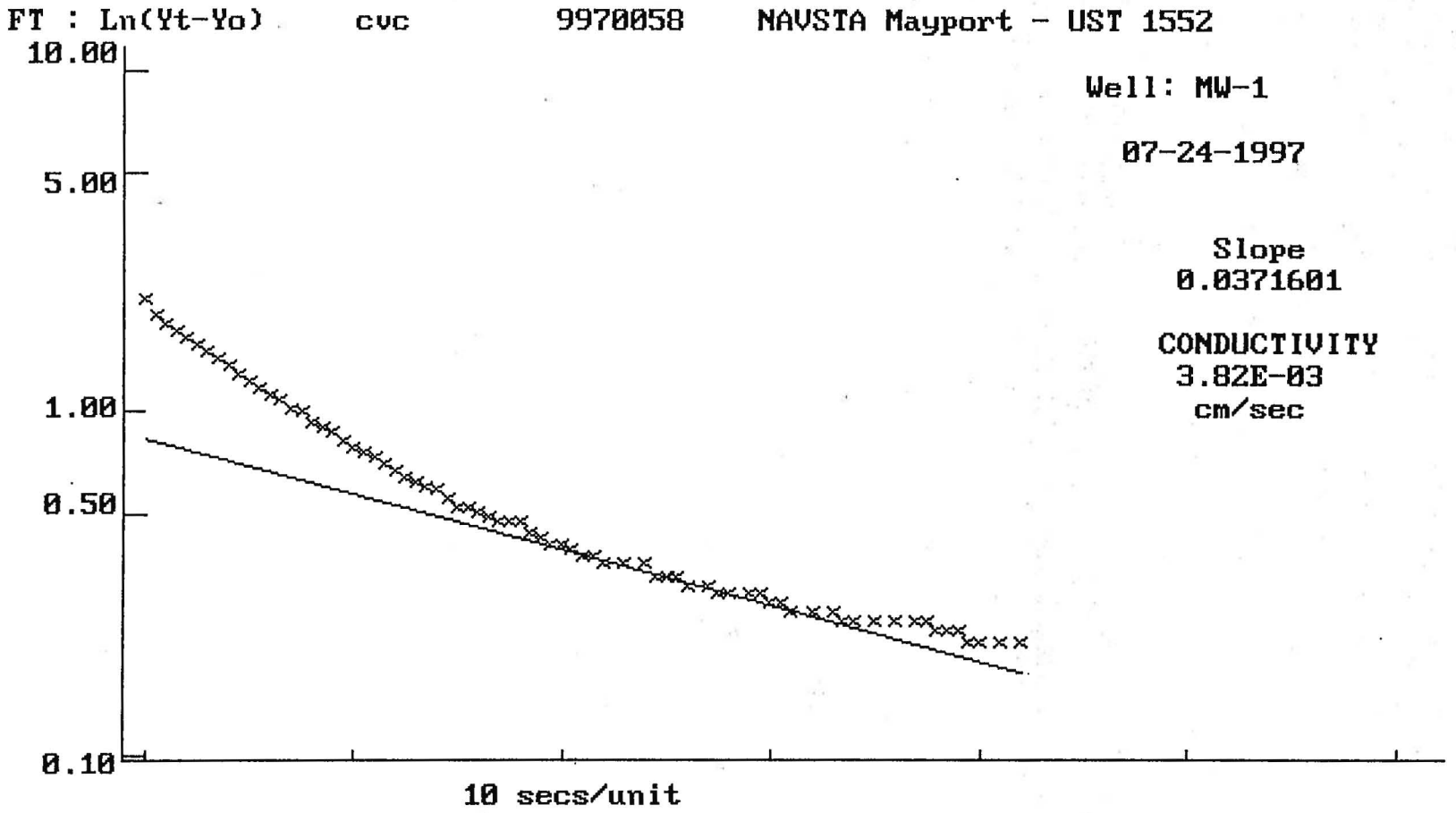
TIME (H,M,S)	DEPTH (FT)	TIME (H,M,S)	DEPTH (FT)
0,0,0	5.2584	0,0,15	3.6348
0,0,.5	5.0288	0,0,15.5	3.6348
0,0,1	4.914	0,0,16	3.6184
0,0,1.5	4.8484	0,0,16.5	3.602
0,0,2	4.75	0,0,17	3.5856
0,0,2.5	4.6844	0,0,17.5	3.5856
0,0,3	4.6024	0,0,18	3.5856
0,0,3.5	4.5368	0,0,18.5	3.5528
0,0,4	4.4876	0,0,19	3.5364
0,0,4.5	4.4056	0,0,19.5	3.52
0,0,5	4.34	0,0,20	3.52
0,0,5.5	4.2908	0,0,20.5	3.5036
0,0,6	4.2252	0,0,21	3.4872
0,0,6.5	4.1924	0,0,21.5	3.4872
0,0,7	4.1268	0,0,22	3.4708
0,0,7.5	4.1104	0,0,23	3.4708
0,0,8	4.0448	0,0,24	3.4708
0,0,8.5	4.012	0,0,24.5	3.438
0,0,9	3.9792	0,0,25	3.438
0,0,9.5	3.93	0,0,25.5	3.438
0,0,10	3.8972	0,0,26	3.4216
0,0,10.5	3.8644	0,0,27	3.4216
0,0,11	3.848	0,0,27.5	3.4052
0,0,11.5	3.8152	0,0,28	3.4052
0,0,12	3.7824	0,0,29	3.4052
0,0,12.5	3.7496	0,0,29.5	3.4052
0,0,13	3.7332	0,0,30	3.3888
0,0,13.5	3.7168	0,0,30.5	3.3888
0,0,14	3.7004	0,0,31	3.3724
0,0,14.5	3.6676	0,0,32	3.3724

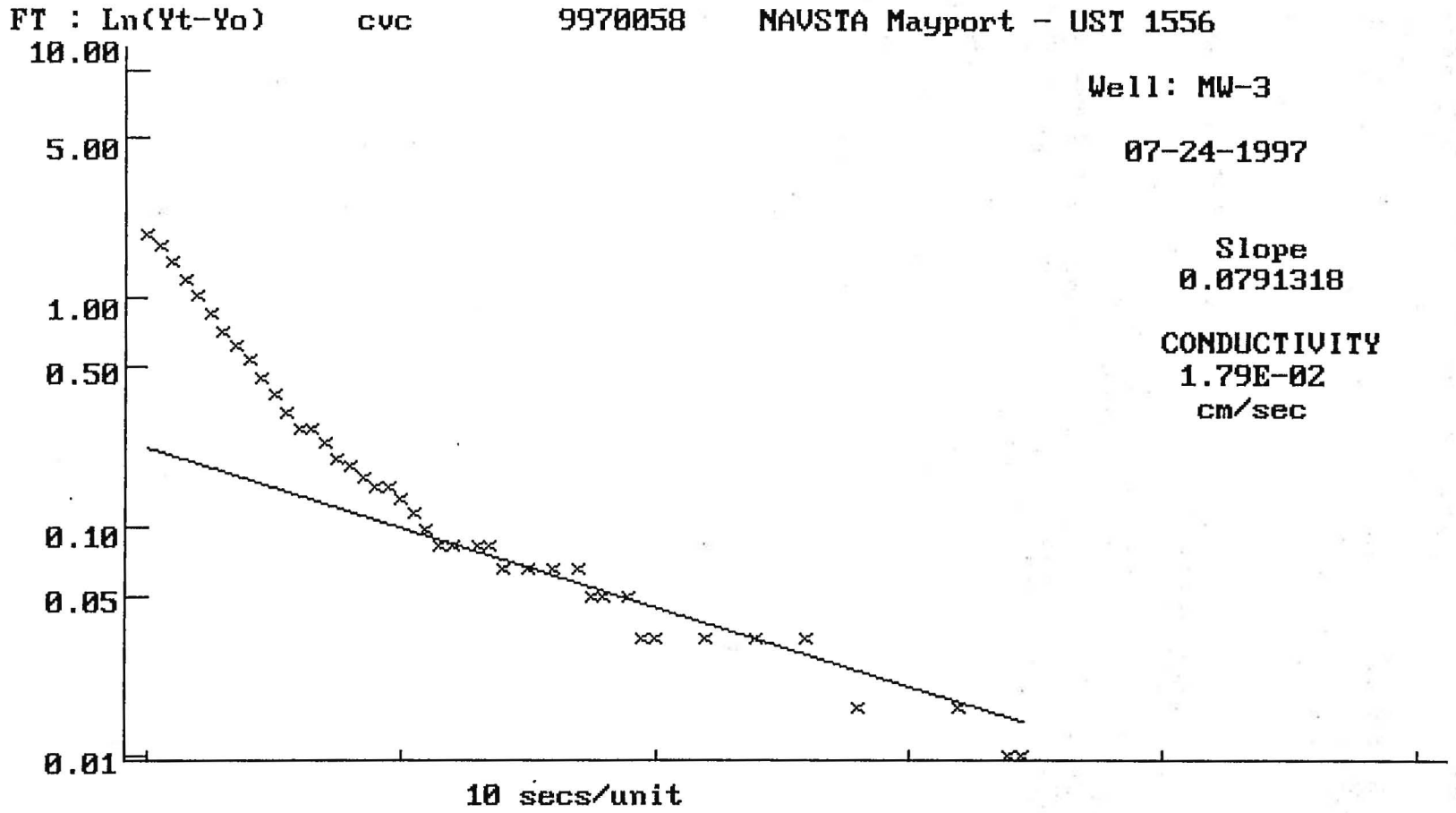
TIME (H,M,S)	DEPTH (FT)
0,0,33	3.3724
0,0,33.5	3.356
0,0,34	3.356
0,0,35	3.356
0,0,36	3.356
0,0,37	3.356
0,0,37.5	3.356
0,0,38	3.3396
0,0,38.5	3.3396
0,0,39	3.3396
0,0,39.5	3.3232
0,0,40	3.3232
0,0,41	3.3232
0,0,42	3.3232

(1/t) (ln(Yo/Yt))= 0.0371601

PARTIALLY PENETRATING: A= 2.58 B= 0.42

HYDRAULIC CONDUCTIVITY: 1.25E-04 ft/sec
3.82E-03 cm/sec


FT : Ln(Yt-Yo)
cvc
9970058
NAVSTA Mayport - UST 1552
Well: MW-1
07-24-1997
Slope
0.0371601
CONDUCTIVITY
3.82E-03
cm/sec
10.00
5.00
1.00
0.50
0.10
10 secs/unit


FT : Ln(Yt-Yo)
cvc
9970058
NAVSTA Mayport - UST 1556
Well: MW-3
07-24-1997
Slope
0.0791318
CONDUCTIVITY
1.79E-02
cm/sec
10.00
5.00
1.00
0.50
0.10
0.05
0.01
10 secs/unit

(1/t) (ln(Yo/Yt))= 0.0791318

PARTIALLY PENETRATING: A= 2.15 B= 0.34

HYDRAULIC CONDUCTIVITY: 5.86E-04 ft/sec
1.79E-02 cm/sec

HYDROCON - 1.2
HYDRAULIC CONDUCTIVITY
Bouwer and Rice Method

Well: MW-2

PROJECT NAME: NAVSTA Mayport - UST 1864
PROJECT NUMBER: 9970058
FIELD WORK DATE(S): 06-16-1997

USER NAME: cvc
DATE: 07-24-1997

Rw - BORING RADIUS (IN): 3.2
L - SCREEN LENGTH (FT): 9.5
HT - SCREEN BASE TO WATER TABLE (FT): 9.16
START TIME (H,M,S): 0,0,0

Rc - WELL RADIUS (IN): 1
D - AQUIFER THICKNESS (FT)
STATIC WATER LEVEL (FT):

Rc was corrected for response in well screen filter material to 1.942 i

---

TIME (H,M,S)	DEPTH (FT)	TIME (H,M,S)	DEPTH (FT)
0,0,0	7.0048	0,0,15	5.4796
0,0,.5	6.89	0,0,15.5	5.4468
0,0,1	6.7588	0,0,16	5.4304
0,0,1.5	6.726	0,0,16.5	5.414
0,0,2	6.808	0,0,17	5.3976
0,0,2.5	6.726	0,0,17.5	5.3812
0,0,3	6.6276	0,0,18	5.3812
0,0,3.5	6.5948	0,0,18.5	5.3484
0,0,4	6.48	0,0,19	5.3484
0,0,4.5	6.2504	0,0,19.5	5.332
0,0,5	6.5456	0,0,20	5.332
0,0,5.5	6.5784	0,0,20.5	5.332
0,0,6	6.562	0,0,21	5.2992
0,0,6.5	6.4636	0,0,21.5	5.2992
0,0,7	6.316	0,0,22	5.2992
0,0,7.5	6.4636	0,0,22.5	5.2828
0,0,8	6.316	0,0,23	5.2664
0,0,8.5	6.2504	0,0,23.5	5.2664
0,0,9	6.316	0,0,24	5.2664
0,0,9.5	6.0864	0,0,24.5	5.2664
0,0,10	5.8732	0,0,25	5.25
0,0,10.5	5.7256	0,0,25.5	5.25
0,0,11	5.6764	0,0,26	5.2336
0,0,11.5	5.6436	0,0,26.5	5.2336
0,0,12	5.6108	0,0,27	5.2172
0,0,12.5	5.5944	0,0,27.5	5.2172
0,0,13	5.5616	0,0,28	5.2172
0,0,13.5	5.5288	0,0,28.5	5.2172
0,0,14	5.5124	0,0,29	5.2172
0,0,14.5	5.496	0,0,29.5	5.2172

TIME (H,M,S)	DEPTH (FT)	TIME (H,M,S)	DEPTH (FT)
0,0,30	5.2172	0,0,40	5.1352
0,0,30.5	5.2008	0,0,40.5	5.1352
0,0,31	5.1844	0,0,41	5.1188
0,0,31.5	5.1844	0,0,41.5	5.1188
0,0,32	5.1844	0,0,42	5.1352
0,0,32.5	5.1844	0,0,42.5	5.1188
0,0,33	5.1844	0,0,43	5.1188
0,0,33.5	5.1844	0,0,43.5	5.1188
0,0,34	5.168	0,0,44	5.1188
0,0,34.5	5.168	0,0,44.5	5.1188
0,0,35	5.1516		
0,0,35.5	5.168		
0,0,36	5.1516		
0,0,36.5	5.1516		
0,0,37	5.1516		
0,0,37.5	5.1516		
0,0,38	5.1516		
0,0,38.5	5.1516		
0,0,39	5.1516		
0,0,39.5	5.1516		

(1/t) (ln(Yo/Yt))= 0.0272113

PARTIALLY PENETRATING: A= 2.62 B= 0.44

HYDRAULIC CONDUCTIVITY: 8.64E-05 ft/sec
2.63E-03 cm/sec