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CONTAMINATION ASSESSMENT REPORT ADDENDUM FOR CREDIT UNION BUILDING

460 NS MAYPORT FL

3/1/1998

ABB ENVIRONMENTAL

CONTAMINATION ASSESSMENT REPORT ADDENDUM

CREDIT UNION
BUILDING 460

U.S. NAVAL STATION
MAYPORT, FLORIDA

Unit Identification Code: N60201

Contract No.: N62467-89-D-0317/119

Prepared by:

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March 1998

CONTAMINATION ASSESSMENT REPORT ADDENDUM

CREDIT UNION
BUILDING 460

U.S. NAVAL STATION
MAYPORT, FLORIDA

UNIT IDENTIFICATION CODE: N60201
CONTRACT NO.: N62467-89-D-0317/119

MARCH 1998

SOUTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORTH CHARLESTON, SOUTH CAROLINA
29418

DISTRIBUTION

Southern Division, Naval Facilities Engineering Command	2
U.S. Naval Station, Mayport, Florida	2

CERTIFICATION OF TECHNICAL
DATA CONFORMITY (MAY 1987)

The Contractor, ABB Environmental Services, Inc., hereby certifies that, to the best of its knowledge and belief, the technical data delivered herewith under Contract No. N62467-89-D-0317/119 are complete and accurate and comply with all requirements of this contract.

DATE: March 27, 1998

NAME AND TITLE OF CERTIFYING OFFICIAL: Terry Hansen, P.G.
Task Order Manager

NAME AND TITLE OF CERTIFYING OFFICIAL: Michael J. Williams, P.G.
Project Technical Lead

(DFAR 252.227-7036)

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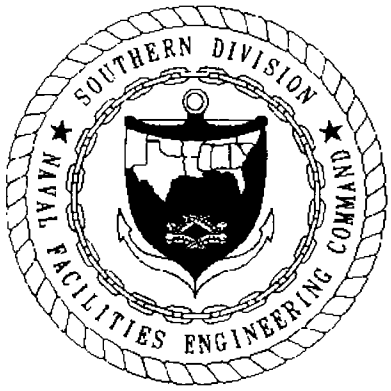

FOREWORD

To meet its mission objectives, the U.S. Navy performs a variety of operations, some requiring the use, handling, storage, and/or disposal of hazardous materials. Through accidental spills or leaks, or conventional methods of past disposal, hazardous materials may have entered the environment in ways unacceptable by present standards. With growing knowledge of the long-term effects of hazardous materials on the environment, the Department of Defense initiated various programs to investigate and remediate conditions related to suspected past releases of hazardous materials at their facilities.

One of these programs is the Comprehensive Long-Term Environmental Action, Navy Underground Storage Tank (UST) program. This program complies with Subtitle I of the Resource Conservation and Recovery Act, and the Hazardous and Solid Waste Amendments of 1984. In addition, the UST program complies with all appropriate State and local storage tank regulations as they pertain to each naval facility.

The UST program includes the following activities:

- registration and management of Navy and Marine Corps storage tank systems
- contamination assessment planning
- site field investigations
- preparation of contamination assessment reports
- remedial (corrective) action planning
- implementation of the remedial action plans
- tank and pipeline closures

The Southern Division, Naval Facilities Engineering Command (SOUTHNAVFACENGCOM) manages the UST program, and the U.S. Environmental Protection Agency and the Florida Department of Environmental Protection oversee the Navy UST program at the U.S. Naval Station in Mayport, Florida.

Questions regarding this report should be addressed to the Environmental Coordinator, U.S. Naval Station, Mayport, Florida, at (904) 270-6730, or to SOUTHNAVFACENGCOM, Beverly Washington, Code 1848, at DSN 563-0613 or (803) 743-0613.

EXECUTIVE SUMMARY

Building 460 is located southeast of the Turning Basin, near the intersection of Massey Avenue and Bon Homme Richard Street, at the U.S. Naval Station (NAVSTA) in Mayport, Florida. The building houses the Navy Federal Credit Union and a branch of the U.S. Postal Service on the west end, and classrooms and a library on the east end. Two 1,000-gallon underground storage tanks (USTs) were previously used to heat Building 460 and fuel an emergency generator. On March 24, 1994, during excavation of the tanks, excessively contaminated soil and free product were discovered; therefore, an initial remedial action (IRA) was conducted. The IRA involved removal of approximately 300 tons of excessively contaminated soil from the excavation area.

ABB Environmental Services, Inc. (ABB-ES), under contract to Southern Division, Naval Facilities Engineering Command conducted a site assessment at the credit union, Building 460 site and submitted a contamination assessment report (CAR) (ABB-ES, 1996). The site assessment was conducted from May to October 1995 in accordance with the requirements defined in Chapter 62-770, Florida Administrative Code (FAC), effective February 21, 1990.

The findings, conclusions, and recommendations of the February 1996 CAR for the Building 460 site at NAVSTA Mayport are summarized below.

- An area of excessively contaminated soil was detected near the former USTs, extending north approximately 30 feet, west approximately 50 feet, and beneath Buildings 460 and 1264 to the south and east for an unknown distance.

- The areal extent of groundwater contamination at Building 460 was apparently limited to the general vicinity of the former USTs. Benzene, toluene, ethylbenzene, xylenes, naphthalenes, fluorene, and methyl tert-butyl ether (MTBE) were detected in groundwater samples from site monitoring wells; however, constituent concentrations were below the State No Further Action guidelines for G-II groundwater.

- The source of contamination at the site, the USTs, has been removed.

- Infiltration of stormwater is precluded from contact with excessively contaminated soil at the site by the buildings and asphalt.

- Free product was not observed in any site monitoring wells during the assessment; however, free product was reported in the excavation pit during the tank removal.

- Five on-site supply wells at NAVSTA Mayport are used for potable and irrigation purposes. These wells are numbered N-1 through N-4 (potable water) and D-236 (irrigation water). The closest well, N-3, is located approximately 1/4-mile southwest (upgradient) of Building 460 and should not be affected by petroleum compounds detected in groundwater at the site.

A monitoring only proposal for petroleum-contaminated groundwater at the site and remediation of excessively contaminated soil by natural attenuation (biodegradation) was recommended in the February 1996 CAR.

In response to the letter dated March 1, 1996, from Mr. James H. Cason, Florida Department of Environmental Protection (FDEP), to Mr. Byas Glover, Southern Division, Naval Facilities Engineering Command (SOUTHNAVFACENGCOM), all site monitoring wells were resampled for U.S. Environmental Protection Agency (USEPA) Methods 602 and 610. Groundwater samples were collected from the monitoring wells specified in the FDEP letter on March 25 and 26, 1996. A letter report dated June 7, 1996, from ABB-ES, on behalf of SOUTHNAVFACENGCOM, was submitted to the FDEP summarizing the groundwater analytical results and recommending a monitoring only plan (MOP) be approved for the site. Copies of the FDEP and ABB-ES letters are attached in Appendix A, Correspondence.

A CAR addendum letter dated October 11, 1996, from ABB-ES, on behalf of SOUTHNAVFACENGCOM, was submitted to the FDEP. The CAR Addendum letter summarized the March 25 and 26, 1996, groundwater analytical results and recommended that a limited-scope remedial action plan (LSRAP) be prepared to address the remaining excessively contaminated soil at the site. In the letter, an MOP was requested for the site in addition to the LSRAP. The contamination assessment and recommendation to prepare an LSRAP were approved by FDEP in a letter dated October 11, 1996. Copies of the letters are attached in Appendix A, Correspondence.

In consideration of revisions to Chapter 62-770, FAC, which redefined contaminated soil at petroleum cleanup sites, it was agreed that soil samples would be collected at the Building 460 site in accordance with Chapter 62-770, FAC, effective September 23, 1997. The rationale and scope of work for the supplemental assessment is described in a letter dated November 18, 1997, from ABB-ES to SOUTHNAVFACENGCOM (Appendix A, Correspondence). The supplemental assessment was performed by ABB-ES on January 28, 1998, and included the following tasks:

- Collect three soil grab samples in areas of high, medium, and low organic vapor analyzer (OVA) headspace readings for analysis of Kerosene Analytical Group chemicals of concern specified in Chapter 62-770, FAC, Table I (USEPA Methods 8020, 8310, and Florida Petroleum Residual Organics) and USEPA Method 1312, Synthetic Precipitation Leaching Procedure (SPLP).

- Collect groundwater samples from source area monitoring well MPT-CU-MW04 and downgradient monitoring well MPT-CU-MW03 for laboratory analysis of USEPA Methods 602 and 8310 parameters.

- Measure depth to groundwater in site monitoring wells, and calculate water table elevation and groundwater flow direction.

The findings, conclusions, and recommendations of the January 28, 1998, supplemental site assessment are reported in this CAR Addendum and are summarized below.

FINDINGS:

The summary of findings at the Building 460 site presented below is based on the results of the January 28, 1998, supplemental assessment and laboratory analytical results.

- OVA headspace concentrations measured January 28, 1998, were significantly lower than the 1995 site-assessment OVA headspace data.

- SPLP analytical results indicate that none of the petroleum chemicals of concern detected in excessively contaminated soil samples exceeded the State soil cleanup target levels for leachability based on the values listed in Chapter 62-770, FAC, Table V[a] (Groundwater Cleanup Target Levels [GCTLs] for Resource Protection/Recovery).

- Free product was not detected in any site monitoring well.

- MTBE, naphthalene, acenaphthene, fluorene, phenanthrene, anthracene, fluoranthene, pyrene, and benzo(a)anthracene were detected in groundwater samples collected January 28, 1998, from monitoring wells MPT-CU-MW04 and MPT-CU-MW03. Only MTBE exceeded the State GCTL of 35 micrograms per liter. All other compounds detected were below the State GCTLs.

- All petroleum compound concentrations in groundwater samples collected from monitoring wells MPT-CU-MW04 and MPT-CU-MW03 on January 28, 1998, have significantly decreased compared to June 1995 groundwater analytical data.

- The general groundwater flow direction in the surficial aquifer is north-northeast.

CONCLUSIONS:

The following conclusions are based on the findings of the supplemental assessment at the Building 460 site:

- Lower OVA concentrations in excessively contaminated soil may indicate a reduction in volatile organic compound concentrations resulting from *in situ* biodegradation.

- Based on leachability values listed in Chapter 62-770, FAC, Table V[a] (GCTLs for Resource Protection/Recovery), excessively contaminated soil at the site is not a continuing source of groundwater contamination.

- Groundwater sample analytical results indicate petroleum chemicals of concern concentrations have decreased from June 1995 to January 1998, and may indicate natural attenuation of contamination by biodegradation.

RECOMMENDATIONS:

Based on the findings of the supplemental assessment, ABB-ES, on behalf of the Navy, recommends No Further Action without conditions or restrictions for the Navy Federal Credit Union, Building 460 site at NAVSTA Mayport.

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GLOSSARY

ABB-ES	ABB Environmental Services, Inc.
bls	below land surface
CAR	contamination assessment report
CompQAP	Comprehensive Quality Assurance Plan
FAC	Florida Administrative Code
FDEP	Florida Department of Environmental Protection
FL-PRO	Florida Petroleum Residual Organics
GCTL	groundwater cleanup target level
IRA	initial remedial action
LSRAP	limited-scope remedial action plan
$\mu g/\ell$	micrograms per liter
MOP	monitoring only plan
MTBE	methyl tert-butyl ether
NAVSTA	Naval Station
OVA	organic vapor analyzer
PAH	polynuclear aromatic hydrocarbon
ppm	parts per million
SCTL	soil cleanup target level
SOUTHNAV-FACENGCOM	Southern Division, Naval Facilities Engineering Command
SPLP	Synthetic Precipitation Leaching Procedure
TRPH	total recoverable petroleum hydrocarbons
USEPA	U.S. Environmental Protection Agency
UST	underground storage tank
VOA	volatile organic aromatic
VOC	volatile organic compound

CHAPTER 1.0

1.0 INTRODUCTION

ABB Environmental Services, Inc. (ABB-ES), was contracted by Southern Division, Naval Facilities Engineering Command (SOUTHNAVFACENGCOM), to perform supplemental soil and groundwater sampling and submit a contamination assessment report (CAR) addendum for the Navy Federal Credit Union, Building 460, at U.S. Naval Station (NAVSTA), Mayport, Florida. The scope of services is described in Modification 04 to Contract Task Order No. 119, and includes the following tasks:

- Collect a total of three grab soil samples in areas of high, medium, and low organic vapor analyzer (OVA) headspace readings for analysis of Kerosene Analytical Group chemicals of concern specified in Chapter 62-770, Florida Administrative Code (FAC), Table I (U.S. Environmental Protection Agency [USEPA] Methods 8020, 8310, and Florida Petroleum Residual Organics [FL-PRO]) and USEPA Method 1312, Synthetic Precipitation Leaching Procedure (SPLP).

- Collect groundwater samples from source area monitoring well MPT-CU-MW04 and downgradient monitoring well MPT-CU-MW03 for laboratory analysis of USEPA Methods 601 and 602 parameters.

- Measure depth to groundwater and calculate water table elevation in site monitoring wells and groundwater flow direction.

The following sections of this CAR Addendum present the background information, field investigative activities, analytical results, findings, conclusions, and recommendations for further action at the site.

For consistency, the prefix MPT-460 has been replaced with MPT-CU for soil boring and monitoring well location designations in the text, tables, and figures of this report. The revised location and sample identification conforms with the format currently in use for other underground storage tank (UST) and installation restoration program documents submitted for NAVSTA Mayport sites.

CHAPTER 2.0

2.0 SITE DESCRIPTION AND BACKGROUND

The U.S. Naval Station at Mayport, Florida, is located approximately 15 miles east-northeast of downtown Jacksonville, Florida (Figure 2-1). NAVSTA Mayport was established in 1942 on approximately 700 acres of land. The original mission of the station included use of patrol craft, target boats, and rescue boats. The station was placed in caretaker status in 1946, reopened in 1948, and in 1952 was assigned an aircraft carrier. Today NAVSTA Mayport is primarily involved in intermediate level maintenance of equipment, ships, aircraft, and other support units assigned to that part of the Second Fleet stationed at the facility.

Building 460 is located in the northeast section of NAVSTA Mayport, southeast of the Turning Basin, near the intersection of Massey Avenue and Bon Homme Richard Street (Figure 2-2). It houses the Navy Federal Credit Union on the west end, and classrooms and a library on the east end. Two 1,000-gallon USTs containing Number 2 fuel oil were previously used to heat the building and fuel the emergency generator.

2.1 SITE HISTORY. On March 24, 1994, during excavation of the tanks, excessively contaminated soil and free product were discovered; therefore, an initial remedial action (IRA) was conducted. The IRA involved removal of approximately 300 tons of excessively contaminated soil from the excavation area.

ABB-ES, under contract to SOUTHNAVFACENGCOM, conducted a site assessment at the credit union, Building 460 site and submitted a CAR (ABB-ES, 1996). The site assessment was conducted from May to October 1995 in accordance with the requirements defined in Chapter 62-770, FAC, effective February 21, 1990.

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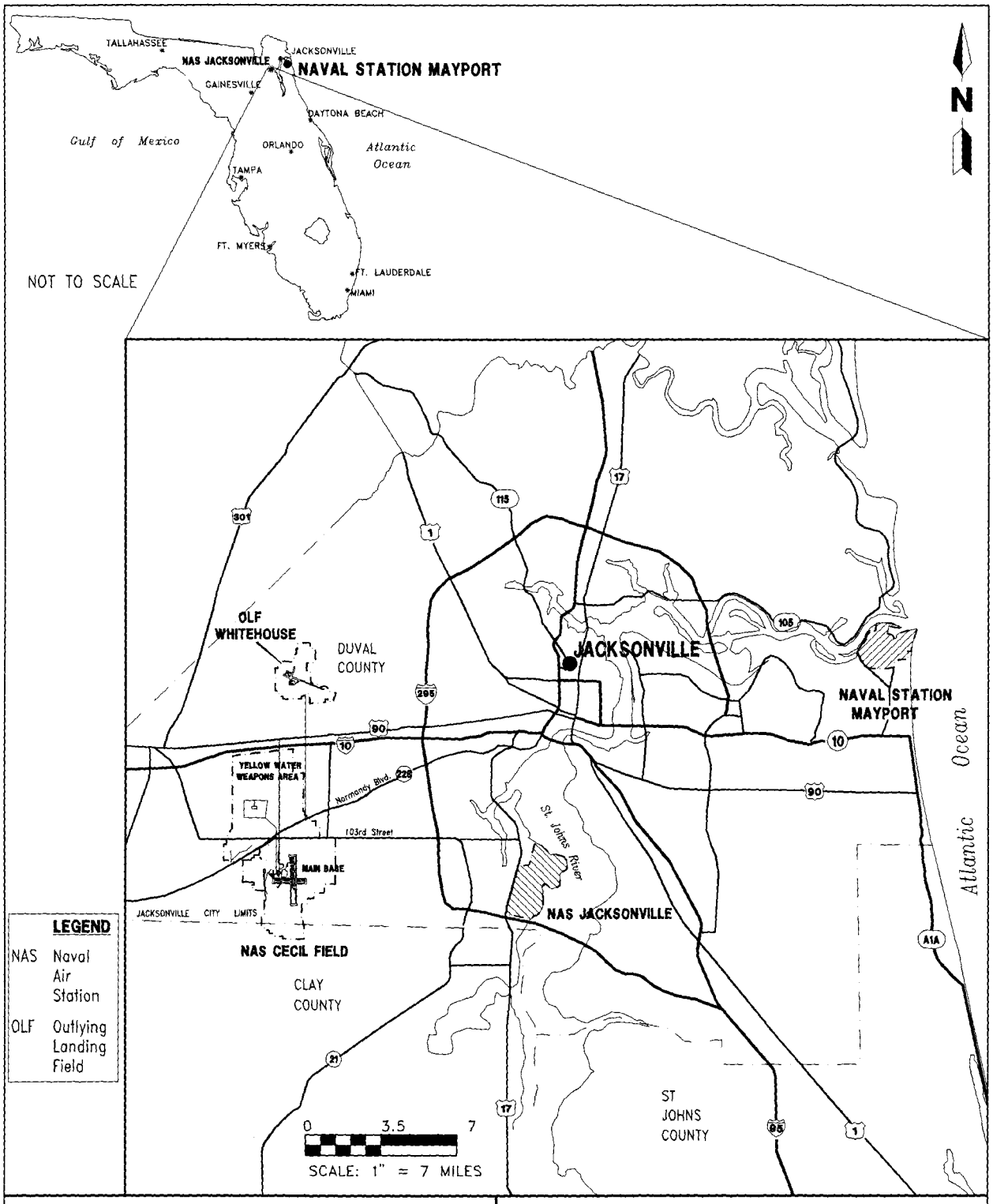

FIGURE 2-1
FACILITY LOCATION MAP

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CONTAMINATION ASSESSMENT REPORT ADDENDUM
CREDIT UNION, BUILDING 460

NAVAL STATION MAYPORT
MAYPORT, FLORIDA

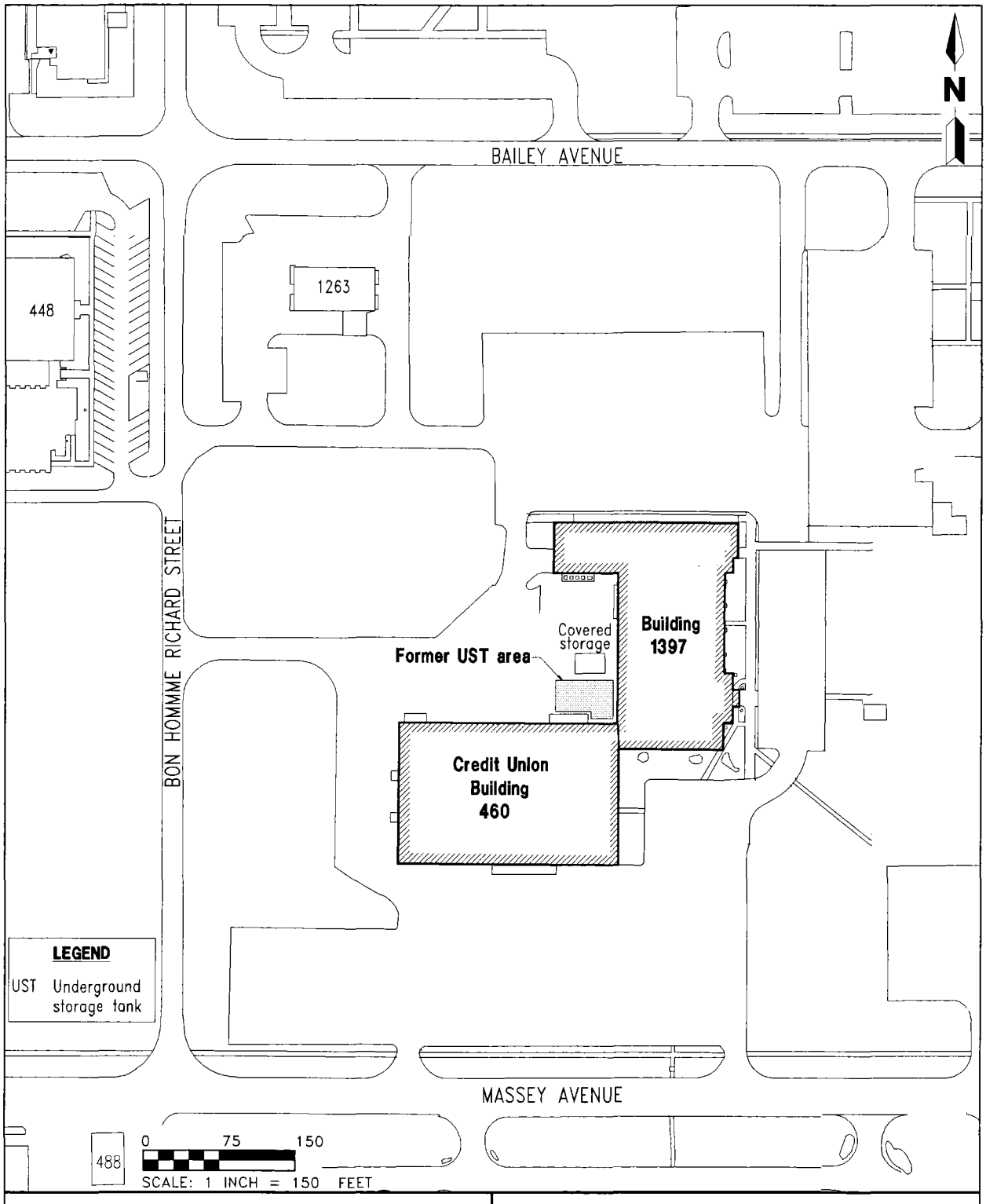

FIGURE 2-2
SITE LOCATION MAP

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CONTAMINATION ASSESSMENT REPORT ADDENDUM
CREDIT UNION, BUILDING 460

NAVAL STATION MAYPORT
MAYPORT, FLORIDA

CHAPTER 3.0

3.0 SUPPLEMENTAL CONTAMINATION ASSESSMENT

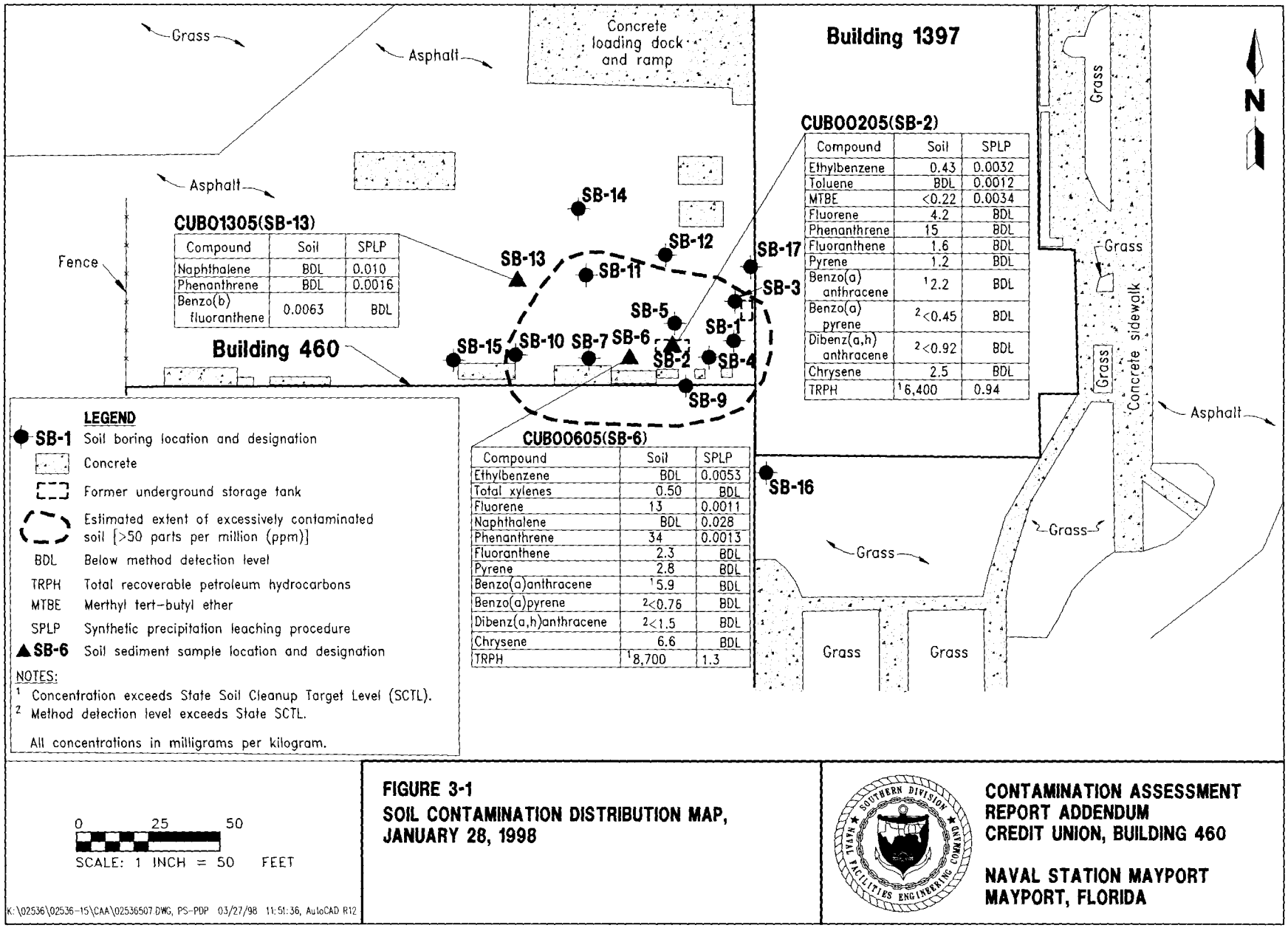
Methodologies and equipment used during the January 28, 1998, supplemental assessment were in conformance with the ABB-ES, FDEP-approved, Comprehensive Quality Assurance Plan (CompQAP) No. 870515G.

3.1 SOIL SAMPLING AND ANALYSIS. Contaminated soil is defined in Rule 62-770.200(4), FAC, as soil contaminated with petroleum or petroleum products or their chemical constituents to the extent that applicable soil cleanup target levels (SCTLs) defined in Chapter 62-770, FAC, are exceeded. Soil that causes a total corrected OVA reading of 50 parts per million (ppm) or higher for the Kerosene Analytical Group is defined as excessively contaminated. Excessively contaminated soil may be analyzed to validate the relevance of the OVA data and determine if contaminants in the soil exceed State SCTLs.

On January 28, 1998, a total of three grab soil samples were collected to verify petroleum contamination in the unsaturated zone in areas of high, medium, and low OVA headspace readings. Soil borings were advanced to approximately 4 feet below land surface (bls) using stainless-steel hand augers adjacent to the locations of soil borings SB-2, SB-6, and SB-13. Groundwater was encountered at approximately 4.5 feet bls.

Soil samples CUB00205, CUB00605, and CUB01305 from locations adjacent to soil borings SB-2, SB-6, and SB-13, respectively, were collected approximately 0.5 foot above the water table (4 feet bls) and underwent OVA headspace screening to verify OVA concentrations measured during the 1995 site assessment. Samples were placed in glass mason jars, sealed with aluminum foil, and analyzed using an OVA equipped with an flame ionization detector, in accordance with Chapter 62-770, FAC. After OVA headspace verification, soil samples were collected for analysis of volatile organic aromatics (VOAs), including MTBE, polynuclear aromatic hydrocarbons (PAHs), and total recoverable petroleum hydrocarbons (TRPH), using FL-PRO. Soil samples were also analyzed for VOAs, MTBE, PAHs, and TRPH after undergoing USEPA Method 1312, SPLP. Soil boring locations and analytical results for soil and SPLP samples are presented on Figure 3-1.

Soil sample and SPLP analytical results are presented in Appendix B, Laboratory Analytical Results, and summarized in Table 3-1 and Table 3-2, respectively. SPLP samples, which are liquid, are designated CUB00205L, CUB00605L, and CUB01305L to differentiate them from corresponding soil samples. Soil analytical results (Table 3-1) indicate that ethylbenzene, total xylenes, fluorene, phenanthrene, fluoranthene, pyrene, benzo(a)anthracene, benzo(b)fluoranthene, chrysene, and TRPH were detected in soil sample CUB00205 from soil boring location SB-2 and in soil sample CUB00605 from soil boring location SB-6. Of the compounds detected, only benzo(a)anthracene and TRPH exceeded the State SCTLS. However, when SPLP was applied to soil samples CUB00205 and CUB00605, producing SPLP samples CUB00205L and CUB00605L, none of the compounds detected in the soil samples, including benzo(a)anthracene and TRPH, exceeded the State SCTLs for leachability based on the values listed in Chapter 62-770, FAC, Table V[a] (Groundwater Cleanup Target Levels [GCTLs] for Resource Protection/Recovery). The SPLP data verify that excessively contaminated soil at the site is not a continuing source of groundwater contamination.



CUB01305(SB-13)

Compound	Soil	SPLP
Naphthalene	BDL	0.010
Phenanthrene	BDL	0.0016
Benzo(b) fluoranthene	0.0063	BDL

CUB00205(SB-2)

Compound	Soil	SPLP
Ethylbenzene	0.43	0.0032
Toluene	BDL	0.0012
MTBE	<0.22	0.0034
Fluorene	4.2	BDL
Phenanthrene	15	BDL
Fluoranthene	1.6	BDL
Pyrene	1.2	BDL
Benzo(a) anthracene	[1]2.2	BDL
Benzo(a) pyrene	[2]<0.45	BDL
Dibenz(a,h) anthracene	[2]<0.92	BDL
Chrysene	2.5	BDL
TRPH	[1]6,400	0.94

CUB00605(SB-6)

Compound	Soil	SPLP
Ethylbenzene	BDL	0.0053
Total xylenes	0.50	BDL
Fluorene	13	0.0011
Naphthalene	BDL	0.028
Phenanthrene	34	0.0013
Fluoranthene	2.3	BDL
Pyrene	2.8	BDL
Benzo(a)anthracene	[1]5.9	BDL
Benzo(a)pyrene	[2]<0.76	BDL
Dibenz(a,h)anthracene	[2]<1.5	BDL
Chrysene	6.6	BDL
TRPH	[1]8,700	1.3

LEGEND

- SB-1 Soil boring location and designation
- Concrete
- Former underground storage tank
- Estimated extent of excessively contaminated soil [>50 parts per million (ppm)]
- BDL Below method detection level
- TRPH Total recoverable petroleum hydrocarbons
- MTBE Merthyl tert-butyl ether
- SPLP Synthetic precipitation leaching procedure
- ▲SB-6 Soil sediment sample location and designation

NOTES:

[1] Concentration exceeds State Soil Cleanup Target Level (SCTL).
[2] Method detection level exceeds State SCTL.

All concentrations in milligrams per kilogram.

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FIGURE 3-1
SOIL CONTAMINATION DISTRIBUTION MAP, JANUARY 28, 1998

CONTAMINATION ASSESSMENT REPORT ADDENDUM CREDIT UNION, BUILDING 460

NAVAL STATION MAYPORT MAYPORT, FLORIDA

Table 3-1
Soil Sample Analytical Results
January 28, 1998

Contamination Assessment Report Addendum
Credit Union, Building 460
U. S. Naval Station
Mayport, Florida

Contaminant	Soil Boring, Sample Identifier, and OVA Headspace Reading			State SCTLs[1]
	SB-2 CUB00205 (300 ppm)	SB-6 CUB00605 (205 ppm)	SB-13 CUB01305 (0 ppm)	
Purgeable Aromatic Hydrocarbons (USEPA Method 8002) (mg/kg)				
Benzene	<0.022	<0.14	<0.0016	1.1
Toluene	<0.022	<0.14	<0.0016	300
Ethylbenzene	0.43	<0.14	<0.0016	240
Xylenes, total	<0.44	0.50	<0.0032	290
Methyl tert-butyl ether	<0.22	<0.14	<0.0016	350
Polynuclear Aromatic Hydrocarbons (USEPA Method 8310) (mg/kg)				
Fluorene	4.2	13	<0.011	2,100
Phenanthrene	15	34	<0.011	1,900
Fluoranthene	1.6	2.3	<0.0054	2,800
Pyrene	1.2	2.8	0.0058	2,200
Benzo(a)anthracene	[2]2.2	[2]5.9	<0.0054	1.4
Benzo(b)fluoranthene	<0.45	<0.76	0.0063	1.4
Benzo(a)pyrene	[3]<0.45	[3]<0.76	<0.0054	0.1
Dibenz(a,h,)anthracene	[3]<0.92	[3]<1.5	<0.011	0.1
Chrysene	2.5	6.6	<0.0054	140
Total Recoverable Petroleum Hydrocarbons [TRPH] (FL-PRO Method) (mg/kg)				
TRPH	[2]6,400	[2]8,700	<6.3	350

[1] Chapter 62-770, Florida Administrative Code, Table IV, Direct Exposure 1#.
[2] Concentration equals or exceeds State SCTL.
[3] Method detection level exceeds State SCTL.

Notes: Values in parentheses represent corrected OVA readings of soil sample in ppm.

OVA = organic vapor analyzer.
SCTL = Soil Cleanup Target Level (Chapter 62-770, Florida Administrative Code); Table IV Soil Cleanup Target Levels: Direct Exposure 1#.
ppm = parts per million.
USEPA = U.S. Environmental Protection Agency.
mg/kg = milligrams per kilogram.
< = less than.
FL-PRO = Florida Petroleum Residual Organics.

Table 3-2
Analytical Results of Soil SPLP Samples
January 28, 1998

Contamination Assessment Report Addendum
Credit Union, Building 460
U. S. Naval Station
Mayport, Florida

Contaminant	Soil Boring, Sample Identifier, and OVA Headspace Concentration			State SCTLs[1]
	SB-2 CUB00205L (300 ppm)	SB-6 CUB00605L (205 ppm)	SB-13 CUB01305L (0 ppm)	
Purgeable Aromatic Hydrocarbons (USEPA Method 602, modified) (mg/ℓ)				
Benzene	<0.001	<0.001	<0.001	0.007
Toluene	0.0012	<0.001	<0.001	0.4
Ethylbenzene	0.0032	0.0053	<0.001	0.4
Xylenes, total	<0.002	<0.002	<0.002	0.3
Methyl tert-butyl ether	0.0034	<0.001	<0.001	0.2
Polynuclear Aromatic Hydrocarbons (USEPA Method 8310) (mg/ℓ)				
Naphthalene	<0.010	0.028	0.010	1
Fluorene	<0.001	0.0011	<0.001	87
Phenanthrene	<0.001	0.0013	0.0016	120
Total Recoverable Petroleum Hydrocarbons [TRPH] (FL-PRO Method) (mg/ℓ)				
TRPH	0.94	1.3	NA	340

[1] Chapter 62-770, Florida Administrative Code.

Notes: Values in parentheses represent corrected OVA readings of soil sample in ppm.

SPLP = Synthetic Precipitation Leaching Procedure.
OVA = organic vapor analyzer.
SCTL = Soil Cleanup Target Level (Chapter 62-770, Florida Administrative Code); Table IV Soil Cleanup Target Levels: Table V".
ppm = parts per million.
USEPA = U.S. Environmental Protection Agency.
mg/ℓ = milligrams per liter.
< = less than.
FL-PRO = Florida Petroleum Residual Organics.
NA = not analyzed.

OVA headspace readings measured during the 1995 site assessment were significantly higher than the 1998 verification soil sampling OVA headspace readings. The 1995 OVA readings at 4 feet bls in soil borings SB-2 and SB-6 were 3,100 ppm and 2,200 ppm, respectively. The 1998 OVA readings at 4 feet bls in soil borings SB-2 and SB-6 were 300 ppm and 205 ppm, respectively. The discrepancy in OVA results may, in part, be attributed to small differences in sample location and depth, or to a reduction in volatile organic compound (VOC) concentrations from *in situ* biodegradation.

3.2 GROUNDWATER MONITORING WELL SAMPLING. Groundwater samples were collected from shallow monitoring wells MPT-CU-MW03 and MPT-CU-MW04, in accordance with the ABB-ES CompQAP. Prior to sample collection a minimum of five well volumes were purged from each monitoring well at a rate not exceeding 1 liter per minute using a peristaltic pump with Teflon™ tubing. Groundwater samples were collected using pre-cleaned, disposable Teflon™ bailers. The groundwater samples were placed in appropriate containers, packed, and then shipped via express overnight delivery under chain-of-custody protocol to CH_2M Hill Laboratories in Montgomery, Alabama, for analyses.

Groundwater samples were analyzed for VOAs and PAHs (USEPA Methods 602 and 8310) only because no other petroleum chemicals of concern were detected in the June 1995 and March 1996 groundwater samples. Equipment rinseate blanks and trip blanks were also collected and analyzed as appropriate. Analytical results of groundwater samples collected on January 28, 1998, are presented in Appendix B, Laboratory Analytical Results, and summarized in Table 3-3. The June 1995 and March 1996 groundwater analytical results are included in the letter report dated June 7, 1996, in Appendix A, Correspondence. Groundwater sample locations and groundwater analytical results are shown on Figure 3-2.

3.2.1 Groundwater Analytical Results. MTBE, naphthalene, acenaphthene, fluorene, phenanthrene, anthracene, fluoranthene, pyrene, and benzo(a)anthracene were detected in groundwater sample CUG00401 collected January 28, 1998, from monitoring well MPT-CU-MW04. MTBE (36 micrograms per liter [$\mu g/\ell$]) slightly exceeded the State GCTL of 35 $\mu g/\ell$. All other compounds detected were below the State GCTL.

MTBE and fluorene were detected in groundwater sample CUG00301 collected from monitoring well MPT-CU-MW03 on January 28, 1998. MTBE and fluorene concentrations in CUG00301 were significantly below the respective State GCTLs of 35 $\mu g/\ell$ and 280 $\mu g/\ell$.

All petroleum compound concentrations in groundwater samples collected from monitoring wells MPT-CU-MW04 and MPT-CU-MW03 on January 28, 1998, have significantly decreased compared to June 1995 groundwater analytical data.

3.3 GROUNDWATER ELEVATION SURVEY AND AQUIFER CHARACTERISTICS. Depth-to-groundwater measurements for each monitoring well were obtained on January 28, 1998, using an electronic water level indicator. Groundwater levels in site monitoring wells ranged from approximately 4.3 to 4.9 feet bls. Free product was not detected in any monitoring well at the site.

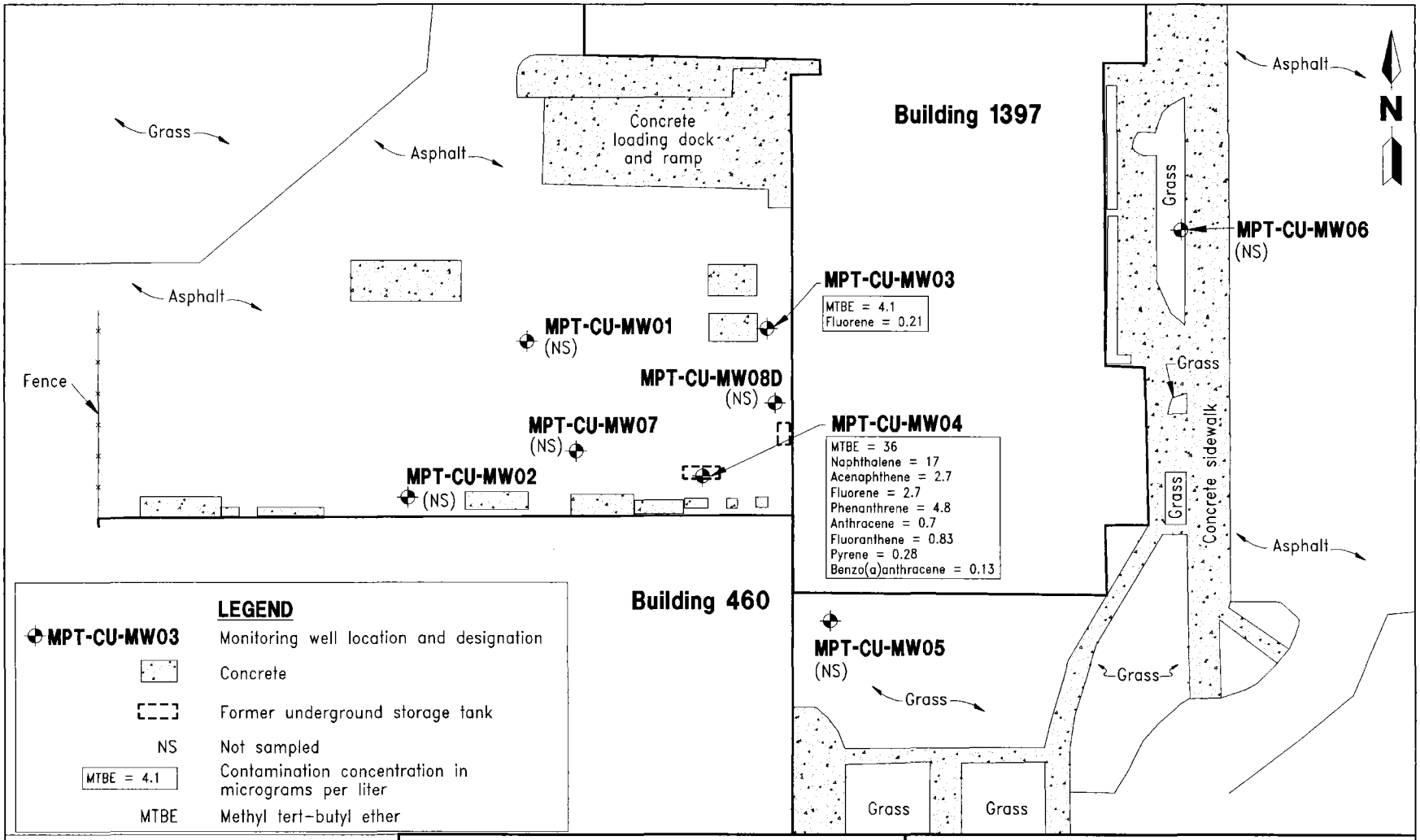

FIGURE 3-2
DISTRIBUTION OF PETROLEUM COMPOUNDS IN GROUNDWATER, JANUARY 28, 1998

CONTAMINATION ASSESSMENT REPORT ADDENDUM
CREDIT UNION, BUILDING 460

NAVAL STATION MAYPORT
MAYPORT, FLORIDA

Table 3-3
Summary of Groundwater Analytical Results
June 1, 1995, March 25 and 26, 1996, and January 28, 1998

Contamination Assessment Report Addendum
Credit Union, Building 460
U.S. Naval Station
Mayport, Florida

Contaminant	Well Identification (MPT-CU-)						State GCTLs[1]
	MW03 6/1/95	MW03 3/26/96	MW03 1/28/98	MW04 6/1/95	MW04 3/25/96	MW04 1/28/98	
Volatile Organics (USEPA Method 601/602) (µg/ℓ)							
Benzene	1.9	ND	ND	[2]18	[2,3]2	ND	1
Toluene	ND	ND	ND	ND	ND	ND	40
Ethylbenzene	ND	ND	ND	[3]30	[3]4.5	ND	30
Xylenes, total	ND	ND	ND	ND	ND	ND	20
Total VOAs	1.9	ND	ND	[3]48	[3]6.5	ND	NA
Methyl tert-butyl ether	12	ND	4.1	[2,3]240	[2,3]44	[2]36	35
Polynuclear Aromatic Hydrocarbons [PAHs] (USEPA Method 610) (µg/ℓ)							
Total Naphthalenes	ND	ND	ND	16	[3]34	NA	NA
Total PAHs (excluding naphthalenes)	ND	ND	ND	[3]2.9	[3]11.7	NA	NA
Naphthalene	NA	NA	ND	NA	NA	17	20
Acenaphthene	NA	NA	ND	NA	NA	2.7	20
Fluorene	NA	NA	0.21	NA	NA	2.7	280
Phenanthrene	NA	NA	ND	NA	NA	4.8	210
Anthracene	NA	NA	ND	NA	NA	0.7	2,100
Fluoranthene	NA	NA	ND	NA	NA	0.83	280
Pyrene	NA	NA	ND	NA	NA	0.28	210
Benzo(a)anthracene	NA	NA	ND	NA	NA	0.13	0.2
Total Recoverable Petroleum Hydrocarbons [TRPH] (USEPA Method 418.1) (mg/ℓ)							
TRPH	[4]NS	ND	NS	ND	ND	NS	5

[1] Chapter 62-770.730 (5A), Florida Administrative Code.
[2] Concentration equals or exceeds State GCTL.
[3] Concentration of duplicate sample.
[4] Sample bottle was broken during laboratory analysis.

Notes: GCTL = groundwater cleanup target level.
USEPA = U.S. Environmental Protection Agency.
µg/ℓ = micrograms per liter.
ND = not detected.
Total VOAs = total volatile organic aromatics (the sum of benzene, toluene, ethylbenzene, and xylenes).
NA = not applicable.
mg/ℓ = milligrams per liter.
NS = not sampled.

Monitoring well locations and top-of-casing elevations were surveyed on August 11, 1995, by a Florida registered professional land surveyor and referenced to the U.S. Coastal and Geodetic Survey 1927 North American Datum and National Geodetic Vertical Datum of 1929, respectively. Water table elevations were calculated by subtracting the depth to groundwater from the top-of-casing elevation recorded for each monitoring well. Depth-to-water, top-of-casing, and water table elevation data for each groundwater monitoring well are presented in Table 3-4. A water table elevation contour map is shown on Figure 3-3.

The January 28, 1998, water table elevation data indicate the groundwater flow direction is north-northeast with an average hydraulic gradient of 0.0017 foot per foot. The January 28, 1998, groundwater flow direction and hydraulic gradient are generally consistent with the June 1, 1995, results.

Table 3-4
Water Table Elevation Data, January 28, 1998

Contamination Assessment Report Addendum
Building 460
U.S. Naval Station
Mayport, Florida

Monitoring Well Number	Total Well Depth (feet bls)	Screened Interval (feet bls)	TOC Elevation	Depth to Water (feet BTOC)	Water Level Elevation (feet MSL)
MPT-CU-MW01	13.0	3.0 to 13.0	11.28	4.31	6.97
MPT-CU-MW02	13.0	3.0 to 13.0	11.28	4.29	6.99
MPT-CU-MW03	13.0	3.0 to 13.0	11.29	4.39	6.90
MPT-CU-MW04	13.0	3.0 to 13.0	11.54	4.57	6.97
MPT-CU-MW05	13.0	3.0 to 13.0	11.71	4.90	6.81
MPT-CU-MW06	13.0	3.0 to 13.0	11.05	NM	NM
MPT-CU-MW07	13.0	3.0 to 13.0	11.33	4.38	6.95
MPT-CUMW08D	30.0	25.0 to 30.0	11.37	NM	NM

Notes: bls = below land surface.
TOC = top of casing.
BTOC = below top of casing.
MSL = mean sea level.
D = deep monitoring well.
NM = not measured.

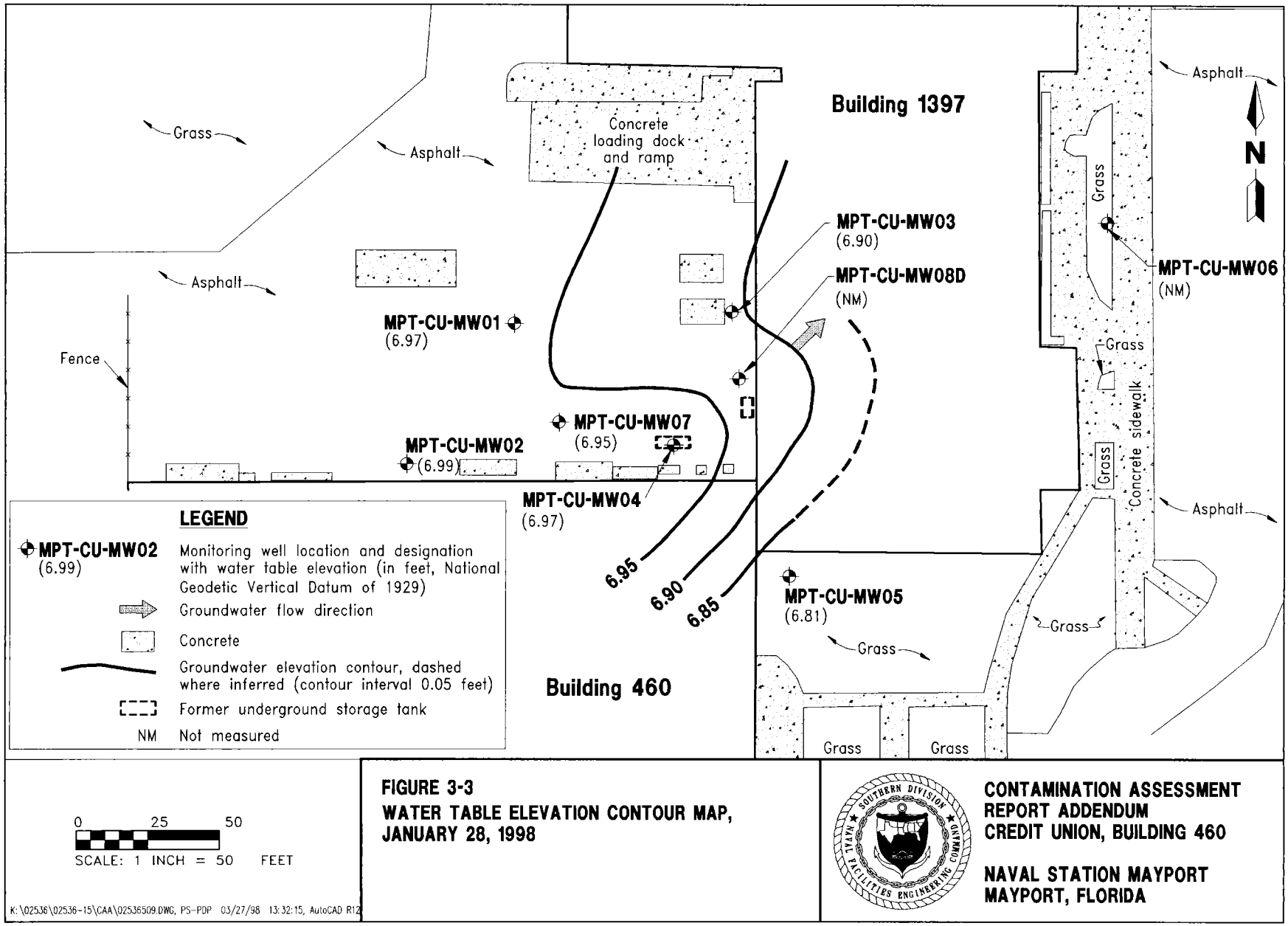

FIGURE 3-3
WATER TABLE ELEVATION CONTOUR MAP, JANUARY 28, 1998

CONTAMINATION ASSESSMENT REPORT ADDENDUM
CREDIT UNION, BUILDING 460

NAVAL STATION MAYPORT
MAYPORT, FLORIDA

CHAPTER 4.0

4.0 FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

4.1 FINDINGS. The summary of findings at the Building 460 site presented below is based on the results of the supplemental investigation and laboratory analytical results.

- OVA headspace concentrations measured January 28, 1998, were significantly lower than the 1995 site-assessment OVA headspace data.
- SPLP analytical results indicate that none of the petroleum chemicals of concern detected in excessively contaminated soil samples exceeded the State SCTLs for leachability based on the values listed in Chapter 62-770, FAC, Table V[a] (GCTLs for Resource Protection/Recovery).
- Free product was not detected in any site monitoring well.
- MTBE, naphthalene, acenaphthene, fluorene, phenanthrene, anthracene, fluoranthene, pyrene, and benzo(a)anthracene were detected in groundwater samples collected January 28, 1998, from monitoring wells MPT-CU-MW04 and MPT-CU-MW03. Only MTBE exceeded the State GCTL of 35 $\mu g/\ell$. All other compounds detected were below the State GCTL.
- All petroleum compound concentrations in groundwater samples collected from monitoring wells MPT-CU-MW04 and MPT-CU-MW03 on January 28, 1998, have significantly decreased compared to June 1995 groundwater analytical data.
- The general groundwater flow direction in the surficial aquifer is north-northeast.

4.2 CONCLUSIONS. The following conclusions are based on the findings of the supplemental assessment at the Building 460 site:

- Lower OVA concentrations in excessively contaminated soil may indicate a reduction in VOC concentrations resulting from *in situ* biodegradation.
- Based on leachability values listed in Chapter 62-770, FAC, Table V[a] (GCTLs for Resource Protection/Recovery), excessively contaminated soil at the site is not a continuing source of groundwater contamination.
- Groundwater sample analytical results indicate petroleum chemicals of concern concentrations have decreased from June 1995 to January 1998, and may indicate natural attenuation of contamination by biodegradation is occurring.

4.3 RECOMMENDATIONS. Based on the findings of the supplemental assessment, ABB-ES, on behalf of the Navy, recommends No Further Action without conditions or restrictions for the Navy Federal Credit Union, Building 460 site at NAVSTA Mayport.

CHAPTER 5.0

5.0 PROFESSIONAL REVIEW CERTIFICATION

This Contamination Assessment Report Addendum was prepared under the direct supervision of a Professional Geologist registered in the State of Florida. This assessment was conducted using sound hydrogeologic principles and professional judgement and is based on the geologic investigation and associated information detailed in the text and appended to this report. If conditions are determined to exist that differ from those described, the undersigned geologist should be notified to evaluate the effects of any additional information on the assessment described in this report. This report meets the criteria set in Chapter 492 of the Florida Statutes with regard to good professional practices as applied to Chapter 62-770 of the Florida Administrative Code. This report was developed for Building 460, NAVSTA Mayport, Mayport, Florida, and should not be construed to apply to any other site.

_____

Michael J. Williams
Professional Geologist
P.G. No. 344

_____

Date

REFERENCES

REFERENCES

ABB Environmental Services, Inc. 1996. *Contamination Assessment Report, Credit Union, Building 460, U.S. Naval Station, Mayport, Florida.* Prepared for Southern Division, Naval Facilities Engineering Command, North Charleston, South Carolina (February).

APPENDIX A

APPENDIX A

CORRESPONDENCE

Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

March 1, 1996

Mr. Byas Glover
Department of the Navy, Southern Division
Naval Facilities Engineering Command
2155 Eagle Drive, PO Box 190010
North Charleston, SC. 29419-9010

file:mayport\ b460car.doc

RE: Review of Contamination Assessment Report for Building 460, U.S. Naval Station Mayport

Dear Mr. Glover:

I have reviewed the above Contamination Assessment Report dated February 1996 (received February 26, 1996). Although the site has minimum petroleum-constituent ground water contamination, I am concerned that a significant amount of excessively contaminated soil remains at the site. Please resample the monitoring wells at the site for EPA Method 602 and EPA Method 610 constituents and submit a CAR Addendum which includes these data and a proposed course of action.

If you have questions or require further clarification, please contact me at (904) 921-9994.

Sincerely,

James H. Cason, P.G.
Remedial Project Manager

cc: Brian Cheary, FDEP Northeast District
Jerry Young, City of Jacksonville
Terry Hansen, ABB-ES
Cheryl Mitchell, NAVSTA Mayport

ABB

June 7, 1996 Doc. No. 08567-04

Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32301-2400
ATTN: Mr. Jim Cason

Subject: Contamination Assessment Report Addendum for Building 460, U.S. Naval Station Mayport, Florida

Dear Mr. Cason:

ABB Environmental Services, Inc. (ABB-ES) was contracted by Southern Division, Naval Facilities Engineering Command (SOUTHNAVFACFENGCOM) to prepare a Contamination Assessment Report (CAR) to assess the horizontal and vertical extent of soil and groundwater contamination at Building 460, U.S. Naval Station Mayport, Florida. A CAR was submitted to FDEP in February 1996. In response to FDEPs comments to the CAR dated March 1, 1996, ABB-ES representatives resampled the eight monitoring wells at the Building 460 site in March 1996. The purpose of this sampling event was to gather current groundwater information at the site.

The site is the former location of two underground storage tanks (USTs) used to store #2 fuel oil. The USTs were removed in March 1994 and approximately 300 tons of excessively contaminated soil were removed during the tank closure. Building 460 presently houses the Navy Federal Credit Union, a U.S. Postal Service branch, a library, and classrooms.

Groundwater samples were collected March 25 and 26, 1996, from the eight site monitoring wells. After low-flow purging, groundwater samples were collected from each well with Teflon bailers and shipped via overnight carrier to Quality Analytical Laboratories, Inc., an FDEP- and USEPA-approved analytical laboratory. The samples were analyzed for volatile organic compounds (VOCs) by USEPA Methods 601/602, polynuclear aromatic hydrocarbons (PAH) by USEPA Method 610, total recoverable petroleum hydrocarbons (TRPH) by USEPA Method 418.1, ethylene dibromide (EDB) by USEPA Method 504.1, and lead by USEPA Method 239.2. Groundwater laboratory analyses are included in the Attachment and compounds detected are summarized in Table 1. Table 1 also provides a comparison of groundwater analytical data collected in June 1995 which was included in the CAR.

Volatile organic compounds (VOC) were detected only in groundwater samples collected from MW-4 at concentrations below the State regulatory levels for No Further Action (NFA). VOCs were previously detected in groundwater samples collected from MW-1, MW-3, and MW-8 in June 1995; however, they were not detected in the samples collected March 25 and 26, 1996.

Total naphthalenes and total PAH (excluding napthalenes) were detected only in groundwater samples collected from monitoring well MW-4. Total naphthalenes concentrations detected in groundwater samples collected from MW-4 ranged from 32.4 micrograms per liter (μg/L) to 34 μg/L. These concentrations are higher than those observed during the June 1995 sampling event; however, they are less than the State regulatory level for source monitoring wells of 2,000 μg/L required for a monitoring only plan (MOP). Total PAHs (excluding naphthalenes) ranged from 7.92 μg/L to 11.73 μg/L in the groundwater samples collected from MW-4. These are less than the State regulatory level of 20 times the method detection limit for a source monitoring well required for an MOP.

Based on the March 1996 groundwater sampling results ABB-ES recommends remediation of excessively contaminated soil by natural biodegration and Monitoring Only for this site. Groundwater samples will be collected quarterly from on site monitoring wells MW01, MW03, MW04, and MW08. The March 1996 sampling event would serve as the first quarter sampling for the monitoring plan. Samples collected from these wells will be shipped to an FDEP- and USEPA-approved analytical laboratory and analyzed for USEPA Methods 601/602 and 610. Upon receipt of groundwater analytical results after the fourth sampling episode (December 1996), ABB-ES will recommend no further action, continued monitoring, or, an additional IRA soil removal for the site.

If you agree with this recommendation please send a letter of notification to Byas Glover. Should you have any questions, or if additional information is required, please contact me or Joe Fugitt at (904) 656-1293.

Sincerely,

ABB ENVIRONMENTAL SERVICES, INC.

Terry Hansen, P.G.
Senior Task Order Manager

Joseph F. Fugitt
Professional Geologist
P.G. No. 1613
Date 6/7/96

Attachments

cc: Byas Glover, SDIV
Jan Bovier, NAVSTA Mayport
File

Table 1
Summary of Groundwater Analytical Results, June 1995 and March 1996

Contamination Assessment Report Addendum
Building 460
NAVSTA Mayport, Mayport, Florida

Contaminant	Well Identification MPT-CU-MW# and Sample Date						No Further Action Regulatory Standards[1] Class G-II Groundwater
	MW01 6/1/95	MW01 3/26/96	MW02 6/1/95	MW02 3/26/96	MW03 6/1/95	MW03 3/26/96	
Volatile Organics (EPA Method 601/602), ppb							
Benzene	ND	ND	ND	ND	1.9	ND	50 ppb
Toluene	ND	ND	ND	ND	ND	ND	50 ppb
Ethylbenzene	ND	ND	ND	ND	ND	ND	
Xylenes, total	1.1	ND	ND	ND	ND	ND	
Total VOAs	1.1	ND	ND	ND	1.9	ND	50 ppb
Methyl tert-butyl ether	ND	ND	ND	ND	12	ND	50 ppb
Polynuclear Aromatic Hydrocarbons [PAHs] (EPA Method 610), ppb							
Total Naphthalenes	ND	ND	ND	ND	ND	ND	100 ppb
Total PAHs (excluding naphthalenes)	ND	ND	ND	ND	ND	ND	10 ppb
Total Recoverable Petroleum Hydrocarbons [TRPH] (EPA Method 418.1), ppm							
TRPH	ND	ND	ND	ND	NA	ND	5 ppm
Ethylene Dibromide [EDB] (EPA 504.1), ppb							
EDB	ND	ND	ND	ND	ND	ND	0.02 ppb
LEAD (EPA Method 239.2) ppb							
Lead, unfiltered	ND	ND	ND	ND	ND	ND	50 ppb

See notes at end of table.

Table 1 (Continued)
Summary of Groundwater Analytical Results,
June 1995 and March 1996

Contamination Assessment Report Addendum
Building 460
NAVSTA Mayport, Mayport, Florida

Contaminant	Well Identification MPT-CU-MW# and Sample Date						No Further Action Regulatory Standards[1] Class G-II Groundwater
	MW04 6/1/95	MW04 3/25/96	MW04DS 6/1/95	MW04DS 3/25/96	MW05 6/1/95	MW05 3/25/96	
Volatile Organics (EPA Method 601/602), ppb							
Benzene	18	1.9	18	2	ND	ND	50 ppb
Toluene	ND	ND	ND	ND	ND	ND	50 ppb
Ethylbenzene	29	4.3	30	4.5	ND	ND	
Xylenes, total	ND	ND	ND	ND	ND	ND	
Total VOAs	47	6.2	48	6.5	ND	ND	50 ppb
Methyl tert-butyl ether	240	43	230	44	ND	ND	50 ppb
Polynuclear Aromatic Hydrocarbons (PAHs) (EPA Method 610), ppb							
Total Naphthalenes	16	32.4	15	34	ND	ND	100 ppb
Total PAHs (excluding naphthalenes)	2.6	7.72	2.9	11.73	ND	ND	10 ppb
Total Recoverable Petroleum Hydrocarbons (TRPH) (EPA Method 418.1), ppm							
TRPH	ND	ND	ND	ND	ND	ND	5 ppm
Ethylene Dibromide (EDB) (EPA 504.1), ppb							
EDB	ND	ND	ND	ND	ND	ND	0.02 ppb
LEAD (EPA Method 239.2) ppb							
Lead, unfiltered	ND	ND	ND	ND	ND	ND	50 ppb

See notes at end of table.

Table 1 (Continued)
Summary of Groundwater Analytical Results, June 1995 and March 1996

Contamination Assessment Report Addendum
Building 460
NAVSTA Mayport, Mayport, Florida

Contaminant	Well Identification MPT-CU-MW# and Sample Date						No Further Action Regulatory Standards[1] Class G-II Groundwater
	MW06 6/1/95	MW06 3/25/96	MW07 6/1/95	MW07 3/25/96	MW08D 6/1/95	MW08D 3/25/96	
Volatile Organics (EPA Method 601/602), ppb							
Benzene	ND	ND	ND	ND	ND	ND	50 ppb
Toluene	ND	ND	ND	ND	1.2	ND	50 ppb
Ethylbenzene	ND	ND	ND	ND	ND	ND	
Xylenes, total	ND	ND	ND	ND	3.9	ND	
Total VOAs	ND	ND	ND	ND	5.1	ND	50 ppb
Methyl tert-butyl ether	ND	ND	ND	ND	ND	ND	50 ppb
Polynuclear Aromatic Hydrocarbons [PAHs] (EPA Method 610), ppb							
Total Naphthalenes	NA	ND	ND	ND	ND	ND	100 ppb
Total PAHs (excluding naphthalenes)	NA	ND	ND	ND	ND	ND	10 ppb
Total Recoverable Petroleum Hydrocarbons [TRPH] (EPA Method 418.1), ppm							
TRPH	ND	ND	ND	ND	ND	ND	5 ppm
Ethylene Dibromide [EDB] (EPA 504.1), ppb							
EDB	ND	ND	ND	ND	ND	ND	0.02 ppb
LEAD (EPA Method 239.2) ppb							
Lead, unfiltered	ND	ND	ND	ND	ND	ND	50 ppb

[1] Chapter 62-770.730 (5A), Florida Administrative Code.

Notes: DS = duplicate sample.
USEPA = U.S. Environmental Protection Agency
ppb = parts per billion.
ND = not detected.
NA = Not Available (sample bottles broken by laboratory during analyses).
Total VOAs = total volatile organic aromatics: the sum of benzene, toluene, ethylbenzene, and xylenes.
ppm = parts per million.

ATTACHMENT

GROUNDWATER LABORATORY ANALYSES

June 1995 and March 1996

ABB ENVIRONMENTAL SERVICES, INC.

SDG # MU001 COC# 032696A1 DATE: 26-Mar-96

ABB-ES
Task Order #: 119
Job #: 8567-05

Tallahassee Ph#:
(904) 656-1293
Field Office Ph#:
(904) 246-0205
Field Fax #:
(904) 246-0205

PROJECT NAME: NAVSTA MAYPORT
SITE NAME: MAYPORT
PROJECT MANAGER: TERRY HANSEN
COPY TO: Terry Hansen & Frank Lesesne
REQ. COMPLETION DATE: 04/26/96

COC Serial No.

B 0126

Comments	SAMPLE IDENTIFIER	SAMPLE DATE	SAMPLE TIME	MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	TOTAL CONTAINERS	1 VOC 601/602 HCL 40 ml	2 SVOC 610 NONE 1.0 L	3 EDB 504 NONE 125 mL	4	5	6 Lead 239.2 HNO3 500 mL	7 TRPH 418.1 H2SO4 1 L	8	TICS (Y/N)	QAL LAB CODE PARAMETER METHOD PRESERVATIVE VOLUME
	CUT002	25-Mar-96	08:45	W		W	3	3								N	001
	CUY001	25-Mar-96	09:00	W		W	9	3	2	2			1	1		N	002
	CUR001	25-Mar-96	09:15	W		W	9	3	2	2			1	1		N	003
	CUG00601	25-Mar-96	11:40	W		W	9	3	2	2			1	1		N	004
	CUG00601MS	25-Mar-96	11:40	W		W	9	3	2	2			1	1		N	004
	CUG00601MSD	25-Mar-96	11:40	W		W	9	3	2	2			1	1		N	004
*Only 1-1 L filled for 610	CUG00501	25-Mar-96	13:20	W		W	8	3	1	2			1	1		N	005
	CUG00701	25-Mar-96	15:15	W		W	9	3	2	2			1	1		N	006
	CUG00801	25-Mar-96	16:45	W		W	9	3	2	2			1	1		N	007
	CUG00401	25-Mar-96	17:30	W		W	9	3	2	2			1	1		N	008
	CUG00401D	25-Mar-96	17:30	W		W	9	3	2	2			1	1		N	009
TOTAL PARAMETERS PER COLUMN							92	33	19	20	0	0	10	10			

NEESA QC LEVEL E

NOTES:

SENT TO CH2M HILL - MONTGOMERY, AL LAB

SAMPLED/RELINQUISHED BY	DATE	TIME	RECEIVED BY:
Michael O. Joyner	3/26/96	1530	
RELINQUISHED BY	DATE	TIME	RECEIVED BY:
RELINQUISHED BY	DATE	TIME	RECEIVED BY:

RELINQUISHED BY	DATE	TIME
RELINQUISHED BY		
RELINQUISHED BY Set to SA	DATE	TIME

RECEIVED BY	DATE	TIME
Paul Gonzalez	3/27/96	0915
RECEIVED BY	DATE	
RECEIVED BY	DATE	TIME

LAB # MA578
PROJ #
ASK PT#

SHIPPING AIRBILL NUMBER:
01336377792 SHIPPED VIA FEDERAL EXPRESS

260 3949 397
260 3949 406

WHITE/YELLOW COPY - LABORATORY PINK COPY - ABB-ES

ANALYSIS HPW8
QC LEVEL IV DATE DUE 4/5
REPORT TO LISA EVANS/LMG
SHIP # Fed-Ex LAB LRD INIT

COC	ICE
ANA REQ	TEMP
CUST SEAL	PH
SAMPLE COND	

000104

ABB ENVIRONMENTAL SERVICES, INC.

SDG # MU001 COC# 032696A2 DATE: 26-Mar-96

ABB-ES
Task Order #: 119
Job #: 8567-05

Tallahassee Ph#:
(904) 656-1293
Field Office Ph#:
(904) 246-0205
Field Fax #:
(904) 246-0205

PROJECT NAME: NAVSTA MAYPORT
SITE NAME: MAYPORT
PROJECT MANAGER: TERRY HANSEN
COPY TO: Terry Hansen & Frank Lesesne
REQ. COMPLETION DATE: 04/26/96

COC Serial No. B 0127

Comments	SAMPLE IDENTIFIER	SAMPLE DATE	SAMPLE TIME	MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	LAB TEST CODES 1 TOTAL CONTAINERS	2 VOC 601/602 HCL 40 ml	3 SVOC 610 NONE 1.0 L	4 EDB 504 NONE 125 mL	5	6	7 Lead 239.2 HNO3 500 mL	8 TRPH 418.1 H2SO4 1 L	TICS (Y/N)	QAL LAB CODE PARAMETER METHOD PRESERVATIVE VOLUME
	CUG00201	26-Mar-96	09:00	W		W	9	3	2	2			1	1	N	010
	CUG00301	26-Mar-96	09:55	W		W	9	3	2	2			1	1	N	011
*End of SDG MU001	CUG00101	26-Mar-96	11:00	W		W	9	3	2	2			1	1	N	012
TOTAL PARAMETERS PER COLUMN							27	9	6	6	0	0	3	3		

NEESA QC LEVEL E

NOTES:

SENT TO CH2M HILL - MONTGOMERY, AL LAB

SAMPLED/RELINQUISHED BY	DATE	TIME	RECEIVED BY:
Michael O. Joyner	3/26/96	1530	
RELINQUISHED BY	DATE	TIME	RECEIVED BY:
RELINQUISHED BY	DATE	TIME	RECEIVED BY:

RELINQUISHED BY	DATE	TIME	RECEIVED BY
RELINQUISHED BY	DATE	TIME	RECEIVED BY

RECEIVED BY	DATE	TIME
Paul Gonzalez	3/27/96	0915
RECEIVED BY	DATE	TIME
RECEIVED BY	DATE	TIME

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00105

US Naval Station, Mayport
Building 460 (The Credit Union) Analytical Data Report

Lab Sample Number:		B5F0601080				MA578012				B5F0601080				MA578010					
Site		MAYPORT 460				MAYPORT 460				MAYPORT 460				MAYPORT 460					
Locator		CUG00101				CUG00101				CUG00201				CUG00201					
Collect Date:		01-JUN-95				26-MAR-96				01-JUN-95				26-MAR-96					
		VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL		
Volatile Organics (601/602)	ug/l																		
1,1,1-Trichloroethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
1,1,2,2-Tetrachloroethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
1,1,2-Trichloroethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
1,1-Dichloroethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
1,1-Dichloroethene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
1,2-Dichlorobenzene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
1,2-Dichloroethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
1,2-Dichloropropane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
1,3-Dichlorobenzene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
1,4-Dichlorobenzene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
2-Chloroethyl vinyl ether		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Bromodichloromethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Bromoform		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Bromomethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Carbon tetrachloride		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Chlorobenzene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Chloroethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Chloroform		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Chloromethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Dibromochloromethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Dichlorodifluoromethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Methylene chloride		1	U	ug/l	1	5	U	ug/l	5	1	U	ug/l	1	5	U	ug/l	5		
Tetrachloroethene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Trichloroethene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Trichlorofluoromethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Vinyl chloride		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
cis-1,3-Dichloropropene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
trans-1,2-Dichloroethene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
trans-1,3-Dichloropropene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Benzene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Ethylbenzene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Toluene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Xylenes (total)		1.1		ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Methyl tert-butyl ether		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED

US Naval Station, Mayport
Building 460 (The Credit Union) Analytical Data Report

Lab Sample Number:		B5F0601080				MA578011				B5F0601080				MA578008					
Site		MAYPORT 460				MAYPORT 460				MAYPORT 460				MAYPORT 460					
Locator		CUG00301				CUG00301				CUG00401				CUG00401					
Collect Date:		01-JUN-95				26-MAR-96				01-JUN-95				25-MAR-96					
		VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL		
Volatile Organics (601/602)	ug/l																		
1,1,1-Trichloroethane		1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2	1	U	ug/l	1		
1,1,2,2-Tetrachloroethane		1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2	1	U	ug/l	1		
1,1,2-Trichloroethane		1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2	1	U	ug/l	1		
1,1-Dichloroethane		1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2	1	U	ug/l	1		
1,1-Dichloroethene		1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2	1	U	ug/l	1		
1,2-Dichlorobenzene		1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2	1	U	ug/l	1		
1,2-Dichloroethane		1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2	1	U	ug/l	1		
1,2-Dichloropropane		1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2	1	U	ug/l	1		
1,3-Dichlorobenzene		1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2	1	U	ug/l	1		
1,4-Dichlorobenzene		1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2	1	U	ug/l	1		
2-Chloroethyl vinyl ether		1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2	1	U	ug/l	1		
Bromodichloromethane		1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2	1	U	ug/l	1		
Bromoform		1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2	1	U	ug/l	1		
Bromomethane		1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2	1	U	ug/l	1		
Carbon tetrachloride		1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2	1	U	ug/l	1		
Chlorobenzene		1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2	1	U	ug/l	1		
Chloroethane		1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2	1	U	ug/l	1		
Chloroform		1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2	1	U	ug/l	1		
Chloromethane		1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2	1	U	ug/l	1		
Dibromochloromethane		1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2	1	U	ug/l	1		
Dichlorodifluoromethane		1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2	1	U	ug/l	1		
Methylene chloride		1	U	ug/l	1	5	U	ug/l	5	3.5	J	ug/l	2	5	U	ug/l	5		
Tetrachloroethene		1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2	1	U	ug/l	1		
Trichloroethene		1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2	1	U	ug/l	1		
Trichlorofluoromethane		1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2	1	U	ug/l	1		
Vinyl chloride		1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2	1	U	ug/l	1		
cis-1,3-Dichloropropene		1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2	1	U	ug/l	1		
trans-1,2-Dichloroethene		1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2	1	U	ug/l	1		
trans-1,3-Dichloropropene		1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2	1	U	ug/l	1		
Benzene		1.9		ug/l	1	1	U	ug/l	1	18		ug/l	2	1.9		ug/l	1		
Ethylbenzene		1	U	ug/l	1	1	U	ug/l	1	29		ug/l	2	4.3		ug/l	1		
Toluene		1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2	1	U	ug/l	1		
Xylenes (total)		1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2	1	U	ug/l	1		
Methyl tert-butyl ether		12		ug/l	1	1	U	ug/l	1	240		ug/l	2	43		ug/l	1		

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED

US Naval Station, Mayport
Building 460 (The Credit Union) Analytical Data Report

Lab Sample Number:		B5F0601080				MA578009				B5F0601080				MA578005					
Site		MAYPORT 460				MAYPORT 460				MAYPORT 460				MAYPORT 460					
Locator		CUG00401D				CUG00401D				CUG00501				CUG00501					
Collect Date:		01-JUN-95				25-MAR-96				02-JUN-95				25-MAR-96					
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL			
Volatile Organics (601/602)	ug/l																		
1,1,1-Trichloroethane	2	U	ug/l	2	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1			
1,1,2,2-Tetrachloroethane	2	U	ug/l	2	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1			
1,1,2-Trichloroethane	2	U	ug/l	2	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1			
1,1-Dichloroethane	2	U	ug/l	2	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1			
1,1-Dichloroethene	2	U	ug/l	2	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1			
1,2-Dichlorobenzene	2	U	ug/l	2	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1			
1,2-Dichloroethane	2	U	ug/l	2	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1			
1,2-Dichloropropane	2	U	ug/l	2	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1			
1,3-Dichlorobenzene	2	U	ug/l	2	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1			
1,4-Dichlorobenzene	2	U	ug/l	2	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1			
2-Chloroethyl vinyl ether	2	U	ug/l	2	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1			
Bromodichloromethane	2	U	ug/l	2	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1			
Bromoform	2	U	ug/l	2	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1			
Bromomethane	2	U	ug/l	2	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1			
Carbon tetrachloride	2	U	ug/l	2	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1			
Chlorobenzene	2	U	ug/l	2	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1			
Chloroethane	2	U	ug/l	2	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1			
Chloroform	2	U	ug/l	2	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1			
Chloromethane	2	U	ug/l	2	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1			
Dibromochloromethane	2	U	ug/l	2	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1			
Dichlorodifluoromethane	2	U	ug/l	2	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1			
Methylene chloride	3.4	J	ug/l	2	5	U	ug/l	5	1.1	J	ug/l	1	5	U	ug/l	5			
Tetrachloroethene	2	U	ug/l	2	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1			
Trichloroethene	2	U	ug/l	2	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1			
Trichlorofluoromethane	2	U	ug/l	2	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1			
Vinyl chloride	2	U	ug/l	2	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1			
cis-1,3-Dichloropropene	2	U	ug/l	2	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1			
trans-1,2-Dichloroethene	2	U	ug/l	2	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1			
trans-1,3-Dichloropropene	2	U	ug/l	2	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1			
Benzene	18		ug/l	2	2		ug/l	1	1	U	ug/l	1	1	U	ug/l	1			
Ethylbenzene	30		ug/l	2	4.5		ug/l	1	1	U	ug/l	1	1	U	ug/l	1			
Toluene	2	U	ug/l	2	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1			
Xylenes (total)	2	U	ug/l	2	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1			
Methyl tert-butyl ether	230		ug/l	2	44		ug/l	1	1	U	ug/l	1	1	U	ug/l	1			

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED

US Naval Station, Mayport
Building 460 (The Credit Union) Analytical Data Report

Lab Sample Number:		B5F0601080				MA578004				B5F0601080				MA578006					
Site		MAYPORT 460				MAYPORT 460				MAYPORT 460				MAYPORT 460					
Locator		CUG00601				CUG00601				CUG00701				CUG00701					
Collect Date:		02-JUN-95				25-MAR-96				01-JUN-95				25-MAR-96					
		VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL		
Volatile Organics (601/602)	ug/l																		
1,1,1-Trichloroethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
1,1,2,2-Tetrachloroethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
1,1,2-Trichloroethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
1,1-Dichloroethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
1,1-Dichloroethene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
1,2-Dichlorobenzene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
1,2-Dichloroethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
1,2-Dichloropropane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
1,3-Dichlorobenzene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
1,4-Dichlorobenzene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
2-Chloroethyl vinyl ether		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Bromodichloromethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Bromoform		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Bromomethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Carbon tetrachloride		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Chlorobenzene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Chloroethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Chloroform		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Chloromethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Dibromochloromethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Dichlorodifluoromethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Methylene chloride		1.6	J	ug/l	1	5	U	ug/l	5	1	U	ug/l	1	5	U	ug/l	5		
Tetrachloroethene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Trichloroethene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Trichlorofluoromethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Vinyl chloride		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
cis-1,3-Dichloropropene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
trans-1,2-Dichloroethene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
trans-1,3-Dichloropropene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Benzene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Ethylbenzene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Toluene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Xylenes (total)		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Methyl tert-butyl ether		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED

US Naval Station, Mayport
Building 460 (The Credit Union) Analytical Data Report

Lab Sample Number:		B5F0601080				MA578007			
Site		MAYPORT 460				MAYPORT 460			
Locator		CUG00801				CUG00801			
Collect Date:		01-JUN-95				25-MAR-96			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	
Volatile Organics (601/602)			ug/l				ug/l		
1,1,1-Trichloroethane	1	U	ug/l	1	1	U	ug/l	1	
1,1,2,2-Tetrachloroethane	1	U	ug/l	1	1	U	ug/l	1	
1,1,2-Trichloroethane	1	U	ug/l	1	1	U	ug/l	1	
1,1-Dichloroethane	1	U	ug/l	1	1	U	ug/l	1	
1,1-Dichloroethene	1	U	ug/l	1	1	U	ug/l	1	
1,2-Dichlorobenzene	1	U	ug/l	1	1	U	ug/l	1	
1,2-Dichloroethane	1	U	ug/l	1	1	U	ug/l	1	
1,2-Dichloropropane	1	U	ug/l	1	1	U	ug/l	1	
1,3-Dichlorobenzene	1	U	ug/l	1	1	U	ug/l	1	
1,4-Dichlorobenzene	1	U	ug/l	1	1	U	ug/l	1	
2-Chloroethyl vinyl ether	1	U	ug/l	1	1	U	ug/l	1	
Bromodichloromethane	1	U	ug/l	1	1	U	ug/l	1	
Bromoform	1	U	ug/l	1	1	U	ug/l	1	
Bromomethane	1	U	ug/l	1	1	U	ug/l	1	
Carbon tetrachloride	1	U	ug/l	1	1	U	ug/l	1	
Chlorobenzene	1	U	ug/l	1	1	U	ug/l	1	
Chloroethane	1	U	ug/l	1	1	U	ug/l	1	
Chloroform	1	U	ug/l	1	1	U	ug/l	1	
Chloromethane	1	U	ug/l	1	1	U	ug/l	1	
Dibromochloromethane	1	U	ug/l	1	1	U	ug/l	1	
Dichlorodifluoromethane	1	U	ug/l	1	1	U	ug/l	1	
Methylene chloride	2.4	J	ug/l	1	5	U	ug/l	5	
Tetrachloroethene	1	U	ug/l	1	1	U	ug/l	1	
Trichloroethene	1	U	ug/l	1	1	U	ug/l	1	
Trichlorofluoromethane	1	U	ug/l	1	1	U	ug/l	1	
Vinyl chloride	1	U	ug/l	1	1	U	ug/l	1	
cis-1,3-Dichloropropene	1	U	ug/l	1	1	U	ug/l	1	
trans-1,2-Dichloroethene	1	U	ug/l	1	1	U	ug/l	1	
trans-1,3-Dichloropropene	1	U	ug/l	1	1	U	ug/l	1	
Benzene	1	U	ug/l	1	1	U	ug/l	1	
Ethylbenzene	1	U	ug/l	1	1	U	ug/l	1	
Toluene	1.2		ug/l	1	1	U	ug/l	1	
Xylenes (total)	3.9		ug/l	1	1	U	ug/l	1	
Methyl tert-butyl ether	1	U	ug/l	1	1	U	ug/l	1	

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US Naval Station, Mayport
Building 460 (The Credit Union) Analytical Data Report

Lab Sample Number:		B5F0601080				MA578012				B5F0601080				MA578010			
Site		MAYPORT 460				MAYPORT 460				MAYPORT 460				MAYPORT 460			
Locator		CUG00101				CUG00101				CUG00201				CUG00201			
Collect Date:		01-JUN-95				26-MAR-96				01-JUN-95				26-MAR-96			
		VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
PAHs (Modified 610)	ug/l																
Acenaphthene		2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Acenaphthylene		2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Anthracene		1	U	ug/l	1	.2	U	ug/l	.2	1	U	ug/l	1	.2	U	ug/l	.2
Benzo (a) anthracene		.1	U	ug/l	.1	.2	U	ug/l	.2	.1	U	ug/l	.1	.2	U	ug/l	.2
Benzo (a) pyrene		.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1
Benzo (b) fluoranthene		.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1
Benzo (g,h,i) perylene		.1	U	ug/l	.1	.2	U	ug/l	.2	.1	U	ug/l	.1	.2	U	ug/l	.2
Benzo (k) fluoranthene		.15	U	ug/l	.15	.1	U	ug/l	.1	.15	U	ug/l	.15	.1	U	ug/l	.1
Chrysene		.1	U	ug/l	.1	2	U	ug/l	2	.1	U	ug/l	.1	2	U	ug/l	2
Dibenzo (a,h) anthracene		.1	U	ug/l	.1	.2	U	ug/l	.2	.1	U	ug/l	.1	.2	U	ug/l	.2
Fluoranthene		.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2
Fluorene		2	U	ug/l	2	1	U	ug/l	1	2	U	ug/l	2	1	U	ug/l	1
Indeno (1,2,3-cd) pyrene		.1	U	ug/l	.1	.2	U	ug/l	.2	.1	U	ug/l	.1	.2	U	ug/l	.2
1-Methylnaphthalene		2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
2-Methylnaphthalene		2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Naphthalene		2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Phenanthrene		2	U	ug/l	2	1	U	ug/l	1	2	U	ug/l	2	1	U	ug/l	1
Pyrene		.2	U	ug/l	.2	1	U	ug/l	1	.2	U	ug/l	.2	1	U	ug/l	1

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US Naval Station, Mayport
Building 460 (The Credit Union) Analytical Data Report

Lab Sample Number:		B5F0601080				MA578011				B5F0601080				B5F0601080			
Site		MAYPORT 460				MAYPORT 460				MAYPORT 460				MAYPORT 460			
Locator		CUG00301				CUG00301				CUG00401				CUG00401			
Collect Date:		01-JUN-95				26-MAR-96				01-JUN-95				01-JUN-95			
		VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
PAHs (Modified 610)	ug/l																
Acenaphthene		2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Acenaphthylene		2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Anthracene		1	U	ug/l	1	.2	U	ug/l	.2	1	U	ug/l	1	2	U	ug/l	2
Benzo (a) anthracene		.1	U	ug/l	.1	.2	U	ug/l	.2	.1	U	ug/l	.1	.1	U	ug/l	.1
Benzo (a) pyrene		.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1
Benzo (b) fluoranthene		.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1
Benzo (g,h,i) perylene		.1	U	ug/l	.1	.2	U	ug/l	.2	.1	U	ug/l	.1	.1	U	ug/l	.1
Benzo (k) fluoranthene		.15	U	ug/l	.15	.1	U	ug/l	.1	.15	U	ug/l	.15	.15	U	ug/l	.15
Chrysene		.1	U	ug/l	.1	2	U	ug/l	2	.1	U	ug/l	.1	.1	U	ug/l	.1
Dibenzo (a,h) anthracene		.1	U	ug/l	.1	.2	U	ug/l	.2	.1	U	ug/l	.1	.1	U	ug/l	.1
Fluoranthene		.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2
Fluorene		2	U	ug/l	2	1	U	ug/l	1	2.6		ug/l	2	2	U	ug/l	2
Indeno (1,2,3-cd) pyrene		.1	U	ug/l	.1	.2	U	ug/l	.2	.1	U	ug/l	.1	.1	U	ug/l	.1
1-Methylnaphthalene		2	U	ug/l	2	2	U	ug/l	2	16		ug/l	2	2	U	ug/l	2
2-Methylnaphthalene		2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Naphthalene		2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Phenanthrene		2	U	ug/l	2	1	U	ug/l	1	2	U	ug/l	2	2	U	ug/l	2
Pyrene		.2	U	ug/l	.2	1	U	ug/l	1	.2	U	ug/l	.2	.2	U	ug/l	.2

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US Naval Station, Mayport
Building 460 (The Credit Union) Analytical Data Report

Lab Sample Number:		MA578008				B5F0601080				MA578009				B5F0601080	
Site		MAYPORT 460				MAYPORT 460				MAYPORT 460				MAYPORT 460	
Locator		CUG00401				CUG00401D				CUG00401D				CUG00501	
Collect Date:		25-MAR-96				01-JUN-95				25-MAR-96				02-JUN-95	
		VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
PAHs (Modified 610)	ug/l																
Acenaphthene		2	U	ug/l	2	2	U	ug/l	2	6.7		ug/l	2	2	U	ug/l	2
Acenaphthylene		2.7		ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Anthracene		.52		ug/l	.2	1	U	ug/l	1	.43		ug/l	.2	1	U	ug/l	1
Benzo (a) anthracene		.2	U	ug/l	.2	.1	U	ug/l	.1	.2	U	ug/l	.2	.1	U	ug/l	.1
Benzo (a) pyrene		.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1
Benzo (b) fluoranthene		.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1
Benzo (g,h,i) perylene		.2	U	ug/l	.2	.1	U	ug/l	.1	.2	U	ug/l	.2	.1	U	ug/l	.1
Benzo (k) fluoranthene		.1	U	ug/l	.1	.15	U	ug/l	.15	.1	U	ug/l	.1	.15	U	ug/l	.15
Chrysene		2	U	ug/l	2	.1	U	ug/l	.1	2	U	ug/l	2	.1	U	ug/l	.1
Dibenzo (a,h) anthracene		.2	U	ug/l	.2	.1	U	ug/l	.1	.2	U	ug/l	.2	.1	U	ug/l	.1
Fluoranthene		.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2
Fluorene		1.9		ug/l	1	2.9		ug/l	2	1.8		ug/l	1	2	U	ug/l	2
Indeno (1,2,3-cd) pyrene		.2	U	ug/l	.2	.1	U	ug/l	.1	.2	U	ug/l	.2	.1	U	ug/l	.1
1-Methylnaphthalene		12		ug/l	2	15		ug/l	2	12		ug/l	2	2	U	ug/l	2
2-Methylnaphthalene		8.4		ug/l	2	2	U	ug/l	2	10		ug/l	2	2	U	ug/l	2
Naphthalene		12		ug/l	2	2	U	ug/l	2	12		ug/l	2	2	U	ug/l	2
Phenanthrene		2.6		ug/l	1	2	U	ug/l	2	2.8		ug/l	1	2	U	ug/l	2
Pyrene		1	U	ug/l	1	.2	U	ug/l	.2	1	U	ug/l	1	.2	U	ug/l	.2

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US Naval Station, Mayport
Building 460 (The Credit Union) Analytical Data Report

Lab Sample Number:		MA578005				MA578004				B5F0601080				MA578006			
Site		MAYPORT 460				MAYPORT 460				MAYPORT 460				MAYPORT 460			
Locator		CUG00501				CUG00601				CUG00701				CUG00701			
Collect Date:		25-MAR-96				25-MAR-96				01-JUN-95				25-MAR-96			
		VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
PAHs (Modified 610)	ug/l																
Acenaphthene		2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Acenaphthylene		2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Anthracene		.2	U	ug/l	.2	.2	U	ug/l	.2	1	U	ug/l	1	.2	U	ug/l	.2
Benzo (a) anthracene		.2	U	ug/l	.2	.2	U	ug/l	.2	.1	U	ug/l	.1	.2	U	ug/l	.2
Benzo (a) pyrene		.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1
Benzo (b) fluoranthene		.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1
Benzo (g,h,i) perylene		.2	U	ug/l	.2	.2	U	ug/l	.2	.1	U	ug/l	.1	.2	U	ug/l	.2
Benzo (k) fluoranthene		.1	U	ug/l	.1	.1	U	ug/l	.1	.15	U	ug/l	.15	.1	U	ug/l	.1
Chrysene		2	U	ug/l	2	2	U	ug/l	2	.1	U	ug/l	.1	2	U	ug/l	2
Dibenzo (a,h) anthracene		.2	U	ug/l	.2	.2	U	ug/l	.2	.1	U	ug/l	.1	.2	U	ug/l	.2
Fluoranthene		.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2
Fluorene		1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2	1	U	ug/l	1
Indeno (1,2,3-cd) pyrene		.2	U	ug/l	.2	.2	U	ug/l	.2	.1	U	ug/l	.1	.2	U	ug/l	.2
1-Methylnaphthalene		2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
2-Methylnaphthalene		2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Naphthalene		2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Phenanthrene		1	U	ug/l	1	1	U	ug/l	1	2	U	ug/l	2	1	U	ug/l	1
Pyrene		1	U	ug/l	1	1	U	ug/l	1	.2	U	ug/l	.2	1	U	ug/l	1

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US Naval Station, Mayport
Building 460 (The Credit Union) Analytical Data Report

Lab Sample Number:		B5F0601080			MA578007			MA578007RE				
Site		MAYPORT 460			MAYPORT 460			MAYPORT 460				
Locator		CUG00801			CUG00801			CUG00801RE				
Collect Date:		01-JUN-95			25-MAR-96			25-MAR-96				
		VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
PAHs (Modified 610)	ug/l												
Acenaphthene		2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Acenaphthylene		2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Anthracene		1	U	ug/l	1	.2	U	ug/l	.2	.2	U	ug/l	.2
Benzo (a) anthracene		.1	U	ug/l	.1	.2	U	ug/l	.2	.2	U	ug/l	.2
Benzo (a) pyrene		.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1
Benzo (b) fluoranthene		.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1
Benzo (g,h,i) perylene		.1	U	ug/l	.1	.2	U	ug/l	.2	.2	U	ug/l	.2
Benzo (k) fluoranthene		.15	U	ug/l	.15	.1	U	ug/l	.1	.1	U	ug/l	.1
Chrysene		.1	U	ug/l	.1	2	U	ug/l	2	2	U	ug/l	2
Dibenzo (a,h) anthracene		.1	U	ug/l	.1	.2	U	ug/l	.2	.2	U	ug/l	.2
Fluoranthene		.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2
Fluorene		2	U	ug/l	2	1	U	ug/l	1	1	U	ug/l	1
Indeno (1,2,3-cd) pyrene		.1	U	ug/l	.1	.2	U	ug/l	.2	.2	U	ug/l	.2
1-Methylnaphthalene		2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
2-Methylnaphthalene		2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Naphthalene		2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Phenanthrene		2	U	ug/l	2	1	U	ug/l	1	1	U	ug/l	1
Pyrene		.2	U	ug/l	.2	1	U	ug/l	1	1	U	ug/l	1

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US Naval Station, Mayport
Building 460 (The Credit Union) Analytical Data Report

Lab Sample Number:	B5F0601080				MA578012				B5F0601080				MA578010			
Site	MAYPORT 460				MAYPORT 460				MAYPORT 460				MAYPORT 460			
Locator	CUG00101				CUG00101				CUG00201				CUG00201			
Collect Date:	01-JUN-95				26-MAR-96				01-JUN-95				26-MAR-96			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Total Petroleum Hydrocarbons	1	U	mg/l	1	.06	U	mg/l	.06	1	U	mg/l	1	.05	U	mg/l	.05
Ethylene dibromide	.02	U	ug/l	.02	.02	U	ug/l	.02	.02	U	ug/l	.02	.02	U	ug/l	.02
Lead	5	U	ug/l	5	3	U	ug/l	3	5	U	ug/l	5	3	U	ug/l	3

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US Naval Station, Mayport
Building 460 (The Credit Union) Analytical Data Report

Lab Sample Number:		B5F0601080				MA578011				B5F0601080				MA578008		
Site		MAYPORT 460				MAYPORT 460				MAYPORT 460				MAYPORT 460		
Locator		CUG00301				CUG00301				CUG00401				CUG00401		
Collect Date:		01-JUN-95				26-MAR-96				01-JUN-95				25-MAR-96		
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Total Petroleum Hydrocarbons	-				.05	U	mg/l	.05	1	U	mg/l	1	.05	U	mg/l	.05
Ethylene dibromide	.02	U	ug/l	.02	.02	U	ug/l	.02	.02	U	ug/l	.02	.02	U	ug/l	.02
Lead	5	U	ug/l	5	3	U	ug/l	3	5	U	ug/l	5	3	U	ug/l	3

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US Naval Station, Mayport
Building 460 (The Credit Union) Analytical Data Report

Lab Sample Number:		B5F0601080				MA578009				B5F0601080				MA578005				
Site		MAYPORT 460				MAYPORT 460				MAYPORT 460				MAYPORT 460				
Locator		CUG00401D				CUG00401D				CUG00501				CUG00501				
Collect Date:		01-JUN-95				25-MAR-96				02-JUN-95				25-MAR-96				
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL		
Total Petroleum Hydrocarbons	1	U	mg/l	1	.06	U	mg/l	.06	1	U	mg/l	1	.1	U	mg/l	.1		
Ethylene dibromide	.02	U	ug/l	.02	.02	U	ug/l	.02	.02	U	ug/l	.02	.02	U	ug/l	.02		
Lead	5	U	ug/l	5	3	U	ug/l	3	6	U	ug/l	6	3	U	ug/l	3		

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US Naval Station, Mayport
Building 460 (The Credit Union) Analytical Data Report

Lab Sample Number:	B5F0601080				MA578004				B5F0601080				MA578006			
Site	MAYPORT 460				MAYPORT 460				MAYPORT 460				MAYPORT 460			
Locator	CUG00601				CUG00601				CUG00701				CUG00701			
Collect Date:	02-JUN-95				25-MAR-96				01-JUN-95				25-MAR-96			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Total Petroleum Hydrocarbons	1	U	mg/l	1	.05	U	mg/l	.05	1	U	mg/l	1	.19	U	mg/l	.19
Ethylene dibromide	.02	U	ug/l	.02	.02	U	ug/l	.02	.02	U	ug/l	.02	.02	U	ug/l	.02
Lead	5	U	ug/l	5	3	U	ug/l	3	5	U	ug/l	5	3	U	ug/l	3

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED

US Naval Station, Mayport
Building 460 (The Credit Union) Analytical Data Report

Lab Sample Number:		B5F0601080				MA578007		
Site		MAYPORT 460				MAYPORT 460		
Locator		CUG00801				CUG00801		
Collect Date:		01-JUN-95				25-MAR-96		
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Total Petroleum Hydrocarbons	1	U	mg/l	1	.05	U	mg/l	.05
Ethylene dibromide	.02	U	ug/l	.02	.02	U	ug/l	.02
Lead	5	U	ug/l	5	3	U	ug/l	3

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED

ABB

October 11, 1996 Doc. No. 08567-04

Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32301-2400
ATTN: Mr. Jim Cason

Subject: Response to Comments, Contamination Assessment Report Addendum for Building 460, U.S. Naval Station Mayport, Florida

Dear Mr. Cason:

ABB Environmental Services, Inc. (ABB-ES) was contracted by Southern Division, Naval Facilities Engineering Command (SOUTHNAVFACFENGCOM) to prepare a Contamination Assessment Report (CAR) to assess the horizontal and vertical extent of soil and groundwater contamination at Building 460, U.S. Naval Station Mayport, Florida. A CAR was submitted to FDEP in February 1996. In response to FDEPs comments to the CAR dated March 1, 1996, ABB-ES representatives resampled the eight monitoring wells at the Building 460 site in March 1996. The purpose of this sampling event was to gather current groundwater information at the site.

The site is the former location of two underground storage tanks (USTs) used to store #2 fuel oil. The USTs were removed in March 1994 and approximately 300 tons of excessively contaminated soil were removed during the tank closure. Building 460 presently houses the Navy Federal Credit Union, a U.S. Postal Service branch, a library, and classrooms.

Groundwater samples were collected March 25 and 26, 1996, from the eight site monitoring wells. The samples were analyzed for volatile organic compounds (VOCs) by USEPA Methods 601/602, polynuclear aromatic hydrocarbons (PAH) by USEPA Method 610, total recoverable petroleum hydrocarbons (TRPH) by USEPA Method 418.1, ethylene dibromide (EDB) by USEPA Method 504.1, and lead by USEPA Method 239.2.

Volatile organic compounds (VOC) were detected only in groundwater samples collected from MW-4 at concentrations below the State regulatory levels for No Further Action (NFA). VOCs were previously detected in groundwater samples collected from MW-1, MW-3, and MW-8 in June 1995; however, they were not detected in the samples collected March 25 and 26, 1996.

Total naphthalenes and total PAH (excluding napthalenes) were detected only in groundwater samples collected from monitoring well MW-4. Total naphthalenes concentrations detected in groundwater samples collected from MW-4 ranged from 32.4 micrograms per liter (μg/L) to 34 μg/L. These concentrations are higher than those observed during the June 1995 sampling event; however, they are less than the State regulatory level for source monitoring wells of 2,000 μg/L required for a monitoring only plan (MOP). Total PAHs (excluding naphthalenes) ranged from 7.92 μg/L to 11.73 μg/L in the groundwater samples collected from MW-4. These are less than the State regulatory level of 20 times the method detection limit for a source monitoring well required for an MOP.

An area of excessively contaminated soil is present north of Building 460 at the site. Based on the March 1996 groundwater sampling results, ABB-ES recommends development of a limited scope remedial action plan (RAP) to address excessively contaminated soil. The RAP will be prepared in addition to Monitoring Only for this site in accordance with FDEP remedial action guidelines No. ESS-9 dated September 10, 1993 (attached). Groundwater samples will be collected quarterly, beginning December 1996, from on site monitoring wells MW01, MW03, MW04, MW06, and MW08. Samples collected from these wells will be shipped to an FDEP- and USEPA-approved analytical laboratory and analyzed for USEPA Methods 601/602 and 610.

If you agree with this recommendation please send a letter of notification to Byas Glover. Should you have any questions, or if additional information is required, please contact me or Joe Fugitt at (904) 656-1293.

Sincerely,

ABB ENVIRONMENTAL SERVICES, INC.

Terry Hansen, P.G.
Senior Task Order Manager

Joseph F. Fugitt
Professional Geologist
P.G. No. 1613
Date 10/11/96

Attachment

cc: Byas Glover, SDIV
Jan Bovier, NAVSTA Mayport
File

Petroleum Cleanup Program

REMEDIAL ACTION PLAN GUIDELINES

ENGINEERING SUPPORT SECTION, BUREAU OF WASTE CLEANUP

History: New 9/10/93

Identification No.: ESS-9

Topic of Guideline: Soils Only or Short Term Groundwater Recovery RAPs - Cleanup Requirements (Limited Scope RAPs)

Thomas W. Conrad, 9/10/93
Signature and Date
SECTION ADMINISTRATOR

9/10/93
Signature and Date
BUREAU CHIEF

Chapter 17-770.730, F.A.C., defines the cleanup criteria to be achieved by remedial action once a RAP has been implemented. The Department has also published a document titled No Further Action and Monitoring Only Guidelines for Petroleum Contaminated Sites. A copy of this document is attached. This guideline defines the conditions under which a Monitoring Only (MO) Plan or No Further Action (NFA) may be proposed for sites with limited contamination before a RAP has been prepared.

There are some sites which would otherwise qualify for MO or NFA except for the existence of excessively contaminated soil on site. Also, there are sites with a limited area of groundwater contamination (e.g.- one monitor well) above the Monitoring Only and No Further Action criteria. It may be possible to clean up the site to achieve MO or NFA criteria by soil excavation only or by a short term groundwater recovery effort. Some of these sites with a limited extent of contamination could reasonably be expected to achieve the Department's cleanup objectives through natural processes in a reasonable length of time once the source area of contamination is eliminated or mitigated. For a site with limited contamination and appropriate characteristics for natural processes to be successful, monitoring the progress of those processes may be considered part of the remedial action strategy. It is within the intent of the Department in developing the NFA and MO Guidelines that such sites should be eligible for MO if there is a reasonable likelihood of achieving cleanup criteria in a reasonable length of time without resorting to costly cleanup methods. It is therefore appropriate to allow some categories of limited scope RAPs to meet MO criteria rather than the more stringent requirements of Rule 17-770.730, F.A.C. This guideline is to make a distinction between sites appropriate for these short term cleanups and those which must undergo longer term conventional cleanup strategies. The following criteria

must be met to utilize the MO and NFA standards rather than the cleanup standards of Rule 17-770.730, F.A.C.

1. A site with groundwater concentrations within the criteria of the No Further Action and Monitoring Only Guidelines for Petroleum Contaminated Sites (guidelines), but which does not qualify due to the existence of excessively contaminated soil, may propose a RAP with soil cleanup only along with a MO plan.

2. A short term groundwater recovery effort and a Monitoring Plan may be proposed in a RAP for a site which meets the following criteria:

   (a) The short term cleanup strategy should generally be proposed in a RAP and approved by the Department (or local program) before being implemented. The RAP must include the same level of engineering detail to justify recovery and treatment systems design as a conventional RAP. The RAP must be signed and sealed by a Florida registered professional engineer.

   (b) The short term strategy proposed should generally be limited to a duration of less than 30 days, however, the Department and contracted local programs may consider proposals for longer term or intermittent groundwater recovery.

   (c) The site must have a limited area of groundwater contamination which may reasonably be expected to be cleaned up to the Department's MO or NFA criteria during the short term recovery effort. If more than one well is above the MO or NFA criteria, it must be assumed the area of the aquifer extending between the wells is comparably contaminated. The limited dewatering effort must be expected to effectively reduce the groundwater concentrations in the entire inferred plume area to sub-MO levels, and not just the area immediately surrounding the monitoring or recovery well(s). This must be demonstrated with an evaluation of the quantity of contaminated groundwater in the inferred plume and proposed number of pore volume changes based on the quantity to be recovered during the short term recovery effort.

   (d) Groundwater recovered from a short term cleanup strategy must be containerized and properly disposed or treated to appropriate levels and disposed by discharge to a sanitary sewer or surface discharge under the NPDES General Permit (see ESS-3). No on-site disposal by either an infiltration gallery or injection well may be proposed.

(e) Monitoring wells should be resampled after a minimum of one week following completion of groundwater recovery to determine the effectiveness of the cleanup effort. An additional series of sampling events may be required by the Department to confirm cleanup criteria have been achieved or before approval of a Monitoring Only Plan.

(f) If the results of the remediation effort are successful based on the results of the groundwater sampling, a Monitoring Only or No Further Action proposal should be submitted to the Department (or local program office). If the remediation did not result in achieving Monitoring Only levels, a RAP Modification to propose a more conventional long term cleanup strategy should be submitted within two months.

If a site does not qualify for the "soils only" or "short term groundwater cleanup" procedures as described above, the cleanup criteria shall be as described in Rule 17-770.730, F.A.C.

TC/tc

Attachment

Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

October 11, 1996

Mr. Byas Glover
Department of the Navy
Southern Division - Naval Facilities Engineering Command
P.O. Box 190010
2155 Eagle Drive
North Charleston, SC 29419-9010

file:b460rap.doc

RE: Contamination Assessment Report Addendum for Building 460, Naval Station Mayport

Dear Mr. Glover:

I have reviewed the Contamination Assessment Report Addendum (CARA) dated October 11, 1996 submitted for this site. I have found the Addendum to be in compliance with Rule 62-770.630, Florida Administrative Code (F.A.C.) and the Contamination Assessment is approved. In accordance with your request to submit a Limited Scope RAP for the site based on Department Remedial Action Plan Guidelinge ESS-9, please submit a Remedial Action Plan for the contaminated soil remaining at the site and a proposed monitoring plan.

If you have questions or require further clarification, please contact me at (904) 921-4230.

Sincerely,

James H. Cason, P.G.
Remedial Project Manager

cc: Cheryl Mitchell, NAVSTA Mayport
Martha Berry, EPA Region IV, Atlanta
Brian Cheary, FDEP Northeast District
Jerry Young, City of Jacksonville

Reviewed by:

Timothy J. Bahr, P.G.
Professional Geologist Supervisor
Bureau of Waste Cleanup

TIMOTHY J. BAHR
LICENSE
NO. 1203
STATE OF
FLORIDA
PROFESSIONAL GEOLOGIST

10/14/96
Date

JJC JJR ESN ESN

ABB

02536.16

November 18, 1997

Southern Division
Naval Facilities Engineering Command
ATTN: Beverly Washington
2155 Eagle Drive
North Charleston, SC 29419-9010

Subject: Proposed application of the latest version of Chapter 62-770, F.A.C. for Building 460, U.S. Naval Station Mayport, Florida

Dear Ms. Washington:

ABB Environmental Services, Inc. (ABB-ES) was contracted by Southern Division, Naval Facilities Engineering Command (SOUTHNAVFACFENGCOM) to prepare a Contamination Assessment Report (CAR) to assess the horizontal and vertical extent of soil and groundwater contamination at Building 460, U.S. Naval Station Mayport, Florida.

Building 460 is the former location of two underground storage tanks (USTs) used to store #2 fuel oil. The USTs were removed in March 1994 and approximately 300 tons of excessively contaminated soil were removed during the tank closure. Building 460 presently houses the Navy Federal Credit Union, a U.S. Postal Service branch, a library, and classrooms.

A CAR identifying an area of excessively contaminated soil north of Building 460 was submitted to FDEP (Florida Department of Environmental Protection) in February 1996. In response to FDEPs comments to the CAR, dated March 1, 1996, ABB-ES representatives resampled the eight monitoring wells at the Building 460 site in March 1996. A CAR Addendum including results from the March 1996 groundwater sampling event was submitted to FDEP in June 1996. Based on the March 1996 groundwater sampling results, ABB-ES recommended development of a limited scope Remedial Action Plan (RAP) to address excessively contaminated soil by natural biodegradation and a Monitoring Only Plan (MOP) for groundwater at the site in accordance with FDEP remedial action guidelines.

FDEP approved the development of the limited scope RAP and MOP under provisions of Chapter 62-770, Florida Administrative Code (F.A.C.) (Petroleum Contamination Cleanup Criteria) which was in effect in September 1996. The latest version of Chapter 62-770, F.A.C., dated September 23, 1997, outlines several new cost-effective and innovative approaches that may be considered by FDEP for Building 460. These include: No Further Action (NFA) without conditions or restrictions, Rule 62-770.680(1), NFA with conditions or restrictions (which may include justification of alternative soil cleanup target levels), Rule 62-770.680(2), and Natural Attenuation, Rule 62-770.690.

2590 Executive Center Circle East
Berkeley Building
Tallahassee, Florida 32301

Telephone
904-656-1293

Fax
904-877-0742

Additional data collection and analysis would be required to pursue either NFA or the Natural Attenuation approaches. A minimum of three soil samples, collected from areas where high, medium, and low Organic Vapor Analyzer (OVA) headspace measurements have been recorded, would be required. Laboratory analysis of these samples by methods described in Table I, Chapter 62-770, F.A.C. would be required and a Synthetic Precipitation Leaching Procedure (SPLP) extraction should be performed, by USEPA Method 1312, with the leachate being analyzed for the same parameters.

This additional soil data would be used to determine the relevance of OVA headspace measurements. The SPLP data would be required to satisfy both the NFA and/or Natural Attenuation criteria. If laboratory analyses of soil samples from three representative areas show that concentrations are less than the lower of the direct exposure I or applicable leachability cleanup target levels specified in Table IV, Chapter 62-770, F.A.C., then by definition [Rule 62-770.680(1)(c)], contaminated soil does not exist at the site and an NFA without conditions or restrictions should be approved.

If laboratory analyses of soil samples show concentrations exceed the appropriate cleanup target levels, then NFA with conditions or restrictions (which may include justification of alternative soil cleanup target levels) or Natural Attenuation may be considered as options to the previously proposed remedial approach. For Building 460, the collection and analysis of these soil samples would allow the Navy to determine the appropriate course of action.

This proposed soil sampling event would be completed under the existing scope and take place in early December 1997. Should you have any questions, or if additional information is required, please contact me at (850) 656-1293.

Sincerely,

ABB ENVIRONMENTAL SERVICES, INC.

Terry Hansen, P.G.
Senior Task Order Manager

Michael Jaynes
Engineer

cc: Jan Bovier, NAVSTA Mayport

APPENDIX B

APPENDIX B

LABORATORY ANALYTICAL DATA

,o Sample Number:	MA578011				MF460007				MA578008							
Site	MAYPORT-460/1587				MAYPORT-460/1587				MAYPORT-460/1587				MAYPORT-460/1587			
Locator	CUG00301				CUG00301				CUG00401				CUG00401			
Collect Date:	26-MAR-96				28-JAN-98				25-MAR-96				28-JAN-98			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
,ics (601/602)	ug/l															
,loroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
etrachloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
ichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
:hloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
ichloroethene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Dichlorobenzene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
.-Dichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
,2-Dichloropropane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,3-Dichlorobenzene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,4-Dichlorobenzene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
2-Chloroethylvinyl ether	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Bromodichloromethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Bromoform	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Bromomethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Carbon tetrachloride	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Chlorobenzene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Chloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Chloroform	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Chloromethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Dibromochloromethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Dichlorodifluoromethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Methylene chloride	5	U	ug/l	5	5	U	ug/l	5	5	U	ug/l	5	5	U	ug/l	5
Tetrachloroethene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Trichloroethene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Trichlorofluoromethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Vinyl chloride	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
cis-1,3-Dichloropropene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
trans-1,2-Dichloroethene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
trans-1,3-Dichloropropene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Benzene	1	U	ug/l	1	1	U	ug/l	1	1.9		ug/l	1	1	U	ug/l	1
Ethylbenzene	1	U	ug/l	1	1	U	ug/l	1	4.3		ug/l	1	1	U	ug/l	1
Toluene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Xylenes (total)	1	U	ug/l	1	-		ug/l		1	U	ug/l	1	-		ug/l	
m,p-Xylenes	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
o-Xylene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Methyl tert-butyl ether	1	U	ug/l	1	4.1		ug/l	1	43		ug/l	1	36		ug/l	1

US Naval Station, Mayport
Building 460 - Analytical Data Report

Lab Sample Number:		MA578009				MA578012				MA578010				MA578005					
Site		MAYPORT-460/1587				MAYPORT-460/1587				MAYPORT-460/1587				MAYPORT-460/1587					
Locator		CUG00401D				CUG00101				CUG00201				CUG00501					
Collect Date:		25-MAR-96				26-MAR-96				26-MAR-96				25-MAR-96					
		VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL		
Volatile Organics (601/602)	ug/l																		
1,1,1-Trichloroethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
1,1,2,2-Tetrachloroethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
1,1,2-Trichloroethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
1,1-Dichloroethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
1,1-Dichloroethene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
1,2-Dichlorobenzene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
1,2-Dichloroethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
1,2-Dichloropropane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
1,3-Dichlorobenzene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
1,4-Dichlorobenzene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
2-Chloroethylvinyl ether		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Bromodichloromethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Bromoform		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Bromomethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Carbon tetrachloride		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Chlorobenzene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Chloroethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Chloroform		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Chloromethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Dibromochloromethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Dichlorodifluoromethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Methylene chloride		5	U	ug/l	5	5	U	ug/l	5	5	U	ug/l	5	5	U	ug/l	5		
Tetrachloroethene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Trichloroethene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Trichlorofluoromethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Vinyl chloride		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
cis-1,3-Dichloropropene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
trans-1,2-Dichloroethene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
trans-1,3-Dichloropropene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Benzene		2		ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Ethylbenzene		4.5		ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Toluene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Xylenes (total)		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
m,p-Xylenes		2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2		
o-Xylene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Methyl tert-butyl ether		44		ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		

US Naval Station, Mayport
Building 460 - Analytical Data Report

Lab Sample Number:		MA578004				MA578006				MA578007				
Site		MAYPORT-460/1587				MAYPORT-460/1587				MAYPORT-460/1587				
Locator		CUG00601				CUG00701				CUG00801				
Collect Date:		25-MAR-96				25-MAR-96				25-MAR-96				
		VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	
Volatile Organics (601/602)	ug/l													
1,1,1-Trichloroethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	
1,1,2,2-Tetrachloroethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	
1,1,2-Trichloroethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	
1,1-Dichloroethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	
1,1-Dichloroethene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	
1,2-Dichlorobenzene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	
1,2-Dichloroethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	
1,2-Dichloropropane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	
1,3-Dichlorobenzene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	
1,4-Dichlorobenzene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	
2-Chloroethylvinyl ether		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	
Bromodichloromethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	
Bromoform		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	
Bromomethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	
Carbon tetrachloride		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	
Chlorobenzene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	
Chloroethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	
Chloroform		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	
Chloromethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	
Dibromochloromethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	
Dichlorodifluoromethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	
Methylene chloride		5	U	ug/l	5	5	U	ug/l	5	5	U	ug/l	5	
Tetrachloroethene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	
Trichloroethene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	
Trichlorofluoromethane		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	
Vinyl chloride		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	
cis-1,3-Dichloropropene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	
trans-1,2-Dichloroethene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	
trans-1,3-Dichloropropene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	
Benzene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	
Ethylbenzene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	
Toluene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	
Xylenes (total)		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	
m,p-Xylenes		2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	
o-Xylene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	
Methyl tert-butyl ether		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	

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Lab Sample Number:		MA578011				MF460007				MA578008				MF460006					
Site		MAYPORT-460/1587				MAYPORT-460/1587				MAYPORT-460/1587				MAYPORT-460/1587					
Locator		CUG00301				CUG00301				CUG00401				CUG00401					
Collect Date:		26-MAR-96				28-JAN-98				25-MAR-96				28-JAN-98					
		VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL		
Modified PAH's	ug/l																		
Acenaphthene		2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2.7		ug/l	2		
Acenaphthylene		2	U	ug/l	2	2	U	ug/l	2	2.7		ug/l	2	2	U	ug/l	2		
Anthracene		.2	U	ug/l	.2	.1	U	ug/l	.1	.52		ug/l	.2	.7		ug/l	.1		
Benzo (a) anthracene		.2	U	ug/l	.2	.1	U	ug/l	.1	.2	U	ug/l	.2	.13		ug/l	.1		
Benzo (a) pyrene		.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1		
Benzo (b) fluoranthene		.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1		
Benzo (g,h,i) perylene		.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2		
Benzo (k) fluoranthene		.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1		
Chrysene		2	U	ug/l	2	.1	U	ug/l	.1	2	U	ug/l	2	.1	U	ug/l	.1		
Dibenzo (a,h) anthracene		.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2		
Fluoranthene		.2	U	ug/l	.2	.1	U	ug/l	.1	.2	U	ug/l	.2	.83		ug/l	.1		
Fluorene		1	U	ug/l	1	.21		ug/l	.2	1.9		ug/l	1	2.7		ug/l	.2		
Indeno (1,2,3-cd) pyrene		.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2		
1-Methylnaphthalene		2	U	ug/l	2	-		ug/l		12		ug/l	2	-		ug/l			
2-Methylnaphthalene		2	U	ug/l	2	-		ug/l		8.4		ug/l	2	-		ug/l			
Naphthalene		2	U	ug/l	2	2	U	ug/l	2	12		ug/l	2	17		ug/l	2		
Phenanthrene		1	U	ug/l	1	.2	U	ug/l	.2	2.6		ug/l	1	5.6	E	ug/l	.2		
Pyrene		1	U	ug/l	1	.1	U	ug/l	.1	1	U	ug/l	1	.28		ug/l	.1		

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Lab Sample Number:		MA578009				MF460006DL				MA578012				MA578010			
Site		MAYPORT-460/1587				MAYPORT-460/1587				MAYPORT-460/1587				MAYPORT-460/1587			
Locator		CUG00401D				CUG00401DL				CUG00101				CUG00201			
Collect Date:		25-MAR-96				28-JAN-98				26-MAR-96				26-MAR-96			
		VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Modified PAH's	ug/l																
Acenaphthene		6.7		ug/l	2	20	U	ug/l	20	2	U	ug/l	2	2	U	ug/l	2
Acenaphthylene		2	U	ug/l	2	20	U	ug/l	20	2	U	ug/l	2	2	U	ug/l	2
Anthracene		.43		ug/l	.2	1	U	ug/l	1	.2	U	ug/l	.2	.2	U	ug/l	.2
Benzo (a) anthracene		.2	U	ug/l	.2	1	U	ug/l	1	.2	U	ug/l	.2	.2	U	ug/l	.2
Benzo (a) pyrene		.1	U	ug/l	.1	1	U	ug/l	1	.1	U	ug/l	.1	.1	U	ug/l	.1
Benzo (b) fluoranthene		.1	U	ug/l	.1	1	U	ug/l	1	.1	U	ug/l	.1	.1	U	ug/l	.1
Benzo (g,h,i) perylene		.2	U	ug/l	.2	2	U	ug/l	2	.2	U	ug/l	.2	.2	U	ug/l	.2
Benzo (k) fluoranthene		.1	U	ug/l	.1	1	U	ug/l	1	.1	U	ug/l	.1	.1	U	ug/l	.1
Chrysene		2	U	ug/l	2	1	U	ug/l	1	2	U	ug/l	2	2	U	ug/l	2
Dibenzo (a,h) anthracene		.2	U	ug/l	.2	2	U	ug/l	2	.2	U	ug/l	.2	.2	U	ug/l	.2
Fluoranthene		.2	U	ug/l	.2	1	U	ug/l	1	.2	U	ug/l	.2	.2	U	ug/l	.2
Fluorene		1.8		ug/l	1	2.6		ug/l	2	1	U	ug/l	1	1	U	ug/l	1
Indeno (1,2,3-cd) pyrene		.2	U	ug/l	.2	2	U	ug/l	2	.2	U	ug/l	.2	.2	U	ug/l	.2
1-Methylnaphthalene		12		ug/l	2	-		ug/l		2	U	ug/l	2	2	U	ug/l	2
2-Methylnaphthalene		10		ug/l	2	-		ug/l		2	U	ug/l	2	2	U	ug/l	2
Naphthalene		12		ug/l	2	20	U	ug/l	20	2	U	ug/l	2	2	U	ug/l	2
Phenanthrene		2.8		ug/l	1	4.8	D	ug/l	2	1	U	ug/l	1	1	U	ug/l	1
Pyrene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1

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Lab Sample Number:		MA578005				MA578004				MA578006				MA578007					
Site		MAYPORT-460/1587				MAYPORT-460/1587				MAYPORT-460/1587				MAYPORT-460/1587					
Locator		CUG00501				CUG00601				CUG00701				CUG00801					
Collect Date:		25-MAR-96				25-MAR-96				25-MAR-96				25-MAR-96					
		VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL		
Modified PAH's	ug/l																		
Acenaphthene		2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2		
Acenaphthylene		2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2		
Anthracene		.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2		
Benzo (a) anthracene		.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2		
Benzo (a) pyrene		.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1		
Benzo (b) fluoranthene		.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1		
Benzo (g,h,i) perylene		.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2		
Benzo (k) fluoranthene		.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1		
Chrysene		2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2		
Dibenzo (a,h) anthracene		.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2		
Fluoranthene		.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2		
Fluorene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Indeno (1,2,3-cd) pyrene		.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2		
1-Methylnaphthalene		2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2		
2-Methylnaphthalene		2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2		
Naphthalene		2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2		
Phenanthrene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		
Pyrene		1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1		

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		MF460003				MF460004				MF460005			
Lab Sample Number:													
Site		MAYPORT-460/1587				MAYPORT-460/1587				MAYPORT-460/1587			
Locator		CUB00205				CUB00605				CUB01305			
Collect Date:		28-JAN-98				28-JAN-98				28-JAN-98			
		VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Volatile Organics (8010/8020)	ug/kg												
1,1,1-Trichloroethane		-		ug/kg		-		ug/kg		-		ug/kg	
1,1,2,2-Tetrachloroethane		-		ug/kg		-		ug/kg		-		ug/kg	
1,1,2-Trichloroethane		-		ug/kg		-		ug/kg		-		ug/kg	
1,1-Dichloroethane		-		ug/kg		-		ug/kg		-		ug/kg	
1,1-Dichloroethene		-		ug/kg		-		ug/kg		-		ug/kg	
1,2-Dichlorobenzene		220	U	ug/kg	220	140	U	ug/kg	140	1.6	U	ug/kg	1.6
1,2-Dichloroethane		-		ug/kg		-		ug/kg		-		ug/kg	
1,2-Dichloropropane		-		ug/kg		-		ug/kg		-		ug/kg	
1,3-Dichlorobenzene		220	U	ug/kg	220	140	U	ug/kg	140	1.6	U	ug/kg	1.6
1,4-Dichlorobenzene		220	U	ug/kg	220	140	U	ug/kg	140	1.6	U	ug/kg	1.6
2-Chloroethylvinyl ether		-		ug/kg		-		ug/kg		-		ug/kg	
Bromodichloromethane		-		ug/kg		-		ug/kg		-		ug/kg	
Bromoform		-		ug/kg		-		ug/kg		-		ug/kg	
Bromomethane		-		ug/kg		-		ug/kg		-		ug/kg	
Carbon tetrachloride		-		ug/kg		-		ug/kg		-		ug/kg	
Chlorobenzene		220	U	ug/kg	220	140	U	ug/kg	140	1.6	U	ug/kg	1.6
Chloroethane		-		ug/kg		-		ug/kg		-		ug/kg	
Chloroform		-		ug/kg		-		ug/kg		-		ug/kg	
Chloromethane		-		ug/kg		-		ug/kg		-		ug/kg	
Dibromochloromethane		-		ug/kg		-		ug/kg		-		ug/kg	
Dichlorodifluoromethane		-		ug/kg		-		ug/kg		-		ug/kg	
Methylene chloride		-		ug/kg		-		ug/kg		-		ug/kg	
Tetrachloroethene		-		ug/kg		-		ug/kg		-		ug/kg	
Trichloroethene		-		ug/kg		-		ug/kg		-		ug/kg	
Trichlorofluoromethane		-		ug/kg		-		ug/kg		-		ug/kg	
Vinyl chloride		-		ug/kg		-		ug/kg		-		ug/kg	
cis-1,3-Dichloropropene		-		ug/kg		-		ug/kg		-		ug/kg	
trans-1,2-Dichloroethene		-		ug/kg		-		ug/kg		-		ug/kg	
trans-1,3-Dichloropropene		-		ug/kg		-		ug/kg		-		ug/kg	
Benzene		220	U	ug/kg	220	140	U	ug/kg	140	1.6	U	ug/kg	1.6
Ethylbenzene		430		ug/kg	220	140	U	ug/kg	140	1.6	U	ug/kg	1.6
Toluene		220	U	ug/kg	220	140	U	ug/kg	140	1.6	U	ug/kg	1.6
Xylenes (total)		-		ug/kg		-		ug/kg		-		ug/kg	
m,p-Xylenes		440	U	ug/kg	440	280	U	ug/kg	280	3.2	U	ug/kg	3.2
o-Xylene		220	U	ug/kg	220	500		ug/kg	140	1.6	U	ug/kg	1.6
Methyl tert-butyl ether		220	U	ug/kg	220	140	U	ug/kg	140	1.6	U	ug/kg	1.6

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		Lab Sample Number:	MF460003				MF460003DL				MF460004				MF460004DL			
		Site	MAYPORT-460/1587				MAYPORT-460/1587				MAYPORT-460/1587				MAYPORT-460/1587			
		Locator	CUB00205				CUB00205DL				CUB00605				CUB00605DL			
		Collect Date:	28-JAN-98				28-JAN-98				28-JAN-98				28-JAN-98			
			VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Modified PAH's	ug/kg																	
Acenaphthene			9200	U	ug/kg	9200	18000	U	ug/kg	18000	15000	U	ug/kg	15000	39000	U	ug/kg	39000
Acenaphthylene			9200	U	ug/kg	9200	18000	U	ug/kg	18000	15000	U	ug/kg	15000	39000	U	ug/kg	39000
Anthracene			450	U	ug/kg	450	900	U	ug/kg	900	760	U	ug/kg	760	1900	U	ug/kg	1900
Benzo (a) anthracene			2200		ug/kg	450	2100		ug/kg	900	5900		ug/kg	760	6400		ug/kg	1900
Benzo (a) pyrene			450	U	ug/kg	450	900	U	ug/kg	900	760	U	ug/kg	760	1900	U	ug/kg	1900
Benzo (b) fluoranthene			450	U	ug/kg	450	900	U	ug/kg	900	760	U	ug/kg	760	1900	U	ug/kg	1900
Benzo (g,h,i) perylene			920	U	ug/kg	920	1800	U	ug/kg	1800	1500	U	ug/kg	1500	3900	U	ug/kg	3900
Benzo (k) fluoranthene			450	U	ug/kg	450	900	U	ug/kg	900	760	U	ug/kg	760	1900	U	ug/kg	1900
Chrysene			2500		ug/kg	450	2300		ug/kg	900	6600		ug/kg	760	6900		ug/kg	1900
Dibenzo (a,h) anthracene			920	U	ug/kg	920	1800	U	ug/kg	1800	1500	U	ug/kg	1500	3900	U	ug/kg	3900
Fluoranthene			1600		ug/kg	450	3300		ug/kg	900	2300		ug/kg	760	2500		ug/kg	1900
Fluorene			4200		ug/kg	920	4200		ug/kg	1800	13000		ug/kg	1500	11000		ug/kg	3900
Indeno (1,2,3-cd) pyrene			920	U	ug/kg	920	1800	U	ug/kg	1800	1500	U	ug/kg	1500	3900	U	ug/kg	3900
1-Methylnaphthalene			-		ug/kg		-		ug/kg		-		ug/kg		-		ug/kg	
2-Methylnaphthalene			-		ug/kg		-		ug/kg		-		ug/kg		-		ug/kg	
Naphthalene			9200	U	ug/kg	9200	18000	U	ug/kg	18000	15000	U	ug/kg	15000	39000	U	ug/kg	39000
Phenanthrene			15000	E	ug/kg	920	15000	D	ug/kg	1800	31000	E	ug/kg	1500	34000	D	ug/kg	3900
Pyrene			1200		ug/kg	450	1100		ug/kg	900	2800		ug/kg	760	3200		ug/kg	1900
TPPH	mg/kg																	
Total petroleum hydrocarbons			-		mg/kg		6400		mg/kg	700	8700		mg/kg	910	-		mg/kg	

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Lab Sample Number:	MF460005
Site	MAYPORT-460/1587
Locator	CUB01305
Collect Date:	28-JAN-98

		VALUE	QUAL	UNITS	DL
Modified PAH's	ug/kg				
Acenaphthene		110	U	ug/kg	110
Acenaphthylene		110	U	ug/kg	110
Anthracene		5.4	U	ug/kg	5.4
Benzo (a) anthracene		5.4	U	ug/kg	5.4
Benzo (a) pyrene		5.4	U	ug/kg	5.4
Benzo (b) fluoranthene		6.3		ug/kg	5.4
Benzo (g,h,i) perylene		11	U	ug/kg	11
Benzo (k) fluoranthene		5.4	U	ug/kg	5.4
Chrysene		5.4	U	ug/kg	5.4
Dibenzo (a,h) anthracene		11	U	ug/kg	11
Fluoranthene		5.4	U	ug/kg	5.4
Fluorene		11	U	ug/kg	11
Indeno (1,2,3-cd) pyrene		11	U	ug/kg	11
1-Methylnaphthalene		-		ug/kg	
2-Methylnaphthalene		-		ug/kg	
Naphthalene		110	U	ug/kg	110
Phenanthrene		11	U	ug/kg	11
Pyrene		5.8		ug/kg	5.4
TPPH	mg/kg				
Total petroleum hydrocarbons		6.3	U	mg/kg	6.3

US Naval Station, Mayport
Building 460 - Analytical Data Report

Lab Sample Number:		MF460013				MF460014				MF460015			
Site		MAYPORT-460/1587				MAYPORT-460/1587				MAYPORT-460/1587			
Locator		CUB00205L				CUB00605L				CUB01305L			
Collect Date:		28-JAN-98				28-JAN-98				28-JAN-98			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	
Volatile Organics (8010/8020)	ug/l												
1,1,1-Trichloroethane		-	ug/l			-	ug/l			-	ug/l		
1,1,2,2-Tetrachloroethane		-	ug/l			-	ug/l			-	ug/l		
1,1,2-Trichloroethane		-	ug/l			-	ug/l			-	ug/l		
1,1-Dichloroethane		-	ug/l			-	ug/l			-	ug/l		
1,1-Dichloroethene		-	ug/l			-	ug/l			-	ug/l		
1,2-Dichlorobenzene		1	U ug/l	1		1	U ug/l	1		1	U ug/l	1	
1,2-Dichloroethane		-	ug/l			-	ug/l			-	ug/l		
1,2-Dichloropropane		-	ug/l			-	ug/l			-	ug/l		
1,3-Dichlorobenzene		1	U ug/l	1		1	U ug/l	1		1	U ug/l	1	
1,4-Dichlorobenzene		1	U ug/l	1		1	U ug/l	1		1	U ug/l	1	
2-Chloroethylvinyl ether		-	ug/l			-	ug/l			-	ug/l		
Bromodichloromethane		-	ug/l			-	ug/l			-	ug/l		
Bromoform		-	ug/l			-	ug/l			-	ug/l		
Bromomethane		-	ug/l			-	ug/l			-	ug/l		
Carbon tetrachloride		-	ug/l			-	ug/l			-	ug/l		
Chlorobenzene		1	U ug/l	1		1	U ug/l	1		1	U ug/l	1	
Chloroethane		-	ug/l			-	ug/l			-	ug/l		
Chloroform		-	ug/l			-	ug/l			-	ug/l		
Chloromethane		-	ug/l			-	ug/l			-	ug/l		
Dibromochloromethane		-	ug/l			-	ug/l			-	ug/l		
Dichlorodifluoromethane		-	ug/l			-	ug/l			-	ug/l		
Methylene chloride		-	ug/l			-	ug/l			-	ug/l		
Tetrachloroethene		-	ug/l			-	ug/l			-	ug/l		
Trichloroethene		-	ug/l			-	ug/l			-	ug/l		
Trichlorofluoromethane		-	ug/l			-	ug/l			-	ug/l		
Vinyl chloride		-	ug/l			-	ug/l			-	ug/l		
cis-1,3-Dichloropropene		-	ug/l			-	ug/l			-	ug/l		
trans-1,2-Dichloroethene		-	ug/l			-	ug/l			-	ug/l		
trans-1,3-Dichloropropene		-	ug/l			-	ug/l			-	ug/l		
Benzene		1	U ug/l	1		1	U ug/l	1		1	U ug/l	1	
Ethylbenzene		3.2	ug/l	1		5.3	ug/l	1		1	U ug/l	1	
Toluene		1.2	ug/l	1		1	U ug/l	1		1	U ug/l	1	
Xylenes (total)		-	ug/l			-	ug/l			-	ug/l		
m,p-Xylenes		2.2	ug/l	2		2	U ug/l	2		2	U ug/l	2	
o-Xylene		1.2	ug/l	1		1	U ug/l	1		1	U ug/l	1	
Methyl tert-butyl ether		1	U ug/l	1		1	U ug/l	1		1	U ug/l	1	

US Naval Station, Mayport
Building 460 - Analytical Data Report

		Lab Sample Number:	MF460013			MF634002DL			MF460014			MF634003		
		Site	MAYPORT-460/1587			MAYPORT-460/1587			MAYPORT-460/1587			MAYPORT-460/1587		
		Locator	CUB00205L			CUB00205L			CUB00605L			CUB00605L		
		Collect Date:	28-JAN-98			28-JAN-98			28-JAN-98			28-JAN-98		
			VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL
Modified PAH's	ug/l													
Acenaphthene			10 U	ug/l	10	-	ug/l		10 U	ug/l	10	-	ug/l	
Acenaphthylene			10 U	ug/l	10	-	ug/l		10 U	ug/l	10	-	ug/l	
Anthracene			.5 U	ug/l	.5	-	ug/l		.5 U	ug/l	.5	-	ug/l	
Benzo (a) anthracene			.5 U	ug/l	.5	-	ug/l		.5 U	ug/l	.5	-	ug/l	
Benzo (a) pyrene			.5 U	ug/l	.5	-	ug/l		.5 U	ug/l	.5	-	ug/l	
Benzo (b) fluoranthene			.5 U	ug/l	.5	-	ug/l		.5 U	ug/l	.5	-	ug/l	
Benzo (g,h,i) perylene			1 U	ug/l	1	-	ug/l		1 U	ug/l	1	-	ug/l	
Benzo (k) fluoranthene			.5 U	ug/l	.5	-	ug/l		.5 U	ug/l	.5	-	ug/l	
Chrysene			.5 U	ug/l	.5	-	ug/l		.5 U	ug/l	.5	-	ug/l	
Dibenzo (a,h) anthracene			1 U	ug/l	1	-	ug/l		1 U	ug/l	1	-	ug/l	
Fluoranthene			.5 U	ug/l	.5	-	ug/l		.5 U	ug/l	.5	-	ug/l	
Fluorene			1 U	ug/l	1	-	ug/l		1.1	ug/l	1	-	ug/l	
Indeno (1,2,3-cd) pyrene			1 U	ug/l	1	-	ug/l		1 U	ug/l	1	-	ug/l	
1-Methylnaphthalene			-	ug/l		-	ug/l		-	ug/l		-	ug/l	
2-Methylnaphthalene			-	ug/l		-	ug/l		-	ug/l		-	ug/l	
Naphthalene			10 U	ug/l	10	-	ug/l		28	ug/l	10	-	ug/l	
Phenanthrene			1 U	ug/l	1	-	ug/l		1.3	ug/l	1	-	ug/l	
Pyrene			.5 U	ug/l	.5	-	ug/l		.5 U	ug/l	.5	-	ug/l	
TRPH	mg/l													
Total petroleum hydrocarbons			-	mg/l		.94	mg/l	.1	-	mg/l		1.3	mg/l	.1

Sample extracted by SPLP Method 1312

US Naval Station, Mayport
Building 460 - Analytical Data Report

Lab Sample Number:		MF460015			
Site		MAYPORT-460/1587			
Locator		CUB01305L			
Collect Date:		28-JAN-98			
		VALUE	QUAL	UNITS	DL
Modified PAH's	ug/l				
Acenaphthene		10	U	ug/l	10
Acenaphthylene		10	U	ug/l	10
Anthracene		.5	U	ug/l	.5
Benzo (a) anthracene		.5	U	ug/l	.5
Benzo (a) pyrene		.5	U	ug/l	.5
Benzo (b) fluoranthene		.5	U	ug/l	.5
Benzo (g,h,i) perylene		1	U	ug/l	1
Benzo (k) fluoranthene		.5	U	ug/l	.5
Chrysene		.5	U	ug/l	.5
Dibenzo (a,h) anthracene		1	U	ug/l	1
Fluoranthene		.5	U	ug/l	.5
Fluorene		1	U	ug/l	1
Indeno (1,2,3-cd) pyrene		1	U	ug/l	1
1-Methylnaphthalene		-		ug/l	
2-Methylnaphthalene		-		ug/l	
Naphthalene		10	U	ug/l	10
Phenanthrene		1.6		ug/l	1
Pyrene		.5	U	ug/l	.5
TRPH	mg/l				
Total petroleum hydrocarbons		-		mg/l	

Sample extracted by SPLP Method 1312

CH2M HILL
Analytical Services
2567 Fairlane Drive
Montgomery, AL
36116-1622
P.O. Box 231148
Montgomery, AL
36123-1148
Tel 334.271.2440
Fax 334.271.3428

CH2MHILL

March 9, 1998

Mr. Terry Hansen
ABB Environmental Services, Inc.
2590 Executive Center Circle East
Berkeley Building
Tallahassee, FL 32301

Reference#: **MF634**

Subject: **ABB Mayport Work Release 1108-M0**

Dear Mr. Terry Hansen,

CH2M HILL Analytical Services received samples on Mar 9, 1998 for analysis in conjunction with this project. An executed copy of your chain-of-custody and a sample identification cross-reference table are enclosed. All samples were received in good condition unless otherwise noted on an enclosed Sample Receipt Exceptions report.

We will mail your report on or before **Mar 30, 1998.**

We appreciate the opportunity to work with you on this project. Should you have any questions regarding your samples, or if you need additional information, please call me at **(334) 271-2440.**

Sincerely,

Richard Moeller ACR

Richard Moeller
Client Services

Sample ID Cross-reference Table

CH2M Hill Lab Sample ID		Client Sample ID	Collect Date	Sample Matrix	Additional Description
FS = Field Sample					
MF634000	FS	ADM	03/09/98	Administration	
MF634001	FS	BQB01105L	01/29/98	Soil	COMP

The above lab sample ID's and cross reference information apply to samples as received by the laboratory. Modifiers to the lab sample ID may be added for internal tracking purposes. Any modified sample ID will be reflected in the appropriate case narrative only.

MF634
ME460

ABB ENVIRONMENTAL SERVICES, INC.

SDG # MU010 COC# 012998A1 DATE: 29-Jan-98

ABB-ES
Task Order #: 119
Job #: 2536-15

Tallahassee Ph#:
(904) 656-1293
Field Office Ph#:
(904) 246-0205
Field Fax #:
Not Available

PROJECT NAME: NAVSTA MAYPORT
SITE NAME: MAYPORT
PROJECT MANAGER: TERRY HANSEN
COPY TO: Terry Hansen & Frank Lesesne
REQ. COMPLETION DATE: 02/28/98

COC Serial No. B 0400

Comments	SAMPLE IDENTIFIER	SAMPLE DATE	SAMPLE TIME	MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	TOTAL CONTAINERS	LAB TEST CODES 1: VOC 601/602 HCL 3 x 40 ml	2: VOC/SPLP 8020/602 NONE 2 x 2 oz (Both)	3: SVOC 8310 NONE 1 L	4: SVOC & TRPH 8310/FLPro NONE 8 oz (SPLP)	5: SPLP 8310 NONE 8 oz	6	7: EDB 504 NONE 125 mL	8	TICS	QAL LAB CODE PARAMETER METHOD PRESERVATIVE VOLUME	
	CUT010	28-Jan-98	10:00	W		W	3	3								N		001
	CUR010	28-Jan-98	10:50	W		W	4	3		1						N		002
	CUB00205	28-Jan-98	12:40	S	S		4		2		1	1				N		003
	CUB00605	28-Jan-98	12:45	S	S		4		2		1	1				N		004
	CUB01305	28-Jan-98	13:30	S	S		4		2		1	1				N		005
	CUG00401	28-Jan-98	15:10	W		W	4	3		1						N		006
	CUG00301	28-Jan-98	15:45	W		W	4	3		1						N		007
	BQB00505	29-Jan-98	09:45	S	S		4		2		1	1				N		008
	BQB01205	29-Jan-98	10:15	S	S		4		2		1	1				N		009
	BQB01105	29-Jan-98	10:45	S	S		4		2		1	1				N		010
	BQG00401	29-Jan-98	13:15	W		W	3	3								N		011
TOTAL PARAMETERS PER COLUMN							42	15	12	3	6	6	0	0			EPA CC LEVEL E	

NOTES:

SENT TO QAL - MONTGOMERY, AL

SAMPLED/RELINQUISHED BY	DATE	TIME	RECEIVED BY:	RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Michael O. Joyner	1/29/98	1700	[signature]						
RELINQUISHED BY	DATE	TIME	RECEIVED BY: 1/30/98 @ 1000	RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
RELINQUISHED BY	DATE	TIME	RECEIVED BY:	RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME

SHIPPING AIRBILL NUMBER:

0783466574 SHIPPED VIA FEDERAL EXPRESS

WHITE/YELLOW COPY - LABORATORY PINK COPY - ABB-ES

Bechtel

Quarters E, G Avenue
P.O. Box 171
Jacksonville, Florida 32215

Facsimile: (904) 779-8999

May 8, 1996

Commanding Officer
Department of the Navy, Southern Division
Naval Facilities Engineering Command
Attn: Mr. David Driggers
2155 Eagle Drive
North Charleston, SC 29406

SUBJECT: Bechtel Job No. 22567
Department of the Navy Contract No. N62467-93-D-0936
DO 10, TASK 1: TRANSMISSION OF THE FINAL SWMU 2 COMPLETION REPORT
NS MAYPORT, FLORIDA
Subject Code: 1250

Dear Mr. Driggers:

Enclosed are two copies of the Final Completion Report for Solid Waste Management Unit 2, NS Mayport, Florida.

If you have any questions, please feel free to contact Steve SantaMaria at (904) 771-4711 or myself at (904) 779-8900.

Sincerely,

FRED BEALE for

V. Hermann Bauer
Project Manager

VHB/tdfj
Encl.: As Stated.
cc: C. Mitchell/SCE
J. Cason/FDEP
M. Berry/EPA
T. Hansen/ABB
K. Lott/SDIV