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CLOSURE REPORT FOR UNDERGROUND FUEL AND WASTE OIL PIPING ASSOCIATED  
WITH FORMER FUEL PIER 136 NS MAYPORT FL

7/16/2007

QORE



**CLOSURE REPORT  
FOR UNDERGROUND FUEL AND WASTE OIL PIPING  
ASSOCIATED WITH FORMER FUEL PIER 136**

**DEFENSE FUELS SUPPLY POINT  
NAVAL STATION MAYPORT  
JACKSONVILLE, FLORIDA  
FDEP Facility ID No. 169502577**

July 16, 2007

Prepared for:  
Defense Energy Support Center  
8725 John J. Kingman Road  
Fort Belvoir, VA 22060-6222

Prepared by:

QORE, Inc.  
598 S. North Lake Blvd.  
Altamonte Springs, FL 32701  
QORE Project No. 9780G

Contract No. SP0600-04-D-5423  
Task Order ACO-0007



July 16, 2007

Thomas Riffe  
Defense Energy Supply Center  
ATTN: DESC-FPA  
8725 John J. Kingman Road, Suite 2941  
Fort Belvoir, Virginia 22060-6222

Subject: **Piping Closure Report**  
**Naval Station Mayport**  
**FDEP Facility ID No. 169502577**  
**Contract No. SPO 600-04-D-5423 ACO-0007**  
**QORE Project No. 9780G**

Dear Mr. Riffe:

QORE, Inc. (QORE) and the principal subcontractor, Moran Environmental Recovery, Inc. have completed closure (demolition and abandonment) activities of underground fuel and waste oil piping associated with the former Fuel Pier 136 at the Naval Station Mayport in Jacksonville, Florida. Initial work performed for the closure project included a geophysical survey to locate underground piping and a soil vapor survey conducted by performing soil borings spaced 20 feet apart along the piping runs and adjacent to valve pits. Between February 21, 2007 and March 14, 2007, QORE supervised the degassing, draining with vacuum equipment, pigging, plugging, and capping of approximately 1,958 linear feet of underground piping, and the removal and disposal of approximately 218 linear feet of underground piping. In addition, QORE supervised the removal and disposal of approximately 9,250 gallons of petroleum contaminated water from pipe cleaning activities, and 95.4 tons of petroleum-affected soil from pipe trenching activities. The activities took place in the area of the former Mayport Pier 136, in the vicinity of Buildings 2073 and 262, and east of Building 262. The location of the project area is shown in **Figure 1**.

Piping closure activities were completed by Moran Environmental Recovery, LLC, a licensed Pollutant Storage System Specialty Contractor and were conducted in general accordance with the applicable procedures and guidelines specified in the following documents:

- Chapter 62-761, Florida Administrative Code (F.A.C.), Petroleum Storage Systems (USTs);
- The Florida Department of Environmental Protection's (FDEP's) document entitled "Storage Tank System Closure Assessment Requirements", dated April, 1998; and,
- FDEP's document entitled "Quality Assurance Standard Operating Procedures for Petroleum Storage Tank System Closure Assessments", dated February, 1994.

## PRELIMINARY ACTIVITIES

In May 2005, under the subject contract and task order, QORE was authorized to conduct a geophysical survey to locate underground piping associated with the fuel and bunker waste handling terminal equipment at former Pier 136 at the Naval Station Mayport. The geophysical survey utilized Ground-Penetrating Radar (GPR) and Electronic Utility Location methods in an effort to identify the location of subsurface piping and appurtenances in the vicinity of the former pier and east of Building 262. The results of the survey included a piping location plan which is shown in **Figure 2**. A copy of the geophysical report, dated November 1, 2005, is included as **Attachment A**.

Following the completion of the geophysical survey, QORE used the location plans to conduct a soil gas survey by performing soil borings along the pipeline runs and adjacent to valve pits, at an approximate spacing of 20 feet, as required by Chapter 62-761, F.A.C. The soil gas survey was conducted on January 10-11, 2006. The soil samples were collected at approximately 1.0 to 4.0 feet depth for shallow samples, and 5.0 to 7.0 feet depth for samples within one foot above the water table. Soil samples were screened in the field for the presence of volatile organic vapors using an Organic Vapor Analyzer (OVA) equipped with a Flame Ionization Detector (FID) in accordance with Section 62-770.200(2), Florida Administrative Code (F.A.C.). For each of the soil samples, two 16-ounce jars were half-filled with soil and sealed at the top with aluminum foil. The headspace in each jar was then screened using the OVA. The headspace in the first jar was screened using the OVA to measure the concentration of total volatile organic vapors, while the headspace in the second jar was screened using the OVA equipped with a charcoal filter (to provide a reading of the concentration of methane and ethane). Final OVA readings were generated by subtracting the concentration of methane and ethane from the concentration of total volatile organic vapors. OVA readings are provided in **Table 1**. The locations of soil borings are shown in **Figure 3**. The soil screening activities identified one area of elevated soil vapor detections along the eastern end of the northern piping run, near borings HA-33, HA-35, and HA-36.

QORE subsequently collected soil samples at the three locations where the highest OVA readings were obtained. These samples were collected from soil borings HA-33 at 4.0 to 5.0 feet depth, HA-35 at 4.0 to 5.0 feet depth, and HA-36 at 0 to 2.0 feet depth below land surface. The soil samples were analyzed to determine waste characteristics for proper disposal. The results of the laboratory analysis of the soil characterization samples are summarized in **Table 2**, and indicated that Total Petroleum Hydrocarbons (TPH) in sample HA-35 at 4.0 to 5.0 feet depth interval, with a reported concentration of 4,100 mg/kg, exceeded the Soil Cleanup Target Limits (SCTLs) for TPH of 340 mg/kg, based on leachability as established in Table 2 of Chapter 62-777 of the Florida Administrative Code (FAC). A copy of the complete laboratory analytical report for the soil characterization samples is included as **Attachment B**.

In November 2006, QORE completed technical specifications and contract documents to solicit bids from contractors to perform demolition and abandonment of the underground fuel and waste oil piping, to collect and dispose residual fuel and petroleum contact water, excavate and dispose petroleum contaminated soil, and restore the area in the vicinity of former Pier 136, Naval Station

Mayport. To minimize impacts to the active facility and following discussions with facility representatives, the DESC indicated that a majority of piping was to be closed by abandonment-in-place. Piping removal was to be limited to the vicinity of the soil impacts identified at the eastern end of the northern piping run and in the vicinity of the valve boxes at the northern end of the piping runs.

Bids were received in December 2006, and the contract was awarded to Moran Environmental Recovery based on their low bid and past performance. Prior to commencing excavation activities, Excavation Permit Requests were filed with the Naval Station Mayport Public Work Office Engineering Department. Copies of the Excavation Permit Request forms are included as **Attachment C**.

## PIPING CLOSURE ACTIVITIES

### Introduction

Former facility plans and results of the geophysical survey indicated two separate piping runs in the former Pier 136 Area. The piping run connected to the western valve pit was a fuel terminal pumping line which traversed to bulk fuel storage tanks to the east. The piping run connected to the eastern valve pits consisted of a bilge-waste and a waste-fuel pumping line, which ran to oil/water separators to the east. The waste fuel and petroleum-contact water piping runs are referred to as the "northern piping run", because they are the northernmost of the two piping runs. Conversely, the fuel supply piping runs are referred to as the "southern piping run" because they are the southernmost of the two runs. A site plan of the project area, showing the location of the northern and southern piping runs and associated valve pits is included as **Figure 2**. A more detailed site plan, showing all four pipeline runs and piping diameters is included as **Figure 4**. Enlarged details of two areas where more complex arrays of piping and valves were encountered are included as **Figure 6** and **Figure 7**.

### Northern Piping Run

The northern piping run consisted of two 8-inch diameter pipes extending from the former pier 136 area southward to two valve pits located just north of Building 2073. From the first valve pit, the rest of the piping run was 6-inch I.D. piping. The 6-inch I.D. piping runs continued beneath Building 2073, to the south approximately 120 feet and made a near-90 degree bend towards the east. The northernmost of the two pipelines line terminated approximately 300 feet east of the bend section. The southern line terminated within the excavation area shown in detail in **Figure 7**. Piping closure activities were conducted in the pier area, in the vicinity of Building 2073, between February 22 and March 16, 2007. Piping closure activities included cleaning and removal of approximately 218 feet of 6-inch diameter piping, and abandonment-in-place of approximately 670 feet of 6-inch diameter piping.

The piping was abandoned-in-place using the following procedures: The lines were opened to atmospheric pressure by removing the valves. The lines were cold-cut where necessary to provide access for draining, cleaning and grouting activities. Cold-cut segments of piping only removed

approximately three to four feet of piping, to allow access for draining and filling with flowable fill. Cut sections of pipe were wrapped in plastic and taped, to avoid dissemination of possible asbestos-containing materials (ACM) coatings. The lines were then drained and fluids were removed using a vacuum truck. The interior of the pipes were cleaned using a pigging method – a polystyrene sphere (pig) slightly larger than the piping diameter was introduced to one end of the piping run and a compressor producing 27 psi and a vacuum of 4 inches of Hg was applied to pull the pig and associated fluids through the line. The fluids removed from all piping runs mostly consisted of water, with some oily residues. The pigging process was repeated until the processes yielded de minimus quantities of residue and fluids. Following line pigging, the remaining piping runs were filled with a concrete slurry (referred to as flowable fill), and the piping ends were capped. Details of piping removed and abandoned in the northern piping run are shown in **Figure 4**.

In the areas where piping was exposed, a bituminous wrap was observed that was suspected of having asbestos-containing material (ACM). Samples of the piping wrap were collected and submitted to a certified laboratory for identification of the composition of the wrapping. Because three of seven samples contained 50-55% chrysotile asbestos, the DESC stipulated that all piping removed was to be treated as containing ACM. A copy of the ACM Bulk Sample Summary Report is included as **Attachment D**. Prior to removal, piping was cut into manageable lengths and wrapped in plastic sheeting to prevent the wrapping material from becoming friable.

To address inconsistencies between the historic plans and field observations, a supplemental geophysical survey was conducted in the northern piping run area on March 1, 2007. The survey identified additional piping north of the northern pipeline valve pits, and additional piping between those pits and a valve pit to the west of Building 2073. The survey also located additional piping along the eastern end of the northern piping run. The additional piping north of Building 2073 was opened to atmospheric pressure by removing the valves, drained by vacuum truck equipment, cold cut, and removed. The two valve pits in that area were demolished.

The six-inch diameter piping run extending eastward along the north side of an unnamed fuel farm access/circulation road was abandoned-in-place up to the location where soil impacts had been identified. In the area where no soil impacts had been detected, piping was exposed by excavating, and the piping was degassed, cold-cut, drained with vacuum equipment, cleaned using the pigging method, filled with flowable fill, and capped at the cut ends.

In the area where soil impacts had been detected, approximately 150 linear feet of 6-inch piping were removed. Petroleum-impacted soil around and beneath the 6-inch piping was excavated, stockpiled on plastic sheeting, and covered with plastic sheeting. The extent of petroleum impacted soil was monitored visually and with an OVA instrument, and appeared to extend laterally to the south, and vertically below the water table. Free product was also observed floating on the groundwater in the excavation. The extent of excavation and piping removal in the eastern part of the northern piping run is shown in **Figure 6**. Because the extent of impacted soil had not been fully assessed, and free product observed in the excavation area, the excavation was discontinued prior to the removal of all impacted soil, with the approval of the DESC. Because of known soil and

groundwater impacts south of the project area for this piping closure, which is currently being addressed by others, the DESC made the determination that further source removal was not appropriate at the time. A total of 95.39 tons of petroleum impacted soil was transported to Soil Remediation, Inc. in Kingsland, Georgia for thermal treatment. Copies of waste manifests and weight tickets for petroleum-impacted soil are included as **Attachment E**.

Following the excavation of petroleum impacted soil in the northern piping run, six soil samples were collected from the pit bottom and sidewalls, and two soil samples were collected from the area of the northern and southern valve pits. The northern valve pit had been demolished, and the confirmation soil sample was collected at the edge of the backfilled area where the valve box had been located. Soil sample locations are shown in **Figure 6** and **Figure 7**. Samples were placed in glass jars and shipped in ice-filled containers to ENCO Laboratories in Jacksonville for analysis. Laboratory analytical results are discussed below. Because of the presence of free product in the excavated area, temporary monitor wells were not installed along the northern piping run, and groundwater samples were not collected.

### **Southern Piping Run**

The southern piping run started north of a valve pit west of Building 2073 and ran to the south side of an unnamed fuel farm access/circulation road, where it made a sweep-90-degree turn to the east, toward aboveground storage tanks and cut-and-cover fuel storage tanks to the east. Piping continued to the east along the south side of an unnamed fuel farm access/circulation road. The piping in the southern piping run consisted of 10-inch and 8-inch diameter pipes in a parallel alignment. The valve pit west of Building 2073 was cleaned using a vacuum truck, and backfilled with clean sand. Approximately 480 feet of 10-inch diameter fuel piping extending south of that valve pit were abandoned-in-place. Additional lengths of 8-inch and 10-inch diameter piping located north of the western valve pit were also abandoned-in-place, using the procedures described for the northern piping run above.

The eastward extension of the southern run of 10-inch and 8-inch diameter piping, approximately 800 linear feet, was opened to atmospheric pressure by removing the valves, cold cut at the east end, drained by vacuum truck, cleaned using the pigging method, filled with flowable fill, and capped at cut ends. Petroleum contact water was collected in a vacuum truck and transported to Water Recovery, Inc. for proper disposal. Copies of manifests for petroleum contact water are included in **Attachment F**. The locations of abandoned and closed-in-place piping in the southern run are shown in **Figure 4**.

### **Site Restoration**

Following the removal and abandonment-in-place of piping in the Pier 136 area, excavated areas were backfilled with clean overburden soils and with clean imported fill soils. A total of 126 cubic yards of clean sandy soil was imported to backfill excavated areas. In-situ density testing was performed by QORE personnel following emplacement and compaction of fill soils. Backfilled excavations in unpaved areas were seeded, and areas of asphalt paving which had been demolished were repaired with compacted road base and new asphalt. Project photographs are

used to determine waste characteristics for proper disposal.

Piping abandonment activities conducted at the subject site between February 21, 2007 and March 16, 2007 included the following tasks:

- Excavation and stockpiling soil overburden in areas necessary to access piping and perform cold cutting, or to remove 6-inch diameter piping.
- Cold cutting of 8-inch and 10-inch diameter piping to allow access for abandonment of piping runs in place.
- Abandonment in place of approximately 670 linear feet of 6-inch diameter piping and approximately 1,288 linear feet of 8-inch and 10-inch diameter piping. Abandonment was accomplished by degassing, draining petroleum contact water by vacuum method, cleaning the interior of piping by pigging, emplacing flowable fill and capping cut ends on steel piping.
- Removal and proper disposal of approximately 218 linear feet of 6-inch diameter steel piping, including wrapping and proper handling and disposal of pipe with ACM covering.
- Demolition, removal, and disposal of two concrete vaults along the northern portion of the northern pipeline run.
- Collection and disposal of 9,250 gallons of petroleum contact water derived from pipe draining and cleaning and excavation dewatering.
- Excavation, removal, and disposal of 95.39 tons of petroleum impacted soil.
- Collection and laboratory testing of eight soil samples to determine the presence of remaining soil impacts, if any.
- Site restoration, including placement and compaction of clean stockpiled overburden and clean imported fill, replacement of asphalt and compacted road base, and seeding in disturbed areas.

Laboratory analysis of the soil samples collected from the excavation around the 6-inch diameter piping in the eastern section of the northern piping run area, and from the northern and southern valve pit areas indicated soil impacts above the established SCTLs. These were indicated in laboratory analytical results for samples from the bottom and the northern sidewall of the excavated area, and at the northern valve pit. The sample from the bottom of the excavation in the northern area showed the highest soil impacts, with four compounds and total petroleum hydrocarbons (TPH) in excess of Florida Soil Cleanup Target Levels (SCTLs). Parameters whose concentrations exceeded their respective SCTL included acenaphthene, naphthalene, 1-methylnaphthalene, 2-methylnaphthalene and TPH. One soil sample collected from the north sidewall of the excavation at the east end of the northern pipeline area had exceedances of benzo(a)pyrene, and of total benzo(a) pyrene equivalents. A third sample, collected at the northern valve pit, had a TPH concentration of 398 mg/kg which exceeded the SCTL of 340 mg/kg.

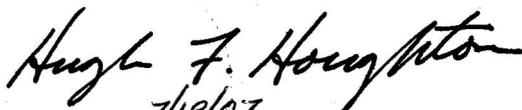
As noted herein, the excavation of contaminated soil in the eastern portion of the northern piping run was concluded prior to removal of all impacted soil. Because of the observance of free product in the excavated area, no temporary wells were placed around the excavated area and groundwater samples were not collected.

It is QORE's understanding that soil and potential groundwater impacts in the vicinity of the work area for this project are currently being assessed by others and that no further sampling or excavation is required by QORE.

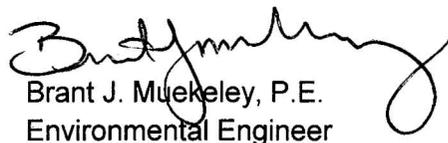
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If you have any questions about the content of this report, or if you need additional information, please call me or Brant J. Muekeley, P.E. at (407) 645-3400.

Sincerely,  
QORE, INC.



*7/16/07*  
Hugh F. Houghton, P.G.  
Professional Geologist  
Florida License No. 2450



Brant J. Muekeley, P.E.  
Environmental Engineer

cc: Thomas Riffe, DESC Site Manager (extra copy)  
Mr. Jim Cason, FDEP Federal Facilities Program (2 copies)  
Wayne Wragg, FISC Jacksonville  
QORE Project File

Attachments

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# **TABLES**

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## TABLE 1: SOIL ORGANIC VAPOR SURVEY SUMMARY

**Client:** Defense Energy Support Center      **Project:** Nar Fuel Piping Abandonment

**Site:** Mayport Pier 136 Site

**Project:**

**Location:** Jacksonville, Florida

**Number:** 9780G

SAMPLE			OVA SCREENING RESULTS		
BORING NUMBER	DATE COLLECTED	SAMPLE DEPTH (Ft BLS)	TOTAL OVA READING	CARBON FILTERED (ppm)	NET READING (ppm)
HA-1	1/10/06	4.0	4.16	**	4.16
		6.5	6.75	**	6.75
HA-2	1/10/06	4.0	3.61	**	3.61
		7.0	4.27	**	4.27
HA-3	1/11/06	4.0	6.76	**	6.76
		7.0	4.97	**	4.97
HA-4	1/11/06	4.0	5.28	**	5.28
		7.0	4.15	**	4.15
HA-5	1/11/06	4.0	4.85	**	4.85
		6.5	3.56	**	3.56
HA-6	1/11/06	4.0	5.05	**	5.05
		7.0	4.88	**	4.88
HA-7	1/11/06	4.0	5.50	**	5.50
		6.5	4.74	**	4.74
HA-8	1/11/06	4.0	5.29	**	5.29
		6.5	6.26	**	6.26
HA-9	1/11/06	4.0	6.54	**	6.54
		6.0	5.85	**	5.85
HA-10	1/11/06	2.0	5.32	**	5.32
		6.0	4.19	**	4.19
HA-11	1/11/06	2.0	6.00	**	6.00
		6.0	4.29	**	4.29
HA-12	1/11/06	2.0	4.95	**	4.95
		6.0	4.01	**	4.01
HA-13	1/11/06	2.0	4.31	**	4.31
		6.0	4.70	**	4.70
HA-14	1/12/06	2.0	<1.85	**	<1.85
		6.5	<1.85	**	<1.85
HA-15	1/12/06	2.0	<1.85	**	<1.85
		6.5	<1.85	**	<1.85
HA-16	1/12/06	2.0	<1.98	**	<1.98
		6.5	<1.98	**	<1.98
HA-17	1/12/06	2.0	<1.98	**	<1.98
		6.5	<1.98	**	<1.98
HA-18	1/12/06	2.0	<1.98	**	<1.98
		6.0	<1.98	**	<1.98
HA-19	1/12/06	2.0	<1.98	**	<1.98
		6.5	<1.98	**	<1.98
HA-20	1/12/06	2.0	2.17	**	2.17
		7.0	2.39	**	2.39

# TABLE 1: SOIL ORGANIC VAPOR SURVEY SUMMARY

Client: Defense Energy Support Center      Project Nar Fuel Piping Abandonment

Site: Mayport Pier 136 Site  
 Location: Jacksonville, Florida

Project Number: 9780G

SAMPLE			OVA SCREENING RESULTS		
BORING NUMBER	DATE COLLECTED	SAMPLE DEPTH (Ft BLS)	TOTAL OVA READING	CARBON FILTERED (ppm)	NET READING (ppm)
HA-21	1/12/06	2.0	2.13	**	2.13
		6.5	2.56	**	2.56
HA-22	1/12/06	2.0	2.19	**	2.19
		6.5	2.46	**	2.46
HA-23	1/12/06	1.0	<1.98	**	<1.98
		5.0	<1.98	**	<1.98
HA-24	1/12/06	1.0	2.23	**	2.23
		5.0	2.09	**	2.09
HA-25	1/12/06	1.0	<1.98	**	<1.98
		5.0	<1.98	**	<1.98
HA-26	1/12/06	1.0	<1.98	**	<1.98
		5.0	<1.98	**	<1.98
HA-27	1/12/06	1.0	<1.98	**	<1.98
		5.0	<1.98	**	<1.98
HA-28	1/23/06	1.0	<2.09	**	<2.09
		5.0	<2.09	**	<2.09
HA-29	1/23/06	1.0	8.04	**	8.04
		5.0	6.82	**	6.82
HA-30	1/23/06	1.0	6.18	**	6.18
		5.0	2.65	**	2.65
HA-31	1/23/06	1.0	7.16	**	7.16
		5.0	3.98	**	3.98
HA-32	1/23/06	1.0	5.00	**	5.00
		5.0	4.90	**	4.90
HA-33	1/23/06	1.0	4.42	**	4.42
		5.0	44.21	4.06	40.15
HA-34	1/23/06	1.0	7.31	**	7.31
		4.5	6.29	**	6.29
HA-35	1/23/06	2.0	38.7	3.06	35.1
		5.0	392	3.90	388.10
HA-36	1/23/06	1.5	17.91	**	17.91
		5.0	8.82	**	8.82
HA-37	1/24/06	1.0	<2.15	**	<2.15
		Refusal			
HA-38	1/24/06	1.5	<2.15	**	<2.15
		5.0	<2.15	**	<2.15
HA-39	1/24/06	1.5	<2.15	**	<2.15
		4.5	<2.15	**	<2.15
HA-40	1/24/06	1.5	2.60	**	2.60
		5.0	<2.15	**	<2.15

## TABLE 1: SOIL ORGANIC VAPOR SURVEY SUMMARY

**Client:** Defense Energy Support Center      **Project:** Nar Fuel Piping Abandonment

**Site:** Mayport Pier 136 Site

**Project:**

**Location:** Jacksonville, Florida

**Number:** 9780G

SAMPLE			OVA SCREENING RESULTS		
BORING NUMBER	DATE COLLECTED	SAMPLE DEPTH (Ft BLS)	TOTAL OVA READING	CARBON FILTERED (ppm)	NET READING (ppm)
HA-41	1/24/06	1.5	2.73	**	2.73
		5.0	3.15	**	3.15
HA-42	1/24/06	1.5	<2.15	**	<2.15
		5.0	<2.15	**	<2.15
HA-43	1/24/06	1.5	2.97	**	2.97
		5.0	3.18	**	3.18
HA-44	1/24/06	1.5	4.64	**	4.64
		5.0	4.01	**	4.01
HA-45	1/24/06	1.5	3.92	**	3.92
		5.0	4.16	**	4.16
HA-46	1/24/06	1.5	3.87	**	3.87
		5.0	4.01	**	4.01
HA-47	1/24/06	1.5	3.15	**	3.15
		5.0	<2.15	**	<2.15
HA-48	1/24/06	1.5	<2.15	**	<2.15
		6.5	<2.15	**	<2.15
HA-49	1/24/06	2.0	3.91	**	3.91
		6.5	4.72	**	4.72
HA-50	1/24/06	2.0	2.62	**	2.62
		6.5	2.59	**	2.59
HA-51	1/24/06	2.0	<2.15	**	<2.15
		6.5	<2.15	**	<2.15
HA-52	1/24/06	2.0	2.79	**	2.79
		6.5	2.91	**	2.91
HA-53	1/24/06	2.0	2.46	**	2.46
		6.5	2.62	**	2.62
HA-54	1/24/06	2.0	2.97	**	2.97
		6.5	3.16	**	3.16
HA-55	1/25/06	2.0	<1.60	**	<1.60
		6.5	<1.60	**	<1.60
HA-56	1/25/06	2.0	<1.60	**	<1.60
		6.5	<1.60	**	<1.60
HA-57	1/25/06	2.0	<1.60	**	<1.60
		6.5	<1.60	**	<1.60
HA-58	1/25/06	2.0	<1.60	**	<1.60
		6.5	<1.60	**	<1.60

\*\* No reading recorded - no vapor detected

**TABLE 2: LABORATORY ANALYTICAL SUMMARY  
FOR SOIL CHARACTERIZATION SAMPLES**

Facility Name: Naval Station Mayport  
Pier 136 Area

FDEP Facility ID# 169502577

NS = No standard established by Ch. 62-770  
NA = Not Analyzed for this Parameter

ANALYTE	FDEP SOIL CLEANUP TARGET LEVELS*			SAMPLE DESIGNATION / SAMPLE DATE / CORRECTED ORGANIC VAPOR READING		
				HA-33 (4-5 ft)	HA-35 (4-5 ft)	HA-36 (0-2 ft)
	RESIDENTIAL	INDUSTRIAL	LEACHABILITY	13-Sep-06	13-Sep-06	13-Sep-06
<b>Volatle Organic Compounds</b>						
Benzene	1.2	1.7	0.007	<0.0007	<0.0007	<0.0007
Toluene	7500	60000	0.5	<0.0006	<0.0006	<0.0006
Ethylbenzene	1500	9200	0.6	<0.0009	<0.0009	<0.0009
Total Xylenes	130	700	0.2	<0.0016	<0.0016	<0.0016
MTBE	4400	24000	0.2	<0.0010	<0.0010	<0.0010
<b>Polynuclear Aromatic Hydrocarbons</b>						
Naphthalene (by EPA Method 8260B)	55	300	1.2	0.016	0.32(E)	<0.0004
<b>Metals and Halides</b>						
Arsenic	2.1	12	**	0.83(l)	0.76(l)	1.0(l)
Cadmium	82	1,700	7.5	<0.43	<0.42	<0.43
Chromium	210	470	38	<4.5	<4.4	<4.5
Lead	400	1,400	**	0.87(l)	<0.53	1.2
Bromide	NS	NS	NS	<0.2	<0.2	<0.2
Chloride	NS	NS	NS	35.4	39.8	39.3
Fluoride	840	130,000	6,000	2.0	1.6	2.2
Total Halides	NS	NS	NS	37.4	41.5	41.5
<b>PCBs</b>						
PCB-1016/1242	0.5	2.6	17	<0.007	<0.007	<0.007
PCB-1221	0.5	2.6	17	<0.029	<0.028	<0.029
PCB-1232	0.5	2.6	17	<0.006	<0.006	<0.006
PCB-1248	0.5	2.6	17	<0.010	<0.010	<0.010
PCB-1254	0.5	2.6	17	<0.016	<0.015	<0.016
PCB-1260	0.5	2.6	17	<0.005	<0.005	<0.005
<b>Total Petroleum Hydrocarbons (TPH)</b>						
TPH (C8 - C40)	460	2700	340	<0.0021	<b>4,100</b>	84

< = Analyte not detected; value is the Method Detection Limit

\* = Soil Cleanup Target Levels listed in Table II of Chapter 62-777, Florida Administrative Code

\*\* = Leachability values may be derived using the SPLP Test to calculate site-specific SCTLs.

E = The concentration indicated for this analyte is an estimated value above the calibration range of the instrument.

(l) = Analyte detected; value is between the Method Detection Level (MDL) and the Method Reporting Limit; value is an estimated concentration.

# = Indicates parameter was not detected above the MDL, however the MDL exceeds the leachability based on groundwater criteria, because of dilution of the sample prior to analysis.

Bold and highlighted value indicates analytical result is above the Soil Cleanup Target Level as established in Chapter 62-777 F.A.C.

**TABLE 3: LABORATORY ANALYTICAL SUMMARY -  
SOIL CONFIRMATION SAMPLES**

Facility Name: Naval Station Mayport  
Pier 136 Area  
FDEP Facility ID# 169502577

All results in mg/kg units

ANALYTE	FDEP SOIL CLEANUP TARGET LEVELS*			SAMPLE DESIGNATION / SAMPLE DATE							
				SS-BOT1-C	SS-NW1-C	SS-NW2-C	SS-NW3-C	SS-EW-C	SS-WW-C	SS-SVP-C	SS-NVP-C
	RESIDENTIAL	INDUSTRIAL	LEACHABILITY	12Mar07	12Mar07	12Mar07	12Mar07	12Mar07	12Mar07	12Mar07	12Mar07
<b>Volatile Organic Compounds</b>											
Benzene	1.2	1.7	0.007	0.00014	<0.0007	<0.0006	<0.0006	<0.0006	<0.0006	<0.0015	<0.0006
Toluene	7500	60000	0.5	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Ethylbenzene	1500	9200	0.6	<0.0007	<0.0008	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007
Total Xylenes	130	700	0.2	<0.0013	<0.0014	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.00013
MTBE	4400	24000	0.2	<0.0008	<0.0009	<0.0008	<0.0008	<0.0008	<0.008	<0.0008	<0.0008
<b>Polynuclear Aromatic Hydrocarbons</b>											
Acenaphthene	2400	20000	2.1	13.2(I)(D)	<0.127	<0.121	<0.120	<0.120	<0.119	<0.121	<0.119
Acenaphthylene	1800	20000	27	<6.67	<0.123	<0.117	<0.116	<0.116	<0.115	<0.117	<0.115
Anthracene	21000	300000	2500	<8.63	<0.159	<0.152	<0.150	<0.150	<0.149	<0.152	<0.149
Benzo(a)anthracene	1.3	6.6	0.8	<9.23(D)	0.235	<0.162	<0.161	<0.160	<0.159	<0.162	<0.159
Benzo(a)pyrene	0.1	0.7	8	<6.91	0.22	<0.121	<0.120	<0.120	<0.119	<0.121	<0.119
Benzo(b)fluoranthene	1.3	6.5	24	<6.49	0.334	<0.114	0.124	<0.113	<0.112	<0.114	<0.112
Benzo(g,h,i)perylene	2500	52000	32000	<8.22	0.392	<0.144	0.322	0.34	<0.142	<0.145	<0.142
Benzo(k)fluoranthene	13	66	24	<7.86	<0.145	<0.138	<0.137	<0.137	<0.136	<0.138	<0.136
Chrysene	130	640	77	<8.04	0.204	<0.141	<0.140	<0.140	<0.139	<0.141	<0.139
Dibenzo(a,h)anthracene	0.1	0.7	0.7	<11.4(D)	0.309	<0.200	<0.198	<0.198	<0.196	<0.200	<0.143
Fluoranthene	3200	59000	1200	<8.27	0.198	<0.145	0.201	<0.144	<0.143	<0.146	<0.143
Fluorene	2600	33000	160	31.1	<0.148	<0.141	<0.140	<0.140	<0.139	<0.141	<0.139
Indeno(1,2,3-cd)pyrene	1.3	6.6	6.6	<11.2(D)	0.361	<0.197	0.302	0.296	<0.193	<0.197	<0.193
1-Methylnaphthalene (by EPA Method 8270C)	200	1800	3.1	<b>392</b>	<0.148	<0.141	<0.140	<0.140	<0.139	<0.141	<0.139
2-Methylnaphthalene (by EPA Method 8270C)	210	2,100	8.5	<b>497</b>	<0.142	<0.135	<0.134	<0.133	<0.133	<0.135	<0.133
Naphthalene (by EPA Method 8260B)	55	300	1.2	0.5	<0.0003	0.0024	0.0011	<0.0003	<0.0003	<0.0003	<0.0003
Naphthalene (by EPA Method 8270C)	2200	36000	250	106	<0.148	<0.141	<0.140	<0.140	<0.139	<0.141	<0.139
Pyrene	2400	45000	880	<8.63	0.235	<0.152	0.185	<0.150	<0.149	<0.152	<0.163
<b>Total Petroleum Hydrocarbons (TPH)</b>											
TPH (C6 - C40)	460	2700	340	<b>40,100</b>	48.1	64.9	96.1	86.8	28.8	<5.86	<b>396</b>

< = Analyte not detected; value is the Method Detection Limit  
 \* = Soil Cleanup Target Levels listed in Table II of Chapter 62-777, Florida Administrative Code  
 (D) = Because of dilution, the Method Detection Limit is higher than the SCL  
 (I) = Analyte detected; value is between the Method Detection Level (MDL) and the Method Reporting Limit; value is an estimated concentration.  
 † = Indicates parameter was not detected above the MDL, however the MDL exceeds the leachability based on groundwater criteria, because of dilution of the sample prior to analysis.  
 Bold and highlighted value indicates analytical result is above the Soil Cleanup Target Level as established in Chapter 62-777 F.A.C.

## TABLE 4. Benzo(a)pyrene Conversion

For Direct Exposure Soil Cleanup Target Levels

Site Name:	<u>Mayport Pier 136 Area</u>
Location:	<u>Jacksonville, FL</u>
Facility ID No.:	<u>169502577</u>
Soil Sample No.	<u>MPT-SS-NW1-C</u>
Sample Date	<u>3/12/2007</u>
Location:	<u>Excavation sidewall</u>
Depth (ft):	<u>2.5 ft</u>

**INSTRUCTIONS:** Calculate Total Benzo(a)pyrene Equivalents if at least one of the carcinogenic PAHs is detected in the sample at a concentration equal to or higher than the Method Detection Limit (MDL), whether quantified with certainty (the concentration reported has no qualifier) or estimated (the concentration reported has a "J", "T" or "I" qualifier). Enter the contaminant concentrations (in mg/kg) for all seven carcinogenic PAHs in the yellow boxes using the following criteria (and see table below):

1. If quantified with certainty, or estimated and has the "J" qualifier, enter the reported value;
2. If not detected at the MDL (the concentration reported is the MDL followed by the "U" qualifier) enter 1/2 of the reported value;
3. If detected at a concentration lower than the MDL and the concentration is estimated (has the "T" qualifier) enter the estimated value;
4. If detected at a concentration equal to or higher than the MDL but lower than the Practical Quantitation Limit (PQL) and the concentration is estimated (has the "I" qualifier) enter the estimated value;
5. If detected at a concentration equal to or higher than the MDL but lower than the PQL and it is not estimated (the concentration reported is the PQL followed by the "M" qualifier) enter 1/2 of the reported value.

Contaminant	Concentration (mg/kg)	Toxic Equivalency Factor	Benzo(a)pyrene Equivalents
Benzo(a)pyrene	0.220	1.0	0.220
Benzo(a)anthracene	0.253	0.1	0.025
Benzo(b)fluoranthene	0.334	0.1	0.033
Benzo(k)fluoranthene	0.073	0.01	0.001
Chrysene	0.204	0.001	0.000
Dibenz(a,h)anthracene	0.309	1.0	0.309
Indeno(1,2,3-cd)pyrene	0.361	0.1	0.036

DE Residential = 0.1 mg/kg; DE Industrial = 0.7 mg/kg

**Total Benzo(a)pyrene Equivalents = 0.6**

**The concentration shown EXCEEDS the Residential Direct Exposure SCTL of 0.1 mg/kg.**

The concentration shown does not exceed the Industrial Direct Exposure SCTL of 0.7 mg/kg.

Summary Criteria for Table Entries			
Detection	Concentration Reported	Data Qualifier	Enter
Various	Quantified with certainty	None	reported value
Various	Estimated	J	reported (estimated) value
ND at MDL	MDL	U	1/2 reported value
< MDL	Estimated	T	reported (estimated) value
≥ MDL but < PQL	Estimated	I	reported (estimated) value
≥ MDL but < PQL	PQL	M	1/2 reported value

---

# FIGURES

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PROJECT AREA

PHOTO SOURCE: GOOGLE EARTH



SCALE: NOT TO SCALE

PROJECT NAME:

MAYPORT PIER 136 SITE  
JACKSONVILLE, FLORIDA



598 S. NORTH LAKE BLVD., SUITE 1024  
ALTAMONTE SPRINGS, FL. 32701  
PHONE: (407) 645-3400 WEB SITE: www.qore.net  
FAX: (407) 645-3731 EMAIL: orlando@qore.net

PROJECT: 9780G

DATE: 7/16/07

DRAWN BY: CSM

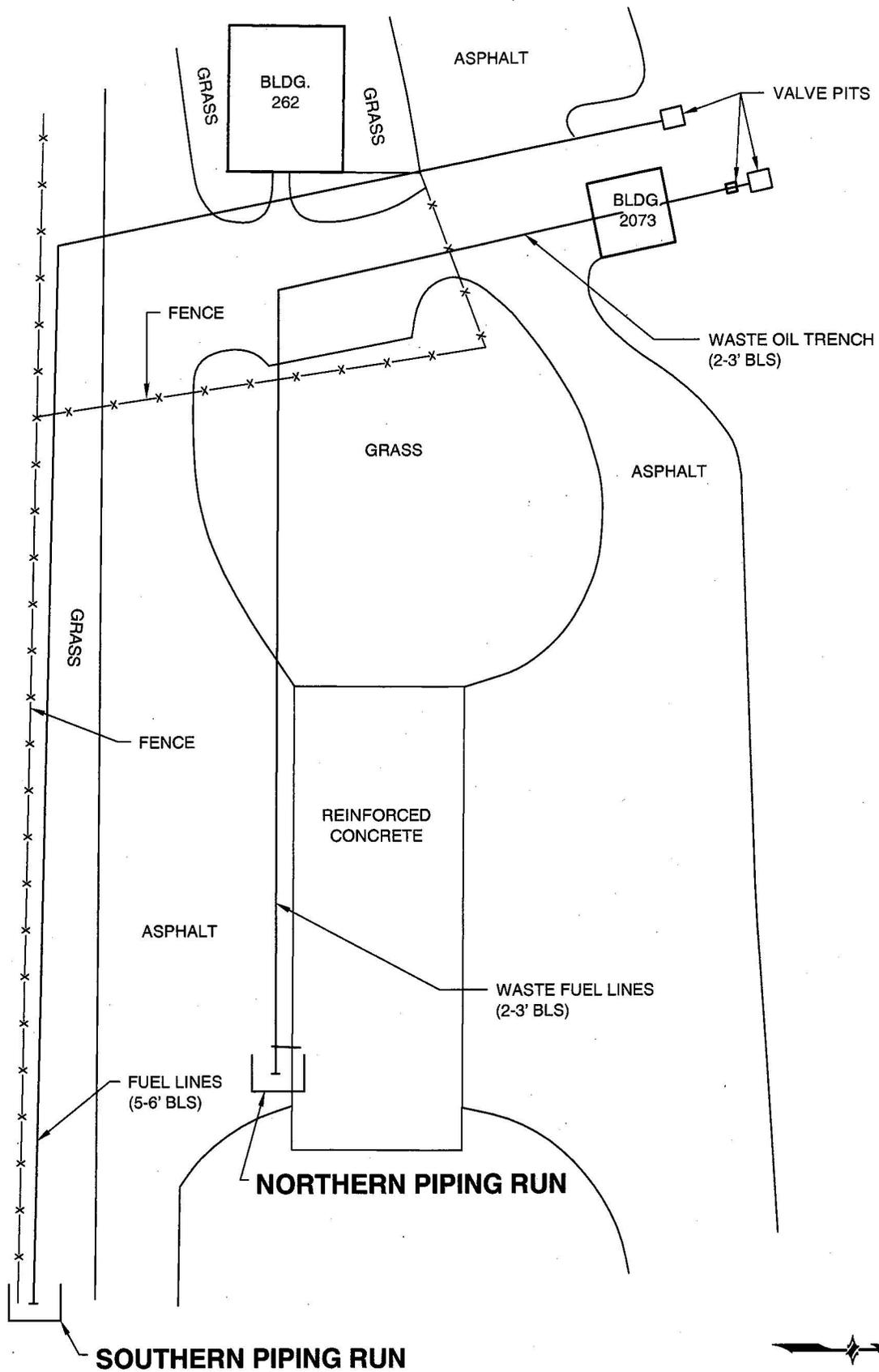
SHEET NAME:

AERIAL PHOTOGRAPH  
OF PROJECT AREA

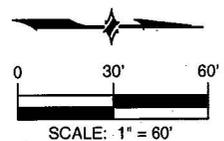
CHECKED BY: HFH

APPROVED BY: BJM

FIGURE: **1**



BLS = BELOW LAND SURFACE



PROJECT NAME:

MAYPORT PIER 136 SITE  
JACKSONVILLE, FLORIDA



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PROJECT: 9780G

DATE: 7/16/07

DRAWN BY: CSM

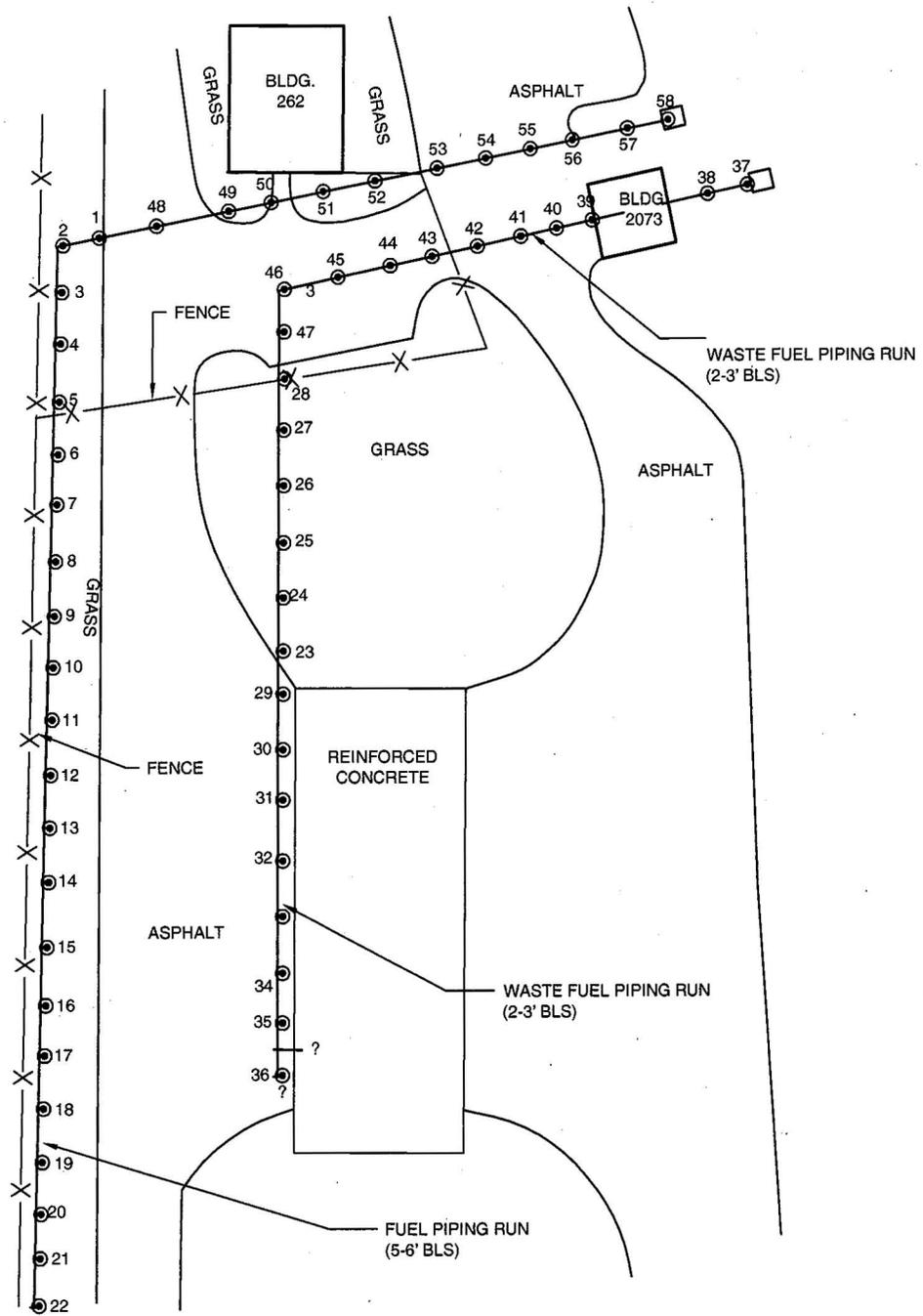
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INITIAL SITE PLAN  
FROM GROUND PENETRATING  
RADAR INVESTIGATION

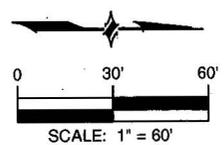
CHECKED BY: HFH

APPROVED BY: BJM

FIGURE: **2**



LEGEND:  
 ⊙ SOIL BORING LOCATION  
 BLS = BELOW LAND SURFACE



PROJECT NAME:  
 MAYPORT PIER 136 SITE  
 JACKSONVILLE, FLORIDA



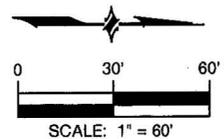
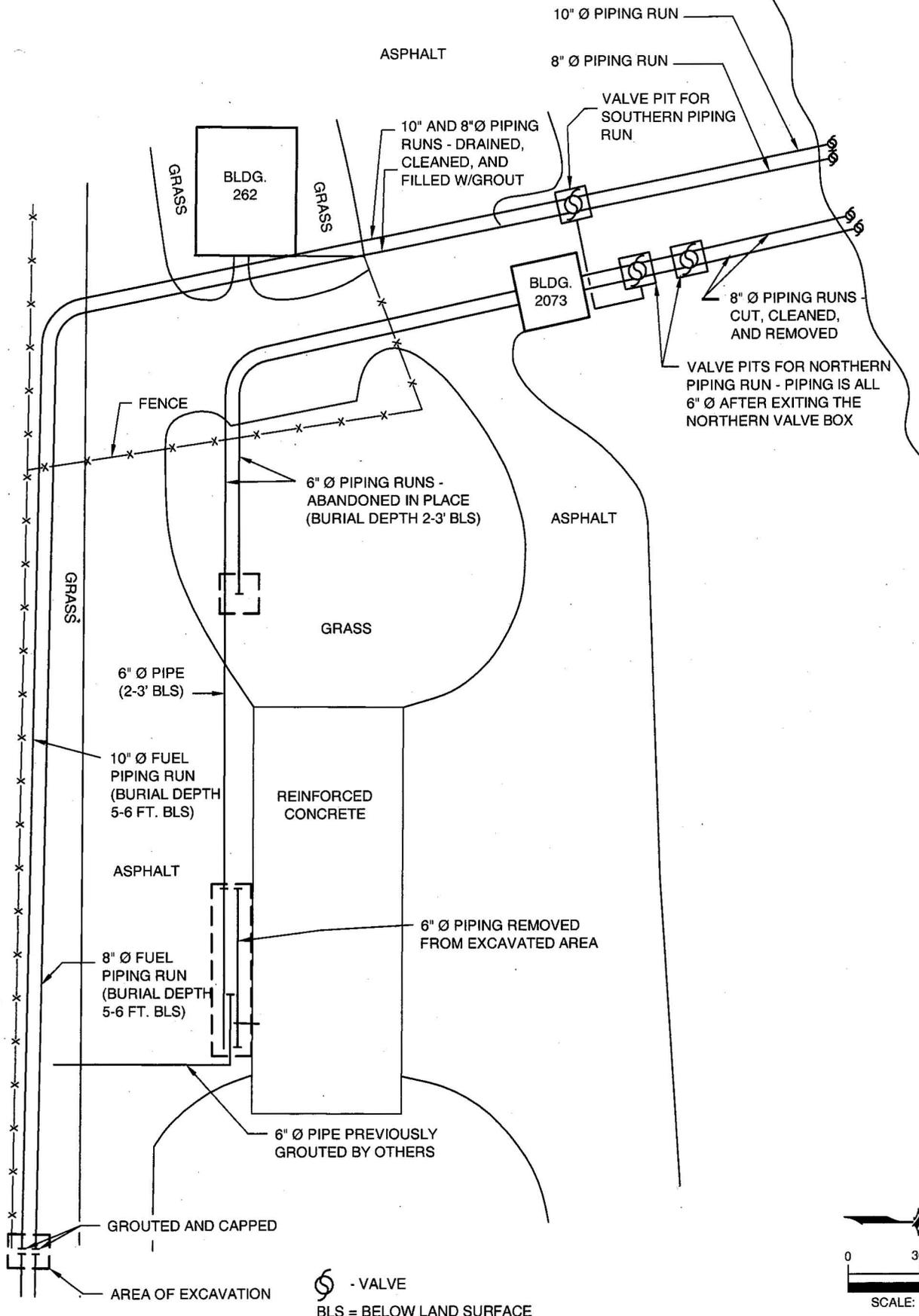
598 S. NORTH LAKE BLVD., SUITE 1024  
 ALTAMONTE SPRINGS, FL. 32701  
 PHONE: (407) 645-3400 WEB SITE: www.qore.net  
 FAX: (407) 645-3731 EMAIL: orlando@qore.net

PROJECT: 9780G DATE: 7/16/07 DRAWN BY: CSM

SHEET NAME: PIPING CLOSURE SOIL BORING LOCATIONS  
 CHECKED BY: HFH

APPROVED BY: BJM

FIGURE: **3**



PROJECT NAME:

MAYPORT PIER 136 SITE  
JACKSONVILLE, FLORIDA



598 S. NORTH LAKE BLVD., SUITE 1024  
ALTAMONTE SPRINGS, FL. 32701  
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FAX: (407) 645-3731 EMAIL: orlando@qore.net

PROJECT: 9780G

DATE: 7/16/07

DRAWN BY: CSM

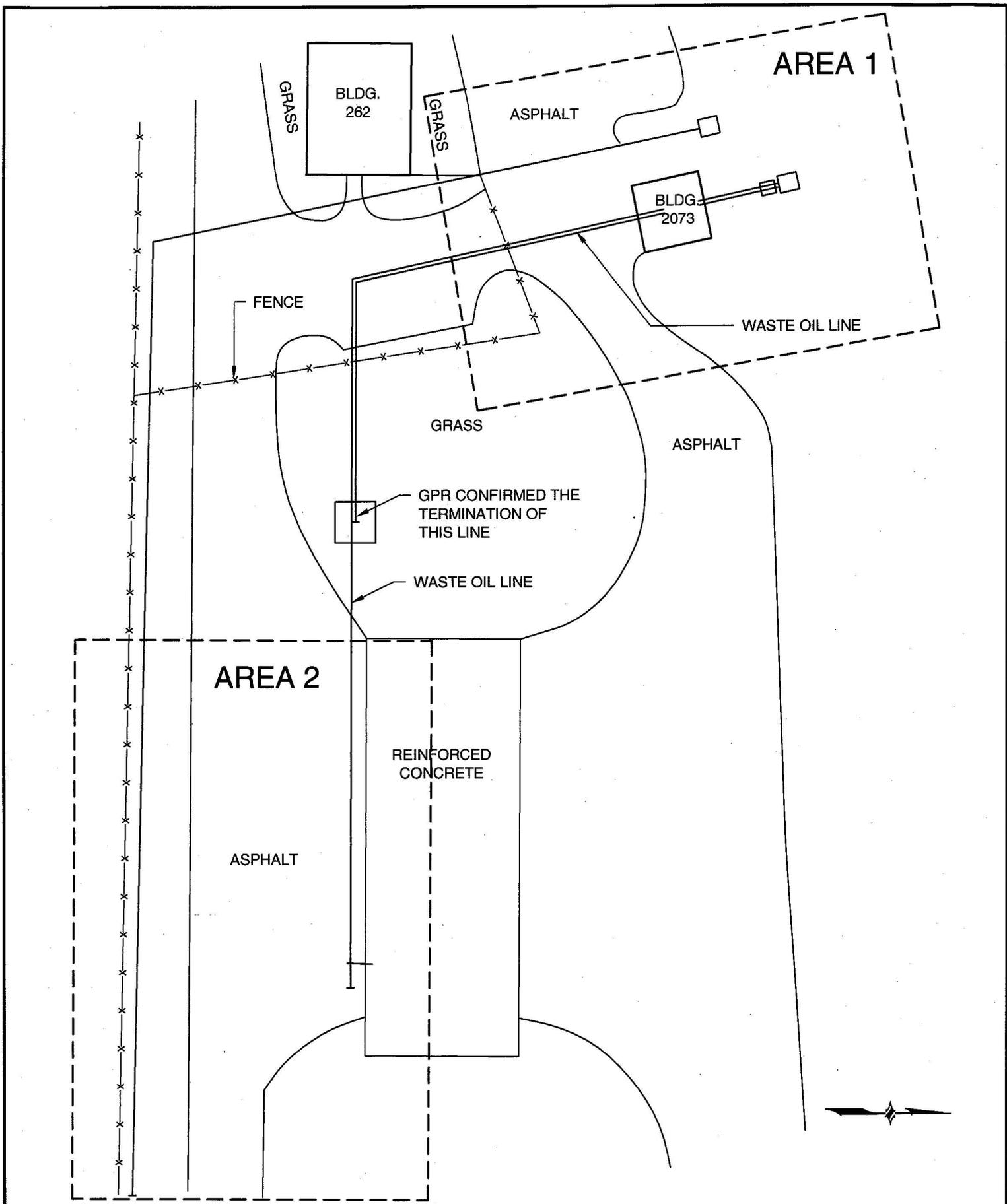
SHEET NAME:

SITE PLAN OF  
PROJECT AREA SHOWING  
PIPING RUN DETAILS

CHECKED BY: HFH

APPROVED BY: BJM

FIGURE: **4**



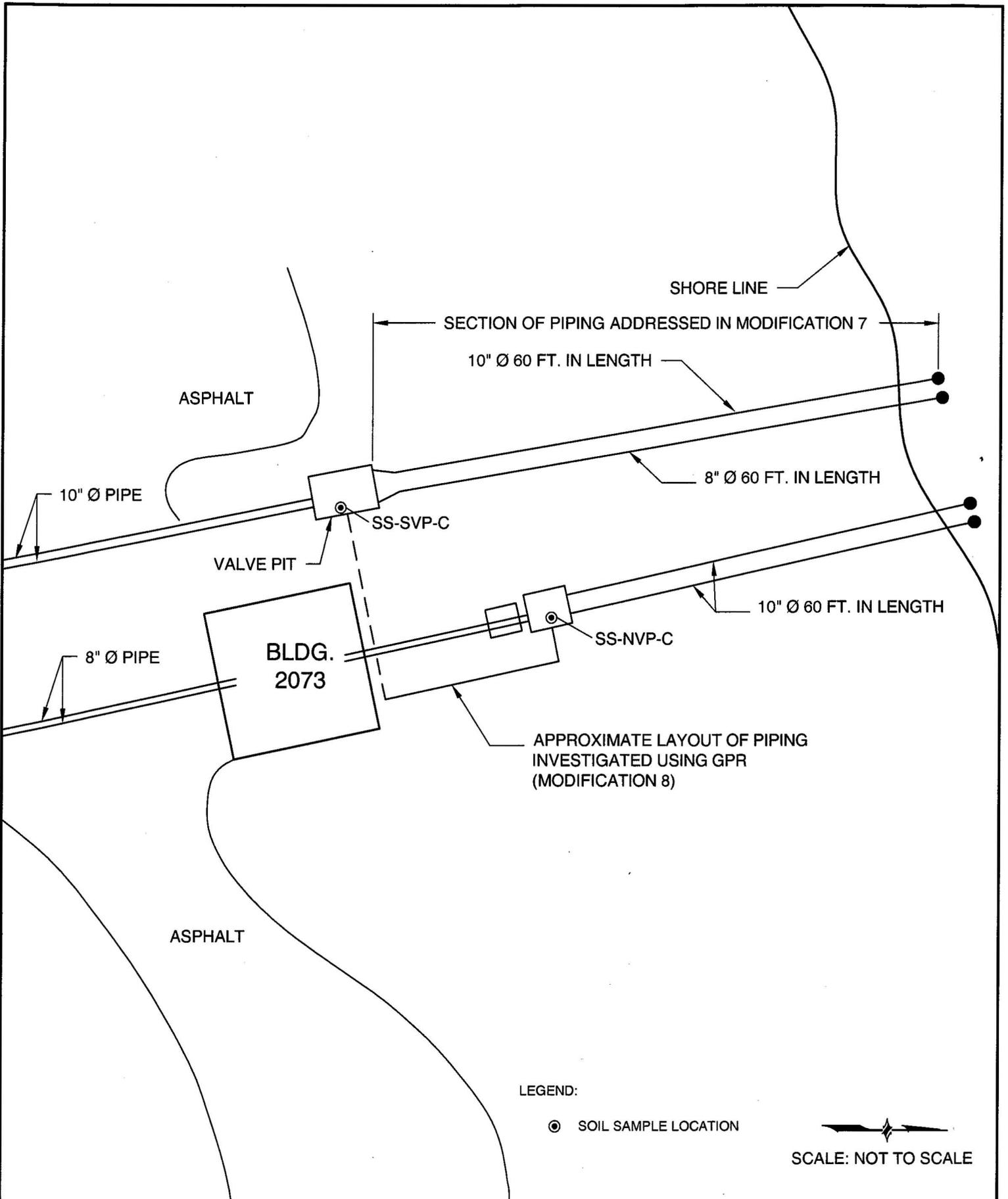
PROJECT NAME:  
**MAYPORT PIER 136 SITE  
 JACKSONVILLE, FLORIDA**



598 S. NORTH LAKE BLVD., SUITE 1024  
 ALTAMONTE SPRINGS, FL. 32701  
 PHONE: (407) 645-3400 WEB SITE: www.qore.net  
 FAX: (407) 645-3731 EMAIL: orlando@qore.net

PROJECT: 9780G	DATE: 7/16/07	DRAWN BY: CSM
SHEET NAME: DETAIL PIPING LAYOUT AREAS		CHECKED BY: HFH
		APPROVED BY: BJM

FIGURE: **5**



LEGEND:

⊙ SOIL SAMPLE LOCATION



SCALE: NOT TO SCALE

PROJECT NAME:  
**MAYPORT PIER 136 SITE  
 JACKSONVILLE, FLORIDA**



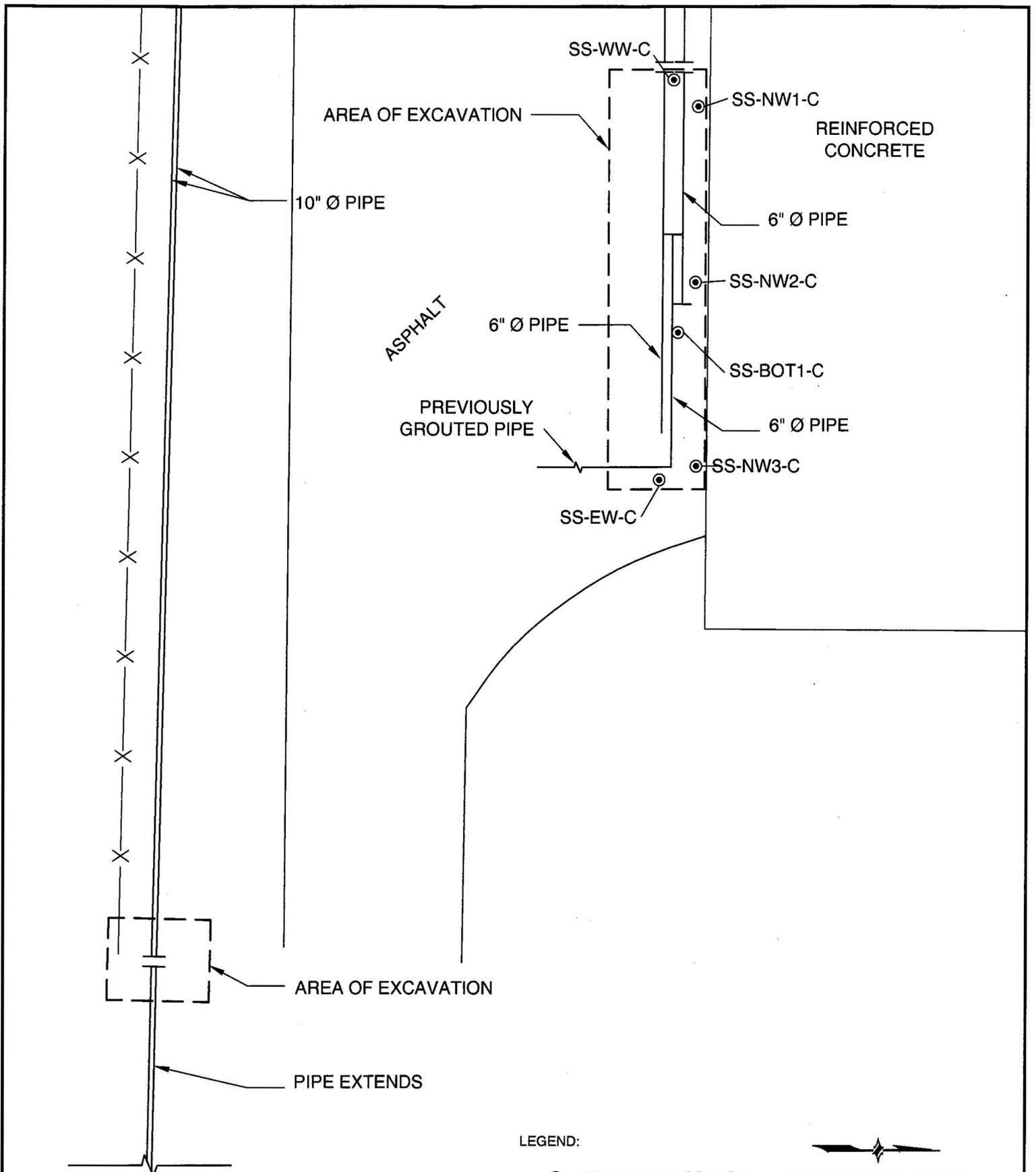
598 S. NORTH LAKE BLVD., SUITE 1024  
 ALTAMONTE SPRINGS, FL. 32701  
 PHONE: (407) 645-3400 WEB SITE: www.qore.net  
 FAX: (407) 645-3731 EMAIL: orlando@qore.net

PROJECT: 9780G DATE: 7/16/07 DRAWN BY: CSM

SHEET NAME:  
**AREA 1 ENLARGED  
 SHOWING SOIL  
 CONFIRMATION  
 SAMPLE LOCATIONS**

CHECKED BY: HFH  
 APPROVED BY: BJM

FIGURE: **6**



LEGEND:

⊙ SOIL SAMPLE LOCATION

SCALE: NOT TO SCALE

—|— CUT SECTIONS OF PIPING

PROJECT NAME:  
  
MAYPORT PIER 136 SITE  
JACKSONVILLE, FLORIDA

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FAX: (407) 645-3731 EMAIL: orlando@qore.net

PROJECT: 9780G	DATE: 7/16/07	DRAWN BY: CSM
SHEET NAME:		CHECKED BY: HFH
AREA 2 ENLARGED SHOWING SOIL CONFIRMATION SAMPLE LOCATIONS		APPROVED BY: BJM
		FIGURE: <b>7</b>

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**ATTACHMENT A**

**FINAL REPORT OF GEOPHYSICAL  
INVESTIGATION**

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**FINAL REPORT**  
**GEOPHYSICAL INVESTIGATION**  
**MAYPORT PIER 136 SITE**  
**JACKSONVILLE, FL**

Prepared for Qore Property Sciences  
Altamonte Springs, FL

Prepared by GeoView, Inc.  
St. Petersburg, FL



November 1, 2005

Brant J. Muekeley, P.E.  
QORE Property Sciences  
598 S. North Lake Boulevard, Suite 1024  
Altamonte Springs, FL 32701

**Subject: Transmittal of Final Report for Geophysical Investigation  
Mayport Pier 136 Site-Jacksonville, FL  
GeoView Project Number 2825**

Dear Mr. Muekeley,

GeoView, Inc. (GeoView) is pleased to submit the final report that summarizes and presents the results of the geophysical investigation conducted at the Mayport Pier 136 Site in Jacksonville, FL. The purpose of the geophysical investigation was to determine the route of abandoned fuel and waste oil lines that are present at project site. GeoView appreciates the opportunity to have assisted you on this project. If you have any questions or comments about the report, please contact us.

**GEOVIEW, INC.**

Stephen Scruggs  
Geophysicist

Michael J. Wightman, P.G.  
President

Florida Professional Geologist Number 1423

*A Geophysical Services Company*

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4610 Central Avenue  
Jacksonville, FL 33771

Tel: (727) 209-2334  
Fax: (727) 328-2477

## **1.0 Introduction**

A geophysical investigation was conducted at the Mayport Pier 136 Site in Jacksonville, FL. The location of the survey area is provided on Figure 1. The purpose of the investigation was to help designate the route of fuel and waste oil lines that are present within the specified areas of the project site.

## **2.0 Description of Geophysical Investigation**

The geophysical investigation was conducted using ground-penetrating radar (GPR) and electronic utility locate (EUL) equipment. The EUL was used to identify any underground utilities that were either carrying electrical power or could be energized by an induced electrical current. The GPR was used to help identify both electrical and non-electrical underground utilities within the survey area.

A combination of two geophysical methods was used for the site investigation. The two selected methods are complementary, in that, the EUL can accurately and rapidly detect many types of underground utilities. GPR, which is slower, can then be used to confirm the results of the EUL survey and to identify other underground utilities that are non-detectable by the EUL. It is typically possible to evaluate the burial depth of the underground utilities using both methods. A description of the geophysical methods is provided as Appendix 1.

## **3.0 Survey Results**

Results of the geophysical investigation are provided in Figure 1. The two abandoned waste oil lines were exposed in an access pit located north of building 2073. The proximity of the two lines to each other resulted in a single broad parabolic reflection on the GPR data profiles. For this reason the utilities were designated in the field and also on Figure 1 as one broad trench feature approximately 3 to 4 feet (ft) in width. The abandoned fuel lines located east of the waste oil lines also were identified by a broad parabolic reflection and designated in the same manner.

The estimated depths of the underground utilities of the waste oil lines ranged from 2 to 3 ft below land surface (bls) and the estimated depths of the fuel lines ranged from 5 to 6 ft bls. In general the estimated depths of the underground utilities are accurate to within a tolerance of +/- 25 percent. Plan view positions are usually accurate to within +/- 1-foot. The location of the underground utilities was indicated on the ground surface using pink spray paint and/or wire pin flags.

An example of the GPR data collected across the waste oil lines is provided in Appendix 1. A discussion of the limitations of the GPR technique in geological characterization studies is provided in Appendix 2.

#### **4.0 Limitations**

The ability to collect interpretable information at a project site using the GPR and EUL methods is limited by the physical properties of both the underground soils and the underground utilities. Specific to the GPR, the depth of penetration of the GPR signal is limited by the attenuation (absorption) of the GPR signal within subsurface soil materials. Once the GPR signal has been attenuated at a particular depth, information regarding deeper features will not be obtained. The ability of GPR to resolve a particular utility is a function of the contrast in dielectric constants (conductivity) between the particular utility and the surrounding soils. The larger the contrast the more easily the pipe can be resolved by the GPR. For example, the difference in dielectric constants between sand and a PVC or ceramic pipe is relatively small in comparison to the difference between sand and a steel pipe. Accordingly, when using GPR, a PVC pipe is more difficult (and sometimes impossible) to resolve in comparison to a steel pipe.

The ability of GPR to resolve a utility is also controlled by the utilities size and depth. In general, GPR loses 0.5 to 1 inch of resolution per foot of burial. For example, it would not be possible to resolve a 2-inch diameter pipe at a depth greater than 2 to 4 ft.

Utilities can be identified using the EUL method in both the passive and active mode. In the passive mode, the EUL detects underground utilities that are energized by a 60 Hertz current. These utilities can be either actively carrying an electrical current or may be non-electrical metallic utilities that have been energized by a nearby electrical utility. It is because of this energizing that a particular utility may be incorrectly identified as an electrical utility. For the EUL equipment to identify an electrical utility in the passive mode, the utility must be carrying a sufficient amperage (load). If the load on a particular utility is low or zero then it will not be possible to identify the utility in this mode.

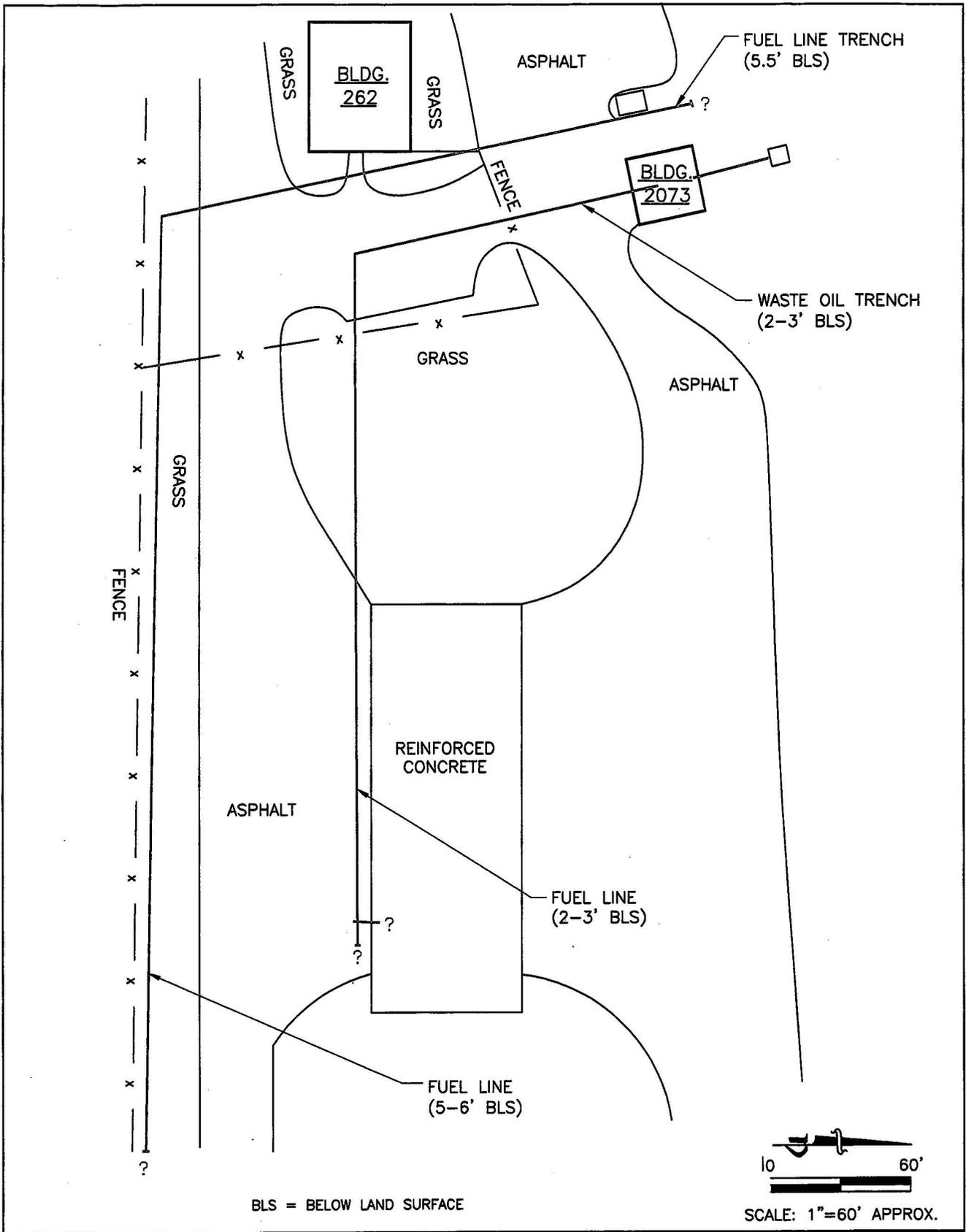
In the active mode, the EUL is directly connected to the particular utility and an energizing current is induced. This method only works when the utility is metallic, if a particular utility changes from a metallic to non-metallic then the EUL will not be able to identify the utility beyond the point of that transition. Some non-metallic pipelines, such as gas pipelines, have metallic trace wires emplaced along the pipeline. If this wire is broken or corroded then it will not be possible to locate the utility beyond that point.

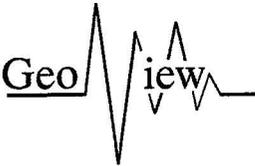
It is noted that underground utilities at the project site were identified using GPR and EUL methods only. Physical probing or other visual confirmation for the presence and/or identification of the suspected underground utilities was not performed. The identification of the utilities was based solely on above-ground observations; e.g., proximity to water valves and by observations made into manholes and vaults.

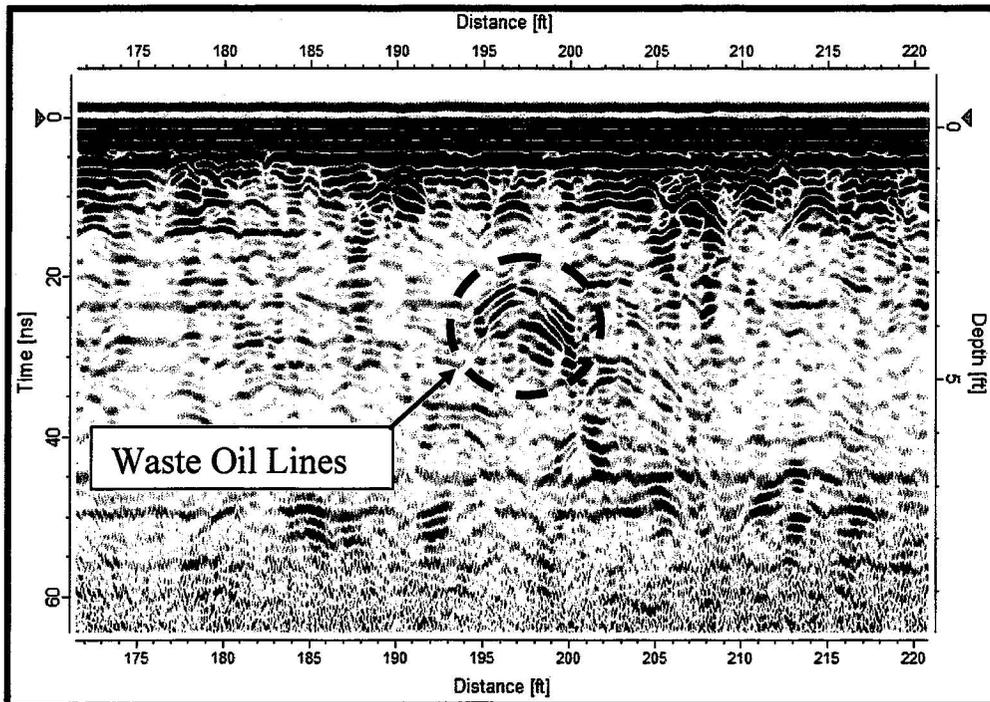
The results of the GeoView investigation are limited by the capabilities of the GPR and EUL methods at the project site. GeoView can make no warranties or representations of subsurface conditions beyond the capabilities of the geophysical methods. Results of this investigation should be used only to help anticipate where, what type and approximate depth of the underground utilities that will be encountered during demolition activities at the project site. All standard operating procedures typically employed for utility-removal projects should be followed.

## **APPENDIX 1**

### **FIGURE AND EXAMPLE OF GPR DATA SHOWING SUBSURFACE UTILITIES**



	<p><b>FIGURE 1</b>  <b>SITE MAP</b>  <b>SHOWING RESULTS</b>  <b>OF GPR</b>  <b>INVESTIGATION</b></p>	<p><b>MAYPORT PIER 136 SITE</b>  <b>JACKSONVILLE, FLORIDA</b></p>	<p><b>PROJECT:</b>  2825  <b>DATE:</b>  10/31/2005</p>
	<p><b>QORE PROPERTY SCIENCES</b>  <b>ALTAMONTE SPRINGS, FLORIDA</b></p>		



GPR Transect Showing Example of Single, Broadly-Shaped Parabolic Reflection Identifying The Two Buried Waste Oil Lines.

## APPENDIX 2

### DESCRIPTION OF GEOPHYSICAL METHODS, SURVEY METHODOLOGIES AND LIMITATIONS

#### Ground Penetrating Radar

Ground Penetrating Radar (GPR) consists of a set of integrated electronic components that transmits high frequency (250 to 1,000 megahertz [MHz]) electromagnetic waves into the ground and records the energy reflected back to the ground surface. The GPR system consists of an antenna, which serves as both a transmitter and receiver, and a profiling recorder that both processes the incoming signal and provides a graphic display of the data. The GPR data can be reviewed real time on the system's computer screen or recorded on the hard drive for later review. GeoView uses a Mala GPR system. Underground utility surveys are typically conducted using either a 500 or 250 MHz antenna.

A GPR survey provides a graphic cross-sectional view of subsurface conditions. This cross-sectional view is created from the reflections of repetitive short-duration electromagnetic (EM) waves which are generated as the antenna is pulled across the ground surface. The reflections occur at the subsurface contacts between materials with differing electrical properties. The electrical property contrast that causes the reflections is the dielectric permittivity which is directly related to conductivity of a material. The GPR method is commonly used to identify such targets as underground utilities, underground storage tanks or drums, buried debris, voids or geological features.

The greater the electrical contrast between the surrounding earth materials and target of interest, the greater the amplitude of the reflected return signal. Unless the buried object is metal, only part of the signal energy will be reflected back to the antenna with the remaining portion of the signal continuing to propagate downward to be reflected by deeper features. If there is little or no electrical contrast between the target interest and surrounding earth materials it will be very difficult if not impossible to identify the object using GPR. A typical target difficult to identify during a GPR survey would be a water-filled PVC pipe buried below the water table.

The depth of penetration of the GPR signal is very site specific and is controlled by two primary factors: subsurface soil conditions and selected antenna frequency. The GPR signal is attenuated (absorbed) as it passes through earth materials. As the energy of the GPR signal is diminished due to attenuation, the

energy of the reflected waves is reduced, eventually to the level that they can no longer be resolved by the GPR system. The more conductive the earth materials, the greater the GPR signal attenuation, hence a reduction in signal penetration depth. In Florida, the typical soil conditions which severely limit GPR signal penetration are near-surface clay and organic materials.

The depth of penetration of the GPR signal is also reduced as the antenna frequency is increased. However, as antenna frequency is increased the resolution of the GPR data is improved. Therefore, when designing a GPR survey a tradeoff is made between the required depth of penetration and desired resolution of the data. As a rule, the highest frequency antenna that will still provide the desired maximum depth of penetration should be used.

A GPR survey is conducted along survey lines (transects) which are measured paths along which the GPR antenna is moved. Electronic marks are placed in the data by the operator at designated points along the GPR transects. These marks allow for a correlation between the GPR data and the position of the GPR antenna on the ground.

For underground utility surveys, the GPR investigation is conducted along a set of perpendicularly orientated transects. The survey is conducted in two directions because the definitive GPR signal response associated with an underground utility is only obtained when the GPR antenna is passed perpendicular to the long axis of the utility. Spacing between the transects typically ranges from 2.5 to 20 feet depending upon the complexity of the configuration of the underground utilities. The location of the underground utilities is typically painted on the ground surface and/or provided on a scaled map.

To determine the depth of an underground utility using GPR, the time of travel of the GPR signal between the utility and the ground surface is divided by the velocity of the GPR signal. The velocity of the GPR signal can be obtained either from published tables of velocities for the type of soil underlying the site or by directly calibrating the GPR system on site by using utilities with known depths. The accuracy of GPR-derived utility depths typically ranges from 10-25 percent of the total depth.

#### Conventional Utility Locating

A SubSite 95R System is used by GeoView to locate underground utilities using conventional means. The system consists of a dual-function receiver and

transmitter. The receiver can be operated in two modes: active and passive. In the passive mode the receiver detects the presence of underground utilities that are energized by a 60 Hertz cycle current. These utilities can either be those actually carrying electrical power or those utilities that are both metallic and sufficiently close to the electrical lines to have an electrical field induced within them.

In the active mode, an electrical current is deliberately induced into the utility by the transmitter. The frequency of this field can be varied from 1 to 80 Hertz. The electrical field is induced using a transmitter which is either directly attached to the utility, placed on or above the utility or attached to an induction coil which is placed around the utility. Depths of underground utilities can be determined when the EUL equipment is being used in the active mode. Depths are typically accurate to within 10 percent of the total utility depth.

#### On Site Measurements

The measurements that were collected and used to create the site map were made using a fiberglass measuring tape. The degree of accuracy of such an approach is typically +/- 5% for lengths and +/- 2.5 degrees for angles.

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**ATTACHMENT B**

**LABORATORY ANALYTICAL RESULTS  
FOR SOIL CHARACTERIZATION**

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**Environmental Conservation Laboratories, Inc.**

10775 Central Port Drive

Orlando FL, 32824

Phone: 407.826.5314 FAX: 407.850.6945



www.encolabs.com

Wednesday, July 18, 2007

QORE Property Sciences (AT001)

Attn: Brant Muekeley

598 S. North Lake Blvd. Suite 1024

Altamonte Springs, FL 32701-5228

**RE: Project Number: 9780G, Project Name/Desc: Mayport Pipeline Assessment  
ENCO Workorder: A603285**

Dear Brant Muekeley,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Wednesday, September 13, 2006.

Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. Results for these procedures apply only to the samples as submitted.

This data has been produced in accordance with NELAC standards (June, 2003). This report shall not be reproduced except in full, without the written approval of the Laboratory.

This report contains only those analyses performed by Environmental Conservation Laboratories. Data from outside organizations will be reported under separate cover.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink that reads 'David M. Camacho'.

David Camacho For Ronald Wambles

Project Manager

Enclosure(s)



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**SAMPLE SUMMARY/LABORATORY CHRONICLE**

**Client ID:** HA-33 (4-5')

**Lab ID:** A603285-01

**Sampled:** 09/13/06 08:56

**Received:** 09/13/06 15:35

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<b>Parameter</b>	<b>Hold Date/Time(s)</b>	<b>Prep Date/Time(s)</b>	<b>Analysis Date/Time(s)</b>
EPA 8260B	09/27/06	09/14/06 13:39	9/14/2006 15:45

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**Client ID:** HA-35 (4-5')

**Lab ID:** A603285-02

**Sampled:** 09/13/06 09:23

**Received:** 09/13/06 15:35

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<b>Parameter</b>	<b>Hold Date/Time(s)</b>	<b>Prep Date/Time(s)</b>	<b>Analysis Date/Time(s)</b>
EPA 8260B	09/27/06	09/14/06 00:00	9/14/2006 16:14

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**Client ID:** HA-36 (2-0')

**Lab ID:** A603285-03

**Sampled:** 09/13/06 09:40

**Received:** 09/13/06 15:35

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<b>Parameter</b>	<b>Hold Date/Time(s)</b>	<b>Prep Date/Time(s)</b>	<b>Analysis Date/Time(s)</b>
EPA 8260B	09/27/06	09/14/06 00:00	9/14/2006 16:43

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### SAMPLE DETECTION SUMMARY

Client ID: HA-33 (4-5')

Lab ID: A603285-01

Analyte	Results/Qual	MRL	Units	Method
2-Butanone	0.014	0.0061	mg/kg dry	EPA 8260B
Acetone	0.18	0.0061	mg/kg dry	EPA 8260B
Isopropylbenzene	0.0006 I	0.0012	mg/kg dry	EPA 8260B
Naphthalene	0.016	0.0012	mg/kg dry	EPA 8260B
n-Butyl Benzene	0.0022	0.0012	mg/kg dry	EPA 8260B
n-Propyl Benzene	0.0014	0.0012	mg/kg dry	EPA 8260B
sec-Butylbenzene	0.0021	0.0012	mg/kg dry	EPA 8260B

Client ID: HA-35 (4-5')

Lab ID: A603285-02

Analyte	Results/Qual	MRL	Units	Method
1,2,4-Trimethylbenzene	0.011	0.0011	mg/kg dry	EPA 8260B
1,3,5-Trimethylbenzene	0.0017	0.0011	mg/kg dry	EPA 8260B
Acetone	0.14	0.0053	mg/kg dry	EPA 8260B
Carbon disulfide	0.0010 I	0.0011	mg/kg dry	EPA 8260B
Ethylbenzene	0.0013	0.0011	mg/kg dry	EPA 8260B
Isopropylbenzene	0.024	0.0011	mg/kg dry	EPA 8260B
m,p-Xylenes	0.0014	0.0011	mg/kg dry	EPA 8260B
Naphthalene	0.32 E	0.0011	mg/kg dry	EPA 8260B
n-Butyl Benzene	0.048	0.0011	mg/kg dry	EPA 8260B
o-Xylene	0.0018	0.0011	mg/kg dry	EPA 8260B
Toluene	0.0009 I	0.0011	mg/kg dry	EPA 8260B
Xylenes (Total)	0.0033	0.0011	mg/kg dry	EPA 8260B

Client ID: HA-36 (2-0')

Lab ID: A603285-03

Analyte	Results/Qual	MRL	Units	Method
2-Butanone	0.0088	0.0054	mg/kg dry	EPA 8260B
Acetone	0.10	0.0054	mg/kg dry	EPA 8260B



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**ANALYTICAL REPORT**

Sample ID: HA-33 (4-5')  
 Lab #: A603285-01  
 Prep. Method: EPA 5030B\_MS  
 Analyzed: 09/14/06 By: kat  
 Anal. Method: EPA 8260B  
 Anal. Batch:  
 QC Batch: 6114008

Project: Mayport Pipeline Assessment  
 Work Order #: A603285  
 Matrix: Soil  
 Unit: mg/kg dry  
 Dilution Factor: 1  
 Percent Solids: 93.33

**Volatile Organic Compounds by GCMS**

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
1,1,1,2-Tetrachloroethane	630-20-6	0.0005 U	0.0005	0.0012	mg/kg dry
1,1,1-Trichloroethane	71-55-6	0.0006 U	0.0006	0.0012	mg/kg dry
1,1,2,2-Tetrachloroethane	79-34-5	0.0009 U	0.0009	0.0012	mg/kg dry
1,1,2-Trichloroethane	79-00-5	0.0007 U	0.0007	0.0012	mg/kg dry
1,1-Dichloroethane	75-34-3	0.0005 U	0.0005	0.0012	mg/kg dry
1,1-Dichloroethene	75-35-4	0.0010 U	0.0010	0.0012	mg/kg dry
1,1-Dichloropropene	563-58-6	0.0006 U	0.0006	0.0012	mg/kg dry
1,2,3-Trichlorobenzene	87-61-6	0.0007 U	0.0007	0.0012	mg/kg dry
1,2,3-Trichloropropane	96-18-4	0.0010 U	0.0010	0.0012	mg/kg dry
1,2,4-Trichlorobenzene	120-82-1	0.0007 U	0.0007	0.0012	mg/kg dry
1,2,4-Trimethylbenzene	95-63-6	0.0005 U	0.0005	0.0012	mg/kg dry
1,2-Dibromo-3-chloropropane	96-12-8	0.0010 U	0.0010	0.0012	mg/kg dry
1,2-Dibromoethane	106-93-4	0.0007 U	0.0007	0.0012	mg/kg dry
1,2-Dichlorobenzene	95-50-1	0.0007 U	0.0007	0.0012	mg/kg dry
1,2-Dichloroethane	107-06-2	0.0006 U	0.0006	0.0012	mg/kg dry
1,2-Dichloropropane	78-87-5	0.0009 U	0.0009	0.0012	mg/kg dry
1,3,5-Trimethylbenzene	108-67-8	0.0004 U	0.0004	0.0012	mg/kg dry
1,3-Dichlorobenzene	541-73-1	0.0006 U	0.0006	0.0012	mg/kg dry
1,3-Dichloropropane	142-28-9	0.0004 U	0.0004	0.0012	mg/kg dry
1,4-Dichlorobenzene	106-46-7	0.0005 U	0.0005	0.0012	mg/kg dry
2,2-Dichloropropane	594-20-7	0.0009 U	0.0009	0.0012	mg/kg dry
<b>2-Butanone</b>	78-93-3	<b>0.014</b>	0.0025	0.0061	mg/kg dry
2-Chloroethyl Vinyl Ether	110-75-8	0.0012 U	0.0012	0.0061	mg/kg dry
2-Chlorotoluene	95-49-8	0.0005 U	0.0005	0.0012	mg/kg dry
2-Hexanone	591-78-6	0.0011 U	0.0011	0.0012	mg/kg dry
4-Chlorotoluene	106-43-4	0.0006 U	0.0006	0.0012	mg/kg dry
4-Isopropyltoluene	99-87-6	0.0005 U	0.0005	0.0012	mg/kg dry
4-Methyl-2-pentanone	108-10-1	0.0025 U	0.0025	0.0061	mg/kg dry
<b>Acetone</b>	67-64-1	<b>0.18</b>	0.0012	0.0061	mg/kg dry
Benzene	71-43-2	0.0007 U	0.0007	0.0012	mg/kg dry
Bromobenzene	108-86-1	0.0006 U	0.0006	0.0012	mg/kg dry
Bromochloromethane	74-97-5	0.0007 U	0.0007	0.0012	mg/kg dry
Bromodichloromethane	75-27-4	0.0005 U	0.0005	0.0012	mg/kg dry
Bromoform	75-25-2	0.0007 U	0.0007	0.0012	mg/kg dry
Bromomethane	74-83-9	0.0011 U	0.0011	0.0012	mg/kg dry
Carbon disulfide	75-15-0	0.0011 U	0.0011	0.0012	mg/kg dry



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**ANALYTICAL REPORT**

Sample ID: HA-33 (4-5')  
 Lab #: A603285-01  
 Prep. Method: EPA 5030B\_MS  
 Analyzed: 09/14/06 By: kat  
 Anal. Method: EPA 8260B  
 Anal. Batch:  
 QC Batch: 6I14008

Project: Mayport Pipeline Assessment  
 Work Order #: A603285  
 Matrix: Soil  
 Unit: mg/kg dry  
 Dilution Factor: 1  
 Percent Solids: 93.33

**Volatile Organic Compounds by GCMS**

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
Carbon Tetrachloride	56-23-5	0.0006 U	0.0006	0.0012	mg/kg dry
Chlorobenzene	108-90-7	0.0006 U	0.0006	0.0012	mg/kg dry
Chloroethane	75-00-3	0.0012 U	0.0012	0.0012	mg/kg dry
Chloroform	67-66-3	0.0006 U	0.0006	0.0012	mg/kg dry
Chloromethane	74-87-3	0.0007 U	0.0007	0.0012	mg/kg dry
cis-1,2-Dichloroethene	156-59-2	0.0010 U	0.0010	0.0012	mg/kg dry
cis-1,3-Dichloropropene	10061-01-5	0.0006 U	0.0006	0.0012	mg/kg dry
Dibromochloromethane	124-48-1	0.0007 U	0.0007	0.0012	mg/kg dry
Dibromomethane	74-95-3	0.0010 U	0.0010	0.0012	mg/kg dry
Dichlorodifluoromethane	75-71-8	0.0007 U	0.0007	0.0012	mg/kg dry
Ethylbenzene	100-41-4	0.0009 U	0.0009	0.0012	mg/kg dry
Hexachlorobutadiene	87-68-3	0.0007 U	0.0007	0.0012	mg/kg dry
<b>Isopropylbenzene</b>	98-82-8	<b>0.0006 I</b>	0.0006	0.0012	mg/kg dry
m,p-Xylenes	108-38-3/106-42-3	0.0010 U	0.0010	0.0025	mg/kg dry
Methylene Chloride	75-09-2	0.0005 U	0.0005	0.0061	mg/kg dry
Methyl-tert-Butyl Ether	1634-04-4	0.0010 U	0.0010	0.0012	mg/kg dry
<b>Naphthalene</b>	91-20-3	<b>0.016</b>	0.0004	0.0012	mg/kg dry
<b>n-Butyl Benzene</b>	104-51-8	<b>0.0022</b>	0.0005	0.0012	mg/kg dry
<b>n-Propyl Benzene</b>	103-65-1	<b>0.0014</b>	0.0004	0.0012	mg/kg dry
o-Xylene	95-47-6	0.0006 U	0.0006	0.0012	mg/kg dry
<b>sec-Butylbenzene</b>	135-98-8	<b>0.0021</b>	0.0005	0.0012	mg/kg dry
Styrene	100-42-5	0.0005 U	0.0005	0.0012	mg/kg dry
tert-Butylbenzene	98-06-6	0.0005 U	0.0005	0.0012	mg/kg dry
Tetrachloroethene	127-18-4	0.0006 U	0.0006	0.0012	mg/kg dry
Toluene	108-88-3	0.0006 U	0.0006	0.0012	mg/kg dry
trans-1,2-Dichloroethene	156-60-5	0.0011 U	0.0011	0.0012	mg/kg dry
trans-1,3-Dichloropropene	10061-02-6	0.0005 U	0.0005	0.0012	mg/kg dry
Trichloroethene	79-01-6	0.0005 U	0.0005	0.0012	mg/kg dry
Trichlorofluoromethane	75-69-4	0.0006 U	0.0006	0.0012	mg/kg dry
Vinyl chloride	75-01-4	0.0007 U	0.0007	0.0012	mg/kg dry
Xylenes (Total)	1330-20-7	0.0016 U	0.0016	0.0037	mg/kg dry

Surrogate Recovery	Result	Spike Level	% Recovery	% Recovery Limits
4-Bromofluorobenzene	64	50.0	128 %	58-133
Dibromofluoromethane	48	50.0	96 %	63-135
Toluene-d8	56	50.0	112 %	71-126



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### ANALYTICAL REPORT

Sample ID: HA-35 (4-5')  
Lab #: A603285-02  
Prep. Method: EPA 5030B\_MS  
Analyzed: 09/14/06 By: kat  
Anal. Method: EPA 8260B  
Anal. Batch:  
QC Batch: 6114008

Project: Mayport Pipeline Assessment  
Work Order #: A603285  
Matrix: Soil  
Unit: mg/kg dry  
Dilution Factor: 1  
Percent Solids: 94.87

#### Volatile Organic Compounds by GCMS

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
1,1,1,2-Tetrachloroethane	630-20-6	0.0004 U	0.0004	0.0011	mg/kg dry
1,1,1-Trichloroethane	71-55-6	0.0005 U	0.0005	0.0011	mg/kg dry
1,1,2,2-Tetrachloroethane	79-34-5	0.0007 U	0.0007	0.0011	mg/kg dry
1,1,2-Trichloroethane	79-00-5	0.0006 U	0.0006	0.0011	mg/kg dry
1,1-Dichloroethane	75-34-3	0.0004 U	0.0004	0.0011	mg/kg dry
1,1-Dichloroethene	75-35-4	0.0008 U	0.0008	0.0011	mg/kg dry
1,1-Dichloropropene	563-58-6	0.0005 U	0.0005	0.0011	mg/kg dry
1,2,3-Trichlorobenzene	87-61-6	0.0006 U	0.0006	0.0011	mg/kg dry
1,2,3-Trichloropropane	96-18-4	0.0008 U	0.0008	0.0011	mg/kg dry
1,2,4-Trichlorobenzene	120-82-1	0.0006 U	0.0006	0.0011	mg/kg dry
<b>1,2,4-Trimethylbenzene</b>	95-63-6	<b>0.011</b>	0.0004	0.0011	mg/kg dry
1,2-Dibromo-3-chloropropane	96-12-8	0.0008 U	0.0008	0.0011	mg/kg dry
1,2-Dibromoethane	106-93-4	0.0006 U	0.0006	0.0011	mg/kg dry
1,2-Dichlorobenzene	95-50-1	0.0006 U	0.0006	0.0011	mg/kg dry
1,2-Dichloroethane	107-06-2	0.0005 U	0.0005	0.0011	mg/kg dry
1,2-Dichloropropane	78-87-5	0.0007 U	0.0007	0.0011	mg/kg dry
<b>1,3,5-Trimethylbenzene</b>	108-67-8	<b>0.0017</b>	0.0003	0.0011	mg/kg dry
1,3-Dichlorobenzene	541-73-1	0.0005 U	0.0005	0.0011	mg/kg dry
1,3-Dichloropropane	142-28-9	0.0003 U	0.0003	0.0011	mg/kg dry
1,4-Dichlorobenzene	106-46-7	0.0004 U	0.0004	0.0011	mg/kg dry
2,2-Dichloropropane	594-20-7	0.0007 U	0.0007	0.0011	mg/kg dry
2-Butanone	78-93-3	0.0021 U	0.0021	0.0053	mg/kg dry
2-Chloroethyl Vinyl Ether	110-75-8	0.0011 U	0.0011	0.0053	mg/kg dry
2-Chlorotoluene	95-49-8	0.0004 U	0.0004	0.0011	mg/kg dry
2-Hexanone	591-78-6	0.0009 U	0.0009	0.0011	mg/kg dry
4-Chlorotoluene	106-43-4	0.0005 U	0.0005	0.0011	mg/kg dry
4-Isopropyltoluene	99-87-6	0.0004 U	0.0004	0.0011	mg/kg dry
4-Methyl-2-pentanone	108-10-1	0.0021 U	0.0021	0.0053	mg/kg dry
Acetone	67-64-1	<b>0.14</b>	0.0011	0.0053	mg/kg dry
Benzene	71-43-2	0.0006 U	0.0006	0.0011	mg/kg dry
Bromobenzene	108-86-1	0.0005 U	0.0005	0.0011	mg/kg dry
Bromochloromethane	74-97-5	0.0006 U	0.0006	0.0011	mg/kg dry
Bromodichloromethane	75-27-4	0.0004 U	0.0004	0.0011	mg/kg dry
Bromoform	75-25-2	0.0006 U	0.0006	0.0011	mg/kg dry
Bromomethane	74-83-9	0.0009 U	0.0009	0.0011	mg/kg dry
<b>Carbon disulfide</b>	75-15-0	<b>0.0010 I</b>	0.0009	0.0011	mg/kg dry



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**ANALYTICAL REPORT**

Sample ID: HA-35 (4-5')  
 Lab #: A603285-02  
 Prep. Method: EPA 5030B\_MS  
 Analyzed: 09/14/06 By: kat  
 Anal. Method: EPA 8260B  
 Anal. Batch:  
 QC Batch: 6114008

Project: Mayport Pipeline Assessment  
 Work Order #: A603285  
 Matrix: Soil  
 Unit: mg/kg dry  
 Dilution Factor: 1  
 Percent Solids: 94.87

**Volatile Organic Compounds by GCMS**

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
Carbon Tetrachloride	56-23-5	0.0005 U	0.0005	0.0011	mg/kg dry
Chlorobenzene	108-90-7	0.0005 U	0.0005	0.0011	mg/kg dry
Chloroethane	75-00-3	0.0011 U	0.0011	0.0011	mg/kg dry
Chloroform	67-66-3	0.0005 U	0.0005	0.0011	mg/kg dry
Chloromethane	74-87-3	0.0006 U	0.0006	0.0011	mg/kg dry
cis-1,2-Dichloroethene	156-59-2	0.0008 U	0.0008	0.0011	mg/kg dry
cis-1,3-Dichloropropene	10061-01-5	0.0005 U	0.0005	0.0011	mg/kg dry
Dibromochloromethane	124-48-1	0.0006 U	0.0006	0.0011	mg/kg dry
Dibromomethane	74-95-3	0.0008 U	0.0008	0.0011	mg/kg dry
Dichlorodifluoromethane	75-71-8	0.0006 U	0.0006	0.0011	mg/kg dry
<b>Ethylbenzene</b>	100-41-4	<b>0.0013</b>	0.0007	0.0011	mg/kg dry
Hexachlorobutadiene	87-68-3	0.0006 U	0.0006	0.0011	mg/kg dry
<b>Isopropylbenzene</b>	98-82-8	<b>0.024</b>	0.0005	0.0011	mg/kg dry
<b>m,p-Xylenes</b>	108-38-3/106-42-3	<b>0.0014</b>	0.0008	0.0011	mg/kg dry
Methylene Chloride	75-09-2	0.0004 U	0.0004	0.0053	mg/kg dry
Methyl-tert-Butyl Ether	1634-04-4	0.0008 U	0.0008	0.0011	mg/kg dry
<b>Naphthalene</b>	91-20-3	<b>0.32 E</b>	0.0003	0.0011	mg/kg dry
<b>n-Butyl Benzene</b>	104-51-8	<b>0.048</b>	0.0004	0.0011	mg/kg dry
n-Propyl Benzene	103-65-1	0.0003 U	0.0003	0.0011	mg/kg dry
<b>o-Xylene</b>	95-47-6	<b>0.0018</b>	0.0005	0.0011	mg/kg dry
sec-Butylbenzene	135-98-8	0.0004 U	0.0004	0.0011	mg/kg dry
Styrene	100-42-5	0.0004 U	0.0004	0.0011	mg/kg dry
tert-Butylbenzene	98-06-6	0.0004 U	0.0004	0.0011	mg/kg dry
Tetrachloroethene	127-18-4	0.0005 U	0.0005	0.0011	mg/kg dry
<b>Toluene</b>	108-88-3	<b>0.0009 I</b>	0.0005	0.0011	mg/kg dry
trans-1,2-Dichloroethene	156-60-5	0.0009 U	0.0009	0.0011	mg/kg dry
trans-1,3-Dichloropropene	10061-02-6	0.0004 U	0.0004	0.0011	mg/kg dry
Trichloroethene	79-01-6	0.0004 U	0.0004	0.0011	mg/kg dry
Trichlorofluoromethane	75-69-4	0.0005 U	0.0005	0.0011	mg/kg dry
Vinyl chloride	75-01-4	0.0006 U	0.0006	0.0011	mg/kg dry
<b>Xylenes (Total)</b>	1330-20-7	<b>0.0033</b>	0.0008	0.0011	mg/kg dry

Surrogate Recovery	Result	Spike Level	% Recovery	% Recovery Limits
4-Bromofluorobenzene	78 S-GC	50.0	155 %	82-137
Dibromofluoromethane	47	50.0	95 %	48-143
Toluene-d8	53	50.0	105 %	83-135



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**ANALYTICAL REPORT**

Sample ID: HA-36 (2-0')  
 Lab #: A603285-03  
 Prep. Method: EPA 5030B\_MS  
 Analyzed: 09/14/06 By: kat  
 Anal. Method: EPA 8260B  
 Anal. Batch:  
 QC Batch: 6I14008

Project: Mayport Pipeline Assessment  
 Work Order #: A603285  
 Matrix: Soil  
 Unit: mg/kg dry  
 Dilution Factor: 1  
 Percent Solids: 92.00

**Volatile Organic Compounds by GCMS**

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
1,1,1,2-Tetrachloroethane	630-20-6	0.0004 U	0.0004	0.0011	mg/kg dry
1,1,1-Trichloroethane	71-55-6	0.0005 U	0.0005	0.0011	mg/kg dry
1,1,2,2-Tetrachloroethane	79-34-5	0.0008 U	0.0008	0.0011	mg/kg dry
1,1,2-Trichloroethane	79-00-5	0.0007 U	0.0007	0.0011	mg/kg dry
1,1-Dichloroethane	75-34-3	0.0004 U	0.0004	0.0011	mg/kg dry
1,1-Dichloroethene	75-35-4	0.0009 U	0.0009	0.0011	mg/kg dry
1,1-Dichloropropene	563-58-6	0.0005 U	0.0005	0.0011	mg/kg dry
1,2,3-Trichlorobenzene	87-61-6	0.0007 U	0.0007	0.0011	mg/kg dry
1,2,3-Trichloropropane	96-18-4	0.0009 U	0.0009	0.0011	mg/kg dry
1,2,4-Trichlorobenzene	120-82-1	0.0007 U	0.0007	0.0011	mg/kg dry
1,2,4-Trimethylbenzene	95-63-6	0.0004 U	0.0004	0.0011	mg/kg dry
1,2-Dibromo-3-chloropropane	96-12-8	0.0009 U	0.0009	0.0011	mg/kg dry
1,2-Dibromoethane	106-93-4	0.0007 U	0.0007	0.0011	mg/kg dry
1,2-Dichlorobenzene	95-50-1	0.0007 U	0.0007	0.0011	mg/kg dry
1,2-Dichloroethane	107-06-2	0.0005 U	0.0005	0.0011	mg/kg dry
1,2-Dichloropropane	78-87-5	0.0008 U	0.0008	0.0011	mg/kg dry
1,3,5-Trimethylbenzene	108-67-8	0.0003 U	0.0003	0.0011	mg/kg dry
1,3-Dichlorobenzene	541-73-1	0.0005 U	0.0005	0.0011	mg/kg dry
1,3-Dichloropropane	142-28-9	0.0003 U	0.0003	0.0011	mg/kg dry
1,4-Dichlorobenzene	106-46-7	0.0004 U	0.0004	0.0011	mg/kg dry
2,2-Dichloropropane	594-20-7	0.0008 U	0.0008	0.0011	mg/kg dry
<b>2-Butanone</b>	78-93-3	<b>0.0088</b>	0.0022	0.0054	mg/kg dry
2-Chloroethyl Vinyl Ether	110-75-8	0.0011 U	0.0011	0.0054	mg/kg dry
2-Chlorotoluene	95-49-8	0.0004 U	0.0004	0.0011	mg/kg dry
2-Hexanone	591-78-6	0.0010 U	0.0010	0.0011	mg/kg dry
4-Chlorotoluene	106-43-4	0.0005 U	0.0005	0.0011	mg/kg dry
4-Isopropyltoluene	99-87-6	0.0004 U	0.0004	0.0011	mg/kg dry
4-Methyl-2-pentanone	108-10-1	0.0022 U	0.0022	0.0054	mg/kg dry
<b>Acetone</b>	67-64-1	<b>0.10</b>	0.0011	0.0054	mg/kg dry
Benzene	71-43-2	0.0007 U	0.0007	0.0011	mg/kg dry
Bromobenzene	108-86-1	0.0005 U	0.0005	0.0011	mg/kg dry
Bromochloromethane	74-97-5	0.0007 U	0.0007	0.0011	mg/kg dry
Bromodichloromethane	75-27-4	0.0004 U	0.0004	0.0011	mg/kg dry
Bromoform	75-25-2	0.0007 U	0.0007	0.0011	mg/kg dry
Bromomethane	74-83-9	0.0010 U	0.0010	0.0011	mg/kg dry
Carbon disulfide	75-15-0	0.0010 U	0.0010	0.0011	mg/kg dry



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**ANALYTICAL REPORT**

Sample ID: HA-36 (2-0')  
 Lab #: A603285-03  
 Prep. Method: EPA 5030B\_MS  
 Analyzed: 09/14/06 By: kat  
 Anal. Method: EPA 8260B  
 Anal. Batch:  
 QC Batch: 6114008

Project: Mayport Pipeline Assessment  
 Work Order #: A603285  
 Matrix: Soil  
 Unit: mg/kg dry  
 Dilution Factor: 1  
 Percent Solids: 92.00

**Volatile Organic Compounds by GCMS**

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
Carbon Tetrachloride	56-23-5	0.0005 U	0.0005	0.0011	mg/kg dry
Chlorobenzene	108-90-7	0.0005 U	0.0005	0.0011	mg/kg dry
Chloroethane	75-00-3	0.0011 U	0.0011	0.0011	mg/kg dry
Chloroform	67-66-3	0.0005 U	0.0005	0.0011	mg/kg dry
Chloromethane	74-87-3	0.0007 U	0.0007	0.0011	mg/kg dry
cis-1,2-Dichloroethene	156-59-2	0.0009 U	0.0009	0.0011	mg/kg dry
cis-1,3-Dichloropropene	10061-01-5	0.0005 U	0.0005	0.0011	mg/kg dry
Dibromochloromethane	124-48-1	0.0007 U	0.0007	0.0011	mg/kg dry
Dibromomethane	74-95-3	0.0009 U	0.0009	0.0011	mg/kg dry
Dichlorodifluoromethane	75-71-8	0.0007 U	0.0007	0.0011	mg/kg dry
Ethylbenzene	100-41-4	0.0008 U	0.0008	0.0011	mg/kg dry
Hexachlorobutadiene	87-68-3	0.0007 U	0.0007	0.0011	mg/kg dry
Isopropylbenzene	98-82-8	0.0005 U	0.0005	0.0011	mg/kg dry
m,p-Xylenes	108-38-3/106-42-3	0.0009 U	0.0009	0.0011	mg/kg dry
Methylene Chloride	75-09-2	0.0004 U	0.0004	0.0054	mg/kg dry
Methyl-tert-Butyl Ether	1634-04-4	0.0009 U	0.0009	0.0011	mg/kg dry
Naphthalene	91-20-3	0.0003 U	0.0003	0.0011	mg/kg dry
n-Butyl Benzene	104-51-8	0.0004 U	0.0004	0.0011	mg/kg dry
n-Propyl Benzene	103-65-1	0.0003 U	0.0003	0.0011	mg/kg dry
o-Xylene	95-47-6	0.0005 U	0.0005	0.0011	mg/kg dry
sec-Butylbenzene	135-98-8	0.0004 U	0.0004	0.0011	mg/kg dry
Styrene	100-42-5	0.0004 U	0.0004	0.0011	mg/kg dry
tert-Butylbenzene	98-06-6	0.0004 U	0.0004	0.0011	mg/kg dry
Tetrachloroethene	127-18-4	0.0005 U	0.0005	0.0011	mg/kg dry
Toluene	108-88-3	0.0005 U	0.0005	0.0011	mg/kg dry
trans-1,2-Dichloroethene	156-60-5	0.0010 U	0.0010	0.0011	mg/kg dry
trans-1,3-Dichloropropene	10061-02-6	0.0004 U	0.0004	0.0011	mg/kg dry
Trichloroethene	79-01-6	0.0004 U	0.0004	0.0011	mg/kg dry
Trichlorofluoromethane	75-69-4	0.0005 U	0.0005	0.0011	mg/kg dry
Vinyl chloride	75-01-4	0.0007 U	0.0007	0.0011	mg/kg dry
Xylenes (Total)	1330-20-7	0.0009 U	0.0009	0.0011	mg/kg dry

Surrogate Recovery		Result	Spike Level	% Recovery	% Recovery Limits
4-Bromofluorobenzene	460-00-4	56	50.0	111 %	82-137
Dibromofluoromethane	1868-53-7	44	50.0	89 %	48-143
Toluene-d8	2037-26-5	51	50.0	102 %	83-135



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### QUALITY CONTROL

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Sample Notes
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#### Volatile Organic Compounds by GCMS - Quality Control

Batch 6114008 - EPA 5030B\_MS

**Blank (6114008-BLK1)**

Prepared: 09/14/2006 12:30 Analyzed: 09/14/2006 13:47

Dichlorodifluoromethane	0.0006 U	0.0010	mg/kg wet
Chloromethane	0.0006 U	0.0010	mg/kg wet
Vinyl chloride	0.0006 U	0.0010	mg/kg wet
Bromomethane	0.0009 U	0.0010	mg/kg wet
Chloroethane	0.0010 U	0.0010	mg/kg wet
Trichlorofluoromethane	0.0005 U	0.0010	mg/kg wet
Acetone	0.0010 U	0.0050	mg/kg wet
1,1-Dichloroethene	0.0008 U	0.0010	mg/kg wet
Carbon disulfide	0.0009 U	0.0010	mg/kg wet
Methylene Chloride	0.0004 U	0.0050	mg/kg wet
Methyl-tert-Butyl Ether	0.0008 U	0.0010	mg/kg wet
trans-1,2-Dichloroethene	0.0009 U	0.0010	mg/kg wet
cis-1,2-Dichloroethene	0.0008 U	0.0010	mg/kg wet
1,1-Dichloroethane	0.0004 U	0.0010	mg/kg wet
2-Butanone	0.0020 U	0.0050	mg/kg wet
2,2-Dichloropropane	0.0007 U	0.0010	mg/kg wet
Chloroform	0.0005 U	0.0010	mg/kg wet
Bromochloromethane	0.0006 U	0.0010	mg/kg wet
1,1,1-Trichloroethane	0.0005 U	0.0010	mg/kg wet
1,1-Dichloropropene	0.0005 U	0.0010	mg/kg wet
Carbon Tetrachloride	0.0005 U	0.0010	mg/kg wet
1,2-Dichloroethane	0.0005 U	0.0010	mg/kg wet
Benzene	0.0006 U	0.0010	mg/kg wet
Trichloroethene	0.0004 U	0.0010	mg/kg wet
1,2-Dichloropropane	0.0007 U	0.0010	mg/kg wet
Bromodichloromethane	0.0004 U	0.0010	mg/kg wet
Dibromomethane	0.0008 U	0.0010	mg/kg wet
4-Methyl-2-pentanone	0.0020 U	0.0050	mg/kg wet
2-Chloroethyl Vinyl Ether	0.0010 U	0.0050	mg/kg wet
2-Hexanone	0.0009 U	0.0010	mg/kg wet
cis-1,3-Dichloropropene	0.0005 U	0.0010	mg/kg wet
Toluene	0.0005 U	0.0010	mg/kg wet
trans-1,3-Dichloropropene	0.0004 U	0.0010	mg/kg wet
1,1,2-Trichloroethane	0.0006 U	0.0010	mg/kg wet
1,3-Dichloropropane	0.0003 U	0.0010	mg/kg wet
Tetrachloroethene	0.0005 U	0.0010	mg/kg wet
Dibromochloromethane	0.0006 U	0.0010	mg/kg wet
1,2-Dibromoethane	0.0006 U	0.0010	mg/kg wet
Chlorobenzene	0.0005 U	0.0010	mg/kg wet
1,1,1,2-Tetrachloroethane	0.0004 U	0.0010	mg/kg wet
Ethylbenzene	0.0007 U	0.0010	mg/kg wet
m,p-Xylenes	0.0008 U	0.0020	mg/kg wet
o-Xylene	0.0005 U	0.0010	mg/kg wet
Bromoform	0.0006 U	0.0010	mg/kg wet
Styrene	0.0004 U	0.0010	mg/kg wet



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**QUALITY CONTROL**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Sample Notes
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**Volatile Organic Compounds by GCMS - Quality Control**

Batch 6114008 - EPA 5030B\_MS

**Blank (6114008-BLK1) Continued**

Prepared: 09/14/2006 12:30 Analyzed: 09/14/2006 13:47

Isopropylbenzene	0.0005 U	0.0010	mg/kg wet							
1,2,3-Trichloropropane	0.0008 U	0.0010	mg/kg wet							
1,1,2,2-Tetrachloroethane	0.0007 U	0.0010	mg/kg wet							
n-Propyl Benzene	0.0003 U	0.0010	mg/kg wet							
Bromobenzene	0.0005 U	0.0010	mg/kg wet							
1,3,5-Trimethylbenzene	0.0003 U	0.0010	mg/kg wet							
2-Chlorotoluene	0.0004 U	0.0010	mg/kg wet							
4-Chlorotoluene	0.0005 U	0.0010	mg/kg wet							
1,2,4-Trichlorobenzene	0.0006 U	0.0010	mg/kg wet							
sec-Butylbenzene	0.0004 U	0.0010	mg/kg wet							
tert-Butylbenzene	0.0004 U	0.0010	mg/kg wet							
4-Isopropyltoluene	0.0004 U	0.0010	mg/kg wet							
1,3-Dichlorobenzene	0.0005 U	0.0010	mg/kg wet							
1,4-Dichlorobenzene	0.0004 U	0.0010	mg/kg wet							
1,2-Dichlorobenzene	0.0006 U	0.0010	mg/kg wet							
n-Butyl Benzene	0.0004 U	0.0010	mg/kg wet							
1,2-Dibromo-3-chloropropane	0.0008 U	0.0010	mg/kg wet							
Naphthalene	0.0003 U	0.0010	mg/kg wet							
1,2,4-Trimethylbenzene	0.0004 U	0.0010	mg/kg wet							
Hexachlorobutadiene	0.0006 U	0.0010	mg/kg wet							
1,2,3-Trichlorobenzene	0.0006 U	0.0010	mg/kg wet							
Xylenes (Total)	0.0013 U	0.0030	mg/kg wet							

Surrogate: Dibromofluoromethane 46 ug/L 50.0 92 63-135

Surrogate: Toluene-d8 55 ug/L 50.0 110 71-126

Surrogate: 4-Bromofluorobenzene 59 ug/L 50.0 119 58-133

**LCS (6114008-BS1)**

Prepared: 09/14/2006 12:30 Analyzed: 09/14/2006 13:18

1,1-Dichloroethene	0.014	0.0010	mg/kg wet	0.0200		71	46-163			
Benzene	0.020	0.0010	mg/kg wet	0.0200		101	53-131			
Trichloroethene	0.020	0.0010	mg/kg wet	0.0200		102	66-127			
Toluene	0.026	0.0010	mg/kg wet	0.0200		128	53-129			
Chlorobenzene	0.020	0.0010	mg/kg wet	0.0200		102	71-130			

Surrogate: Dibromofluoromethane 55 ug/L 50.0 109 63-135

Surrogate: Toluene-d8 57 ug/L 50.0 114 71-126

Surrogate: 4-Bromofluorobenzene 60 ug/L 50.0 120 58-133

**Matrix Spike (6114008-MS1)**

Source: A603285-01

Prepared: 09/14/2006 12:30 Analyzed: 09/14/2006 14:17

1,1-Dichloroethene	0.012	0.0011	mg/kg dry	0.0214	0.0009 U	56	44-172			
Benzene	0.017	0.0011	mg/kg dry	0.0214	0.0006 U	79	66-131			
Trichloroethene	0.015	0.0011	mg/kg dry	0.0214	0.0004 U	69	60-139			
Toluene	0.021	0.0011	mg/kg dry	0.0214	0.0005 U	97	66-127			
Chlorobenzene	0.015 QM-05	0.0011	mg/kg dry	0.0214	0.0005 U	71	73-125			QM-05

Surrogate: Dibromofluoromethane 55 ug/L 50.0 109 63-135

Surrogate: Toluene-d8 53 ug/L 50.0 105 71-126

Surrogate: 4-Bromofluorobenzene 60 ug/L 50.0 119 58-133



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**QUALITY CONTROL**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Sample Notes
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**Volatile Organic Compounds by GCMS - Quality Control**

Batch 6114008 - EPA 5030B\_MS

Matrix Spike Dup (6114008-MSD1)

Source: A603285-01

Prepared: 09/14/2006 12:30 Analyzed: 09/14/2006 14:46

1,1-Dichloroethene	0.012	0.0011	mg/kg dry	0.0214	0.0009 U	57	44-172	1	44	
Benzene	0.018	0.0011	mg/kg dry	0.0214	0.0006 U	84	66-131	6	23	
Trichloroethene	0.017	0.0011	mg/kg dry	0.0214	0.0004 U	78	60-139	12	40	
Toluene	0.022	0.0011	mg/kg dry	0.0214	0.0005 U	104	66-127	7	29	
Chlorobenzene	0.016	0.0011	mg/kg dry	0.0214	0.0005 U	76	73-125	7	25	
Surrogate: Dibromofluoromethane	49		ug/L	50.0		99	63-135			
Surrogate: Toluene-d8	54		ug/L	50.0		108	71-126			
Surrogate: 4-Bromofluorobenzene	59		ug/L	50.0		118	58-133			



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### ANALYTICAL REPORT

Sample ID: HA-33 (4-5')  
Lab #: A603285-01  
Prep. Method: EPA 5030B\_MS  
Analyzed: 09/14/06 By: kat  
Anal. Method: EPA 8260B  
Anal. Batch:  
QC Batch: 6I14008

Project: Mayport Pipeline Assessment  
Work Order #: A603285  
Matrix: Soil  
Unit: mg/kg dry  
Dilution Factor: 1  
Percent Solids: 93.33

#### Volatile Organic Compounds by GCMS

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
1,1,1,2-Tetrachloroethane	630-20-6	0.0005 U	0.0005	0.0012	mg/kg dry
1,1,1-Trichloroethane	71-55-6	0.0006 U	0.0006	0.0012	mg/kg dry
1,1,2,2-Tetrachloroethane	79-34-5	0.0009 U	0.0009	0.0012	mg/kg dry
1,1,2-Trichloroethane	79-00-5	0.0007 U	0.0007	0.0012	mg/kg dry
1,1-Dichloroethane	75-34-3	0.0005 U	0.0005	0.0012	mg/kg dry
1,1-Dichloroethene	75-35-4	0.0010 U	0.0010	0.0012	mg/kg dry
1,1-Dichloropropene	563-58-6	0.0006 U	0.0006	0.0012	mg/kg dry
1,2,3-Trichlorobenzene	87-61-6	0.0007 U	0.0007	0.0012	mg/kg dry
1,2,3-Trichloropropane	96-18-4	0.0010 U	0.0010	0.0012	mg/kg dry
1,2,4-Trichlorobenzene	120-82-1	0.0007 U	0.0007	0.0012	mg/kg dry
1,2,4-Trimethylbenzene	95-63-6	0.0005 U	0.0005	0.0012	mg/kg dry
1,2-Dibromo-3-chloropropane	96-12-8	0.0010 U	0.0010	0.0012	mg/kg dry
1,2-Dibromoethane	106-93-4	0.0007 U	0.0007	0.0012	mg/kg dry
1,2-Dichlorobenzene	95-50-1	0.0007 U	0.0007	0.0012	mg/kg dry
1,2-Dichloroethane	107-06-2	0.0006 U	0.0006	0.0012	mg/kg dry
1,2-Dichloropropane	78-87-5	0.0009 U	0.0009	0.0012	mg/kg dry
1,3,5-Trimethylbenzene	108-67-8	0.0004 U	0.0004	0.0012	mg/kg dry
1,3-Dichlorobenzene	541-73-1	0.0006 U	0.0006	0.0012	mg/kg dry
1,3-Dichloropropane	142-28-9	0.0004 U	0.0004	0.0012	mg/kg dry
1,4-Dichlorobenzene	106-46-7	0.0005 U	0.0005	0.0012	mg/kg dry
2,2-Dichloropropane	594-20-7	0.0009 U	0.0009	0.0012	mg/kg dry
<b>2-Butanone</b>	78-93-3	<b>0.014</b>	0.0025	0.0061	mg/kg dry
2-Chloroethyl Vinyl Ether	110-75-8	0.0012 U	0.0012	0.0061	mg/kg dry
2-Chlorotoluene	95-49-8	0.0005 U	0.0005	0.0012	mg/kg dry
2-Hexanone	591-78-6	0.0011 U	0.0011	0.0012	mg/kg dry
4-Chlorotoluene	106-43-4	0.0006 U	0.0006	0.0012	mg/kg dry
4-Isopropyltoluene	99-87-6	0.0005 U	0.0005	0.0012	mg/kg dry
4-Methyl-2-pentanone	108-10-1	0.0025 U	0.0025	0.0061	mg/kg dry
<b>Acetone</b>	67-64-1	<b>0.18</b>	0.0012	0.0061	mg/kg dry
Benzene	71-43-2	0.0007 U	0.0007	0.0012	mg/kg dry
Bromobenzene	108-86-1	0.0006 U	0.0006	0.0012	mg/kg dry
Bromochloromethane	74-97-5	0.0007 U	0.0007	0.0012	mg/kg dry
Bromodichloromethane	75-27-4	0.0005 U	0.0005	0.0012	mg/kg dry
Bromoform	75-25-2	0.0007 U	0.0007	0.0012	mg/kg dry
Bromomethane	74-83-9	0.0011 U	0.0011	0.0012	mg/kg dry
Carbon disulfide	75-15-0	0.0011 U	0.0011	0.0012	mg/kg dry

**ANALYTICAL REPORT**

Sample ID: HA-33 (4-5')  
 Lab #: A603285-01  
 Prep. Method: EPA 5030B\_MS  
 Analyzed: 09/14/06 By: kat  
 Anal. Method: EPA 8260B  
 Anal. Batch:  
 QC Batch: 6I14008

Project: Mayport Pipeline Assessment  
 Work Order #: A603285  
 Matrix: Soil  
 Unit: mg/kg dry  
 Dilution Factor: 1  
 Percent Solids: 93.33

**Volatile Organic Compounds by GCMS**

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
Carbon Tetrachloride	56-23-5	0.0006 U	0.0006	0.0012	mg/kg dry
Chlorobenzene	108-90-7	0.0006 U	0.0006	0.0012	mg/kg dry
Chloroethane	75-00-3	0.0012 U	0.0012	0.0012	mg/kg dry
Chloroform	67-66-3	0.0006 U	0.0006	0.0012	mg/kg dry
Chloromethane	74-87-3	0.0007 U	0.0007	0.0012	mg/kg dry
cis-1,2-Dichloroethene	156-59-2	0.0010 U	0.0010	0.0012	mg/kg dry
cis-1,3-Dichloropropene	10061-01-5	0.0006 U	0.0006	0.0012	mg/kg dry
Dibromochloromethane	124-48-1	0.0007 U	0.0007	0.0012	mg/kg dry
Dibromomethane	74-95-3	0.0010 U	0.0010	0.0012	mg/kg dry
Dichlorodifluoromethane	75-71-8	0.0007 U	0.0007	0.0012	mg/kg dry
Ethylbenzene	100-41-4	0.0009 U	0.0009	0.0012	mg/kg dry
Hexachlorobutadiene	87-68-3	0.0007 U	0.0007	0.0012	mg/kg dry
<b>Isopropylbenzene</b>	98-82-8	<b>0.0006 I</b>	0.0006	0.0012	mg/kg dry
m,p-Xylenes	108-38-3/106-42-3	0.0010 U	0.0010	0.0025	mg/kg dry
Methylene Chloride	75-09-2	0.0005 U	0.0005	0.0061	mg/kg dry
Methyl-tert-Butyl Ether	1634-04-4	0.0010 U	0.0010	0.0012	mg/kg dry
<b>Naphthalene</b>	91-20-3	<b>0.016</b>	0.0004	0.0012	mg/kg dry
<b>n-Butyl Benzene</b>	104-51-8	<b>0.0022</b>	0.0005	0.0012	mg/kg dry
<b>n-Propyl Benzene</b>	103-65-1	<b>0.0014</b>	0.0004	0.0012	mg/kg dry
o-Xylene	95-47-6	0.0006 U	0.0006	0.0012	mg/kg dry
<b>sec-Butylbenzene</b>	135-98-8	<b>0.0021</b>	0.0005	0.0012	mg/kg dry
Styrene	100-42-5	0.0005 U	0.0005	0.0012	mg/kg dry
tert-Butylbenzene	98-06-6	0.0005 U	0.0005	0.0012	mg/kg dry
Tetrachloroethene	127-18-4	0.0006 U	0.0006	0.0012	mg/kg dry
Toluene	108-88-3	0.0006 U	0.0006	0.0012	mg/kg dry
trans-1,2-Dichloroethene	156-60-5	0.0011 U	0.0011	0.0012	mg/kg dry
trans-1,3-Dichloropropene	10061-02-6	0.0005 U	0.0005	0.0012	mg/kg dry
Trichloroethene	79-01-6	0.0005 U	0.0005	0.0012	mg/kg dry
Trichlorofluoromethane	75-69-4	0.0006 U	0.0006	0.0012	mg/kg dry
Vinyl chloride	75-01-4	0.0007 U	0.0007	0.0012	mg/kg dry
Xylenes (Total)	1330-20-7	0.0016 U	0.0016	0.0037	mg/kg dry

Surrogate Recovery		Result	Spike Level	% Recovery	% Recovery Limits
4-Bromofluorobenzene	460-00-4	64	50.0	128 %	58-133
Dibromofluoromethane	1868-53-7	48	50.0	96 %	63-135
Toluene-d8	2037-26-5	56	50.0	112 %	71-126



**ANALYTICAL REPORT**

Sample ID: HA-35 (4-5')  
 Lab #: A603285-02  
 Prep. Method: EPA 5030B\_MS  
 Analyzed: 09/14/06 By: kat  
 Anal. Method: EPA 8260B  
 Anal. Batch:  
 QC Batch: 6114008

Project: Mayport Pipeline Assessment  
 Work Order #: A603285  
 Matrix: Soil  
 Unit: mg/kg dry  
 Dilution Factor: 1  
 Percent Solids: 94.87

**Volatle Organic Compounds by GCMS**

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
1,1,1,2-Tetrachloroethane	630-20-6	0.0004 U	0.0004	0.0011	mg/kg dry
1,1,1-Trichloroethane	71-55-6	0.0005 U	0.0005	0.0011	mg/kg dry
1,1,2,2-Tetrachloroethane	79-34-5	0.0007 U	0.0007	0.0011	mg/kg dry
1,1,2-Trichloroethane	79-00-5	0.0006 U	0.0006	0.0011	mg/kg dry
1,1-Dichloroethane	75-34-3	0.0004 U	0.0004	0.0011	mg/kg dry
1,1-Dichloroethene	75-35-4	0.0008 U	0.0008	0.0011	mg/kg dry
1,1-Dichloropropene	563-58-6	0.0005 U	0.0005	0.0011	mg/kg dry
1,2,3-Trichlorobenzene	87-61-6	0.0006 U	0.0006	0.0011	mg/kg dry
1,2,3-Trichloropropane	96-18-4	0.0008 U	0.0008	0.0011	mg/kg dry
1,2,4-Trichlorobenzene	120-82-1	0.0006 U	0.0006	0.0011	mg/kg dry
<b>1,2,4-Trimethylbenzene</b>	95-63-6	<b>0.011</b>	0.0004	0.0011	mg/kg dry
1,2-Dibromo-3-chloropropane	96-12-8	0.0008 U	0.0008	0.0011	mg/kg dry
1,2-Dibromoethane	106-93-4	0.0006 U	0.0006	0.0011	mg/kg dry
1,2-Dichlorobenzene	95-50-1	0.0006 U	0.0006	0.0011	mg/kg dry
1,2-Dichloroethane	107-06-2	0.0005 U	0.0005	0.0011	mg/kg dry
1,2-Dichloropropane	78-87-5	0.0007 U	0.0007	0.0011	mg/kg dry
<b>1,3,5-Trimethylbenzene</b>	108-67-8	<b>0.0017</b>	0.0003	0.0011	mg/kg dry
1,3-Dichlorobenzene	541-73-1	0.0005 U	0.0005	0.0011	mg/kg dry
1,3-Dichloropropane	142-28-9	0.0003 U	0.0003	0.0011	mg/kg dry
1,4-Dichlorobenzene	106-46-7	0.0004 U	0.0004	0.0011	mg/kg dry
2,2-Dichloropropane	594-20-7	0.0007 U	0.0007	0.0011	mg/kg dry
2-Butanone	78-93-3	0.0021 U	0.0021	0.0053	mg/kg dry
2-Chloroethyl Vinyl Ether	110-75-8	0.0011 U	0.0011	0.0053	mg/kg dry
2-Chlorotoluene	95-49-8	0.0004 U	0.0004	0.0011	mg/kg dry
2-Hexanone	591-78-6	0.0009 U	0.0009	0.0011	mg/kg dry
4-Chlorotoluene	106-43-4	0.0005 U	0.0005	0.0011	mg/kg dry
4-Isopropyltoluene	99-87-6	0.0004 U	0.0004	0.0011	mg/kg dry
4-Methyl-2-pentanone	108-10-1	0.0021 U	0.0021	0.0053	mg/kg dry
<b>Acetone</b>	67-64-1	<b>0.14</b>	0.0011	0.0053	mg/kg dry
Benzene	71-43-2	0.0006 U	0.0006	0.0011	mg/kg dry
Bromobenzene	108-86-1	0.0005 U	0.0005	0.0011	mg/kg dry
Bromochloromethane	74-97-5	0.0006 U	0.0006	0.0011	mg/kg dry
Bromodichloromethane	75-27-4	0.0004 U	0.0004	0.0011	mg/kg dry
Bromoform	75-25-2	0.0006 U	0.0006	0.0011	mg/kg dry
Bromomethane	74-83-9	0.0009 U	0.0009	0.0011	mg/kg dry
<b>Carbon disulfide</b>	75-15-0	<b>0.0010 I</b>	0.0009	0.0011	mg/kg dry

**ANALYTICAL REPORT**

Sample ID: HA-35 (4-5)  
 Lab #: A603285-02  
 Prep. Method: EPA 5030B\_MS  
 Analyzed: 09/14/06 By: kat  
 Anal. Method: EPA 8260B  
 Anal. Batch:  
 QC Batch: 6I14008

Project: Mayport Pipeline Assessment  
 Work Order #: A603285  
 Matrix: Soil  
 Unit: mg/kg dry  
 Dilution Factor: 1  
 Percent Solids: 94.87

**Volatile Organic Compounds by GCMS**

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
Carbon Tetrachloride	56-23-5	0.0005 U	0.0005	0.0011	mg/kg dry
Chlorobenzene	108-90-7	0.0005 U	0.0005	0.0011	mg/kg dry
Chloroethane	75-00-3	0.0011 U	0.0011	0.0011	mg/kg dry
Chloroform	67-66-3	0.0005 U	0.0005	0.0011	mg/kg dry
Chloromethane	74-87-3	0.0006 U	0.0006	0.0011	mg/kg dry
cis-1,2-Dichloroethene	156-59-2	0.0008 U	0.0008	0.0011	mg/kg dry
cis-1,3-Dichloropropene	10061-01-5	0.0005 U	0.0005	0.0011	mg/kg dry
Dibromochloromethane	124-48-1	0.0006 U	0.0006	0.0011	mg/kg dry
Dibromomethane	74-95-3	0.0008 U	0.0008	0.0011	mg/kg dry
Dichlorodifluoromethane	75-71-8	0.0006 U	0.0006	0.0011	mg/kg dry
<b>Ethylbenzene</b>	100-41-4	<b>0.0013</b>	0.0007	0.0011	mg/kg dry
Hexachlorobutadiene	87-68-3	0.0006 U	0.0006	0.0011	mg/kg dry
<b>Isopropylbenzene</b>	98-82-8	<b>0.024</b>	0.0005	0.0011	mg/kg dry
<b>m,p-Xylenes</b>	108-38-3/106-42-3	<b>0.0014</b>	0.0008	0.0011	mg/kg dry
Methylene Chloride	75-09-2	0.0004 U	0.0004	0.0053	mg/kg dry
Methyl-tert-Butyl Ether	1634-04-4	0.0008 U	0.0008	0.0011	mg/kg dry
<b>Naphthalene</b>	91-20-3	<b>0.32 E</b>	0.0003	0.0011	mg/kg dry
<b>n-Butyl Benzene</b>	104-51-8	<b>0.048</b>	0.0004	0.0011	mg/kg dry
n-Propyl Benzene	103-65-1	0.0003 U	0.0003	0.0011	mg/kg dry
<b>o-Xylene</b>	95-47-6	<b>0.0018</b>	0.0005	0.0011	mg/kg dry
sec-Butylbenzene	135-98-8	0.0004 U	0.0004	0.0011	mg/kg dry
Styrene	100-42-5	0.0004 U	0.0004	0.0011	mg/kg dry
tert-Butylbenzene	98-06-6	0.0004 U	0.0004	0.0011	mg/kg dry
Tetrachloroethene	127-18-4	0.0005 U	0.0005	0.0011	mg/kg dry
<b>Toluene</b>	108-88-3	<b>0.0009 I</b>	0.0005	0.0011	mg/kg dry
trans-1,2-Dichloroethene	156-60-5	0.0009 U	0.0009	0.0011	mg/kg dry
trans-1,3-Dichloropropene	10061-02-6	0.0004 U	0.0004	0.0011	mg/kg dry
Trichloroethene	79-01-6	0.0004 U	0.0004	0.0011	mg/kg dry
Trichlorofluoromethane	75-69-4	0.0005 U	0.0005	0.0011	mg/kg dry
Vinyl chloride	75-01-4	0.0006 U	0.0006	0.0011	mg/kg dry
<b>Xylenes (Total)</b>	1330-20-7	<b>0.0033</b>	0.0008	0.0011	mg/kg dry

Surrogate Recovery	Result	Spike Level	% Recovery	% Recovery Limits
4-Bromofluorobenzene	78 S-GC	50.0	155 %	82-137
Dibromofluoromethane	47	50.0	95 %	48-143
Toluene-d8	53	50.0	105 %	83-135

**ANALYTICAL REPORT**

Sample ID: HA-36 (2-0')  
 Lab #: A603285-03  
 Prep. Method: EPA 5030B\_MS  
 Analyzed: 09/14/06 By: kat  
 Anal. Method: EPA 8260B  
 Anal. Batch:  
 QC Batch: 6114008

Project: Mayport Pipeline Assessment  
 Work Order #: A603285  
 Matrix: Soil  
 Unit: mg/kg dry  
 Dilution Factor: 1  
 Percent Solids: 92.00

**Volatile Organic Compounds by GCMS**

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
1,1,1,2-Tetrachloroethane	630-20-6	0.0004 U	0.0004	0.0011	mg/kg dry
1,1,1-Trichloroethane	71-55-6	0.0005 U	0.0005	0.0011	mg/kg dry
1,1,2,2-Tetrachloroethane	79-34-5	0.0008 U	0.0008	0.0011	mg/kg dry
1,1,2-Trichloroethane	79-00-5	0.0007 U	0.0007	0.0011	mg/kg dry
1,1-Dichloroethane	75-34-3	0.0004 U	0.0004	0.0011	mg/kg dry
1,1-Dichloroethene	75-35-4	0.0009 U	0.0009	0.0011	mg/kg dry
1,1-Dichloropropene	563-58-6	0.0005 U	0.0005	0.0011	mg/kg dry
1,2,3-Trichlorobenzene	87-61-6	0.0007 U	0.0007	0.0011	mg/kg dry
1,2,3-Trichloropropane	96-18-4	0.0009 U	0.0009	0.0011	mg/kg dry
1,2,4-Trichlorobenzene	120-82-1	0.0007 U	0.0007	0.0011	mg/kg dry
1,2,4-Trimethylbenzene	95-63-6	0.0004 U	0.0004	0.0011	mg/kg dry
1,2-Dibromo-3-chloropropane	96-12-8	0.0009 U	0.0009	0.0011	mg/kg dry
1,2-Dibromoethane	106-93-4	0.0007 U	0.0007	0.0011	mg/kg dry
1,2-Dichlorobenzene	95-50-1	0.0007 U	0.0007	0.0011	mg/kg dry
1,2-Dichloroethane	107-06-2	0.0005 U	0.0005	0.0011	mg/kg dry
1,2-Dichloropropane	78-87-5	0.0008 U	0.0008	0.0011	mg/kg dry
1,3,5-Trimethylbenzene	108-67-8	0.0003 U	0.0003	0.0011	mg/kg dry
1,3-Dichlorobenzene	541-73-1	0.0005 U	0.0005	0.0011	mg/kg dry
1,3-Dichloropropane	142-28-9	0.0003 U	0.0003	0.0011	mg/kg dry
1,4-Dichlorobenzene	106-46-7	0.0004 U	0.0004	0.0011	mg/kg dry
2,2-Dichloropropane	594-20-7	0.0008 U	0.0008	0.0011	mg/kg dry
<b>2-Butanone</b>	78-93-3	<b>0.0088</b>	0.0022	0.0054	mg/kg dry
2-Chloroethyl Vinyl Ether	110-75-8	0.0011 U	0.0011	0.0054	mg/kg dry
2-Chlorotoluene	95-49-8	0.0004 U	0.0004	0.0011	mg/kg dry
2-Hexanone	591-78-6	0.0010 U	0.0010	0.0011	mg/kg dry
4-Chlorotoluene	106-43-4	0.0005 U	0.0005	0.0011	mg/kg dry
4-Isopropyltoluene	99-87-6	0.0004 U	0.0004	0.0011	mg/kg dry
4-Methyl-2-pentanone	108-10-1	0.0022 U	0.0022	0.0054	mg/kg dry
<b>Acetone</b>	67-64-1	<b>0.10</b>	0.0011	0.0054	mg/kg dry
Benzene	71-43-2	0.0007 U	0.0007	0.0011	mg/kg dry
Bromobenzene	108-86-1	0.0005 U	0.0005	0.0011	mg/kg dry
Bromochloromethane	74-97-5	0.0007 U	0.0007	0.0011	mg/kg dry
Bromodichloromethane	75-27-4	0.0004 U	0.0004	0.0011	mg/kg dry
Bromoform	75-25-2	0.0007 U	0.0007	0.0011	mg/kg dry
Bromomethane	74-83-9	0.0010 U	0.0010	0.0011	mg/kg dry
Carbon disulfide	75-15-0	0.0010 U	0.0010	0.0011	mg/kg dry

**ANALYTICAL REPORT**

Sample ID: HA-36 (2-0')  
 Lab #: A603285-03  
 Prep. Method: EPA 5030B\_MS  
 Analyzed: 09/14/06 By: kat  
 Anal. Method: EPA 8260B  
 Anal. Batch:  
 QC Batch: 6114008

Project: Mayport Pipeline Assessment  
 Work Order #: A603285  
 Matrix: Soil  
 Unit: mg/kg dry  
 Dilution Factor: 1  
 Percent Solids: 92.00

**Volatile Organic Compounds by GCMS**

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
Carbon Tetrachloride	56-23-5	0.0005 U	0.0005	0.0011	mg/kg dry
Chlorobenzene	108-90-7	0.0005 U	0.0005	0.0011	mg/kg dry
Chloroethane	75-00-3	0.0011 U	0.0011	0.0011	mg/kg dry
Chloroform	67-66-3	0.0005 U	0.0005	0.0011	mg/kg dry
Chloromethane	74-87-3	0.0007 U	0.0007	0.0011	mg/kg dry
cis-1,2-Dichloroethene	156-59-2	0.0009 U	0.0009	0.0011	mg/kg dry
cis-1,3-Dichloropropene	10061-01-5	0.0005 U	0.0005	0.0011	mg/kg dry
Dibromochloromethane	124-48-1	0.0007 U	0.0007	0.0011	mg/kg dry
Dibromomethane	74-95-3	0.0009 U	0.0009	0.0011	mg/kg dry
Dichlorodifluoromethane	75-71-8	0.0007 U	0.0007	0.0011	mg/kg dry
Ethylbenzene	100-41-4	0.0008 U	0.0008	0.0011	mg/kg dry
Hexachlorobutadiene	87-68-3	0.0007 U	0.0007	0.0011	mg/kg dry
Isopropylbenzene	98-82-8	0.0005 U	0.0005	0.0011	mg/kg dry
m,p-Xylenes	108-38-3/106-42-3	0.0009 U	0.0009	0.0011	mg/kg dry
Methylene Chloride	75-09-2	0.0004 U	0.0004	0.0054	mg/kg dry
Methyl-tert-Butyl Ether	1634-04-4	0.0009 U	0.0009	0.0011	mg/kg dry
Naphthalene	91-20-3	0.0003 U	0.0003	0.0011	mg/kg dry
n-Butyl Benzene	104-51-8	0.0004 U	0.0004	0.0011	mg/kg dry
n-Propyl Benzene	103-65-1	0.0003 U	0.0003	0.0011	mg/kg dry
o-Xylene	95-47-6	0.0005 U	0.0005	0.0011	mg/kg dry
sec-Butylbenzene	135-98-8	0.0004 U	0.0004	0.0011	mg/kg dry
Styrene	100-42-5	0.0004 U	0.0004	0.0011	mg/kg dry
tert-Butylbenzene	98-06-6	0.0004 U	0.0004	0.0011	mg/kg dry
Tetrachloroethene	127-18-4	0.0005 U	0.0005	0.0011	mg/kg dry
Toluene	108-88-3	0.0005 U	0.0005	0.0011	mg/kg dry
trans-1,2-Dichloroethene	156-60-5	0.0010 U	0.0010	0.0011	mg/kg dry
trans-1,3-Dichloropropene	10061-02-6	0.0004 U	0.0004	0.0011	mg/kg dry
Trichloroethene	79-01-6	0.0004 U	0.0004	0.0011	mg/kg dry
Trichlorofluoromethane	75-69-4	0.0005 U	0.0005	0.0011	mg/kg dry
Vinyl chloride	75-01-4	0.0007 U	0.0007	0.0011	mg/kg dry
Xylenes (Total)	1330-20-7	0.0009 U	0.0009	0.0011	mg/kg dry

Surrogate Recovery		Result	Spike Level	% Recovery	% Recovery Limits
4-Bromofluorobenzene	460-00-4	56	50.0	111 %	82-137
Dibromofluoromethane	1868-53-7	44	50.0	89 %	48-143
Toluene-d8	2037-26-5	51	50.0	102 %	83-135



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### QUALITY CONTROL

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Sample Notes
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#### Volatile Organic Compounds by GCMS - Quality Control

Batch 6114008 - EPA 5030B\_MS

Prepared: 09/14/2006 12:30 Analyzed: 09/14/2006 13:47

#### Blank (6114008-BLK1)

Dichlorodifluoromethane	0.0006 U	0.0010	mg/kg wet
Chloromethane	0.0006 U	0.0010	mg/kg wet
Vinyl chloride	0.0006 U	0.0010	mg/kg wet
Bromomethane	0.0009 U	0.0010	mg/kg wet
Chloroethane	0.0010 U	0.0010	mg/kg wet
Trichlorofluoromethane	0.0005 U	0.0010	mg/kg wet
Acetone	0.0010 U	0.0050	mg/kg wet
1,1-Dichloroethene	0.0008 U	0.0010	mg/kg wet
Carbon disulfide	0.0009 U	0.0010	mg/kg wet
Methylene Chloride	0.0004 U	0.0050	mg/kg wet
Methyl-tert-Butyl Ether	0.0008 U	0.0010	mg/kg wet
trans-1,2-Dichloroethene	0.0009 U	0.0010	mg/kg wet
cis-1,2-Dichloroethene	0.0008 U	0.0010	mg/kg wet
1,1-Dichloroethane	0.0004 U	0.0010	mg/kg wet
2-Butanone	0.0020 U	0.0050	mg/kg wet
2,2-Dichloropropane	0.0007 U	0.0010	mg/kg wet
Chloroform	0.0005 U	0.0010	mg/kg wet
Bromochloromethane	0.0006 U	0.0010	mg/kg wet
1,1,1-Trichloroethane	0.0005 U	0.0010	mg/kg wet
1,1-Dichloropropene	0.0005 U	0.0010	mg/kg wet
Carbon Tetrachloride	0.0005 U	0.0010	mg/kg wet
1,2-Dichloroethane	0.0005 U	0.0010	mg/kg wet
Benzene	0.0006 U	0.0010	mg/kg wet
Trichloroethene	0.0004 U	0.0010	mg/kg wet
1,2-Dichloropropane	0.0007 U	0.0010	mg/kg wet
Bromodichloromethane	0.0004 U	0.0010	mg/kg wet
Dibromomethane	0.0008 U	0.0010	mg/kg wet
4-Methyl-2-pentanone	0.0020 U	0.0050	mg/kg wet
2-Chloroethyl Vinyl Ether	0.0010 U	0.0050	mg/kg wet
2-Hexanone	0.0009 U	0.0010	mg/kg wet
cis-1,3-Dichloropropene	0.0005 U	0.0010	mg/kg wet
Toluene	0.0005 U	0.0010	mg/kg wet
trans-1,3-Dichloropropene	0.0004 U	0.0010	mg/kg wet
1,1,2-Trichloroethane	0.0006 U	0.0010	mg/kg wet
1,3-Dichloropropane	0.0003 U	0.0010	mg/kg wet
Tetrachloroethene	0.0005 U	0.0010	mg/kg wet
Dibromochloromethane	0.0006 U	0.0010	mg/kg wet
1,2-Dibromoethane	0.0006 U	0.0010	mg/kg wet
Chlorobenzene	0.0005 U	0.0010	mg/kg wet
1,1,1,2-Tetrachloroethane	0.0004 U	0.0010	mg/kg wet
Ethylbenzene	0.0007 U	0.0010	mg/kg wet
m,p-Xylenes	0.0008 U	0.0020	mg/kg wet
o-Xylene	0.0005 U	0.0010	mg/kg wet
Bromoform	0.0006 U	0.0010	mg/kg wet
Styrene	0.0004 U	0.0010	mg/kg wet



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**QUALITY CONTROL**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Sample Notes
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**Volatile Organic Compounds by GCMS - Quality Control**

Batch 6114008 - EPA 5030B\_MS

**Blank (6114008-BLK1) Continued**

Prepared: 09/14/2006 12:30 Analyzed: 09/14/2006 13:47

Isopropylbenzene	0.0005 U	0.0010	mg/kg wet
1,2,3-Trichloropropane	0.0008 U	0.0010	mg/kg wet
1,1,2,2-Tetrachloroethane	0.0007 U	0.0010	mg/kg wet
n-Propyl Benzene	0.0003 U	0.0010	mg/kg wet
Bromobenzene	0.0005 U	0.0010	mg/kg wet
1,3,5-Trimethylbenzene	0.0003 U	0.0010	mg/kg wet
2-Chlorotoluene	0.0004 U	0.0010	mg/kg wet
4-Chlorotoluene	0.0005 U	0.0010	mg/kg wet
1,2,4-Trichlorobenzene	0.0006 U	0.0010	mg/kg wet
sec-Butylbenzene	0.0004 U	0.0010	mg/kg wet
tert-Butylbenzene	0.0004 U	0.0010	mg/kg wet
4-Isopropyltoluene	0.0004 U	0.0010	mg/kg wet
1,3-Dichlorobenzene	0.0005 U	0.0010	mg/kg wet
1,4-Dichlorobenzene	0.0004 U	0.0010	mg/kg wet
1,2-Dichlorobenzene	0.0006 U	0.0010	mg/kg wet
n-Butyl Benzene	0.0004 U	0.0010	mg/kg wet
1,2-Dibromo-3-chloropropane	0.0008 U	0.0010	mg/kg wet
Naphthalene	0.0003 U	0.0010	mg/kg wet
1,2,4-Trimethylbenzene	0.0004 U	0.0010	mg/kg wet
Hexachlorobutadiene	0.0006 U	0.0010	mg/kg wet
1,2,3-Trichlorobenzene	0.0006 U	0.0010	mg/kg wet
Xylenes (Total)	0.0013 U	0.0030	mg/kg wet

Surrogate: Dibromofluoromethane	46	ug/L	50.0	92	63-135
Surrogate: Toluene-d8	55	ug/L	50.0	110	71-126
Surrogate: 4-Bromofluorobenzene	59	ug/L	50.0	119	58-133

**LCS (6114008-BS1)**

Prepared: 09/14/2006 12:30 Analyzed: 09/14/2006 13:18

1,1-Dichloroethene	0.014	0.0010	mg/kg wet	0.0200	71	46-163
Benzene	0.020	0.0010	mg/kg wet	0.0200	101	53-131
Trichloroethene	0.020	0.0010	mg/kg wet	0.0200	102	66-127
Toluene	0.026	0.0010	mg/kg wet	0.0200	128	53-129
Chlorobenzene	0.020	0.0010	mg/kg wet	0.0200	102	71-130

Surrogate: Dibromofluoromethane	55	ug/L	50.0	109	63-135
Surrogate: Toluene-d8	57	ug/L	50.0	114	71-126
Surrogate: 4-Bromofluorobenzene	60	ug/L	50.0	120	58-133

**Matrix Spike (6114008-MS1)**

Source: A603285-01

Prepared: 09/14/2006 12:30 Analyzed: 09/14/2006 14:17

1,1-Dichloroethene	0.012	0.0011	mg/kg dry	0.0214	0.0009 U	56	44-172
Benzene	0.017	0.0011	mg/kg dry	0.0214	0.0006 U	79	66-131
Trichloroethene	0.015	0.0011	mg/kg dry	0.0214	0.0004 U	69	60-139
Toluene	0.021	0.0011	mg/kg dry	0.0214	0.0005 U	97	66-127
Chlorobenzene	0.015 QM-05	0.0011	mg/kg dry	0.0214	0.0005 U	71	73-125 QM-05

Surrogate: Dibromofluoromethane	55	ug/L	50.0	109	63-135
Surrogate: Toluene-d8	53	ug/L	50.0	105	71-126
Surrogate: 4-Bromofluorobenzene	60	ug/L	50.0	119	58-133



www.encolabs.com

**QUALITY CONTROL**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Sample Notes
---------	--------	-----	-------	-------------	---------------	------	-------------	-----	-----------	--------------

**Volatile Organic Compounds by GCMS - Quality Control**

Batch 6I14008 - EPA 5030B\_MS

Matrix Spike Dup (6I14008-MSD1)

Source: A603285-01

Prepared: 09/14/2006 12:30 Analyzed: 09/14/2006 14:46

1,1-Dichloroethene	0.012	0.0011	mg/kg dry	0.0214	0.0009 U	57	44-172	1	44	
Benzene	0.018	0.0011	mg/kg dry	0.0214	0.0006 U	84	66-131	6	23	
Trichloroethene	0.017	0.0011	mg/kg dry	0.0214	0.0004 U	78	60-139	12	40	
Toluene	0.022	0.0011	mg/kg dry	0.0214	0.0005 U	104	66-127	7	29	
Chlorobenzene	0.016	0.0011	mg/kg dry	0.0214	0.0005 U	76	73-125	7	25	
Surrogate: Dibromofluoromethane	49		ug/L	50.0		99	63-135			
Surrogate: Toluene-d8	54		ug/L	50.0		108	71-126			
Surrogate: 4-Bromofluorobenzene	59		ug/L	50.0		118	58-133			



**NOTES AND DEFINITIONS**

- E The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate (CLP E-flag).
- I Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
- S-GC Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
- U Analyte included in the analysis, but not detected

**LABORATORY CERTIFICATION SUMMARY**

<b>Analysis</b>	<b>Matrix</b>	<b>Cert ID</b>	<b>Cert Number</b>
8260B	Soil	NELAC	E83182

---

**ATTACHMENT C**

**EXCAVATION PERMIT AND PERMIT  
REQUEST FORMS**

---

**Naval Station Mayport Public Work Office Engineering Department  
Excavation Permit**

*Permit No. MYPT-02/07-070*

*Existing Underground Utilities Locates has been completed.*

*excavation work for*

*Project Title Demolition & Abandon Navy Fuel Depot U/G Fuel and  
Waste Oil Piping*

*at Naval station Mayport, Florida*

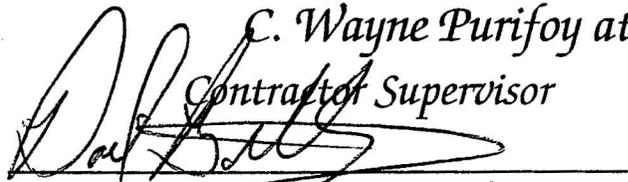
*By Moran Environmental Recovery*

*Date of 14 February 2007*

*by Naval Station Mayport Public Work Office Engineering Department*

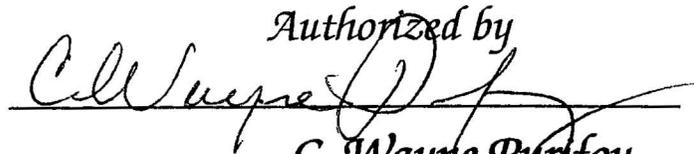
*C. Wayne Purifoy at telephone number (904) 270-5184*

*Contractor Supervisor*



*David Billingsley*

*Authorized by*

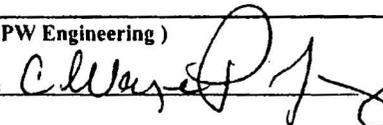


*C. Wayne Purifoy*

*Certificate expires 27 days after issuance*

**EXCAVATION PERMIT REQUEST**  
Naval Station Mayport

PERMIT NO. MYPT- 02/07-070

1a. Name of Company: Moran Environmental Recovery		Date Requested: 2/8/07	Date Required: 2/16/07			
1b. Requestor: David Billingsley	Phone: (904) 241-2200 ext 122	Cell Phone: (904) 509-3213	FAX: (904) 241-2200			
1c. Government Contracting Office: PW Engineering Office, Bldg 1966 . POC: C. Wayne Purifoy (904) 5184 x 134						
2a. Project Title: Demolition and abandonment of fuel and Waste Oil Piping System At Navy Fuel Depot Mayport, Fl.		Sub Contractor: (if different than 1a,1b)				
2b. Scope of Excavation (Specify Purpose, Method, Length and Depth of Area- Attached Site-Map) Mechanically Excavate for removal or abandoning 2500 LF not to exceed 6 feet depth existing fuel and Waste Oil Piping System at Navy Fuel Depot on Naval station Mayport, Florida						
3. Permit Request Approval prior to locate: ( PW Engineering )						
Name: <u>C. Wayne Purifoy</u>		Signature: 	Date: <u>2/08/07</u>			
Comments:						
4. Utility	Organization	Phone	Ticket#	Name of Locator	Initial	Date
4a. Primary Elec	IAP Bldg 12	(904) 270-5397	✓			2-12-07
4b. Secondary Elec	IAP Bldg 12	(904) 270-5347	✓			2-12-07
Natural Gas	Sunshine State	1-800-432-4770	039700991			2/8/07
Tel/Com	Sunshine State	1-800-432-4770				
CATV	Sunshine State	1-800-432-4770				
Gov Fiber-Optics	ISR D Mayport	(904)270-6162	✓			2-8-07
POC Ron Moore	Bldg 12					
Gov Com-Cable	GEMD Mayport	(904)270-6148	✓			2-8-07
POC Vern Benson	Bldg 450					
PWO Environmental Div	(904)270-6730		Known Petroleum contamination	Deane Racine	DR	2/12/07
Is excavation within or near areas of contamination?						
POC Cheryl Mitchell	Bldg 2021					
Navy owned -copper (phone cable):			✓			2/12/07
POC John Buettgen	NAS JAX	(904)542-4569				
5. Permit Request Approval after locate ( PW Engineering)						
Name: <u>C. Wayne Purifoy</u>		Signature: _____		Date: _____		
Comments: * Area has known petroleum contamination. Excavated material must be managed as petroleum contaminated soil. - DRacine						

Contractor Supervisor:

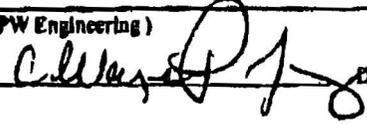
Name: Mike Thurlow

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Note: Please initial and date Excavation Permit Request when locates are complete provide copy to PW Engineering, FAX (904) 270-5115, Attn : C. Wayne Purifoy or e-mail: carey.purifoy@navy.mil

**EXCAVATION PERMIT REQUEST**  
Naval Station Mayport

PERMIT NO. **MYPT-02/07-070**

<b>1a. Name of Company:</b> Moran Environmental Recovery		<b>Date Requested:</b> 2/8/07	<b>Date Required:</b> 2/16/07
<b>1b. Requestor:</b> David Billingsley	<b>Phone:</b> (904) 241-2200 ext 122	<b>Cell Phone:</b> (904) 509-3213	<b>FAX:</b> (904) 241-2200
<b>1c. Government Contracting Office:</b> PW Engineering Office, Bldg 1966		<b>POC:</b> C. Wayne Purifoy (904) 5184 x 134	
<b>2a. Project Title:</b> Demolition and abandonment of fuel and Waste Oil Piping System At Navy Fuel Depot Mayport, Fl.		<b>Sub Contractor:</b> (If different than 1a,1b)	
<b>2b. Scope of Excavation (Specify Purpose, Method, Length and Depth of Area- Attached Site-Map)</b> Mechanically Excavate for removal or abandoning 2500 LF not to exceed 6 feet depth existing fuel and Waste Oil Piping System at Navy Fuel Depot on Naval station Mayport, Florida			
<b>3. Permit Request Approval prior to locate: ( PW Engineering )</b>			
Name: <u>C. Wayne Purifoy</u>		Signature: 	Date: <u>2/08/07</u>
Comments:			
<b>4. Utility</b>	<b>Organization</b>	<b>Phone</b>	<b>Ticket#</b>
<b>4a. Primary Elec</b>	IAP Bldg 12 (904) 270-5397		
Water & Sewer			
<b>4b. Secondary Elec</b>	IAP Bldg 12 (904) 270-5347		
Natural Gas	Sunshine State	1-800-432-4770	
Tel/Com	Sunshine State	1-800-432-4770	039700991
CATV	Sunshine State	1-800-432-4770	
Gov Fiber-Optics	ISR D Mayport (904)270-6162		
POC Ron Moore Bldg 12			
Gov Com-Cable	GEMD Mayport (904)270-6148		
POC Van Benson Bldg 450			
PWD Environmental Div	(904)270-6730		
Is excavation within or near areas of contamination?			
POC Cheryl Mitchell Bldg 2021			
Navy owned -copper (phone cable):		07649002	DAVID MCKNIGHT Altm 2-12-07
POC John Buettgen NAS JAX (904)542-4569			
<b>5. Permit Request Approval after locate ( PW Engineering )</b>			
Name: <u>C. Wayne Purifoy</u>		Signature: _____	Date: _____
Comments:			

**Contractor Supervisor:**

Name: Mike Turley

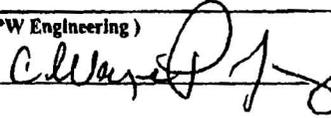
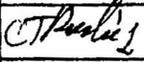
Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**Note:** Please initial and date Excavation Permit Request when locates are complete provide copy to PW Engineering, FAX (904) 270-5115, Attn : C. Wayne Purifoy or e-mail: carey.purifoy@navy.mil

**EXCAVATION PERMIT REQUEST**  
Naval Station Mayport

PERMIT NO. MYPT- 02/07-070

1a. Name of Company: Moran Environmental Recovery		Date Requested: 2/8/07	Date Required: 2/16/07		
1b. Requestor: David Billingsley	Phone: (904) 241-2200 ext 122	Cell Phone: (904) 509-3213	FAX: (904) 241-2200		
1c. Government Contracting Office: PW Engineering Office, Bldg 1966		POC: C. Wayne Purifoy (904) 5184 x 134			
2a. Project Title: Demolition and abandonment of fuel and Waste Oil Piping System At Navy Fuel Depot Mayport, Fl.		Sub Contractor: (if different than 1a,1b)			
2b. Scope of Excavation (Specify Purpose, Method, Length and Depth of Area- Attached Site-Map) Mechanically Excavate for removal or abandoning 2500 LF not to exceed 6 feet depth existing fuel and Waste Oil Piping System at Navy Fuel Depot on Naval station Mayport, Florida					
3. Permit Request Approval prior to locate: ( PW Engineering )					
Name: <u>C. Wayne Purifoy</u>		Signature: 	Date: <u>2/08/07</u>		
Comments:					
4. Utility	Organization	Phone	Ticket# Name of Locator Initial Date		
4a. Primary Elec	IAP Bldg 12	(904) 270-5397			
	Water & Sewer				
4b. Secondary Elec	IAP Bldg 12	(904) 270-5347			
Natural Gas	Sunshine State	1-800-432-4770			
Tel/Com	Sunshine State	1-800-432-4770	039700991		2/8/07
CATV	Sunshine State	1-800-432-4770			
Gov Fiber-Optics	ISRD Mayport	(904)270-6162			
	POC Ron Moore	Bldg 12			
Gov Com-Cable	GEMD Mayport	(904)270-6148			2/8/07
	POC Vern Benson	Bldg 450			
PWO Environmental Div	(904)270-6730				
Is excavation within or near areas of contamination?					
	POC Cheryl Mitchell	Bldg 2021			
Navy owned --copper (phone cable):					
	POC John Buettgen	NAS JAX	(904)542-4569		
5. Permit Request Approval after locate ( PW Engineering)					
Name: <u>C. Wayne Purifoy</u>		Signature: _____		Date: _____	
Comments:					

Contractor Supervisor:

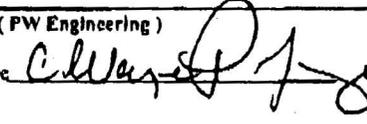
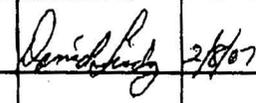
Name: Mike Thurlow

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Note: Please initial and date Excavation Permit Request when locates are complete provide copy to PW Engineering, FAX (904) 270-5115, Attn : C. Wayne Purifoy or e-mail: [carey.purifoy@navy.mil](mailto:carey.purifoy@navy.mil)

**EXCAVATION PERMIT REQUEST**  
Naval Station Mayport

**PERMIT NO. MYPT-02/07-070**

<b>1a. Name of Company:</b> Moran Environmental Recovery		<b>Date Requested:</b> 2/8/07	<b>Date Required:</b> 2/16/07	
<b>1b. Requestor:</b> David Billingsley	<b>Phone:</b> (904) 241-2200 ext 122	<b>Cell Phone:</b> (904) 509-3213	<b>FAX:</b> (904) 241-2200	
<b>1c. Government Contracting Office:</b> PW Engineering Office, Bldg 1966 . POC: C. Wayne Purifoy (904) 5184 x 134				
<b>2a. Project Title:</b> Demolition and abandonment of fuel and Waste Oil Piping System At Navy Fuel Depot Mayport, Fl.		<b>Sub Contractor:</b> (if different than 1a, 1b)		
<b>2b. Scope of Excavation (Specify Purpose, Method, Length and Depth of Area- Attached Site-Map)</b> Mechanically Excavate for removal or abandoning 2500 LF not to exceed 6 feet depth existing fuel and Waste Oil Piping System at Navy Fuel Depot on Naval station Mayport, Florida.				
<b>3. Permit Request Approval prior to locate: ( PW Engineering )</b>				
Name: <u>C. Wayne Purifoy</u>		Signature: 		Date: <u>2/08/07</u>
Comments:				
<b>4. Utility</b>	<b>Organization</b>	<b>Phone</b>	<b>Ticket#</b>	<b>Name of Locator</b>
<b>4a. Primary Elec</b>	IAP Bldg 12 (904) 270-5397			
Water & Sewer				
<b>4b. Secondary Elec</b>	IAP Bldg 12 (904) 270-5347			
Natural Gas	Sunshine State 1-800-432-4770			
Tel/Com	Sunshine State 1-800-432-4770	039700991		2/8/07
CATV	Sunshine State 1-800-432-4770			
Gov Fiber-Optics	ISRD Mayport (904)270-6162			
POC Ron Moore	Bldg 12			 2/8/07
Gov Com-Cable	GEMD Mayport (904)270-6148			
POC Vern Benson	Bldg 450			
PWO Environmental Div	(904)270-6730			
Is excavation within or near areas of contamination?				
POC Cheryl Mitchell	Bldg 2021			
Navy owned -copper (phone cable):				
POC John Buehgen	NAS JAX (904)542-4569			
<b>5. Permit Request Approval after locate ( PW Engineering )</b>				
Name: <u>C. Wayne Purifoy</u>		Signature: _____		Date: _____
Comments:				

**Contractor Supervisor:**

Name: Mike Thurlow

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Note:** Please initial and date Excavation Permit Request when locates are complete provide copy to PW Engineering, FAX (904) 270-5115, Attn: C. Wayne Purifoy or e-mail: caroy.purifoy@navy.mil

EXCAVATION PERMIT REQUEST  
Naval Station Mayport

PERMIT NO. MYPT-02/07-070

1a. Name of Company: Morm Environmental Recovery		Date Requested: 2/8/07	Date Required: 2/16/07			
1b. Requester: David Billingsley		Phone: (904) 241-2200 ext 122	Cell Phone: (904) 509-3213 FAX: (904) 241-2200			
1c. Government Contracting Office: PW Engineering Office, Bldg 1956		POC: C. Wayne Purifoy (904) 5184 x 134				
2a. Project Title: Demolition and abandonment of fuel and Waste Oil Piping System At Navy Fuel Depot Mayport, FL.		Sub Contractor: (If different than 1a,1b)				
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3. Permit Request Approval prior to locate: (PW Engineering)						
Name: <u>C. Wayne Purifoy</u>		Signature: <u>[Signature]</u> Date: <u>2/08/07</u>				
Comments:						
4. Utility	Organization	Phone	Ticket#	Address of Locator	Initial	Date
4a. Primary Elec	IAP Bldg 12	(904) 270-5397	59152	Mayport	ED	2/12/07
Water & Sewer						
4b. Secondary Elec	IAP Bldg 12	(904) 270-5347	59152			
Natural Gas	Sunshine State	1-800-432-4770				
Tel/Comm	Sunshine State	1-800-432-4770	039700991			2/8/07
CATV	Sunshine State	1-800-432-4770				
Gov Fiber-Optics	ISRD Mayport	(904)270-6162				
POC Ron Moore	Bldg 12					
Gov Com-Cable	GEMD Mayport	(904)270-6148				
POC Vern Hannon	Bldg 450					
PWO Environmental Div		(904)270-6730				
Is excavation within or near areas of contamination? POC Cheryl Mitchell Bldg 2021						
Navy owned -copper (phone cable): POC John Buchten NAS JAX (904)542-4569						
5. Permit Request Approval after locate (PW Engineering)						
Name: <u>C. Wayne Purifoy</u>		Signature: _____		Date: _____		
Comments:						

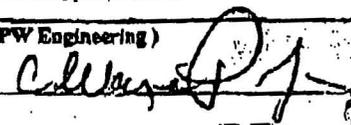
Contractor Supervisor:  
Name: Mike Overlow

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Note: Please Initial and date Excavation Permit Request when locates are complete provide copy to PW Engineering, FAX (904) 270-5115, Attn: C. Wayne Purifoy or e-mail: cwayne.purifoy@navy.mil

**EXCAVATION PERMIT REQUEST**  
Naval Station Mayport

PERMIT NO. **MYPT-02/07-070**

1a. Name of Company: Moran Environmental Recovery		Date Requested: 2/8/07	Date Required: 2/16/07		
1b. Requestor: David Billingsley	Phone: (904) 241-2200 ext 122	Cell Phone: (904) 509-3213	FAX: (904) 241-2200		
1c. Government Contracting Office: PW Engineering Office, Bldg 1966 . POC: C. Wayne Purifoy (904) 5184 x 134					
2a. Project Title: Demolition and abandonment of fuel and Waste Oil Piping System At Navy Fuel Depot Mayport, Fl.		Sub Contractor: (if different than 1a,1b)			
2b. Scope of Excavation (Specify Purpose, Method, Length and Depth of Area- Attached Site-Map) Mechanically Excavate for removal or abandoning 2500 LF not to exceed 6 feet depth existing fuel and Waste Oil Piping System at Navy Fuel Depot on Naval station Mayport, Florida					
3. Permit Request Approval prior to locate: ( PW Engineering )					
Name: <u>C. Wayne Purifoy</u>		Signature: 	Date: <u>2/08/07</u>		
Comments:					
4. Utility	Organization	Phone	Ticket# Name of Location Initial Date		
4a. Primary-Elec Water & Sewer	IAP Bldg 12	(904) 270-5397	591524		
4b. Secondary-Elec	IAP Bldg 12	(904) 270-5347	591525	Took Kitchen	2/12/7
Natural Gas	Sunshine State	1-800-432-4770			
Tel/Com	Sunshine State	1-800-432-4770	039700991		2/8/07
CATV	Sunshine State	1-800-432-4770			
Gov Fiber-Optics	ISRD Mayport	(904)270-6162			
POC Ron Moore	Bldg 12				
Gov Com-Cable	GMMD Mayport	(904)270-6148			
POC Vern Benson	Bldg 450				
PWO Environmental Div	(904)270-6730				
Is excavation within or near areas of contamination? POC Cheryl Mitchell Bldg 2021					
Navy owned -copper (phone cable): POC John Buetgen NAS JAX (904)542-4569					
5. Permit Request Approval after locate ( PW Engineering )					
Name: <u>C. Wayne Purifoy</u>		Signature: _____		Date: _____	
Comments:					

Contractor Supervisor:

Name: Mike Thurlow

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Note: Please initial and date Excavation Permit Request when locates are complete provide copy to PW Engineering, FAX (904) 270-5115, Attn : C. Wayne Purifoy or e-mail: carew.purifoy@navy.mil

---

**ATTACHMENT D**

**ACM BULK SAMPLE SUMMARY  
REPORT**

---



# ANALYTICAL ENVIRONMENTAL SERVICES, INC.

## Bulk Sample Summary Report

Client Name: **Qore-Altamonte Springs**  
 Project Name: **MAYPORT PIER 136 FUEL LINE ABANDONMENT**  
 Project Number: **9780 G**



Lab ID# 102082-0  
 AES Job Number: **0702B34**  
 Thursday, February 22, 2007

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
HA-1	0702B34-001A	East of Vault	55	ND	ND	ND	ND	ND	
Layer: 1									
HA-1	0702B34-001A	East of Vault	ND	ND	ND	ND	ND	ND	
Layer: 2									
HA-2	0702B34-002A	SE Corner of Vault	ND	ND	ND	ND	ND	ND	Paint included as binder
Layer: 1									
HA-2	0702B34-002A	SE Corner of Vault	50	ND	ND	ND	ND	ND	
Layer: 2									
HA-3	0702B34-003A	NW Corner of Vault	ND	ND	ND	ND	ND	ND	Paint included as binder
Layer: 1									
HA-3	0702B34-003A	NW Corner of Vault	50	ND	ND	ND	ND	ND	
Layer: 2									
HA-3	0702B34-003A	NW Corner of Vault	ND	ND	ND	ND	ND	ND	
Layer: 3									

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophyllite  
 For comments on the samples, see the individual analysis sheets.  
 ND = None Detected

PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials. Quantitative TEM is currently the only method that can be used to determine the conclusive asbestos content.

It is certified by the signatures below that the laboratory identified is accredited by the National Institute of Standards and Technology for Polarized Light Microscopy (PLM) analysis under the EPA Interim Asbestos Bulk Sample Quality Assurance Program, Laboratory ID 102082-0. All percentages given are by visually estimated volume. All analyses are performed in accordance with the EPA "Method for the Determination of Asbestos in Bulk Building Materials, EPA/600/R-93/116, July 1993." This report must not be reproduced except in full without the approval of Analytical Environmental Service, Inc. These test results apply only to the samples actually tested.

Microanalyst:   
 Alena Chumanevich

QC Analyst:   
 Yelena Khanina



**ANALYTICAL ENVIRONMENTAL SERVICES, INC.**  
 3785 Presidential Parkway  
 Atlanta, GA 30340  
 Tel: (770) 457-8177  
 Fax: (770) 457-8188

AES Job Number: **0702B34**  
 Page 1 of 7  
 Thursday, February 22, 2007



Lab ID# 102082-0

**BULK SAMPLE ANALYSIS**

Client Name: Qore-Altamonte Springs Project Number: 9780 G  
 Project Name: MAYPORT PIER 136 FUEL LINE ABANDONMENT AES Lab ID: 0702B34-001A  
 Client Sample ID: HA-1 Layer: 1  
 Location: East of Vault

Sample Description: Dark Brown soft fibrous to bitumenous

**All percentages given below are visually estimated by volume**

ASBESTOS FIBERS	
Chrysotile:	55
Amosite:	ND
Crocidolite:	ND
Anthophyllite:	ND
Tremolite:	ND
Actinolite:	ND

NON-ASBESTOS FIBERS	
Synthetics:	ND
Mineral Wool:	ND
Fiberglass:	ND
Cellulose:	ND
Animal Hair:	ND
Antigonite:	ND

NON-FIBROUS MATERIALS	
Vermiculite:	ND
Biotite:	ND
Mica:	ND
Perlite:	ND
Aggregates:	ND
Styrofoam:	ND

OTHERS	
Aluminum:	ND
Bitumen:	40
Resilient Material:	ND
Glue:	ND
Binders:	5

**COMMENTS:**

ND = None Detected

It is certified by the signatures below that the laboratory identified is accredited by the National Institute of Standards and Technology for Polarized Light Microscopy (PLM) analysis under the EPA Interim Asbestos Bulk Sample Quality Assurance Program, Laboratory ID 102082-0

Microanalyst:

Alena Chumanevich

QCAlyst:

Yelena Khanina

All percentages given are by volume visually estimated. All analyses are performed in accordance with the EPA "Method for the Determination of Asbestos in Bulk Building Materials, EPA/600/R-93/116, July 1993." This report must not be reproduced except in full without the approval of Analytical Environmental Services, Inc. These test results apply only to the samples actually tested. The refractive index was determined by using "Rapidly and Accurately Determining Refractive Indices of Asbestos Fibers by Using Dispersion Staining Method" by Shu-Chun Su, Ph.D.



**ANALYTICAL ENVIRONMENTAL SERVICES, INC.**  
 3785 Presidential Parkway  
 Atlanta, GA 30340  
 Tel: (770) 457-8177  
 Fax: (770) 457-8188

AES Job Number: **0702B34**

Page 2 of 7

Thursday, February 22, 2007



Lab ID# 102082-0

**BULK SAMPLE ANALYSIS**

Client Name: Qore-Altamonte Springs Project Number: 9780 G  
 Project Name: MAYPORT PIER 136 FUEL LINE ABANDONMENT AES Lab ID: 0702B34-001A  
 Client Sample ID: HA-1 Layer: 2  
 Location: East of Vault

Sample Description: Black semi-hard bitumenous to woven with aggregates

**All percentages given below are visually estimated by volume**

ASBESTOS FIBERS	
Chrysotile:	ND
Amosite:	ND
Crocidolite:	ND
Anthophyllite:	ND
Tremolite:	ND
Actinolite:	ND

NON-ASBESTOS FIBERS	
Synthetics:	ND
Mineral Wool:	ND
Fiberglass:	40
Cellulose:	ND
Animal Hair:	ND
Antigonite:	ND

NON-FIBROUS MATERIALS	
Vermiculite:	ND
Biotite:	ND
Mica:	ND
Perlite:	ND
Aggregates:	5
Styrofoam:	ND

OTHERS	
Aluminum:	ND
Bitumen:	50
Resilient Material:	ND
Glue:	ND
Binders:	5

COMMENTS:

ND = None Detected

It is certified by the signatures below that the laboratory identified is accredited by the National Institute of Standards and Technology for Polarized Light Microscopy (PLM) analysis under the EPA Interim Asbestos Bulk Sample Quality Assurance Program, Laboratory ID 102082-0

Microanalyst:

Alena Chumanevich

QCAlyst:

Yelena Khanina

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AES Job Number: **0702B34**  
 Page 3 of 7  
 Thursday, February 22, 2007



Lab ID# 102082-0

**BULK SAMPLE ANALYSIS**

Client Name: Core-Altamonte Springs Project Number: 9780 G  
 Project Name: MAYPORT PIER 136 FUEL LINE ABANDONMENT AES Lab ID: 0702B34-002A  
 Client Sample ID: HA-2 Layer: 1  
 Location: SE Corner of Vault

Sample Description: Gray/Brown semi-hard silty with fibers, aggregates and paint

**All percentages given below are visually estimated by volume**

ASBESTOS FIBERS	
Chrysotile:	ND
Amosite:	ND
Crocidolite:	ND
Anthophyllite:	ND
Tremolite:	ND
Actinolite:	ND

NON-ASBESTOS FIBERS	
Synthetics:	ND
Mineral Wool:	ND
Fiberglass:	ND
Cellulose:	1
Animal Hair:	ND
Antigonite:	ND

NON-FIBROUS MATERIALS	
Vermiculite:	ND
Biotite:	ND
Mica:	ND
Perlite:	ND
Aggregates:	2
Styrofoam:	ND

OTHERS	
Aluminum:	ND
Bitumen:	ND
Resilient Material:	ND
Glue:	ND
Binders:	97

COMMENTS: Paint included as binder

ND = None Detected

It is certified by the signatures below that the laboratory identified is accredited by the National Institute of Standards and Technology for Polarized Light Microscopy (PLM) analysis under the EPA Interim Asbestos Bulk Sample Quality Assurance Program, Laboratory ID 102082-0

Microanalyst:

Alena Chumanevich

QCAlyst:

Yelena Khanina

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 Tel: (770) 457-8177  
 Fax: (770) 457-8188

AES Job Number: **0702B34**  
 Page 4 of 7  
 Thursday, February 22, 2007



Lab ID# 102082-0

**BULK SAMPLE ANALYSIS**

Client Name: Qore-Altamonte Springs Project Number: 9780 G  
 Project Name: MAYPORT PIER 136 FUEL LINE ABANDONMENT AES Lab ID: 0702B34-002A  
 Client Sample ID: HA-2 Layer: 2  
 Location: SE Corner of Vault

Sample Description: Black soft fibrous to bitumenous

**All percentages given below are visually estimated by volume**

ASBESTOS FIBERS	
Chrysotile:	50
Amosite:	ND
Crocidolite:	ND
Anthophyllite:	ND
Tremolite:	ND
Actinolite:	ND

NON-FIBROUS MATERIALS	
Vermiculite:	ND
Biotite:	ND
Mica:	ND
Perlite:	ND
Aggregates:	ND
Styrofoam:	ND

NON-ASBESTOS FIBERS	
Synthetics:	ND
Mineral Wool:	ND
Fiberglass:	ND
Cellulose:	ND
Animal Hair:	ND
Antigonite:	ND

OTHERS	
Aluminum:	ND
Bitumen:	45
Resilient Material:	ND
Glue:	ND
Binders:	5

COMMENTS:

ND = None Detected

It is certified by the signatures below that the laboratory identified is accredited by the National Institute of Standards and Technology for Polarized Light Microscopy (PLM) analysis under the EPA Interim Asbestos Bulk Sample Quality Assurance Program, Laboratory ID 102082-0

Microanalyst:

Alena Chumanevich

QCAlyst:

Yelena Khanina

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 Tel: (770) 457-8177  
 Fax: (770) 457-8188

AES Job Number: **0702B34**

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Thursday, February 22, 2007



Lab ID# 102082-0

**BULK SAMPLE ANALYSIS**

Client Name: Qore-Altamonte Springs Project Number: 9780 G  
 Project Name: MAYPORT PIER 136 FUEL LINE ABANDONMENT AES Lab ID: 0702B34-003A  
 Client Sample ID: HA-3 Layer: 1  
 Location: NW Corner of Vault

Sample Description: Gray/Brown semi-hard silty with fibers, aggregates and paint

**All percentages given below are visually estimated by volume**

ASBESTOS FIBERS	
Chrysotile:	ND
Amosite:	ND
Crocidolite:	ND
Anthophyllite:	ND
Tremolite:	ND
Actinolite:	ND

NON-FIBROUS MATERIALS	
Vermiculite:	ND
Biotite:	ND
Mica:	ND
Perlite:	ND
Aggregates:	1
Styrofoam:	ND

NON-ASBESTOS FIBERS	
Synthetics:	ND
Mineral Wool:	ND
Fiberglass:	ND
Cellulose:	1
Animal Hair:	ND
Antigonite:	ND

OTHERS	
Aluminum:	ND
Bitumen:	ND
Resilient Material:	ND
Glue:	ND
Binders:	98

COMMENTS: Paint included as binder

ND = None Detected

It is certified by the signatures below that the laboratory identified is accredited by the National Institute of Standards and Technology for Polarized Light Microscopy (PLM) analysis under the EPA Interim Asbestos Bulk Sample Quality Assurance Program, Laboratory ID 102082-0

Microanalyst:

Alena Chumanevich

QCAlyst:

Yelena Khanina

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 Fax: (770) 457-8188

AES Job Number: **0702B34**  
 Page 6 of 7  
 Thursday, February 22, 2007



**BULK SAMPLE ANALYSIS**

Client Name: Qore-Altamonte Springs Project Number: 9780 G  
 Project Name: MAYPORT PIER 136 FUEL LINE ABANDONMENT AES Lab ID: 0702B34-003A  
 Client Sample ID: HA-3 Layer: 2  
 Location: NW Corner of Vault

Sample Description: Black soft fibrous to bitumenous

**All percentages given below are visually estimated by volume**

ASBESTOS FIBERS	
Chrysotile:	50
Amosite:	ND
Crocidolite:	ND
Anthophyllite:	ND
Tremolite:	ND
Actinolite:	ND

NON-ASBESTOS FIBERS	
Synthetics:	1
Mineral Wool:	ND
Fiberglass:	ND
Cellulose:	1
Animal Hair:	ND
Antigonite:	ND

NON-FIBROUS MATERIALS	
Vermiculite:	ND
Biotite:	ND
Mica:	ND
Perlite:	ND
Aggregates:	ND
Styrofoam:	ND

OTHERS	
Aluminum:	ND
Bitumen:	45
Resilient Material:	ND
Glue:	ND
Binders:	3

**COMMENTS:**

ND = None Detected

It is certified by the signatures below that the laboratory identified is accredited by the National Institute of Standards and Technology for Polarized Light Microscopy (PLM) analysis under the EPA Interim Asbestos Bulk Sample Quality Assurance Program, Laboratory ID 102082-0

Microanalyst:

Alena Chumanevich

QCAlyst:

Yelena Khanina

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 Atlanta, GA 30340  
 Tel: (770) 457-8177  
 Fax: (770) 457-8188

AES Job Number: **0702B34**  
 Page 7 of 7  
 Thursday, February 22, 2007



Lab ID# 102082-0

**BULK SAMPLE ANALYSIS**

Client Name: Qore-Altamonte Springs Project Number: 9780 G  
 Project Name: MAYPORT PIER 136 FUEL LINE ABANDONMENT AES Lab ID: 0702B34-003A  
 Client Sample ID: HA-3 Layer: 3  
 Location: NW Corner of Vault

Sample Description: Black semi-hard bitumenous with fibers

**All percentages given below are visually estimated by volume**

ASBESTOS FIBERS	
Chrysotile:	ND
Amosite:	ND
Crocidolite:	ND
Anthophyllite:	ND
Tremolite:	ND
Actinolite:	ND

NON-ASBESTOS FIBERS	
Synthetics:	ND
Mineral Wool:	ND
Fiberglass:	ND
Cellulose:	1
Animal Hair:	ND
Antigonite:	ND

NON-FIBROUS MATERIALS	
Vermiculite:	ND
Biotite:	ND
Mica:	ND
Perlite:	ND
Aggregates:	ND
Styrofoam:	ND

OTHERS	
Aluminum:	ND
Bitumen:	95
Resilient Material:	ND
Glue:	ND
Binders:	4

COMMENTS:

ND = None Detected

It is certified by the signatures below that the laboratory identified is accredited by the National Institute of Standards and Technology for Polarized Light Microscopy (PLM) analysis under the EPA Interim Asbestos Bulk Sample Quality Assurance Program, Laboratory ID 102082-0

Microanalyst:

Alena Chumanevich

QCAlyst:

Yelena Khanina

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---

**ATTACHMENT E**

**WASTE MANIFESTS AND WEIGHT  
TICKETS FOR PETROLEUM IMPACTED  
SOIL**

---

**NON-HAZARDOUS WASTE MANIFEST**

1. Generator ID Number

2. Page 1 of

3. Emergency Response Phone

904-241-2200

4. Waste Tracking Number

054107

5. Generator's Name and Mailing Address  
**FISC Jacksonville Mayport DET**  
**Fuels Dept**  
**Mayport, FL 32228**

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

TRUCK# 140

Generator's Phone: 904-270-5417

6. Transporter 1 Company Name

SRI

U.S. EPA ID Number

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address

**Soil Remediation Inc**  
**5815 Hwy 17N**  
**Kingsland, GA**

U.S. EPA ID Number

Facility's Phone: 912-729-7555

9. Waste Shipping Name and Description

10. Containers

No.

Type

11. Total Quantity

12. Unit Wt./Vol.

1. Petroleum Contaminated Soil

001

DTDS  
TT

28.40  
H

Y  
T

2.

3.

4.

13. Special Handling Instructions and Additional Information

**Moran Environmental Recovery 24hr Contact#800 359-3740**  
**MER Job#JD016**

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Wastes.

Generator's/Officer's Printed/Typed Name

PATRICIA LOOP

Signature

[Signature]

Month Day Year

3 12 07

15. International Shipments

Import to U.S.

Export from U.S.

Port of entry/exit:

Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name

John Cole

Signature

[Signature]

Month Day Year

3 12 07

Transporter 2 Printed/Typed Name

Signature

Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space

Quantity

Type

Residue

Partial Rejection

Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)

U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)

Month Day Year

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

Printed/Typed Name

Joe Probst

Signature

[Signature]

Month Day Year

03 12 07

DESIGNATED FACILITY TO GENERATOR

GENERATOR

INTL

TRANSPORTER

DESIGNATED FACILITY

**Soil Remediation, Inc.**

5815 Highway 17 North

Kingsland, GA 31548

(912) 729-7555

0 5912

TRUCK NO. 140

GROSS WT. 77400 LBS TRANSPORTER

TYRE WT. 2800 LBS

NET WT. 66600 LBS DRIVER

SRI

Navy Fuel Depot

Weighers Signature \_\_\_\_\_

CUSTOMER NUMBER 20

JOB NUMBER

28.40 tons

**NON-HAZARDOUS WASTE MANIFEST**

1. Generator ID Number

2. Page 1 of

3. Emergency Response Phone

4. Waste Tracking Number

904-241-2200

054607

5. Generator's Name and Mailing Address

FISC Jacksonville Mayport DET  
Fuels Depot  
Mayport, FL 32228

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

TRUCK # 146

Generator's Phone: 904-270-5417

6. Transporter 1 Company Name

SRT

U.S. EPA ID Number

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address

Soil Remediation Inc  
5815 Hwy 17N  
Kingsland, GA

U.S. EPA ID Number

Facility's Phone: 912-729-7555

9. Waste Shipping Name and Description

10. Containers

11. Total Quantity

12. Unit Wt./Vol.

1. Petroleum Contaminated Soil

001

DOT  
TT

2292  
30 T

X  
T

2.

3.

4.

13. Special Handling Instructions and Additional Information

Moran Environmental Recovery 24hr Contact #800 359-3740  
MER Job#JD016

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's Name Printed/Typed Name

PATRICIA LOOP

Signature

Month Day Year  
3 12 07

15. International Shipments

Import to U.S.

Export from U.S.

Port of entry/exit:

Date leaving U.S.:

Transporter Signature (for exports only):

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name

DJ MY

Signature

Month Day Year

03 12 07

Transporter 2 Printed/Typed Name

Signature

Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space

Quantity

Type

Residue

Partial Rejection

Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)

U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)

Month Day Year

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

Printed/Typed Name

Joe Probst

Signature

Month Day Year

10 31 07

GENERATOR

INT'L

TRANSPORTER

DESIGNATED FACILITY

DESIGNATED FACILITY TO GENERATOR

**Soil Remediation, Inc.**

5815 Highway 17 North

Kingsland, GA 31548

(912) 729-7555

5909

TICKET NO. 000540

DATE: 1/15/87

TRUCK NO. 145  
GROSS WT. 69840 LBS TRANSPORTER SRI  
TARE WT (LBS) 54000 LBS CONTAINER Navy Fuel Depot  
NET WT. 45840 LBS DRIVER \_\_\_\_\_

NET WT. (LBS) \_\_\_\_\_

Weighers Signature \_\_\_\_\_

CUSTOMER NUMBER: 02

JOB NUMBER: \_\_\_\_\_

22.92 TONS

NON-HAZARDOUS WASTE MANIFEST 1. Generator ID Number 2. Page 1 of 3. Emergency Response Phone 904-241-2200 4. Waste Tracking Number 053907

5. Generator's Name and Mailing Address: FISC Jacksonville Mayport DET Fuels Depot Mayport, FL 32228 Generator's Site Address (if different than mailing address): TRU # 140 Generator's Phone: 904-270-5417

6. Transporter 1 Company Name: STI U.S. EPA ID Number

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

8. Designated Facility Name and Site Address: Soil Remediation Inc 5815 Hwy 17N Kingsland, GA U.S. EPA ID Number Facility's Phone: 912-729-7555

9. Waste Shipping Name and Description	10. Containers		11. Total Quantity	12. Unit Wt./Vol.
	No.	Type		
1. Petroleum Contaminated Soil	001	TT	24.88 22	Y T
2.				
3.				
4.				

13. Special Handling Instructions and Additional Information: Moran Environmental Recovery 24hr Contact#800 359-3740 MER Job#JD016

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Officer's Printed/Typed Name: PATRICIA LOOP Signature: [Signature] Month: 3 Day: 12 Year: 07

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

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: John Low Signature: [Signature] Month: 3 Day: 12 Year: 07

Transporter 2 Printed/Typed Name Signature Month Day Year

17. Discrepancy

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

17b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

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

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

Printed/Typed Name: Joe Probst Signature: [Signature] Month: 10 Day: 31 Year: 07

GENERATOR INTL TRANSPORTER DESIGNATED FACILITY

**Soil Remediation, Inc.**

5815 Highway 17 North

Kingsland, GA 31548

(912) 729-7555

5866

TICKET NO. 028409

20125 8712/07

TRUCK NO. 144  
GROSS WT. 73360 LBS TRANSPORTER SRI

TARE WT. (M) 23670 LBS GENERATOR Navy Fuel Depot

NET WT. 49760 LBS DRIVER

NET WT. 24880 LBS

Weighers Signature \_\_\_\_\_

CUSTOMER NUMBER: 00

JOB NUMBER: 10

24.88 TONS

24000

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number

2. Page 1 of

3. Emergency Response Phone

4. Waste Tracking Number

904-241-2200

053807

5. Generator's Name and Mailing Address  
FISC Jacksonville Mayport DET  
Fuels Depot  
Mayport, FL 32228

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

TRK# 146

Generator's Phone: 904-270-5417

6. Transporter 1 Company Name

U.S. EPA ID Number

SRI

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address

U.S. EPA ID Number

SDI Remediation Inc  
5815 Hwy 17N  
Kingsland, GA

Facility's Phone: 912-729-7555

9. Waste Shipping Name and Description

10. Containers

11. Total Quantity

12. Unit Wt./Vol.

No. Type

1. Petroleum Contaminated Soil

001  
TT

19.19  
22 T

13. Special Handling Instructions and Additional Information  
Moran Environmental Recovery 24hr Contact#800 359-3740  
MER Job#J016

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to Federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Officer's Printed/Typed Name

Signature

Month Day Year

Barbara Loop

3 12 07

15. International Shipments  Import to U.S.  Export from U.S.

Port of entry/exit:

Date leaving U.S.:

Transporter Signature (for exports only):

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name

Signature

Month Day Year

Transporter 2 Printed/Typed Name

Signature

Month Day Year

Signature

03 12 07

17. Discrepancy

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

Manifest Reference Number:

U.S. EPA ID Number

17b. Alternate Facility (or Generator)

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)

Month Day Year

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

Printed/Typed Name

Signature

Month Day Year

Joe Probst

Joe Probst

10 3 12 07

GENERATOR

INTL TRANSPORTER

DESIGNATED FACILITY

**Soil Remediation, Inc.**

5815 Highway 17 North

Kingsland, GA 31548

(912) 729-7555

5863

TICKET NO. 008498

00:10 03/18/07

TRUCK NO. 146  
GROSS WT. 62380 LBS TRANSPORTER SRI  
TARE WT (A) 8-000 LBS GENERATOR Navy Fuel Depot  
NET WT. 38380 LBS DRIVER  
NET WT. 19.17 TONS

Weighers Signature \_\_\_\_\_

CUSTOMER NUMBER: 00

JOB NUMBER: 10

19.19 TONS

---

**ATTACHMENT F**

**WASTE MANIFESTS FOR PETROLEUM  
CONTACT WATER**

---

**NON-HAZARDOUS WASTE MANIFEST**

1. Generator ID Number

2. Page 1 of

3. Emergency Response Phone

4. Waste Tracking Number

904-241-2200

051307

5. Generator's Name and Mailing Address  
**FISC Jacksonville Mayport DET  
Fuels Depot  
Mayport, FL 32228**

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

Generator's Phone: **904-270-5417**

6. Transporter 1 Company Name  
**Moran Environmental Recovery**

U.S. EPA ID Number  
**FLD092718576**

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address  
**Water Recovery Inc.  
1819 Albert Street  
Jacksonville, FL 32202**

U.S. EPA ID Number  
**FLR000069062**

Facility's Phone: **904-475-9320**

9. Waste Shipping Name and Description

10. Containers

11. Total Quantity

12. Unit Wt./Vol.

1. **Petroleum Contaminated Water**

No. **001**

Type **TT**

**3000**

**G**

2.

3.

4.

13. Special Handling Instructions and Additional Information

**WRI Approval #W-0205  
Moran Environmental Recovery 24hr Contact #800 359-3740  
MER Job #JD016**

*Ph 9.69 solids 4 oil 15 Flash 140 fax 0 Tm 0915 Tent 1000*

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Officer's Printed/Typed Name

Signature

Month Day Year

**PARICIA LOOP**

**03 01 07**

15. International Shipments  Import to U.S.  Export from U.S.

Port of entry/exit:

Date leaving U.S.:

Transporter Signature (for exports only):

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name

Signature

Month Day Year

**Rob Naylor**

**03 01 07**

Transporter 2 Printed/Typed Name

Signature

Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space

Quantity

Type

Residue

Partial Rejection

Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)

U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)

Month Day Year

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

Printed/Typed Name

Signature

Month Day Year

**Atten Khim**

**03 01 07**

GENERATOR

INT'L

TRANSPORTER

DESIGNATED FACILITY

**NON-HAZARDOUS WASTE MANIFEST**

1. Generator ID Number

2. Page 1 of

3. Emergency Response Phone

4. Waste Tracking Number

904-241-2200

051507

5. Generator's Name and Mailing Address

FISC Jacksonville Mayport DET  
Fuels Depot  
Mayport, FL 32228

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

Generator's Phone: 904-270-5417

6. Transporter 1 Company Name

Moran Environmental Recovery

U.S. EPA ID Number

FL0092718576

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address

Water Recovery Inc.  
1819 Albert Street  
Jacksonville, FL 32202

U.S. EPA ID Number

FLR000069062

Facility's Phone: 904-475-9320

9. Waste Shipping Name and Description

10. Containers

11. Total Quantity

12. Unit Wt./Vol.

1. Petroleum Contaminated Water

No. 001

Type TT

5,000

G

2.

3.

4.

13. Special Handling Instructions and Additional Information

WRI Approval #W-0205  
Moran Environmental Recovery 24hr Contact #800 359-3740  
MER Job #JD016

Ph 1000 solids 0 oil 1 Flash 740 tox 0 Tin 1305 Tout 1400

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Officer's Printed/Typed Name

URSULA SHAW

Signature

*Ursula Shaw*

Month Day Year  
03 02 07

15. International Shipments

Import to U.S.

Export from U.S.

Port of entry/exit:

Transporter Signature (for exports only):

Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name

Rob Naylor

Signature

*Rob Naylor*

Month Day Year  
03 02 07

Transporter 2 Printed/Typed Name

Signature

Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space

Quantity

Type

Residue

Partial Rejection

Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)

U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)

Month Day Year

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

Printed/Typed Name

Ken Khum

Signature

*Ken Khum*

Month Day Year  
02 02 07

GENERATOR

INT'L

TRANSPORTER

DESIGNATED FACILITY

DESIGNATED FACILITY TO GENERATOR

**NON-HAZARDOUS WASTE MANIFEST**

1. Generator ID Number

2. Page 1 of

3. Emergency Response Phone

4. Waste Tracking Number

904-241-2200

051407

5. Generator's Name and Mailing Address  
**FISC Jacksonville Mayport DET  
 Fuels Depot  
 Mayport, FL 32228**

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

Generator's Phone: **904-270-5417**

6. Transporter 1 Company Name  
**Moran Environmental Recovery**

U.S. EPA ID Number

**FLD092718576**

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address

**Water Recovery Inc.  
 1819 Albert Street  
 Jacksonville, FL 32202**

U.S. EPA ID Number

**FLR000069062**

Facility's Phone: **904-475-9320**

9. Waste Shipping Name and Description

10. Containers

11. Total Quantity

12. Unit Wt./Vol.

No.

Type

1. **Petroleum Contaminated Water**

001

TT

**1250**

G

2.

3.

4.

13. Special Handling Instructions and Additional Information

**WRI Approval #W-0205  
 Moran Environmental Recovery 24hr Contact #800 359-3740  
 MER Job #JD016**

*Ph 8.42 sold 10 oil! Fla's 2140 tax 0*

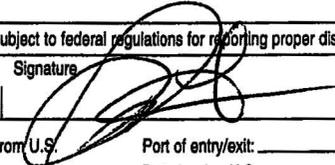
*TM 16:45  
 Tout 1736*

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Officer's Printed/Typed Name

**PATRICIA LOOP**

Signature



Month Day Year  
**3 | 15 | 07**

15. International Shipments

Import to U.S.

Export from U.S.

Port of entry/exit:

Date leaving U.S.:

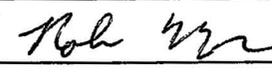
Transporter Signature (for exports only):

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name

**Rob Naylor**

Signature



Month Day Year  
**03 | 15 | 07**

Transporter 2 Printed/Typed Name

Signature

Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space

Quantity

Type

Residue

Partial Rejection

Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)

U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)

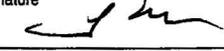
Month Day Year

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

Printed/Typed Name

**Ken Knim**

Signature



Month Day Year  
**03 | 15 | 07**

GENERATOR

INT'L

TRANSPORTER

DESIGNATED FACILITY

---

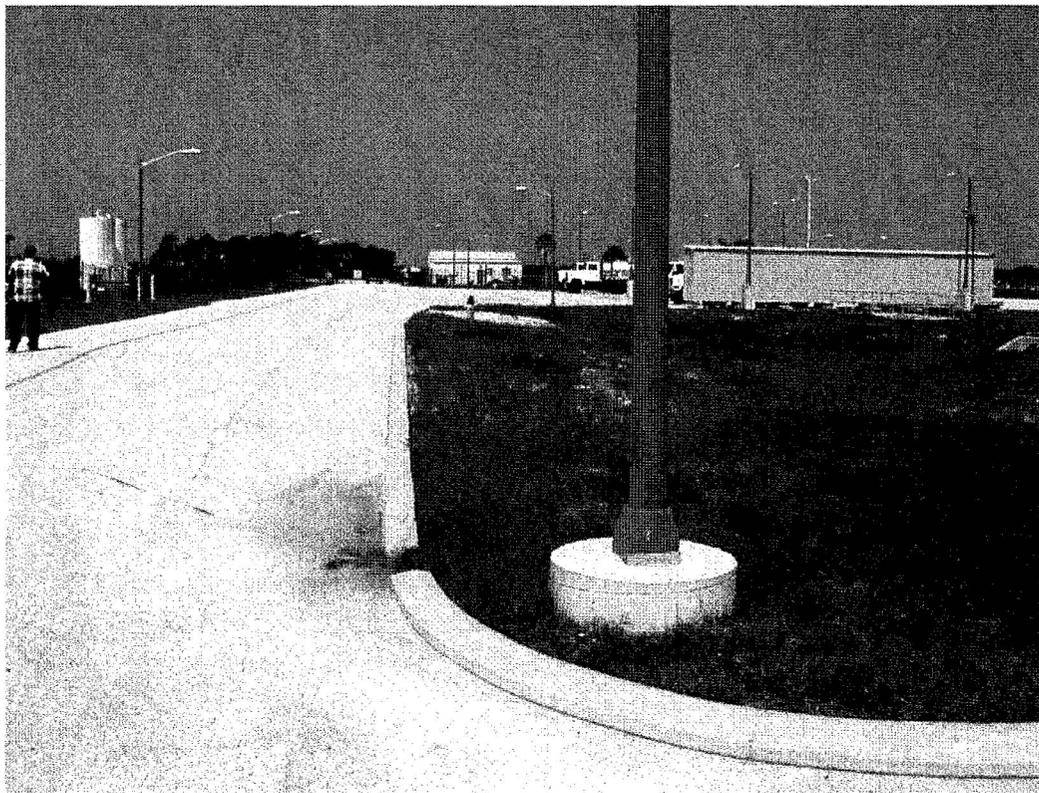
**ATTACHMENT G**

**PROJECT PHOTOGRAPHS**

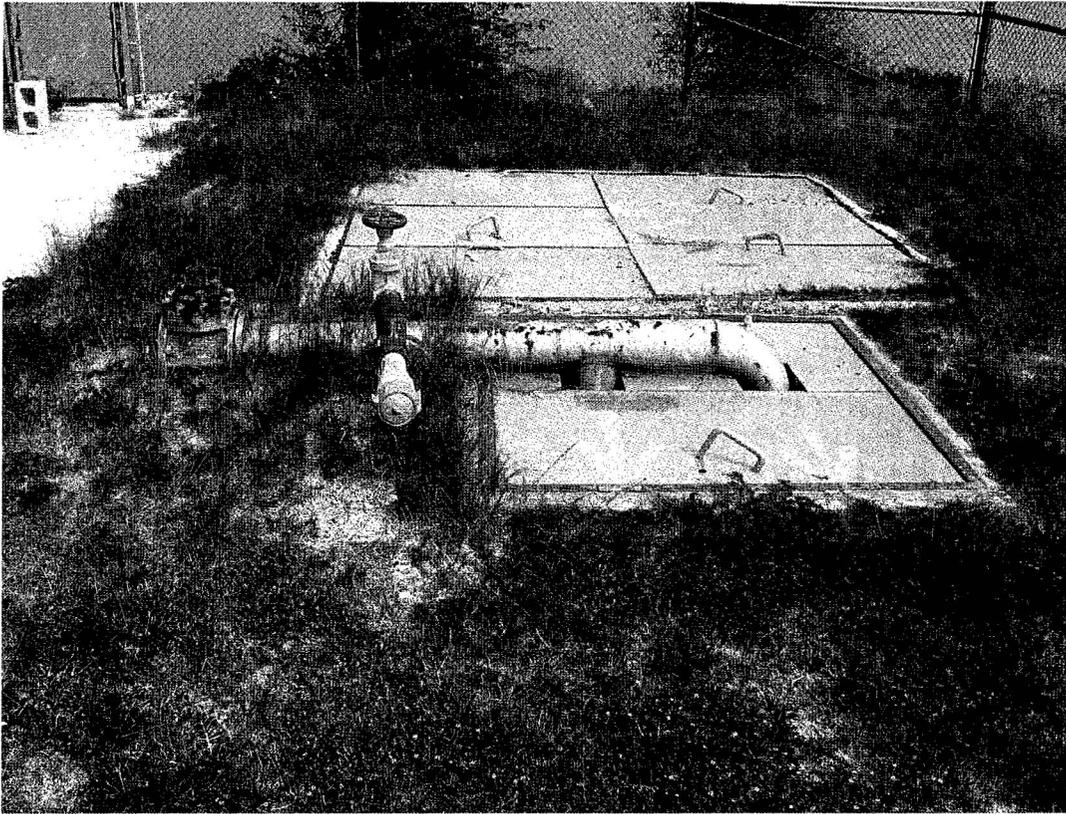
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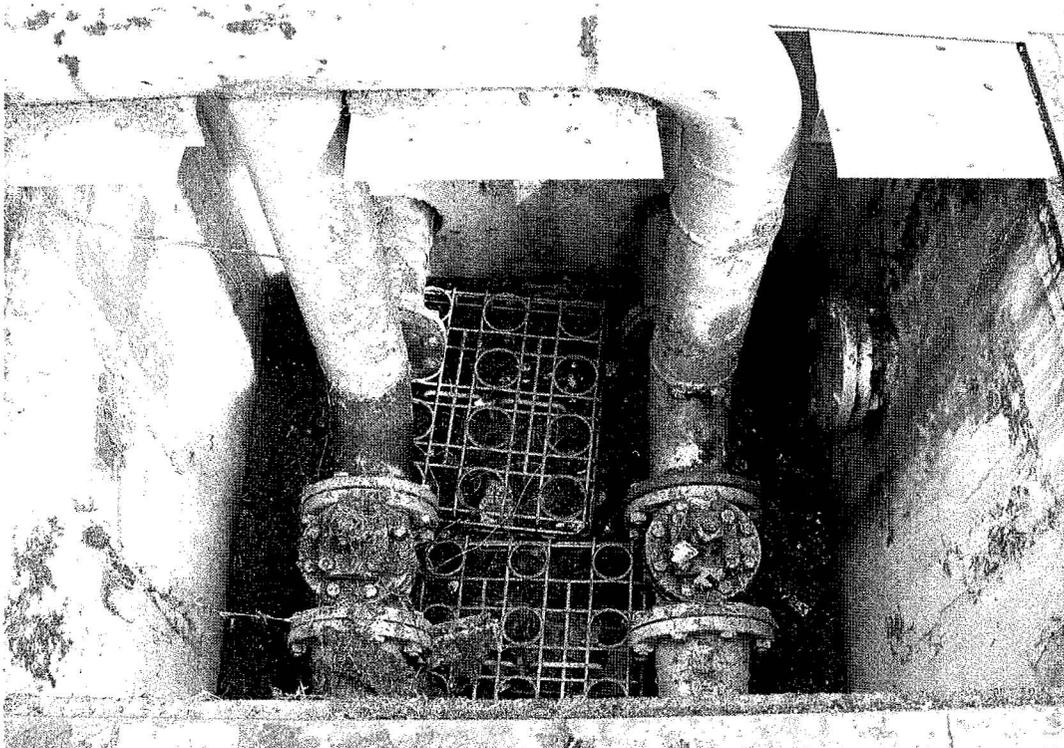
**P-1. Area of northern piping runs adjacent to the former Pier 136 location, prior to excavation**



**P-2. Eastern area of southern piping runs, prior to excavation**



**P-3. Northern piping run valve pit installation, prior to demolition. Larger pit is to the north, closer to the riverfront.**



**P-4. Interior of northern valve pit prior to demolition**



**P-5. Excavations to expose piping along southern piping run**



**P-6. Excavation along the bend section of the northern piping run**



**P-7. Piping with ACM-coating, prior to removal**



**P-8. Piping with ACM coating, wrapped with plastic sheeting prior to removal**



**P-9. Excavation exposing 6-inch piping runs in eastern area of the northern piping run**



**P-10. Deep excavation in petroleum impacted soil, northern piping run**



P-11 . Demolishing northern valve box with hydraulic ram



P-12 . Removing 8-inch diameter pipe section from northern end of northern piping run

---

**ATTACHMENT H**

**MODIFIED PROCTOR AND DENSITY  
TESTING REPORTS**



Moisture/Density Relationship of Soil

3415 Kori Road / Jacksonville, FL 32257 / 904-262-9991 904-262-9996

Project: MAYPORT PIER 136 DEMO

Job No.: ORL9780

Report No.: 37004

Date: 3/11/2007

Client: QORE, INC. ORLANDO

Sample No.: P1

Date Sampled: 3/9/2007

Visual Classification:

Light brown fine sand

Location:

On site stockpile of imported structural fill. □  
Naval Station Mayport FISC Fuel Depot Building 262

Test Method:

Procedure: —ASTM D-1557

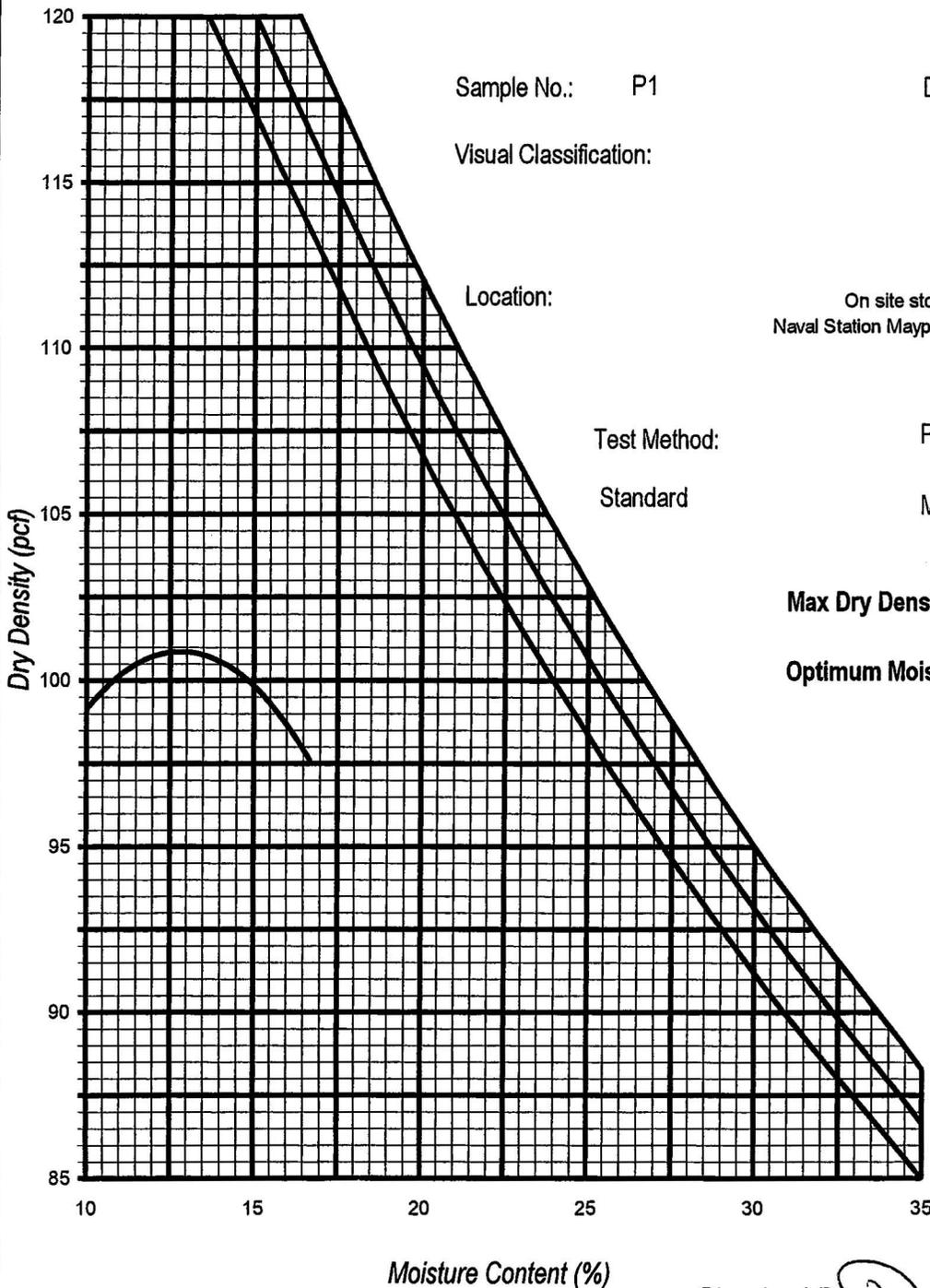
Standard

Modified

X

Max Dry Density: 101.0 pcf

Optimum Moisture: 13.0 %



Zero Air Voids Curve  
Specific Gravity

← 2.80

← 2.70

← 2.60

Checked By [Signature] 3/28/07



Moisture/Density Relationship of Soil

3415 Kori Road / Jacksonville, FL 32257 / 904-262-9991 904-262-9996

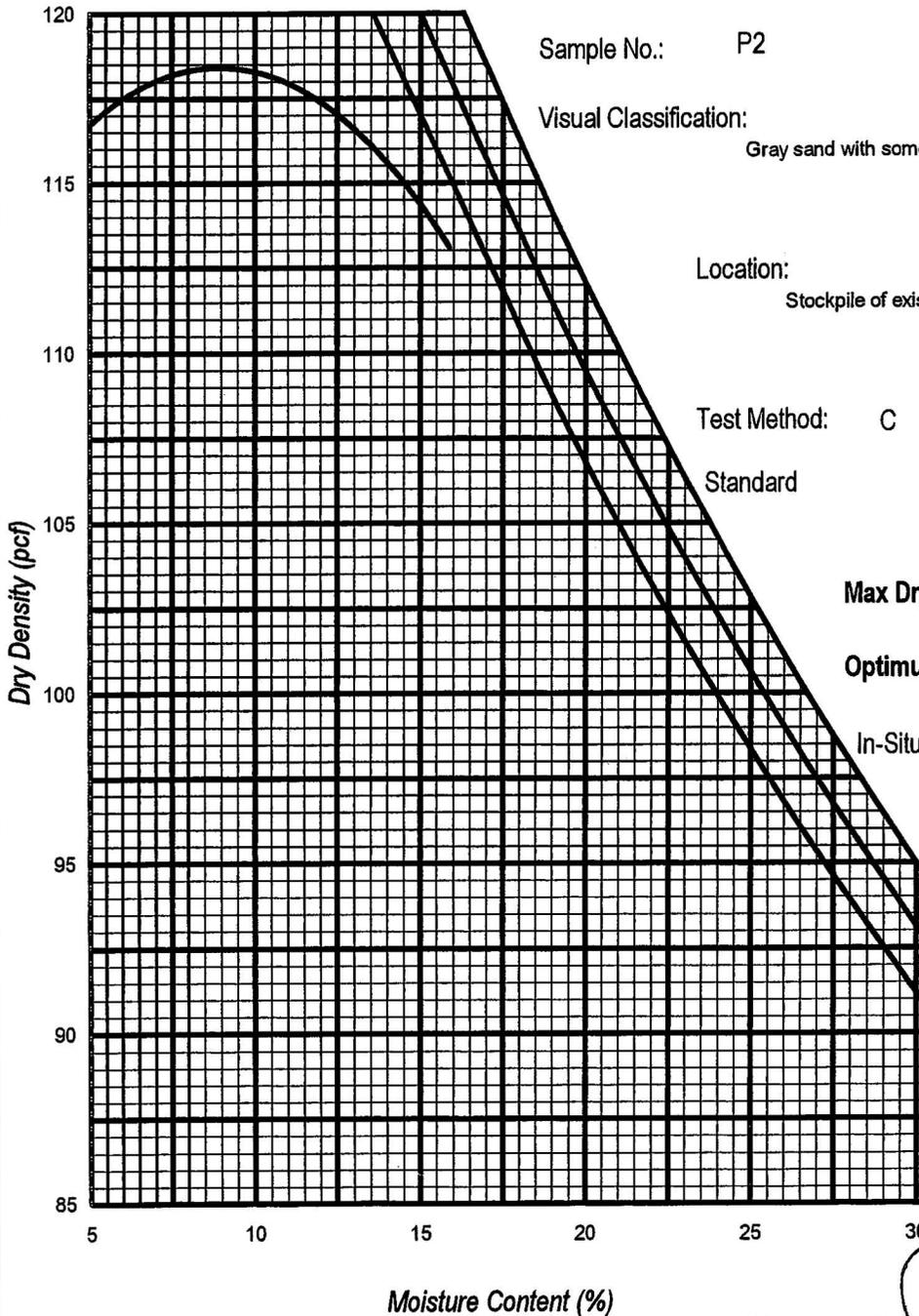
Project: MAYPORT PIER 136 DEMO

Job No.: ORL9780

Report No.: 37021

Date: 3/14/2007

Client: QORE, INC. ORLANDO



Sample No.: P2

Date Sampled: 3/14/2007

Visual Classification:

Gray sand with some limerock and shell material (faint diesel odor)

Location:

Stockpile of existing material excavated from pipe trench

Test Method: C

Procedure: ASTM D-1557

Standard

Modified

X

Max Dry Density: 119.0 pcf

Optimum Moisture: 9.0 %

In-Situ Moisture: 8.5 %

Zero Air Voids Curve

Specific Gravity

← 2.80

← 2.70

← 2.60

Checked By

*[Handwritten signature]* 37807



3415 Kori Road / Jacksonville, FL 32257 / 904-262-9991 904-262-9996

<b>PROJECT:</b>	Mayport Pier 136 Demo	<b>JOB NO:</b>	ORL9780G
<b>CLIENT:</b>	QORE, Inc. Orlando	<b>REPORT NO:</b>	37008
<b>TECHNICIAN:</b>	Steadman, Ray	<b>DATE OF EVALUATION:</b>	March 13, 2007
<b>CONTRACTOR:</b>	Moran Environmental Recovery	<b>WEATHER CONDITIONS:</b>	Clear 75

**SUMMARY OF WORK PERFORMED:**

Arrived on site at 10:00 am.

The site was visited at the request of the client to provide field density testing on the backfill for the pipe excavation trench. Due to security issues in accessing the base, arrival on site was delayed for an hour and 45 minutes. Upon arrival at the testing site, it was noted that another material, not previously sampled by QORE, was being used as backfill. Speaking with Alan Pate (QORE), it was determined that the material was excavated from the pipe trench, and its use was limited to a smaller portion of the trench. A bulk sample was collected for transportation to our laboratory for determination of the maximum dry density value.

Departed from site at 12:15

**COPIES TO:** QORE, Inc. Orlando / Mr Gary Yaeger (A-1)



3415 Kori Road / Jacksonville, FL 32257 / 904-262-9991 904-262-9996

<b>PROJECT:</b>	Mayport Pier 136 Demo	<b>JOB NO:</b>	ORL9780G D1, 1-8
<b>CLIENT:</b>	QORE, Inc. Orlando	<b>REPORT NO:</b>	37020 Page 1 of 3
<b>TECHNICIAN:</b>	Steadman, Ray	<b>DATE OF EVALUATION:</b>	March 15, 2007
<b>CONTRACTOR:</b>	Moran Environmental Recovery	<b>WEATHER CONDITIONS:</b>	Clear 74

**SUMMARY OF WORK PERFORMED:**

Arrived on site at 8:00 am.

The site was visited at the request of the client to provide field density testing services on the backfill for an excavated pipe trench adjacent to Building 2047. The following was noted:

- A total of 8 field density tests were conducted at the above-mentioned location. The test results indicated that the material has been compacted or was recompact to a minimum of 98% of the modified Proctor maximum dry density. Consult the attached Field Density Report for further details.

Note: Initial tests on areas that were backfilled using excavated material did not meet specifications. These areas were undercut and backfilled with the imported fill.

Departed from site at 11:30 am.

**COPIES TO:** QORE, Inc. Orlando / Mr Gary Yaeger (A-1)

PK/CV

QD 32807

**FIELD DENSITY – PERCENTAGE  
OF COMPACTION REPORT**



3415 Kori Road / Jacksonville, FL 32257 / 904-262-9991 904-262-9996

<b>PROJECT:</b>	Mayport Pier 136 Demo	<b>JOB NO:</b>	ORL9780G D1, 1-8
<b>CLIENT:</b>	QORE, Inc. Orlando	<b>REPORT NO:</b>	37020 Page 2 of 3
<b>TECHNICIAN:</b>	Steadman, Ray	<b>WEATHER CONDITIONS:</b>	Clear 74
<b>CONTRACTOR:</b>	Moran Environmental Recovery	<b>DATE:</b>	March 15, 2007

IN-PLACE FIELD DENSITIES						
SAMPLE NUMBER	LOCATION	FIELD MOISTURE PERCENT	IN-PLACE DRY DENSITY LBS/CU.FT	LAB. MAX. DENSITY LBS/CU.FT	COMPACTION PERCENT	
					ATTAINED	REQUIRED
	<b><u>Excavated pipe trench backfill, one foot below pavement area adjacent to Building 2047</u></b>					
1-3/15	31 feet west of southeast corner	7.5	102.8	101.0	100+	98
2-3/15	45 feet west of southeast corner	6.0	110.0	119.0	92	98
3-3/15	61 feet west of southeast corner	4.0	96.7	101.0	96	98
4-3/15	91 feet west of southeast corner	8.3	109.5	119.0	92	98
5-3/15	108 feet west of southeast corner	5.1	102.5	101.0	100+	98
6-3/15	61 feet west of southeast corner (retest of no.3)	4.2	100.3	101.0	99	98

NOTE: TEST LOCATIONS OBTAINED BY: Technician and are approximate.

The percent compaction for in-place density tests are based on laboratory Moisture Density Relations Tests ASTM D- 1557 as follows:

<b>LAB NO.</b>	37004	<b>MAXIMUM DRY DENSITY</b>	101.0	<b>OPTIMUM MOISTURE CONTENT</b>	13.0
	37021		119.0		9.0

**COPIES TO:** QORE, Inc. Orlando / Mr Gary Yaeger (A-1)

**FIELD DENSITY – PERCENTAGE  
OF COMPACTION REPORT**



3415 Kori Road / Jacksonville, FL 32257 / 904-262-9991 904-262-9996

**PROJECT:** Mayport Pier 136 Demo      **JOB NO:** ORL9780G  
**CLIENT:** QORE, Inc. Orlando      **REPORT NO:** D1, 1-8 37020 Page 3 of 3  
**TECHNICIAN:** Steadman, Ray      **WEATHER CONDITIONS:** Clear 74  
**CONTRACTOR:** Moran Environmental Recovery      **DATE:** March 15, 2007

IN-PLACE FIELD DENSITIES						
SAMPLE NUMBER	LOCATION	FIELD MOISTURE PERCENT	IN-PLACE DRY DENSITY LBS/CU.FT	LAB. MAX. DENSITY LBS/CU.FT	COMPACTION PERCENT	
					ATTAINED	REQUIRED
7-3/15	45 feet west of southeast corner (retest of no.2)	7.3	104.4	101.0	100+	98
8-3/15	91 feet west of southeast corner (retest of no.4)	4.1	100.0	101.0	99	98

NOTE: TEST LOCATIONS OBTAINED BY: Technician and are approximate.  
The percent compaction for in-place density tests are based on laboratory Moisture Density Relations Tests ASTM D- 1557 as follows:

LAB NO. 37004      MAXIMUM DRY DENSITY 101.0      OPTIMUM MOISTURE CONTENT 13.0

COPIES TO: QORE, Inc. Orlando / Mr Gary Yaeger (A-1)

---

## **ATTACHMENT I**

# **LABORATORY ANALYTICAL RESULT FOR SOIL CONFIRMATION SAMPLES**

**Environmental Conservation Laboratories, Inc.**

4810 Executive Park Court, Suite 211

Jacksonville FL, 32216-6069

Phone: 904.296.3007 FAX: 904.296.6210



www.encolabs.com

Friday, March 23, 2007

QORE Property Sciences (AT007)

Attn: Alan Pate

3415 Kori Road

Jacksonville, FL 32257

**RE: Project Number: ORL9780-G, Project Name/Desc: NAS Mayport Pier 136  
ENCO Workorder: B702054**

Dear Alan Pate,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Monday, March 12, 2007.

Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. Results for these procedures apply only to the samples as submitted.

This data has been produced in accordance with NELAC standards (June, 2003). This report shall not be reproduced except in full, without the written approval of the Laboratory.

This report contains only those analyses performed by Environmental Conservation Laboratories. Data from outside organizations will be reported under separate cover.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'Alex Olis', with a horizontal line above the 'i'.

Alex Olis

Project Manager

Enclosure(s)



www.encolabs.com

**Client ID:** MPT-SS-NW2-C

**Lab ID:** B702054-03

**Sampled:** 03/12/07 08:20

**Received:** 03/12/07 15:50

---

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010B	09/08/07	03/15/07 05:44	3/16/2007 17:44
EPA 8082	03/26/07 04/21/07	03/14/07 12:57	3/15/2007 23:02
EPA 8260B	03/26/07	03/13/07 17:00	3/16/2007 19:23
EPA 8270C	03/26/07 04/23/07	03/14/07 15:36	3/18/2007 17:56

---

**Client ID:** MPT-SS-NW2-C

**Lab ID:** B702054-03RE1

**Sampled:** 03/12/07 08:20

**Received:** 03/12/07 15:50

---

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
FLPRO	03/26/07 04/23/07	03/14/07 12:59	3/18/2007 20:14

---

**Client ID:** MPT-SS-NW3-C

**Lab ID:** B702054-04

**Sampled:** 03/12/07 08:40

**Received:** 03/12/07 15:50

---

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010B	09/08/07	03/15/07 05:44	3/16/2007 17:51
EPA 8082	03/26/07 04/21/07	03/14/07 12:57	3/15/2007 23:27
EPA 8260B	03/26/07	03/13/07 17:00	3/16/2007 19:52
EPA 8270C	03/26/07 04/23/07	03/14/07 15:36	3/18/2007 18:20
FLPRO	03/26/07 04/23/07	03/14/07 12:59	3/17/2007 05:46

---

**Client ID:** MPT-SS-EW-C

**Lab ID:** B702054-05

**Sampled:** 03/12/07 08:50

**Received:** 03/12/07 15:50

---

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010B	09/08/07	03/15/07 05:44	3/16/2007 17:58
EPA 8082	03/26/07 04/21/07	03/14/07 12:57	3/15/2007 23:53
EPA 8260B	03/26/07	03/13/07 17:00	3/16/2007 20:21
EPA 8270C	03/26/07 04/23/07	03/14/07 15:36	3/18/2007 18:45
FLPRO	03/26/07 04/23/07	03/14/07 12:59	3/17/2007 06:09

---



www.encolabs.com

Client ID: MPT-SS-WW-C

Lab ID: B702054-06

Sampled: 03/12/07 09:00

Received: 03/12/07 15:50

---

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010B	09/08/07	03/15/07 05:44	3/16/2007 18:26
EPA 8082	03/26/07 04/21/07	03/14/07 12:57	3/16/2007 19:27
EPA 8260B	03/26/07	03/13/07 17:00	3/16/2007 20:51
EPA 8270C	03/26/07 04/23/07	03/14/07 15:36	3/18/2007 19:09
FLPRO	03/26/07 04/23/07	03/14/07 12:59	3/17/2007 07:15

---

Client ID: MPT-SS-SVP-C

Lab ID: B702054-07

Sampled: 03/12/07 09:30

Received: 03/12/07 15:50

---

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010B	09/08/07	03/15/07 05:44	3/16/2007 18:33
EPA 8082	03/26/07 04/21/07	03/14/07 12:57	3/15/2007 18:43
EPA 8260B	03/26/07	03/13/07 17:00	3/16/2007 21:20
EPA 8270C	03/26/07 04/23/07	03/14/07 15:36	3/18/2007 19:33

---

Client ID: MPT-SS-SVP-C

Lab ID: B702054-07RE1

Sampled: 03/12/07 09:30

Received: 03/12/07 15:50

---

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010B	09/08/07	03/15/07 05:44	3/19/2007 12:13
FLPRO	03/26/07 04/28/07	03/19/07 11:40	3/19/2007 18:38

---

Client ID: MPT-SS-NVP-C

Lab ID: B702054-08

Sampled: 03/12/07 10:00

Received: 03/12/07 15:50

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Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010B	09/08/07	03/15/07 05:44	3/16/2007 18:40
EPA 8082	03/26/07 04/21/07	03/14/07 12:57	3/15/2007 19:09
EPA 8260B	03/26/07	03/13/07 17:00	3/16/2007 21:50
EPA 8270C	03/26/07 04/23/07	03/14/07 15:36	3/18/2007 19:58
FLPRO	03/26/07 04/23/07	03/14/07 12:59	3/17/2007 09:08

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www.encolabs.com

**SAMPLE DETECTION SUMMARY**

**Client ID: MPT-SS-BOT1-C**

**Lab ID: B702054-01**

Analyte	Results/Qual	MRL	Units	Method
2-Butanone	0.57 E	0.0049	mg/kg dry	EPA 8260B
Acenaphthene	13.2 I, D	19.6	mg/kg dry	EPA 8270C
Acetone	1.5 E	0.0049	mg/kg dry	EPA 8260B
Benzene	0.0014	0.0010	mg/kg dry	EPA 8260B
Carbon disulfide	0.0088	0.0010	mg/kg dry	EPA 8260B
Chromium	1.7	0.6	mg/kg dry	EPA 6010B
Fluorene	31.1 D	19.6	mg/kg dry	EPA 8270C
Isophorone	26.2 D	19.6	mg/kg dry	EPA 8270C
Isopropylbenzene	6.1 E	0.0010	mg/kg dry	EPA 8260B
Lead	0.7	0.6	mg/kg dry	EPA 6010B
Naphthalene	106 D	19.6	mg/kg dry	EPA 8270C
Naphthalene	0.50 E	0.0010	mg/kg dry	EPA 8260B
n-Propyl Benzene	6.1 E	0.0010	mg/kg dry	EPA 8260B
Phenanthrene	54.6 D	19.6	mg/kg dry	EPA 8270C
sec-Butylbenzene	0.37 E	0.0010	mg/kg dry	EPA 8260B
Tetrachloroethene	0.014	0.0010	mg/kg dry	EPA 8260B

**Client ID: MPT-SS-BOT1-C**

**Lab ID: B702054-01RE1**

Analyte	Results/Qual	MRL	Units	Method
1-Methylnaphthalene	302 D	196	mg/kg dry	EPA 8270C
2-Methylnaphthalene	407 D	196	mg/kg dry	EPA 8270C
TPH (C8-C40)	40100 D	1960	mg/kg dry	FLPRO

**Client ID: MPT-SS-NW1-C**

**Lab ID: B702054-02**

Analyte	Results/Qual	MRL	Units	Method
Acetone	0.033	0.0055	mg/kg dry	EPA 8260B
Benzo(a)anthracene	0.253 I	0.362	mg/kg dry	EPA 8270C
Benzo(a)pyrene	0.220 I	0.362	mg/kg dry	EPA 8270C
Benzo(b)fluoranthene	0.334 I	0.362	mg/kg dry	EPA 8270C
Benzo(g,h,i)perylene	0.392	0.362	mg/kg dry	EPA 8270C
Chromium	2.7	0.5	mg/kg dry	EPA 6010B
Chrysene	0.204 I	0.362	mg/kg dry	EPA 8270C
Dibenzo(a,h)anthracene	0.309 I	0.362	mg/kg dry	EPA 8270C
Fluoranthene	0.198 I	0.362	mg/kg dry	EPA 8270C
Indeno(1,2,3-cd)pyrene	0.361 I	0.362	mg/kg dry	EPA 8270C
Lead	1.1	0.5	mg/kg dry	EPA 6010B
Pyrene	0.235 I	0.362	mg/kg dry	EPA 8270C

**Client ID: MPT-SS-NW1-C**

**Lab ID: B702054-02RE1**

Analyte	Results/Qual	MRL	Units	Method
TPH (C8-C40)	48.1 D	36.2	mg/kg dry	FLPRO

**Client ID: MPT-SS-NW2-C**

**Lab ID: B702054-03**

Analyte	Results/Qual	MRL	Units	Method
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www.encolabs.com

Acetone	0.019	0.0052	mg/kg dry	EPA 8260B
Cadmium	0.03 I	0.05	mg/kg dry	EPA 6010B
Chromium	2.5	0.5	mg/kg dry	EPA 6010B
Lead	1.1	0.5	mg/kg dry	EPA 6010B
Naphthalene	0.0024	0.0010	mg/kg dry	EPA 8260B
sec-Butylbenzene	0.0024	0.0010	mg/kg dry	EPA 8260B

Client ID: MPT-SS-NW2-C

Lab ID: B702054-03RE1

Analyte	Results/Qual	MRL	Units	Method
TPH (C8-C40)	64.9 D	34.5	mg/kg dry	FLPRO

Client ID: MPT-SS-NW3-C

Lab ID: B702054-04

Analyte	Results/Qual	MRL	Units	Method
Acetone	0.028	0.0052	mg/kg dry	EPA 8260B
Benzo(b)fluoranthene	0.124 I	0.342	mg/kg dry	EPA 8270C
Benzo(g,h,i)perylene	0.322 I	0.342	mg/kg dry	EPA 8270C
Cadmium	0.06	0.05	mg/kg dry	EPA 6010B
Chromium	2.8	0.5	mg/kg dry	EPA 6010B
Fluoranthene	0.201 I	0.342	mg/kg dry	EPA 8270C
Indeno(1,2,3-cd)pyrene	0.302 I	0.342	mg/kg dry	EPA 8270C
Lead	1.6	0.5	mg/kg dry	EPA 6010B
Naphthalene	0.0011	0.0010	mg/kg dry	EPA 8260B
Phenanthrene	0.205 I	0.342	mg/kg dry	EPA 8270C
Pyrene	0.185 I	0.342	mg/kg dry	EPA 8270C
sec-Butylbenzene	0.0015	0.0010	mg/kg dry	EPA 8260B
TPH (C8-C40)	96.1 D	68.4	mg/kg dry	FLPRO

Client ID: MPT-SS-EW-C

Lab ID: B702054-05

Analyte	Results/Qual	MRL	Units	Method
Acetone	0.012	0.0052	mg/kg dry	EPA 8260B
Benzo(g,h,i)perylene	0.340 I	0.341	mg/kg dry	EPA 8270C
Cadmium	0.05 I	0.05	mg/kg dry	EPA 6010B
Chromium	3.0	0.5	mg/kg dry	EPA 6010B
Indeno(1,2,3-cd)pyrene	0.296 I	0.341	mg/kg dry	EPA 8270C
Lead	1.9	0.5	mg/kg dry	EPA 6010B
TPH (C8-C40)	86.8 D	68.3	mg/kg dry	FLPRO

Client ID: MPT-SS-WW-C

Lab ID: B702054-06

Analyte	Results/Qual	MRL	Units	Method
Acetone	0.017	0.0051	mg/kg dry	EPA 8260B
Cadmium	0.07	0.05	mg/kg dry	EPA 6010B
Chromium	4.0	0.5	mg/kg dry	EPA 6010B
Lead	0.8	0.5	mg/kg dry	EPA 6010B

Client ID: MPT-SS-SVP-C

Lab ID: B702054-07

Analyte	Results/Qual	MRL	Units	Method
Acetone	0.015	0.0052	mg/kg dry	EPA 8260B
Cadmium	0.06	0.05	mg/kg dry	EPA 6010B
Carbon disulfide	0.0010 I	0.0010	mg/kg dry	EPA 8260B



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Chromium	2.6	0.5	mg/kg dry	EPA 6010B
Lead	2.2	0.5	mg/kg dry	EPA 6010B

Client ID: MPT-SS-NVP-C

Lab ID: B702054-08

Analyte	Results/Qual	MRL	Units	Method
Acetone	0.0093	0.0051	mg/kg dry	EPA 8260B
Cadmium	0.14	0.05	mg/kg dry	EPA 6010B
Chromium	8.3	0.5	mg/kg dry	EPA 6010B
Lead	9.3	0.5	mg/kg dry	EPA 6010B
TPH (C8-C40)	398 D	33.9	mg/kg dry	FLPRO



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### ANALYTICAL REPORT

Sample ID: MPT-SS-BOT1-C  
 Lab #: B702054-01  
 Prep. Method: EPA 3545  
 Analyzed: 03/15/07 By: GGM  
 Anal. Method: EPA 8082  
 Anal. Batch:  
 QC Batch: 7C13033

Project: NAS Mayport Pier 136  
 Work Order #: B702054  
 Matrix: Soil  
 Unit: mg/kg dry  
 Dilution Factor: 1  
 Percent Solids: 83.99

#### **Polychlorinated Biphenyls by GC**

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
PCB-1016/1242 [2C]	12674-11-2/53469-21-	0.017 U	0.017	0.039	mg/kg dry
PCB-1221 [2C]	11104-28-2	0.021 U	0.021	0.039	mg/kg dry
PCB-1232 [2C]	11141-16-5	0.023 U	0.023	0.039	mg/kg dry
PCB-1248 [2C]	12672-29-6	0.012 U	0.012	0.039	mg/kg dry
PCB-1254 [2C]	11097-69-1	0.011 U	0.011	0.039	mg/kg dry
PCB-1254-1 [2C]		0.0 U			mg/kg dry
PCB-1260 [2C]	11096-82-5	0.016 U	0.016	0.039	mg/kg dry

Surrogate Recovery		Result	Spike Level	% Recovery	% Recovery Limits
2,4,5,6-TCMX [2C]	877-09-8	0.0389	0.0397	98 %	0-200
DBC [2C]	NA	0.0369	0.0397	93 %	0-200



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### ANALYTICAL REPORT

Sample ID: MPT-SS-BOT1-C  
Lab #: B702054-01

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Percent Solids: 83.99

#### **Metals by EPA 6000/7000 Series Methods**

<b>Parameter</b>	<b>CAS Number</b>	<b>Analytical Results</b>	<b>MDL</b>	<b>MRL</b>	<b>Units</b>	<b>Analysis Method</b>	<b>Prep Method</b>	<b>Analytical Batch</b>
Arsenic	7440-38-2	0.2 U	0.2	0.6	mg/kg dry	EPA 6010B	EPA 3050B	7C15002
Cadmium	7440-43-9	0.03 U	0.03	0.06	mg/kg dry	EPA 6010B	EPA 3050B	7C15002
Chromium	7440-47-3	1.7	0.2	0.6	mg/kg dry	EPA 6010B	EPA 3050B	7C15002
Lead	7439-92-1	0.7	0.1	0.6	mg/kg dry	EPA 6010B	EPA 3050B	7C15002



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### ANALYTICAL REPORT

Sample ID: MPT-SS-BOT1-C  
Lab #: B702054-01  
Prep. Method: EPA 3545\_MS  
Analyzed: 03/18/07 By: jj  
Anal. Method: EPA 8270C  
Anal. Batch: BA00441  
QC Batch: 7C14020

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Unit: mg/kg dry  
Dilution Factor: 5  
Percent Solids: 83.99

#### Semivolatile Organic Compounds by GCMS

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
1,2,4-Trichlorobenzene	120-82-1	7.44 U, D	7.44	19.6	mg/kg dry
1,2-Dichlorobenzene	95-50-1	6.49 U, D	6.49	19.6	mg/kg dry
1,3-Dichlorobenzene	541-73-1	6.49 U, D	6.49	19.6	mg/kg dry
1,4-Dichlorobenzene	106-46-7	7.08 U, D	7.08	19.6	mg/kg dry
2,4,5-Trichlorophenol	95-95-4	8.63 U, D	8.63	19.6	mg/kg dry
2,4,6-Trichlorophenol	88-06-2	7.44 U, D	7.44	19.6	mg/kg dry
2,4-Dichlorophenol	120-83-2	7.44 U, D	7.44	19.6	mg/kg dry
2,4-Dimethylphenol	105-67-9	6.91 U, D	6.91	19.6	mg/kg dry
2,4-Dinitrophenol	51-28-5	14.3 U, D	14.3	19.6	mg/kg dry
2,4-Dinitrotoluene	121-14-2	8.27 U, D	8.27	19.6	mg/kg dry
2,6-Dinitrotoluene	606-20-2	8.27 U, D	8.27	19.6	mg/kg dry
2-Chloronaphthalene	91-58-7	7.44 U, D	7.44	19.6	mg/kg dry
2-Chlorophenol	95-57-8	6.67 U, D	6.67	19.6	mg/kg dry
2-Methyl-4,6-dinitrophenol	534-52-1	6.49 U, D	6.49	19.6	mg/kg dry
2-Methylphenol	95-48-7	7.08 U, D	7.08	19.6	mg/kg dry
2-Nitroaniline	88-74-4	6.91 U, D	6.91	19.6	mg/kg dry
2-Nitrophenol	88-75-5	6.49 U, D	6.49	19.6	mg/kg dry
3 & 4-Methylphenol	106-44-5	7.44 U, D	7.44	19.6	mg/kg dry
3,3'-Dichlorobenzidine	91-94-1	6.37 U, D	6.37	19.6	mg/kg dry
3-Nitroaniline	99-09-2	7.08 U, D	7.08	19.6	mg/kg dry
4-Bromophenyl-phenylether	101-55-3	7.68 U, D	7.68	19.6	mg/kg dry
4-Chloro-3-methylphenol	59-50-7	7.86 U, D	7.86	19.6	mg/kg dry
4-Chloroaniline	106-47-8	5.89 U, D	5.89	19.6	mg/kg dry
4-Chlorophenyl-phenylether	7005-72-3	8.27 U, D	8.27	19.6	mg/kg dry
4-Nitroaniline	100-01-6	8.27 U, D	8.27	19.6	mg/kg dry
4-Nitrophenol	100-02-7	8.81 U, D	8.81	19.6	mg/kg dry
Acenaphthene	83-32-9	13.2 I, D	6.91	19.6	mg/kg dry
Acenaphthylene	208-96-8	6.67 U, D	6.67	19.6	mg/kg dry
Anthracene	120-12-7	8.63 U, D	8.63	19.6	mg/kg dry
Benzidine	92-87-5	4.88 U, D	4.88	19.6	mg/kg dry
Benzo(a)anthracene	56-55-3	9.23 U, D	9.23	19.6	mg/kg dry
Benzo(a)pyrene	50-32-8	6.91 U, D	6.91	19.6	mg/kg dry
Benzo(b)fluoranthene	205-99-2	6.49 U, D	6.49	19.6	mg/kg dry
Benzo(g,h,i)perylene	191-24-2	8.22 U, D	8.22	19.6	mg/kg dry
Benzo(k)fluoranthene	207-08-9	7.86 U, D	7.86	19.6	mg/kg dry
Benzoic acid	65-85-0	1.85 U, D	1.85	19.6	mg/kg dry



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### ANALYTICAL REPORT

Sample ID: MPT-SS-BOT1-C  
Lab #: B702054-01RE1  
Prep. Method: EPA 3545\_MS  
Analyzed: 03/19/07 By: jj  
Anal. Method: EPA 8270C  
Anal. Batch: BA00441  
QC Batch: 7C14020

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Unit: mg/kg dry  
Dilution Factor: 50  
Percent Solids: 83.99

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#### Semivolatile Organic Compounds by GCMS

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
1-Methylnaphthalene	90-12-0	302 D	80.4	196	mg/kg dry
2-Methylnaphthalene	91-57-6	407 D	76.8	196	mg/kg dry



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**ANALYTICAL REPORT**

Sample ID: MPT-SS-BOT1-C  
 Lab #: B702054-01  
 Prep. Method: EPA 3545\_MS  
 Analyzed: 03/18/07 By: ij  
 Anal. Method: EPA 8270C  
 Anal. Batch: BA00441  
 QC Batch: 7C14020

Project: NAS Mayport Pier 136  
 Work Order #: B702054  
 Matrix: Soil  
 Unit: mg/kg dry  
 Dilution Factor: 5  
 Percent Solids: 83.99

**Semivolatile Organic Compounds by GCMS**

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
Benzyl alcohol	100-51-6	6.91 U, D	6.91	19.6	mg/kg dry
Bis(2-chloroethoxy)methane	111-91-1	6.07 U, D	6.07	19.6	mg/kg dry
Bis(2-chloroethyl)ether	111-44-4	5.89 U, D	5.89	19.6	mg/kg dry
Bis(2-chloroisopropyl)ether	39638-32-9	6.07 U, D	6.07	19.6	mg/kg dry
Bis(2-ethylhexyl)phthalate	117-81-7	12.0 U, D	12.0	19.6	mg/kg dry
Butylbenzylphthalate	85-68-7	7.44 U, D	7.44	19.6	mg/kg dry
Chrysene	218-01-9	8.04 U, D	8.04	19.6	mg/kg dry
Dibenzo(a,h)anthracene	53-70-3	11.4 U, D	11.4	19.6	mg/kg dry
Dibenzofuran	132-64-9	8.04 U, D	8.04	19.6	mg/kg dry
Diethylphthalate	84-66-2	7.26 U, D	7.26	19.6	mg/kg dry
Dimethylphthalate	131-11-3	6.67 U, D	6.67	19.6	mg/kg dry
Di-n-butylphthalate	84-74-2	8.63 U, D	8.63	19.6	mg/kg dry
Di-n-octylphthalate	117-84-0	9.82 U, D	9.82	19.6	mg/kg dry
Fluoranthene	206-44-0	8.27 U, D	8.27	19.6	mg/kg dry
<b>Fluorene</b>	86-73-7	<b>31.1 D</b>	8.04	19.6	mg/kg dry
Hexachlorobenzene	118-74-1	7.44 U, D	7.44	19.6	mg/kg dry
Hexachlorobutadiene	87-68-3	7.44 U, D	7.44	19.6	mg/kg dry
Hexachlorocyclopentadiene	77-47-4	3.93 U, D	3.93	19.6	mg/kg dry
Hexachloroethane	67-72-1	5.89 U, D	5.89	19.6	mg/kg dry
Indeno(1,2,3-cd)pyrene	193-39-5	11.2 U, D	11.2	19.6	mg/kg dry
<b>Isophorone</b>	78-59-1	<b>26.2 D</b>	3.75	19.6	mg/kg dry
<b>Naphthalene</b>	91-20-3	<b>106 D</b>	8.04	19.6	mg/kg dry
Nitrobenzene	98-95-3	7.08 U, D	7.08	19.6	mg/kg dry
N-Nitrosodimethylamine	62-75-9	8.27 U, D	8.27	19.6	mg/kg dry
N-Nitroso-di-n-propylamine	621-64-7	5.12 U, D	5.12	19.6	mg/kg dry
N-Nitrosodiphenylamine	86-30-6	8.81 U, D	8.81	19.6	mg/kg dry
Pentachlorophenol	87-86-5	11.2 U, D	11.2	19.6	mg/kg dry
<b>Phenanthrene</b>	85-01-8	<b>54.6 D</b>	8.27	19.6	mg/kg dry
Phenol	108-95-2	7.44 U, D	7.44	19.6	mg/kg dry
Pyrene	129-00-0	8.63 U, D	8.63	19.6	mg/kg dry
Pyridine	110-86-1	9.41 U, D	9.41	19.6	mg/kg dry

Surrogate Recovery	Result	Spike Level	% Recovery	% Recovery Limits
2,4,6-Tribromophenol	118-79-6 0.00 U	7.94	%	35-126
2-Fluorobiphenyl	321-60-8 0.00 U	3.97	%	42-111
2-Fluorophenol	367-12-4 0.00 U	7.94	%	29-130
Nitrobenzene-d5	NA 0.00 U	3.97	%	35-112



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### ANALYTICAL REPORT

Sample ID: MPT-SS-BOT1-C  
Lab #: B702054-01  
Prep. Method: EPA 3545\_MS  
Analyzed: 03/18/07 By: jj  
Anal. Method: EPA 8270C  
Anal. Batch: BA00441  
QC Batch: 7C14020

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Unit: mg/kg dry  
Dilution Factor: 5  
Percent Solids: 83.99

#### Semivolatile Organic Compounds by GCMS

Parameter	CAS Number	Analytical Results		MDL	MRL	Units
		Result	Spike Level			
<b>Surrogate Recovery</b>						
Phenol-d5	NA	0.00 U	7.94	%		20-120
Terphenyl-d14	NA	0.00 U	3.97	%		40-124



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**ANALYTICAL REPORT**

Sample ID: MPT-SS-BOT1-C  
 Lab #: B702054-01  
 Prep. Method: EPA 5030B\_MS  
 Analyzed: 03/17/07 By: kdm  
 Anal. Method: EPA 8260B  
 Anal. Batch: AA00603  
 QC Batch: 7C16017

Project: NAS Mayport Pier 136  
 Work Order #: B702054  
 Matrix: Soil  
 Unit: mg/kg dry  
 Dilution Factor: 1  
 Percent Solids: 83.99

**Volatile Organic Compounds by GCMS**

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
Carbon Tetrachloride	56-23-5	0.0005 U	0.0005	0.0010	mg/kg dry
Chlorobenzene	108-90-7	0.0005 U	0.0005	0.0010	mg/kg dry
Chloroethane	75-00-3	0.0010 U	0.0010	0.0010	mg/kg dry
Chloroform	67-66-3	0.0005 U	0.0005	0.0010	mg/kg dry
Chloromethane	74-87-3	0.0006 U	0.0006	0.0010	mg/kg dry
cis-1,2-Dichloroethene	156-59-2	0.0008 U	0.0008	0.0010	mg/kg dry
cis-1,3-Dichloropropene	10061-01-5	0.0005 U	0.0005	0.0010	mg/kg dry
Dibromochloromethane	124-48-1	0.0006 U	0.0006	0.0010	mg/kg dry
Dibromomethane	74-95-3	0.0008 U	0.0008	0.0010	mg/kg dry
Dichlorodifluoromethane	75-71-8	0.0006 U	0.0006	0.0010	mg/kg dry
Ethylbenzene	100-41-4	0.0007 U	0.0007	0.0010	mg/kg dry
Hexachlorobutadiene	87-68-3	0.0006 U	0.0006	0.0010	mg/kg dry
<b>Isopropylbenzene</b>	98-82-8	<b>6.1 E</b>	0.0005	0.0010	mg/kg dry
m,p-Xylenes	108-38-3/106-42-3	0.0008 U	0.0008	0.0010	mg/kg dry
Methylene Chloride	75-09-2	0.0004 U	0.0004	0.0049	mg/kg dry
Methyl-tert-Butyl Ether	1634-04-4	0.0008 U	0.0008	0.0010	mg/kg dry
<b>Naphthalene</b>	91-20-3	<b>0.50 E</b>	0.0003	0.0010	mg/kg dry
n-Butyl Benzene	104-51-8	0.0004 U	0.0004	0.0010	mg/kg dry
<b>n-Propyl Benzene</b>	103-65-1	<b>6.1 E</b>	0.0003	0.0010	mg/kg dry
o-Xylene	95-47-6	0.0005 U	0.0005	0.0010	mg/kg dry
<b>sec-Butylbenzene</b>	135-98-8	<b>0.37 E</b>	0.0004	0.0010	mg/kg dry
Styrene	100-42-5	0.0004 U	0.0004	0.0010	mg/kg dry
tert-Butylbenzene	98-06-6	0.0004 U	0.0004	0.0010	mg/kg dry
<b>Tetrachloroethene</b>	127-18-4	<b>0.014</b>	0.0005	0.0010	mg/kg dry
Toluene	108-88-3	0.0005 U	0.0005	0.0010	mg/kg dry
trans-1,2-Dichloroethene	156-60-5	0.0009 U	0.0009	0.0010	mg/kg dry
trans-1,3-Dichloropropene	10061-02-6	0.0004 U	0.0004	0.0010	mg/kg dry
Trichloroethene	79-01-6	0.0004 U	0.0004	0.0010	mg/kg dry
Trichlorofluoromethane	75-69-4	0.0005 U	0.0005	0.0010	mg/kg dry
Vinyl chloride	75-01-4	0.0006 U	0.0006	0.0010	mg/kg dry

Surrogate Recovery	Result	Spike Level	% Recovery	% Recovery Limits
4-Bromofluorobenzene	8800 S-04	50.0	17600 %	58-133
Dibromofluoromethane	55	50.0	111 %	63-135
Toluene-d8	8.2 S-04	50.0	16 %	71-126



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### ANALYTICAL REPORT

Sample ID: MPT-SS-BOT1-C  
Lab #: B702054-01  
Prep. Method: EPA 5030B\_MS  
Analyzed: 03/17/07 By: kdm  
Anal. Method: EPA 8260B  
Anal. Batch: AA00603  
QC Batch: 7C16017

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Unit: mg/kg dry  
Dilution Factor: 1  
Percent Solids: 83.99

#### Volatile Organic Compounds by GCMS

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
1,1,1,2-Tetrachloroethane	630-20-6	0.0004 U	0.0004	0.0010	mg/kg dry
1,1,1-Trichloroethane	71-55-6	0.0005 U	0.0005	0.0010	mg/kg dry
1,1,2,2-Tetrachloroethane	79-34-5	0.0007 U	0.0007	0.0010	mg/kg dry
1,1,2-Trichloroethane	79-00-5	0.0006 U	0.0006	0.0010	mg/kg dry
1,1-Dichloroethane	75-34-3	0.0004 U	0.0004	0.0010	mg/kg dry
1,1-Dichloroethene	75-35-4	0.0008 U	0.0008	0.0010	mg/kg dry
1,1-Dichloropropene	563-58-6	0.0005 U	0.0005	0.0010	mg/kg dry
1,2,3-Trichlorobenzene	87-61-6	0.0006 U	0.0006	0.0010	mg/kg dry
1,2,3-Trichloropropane	96-18-4	0.0008 U	0.0008	0.0010	mg/kg dry
1,2,4-Trichlorobenzene	120-82-1	0.0006 U	0.0006	0.0010	mg/kg dry
1,2,4-Trimethylbenzene	95-63-6	0.0004 U	0.0004	0.0010	mg/kg dry
1,2-Dibromo-3-chloropropane	96-12-8	0.0008 U	0.0008	0.0010	mg/kg dry
1,2-Dibromoethane	106-93-4	0.0006 U	0.0006	0.0010	mg/kg dry
1,2-Dichlorobenzene	95-50-1	0.0006 U	0.0006	0.0010	mg/kg dry
1,2-Dichloroethane	107-06-2	0.0005 U	0.0005	0.0010	mg/kg dry
1,2-Dichloropropane	78-87-5	0.0007 U	0.0007	0.0010	mg/kg dry
1,3,5-Trimethylbenzene	108-67-8	0.0003 U	0.0003	0.0010	mg/kg dry
1,3-Dichlorobenzene	541-73-1	0.0005 U	0.0005	0.0010	mg/kg dry
1,3-Dichloropropane	142-28-9	0.0003 U	0.0003	0.0010	mg/kg dry
1,4-Dichlorobenzene	106-46-7	0.0004 U	0.0004	0.0010	mg/kg dry
2,2-Dichloropropane	594-20-7	0.0007 U	0.0007	0.0010	mg/kg dry
<b>2-Butanone</b>	78-93-3	<b>0.57 E</b>	0.0019	0.0049	mg/kg dry
2-Chloroethyl Vinyl Ether	110-75-8	0.0010 U	0.0010	0.0049	mg/kg dry
2-Chlorotoluene	95-49-8	0.0004 U	0.0004	0.0010	mg/kg dry
2-Hexanone	591-78-6	0.0009 U	0.0009	0.0010	mg/kg dry
4-Chlorotoluene	106-43-4	0.0005 U	0.0005	0.0010	mg/kg dry
4-Isopropyltoluene	99-87-6	0.0004 U	0.0004	0.0010	mg/kg dry
4-Methyl-2-pentanone	108-10-1	0.0019 U	0.0019	0.0049	mg/kg dry
<b>Acetone</b>	67-64-1	<b>1.5 E</b>	0.0010	0.0049	mg/kg dry
<b>Benzene</b>	71-43-2	<b>0.0014</b>	0.0006	0.0010	mg/kg dry
Bromobenzene	108-86-1	0.0005 U	0.0005	0.0010	mg/kg dry
Bromochloromethane	74-97-5	0.0006 U	0.0006	0.0010	mg/kg dry
Bromodichloromethane	75-27-4	0.0004 U	0.0004	0.0010	mg/kg dry
Bromoform	75-25-2	0.0006 U	0.0006	0.0010	mg/kg dry
Bromomethane	74-83-9	0.0009 U	0.0009	0.0010	mg/kg dry
<b>Carbon disulfide</b>	75-15-0	<b>0.0088</b>	0.0009	0.0010	mg/kg dry



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**ANALYTICAL REPORT**

Sample ID: MPT-SS-BOT1-C  
Lab #: B702054-01RE1  
Prep. Method: EPA 3545  
Analyzed: 03/18/07 By: PL  
Anal. Method: FLPRO  
Anal. Batch: BA00440  
QC Batch: 7C13032

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Unit: mg/kg dry  
Dilution Factor: 50  
Percent Solids: 83.99

**FL Petroleum Range Organics**

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
TPH (C8-C40)	NA	40100 D	1670	1960	mg/kg dry
Surrogate Recovery		Result	Spike Level	% Recovery	% Recovery Limits
n-Nonatriacontane	7194-86-7	0.00 S-06, U	1.98	%	29-145
o-Terphenyl	84-15-1	0.00 S-06, U	3.97	%	36-140



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**ANALYTICAL REPORT**

Sample ID: MPT-SS-NW1-C  
 Lab #: B702054-02  
 Prep. Method: EPA 3545\_MS  
 Analyzed: 03/18/07 By: jj  
 Anal. Method: EPA 8270C  
 Anal. Batch: BA00441  
 QC Batch: 7C14020

Project: NAS Mayport Pier 136  
 Work Order #: B702054  
 Matrix: Soil  
 Unit: mg/kg dry  
 Dilution Factor: 1  
 Percent Solids: 91.13

**Semivolatile Organic Compounds by GCMS**

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
Benzo(k)fluoranthene	207-08-9	0.145 U	0.145	0.362	mg/kg dry
Benzoic acid	65-85-0	0.034 U	0.034	0.362	mg/kg dry
Benzyl alcohol	100-51-6	0.127 U	0.127	0.362	mg/kg dry
Bis(2-chloroethoxy)methane	111-91-1	0.112 U	0.112	0.362	mg/kg dry
Bis(2-chloroethyl)ether	111-44-4	0.109 U	0.109	0.362	mg/kg dry
Bis(2-chloroisopropyl)ether	39638-32-9	0.112 U	0.112	0.362	mg/kg dry
Bis(2-ethylhexyl)phthalate	117-81-7	0.221 U	0.221	0.362	mg/kg dry
Butylbenzylphthalate	85-68-7	0.137 U	0.137	0.362	mg/kg dry
<b>Chrysene</b>	218-01-9	<b>0.204 I</b>	0.148	0.362	mg/kg dry
<b>Dibenzo(a,h)anthracene</b>	53-70-3	<b>0.309 I</b>	0.210	0.362	mg/kg dry
Dibenzofuran	132-64-9	0.148 U	0.148	0.362	mg/kg dry
Diethylphthalate	84-66-2	0.134 U	0.134	0.362	mg/kg dry
Dimethylphthalate	131-11-3	0.123 U	0.123	0.362	mg/kg dry
Di-n-butylphthalate	84-74-2	0.159 U	0.159	0.362	mg/kg dry
Di-n-octylphthalate	117-84-0	0.181 U	0.181	0.362	mg/kg dry
<b>Fluoranthene</b>	206-44-0	<b>0.198 I</b>	0.153	0.362	mg/kg dry
Fluorene	86-73-7	0.148 U	0.148	0.362	mg/kg dry
Hexachlorobenzene	118-74-1	0.137 U	0.137	0.362	mg/kg dry
Hexachlorobutadiene	87-68-3	0.137 U	0.137	0.362	mg/kg dry
Hexachlorocyclopentadiene	77-47-4	0.072 U	0.072	0.362	mg/kg dry
Hexachloroethane	67-72-1	0.109 U	0.109	0.362	mg/kg dry
<b>Indeno(1,2,3-cd)pyrene</b>	193-39-5	<b>0.361 I</b>	0.206	0.362	mg/kg dry
Isophorone	78-59-1	0.069 U	0.069	0.362	mg/kg dry
Naphthalene	91-20-3	0.148 U	0.148	0.362	mg/kg dry
Nitrobenzene	98-95-3	0.131 U	0.131	0.362	mg/kg dry
N-Nitrosodimethylamine	62-75-9	0.153 U	0.153	0.362	mg/kg dry
N-Nitroso-di-n-propylamine	621-64-7	0.094 U	0.094	0.362	mg/kg dry
N-Nitrosodiphenylamine	86-30-6	0.162 U	0.162	0.362	mg/kg dry
Pentachlorophenol	87-86-5	0.206 U	0.206	0.362	mg/kg dry
Phenanthrene	85-01-8	0.153 U	0.153	0.362	mg/kg dry
Phenol	108-95-2	0.137 U	0.137	0.362	mg/kg dry
<b>Pyrene</b>	129-00-0	<b>0.235 I</b>	0.159	0.362	mg/kg dry
Pyridine	110-86-1	0.173 U	0.173	0.362	mg/kg dry

Surrogate Recovery	Result	Spike Level	% Recovery	% Recovery Limits	
2,4,6-Tribromophenol	118-79-6	4.67	3.66	128 %	35-126
2-Fluorobiphenyl	321-60-8	1.63	1.83	89 %	42-111



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### ANALYTICAL REPORT

Sample ID: MPT-SS-NW1-C  
Lab #: B702054-02  
Prep. Method: EPA 5030B\_MS  
Analyzed: 03/16/07 By: kdm  
Anal. Method: EPA 8260B  
Anal. Batch: AA00603  
QC Batch: 7C16017

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Unit: mg/kg dry  
Dilution Factor: 1  
Percent Solids: 91.13

#### **Volatile Organic Compounds by GCMS**

<b>Parameter</b>	<b>CAS Number</b>	<b>Analytical Results</b>	<b>MDL</b>	<b>MRL</b>	<b>Units</b>
1,1,1,2-Tetrachloroethane	630-20-6	0.0004 U	0.0004	0.0011	mg/kg dry
1,1,1-Trichloroethane	71-55-6	0.0005 U	0.0005	0.0011	mg/kg dry
1,1,2,2-Tetrachloroethane	79-34-5	0.0008 U	0.0008	0.0011	mg/kg dry
1,1,2-Trichloroethane	79-00-5	0.0007 U	0.0007	0.0011	mg/kg dry
1,1-Dichloroethane	75-34-3	0.0004 U	0.0004	0.0011	mg/kg dry
1,1-Dichloroethene	75-35-4	0.0009 U	0.0009	0.0011	mg/kg dry
1,1-Dichloropropene	563-58-6	0.0005 U	0.0005	0.0011	mg/kg dry
1,2,3-Trichlorobenzene	87-61-6	0.0007 U	0.0007	0.0011	mg/kg dry
1,2,3-Trichloropropane	96-18-4	0.0009 U	0.0009	0.0011	mg/kg dry
1,2,4-Trichlorobenzene	120-82-1	0.0007 U	0.0007	0.0011	mg/kg dry
1,2,4-Trimethylbenzene	95-63-6	0.0004 U	0.0004	0.0011	mg/kg dry
1,2-Dibromo-3-chloropropane	96-12-8	0.0009 U	0.0009	0.0011	mg/kg dry
1,2-Dibromoethane	106-93-4	0.0007 U	0.0007	0.0011	mg/kg dry
1,2-Dichlorobenzene	95-50-1	0.0007 U	0.0007	0.0011	mg/kg dry
1,2-Dichloroethane	107-06-2	0.0005 U	0.0005	0.0011	mg/kg dry
1,2-Dichloropropane	78-87-5	0.0008 U	0.0008	0.0011	mg/kg dry
1,3,5-Trimethylbenzene	108-67-8	0.0003 U	0.0003	0.0011	mg/kg dry
1,3-Dichlorobenzene	541-73-1	0.0005 U	0.0005	0.0011	mg/kg dry
1,3-Dichloropropane	142-28-9	0.0003 U	0.0003	0.0011	mg/kg dry
1,4-Dichlorobenzene	106-46-7	0.0004 U	0.0004	0.0011	mg/kg dry
2,2-Dichloropropane	594-20-7	0.0008 U	0.0008	0.0011	mg/kg dry
2-Butanone	78-93-3	0.0022 U	0.0022	0.0055	mg/kg dry
2-Chloroethyl Vinyl Ether	110-75-8	0.0011 U	0.0011	0.0055	mg/kg dry
2-Chlorotoluene	95-49-8	0.0004 U	0.0004	0.0011	mg/kg dry
2-Hexanone	591-78-6	0.0010 U	0.0010	0.0011	mg/kg dry
4-Chlorotoluene	106-43-4	0.0005 U	0.0005	0.0011	mg/kg dry
4-Isopropyltoluene	99-87-6	0.0004 U	0.0004	0.0011	mg/kg dry
4-Methyl-2-pentanone	108-10-1	0.0022 U	0.0022	0.0055	mg/kg dry
Acetone	67-64-1	<b>0.033</b>	0.0011	0.0055	mg/kg dry
Benzene	71-43-2	0.0007 U	0.0007	0.0011	mg/kg dry
Bromobenzene	108-86-1	0.0005 U	0.0005	0.0011	mg/kg dry
Bromochloromethane	74-97-5	0.0007 U	0.0007	0.0011	mg/kg dry
Bromodichloromethane	75-27-4	0.0004 U	0.0004	0.0011	mg/kg dry
Bromoform	75-25-2	0.0007 U	0.0007	0.0011	mg/kg dry
Bromomethane	74-83-9	0.0010 U	0.0010	0.0011	mg/kg dry
Carbon disulfide	75-15-0	0.0010 U	0.0010	0.0011	mg/kg dry



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### ANALYTICAL REPORT

Sample ID: MPT-SS-NW1-C  
Lab #: B702054-02  
Prep. Method: EPA 3545\_MS  
Analyzed: 03/18/07 By: jj  
Anal. Method: EPA 8270C  
Anal. Batch: BA00441  
QC Batch: 7C14020

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Unit: mg/kg dry  
Dilution Factor: 1  
Percent Solids: 91.13

#### Semivolatile Organic Compounds by GCMS

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
1,2,4-Trichlorobenzene	120-82-1	0.137 U	0.137	0.362	mg/kg dry
1,2-Dichlorobenzene	95-50-1	0.120 U	0.120	0.362	mg/kg dry
1,3-Dichlorobenzene	541-73-1	0.120 U	0.120	0.362	mg/kg dry
1,4-Dichlorobenzene	106-46-7	0.131 U	0.131	0.362	mg/kg dry
1-Methylnaphthalene	90-12-0	0.148 U	0.148	0.362	mg/kg dry
2,4,5-Trichlorophenol	95-95-4	0.159 U	0.159	0.362	mg/kg dry
2,4,6-Trichlorophenol	88-06-2	0.137 U	0.137	0.362	mg/kg dry
2,4-Dichlorophenol	120-83-2	0.137 U	0.137	0.362	mg/kg dry
2,4-Dimethylphenol	105-67-9	0.127 U	0.127	0.362	mg/kg dry
2,4-Dinitrophenol	51-28-5	0.264 U	0.264	0.362	mg/kg dry
2,4-Dinitrotoluene	121-14-2	0.153 U	0.153	0.362	mg/kg dry
2,6-Dinitrotoluene	606-20-2	0.153 U	0.153	0.362	mg/kg dry
2-Chloronaphthalene	91-58-7	0.137 U	0.137	0.362	mg/kg dry
2-Chlorophenol	95-57-8	0.123 U	0.123	0.362	mg/kg dry
2-Methyl-4,6-dinitrophenol	534-52-1	0.120 U	0.120	0.362	mg/kg dry
2-Methylnaphthalene	91-57-6	0.142 U	0.142	0.362	mg/kg dry
2-Methylphenol	95-48-7	0.131 U	0.131	0.362	mg/kg dry
2-Nitroaniline	88-74-4	0.127 U	0.127	0.362	mg/kg dry
2-Nitrophenol	88-75-5	0.120 U	0.120	0.362	mg/kg dry
3 & 4-Methylphenol	106-44-5	0.137 U	0.137	0.362	mg/kg dry
3,3'-Dichlorobenzidine	91-94-1	0.117 U	0.117	0.362	mg/kg dry
3-Nitroaniline	99-09-2	0.131 U	0.131	0.362	mg/kg dry
4-Bromophenyl-phenylether	101-55-3	0.142 U	0.142	0.362	mg/kg dry
4-Chloro-3-methylphenol	59-50-7	0.145 U	0.145	0.362	mg/kg dry
4-Chloroaniline	106-47-8	0.109 U	0.109	0.362	mg/kg dry
4-Chlorophenyl-phenylether	7005-72-3	0.153 U	0.153	0.362	mg/kg dry
4-Nitroaniline	100-01-6	0.153 U	0.153	0.362	mg/kg dry
4-Nitrophenol	100-02-7	0.162 U	0.162	0.362	mg/kg dry
Acenaphthene	83-32-9	0.127 U	0.127	0.362	mg/kg dry
Acenaphthylene	208-96-8	0.123 U	0.123	0.362	mg/kg dry
Anthracene	120-12-7	0.159 U	0.159	0.362	mg/kg dry
Benzidine	92-87-5	0.090 U	0.090	0.362	mg/kg dry
<b>Benzo(a)anthracene</b>	56-55-3	<b>0.253 I</b>	0.170	0.362	mg/kg dry
<b>Benzo(a)pyrene</b>	50-32-8	<b>0.220 I</b>	0.127	0.362	mg/kg dry
<b>Benzo(b)fluoranthene</b>	205-99-2	<b>0.334 I</b>	0.120	0.362	mg/kg dry
<b>Benzo(g,h,i)perylene</b>	191-24-2	<b>0.392</b>	0.151	0.362	mg/kg dry



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### ANALYTICAL REPORT

Sample ID: MPT-SS-NW1-C  
Lab #: B702054-02  
Prep. Method: EPA 3545\_MS  
Analyzed: 03/18/07 By: jj  
Anal. Method: EPA 8270C  
Anal. Batch: BA00441  
QC Batch: 7C14020

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Unit: mg/kg dry  
Dilution Factor: 1  
Percent Solids: 91.13

#### Semivolatile Organic Compounds by GCMS

Parameter	CAS Number	Analytical Results		MDL	MRL	Units
Surrogate Recovery		Result	Spike Level	% Recovery	% Recovery Limits	
2-Fluorophenol	367-12-4	3.15	3.66	86 %		29-130
Nitrobenzene-d5	NA	1.31	1.83	72 %		35-112
Phenol-d5	NA	2.95	3.66	81 %		20-120
Terphenyl-d14	NA	1.81	1.83	99 %		40-124



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### ANALYTICAL REPORT

Sample ID: MPT-SS-NW1-C  
Lab #: B702054-02

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Percent Solids: 91.13

#### Metals by EPA 6000/7000 Series Methods

Parameter	CAS Number	Analytical Results	MDL	MRL	Units	Analysis Method	Prep Method	Analytical Batch
Cadmium	7440-43-9	0.03 U	0.03	0.05	mg/kg dry	EPA 6010B	EPA 3050B	7C15002
Chromium	7440-47-3	2.7	0.2	0.5	mg/kg dry	EPA 6010B	EPA 3050B	7C15002
Lead	7439-92-1	1.1	0.1	0.5	mg/kg dry	EPA 6010B	EPA 3050B	7C15002



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### ANALYTICAL REPORT

Sample ID: MPT-SS-NW1-C  
Lab #: B702054-02  
Prep. Method: EPA 3545  
Analyzed: 03/15/07 By: GGM  
Anal. Method: EPA 8082  
Anal. Batch:  
QC Batch: 7C13033

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Unit: mg/kg dry  
Dilution Factor: 1  
Percent Solids: 91.13

#### **Polychlorinated Biphenyls by GC**

<b>Parameter</b>	<b>CAS Number</b>	<b>Analytical Results</b>	<b>MDL</b>	<b>MRL</b>	<b>Units</b>
PCB-1016/1242 [2C]	12674-11-2/53469-21-	0.015 U	0.015	0.036	mg/kg dry
PCB-1221 [2C]	11104-28-2	0.019 U	0.019	0.036	mg/kg dry
PCB-1232 [2C]	11141-16-5	0.021 U	0.021	0.036	mg/kg dry
PCB-1248 [2C]	12672-29-6	0.011 U	0.011	0.036	mg/kg dry
PCB-1254 [2C]	11097-69-1	0.010 U	0.010	0.036	mg/kg dry
PCB-1254-1 [2C]		0.0 U			mg/kg dry
PCB-1260 [2C]	11096-82-5	0.014 U	0.014	0.036	mg/kg dry

<b>Surrogate Recovery</b>		<b>Result</b>	<b>Spike Level</b>	<b>% Recovery</b>	<b>% Recovery Limits</b>
2,4,5,6-TCMX [2C]	877-09-8	0.0274	0.0366	75 %	0-200
DBC [2C]	NA	0.0428	0.0366	117 %	0-200



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### ANALYTICAL REPORT

Sample ID: MPT-SS-NW1-C  
Lab #: B702054-02  
Prep. Method: EPA 5030B\_MS  
Analyzed: 03/16/07 By: kdm  
Anal. Method: EPA 8260B  
Anal. Batch: AA00603  
QC Batch: 7C16017

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Unit: mg/kg dry  
Dilution Factor: 1  
Percent Solids: 91.13

#### Volatile Organic Compounds by GCMS

<u>Parameter</u>	<u>CAS Number</u>	<u>Analytical Results</u>	<u>MDL</u>	<u>MRL</u>	<u>Units</u>
Carbon Tetrachloride	56-23-5	0.0005 U	0.0005	0.0011	mg/kg dry
Chlorobenzene	108-90-7	0.0005 U	0.0005	0.0011	mg/kg dry
Chloroethane	75-00-3	0.0011 U	0.0011	0.0011	mg/kg dry
Chloroform	67-66-3	0.0005 U	0.0005	0.0011	mg/kg dry
Chloromethane	74-87-3	0.0007 U	0.0007	0.0011	mg/kg dry
cis-1,2-Dichloroethene	156-59-2	0.0009 U	0.0009	0.0011	mg/kg dry
cis-1,3-Dichloropropene	10061-01-5	0.0005 U	0.0005	0.0011	mg/kg dry
Dibromochloromethane	124-48-1	0.0007 U	0.0007	0.0011	mg/kg dry
Dibromomethane	74-95-3	0.0009 U	0.0009	0.0011	mg/kg dry
Dichlorodifluoromethane	75-71-8	0.0007 U	0.0007	0.0011	mg/kg dry
Ethylbenzene	100-41-4	0.0008 U	0.0008	0.0011	mg/kg dry
Hexachlorobutadiene	87-68-3	0.0007 U	0.0007	0.0011	mg/kg dry
Isopropylbenzene	98-82-8	0.0005 U	0.0005	0.0011	mg/kg dry
m,p-Xylenes	108-38-3/106-42-3	0.0009 U	0.0009	0.0011	mg/kg dry
Methylene Chloride	75-09-2	0.0004 U	0.0004	0.0055	mg/kg dry
Methyl-tert-Butyl Ether	1634-04-4	0.0009 U	0.0009	0.0011	mg/kg dry
Naphthalene	91-20-3	0.0003 U	0.0003	0.0011	mg/kg dry
n-Butyl Benzene	104-51-8	0.0004 U	0.0004	0.0011	mg/kg dry
n-Propyl Benzene	103-65-1	0.0003 U	0.0003	0.0011	mg/kg dry
o-Xylene	95-47-6	0.0005 U	0.0005	0.0011	mg/kg dry
sec-Butylbenzene	135-98-8	0.0004 U	0.0004	0.0011	mg/kg dry
Styrene	100-42-5	0.0004 U	0.0004	0.0011	mg/kg dry
tert-Butylbenzene	98-06-6	0.0004 U	0.0004	0.0011	mg/kg dry
Tetrachloroethene	127-18-4	0.0005 U	0.0005	0.0011	mg/kg dry
Toluene	108-88-3	0.0005 U	0.0005	0.0011	mg/kg dry
trans-1,2-Dichloroethene	156-60-5	0.0010 U	0.0010	0.0011	mg/kg dry
trans-1,3-Dichloropropene	10061-02-6	0.0004 U	0.0004	0.0011	mg/kg dry
Trichloroethene	79-01-6	0.0004 U	0.0004	0.0011	mg/kg dry
Trichlorofluoromethane	75-69-4	0.0005 U	0.0005	0.0011	mg/kg dry
Vinyl chloride	75-01-4	0.0007 U	0.0007	0.0011	mg/kg dry

<u>Surrogate Recovery</u>	<u>Result</u>	<u>Spike Level</u>	<u>% Recovery</u>	<u>% Recovery Limits</u>	
4-Bromofluorobenzene	460-00-4	44	50.0	88 %	58-133
Dibromofluoromethane	1868-53-7	54	50.0	107 %	63-135
Toluene-d8	2037-26-5	50	50.0	100 %	71-126



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### ANALYTICAL REPORT

Sample ID: MPT-SS-NW1-C  
Lab #: B702054-02RE1  
Prep. Method: EPA 3545  
Analyzed: 03/18/07 By: PL  
Anal. Method: FLPRO  
Anal. Batch: BA00440  
QC Batch: 7C13032

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Unit: mg/kg dry  
Dilution Factor: 5  
Percent Solids: 91.13

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#### FL Petroleum Range Organics

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
TPH (C8-C40)	NA	48.1 D	30.7	36.2	mg/kg dry
Surrogate Recovery		Result	Spike Level	% Recovery	% Recovery Limits
n-Nonatriacontane	7194-86-7	2.44	1.83	133 %	29-145
o-Terphenyl	84-15-1	3.74	3.66	102 %	36-140



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### ANALYTICAL REPORT

Sample ID: MPT-SS-NW1-C  
Lab #: B702054-02RE1

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Percent Solids: 91.13

#### Metals by EPA 6000/7000 Series Methods

Parameter	CAS Number	Analytical Results	MDL	MRL	Units	Analysis Method	Prep Method	Analytical Batch
Arsenic	7440-38-2	1.1 U, D	1.1	2.7	mg/kg dry	EPA 6010B	EPA 3050B	7C15002



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**ANALYTICAL REPORT**

Sample ID: MPT-SS-NW2-C  
 Lab #: B702054-03  
 Prep. Method: EPA 5030B\_MS  
 Analyzed: 03/16/07 By: kdm  
 Anal. Method: EPA 8260B  
 Anal. Batch: AA00603  
 QC Batch: 7C16017

Project: NAS Mayport Pier 136  
 Work Order #: B702054  
 Matrix: Soil  
 Unit: mg/kg dry  
 Dilution Factor: 1  
 Percent Solids: 95.63

**Volatile Organic Compounds by GCMS**

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
Carbon Tetrachloride	56-23-5	0.0005 U	0.0005	0.0010	mg/kg dry
Chlorobenzene	108-90-7	0.0005 U	0.0005	0.0010	mg/kg dry
Chloroethane	75-00-3	0.0010 U	0.0010	0.0010	mg/kg dry
Chloroform	67-66-3	0.0005 U	0.0005	0.0010	mg/kg dry
Chloromethane	74-87-3	0.0006 U	0.0006	0.0010	mg/kg dry
cis-1,2-Dichloroethene	156-59-2	0.0008 U	0.0008	0.0010	mg/kg dry
cis-1,3-Dichloropropene	10061-01-5	0.0005 U	0.0005	0.0010	mg/kg dry
Dibromochloromethane	124-48-1	0.0006 U	0.0006	0.0010	mg/kg dry
Dibromomethane	74-95-3	0.0008 U	0.0008	0.0010	mg/kg dry
Dichlorodifluoromethane	75-71-8	0.0006 U	0.0006	0.0010	mg/kg dry
Ethylbenzene	100-41-4	0.0007 U	0.0007	0.0010	mg/kg dry
Hexachlorobutadiene	87-68-3	0.0006 U	0.0006	0.0010	mg/kg dry
Isopropylbenzene	98-82-8	0.0005 U	0.0005	0.0010	mg/kg dry
m,p-Xylenes	108-38-3/106-42-3	0.0008 U	0.0008	0.0010	mg/kg dry
Methylene Chloride	75-09-2	0.0004 U	0.0004	0.0052	mg/kg dry
Methyl-tert-Butyl Ether	1634-04-4	0.0008 U	0.0008	0.0010	mg/kg dry
<b>Naphthalene</b>	91-20-3	<b>0.0024</b>	0.0003	0.0010	mg/kg dry
n-Butyl Benzene	104-51-8	0.0004 U	0.0004	0.0010	mg/kg dry
n-Propyl Benzene	103-65-1	0.0003 U	0.0003	0.0010	mg/kg dry
o-Xylene	95-47-6	0.0005 U	0.0005	0.0010	mg/kg dry
<b>sec-Butylbenzene</b>	135-98-8	<b>0.0024</b>	0.0004	0.0010	mg/kg dry
Styrene	100-42-5	0.0004 U	0.0004	0.0010	mg/kg dry
tert-Butylbenzene	98-06-6	0.0004 U	0.0004	0.0010	mg/kg dry
Tetrachloroethene	127-18-4	0.0005 U	0.0005	0.0010	mg/kg dry
Toluene	108-88-3	0.0005 U	0.0005	0.0010	mg/kg dry
trans-1,2-Dichloroethene	156-60-5	0.0009 U	0.0009	0.0010	mg/kg dry
trans-1,3-Dichloropropene	10061-02-6	0.0004 U	0.0004	0.0010	mg/kg dry
Trichloroethene	79-01-6	0.0004 U	0.0004	0.0010	mg/kg dry
Trichlorofluoromethane	75-69-4	0.0005 U	0.0005	0.0010	mg/kg dry
Vinyl chloride	75-01-4	0.0006 U	0.0006	0.0010	mg/kg dry

Surrogate Recovery	Result	Spike Level	% Recovery	% Recovery Limits
4-Bromofluorobenzene	46	50.0	92 %	58-133
Dibromofluoromethane	54	50.0	109 %	63-135
Toluene-d8	49	50.0	97 %	71-126



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### ANALYTICAL REPORT

Sample ID: MPT-SS-NW2-C  
Lab #: B702054-03  
Prep. Method: EPA 5030B\_MS  
Analyzed: 03/16/07 By: kdm  
Anal. Method: EPA 8260B  
Anal. Batch: AA00603  
QC Batch: 7C16017

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Unit: mg/kg dry  
Dilution Factor: 1  
Percent Solids: 95.63

#### Volatile Organic Compounds by GCMS

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
1,1,1,2-Tetrachloroethane	630-20-6	0.0004 U	0.0004	0.0010	mg/kg dry
1,1,1-Trichloroethane	71-55-6	0.0005 U	0.0005	0.0010	mg/kg dry
1,1,2,2-Tetrachloroethane	79-34-5	0.0007 U	0.0007	0.0010	mg/kg dry
1,1,2-Trichloroethane	79-00-5	0.0006 U	0.0006	0.0010	mg/kg dry
1,1-Dichloroethane	75-34-3	0.0004 U	0.0004	0.0010	mg/kg dry
1,1-Dichloroethene	75-35-4	0.0008 U	0.0008	0.0010	mg/kg dry
1,1-Dichloropropene	563-58-6	0.0005 U	0.0005	0.0010	mg/kg dry
1,2,3-Trichlorobenzene	87-61-6	0.0006 U	0.0006	0.0010	mg/kg dry
1,2,3-Trichloropropane	96-18-4	0.0008 U	0.0008	0.0010	mg/kg dry
1,2,4-Trichlorobenzene	120-82-1	0.0006 U	0.0006	0.0010	mg/kg dry
1,2,4-Trimethylbenzene	95-63-6	0.0004 U	0.0004	0.0010	mg/kg dry
1,2-Dibromo-3-chloropropane	96-12-8	0.0008 U	0.0008	0.0010	mg/kg dry
1,2-Dibromoethane	106-93-4	0.0006 U	0.0006	0.0010	mg/kg dry
1,2-Dichlorobenzene	95-50-1	0.0006 U	0.0006	0.0010	mg/kg dry
1,2-Dichloroethane	107-06-2	0.0005 U	0.0005	0.0010	mg/kg dry
1,2-Dichloropropane	78-87-5	0.0007 U	0.0007	0.0010	mg/kg dry
1,3,5-Trimethylbenzene	108-67-8	0.0003 U	0.0003	0.0010	mg/kg dry
1,3-Dichlorobenzene	541-73-1	0.0005 U	0.0005	0.0010	mg/kg dry
1,3-Dichloropropane	142-28-9	0.0003 U	0.0003	0.0010	mg/kg dry
1,4-Dichlorobenzene	106-46-7	0.0004 U	0.0004	0.0010	mg/kg dry
2,2-Dichloropropane	594-20-7	0.0007 U	0.0007	0.0010	mg/kg dry
2-Butanone	78-93-3	0.0021 U	0.0021	0.0052	mg/kg dry
2-Chloroethyl Vinyl Ether	110-75-8	0.0010 U	0.0010	0.0052	mg/kg dry
2-Chlorotoluene	95-49-8	0.0004 U	0.0004	0.0010	mg/kg dry
2-Hexanone	591-78-6	0.0009 U	0.0009	0.0010	mg/kg dry
4-Chlorotoluene	106-43-4	0.0005 U	0.0005	0.0010	mg/kg dry
4-Isopropyltoluene	99-87-6	0.0004 U	0.0004	0.0010	mg/kg dry
4-Methyl-2-pentanone	108-10-1	0.0021 U	0.0021	0.0052	mg/kg dry
Acetone	67-64-1	<b>0.019</b>	0.0010	0.0052	mg/kg dry
Benzene	71-43-2	0.0006 U	0.0006	0.0010	mg/kg dry
Bromobenzene	108-86-1	0.0005 U	0.0005	0.0010	mg/kg dry
Bromochloromethane	74-97-5	0.0006 U	0.0006	0.0010	mg/kg dry
Bromodichloromethane	75-27-4	0.0004 U	0.0004	0.0010	mg/kg dry
Bromoform	75-25-2	0.0006 U	0.0006	0.0010	mg/kg dry
Bromomethane	74-83-9	0.0009 U	0.0009	0.0010	mg/kg dry
Carbon disulfide	75-15-0	0.0009 U	0.0009	0.0010	mg/kg dry



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### ANALYTICAL REPORT

Sample ID: MPT-SS-NW2-C  
Lab #: B702054-03  
Prep. Method: EPA 3545\_MS  
Analyzed: 03/18/07 By: jj  
Anal. Method: EPA 8270C  
Anal. Batch: BA00441  
QC Batch: 7C14020

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Unit: mg/kg dry  
Dilution Factor: 1  
Percent Solids: 95.63

#### Semivolatile Organic Compounds by GCMS

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
1,2,4-Trichlorobenzene	120-82-1	0.131 U	0.131	0.345	mg/kg dry
1,2-Dichlorobenzene	95-50-1	0.114 U	0.114	0.345	mg/kg dry
1,3-Dichlorobenzene	541-73-1	0.114 U	0.114	0.345	mg/kg dry
1,4-Dichlorobenzene	106-46-7	0.124 U	0.124	0.345	mg/kg dry
1-Methylnaphthalene	90-12-0	0.141 U	0.141	0.345	mg/kg dry
2,4,5-Trichlorophenol	95-95-4	0.152 U	0.152	0.345	mg/kg dry
2,4,6-Trichlorophenol	88-06-2	0.131 U	0.131	0.345	mg/kg dry
2,4-Dichlorophenol	120-83-2	0.131 U	0.131	0.345	mg/kg dry
2,4-Dimethylphenol	105-67-9	0.121 U	0.121	0.345	mg/kg dry
2,4-Dinitrophenol	51-28-5	0.252 U	0.252	0.345	mg/kg dry
2,4-Dinitrotoluene	121-14-2	0.145 U	0.145	0.345	mg/kg dry
2,6-Dinitrotoluene	606-20-2	0.145 U	0.145	0.345	mg/kg dry
2-Chloronaphthalene	91-58-7	0.131 U	0.131	0.345	mg/kg dry
2-Chlorophenol	95-57-8	0.117 U	0.117	0.345	mg/kg dry
2-Methyl-4,6-dinitrophenol	534-52-1	0.114 U	0.114	0.345	mg/kg dry
2-Methylnaphthalene	91-57-6	0.135 U	0.135	0.345	mg/kg dry
2-Methylphenol	95-48-7	0.124 U	0.124	0.345	mg/kg dry
2-Nitroaniline	88-74-4	0.121 U	0.121	0.345	mg/kg dry
2-Nitrophenol	88-75-5	0.114 U	0.114	0.345	mg/kg dry
3 & 4-Methylphenol	106-44-5	0.131 U	0.131	0.345	mg/kg dry
3,3'-Dichlorobenzidine	91-94-1	0.112 U	0.112	0.345	mg/kg dry
3-Nitroaniline	99-09-2	0.124 U	0.124	0.345	mg/kg dry
4-Bromophenyl-phenylether	101-55-3	0.135 U	0.135	0.345	mg/kg dry
4-Chloro-3-methylphenol	59-50-7	0.138 U	0.138	0.345	mg/kg dry
4-Chloroaniline	106-47-8	0.104 U	0.104	0.345	mg/kg dry
4-Chlorophenyl-phenylether	7005-72-3	0.145 U	0.145	0.345	mg/kg dry
4-Nitroaniline	100-01-6	0.145 U	0.145	0.345	mg/kg dry
4-Nitrophenol	100-02-7	0.155 U	0.155	0.345	mg/kg dry
Acenaphthene	83-32-9	0.121 U	0.121	0.345	mg/kg dry
Acenaphthylene	208-96-8	0.117 U	0.117	0.345	mg/kg dry
Anthracene	120-12-7	0.152 U	0.152	0.345	mg/kg dry
Benzidine	92-87-5	0.086 U	0.086	0.345	mg/kg dry
Benzo(a)anthracene	56-55-3	0.162 U	0.162	0.345	mg/kg dry
Benzo(a)pyrene	50-32-8	0.121 U	0.121	0.345	mg/kg dry
Benzo(b)fluoranthene	205-99-2	0.114 U	0.114	0.345	mg/kg dry
Benzo(g,h,i)perylene	191-24-2	0.144 U	0.144	0.345	mg/kg dry



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**ANALYTICAL REPORT**

Sample ID: MPT-SS-NW2-C  
 Lab #: B702054-03  
 Prep. Method: EPA 3545\_MS  
 Analyzed: 03/18/07 By: jj  
 Anal. Method: EPA 8270C  
 Anal. Batch: BA00441  
 QC Batch: 7C14020

Project: NAS Mayport Pier 136  
 Work Order #: B702054  
 Matrix: Soil  
 Unit: mg/kg dry  
 Dilution Factor: 1  
 Percent Solids: 95.63

**Semivolatile Organic Compounds by GCMS**

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
Benzo(k)fluoranthene	207-08-9	0.138 U	0.138	0.345	mg/kg dry
Benzoic acid	65-85-0	0.032 U	0.032	0.345	mg/kg dry
Benzyl alcohol	100-51-6	0.121 U	0.121	0.345	mg/kg dry
Bis(2-chloroethoxy)methane	111-91-1	0.107 U	0.107	0.345	mg/kg dry
Bis(2-chloroethyl)ether	111-44-4	0.104 U	0.104	0.345	mg/kg dry
Bis(2-chloroisopropyl)ether	39638-32-9	0.107 U	0.107	0.345	mg/kg dry
Bis(2-ethylhexyl)phthalate	117-81-7	0.210 U	0.210	0.345	mg/kg dry
Butylbenzylphthalate	85-68-7	0.131 U	0.131	0.345	mg/kg dry
Chrysene	218-01-9	0.141 U	0.141	0.345	mg/kg dry
Dibenzo(a,h)anthracene	53-70-3	0.200 U	0.200	0.345	mg/kg dry
Dibenzofuran	132-64-9	0.141 U	0.141	0.345	mg/kg dry
Diethylphthalate	84-66-2	0.128 U	0.128	0.345	mg/kg dry
Dimethylphthalate	131-11-3	0.117 U	0.117	0.345	mg/kg dry
Di-n-butylphthalate	84-74-2	0.152 U	0.152	0.345	mg/kg dry
Di-n-octylphthalate	117-84-0	0.173 U	0.173	0.345	mg/kg dry
Fluoranthene	206-44-0	0.145 U	0.145	0.345	mg/kg dry
Fluorene	86-73-7	0.141 U	0.141	0.345	mg/kg dry
Hexachlorobenzene	118-74-1	0.131 U	0.131	0.345	mg/kg dry
Hexachlorobutadiene	87-68-3	0.131 U	0.131	0.345	mg/kg dry
Hexachlorocyclopentadiene	77-47-4	0.069 U	0.069	0.345	mg/kg dry
Hexachloroethane	67-72-1	0.104 U	0.104	0.345	mg/kg dry
Indeno(1,2,3-cd)pyrene	193-39-5	0.197 U	0.197	0.345	mg/kg dry
Isophorone	78-59-1	0.066 U	0.066	0.345	mg/kg dry
Naphthalene	91-20-3	0.141 U	0.141	0.345	mg/kg dry
Nitrobenzene	98-95-3	0.124 U	0.124	0.345	mg/kg dry
N-Nitrosodimethylamine	62-75-9	0.145 U	0.145	0.345	mg/kg dry
N-Nitroso-di-n-propylamine	621-64-7	0.090 U	0.090	0.345	mg/kg dry
N-Nitrosodiphenylamine	86-30-6	0.155 U	0.155	0.345	mg/kg dry
Pentachlorophenol	87-86-5	0.197 U	0.197	0.345	mg/kg dry
Phenanthrene	85-01-8	0.145 U	0.145	0.345	mg/kg dry
Phenol	108-95-2	0.131 U	0.131	0.345	mg/kg dry
Pyrene	129-00-0	0.152 U	0.152	0.345	mg/kg dry
Pyridine	110-86-1	0.165 U	0.165	0.345	mg/kg dry

Surrogate Recovery	Result	Spike Level	% Recovery	% Recovery Limits
2,4,6-Tribromophenol	118-79-6	4.55	3.49	131 % 35-126



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### ANALYTICAL REPORT

Sample ID: MPT-SS-NW2-C  
Lab #: B702054-03  
Prep. Method: EPA 3545\_MS  
Analyzed: 03/18/07 By: jj  
Anal. Method: EPA 8270C  
Anal. Batch: BA00441  
QC Batch: 7C14020

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Unit: mg/kg dry  
Dilution Factor: 1  
Percent Solids: 95.63

#### Semivolatile Organic Compounds by GCMS

Parameter	CAS Number	Analytical Results		MDL	MRL	Units
Surrogate Recovery		Result	Spike Level	% Recovery	% Recovery Limits	
2-Fluorobiphenyl	321-60-8	1.55	1.74	89 %	42-111	
2-Fluorophenol	367-12-4	2.92	3.49	84 %	29-130	
Nitrobenzene-d5	NA	1.19	1.74	69 %	35-112	
Phenol-d5	NA	2.80	3.49	80 %	20-120	
Terphenyl-d14	NA	1.81	1.74	104 %	40-124	



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### ANALYTICAL REPORT

Sample ID: MPT-SS-NW2-C  
Lab #: B702054-03  
Prep. Method: EPA 3545  
Analyzed: 03/15/07 By: GGM  
Anal. Method: EPA 8082  
Anal. Batch:  
QC Batch: 7C13033

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Unit: mg/kg dry  
Dilution Factor: 1  
Percent Solids: 95.63

#### **Polychlorinated Biphenyls by GC**

<b>Parameter</b>	<b>CAS Number</b>	<b>Analytical Results</b>	<b>MDL</b>	<b>MRL</b>	<b>Units</b>
PCB-1016/1242 [2C]	12674-11-2/53469-21-	0.015 U	0.015	0.035	mg/kg dry
PCB-1221 [2C]	11104-28-2	0.018 U	0.018	0.035	mg/kg dry
PCB-1232 [2C]	11141-16-5	0.020 U	0.020	0.035	mg/kg dry
PCB-1248 [2C]	12672-29-6	0.010 U	0.010	0.035	mg/kg dry
PCB-1254 [2C]	11097-69-1	0.010 U	0.010	0.035	mg/kg dry
PCB-1254-1 [2C]		0.0 U			mg/kg dry
PCB-1260 [2C]	11096-82-5	0.014 U	0.014	0.035	mg/kg dry

<b>Surrogate Recovery</b>		<b>Result</b>	<b>Spike Level</b>	<b>% Recovery</b>	<b>% Recovery Limits</b>
2,4,5,6-TCMX [2C]	877-09-8	0.0286	0.0349	82 %	0-200
DBC [2C]	NA	0.0352	0.0349	101 %	0-200



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### ANALYTICAL REPORT

Sample ID: MPT-SS-NW2-C  
Lab #: B702054-03

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Percent Solids: 95.63

#### Metals by EPA 6000/7000 Series Methods

Parameter	CAS Number	Analytical Results	MDL	MRL	Units	Analysis Method	Prep Method	Analytical Batch
Arsenic	7440-38-2	0.2 U	0.2	0.5	mg/kg dry	EPA 6010B	EPA 3050B	7C15002
Cadmium	7440-43-9	0.03 I	0.03	0.05	mg/kg dry	EPA 6010B	EPA 3050B	7C15002
Chromium	7440-47-3	2.5	0.2	0.5	mg/kg dry	EPA 6010B	EPA 3050B	7C15002
Lead	7439-92-1	1.1	0.1	0.5	mg/kg dry	EPA 6010B	EPA 3050B	7C15002



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### ANALYTICAL REPORT

Sample ID: MPT-SS-NW2-C  
Lab #: B702054-03RE1  
Prep. Method: EPA 3545  
Analyzed: 03/18/07 By: PL  
Anal. Method: FLPRO  
Anal. Batch: BA00440  
QC Batch: 7C13032

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Unit: mg/kg dry  
Dilution Factor: 5  
Percent Solids: 95.63

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#### FL Petroleum Range Organics

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
TPH (C8-C40)	NA	64.9 D	29.3	34.5	mg/kg dry
Surrogate Recovery		Result	Spike Level	% Recovery	% Recovery Limits
n-Nonatriacontane	7194-86-7	2.09	1.74	120 %	29-145
o-Terphenyl	84-15-1	3.20	3.49	92 %	36-140



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**ANALYTICAL REPORT**

Sample ID: MPT-SS-NW3-C  
 Lab #: B702054-04  
 Prep. Method: EPA 3545\_MS  
 Analyzed: 03/18/07 By: jj  
 Anal. Method: EPA 8270C  
 Anal. Batch: BA00441  
 QC Batch: 7C14020

Project: NAS Mayport Pier 136  
 Work Order #: B702054  
 Matrix: Soil  
 Unit: mg/kg dry  
 Dilution Factor: 1  
 Percent Solids: 96.45

**Semivolatile Organic Compounds by GCMS**

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
Benzo(k)fluoranthene	207-08-9	0.137 U	0.137	0.342	mg/kg dry
Benzoic acid	65-85-0	0.032 U	0.032	0.342	mg/kg dry
Benzyl alcohol	100-51-6	0.120 U	0.120	0.342	mg/kg dry
Bis(2-chloroethoxy)methane	111-91-1	0.106 U	0.106	0.342	mg/kg dry
Bis(2-chloroethyl)ether	111-44-4	0.103 U	0.103	0.342	mg/kg dry
Bis(2-chloroisopropyl)ether	39638-32-9	0.106 U	0.106	0.342	mg/kg dry
Bis(2-ethylhexyl)phthalate	117-81-7	0.208 U	0.208	0.342	mg/kg dry
Butylbenzylphthalate	85-68-7	0.130 U	0.130	0.342	mg/kg dry
Chrysene	218-01-9	0.140 U	0.140	0.342	mg/kg dry
Dibenzo(a,h)anthracene	53-70-3	0.198 U	0.198	0.342	mg/kg dry
Dibenzofuran	132-64-9	0.140 U	0.140	0.342	mg/kg dry
Diethylphthalate	84-66-2	0.126 U	0.126	0.342	mg/kg dry
Dimethylphthalate	131-11-3	0.116 U	0.116	0.342	mg/kg dry
Di-n-butylphthalate	84-74-2	0.150 U	0.150	0.342	mg/kg dry
Di-n-octylphthalate	117-84-0	0.171 U	0.171	0.342	mg/kg dry
<b>Fluoranthene</b>	206-44-0	<b>0.201 I</b>	0.144	0.342	mg/kg dry
Fluorene	86-73-7	0.140 U	0.140	0.342	mg/kg dry
Hexachlorobenzene	118-74-1	0.130 U	0.130	0.342	mg/kg dry
Hexachlorobutadiene	87-68-3	0.130 U	0.130	0.342	mg/kg dry
Hexachlorocyclopentadiene	77-47-4	0.068 U	0.068	0.342	mg/kg dry
Hexachloroethane	67-72-1	0.103 U	0.103	0.342	mg/kg dry
<b>Indeno(1,2,3-cd)pyrene</b>	193-39-5	<b>0.302 I</b>	0.195	0.342	mg/kg dry
Isophorone	78-59-1	0.065 U	0.065	0.342	mg/kg dry
Naphthalene	91-20-3	0.140 U	0.140	0.342	mg/kg dry
Nitrobenzene	98-95-3	0.123 U	0.123	0.342	mg/kg dry
N-Nitrosodimethylamine	62-75-9	0.144 U	0.144	0.342	mg/kg dry
N-Nitroso-di-n-propylamine	621-64-7	0.089 U	0.089	0.342	mg/kg dry
N-Nitrosodiphenylamine	86-30-6	0.153 U	0.153	0.342	mg/kg dry
Pentachlorophenol	87-86-5	0.195 U	0.195	0.342	mg/kg dry
<b>Phenanthrene</b>	85-01-8	<b>0.205 I</b>	0.144	0.342	mg/kg dry
Phenol	108-95-2	0.130 U	0.130	0.342	mg/kg dry
<b>Pyrene</b>	129-00-0	<b>0.185 I</b>	0.150	0.342	mg/kg dry
Pyridine	110-86-1	0.164 U	0.164	0.342	mg/kg dry
<b>Surrogate Recovery</b>		<b>Result</b>	<b>Spike Level</b>	<b>% Recovery</b>	<b>% Recovery Limits</b>
2,4,6-Tribromophenol	118-79-6	4.27	3.46	124 %	35-126



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### ANALYTICAL REPORT

Sample ID: MPT-SS-NW3-C  
Lab #: B702054-04  
Prep. Method: EPA 5030B\_MS  
Analyzed: 03/16/07 By: kdm  
Anal. Method: EPA 8260B  
Anal. Batch: AA00603  
QC Batch: 7C16017

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Unit: mg/kg dry  
Dilution Factor: 1  
Percent Solids: 96.45

#### Volatile Organic Compounds by GCMS

<u>Parameter</u>	<u>CAS Number</u>	<u>Analytical Results</u>	<u>MDL</u>	<u>MRL</u>	<u>Units</u>
Carbon Tetrachloride	56-23-5	0.0005 U	0.0005	0.0010	mg/kg dry
Chlorobenzene	108-90-7	0.0005 U	0.0005	0.0010	mg/kg dry
Chloroethane	75-00-3	0.0010 U	0.0010	0.0010	mg/kg dry
Chloroform	67-66-3	0.0005 U	0.0005	0.0010	mg/kg dry
Chloromethane	74-87-3	0.0006 U	0.0006	0.0010	mg/kg dry
cis-1,2-Dichloroethene	156-59-2	0.0008 U	0.0008	0.0010	mg/kg dry
cis-1,3-Dichloropropene	10061-01-5	0.0005 U	0.0005	0.0010	mg/kg dry
Dibromochloromethane	124-48-1	0.0006 U	0.0006	0.0010	mg/kg dry
Dibromomethane	74-95-3	0.0008 U	0.0008	0.0010	mg/kg dry
Dichlorodifluoromethane	75-71-8	0.0006 U	0.0006	0.0010	mg/kg dry
Ethylbenzene	100-41-4	0.0007 U	0.0007	0.0010	mg/kg dry
Hexachlorobutadiene	87-68-3	0.0006 U	0.0006	0.0010	mg/kg dry
Isopropylbenzene	98-82-8	0.0005 U	0.0005	0.0010	mg/kg dry
m,p-Xylenes	108-38-3/106-42-3	0.0008 U	0.0008	0.0010	mg/kg dry
Methylene Chloride	75-09-2	0.0004 U	0.0004	0.0052	mg/kg dry
Methyl-tert-Butyl Ether	1634-04-4	0.0008 U	0.0008	0.0010	mg/kg dry
<b>Naphthalene</b>	91-20-3	<b>0.0011</b>	0.0003	0.0010	mg/kg dry
n-Butyl Benzene	104-51-8	0.0004 U	0.0004	0.0010	mg/kg dry
n-Propyl Benzene	103-65-1	0.0003 U	0.0003	0.0010	mg/kg dry
o-Xylene	95-47-6	0.0005 U	0.0005	0.0010	mg/kg dry
<b>sec-Butylbenzene</b>	135-98-8	<b>0.0015</b>	0.0004	0.0010	mg/kg dry
Styrene	100-42-5	0.0004 U	0.0004	0.0010	mg/kg dry
tert-Butylbenzene	98-06-6	0.0004 U	0.0004	0.0010	mg/kg dry
Tetrachloroethene	127-18-4	0.0005 U	0.0005	0.0010	mg/kg dry
Toluene	108-88-3	0.0005 U	0.0005	0.0010	mg/kg dry
trans-1,2-Dichloroethene	156-60-5	0.0009 U	0.0009	0.0010	mg/kg dry
trans-1,3-Dichloropropene	10061-02-6	0.0004 U	0.0004	0.0010	mg/kg dry
Trichloroethene	79-01-6	0.0004 U	0.0004	0.0010	mg/kg dry
Trichlorofluoromethane	75-69-4	0.0005 U	0.0005	0.0010	mg/kg dry
Vinyl chloride	75-01-4	0.0006 U	0.0006	0.0010	mg/kg dry

<u>Surrogate Recovery</u>		<u>Result</u>	<u>Spike Level</u>	<u>% Recovery</u>	<u>% Recovery Limits</u>
4-Bromofluorobenzene	460-00-4	45	50.0	90 %	58-133
Dibromofluoromethane	1868-53-7	51	50.0	101 %	63-135
Toluene-d8	2037-26-5	48	50.0	97 %	71-126



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### ANALYTICAL REPORT

Sample ID: MPT-SS-NW3-C  
Lab #: B702054-04  
Prep. Method: EPA 3545\_MS  
Analyzed: 03/18/07 By: jj  
Anal. Method: EPA 8270C  
Anal. Batch: BA00441  
QC Batch: 7C14020

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Unit: mg/kg dry  
Dilution Factor: 1  
Percent Solids: 96.45

#### Semivolatile Organic Compounds by GCMS

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
1,2,4-Trichlorobenzene	120-82-1	0.130 U	0.130	0.342	mg/kg dry
1,2-Dichlorobenzene	95-50-1	0.113 U	0.113	0.342	mg/kg dry
1,3-Dichlorobenzene	541-73-1	0.113 U	0.113	0.342	mg/kg dry
1,4-Dichlorobenzene	106-46-7	0.123 U	0.123	0.342	mg/kg dry
1-Methylnaphthalene	90-12-0	0.140 U	0.140	0.342	mg/kg dry
2,4,5-Trichlorophenol	95-95-4	0.150 U	0.150	0.342	mg/kg dry
2,4,6-Trichlorophenol	88-06-2	0.130 U	0.130	0.342	mg/kg dry
2,4-Dichlorophenol	120-83-2	0.130 U	0.130	0.342	mg/kg dry
2,4-Dimethylphenol	105-67-9	0.120 U	0.120	0.342	mg/kg dry
2,4-Dinitrophenol	51-28-5	0.250 U	0.250	0.342	mg/kg dry
2,4-Dinitrotoluene	121-14-2	0.144 U	0.144	0.342	mg/kg dry
2,6-Dinitrotoluene	606-20-2	0.144 U	0.144	0.342	mg/kg dry
2-Chloronaphthalene	91-58-7	0.130 U	0.130	0.342	mg/kg dry
2-Chlorophenol	95-57-8	0.116 U	0.116	0.342	mg/kg dry
2-Methyl-4,6-dinitrophenol	534-52-1	0.113 U	0.113	0.342	mg/kg dry
2-Methylnaphthalene	91-57-6	0.134 U	0.134	0.342	mg/kg dry
2-Methylphenol	95-48-7	0.123 U	0.123	0.342	mg/kg dry
2-Nitroaniline	88-74-4	0.120 U	0.120	0.342	mg/kg dry
2-Nitrophenol	88-75-5	0.113 U	0.113	0.342	mg/kg dry
3 & 4-Methylphenol	106-44-5	0.130 U	0.130	0.342	mg/kg dry
3,3'-Dichlorobenzidine	91-94-1	0.111 U	0.111	0.342	mg/kg dry
3-Nitroaniline	99-09-2	0.123 U	0.123	0.342	mg/kg dry
4-Bromophenyl-phenylether	101-55-3	0.134 U	0.134	0.342	mg/kg dry
4-Chloro-3-methylphenol	59-50-7	0.137 U	0.137	0.342	mg/kg dry
4-Chloroaniline	106-47-8	0.103 U	0.103	0.342	mg/kg dry
4-Chlorophenyl-phenylether	7005-72-3	0.144 U	0.144	0.342	mg/kg dry
4-Nitroaniline	100-01-6	0.144 U	0.144	0.342	mg/kg dry
4-Nitrophenol	100-02-7	0.153 U	0.153	0.342	mg/kg dry
Acenaphthene	83-32-9	0.120 U	0.120	0.342	mg/kg dry
Acenaphthylene	208-96-8	0.116 U	0.116	0.342	mg/kg dry
Anthracene	120-12-7	0.150 U	0.150	0.342	mg/kg dry
Benzidine	92-87-5	0.085 U	0.085	0.342	mg/kg dry
Benzo(a)anthracene	56-55-3	0.161 U	0.161	0.342	mg/kg dry
Benzo(a)pyrene	50-32-8	0.120 U	0.120	0.342	mg/kg dry
<b>Benzo(b)fluoranthene</b>	205-99-2	<b>0.124 I</b>	0.113	0.342	mg/kg dry
<b>Benzo(g,h,i)perylene</b>	191-24-2	<b>0.322 I</b>	0.143	0.342	mg/kg dry



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### ANALYTICAL REPORT

Sample ID: MPT-SS-NW3-C  
Lab #: B702054-04  
Prep. Method: EPA 5030B\_MS  
Analyzed: 03/16/07 By: kdm  
Anal. Method: EPA 8260B  
Anal. Batch: AA00603  
QC Batch: 7C16017

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Unit: mg/kg dry  
Dilution Factor: 1  
Percent Solids: 96.45

#### Volatile Organic Compounds by GCMS

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
1,1,1,2-Tetrachloroethane	630-20-6	0.0004 U	0.0004	0.0010	mg/kg dry
1,1,1-Trichloroethane	71-55-6	0.0005 U	0.0005	0.0010	mg/kg dry
1,1,2,2-Tetrachloroethane	79-34-5	0.0007 U	0.0007	0.0010	mg/kg dry
1,1,2-Trichloroethane	79-00-5	0.0006 U	0.0006	0.0010	mg/kg dry
1,1-Dichloroethane	75-34-3	0.0004 U	0.0004	0.0010	mg/kg dry
1,1-Dichloroethene	75-35-4	0.0008 U	0.0008	0.0010	mg/kg dry
1,1-Dichloropropene	563-58-6	0.0005 U	0.0005	0.0010	mg/kg dry
1,2,3-Trichlorobenzene	87-61-6	0.0006 U	0.0006	0.0010	mg/kg dry
1,2,3-Trichloropropane	96-18-4	0.0008 U	0.0008	0.0010	mg/kg dry
1,2,4-Trichlorobenzene	120-82-1	0.0006 U	0.0006	0.0010	mg/kg dry
1,2,4-Trimethylbenzene	95-63-6	0.0004 U	0.0004	0.0010	mg/kg dry
1,2-Dibromo-3-chloropropane	96-12-8	0.0008 U	0.0008	0.0010	mg/kg dry
1,2-Dibromoethane	106-93-4	0.0006 U	0.0006	0.0010	mg/kg dry
1,2-Dichlorobenzene	95-50-1	0.0006 U	0.0006	0.0010	mg/kg dry
1,2-Dichloroethane	107-06-2	0.0005 U	0.0005	0.0010	mg/kg dry
1,2-Dichloropropane	78-87-5	0.0007 U	0.0007	0.0010	mg/kg dry
1,3,5-Trimethylbenzene	108-67-8	0.0003 U	0.0003	0.0010	mg/kg dry
1,3-Dichlorobenzene	541-73-1	0.0005 U	0.0005	0.0010	mg/kg dry
1,3-Dichloropropane	142-28-9	0.0003 U	0.0003	0.0010	mg/kg dry
1,4-Dichlorobenzene	106-46-7	0.0004 U	0.0004	0.0010	mg/kg dry
2,2-Dichloropropane	594-20-7	0.0007 U	0.0007	0.0010	mg/kg dry
2-Butanone	78-93-3	0.0021 U	0.0021	0.0052	mg/kg dry
2-Chloroethyl Vinyl Ether	110-75-8	0.0010 U	0.0010	0.0052	mg/kg dry
2-Chlorotoluene	95-49-8	0.0004 U	0.0004	0.0010	mg/kg dry
2-Hexanone	591-78-6	0.0009 U	0.0009	0.0010	mg/kg dry
4-Chlorotoluene	106-43-4	0.0005 U	0.0005	0.0010	mg/kg dry
4-Isopropyltoluene	99-87-6	0.0004 U	0.0004	0.0010	mg/kg dry
4-Methyl-2-pentanone	108-10-1	0.0021 U	0.0021	0.0052	mg/kg dry
Acetone	67-64-1	<b>0.028</b>	0.0010	0.0052	mg/kg dry
Benzene	71-43-2	0.0006 U	0.0006	0.0010	mg/kg dry
Bromobenzene	108-86-1	0.0005 U	0.0005	0.0010	mg/kg dry
Bromochloromethane	74-97-5	0.0006 U	0.0006	0.0010	mg/kg dry
Bromodichloromethane	75-27-4	0.0004 U	0.0004	0.0010	mg/kg dry
Bromoform	75-25-2	0.0006 U	0.0006	0.0010	mg/kg dry
Bromomethane	74-83-9	0.0009 U	0.0009	0.0010	mg/kg dry
Carbon disulfide	75-15-0	0.0009 U	0.0009	0.0010	mg/kg dry



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### ANALYTICAL REPORT

Sample ID: MPT-SS-NW3-C  
Lab #: B702054-04  
Prep. Method: EPA 3545\_MS  
Analyzed: 03/18/07 By: jj  
Anal. Method: EPA 8270C  
Anal. Batch: BA00441  
QC Batch: 7C14020

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Unit: mg/kg dry  
Dilution Factor: 1  
Percent Solids: 96.45

#### Semivolatile Organic Compounds by GCMS

Parameter	CAS Number	Analytical Results		MDL	MRL	Units
Surrogate Recovery		Result	Spike Level	% Recovery	% Recovery Limits	
2-Fluorobiphenyl	321-60-8	1.50	1.73	87 %	42-111	
2-Fluorophenol	367-12-4	2.73	3.46	79 %	29-130	
Nitrobenzene-d5	NA	1.14	1.73	66 %	35-112	
Phenol-d5	NA	2.69	3.46	78 %	20-120	
Terphenyl-d14	NA	1.68	1.73	97 %	40-124	



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### ANALYTICAL REPORT

Sample ID: MPT-SS-NW3-C  
Lab #: B702054-04  
Prep. Method: EPA 3545  
Analyzed: 03/15/07 By: GGM  
Anal. Method: EPA 8082  
Anal. Batch:  
QC Batch: 7C13033

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Unit: mg/kg dry  
Dilution Factor: 1  
Percent Solids: 96.45

#### Polychlorinated Biphenyls by GC

<u>Parameter</u>	<u>CAS Number</u>	<u>Analytical Results</u>	<u>MDL</u>	<u>MRL</u>	<u>Units</u>
PCB-1016/1242 [2C]	12674-11-2/53469-21-	0.015 U	0.015	0.034	mg/kg dry
PCB-1221 [2C]	11104-28-2	0.018 U	0.018	0.034	mg/kg dry
PCB-1232 [2C]	11141-16-5	0.020 U	0.020	0.034	mg/kg dry
PCB-1248 [2C]	12672-29-6	0.010 U	0.010	0.034	mg/kg dry
PCB-1254 [2C]	11097-69-1	0.009 U	0.009	0.034	mg/kg dry
PCB-1254-1 [2C]		0.0 U			mg/kg dry
PCB-1260 [2C]	11096-82-5	0.014 U	0.014	0.034	mg/kg dry

<u>Surrogate Recovery</u>		<u>Result</u>	<u>Spike Level</u>	<u>% Recovery</u>	<u>% Recovery Limits</u>
2,4,5,6-TCMX [2C]	877-09-8	0.0301	0.0346	87 %	0-200
DBC [2C]	NA	0.0325	0.0346	94 %	0-200



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### ANALYTICAL REPORT

Sample ID: MPT-SS-NW3-C  
Lab #: B702054-04  
Prep. Method: EPA 3545  
Analyzed: 03/17/07 By: PL  
Anal. Method: FLPRO  
Anal. Batch: BA00435  
QC Batch: 7C13032

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Unit: mg/kg dry  
Dilution Factor: 10  
Percent Solids: 96.45

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#### FL Petroleum Range Organics

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
TPH (C8-C40)	NA	96.1 D	58.1	68.4	mg/kg dry
<b>Surrogate Recovery</b>		<b>Result</b>	<b>Spike Level</b>	<b>% Recovery</b>	<b>% Recovery Limits</b>
n-Nonatriacontane	7194-86-7	2.00	1.73	116 %	29-145
o-Terphenyl	84-15-1	2.74	3.46	79 %	36-140



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### ANALYTICAL REPORT

Sample ID: MPT-SS-NW3-C  
Lab #: B702054-04

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Percent Solids: 96.45

#### Metals by EPA 6000/7000 Series Methods

Parameter	CAS Number	Analytical Results	MDL	MRL	Units	Analysis Method	Prep Method	Analytical Batch
Arsenic	7440-38-2	0.2 U	0.2	0.5	mg/kg dry	EPA 6010B	EPA 3050B	7C15002
Cadmium	7440-43-9	0.06	0.03	0.05	mg/kg dry	EPA 6010B	EPA 3050B	7C15002
Chromium	7440-47-3	2.8	0.2	0.5	mg/kg dry	EPA 6010B	EPA 3050B	7C15002
Lead	7439-92-1	1.6	0.1	0.5	mg/kg dry	EPA 6010B	EPA 3050B	7C15002



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**ANALYTICAL REPORT**

Sample ID: MPT-SS-EW-C  
 Lab #: B702054-05  
 Prep. Method: EPA 3545\_MS  
 Analyzed: 03/18/07 By: jj  
 Anal. Method: EPA 8270C  
 Anal. Batch: BA00441  
 QC Batch: 7C14020

Project: NAS Mayport Pier 136  
 Work Order #: B702054  
 Matrix: Soil  
 Unit: mg/kg dry  
 Dilution Factor: 1  
 Percent Solids: 96.67

**Semivolatile Organic Compounds by GCMS**

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
Benzo(k)fluoranthene	207-08-9	0.137 U	0.137	0.341	mg/kg dry
Benzoic acid	65-85-0	0.032 U	0.032	0.341	mg/kg dry
Benzyl alcohol	100-51-6	0.120 U	0.120	0.341	mg/kg dry
Bis(2-chloroethoxy)methane	111-91-1	0.106 U	0.106	0.341	mg/kg dry
Bis(2-chloroethyl)ether	111-44-4	0.102 U	0.102	0.341	mg/kg dry
Bis(2-chloroisopropyl)ether	39638-32-9	0.106 U	0.106	0.341	mg/kg dry
Bis(2-ethylhexyl)phthalate	117-81-7	0.208 U	0.208	0.341	mg/kg dry
Butylbenzylphthalate	85-68-7	0.129 U	0.129	0.341	mg/kg dry
Chrysene	218-01-9	0.140 U	0.140	0.341	mg/kg dry
Dibenzo(a,h)anthracene	53-70-3	0.198 U	0.198	0.341	mg/kg dry
Dibenzofuran	132-64-9	0.140 U	0.140	0.341	mg/kg dry
Diethylphthalate	84-66-2	0.126 U	0.126	0.341	mg/kg dry
Dimethylphthalate	131-11-3	0.116 U	0.116	0.341	mg/kg dry
Di-n-butylphthalate	84-74-2	0.150 U	0.150	0.341	mg/kg dry
Di-n-octylphthalate	117-84-0	0.171 U	0.171	0.341	mg/kg dry
Fluoranthene	206-44-0	0.144 U	0.144	0.341	mg/kg dry
Fluorene	86-73-7	0.140 U	0.140	0.341	mg/kg dry
Hexachlorobenzene	118-74-1	0.129 U	0.129	0.341	mg/kg dry
Hexachlorobutadiene	87-68-3	0.129 U	0.129	0.341	mg/kg dry
Hexachlorocyclopentadiene	77-47-4	0.068 U	0.068	0.341	mg/kg dry
Hexachloroethane	67-72-1	0.102 U	0.102	0.341	mg/kg dry
<b>Indeno(1,2,3-cd)pyrene</b>	193-39-5	<b>0.296 I</b>	0.194	0.341	mg/kg dry
Isophorone	78-59-1	0.065 U	0.065	0.341	mg/kg dry
Naphthalene	91-20-3	0.140 U	0.140	0.341	mg/kg dry
Nitrobenzene	98-95-3	0.123 U	0.123	0.341	mg/kg dry
N-Nitrosodimethylamine	62-75-9	0.144 U	0.144	0.341	mg/kg dry
N-Nitroso-di-n-propylamine	621-64-7	0.089 U	0.089	0.341	mg/kg dry
N-Nitrosodiphenylamine	86-30-6	0.153 U	0.153	0.341	mg/kg dry
Pentachlorophenol	87-86-5	0.194 U	0.194	0.341	mg/kg dry
Phenanthrene	85-01-8	0.144 U	0.144	0.341	mg/kg dry
Phenol	108-95-2	0.129 U	0.129	0.341	mg/kg dry
Pyrene	129-00-0	0.150 U	0.150	0.341	mg/kg dry
Pyridine	110-86-1	0.163 U	0.163	0.341	mg/kg dry

Surrogate Recovery	Result	Spike Level	% Recovery	% Recovery Limits
2,4,6-Tribromophenol	118-79-6	4.44	3.45	129 % 35-126



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**ANALYTICAL REPORT**

Sample ID: MPT-SS-EW-C  
 Lab #: B702054-05  
 Prep. Method: EPA 5030B\_MS  
 Analyzed: 03/16/07 By: kdm  
 Anal. Method: EPA 8260B  
 Anal. Batch: AA00603  
 QC Batch: 7C16017

Project: NAS Mayport Pier 136  
 Work Order #: B702054  
 Matrix: Soil  
 Unit: mg/kg dry  
 Dilution Factor: 1  
 Percent Solids: 96.67

**Volatile Organic Compounds by GCMS**

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
Carbon Tetrachloride	56-23-5	0.0005 U	0.0005	0.0010	mg/kg dry
Chlorobenzene	108-90-7	0.0005 U	0.0005	0.0010	mg/kg dry
Chloroethane	75-00-3	0.0010 U	0.0010	0.0010	mg/kg dry
Chloroform	67-66-3	0.0005 U	0.0005	0.0010	mg/kg dry
Chloromethane	74-87-3	0.0006 U	0.0006	0.0010	mg/kg dry
cis-1,2-Dichloroethene	156-59-2	0.0008 U	0.0008	0.0010	mg/kg dry
cis-1,3-Dichloropropene	10061-01-5	0.0005 U	0.0005	0.0010	mg/kg dry
Dibromochloromethane	124-48-1	0.0006 U	0.0006	0.0010	mg/kg dry
Dibromomethane	74-95-3	0.0008 U	0.0008	0.0010	mg/kg dry
Dichlorodifluoromethane	75-71-8	0.0006 U	0.0006	0.0010	mg/kg dry
Ethylbenzene	100-41-4	0.0007 U	0.0007	0.0010	mg/kg dry
Hexachlorobutadiene	87-68-3	0.0006 U	0.0006	0.0010	mg/kg dry
Isopropylbenzene	98-82-8	0.0005 U	0.0005	0.0010	mg/kg dry
m,p-Xylenes	108-38-3/106-42-3	0.0008 U	0.0008	0.0010	mg/kg dry
Methylene Chloride	75-09-2	0.0004 U	0.0004	0.0052	mg/kg dry
Methyl-tert-Butyl Ether	1634-04-4	0.0008 U	0.0008	0.0010	mg/kg dry
Naphthalene	91-20-3	0.0003 U	0.0003	0.0010	mg/kg dry
n-Butyl Benzene	104-51-8	0.0004 U	0.0004	0.0010	mg/kg dry
n-Propyl Benzene	103-65-1	0.0003 U	0.0003	0.0010	mg/kg dry
o-Xylene	95-47-6	0.0005 U	0.0005	0.0010	mg/kg dry
sec-Butylbenzene	135-98-8	0.0004 U	0.0004	0.0010	mg/kg dry
Styrene	100-42-5	0.0004 U	0.0004	0.0010	mg/kg dry
tert-Butylbenzene	98-06-6	0.0004 U	0.0004	0.0010	mg/kg dry
Tetrachloroethene	127-18-4	0.0005 U	0.0005	0.0010	mg/kg dry
Toluene	108-88-3	0.0005 U	0.0005	0.0010	mg/kg dry
trans-1,2-Dichloroethene	156-60-5	0.0009 U	0.0009	0.0010	mg/kg dry
trans-1,3-Dichloropropene	10061-02-6	0.0004 U	0.0004	0.0010	mg/kg dry
Trichloroethene	79-01-6	0.0004 U	0.0004	0.0010	mg/kg dry
Trichlorofluoromethane	75-69-4	0.0005 U	0.0005	0.0010	mg/kg dry
Vinyl chloride	75-01-4	0.0006 U	0.0006	0.0010	mg/kg dry

Surrogate Recovery	Result	Spike Level	% Recovery	% Recovery Limits	
4-Bromofluorobenzene	460-00-4	42	50.0	84 %	58-133
Dibromofluoromethane	1868-53-7	55	50.0	110 %	63-135
Toluene-d8	2037-26-5	49	50.0	97 %	71-126



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### ANALYTICAL REPORT

Sample ID: MPT-SS-EW-C  
Lab #: B702054-05  
Prep. Method: EPA 5030B\_MS  
Analyzed: 03/16/07 By: kdm  
Anal. Method: EPA 8260B  
Anal. Batch: AA00603  
QC Batch: 7C16017

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Unit: mg/kg dry  
Dilution Factor: 1  
Percent Solids: 96.67

#### Volatile Organic Compounds by GCMS

<u>Parameter</u>	<u>CAS Number</u>	<u>Analytical Results</u>	<u>MDL</u>	<u>MRL</u>	<u>Units</u>
1,1,1,2-Tetrachloroethane	630-20-6	0.0004 U	0.0004	0.0010	mg/kg dry
1,1,1-Trichloroethane	71-55-6	0.0005 U	0.0005	0.0010	mg/kg dry
1,1,2,2-Tetrachloroethane	79-34-5	0.0007 U	0.0007	0.0010	mg/kg dry
1,1,2-Trichloroethane	79-00-5	0.0006 U	0.0006	0.0010	mg/kg dry
1,1-Dichloroethane	75-34-3	0.0004 U	0.0004	0.0010	mg/kg dry
1,1-Dichloroethene	75-35-4	0.0008 U	0.0008	0.0010	mg/kg dry
1,1-Dichloropropene	563-58-6	0.0005 U	0.0005	0.0010	mg/kg dry
1,2,3-Trichlorobenzene	87-61-6	0.0006 U	0.0006	0.0010	mg/kg dry
1,2,3-Trichloropropane	96-18-4	0.0008 U	0.0008	0.0010	mg/kg dry
1,2,4-Trichlorobenzene	120-82-1	0.0006 U	0.0006	0.0010	mg/kg dry
1,2,4-Trimethylbenzene	95-63-6	0.0004 U	0.0004	0.0010	mg/kg dry
1,2-Dibromo-3-chloropropane	96-12-8	0.0008 U	0.0008	0.0010	mg/kg dry
1,2-Dibromoethane	106-93-4	0.0006 U	0.0006	0.0010	mg/kg dry
1,2-Dichlorobenzene	95-50-1	0.0006 U	0.0006	0.0010	mg/kg dry
1,2-Dichloroethane	107-06-2	0.0005 U	0.0005	0.0010	mg/kg dry
1,2-Dichloropropane	78-87-5	0.0007 U	0.0007	0.0010	mg/kg dry
1,3,5-Trimethylbenzene	108-67-8	0.0003 U	0.0003	0.0010	mg/kg dry
1,3-Dichlorobenzene	541-73-1	0.0005 U	0.0005	0.0010	mg/kg dry
1,3-Dichloropropane	142-28-9	0.0003 U	0.0003	0.0010	mg/kg dry
1,4-Dichlorobenzene	106-46-7	0.0004 U	0.0004	0.0010	mg/kg dry
2,2-Dichloropropane	594-20-7	0.0007 U	0.0007	0.0010	mg/kg dry
2-Butanone	78-93-3	0.0021 U	0.0021	0.0052	mg/kg dry
2-Chloroethyl Vinyl Ether	110-75-8	0.0010 U	0.0010	0.0052	mg/kg dry
2-Chlorotoluene	95-49-8	0.0004 U	0.0004	0.0010	mg/kg dry
2-Hexanone	591-78-6	0.0009 U	0.0009	0.0010	mg/kg dry
4-Chlorotoluene	106-43-4	0.0005 U	0.0005	0.0010	mg/kg dry
4-Isopropyltoluene	99-87-6	0.0004 U	0.0004	0.0010	mg/kg dry
4-Methyl-2-pentanone	108-10-1	0.0021 U	0.0021	0.0052	mg/kg dry
Acetone	67-64-1	<b>0.012</b>	0.0010	0.0052	mg/kg dry
Benzene	71-43-2	0.0006 U	0.0006	0.0010	mg/kg dry
Bromobenzene	108-86-1	0.0005 U	0.0005	0.0010	mg/kg dry
Bromochloromethane	74-97-5	0.0006 U	0.0006	0.0010	mg/kg dry
Bromodichloromethane	75-27-4	0.0004 U	0.0004	0.0010	mg/kg dry
Bromoform	75-25-2	0.0006 U	0.0006	0.0010	mg/kg dry
Bromomethane	74-83-9	0.0009 U	0.0009	0.0010	mg/kg dry
Carbon disulfide	75-15-0	0.0009 U	0.0009	0.0010	mg/kg dry



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### ANALYTICAL REPORT

Sample ID: MPT-SS-EW-C  
Lab #: B702054-05  
Prep. Method: EPA 3545\_MS  
Analyzed: 03/18/07 By: jj  
Anal. Method: EPA 8270C  
Anal. Batch: BA00441  
QC Batch: 7C14020

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Unit: mg/kg dry  
Dilution Factor: 1  
Percent Solids: 96.67

#### Semivolatile Organic Compounds by GCMS

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
1,2,4-Trichlorobenzene	120-82-1	0.129 U	0.129	0.341	mg/kg dry
1,2-Dichlorobenzene	95-50-1	0.113 U	0.113	0.341	mg/kg dry
1,3-Dichlorobenzene	541-73-1	0.113 U	0.113	0.341	mg/kg dry
1,4-Dichlorobenzene	106-46-7	0.123 U	0.123	0.341	mg/kg dry
1-Methylnaphthalene	90-12-0	0.140 U	0.140	0.341	mg/kg dry
2,4,5-Trichlorophenol	95-95-4	0.150 U	0.150	0.341	mg/kg dry
2,4,6-Trichlorophenol	88-06-2	0.129 U	0.129	0.341	mg/kg dry
2,4-Dichlorophenol	120-83-2	0.129 U	0.129	0.341	mg/kg dry
2,4-Dimethylphenol	105-67-9	0.120 U	0.120	0.341	mg/kg dry
2,4-Dinitrophenol	51-28-5	0.249 U	0.249	0.341	mg/kg dry
2,4-Dinitrotoluene	121-14-2	0.144 U	0.144	0.341	mg/kg dry
2,6-Dinitrotoluene	606-20-2	0.144 U	0.144	0.341	mg/kg dry
2-Chloronaphthalene	91-58-7	0.129 U	0.129	0.341	mg/kg dry
2-Chlorophenol	95-57-8	0.116 U	0.116	0.341	mg/kg dry
2-Methyl-4,6-dinitrophenol	534-52-1	0.113 U	0.113	0.341	mg/kg dry
2-Methylnaphthalene	91-57-6	0.133 U	0.133	0.341	mg/kg dry
2-Methylphenol	95-48-7	0.123 U	0.123	0.341	mg/kg dry
2-Nitroaniline	88-74-4	0.120 U	0.120	0.341	mg/kg dry
2-Nitrophenol	88-75-5	0.113 U	0.113	0.341	mg/kg dry
3 & 4-Methylphenol	106-44-5	0.129 U	0.129	0.341	mg/kg dry
3,3'-Dichlorobenzidine	91-94-1	0.111 U	0.111	0.341	mg/kg dry
3-Nitroaniline	99-09-2	0.123 U	0.123	0.341	mg/kg dry
4-Bromophenyl-phenylether	101-55-3	0.133 U	0.133	0.341	mg/kg dry
4-Chloro-3-methylphenol	59-50-7	0.137 U	0.137	0.341	mg/kg dry
4-Chloroaniline	106-47-8	0.102 U	0.102	0.341	mg/kg dry
4-Chlorophenyl-phenylether	7005-72-3	0.144 U	0.144	0.341	mg/kg dry
4-Nitroaniline	100-01-6	0.144 U	0.144	0.341	mg/kg dry
4-Nitrophenol	100-02-7	0.153 U	0.153	0.341	mg/kg dry
Acenaphthene	83-32-9	0.120 U	0.120	0.341	mg/kg dry
Acenaphthylene	208-96-8	0.116 U	0.116	0.341	mg/kg dry
Anthracene	120-12-7	0.150 U	0.150	0.341	mg/kg dry
Benzidine	92-87-5	0.085 U	0.085	0.341	mg/kg dry
Benzo(a)anthracene	56-55-3	0.160 U	0.160	0.341	mg/kg dry
Benzo(a)pyrene	50-32-8	0.120 U	0.120	0.341	mg/kg dry
Benzo(b)fluoranthene	205-99-2	0.113 U	0.113	0.341	mg/kg dry
<b>Benzo(g,h,i)perylene</b>	191-24-2	<b>0.340 I</b>	0.143	0.341	mg/kg dry



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### ANALYTICAL REPORT

Sample ID: MPT-SS-EW-C  
Lab #: B702054-05  
Prep. Method: EPA 3545  
Analyzed: 03/17/07 By: PL  
Anal. Method: FLPRO  
Anal. Batch: BA00435  
QC Batch: 7C13032

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Unit: mg/kg dry  
Dilution Factor: 10  
Percent Solids: 96.67

#### **FL Petroleum Range Organics**

<u>Parameter</u>	<u>CAS Number</u>	<u>Analytical Results</u>	<u>MDL</u>	<u>MRL</u>	<u>Units</u>
TPH (C8-C40)	NA	86.8 D	57.9	68.3	mg/kg dry
<b>Surrogate Recovery</b>		<b>Result</b>	<b>Spike Level</b>	<b>% Recovery</b>	<b>% Recovery Limits</b>
n-Nonatriacontane	7194-86-7	2.02	1.72	117 %	29-145
o-Terphenyl	84-15-1	2.53	3.45	73 %	36-140



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### ANALYTICAL REPORT

Sample ID: MPT-SS-EW-C  
Lab #: B702054-05

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Percent Solids: 96.67

#### Metals by EPA 6000/7000 Series Methods

Parameter	CAS Number	Analytical Results	MDL	MRL	Units	Analysis Method	Prep Method	Analytical Batch
Arsenic	7440-38-2	0.2 U	0.2	0.5	mg/kg dry	EPA 6010B	EPA 3050B	7C15002
Cadmium	7440-43-9	0.05 I	0.03	0.05	mg/kg dry	EPA 6010B	EPA 3050B	7C15002
Chromium	7440-47-3	3.0	0.2	0.5	mg/kg dry	EPA 6010B	EPA 3050B	7C15002
Lead	7439-92-1	1.9	0.1	0.5	mg/kg dry	EPA 6010B	EPA 3050B	7C15002



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### ANALYTICAL REPORT

Sample ID: MPT-SS-EW-C  
Lab #: B702054-05  
Prep. Method: EPA 3545\_MS  
Analyzed: 03/18/07 By: jj  
Anal. Method: EPA 8270C  
Anal. Batch: BA00441  
QC Batch: 7C14020

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Unit: mg/kg dry  
Dilution Factor: 1  
Percent Solids: 96.67

#### Semivolatile Organic Compounds by GCMS

Parameter	CAS Number	Analytical Results		MDL	MRL	Units
		Result	Spike Level			
<b>Surrogate Recovery</b>						
2-Fluorobiphenyl	321-60-8	1.46	1.72		85 %	42-111
2-Fluorophenol	367-12-4	2.74	3.45		79 %	29-130
Nitrobenzene-d5	NA	1.19	1.72		69 %	35-112
Phenol-d5	NA	2.63	3.45		76 %	20-120
Terphenyl-d14	NA	1.78	1.72		104 %	40-124



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### ANALYTICAL REPORT

Sample ID: MPT-SS-EW-C  
Lab #: B702054-05  
Prep. Method: EPA 3545  
Analyzed: 03/15/07 By: GGM  
Anal. Method: EPA 8082  
Anal. Batch:  
QC Batch: 7C13033

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Unit: mg/kg dry  
Dilution Factor: 1  
Percent Solids: 96.67

#### **Polychlorinated Biphenyls by GC**

<b>Parameter</b>	<b>CAS Number</b>	<b>Analytical Results</b>	<b>MDL</b>	<b>MRL</b>	<b>Units</b>
PCB-1016/1242 [2C]	12674-11-2/53469-21-	0.014 U	0.014	0.034	mg/kg dry
PCB-1221 [2C]	11104-28-2	0.018 U	0.018	0.034	mg/kg dry
PCB-1232 [2C]	11141-16-5	0.020 U	0.020	0.034	mg/kg dry
PCB-1248 [2C]	12672-29-6	0.010 U	0.010	0.034	mg/kg dry
PCB-1254 [2C]	11097-69-1	0.009 U	0.009	0.034	mg/kg dry
PCB-1254-1 [2C]		0.0 U			mg/kg dry
PCB-1260 [2C]	11096-82-5	0.014 U	0.014	0.034	mg/kg dry

<b>Surrogate Recovery</b>		<b>Result</b>	<b>Spike Level</b>	<b>% Recovery</b>	<b>% Recovery Limits</b>
2,4,5,6-TCMX [2C]	877-09-8	0.0324	0.0345	94 %	0-200
DBC [2C]	NA	0.0331	0.0345	96 %	0-200



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**ANALYTICAL REPORT**

Sample ID: MPT-SS-WW-C  
 Lab #: B702054-06  
 Prep. Method: EPA 3545\_MS  
 Analyzed: 03/18/07 By: jj  
 Anal. Method: EPA 8270C  
 Anal. Batch: BA00441  
 QC Batch: 7C14020

Project: NAS Mayport Pier 136  
 Work Order #: B702054  
 Matrix: Soil  
 Unit: mg/kg dry  
 Dilution Factor: 1  
 Percent Solids: 97.35

**Semivolatile Organic Compounds by GCMS**

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
Benzo(k)fluoranthene	207-08-9	0.136 U	0.136	0.339	mg/kg dry
Benzoic acid	65-85-0	0.032 U	0.032	0.339	mg/kg dry
Benzyl alcohol	100-51-6	0.119 U	0.119	0.339	mg/kg dry
Bis(2-chloroethoxy)methane	111-91-1	0.105 U	0.105	0.339	mg/kg dry
Bis(2-chloroethyl)ether	111-44-4	0.102 U	0.102	0.339	mg/kg dry
Bis(2-chloroisopropyl)ether	39638-32-9	0.105 U	0.105	0.339	mg/kg dry
Bis(2-ethylhexyl)phthalate	117-81-7	0.206 U	0.206	0.339	mg/kg dry
Butylbenzylphthalate	85-68-7	0.128 U	0.128	0.339	mg/kg dry
Chrysene	218-01-9	0.139 U	0.139	0.339	mg/kg dry
Dibenzo(a,h)anthracene	53-70-3	0.196 U	0.196	0.339	mg/kg dry
Dibenzofuran	132-64-9	0.139 U	0.139	0.339	mg/kg dry
Diethylphthalate	84-66-2	0.125 U	0.125	0.339	mg/kg dry
Dimethylphthalate	131-11-3	0.115 U	0.115	0.339	mg/kg dry
Di-n-butylphthalate	84-74-2	0.149 U	0.149	0.339	mg/kg dry
Di-n-octylphthalate	117-84-0	0.169 U	0.169	0.339	mg/kg dry
Fluoranthene	206-44-0	0.143 U	0.143	0.339	mg/kg dry
Fluorene	86-73-7	0.139 U	0.139	0.339	mg/kg dry
Hexachlorobenzene	118-74-1	0.128 U	0.128	0.339	mg/kg dry
Hexachlorobutadiene	87-68-3	0.128 U	0.128	0.339	mg/kg dry
Hexachlorocyclopentadiene	77-47-4	0.068 U	0.068	0.339	mg/kg dry
Hexachloroethane	67-72-1	0.102 U	0.102	0.339	mg/kg dry
Indeno(1,2,3-cd)pyrene	193-39-5	0.193 U	0.193	0.339	mg/kg dry
Isophorone	78-59-1	0.065 U	0.065	0.339	mg/kg dry
Naphthalene	91-20-3	0.139 U	0.139	0.339	mg/kg dry
Nitrobenzene	98-95-3	0.122 U	0.122	0.339	mg/kg dry
N-Nitrosodimethylamine	62-75-9	0.143 U	0.143	0.339	mg/kg dry
N-Nitroso-di-n-propylamine	621-64-7	0.088 U	0.088	0.339	mg/kg dry
N-Nitrosodiphenylamine	86-30-6	0.152 U	0.152	0.339	mg/kg dry
Pentachlorophenol	87-86-5	0.193 U	0.193	0.339	mg/kg dry
Phenanthrene	85-01-8	0.143 U	0.143	0.339	mg/kg dry
Phenol	108-95-2	0.128 U	0.128	0.339	mg/kg dry
Pyrene	129-00-0	0.149 U	0.149	0.339	mg/kg dry
Pyridine	110-86-1	0.162 U	0.162	0.339	mg/kg dry
<b>Surrogate Recovery</b>		<b>Result</b>	<b>Spike Level</b>	<b>% Recovery</b>	<b>% Recovery Limits</b>
2,4,6-Tribromophenol	118-79-6	3.92	3.42	114 %	35-126



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### ANALYTICAL REPORT

Sample ID: MPT-SS-WW-C  
Lab #: B702054-06  
Prep. Method: EPA 3545\_MS  
Analyzed: 03/18/07 By: jj  
Anal. Method: EPA 8270C  
Anal. Batch: BA00441  
QC Batch: 7C14020

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Unit: mg/kg dry  
Dilution Factor: 1  
Percent Solids: 97.35

#### Semivolatile Organic Compounds by GCMS

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
1,2,4-Trichlorobenzene	120-82-1	0.128 U	0.128	0.339	mg/kg dry
1,2-Dichlorobenzene	95-50-1	0.112 U	0.112	0.339	mg/kg dry
1,3-Dichlorobenzene	541-73-1	0.112 U	0.112	0.339	mg/kg dry
1,4-Dichlorobenzene	106-46-7	0.122 U	0.122	0.339	mg/kg dry
1-Methylnaphthalene	90-12-0	0.139 U	0.139	0.339	mg/kg dry
2,4,5-Trichlorophenol	95-95-4	0.149 U	0.149	0.339	mg/kg dry
2,4,6-Trichlorophenol	88-06-2	0.128 U	0.128	0.339	mg/kg dry
2,4-Dichlorophenol	120-83-2	0.128 U	0.128	0.339	mg/kg dry
2,4-Dimethylphenol	105-67-9	0.119 U	0.119	0.339	mg/kg dry
2,4-Dinitrophenol	51-28-5	0.248 U	0.248	0.339	mg/kg dry
2,4-Dinitrotoluene	121-14-2	0.143 U	0.143	0.339	mg/kg dry
2,6-Dinitrotoluene	606-20-2	0.143 U	0.143	0.339	mg/kg dry
2-Chloronaphthalene	91-58-7	0.128 U	0.128	0.339	mg/kg dry
2-Chlorophenol	95-57-8	0.115 U	0.115	0.339	mg/kg dry
2-Methyl-4,6-dinitrophenol	534-52-1	0.112 U	0.112	0.339	mg/kg dry
2-Methylnaphthalene	91-57-6	0.133 U	0.133	0.339	mg/kg dry
2-Methylphenol	95-48-7	0.122 U	0.122	0.339	mg/kg dry
2-Nitroaniline	88-74-4	0.119 U	0.119	0.339	mg/kg dry
2-Nitrophenol	88-75-5	0.112 U	0.112	0.339	mg/kg dry
3 & 4-Methylphenol	106-44-5	0.128 U	0.128	0.339	mg/kg dry
3,3'-Dichlorobenzidine	91-94-1	0.110 U	0.110	0.339	mg/kg dry
3-Nitroaniline	99-09-2	0.122 U	0.122	0.339	mg/kg dry
4-Bromophenyl-phenylether	101-55-3	0.133 U	0.133	0.339	mg/kg dry
4-Chloro-3-methylphenol	59-50-7	0.136 U	0.136	0.339	mg/kg dry
4-Chloroaniline	106-47-8	0.102 U	0.102	0.339	mg/kg dry
4-Chlorophenyl-phenylether	7005-72-3	0.143 U	0.143	0.339	mg/kg dry
4-Nitroaniline	100-01-6	0.143 U	0.143	0.339	mg/kg dry
4-Nitrophenol	100-02-7	0.152 U	0.152	0.339	mg/kg dry
Acenaphthene	83-32-9	0.119 U	0.119	0.339	mg/kg dry
Acenaphthylene	208-96-8	0.115 U	0.115	0.339	mg/kg dry
Anthracene	120-12-7	0.149 U	0.149	0.339	mg/kg dry
Benzidine	92-87-5	0.084 U	0.084	0.339	mg/kg dry
Benzo(a)anthracene	56-55-3	0.159 U	0.159	0.339	mg/kg dry
Benzo(a)pyrene	50-32-8	0.119 U	0.119	0.339	mg/kg dry
Benzo(b)fluoranthene	205-99-2	0.112 U	0.112	0.339	mg/kg dry
Benzo(g,h,i)perylene	191-24-2	0.142 U	0.142	0.339	mg/kg dry



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**ANALYTICAL REPORT**

Sample ID: MPT-SS-WW-C  
 Lab #: B702054-06  
 Prep. Method: EPA 5030B\_MS  
 Analyzed: 03/16/07 By: kdm  
 Anal. Method: EPA 8260B  
 Anal. Batch: AA00603  
 QC Batch: 7C16017

Project: NAS Mayport Pier 136  
 Work Order #: B702054  
 Matrix: Soil  
 Unit: mg/kg dry  
 Dilution Factor: 1  
 Percent Solids: 97.35

**Volatile Organic Compounds by GCMS**

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
Carbon Tetrachloride	56-23-5	0.0005 U	0.0005	0.0010	mg/kg dry
Chlorobenzene	108-90-7	0.0005 U	0.0005	0.0010	mg/kg dry
Chloroethane	75-00-3	0.0010 U	0.0010	0.0010	mg/kg dry
Chloroform	67-66-3	0.0005 U	0.0005	0.0010	mg/kg dry
Chloromethane	74-87-3	0.0006 U	0.0006	0.0010	mg/kg dry
cis-1,2-Dichloroethene	156-59-2	0.0008 U	0.0008	0.0010	mg/kg dry
cis-1,3-Dichloropropene	10061-01-5	0.0005 U	0.0005	0.0010	mg/kg dry
Dibromochloromethane	124-48-1	0.0006 U	0.0006	0.0010	mg/kg dry
Dibromomethane	74-95-3	0.0008 U	0.0008	0.0010	mg/kg dry
Dichlorodifluoromethane	75-71-8	0.0006 U	0.0006	0.0010	mg/kg dry
Ethylbenzene	100-41-4	0.0007 U	0.0007	0.0010	mg/kg dry
Hexachlorobutadiene	87-68-3	0.0006 U	0.0006	0.0010	mg/kg dry
Isopropylbenzene	98-82-8	0.0005 U	0.0005	0.0010	mg/kg dry
m,p-Xylenes	108-38-3/106-42-3	0.0008 U	0.0008	0.0010	mg/kg dry
Methylene Chloride	75-09-2	0.0004 U	0.0004	0.0051	mg/kg dry
Methyl-tert-Butyl Ether	1634-04-4	0.0008 U	0.0008	0.0010	mg/kg dry
Naphthalene	91-20-3	0.0003 U	0.0003	0.0010	mg/kg dry
n-Butyl Benzene	104-51-8	0.0004 U	0.0004	0.0010	mg/kg dry
n-Propyl Benzene	103-65-1	0.0003 U	0.0003	0.0010	mg/kg dry
o-Xylene	95-47-6	0.0005 U	0.0005	0.0010	mg/kg dry
sec-Butylbenzene	135-98-8	0.0004 U	0.0004	0.0010	mg/kg dry
Styrene	100-42-5	0.0004 U	0.0004	0.0010	mg/kg dry
tert-Butylbenzene	98-06-6	0.0004 U	0.0004	0.0010	mg/kg dry
Tetrachloroethene	127-18-4	0.0005 U	0.0005	0.0010	mg/kg dry
Toluene	108-88-3	0.0005 U	0.0005	0.0010	mg/kg dry
trans-1,2-Dichloroethene	156-60-5	0.0009 U	0.0009	0.0010	mg/kg dry
trans-1,3-Dichloropropene	10061-02-6	0.0004 U	0.0004	0.0010	mg/kg dry
Trichloroethene	79-01-6	0.0004 U	0.0004	0.0010	mg/kg dry
Trichlorofluoromethane	75-69-4	0.0005 U	0.0005	0.0010	mg/kg dry
Vinyl chloride	75-01-4	0.0006 U	0.0006	0.0010	mg/kg dry

Surrogate Recovery	Result	Spike Level	% Recovery	% Recovery Limits
4-Bromofluorobenzene	46	50.0	92 %	58-133
Dibromofluoromethane	51	50.0	103 %	63-135
Toluene-d8	51	50.0	102 %	71-126



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### ANALYTICAL REPORT

Sample ID: MPT-SS-WW-C  
Lab #: B702054-06  
Prep. Method: EPA 5030B\_MS  
Analyzed: 03/16/07 By: kdm  
Anal. Method: EPA 8260B  
Anal. Batch: AA00603  
QC Batch: 7C16017

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Unit: mg/kg dry  
Dilution Factor: 1  
Percent Solids: 97.35

#### Volatile Organic Compounds by GCMS

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
1,1,1,2-Tetrachloroethane	630-20-6	0.0004 U	0.0004	0.0010	mg/kg dry
1,1,1-Trichloroethane	71-55-6	0.0005 U	0.0005	0.0010	mg/kg dry
1,1,2,2-Tetrachloroethane	79-34-5	0.0007 U	0.0007	0.0010	mg/kg dry
1,1,2-Trichloroethane	79-00-5	0.0006 U	0.0006	0.0010	mg/kg dry
1,1-Dichloroethane	75-34-3	0.0004 U	0.0004	0.0010	mg/kg dry
1,1-Dichloroethene	75-35-4	0.0008 U	0.0008	0.0010	mg/kg dry
1,1-Dichloropropene	563-58-6	0.0005 U	0.0005	0.0010	mg/kg dry
1,2,3-Trichlorobenzene	87-61-6	0.0006 U	0.0006	0.0010	mg/kg dry
1,2,3-Trichloropropane	96-18-4	0.0008 U	0.0008	0.0010	mg/kg dry
1,2,4-Trichlorobenzene	120-82-1	0.0006 U	0.0006	0.0010	mg/kg dry
1,2,4-Trimethylbenzene	95-63-6	0.0004 U	0.0004	0.0010	mg/kg dry
1,2-Dibromo-3-chloropropane	96-12-8	0.0008 U	0.0008	0.0010	mg/kg dry
1,2-Dibromoethane	106-93-4	0.0006 U	0.0006	0.0010	mg/kg dry
1,2-Dichlorobenzene	95-50-1	0.0006 U	0.0006	0.0010	mg/kg dry
1,2-Dichloroethane	107-06-2	0.0005 U	0.0005	0.0010	mg/kg dry
1,2-Dichloropropane	78-87-5	0.0007 U	0.0007	0.0010	mg/kg dry
1,3,5-Trimethylbenzene	108-67-8	0.0003 U	0.0003	0.0010	mg/kg dry
1,3-Dichlorobenzene	541-73-1	0.0005 U	0.0005	0.0010	mg/kg dry
1,3-Dichloropropane	142-28-9	0.0003 U	0.0003	0.0010	mg/kg dry
1,4-Dichlorobenzene	106-46-7	0.0004 U	0.0004	0.0010	mg/kg dry
2,2-Dichloropropane	594-20-7	0.0007 U	0.0007	0.0010	mg/kg dry
2-Butanone	78-93-3	0.0021 U	0.0021	0.0051	mg/kg dry
2-Chloroethyl Vinyl Ether	110-75-8	0.0010 U	0.0010	0.0051	mg/kg dry
2-Chlorotoluene	95-49-8	0.0004 U	0.0004	0.0010	mg/kg dry
2-Hexanone	591-78-6	0.0009 U	0.0009	0.0010	mg/kg dry
4-Chlorotoluene	106-43-4	0.0005 U	0.0005	0.0010	mg/kg dry
4-Isopropyltoluene	99-87-6	0.0004 U	0.0004	0.0010	mg/kg dry
4-Methyl-2-pentanone	108-10-1	0.0021 U	0.0021	0.0051	mg/kg dry
Acetone	67-64-1	<b>0.017</b>	0.0010	0.0051	mg/kg dry
Benzene	71-43-2	0.0006 U	0.0006	0.0010	mg/kg dry
Bromobenzene	108-86-1	0.0005 U	0.0005	0.0010	mg/kg dry
Bromochloromethane	74-97-5	0.0006 U	0.0006	0.0010	mg/kg dry
Bromodichloromethane	75-27-4	0.0004 U	0.0004	0.0010	mg/kg dry
Bromoform	75-25-2	0.0006 U	0.0006	0.0010	mg/kg dry
Bromomethane	74-83-9	0.0009 U	0.0009	0.0010	mg/kg dry
Carbon disulfide	75-15-0	0.0009 U	0.0009	0.0010	mg/kg dry



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### ANALYTICAL REPORT

Sample ID: MPT-SS-WW-C  
Lab #: B702054-06  
Prep. Method: EPA 3545\_MS  
Analyzed: 03/18/07 By: jj  
Anal. Method: EPA 8270C  
Anal. Batch: BA00441  
QC Batch: 7C14020

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Unit: mg/kg dry  
Dilution Factor: 1  
Percent Solids: 97.35

#### Semivolatile Organic Compounds by GCMS

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
<b>Surrogate Recovery</b>		<b>Result</b>	<b>Spike Level</b>	<b>% Recovery</b>	<b>% Recovery Limits</b>
2-Fluorobiphenyl	321-60-8	1.04	1.71	61 %	42-111
2-Fluorophenol	367-12-4	1.90	3.42	56 %	29-130
Nitrobenzene-d5	NA	0.780	1.71	46 %	35-112
Phenol-d5	NA	1.78	3.42	52 %	20-120
Terphenyl-d14	NA	1.70	1.71	99 %	40-124



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### ANALYTICAL REPORT

Sample ID: MPT-SS-WW-C  
Lab #: B702054-06  
Prep. Method: EPA 3545  
Analyzed: 03/17/07 By: PL  
Anal. Method: FLPRO  
Anal. Batch: BA00435  
QC Batch: 7C13032

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Unit: mg/kg dry  
Dilution Factor: 5  
Percent Solids: 97.35

#### **FL Petroleum Range Organics**

<b>Parameter</b>	<b>CAS Number</b>	<b>Analytical Results</b>	<b>MDL</b>	<b>MRL</b>	<b>Units</b>
TPH (C8-C40)	NA	28.8 U, D	28.8	33.9	mg/kg dry
<b>Surrogate Recovery</b>		<b>Result</b>	<b>Spike Level</b>	<b>% Recovery</b>	<b>% Recovery Limits</b>
n-Nonatriacontane	7194-86-7	1.99	1.71	116 %	29-145
o-Terphenyl	84-15-1	2.66	3.42	78 %	36-140



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### ANALYTICAL REPORT

Sample ID: MPT-SS-WW-C  
Lab #: B702054-06

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Percent Solids: 97.35

#### Metals by EPA 6000/7000 Series Methods

Parameter	CAS Number	Analytical Results	MDL	MRL	Units	Analysis Method	Prep Method	Analytical Batch
Arsenic	7440-38-2	0.2 U	0.2	0.5	mg/kg dry	EPA 6010B	EPA 3050B	7C15002
Cadmium	7440-43-9	0.07	0.03	0.05	mg/kg dry	EPA 6010B	EPA 3050B	7C15002
Chromium	7440-47-3	4.0	0.2	0.5	mg/kg dry	EPA 6010B	EPA 3050B	7C15002
Lead	7439-92-1	0.8	0.1	0.5	mg/kg dry	EPA 6010B	EPA 3050B	7C15002



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### ANALYTICAL REPORT

Sample ID: MPT-SS-WW-C  
Lab #: B702054-06  
Prep. Method: EPA 3545  
Analyzed: 03/16/07 By: GGM  
Anal. Method: EPA 8082  
Anal. Batch:  
QC Batch: 7C13033

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Unit: mg/kg dry  
Dilution Factor: 1  
Percent Solids: 97.35

#### **Polychlorinated Biphenyls by GC**

<b>Parameter</b>	<b>CAS Number</b>	<b>Analytical Results</b>	<b>MDL</b>	<b>MRL</b>	<b>Units</b>
PCB-1016/1242 [2C]	12674-11-2/53469-21-	0.014 U	0.014	0.034	mg/kg dry
PCB-1221 [2C]	11104-28-2	0.018 U	0.018	0.034	mg/kg dry
PCB-1232 [2C]	11141-16-5	0.020 U	0.020	0.034	mg/kg dry
PCB-1248 [2C]	12672-29-6	0.010 U	0.010	0.034	mg/kg dry
PCB-1254 [2C]	11097-69-1	0.009 U	0.009	0.034	mg/kg dry
PCB-1254-1 [2C]		0.0 U			mg/kg dry
PCB-1260 [2C]	11096-82-5	0.013 U	0.013	0.034	mg/kg dry

<b>Surrogate Recovery</b>		<b>Result</b>	<b>Spike Level</b>	<b>% Recovery</b>	<b>% Recovery Limits</b>
2,4,5,6-TCMX [2C]	877-09-8	0.0397	0.0342	116 %	0-200
DBC [2C]	NA	0.0387	0.0342	113 %	0-200



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**ANALYTICAL REPORT**

Sample ID: MPT-SS-SVP-C  
 Lab #: B702054-07  
 Prep. Method: EPA 5030B\_MS  
 Analyzed: 03/16/07 By: kdm  
 Anal. Method: EPA 8260B  
 Anal. Batch: AA00603  
 QC Batch: 7C16017

Project: NAS Mayport Pier 136  
 Work Order #: B702054  
 Matrix: Soil  
 Unit: mg/kg dry  
 Dilution Factor: 1  
 Percent Solids: 95.49

**Volatile Organic Compounds by GCMS**

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
Carbon Tetrachloride	56-23-5	0.0005 U	0.0005	0.0010	mg/kg dry
Chlorobenzene	108-90-7	0.0005 U	0.0005	0.0010	mg/kg dry
Chloroethane	75-00-3	0.0010 U	0.0010	0.0010	mg/kg dry
Chloroform	67-66-3	0.0005 U	0.0005	0.0010	mg/kg dry
Chloromethane	74-87-3	0.0006 U	0.0006	0.0010	mg/kg dry
cis-1,2-Dichloroethene	156-59-2	0.0008 U	0.0008	0.0010	mg/kg dry
cis-1,3-Dichloropropene	10061-01-5	0.0005 U	0.0005	0.0010	mg/kg dry
Dibromochloromethane	124-48-1	0.0006 U	0.0006	0.0010	mg/kg dry
Dibromomethane	74-95-3	0.0008 U	0.0008	0.0010	mg/kg dry
Dichlorodifluoromethane	75-71-8	0.0006 U	0.0006	0.0010	mg/kg dry
Ethylbenzene	100-41-4	0.0007 U	0.0007	0.0010	mg/kg dry
Hexachlorobutadiene	87-68-3	0.0006 U	0.0006	0.0010	mg/kg dry
Isopropylbenzene	98-82-8	0.0005 U	0.0005	0.0010	mg/kg dry
m,p-Xylenes	108-38-3/106-42-3	0.0008 U	0.0008	0.0010	mg/kg dry
Methylene Chloride	75-09-2	0.0004 U	0.0004	0.0052	mg/kg dry
Methyl-tert-Butyl Ether	1634-04-4	0.0008 U	0.0008	0.0010	mg/kg dry
Naphthalene	91-20-3	0.0003 U	0.0003	0.0010	mg/kg dry
n-Butyl Benzene	104-51-8	0.0004 U	0.0004	0.0010	mg/kg dry
n-Propyl Benzene	103-65-1	0.0003 U	0.0003	0.0010	mg/kg dry
o-Xylene	95-47-6	0.0005 U	0.0005	0.0010	mg/kg dry
sec-Butylbenzene	135-98-8	0.0004 U	0.0004	0.0010	mg/kg dry
Styrene	100-42-5	0.0004 U	0.0004	0.0010	mg/kg dry
tert-Butylbenzene	98-06-6	0.0004 U	0.0004	0.0010	mg/kg dry
Tetrachloroethene	127-18-4	0.0005 U	0.0005	0.0010	mg/kg dry
Toluene	108-88-3	0.0005 U	0.0005	0.0010	mg/kg dry
trans-1,2-Dichloroethene	156-60-5	0.0009 U	0.0009	0.0010	mg/kg dry
trans-1,3-Dichloropropene	10061-02-6	0.0004 U	0.0004	0.0010	mg/kg dry
Trichloroethene	79-01-6	0.0004 U	0.0004	0.0010	mg/kg dry
Trichlorofluoromethane	75-69-4	0.0005 U	0.0005	0.0010	mg/kg dry
Vinyl chloride	75-01-4	0.0006 U	0.0006	0.0010	mg/kg dry

Surrogate Recovery		Result	Spike Level	% Recovery	% Recovery Limits
4-Bromofluorobenzene	460-00-4	46	50.0	91 %	58-133
Dibromofluoromethane	1868-53-7	52	50.0	104 %	63-135
Toluene-d8	2037-26-5	50	50.0	100 %	71-126

**ANALYTICAL REPORT**

Sample ID: MPT-SS-SVP-C  
Lab #: B702054-07  
Prep. Method: EPA 3545\_MS  
Analyzed: 03/18/07 By: jj  
Anal. Method: EPA 8270C  
Anal. Batch: BA00441  
QC Batch: 7C14020

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Unit: mg/kg dry  
Dilution Factor: 1  
Percent Solids: 95.49

**Semivolatile Organic Compounds by GCMS**

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
1,2,4-Trichlorobenzene	120-82-1	0.131 U	0.131	0.346	mg/kg dry
1,2-Dichlorobenzene	95-50-1	0.114 U	0.114	0.346	mg/kg dry
1,3-Dichlorobenzene	541-73-1	0.114 U	0.114	0.346	mg/kg dry
1,4-Dichlorobenzene	106-46-7	0.125 U	0.125	0.346	mg/kg dry
1-Methylnaphthalene	90-12-0	0.141 U	0.141	0.346	mg/kg dry
2,4,5-Trichlorophenol	95-95-4	0.152 U	0.152	0.346	mg/kg dry
2,4,6-Trichlorophenol	88-06-2	0.131 U	0.131	0.346	mg/kg dry
2,4-Dichlorophenol	120-83-2	0.131 U	0.131	0.346	mg/kg dry
2,4-Dimethylphenol	105-67-9	0.121 U	0.121	0.346	mg/kg dry
2,4-Dinitrophenol	51-28-5	0.252 U	0.252	0.346	mg/kg dry
2,4-Dinitrotoluene	121-14-2	0.146 U	0.146	0.346	mg/kg dry
2,6-Dinitrotoluene	606-20-2	0.146 U	0.146	0.346	mg/kg dry
2-Chloronaphthalene	91-58-7	0.131 U	0.131	0.346	mg/kg dry
2-Chlorophenol	95-57-8	0.117 U	0.117	0.346	mg/kg dry
2-Methyl-4,6-dinitrophenol	534-52-1	0.114 U	0.114	0.346	mg/kg dry
2-Methylnaphthalene	91-57-6	0.135 U	0.135	0.346	mg/kg dry
2-Methylphenol	95-48-7	0.125 U	0.125	0.346	mg/kg dry
2-Nitroaniline	88-74-4	0.121 U	0.121	0.346	mg/kg dry
2-Nitrophenol	88-75-5	0.114 U	0.114	0.346	mg/kg dry
3 & 4-Methylphenol	106-44-5	0.131 U	0.131	0.346	mg/kg dry
3,3'-Dichlorobenzidine	91-94-1	0.112 U	0.112	0.346	mg/kg dry
3-Nitroaniline	99-09-2	0.125 U	0.125	0.346	mg/kg dry
4-Bromophenyl-phenylether	101-55-3	0.135 U	0.135	0.346	mg/kg dry
4-Chloro-3-methylphenol	59-50-7	0.138 U	0.138	0.346	mg/kg dry
4-Chloroaniline	106-47-8	0.104 U	0.104	0.346	mg/kg dry
4-Chlorophenyl-phenylether	7005-72-3	0.146 U	0.146	0.346	mg/kg dry
4-Nitroaniline	100-01-6	0.146 U	0.146	0.346	mg/kg dry
4-Nitrophenol	100-02-7	0.155 U	0.155	0.346	mg/kg dry
Acenaphthene	83-32-9	0.121 U	0.121	0.346	mg/kg dry
Acenaphthylene	208-96-8	0.117 U	0.117	0.346	mg/kg dry
Anthracene	120-12-7	0.152 U	0.152	0.346	mg/kg dry
Benzidine	92-87-5	0.086 U	0.086	0.346	mg/kg dry
Benzo(a)anthracene	56-55-3	0.162 U	0.162	0.346	mg/kg dry
Benzo(a)pyrene	50-32-8	0.121 U	0.121	0.346	mg/kg dry
Benzo(b)fluoranthene	205-99-2	0.114 U	0.114	0.346	mg/kg dry
Benzo(g,h,i)perylene	191-24-2	0.145 U	0.145	0.346	mg/kg dry



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**ANALYTICAL REPORT**

Sample ID: MPT-SS-SVP-C  
 Lab #: B702054-07  
 Prep. Method: EPA 3545\_MS  
 Analyzed: 03/18/07 By: jj  
 Anal. Method: EPA 8270C  
 Anal. Batch: BA00441  
 QC Batch: 7C14020

Project: NAS Mayport Pier 136  
 Work Order #: B702054  
 Matrix: Soil  
 Unit: mg/kg dry  
 Dilution Factor: 1  
 Percent Solids: 95.49

**Semivolatile Organic Compounds by GCMS**

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
Benzo(k)fluoranthene	207-08-9	0.138 U	0.138	0.346	mg/kg dry
Benzoic acid	65-85-0	0.032 U	0.032	0.346	mg/kg dry
Benzyl alcohol	100-51-6	0.121 U	0.121	0.346	mg/kg dry
Bis(2-chloroethoxy)methane	111-91-1	0.107 U	0.107	0.346	mg/kg dry
Bis(2-chloroethyl)ether	111-44-4	0.104 U	0.104	0.346	mg/kg dry
Bis(2-chloroisopropyl)ether	39638-32-9	0.107 U	0.107	0.346	mg/kg dry
Bis(2-ethylhexyl)phthalate	117-81-7	0.211 U	0.211	0.346	mg/kg dry
Butylbenzylphthalate	85-68-7	0.131 U	0.131	0.346	mg/kg dry
Chrysene	218-01-9	0.141 U	0.141	0.346	mg/kg dry
Dibenzo(a,h)anthracene	53-70-3	0.200 U	0.200	0.346	mg/kg dry
Dibenzofuran	132-64-9	0.141 U	0.141	0.346	mg/kg dry
Diethylphthalate	84-66-2	0.128 U	0.128	0.346	mg/kg dry
Dimethylphthalate	131-11-3	0.117 U	0.117	0.346	mg/kg dry
Di-n-butylphthalate	84-74-2	0.152 U	0.152	0.346	mg/kg dry
Di-n-octylphthalate	117-84-0	0.173 U	0.173	0.346	mg/kg dry
Fluoranthene	206-44-0	0.146 U	0.146	0.346	mg/kg dry
Fluorene	86-73-7	0.141 U	0.141	0.346	mg/kg dry
Hexachlorobenzene	118-74-1	0.131 U	0.131	0.346	mg/kg dry
Hexachlorobutadiene	87-68-3	0.131 U	0.131	0.346	mg/kg dry
Hexachlorocyclopentadiene	77-47-4	0.069 U	0.069	0.346	mg/kg dry
Hexachloroethane	67-72-1	0.104 U	0.104	0.346	mg/kg dry
Indeno(1,2,3-cd)pyrene	193-39-5	0.197 U	0.197	0.346	mg/kg dry
Isophorone	78-59-1	0.066 U	0.066	0.346	mg/kg dry
Naphthalene	91-20-3	0.141 U	0.141	0.346	mg/kg dry
Nitrobenzene	98-95-3	0.125 U	0.125	0.346	mg/kg dry
N-Nitrosodimethylamine	62-75-9	0.146 U	0.146	0.346	mg/kg dry
N-Nitroso-di-n-propylamine	621-64-7	0.090 U	0.090	0.346	mg/kg dry
N-Nitrosodiphenylamine	86-30-6	0.155 U	0.155	0.346	mg/kg dry
Pentachlorophenol	87-86-5	0.197 U	0.197	0.346	mg/kg dry
Phenanthrene	85-01-8	0.146 U	0.146	0.346	mg/kg dry
Phenol	108-95-2	0.131 U	0.131	0.346	mg/kg dry
Pyrene	129-00-0	0.152 U	0.152	0.346	mg/kg dry
Pyridine	110-86-1	0.165 U	0.165	0.346	mg/kg dry

Surrogate Recovery	Result	Spike Level	% Recovery	% Recovery Limits
2,4,6-Tribromophenol	118-79-6	4.37	3.49	125 % 35-126

**ANALYTICAL REPORT**

Sample ID: MPT-SS-SVP-C  
 Lab #: B702054-07  
 Prep. Method: EPA 3545\_MS  
 Analyzed: 03/18/07 By: jj  
 Anal. Method: EPA 8270C  
 Anal. Batch: BA00441  
 QC Batch: 7C14020

Project: NAS Mayport Pier 136  
 Work Order #: B702054  
 Matrix: Soil  
 Unit: mg/kg dry  
 Dilution Factor: 1  
 Percent Solids: 95.49

**Semivolatile Organic Compounds by GCMS**

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
<b>Surrogate Recovery</b>		<b>Result</b>	<b>Spike Level</b>	<b>% Recovery</b>	<b>% Recovery Limits</b>
2-Fluorobiphenyl	321-60-8	1.56	1.75	89 %	42-111
2-Fluorophenol	367-12-4	3.04	3.49	87 %	29-130
Nitrobenzene-d5	NA	1.23	1.75	70 %	35-112
Phenol-d5	NA	2.79	3.49	80 %	20-120
Terphenyl-d14	NA	1.78	1.75	102 %	40-124



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### ANALYTICAL REPORT

Sample ID: MPT-SS-SVP-C  
Lab #: B702054-07  
Prep. Method: EPA 3545  
Analyzed: 03/15/07 By: GGM  
Anal. Method: EPA 8082  
Anal. Batch:  
QC Batch: 7C13033

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Unit: mg/kg dry  
Dilution Factor: 1  
Percent Solids: 95.49

#### **Polychlorinated Biphenyls by GC**

<b>Parameter</b>	<b>CAS Number</b>	<b>Analytical Results</b>	<b>MDL</b>	<b>MRL</b>	<b>Units</b>
PCB-1016/1242 [2C]	12674-11-2/53469-21-	0.015 U	0.015	0.035	mg/kg dry
PCB-1232 [2C]	11141-16-5	0.020 U	0.020	0.035	mg/kg dry
PCB-1248 [2C]	12672-29-6	0.010 U	0.010	0.035	mg/kg dry
PCB-1254 [2C]	11097-69-1	0.010 U	0.010	0.035	mg/kg dry
PCB-1260 [2C]	11096-82-5	0.014 U	0.014	0.035	mg/kg dry

<b>Surrogate Recovery</b>		<b>Result</b>	<b>Spike Level</b>	<b>% Recovery</b>	<b>% Recovery Limits</b>
2,4,5,6-TCMX [2C]	877-09-8	0.0394	0.0349	113 %	0-200
DBC [2C]	NA	0.0408	0.0349	117 %	0-200



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### ANALYTICAL REPORT

Sample ID: MPT-SS-SVP-C  
Lab #: B702054-07  
Prep. Method: EPA 5030B\_MS  
Analyzed: 03/16/07 By: kdm  
Anal. Method: EPA 8260B  
Anal. Batch: AA00603  
QC Batch: 7C16017

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Unit: mg/kg dry  
Dilution Factor: 1  
Percent Solids: 95.49

#### Volatile Organic Compounds by GCMS

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
1,1,1,2-Tetrachloroethane	630-20-6	0.0004 U	0.0004	0.0010	mg/kg dry
1,1,1-Trichloroethane	71-55-6	0.0005 U	0.0005	0.0010	mg/kg dry
1,1,2,2-Tetrachloroethane	79-34-5	0.0007 U	0.0007	0.0010	mg/kg dry
1,1,2-Trichloroethane	79-00-5	0.0006 U	0.0006	0.0010	mg/kg dry
1,1-Dichloroethane	75-34-3	0.0004 U	0.0004	0.0010	mg/kg dry
1,1-Dichloroethene	75-35-4	0.0008 U	0.0008	0.0010	mg/kg dry
1,1-Dichloropropene	563-58-6	0.0005 U	0.0005	0.0010	mg/kg dry
1,2,3-Trichlorobenzene	87-61-6	0.0006 U	0.0006	0.0010	mg/kg dry
1,2,3-Trichloropropane	96-18-4	0.0008 U	0.0008	0.0010	mg/kg dry
1,2,4-Trichlorobenzene	120-82-1	0.0006 U	0.0006	0.0010	mg/kg dry
1,2,4-Trimethylbenzene	95-63-6	0.0004 U	0.0004	0.0010	mg/kg dry
1,2-Dibromo-3-chloropropane	96-12-8	0.0008 U	0.0008	0.0010	mg/kg dry
1,2-Dibromoethane	106-93-4	0.0006 U	0.0006	0.0010	mg/kg dry
1,2-Dichlorobenzene	95-50-1	0.0006 U	0.0006	0.0010	mg/kg dry
1,2-Dichloroethane	107-06-2	0.0005 U	0.0005	0.0010	mg/kg dry
1,2-Dichloropropane	78-87-5	0.0007 U	0.0007	0.0010	mg/kg dry
1,3,5-Trimethylbenzene	108-67-8	0.0003 U	0.0003	0.0010	mg/kg dry
1,3-Dichlorobenzene	541-73-1	0.0005 U	0.0005	0.0010	mg/kg dry
1,3-Dichloropropane	142-28-9	0.0003 U	0.0003	0.0010	mg/kg dry
1,4-Dichlorobenzene	106-46-7	0.0004 U	0.0004	0.0010	mg/kg dry
2,2-Dichloropropane	594-20-7	0.0007 U	0.0007	0.0010	mg/kg dry
2-Butanone	78-93-3	0.0021 U	0.0021	0.0052	mg/kg dry
2-Chloroethyl Vinyl Ether	110-75-8	0.0010 U	0.0010	0.0052	mg/kg dry
2-Chlorotoluene	95-49-8	0.0004 U	0.0004	0.0010	mg/kg dry
2-Hexanone	591-78-6	0.0009 U	0.0009	0.0010	mg/kg dry
4-Chlorotoluene	106-43-4	0.0005 U	0.0005	0.0010	mg/kg dry
4-Isopropyltoluene	99-87-6	0.0004 U	0.0004	0.0010	mg/kg dry
4-Methyl-2-pentanone	108-10-1	0.0021 U	0.0021	0.0052	mg/kg dry
Acetone	67-64-1	0.015	0.0010	0.0052	mg/kg dry
Benzene	71-43-2	0.0006 U	0.0006	0.0010	mg/kg dry
Bromobenzene	108-86-1	0.0005 U	0.0005	0.0010	mg/kg dry
Bromochloromethane	74-97-5	0.0006 U	0.0006	0.0010	mg/kg dry
Bromodichloromethane	75-27-4	0.0004 U	0.0004	0.0010	mg/kg dry
Bromoform	75-25-2	0.0006 U	0.0006	0.0010	mg/kg dry
Bromomethane	74-83-9	0.0009 U	0.0009	0.0010	mg/kg dry
Carbon disulfide	75-15-0	0.0010 I	0.0009	0.0010	mg/kg dry



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### ANALYTICAL REPORT

Sample ID: MPT-SS-SVP-C  
Lab #: B702054-07

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Percent Solids: 95.49

#### Metals by EPA 6000/7000 Series Methods

Parameter	CAS Number	Analytical Results	MDL	MRL	Units	Analysis Method	Prep Method	Analytical Batch
Cadmium	7440-43-9	0.06	0.03	0.05	mg/kg dry	EPA 6010B	EPA 3050B	7C15002
Chromium	7440-47-3	2.6	0.2	0.5	mg/kg dry	EPA 6010B	EPA 3050B	7C15002
Lead	7439-92-1	2.2	0.1	0.5	mg/kg dry	EPA 6010B	EPA 3050B	7C15002



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### ANALYTICAL REPORT

Sample ID: MPT-SS-SVP-C  
Lab #: B702054-07RE1  
Prep. Method: EPA 3545  
Analyzed: 03/19/07 By: PL  
Anal. Method: FLPRO  
Anal. Batch: BA00443  
QC Batch: 7C19009

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Unit: mg/kg dry  
Dilution Factor: 1  
Percent Solids: 95.49

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#### FL Petroleum Range Organics

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
TPH (C8-C40)	NA	5.86 U	5.86	6.91	mg/kg dry
<b>Surrogate Recovery</b>					
n-Nonatriacontane	7194-86-7	1.74	1.75	100 %	29-145
o-Terphenyl	84-15-1	3.12	3.49	89 %	36-140



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### ANALYTICAL REPORT

Sample ID: MPT-SS-SVP-C  
Lab #: B702054-07RE1

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Percent Solids: 95.49

#### Metals by EPA 6000/7000 Series Methods

<u>Parameter</u>	<u>CAS Number</u>	<u>Analytical Results</u>	<u>MDL</u>	<u>MRL</u>	<u>Units</u>	<u>Analysis Method</u>	<u>Prep Method</u>	<u>Analytical Batch</u>
Arsenic	7440-38-2	1.0 U, D	1.0	2.6	mg/kg dry	EPA 6010B	EPA 3050B	7C15002



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### ANALYTICAL REPORT

Sample ID: MPT-SS-NVP-C  
Lab #: B702054-08  
Prep. Method: EPA 3545\_MS  
Analyzed: 03/18/07 By: jj  
Anal. Method: EPA 8270C  
Anal. Batch: BA00441  
QC Batch: 7C14020

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Unit: mg/kg dry  
Dilution Factor: 1  
Percent Solids: 97.23

#### Semivolatile Organic Compounds by GCMS

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
1,2,4-Trichlorobenzene	120-82-1	0.129 U	0.129	0.339	mg/kg dry
1,2-Dichlorobenzene	95-50-1	0.112 U	0.112	0.339	mg/kg dry
1,3-Dichlorobenzene	541-73-1	0.112 U	0.112	0.339	mg/kg dry
1,4-Dichlorobenzene	106-46-7	0.122 U	0.122	0.339	mg/kg dry
1-Methylnaphthalene	90-12-0	0.139 U	0.139	0.339	mg/kg dry
2,4,5-Trichlorophenol	95-95-4	0.149 U	0.149	0.339	mg/kg dry
2,4,6-Trichlorophenol	88-06-2	0.129 U	0.129	0.339	mg/kg dry
2,4-Dichlorophenol	120-83-2	0.129 U	0.129	0.339	mg/kg dry
2,4-Dimethylphenol	105-67-9	0.119 U	0.119	0.339	mg/kg dry
2,4-Dinitrophenol	51-28-5	0.248 U	0.248	0.339	mg/kg dry
2,4-Dinitrotoluene	121-14-2	0.143 U	0.143	0.339	mg/kg dry
2,6-Dinitrotoluene	606-20-2	0.143 U	0.143	0.339	mg/kg dry
2-Chloronaphthalene	91-58-7	0.129 U	0.129	0.339	mg/kg dry
2-Chlorophenol	95-57-8	0.115 U	0.115	0.339	mg/kg dry
2-Methyl-4,6-dinitrophenol	534-52-1	0.112 U	0.112	0.339	mg/kg dry
2-Methylnaphthalene	91-57-6	0.133 U	0.133	0.339	mg/kg dry
2-Methylphenol	95-48-7	0.122 U	0.122	0.339	mg/kg dry
2-Nitroaniline	88-74-4	0.119 U	0.119	0.339	mg/kg dry
2-Nitrophenol	88-75-5	0.112 U	0.112	0.339	mg/kg dry
3 & 4-Methylphenol	106-44-5	0.129 U	0.129	0.339	mg/kg dry
3,3'-Dichlorobenzidine	91-94-1	0.110 U	0.110	0.339	mg/kg dry
3-Nitroaniline	99-09-2	0.122 U	0.122	0.339	mg/kg dry
4-Bromophenyl-phenylether	101-55-3	0.133 U	0.133	0.339	mg/kg dry
4-Chloro-3-methylphenol	59-50-7	0.136 U	0.136	0.339	mg/kg dry
4-Chloroaniline	106-47-8	0.102 U	0.102	0.339	mg/kg dry
4-Chlorophenyl-phenylether	7005-72-3	0.143 U	0.143	0.339	mg/kg dry
4-Nitroaniline	100-01-6	0.143 U	0.143	0.339	mg/kg dry
4-Nitrophenol	100-02-7	0.152 U	0.152	0.339	mg/kg dry
Acenaphthene	83-32-9	0.119 U	0.119	0.339	mg/kg dry
Acenaphthylene	208-96-8	0.115 U	0.115	0.339	mg/kg dry
Anthracene	120-12-7	0.149 U	0.149	0.339	mg/kg dry
Benzidine	92-87-5	0.084 U	0.084	0.339	mg/kg dry
Benzo(a)anthracene	56-55-3	0.159 U	0.159	0.339	mg/kg dry
Benzo(a)pyrene	50-32-8	0.119 U	0.119	0.339	mg/kg dry
Benzo(b)fluoranthene	205-99-2	0.112 U	0.112	0.339	mg/kg dry
Benzo(g,h,i)perylene	191-24-2	0.142 U	0.142	0.339	mg/kg dry



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### ANALYTICAL REPORT

Sample ID: MPT-SS-NVP-C  
Lab #: B702054-08  
Prep. Method: EPA 3545\_MS  
Analyzed: 03/18/07 By: jj  
Anal. Method: EPA 8270C  
Anal. Batch: BA00441  
QC Batch: 7C14020

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Unit: mg/kg dry  
Dilution Factor: 1  
Percent Solids: 97.23

#### Semivolatile Organic Compounds by GCMS

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
Benzo(k)fluoranthene	207-08-9	0.136 U	0.136	0.339	mg/kg dry
Benzoic acid	65-85-0	0.032 U	0.032	0.339	mg/kg dry
Benzyl alcohol	100-51-6	0.119 U	0.119	0.339	mg/kg dry
Bis(2-chloroethoxy)methane	111-91-1	0.105 U	0.105	0.339	mg/kg dry
Bis(2-chloroethyl)ether	111-44-4	0.102 U	0.102	0.339	mg/kg dry
Bis(2-chloroisopropyl)ether	39638-32-9	0.105 U	0.105	0.339	mg/kg dry
Bis(2-ethylhexyl)phthalate	117-81-7	0.207 U	0.207	0.339	mg/kg dry
Butylbenzylphthalate	85-68-7	0.129 U	0.129	0.339	mg/kg dry
Chrysene	218-01-9	0.139 U	0.139	0.339	mg/kg dry
Dibenzo(a,h)anthracene	53-70-3	0.196 U	0.196	0.339	mg/kg dry
Dibenzofuran	132-64-9	0.139 U	0.139	0.339	mg/kg dry
Diethylphthalate	84-66-2	0.125 U	0.125	0.339	mg/kg dry
Dimethylphthalate	131-11-3	0.115 U	0.115	0.339	mg/kg dry
Di-n-butylphthalate	84-74-2	0.149 U	0.149	0.339	mg/kg dry
Di-n-octylphthalate	117-84-0	0.170 U	0.170	0.339	mg/kg dry
Fluoranthene	206-44-0	0.143 U	0.143	0.339	mg/kg dry
Fluorene	86-73-7	0.139 U	0.139	0.339	mg/kg dry
Hexachlorobenzene	118-74-1	0.129 U	0.129	0.339	mg/kg dry
Hexachlorobutadiene	87-68-3	0.129 U	0.129	0.339	mg/kg dry
Hexachlorocyclopentadiene	77-47-4	0.068 U	0.068	0.339	mg/kg dry
Hexachloroethane	67-72-1	0.102 U	0.102	0.339	mg/kg dry
Indeno(1,2,3-cd)pyrene	193-39-5	0.193 U	0.193	0.339	mg/kg dry
Isophorone	78-59-1	0.065 U	0.065	0.339	mg/kg dry
Naphthalene	91-20-3	0.139 U	0.139	0.339	mg/kg dry
Nitrobenzene	98-95-3	0.122 U	0.122	0.339	mg/kg dry
N-Nitrosodimethylamine	62-75-9	0.143 U	0.143	0.339	mg/kg dry
N-Nitroso-di-n-propylamine	621-64-7	0.088 U	0.088	0.339	mg/kg dry
N-Nitrosodiphenylamine	86-30-6	0.152 U	0.152	0.339	mg/kg dry
Pentachlorophenol	87-86-5	0.193 U	0.193	0.339	mg/kg dry
Phenanthrene	85-01-8	0.143 U	0.143	0.339	mg/kg dry
Phenol	108-95-2	0.129 U	0.129	0.339	mg/kg dry
Pyrene	129-00-0	0.149 U	0.149	0.339	mg/kg dry
Pyridine	110-86-1	0.163 U	0.163	0.339	mg/kg dry

Surrogate Recovery	Result	Spike Level	% Recovery	% Recovery Limits	
2,4,6-Tribromophenol	118-79-6	4.22	3.43	123 %	35-126



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### ANALYTICAL REPORT

Sample ID: MPT-SS-NVP-C  
Lab #: B702054-08  
Prep. Method: EPA 3545\_MS  
Analyzed: 03/18/07 By: jj  
Anal. Method: EPA 8270C  
Anal. Batch: BA00441  
QC Batch: 7C14020

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Unit: mg/kg dry  
Dilution Factor: 1  
Percent Solids: 97.23

#### Semivolatile Organic Compounds by GCMS

Parameter	CAS Number	Analytical Results		MDL	MRL	Units
		Result	Spike Level			
<b>Surrogate Recovery</b>						
2-Fluorobiphenyl	321-60-8	1.52	1.71		89 %	42-111
2-Fluorophenol	367-12-4	2.89	3.43		84 %	29-130
Nitrobenzene-d5	NA	1.17	1.71		68 %	35-112
Phenol-d5	NA	2.61	3.43		76 %	20-120
Terphenyl-d14	NA	1.97	1.71		115 %	40-124



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### ANALYTICAL REPORT

Sample ID: MPT-SS-NVP-C  
Lab #: B702054-08  
Prep. Method: EPA 3545  
Analyzed: 03/15/07 By: GGM  
Anal. Method: EPA 8082  
Anal. Batch:  
QC Batch: 7C13033

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Unit: mg/kg dry  
Dilution Factor: 1  
Percent Solids: 97.23

#### **Polychlorinated Biphenyls by GC**

<b>Parameter</b>	<b>CAS Number</b>	<b>Analytical Results</b>	<b>MDL</b>	<b>MRL</b>	<b>Units</b>
PCB-1016/1242 [2C]	12674-11-2/53469-21-	0.014 U	0.014	0.034	mg/kg dry
PCB-1221 [2C]	11104-28-2	0.018 U	0.018	0.034	mg/kg dry
PCB-1232 [2C]	11141-16-5	0.020 U	0.020	0.034	mg/kg dry
PCB-1248 [2C]	12672-29-6	0.010 U	0.010	0.034	mg/kg dry
PCB-1254 [2C]	11097-69-1	0.009 U	0.009	0.034	mg/kg dry
PCB-1260 [2C]	11096-82-5	0.013 U	0.013	0.034	mg/kg dry

<b>Surrogate Recovery</b>		<b>Result</b>	<b>Spike Level</b>	<b>% Recovery</b>	<b>% Recovery Limits</b>
2,4,5,6-TCMX [2C]	877-09-8	0.0381	0.0343	111 %	0-200
DBC [2C]	NA	0.0333	0.0343	97 %	0-200



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### ANALYTICAL REPORT

Sample ID: MPT-SS-NVP-C  
Lab #: B702054-08  
Prep. Method: EPA 3545  
Analyzed: 03/17/07 By: PL  
Anal. Method: FLPRO  
Anal. Batch: BA00435  
QC Batch: 7C13032

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Unit: mg/kg dry  
Dilution Factor: 5  
Percent Solids: 97.23

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#### FL Petroleum Range Organics

Parameter	CAS Number	Analytical Results	MDL	MRL	Units
TPH (C8-C40)	NA	398 D	28.8	33.9	mg/kg dry
Surrogate Recovery		Result	Spike Level	% Recovery	% Recovery Limits
n-Nonatriacontane	7194-86-7	2.07	1.71	121 %	29-145
o-Terphenyl	84-15-1	2.44	3.43	71 %	36-140



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### ANALYTICAL REPORT

Sample ID: MPT-SS-NVP-C  
Lab #: B702054-08

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Percent Solids: 97.23

#### Metals by EPA 6000/7000 Series Methods

Parameter	CAS Number	Analytical Results	MDL	MRL	Units	Analysis Method	Prep Method	Analytical Batch
Arsenic	7440-38-2	0.2 U	0.2	0.5	mg/kg dry	EPA 6010B	EPA 3050B	7C15002
Cadmium	7440-43-9	0.14	0.03	0.05	mg/kg dry	EPA 6010B	EPA 3050B	7C15002
Chromium	7440-47-3	8.3	0.2	0.5	mg/kg dry	EPA 6010B	EPA 3050B	7C15002
Lead	7439-92-1	9.3	0.1	0.5	mg/kg dry	EPA 6010B	EPA 3050B	7C15002



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### ANALYTICAL REPORT

Sample ID: MPT-SS-NVP-C  
Lab #: B702054-08  
Prep. Method: EPA 5030B\_MS  
Analyzed: 03/16/07 By: kdm  
Anal. Method: EPA 8260B  
Anal. Batch: AA00603  
QC Batch: 7C16017

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Unit: mg/kg dry  
Dilution Factor: 1  
Percent Solids: 97.23

#### Volatile Organic Compounds by GCMS

<u>Parameter</u>	<u>CAS Number</u>	<u>Analytical Results</u>	<u>MDL</u>	<u>MRL</u>	<u>Units</u>
1,1,1,2-Tetrachloroethane	630-20-6	0.0004 U	0.0004	0.0010	mg/kg dry
1,1,1-Trichloroethane	71-55-6	0.0005 U	0.0005	0.0010	mg/kg dry
1,1,2,2-Tetrachloroethane	79-34-5	0.0007 U	0.0007	0.0010	mg/kg dry
1,1,2-Trichloroethane	79-00-5	0.0006 U	0.0006	0.0010	mg/kg dry
1,1-Dichloroethane	75-34-3	0.0004 U	0.0004	0.0010	mg/kg dry
1,1-Dichloroethene	75-35-4	0.0008 U	0.0008	0.0010	mg/kg dry
1,1-Dichloropropene	563-58-6	0.0005 U	0.0005	0.0010	mg/kg dry
1,2,3-Trichlorobenzene	87-61-6	0.0006 U	0.0006	0.0010	mg/kg dry
1,2,3-Trichloropropane	96-18-4	0.0008 U	0.0008	0.0010	mg/kg dry
1,2,4-Trichlorobenzene	120-82-1	0.0006 U	0.0006	0.0010	mg/kg dry
1,2,4-Trimethylbenzene	95-63-6	0.0004 U	0.0004	0.0010	mg/kg dry
1,2-Dibromo-3-chloropropane	96-12-8	0.0008 U	0.0008	0.0010	mg/kg dry
1,2-Dibromoethane	106-93-4	0.0006 U	0.0006	0.0010	mg/kg dry
1,2-Dichlorobenzene	95-50-1	0.0006 U	0.0006	0.0010	mg/kg dry
1,2-Dichloroethane	107-06-2	0.0005 U	0.0005	0.0010	mg/kg dry
1,2-Dichloropropane	78-87-5	0.0007 U	0.0007	0.0010	mg/kg dry
1,3,5-Trimethylbenzene	108-67-8	0.0003 U	0.0003	0.0010	mg/kg dry
1,3-Dichlorobenzene	541-73-1	0.0005 U	0.0005	0.0010	mg/kg dry
1,3-Dichloropropane	142-28-9	0.0003 U	0.0003	0.0010	mg/kg dry
1,4-Dichlorobenzene	106-46-7	0.0004 U	0.0004	0.0010	mg/kg dry
2,2-Dichloropropane	594-20-7	0.0007 U	0.0007	0.0010	mg/kg dry
2-Butanone	78-93-3	0.0021 U	0.0021	0.0051	mg/kg dry
2-Chloroethyl Vinyl Ether	110-75-8	0.0010 U	0.0010	0.0051	mg/kg dry
2-Chlorotoluene	95-49-8	0.0004 U	0.0004	0.0010	mg/kg dry
2-Hexanone	591-78-6	0.0009 U	0.0009	0.0010	mg/kg dry
4-Chlorotoluene	106-43-4	0.0005 U	0.0005	0.0010	mg/kg dry
4-Isopropyltoluene	99-87-6	0.0004 U	0.0004	0.0010	mg/kg dry
4-Methyl-2-pentanone	108-10-1	0.0021 U	0.0021	0.0051	mg/kg dry
Acetone	67-64-1	<b>0.0093</b>	0.0010	0.0051	mg/kg dry
Benzene	71-43-2	0.0006 U	0.0006	0.0010	mg/kg dry
Bromobenzene	108-86-1	0.0005 U	0.0005	0.0010	mg/kg dry
Bromochloromethane	74-97-5	0.0006 U	0.0006	0.0010	mg/kg dry
Bromodichloromethane	75-27-4	0.0004 U	0.0004	0.0010	mg/kg dry
Bromoform	75-25-2	0.0006 U	0.0006	0.0010	mg/kg dry
Bromomethane	74-83-9	0.0009 U	0.0009	0.0010	mg/kg dry
Carbon disulfide	75-15-0	0.0009 U	0.0009	0.0010	mg/kg dry



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### ANALYTICAL REPORT

Sample ID: MPT-SS-NVP-C  
Lab #: B702054-08  
Prep. Method: EPA 5030B\_MS  
Analyzed: 03/16/07 By: kdm  
Anal. Method: EPA 8260B  
Anal. Batch: AA00603  
QC Batch: 7C16017

Project: NAS Mayport Pier 136  
Work Order #: B702054  
Matrix: Soil  
Unit: mg/kg dry  
Dilution Factor: 1  
Percent Solids: 97.23

#### Volatile Organic Compounds by GCMS

<u>Parameter</u>	<u>CAS Number</u>	<u>Analytical Results</u>	<u>MDL</u>	<u>MRL</u>	<u>Units</u>
Carbon Tetrachloride	56-23-5	0.0005 U	0.0005	0.0010	mg/kg dry
Chlorobenzene	108-90-7	0.0005 U	0.0005	0.0010	mg/kg dry
Chloroethane	75-00-3	0.0010 U	0.0010	0.0010	mg/kg dry
Chloroform	67-66-3	0.0005 U	0.0005	0.0010	mg/kg dry
Chloromethane	74-87-3	0.0006 U	0.0006	0.0010	mg/kg dry
cis-1,2-Dichloroethene	156-59-2	0.0008 U	0.0008	0.0010	mg/kg dry
cis-1,3-Dichloropropene	10061-01-5	0.0005 U	0.0005	0.0010	mg/kg dry
Dibromochloromethane	124-48-1	0.0006 U	0.0006	0.0010	mg/kg dry
Dibromomethane	74-95-3	0.0008 U	0.0008	0.0010	mg/kg dry
Dichlorodifluoromethane	75-71-8	0.0006 U	0.0006	0.0010	mg/kg dry
Ethylbenzene	100-41-4	0.0007 U	0.0007	0.0010	mg/kg dry
Hexachlorobutadiene	87-68-3	0.0006 U	0.0006	0.0010	mg/kg dry
Isopropylbenzene	98-82-8	0.0005 U	0.0005	0.0010	mg/kg dry
m,p-Xylenes	108-38-3/106-42-3	0.0008 U	0.0008	0.0010	mg/kg dry
Methylene Chloride	75-09-2	0.0004 U	0.0004	0.0051	mg/kg dry
Methyl-tert-Butyl Ether	1634-04-4	0.0008 U	0.0008	0.0010	mg/kg dry
Naphthalene	91-20-3	0.0003 U	0.0003	0.0010	mg/kg dry
n-Butyl Benzene	104-51-8	0.0004 U	0.0004	0.0010	mg/kg dry
n-Propyl Benzene	103-65-1	0.0003 U	0.0003	0.0010	mg/kg dry
o-Xylene	95-47-6	0.0005 U	0.0005	0.0010	mg/kg dry
sec-Butylbenzene	135-98-8	0.0004 U	0.0004	0.0010	mg/kg dry
Styrene	100-42-5	0.0004 U	0.0004	0.0010	mg/kg dry
tert-Butylbenzene	98-06-6	0.0004 U	0.0004	0.0010	mg/kg dry
Tetrachloroethene	127-18-4	0.0005 U	0.0005	0.0010	mg/kg dry
Toluene	108-88-3	0.0005 U	0.0005	0.0010	mg/kg dry
trans-1,2-Dichloroethene	156-60-5	0.0009 U	0.0009	0.0010	mg/kg dry
trans-1,3-Dichloropropene	10061-02-6	0.0004 U	0.0004	0.0010	mg/kg dry
Trichloroethene	79-01-6	0.0004 U	0.0004	0.0010	mg/kg dry
Trichlorofluoromethane	75-69-4	0.0005 U	0.0005	0.0010	mg/kg dry
Vinyl chloride	75-01-4	0.0006 U	0.0006	0.0010	mg/kg dry

<u>Surrogate Recovery</u>	<u>Result</u>	<u>Spike Level</u>	<u>% Recovery</u>	<u>% Recovery Limits</u>	
4-Bromofluorobenzene	460-00-4	45	50.0	90 %	58-133
Dibromofluoromethane	1868-53-7	54	50.0	109 %	63-135
Toluene-d8	2037-26-5	50	50.0	99 %	71-126



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### QUALITY CONTROL

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Sample Notes
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#### Semivolatile Organic Compounds by GCMS - Quality Control

Batch 7C14020 - EPA 3545\_MS

Blank (7C14020-BLK1)

Prepared: 03/14/2007 15:36 Analyzed: 03/18/2007 14:35

N-Nitrosodimethylamine	0.139 U	0.330	mg/kg wet
Pyridine	0.158 U	0.330	mg/kg wet
Phenol	0.125 U	0.330	mg/kg wet
Bis(2-chloroethyl)ether	0.099 U	0.330	mg/kg wet
2-Chlorophenol	0.112 U	0.330	mg/kg wet
1,3-Dichlorobenzene	0.109 U	0.330	mg/kg wet
1,4-Dichlorobenzene	0.119 U	0.330	mg/kg wet
Benzyl alcohol	0.116 U	0.330	mg/kg wet
1,2-Dichlorobenzene	0.109 U	0.330	mg/kg wet
2-Methylphenol	0.119 U	0.330	mg/kg wet
Bis(2-chloroisopropyl)ether	0.102 U	0.330	mg/kg wet
3 & 4-Methylphenol	0.125 U	0.330	mg/kg wet
N-Nitroso-di-n-propylamine	0.086 U	0.330	mg/kg wet
Hexachloroethane	0.099 U	0.330	mg/kg wet
Nitrobenzene	0.119 U	0.330	mg/kg wet
Isophorone	0.063 U	0.330	mg/kg wet
2-Nitrophenol	0.109 U	0.330	mg/kg wet
2,4-Dimethylphenol	0.116 U	0.330	mg/kg wet
Bis(2-chloroethoxy)methane	0.102 U	0.330	mg/kg wet
Benzoic acid	0.031 U	0.330	mg/kg wet
2,4-Dichlorophenol	0.125 U	0.330	mg/kg wet
1,2,4-Trichlorobenzene	0.125 U	0.330	mg/kg wet
Naphthalene	0.135 U	0.330	mg/kg wet
4-Chloroaniline	0.099 U	0.330	mg/kg wet
Hexachlorobutadiene	0.125 U	0.330	mg/kg wet
4-Chloro-3-methylphenol	0.132 U	0.330	mg/kg wet
2-Methylnaphthalene	0.129 U	0.330	mg/kg wet
1-Methylnaphthalene	0.135 U	0.330	mg/kg wet
Hexachlorocyclopentadiene	0.066 U	0.330	mg/kg wet
2,4,6-Trichlorophenol	0.125 U	0.330	mg/kg wet
2,4,5-Trichlorophenol	0.145 U	0.330	mg/kg wet
2-Chloronaphthalene	0.125 U	0.330	mg/kg wet
2-Nitroaniline	0.116 U	0.330	mg/kg wet
Dimethylphthalate	0.112 U	0.330	mg/kg wet
2,6-Dinitrotoluene	0.139 U	0.330	mg/kg wet
Acenaphthylene	0.112 U	0.330	mg/kg wet
3-Nitroaniline	0.119 U	0.330	mg/kg wet
Acenaphthene	0.116 U	0.330	mg/kg wet
2,4-Dinitrophenol	0.241 U	0.330	mg/kg wet
4-Nitrophenol	0.148 U	0.330	mg/kg wet
Dibenzofuran	0.135 U	0.330	mg/kg wet
2,4-Dinitrotoluene	0.139 U	0.330	mg/kg wet
Diethylphthalate	0.122 U	0.330	mg/kg wet
4-Chlorophenyl-phenylether	0.139 U	0.330	mg/kg wet
Fluorene	0.135 U	0.330	mg/kg wet



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**QUALITY CONTROL**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Sample Notes
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**Semivolatile Organic Compounds by GCMS - Quality Control**

Batch 7C14020 - EPA 3545\_MS

**Blank (7C14020-BLK1) Continued**

Prepared: 03/14/2007 15:36 Analyzed: 03/18/2007 14:35

4-Nitroaniline	0.139 U	0.330	mg/kg wet
2-Methyl-4,6-dinitrophenol	0.109 U	0.330	mg/kg wet
N-Nitrosodiphenylamine	0.148 U	0.330	mg/kg wet
4-Bromophenyl-phenylether	0.129 U	0.330	mg/kg wet
Hexachlorobenzene	0.125 U	0.330	mg/kg wet
Pentachlorophenol	0.188 U	0.330	mg/kg wet
Phenanthrene	0.139 U	0.330	mg/kg wet
Anthracene	0.145 U	0.330	mg/kg wet
Di-n-butylphthalate	0.145 U	0.330	mg/kg wet
Fluoranthene	0.139 U	0.330	mg/kg wet
Benzidine	0.082 U	0.330	mg/kg wet
Pyrene	0.145 U	0.330	mg/kg wet
Butylbenzylphthalate	0.125 U	0.330	mg/kg wet
3,3'-Dichlorobenzidine	0.107 U	0.330	mg/kg wet
Benzo(a)anthracene	0.155 U	0.330	mg/kg wet
Bis(2-ethylhexyl)phthalate	0.201 U	0.330	mg/kg wet
Chrysene	0.135 U	0.330	mg/kg wet
Di-n-octylphthalate	0.165 U	0.330	mg/kg wet
Benzo(b)fluoranthene	0.109 U	0.330	mg/kg wet
Benzo(k)fluoranthene	0.132 U	0.330	mg/kg wet
Benzo(a)pyrene	0.116 U	0.330	mg/kg wet
Indeno(1,2,3-cd)pyrene	0.188 U	0.330	mg/kg wet
Dibenzo(a,h)anthracene	0.191 U	0.330	mg/kg wet
Benzo(g,h,i)perylene	0.138 U	0.330	mg/kg wet

Surrogate: 2-Fluorophenol	3.23		mg/kg wet	3.33	97	29-130
Surrogate: Phenol-d5	3.11		mg/kg wet	3.33	93	20-120
Surrogate: Nitrobenzene-d5	1.33		mg/kg wet	1.67	80	35-112
Surrogate: 2-Fluorobiphenyl	1.65		mg/kg wet	1.67	99	42-111
Surrogate: 2,4,6-Tribromophenol	4.13		mg/kg wet	3.33	124	35-126
Surrogate: Terphenyl-d14	1.92		mg/kg wet	1.67	115	40-124

**LCS (7C14020-BS1)**

Prepared: 03/14/2007 15:36 Analyzed: 03/18/2007 15:00

Phenol	1.34	0.330	mg/kg wet	1.67	80	49-140
2-Chlorophenol	1.39	0.330	mg/kg wet	1.67	83	48-123
1,4-Dichlorobenzene	1.40	0.330	mg/kg wet	1.67	84	40-119
N-Nitroso-di-n-propylamine	1.35	0.330	mg/kg wet	1.67	81	48-126
1,2,4-Trichlorobenzene	1.45	0.330	mg/kg wet	1.67	87	49-120
4-Chloro-3-methylphenol	1.42	0.330	mg/kg wet	1.67	85	46-131
Acenaphthylene	1.58	0.330	mg/kg wet	1.67	95	44-134
4-Nitrophenol	1.42	0.330	mg/kg wet	1.67	85	26-142
2,4-Dinitrotoluene	1.53	0.330	mg/kg wet	1.67	92	56-137
Pentachlorophenol	1.49	0.330	mg/kg wet	1.67	89	20-140
Pyrene	1.69	0.330	mg/kg wet	1.67	101	58-139

Surrogate: 2-Fluorophenol	3.07		mg/kg wet	3.33	92	29-130
Surrogate: Phenol-d5	3.18		mg/kg wet	3.33	95	20-120



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QUALITY CONTROL

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Sample Notes
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Semivolatile Organic Compounds by GCMS - Quality Control

Batch 7C14020 - EPA 3545\_MS

LCS (7C14020-BS1) Continued

Prepared: 03/14/2007 15:36 Analyzed: 03/18/2007 15:00

Surrogate: Nitrobenzene-d5	1.29		mg/kg wet	1.67		78	35-112			
Surrogate: 2-Fluorobiphenyl	1.67		mg/kg wet	1.67		100	42-111			
Surrogate: 2,4,6-Tribromophenol	4.85		mg/kg wet	3.33		145	35-126			S-AC
Surrogate: Terphenyl-d14	1.91		mg/kg wet	1.67		114	40-124			

Matrix Spike (7C14020-MS1)

Source: B702054-07

Prepared: 03/14/2007 15:36 Analyzed: 03/18/2007 15:26

Phenol	0.543	0.346	mg/kg dry	1.75	0.131 U	31	24-148			
2-Chlorophenol	0.997	0.346	mg/kg dry	1.75	0.117 U	57	31-130			
1,4-Dichlorobenzene	1.06	0.346	mg/kg dry	1.75	0.125 U	61	23-119			
N-Nitroso-di-n-propylamine	1.14	0.346	mg/kg dry	1.75	0.090 U	65	37-125			
1,2,4-Trichlorobenzene	1.26	0.346	mg/kg dry	1.75	0.131 U	72	35-125			
4-Chloro-3-methylphenol	1.35	0.346	mg/kg dry	1.75	0.138 U	77	16-147			
Acenaphthylene	1.53	0.346	mg/kg dry	1.75	0.117 U	87	25-139			
4-Nitrophenol	0.765	0.346	mg/kg dry	1.75	0.155 U	44	16-143			
2,4-Dinitrotoluene	1.53	0.346	mg/kg dry	1.75	0.146 U	87	39-137			
Pentachlorophenol	1.51	0.346	mg/kg dry	1.75	0.197 U	86	19-149			
Pyrene	1.73	0.346	mg/kg dry	1.75	0.152 U	99	38-147			

Surrogate: 2-Fluorophenol	0.778		mg/kg dry	3.49		22	29-130			
Surrogate: Phenol-d5	1.18		mg/kg dry	3.49		34	20-120			
Surrogate: Nitrobenzene-d5	1.00		mg/kg dry	1.75		57	35-112			
Surrogate: 2-Fluorobiphenyl	1.55		mg/kg dry	1.75		89	42-111			
Surrogate: 2,4,6-Tribromophenol	4.82		mg/kg dry	3.49		138	35-126			
Surrogate: Terphenyl-d14	1.79		mg/kg dry	1.75		103	40-124			

Matrix Spike Dup (7C14020-MSD1)

Source: B702054-07

Prepared: 03/14/2007 15:36 Analyzed: 03/18/2007 15:51

Phenol	0.549	0.346	mg/kg dry	1.75	0.131 U	31	24-148	1	34	
2-Chlorophenol	0.940	0.346	mg/kg dry	1.75	0.117 U	54	31-130	6	27	
1,4-Dichlorobenzene	1.03	0.346	mg/kg dry	1.75	0.125 U	59	23-119	2	29	
N-Nitroso-di-n-propylamine	1.08	0.346	mg/kg dry	1.75	0.090 U	62	37-125	6	35	
1,2,4-Trichlorobenzene	1.22	0.346	mg/kg dry	1.75	0.131 U	70	35-125	3	35	
4-Chloro-3-methylphenol	1.31	0.346	mg/kg dry	1.75	0.138 U	75	16-147	3	30	
Acenaphthylene	1.46	0.346	mg/kg dry	1.75	0.117 U	84	25-139	4	22	
4-Nitrophenol	1.10 QR-02	0.346	mg/kg dry	1.75	0.155 U	63	16-143	36	30	QR-02
2,4-Dinitrotoluene	1.50	0.346	mg/kg dry	1.75	0.146 U	86	39-137	2	33	
Pentachlorophenol	1.41	0.346	mg/kg dry	1.75	0.197 U	81	19-149	6	35	
Pyrene	1.67	0.346	mg/kg dry	1.75	0.152 U	96	38-147	4	22	

Surrogate: 2-Fluorophenol	0.745		mg/kg dry	3.49		21	29-130			
Surrogate: Phenol-d5	1.24		mg/kg dry	3.49		36	20-120			
Surrogate: Nitrobenzene-d5	0.941		mg/kg dry	1.75		54	35-112			
Surrogate: 2-Fluorobiphenyl	1.47		mg/kg dry	1.75		84	42-111			
Surrogate: 2,4,6-Tribromophenol	4.74		mg/kg dry	3.49		136	35-126			
Surrogate: Terphenyl-d14	1.82		mg/kg dry	1.75		104	40-124			

Polychlorinated Biphenyls by GC - Quality Control

Batch 7C13033 - EPA 3545



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**QUALITY CONTROL**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Sample Notes
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**Polychlorinated Biphenyls by GC - Quality Control**

Batch 7C13033 - EPA 3545

**Blank (7C13033-BLK1)**

Prepared: 03/13/2007 15:47 Analyzed: 03/15/2007 16:34

PCB-1016/1242 [2C]	0.014 U	0.033	mg/kg wet							
PCB-1221 [2C]	0.018 U	0.033	mg/kg wet							
PCB-1232 [2C]	0.019 U	0.033	mg/kg wet							
PCB-1248 [2C]	0.010 U	0.033	mg/kg wet							
PCB-1254 [2C]	0.009 U	0.033	mg/kg wet							
PCB-1260 [2C]	0.013 U	0.033	mg/kg wet							

Surrogate: 2,4,5,6-TCMX [2C] 0.0370 mg/kg wet 0.0333 111 0-200

Surrogate: DBC [2C] 0.0403 mg/kg wet 0.0333 121 0-200

**LCS (7C13033-BS1)**

Prepared: 03/13/2007 15:47 Analyzed: 03/15/2007 17:00

PCB-1016/1242 [2C]	0.334	0.033	mg/kg wet				0-200			
PCB-1260 [2C]	0.359	0.033	mg/kg wet				0-200			

Surrogate: 2,4,5,6-TCMX [2C] 0.0377 mg/kg wet 0.0333 113 0-200

Surrogate: DBC [2C] 0.0410 mg/kg wet 0.0333 123 0-200

**Matrix Spike (7C13033-MS1)**

Source: B702265-01

Prepared: 03/13/2007 15:47 Analyzed: 03/15/2007 17:26

PCB-1016/1242 [2C]	0.491	0.047	mg/kg dry		0.020 U		0-200			
PCB-1260 [2C]	0.515	0.047	mg/kg dry		0.019 U		0-200			

Surrogate: 2,4,5,6-TCMX [2C] 0.0523 mg/kg dry 0.0480 109 0-200

Surrogate: DBC [2C] 0.0556 mg/kg dry 0.0480 116 0-200

**Matrix Spike Dup (7C13033-MSD1)**

Source: B702265-01

Prepared: 03/13/2007 15:47 Analyzed: 03/15/2007 17:51

PCB-1016/1242 [2C]	0.496	0.047	mg/kg dry		0.020 U		0-200	1	200	
PCB-1260 [2C]	0.506	0.047	mg/kg dry		0.019 U		0-200	2	200	

Surrogate: 2,4,5,6-TCMX [2C] 0.0523 mg/kg dry 0.0480 109 0-200

Surrogate: DBC [2C] 0.0556 mg/kg dry 0.0480 116 0-200

**FL Petroleum Range Organics - Quality Control**

Batch 7C13032 - EPA 3545

**Blank (7C13032-BLK1)**

Prepared: 03/13/2007 15:37 Analyzed: 03/14/2007 15:53

TPH (C8-C40)	5.60 U	6.60	mg/kg wet							
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Surrogate: n-Nonatriacontane 0.00 mg/kg wet 1.67 29-145 S-GC, L

Surrogate: o-Terphenyl 2.28 mg/kg wet 3.33 68 36-140

**LCS (7C13032-BS1)**

Prepared: 03/13/2007 15:37 Analyzed: 03/14/2007 16:16

TPH (C8-C40)	36.2	6.60	mg/kg wet	56.7		64	48-118			
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Surrogate: n-Nonatriacontane 0.670 mg/kg wet 1.67 40 19-133

Surrogate: o-Terphenyl 2.42 mg/kg wet 3.33 73 53-128

**Matrix Spike (7C13032-MS1)**

Source: B702193-09RE1

Prepared: 03/13/2007 15:37 Analyzed: 03/15/2007 12:20

TPH (C8-C40)	181	7.24	mg/kg dry	62.1	113	109	40-136			
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Surrogate: n-Nonatriacontane 3.01 mg/kg dry 1.83 164 36-152 S-GC

Surrogate: o-Terphenyl 3.29 mg/kg dry 3.66 90 51-148

**Matrix Spike Dup (7C13032-MSD1)**

Source: B702193-09RE1

Prepared: 03/13/2007 15:37 Analyzed: 03/15/2007 12:43

TPH (C8-C40)	82.5	7.24	mg/kg dry	62.1	113	NR	40-136	75	25	
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Surrogate: n-Nonatriacontane 2.40 mg/kg dry 1.83 131 36-152



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**QUALITY CONTROL**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Sample Notes
<b>FL Petroleum Range Organics - Quality Control</b>										
<i>Batch 7C13032 - EPA 3545</i>										
<b>Matrix Spike Dup (7C13032-MSD1) Continued</b>			<b>Source: B702193-09RE1</b>		Prepared: 03/13/2007 15:37 Analyzed: 03/15/2007 12:43					
Surrogate: <i>o</i> -Terphenyl	2.79		mg/kg dry	3.66		76	51-148			
<i>Batch 7C19009 - EPA 3545</i>										
<b>Blank (7C19009-BLK1)</b>			Prepared: 03/19/2007 11:40 Analyzed: 03/19/2007 19:00							
TPH (C8-C40)	5.60 U	6.60	mg/kg wet							
Surrogate: <i>n</i> -Nonatriacontane	1.52		mg/kg wet	1.67		91	29-145			
Surrogate: <i>o</i> -Terphenyl	2.57		mg/kg wet	3.33		77	36-140			
<b>LCS (7C19009-BS1)</b>			Prepared: 03/19/2007 11:40 Analyzed: 03/19/2007 19:22							
TPH (C8-C40)	48.3	6.60	mg/kg wet	56.7		85	48-118			
Surrogate: <i>n</i> -Nonatriacontane	1.74		mg/kg wet	1.67		104	19-133			
Surrogate: <i>o</i> -Terphenyl	2.85		mg/kg wet	3.33		85	53-128			
<b>Matrix Spike (7C19009-MS1)</b>			<b>Source: B702455-01</b>		Prepared: 03/19/2007 11:40 Analyzed: 03/19/2007 19:45					
TPH (C8-C40)	105 QM-05, D	34.1	mg/kg dry	58.5	28.9 U	179	40-136			QM-05
Surrogate: <i>n</i> -Nonatriacontane	1.93		mg/kg dry	1.72		112	36-152			
Surrogate: <i>o</i> -Terphenyl	3.17		mg/kg dry	3.44		92	51-148			
<b>Matrix Spike Dup (7C19009-MSD1)</b>			<b>Source: B702455-01</b>		Prepared: 03/19/2007 11:40 Analyzed: 03/19/2007 20:29					
TPH (C8-C40)	99.0 QM-05, D	34.1	mg/kg dry	58.5	28.9 U	169	40-136	6	25	QM-05
Surrogate: <i>n</i> -Nonatriacontane	1.77		mg/kg dry	1.72		103	36-152			
Surrogate: <i>o</i> -Terphenyl	3.02		mg/kg dry	3.44		88	51-148			
<b>Metals by EPA 6000/7000 Series Methods - Quality Control</b>										
<i>Batch 7C15002 - EPA 3050B</i>										
<b>Blank (7C15002-BLK1)</b>			Prepared: 03/15/2007 05:44 Analyzed: 03/16/2007 16:56							
Arsenic	0.2 U	0.5	mg/kg wet							
Cadmium	0.02 U	0.05	mg/kg wet							
Chromium	0.2 U	0.5	mg/kg wet							
Lead	0.1 U	0.5	mg/kg wet							
<b>LCS (7C15002-BS1)</b>			Prepared: 03/15/2007 05:44 Analyzed: 03/16/2007 17:03							
Arsenic	50.4	0.5	mg/kg wet	50.0		101	84-113			
Cadmium	24.4	0.05	mg/kg wet	25.0		98	85-110			
Chromium	49.1	0.5	mg/kg wet	50.0		98	86-111			
Lead	49.1	0.5	mg/kg wet	50.0		98	84-112			
<b>Matrix Spike (7C15002-MS1)</b>			<b>Source: B701958-08</b>		Prepared: 03/15/2007 05:44 Analyzed: 03/16/2007 17:10					
Arsenic	50.5	0.5	mg/kg dry	54.5	0.2 U	93	63-122			
Cadmium	24.9	0.05	mg/kg dry	27.3	0.03 U	91	64-119			
Chromium	53.5	0.5	mg/kg dry	54.5	2.32	94	44-144			
Lead	53.4	0.5	mg/kg dry	54.5	1.96	94	41-144			
<b>Matrix Spike Dup (7C15002-MSD1)</b>			<b>Source: B701958-08</b>		Prepared: 03/15/2007 05:44 Analyzed: 03/16/2007 17:17					
Arsenic	51.1	0.5	mg/kg dry	54.5	0.2 U	94	63-122	1	16	
Cadmium	25.0	0.05	mg/kg dry	27.3	0.03 U	92	64-119	0.4	17	
Chromium	53.6	0.5	mg/kg dry	54.5	2.32	94	44-144	0.2	21	
Lead	53.9	0.5	mg/kg dry	54.5	1.96	95	41-144	0.8	32	



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**QUALITY CONTROL**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Sample Notes
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**Metals by EPA 6000/7000 Series Methods - Quality Control**

Batch 7C15002 - EPA 3050B

Post Spike (7C15002-PS2)		Source: B702054-03		Prepared: 03/15/2007 05:44 Analyzed: 03/19/2007 11:44						
Arsenic	0.214	0.01	mg/L	0.250	-0.0387	101	80-120			
Post Spike (7C15002-PS3)		Source: B702054-04		Prepared: 03/15/2007 05:44 Analyzed: 03/19/2007 11:51						
Arsenic	0.216	0.01	mg/L	0.250	-0.0407	103	80-120			
Post Spike (7C15002-PS4)		Source: B702054-05		Prepared: 03/15/2007 05:44 Analyzed: 03/19/2007 11:58						
Arsenic	0.219	0.01	mg/L	0.250	-0.0394	103	80-120			
Post Spike (7C15002-PS5)		Source: B702054-06		Prepared: 03/15/2007 05:44 Analyzed: 03/19/2007 12:05						
Arsenic	0.231	0.01	mg/L	0.250	-0.0278	104	80-120			
Post Spike (7C15002-PS6)		Source: B702054-08		Prepared: 03/15/2007 05:44 Analyzed: 03/19/2007 12:21						
Arsenic	0.215	0.01	mg/L	0.250	-0.0482	105	80-120			

**QUALITY CONTROL**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Sample Notes
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**Volatile Organic Compounds by GCMS - Quality Control**

Batch 7C16017 - EPA 5030B\_MS

Blank (7C16017-BLK1)		Prepared: 03/16/2007 13:56 Analyzed: 03/16/2007 14:29								
1,1,1,2-Tetrachloroethane	0.0004 U	0.0010	mg/kg wet							
1,1,1-Trichloroethane	0.0005 U	0.0010	mg/kg wet							
1,1,2,2-Tetrachloroethane	0.0007 U	0.0010	mg/kg wet							
1,1,2-Trichloroethane	0.0006 U	0.0010	mg/kg wet							
1,1-Dichloroethane	0.0004 U	0.0010	mg/kg wet							
1,1-Dichloroethene	0.0008 U	0.0010	mg/kg wet							
1,1-Dichloropropene	0.0005 U	0.0010	mg/kg wet							
1,2,3-Trichlorobenzene	0.0006 U	0.0010	mg/kg wet							
1,2,3-Trichloropropane	0.0008 U	0.0010	mg/kg wet							
1,2,4-Trichlorobenzene	0.0006 U	0.0010	mg/kg wet							
1,2,4-Trimethylbenzene	0.0004 U	0.0010	mg/kg wet							
1,2-Dibromo-3-chloropropane	0.0008 U	0.0010	mg/kg wet							
1,2-Dibromoethane	0.0006 U	0.0010	mg/kg wet							
1,2-Dichlorobenzene	0.0006 U	0.0010	mg/kg wet							
1,2-Dichloroethane	0.0005 U	0.0010	mg/kg wet							
1,2-Dichloropropane	0.0007 U	0.0010	mg/kg wet							
1,3,5-Trimethylbenzene	0.0003 U	0.0010	mg/kg wet							
1,3-Dichlorobenzene	0.0005 U	0.0010	mg/kg wet							
1,3-Dichloropropane	0.0003 U	0.0010	mg/kg wet							
1,4-Dichlorobenzene	0.0004 U	0.0010	mg/kg wet							
2,2-Dichloropropane	0.0007 U	0.0010	mg/kg wet							
2-Butanone	0.0020 U	0.0050	mg/kg wet							
2-Chloroethyl Vinyl Ether	0.0010 U	0.0050	mg/kg wet							
2-Chlorotoluene	0.0004 U	0.0010	mg/kg wet							
2-Hexanone	0.0009 U	0.0010	mg/kg wet							
4-Chlorotoluene	0.0005 U	0.0010	mg/kg wet							
4-Isopropyltoluene	0.0004 U	0.0010	mg/kg wet							



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**QUALITY CONTROL**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Sample Notes
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**Volatile Organic Compounds by GCMS - Quality Control**

Batch 7C16017 - EPA 5030B\_MS

**Blank (7C16017-BLK1) Continued**

Prepared: 03/16/2007 13:56 Analyzed: 03/16/2007 14:29

4-Methyl-2-pentanone	0.0020 U	0.0050	mg/kg wet							
Acetone	0.0010 U	0.0050	mg/kg wet							
Benzene	0.0006 U	0.0010	mg/kg wet							
Bromobenzene	0.0005 U	0.0010	mg/kg wet							
Bromochloromethane	0.0006 U	0.0010	mg/kg wet							
Bromodichloromethane	0.0004 U	0.0010	mg/kg wet							
Bromoform	0.0006 U	0.0010	mg/kg wet							
Bromomethane	0.0009 U	0.0010	mg/kg wet							
Carbon disulfide	0.0009 U	0.0010	mg/kg wet							
Carbon Tetrachloride	0.0005 U	0.0010	mg/kg wet							
Chlorobenzene	0.0005 U	0.0010	mg/kg wet							
Chloroethane	0.0010 U	0.0010	mg/kg wet							
Chloroform	0.0005 U	0.0010	mg/kg wet							
Chloromethane	0.0006 U	0.0010	mg/kg wet							
cis-1,2-Dichloroethene	0.0008 U	0.0010	mg/kg wet							
cis-1,3-Dichloropropene	0.0005 U	0.0010	mg/kg wet							
Dibromochloromethane	0.0006 U	0.0010	mg/kg wet							
Dibromomethane	0.0008 U	0.0010	mg/kg wet							
Dichlorodifluoromethane	0.0006 U	0.0010	mg/kg wet							
Ethylbenzene	0.0007 U	0.0010	mg/kg wet							
Hexachlorobutadiene	0.0006 U	0.0010	mg/kg wet							
Isopropylbenzene	0.0005 U	0.0010	mg/kg wet							
m,p-Xylenes	0.0008 U	0.0010	mg/kg wet							
Methylene Chloride	0.0004 U	0.0050	mg/kg wet							
Methyl-tert-Butyl Ether	0.0008 U	0.0010	mg/kg wet							
Naphthalene	0.0003 U	0.0010	mg/kg wet							
n-Butyl Benzene	0.0004 U	0.0010	mg/kg wet							
n-Propyl Benzene	0.0003 U	0.0010	mg/kg wet							
o-Xylene	0.0005 U	0.0010	mg/kg wet							
sec-Butylbenzene	0.0004 U	0.0010	mg/kg wet							
Styrene	0.0004 U	0.0010	mg/kg wet							
tert-Butylbenzene	0.0004 U	0.0010	mg/kg wet							
Tetrachloroethene	0.0005 U	0.0010	mg/kg wet							
Toluene	0.0005 U	0.0010	mg/kg wet							
trans-1,2-Dichloroethene	0.0009 U	0.0010	mg/kg wet							
trans-1,3-Dichloropropene	0.0004 U	0.0010	mg/kg wet							
Trichloroethene	0.0004 U	0.0010	mg/kg wet							
Trichlorofluoromethane	0.0005 U	0.0010	mg/kg wet							
Vinyl chloride	0.0006 U	0.0010	mg/kg wet							

Surrogate: Toluene-d8	50		ug/L	50.0		100	71-126
Surrogate: 4-Bromofluorobenzene	47		ug/L	50.0		95	58-133
Surrogate: Dibromofluoromethane	48		ug/L	50.0		97	63-135

**LCS (7C16017-BS1)**

Prepared: 03/16/2007 13:56 Analyzed: 03/16/2007 14:00

1,1-Dichloroethene	0.021	0.0010	mg/kg wet	0.0200		106	46-163
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**QUALITY CONTROL**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Sample Notes
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**Volatile Organic Compounds by GCMS - Quality Control**

Batch 7C16017 - EPA 5030B\_MS

**LCS (7C16017-BS1) Continued**

Prepared: 03/16/2007 13:56 Analyzed: 03/16/2007 14:00

Benzene	0.022	0.0010	mg/kg wet	0.0200		108	53-131			
Chlorobenzene	0.020	0.0010	mg/kg wet	0.0200		101	71-130			
Toluene	0.020	0.0010	mg/kg wet	0.0200		101	53-129			
Trichloroethene	0.022	0.0010	mg/kg wet	0.0200		109	66-127			

Surrogate: Toluene-d8

50 ug/L 50.0 101 71-126

Surrogate: 4-Bromofluorobenzene

43 ug/L 50.0 86 58-133

Surrogate: Dibromofluoromethane

49 ug/L 50.0 98 63-135

**Matrix Spike (7C16017-MS1)**

Source: A701576-01

Prepared: 03/16/2007 13:56 Analyzed: 03/16/2007 14:59

1,1-Dichloroethene	0.028	0.0010	mg/kg wet	0.0200	0.0008 U	140	44-172			
Benzene	0.047	0.0010	mg/kg wet	0.0200	0.026	105	66-131			
Chlorobenzene	0.025	QM-05 0.0010	mg/kg wet	0.0200	0.0005 U	127	73-125			QM-05
Toluene	0.041	0.0010	mg/kg wet	0.0200	0.022	94	66-127			
Trichloroethene	0.025	0.0010	mg/kg wet	0.0200	0.0004 U	127	60-139			

Surrogate: Toluene-d8

49 ug/L 50.0 98 71-126

Surrogate: 4-Bromofluorobenzene

41 ug/L 50.0 82 58-133

Surrogate: Dibromofluoromethane

54 ug/L 50.0 107 63-135

**Matrix Spike Dup (7C16017-MSD1)**

Source: A701576-01

Prepared: 03/16/2007 13:56 Analyzed: 03/16/2007 15:28

1,1-Dichloroethene	0.026	0.0010	mg/kg wet	0.0200	0.0008 U	128	44-172	9	44	
Benzene	0.047	0.0010	mg/kg wet	0.0200	0.026	103	66-131	0.9	23	
Chlorobenzene	0.024	0.0010	mg/kg wet	0.0200	0.0005 U	120	73-125	6	25	
Toluene	0.041	0.0010	mg/kg wet	0.0200	0.022	95	66-127	0.2	29	
Trichloroethene	0.023	0.0010	mg/kg wet	0.0200	0.0004 U	114	60-139	11	40	

Surrogate: Toluene-d8

48 ug/L 50.0 96 71-126

Surrogate: 4-Bromofluorobenzene

41 ug/L 50.0 82 58-133

Surrogate: Dibromofluoromethane

55 ug/L 50.0 109 63-135

**NOTES AND DEFINITIONS**

- D Data reported from a dilution
- E The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate (CLP E-flag).
- I Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
- QR-02 The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- S-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
- S-AC Acid surrogate recovery outside of control limits. The data was accepted based on valid recovery of remaining two acid surrogates.
- S-GC Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
- U Analyte included in the analysis, but not detected

**LABORATORY CERTIFICATION SUMMARY**

<b>Analysis</b>	<b>Matrix</b>	<b>Cert ID</b>	<b>Cert Number</b>
8270C	Soil	NELAC	E82277
Arsenic Total EPA 6010B	Soil	NELAC	E82277
Cadmium Total EPA 6010B	Soil	NELAC	E82277
Chromium Total EPA 6010B	Soil	NELAC	E82277
FLPRO	Soil	NELAC	E82277
Lead Total EPA 6010B	Soil	NELAC	E82277
8260B	Soil	NELAC	E83182



**ENVIRONMENTAL CONSERVATION LABORATORIES CHAIN-OF-CUSTODY RECORD**

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Cary, NC 27513  
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Page \_\_\_ of \_\_\_

Client Name <i>QORE Inc.</i>	Project Number <i>ORL9780G</i>	Requested Analyses						Requested Turnaround Times	
Address <i>3415 KORE Rd</i>	Project Name/Desc <i>MAYPORT PIER FUEL DEPOT PIPE ABANDONMENT</i>	VOCs	808Z	8270C	As, Cd, Cr, Pb	FL PRO	SOLIDS	DRY WEIGHT	Note: Rush requests subject to acceptance by the facility
City/ST/Zip <i>JAX, FL 32257</i>	PO # / Billing Info								<input checked="" type="checkbox"/> Standard
Phone <i>262-9991</i>	Reporting Contact <i>ALAN PATE / BRANT MUEKLELY</i>								<input type="checkbox"/> Expedited
Fax <i>262-9996</i>	Billing Contact <i>ALAN PATE / BRANT MUEKLELY</i>								Due <u>  </u> / <u>  </u> / <u>  </u>
Sampler(s) Name, Affiliation (Print) <i>ALAN PATE - QORE</i>	Facility # (if required)	Preservation (See Codes) (Combine as necessary)						Lab Workorder	
Sampler(s) Signature <i>Alan Pate</i>									

Item #	Sample ID (Field Identification)	Collection Date	Collection Time	Comp / Grab	Matrix (see codes)	Total # of Containers									Sample Comments
	<i>MPT-SS-BOT1-C</i>	<i>3-12-07</i>	<i>0750</i>	<i>C</i>	<i>SO</i>	<i>5</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>COOL TO 4°C</i>
	<i>MPT-SS-NW1-C</i>	<i>3-12-07</i>	<i>0800</i>	<i>C</i>	<i>SO</i>	<i>5</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	
	<i>MPT-SS-NW2-C</i>	<i>3-12-07</i>	<i>0820</i>	<i>C</i>	<i>SO</i>	<i>5</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	
	<i>MPT-SS-NW3-C</i>	<i>3-12-07</i>	<i>0840</i>	<i>C</i>	<i>SO</i>	<i>5</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	
	<i>MPT-SS-EW-C</i>	<i>3-12-07</i>	<i>0850</i>	<i>C</i>	<i>SO</i>	<i>5</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	
	<i>MPT-SS-WW-C</i>	<i>3-12-07</i>	<i>0900</i>	<i>C</i>	<i>SO</i>	<i>5</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	
	<i>MPT-SS-SUP-C</i>	<i>3-12-07</i>	<i>0936</i>	<i>C</i>	<i>SO</i>	<i>5</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	
	<i>MPT-SS-NVP-C</i>	<i>3-12-07</i>	<i>1000</i>	<i>C</i>	<i>SO</i>	<i>5</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	
							← Total # of Containers								

Sample Kit Prepared By	Date/Time	Relinquished By <i>Alan Pate</i>	Date/Time <i>3-12-07/1550</i>	Received By	Date/Time
Comments <i>VOCs COLLECTED AS GRAB SAMPLES-HAVE G AT THE END OF IT</i>		Relinquished By	Date/Time	Received By	Date/Time
		Relinquished By	Date/Time	Received By <i>Hannan</i>	Date/Time <i>3/12/07/1550</i>
		Cooler #'s & Temps on Receipt		Condition Upon Receipt	<input type="checkbox"/> Acceptable <input type="checkbox"/> Unacceptable

Matrix : GW-Groundwater SO-Soil SE-Sediment SW-Surface Water WW-Wastewater A-Air O-Other (detail in comments) Preservation: I-Ice H-HCl N-HNO3 S-H2SO4 NO-NaOH O-Other (detail in comments)  
 Note : All samples submitted to ENCO Labs are in accordance with the terms and conditions listed on the reverse of this form, unless prior written agreements exist