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LETTER REPORT REGARDING RESPONSE TO FLORIDA DEPARTMENT OF PROTECTION COMMENTS ON SITE ASSESSMENT REPORT ADDENDUM NAVAL HOSPITAL BUILDINGS 2269 AND 2270 NAS PENSACOLA FL

04/30/2012

AEROSTAR ENVIRONMENTAL SERVICES, INC.

April 30, 2012

Mr. David Grabka, P.G.
Florida Department of Environmental Protection
Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

RE: Site Assessment Report Addendum
Naval Hospital Pensacola, Buildings 2269 and 2270
6000 US Highway 98
Pensacola, Escambia County, Florida
FDEP Facility ID#: 17/9700031

Dear Mr. Grabka:

Aerostar Environmental Services, Inc (AEROSTAR) hereby presents responses to the Florida Department of Environmental Protection (FDEP) Site Assessment Report (SAR) Review Comments dated October 6, 2011, for the referenced facility. The services performed as part of the scope of work were based on the FDEP comment letter dated October 6, 2011. A copy of the October 6, 2011 Review Letter is included as **Appendix A**.

The comments with associated responses are included below.

COMMENT 1:

"FDEP concurs with the conclusion that the polynuclear aromatic hydrocarbon contamination detected in soils by Building 2269 is a result from the historically use of that area as a skeet range and is not the result of a petroleum discharge. Therefore, the Department concurs with further assessment and remediation of the site should be conducted under the Navy's Munitions Response Program as the Corry Station Skeet Range."

RESPONSE TO COMMENT 1:

No Action Needed.

COMMENT 2:

"Concerning Building 2270, Aerostar's recommendation to collect soil samples for laboratory analysis by TRPH Speciation is a good one and should be conducted. It may also be advisable to conduct Synthetic Precipitation Leaching Procedure (SPLP) extraction on soil samples as well."

RESPONSE TO COMMENT 2:

<u>Soil Boring Advancement</u>
On January 9, 2012, AEROSTAR advanced soil borings AES-8 and AES-9 adjacent to monitor wells MW-4 and DMW-1, respectively. The soil borings were advanced utilizing a 3.5 inch diameter

stainless steel hand auger to the shallow water table which was encountered at approximately 8.5 feet below land surface (BLS). Soil samples were collected at one foot intervals and inspected for signs of petroleum impacts such as staining and odors. Each soil sample was also screened with an Organic Vapor Analyzer equipped with a Flame Ionization Detector (OVA-FID). Soil boring locations are shown on **Figure 1**. The soil boring logs are provided in **Appendix B**.

Soil Sample Collection and Laboratory Analyses

The soil sample from each boring that showed the highest soil vapors and/or evidence of soil staining or petroleum odors was collected for laboratory analyses. Each soil sample was collected in laboratory supplied containers and submitted to Gulf Coast Labnet, Inc., in Spanish Fort, Alabama, for analyses by Test America Laboratories, in Pensacola, Florida for the aliphatic and aromatic carbon ranges listed in the Total Petroleum Hydrocarbons Complete Working Group method (TPH-CWG) and Total Recoverable Petroleum Hydrocarbons (TRPH) by the FL-PRO Method with the SPLP extraction.

Soil Analytical Results

Laboratory analytical results of the soil sample collected on January 9, 2012, from soil boring AES-8 showed Aliphatics Carbon Range C12-C16 in the soil sample AES-8 (8') at a concentration of 6,700 milligrams per kilogram (mg/kg), above the Residential Direct Exposure SCTL of 2,900 mg/kg but below the Commercial Direct Exposure SCTL of 21,000 mg/kg. Aromatics Carbon Range C12-C16 was detected in the soil sample AES-8 (8') at a concentration of 1,200 mg/kg, which was below the Residential and Commercial Direct Exposure SCTLs but above the Leachability Based on Groundwater Criteria of 1,000 mg/kg. Aromatics Carbon Range C16-C21 was detected in the soil sample AES-8 (8) at a concentration of 2,400 mg/kg, above the Residential Direct Exposure SCTL of 1,300 mg/kg but below the Commercial Direct Exposure SCTL and Leachibility Based on Groundwater Criteria. All remaining analytical results were reported below SCTLs. Laboratory analytical results are summarized in **Table 1** and TRPH concentrations illustrated in **Figure 2**. Laboratory analytical reports with appropriate chain of custody are provided in **Appendix C**.

Soil samples collected from soil borings AES-8 and AES-9 were also analyzed for TRPH using the SPLP extraction method. Results of the SPLP analyses showed no concentrations above the Groundwater Cleanup Target Level (GCTL) of 5,000 micrograms per liter (ug/L). Laboratory analytical results are summarized in **Table 2**. Laboratory analytical reports with appropriate chain of custody are provided in **Appendix C**.

COMMENT 3:

"Concerning Building 2270, I could find no laboratory analytical data within the report that would corroborate the statement on page 21 that "…there are currently at least two feet of non impacted soil between land surface and the impacted soil, therefore engineering controls may already be in place." In order demonstrate this with actual physical data, surface soils samples should be collected in the vicinity of the diesel aboveground storage tanks (ASTs) and analyzed for petroleum products' contaminates of concern."

RESPONSE TO COMMENT 3:

Soil Boring Advancement
On January 9, 2012, AEROSTAR advanced four soil borings (AES-9 through AES-12) in the vicinity of the diesel ASTs to evaluate soil quality in the zero to two foot interval. Soil borings were advanced utilizing a 3.5-inch diameter stainless steel hand auger to approximately two feet BLS. Composite soil samples were collected from land surface to two feet BLS and inspected for signs of petroleum impacts such as staining and odors. Each soil sample was also screened with an OVA-FID. Soil boring locations are shown on **Figure 1**.

Soil Sample Collection and Analyses
The soil sample from each boring was collected in laboratory supplied containers and submitted to Gulf Coast Labnet, Inc., in Spanish Fort, Alabama, for analyses by Test America Laboratories, in Pensacola, Florida for the analyses of benzene, toluene, ethylbenzene and total xylenes (BTEX) and methyl tert-butyl ether (MTBE) by Environmental Protection Agency (EPA) Method 8260B, Polynuclear Aromatic Hydrocarbons (PAHs) by EPA Method 8720C and TRPH by the FL-PRO Method.

Soil Analytical Results
Laboratory analytical results for the soil samples collected from soil borings AES-9 through AES-12 showed no concentrations above their respective SCTLs. Soil laboratory analytical data are summarized in **Table 1**. Laboratory reports with appropriate chain of custody are provided in **Appendix C**.

COMMENT 4:

"Most all of the soil and groundwater sampling locations are to the north and east of the diesel ASTs at Building 2270. With groundwater flowing to the south as depicted in Figures 12 and 13, there needs to be a well installed directly south of the ASTs. Soil samples should be collected during well installation."

RESPONSE TO COMMENT 4:

Monitor Well Installation
On January 9, 2012, AEROSTAR installed one shallow permanent monitor well (MW-9) directly south of the diesel ASTs. Monitor well installation activities were performed using a Geoprobe equipped with hollow stem auger drilling capabilities. MW-9 was completed to a depth of approximately 15 feet BLS and constructed with 10 feet of two-inch diameter, Schedule-40 PVC, 0.01-inch slotted well screen and 5 feet of two-inch Schecule-40 PVC well casing.

The monitor well was completed by filling the annular space between the borehole and the well screen with 20/30 silica sand from the bottom of the well to approximately two foot above the top of the well screen. Approximately two feet of 30/65 fine sand seal was placed above the 20/30 silica filter sand. The remaining annular space was filled with Portland Type-I cement grout to surface grade and topped with concrete. A watertight well cap was installed on the well upon completion.

The well was completed with a 5.5-inch diameter steel manhole finished in concrete pad set flush with the ground surface. Following installation, the monitor well was developed using an electric submersible pump to assure proper hydraulic communication with the aquifer.

Monitor well construction details are summarized in **Table 3**. Monitor well locations are shown on **Figure 1**. The well construction and development log is included in **Appendix D**.

Soil Sample Collection and Analyses

Soil samples were collected during monitor well installation activities for laboratory analyses. Soil samples were collected from the boring at one foot BLS, six inches above the water table, and every two feet in between and inspected for signs of petroleum impacts such as staining and/or odors. Each soil sample was also screened for hydrocarbon vapors with a calibrated OVA-FID. The soil sample that showed the highest evidence of impacts was determined to be at eight feet BLS, just above the shallow water table. The soil sample was collected in laboratory supplied containers and submitted to Gulf Coast Labnet, Inc., in Spanish Fort, Alabama, for analyses by Test America Laboratories, in Pensacola, Florida for the analyses of BTEX and MTBE by EPA Method 8260B, PAHs by EPA Method 8720C and TRPH by the FL-PRO Method.

Soil Analytical Resutls

Laboratory analytical results of the soil sample collected from soil boring MW-9 showed no concentrations above the SCTLs. Laboratory analytical results are summarized in **Table 1**. The laboratory analytical report with appropriate chain of custody is provided in **Appendix C**.

COMMENT 5:

"Another round of groundwater sampling and analysis should be conducted on wells MW-1, MW-4, and MW-5 to verify that the concentrations of ethylbenzene, total xylenes, naphthalene, 1-methylnaphthalene, 2-methylnaphthalene and TRPH detected in those wells from the May 12, 2011 sampling event remain below the Department's groundwater cleanup target levels. This groundwater sampling should be conducted in conjunction with the sampling of the well mention in comment (4) above."

RESPONSE TO COMMENT 5:

Groundwater Sample Collection and Analyses

On January 10 and 23, 2012, AEROSTAR mobilized to the site to collect groundwater samples from monitor wells MW-1, MW-4, MW-5, and the newly installed MW-9 for laboratory analyses. The groundwater samples were collected using a variable speed peristaltic pump and dedicated polyethylene tubing.

The groundwater samples collected from monitor wells MW-1, MW-4, MW-5 and MW-9 were placed in laboratory supplied containers and submitted to Gulf Coast Labnet, Inc., in Spanish Fort, Alabama, for analyses by Test America Laboratories, in Pensacola, Florida. Groundwater samples were analyzed for Volatile Organic Compounds (VOCs) per EPA Method 8260, PAHs per EPA Method 8260 and TRPH per the FL-PRO Method. Additionally the groundwater samples collected

from MW-9 were analyzed for total lead by EPA Method 6010. Groundwater sampling procedures were conducted in accordance with the guidelines established in the FDEP SOP-001/01, revision date December 3, 2008. Groundwater Sampling Logs and Field Instrument Calibration Records are included in **Appendix E**.

Groundwater Analytical Results

Laboratory analytical results of the groundwater samples collected from monitor well MW-4 showed TRPH concentrations at 6,800 ug/L, above the GCTL of 5,000 ug/L. All remaining results were reported below their respective GCTLs for the parameters analyzed. Groundwater analytical results are summarized in **Table 2** illustrated in **Figure 3.** Laboratory analytical reports with appropriate chain of custodies are provided in **Appendix B**.

Groundwater Flow Determination

On January 10, 2012, depth to water measurements were collected from monitor wells MW-1 and MW-4 through MW-9 to estimate the direction of groundwater flow. The depth to water at each monitor well was subtracted from the corresponding top of casing (TOC) elevation to determine the groundwater elevation at each well. The predominant direction of groundwater flow was estimated to be towards the south during the January 2012 sampling event. The water table elevations are summarized in **Table 4**. The groundwater flow direction map for January 10, 2012, is presented as **Figure 4**.

COMMENT 6:

"Please note that the May 12, 2011 groundwater elevation for MW-7 should be 91.46 feet in Table 8 and Figure 12."

RESPONSE TO COMMENT 6:

Table 8 and Figure 12 from the May 12, 2011 sampling event have been revised and are provided in **Appendix F**.

RESULTS AND CONCLUSIONS

The results of the January 2012 Supplemental SA activities showed petroleum hydrocarbons at concentrations above FDEP levels in the subsurface soil and shallow ground water.

Soil investigations performed at the site indicate concentrations of C12-C16 Aliphatics and C6-C21 Aromatics above the Residential Direct Exposure SCTL and concentrations of C12-C16 Aromatics above the Leachability Based on Groundwater Criteria at approximately eight feet BLS in the area of monitor well MW-4. Results of the SPLP analyses for TRPH showed that the impacted soil will not leach into the groundwater. Laboratory analyses of the surficial soil (0 to 2 feet BLS) showed no evidence of petroleum impacts.

Laboratory analyses of the groundwater sample collected from monitor well MW-4 indicated TRPH concentrations present above the FDEP GCTL.

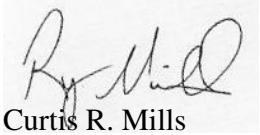
Based on the results of the August 2011 SAR and the January 2012 SAR Addendum activities, petroleum hydrocarbon concentrations are present in the soil above FDEP Residential Direct Exposure SCTLs and Leachability Based on Groundwater Criteria at approximately eight feet BLS, specifically in the area of MW-4.

Based on the results of TRPH SPLP analyses, the soil does not appear to be leaching contaminants into the groundwater. However, groundwater concentrations at the site above the GCTLs indicate that leaching has occurred in the past. Results of the soil samples analyzed at the site from the zero to two foot horizon indicate that contamination does not exist in the soil within two feet of the surface. Therefore, there does not appear to be a direct exposure concern at the site. Groundwater impacts at the site were reported above the GCTLs but below the Natural Attenuation Default Concentrations (NADC). AEROSTAR recommends implementing a natural attenuation monitoring plan to evaluate the groundwater at the site on a quarterly schedule. Once the groundwater concentrations are reported below the GCTLs for two consecutive sampling events, AEROSTAR will recommend no further action with conditions at the site.

If you have any questions, please contact the undersigned at (251) 432-2664.

Sincerely,

AEROSTAR ENVIRONMENTAL SERVICES, INC.



Curtis R. Mills
Project Manager

Geoffrey Reichold, P.G.
Senior Project Manager

cc: Mr. Greg Campbell, NAS Pensacola
Mr. Tesfa Abraha, NAVFAC SE
Project File

PROFESSIONAL REVIEW
PROFESSIONAL GEOLOGIST LICENSED IN THE STATE OF FLORIDA

This is to certify that the **Site Assessment Report Addendum** for the **Naval Hospital Pensacola (Building 2270), 6000 US Highway 98, Escambia County, Florida, Facility ID 19/9700031** has been examined by the undersigned and complies with the standard professional practices, other rules of the Department and any other applicable laws and rules governing the profession.

Signature: _____
Geoffrey Reichold, P.G.
Florida Registration No. 2483_____
Signature Date: April 30, 2012_____

TABLES

TABLE 1: SOIL ANALYTICAL SUMMARY

Facility Name: Naval Hospital Pensacola (Building 2270)
Facility Address: 6000 US Highway 98, Pensacola, Escambia County, Florida
FDEP Fac ID 17/9700031

Sample				Volatile Organic Aromatics				
Boring No.	**Date Collected**	**OVA-FID (ppm)**	**Sample Depth (fbls)**	**Benzene**	**Toluene**	**Ethyl benzene**	**Total Xylenes**	**Methyl-tert butyl ether**
Units				**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
FDEP Residential SCTL				**1.2**	**7500**	**1500**	**130**	**4400**
FDEP Commercial SCTL				**1.7**	**60000**	**9200**	**700**	**2400**
FDEP SCTL Leachability Criteria				**0.007**	**0.5**	**0.6**	**0.2**	**0.09**
AES-9 (0-2')	1/9/2012	<10	0-2	0.00047 U	0.00070 U	0.00056 U	0.0019 U	0.0010 U
AES-10 (0-2')	1/9/2012	<10	0-2	0.00048 U	0.00071 U	0.00056 U	0.0019 U	0.0010 U
AES-11 (0-2')	1/9/2012	<10	0-2	0.00043 U	0.00064 U	0.00051 U	0.0017 U	0.00094 U
AES-12 (0-2')	1/9/2012	<10	0-2	0.00042 U	0.00062 U	0.00050 U	0.0017 U	0.00092 U
MW-9 (8')	1/9/2012	10.1	8	0.00051 U	0.00075 U	0.00060 U	0.0020 U	0.0011 U

Sample				Polynuclear Aromatic Hydrocarbons																	
Boring No.	**Date Collected**	**OVA-FID (ppm)**	**Sample Depth (fbls)**	**Acenaph thene**	**Acenaph thylene**	**Anthracene**	**Benzo(a) anthracene**	**Benzo(a) pyrene**	**Benzo(b) fluoranthene**	**Benzo(g,h,i) perylene**	**Benzo(k) fluoranthene**	**Chrysene**	**Dibenzo(a,h) anthracene**	**Fluoran thene**	**Fluorene**	**Indeno(1,2,3-cd) pyrene**	**Naphthalene**	**Phenan threne**	**Pyrene**	**1-Methyl naphthalene**	**2-Methyl naphthalene**
Units				**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
FDEP Residential SCTL				**2400**	**1800**	**21000**	******	**0.100**	******	**2500**	******	******	******	**3200**	**2600**	******	**55**	**2200**	**2400**	**200**	**210**
FDEP Commercial SCTL				**20000**	**20000**	**300000**	******	**0.700**	******	**52000**	******	******	******	**59000**	**33000**	******	**300**	**36000**	**45000**	**1800**	**2100**
FDEP SCTL Leachability Criteria				**2.1**	**27**	**2500**	**0.8**	**8**	**2.4**	**32000**	**24**	**77**	**0.7**	**700**	**1200**	**160**	**1.2**	**250**	**880**	**3.1**	**8.5**
AES-9 (0-2')	1/9/2012	<10	0-2	0.035 U	0.035 U	0.035 U	0.035 U	0.035 U	0.035 U	0.035 U	0.035 U	0.035 U	0.035 U	0.035 U	0.035 U	0.035 U	0.035 U	0.035 U	0.035 U	0.035 U	0.035 U
AES-10 (0-2')	1/9/2012	<10	0-2	0.035 U	0.035 U	0.035 U	0.037 I	0.035 U	0.055 I	0.035 U	0.035 U	0.035 I	0.035 U	0.035 U	0.035 U	0.035 U	0.035 U	0.035 U	0.049 I	0.035 U	0.035 U
AES-11 (0-2')	1/9/2012	<10	0-2	0.035 U	0.035 U	0.035 U	0.042 I	0.035 U	0.10 I	0.035 U	0.053 I	0.073 I	0.035 U	0.035 U	0.035 U	0.035 U	0.035 U	0.035 U	0.11 I	0.035 U	0.035 U
AES-12 (0-2')	1/9/2012	<10	0-2	0.035 U	0.035 U	0.035 U	0.046 I	0.053 I	0.089 I	0.035 U	0.039 I	0.059 I	0.035 U	0.035 U	0.035 U	0.035 U	0.035 U	0.035 U	0.079 I	0.035 U	0.035 U
MW-9 (8')	1/9/2012	10.1	8	0.036 U	0.036 U	0.036 U	0.036 U	0.036 U	0.036 U	0.036 U	0.036 U	0.036 U	0.036 U	0.036 U	0.036 U	0.036 U	0.036 U	0.036 U	0.036 U	0.036 U	0.036 U

Boring No.	**Date Collected**	**OVA-FID (ppm)**	**Sample Depth (fbls)**	**TRPH**	**C5-C6 Aliphatics**	**C6-C8 Aliphatics**	**C8-C10 Aliphatics**	**C10-C12 Aliphatics**	**C12-C16 Aliphatics**	**C16-C35 Aliphatics**	**C5-C7 Aromatics**	**C7-C8 Aromatics**	**C8-C10 Aromatics**	**C10-C12 Aromatics**	**C12-C16 Aromatics**	**C16-C21 Aromatics**	**C21-C35 Aromatics**
Units				**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Residential Direct Exposure				**460**	**6,200**	**8,700**	**850**	**1,700**	**2,900**	**42,000**	**340**	**490**	**460**	**900**	**1,500**	**1,300**	**2,300**
Commercial Direct Exposure				**2,700**	**33,000**	**46,000**	**4,800**	**10,000**	**21,000**	**280,000**	**1,800**	**3,700**	**2,700**	**5,900**	**12,000**	**11,000**	**40,000**
Leachibility Based on Groundwater Criteria				**340**	**470**	**1,300**	**7,000**	**51,000**	**NA**	**NA**	**34**	**59**	**340**	**520**	**1,000**	**3,200**	**25,000**
AES-8 (8')	1/9/2012	115.9	8	NA	130 U	130 U	130 U	870	**6,700**	9,300	21 U	26 U	26 U	45 I	**1,200**	**2,400**	1,500
AES-9 (8')	1/9/2012	22.4	8	NA	27 U	27 U	27 U	27 U	360	1,100	21 U	27 U	27 U	27 U	41 I	230	400
AES-9 (0-2')	1/9/2012	<10	0-2	37	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AES-10 (0-2')	1/9/2012	<10	0-2	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AES-11 (0-2')	1/9/2012	<10	0-2	17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AES-12 (0-2')	1/9/2012	<10	0-2	7.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-9 (8')	1/9/2012	10.1	8	34	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

All results in milligrams per kilograms (mg/kg)
FDEP = Florida Department of Environmental Protection
***Bold** =Value in bold identifies a result exceeding a FDEP SCTL*
***Red** = value in red identifies a result exceeding the Leachibility Based on Groundwater Criteria*
SCTL = Soil Cleanup Target Level
I = Result is between the laboratory method detection limit and method reporting limit.
U = indicates constituent was not detected above the laboratory method detection limit
NA = Not Available/Not Analyzed
*** No GCTL set for constituent; therefore, EPA Screening Levels, May 2008, were used*

TABLE 2: GROUNDWATER LABORATORY ANALYTICAL SUMMARY

Facility Name: Naval Hospital Pensacola (Building 2270)
Facility Address: 6000 US Highway 98, Pensacola, Escambia County, Florida
FDEP Fac ID 17/9700031

Sample		Volatile Organic Hydrocarbons																			
Boring No.	Date Collected	Benzene	Bromo benzene	Dichloro bromomethane	1,3-Dichloro propene, trans-	Bromo form	Bromo methane	Carbon tetrachloride	Chloro benzene	Chloro ethane	Chloroform	Chloro methane	Chlorodibromo methane	Dibromo methane	1,2-Dichloro benzene	1,3-Dichloro benzene	1,4-Dichloro benzene	Dichloro difluoro methane	1,1-Dichloro ethane	1,2-Dichloro ethane	1,1-Dichloro ethene
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
FDEP GCTL		**1**	**NA**	**NA**	**NA**	**4.4**	**9.8**	**3**	**NA**	**12**	**70**	**2.7**	**NA**	**NA**	**NA**	**210**	**NA**	**1400**	**70**	**5**	**NA**
MW-1	1/10/2012	0.34 U	0.54 U	0.50 U	0.50 U	0.58 U	0.91 U	0.50 U	0.50 U	0.63 U	0.60 U	0.83 U	0.50 U	0.59 U	0.50 U	0.54 U	0.64 U	0.85 U	0.50 U	0.50 U	0.50 U
MW-4	1/10/2012	0.34 U	0.54 U	0.50 U	0.50 U	0.58 U	0.91 U	0.50 U	0.50 U	0.63 U	0.60 U	0.83 U	0.50 U	0.59 U	0.50 U	0.54 U	0.64 U	0.85 U	0.50 U	0.50 U	0.50 U
MW-5	1/10/2012	0.34 U	0.54 U	0.50 U	0.50 U	0.58 U	0.91 U	0.50 U	0.50 U	0.63 U	0.60 U	0.83 U	0.50 U	0.59 U	0.50 U	0.54 U	0.64 U	0.85 U	0.50 U	0.50 U	0.50 U
MW-9	1/23/2012	0.34 U	0.54 U	0.50 U	0.50 U	0.58 U	0.91 U	0.50 U	0.50 U	0.63 U	0.60 U	0.83 U	0.50 U	0.59 U	0.50 U	0.54 U	0.64 U	0.85 U	0.50 U	0.50 U	0.50 U

Sample		Volatile Organic Hydrocarbons																		
Boring No.	Date Collected	1,2-Dichloro ethene, cis-	1,2-Dichloro ethene, trans-	1,2-Dichloro propane	1,3-Dichloro propene, cis-	Ethyl benzene	Methylene Chloride	Methyl tert-butyl ether	1,1,1,2-Tetra chloro ethane	1,1,2,2-Tetra chloro ethane	Tetrachloro ethene	Toluene	1,1,1-Trichloro ethane	1,1,2-Trichloro ethane	Trichloro ethene	Trichloro fluoro methane	1,2,3-Trichloro propane	Vinyl Chloride	Total Xylenes	Lead
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
FDEP GCTL		**NA**	**NA**	**5**	**0.4**	**30**	**5**	**20**	**1.3**	**0.2**	**NA**	**40**	**200**	**5**	**NA**	**2100**	**0.02**	**1**	**20**	**15**
MW-1	1/10/2012	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	0.74 U	0.52 U	0.50 U	0.58 U	0.70 U	0.50 U	0.50 U	0.50 U	0.52 U	0.86 U	0.50 U	1.6 U	NA
MW-4	1/10/2012	0.50 U	0.50 U	0.50 U	0.50 U	3.9	1.0 U	0.74 U	0.52 U	0.50 U	0.58 U	0.99 I	0.50 U	0.50 U	0.50 U	0.52 U	0.86 U	0.50 U	10	NA
MW-5	1/10/2012	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	0.74 U	0.52 U	0.50 U	0.58 U	0.70 U	0.50 U	0.50 U	0.50 U	0.52 U	0.86 U	0.50 U	1.6 U	NA
MW-9	1/23/2012	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	0.74 U	0.52 U	0.50 U	0.58 U	0.70 U	0.50 U	0.50 U	0.50 U	0.52 U	0.86 U	0.50 U	1.6 U	3.8 I

Sample		Polynuclear Aromatic Hydrocarbons																			
Boring No.	Date Collected	Acenaphthene	Acenaph thylene	Anthracene	Benzo(a) anthracene	Benzo(a) pyrene	Benzo(b) fluor anthene	Benzo(g,h,i) perylene	Benzo(k) fluor anthene	Chrysene	Dibenzo(a,h) anthracene	Fluor anthene	Fluorene	Indeno (1,2,3-cd) pyrene	Naphthalene	Phenan threne	Pyrene	1-Methyl naphthalene	2-Methyl naphthalene	Ethylene Dibromide	TRPH
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
FDEP GCTL		**20**	**210**	**2100**	**0.05**	**0.2**	**0.05**	**210**	**0.5**	**4.8**	**0.005**	**280**	**280**	**0.05**	**14**	**210**	**210**	**28**	**28**	**0.02**	**5,000**
MW-1	1/10/2012	0.019 U	0.019 U	0.019 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.019 U	0.020 U	0.039 U	2.4	0.019 U	0.019 U	4.3	5.3	NA	460
MW-4	1/10/2012	0.020 U	0.020 U	0.020 U	0.040 U	0.040 U	0.040 U	0.040 U	0.040 U	0.040 U	0.040 U	0.020 U	0.021 U	0.040 U	6.7	0.020 U	0.020 U	17	27	NA	**6,800**
MW-5	1/10/2012	0.020 U	0.020 U	0.020 U	0.040 U	0.040 U	0.040 U	0.040 U	0.040 U	0.040 U	0.040 U	0.020 U	0.021 U	0.040 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	NA	21 U
MW-9	1/23/2012	0.020 U	0.020 U	0.020 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.020 U	0.021 U	0.039 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	NA	250
AES-8 (8')	1/9/2012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3,600*
AES-9 (8')	1/9/2012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	510*

Notes:

ug/L = micrograms per liter
***Bold** =Valune in bold idetifies a result exceeding an FDEP GCTL*
** = Soil sample was analyzed for TRPH with SPLP extraction*
NA = Not Analyzed
GCTL = Groundwater Cleanup Target Level

Data Qualifiers:

U=The analyte was below detection limits
I = The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit

TABLE 3: MONITOR WELL CONSTRUCTION DETAILS

Facility Name: Naval Hospital Pensacola (Building 2270)
Facility Address: 6000 US Hwy 98, Pensacola, Escambia County, Florida

A/G = Aboveground **FBLS = Feet below land surface** **NA = Not applicable**

WELL NO.	DATE INSTALLED	INSTALLATION METHOD	TOP OF CASING ELEVATION	A/G RISER LENGTH (FEET)	TOTAL WELL DEPTH (FBLS)	SCREENED INTERVAL (FBLS)	WELL DIAMETER (INCHES)
MW-1	9/1/2000	Hollow Stem	98.95	N/A	19.24	4.24-19.24	2.0
MW-2	9/1/2000	Hollow Stem	98.37	N/A	19.12	4.12-19.12	2.0
MW-3	9/1/2000	Hollow Stem	98.85	N/A	19.36	4.36-19.36	2.0
MW-4	5/4/2011	Hollow Stem	99.60	N/A	15	5-15	2.0
MW-5	5/4/2011	Hollow Stem	99.68	N/A	15	5-15	2.0
MW-6	5/4/2011	Hollow Stem	100.03	N/A	15	5-15	2.0
MW-7	5/4/2011	Hollow Stem	99.00	N/A	15	5-15	2.0
MW-8	5/4/2011	Hollow Stem	99.99	N/A	15	5-15	2.0
MW-9	1/9/2012	Hollow Stem	NA	N/A	15	5-15	2.0
DMW-1	5/4/2011	Hollow Stem	99.70	N/A	30	25-30	1.0

TABLE 4: GROUNDWATER ELEVATION SUMMARY

Facility Name: Naval Hospital Pensacola (Building 2270)
Facility Address: 6000 US Hwy 98, Pensacola, Escambia County, Florida

All Measurements (Except Well Diameter) = Feet
DTW = Depth to Water

NI = Not Installed
NS = Not Sampled
TOC = Top of Casing
ELEV = Elevation
FP = Free Product
ND = Not Detected

WELL NO.	MW-1			MW-2			MW-3			MW-4			MW-5		
DIAMETER (INCHES)	2			2			2			2			2		
WELL DEPTH	19.24			19.12			19.36			15			15		
SCREEN INTERVAL	4.94-19.24			4.12-19.12			4.36-19.36			5-15			5-15		
TOC ELEVATION	98.95			98.37			98.85			99.60			99.68		
DATE	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP
9/1/2000	89.05	9.9	ND	88.55	9.82	ND	88.44	10.41	ND	NI	NI	NI	NI	NI	NI
9/5/2000	89.47	9.48	ND	88.59	9.78	ND	88.47	10.38	ND	NI	NI	NI	NI	NI	NI
5/12/2011	90.90	8.05	ND	90.53	7.84	ND	NS	NS	ND	91.08	8.52	ND	91.18	8.5	ND
5/18/2011	90.87	8.08	ND	90.48	7.89	ND	NS	NS	ND	91.04	8.56	ND	91.15	8.53	ND
1/10/2012	91.21	7.74	ND	NS	NS	ND	NS	NS	ND	91.35	8.25	ND	91.48	8.2	ND

WELL NO.	MW-6			MW-7			MW-8			MW-9			DMW-1		
DIAMETER (INCHES)	2			2			2			2			1		
WELL DEPTH	15			15			15			15			30		
SCREEN INTERVAL	5-15			5-15			5-15			5-15			25-30		
TOC ELEVATION	100.03			99.00			99.99			98.21			99.70		
DATE	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP
11/8/2010	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
9/5/2000	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
5/12/2011	91.28	8.75	ND	91.46	7.54	ND	91.23	8.76	ND	NI	NI	ND	91.00	8.7	ND
5/18/2011	91.23	8.80	ND	91.40	7.6	ND	91.20	8.79	ND	NI	NI	ND	90.96	8.74	ND
1/10/2012	91.64	8.39	ND	91.57	7.43	ND	91.44	8.55	ND	91.21	7	ND	NS	NS	ND

FIGURES

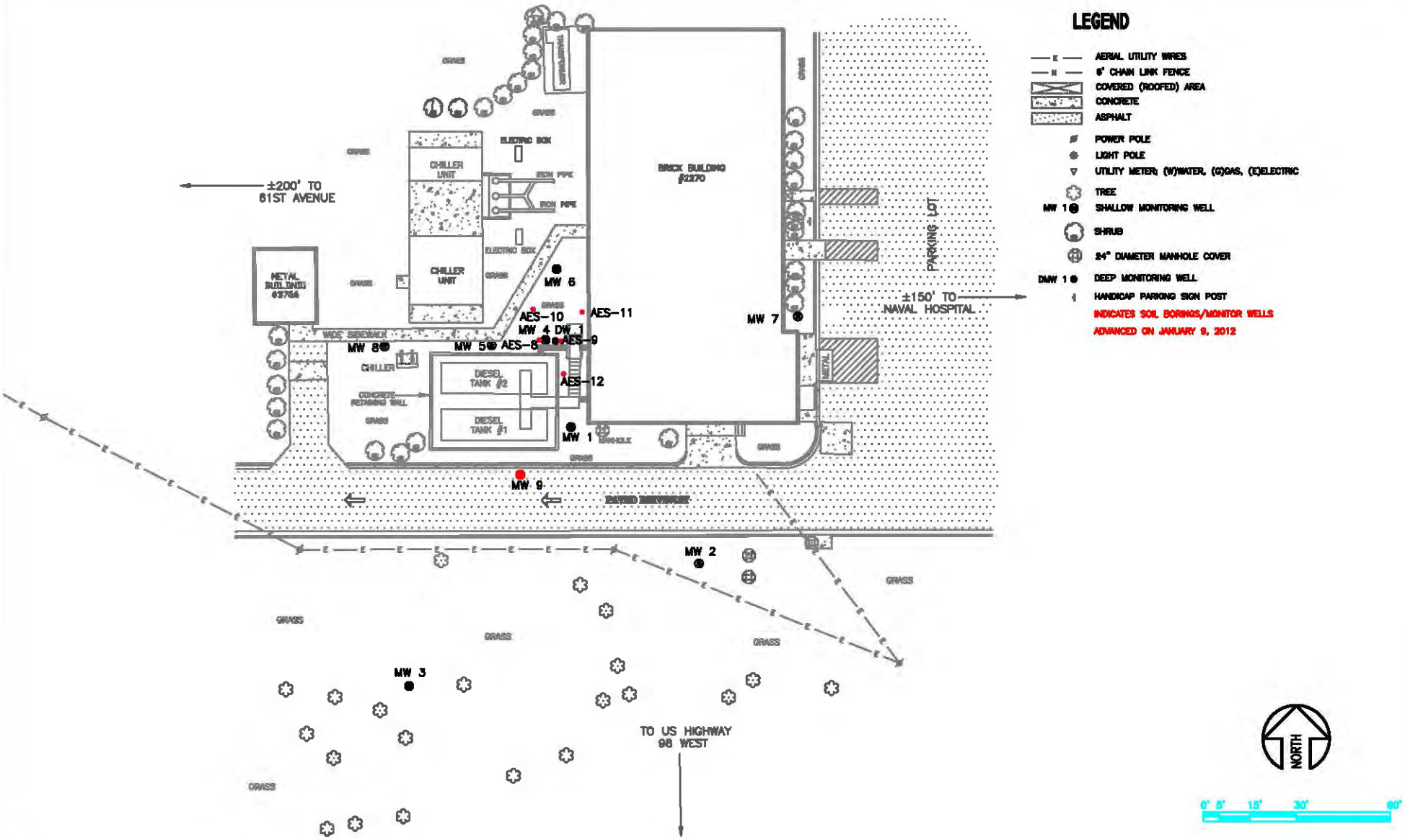
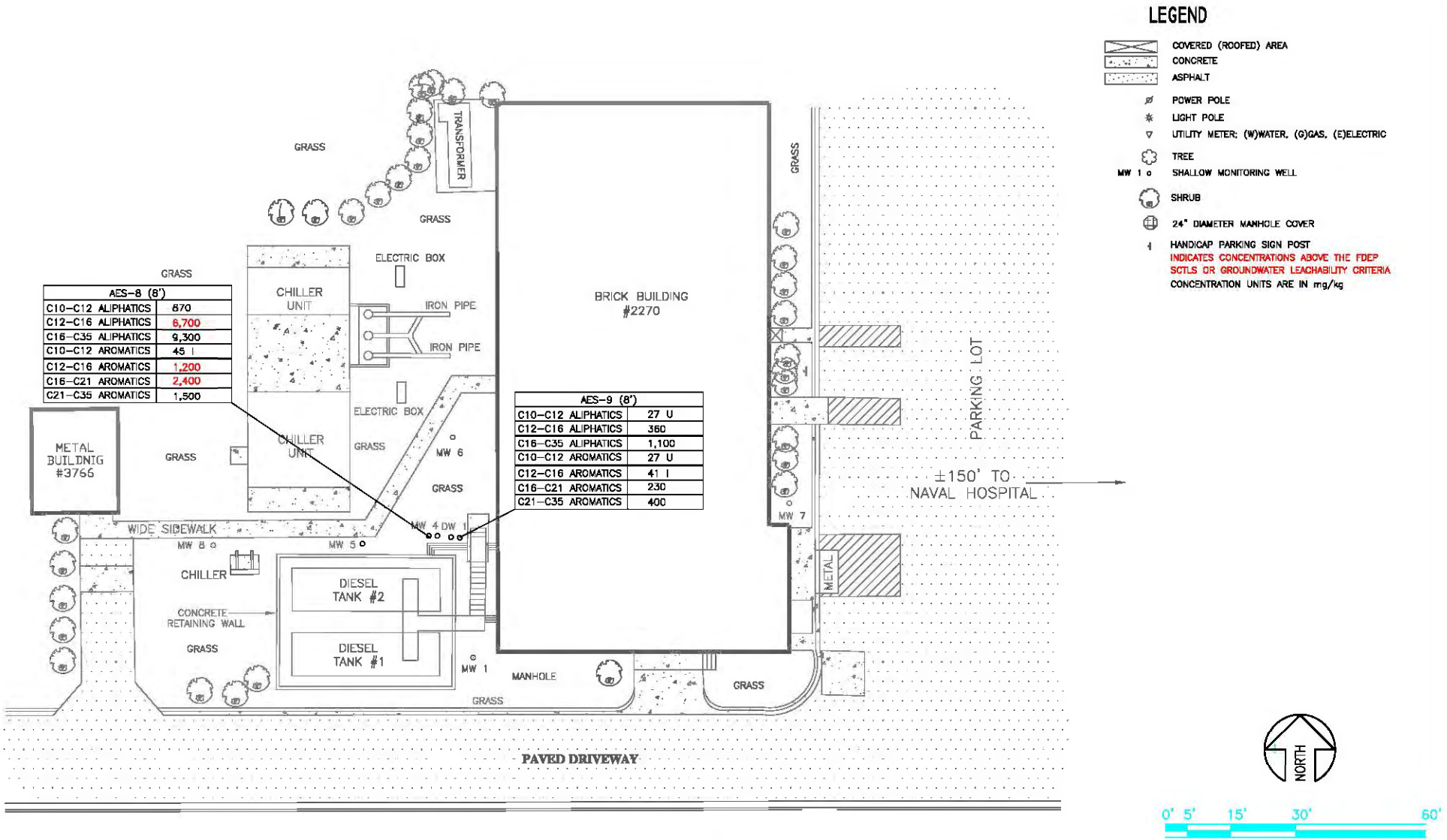


FIGURE 1. PERMANENT MONITOR WELL/SOIL BORING LOCATION MAP (BUILDING 2270)

AEROSTAR ENVIRONMENTAL SERVICES, INC.

NAVAL HOSPITAL PENSACOLA
6000 US HIGHWAY 98
PENSACOLA, ESCAMBIA COUNTY, FLORIDA

JOB # 0411-089-24
DATE: FEBRUARY 2012
DRAWN BY: MILLS



AES-8 (8')	
C10–C12 ALIPHATICS	870
C12–C16 ALIPHATICS	6,700
C16–C35 ALIPHATICS	9,300
C10–C12 AROMATICS	45 I
C12–C16 AROMATICS	1,200
C16–C21 AROMATICS	2,400
C21–C35 AROMATICS	1,500

AES-9 (8')	
C10–C12 ALIPHATICS	27 U
C12–C16 ALIPHATICS	360
C16–C35 ALIPHATICS	1,100
C10–C12 AROMATICS	27 U
C12–C16 AROMATICS	41 I
C16–C21 AROMATICS	230
C21–C35 AROMATICS	400

FIGURE 2. DETECTED ALIPHATIC AND AROMATIC CARBON RANGE MAP (BUILDING 2270)

AEROSTAR ENVIRONMENTAL SERVICES, INC.

NAVAL HOSPITAL PENSACOLA
6000 US HIGHWAY 98
PENSACOLA, ESCAMBIA COUNTY, FLORIDA

JOB # 0411-089-24
DATE: FEBRUARY 2012
DRAWN BY: MILLS

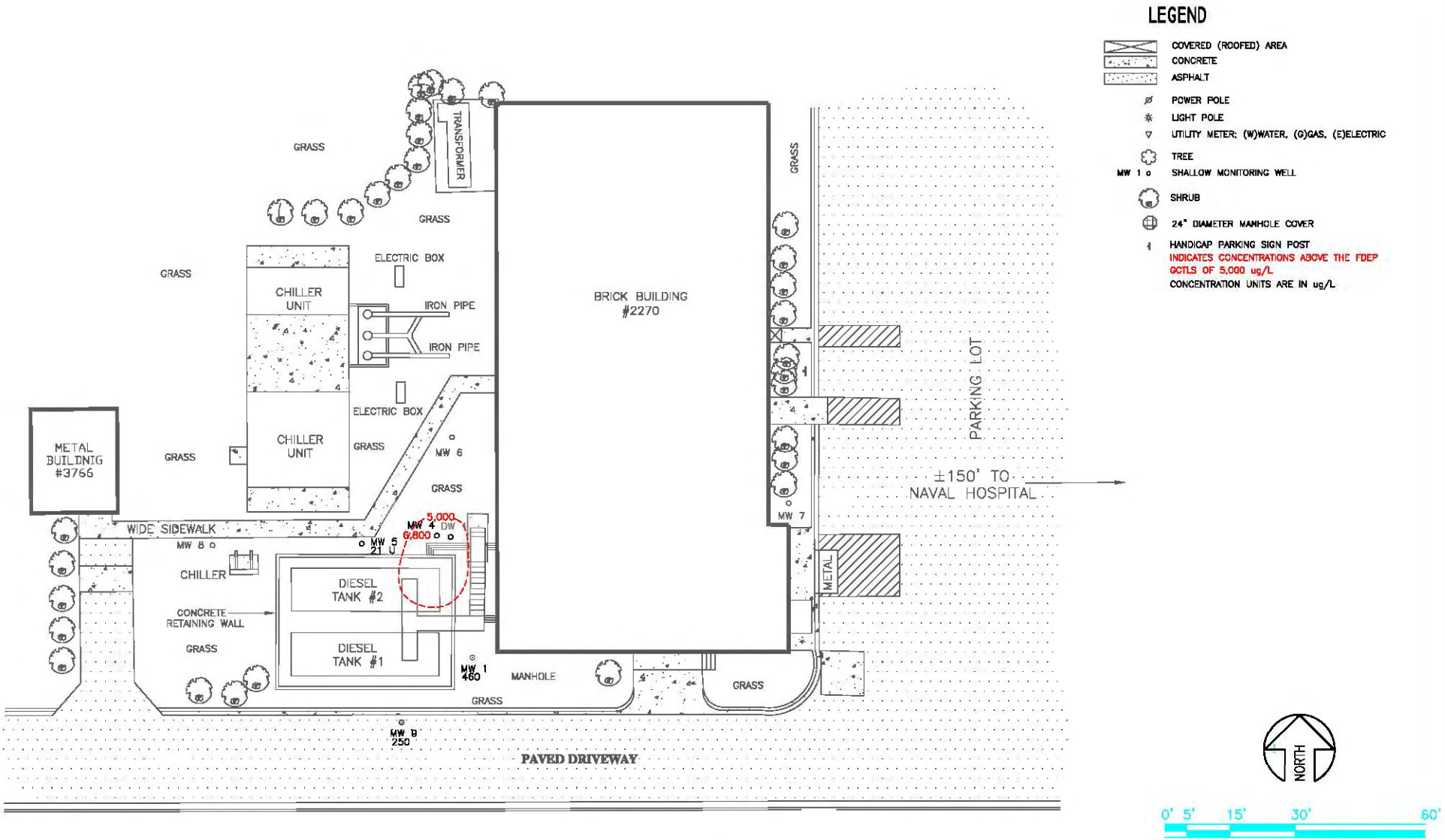


FIGURE 3. GROUNDWATER TRPH CONCENTRATION MAP (BUILDING 2270)

AEROSTAR ENVIRONMENTAL SERVICES, INC.

NAVAL HOSPITAL PENSACOLA
6000 US HIGHWAY 98
PENSACOLA, ESCAMBIA COUNTY, FLORIDA

JOB # 0411-089-24
DATE: FEBRUARY 2012
DRAWN BY: MILLS

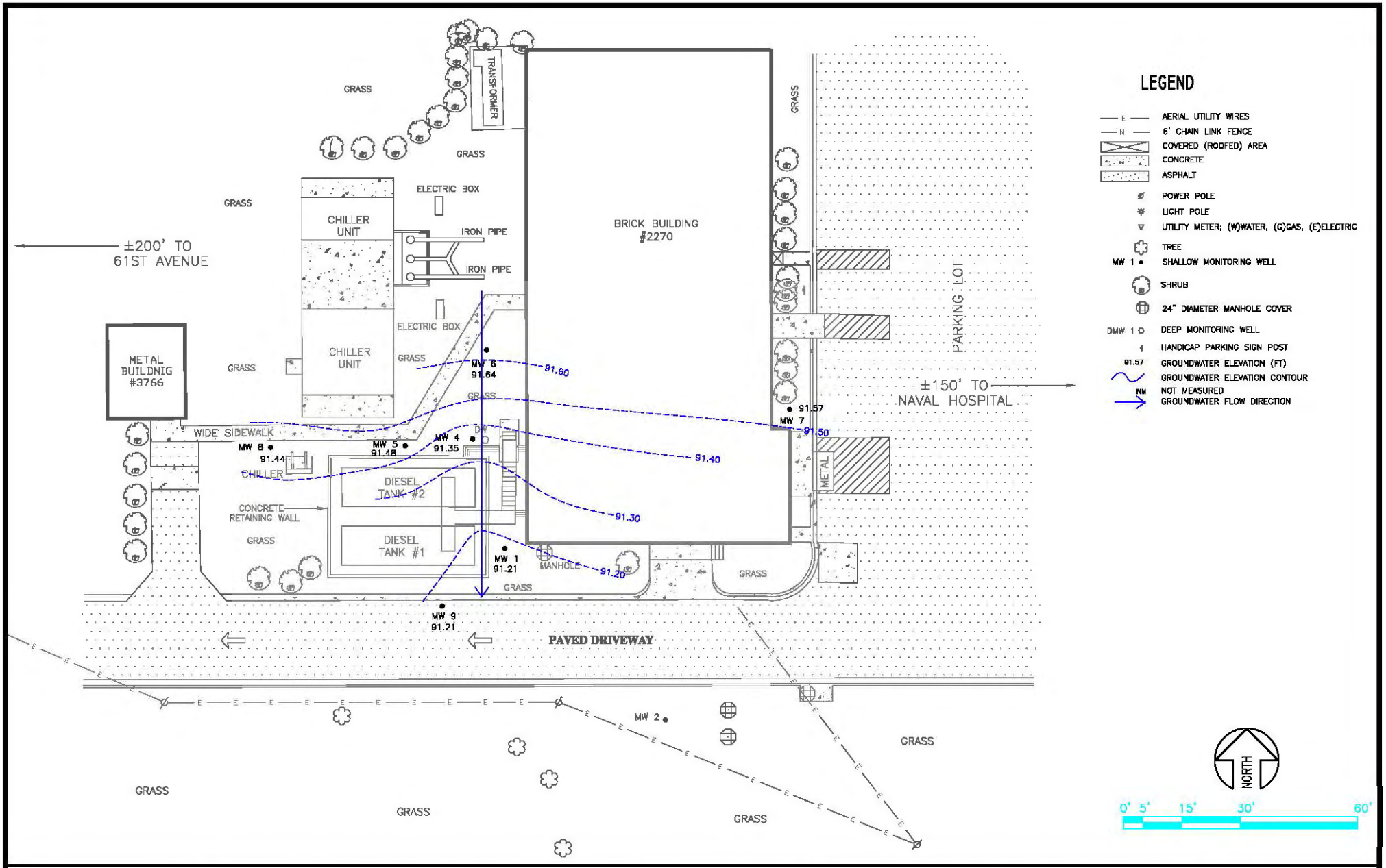


FIGURE 4. BUILDING 2270 SHALLOW GROUNDWATER FLOW MAP (JANUARY 9, 2012)

AEROSTAR ENVIRONMENTAL SERVICES, INC.

NAVAL HOSPITAL PENSACOLA
6000 US HIGHWAY 98
PENSACOLA, ESCAMBIA COUNTY, FLORIDA

JOB # 0411-089-24
DATE: JUNE 2011
DRAWN BY: MILLS

APPENDIX A

FDEP REVIEW LETTER

Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Rick Scott
Governor

Jennifer Carroll
Lt. Governor

Herschel T. Vinyard Jr.
Secretary

October 6, 2011

Mr. Greg Campbell
Building 310 John Tower Road
Naval Air Station Pensacola
Pensacola, FL 32508

RE: Final Site Assessment Report, Buildings 2269 & 2270, Naval Hospital Pensacola, Pensacola, Florida (FDEP Fac. ID 17/9700031)

Dear Greg:

I have reviewed the Final Site Assessment Report, Buildings 2269 & 2270, Naval Hospital Pensacola, Pensacola, dated July 2011 (received August 12, 2011), prepared and submitted by Aerostar Environmental Services, Inc. The assessment conducted appears adequate to support some of the conclusions made in the report and likewise support most of the recommendations made. I have the following comments that should be addressed in a Site Assessment Report Addendum:

(1) I concur with the conclusion that the polynuclear aromatic hydrocarbon contamination detected in soils by Building 2269 is a result from the historically use of that area as a skeet range and is not the result of a petroleum discharge. Therefore, the Department concurs that the further assessment and remediation of the site should by conducted under the Navy's Munitions Response Program as the Corry Station Skeet Range.

(2) Concerning Building 2270, Aerostar's recommendation to collect soil samples for laboratory analysis by TRPH Speciation is a good one and should be conducted. It may also be advisable to conduct Synthetic Precipitation Leaching Procedure (SPLP) extraction on soil samples as well.

(3) Concerning Building 2270, I could find no laboratory analytical data within the report that would corroborate the statement on page 21 that ". . . there are currently at least two feet of non-impacted soil between land surface and the impacted soil, therefore engineering controls may already be in place." In order

to demonstrate this with actual physical data, surface soil samples should be collected in the vicinity of the diesel aboveground storage tanks (ASTs) and analyzed for petroleum products' contaminants of concern.

(4) Most all of the soil and groundwater sampling locations are to the north and east of the diesel ASTs at Building 2270. With groundwater flowing to the south as depicted in Figures 12 and 13, there needs to be a well installed directly south of the ASTs. Soil samples should be collected during well installation.

(5) Another round of groundwater sampling and analysis should be conducted on wells MW-1, MW-4, and MW-5 to verify that the concentrations of ethylbenzene, total xylenes, naphthalene, 1-methylnaphthalene, 2-methylnaphthalene and TRPH detected in those wells from the May 12, 2011 sampling event remain below the Department's groundwater cleanup target levels. This groundwater sampling should be conducted in conjunction with the sampling of the well mentioned in comment (4) above.

(6) Please note that the May 12, 2011 groundwater elevation for MW-7 should be 91.46 feet in Table 8 and Figure 12.

The FDEP facility ID for this site is 17/9700031. Please specify the facility ID on all future correspondence regarding this site. If you have any questions regarding this letter, please contact me at (850) 245-8997.

Sincerely,

David P. Grabka

David P. Grabka, P.G.
Remedial Project Manager
Federal Programs Section
Bureau of Waste Cleanup

JJC JJC ESN ESN

APPENDIX B

SOIL BORING LOGS

Florida Department of Environmental Protection - Division of Waste Management - Bureau of Petroleum Storage Systems

AEROSTAR ENVIRONMENTAL SERVICES, INC.

SOIL BORING LOG

Boring/Well Number: AES-8	Permit Number: NA	FDEP Facility Identification Number: NA
Site Name: Naval Hospital Pensacola (Building 2270)	Borehole Start Date: 1/9/2012 End Date: 1/9/2012	Borehole Start Time: 0945 ☑ AM ☐ PM End Time: 0955 ☑ AM ☐ PM
Environmental Contractor: Aerostar Environmental Services Inc.	Geologist's Name: Curtis Mills	Environmental Technician's Name: NA

Drilling Company: NA	Pavement Thickness (inches): NA	Borehole Diameter (inches): 3 inches	Borehole Depth (feet): 8.5
Drilling Method(s): Hand Auger	Apparent Borehole DTW (in feet from soil moisture content): 8.5	Measured Well DTW (in feet after water recharges in well): NA	OVA (list model and check type): NA ☐ FID ☐ PID

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☑ Backfill ☐ Stockpile ☐ Other
(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	1			<10	<10	<10	1	Brown silty fine sand, dry, no odor or staining	SM	D	
HA	2			<10	<10	<10	2	Brown silty fine sand, dry, no odor or staining	SM	D	
HA	3			11.8	1.0	10.8	3	Tan/yellow fine sand, dry, no odor or staining	SM	D	
HA	4			<10	<10	<10	4	Tan/yellow fine sand, dry, no odor or staining	SM	D	
HA	5			<10	<10	<10	5	Tan/yellow fine sand, dry, no odor or staining	SM	D	
HA	6			35.9	1.6	34.3	6	Tan/yellow fine sand, dry, petro odor	SM	M	
HA	7			30.9	0.0	30.9	7	Tan/yellow fine sand, dry, petro odor	SM	M	
HA	8			115.9	0.0	115.9	8	Tan/yellow fine sand, dry, petro odor	SM	M	AES-8 (8')
								Boring Terminated			

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

Florida Department of Environmental Protection - Division of Waste Management - Bureau of Petroleum Storage Systems

AEROSTAR ENVIRONMENTAL SERVICES, INC.

SOIL BORING LOG

Boring/Well Number: AES-9	Permit Number: NA	FDEP Facility Identification Number: NA
Site Name: Naval Hospital Pensacola (Building 2270)	Borehole Start Date: 1/9/2012 End Date: 1/9/2012	Borehole Start Time: 1000 ☑ AM ☐ PM End Time: 1010 ☑ AM ☐ PM
Environmental Contractor: Aerostar Environmental Services Inc.	Geologist's Name: Curtis Mills	Environmental Technician's Name: NA

Drilling Company: NA	Pavement Thickness (inches): NA	Borehole Diameter (inches): 3 inches	Borehole Depth (feet): 8.5
Drilling Method(s): Hand Auger	Apparent Borehole DTW (in feet from soil moisture content): 8.5	Measured Well DTW (in feet after water recharges in well): NA	OVA (list model and check type): NA ☐ FID ☐ PID

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☑ Backfill ☐ Stockpile ☐ Other
(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☑ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	1			<10	<10	<10	1	Brown fine sand, dry, no odor or staining	SM	D	
HA	2			<10	<10	<10	2	Brown fine sand, dry, no odor or staining	SM	D	
HA	3			<10	<10	<10	3	Brown medium sand, dry, no odor or staining	SM	D	
HA	4			<10	<10	<10	4	Brown medium sand, dry, no odor or staining	SM	D	
HA	5			<10	<10	<10	5	Brown medium sand, dry, no odor or staining	SM	D	
HA	6			<10	<10	<10	6	Tan/yellow medium sand, dry, no odor or staining	SM	D	
HA	7			<10	<10	<10	7	Tan/yellow medium sand, moist, no odor or staining	SM	M	
HA	8			22.4	0.0	22.4	8	Tan/yellow medium sand, moist, petroleum odor	SM	M	AES-9 (8')
								Boring Terminated			

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

Florida Department of Environmental Protection - Division of Waste Management - Bureau of Petroleum Storage Systems

AEROSTAR ENVIRONMENTAL SERVICES, INC.

SOIL BORING LOG

Boring/Well Number: MW-9	Permit Number: NA	FDEP Facility Identification Number: NA
Site Name: Naval Hospital Pensacola (Building 2270)	Borehole Start Date: 1/9/2012 End Date: 1/9/2012	Borehole Start Time: 0850 ☑ AM ☐ PM End Time: 0930 ☑ AM ☐ PM
Environmental Contractor: Aerostar Environmental Services Inc.	Geologist's Name: Curtis Mills	Environmental Technician's Name: NA

Drilling Company: Walker Hill	Pavement Thickness (inches): NA	Borehole Diameter (inches): 3 inches	Borehole Depth (feet): 15
Drilling Method(s): Hand Auger	Apparent Borehole DTW (in feet from soil moisture content): 8.5	Measured Well DTW (in feet after water recharges in well): NA	OVA (list model and check type): NA ☐ FID ☐ PID

Disposition of Drill Cuttings [check method(s)]: ☑ Drum ☐ Spread ☐ Backfill ☐ Stockpile ☐ Other
(describe if other or multiple items are checked):

Borehole Completion (check one): ☑ Well ☐ Grout ☐ Bentonite ☐ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	1			<10	<10	<10	1	6" asphalt, brown silty sand with shell and pebbles, dry, no odor or staining	SM	D	
HA	3			<10	<10	<10	3	Brown fine grain silty sand, dry, no odor or staining	SM	D	
DP	5			<10	<10	<10	5	Brown/tan medium grain silty sand, dry, no odor or staining	SM	D	
DP	7			<10	<10	<10	7	Brown/tan medium grain silty sand, dry, no odor or staining	SM	D	
DP	8			<10	<10	<10	8	Brown/tan medium grain silty sand, moist, no odor or staining	SM	M	
DP	10			NA	NA	NA	10	Dark brown silty sand, saturated, no odor or staining	SM	S	
DP	12			NA	NA	NA	12	Dark brown silty sand, saturated, no odor or staining	SM	S	
DP	14			NA	NA	NA	14	Dark brown silty sand, saturated, no odor or staining	SM	S	
DP	15			NA	NA	NA	15	Dark brown silty sand, saturated, no odor or staining	SM	S	
								Boring Terminated			

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

APPENDIX C

LABORATORY ANALYTICAL REPORTS

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-62329-1
Client Project/Site: Naval Hospital - Pensacola, FL
Revision: 1

For:
Aerostar Environmental Services, Inc.
803 Government Street
Suite A
Mobile, Alabama 36602

Attn: Mr. Curtis Mills

Authorized for release by:
2/2/2012 5:25:22 PM

Carolyn Hooper
Project Manager I
carolyn.hooper@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Certification Summary 47

Job ID: 400-62329-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-62329-1

Receipt
All samples were received in good condition within temperature requirements.

GC/MS Semi VOA
Method(s) 8270C LL: The following sample was diluted due to the abundance of both target and non-target analytes: MW-4 (400-62329-9). Elevated reporting limits (RLs) are provided.

GC Semi VOA
Method(s) TPHCWG: The following sample(s) was diluted due to the abundance of target analytes: AES-8 (8') (400-62329-1). Elevated reporting limits (RLs) are provided.

Organic Prep
Method(s) 3520C: Insufficient sample volume was available to meet method-mandated requirements for matrix spike/matrix spike duplicate (MS/MSD) analyses for batches 147164 and 147165.

Revision I
This report has been revised per client request to add BTEXM to the 8260 list samples -8 thru -10.

Sample Summary

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-62329-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-62329-1	AES-8 (8')	Solid	01/09/12 11:15	01/10/12 15:00
400-62329-2	AES-9 (8')	Solid	01/09/12 11:20	01/10/12 15:00
400-62329-3	AES-9 (0-2')	Solid	01/09/12 11:25	01/10/12 15:00
400-62329-4	AES-10 (0-2')	Solid	01/09/12 11:30	01/10/12 15:00
400-62329-5	AES-11 (0-2')	Solid	01/09/12 11:35	01/10/12 15:00
400-62329-6	AES-12 (0-2')	Solid	01/09/12 11:40	01/10/12 15:00
400-62329-7	MW-9 (8')	Solid	01/09/12 11:45	01/10/12 15:00
400-62329-8	MW-5	Water	01/10/12 09:43	01/10/12 15:00
400-62329-9	MW-4	Water	01/10/12 10:09	01/10/12 15:00
400-62329-10	MW-1	Water	01/10/12 10:39	01/10/12 15:00

Detection Summary

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-62329-1

Client Sample ID: AES-8 (8') — Lab Sample ID: 400-62329-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Petroleum Hydrocarbons (C8-C40)	3600		130	21	ug/L	1		FL-PRO	SPLP East
Over C10-C12 aliphatics	870		260	130	mg/Kg	5	☼	TPHCWG	Total/NA
Over C12-C16 aliphatics	6700		260	130	mg/Kg	5	☼	TPHCWG	Total/NA
Over C16-C35 aliphatics	9300		260	130	mg/Kg	5	☼	TPHCWG	Total/NA
Over C10-C12 aromatics	45	I	52	26	mg/Kg	1	☼	TPHCWG	Total/NA
Over C12-C16 aromatics	1200		52	26	mg/Kg	1	☼	TPHCWG	Total/NA
Over C16-C21 aromatics	2400		52	26	mg/Kg	1	☼	TPHCWG	Total/NA
Over C21-C35 aromatics	1500		52	26	mg/Kg	1	☼	TPHCWG	Total/NA

Client Sample ID: AES-9 (8') — Lab Sample ID: 400-62329-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Petroleum Hydrocarbons (C8-C40)	510		130	21	ug/L	1		FL-PRO	SPLP East
Over C12-C16 aliphatics	360		53	27	mg/Kg	1	☼	TPHCWG	Total/NA
Over C16-C35 aliphatics	1100		53	27	mg/Kg	1	☼	TPHCWG	Total/NA
Over C12-C16 aromatics	41	I	53	27	mg/Kg	1	☼	TPHCWG	Total/NA
Over C16-C21 aromatics	230		53	27	mg/Kg	1	☼	TPHCWG	Total/NA
Over C21-C35 aromatics	400		53	27	mg/Kg	1	☼	TPHCWG	Total/NA

Client Sample ID: AES-9 (0-2') — Lab Sample ID: 400-62329-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Petroleum Hydrocarbons (C8-C40)	37		7.8	1.3	mg/Kg	1	☼	FL-PRO	Total/NA

Client Sample ID: AES-10 (0-2') — Lab Sample ID: 400-62329-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.037	I	0.35	0.035	mg/Kg	1	☼	8270C	Total/NA
Benzo[b]fluoranthene	0.055	I	0.35	0.035	mg/Kg	1	☼	8270C	Total/NA
Chrysene	0.035	I	0.35	0.035	mg/Kg	1	☼	8270C	Total/NA
Pyrene	0.049	I	0.35	0.035	mg/Kg	1	☼	8270C	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	20		7.4	1.3	mg/Kg	1	☼	FL-PRO	Total/NA

Client Sample ID: AES-11 (0-2') — Lab Sample ID: 400-62329-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.042	I	0.35	0.035	mg/Kg	1	☼	8270C	Total/NA
Benzo[b]fluoranthene	0.10	I	0.35	0.035	mg/Kg	1	☼	8270C	Total/NA
Benzo[k]fluoranthene	0.053	I	0.35	0.035	mg/Kg	1	☼	8270C	Total/NA
Chrysene	0.073	I	0.35	0.035	mg/Kg	1	☼	8270C	Total/NA
Pyrene	0.11	I	0.35	0.035	mg/Kg	1	☼	8270C	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	17		7.4	1.3	mg/Kg	1	☼	FL-PRO	Total/NA

Client Sample ID: AES-12 (0-2') — Lab Sample ID: 400-62329-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.046	I	0.35	0.035	mg/Kg	1	☼	8270C	Total/NA
Benzo[a]pyrene	0.053	I	0.35	0.035	mg/Kg	1	☼	8270C	Total/NA
Benzo[b]fluoranthene	0.089	I	0.35	0.035	mg/Kg	1	☼	8270C	Total/NA
Benzo[k]fluoranthene	0.039	I	0.35	0.035	mg/Kg	1	☼	8270C	Total/NA

Detection Summary

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-62329-1

Client Sample ID: AES-12 (0-2') (Continued) — Lab Sample ID: 400-62329-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chrysene	0.059	I	0.35	0.035	mg/Kg	1	☼	8270C	Total/NA
Pyrene	0.079	I	0.35	0.035	mg/Kg	1	☼	8270C	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	7.0		6.9	1.2	mg/Kg	1	☼	FL-PRO	Total/NA

Client Sample ID: MW-9 (8') — Lab Sample ID: 400-62329-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Petroleum Hydrocarbons (C8-C40)	34		8.2	1.4	mg/Kg	1	☼	FL-PRO	Total/NA

Client Sample ID: MW-5 — Lab Sample ID: 400-62329-8

No Detections

Client Sample ID: MW-4 — Lab Sample ID: 400-62329-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	0.99	I	1.0	0.70	ug/L	1		8260B	Total/NA
Ethylbenzene	3.9		1.0	0.50	ug/L	1		8260B	Total/NA
Xylenes, Total	10		10	1.6	ug/L	1		8260B	Total/NA
1-Methylnaphthalene	17		2.0	0.20	ug/L	10		8270C LL	Total/NA
2-Methylnaphthalene	27		2.0	0.20	ug/L	10		8270C LL	Total/NA
Naphthalene	6.7		2.0	0.20	ug/L	10		8270C LL	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	6800		110	18	ug/L	1		FL-PRO	Total/NA

Client Sample ID: MW-1 — Lab Sample ID: 400-62329-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1-Methylnaphthalene	4.3		0.19	0.019	ug/L	1		8270C LL	Total/NA
2-Methylnaphthalene	5.3		0.19	0.019	ug/L	1		8270C LL	Total/NA
Naphthalene	2.4		0.19	0.019	ug/L	1		8270C LL	Total/NA
Total Petroleum Hydrocarbons (C8-C40)	460		120	19	ug/L	1		FL-PRO	Total/NA

Client Sample Results

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-62329-1

Client Sample ID: AES-8 (8')

Date Collected: 01/09/12 11:15
Date Received: 01/10/12 15:00

Lab Sample ID: 400-62329-1

Matrix: Solid

Method: FL-PRO - Florida - Petroleum Range Organics (GC) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Petroleum Hydrocarbons (C8-C40)	**3600**		130	21	ug/L		01/16/12 08:11	01/17/12 10:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-C39	*105*		*20 - 176*	*01/16/12 08:11*	*01/17/12 10:53*	*1*
o-Terphenyl	*84*		*49 - 143*	*01/16/12 08:11*	*01/17/12 10:53*	*1*

Method: TPHCWG - TPH Criteria Working Group (CWG) Fractionation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Over C5-C6 aliphatics	130	U	260	130	mg/Kg	☼	01/13/12 09:31	01/18/12 13:30	5
Over C6-C8 aliphatics	130	U	260	130	mg/Kg	☼	01/13/12 09:31	01/18/12 13:30	5
Over C8-C10 aliphatics	130	U	260	130	mg/Kg	☼	01/13/12 09:31	01/18/12 13:30	5
Over C10-C12 aliphatics	**870**		260	130	mg/Kg	☼	01/13/12 09:31	01/18/12 13:30	5
Over C12-C16 aliphatics	**6700**		260	130	mg/Kg	☼	01/13/12 09:31	01/18/12 13:30	5
Over C16-C35 aliphatics	**9300**		260	130	mg/Kg	☼	01/13/12 09:31	01/18/12 13:30	5
Over C5-C7 aromatics	21	U	21	21	mg/Kg	☼	01/13/12 09:31	01/16/12 23:42	1
Over C7-C8 aromatics	26	U	36	26	mg/Kg	☼	01/13/12 09:31	01/16/12 23:42	1
Over C8-C10 aromatics	26	U	52	26	mg/Kg	☼	01/13/12 09:31	01/16/12 23:42	1
Over C10-C12 aromatics	**45**	**I**	52	26	mg/Kg	☼	01/13/12 09:31	01/16/12 23:42	1
Over C12-C16 aromatics	**1200**		52	26	mg/Kg	☼	01/13/12 09:31	01/16/12 23:42	1
Over C16-C21 aromatics	**2400**		52	26	mg/Kg	☼	01/13/12 09:31	01/16/12 23:42	1
Over C21-C35 aromatics	**1500**		52	26	mg/Kg	☼	01/13/12 09:31	01/16/12 23:42	1

Client Sample Results

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-62329-1

Client Sample ID: AES-9 (8')

Date Collected: 01/09/12 11:20
Date Received: 01/10/12 15:00

Lab Sample ID: 400-62329-2

Matrix: Solid

Method: FL-PRO - Florida - Petroleum Range Organics (GC) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Petroleum Hydrocarbons (C8-C40)	**510**		130	21	ug/L		01/16/12 08:11	01/17/12 11:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-C39	*105*		*20 - 176*	*01/16/12 08:11*	*01/17/12 11:02*	*1*
o-Terphenyl	*95*		*49 - 143*	*01/16/12 08:11*	*01/17/12 11:02*	*1*

Method: TPHCWG - TPH Criteria Working Group (CWG) Fractionation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Over C5-C6 aliphatics	27	U	53	27	mg/Kg	☼	01/13/12 09:31	01/17/12 00:30	1
Over C6-C8 aliphatics	27	U	53	27	mg/Kg	☼	01/13/12 09:31	01/17/12 00:30	1
Over C8-C10 aliphatics	27	U	53	27	mg/Kg	☼	01/13/12 09:31	01/17/12 00:30	1
Over C10-C12 aliphatics	27	U	53	27	mg/Kg	☼	01/13/12 09:31	01/17/12 00:30	1
Over C12-C16 aliphatics	**360**		53	27	mg/Kg	☼	01/13/12 09:31	01/17/12 00:30	1
Over C16-C35 aliphatics	**1100**		53	27	mg/Kg	☼	01/13/12 09:31	01/17/12 00:30	1
Over C5-C7 aromatics	21	U	21	21	mg/Kg	☼	01/13/12 09:31	01/17/12 00:30	1
Over C7-C8 aromatics	27	U	37	27	mg/Kg	☼	01/13/12 09:31	01/17/12 00:30	1
Over C8-C10 aromatics	27	U	53	27	mg/Kg	☼	01/13/12 09:31	01/17/12 00:30	1
Over C10-C12 aromatics	27	U	53	27	mg/Kg	☼	01/13/12 09:31	01/17/12 00:30	1
Over C12-C16 aromatics	**41**	**I**	53	27	mg/Kg	☼	01/13/12 09:31	01/17/12 00:30	1
Over C16-C21 aromatics	**230**		53	27	mg/Kg	☼	01/13/12 09:31	01/17/12 00:30	1
Over C21-C35 aromatics	**400**		53	27	mg/Kg	☼	01/13/12 09:31	01/17/12 00:30	1

Client Sample Results

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-62329-1

Client Sample ID: AES-9 (0-2')

Date Collected: 01/09/12 11:25
Date Received: 01/10/12 15:00

Lab Sample ID: 400-62329-3

Matrix: Solid
Percent Solids: 94.5

Method: 8260B - BTEX+MTBE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00047	U	0.0051	0.00047	mg/Kg	☼	01/11/12 13:30	01/12/12 11:50	1
Toluene	0.00070	U	0.0051	0.00070	mg/Kg	☼	01/11/12 13:30	01/12/12 11:50	1
Ethylbenzene	0.00056	U	0.0051	0.00056	mg/Kg	☼	01/11/12 13:30	01/12/12 11:50	1
Xylenes, Total	0.0019	U	0.010	0.0019	mg/Kg	☼	01/11/12 13:30	01/12/12 11:50	1
Methyl tert-butyl ether	0.0010	U	0.0051	0.0010	mg/Kg	☼	01/11/12 13:30	01/12/12 11:50	1
Naphthalene	0.0010	U	0.0051	0.0010	mg/Kg	☼	01/11/12 13:30	01/12/12 11:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*70 - 141*	*01/11/12 13:30*	*01/12/12 11:50*	*1*
Dibromofluoromethane	*108*		*71 - 121*	*01/11/12 13:30*	*01/12/12 11:50*	*1*
Toluene-d8 (Surr)	*102*		*81 - 116*	*01/11/12 13:30*	*01/12/12 11:50*	*1*

Method: 8270C - PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/16/12 23:56	1
Acenaphthylene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/16/12 23:56	1
Anthracene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/16/12 23:56	1
Benzo[a]anthracene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/16/12 23:56	1
Benzo[a]pyrene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/16/12 23:56	1
Benzo[b]fluoranthene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/16/12 23:56	1
Benzo[g,h,i]perylene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/16/12 23:56	1
Benzo[k]fluoranthene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/16/12 23:56	1
Chrysene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/16/12 23:56	1
Dibenz(a,h)anthracene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/16/12 23:56	1
Fluoranthene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/16/12 23:56	1
Fluorene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/16/12 23:56	1
Indeno[1,2,3-cd]pyrene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/16/12 23:56	1
Naphthalene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/16/12 23:56	1
Phenanthrene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/16/12 23:56	1
Pyrene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/16/12 23:56	1
1-Methylnaphthalene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/16/12 23:56	1
2-Methylnaphthalene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/16/12 23:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*80*		*40 - 102*	*01/12/12 08:29*	*01/16/12 23:56*	*1*
Nitrobenzene-d5	*71*		*34 - 102*	*01/12/12 08:29*	*01/16/12 23:56*	*1*
Terphenyl-d14	*84*		*49 - 117*	*01/12/12 08:29*	*01/16/12 23:56*	*1*

Method: FL-PRO - Florida - Petroleum Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Petroleum Hydrocarbons (C8-C40)	**37**		7.8	1.3	mg/Kg	☼	01/12/12 08:25	01/16/12 14:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-C39	*109*		*37 - 138*	*01/12/12 08:25*	*01/16/12 14:57*	*1*
o-Terphenyl	*82*		*50 - 121*	*01/12/12 08:25*	*01/16/12 14:57*	*1*

Client Sample Results

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-62329-1

Client Sample ID: AES-10 (0-2')

Date Collected: 01/09/12 11:30
Date Received: 01/10/12 15:00

Lab Sample ID: 400-62329-4

Matrix: Solid
Percent Solids: 94.0

Method: 8260B - BTEX+MTBE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00048	U	0.0052	0.00048	mg/Kg	☼	01/11/12 13:30	01/12/12 17:30	1
Toluene	0.00071	U	0.0052	0.00071	mg/Kg	☼	01/11/12 13:30	01/12/12 17:30	1
Ethylbenzene	0.00056	U	0.0052	0.00056	mg/Kg	☼	01/11/12 13:30	01/12/12 17:30	1
Xylenes, Total	0.0019	U	0.010	0.0019	mg/Kg	☼	01/11/12 13:30	01/12/12 17:30	1
Methyl tert-butyl ether	0.0010	U	0.0052	0.0010	mg/Kg	☼	01/11/12 13:30	01/12/12 17:30	1
Naphthalene	0.0010	U	0.0052	0.0010	mg/Kg	☼	01/11/12 13:30	01/12/12 17:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*104*		*70 - 141*	*01/11/12 13:30*	*01/12/12 17:30*	*1*
Dibromofluoromethane	*104*		*71 - 121*	*01/11/12 13:30*	*01/12/12 17:30*	*1*
Toluene-d8 (Surr)	*103*		*81 - 116*	*01/11/12 13:30*	*01/12/12 17:30*	*1*

Method: 8270C - PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/17/12 00:28	1
Acenaphthylene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/17/12 00:28	1
Anthracene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/17/12 00:28	1
Benzo[a]anthracene	**0.037**	**I**	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/17/12 00:28	1
Benzo[a]pyrene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/17/12 00:28	1
Benzo[b]fluoranthene	**0.055**	**I**	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/17/12 00:28	1
Benzo[g,h,i]perylene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/17/12 00:28	1
Benzo[k]fluoranthene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/17/12 00:28	1
Chrysene	**0.035**	**I**	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/17/12 00:28	1
Dibenz(a,h)anthracene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/17/12 00:28	1
Fluoranthene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/17/12 00:28	1
Fluorene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/17/12 00:28	1
Indeno[1,2,3-cd]pyrene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/17/12 00:28	1
Naphthalene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/17/12 00:28	1
Phenanthrene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/17/12 00:28	1
Pyrene	**0.049**	**I**	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/17/12 00:28	1
1-Methylnaphthalene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/17/12 00:28	1
2-Methylnaphthalene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/17/12 00:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*70*		*40 - 102*	*01/12/12 08:29*	*01/17/12 00:28*	*1*
Nitrobenzene-d5	*59*		*34 - 102*	*01/12/12 08:29*	*01/17/12 00:28*	*1*
Terphenyl-d14	*72*		*49 - 117*	*01/12/12 08:29*	*01/17/12 00:28*	*1*

Method: FL-PRO - Florida - Petroleum Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Petroleum Hydrocarbons (C8-C40)	**20**		7.4	1.3	mg/Kg	☼	01/12/12 08:25	01/16/12 15:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-C39	*95*		*37 - 138*	*01/12/12 08:25*	*01/16/12 15:06*	*1*
o-Terphenyl	*82*		*50 - 121*	*01/12/12 08:25*	*01/16/12 15:06*	*1*

Client Sample Results

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-62329-1

Client Sample ID: AES-11 (0-2')

Date Collected: 01/09/12 11:35
Date Received: 01/10/12 15:00

Lab Sample ID: 400-62329-5

Matrix: Solid
Percent Solids: 93.5

Method: 8260B - BTEX+MTBE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00043	U	0.0047	0.00043	mg/Kg	☼	01/11/12 13:30	01/12/12 12:37	1
Toluene	0.00064	U	0.0047	0.00064	mg/Kg	☼	01/11/12 13:30	01/12/12 12:37	1
Ethylbenzene	0.00051	U	0.0047	0.00051	mg/Kg	☼	01/11/12 13:30	01/12/12 12:37	1
Xylenes, Total	0.0017	U	0.0094	0.0017	mg/Kg	☼	01/11/12 13:30	01/12/12 12:37	1
Methyl tert-butyl ether	0.00094	U	0.0047	0.00094	mg/Kg	☼	01/11/12 13:30	01/12/12 12:37	1
Naphthalene	0.00094	U	0.0047	0.00094	mg/Kg	☼	01/11/12 13:30	01/12/12 12:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*103*		*70 - 141*	*01/11/12 13:30*	*01/12/12 12:37*	*1*
Dibromofluoromethane	*108*		*71 - 121*	*01/11/12 13:30*	*01/12/12 12:37*	*1*
Toluene-d8 (Surr)	*103*		*81 - 116*	*01/11/12 13:30*	*01/12/12 12:37*	*1*

Method: 8270C - PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/18/12 00:13	1
Acenaphthylene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/18/12 00:13	1
Anthracene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/18/12 00:13	1
Benzo[a]anthracene	**0.042**	**I**	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/18/12 00:13	1
Benzo[a]pyrene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/18/12 00:13	1
Benzo[b]fluoranthene	**0.10**	**I**	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/18/12 00:13	1
Benzo[g,h,i]perylene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/18/12 00:13	1
Benzo[k]fluoranthene	**0.053**	**I**	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/18/12 00:13	1
Chrysene	**0.073**	**I**	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/18/12 00:13	1
Dibenz(a,h)anthracene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/18/12 00:13	1
Fluoranthene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/18/12 00:13	1
Fluorene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/18/12 00:13	1
Indeno[1,2,3-cd]pyrene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/18/12 00:13	1
Naphthalene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/18/12 00:13	1
Phenanthrene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/18/12 00:13	1
Pyrene	**0.11**	**I**	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/18/12 00:13	1
1-Methylnaphthalene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/18/12 00:13	1
2-Methylnaphthalene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/18/12 00:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*84*		*40 - 102*	*01/12/12 08:29*	*01/18/12 00:13*	*1*
Nitrobenzene-d5	*79*		*34 - 102*	*01/12/12 08:29*	*01/18/12 00:13*	*1*
Terphenyl-d14	*90*		*49 - 117*	*01/12/12 08:29*	*01/18/12 00:13*	*1*

Method: FL-PRO - Florida - Petroleum Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Petroleum Hydrocarbons (C8-C40)	**17**		7.4	1.3	mg/Kg	☼	01/12/12 08:25	01/16/12 15:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-C39	*105*		*37 - 138*	*01/12/12 08:25*	*01/16/12 15:16*	*1*
o-Terphenyl	*86*		*50 - 121*	*01/12/12 08:25*	*01/16/12 15:16*	*1*

Client Sample Results

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-62329-1

Client Sample ID: AES-12 (0-2')

Date Collected: 01/09/12 11:40
Date Received: 01/10/12 15:00

Lab Sample ID: 400-62329-6

Matrix: Solid
Percent Solids: 93.7

Method: 8260B - BTEX+MTBE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00042	U	0.0046	0.00042	mg/Kg	☼	01/11/12 13:30	01/12/12 13:00	1
Toluene	0.00062	U	0.0046	0.00062	mg/Kg	☼	01/11/12 13:30	01/12/12 13:00	1
Ethylbenzene	0.00050	U	0.0046	0.00050	mg/Kg	☼	01/11/12 13:30	01/12/12 13:00	1
Xylenes, Total	0.0017	U	0.0092	0.0017	mg/Kg	☼	01/11/12 13:30	01/12/12 13:00	1
Methyl tert-butyl ether	0.00092	U	0.0046	0.00092	mg/Kg	☼	01/11/12 13:30	01/12/12 13:00	1
Naphthalene	0.00092	U	0.0046	0.00092	mg/Kg	☼	01/11/12 13:30	01/12/12 13:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*70 - 141*	*01/11/12 13:30*	*01/12/12 13:00*	*1*
Dibromofluoromethane	*110*		*71 - 121*	*01/11/12 13:30*	*01/12/12 13:00*	*1*
Toluene-d8 (Surr)	*104*		*81 - 116*	*01/11/12 13:30*	*01/12/12 13:00*	*1*

Method: 8270C - PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/17/12 00:59	1
Acenaphthylene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/17/12 00:59	1
Anthracene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/17/12 00:59	1
Benzo[a]anthracene	**0.046**	**I**	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/17/12 00:59	1
Benzo[a]pyrene	**0.053**	**I**	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/17/12 00:59	1
Benzo[b]fluoranthene	**0.089**	**I**	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/17/12 00:59	1
Benzo[g,h,i]perylene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/17/12 00:59	1
Benzo[k]fluoranthene	**0.039**	**I**	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/17/12 00:59	1
Chrysene	**0.059**	**I**	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/17/12 00:59	1
Dibenz(a,h)anthracene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/17/12 00:59	1
Fluoranthene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/17/12 00:59	1
Fluorene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/17/12 00:59	1
Indeno[1,2,3-cd]pyrene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/17/12 00:59	1
Naphthalene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/17/12 00:59	1
Phenanthrene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/17/12 00:59	1
Pyrene	**0.079**	**I**	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/17/12 00:59	1
1-Methylnaphthalene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/17/12 00:59	1
2-Methylnaphthalene	0.035	U	0.35	0.035	mg/Kg	☼	01/12/12 08:29	01/17/12 00:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*76*		*40 - 102*	*01/12/12 08:29*	*01/17/12 00:59*	*1*
Nitrobenzene-d5	*68*		*34 - 102*	*01/12/12 08:29*	*01/17/12 00:59*	*1*
Terphenyl-d14	*77*		*49 - 117*	*01/12/12 08:29*	*01/17/12 00:59*	*1*

Method: FL-PRO - Florida - Petroleum Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Petroleum Hydrocarbons (C8-C40)	**7.0**		6.9	1.2	mg/Kg	☼	01/12/12 08:25	01/16/12 15:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-C39	*97*		*37 - 138*	*01/12/12 08:25*	*01/16/12 15:35*	*1*
o-Terphenyl	*84*		*50 - 121*	*01/12/12 08:25*	*01/16/12 15:35*	*1*

Client Sample Results

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-62329-1

Client Sample ID: MW-9 (8')

Date Collected: 01/09/12 11:45
Date Received: 01/10/12 15:00

Lab Sample ID: 400-62329-7

Matrix: Solid
Percent Solids: 91.4

Method: 8260B - BTEX+MTBE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00051	U	0.0055	0.00051	mg/Kg	☼	01/11/12 13:30	01/12/12 13:24	1
Toluene	0.00075	U	0.0055	0.00075	mg/Kg	☼	01/11/12 13:30	01/12/12 13:24	1
Ethylbenzene	0.00060	U	0.0055	0.00060	mg/Kg	☼	01/11/12 13:30	01/12/12 13:24	1
Xylenes, Total	0.0020	U	0.011	0.0020	mg/Kg	☼	01/11/12 13:30	01/12/12 13:24	1
Methyl tert-butyl ether	0.0011	U	0.0055	0.0011	mg/Kg	☼	01/11/12 13:30	01/12/12 13:24	1
Naphthalene	0.0011	U	0.0055	0.0011	mg/Kg	☼	01/11/12 13:30	01/12/12 13:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*70 - 141*	*01/11/12 13:30*	*01/12/12 13:24*	*1*
Dibromofluoromethane	*108*		*71 - 121*	*01/11/12 13:30*	*01/12/12 13:24*	*1*
Toluene-d8 (Surr)	*102*		*81 - 116*	*01/11/12 13:30*	*01/12/12 13:24*	*1*

Method: 8270C - PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.036	U	0.36	0.036	mg/Kg	☼	01/12/12 08:29	01/17/12 22:08	1
Acenaphthylene	0.036	U	0.36	0.036	mg/Kg	☼	01/12/12 08:29	01/17/12 22:08	1
Anthracene	0.036	U	0.36	0.036	mg/Kg	☼	01/12/12 08:29	01/17/12 22:08	1
Benzo[a]anthracene	0.036	U	0.36	0.036	mg/Kg	☼	01/12/12 08:29	01/17/12 22:08	1
Benzo[a]pyrene	0.036	U	0.36	0.036	mg/Kg	☼	01/12/12 08:29	01/17/12 22:08	1
Benzo[b]fluoranthene	0.036	U	0.36	0.036	mg/Kg	☼	01/12/12 08:29	01/17/12 22:08	1
Benzo[g,h,i]perylene	0.036	U	0.36	0.036	mg/Kg	☼	01/12/12 08:29	01/17/12 22:08	1
Benzo[k]fluoranthene	0.036	U	0.36	0.036	mg/Kg	☼	01/12/12 08:29	01/17/12 22:08	1
Chrysene	0.036	U	0.36	0.036	mg/Kg	☼	01/12/12 08:29	01/17/12 22:08	1
Dibenz(a,h)anthracene	0.036	U	0.36	0.036	mg/Kg	☼	01/12/12 08:29	01/17/12 22:08	1
Fluoranthene	0.036	U	0.36	0.036	mg/Kg	☼	01/12/12 08:29	01/17/12 22:08	1
Fluorene	0.036	U	0.36	0.036	mg/Kg	☼	01/12/12 08:29	01/17/12 22:08	1
Indeno[1,2,3-cd]pyrene	0.036	U	0.36	0.036	mg/Kg	☼	01/12/12 08:29	01/17/12 22:08	1
Naphthalene	0.036	U	0.36	0.036	mg/Kg	☼	01/12/12 08:29	01/17/12 22:08	1
Phenanthrene	0.036	U	0.36	0.036	mg/Kg	☼	01/12/12 08:29	01/17/12 22:08	1
Pyrene	0.036	U	0.36	0.036	mg/Kg	☼	01/12/12 08:29	01/17/12 22:08	1
1-Methylnaphthalene	0.036	U	0.36	0.036	mg/Kg	☼	01/12/12 08:29	01/17/12 22:08	1
2-Methylnaphthalene	0.036	U	0.36	0.036	mg/Kg	☼	01/12/12 08:29	01/17/12 22:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*72*		*40 - 102*	*01/12/12 08:29*	*01/17/12 22:08*	*1*
Nitrobenzene-d5	*65*		*34 - 102*	*01/12/12 08:29*	*01/17/12 22:08*	*1*
Terphenyl-d14	*73*		*49 - 117*	*01/12/12 08:29*	*01/17/12 22:08*	*1*

Method: FL-PRO - Florida - Petroleum Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Petroleum Hydrocarbons (C8-C40)	**34**		8.2	1.4	mg/Kg	☼	01/12/12 08:25	01/16/12 15:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-C39	*99*		*37 - 138*	*01/12/12 08:25*	*01/16/12 15:45*	*1*
o-Terphenyl	*84*		*50 - 121*	*01/12/12 08:25*	*01/16/12 15:45*	*1*

Client Sample ID: MW-5

Date Collected: 01/10/12 09:43
Date Received: 01/10/12 15:00

Lab Sample ID: 400-62329-8

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	0.54	U	1.0	0.54	ug/L			01/13/12 12:39	1
Dichlorobromomethane	0.50	U	1.0	0.50	ug/L			01/13/12 12:39	1
Bromoform	0.58	U	5.0	0.58	ug/L			01/13/12 12:39	1
1,3-Dichloropropene, trans-	0.50	U	5.0	0.50	ug/L			01/13/12 12:39	1
Bromomethane	0.91	U	1.0	0.91	ug/L			01/13/12 12:39	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			01/13/12 12:39	1
Chlorobenzene	0.50	U	1.0	0.50	ug/L			01/13/12 12:39	1
Chloroethane	0.63	U	1.0	0.63	ug/L			01/13/12 12:39	1
Chloroform	0.60	U	1.0	0.60	ug/L			01/13/12 12:39	1
Chloromethane	0.83	U	1.0	0.83	ug/L			01/13/12 12:39	1
Chlorodibromomethane	0.50	U	1.0	0.50	ug/L			01/13/12 12:39	1
Dibromomethane	0.59	U	5.0	0.59	ug/L			01/13/12 12:39	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			01/13/12 12:39	1
1,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			01/13/12 12:39	1
1,4-Dichlorobenzene	0.64	U	1.0	0.64	ug/L			01/13/12 12:39	1
Dichlorodifluoromethane	0.85	U	1.0	0.85	ug/L			01/13/12 12:39	1
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			01/13/12 12:39	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			01/13/12 12:39	1
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			01/13/12 12:39	1
1,2-Dichloroethene, cis-	0.50	U	1.0	0.50	ug/L			01/13/12 12:39	1
1,2-Dichloroethene, trans-	0.50	U	1.0	0.50	ug/L			01/13/12 12:39	1
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			01/13/12 12:39	1
1,3-Dichloropropene, cis-	0.50	U	5.0	0.50	ug/L			01/13/12 12:39	1
Methylene Chloride	1.0	U	1.0	1.0	ug/L			01/13/12 12:39	1
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			01/13/12 12:39	1
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			01/13/12 12:39	1
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			01/13/12 12:39	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			01/13/12 12:39	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			01/13/12 12:39	1
Trichloroethene	0.50	U	1.0	0.50	ug/L			01/13/12 12:39	1
Trichlorofluoromethane	0.52	U	1.0	0.52	ug/L			01/13/12 12:39	1
1,2,3-Trichloropropane	0.86	U	5.0	0.86	ug/L			01/13/12 12:39	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			01/13/12 12:39	1
Benzene	0.34	U	1.0	0.34	ug/L			01/13/12 12:39	1
Toluene	0.70	U	1.0	0.70	ug/L			01/13/12 12:39	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			01/13/12 12:39	1
Xylenes, Total	1.6	U	10	1.6	ug/L			01/13/12 12:39	1
Methyl tert-butyl ether	0.74	U	1.0	0.74	ug/L			01/13/12 12:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*93*		*79 - 118*		*01/13/12 12:39*	*1*
Dibromofluoromethane	*101*		*79 - 119*		*01/13/12 12:39*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*01/13/12 12:39*	*1*

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.020	U	0.20	0.020	ug/L		01/11/12 08:08	01/13/12 15:53	1
Acenaphthylene	0.020	U	0.20	0.020	ug/L		01/11/12 08:08	01/13/12 15:53	1
Anthracene	0.020	U	0.20	0.020	ug/L		01/11/12 08:08	01/13/12 15:53	1
Benzo[a]anthracene	0.040	U	0.20	0.040	ug/L		01/11/12 08:08	01/13/12 15:53	1

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-62329-1

Client Sample ID: MW-5
Date Collected: 01/10/12 09:43
Date Received: 01/10/12 15:00

Lab Sample ID: 400-62329-8
Matrix: Water

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.040	U	0.20	0.040	ug/L		01/11/12 08:08	01/13/12 15:53	1
Benzo[b]fluoranthene	0.040	U	0.20	0.040	ug/L		01/11/12 08:08	01/13/12 15:53	1
Benzo[g,h,i]perylene	0.040	U	0.20	0.040	ug/L		01/11/12 08:08	01/13/12 15:53	1
Benzo[k]fluoranthene	0.040	U	0.20	0.040	ug/L		01/11/12 08:08	01/13/12 15:53	1
Chrysene	0.040	U	0.20	0.040	ug/L		01/11/12 08:08	01/13/12 15:53	1
Dibenz(a,h)anthracene	0.040	U	0.20	0.040	ug/L		01/11/12 08:08	01/13/12 15:53	1
Fluoranthene	0.020	U	0.20	0.020	ug/L		01/11/12 08:08	01/13/12 15:53	1
Fluorene	0.021	U	0.20	0.021	ug/L		01/11/12 08:08	01/13/12 15:53	1
Indeno[1,2,3-cd]pyrene	0.040	U	0.20	0.040	ug/L		01/11/12 08:08	01/13/12 15:53	1
1-Methylnaphthalene	0.020	U	0.20	0.020	ug/L		01/11/12 08:08	01/13/12 15:53	1
2-Methylnaphthalene	0.020	U	0.20	0.020	ug/L		01/11/12 08:08	01/13/12 15:53	1
Naphthalene	0.020	U	0.20	0.020	ug/L		01/11/12 08:08	01/13/12 15:53	1
Phenanthrene	0.020	U	0.20	0.020	ug/L		01/11/12 08:08	01/13/12 15:53	1
Pyrene	0.020	U	0.20	0.020	ug/L		01/11/12 08:08	01/13/12 15:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*59*		*31 - 121*	*01/11/12 08:08*	*01/13/12 15:53*	*1*
Nitrobenzene-d5	*62*		*39 - 126*	*01/11/12 08:08*	*01/13/12 15:53*	*1*
Terphenyl-d14	*76*		*63 - 137*	*01/11/12 08:08*	*01/13/12 15:53*	*1*

Method: FL-PRO - Florida - Petroleum Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Petroleum Hydrocarbons (C8-C40)	21	U	130	21	ug/L		01/11/12 08:12	01/16/12 12:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-C39	*97*		*20 - 176*	*01/11/12 08:12*	*01/16/12 12:24*	*1*
o-Terphenyl	*75*		*49 - 143*	*01/11/12 08:12*	*01/16/12 12:24*	*1*

Client Sample ID: MW-4

Date Collected: 01/10/12 10:09
Date Received: 01/10/12 15:00

Lab Sample ID: 400-62329-9
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	0.54	U	1.0	0.54	ug/L			01/13/12 13:02	1
Dichlorobromomethane	0.50	U	1.0	0.50	ug/L			01/13/12 13:02	1
Bromoform	0.58	U	5.0	0.58	ug/L			01/13/12 13:02	1
1,3-Dichloropropene, trans-	0.50	U	5.0	0.50	ug/L			01/13/12 13:02	1
Bromomethane	0.91	U	1.0	0.91	ug/L			01/13/12 13:02	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			01/13/12 13:02	1
Chlorobenzene	0.50	U	1.0	0.50	ug/L			01/13/12 13:02	1
Chloroethane	0.63	U	1.0	0.63	ug/L			01/13/12 13:02	1
Chloroform	0.60	U	1.0	0.60	ug/L			01/13/12 13:02	1
Chloromethane	0.83	U	1.0	0.83	ug/L			01/13/12 13:02	1
Chlorodibromomethane	0.50	U	1.0	0.50	ug/L			01/13/12 13:02	1
Dibromomethane	0.59	U	5.0	0.59	ug/L			01/13/12 13:02	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			01/13/12 13:02	1
1,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			01/13/12 13:02	1
1,4-Dichlorobenzene	0.64	U	1.0	0.64	ug/L			01/13/12 13:02	1
Dichlorodifluoromethane	0.85	U	1.0	0.85	ug/L			01/13/12 13:02	1
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			01/13/12 13:02	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			01/13/12 13:02	1
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			01/13/12 13:02	1
1,2-Dichloroethene, cis-	0.50	U	1.0	0.50	ug/L			01/13/12 13:02	1
1,2-Dichloroethene, trans-	0.50	U	1.0	0.50	ug/L			01/13/12 13:02	1
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			01/13/12 13:02	1
1,3-Dichloropropene, cis-	0.50	U	5.0	0.50	ug/L			01/13/12 13:02	1
Methylene Chloride	1.0	U	1.0	1.0	ug/L			01/13/12 13:02	1
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			01/13/12 13:02	1
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			01/13/12 13:02	1
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			01/13/12 13:02	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			01/13/12 13:02	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			01/13/12 13:02	1
Trichloroethene	0.50	U	1.0	0.50	ug/L			01/13/12 13:02	1
Trichlorofluoromethane	0.52	U	1.0	0.52	ug/L			01/13/12 13:02	1
1,2,3-Trichloropropane	0.86	U	5.0	0.86	ug/L			01/13/12 13:02	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			01/13/12 13:02	1
Benzene	0.34	U	1.0	0.34	ug/L			01/13/12 13:02	1
Toluene	**0.99**	**I**	1.0	0.70	ug/L			01/13/12 13:02	1
Ethylbenzene	**3.9**		1.0	0.50	ug/L			01/13/12 13:02	1
Xylenes, Total	**10**		10	1.6	ug/L			01/13/12 13:02	1
Methyl tert-butyl ether	0.74	U	1.0	0.74	ug/L			01/13/12 13:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*79 - 118*		*01/13/12 13:02*	*1*
Dibromofluoromethane	*98*		*79 - 119*		*01/13/12 13:02*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*01/13/12 13:02*	*1*

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.20	U	2.0	0.20	ug/L		01/11/12 08:08	01/13/12 16:54	10
Acenaphthylene	0.20	U	2.0	0.20	ug/L		01/11/12 08:08	01/13/12 16:54	10
Anthracene	0.20	U	2.0	0.20	ug/L		01/11/12 08:08	01/13/12 16:54	10
Benzo[a]anthracene	0.40	U	2.0	0.40	ug/L		01/11/12 08:08	01/13/12 16:54	10

Client Sample Results

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-62329-1

Client Sample ID: MW-4

Date Collected: 01/10/12 10:09
Date Received: 01/10/12 15:00

Lab Sample ID: 400-62329-9

Matrix: Water

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.40	U	2.0	0.40	ug/L		01/11/12 08:08	01/13/12 16:54	10
Benzo[b]fluoranthene	0.40	U	2.0	0.40	ug/L		01/11/12 08:08	01/13/12 16:54	10
Benzo[g,h,i]perylene	0.40	U	2.0	0.40	ug/L		01/11/12 08:08	01/13/12 16:54	10
Benzo[k]fluoranthene	0.40	U	2.0	0.40	ug/L		01/11/12 08:08	01/13/12 16:54	10
Chrysene	0.40	U	2.0	0.40	ug/L		01/11/12 08:08	01/13/12 16:54	10
Dibenz(a,h)anthracene	0.40	U	2.0	0.40	ug/L		01/11/12 08:08	01/13/12 16:54	10
Fluoranthene	0.20	U	2.0	0.20	ug/L		01/11/12 08:08	01/13/12 16:54	10
Fluorene	0.21	U	2.0	0.21	ug/L		01/11/12 08:08	01/13/12 16:54	10
Indeno[1,2,3-cd]pyrene	0.40	U	2.0	0.40	ug/L		01/11/12 08:08	01/13/12 16:54	10
1-Methylnaphthalene	**17**		2.0	0.20	ug/L		01/11/12 08:08	01/13/12 16:54	10
2-Methylnaphthalene	**27**		2.0	0.20	ug/L		01/11/12 08:08	01/13/12 16:54	10
Naphthalene	**6.7**		2.0	0.20	ug/L		01/11/12 08:08	01/13/12 16:54	10
Phenanthrene	0.20	U	2.0	0.20	ug/L		01/11/12 08:08	01/13/12 16:54	10
Pyrene	0.20	U	2.0	0.20	ug/L		01/11/12 08:08	01/13/12 16:54	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*82*		*31 - 121*	*01/11/12 08:08*	*01/13/12 16:54*	*10*
Nitrobenzene-d5	*87*		*39 - 126*	*01/11/12 08:08*	*01/13/12 16:54*	*10*
Terphenyl-d14	*79*		*63 - 137*	*01/11/12 08:08*	*01/13/12 16:54*	*10*

Method: FL-PRO - Florida - Petroleum Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Petroleum Hydrocarbons (C8-C40)	**6800**		110	18	ug/L		01/11/12 08:12	01/16/12 12:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-C39	*115*		*20 - 176*	*01/11/12 08:12*	*01/16/12 12:33*	*1*
o-Terphenyl	*101*		*49 - 143*	*01/11/12 08:12*	*01/16/12 12:33*	*1*

Client Sample Results

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-62329-1

Client Sample ID: MW-1

Date Collected: 01/10/12 10:39
Date Received: 01/10/12 15:00

Lab Sample ID: 400-62329-10

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	0.54	U	1.0	0.54	ug/L			01/13/12 13:26	1
Dichlorobromomethane	0.50	U	1.0	0.50	ug/L			01/13/12 13:26	1
Bromoform	0.58	U	5.0	0.58	ug/L			01/13/12 13:26	1
1,3-Dichloropropene, trans-	0.50	U	5.0	0.50	ug/L			01/13/12 13:26	1
Bromomethane	0.91	U	1.0	0.91	ug/L			01/13/12 13:26	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			01/13/12 13:26	1
Chlorobenzene	0.50	U	1.0	0.50	ug/L			01/13/12 13:26	1
Chloroethane	0.63	U	1.0	0.63	ug/L			01/13/12 13:26	1
Chloroform	0.60	U	1.0	0.60	ug/L			01/13/12 13:26	1
Chloromethane	0.83	U	1.0	0.83	ug/L			01/13/12 13:26	1
Chlorodibromomethane	0.50	U	1.0	0.50	ug/L			01/13/12 13:26	1
Dibromomethane	0.59	U	5.0	0.59	ug/L			01/13/12 13:26	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			01/13/12 13:26	1
1,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			01/13/12 13:26	1
1,4-Dichlorobenzene	0.64	U	1.0	0.64	ug/L			01/13/12 13:26	1
Dichlorodifluoromethane	0.85	U	1.0	0.85	ug/L			01/13/12 13:26	1
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			01/13/12 13:26	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			01/13/12 13:26	1
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			01/13/12 13:26	1
1,2-Dichloroethene, cis-	0.50	U	1.0	0.50	ug/L			01/13/12 13:26	1
1,2-Dichloroethene, trans-	0.50	U	1.0	0.50	ug/L			01/13/12 13:26	1
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			01/13/12 13:26	1
1,3-Dichloropropene, cis-	0.50	U	5.0	0.50	ug/L			01/13/12 13:26	1
Methylene Chloride	1.0	U	1.0	1.0	ug/L			01/13/12 13:26	1
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			01/13/12 13:26	1
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			01/13/12 13:26	1
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			01/13/12 13:26	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			01/13/12 13:26	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			01/13/12 13:26	1
Trichloroethene	0.50	U	1.0	0.50	ug/L			01/13/12 13:26	1
Trichlorofluoromethane	0.52	U	1.0	0.52	ug/L			01/13/12 13:26	1
1,2,3-Trichloropropane	0.86	U	5.0	0.86	ug/L			01/13/12 13:26	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			01/13/12 13:26	1
Benzene	0.34	U	1.0	0.34	ug/L			01/13/12 13:26	1
Toluene	0.70	U	1.0	0.70	ug/L			01/13/12 13:26	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			01/13/12 13:26	1
Xylenes, Total	1.6	U	10	1.6	ug/L			01/13/12 13:26	1
Methyl tert-butyl ether	0.74	U	1.0	0.74	ug/L			01/13/12 13:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*79 - 118*		*01/13/12 13:26*	*1*
Dibromofluoromethane	*103*		*79 - 119*		*01/13/12 13:26*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*01/13/12 13:26*	*1*

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.019	U	0.19	0.019	ug/L		01/11/12 08:08	01/13/12 16:23	1
Acenaphthylene	0.019	U	0.19	0.019	ug/L		01/11/12 08:08	01/13/12 16:23	1
Anthracene	0.019	U	0.19	0.019	ug/L		01/11/12 08:08	01/13/12 16:23	1
Benzo[a]anthracene	0.039	U	0.19	0.039	ug/L		01/11/12 08:08	01/13/12 16:23	1

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-62329-1

Client Sample ID: MW-1

Date Collected: 01/10/12 10:39
Date Received: 01/10/12 15:00

Lab Sample ID: 400-62329-10
Matrix: Water

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.039	U	0.19	0.039	ug/L		01/11/12 08:08	01/13/12 16:23	1
Benzo[b]fluoranthene	0.039	U	0.19	0.039	ug/L		01/11/12 08:08	01/13/12 16:23	1
Benzo[g,h,i]perylene	0.039	U	0.19	0.039	ug/L		01/11/12 08:08	01/13/12 16:23	1
Benzo[k]fluoranthene	0.039	U	0.19	0.039	ug/L		01/11/12 08:08	01/13/12 16:23	1
Chrysene	0.039	U	0.19	0.039	ug/L		01/11/12 08:08	01/13/12 16:23	1
Dibenz(a,h)anthracene	0.039	U	0.19	0.039	ug/L		01/11/12 08:08	01/13/12 16:23	1
Fluoranthene	0.019	U	0.19	0.019	ug/L		01/11/12 08:08	01/13/12 16:23	1
Fluorene	0.020	U	0.19	0.020	ug/L		01/11/12 08:08	01/13/12 16:23	1
Indeno[1,2,3-cd]pyrene	0.039	U	0.19	0.039	ug/L		01/11/12 08:08	01/13/12 16:23	1
1-Methylnaphthalene	**4.3**		0.19	0.019	ug/L		01/11/12 08:08	01/13/12 16:23	1
2-Methylnaphthalene	**5.3**		0.19	0.019	ug/L		01/11/12 08:08	01/13/12 16:23	1
Naphthalene	**2.4**		0.19	0.019	ug/L		01/11/12 08:08	01/13/12 16:23	1
Phenanthrene	0.019	U	0.19	0.019	ug/L		01/11/12 08:08	01/13/12 16:23	1
Pyrene	0.019	U	0.19	0.019	ug/L		01/11/12 08:08	01/13/12 16:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*67*		*31 - 121*	*01/11/12 08:08*	*01/13/12 16:23*	*1*
Nitrobenzene-d5	*71*		*39 - 126*	*01/11/12 08:08*	*01/13/12 16:23*	*1*
Terphenyl-d14	*77*		*63 - 137*	*01/11/12 08:08*	*01/13/12 16:23*	*1*

Method: FL-PRO - Florida - Petroleum Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Petroleum Hydrocarbons (C8-C40)	**460**		120	19	ug/L		01/11/12 08:12	01/16/12 12:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-C39	*108*		*20 - 176*	*01/11/12 08:12*	*01/16/12 12:43*	*1*
o-Terphenyl	*88*		*49 - 143*	*01/11/12 08:12*	*01/16/12 12:43*	*1*

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates that the compound was analyzed for but not detected.
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates that the compound was analyzed for but not detected.
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates that the compound was analyzed for but not detected.
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Method Summary

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-62329-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PEN
8260B	BTEX+MTBE	SW846	TAL PEN
8270C	PAH	SW846	TAL PEN
8270C LL	Semivolatile Organic Compounds by GCMS - Low Levels	SW846	TAL PEN
FL-PRO	Florida - Petroleum Range Organics (GC)	FL-DEP	TAL PEN
TPHCWG	TPH Criteria Working Group (CWG) Fractionation	TPH CWG	TAL PEN
Moisture	Percent Moisture	EPA	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

FL-DEP = State Of Florida Department Of Environmental Protection, Florida Administrative Code.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TPH CWG = Total Petroleum Hydrocarbon Criteria Working Group

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Lab Chronicle

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-62329-1

Client Sample ID: AES-8 (8')

Lab Sample ID: 400-62329-1
Date Collected: 01/09/12 11:15
Matrix: Solid
Date Received: 01/10/12 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			147321	01/11/12 16:30	JB	TAL PEN
SPLP East	Prep	3520C			147354	01/16/12 08:11	MTM	TAL PEN
SPLP East	Analysis	FL-PRO		1	147407	01/17/12 10:53	KA	TAL PEN
Total/NA	Prep	TPH CWG Frac			147298	01/13/12 09:31	KA	TAL PEN
Total/NA	Analysis	TPHCWG		5	147486	01/18/12 13:30	KA	TAL PEN
Total/NA	Analysis	TPHCWG		1	147486	01/16/12 23:42	KA	TAL PEN
Total/NA	Analysis	Moisture		1	147170	01/10/12 17:00	VC	TAL PEN

Client Sample ID: AES-9 (8')

Lab Sample ID: 400-62329-2
Date Collected: 01/09/12 11:20
Matrix: Solid
Date Received: 01/10/12 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			147321	01/11/12 16:30	JB	TAL PEN
SPLP East	Prep	3520C			147354	01/16/12 08:11	MTM	TAL PEN
SPLP East	Analysis	FL-PRO		1	147407	01/17/12 11:02	KA	TAL PEN
Total/NA	Prep	TPH CWG Frac			147298	01/13/12 09:31	KA	TAL PEN
Total/NA	Analysis	TPHCWG		1	147486	01/17/12 00:30	KA	TAL PEN
Total/NA	Analysis	Moisture		1	147170	01/10/12 17:00	VC	TAL PEN

Client Sample ID: AES-9 (0-2')

Lab Sample ID: 400-62329-3
Date Collected: 01/09/12 11:25
Matrix: Solid
Date Received: 01/10/12 15:00
Percent Solids: 94.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			147253	01/11/12 13:30	JL	TAL PEN
Total/NA	Analysis	8260B		1	147214	01/12/12 11:50	JL	TAL PEN
Total/NA	Prep	3550B			147222	01/12/12 08:29	RT	TAL PEN
Total/NA	Analysis	8270C		1	147369	01/16/12 23:56	JS	TAL PEN
Total/NA	Prep	3550B			147219	01/12/12 08:25	RT	TAL PEN
Total/NA	Analysis	FL-PRO		1	147374	01/16/12 14:57	KA	TAL PEN
Total/NA	Analysis	Moisture		1	147170	01/10/12 17:00	VC	TAL PEN

Client Sample ID: AES-10 (0-2')

Lab Sample ID: 400-62329-4
Date Collected: 01/09/12 11:30
Matrix: Solid
Date Received: 01/10/12 15:00
Percent Solids: 94.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			147253	01/11/12 13:30	JL	TAL PEN
Total/NA	Analysis	8260B		1	147214	01/12/12 17:30	JL	TAL PEN
Total/NA	Prep	3550B			147222	01/12/12 08:29	RT	TAL PEN
Total/NA	Analysis	8270C		1	147369	01/17/12 00:28	JS	TAL PEN
Total/NA	Prep	3550B			147219	01/12/12 08:25	RT	TAL PEN
Total/NA	Analysis	FL-PRO		1	147374	01/16/12 15:06	KA	TAL PEN

Lab Chronicle

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-62329-1

Client Sample ID: AES-10 (0-2')

Lab Sample ID: 400-62329-4
Date Collected: 01/09/12 11:30
Matrix: Solid
Date Received: 01/10/12 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	147170	01/10/12 17:00	VC	TAL PEN

Client Sample ID: AES-11 (0-2')

Lab Sample ID: 400-62329-5
Date Collected: 01/09/12 11:35
Matrix: Solid
Date Received: 01/10/12 15:00
Percent Solids: 93.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			147253	01/11/12 13:30	JL	TAL PEN
Total/NA	Analysis	8260B		1	147214	01/12/12 12:37	JL	TAL PEN
Total/NA	Prep	3550B			147222	01/12/12 08:29	RT	TAL PEN
Total/NA	Analysis	8270C		1	147399	01/18/12 00:13	RW	TAL PEN
Total/NA	Prep	3550B			147219	01/12/12 08:25	RT	TAL PEN
Total/NA	Analysis	FL-PRO		1	147374	01/16/12 15:16	KA	TAL PEN
Total/NA	Analysis	Moisture		1	147170	01/10/12 17:00	VC	TAL PEN

Client Sample ID: AES-12 (0-2')

Lab Sample ID: 400-62329-6
Date Collected: 01/09/12 11:40
Matrix: Solid
Date Received: 01/10/12 15:00
Percent Solids: 93.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			147253	01/11/12 13:30	JL	TAL PEN
Total/NA	Analysis	8260B		1	147214	01/12/12 13:00	JL	TAL PEN
Total/NA	Prep	3550B			147222	01/12/12 08:29	RT	TAL PEN
Total/NA	Analysis	8270C		1	147369	01/17/12 00:59	JS	TAL PEN
Total/NA	Prep	3550B			147219	01/12/12 08:25	RT	TAL PEN
Total/NA	Analysis	FL-PRO		1	147374	01/16/12 15:35	KA	TAL PEN
Total/NA	Analysis	Moisture		1	147170	01/10/12 17:00	VC	TAL PEN

Client Sample ID: MW-9 (8')

Lab Sample ID: 400-62329-7
Date Collected: 01/09/12 11:45
Matrix: Solid
Date Received: 01/10/12 15:00
Percent Solids: 91.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			147253	01/11/12 13:30	JL	TAL PEN
Total/NA	Analysis	8260B		1	147214	01/12/12 13:24	JL	TAL PEN
Total/NA	Prep	3550B			147222	01/12/12 08:29	RT	TAL PEN
Total/NA	Analysis	8270C		1	147399	01/17/12 22:08	RW	TAL PEN
Total/NA	Prep	3550B			147219	01/12/12 08:25	RT	TAL PEN
Total/NA	Analysis	FL-PRO		1	147374	01/16/12 15:45	KA	TAL PEN
Total/NA	Analysis	Moisture		1	147170	01/10/12 17:00	VC	TAL PEN

Lab Chronicle

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-62329-1

Client Sample ID: MW-5

Lab Sample ID: 400-62329-8

Date Collected: 01/10/12 09:43
Matrix: Water
Date Received: 01/10/12 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	147293	01/13/12 12:39	WD	TAL PEN
Total/NA	Prep	3520C			147164	01/11/12 08:08	MTM	TAL PEN
Total/NA	Analysis	8270C LL		1	147335	01/13/12 15:53	CP	TAL PEN
Total/NA	Prep	3520C			147165	01/11/12 08:12	MTM	TAL PEN
Total/NA	Analysis	FL-PRO		1	147372	01/16/12 12:24	KA	TAL PEN

Client Sample ID: MW-4

Lab Sample ID: 400-62329-9

Date Collected: 01/10/12 10:09
Matrix: Water
Date Received: 01/10/12 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	147293	01/13/12 13:02	WD	TAL PEN
Total/NA	Prep	3520C			147164	01/11/12 08:08	MTM	TAL PEN
Total/NA	Analysis	8270C LL		10	147335	01/13/12 16:54	CP	TAL PEN
Total/NA	Prep	3520C			147165	01/11/12 08:12	MTM	TAL PEN
Total/NA	Analysis	FL-PRO		1	147372	01/16/12 12:33	KA	TAL PEN

Client Sample ID: MW-1

Lab Sample ID: 400-62329-10

Date Collected: 01/10/12 10:39
Matrix: Water
Date Received: 01/10/12 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	147293	01/13/12 13:26	WD	TAL PEN
Total/NA	Prep	3520C			147164	01/11/12 08:08	MTM	TAL PEN
Total/NA	Analysis	8270C LL		1	147335	01/13/12 16:23	CP	TAL PEN
Total/NA	Prep	3520C			147165	01/11/12 08:12	MTM	TAL PEN
Total/NA	Analysis	FL-PRO		1	147372	01/16/12 12:43	KA	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Surrogate Summary

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-62329-1

Method: 8260B - BTEX+MTBE

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(70-141)	(71-121)	(81-116)
400-62329-3	AES-9 (0-2')	99	108	102
400-62329-4	AES-10 (0-2')	104	104	103
400-62329-5	AES-11 (0-2')	103	108	103
400-62329-6	AES-12 (0-2')	101	110	104
400-62329-7	MW-9 (8')	101	108	102
LCS 400-147253/2-A	Lab Control Sample	102	111	103
LCSD 400-147253/3-A	Lab Control Sample Dup	101	112	104
MB 400-147253/1-A	Method Blank	101	107	102

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(79-118)	(79-119)	(80-120)
400-62284-A-2 MS	Matrix Spike	99	101	99
400-62284-A-2 MSD	Matrix Spike Duplicate	98	99	97
400-62329-8	MW-5	93	101	99
400-62329-9	MW-4	97	98	98
400-62329-10	MW-1	95	103	101
LCS 400-147293/5	Lab Control Sample	99	100	97
MB 400-147293/4	Method Blank	95	101	98

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270C - PAH

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPH
Lab Sample ID	Client Sample ID	(40-102)	(34-102)	(49-117)
400-62329-3	AES-9 (0-2')	80	71	84
400-62329-4	AES-10 (0-2')	70	59	72
400-62329-5	AES-11 (0-2')	84	79	90
400-62329-6	AES-12 (0-2')	76	68	77
400-62329-7	MW-9 (8')	72	65	73
400-62367-B-2-B MS	Matrix Spike	78	74	80
400-62367-B-2-C MSD	Matrix Spike Duplicate	85	81	86
LCS 400-147222/21-A	Lab Control Sample	84	82	82
MB 400-147222/22-A	Method Blank	82	83	81

Surrogate Legend

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5

TPH = Terphenyl-d14

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPH
Lab Sample ID	Client Sample ID	(31-121)	(39-126)	(63-137)
400-62329-8	MW-5	59	62	76
400-62329-9	MW-4	82	87	79
400-62329-10	MW-1	67	71	77
LCS 400-147164/2-A	Lab Control Sample	73	71	76
MB 400-147164/1-A	Method Blank	90	90	102

Surrogate Legend

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5
TPH = Terphenyl-d14

Method: FL-PRO - Florida - Petroleum Range Organics (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		C39	OTPH
Lab Sample ID	Client Sample ID	(37-138)	(50-121)
400-62329-3	AES-9 (0-2')	109	82
400-62329-4	AES-10 (0-2')	95	82
400-62329-5	AES-11 (0-2')	105	86
400-62329-6	AES-12 (0-2')	97	84
400-62329-7	MW-9 (8')	99	84
400-62364-D-11-B MS	Matrix Spike	53	74
400-62364-D-11-C MSD	Matrix Spike Duplicate	52	78
LCS 400-147219/19-A	Lab Control Sample	55	81
MB 400-147219/20-A	Method Blank	121	84

Surrogate Legend

C39 = n-C39
OTPH = o-Terphenyl

Method: FL-PRO - Florida - Petroleum Range Organics (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		C39	OTPH
Lab Sample ID	Client Sample ID	(20-176)	(49-143)
LCS 400-147354/3-A	Lab Control Sample	56	89
MB 400-147354/1-A	Method Blank	110	78

Surrogate Legend

C39 = n-C39
OTPH = o-Terphenyl

Surrogate Summary

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-62329-1

Method: FL-PRO - Florida - Petroleum Range Organics (GC)

Matrix: Solid **Prep Type: SPLP East**

		Percent Surrogate Recovery (Acceptance Limits)	
		C39	OTPH
Lab Sample ID	Client Sample ID	(20-176)	(49-143)
400-62329-1	AES-8 (8')	105	84
400-62329-1 MS	AES-8 (8')	61	78
400-62329-1 MSD	AES-8 (8')	61	85
400-62329-2	AES-9 (8')	105	95
LB 400-147321/1-B LB	Method Blank	101	74

Surrogate Legend

C39 = n-C39

OTPH = o-Terphenyl

Method: FL-PRO - Florida - Petroleum Range Organics (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		C39	OTPH
Lab Sample ID	Client Sample ID	(20-176)	(49-143)
400-62329-8	MW-5	97	75
400-62329-9	MW-4	115	101
400-62329-10	MW-1	108	88
LCS 400-147165/2-A	Lab Control Sample	45	80
MB 400-147165/1-A	Method Blank	112	84

Surrogate Legend

C39 = n-C39

OTPH = o-Terphenyl

Method: 8260B - BTEX+MTBE

Lab Sample ID: MB 400-147253/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 147214 — **Prep Batch: 147253**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.0010	U	0.0050	0.0010	mg/Kg		01/10/12 14:00	01/12/12 10:23	1
Benzene	0.00046	U	0.0050	0.00046	mg/Kg		01/10/12 14:00	01/12/12 10:23	1
Toluene	0.00068	U	0.0050	0.00068	mg/Kg		01/10/12 14:00	01/12/12 10:23	1
Ethylbenzene	0.00054	U	0.0050	0.00054	mg/Kg		01/10/12 14:00	01/12/12 10:23	1
Xylenes, Total	0.0018	U	0.010	0.0018	mg/Kg		01/10/12 14:00	01/12/12 10:23	1
Methyl tert-butyl ether	0.0010	U	0.0050	0.0010	mg/Kg		01/10/12 14:00	01/12/12 10:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*70 - 141*	*01/10/12 14:00*	*01/12/12 10:23*	*1*
Dibromofluoromethane	*107*		*71 - 121*	*01/10/12 14:00*	*01/12/12 10:23*	*1*
Toluene-d8 (Surr)	*102*		*81 - 116*	*01/10/12 14:00*	*01/12/12 10:23*	*1*

Lab Sample ID: LCS 400-147253/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 147214 — **Prep Batch: 147253**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	0.0500	0.0553		mg/Kg		111	59 - 125
Benzene	0.0500	0.0528		mg/Kg		106	76 - 120
Toluene	0.0500	0.0528		mg/Kg		106	77 - 123
Ethylbenzene	0.0500	0.0511		mg/Kg		102	80 - 123
Xylenes, Total	0.150	0.154		mg/Kg		103	79 - 128
Methyl tert-butyl ether	0.0500	0.0579		mg/Kg		116	62 - 118

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*102*		*70 - 141*
Dibromofluoromethane	*111*		*71 - 121*
Toluene-d8 (Surr)	*103*		*81 - 116*

Lab Sample ID: LCSD 400-147253/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 147214 — **Prep Batch: 147253**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Naphthalene	0.0500	0.0523		mg/Kg		105	59 - 125	6	16
Benzene	0.0500	0.0513		mg/Kg		103	76 - 120	3	10
Toluene	0.0500	0.0512		mg/Kg		102	77 - 123	3	11
Ethylbenzene	0.0500	0.0485		mg/Kg		97	80 - 123	5	12
Xylenes, Total	0.150	0.149		mg/Kg		99	79 - 128	4	12
Methyl tert-butyl ether	0.0500	0.0552		mg/Kg		110	62 - 118	5	13

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*101*		*70 - 141*
Dibromofluoromethane	*112*		*71 - 121*
Toluene-d8 (Surr)	*104*		*81 - 116*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-147293/4
Matrix: Water
Analysis Batch: 147293

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	0.54	U	1.0	0.54	ug/L			01/13/12 08:44	1
Dichlorobromomethane	0.50	U	1.0	0.50	ug/L			01/13/12 08:44	1
Bromoform	0.58	U	5.0	0.58	ug/L			01/13/12 08:44	1
1,3-Dichloropropene, trans-	0.50	U	5.0	0.50	ug/L			01/13/12 08:44	1
Bromomethane	0.91	U	1.0	0.91	ug/L			01/13/12 08:44	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			01/13/12 08:44	1
Chlorobenzene	0.50	U	1.0	0.50	ug/L			01/13/12 08:44	1
Chloroethane	0.63	U	1.0	0.63	ug/L			01/13/12 08:44	1
Chloroform	0.60	U	1.0	0.60	ug/L			01/13/12 08:44	1
Chloromethane	0.83	U	1.0	0.83	ug/L			01/13/12 08:44	1
Chlorodibromomethane	0.50	U	1.0	0.50	ug/L			01/13/12 08:44	1
Dibromomethane	0.59	U	5.0	0.59	ug/L			01/13/12 08:44	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			01/13/12 08:44	1
1,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			01/13/12 08:44	1
1,4-Dichlorobenzene	0.64	U	1.0	0.64	ug/L			01/13/12 08:44	1
Dichlorodifluoromethane	0.85	U	1.0	0.85	ug/L			01/13/12 08:44	1
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			01/13/12 08:44	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			01/13/12 08:44	1
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			01/13/12 08:44	1
1,2-Dichloroethene, cis-	0.50	U	1.0	0.50	ug/L			01/13/12 08:44	1
1,2-Dichloroethene, trans-	0.50	U	1.0	0.50	ug/L			01/13/12 08:44	1
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			01/13/12 08:44	1
1,3-Dichloropropene, cis-	0.50	U	5.0	0.50	ug/L			01/13/12 08:44	1
Methylene Chloride	1.0	U	1.0	1.0	ug/L			01/13/12 08:44	1
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			01/13/12 08:44	1
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			01/13/12 08:44	1
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			01/13/12 08:44	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			01/13/12 08:44	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			01/13/12 08:44	1
Trichloroethene	0.50	U	1.0	0.50	ug/L			01/13/12 08:44	1
Trichlorofluoromethane	0.52	U	1.0	0.52	ug/L			01/13/12 08:44	1
1,2,3-Trichloropropane	0.86	U	5.0	0.86	ug/L			01/13/12 08:44	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			01/13/12 08:44	1
Benzene	0.34	U	1.0	0.34	ug/L			01/13/12 08:44	1
Toluene	0.70	U	1.0	0.70	ug/L			01/13/12 08:44	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			01/13/12 08:44	1
Xylenes, Total	1.6	U	10	1.6	ug/L			01/13/12 08:44	1
Methyl tert-butyl ether	0.74	U	1.0	0.74	ug/L			01/13/12 08:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*79 - 118*		*01/13/12 08:44*	*1*
Dibromofluoromethane	*101*		*79 - 119*		*01/13/12 08:44*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*01/13/12 08:44*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-147293/5
Matrix: Water
Analysis Batch: 147293

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromobenzene	50.0	57.3		ug/L		115	74 - 124
Dichlorobromomethane	50.0	55.4		ug/L		111	71 - 128
Bromoform	50.0	56.3		ug/L		113	49 - 126
1,3-Dichloropropene, trans-	50.0	56.1		ug/L		112	63 - 129
Bromomethane	50.0	44.8		ug/L		90	10 - 150
Carbon tetrachloride	50.0	59.5		ug/L		119	66 - 129
Chlorobenzene	50.0	53.7		ug/L		107	77 - 119
Chloroethane	50.0	45.9		ug/L		92	10 - 150
Chloroform	50.0	50.9		ug/L		102	70 - 131
Chloromethane	50.0	49.9		ug/L		100	35 - 150
Chlorodibromomethane	50.0	62.4		ug/L		125	63 - 128
Dibromomethane	50.0	53.0		ug/L		106	77 - 121
1,2-Dichlorobenzene	50.0	52.0		ug/L		104	78 - 124
1,3-Dichlorobenzene	50.0	54.6		ug/L		109	75 - 125
1,4-Dichlorobenzene	50.0	53.0		ug/L		106	78 - 123
Dichlorodifluoromethane	50.0	44.6		ug/L		89	20 - 150
1,1-Dichloroethane	50.0	50.7		ug/L		101	55 - 150
1,2-Dichloroethane	50.0	53.6		ug/L		107	71 - 147
1,1-Dichloroethene	50.0	44.0		ug/L		88	28 - 150
1,2-Dichloroethene, cis-	50.0	53.4		ug/L		107	66 - 146
1,2-Dichloroethene, trans-	50.0	47.0		ug/L		94	64 - 128
1,2-Dichloropropane	50.0	53.6		ug/L		107	76 - 133
1,3-Dichloropropene, cis-	50.0	55.3		ug/L		111	75 - 121
Methylene Chloride	50.0	48.6		ug/L		97	62 - 131
1,1,1,2-Tetrachloroethane	50.0	60.2		ug/L		120	74 - 123
1,1,2,2-Tetrachloroethane	50.0	47.9		ug/L		96	56 - 145
Tetrachloroethene	50.0	56.5		ug/L		113	67 - 133
1,1,1-Trichloroethane	50.0	51.9		ug/L		104	65 - 133
1,1,2-Trichloroethane	50.0	52.8		ug/L		106	78 - 121
Trichloroethene	50.0	53.2		ug/L		106	68 - 125
Trichlorofluoromethane	50.0	54.0		ug/L		108	37 - 150
1,2,3-Trichloropropane	50.0	53.0		ug/L		106	60 - 142
Vinyl chloride	50.0	48.3		ug/L		97	28 - 150
Benzene	50.0	50.0		ug/L		100	75 - 122
Toluene	50.0	50.2		ug/L		100	76 - 120
Ethylbenzene	50.0	52.6		ug/L		105	77 - 126
Xylenes, Total	150	162		ug/L		108	78 - 125
Methyl tert-butyl ether	50.0	51.3		ug/L		103	69 - 123

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*99*		*79 - 118*
Dibromofluoromethane	*100*		*79 - 119*
Toluene-d8 (Surr)	*97*		*80 - 120*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-62284-A-2 MS
Matrix: Water
Analysis Batch: 147293

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromobenzene	0.54	U	50.0	53.6		ug/L		107	35 - 135
Dichlorobromomethane	0.50	U	50.0	54.3		ug/L		109	65 - 127
Bromoform	0.58	U	50.0	54.0		ug/L		108	44 - 126
1,3-Dichloropropene, trans-	0.50	U	50.0	55.7		ug/L		111	51 - 127
Bromomethane	0.91	U	50.0	35.6		ug/L		71	10 - 150
Carbon tetrachloride	0.50	U	50.0	59.5		ug/L		119	59 - 127
Chlorobenzene	0.50	U	50.0	50.7		ug/L		101	44 - 129
Chloroethane	0.63	U	50.0	47.2		ug/L		94	10 - 150
Chloroform	0.60	U	50.0	52.0		ug/L		104	61 - 134
Chloromethane	0.83	U	50.0	52.1		ug/L		104	10 - 150
Chlorodibromomethane	0.50	U	50.0	61.1		ug/L		122	58 - 128
Dibromomethane	0.59	U	50.0	51.4		ug/L		103	74 - 122
1,2-Dichlorobenzene	0.50	U	50.0	48.7		ug/L		97	35 - 131
1,3-Dichlorobenzene	0.54	U	50.0	49.5		ug/L		99	21 - 134
1,4-Dichlorobenzene	0.64	U	50.0	48.4		ug/L		97	20 - 135
Dichlorodifluoromethane	0.85	U	50.0	45.5		ug/L		91	11 - 150
1,1-Dichloroethane	0.50	U	50.0	51.5		ug/L		103	43 - 150
1,2-Dichloroethane	0.50	U	50.0	54.1		ug/L		108	64 - 150
1,1-Dichloroethene	0.50	U	50.0	46.2		ug/L		92	17 - 150
1,2-Dichloroethene, cis-	0.50	U	50.0	53.9		ug/L		108	55 - 148
1,2-Dichloroethene, trans-	0.50	U	50.0	47.9		ug/L		96	48 - 136
1,2-Dichloropropane	0.50	U	50.0	54.2		ug/L		108	64 - 139
1,3-Dichloropropene, cis-	0.50	U	50.0	53.5		ug/L		107	64 - 119
Methylene Chloride	1.0	U	50.0	49.6		ug/L		99	50 - 138
1,1,1,2-Tetrachloroethane	0.52	U	50.0	56.8		ug/L		114	56 - 125
1,1,2,2-Tetrachloroethane	0.50	U	50.0	47.1		ug/L		94	52 - 145
Tetrachloroethene	0.58	U	50.0	53.2		ug/L		106	27 - 145
1,1,1-Trichloroethane	0.50	U	50.0	52.6		ug/L		105	58 - 135
1,1,2-Trichloroethane	0.50	U	50.0	52.6		ug/L		105	71 - 123
Trichloroethene	0.50	U	50.0	51.5		ug/L		103	49 - 127
Trichlorofluoromethane	0.52	U	50.0	56.1		ug/L		112	14 - 150
1,2,3-Trichloropropane	0.86	U	50.0	53.5		ug/L		107	57 - 145
Vinyl chloride	0.50	U	50.0	49.5		ug/L		99	10 - 150
Benzene	1.7		50.0	51.7		ug/L		100	50 - 140
Toluene	7.5		50.0	55.0		ug/L		95	48 - 131
Ethylbenzene	0.50	U	50.0	48.9		ug/L		98	33 - 138
Xylenes, Total	6.3	I	150	156		ug/L		100	31 - 139
Methyl tert-butyl ether	0.74	U	50.0	52.8		ug/L		106	62 - 139

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*99*		*79 - 118*
Dibromofluoromethane	*101*		*79 - 119*
Toluene-d8 (Surr)	*99*		*80 - 120*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-62284-A-2 MSD
Matrix: Water
Analysis Batch: 147293

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromobenzene	0.54	U	50.0	56.0		ug/L		112	35 - 135	4	43
Dichlorobromomethane	0.50	U	50.0	53.7		ug/L		107	65 - 127	1	23
Bromoform	0.58	U	50.0	54.8		ug/L		110	44 - 126	1	25
1,3-Dichloropropene, trans-	0.50	U	50.0	55.6		ug/L		111	51 - 127	0	25
Bromomethane	0.91	U	50.0	38.4		ug/L		77	10 - 150	8	42
Carbon tetrachloride	0.50	U	50.0	58.4		ug/L		117	59 - 127	2	24
Chlorobenzene	0.50	U	50.0	51.9		ug/L		104	44 - 129	2	40
Chloroethane	0.63	U	50.0	43.2		ug/L		86	10 - 150	9	34
Chloroform	0.60	U	50.0	50.2		ug/L		100	61 - 134	4	23
Chloromethane	0.83	U	50.0	50.4		ug/L		101	10 - 150	3	24
Chlorodibromomethane	0.50	U	50.0	60.7		ug/L		121	58 - 128	1	25
Dibromomethane	0.59	U	50.0	51.4		ug/L		103	74 - 122	0	21
1,2-Dichlorobenzene	0.50	U	50.0	51.9		ug/L		104	35 - 131	6	49
1,3-Dichlorobenzene	0.54	U	50.0	54.0		ug/L		108	21 - 134	9	58
1,4-Dichlorobenzene	0.64	U	50.0	52.0		ug/L		104	20 - 135	7	58
Dichlorodifluoromethane	0.85	U	50.0	44.3		ug/L		89	11 - 150	3	24
1,1-Dichloroethane	0.50	U	50.0	50.6		ug/L		101	43 - 150	2	22
1,2-Dichloroethane	0.50	U	50.0	52.7		ug/L		105	64 - 150	3	22
1,1-Dichloroethene	0.50	U	50.0	43.9		ug/L		88	17 - 150	5	27
1,2-Dichloroethene, cis-	0.50	U	50.0	52.5		ug/L		105	55 - 148	3	23
1,2-Dichloroethene, trans-	0.50	U	50.0	46.7		ug/L		93	48 - 136	3	28
1,2-Dichloropropane	0.50	U	50.0	53.6		ug/L		107	64 - 139	1	23
1,3-Dichloropropene, cis-	0.50	U	50.0	53.9		ug/L		108	64 - 119	1	25
Methylene Chloride	1.0	U	50.0	48.4		ug/L		97	50 - 138	2	26
1,1,1,2-Tetrachloroethane	0.52	U	50.0	57.4		ug/L		115	56 - 125	1	33
1,1,2,2-Tetrachloroethane	0.50	U	50.0	47.7		ug/L		95	52 - 145	1	23
Tetrachloroethene	0.58	U	50.0	55.0		ug/L		110	27 - 145	3	45
1,1,1-Trichloroethane	0.50	U	50.0	51.0		ug/L		102	58 - 135	3	23
1,1,2-Trichloroethane	0.50	U	50.0	52.3		ug/L		105	71 - 123	1	21
Trichloroethene	0.50	U	50.0	51.5		ug/L		103	49 - 127	0	29
Trichlorofluoromethane	0.52	U	50.0	53.7		ug/L		107	14 - 150	4	25
1,2,3-Trichloropropane	0.86	U	50.0	53.9		ug/L		108	57 - 145	1	38
Vinyl chloride	0.50	U	50.0	47.7		ug/L		95	10 - 150	4	25
Benzene	1.7		50.0	50.8		ug/L		98	50 - 140	2	24
Toluene	7.5		50.0	55.6		ug/L		96	48 - 131	1	34
Ethylbenzene	0.50	U	50.0	50.9		ug/L		102	33 - 138	4	49
Xylenes, Total	6.3	I	150	163		ug/L		104	31 - 139	4	50
Methyl tert-butyl ether	0.74	U	50.0	52.1		ug/L		104	62 - 139	1	24

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*98*		*79 - 118*
Dibromofluoromethane	*99*		*79 - 119*
Toluene-d8 (Surr)	*97*		*80 - 120*

Method: 8270C - PAH

Lab Sample ID: MB 400-147222/22-A
Matrix: Solid
Analysis Batch: 147369

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 147222

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.033	U	0.33	0.033	mg/Kg		01/12/12 08:32	01/16/12 20:50	1
Acenaphthylene	0.033	U	0.33	0.033	mg/Kg		01/12/12 08:32	01/16/12 20:50	1
Anthracene	0.033	U	0.33	0.033	mg/Kg		01/12/12 08:32	01/16/12 20:50	1
Benzo[a]anthracene	0.033	U	0.33	0.033	mg/Kg		01/12/12 08:32	01/16/12 20:50	1
Benzo[a]pyrene	0.033	U	0.33	0.033	mg/Kg		01/12/12 08:32	01/16/12 20:50	1
Benzo[b]fluoranthene	0.033	U	0.33	0.033	mg/Kg		01/12/12 08:32	01/16/12 20:50	1
Benzo[g,h,i]perylene	0.033	U	0.33	0.033	mg/Kg		01/12/12 08:32	01/16/12 20:50	1
Benzo[k]fluoranthene	0.033	U	0.33	0.033	mg/Kg		01/12/12 08:32	01/16/12 20:50	1
Chrysene	0.033	U	0.33	0.033	mg/Kg		01/12/12 08:32	01/16/12 20:50	1
Dibenz(a,h)anthracene	0.033	U	0.33	0.033	mg/Kg		01/12/12 08:32	01/16/12 20:50	1
Fluoranthene	0.033	U	0.33	0.033	mg/Kg		01/12/12 08:32	01/16/12 20:50	1
Fluorene	0.033	U	0.33	0.033	mg/Kg		01/12/12 08:32	01/16/12 20:50	1
Indeno[1,2,3-cd]pyrene	0.033	U	0.33	0.033	mg/Kg		01/12/12 08:32	01/16/12 20:50	1
Naphthalene	0.033	U	0.33	0.033	mg/Kg		01/12/12 08:32	01/16/12 20:50	1
Phenanthrene	0.033	U	0.33	0.033	mg/Kg		01/12/12 08:32	01/16/12 20:50	1
Pyrene	0.033	U	0.33	0.033	mg/Kg		01/12/12 08:32	01/16/12 20:50	1
1-Methylnaphthalene	0.033	U	0.33	0.033	mg/Kg		01/12/12 08:32	01/16/12 20:50	1
2-Methylnaphthalene	0.033	U	0.33	0.033	mg/Kg		01/12/12 08:32	01/16/12 20:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*82*		*40 - 102*	*01/12/12 08:32*	*01/16/12 20:50*	*1*
Nitrobenzene-d5	*83*		*34 - 102*	*01/12/12 08:32*	*01/16/12 20:50*	*1*
Terphenyl-d14	*81*		*49 - 117*	*01/12/12 08:32*	*01/16/12 20:50*	*1*

Lab Sample ID: LCS 400-147222/21-A
Matrix: Solid
Analysis Batch: 147369

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 147222

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	1.67	1.47		mg/Kg		88	58 - 107
Acenaphthylene	1.67	1.45		mg/Kg		87	60 - 109
Anthracene	1.67	1.52		mg/Kg		91	54 - 124
Benzo[a]anthracene	1.67	1.24		mg/Kg		74	64 - 112
Benzo[a]pyrene	1.67	1.27		mg/Kg		76	52 - 97
Benzo[b]fluoranthene	1.67	1.23		mg/Kg		74	55 - 110
Benzo[g,h,i]perylene	1.67	1.45		mg/Kg		87	50 - 124
Benzo[k]fluoranthene	1.67	1.48		mg/Kg		89	61 - 116
Chrysene	1.67	1.28		mg/Kg		77	62 - 109
Dibenz(a,h)anthracene	1.67	1.38		mg/Kg		83	52 - 119
Fluoranthene	1.67	1.59		mg/Kg		95	58 - 122
Fluorene	1.67	1.54		mg/Kg		92	59 - 112
Indeno[1,2,3-cd]pyrene	1.67	1.43		mg/Kg		86	53 - 118
Naphthalene	1.67	1.40		mg/Kg		84	53 - 101
Phenanthrene	1.67	1.52		mg/Kg		91	55 - 121
Pyrene	1.67	1.26		mg/Kg		76	55 - 114
1-Methylnaphthalene	1.67	1.55		mg/Kg		93	57 - 106
2-Methylnaphthalene	1.67	1.43		mg/Kg		86	54 - 104

Method: 8270C - PAH (Continued)

Lab Sample ID: LCS 400-147222/21-A
Matrix: Solid
Analysis Batch: 147369

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 147222

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	84		40 - 102
Nitrobenzene-d5	82		34 - 102
Terphenyl-d14	82		49 - 117

Lab Sample ID: 400-62367-B-2-B MS
Matrix: Solid
Analysis Batch: 147369

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 147222

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	0.038	U	1.91	1.61		mg/Kg	☼	84	49 - 109
Acenaphthylene	0.038	U	1.91	1.60		mg/Kg	☼	84	52 - 109
Anthracene	0.038	U	1.91	2.29		mg/Kg	☼	120	43 - 124
Benzo[a]anthracene	0.038	U	1.91	1.41		mg/Kg	☼	74	53 - 113
Benzo[a]pyrene	0.038	U	1.91	1.41		mg/Kg	☼	74	37 - 103
Benzo[b]fluoranthene	0.038	U	1.91	1.40		mg/Kg	☼	73	46 - 113
Benzo[g,h,i]perylene	0.038	U	1.91	1.65		mg/Kg	☼	86	29 - 125
Benzo[k]fluoranthene	0.038	U	1.91	1.64		mg/Kg	☼	86	55 - 112
Chrysene	0.038	U	1.91	1.47		mg/Kg	☼	77	51 - 114
Dibenz(a,h)anthracene	0.038	U	1.91	1.57		mg/Kg	☼	82	37 - 118
Fluoranthene	0.038	U	1.91	1.90		mg/Kg	☼	99	39 - 134
Fluorene	0.038	U	1.91	1.76		mg/Kg	☼	92	49 - 114
Indeno[1,2,3-cd]pyrene	0.038	U	1.91	1.63		mg/Kg	☼	85	34 - 119
Naphthalene	0.038	U	1.91	1.51		mg/Kg	☼	79	26 - 115
Phenanthrene	0.038	U	1.91	1.78		mg/Kg	☼	93	35 - 133
Pyrene	0.038	U	1.91	1.44		mg/Kg	☼	75	33 - 130
1-Methylnaphthalene	0.038	U	1.91	1.68		mg/Kg	☼	88	18 - 131
2-Methylnaphthalene	0.038	U	1.91	1.58		mg/Kg	☼	83	10 - 134

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Fluorobiphenyl	78		40 - 102
Nitrobenzene-d5	74		34 - 102
Terphenyl-d14	80		49 - 117

Lab Sample ID: 400-62367-B-2-C MSD
Matrix: Solid
Analysis Batch: 147369

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 147222

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	0.038	U	1.90	1.81		mg/Kg	☼	95	49 - 109	12	29
Acenaphthylene	0.038	U	1.90	1.74		mg/Kg	☼	92	52 - 109	8	33
Anthracene	0.038	U	1.90	2.41	J3	mg/Kg	☼	127	43 - 124	5	29
Benzo[a]anthracene	0.038	U	1.90	1.49		mg/Kg	☼	78	53 - 113	5	34
Benzo[a]pyrene	0.038	U	1.90	1.49		mg/Kg	☼	79	37 - 103	6	43
Benzo[b]fluoranthene	0.038	U	1.90	1.44		mg/Kg	☼	76	46 - 113	3	37
Benzo[g,h,i]perylene	0.038	U	1.90	1.74		mg/Kg	☼	92	29 - 125	5	37
Benzo[k]fluoranthene	0.038	U	1.90	1.81		mg/Kg	☼	95	55 - 112	10	33
Chrysene	0.038	U	1.90	1.55		mg/Kg	☼	82	51 - 114	6	36
Dibenz(a,h)anthracene	0.038	U	1.90	1.65		mg/Kg	☼	87	37 - 118	5	30
Fluoranthene	0.038	U	1.90	2.00		mg/Kg	☼	106	39 - 134	6	41

Method: 8270C - PAH (Continued)

Lab Sample ID: 400-62367-B-2-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 147369 — **Prep Batch: 147222**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluorene	0.038	U	1.90	1.88		mg/Kg	☼	99	49 - 114	7	29
Indeno[1,2,3-cd]pyrene	0.038	U	1.90	1.72		mg/Kg	☼	91	34 - 119	5	37
Naphthalene	0.038	U	1.90	1.64		mg/Kg	☼	87	26 - 115	8	49
Phenanthrene	0.038	U	1.90	1.93		mg/Kg	☼	102	35 - 133	8	31
Pyrene	0.038	U	1.90	1.53		mg/Kg	☼	81	33 - 130	6	51
1-Methylnaphthalene	0.038	U	1.90	1.82		mg/Kg	☼	96	18 - 131	8	62
2-Methylnaphthalene	0.038	U	1.90	1.73		mg/Kg	☼	91	10 - 134	9	46

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl	*85*		*40 - 102*
Nitrobenzene-d5	*81*		*34 - 102*
Terphenyl-d14	*86*		*49 - 117*

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Lab Sample ID: MB 400-147164/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 147335 — **Prep Batch: 147164**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.020	U	0.20	0.020	ug/L		01/11/12 08:08	01/13/12 13:51	1
Acenaphthylene	0.020	U	0.20	0.020	ug/L		01/11/12 08:08	01/13/12 13:51	1
Anthracene	0.020	U	0.20	0.020	ug/L		01/11/12 08:08	01/13/12 13:51	1
Benzo[a]anthracene	0.040	U	0.20	0.040	ug/L		01/11/12 08:08	01/13/12 13:51	1
Benzo[a]pyrene	0.040	U	0.20	0.040	ug/L		01/11/12 08:08	01/13/12 13:51	1
Benzo[b]fluoranthene	0.040	U	0.20	0.040	ug/L		01/11/12 08:08	01/13/12 13:51	1
Benzo[g,h,i]perylene	0.040	U	0.20	0.040	ug/L		01/11/12 08:08	01/13/12 13:51	1
Benzo[k]fluoranthene	0.040	U	0.20	0.040	ug/L		01/11/12 08:08	01/13/12 13:51	1
Chrysene	0.040	U	0.20	0.040	ug/L		01/11/12 08:08	01/13/12 13:51	1
Dibenz(a,h)anthracene	0.040	U	0.20	0.040	ug/L		01/11/12 08:08	01/13/12 13:51	1
Fluoranthene	0.020	U	0.20	0.020	ug/L		01/11/12 08:08	01/13/12 13:51	1
Fluorene	0.021	U	0.20	0.021	ug/L		01/11/12 08:08	01/13/12 13:51	1
Indeno[1,2,3-cd]pyrene	0.040	U	0.20	0.040	ug/L		01/11/12 08:08	01/13/12 13:51	1
1-Methylnaphthalene	0.020	U	0.20	0.020	ug/L		01/11/12 08:08	01/13/12 13:51	1
2-Methylnaphthalene	0.020	U	0.20	0.020	ug/L		01/11/12 08:08	01/13/12 13:51	1
Naphthalene	0.020	U	0.20	0.020	ug/L		01/11/12 08:08	01/13/12 13:51	1
Phenanthrene	0.020	U	0.20	0.020	ug/L		01/11/12 08:08	01/13/12 13:51	1
Pyrene	0.020	U	0.20	0.020	ug/L		01/11/12 08:08	01/13/12 13:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*90*		*31 - 121*	*01/11/12 08:08*	*01/13/12 13:51*	*1*
Nitrobenzene-d5	*90*		*39 - 126*	*01/11/12 08:08*	*01/13/12 13:51*	*1*
Terphenyl-d14	*102*		*63 - 137*	*01/11/12 08:08*	*01/13/12 13:51*	*1*

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 400-147164/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 147335 — **Prep Batch: 147164**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	4.00	2.90		ug/L		72	36 - 117
Acenaphthylene	4.00	2.81		ug/L		70	37 - 122
Anthracene	4.00	2.90		ug/L		73	33 - 127
Benzo[a]anthracene	4.00	3.77		ug/L		94	46 - 147
Benzo[a]pyrene	4.00	3.07		ug/L		77	40 - 130
Benzo[b]fluoranthene	4.00	3.45		ug/L		86	38 - 144
Benzo[g,h,i]perylene	4.00	3.62		ug/L		90	44 - 146
Benzo[k]fluoranthene	4.00	3.64		ug/L		91	41 - 141
Chrysene	4.00	3.47		ug/L		87	43 - 137
Dibenz(a,h)anthracene	4.00	3.95		ug/L		99	42 - 142
Fluoranthene	4.00	3.12		ug/L		78	42 - 143
Fluorene	4.00	3.18		ug/L		80	34 - 141
Indeno[1,2,3-cd]pyrene	4.00	3.71		ug/L		93	43 - 133
1-Methylnaphthalene	4.00	3.06		ug/L		77	39 - 118
2-Methylnaphthalene	4.00	2.76		ug/L		69	40 - 123
Naphthalene	4.00	2.77		ug/L		69	39 - 113
Phenanthrene	4.00	3.25		ug/L		81	38 - 126
Pyrene	4.00	3.05		ug/L		76	44 - 138

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*73*		*31 - 121*
Nitrobenzene-d5	*71*		*39 - 126*
Terphenyl-d14	*76*		*63 - 137*

Method: FL-PRO - Florida - Petroleum Range Organics (GC)

Lab Sample ID: MB 400-147165/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 147372 — **Prep Batch: 147165**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Petroleum Hydrocarbons (C8-C40)	18	U	110	18	ug/L		01/11/12 08:12	01/16/12 12:05	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-C39	*112*		*20 - 176*	*01/11/12 08:12*	*01/16/12 12:05*	*1*
o-Terphenyl	*84*		*49 - 143*	*01/11/12 08:12*	*01/16/12 12:05*	*1*

Lab Sample ID: LCS 400-147165/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 147372 — **Prep Batch: 147165**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Petroleum Hydrocarbons (C8-C40)	3400	2870		ug/L		85	41 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
n-C39	*45*		*20 - 176*
o-Terphenyl	*80*		*49 - 143*

Method: FL-PRO - Florida - Petroleum Range Organics (GC) (Continued)

Lab Sample ID: MB 400-147219/20-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 147374 — **Prep Batch: 147219**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Petroleum Hydrocarbons (C8-C40)	1.3	U	7.5	1.3	mg/Kg		01/12/12 08:25	01/16/12 14:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-C39	*121*		*37 - 138*	*01/12/12 08:25*	*01/16/12 14:18*	*1*
o-Terphenyl	*84*		*50 - 121*	*01/12/12 08:25*	*01/16/12 14:18*	*1*

Lab Sample ID: LCS 400-147219/19-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 147374 — **Prep Batch: 147219**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Petroleum Hydrocarbons (C8-C40)	113	97.1		mg/Kg		86	50 - 124

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
n-C39	*55*		*37 - 138*
o-Terphenyl	*81*		*50 - 121*

Lab Sample ID: 400-62364-D-11-B MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 147374 — **Prep Batch: 147219**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Petroleum Hydrocarbons (C8-C40)	1.3	U	129	93.5		mg/Kg	☼	72	11 - 154

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
n-C39	*53*		*37 - 138*
o-Terphenyl	*74*		*50 - 121*

Lab Sample ID: 400-62364-D-11-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 147374 — **Prep Batch: 147219**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Petroleum Hydrocarbons (C8-C40)	1.3	U	130	96.3		mg/Kg	☼	74	11 - 154	3	50

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
n-C39	*52*		*37 - 138*
o-Terphenyl	*78*		*50 - 121*

Lab Sample ID: MB 400-147354/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 147407 — **Prep Batch: 147354**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Petroleum Hydrocarbons (C8-C40)	18	U	110	18	ug/L		01/16/12 08:11	01/17/12 10:06	1

Method: FL-PRO - Florida - Petroleum Range Organics (GC) (Continued)

Lab Sample ID: MB 400-147354/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 147407 — **Prep Batch: 147354**

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-C39	110		20 - 176	01/16/12 08:11	01/17/12 10:06	1
o-Terphenyl	78		49 - 143	01/16/12 08:11	01/17/12 10:06	1

Lab Sample ID: LCS 400-147354/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 147407 — **Prep Batch: 147354**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Petroleum Hydrocarbons (C8-C40)	3400	3070		ug/L		90	41 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
n-C39	56		20 - 176
o-Terphenyl	89		49 - 143

Lab Sample ID: LB 400-147321/1-B LB — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: SPLP East**
Analysis Batch: 147407 — **Prep Batch: 147354**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Petroleum Hydrocarbons (C8-C40)	23	U	140	23	ug/L		01/16/12 08:11	01/17/12 10:15	1

Surrogate	LB %Recovery	LB Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-C39	101		20 - 176	01/16/12 08:11	01/17/12 10:15	1
o-Terphenyl	74		49 - 143	01/16/12 08:11	01/17/12 10:15	1

Lab Sample ID: 400-62329-1 MS — **Client Sample ID: AES-8 (8')**
Matrix: Solid — **Prep Type: SPLP East**
Analysis Batch: 147407 — **Prep Batch: 147354**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Petroleum Hydrocarbons (C8-C40)	3600		4250	8800	J3	ug/L		121	41 - 101

Surrogate	MS %Recovery	MS Qualifier	Limits
n-C39	61		20 - 176
o-Terphenyl	78		49 - 143

Lab Sample ID: 400-62329-1 MSD — **Client Sample ID: AES-8 (8')**
Matrix: Solid — **Prep Type: SPLP East**
Analysis Batch: 147407 — **Prep Batch: 147354**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Petroleum Hydrocarbons (C8-C40)	3600		4250	5960	J3	ug/L		55	41 - 101	38	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
n-C39	61		20 - 176

Method: FL-PRO - Florida - Petroleum Range Organics (GC) (Continued)

Lab Sample ID: 400-62329-1 MSD
Matrix: Solid
Analysis Batch: 147407

Client Sample ID: AES-8 (8')
Prep Type: SPLP East
Prep Batch: 147354

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
o-Terphenyl	*85*		*49 - 143*

Method: TPHCWG - TPH Criteria Working Group (CWG) Fractionation

Lab Sample ID: MB 400-147298/1-B
Matrix: Solid
Analysis Batch: 147486

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 147298

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Over C5-C6 aliphatics	25	U	49	25	mg/Kg		01/13/12 09:31	01/16/12 19:47	1
Over C6-C8 aliphatics	25	U	49	25	mg/Kg		01/13/12 09:31	01/16/12 19:47	1
Over C8-C10 aliphatics	25	U	49	25	mg/Kg		01/13/12 09:31	01/16/12 19:47	1
Over C10-C12 aliphatics	25	U	49	25	mg/Kg		01/13/12 09:31	01/16/12 19:47	1
Over C12-C16 aliphatics	25	U	49	25	mg/Kg		01/13/12 09:31	01/16/12 19:47	1
Over C16-C35 aliphatics	25	U	49	25	mg/Kg		01/13/12 09:31	01/16/12 19:47	1
Over C5-C7 aromatics	20	U	20	20	mg/Kg		01/13/12 09:31	01/16/12 19:47	1
Over C7-C8 aromatics	25	U	35	25	mg/Kg		01/13/12 09:31	01/16/12 19:47	1
Over C8-C10 aromatics	25	U	49	25	mg/Kg		01/13/12 09:31	01/16/12 19:47	1
Over C10-C12 aromatics	25	U	49	25	mg/Kg		01/13/12 09:31	01/16/12 19:47	1
Over C12-C16 aromatics	25	U	49	25	mg/Kg		01/13/12 09:31	01/16/12 19:47	1
Over C16-C21 aromatics	25	U	49	25	mg/Kg		01/13/12 09:31	01/16/12 19:47	1
Over C21-C35 aromatics	25	U	49	25	mg/Kg		01/13/12 09:31	01/16/12 19:47	1

Lab Sample ID: LCS 400-147298/2-B
Matrix: Solid
Analysis Batch: 147486

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 147298

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C6-C35			1180	1050		mg/Kg		89	60 - 140		

Lab Sample ID: 400-62329-1 MS
Matrix: Solid
Analysis Batch: 147486

Client Sample ID: AES-8 (8')
Prep Type: Total/NA
Prep Batch: 147298

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
C6-C35	22000		1240	24600	J3	mg/Kg	☼	205	60 - 140		

Lab Sample ID: 400-62329-1 MSD
Matrix: Solid
Analysis Batch: 147486

Client Sample ID: AES-8 (8')
Prep Type: Total/NA
Prep Batch: 147298

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C6-C35	22000		1220	23300		mg/Kg	☼	96	60 - 140	6	40

QC Association Summary

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-62329-1

GC/MS VOA

Analysis Batch: 147214

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-62329-3	AES-9 (0-2')	Total/NA	Solid	8260B	147253
400-62329-4	AES-10 (0-2')	Total/NA	Solid	8260B	147253
400-62329-5	AES-11 (0-2')	Total/NA	Solid	8260B	147253
400-62329-6	AES-12 (0-2')	Total/NA	Solid	8260B	147253
400-62329-7	MW-9 (8')	Total/NA	Solid	8260B	147253
LCS 400-147253/2-A	Lab Control Sample	Total/NA	Solid	8260B	147253
LCSD 400-147253/3-A	Lab Control Sample Dup	Total/NA	Solid	8260B	147253
MB 400-147253/1-A	Method Blank	Total/NA	Solid	8260B	147253

Prep Batch: 147253

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-62329-3	AES-9 (0-2')	Total/NA	Solid	5035	
400-62329-4	AES-10 (0-2')	Total/NA	Solid	5035	
400-62329-5	AES-11 (0-2')	Total/NA	Solid	5035	
400-62329-6	AES-12 (0-2')	Total/NA	Solid	5035	
400-62329-7	MW-9 (8')	Total/NA	Solid	5035	
LCS 400-147253/2-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 400-147253/3-A	Lab Control Sample Dup	Total/NA	Solid	5035	
MB 400-147253/1-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 147293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-62284-A-2 MS	Matrix Spike	Total/NA	Water	8260B	
400-62284-A-2 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	
400-62329-8	MW-5	Total/NA	Water	8260B	
400-62329-9	MW-4	Total/NA	Water	8260B	
400-62329-10	MW-1	Total/NA	Water	8260B	
LCS 400-147293/5	Lab Control Sample	Total/NA	Water	8260B	
MB 400-147293/4	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 147164

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-62329-8	MW-5	Total/NA	Water	3520C	
400-62329-9	MW-4	Total/NA	Water	3520C	
400-62329-10	MW-1	Total/NA	Water	3520C	
LCS 400-147164/2-A	Lab Control Sample	Total/NA	Water	3520C	
MB 400-147164/1-A	Method Blank	Total/NA	Water	3520C	

Prep Batch: 147222

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-62329-3	AES-9 (0-2')	Total/NA	Solid	3550B	
400-62329-4	AES-10 (0-2')	Total/NA	Solid	3550B	
400-62329-5	AES-11 (0-2')	Total/NA	Solid	3550B	
400-62329-6	AES-12 (0-2')	Total/NA	Solid	3550B	
400-62329-7	MW-9 (8')	Total/NA	Solid	3550B	
400-62367-B-2-B MS	Matrix Spike	Total/NA	Solid	3550B	
400-62367-B-2-C MSD	Matrix Spike Duplicate	Total/NA	Solid	3550B	
LCS 400-147222/21-A	Lab Control Sample	Total/NA	Solid	3550B	
MB 400-147222/22-A	Method Blank	Total/NA	Solid	3550B	

GC/MS Semi VOA (Continued)

Analysis Batch: 147335

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-62329-8	MW-5	Total/NA	Water	8270C LL	147164
400-62329-9	MW-4	Total/NA	Water	8270C LL	147164
400-62329-10	MW-1	Total/NA	Water	8270C LL	147164
LCS 400-147164/2-A	Lab Control Sample	Total/NA	Water	8270C LL	147164
MB 400-147164/1-A	Method Blank	Total/NA	Water	8270C LL	147164

Analysis Batch: 147369

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-62329-3	AES-9 (0-2')	Total/NA	Solid	8270C	147222
400-62329-4	AES-10 (0-2')	Total/NA	Solid	8270C	147222
400-62329-6	AES-12 (0-2')	Total/NA	Solid	8270C	147222
400-62367-B-2-B MS	Matrix Spike	Total/NA	Solid	8270C	147222
400-62367-B-2-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8270C	147222
LCS 400-147222/21-A	Lab Control Sample	Total/NA	Solid	8270C	147222
MB 400-147222/22-A	Method Blank	Total/NA	Solid	8270C	147222

Analysis Batch: 147399

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-62329-5	AES-11 (0-2')	Total/NA	Solid	8270C	147222
400-62329-7	MW-9 (8')	Total/NA	Solid	8270C	147222

GC Semi VOA

Prep Batch: 147165

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-62329-8	MW-5	Total/NA	Water	3520C	
400-62329-9	MW-4	Total/NA	Water	3520C	
400-62329-10	MW-1	Total/NA	Water	3520C	
LCS 400-147165/2-A	Lab Control Sample	Total/NA	Water	3520C	
MB 400-147165/1-A	Method Blank	Total/NA	Water	3520C	

Prep Batch: 147219

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-62329-3	AES-9 (0-2')	Total/NA	Solid	3550B	
400-62329-4	AES-10 (0-2')	Total/NA	Solid	3550B	
400-62329-5	AES-11 (0-2')	Total/NA	Solid	3550B	
400-62329-6	AES-12 (0-2')	Total/NA	Solid	3550B	
400-62329-7	MW-9 (8')	Total/NA	Solid	3550B	
400-62364-D-11-B MS	Matrix Spike	Total/NA	Solid	3550B	
400-62364-D-11-C MSD	Matrix Spike Duplicate	Total/NA	Solid	3550B	
LCS 400-147219/19-A	Lab Control Sample	Total/NA	Solid	3550B	
MB 400-147219/20-A	Method Blank	Total/NA	Solid	3550B	

Prep Batch: 147298

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-62329-1	AES-8 (8')	Total/NA	Solid	TPH CWG Frac	
400-62329-1 MS	AES-8 (8')	Total/NA	Solid	TPH CWG Frac	
400-62329-1 MSD	AES-8 (8')	Total/NA	Solid	TPH CWG Frac	
400-62329-2	AES-9 (8')	Total/NA	Solid	TPH CWG Frac	
LCS 400-147298/2-B	Lab Control Sample	Total/NA	Solid	TPH CWG Frac	
MB 400-147298/1-B	Method Blank	Total/NA	Solid	TPH CWG Frac	

GC Semi VOA (Continued)

Leach Batch: 147321

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-62329-1	AES-8 (8')	SPLP East	Solid	1312	
400-62329-1 MS	AES-8 (8')	SPLP East	Solid	1312	
400-62329-1 MSD	AES-8 (8')	SPLP East	Solid	1312	
400-62329-2	AES-9 (8')	SPLP East	Solid	1312	
LB 400-147321/1-B LB	Method Blank	SPLP East	Solid	1312	

Prep Batch: 147354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-62329-1	AES-8 (8')	SPLP East	Solid	3520C	147321
400-62329-1 MS	AES-8 (8')	SPLP East	Solid	3520C	147321
400-62329-1 MSD	AES-8 (8')	SPLP East	Solid	3520C	147321
400-62329-2	AES-9 (8')	SPLP East	Solid	3520C	147321
LB 400-147321/1-B LB	Method Blank	SPLP East	Solid	3520C	147321
LCS 400-147354/3-A	Lab Control Sample	Total/NA	Solid	3520C	
MB 400-147354/1-A	Method Blank	Total/NA	Solid	3520C	

Analysis Batch: 147372

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-62329-8	MW-5	Total/NA	Water	FL-PRO	147165
400-62329-9	MW-4	Total/NA	Water	FL-PRO	147165
400-62329-10	MW-1	Total/NA	Water	FL-PRO	147165
LCS 400-147165/2-A	Lab Control Sample	Total/NA	Water	FL-PRO	147165
MB 400-147165/1-A	Method Blank	Total/NA	Water	FL-PRO	147165

Analysis Batch: 147374

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-62329-3	AES-9 (0-2')	Total/NA	Solid	FL-PRO	147219
400-62329-4	AES-10 (0-2')	Total/NA	Solid	FL-PRO	147219
400-62329-5	AES-11 (0-2')	Total/NA	Solid	FL-PRO	147219
400-62329-6	AES-12 (0-2')	Total/NA	Solid	FL-PRO	147219
400-62329-7	MW-9 (8')	Total/NA	Solid	FL-PRO	147219
400-62364-D-11-B MS	Matrix Spike	Total/NA	Solid	FL-PRO	147219
400-62364-D-11-C MSD	Matrix Spike Duplicate	Total/NA	Solid	FL-PRO	147219
LCS 400-147219/19-A	Lab Control Sample	Total/NA	Solid	FL-PRO	147219
MB 400-147219/20-A	Method Blank	Total/NA	Solid	FL-PRO	147219

Analysis Batch: 147407

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-62329-1	AES-8 (8')	SPLP East	Solid	FL-PRO	147354
400-62329-1 MS	AES-8 (8')	SPLP East	Solid	FL-PRO	147354
400-62329-1 MSD	AES-8 (8')	SPLP East	Solid	FL-PRO	147354
400-62329-2	AES-9 (8')	SPLP East	Solid	FL-PRO	147354
LB 400-147321/1-B LB	Method Blank	SPLP East	Solid	FL-PRO	147354
LCS 400-147354/3-A	Lab Control Sample	Total/NA	Solid	FL-PRO	147354
MB 400-147354/1-A	Method Blank	Total/NA	Solid	FL-PRO	147354

Analysis Batch: 147486

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-62329-1	AES-8 (8')	Total/NA	Solid	TPHCWG	147298
400-62329-1	AES-8 (8')	Total/NA	Solid	TPHCWG	147298
400-62329-1 MS	AES-8 (8')	Total/NA	Solid	TPHCWG	147298
400-62329-1 MSD	AES-8 (8')	Total/NA	Solid	TPHCWG	147298

GC Semi VOA (Continued)

Analysis Batch: 147486 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-62329-2	AES-9 (8')	Total/NA	Solid	TPHCWG	147298
LCS 400-147298/2-B	Lab Control Sample	Total/NA	Solid	TPHCWG	147298
MB 400-147298/1-B	Method Blank	Total/NA	Solid	TPHCWG	147298

General Chemistry

Analysis Batch: 147170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-62329-1	AES-8 (8')	Total/NA	Solid	Moisture	
400-62329-2	AES-9 (8')	Total/NA	Solid	Moisture	
400-62329-3	AES-9 (0-2')	Total/NA	Solid	Moisture	
400-62329-4	AES-10 (0-2')	Total/NA	Solid	Moisture	
400-62329-5	AES-11 (0-2')	Total/NA	Solid	Moisture	
400-62329-6	AES-12 (0-2')	Total/NA	Solid	Moisture	
400-62329-7	MW-9 (8')	Total/NA	Solid	Moisture	

Chain of Custody Record

400-62329 Lab Report No.:

Page 1 of 2

Gulf Coast LabNet, Inc.
An Environmental Lab Services Co.
Phone: (251) 625-1331
Fax: (251) 625-1299

Modified from DEP Form #: 62-770.900(2)

FDEP Facility No.:

Project Name: NAVAL HOSPITAL

Location: PENSACOLA, FL

Project No.:

Company: AEROSTAR

Address: 803 GOUT. ST., STE. A
MOBILE, AL 36602

Attn: CURTIS MILLS
Phone:
Fax:

Sampled by [Print Name]/Affiliation
Sampler Signature

Item No.	Field ID No.	Sampled Date	Sampled Time	Grab or Comp.	Matrix Codes	No. Cont.	5035/8260 BTEX/MTBE (H)	L.L. PAH 8270 (H)	FL-PRO (H)	TPHCWG (H)	SPLP-FL-PRO (H)				←Preservative / ←Analysis	Remarks	Lab. No.
1	AES-8 (8')	1/9/12	1115	Grab	SO	2				X	X						
2	AES-9 (8')	1/9/12	1120	Grab	SO	2				X	X						
3	AES-9 (0-2)	1/9/12	1125	Comp	SO	4	X	X	X								
4	AES-10 (0-2)	1/9/12	1130	Comp	SO	4	X	X	X								
5	AES-11 (0-2)	1/9/12	1135	Comp	SO	4	X	X	X								
6	AES-12 (0-2)	1/9/12	1140	Comp	SO	4	X	X	X								
7	MW-9 (8')	1/9/12	1145	Grab	SO	4	X	X	X								

REQUESTED DUE DATE

24 ←Total Number of Containers

Shipment Method
Out: / / Via:
Returned: / / Via:

Item #	Relinquished by / Affiliation	Date	Time	Accepted by / Affiliation	Date	Time
	EMPTY CONTAINERS	1-9-12	0800	AES	1-9-12	0800
	AES	1-9-12	1330	GCL	1-9-12	1330
	GCL	1-10-12	1500		1-10-12	15:00

Additional Comments

HOLD EXTRA FOR POSSIBLE FURTHER ANALYSES.

Cooler No.(s) / Temperature(s) (°C)	Sampling Kit No.	Equipment ID No.
0.4°C	10902	

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) O = Other (specify)

PRESERVATIVE CODES: H = Hydrochloric acid + ice I = Ice only N = Nitric acid + ice S = Sulfuric acid + ice O = Other (specify) CH_3OH + DI H_2O

Chain of Custody Record

Lab Report No.: 400-62329

Page 2 of 2

Company: AEROSTAR

Address: 803 GOUT. ST., STE. A
MOBILE, AL 36602

Gulf Coast LabNet, Inc.
An Environmental Lab Services Co.
Phone: (251) 625-1331
Fax: (251) 625-1299

Modified from DEP Form #: 62-770.900(2)

FDEP Facility No.:

Project Name: NAVAL HOSPITAL

Location: PENSACOLA, FL

Project No.:

Attn: CURTIS MILLS

Phone:

Fax:

Sampled by [Print Name]/Affiliation

Sampler Signature

Item No.	Field ID No.	Sampled Date	Sampled Time	Grab or Comp.	Matrix Codes	No. Cont.	VOH	L.L. 8270 PAH	FL-PRO	6010 Pb					Remarks	Lab. No.
						#	H	N	2						←Preservative	
															←Analysis	
															REQUESTED DUE DATE	
1	MW-5	1/10/12	943	Grab	GW	4	X	X	X							
2	MW-4	1/10/12	1009	Grab	GW	4	X	X	X							
3	MW-1	1/10/12	1039	Grab	GW	4	X	X	X							
						12										

←Total Number of Containers

Shipment Method

Out: / / Via:

Returned: / / Via:

Additional Comments

HOLD LOG # OPEN

Item #	Relinquished by / Affiliation	Date	Time	Accepted by / Affiliation	Date	Time
	EMPTY CONTAINERS	1-10-12	0800	AES	1/10/12	0800
	AES	1/10/12	1205	GCL	1-10-12	1205
	GCL	1-10-12	1500		1-10-12	1500

Cooler No.(s) / Temperature(s) (°C)	Sampling Kit No.	Equipment ID No.
0.6°C	10902	

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) O = Other (specify)

PRESERVATIVE CODES: H = Hydrochloric acid + ice I = Ice only N = Nitric acid + ice S = Sulfuric acid + ice O = Other (specify)

Login Sample Receipt Checklist

Client: Aerostar Environmental Services, Inc.

Job Number: 400-62329-1

Login Number: 62329
List Number: 1
Creator: Hor, Koma

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.4°C, 0.6°C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

Certification Summary

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-62329-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Pensacola	Alabama	State Program	4	40150
TestAmerica Pensacola	Arizona	State Program	9	AZ0710
TestAmerica Pensacola	Arkansas	State Program	6	88-0689
TestAmerica Pensacola	Florida	NELAC	4	E81010
TestAmerica Pensacola	Georgia	Georgia EPD	4	N/A
TestAmerica Pensacola	Illinois	NELAC	5	200041
TestAmerica Pensacola	Iowa	State Program	7	367
TestAmerica Pensacola	Kansas	NELAC	7	E-10253
TestAmerica Pensacola	Kentucky	Kentucky UST	4	53
TestAmerica Pensacola	Louisiana	NELAC	6	30976
TestAmerica Pensacola	Maryland	State Program	3	233
TestAmerica Pensacola	Massachusetts	State Program	1	M-FL094
TestAmerica Pensacola	Michigan	State Program	5	9912
TestAmerica Pensacola	New Hampshire	NELAC	1	2505
TestAmerica Pensacola	New Jersey	NELAC	2	FL006
TestAmerica Pensacola	North Carolina	North Carolina DENR	4	314
TestAmerica Pensacola	Oklahoma	State Program	6	9810
TestAmerica Pensacola	Pennsylvania	NELAC	3	68-00467
TestAmerica Pensacola	Rhode Island	State Program	1	LAO00307
TestAmerica Pensacola	South Carolina	State Program	4	96026
TestAmerica Pensacola	Tennessee	State Program	4	TN02907
TestAmerica Pensacola	Texas	NELAC	6	T104704286-11-3
TestAmerica Pensacola	USDA	USDA		P330-10-00407
TestAmerica Pensacola	Virginia	NELAC	3	918
TestAmerica Pensacola	Washington	State Program	10	C915
TestAmerica Pensacola	West Virginia	West Virginia DEP	3	136

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-62624-1
Client Project/Site: Naval Hospital - Pensacola, FL
Revision: 1

For:
Aerostar Environmental Services, Inc.
803 Government Street
Suite A
Mobile, Alabama 36602

Attn: Mr. Curtis Mills

Authorized for release by:
2/2/2012 5:28:36 PM

Carolyn Hooper
Project Manager I
carolyn.hooper@testamericainc.com

LINKS

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Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 400-62624-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-62624-1

Receipt
All samples were received in good condition within temperature requirements.

Organic Prep
Method(s) 3520C: Insufficient sample volume was available to meet method-mandated requirements for matrix spike/matrix spike duplicate (MS/MSD) analyses for batches 147898 and 147900.

Revision I
This report has been revised per client request to include BTEXM to the 8260 list.

Sample Summary

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-62624-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-62624-1	MW-9	Water	01/23/12 13:36	01/24/12 15:30

Detection Summary

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-62624-1

Client Sample ID: MW-9 — Lab Sample ID: 400-62624-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Petroleum Hydrocarbons (C8-C40)	250		120	19	ug/L	1		FL-PRO	Total/NA
Lead	0.0038	I	0.0050	0.0020	mg/L	1		6010B	Total/NA

Client Sample Results

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-62624-1

Client Sample ID: MW-9

Date Collected: 01/23/12 13:36
Date Received: 01/24/12 15:30

Lab Sample ID: 400-62624-1

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	0.54	U	1.0	0.54	ug/L			01/27/12 12:45	1
Dichlorobromomethane	0.50	U	1.0	0.50	ug/L			01/27/12 12:45	1
Bromoform	0.58	U	5.0	0.58	ug/L			01/27/12 12:45	1
1,3-Dichloropropene, trans-	0.50	U	5.0	0.50	ug/L			01/27/12 12:45	1
Bromomethane	0.91	U	1.0	0.91	ug/L			01/27/12 12:45	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			01/27/12 12:45	1
Chlorobenzene	0.50	U	1.0	0.50	ug/L			01/27/12 12:45	1
Chloroethane	0.63	U	1.0	0.63	ug/L			01/27/12 12:45	1
Chloroform	0.60	U	1.0	0.60	ug/L			01/27/12 12:45	1
Chloromethane	0.83	U	1.0	0.83	ug/L			01/27/12 12:45	1
Chlorodibromomethane	0.50	U	1.0	0.50	ug/L			01/27/12 12:45	1
Dibromomethane	0.59	U	5.0	0.59	ug/L			01/27/12 12:45	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			01/27/12 12:45	1
1,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			01/27/12 12:45	1
1,4-Dichlorobenzene	0.64	U	1.0	0.64	ug/L			01/27/12 12:45	1
Dichlorodifluoromethane	0.85	U	1.0	0.85	ug/L			01/27/12 12:45	1
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			01/27/12 12:45	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			01/27/12 12:45	1
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			01/27/12 12:45	1
1,2-Dichloroethene, cis-	0.50	U	1.0	0.50	ug/L			01/27/12 12:45	1
1,2-Dichloroethene, trans-	0.50	U	1.0	0.50	ug/L			01/27/12 12:45	1
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			01/27/12 12:45	1
1,3-Dichloropropene, cis-	0.50	U	5.0	0.50	ug/L			01/27/12 12:45	1
Methylene Chloride	1.0	U	1.0	1.0	ug/L			01/27/12 12:45	1
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			01/27/12 12:45	1
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			01/27/12 12:45	1
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			01/27/12 12:45	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			01/27/12 12:45	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			01/27/12 12:45	1
Trichloroethene	0.50	U	1.0	0.50	ug/L			01/27/12 12:45	1
Trichlorofluoromethane	0.52	U	1.0	0.52	ug/L			01/27/12 12:45	1
1,2,3-Trichloropropane	0.86	U	5.0	0.86	ug/L			01/27/12 12:45	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			01/27/12 12:45	1
Benzene	0.34	U	1.0	0.34	ug/L			01/27/12 12:45	1
Toluene	0.70	U	1.0	0.70	ug/L			01/27/12 12:45	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			01/27/12 12:45	1
Xylenes, Total	1.6	U	10	1.6	ug/L			01/27/12 12:45	1
Methyl tert-butyl ether	0.74	U	1.0	0.74	ug/L			01/27/12 12:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*79 - 118*		*01/27/12 12:45*	*1*
Dibromofluoromethane	*103*		*79 - 119*		*01/27/12 12:45*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*01/27/12 12:45*	*1*

Method: 8270C/LL_PAH - Low Level PAH's

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.020	U	0.20	0.020	ug/L		01/26/12 10:49	01/29/12 11:57	1
Acenaphthylene	0.020	U	0.20	0.020	ug/L		01/26/12 10:49	01/29/12 11:57	1
Anthracene	0.020	U	0.20	0.020	ug/L		01/26/12 10:49	01/29/12 11:57	1
Benzo[a]anthracene	0.039	U	0.20	0.039	ug/L		01/26/12 10:49	01/29/12 11:57	1

Client Sample Results

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-62624-1

Client Sample ID: MW-9

Date Collected: 01/23/12 13:36
Date Received: 01/24/12 15:30

Lab Sample ID: 400-62624-1

Matrix: Water

Method: 8270C/LL_PAH - Low Level PAH's (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.039	U	0.20	0.039	ug/L		01/26/12 10:49	01/29/12 11:57	1
Benzo[b]fluoranthene	0.039	U	0.20	0.039	ug/L		01/26/12 10:49	01/29/12 11:57	1
Benzo[g,h,i]perylene	0.039	U	0.20	0.039	ug/L		01/26/12 10:49	01/29/12 11:57	1
Benzo[k]fluoranthene	0.039	U	0.20	0.039	ug/L		01/26/12 10:49	01/29/12 11:57	1
Chrysene	0.039	U	0.20	0.039	ug/L		01/26/12 10:49	01/29/12 11:57	1
Dibenz(a,h)anthracene	0.039	U	0.20	0.039	ug/L		01/26/12 10:49	01/29/12 11:57	1
Fluoranthene	0.020	U	0.20	0.020	ug/L		01/26/12 10:49	01/29/12 11:57	1
Fluorene	0.021	U	0.20	0.021	ug/L		01/26/12 10:49	01/29/12 11:57	1
Indeno[1,2,3-cd]pyrene	0.039	U	0.20	0.039	ug/L		01/26/12 10:49	01/29/12 11:57	1
1-Methylnaphthalene	0.020	U	0.20	0.020	ug/L		01/26/12 10:49	01/29/12 11:57	1
2-Methylnaphthalene	0.020	U	0.20	0.020	ug/L		01/26/12 10:49	01/29/12 11:57	1
Naphthalene	0.020	U	0.20	0.020	ug/L		01/26/12 10:49	01/29/12 11:57	1
Phenanthrene	0.020	U	0.20	0.020	ug/L		01/26/12 10:49	01/29/12 11:57	1
Pyrene	0.020	U	0.20	0.020	ug/L		01/26/12 10:49	01/29/12 11:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*47*		*31 - 121*	*01/26/12 10:49*	*01/29/12 11:57*	*1*
Nitrobenzene-d5	*51*		*39 - 126*	*01/26/12 10:49*	*01/29/12 11:57*	*1*
Terphenyl-d14	*68*		*63 - 137*	*01/26/12 10:49*	*01/29/12 11:57*	*1*

Method: FL-PRO - Florida - Petroleum Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Petroleum Hydrocarbons (C8-C40)	**250**		120	19	ug/L		01/26/12 10:57	01/30/12 15:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-C39	*103*		*20 - 176*	*01/26/12 10:57*	*01/30/12 15:16*	*1*
o-Terphenyl	*90*		*49 - 143*	*01/26/12 10:57*	*01/30/12 15:16*	*1*

Method: 6010B - Lead

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.0038**	**I**	0.0050	0.0020	mg/L		01/25/12 17:20	01/27/12 18:05	1

Definitions/Glossary

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-62624-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates that the compound was analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates that the compound was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates that the compound was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
U	Indicates that the compound was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Method Summary

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-62624-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270C/LL_PAH	Low Level PAH's	SW846	TAL PEN
FL-PRO	Florida - Petroleum Range Organics (GC)	FL-DEP	TAL PEN
6010B	Lead	SW846	TAL PEN

Protocol References:

FL-DEP = State Of Florida Department Of Environmental Protection, Florida Administrative Code.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Lab Chronicle

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-62624-1

Client Sample ID: MW-9

Lab Sample ID: 400-62624-1

Date Collected: 01/23/12 13:36

Matrix: Water

Date Received: 01/24/12 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	147943	01/27/12 12:45	CN	TAL PEN
Total/NA	Prep	3520C			147898	01/26/12 10:49	MTM	TAL PEN
Total/NA	Analysis	8270C/LL_PAH		1	148050	01/29/12 11:57	CP	TAL PEN
Total/NA	Prep	3520C			147900	01/26/12 10:57	MTM	TAL PEN
Total/NA	Analysis	FL-PRO		1	148092	01/30/12 15:16	KA	TAL PEN
Total/NA	Prep	3010A			147849	01/25/12 17:20	KN	TAL PEN
Total/NA	Analysis	6010B		1	148059	01/27/12 18:05	GS	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Surrogate Summary

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-62624-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(79-118)	(79-119)	(80-120)
400-62624-1	MW-9	101	103	102
LCS 400-147943/4	Lab Control Sample	102	106	103
MB 400-147943/3	Method Blank	101	102	102

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270C/LL_PAH - Low Level PAH's

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPH
Lab Sample ID	Client Sample ID	(31-121)	(39-126)	(63-137)
400-62624-1	MW-9	47	51	68
LCS 400-147898/2-A	Lab Control Sample	62	65	79
LCSD 400-147898/3-A	Lab Control Sample Dup	63	67	85
MB 400-147898/1-A	Method Blank	70	72	78

Surrogate Legend

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5
TPH = Terphenyl-d14

Method: FL-PRO - Florida - Petroleum Range Organics (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		C39	OTPH
Lab Sample ID	Client Sample ID	(20-176)	(49-143)
400-62624-1	MW-9	103	90
LCS 400-147900/2-A	Lab Control Sample	91	86
MB 400-147900/1-A	Method Blank	97	74

Surrogate Legend

C39 = n-C39
OTPH = o-Terphenyl

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-147943/3
Matrix: Water
Analysis Batch: 147943

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	0.54	U	1.0	0.54	ug/L			01/27/12 10:23	1
Dichlorobromomethane	0.50	U	1.0	0.50	ug/L			01/27/12 10:23	1
Bromoform	0.58	U	5.0	0.58	ug/L			01/27/12 10:23	1
1,3-Dichloropropene, trans-	0.50	U	5.0	0.50	ug/L			01/27/12 10:23	1
Bromomethane	0.91	U	1.0	0.91	ug/L			01/27/12 10:23	1
Carbon tetrachloride	0.50	U	1.0	0.50	ug/L			01/27/12 10:23	1
Chlorobenzene	0.50	U	1.0	0.50	ug/L			01/27/12 10:23	1
Chloroethane	0.63	U	1.0	0.63	ug/L			01/27/12 10:23	1
Chloroform	0.60	U	1.0	0.60	ug/L			01/27/12 10:23	1
Chloromethane	0.83	U	1.0	0.83	ug/L			01/27/12 10:23	1
Chlorodibromomethane	0.50	U	1.0	0.50	ug/L			01/27/12 10:23	1
Dibromomethane	0.59	U	5.0	0.59	ug/L			01/27/12 10:23	1
1,2-Dichlorobenzene	0.50	U	1.0	0.50	ug/L			01/27/12 10:23	1
1,3-Dichlorobenzene	0.54	U	1.0	0.54	ug/L			01/27/12 10:23	1
1,4-Dichlorobenzene	0.64	U	1.0	0.64	ug/L			01/27/12 10:23	1
Dichlorodifluoromethane	0.85	U	1.0	0.85	ug/L			01/27/12 10:23	1
1,1-Dichloroethane	0.50	U	1.0	0.50	ug/L			01/27/12 10:23	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			01/27/12 10:23	1
1,1-Dichloroethene	0.50	U	1.0	0.50	ug/L			01/27/12 10:23	1
1,2-Dichloroethene, cis-	0.50	U	1.0	0.50	ug/L			01/27/12 10:23	1
1,2-Dichloroethene, trans-	0.50	U	1.0	0.50	ug/L			01/27/12 10:23	1
1,2-Dichloropropane	0.50	U	1.0	0.50	ug/L			01/27/12 10:23	1
1,3-Dichloropropene, cis-	0.50	U	5.0	0.50	ug/L			01/27/12 10:23	1
Methylene Chloride	1.0	U	1.0	1.0	ug/L			01/27/12 10:23	1
1,1,1,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			01/27/12 10:23	1
1,1,2,2-Tetrachloroethane	0.50	U	1.0	0.50	ug/L			01/27/12 10:23	1
Tetrachloroethene	0.58	U	1.0	0.58	ug/L			01/27/12 10:23	1
1,1,1-Trichloroethane	0.50	U	1.0	0.50	ug/L			01/27/12 10:23	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/L			01/27/12 10:23	1
Trichloroethene	0.50	U	1.0	0.50	ug/L			01/27/12 10:23	1
Trichlorofluoromethane	0.52	U	1.0	0.52	ug/L			01/27/12 10:23	1
1,2,3-Trichloropropane	0.86	U	5.0	0.86	ug/L			01/27/12 10:23	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			01/27/12 10:23	1
Benzene	0.34	U	1.0	0.34	ug/L			01/27/12 10:23	1
Toluene	0.70	U	1.0	0.70	ug/L			01/27/12 10:23	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			01/27/12 10:23	1
Xylenes, Total	1.6	U	10	1.6	ug/L			01/27/12 10:23	1
Methyl tert-butyl ether	0.74	U	1.0	0.74	ug/L			01/27/12 10:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*79 - 118*		*01/27/12 10:23*	*1*
Dibromofluoromethane	*102*		*79 - 119*		*01/27/12 10:23*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*01/27/12 10:23*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-147943/4
Matrix: Water
Analysis Batch: 147943

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromobenzene	50.0	52.3		ug/L		105	74 - 124
Dichlorobromomethane	50.0	59.2		ug/L		118	71 - 128
Bromoform	50.0	43.5		ug/L		87	49 - 126
1,3-Dichloropropene, trans-	50.0	53.0		ug/L		106	63 - 129
Bromomethane	50.0	52.9		ug/L		106	10 - 150
Carbon tetrachloride	50.0	55.2		ug/L		110	66 - 129
Chlorobenzene	50.0	51.4		ug/L		103	77 - 119
Chloroethane	50.0	53.6		ug/L		107	10 - 150
Chloroform	50.0	60.7		ug/L		121	70 - 131
Chloromethane	50.0	49.8		ug/L		100	35 - 150
Chlorodibromomethane	50.0	52.3		ug/L		105	63 - 128
Dibromomethane	50.0	57.2		ug/L		114	77 - 121
1,2-Dichlorobenzene	50.0	50.9		ug/L		102	78 - 124
1,3-Dichlorobenzene	50.0	50.4		ug/L		101	75 - 125
1,4-Dichlorobenzene	50.0	50.0		ug/L		100	78 - 123
Dichlorodifluoromethane	50.0	51.4		ug/L		103	20 - 150
1,1-Dichloroethane	50.0	60.8		ug/L		122	55 - 150
1,2-Dichloroethane	50.0	57.6		ug/L		115	71 - 147
1,1-Dichloroethene	50.0	56.3		ug/L		113	28 - 150
1,2-Dichloroethene, cis-	50.0	59.8		ug/L		120	66 - 146
1,2-Dichloroethene, trans-	50.0	57.6		ug/L		115	64 - 128
1,2-Dichloropropane	50.0	57.4		ug/L		115	76 - 133
1,3-Dichloropropene, cis-	50.0	58.7		ug/L		117	75 - 121
Methylene Chloride	50.0	56.8		ug/L		114	62 - 131
1,1,1,2-Tetrachloroethane	50.0	54.4		ug/L		109	74 - 123
1,1,2,2-Tetrachloroethane	50.0	51.4		ug/L		103	56 - 145
Tetrachloroethene	50.0	56.4		ug/L		113	67 - 133
1,1,1-Trichloroethane	50.0	58.6		ug/L		117	65 - 133
1,1,2-Trichloroethane	50.0	59.7		ug/L		119	78 - 121
Trichloroethene	50.0	56.0		ug/L		112	68 - 125
Trichlorofluoromethane	50.0	48.7		ug/L		97	37 - 150
1,2,3-Trichloropropane	50.0	49.3		ug/L		99	60 - 142
Vinyl chloride	50.0	52.9		ug/L		106	28 - 150
Benzene	50.0	55.8		ug/L		112	75 - 122
Toluene	50.0	56.6		ug/L		113	76 - 120
Ethylbenzene	50.0	52.2		ug/L		104	77 - 126
Xylenes, Total	150	157		ug/L		105	78 - 125
Methyl tert-butyl ether	50.0	60.5		ug/L		121	69 - 123

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*102*		*79 - 118*
Dibromofluoromethane	*106*		*79 - 119*
Toluene-d8 (Surr)	*103*		*80 - 120*

QC Sample Results

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-62624-1

Method: 8270C/LL_PAH - Low Level PAH's

Lab Sample ID: MB 400-147898/1-A
Matrix: Water
Analysis Batch: 148050

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 147898

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.020	U	0.20	0.020	ug/L		01/26/12 10:49	01/29/12 10:23	1
Acenaphthylene	0.020	U	0.20	0.020	ug/L		01/26/12 10:49	01/29/12 10:23	1
Anthracene	0.020	U	0.20	0.020	ug/L		01/26/12 10:49	01/29/12 10:23	1
Benzo[a]anthracene	0.040	U	0.20	0.040	ug/L		01/26/12 10:49	01/29/12 10:23	1
Benzo[a]pyrene	0.040	U	0.20	0.040	ug/L		01/26/12 10:49	01/29/12 10:23	1
Benzo[b]fluoranthene	0.040	U	0.20	0.040	ug/L		01/26/12 10:49	01/29/12 10:23	1
Benzo[g,h,i]perylene	0.040	U	0.20	0.040	ug/L		01/26/12 10:49	01/29/12 10:23	1
Benzo[k]fluoranthene	0.040	U	0.20	0.040	ug/L		01/26/12 10:49	01/29/12 10:23	1
Chrysene	0.040	U	0.20	0.040	ug/L		01/26/12 10:49	01/29/12 10:23	1
Dibenz(a,h)anthracene	0.040	U	0.20	0.040	ug/L		01/26/12 10:49	01/29/12 10:23	1
Fluoranthene	0.020	U	0.20	0.020	ug/L		01/26/12 10:49	01/29/12 10:23	1
Fluorene	0.021	U	0.20	0.021	ug/L		01/26/12 10:49	01/29/12 10:23	1
Indeno[1,2,3-cd]pyrene	0.040	U	0.20	0.040	ug/L		01/26/12 10:49	01/29/12 10:23	1
1-Methylnaphthalene	0.020	U	0.20	0.020	ug/L		01/26/12 10:49	01/29/12 10:23	1
2-Methylnaphthalene	0.020	U	0.20	0.020	ug/L		01/26/12 10:49	01/29/12 10:23	1
Naphthalene	0.020	U	0.20	0.020	ug/L		01/26/12 10:49	01/29/12 10:23	1
Phenanthrene	0.020	U	0.20	0.020	ug/L		01/26/12 10:49	01/29/12 10:23	1
Pyrene	0.020	U	0.20	0.020	ug/L		01/26/12 10:49	01/29/12 10:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*70*		*31 - 121*	*01/26/12 10:49*	*01/29/12 10:23*	*1*
Nitrobenzene-d5	*72*		*39 - 126*	*01/26/12 10:49*	*01/29/12 10:23*	*1*
Terphenyl-d14	*78*		*63 - 137*	*01/26/12 10:49*	*01/29/12 10:23*	*1*

Lab Sample ID: LCS 400-147898/2-A
Matrix: Water
Analysis Batch: 148050

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 147898

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	4.00	2.56		ug/L		64	36 - 117
Acenaphthylene	4.00	2.76		ug/L		69	37 - 122
Anthracene	4.00	2.84		ug/L		71	33 - 127
Benzo[a]anthracene	4.00	3.59		ug/L		90	46 - 147
Benzo[a]pyrene	4.00	2.90		ug/L		73	40 - 130
Benzo[b]fluoranthene	4.00	3.22		ug/L		80	38 - 144
Benzo[g,h,i]perylene	4.00	3.87		ug/L		97	44 - 146
Benzo[k]fluoranthene	4.00	3.54		ug/L		89	41 - 141
Chrysene	4.00	3.26		ug/L		82	43 - 137
Dibenz(a,h)anthracene	4.00	3.50		ug/L		88	42 - 142
Fluoranthene	4.00	3.18		ug/L		79	42 - 143
Fluorene	4.00	2.74		ug/L		68	34 - 141
Indeno[1,2,3-cd]pyrene	4.00	3.36		ug/L		84	43 - 133
1-Methylnaphthalene	4.00	2.76		ug/L		69	39 - 118
2-Methylnaphthalene	4.00	2.58		ug/L		65	40 - 123
Naphthalene	4.00	2.56		ug/L		64	39 - 113
Phenanthrene	4.00	2.76		ug/L		69	38 - 126
Pyrene	4.00	3.39		ug/L		85	44 - 138

Method: 8270C/LL_PAH - Low Level PAH's (Continued)

Lab Sample ID: LCS 400-147898/2-A
Matrix: Water
Analysis Batch: 148050

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 147898

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*62*		*31 - 121*
Nitrobenzene-d5	*65*		*39 - 126*
Terphenyl-d14	*79*		*63 - 137*

Lab Sample ID: LCSD 400-147898/3-A
Matrix: Water
Analysis Batch: 148050

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 147898

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	3.96	2.66		ug/L		67	36 - 117	4	50
Acenaphthylene	3.96	2.85		ug/L		72	37 - 122	3	50
Anthracene	3.96	3.01		ug/L		76	33 - 127	6	50
Benzo[a]anthracene	3.96	3.93		ug/L		99	46 - 147	9	50
Benzo[a]pyrene	3.96	3.21		ug/L		81	40 - 130	10	50
Benzo[b]fluoranthene	3.96	3.50		ug/L		88	38 - 144	8	50
Benzo[g,h,i]perylene	3.96	4.16		ug/L		105	44 - 146	7	50
Benzo[k]fluoranthene	3.96	3.79		ug/L		96	41 - 141	7	50
Chrysene	3.96	3.59		ug/L		91	43 - 137	9	50
Dibenz(a,h)anthracene	3.96	3.79		ug/L		96	42 - 142	8	50
Fluoranthene	3.96	3.48		ug/L		88	42 - 143	9	50
Fluorene	3.96	2.85		ug/L		72	34 - 141	4	50
Indeno[1,2,3-cd]pyrene	3.96	3.77		ug/L		95	43 - 133	11	50
1-Methylnaphthalene	3.96	2.80		ug/L		71	39 - 118	1	50
2-Methylnaphthalene	3.96	2.58		ug/L		65	40 - 123	0	50
Naphthalene	3.96	2.57		ug/L		65	39 - 113	1	50
Phenanthrene	3.96	2.92		ug/L		74	38 - 126	6	50
Pyrene	3.96	3.59		ug/L		91	44 - 138	6	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*63*		*31 - 121*
Nitrobenzene-d5	*67*		*39 - 126*
Terphenyl-d14	*85*		*63 - 137*

Method: FL-PRO - Florida - Petroleum Range Organics (GC)

Lab Sample ID: MB 400-147900/1-A
Matrix: Water
Analysis Batch: 148092

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 147900

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Petroleum Hydrocarbons (C8-C40)	18	U	110	18	ug/L		01/26/12 10:57	01/30/12 14:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-C39	*97*		*20 - 176*	*01/26/12 10:57*	*01/30/12 14:57*	*1*
o-Terphenyl	*74*		*49 - 143*	*01/26/12 10:57*	*01/30/12 14:57*	*1*

Method: FL-PRO - Florida - Petroleum Range Organics (GC) (Continued)

Lab Sample ID: LCS 400-147900/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 148092 — **Prep Batch: 147900**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Petroleum Hydrocarbons (C8-C40)	3400	3180		ug/L		93	41 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
n-C39	*91*		*20 - 176*
o-Terphenyl	*86*		*49 - 143*

Method: 6010B - Lead

Lab Sample ID: MB 400-147849/24-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 148059 — **Prep Batch: 147849**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0020	U	0.0050	0.0020	mg/L		01/25/12 17:20	01/27/12 16:23	1

Lab Sample ID: LCS 400-147849/25-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 148059 — **Prep Batch: 147849**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	1.00	1.01		mg/L		101	80 - 120

Lab Sample ID: 400-62608-E-7-B MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 148059 — **Prep Batch: 147849**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	0.0058		1.00	1.02		mg/L		101	75 - 125

Lab Sample ID: 400-62608-E-7-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 148059 — **Prep Batch: 147849**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	0.0058		1.00	1.02		mg/L		101	75 - 125	0	20

QC Association Summary

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-62624-1

GC/MS VOA

Analysis Batch: 147943

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-62624-1	MW-9	Total/NA	Water	8260B	
LCS 400-147943/4	Lab Control Sample	Total/NA	Water	8260B	
MB 400-147943/3	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 147898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-62624-1	MW-9	Total/NA	Water	3520C	
LCS 400-147898/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-147898/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
MB 400-147898/1-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 148050

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-62624-1	MW-9	Total/NA	Water	8270C/LL_PAH	147898
LCS 400-147898/2-A	Lab Control Sample	Total/NA	Water	8270C/LL_PAH	147898
LCSD 400-147898/3-A	Lab Control Sample Dup	Total/NA	Water	8270C/LL_PAH	147898
MB 400-147898/1-A	Method Blank	Total/NA	Water	8270C/LL_PAH	147898

GC Semi VOA

Prep Batch: 147900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-62624-1	MW-9	Total/NA	Water	3520C	
LCS 400-147900/2-A	Lab Control Sample	Total/NA	Water	3520C	
MB 400-147900/1-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 148092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-62624-1	MW-9	Total/NA	Water	FL-PRO	147900
LCS 400-147900/2-A	Lab Control Sample	Total/NA	Water	FL-PRO	147900
MB 400-147900/1-A	Method Blank	Total/NA	Water	FL-PRO	147900

Metals

Prep Batch: 147849

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-62608-E-7-B MS	Matrix Spike	Total/NA	Water	3010A	
400-62608-E-7-C MSD	Matrix Spike Duplicate	Total/NA	Water	3010A	
400-62624-1	MW-9	Total/NA	Water	3010A	
LCS 400-147849/25-A	Lab Control Sample	Total/NA	Water	3010A	
MB 400-147849/24-A	Method Blank	Total/NA	Water	3010A	

Analysis Batch: 148059

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-62608-E-7-B MS	Matrix Spike	Total/NA	Water	6010B	147849
400-62608-E-7-C MSD	Matrix Spike Duplicate	Total/NA	Water	6010B	147849
400-62624-1	MW-9	Total/NA	Water	6010B	147849
LCS 400-147849/25-A	Lab Control Sample	Total/NA	Water	6010B	147849
MB 400-147849/24-A	Method Blank	Total/NA	Water	6010B	147849

Chain of Custody Record

Lab Report No.: 626874

Company: Aerostar Environmental

Address:

Gulf Coast LabNet, Inc.
An Environmental Lab Services Co.

Phone: (251) 625-1331
Fax: (251) 625-1299

Modified from DEP Form #: 62-770.900(2) | Page 1 of 1

FDEP Facility No.:

Project Name: NAVAL HOSPITAL

Location: PENSACOLA, FL

Project No.:

Attn: Curtis Mills

Phone:

Fax:

Sampled by [Print Name]/Affiliation: Curtis Mills

Sampler Signature:

←Preservative

←Analysis

REQUESTED DUE DATE

Item No.	Field ID No.	Sampled Date	Sampled Time	Grab or Comp.	Matrix Codes	No. Cont.	VOH 8260 (H)	LL PAH 8270 (H)	TRPH FL-PRO (S)	Lead 6010 (N)					Remarks	Lab. No.
1	MW-9	1/23/12	1336	Grab	GW	5	X	X	X	X						
						5										

Shipment Method

Out: / / Via:

Returned: / / Via:

Additional Comments

←Total Number of Containers

Item #	Relinquished by / Affiliation	Date	Time	Accepted by / Affiliation	Date	Time
	AES	1/23/12	1532	GCL	1-23-12	1530
	GCL	1-24-12	1530		01/24/12	15:30

Cooler No.(s) / Temperature(s) (°C)	Sampling Kit No.	Equipment ID No.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) O = Other (specify)

PRESERVATIVE CODES: H = Hydrochloric acid + ice I = Ice only N = Nitric acid + ice S = Sulfuric acid + ice O = Other (specify)

Login Sample Receipt Checklist

Client: Aerostar Environmental Services, Inc.

Job Number: 400-62624-1

Login Number: 62624
List Number: 1
Creator: Chea, Vanda

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	1.7 Degrees C
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

Certification Summary

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-62624-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Pensacola	Alabama	State Program	4	40150
TestAmerica Pensacola	Arizona	State Program	9	AZ0710
TestAmerica Pensacola	Arkansas	State Program	6	88-0689
TestAmerica Pensacola	Florida	NELAC	4	E81010
TestAmerica Pensacola	Georgia	Georgia EPD	4	N/A
TestAmerica Pensacola	Illinois	NELAC	5	200041
TestAmerica Pensacola	Iowa	State Program	7	367
TestAmerica Pensacola	Kansas	NELAC	7	E-10253
TestAmerica Pensacola	Kentucky	Kentucky UST	4	53
TestAmerica Pensacola	Louisiana	NELAC	6	30976
TestAmerica Pensacola	Maryland	State Program	3	233
TestAmerica Pensacola	Massachusetts	State Program	1	M-FL094
TestAmerica Pensacola	Michigan	State Program	5	9912
TestAmerica Pensacola	New Hampshire	NELAC	1	2505
TestAmerica Pensacola	New Jersey	NELAC	2	FL006
TestAmerica Pensacola	North Carolina	North Carolina DENR	4	314
TestAmerica Pensacola	Oklahoma	State Program	6	9810
TestAmerica Pensacola	Pennsylvania	NELAC	3	68-00467
TestAmerica Pensacola	Rhode Island	State Program	1	LAO00307
TestAmerica Pensacola	South Carolina	State Program	4	96026
TestAmerica Pensacola	Tennessee	State Program	4	TN02907
TestAmerica Pensacola	Texas	NELAC	6	T104704286-11-3
TestAmerica Pensacola	USDA	USDA		P330-10-00407
TestAmerica Pensacola	Virginia	NELAC	3	918
TestAmerica Pensacola	Washington	State Program	10	C915
TestAmerica Pensacola	West Virginia	West Virginia DEP	3	136

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

APPENDIX D

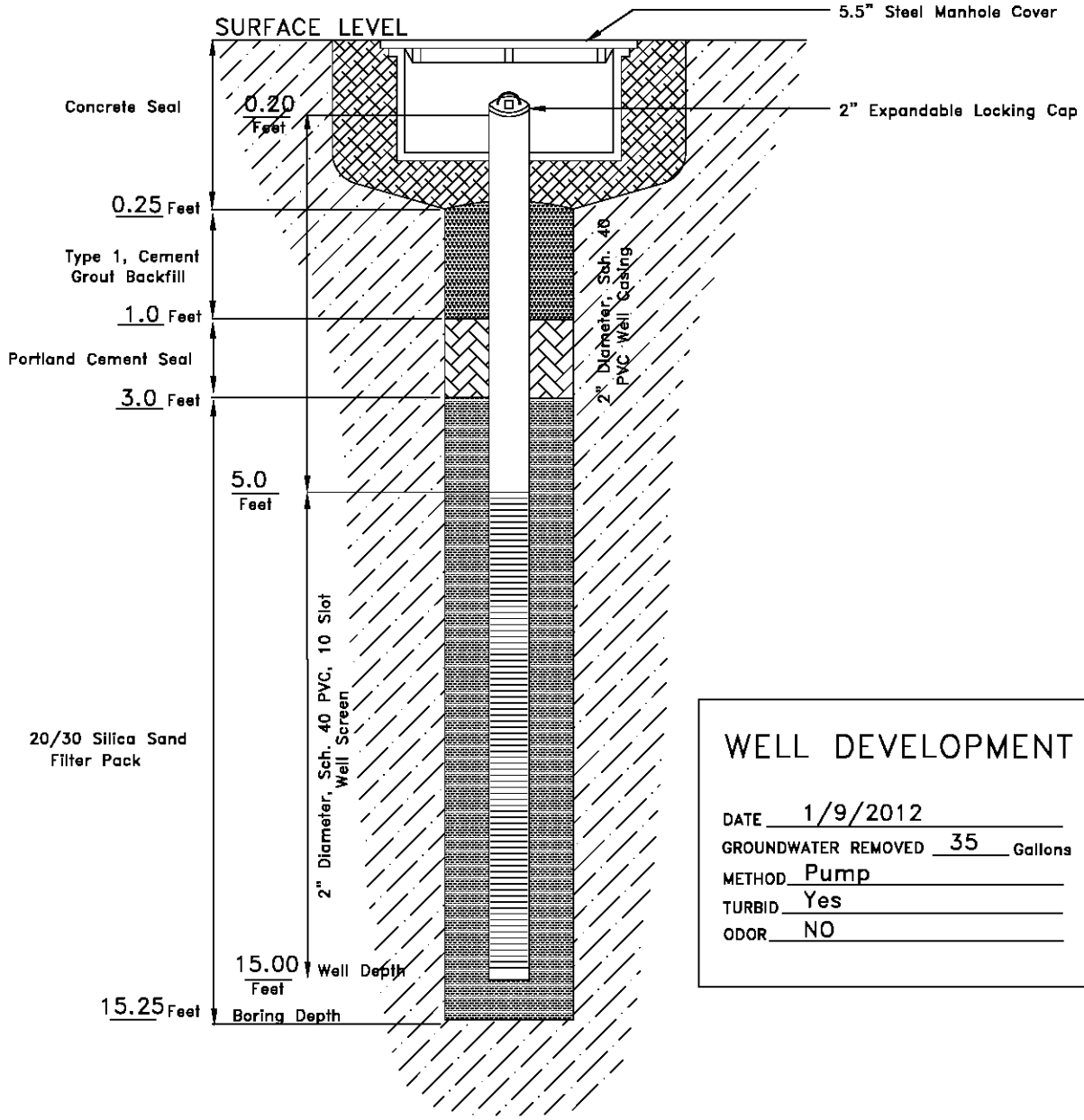
MONITOR WELL CONSTRUCTION DIAGRAM

AEROSTAR ENVIRONMENTAL SERVICES, INC.

Project No. 0411-089-24
Project NAVAL HOSPITAL PENSACOLA SAR
Location Naval Hospital Pensacola
Date 1/9/2012
Project Manager Curtis Mills
Drilling Method Hollow Stem Auger
Drilled By Walker Hill
TOC Elevation NA

Well No. MW-9

MONITOR WELL CONSTRUCTION DIAGRAM



WELL DEVELOPMENT

DATE 1/9/2012
GROUNDWATER REMOVED 35 Gallons
METHOD Pump
TURBID Yes
ODOR NO

MONITOR WELL CONSTRUCTION DIAGRAM

AEROSTAR ENVIRONMENTAL SERVICES, INC.

NAVAL HOSPITAL PENSACOLA SAR
NAVAL HOSPITAL PENSACOLA
PENSACOLA,
ESCAMBIA COUNTY, FLORIDA

SCALE:NO SCALE
DATE: 2/3/2012
DRAWN BY: MILLS

APPENDIX E

GROUNDWATER SAMPLING LOGS
AND
FIELD INSTRUMENT CALIBRATION RECORD

DEP-SOP-001/01
FS 2200 Groundwater Sampling

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: Naval Hospital, Building 2270	SITE LOCATION: 6050 US Highway 98, Pensacola, FL	
WELL NO: MW-5	SAMPLE ID: MW-5	DATE: 1/10/12

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 3/16	WELL SCREEN INTERVAL DEPTH: 5-15	STATIC DEPTH TO WATER (feet): 8.2	PURGE PUMP TYPE OR BAILER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (15 feet – 8.2 feet) X 0.16 gallons/foot = 1.1 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 9.0	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 9.2	PURGING INITIATED AT: 926	PURGING ENDED AT: 942	TOTAL VOLUME PURGED (gallons): 1.76

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
936	1.1	1.1	0.11	8.27	5.86	21.0	108.2	1.50	8.10	Clear	None
939	0.33	1.43	0.11	8.27	5.57	20.9	108.7	1.49	7.47	Clear	None
942	0.33	1.76	0.11	8.27	5.56	21.0	108.5	1.46	8.32	Clear	None

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Curtis R. Mills / AEROSTAR	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING INITIATED AT: 943	SAMPLING ENDED AT: 950
PUMP OR TUBING DEPTH IN WELL (feet): 9.2	TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING (Y) N (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
MW-5	1	AG	1L	None	—	—	PAH/8270	APP	416
MW-5	1	AG	1L	H_2SO_4	—	—	TRPH/FL-PRO	APP	416
MW-5	2	CG	40ml	HCL	—	—	VOC/8260	RFPP	<100

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

DEP-SOP-001/01
FS 2200 Groundwater Sampling

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: Naval Hospital Pensacola, Building 2270	SITE LOCATION: 6000 US Highway 98 Pensacola, FL	
WELL NO: MW-4	SAMPLE ID: MW-4	DATE: 1/10/12

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 3/16	WELL SCREEN INTERVAL DEPTH: 5-15	STATIC DEPTH TO WATER (feet): 8.35	PURGE PUMP TYPE OR BAILER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (15 feet – 8.35 feet) X 0.16 gallons/foot = 1.1 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 9.2	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 9.2	PURGING INITIATED AT: 952	PURGING ENDED AT: 1008	TOTAL VOLUME PURGED (gallons): 1.76

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1002	1.1	1.1	0.11	8.31	5.64	22.6	155.5	0.71	9.9	Clear	None
1005	0.33	1.43	0.11	8.31	5.65	22.6	155.1	0.71	7.32	Clear	None
1008	0.33	1.76	0.11	8.31	5.65	22.6	155.0	0.71	7.04	Clear	None

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Curtis R. Mills / AEROSTAR	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING INITIATED AT: 1009	SAMPLING ENDED AT: 1016
PUMP OR TUBING DEPTH IN WELL (feet): 9.2	TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N)(replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
MW-4	1	AG	1L	None	—	—	PAH / 8270	APP	416
MW-4	1	AG	1L	H2SO4	—	—	TRPH / FL-PRO	APP	416
MW-4	2	CG	40ml	HCL	—	—	VOC / 8260	RFPP	<100

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: Naval Hospital Pensacola, Building 2270	SITE LOCATION: 6000 US Highway 98, Pensacola, FL
WELL NO: MW-1	SAMPLE ID: MW-1 / DATE: 1/10/12

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 3/16	WELL SCREEN INTERVAL DEPTH: 5-15	STATIC DEPTH TO WATER (feet): 7.74	PURGE PUMP TYPE OR BAILER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (19.24 feet – 7.74 feet) X 0.16 gallons/foot = 1.85 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 8.7	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 8.7	PURGING INITIATED AT: 1017	PURGING ENDED AT: 1038	TOTAL VOLUME PURGED (gallons): 2.57

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or (µS/cm)	DISSOLVED OXYGEN (circle units) (mg/L) or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1032	1.85	1.85	0.12	7.77	5.91	22.8	75.0	0.57	9.5	Clear	None
1035	0.36	2.21	0.12	7.77	5.94	22.9	75.3	0.57	7.61	Clear	None
1038	0.36	2.57	0.12	7.77	5.95	22.9	75.5	0.57	8.32	Clear	None

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: B = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Curtis R. Mills / AEROSTAR	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING INITIATED AT: 1039	SAMPLING ENDED AT: 1048
PUMP OR TUBING DEPTH IN WELL (feet): 8.7	TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-1	1	AG	1L	None	—	—	DRH/8270	APP	454
MW-1	1	AG	1L	H_2SO_4	—	—	TRPH/FL-PRO	APP	454
MW-1	2	CG	40mL	HCL	—	—	VOC/8260	RFPP	<100

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

DEP-SOP-001/01
FS 2200 Groundwater Sampling

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: Naval Hospital Pensacola, Building 2270	SITE LOCATION: 6000 US Highway 98, Pensacola, FL
WELL NO: MW-9	SAMPLE ID: MW-9 / DATE: 1/23/12

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 3/16	WELL SCREEN INTERVAL DEPTH: 5-15	STATIC DEPTH TO WATER (feet): 7.27	PURGE PUMP TYPE OR BAILER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (15 feet – 7.27 feet) X 0.16 gallons/foot = 1.0 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 8.2	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 8.2	PURGING INITIATED AT: 1311	PURGING ENDED AT: 1335	TOTAL VOLUME PURGED (gallons): 1.96

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or mS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1323	1.0	1.0	0.08	7.31	6.10	21.7	121.8	0.40	100	Cloudy	None
1326	0.24	1.24	0.08	7.31	6.02	21.7	122.0	0.39	97	Cloudy	None
1329	0.24	1.48	0.08	7.31	6.01	21.7	123.0	0.39	95	Cloudy	None
1332	0.24	1.72	0.08	7.31	6.02	21.7	123.5	0.40	98	Cloudy	None
1335	0.24	1.96	0.08	7.31	6.02	21.7	123.5	0.40	101	Cloudy	None

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Curtis R. Mills / AEROSTAR	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING INITIATED AT: 1336	SAMPLING ENDED AT: 1350
PUMP OR TUBING DEPTH IN WELL (feet): 8.2	TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-9	1	AG	1L	None	—	—	PAH/8270	APP	302
MW-9	1	AG	1L	H_2SO_4	—	—	TRPH/FL-PRO	APP	302
MW-9	1	PE	250ml	HNO_3	—	—	Lead/6010	APP	302
MW-9	2	CG	40ml	HCL	—	—	VOC/8260	RFPP	<100

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Form FD 9000-8: FIELD INSTRUMENT CALIBRATION RECORDS

INSTRUMENT (MAKE/MODEL#) Oakton pH/Cond. Meter **INSTRUMENT #** NA

PARAMETER: *[check only one]*

☐ TEMPERATURE ☒ CONDUCTIVITY ☐ SALINITY ☒ pH ☐ ORP

☐ TURBIDITY ☐ RESIDUAL Cl ☐ DO ☐ OTHER _____

STANDARDS: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]*

Standard A Oakton pH Standard 4.00

Standard B Oakton pH Standard 7.00

Standard C Oakton Conductivity Standard 84

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
1/10/12	0910	A	4.01	4.01	0.00	Yes	INIT	CM
1/10/12	0910	B	7.00	7.00	0.00	Yes	INIT	CM
1/10/12	0910	C	84	84	0.00	Yes	INIT	CM

Form FD 9000-8: FIELD INSTRUMENT CALIBRATION RECORDS

INSTRUMENT (MAKE/MODEL#) 2100P Turbidimeter **INSTRUMENT #** NA

PARAMETER: *[check only one]*

☐ TEMPERATURE ☐ CONDUCTIVITY ☐ SALINITY ☐ pH ☐ ORP

☒ TURBIDITY ☐ RESIDUAL Cl ☐ DO ☐ OTHER _____

STANDARDS: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]*

Standard A Hach Turbidity Standard 54.5

Standard B Hach Turbidity Standard 5.36

Standard C Hach Turbidity Standard 590

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
1/10/12	0910	A	54.5	54.5	0.00	Yes	INIT	CM
1/10/12	0910	B	5.36	5.36	0.00	Yes	INIT	CM
1/10/12	0910	C	590	590	0.00	Yes	INIT	CM

APPENDIX F

REVISED DOCUMENTS FOR AUGUST 2011 SAR

TABLE 8: GROUNDWATER ELEVATION SUMMARY

Facility Name: Naval Hospital Pensacola (Building 2270)
Facility Address: 6000 US Hwy 98, Pensacola, Escambia County, Florida

All Measurements (Except Well Diameter) = Feet
DTW = Depth to Water

NI = Not Installed
NS = Not Sampled
TOC = Top of Casing
ELEV = Elevation
FP = Free Product
ND = Not Detected

WELL NO.	MW-1			MW-2			MW-3			MW-4		
DIAMETER (INCHES)	2			2			2			2		
WELL DEPTH	19.24			19.12			19.36			15		
SCREEN INTERVAL	4.94-19.24			4.12-19.12			4.36-19.36			5-15		
TOC ELEVATION [1]	98.95			98.37			98.85			99.60		
DATE	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP
9/1/2000	89.05	9.9	ND	88.55	9.82	ND	88.44	10.41	ND	NI	NI	NI
9/5/2000	89.47	9.48	ND	88.59	9.78	ND	88.47	10.38	ND	NI	NI	NI
5/12/2011	90.90	8.05	ND	90.53	7.84	ND	NS	NS	ND	91.08	8.52	ND
5/18/2011	90.87	8.08	ND	90.48	7.89	ND	NS	NS	ND	91.04	8.56	ND

WELL NO.	MW-5			MW-6			MW-7			MW-8			DMW-1		
DIAMETER (INCHES)	2			2			2			2			1		
WELL DEPTH	15			15			15			15			30		
SCREEN INTERVAL	5-15			5-15			5-15			5-15			25-30		
TOC ELEVATION [1]	99.68			100.03			99.00			99.99			99.70		
DATE	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP
11/8/2010	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
9/5/2000	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
5/12/2011	91.18	8.5	ND	91.28	8.75	ND	91.46	7.54	ND	91.23	8.76	ND	91.00	8.7	ND
5/18/2011	91.15	8.53	ND	91.23	8.80	ND	91.40	7.6	ND	91.20	8.79	ND	90.96	8.74	ND

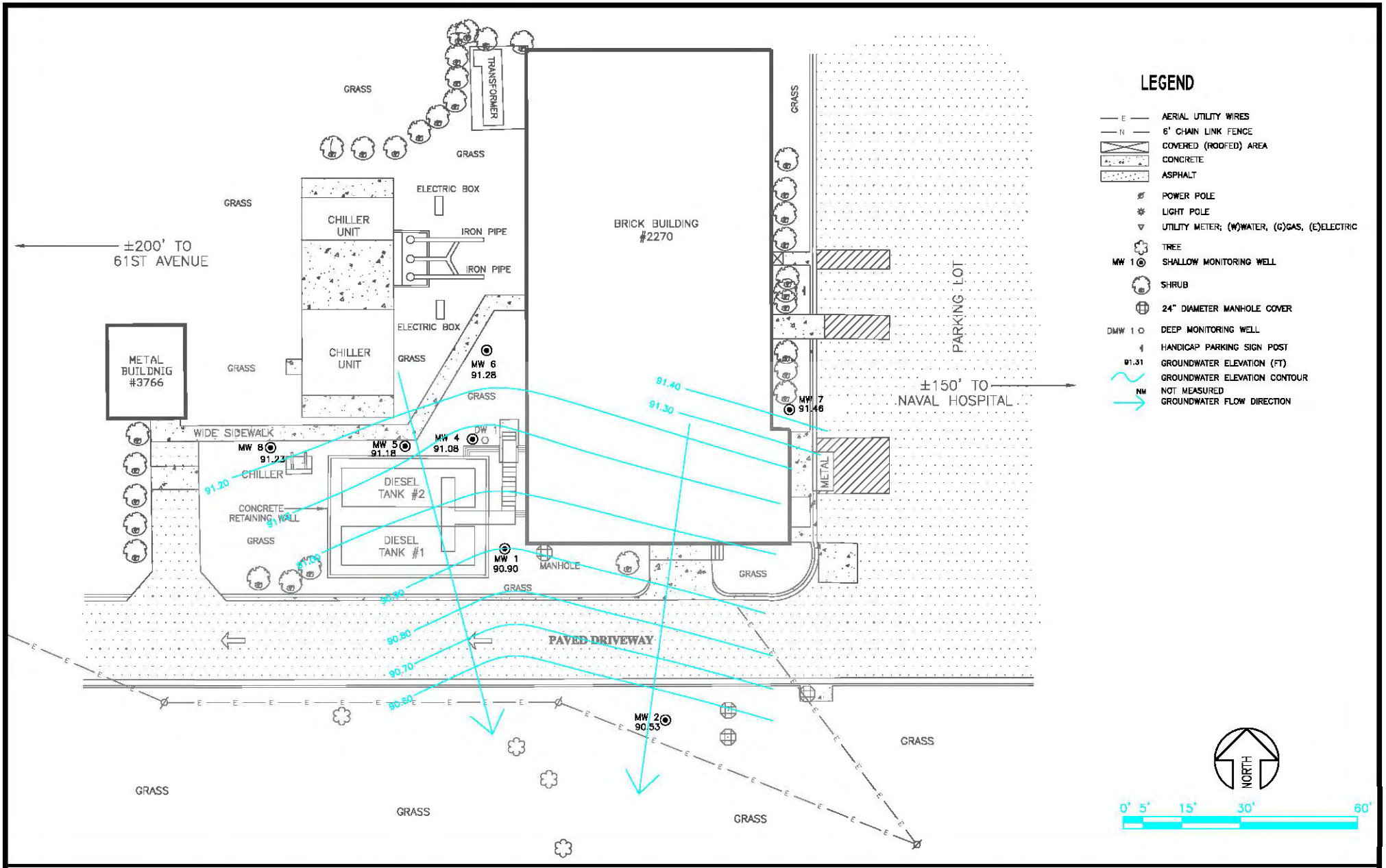


FIGURE 12. BUILDING 2270 SHALLOW GROUNDWATER FLOW MAP (MAY 12, 2011)

AEROSTAR ENVIRONMENTAL SERVICES, INC.

NAVAL HOSPITAL PENSACOLA
6000 US HIGHWAY 98
PENSACOLA, ESCAMBIA COUNTY, FLORIDA

JOB # 0411-089-24
DATE: JUNE 2011
DRAWN BY: MILLS