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By Alameda County Environmental Health at 3:35 pm, Oct 10, 2013

October 7, 2013

Ms. Karel Detterman  
Hazardous Materials Specialist  
Alameda County Environmental Health  
1131 Harbor Bay Parkway  
Alameda, CA 94502

**Subject:** **Soil and Groundwater Investigation**  
City of Alameda Maintenance Services Facility - Fuel Leak  
Case No. RO0003011 and Geo Tracker Global ID T01000001614  
1616 Fortmann Way  
Alameda, California  
AMEC Project No. OD13164610

Dear Ms. Detterman:

AMEC Environment & Infrastructure (AMEC) is providing the *Soil and Groundwater Investigation* report for your review. The investigation activities detailed in this report were completed to fulfill the requirements of the Alameda County Department of Environmental Health requests of October 12, 2012, May 8, 2013 and in accordance with comments in your August 2, 2013 e-mail letter.

I declare, under penalty of perjury, that the information and/or recommendations contained in this report are true and correct to the best of my knowledge.

Yours very truly,



Jesse Barajas  
City of Alameda  
Public Works Department

October 7, 2013

Project OD13164970.02

Ms. Karel Detterman  
Hazardous Materials Specialist  
Alameda County Environmental Health  
1131 Harbor Bay Parkway  
Alameda, California 94502

**Subject: Soil and Groundwater Investigation**

City of Alameda Maintenance Services Facility - Fuel Leak  
Case No. RO0003011 and Geo Tracker Global ID T010000001614  
1616 Fortmann Way  
Alameda, California

Dear Ms. Detterman:

On behalf of the City of Alameda Public Works Department (the City), AMEC Environment & Infrastructure, Inc. (AMEC) is pleased to submit this report detailing the results of the Soil and Groundwater Investigation performed at the City of Alameda Maintenance Services facility located at 1616 Fortmann Way in Alameda, California (the Site; Figure 1). This investigation was performed in response to an October 12, 2012 letter to the City from the Alameda County Health Care Services Agency (County) and a May 8, 2013 e-mail request to the City. In response to these requests, AMEC prepared the June 3, 2013 *Site Conceptual Model and Data Gap Work Plan* (the Workplan).

The County evaluated the Workplan with respect to the State Water Resources Control Board's Low Threat Underground Storage Tank Case Closure Policy (LTCP). Based on the County's review, they indicated that the Workplan provided an opportunity to meet the LTCP for expedited case closure and conditionally approved Workplan implementation provided that the technical comments in their August 2, 2013 e-mail letter were incorporated during the proposed field investigation.

The purpose of this field work was to define the extent of soil and groundwater contamination at the Site as a result of a documented release from an overfill of an onsite diesel tank. It was estimated that approximately 200 gallons of diesel spilled to the asphalt and cement surface from an overfill pipe that emanated from the Maintenance Building Roof.

## **BACKGROUND**

On March 5, 2009, the City experienced an overfill of an onsite diesel tank. It was estimated that approximately 200 gallons of diesel spilled to the asphalt and cement surface from an overfill pipe that emanated from the Maintenance Building Roof. The City subsequently contacted NRC Environmental Services (NRC) to respond to the incident and under the direction of the City; NRC staff decontaminated the building roof, gutters, and sides and cleaned out sumps, street sidewalks, gutters, and the City's fueling distribution area and equipment parking lot. Based on

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inspections completed by NRC during the cleanup, no diesel made it to the storm drains and based on the volume of fluids collected during the cleanup process, it was determined that entire quantity of the released diesel fuel was captured.

## **SCOPE OF WORK**

Our scope of included the following:

- Completion of a geophysical survey to identify subsurface utilities in the Site Vicinity, prior to initiating intrusive work
- Installation of 12 soil borings and collection of soil samples from each of the borings
- Deepening of four of the 12 borings to groundwater to attempt to collect water samples
- Evaluating the results of the investigation activities and preparing this report

## **INVESTIGATION ACTIVITES**

### **Soil Boring Installation**

On September 4, 2013 AMEC oversaw the installation of 12 direct-push soil borings (SB-1 through SB-12) in the parking lot, driveway, and other asphalt areas of the Alameda Maintenance Services Facility, in the estimated footprint of the 2009 surface spill as presented on Figure 2.

Prior to conducting field activities, AMEC obtained a soil boring permit from the Alameda County Public Works Agency. A Copy of the permit is included in Attachment A. AMEC also contacted Underground Service Alert and a private utility locator to identify subsurface utilities in the Site vicinity, prior to initiating intrusive work. The utility survey was conducted using a combination of electromagnetic metal detection and Radio Frequency pipe location.

The borings were advanced using a Geoprobe 6600 truck-mounted rig operated by Cascade Drilling, L.P. of Richmond, California. The Geoprobe drill rig uses a combination of hydraulic and vibratory down-force to advance a 1.5-inch diameter steel drive rod into the subsurface. Within the drill rod is a 48-inch sampling tube lined with clear butyrate tubing that is used for continuous sample collection. These tubes are then removed and cut to allow for lithologic logging, screening with a photoionization detector (PID), and sample collection. Selected soil sections were sampled using laboratory-supplied containers and labeled with unique sample designations to record the location and depth sampled.

Eight of the borings were advanced to approximately 5 feet below ground surface (bgs) and an additional four soil borings were advanced to between 10 and 15 feet bgs to allow for the attempted collection of groundwater samples. All of the locations were continuously sampled to allow for detailed characterization of the sub-surface.

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The borings were screened for the presence of volatile organic compounds (VOCs) using a PID and soil samples were selected from each boring for laboratory analysis based on depth and the geologist's professional judgment. Soil lithology and sample recovery, were recorded in the field logs which are included in Attachment B. All drive rods were washed in an alconox and water solution between boreholes to avoid any potential cross contamination issues.

No elevated VOC readings were obtained during PID monitoring and no staining or odors were noted in the soil removed from the borings. Therefore, as stated in the June 3, 2013 Work Plan, AMEC submitted the soil samples from the first encountered native/fill materials beneath the road base (or at 2 feet bgs if no native/fill materials encountered) and five feet bgs.

AMEC attempted to collect water samples from four of the soil borings. Temporary well screens were placed in the four deeper soil boring locations and left open to allow water to flow into the boring while other site work commenced; however, due to the nature of the subsurface sediments at water bearing depths, only one groundwater sample was able to be collected at the time of the field operations. By the end of the field operations, one boring was completely dry and the remaining two borings did not contain sufficient water to collect a sample.

Limited water production at the Site was not unexpected because water at the Site is present in what is commonly referred to as "Bay Mud", which consists of clays and sandy clays with infrequent sand and silt layers. Water production within such sediments can be restricted as was observed at the Site.

The one grab groundwater sample was collected using a peristaltic pump and clean (new) tubing inside the temporary well screen and pumping the water to the surface for collection. Following collection the water samples were packaged and placed on ice for transport to the analytical laboratory.

Samples were analyzed by TestAmerica of Pleasanton, California. TestAmerica is a state certified hazardous materials testing laboratory for the analyses requested and certified by the California Department of Health Services through the Environmental Laboratory Accreditation Program.

The soil and grab groundwater samples from each boring location were analyzed for the following:

- Diesel Range Organics (TPHd) using Environmental Protection Agency (EPA) Test Method 8015m with silica gel strip (EPA Test Method 3630C) to remove naturally occurring polar hydrocarbon compounds.
- The VOCs benzene, toluene, ethylbenzene, and total xylenes (BTEX), Methyl Tertiary-Butyl Ether (MTBE), and naphthalene using EPA Test Method 8260 modified
- Polynuclear aromatic hydrocarbons (PAHs) using EPA Test Method 8270-SIM

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The groundwater sample was also analyzed for total dissolved solids (TDS).

Upon completion of the drilling and sampling, soil cuttings were placed in a Department of Transportation approved drum for temporary storage pending analysis and proper disposal at a licensed California Landfill. The boreholes were filled with portland cement slurry to the surface and capped with concrete dyed to match the surrounding asphaltic concrete.

## **RESULTS DISCUSSION**

### **Site Lithology and hydrogeology**

Observations during the drilling indicated that soils encountered during this investigation consisted of road base to between 1 and 5 feet bgs, underlain by silty and clayey sands, sandy clays, sandy silts, and lean clay. Bay Mud was typically encountered between 3 and 8 feet bgs. Soil boring SB-1 was placed in the street at the edge of the storm drain trench and consisted of road base/excavation backfill materials from the surface to its total depth of 5 feet bgs. Soil boring SB-3 had a layer of poorly graded sands between 5 and 9 feet bgs, which was not evident in any of the other boring locations. Subsequently, SB-3 was the only location, of the four attempted, that produced sufficient water for sampling.

As previously discussed, elevated VOC readings were not detected during PID monitoring of the soils and no staining or odors were noted in the soil. Wet soil conditions were encountered at approximately 8 to 11 feet bgs in the deeper boring locations. Boring logs and field notes are included in Attachment B.

### **Soil Analysis**

Tables 1 and 2 present the soil analytical results and the laboratory analytical reports are included in Attachment C. The reported concentrations were compared against the San Francisco Bay Regional Water Quality Control Board (Water Board) 2013 Tier 1 Environmental Screening Levels (ESLs). In cases where the soil analytical results exceeded the Tier 1 ESLs, the results were also compared to the 2013 Non-drinking water source, commercial land use ESLs which are more representative of current site conditions.

Results of the soil sampling indicated the following:

- TPHd was detected in soil samples collected from all borings at concentrations between 1.1 and 1,100 milligrams per kilogram (mg/kg; SB-7 at 3.0 feet bgs). The TPHd Tier 1 ESL of 100 mg/kg was only exceeded in shallow samples collected from SB-3 through SB-5, SB-7, and SB-11. Only the shallow sample from SB-7 exceeded the non-drinking water, shallow soil commercial ESL.
- MTBE was detected in samples collected from borings SB-2, SB-4 and SB-8 at concentrations between 4.3 and 9.7 micrograms per kilogram ( $\mu\text{g}/\text{kg}$ ). The MTBE Tier 1 ESL of 23  $\mu\text{g}/\text{kg}$  was not exceeded in any of the borings.

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- Naphthalene was detected in the sample collected from boring SB-7 (at a depth of 3.5 feet bgs) at a concentration of 180 µg/kg. The naphthalene Tier 1 ESL of 1,200 µg/kg was not exceeded in the sample.
- PAH compounds were detected in samples collected from all borings at concentrations between 5.2 and 5,500 (chrysene in boring SB-7 at 3.5 feet bgs) µg/kg. The ESL for several PAH compounds were exceeded in the shallow soil samples collected from borings SB-1, SB-3, SB-4, SB-5, and SB-7. With the exception of benzo[a]pyrene in borings SB-1 and SB-7, PAHs were not reported above their respective Tier 1 ESL in the deeper soil samples.
- BTEX was not detected in any soil samples collected during this investigation.

### **Grab Groundwater Analyses**

Tables 3 and 4 present the groundwater analytical results and the laboratory analytical reports are included in Attachment C. TPHd, BTEX, naphthalene, and PAHs were not detected above the laboratory reporting limits. MTBE was reported at 12 micrograms per liter ( $\mu\text{g/l}$ ), which is above the ESL of 5.0  $\mu\text{g/l}$  and TDS was reported at 1,700 milligrams per liter, which is above the limits set forth in the Water Quality Control Plan for the San Francisco Bay Basin (the Basin Plan). The detected concentration of MTBE is over two orders of magnitude below the non-drinking water ESL.

### **CONCLUSIONS AND RECOMMENDATIONS**

AMEC completed investigation activities at the City of Alameda Maintenance Services Facility on September 4, 2013. Activities included the installation of 12 soil borings and the collection of soil and grab groundwater samples for laboratory analysis.

The sample analytical results for the drilling investigation indicated the following:

- TPHd was reported at a concentration above the Tier 1 ESL in five of the 12 shallow soil samples but below the Shallow Non-drinking water Commercial ESL in all but one sample and was not detected above Tier 1 ESLs in any of the deeper soil samples.
- BTEX was not detected in any of the soil or groundwater samples collected during this investigation.
- Naphthalene and MTBE concentrations were not reported above the Tier 1 ESLs in any of the soil samples collected.
- PAH concentrations were reported above the Tier 1 ESL in five of the 12 shallow soil samples and two of the deeper soil samples.
- TPHd, BTEX, naphthalene, and PAHs were not detected in the grab groundwater sample collected from soil boring SB-3.

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- MTBE was reported above the cleanup levels in the grab groundwater sample collected from soil boring SB-3; however it was detected well below the Non-drinking water ESL.
- TDS was above the limits set forth in the Basin Plan and based on this concentration and the Sites' location relative to the Oakland Inner Harbor, the groundwater at the Site is considered not to be of beneficial use. Further, the absence of agriculture or heavy industry in the vicinity of the Site, as well as the availability of municipal water, negates the need for Site groundwater for beneficial use.

Based on the results of the investigation conducted to date, it appears that residual low concentrations of TPHd and PAHs are present in the shallow soil at the Site and that MTBE is present in the shallow groundwater at the one location sampled.

TPHs and PAH concentrations in soil appear to be confined to the shallow soils between the surface and approximately 5 feet bgs and are considered unlikely to impact groundwater or migrate offsite based on the presence of "Bay Mud" which minimizes the mobilization of these compounds to groundwater. The samples collected from boring SB-1 were collected in fill materials related to the nearby stormwater trench and are not considered site related. The reported concentration of 45 µg/kg for benzo[a]pyrene for the soil sample collected at a depth of 5.0 feet bgs in SB-7 is significantly less (by a factor of 10) than the 4,900 µg/kg reported concentration for the sample collected at 3 foot bgs at the same location. Based on the stratigraphy of the soils in this location and the quick decrease in reported concentrations, the elevated concentrations of benzo[a]pyrene at this location are considered unlikely to migrate to groundwater.

Based on the low levels of MTBE detected in soil, the lack of MTBE in the soil boring in which MTBE was detected in groundwater, and the source of the release being diesel, the reported detection of MTBE in groundwater is not considered to be related to the onsite surface diesel spill and may be the result of an offsite source.

Based on analysis of these results, it is AMEC's opinion that no further work is warranted to characterize soil and groundwater at the Site. Although elevated levels of TPHd and PAHs were reported in the shallow soil, it is unlikely, based on the soil type (Bay Mud) and sample results for the deeper soil samples, that the chemicals will migrate to groundwater or offsite. The elevated concentration of MTBE in groundwater at soil boring location SB-3 is considered to be a result of an offsite source as MTBE is not a constituent or break-down product of diesel fuel.

In closing, there are no promulgated cleanup goals for TPH in groundwater. Comparison of the soil boring groundwater results to Water Board Tier 1 screening levels indicate that the TPH results are just above ESL toxicity limits of 210 µg/L for total extractable petroleum hydrocarbons. However, the elevated concentrations were below the Shallow Non-drinking water Commercial ESL in all but one sample and was not detected above Tier 1 ESLs in any of the deeper soil samples. Because no other petroleum based hydrocarbon compounds or

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breakdown products have been detected in groundwater during this investigation and TPHd is the only compound of potential concern, we are requesting closure for this Site based on the current use of this Site and the limited mobility and low toxicity level of diesel.

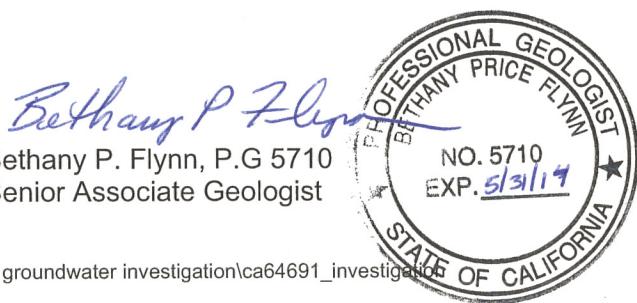
If you have any questions or concerns, please contact Gary Lieberman at (707) 793-3858.

Sincerely yours,  
AMEC Environment & Infrastructure, Inc.



Gary A. Lieberman  
Project Manager

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Attachments:

Table 1	Soil Sample Analytical Results
Table 2	Soil Sample Analytical Results - Polynuclear Aromatic Hydrocarbons
Table 3	Groundwater Sample Analytical Results
Table 4	Groundwater Sample Analytical Results - Polynuclear Aromatic Hydrocarbons

Figure 1	Site Location Map
Figure 2	Site Map Showing Previous Release and Soil Boring Locations

Appendix A	Soil Boring Permit
Appendix B	Boring Logs
Appendix C	Laboratory Analytical Reports

References:

AMEC Environment & Infrastructure Inc. (AMEC), 2013. *Site Conceptual Model and Data Gap Work Plan, City of Alameda Maintenance Services Facility – Fuel Leak Case No. RO0003011 and Geo Tracker Global ID T01000001614, 1616 Fortmann Way, Alameda, California*. June 3.

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**TABLES**

TABLE 1

## SOIL SAMPLE ANALYTICAL RESULTS

City of Alameda Maintenance Facility  
Alameda, California

Sample Location	Sample ID	Sample Depth (feet bgs)	Date Collected	Reported Concentrations						
				TPHd (mg/kg)	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	Naphthalene
				.....µg/kg.....						
SB-1	S-SB1-2	1.5-2	9/4/2013	13	ND(4.5)	ND(4.5)	ND(4.5)	ND(8.9)	ND(4.5)	ND(8.9)
SB-1	S-SB1-5	4.5-5	9/4/2013	51	ND(4.2)	ND(4.2)	ND(4.2)	ND(8.5)	ND(4.2)	ND(8.5)
SB-2	S-SB2-3.5	3-3.5	9/4/2013	6.2	ND(3.8)	ND(3.8)	ND(3.8)	ND(7.6)	4.3	ND(7.6)
SB-2	S-SB2-5	4.5-5	9/4/2013	4.0	ND(3.9)	ND(3.9)	ND(3.9)	ND(7.6)	ND(3.9)	ND(7.6)
SB-3	S-SB3-3	2.5-3	9/4/2013	150	ND(4.3)	ND(4.3)	ND(4.3)	ND(8.5)	ND(4.3)	ND(8.5)
SB-3	S-SB3-5.5	5-5.5	9/4/2013	2.3	ND(3.9)	ND(3.9)	ND(3.9)	ND(7.7)	ND(3.9)	ND(7.7)
SB-4	S-SB4-3	2.5-3	9/4/2013	180	ND(4.2)	ND(4.2)	ND(4.2)	ND(8.4)	ND(4.2)	ND(4.2)
SB-4	S-SB4-5	4.5-5	9/4/2013	ND(0.99)	ND(3.8)	ND(3.8)	ND(3.8)	ND(7.6)	9.7	ND(7.6)
SB-5	S-SB5-2	1.5-2	9/4/2013	110	ND(3.5)	ND(3.5)	ND(3.5)	ND(7.0)	ND(3.5)	ND(7.0)
SB-5	S-SB5-5	4.5-5	9/4/2013	ND(0.99)	ND(3.4)	ND(3.4)	ND(3.4)	ND(6.7)	ND(3.4)	ND(6.7)
SB-6	S-SB6-3	2.5-3	9/4/2013	ND(1.0)	ND(3.4)	ND(3.4)	ND(3.4)	ND(6.8)	ND(3.4)	ND(6.8)
SB-6	S-SB6-5.5	5-5.5	9/4/2013	2.1	ND(4.3)	ND(4.3)	ND(4.3)	ND(8.6)	ND(4.3)	ND(8.6)
SB-7	S-SB7-3.5	3-3.5	9/4/2013	1,100	ND(3.9)	ND(3.9)	ND(3.9)	ND(7.8)	ND(3.9)	180
SB-7	S-SB7-5	4.5-5	9/4/2013	ND(0.99)	ND(3.6)	ND(3.6)	ND(3.6)	ND(7.2)	ND(3.6)	ND(7.2)
SB-8	S-SB8-3	2.5-3	9/4/2013	5.0	ND(4.0)	ND(4.0)	ND(4.0)	ND(7.9)	ND(4.0)	ND(7.9)
SB-8	S-SB8-5	4.5-5	9/4/2013	ND(0.99)	ND(4.5)	ND(4.5)	ND(4.5)	ND(8.9)	8.7	ND(8.9)
SB-9	S-SB9-2	1.5-2	9/4/2013	1.1	ND(3.8)	ND(3.8)	ND(3.8)	ND(7.7)	ND(3.8)	ND(7.7)
SB-9	S-SB9-5	4.5-5	9/4/2013	1.7	ND(5.1)	ND(5.1)	ND(5.1)	ND(10)	ND(5.1)	ND(10)
SB-10	S-SB10-2.5	2-2.5	9/4/2013	28	ND(3.6)	ND(3.6)	ND(3.6)	ND(7.2)	ND(3.6)	ND(7.2)
SB-10	S-SB10-5	4.5-5	9/4/2013	1.1	ND(4.2)	ND(4.2)	ND(4.2)	ND(8.5)	ND(4.2)	ND(8.5)
SB-11	S-SB11-2	1.5-2	9/4/2013	450	ND(3.7)	ND(3.7)	ND(3.7)	ND(7.4)	ND(3.7)	ND(7.4)
SB-11	S-SB11-5	4.5-5	9/4/2013	ND(0.99)	ND(4.5)	ND(4.5)	ND(4.5)	ND(9.1)	ND(4.5)	ND(9.1)
SB-12	S-SB12-2	1.5-2	9/4/2013	4.2	ND(3.6)	ND(3.6)	ND(3.6)	ND(7.1)	ND(3.6)	ND(7.1)
SB-12	S-SB12-5	4.5-5	9/4/2013	ND(0.99)	ND(4.8)	ND(4.8)	ND(4.8)	ND(9.6)	ND(4.8)	ND(9.6)

ESL Residential / Drinking Water	100	44	40,000	3,300	2,300	23	1,200
Commercial / Non Drinking Water <sup>1</sup>	500	1,200	2,900	4,700	11,000	1,800	4,800

**Notes:**

1 = San Francisco Bay Regional Water Quality Control Board 2013 Tier 1 2013 Non-drinking Water Source, Commercial Land Use Environmental Screening Levels

Naphthalene analyzed using EPA method 8260B.

Benzene, toluene, ethylbenzene, and total xylenes (BTEX) analyzed using EPA method 8260B.

bgs = below ground surface

ESL = San Francisco Bay Regional Water Quality Control Board 2013 Tier 1 Environmental Screening Levels

mg/kg = milligrams per kilogram

MTBE = methyl tertiary-butyl ether analyzed using EPA method 8260B.

µg/kg = micrograms per kilogram

ND( ) = Not detected above the laboratory reporting limits (reporting limit in parenthesis).

PAHs = Polynuclear aromatic hydrocarbons analyzed using EPA method 8270-SIM.

TPHd = Total Petroleum Hydrocarbons, diesel range (C10-C28), analyzed using EPA method 8015M, with silica gel strip (EPA method 3630C).

TABLE 2

**SOIL SAMPLE ANALYTICAL RESULTS - POLYNUCLEAR AROMATIC COMPOUNDS**  
 City of Alameda Maintenance Facility  
 Alameda, California

Sample Location	Sample ID	Sample Depth (feet bgs)	Date Collected	Reported Concentrations - PAHs															
				Acenaph-thene	Acenaph-thylene	Anthra-cene	Benzo[a]-anthracene	Benzo[a]-pyrene	Benzo[b]-fluoranthene	Benzo[g,h,i]-perylene	Benzo[k]-fluoranthene	Chrysene	Dibenz(a,h)-anthracene	Fluor-anthene	Fluorene	Indeno-[1,2,3-cd]-pyrene	Naphthalene	Phenanthrene	Pyrene
				.....μg/kg.....															
SB-1	S-SB1-2	1.5-2	9/4/2013	ND(5.0)	13	10	39	<b>52</b>	98	32	27	52	7.1	77	ND(5.0)	28	ND(5.0)	26	82
SB-1	S-SB1-5	4.5-5	9/4/2013	ND(10)	12	35	54	<b>45</b>	70	17	25	68	ND(10)	110	ND(10)	16	45	130	97
SB-2	S-SB2-3.5	3-3.5	9/4/2013	ND(4.9)	ND(4.9)	ND(4.9)	8.5	7.8	21	7.1	ND(4.9)	21	ND(4.9)	5.9	ND(4.9)	5.5	8.8	20	5.8
SB-2	S-SB2-5	4.5-5	9/4/2013	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)
SB-3	S-SB3-3	2.5-3	9/4/2013	ND(10)	ND(10)	ND(10)	24	<b>41</b>	60	18	17	43	ND(10)	39	ND(10)	18	ND(10)	16	47
SB-3	S-SB3-5.5	5-5.5	9/4/2013	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	5.5	ND(5.0)	6.7
SB-4	S-SB4-3	2.5-3	9/4/2013	ND(25)	110	160	340	<b>360</b>	<b>540</b>	340	130	510	<b>120</b>	670	57	290	380	900	690
SB-4	S-SB4-5	4.5-5	9/4/2013	ND(5.0)	ND(5.0)	ND(5.0)	5.5	8.5	9.4	10	ND(5.0)	7.0	ND(5.0)	10	ND(5.0)	6.7	ND(5.0)	ND(5.0)	11
SB-5	S-SB5-2	1.5-2	9/4/2013	ND(9.9)	10	ND(9.9)	35	<b>51</b>	73	58	23	45	12	64	ND(9.9)	38	ND(9.9)	31	70
SB-5	S-SB5-5	4.5-5	9/4/2013	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)
SB-6	S-SB6-3	2.5-3	9/4/2013	ND(5.0)	ND(5.0)	8.3	23	24	22	23	19	29	6.2	54	ND(5.0)	18	8.7	43	93
SB-6	S-SB6-5.5	5-5.5	9/4/2013	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	7.2	7.9	11
SB-7	S-SB7-3.5	3-3.5	9/4/2013	910	ND(250)	1,400	<b>5,300</b>	<b>4,900</b>	<b>8,200</b>	2,900	<b>2,100</b>	<b>5,500</b>	<b>1,000</b>	15,000	970	<b>2,900</b>	1,100	9,400	12,000
SB-7	S-SB7-5	4.5-5	9/4/2013	5.6	ND(5.0)	11	44	<b>47</b>	52	37	16	50	6.5	100	5.8	27	8.4	70	100
SB-8	S-SB8-3	2.5-3	9/4/2013	ND(5.0)	ND(5.0)	6.6	13	17	24	21	7.8	18	ND(5.0)	55	ND(5.0)	14	14	26	50
SB-8	S-SB8-5	4.5-5	9/4/2013	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)
SB-9	S-SB9-2	1.5-2	9/4/2013	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)
SB-9	S-SB9-5	4.5-5	9/4/2013	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	9.4	6.7
SB-10	S-SB10-2.5	2-2.5	9/4/2013	ND(4.9)	ND(4.9)	ND(4.9)	8.2	11	18	15	5.8	12	ND(4.9)	21	ND(4.9)	10	6.6	10	18
SB-10	S-SB10-5	4.5-5	9/4/2013	ND(5.0)	ND(5.0)	ND(5.0)	5.0	6.3	8.1	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	6.4
SB-11	S-SB11-2	1.5-2	9/4/2013	ND(5.0)	5.6	ND(5.0)	8.5	14	21	18	ND(5.0)	22	ND(5.0)	23	ND(5.0)	12	15	21	26
SB-11	S-SB11-5	4.5-5	9/4/2013	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)
SB-12	S-SB12-2	1.5-2	9/4/2013	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)
SB-12	S-SB12-5	4.5-5	9/4/2013	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	5.2

ESL Residential / Drinking Water	16,000	13,000	2,800	380	38	380	27,000	380	3,800	110	40,000	8,900	380	1,200	11,000	85,000
Commercial / Non Drinking Water <sup>1</sup>	19,000	13,000	2,800	450	45	450	27,000	450	4,500	130	40,000	8,900	450	4,800	11,000	85,000

## Notes:

1 = San Francisco Bay Regional Water Quality Control Board 2013 Tier 1 2013 Non-drinking Water Source, Commercial Land Use Environmental Screening Levels

bgs = below ground surface

ESL = San Francisco Bay Regional Water Quality Control Board 2013 Tier 1 Environmental Screening Levels

μg/kg = micrograms per kilogram

ND( ) = Not detected above the laboratory reporting limits (reporting limit in parenthesis).

PAHs = Polynuclear aromatic hydrocarbons analyzed using EPA method 8270-SIM.

**TABLE 3**  
**GROUNDWATER SAMPLE ANALYTICAL RESULTS**  
 City of Alameda Maintenance Facility  
 Alameda, California

Sample Location	Date Collected	Reported Concentrations							
		TPHd	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	Naphthalene	TDS
		.....µg/l.....							mg/l
SB-3	9/4/2013	ND(51)	ND(0.50)	ND(0.50)	ND(0.50)	ND(1.0)	12	ND(1.0)	1,700
ESL		100	1.0	40	30	20	5.0	6.2	--
Basin Plan		--	--	--	--	--	--	--	500
Commercial / Non Drinking Water <sup>1</sup>		640	27	130	43	100	1,800	24	--

Notes:

1 = San Francisco Bay Regional Water Quality Control Board 2013 Tier 1 2013 Non-drinking Water Source, Commercial Land Use Environmental Screening Levels

Benzene, toluene, ethylbenzene, and total xylenes (BTEX) analyzed using EPA method 8260B.

Naphthalene analyzed using EPA method 8260B.

-- = Not Established

Basin Plan = Water Quality Control Plan for the San Francisco Bay Basin

bgs = below ground surface

ESL = San Francisco Bay Regional Water Quality Control Board 2013 Tier 1 Environmental Screening Levels

µg/l = micrograms per liter

mg/l = milligrams per liter

MTBE = methyl tertiary-butyl ether analyzed using EPA method 8260B.

ND() = Not detected above the laboratory reporting limits (reporting limit in parenthesis).

PAHs = Polynuclear aromatic hydrocarbons analyzed using EPA method 8270-SIM.

TDS = total dissolved solids analyzed using EPA method

TPHd = Total Petroleum Hydrocarbons, diesel range (C10-C28), analyzed using EPA method 8015M, with silica gel strip (EPA method 3630C).

TPHd = Total Petroleum Hydrocarbons, diesel range (C10-C28), analyzed using EPA method 8015M, with silica gel strip (EPA method 3630C).

TABLE 4

## GROUNDRWATER SAMPLE ANALYTICAL RESULTS - POLYNUCLEAR AROMATIC COMPOUNDS

City of Alameda Maintenance Facility  
Alameda, California

Sample Location	Sample ID	Sample Depth (feet bgs)	Date Collected	Reported Concentrations - PAHs															
				Acenaph-thene	Acenaph-thylene	Anthra-cene	Benzo[a]-anthracene	Benzo[a]-pyrene	Benzo[b]-fluoranthene	Benzo[g,h,i]-perylene	Benzo[k]-fluoranthene	Chrysene	Dibenz(a,h)-anthracene	Fluor-anthene	Fluorene	Indeno-[1,2,3-cd]-pyrene	Naphthalene	Phenan-threne	Pyrene
				.....µg/l.....															
SB-3	W-SB3-8	8-10	9/4/2013	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	
ESL				20	30	0.73	0.027	0.014	0.056	0.10	0.056	0.35	0.016	8.0	3.9	0.056	6.2	4.6	2.0
Commercial / Non Drinking Water <sup>1</sup>				23	30	0.73	0.027	0.014	0.056	0.10	0.40	0.35	0.25	8.0	3.9	0.056	24	4.6	2.0

## Notes:

1 = San Francisco Bay Regional Water Quality Control Board 2013 Tier 1 2013 Non-drinking Water Source, Commercial Land Use Environmental Screening Levels

bgs = below ground surface

ESL = San Francisco Bay Regional Water Quality Control Board 2013 Tier 1 Environmental Screening Levels

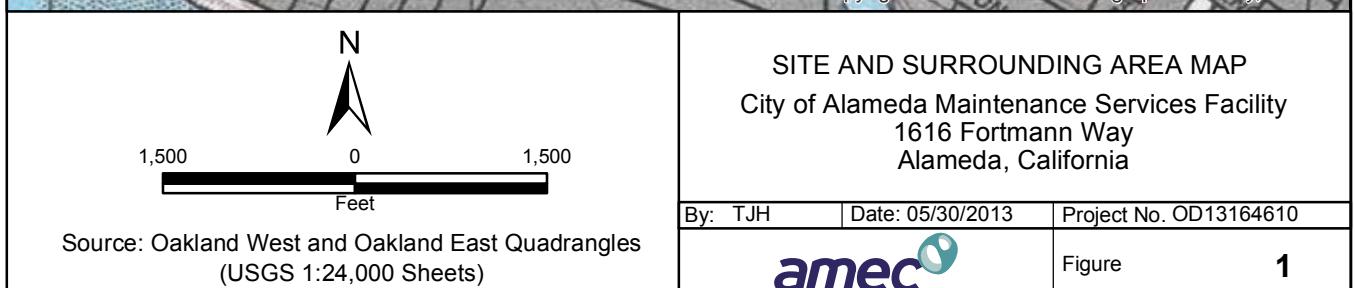
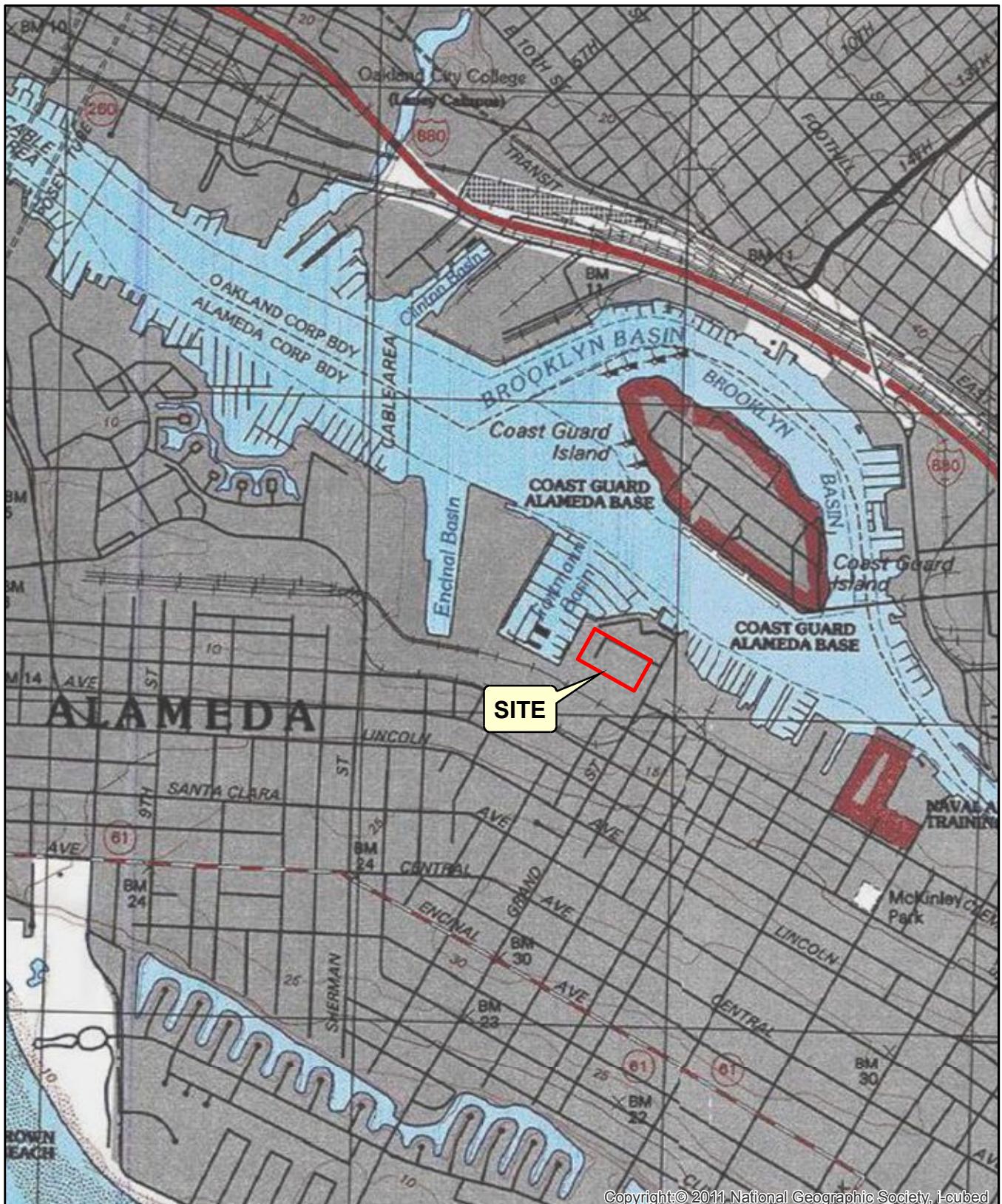
µg/l = micrograms per liter

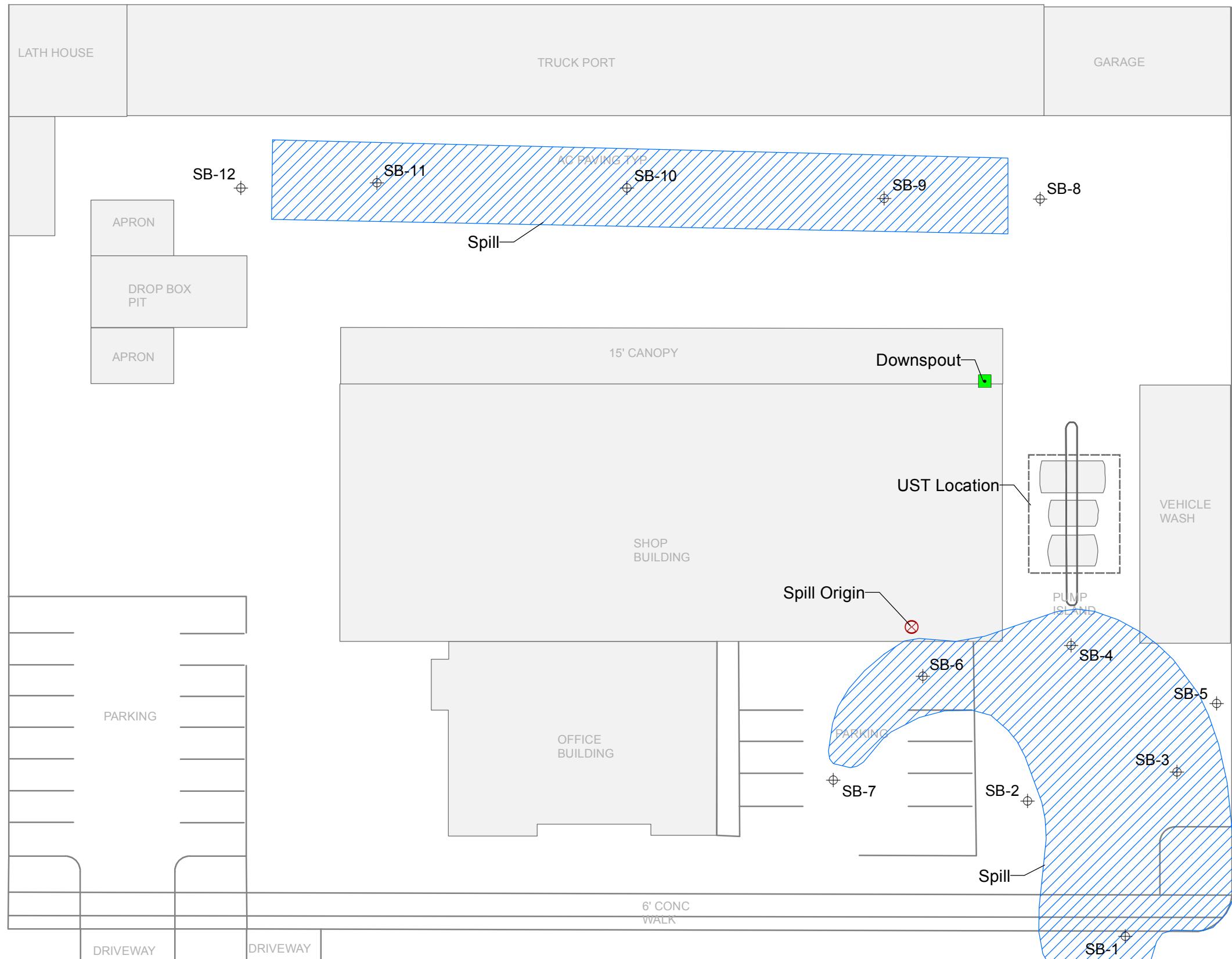
ND( ) = Not detected above the laboratory reporting limits (reporting limit in parenthesis).

PAHs = Polynuclear aromatic hydrocarbons analyzed using EPA method 8270-SIM.

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**FIGURES**





### EXPLANATION

⊕ Soil Boring Location  
Installed September 4, 2013



Spill Area



SITE MAP SHOWING PREVIOUS  
RELEASE AND SOIL BORING LOCATIONS  
City of Alameda Maintenance Services Facility  
1616 Fortmann Way  
Alameda, California

By: TJH Date: 09/20/2013 Project No. OD13164970



Figure 2

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**APPENDIX A**

Soil Boring Permit

# Alameda County Public Works Agency - Water Resources Well Permit



399 Elmhurst Street  
Hayward, CA 94544-1395  
Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 08/16/2013 By jamesy

Permit Numbers: W2013-0599  
Permits Valid from 08/26/2013 to 09/06/2013

<b>Application Id:</b>	1376072147960	<b>City of Project Site:</b> Alameda
<b>Site Location:</b>	1616 Fortmann Way	
	Alameda, CA-City of Alameda Maintenance Services	
<b>Project Start Date:</b>	Fuel Leak Case No. RO0003011 And Geotracker ID T010000001614	
<b>Assigned Inspector:</b>	08/26/2013	<b>Completion Date:</b> 09/06/2013
<b>Applicant:</b>	AMEC Environment & Infrastructure - Scott	<b>Phone:</b> 707-793-3800
	Graham	
<b>Property Owner:</b>	1465 North McDowell Boulevard, Suite 200, Petaluma, CA 94954	<b>Phone:</b> --
	Maintenance Service Center City of Alameda	
<b>Client:</b>	Public Works Dept.	
<b>Contact:</b>	1616 Fortman Way, Alameda, CA 94501	
	** same as Property Owner **	
	Scott Graham	<b>Phone:</b> 707-793-3810
		<b>Cell:</b> 707-483-7611

<b>Receipt Number:</b> WR2013-0304	<b>Total Due:</b>	\$265.00
<b>Payer Name :</b> AMEC	<b>Total Amount Paid:</b>	\$265.00
	<b>Paid By:</b> CHECK	<b>PAID IN FULL</b>

## Works Requesting Permits:

Borehole(s) for Investigation-Contamination Study - 12 Boreholes

Driller: Cascade Drilling, LP - Lic #: 938110 - Method: DP

**Work Total: \$265.00**

## Specifications

Permit Number	Issued Dt	Expire Dt	#	Hole Diam	Max Depth
W2013-0599	08/16/2013	11/24/2013	12	2.00 in.	15.00 ft

## Specific Work Permit Conditions

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.
2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.
3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.
4. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits

## **Alameda County Public Works Agency - Water Resources Well Permit**

and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

5. Applicant shall contact assigned inspector listed on the top of the permit at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

6. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.

7. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.

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**APPENDIX B**

Boring Logs

PROJECT: 0013164970.01				Log of Boring No. SB-1		
BORING LOCATION: Alameda, CA				ELEVATION AND DATUM:		
DRILLING CONTRACTOR: Cascade				DATE STARTED: 9/4/13		DATE FINISHED: 9/4/13
DRILLING METHOD: Direct Push Hand Auger				TOTAL DEPTH: 5'		MEASURING POINT:
DRILLING EQUIPMENT: Hand Auger				DEPTH TO WATER: FIRST —		COMPL
SAMPLING METHOD: Hand auger cuttings				LOGGED BY: Scott Graham		
HAMMER WEIGHT: — DROP: —				RESPONSIBLE PROFESSIONAL: REG. NO.		
DEPTH (feet)	SAMPLES			DESCRIPTION		REMARKS
	Sample No.	Sample Type	Blows/ Foot	OVM Reading (ppm)	NAME (USCS Symbol): color, moist. % by weight, plast., consistency, structure, cementation, react. W/HCl, geo. inter. Surface Elevation:	
1				6" asphalt & Road base <del>100</del>		
2	X			Road base is <del>100</del> Dark yellowish Brown (10YR 4/4) Well graded Sand with clay & gravel, loose, moist, 80% fine-coarse sand, 10% fines, 10% subangular gravel to 1"		Hand augered to 5'
3						
4	815			Change in color to very dark grayish brown (10YR 3/2) Trace shell fragments & wood pieces		OVM = MinRAE 2000 PID calibrated with 100 ppm isobutylene standard.
5	X			Boring ended @ 5'		OVM = MinRAE 2000 PID calibrated with 100 ppm isobutylene standard.

PROJECT: 0013164970.01	Log of Boring No. SB-2		
BORING LOCATION: Alameda, CA	ELEVATION AND DATUM:		
DRILLING CONTRACTOR: Cascade	DATE STARTED: 9/4/13	DATE FINISHED: 9/4/13	
DRILLING METHOD: Hand auger	TOTAL DEPTH: 5	MEASURING POINT:	
DRILLING EQUIPMENT: Hand auger / Geoprobe 6600	DEPTH TO WATER: —	FIRST —	COMPL —
SAMPLING METHOD: Hand auger cuttings/Accurate Sleeve	LOGGED BY: Scott Graham		
HAMMER WEIGHT: —	DROP: —	RESPONSIBLE PROFESSIONAL: —	REG. NO. —

DEPTH (feet)	SAMPLES			DESCRIPTION NAME (USCS Symbol): color, moist. % by weight, plast., consistency, structure, cementation, react. W/HCl, geo. inter.	REMARKS
	Sample No.	Sample Type	Blows/ Foot		
1				Surface Elevation: 4" asphalt & road base	
1.835	X				Hand augered to 6' 2"
2	X				
2.4				Road base is yellowish Brown (IDYR5/4) Silty Gravel with Sand loose, moist, 40% angular gravel to 2", 20% fines, 30% fine to coarse sand	OVM = MinRAE 2000 PID calibrated with 100 ppm Isobutylene standard.
3	X				OVM = MinRAE 2000 PID calibrated with 100 ppm Isobutylene standard.
3.00	X				
4					OVM = MinRAE 2000 PID calibrated with 100 ppm Isobutylene standard.
4.25	X				
5	X			Black (N 2.5/1) Lean Clay, Soft, moist, 85% fines 15% fine sand	
				Boring ended @ 5'	

PROJECT: 0013164970, 01	Log of Boring No. SB-3		
BORING LOCATION: Alameda, CA	ELEVATION AND DATUM:		
DRILLING CONTRACTOR: Cascade	DATE STARTED:	9/9/13	DATE FINISHED:
DRILLING METHOD: Handauger / Geoprobe	TOTAL DEPTH:	10	MEASURING POINT:
DRILLING EQUIPMENT: Handauger / Geoprobe 6600	DEPTH TO WATER:	8'	COMPL
SAMPLING METHOD: Acetate Sleeve 2"	LOGGED BY:	Scott Graham	
HAMMER WEIGHT: —	DROP:	RESPONSIBLE PROFESSIONAL: REG. NO.	

DEPTH (feet)	SAMPLES			DESCRIPTION NAME (USCS Symbol): color, moist. % by weight, plast., consistency, structure, cementation, react. W/HCl, geo. inter.	REMARKS
	Sample No.	Sample	Blows/ Foot		
1				4" asphalt + <del>soil base</del> roadbase is very dark grayish brown (10YR2/2) sand dense, moist, 40% angular gravel to 2" 20% fine to coarse sand, 20% fines	Hand augered to 8' 2"
2				3.4	
3	X			Very Dark Gray (10YR3/1) Sandy lean clay with gravel, firm, moist, <del>55%</del> 55% fines, 30% fine-coarse sand, 15% sub-round gravel to 1.5"	OVM = MinRAE 2000 PID calibrated with 100 ppm isobutylene standard.
4					OVM = MinRAE 2000 PID calibrated with 100 ppm isobutylene standard.
5	X			Dark greenish gray (10Y 4/1) Poorly graded sand with clay, loose, moist to wet (8') 90% fine sand, 10% fines	Set screen 5-10' <del>screen</del> & collect water sample W-SB3-8 @ 1010
6					
7					
8					
9				Dark Greenish gray (10Y 4/1) Lean Clay, soft moist, 95% fines, 5% fine sand	
10				Boring ended @ 10' bgs	
11					
12					

PROJECT: 0013164970.01				Log of Boring No. SB-4			
BORING LOCATION: Alameda, CA				ELEVATION AND DATUM:			
DRILLING CONTRACTOR: Cascade				DATE STARTED: 07/4/13		DATE FINISHED: 07/4/13	
DRILLING METHOD: Hand Auger				TOTAL DEPTH: 5		MEASURING POINT:	
DRILLING EQUIPMENT: Hand Auger				DEPTH TO WATER: FIRST		COMPL.	
SAMPLING METHOD: Hand Auger Cuttings				LOGGED BY: Scott Graham			
HAMMER WEIGHT: DROP: —				RESPONSIBLE PROFESSIONAL: REG. NO.			
DEPTH (feet)	SAMPLES			DESCRIPTION			REMARKS
	Sample No.	Sample	Blows/ Foot	OVM Reading (ppm)	NAME (USCS Symbol): color, moist. % by weight, plast., consistency, structure, cementation, react. W/HCl, geo. inter.		
				Surface Elevation:			
1			0.0	4" asphalt + Dark yellowish Brown (IOVR 4/4) Silty Sand with gravel (fill), dense, moist 45% fine-coarse Sand, 30% subangular gravel to 1.5", 20% fine		Hand augered to 5'	
2						OVM = MinRAE 2000 PID calibrated with 100 ppm isobutylene standard.	
3			0.3	Black (IOVR 2/1) Clayey sand with gravel, Loose, moist 70% fine-coarse sand, 15% fines, 15% subangular gravel to 1"		OVM = MinRAE 2000 PID calibrated with 100 ppm isobutylene standard.	
4							
5				5' Dark gray (5Y 4/1) Lean Clay, soft moist 85% fines, 15% fine sand			
				Boring ended @ 5' bgs			

PROJECT: <u>DD131G4970.01</u>				Log of Boring No. <u>SB-5</u>		
BORING LOCATION: <u>Alameda, CA</u>				ELEVATION AND DATUM:		
DRILLING CONTRACTOR: <u>Cascade</u>				DATE STARTED: <u>9/4/13</u>	DATE FINISHED: <u>9/4/13</u>	
DRILLING METHOD: <u>Direct push</u>				TOTAL DEPTH: <u>5'</u>	MEASURING POINT:	
DRILLING EQUIPMENT: <u>Geoprobe G600</u>				DEPTH TO WATER: FIRST —	COMPL	
SAMPLING METHOD: <u>Acetate Sleave</u>				LOGGED BY: <u>Scott Graham</u>	RESPONSIBLE PROFESSIONAL: <u>Scott Graham</u>	REG. NO.
HAMMER WEIGHT: <u>—</u>	DROP: <u>—</u>					
DEPTH (feet)	SAMPLES			DESCRIPTION	REMARKS	
Sample No.	Sample No.	Blows/ Foot	OVM Reading (ppm)	NAME (USCS Symbol): color, moist. % by weight, plast., consistency, structure, cementation, react. W/HCl, geo. inter. Surface Elevation:		
1				4" Asphalt road base to 1.5' Very Dark Gray (10Y R3/1) Well Graded Gravel with 5% Sand, dense, moist, 60% angular gravel to 1.5' 30% fine to coarse sand, 10% fines	Hand augered to 2'	
2	X			Greenish Black (10Y 2.5/1) Sandy Lean Clay, firm, moist, 50% fines, 30% fine to coarse sand, 20% fines	OVM = MinRAE 2000 PID calibrated with 100 ppm isobutylene standard.	
3					OVM = MinRAE 2000 PID calibrated with 100 ppm isobutylene standard.	
4					OVM = MinRAE 2000 PID calibrated with 100 ppm isobutylene standard.	
5	X			Black (10N 2.5/1) Lean clay with sand, soft, moist, 75% fines, 20% fine sand, 5% subround gravel to 1'		
				Boring ended @ 5' bgs		

PROJECT: <u>0013164970.01</u>				Log of Boring No. <u>SB-6</u>	
BORING LOCATION: <u>Alameda, CA</u>				ELEVATION AND DATUM:	
DRILLING CONTRACTOR: <u>Cascade</u>				DATE STARTED: <u>9/14/13</u>	DATE FINISHED: <u>9/14/13</u>
DRILLING METHOD: <u>Direct Push</u>				TOTAL DEPTH: <u>12'</u>	MEASURING POINT:
DRILLING EQUIPMENT: <u>GeoProbe 6600</u>				DEPTH TO WATER: FIRST	COMPL
SAMPLING METHOD: <u>2" acetate sleeve</u>				LOGGED BY: <u>Scott Graham</u>	
HAMMER WEIGHT: <u>—</u> DROP: <u>—</u>				RESPONSIBLE PROFESSIONAL:	REG. NO.
DEPTH (feet)	SAMPLES			DESCRIPTION	REMARKS
	Sample No.	Sample Type	Blows/ Foot	OVM Reading (ppm)	NAME (USCS Symbol); color, moist. % by weight, plast., consistency, structure, cementation, react. W/HCl, geo. inter.
					Surface Elevation:
1				26	<u>4" Asphalt Olive Brown, (2.54/i) Clayey Gravel with sand 50% subangular gravel to 1.5", 30% fine to coarse sand, 20% fines</u>
2					
3	X	1		1.3	<u>Black (2.57/i) Silty Sand, medium dense, moist, 85% fine sand, 15% fines, trace med &amp; coarse sand</u>
4					
5	X				<u>Grayish black (10.2.5/i) Lean clay, soft, moist to wet (e 8'), 85% fines, 15% fine sand</u>
6					
7					
8					<u>Visible rootlets 8-10' bgs (~5%)</u>
9					
10					
11					
12					<u>Boring ended @ 12'</u>
Project No.		AMEC Environment & Infrastructure			Figure

PROJECT: 0013164970.01	Log of Boring No. SB-7		
BORING LOCATION: Alameda Cr	ELEVATION AND DATUM:		
DRILLING CONTRACTOR: Cascade	DATE STARTED: 9/4/13	DATE FINISHED: 9/4/13	
DRILLING METHOD: Geoprobe	TOTAL DEPTH: 15	MEASURING POINT:	
DRILLING EQUIPMENT: Geoprobe 6600	DEPTH TO WATER: —	FIRST	COMPL —
SAMPLING METHOD: 2" Acetate sleeve	LOGGED BY: Scott Graham		
HAMMER WEIGHT: —	DROP: —	RESPONSIBLE PROFESSIONAL: REG. NO.	

DEPTH (feet)	SAMPLES			DESCRIPTION NAME (USCS Symbol); color, moist. % by weight, plast., consistency, structure, cementation, react. W/HCl, geo. inter. Surface Elevation:	REMARKS
	Sample No.	Sample Type	Blows/ Foot		
1				4" asphalt Dark Grayish Brown (10YR 4/2) Silty gravel with sand, dense, moist, 60% angular gravel to 1.5", 30% fine-coarse sand, 10% fines	Hand augered to 2'
2					OVM = MinRAE 2000 PID calibrated with 100 ppm isobutylene standard.
3	X			Black (10YR 2/1) Clayey Sand with gravel, dense moist, 60% fine-coarse sand, 30% fines, 20% subround gravel to 1"	OVM = MinRAE 2000 PID calibrated with 100 ppm isobutylene standard.
4					OVM = MinRAE 2000 PID calibrated with 100 ppm isobutylene standard.
5	X			Black (N 2/1) Sandy Silt, firm, moist, 70% fine sand	Place screen 0.5-1.5' ✓ water @ 1600 2" of water in borehole
6				Very Dark greenish gray (10V 3/1) Lean Clay, soft moist, 90% fines, 10% fine sand	
7					
8					
9					
10					
11					
12					
13					
14					
15				0.0 Greenish gray (5GY 5/1) Lean clay with sand, firm, moist, 85% fines, 15% fine sand	Boring ended @ 15'

PROJECT: <u>0013164970.01</u>				Log of Boring No. <u>SB-8</u>		
BORING LOCATION: <u>Alameda, CA</u>				ELEVATION AND DATUM:		
DRILLING CONTRACTOR: <u>Cascade</u>				DATE STARTED:	<u>9/4/13</u>	DATE FINISHED:
DRILLING METHOD: <u>Direct Push</u>				TOTAL DEPTH:	<u>5'</u>	MEASURING POINT:
DRILLING EQUIPMENT: <u>Geoprobe 6600</u>				DEPTH TO WATER:		
SAMPLING METHOD: <u>2" Acetate Sleeve</u>				FIRST	<u>2'</u>	COMPL
HAMMER WEIGHT: <u>—</u> DROP: <u>—</u>				LOGGED BY:	<u>Scott Graham</u>	
RESPONSIBLE PROFESSIONAL: REG. NO.						
DEPTH (feet)	SAMPLES			DESCRIPTION NAME (USCS Symbol); color, moist. % by weight, plast., consistency, structure, cementation, react. W/HCl, geo. inter.	REMARKS	
	Sample No.	Sample Type	Blows/ Foot			
				Surface Elevation:		
1			0.0	4" asphalt Dark yellowish Brown (10YR 4/4) Well graded gravel with clay & sand, dense, moist 60% angular gravel to 1.5", 30% fine-coarse sand, 10% fines	Hand augered to 2'	
2				<del>1.5' - 2.5' bgs</del>		
13.25	X		0.0	Wet 2-2.5' bgs Black (10YR 2/1) lean clay with sand, soft moist 75% fines, 20% fine sand, 5% subangular gravel + 0.1"	OVM = MinRAE 2000 PID calibrated with 100 ppm isobutylene standard.	
3						
4					OVM = MinRAE 2000 PID calibrated with 100 ppm isobutylene standard.	
13.30	X		0.0	Very dark gray (N 3/1) lean clay, soft, moist 90% fines, 10% fine sand		
				Boring ended @ 5' bsc		

PROJECT: 0013104970.01	Log of Boring No. SB-9		
BORING LOCATION: Alameda, CA	ELEVATION AND DATUM:		
DRILLING CONTRACTOR: Cascade	DATE STARTED: 9/4/13	DATE FINISHED: 9/4/13	
DRILLING METHOD: Direct Push	TOTAL DEPTH: 15	MEASURING POINT:	
DRILLING EQUIPMENT: Geoprobe 6600	DEPTH TO WATER: FIRST 8	COMPL	
SAMPLING METHOD: 7" acetate sleeve	LOGGED BY: Scott Graham		
HAMMER WEIGHT: —	DROP: —	RESPONSIBLE PROFESSIONAL: REG. NO.	

DEPTH (feet)	SAMPLES			DESCRIPTION NAME (USCS Symbol); color, moist. % by weight, plast., consistency, structure, cementation, react. W/HCl, geo. inter.	REMARKS
	Sample No.	Sample Type	Blows/ Foot		
1				Surface Elevation:	
1350	X			4" asphalt Very Dark Grayish Brown (10YR 3/2) Well graded gravel with Silt + sand, dense, moist, 65% angular gravel to 2" 25% fine - coarse sand 10% fines Filter fabric & 1.5"	Hand augered to 2
2	X			Dark grayish Brown (2.5Y4/2) Clayey sand, medium dense, moist, 70% fine sand, 20% fines, 10% subround gravel to 1"	OVM = MinRAE 2000 PID calibrated with 100 ppm isobutylene standard.
3				Very Dark greenish gray (10Y3/1) Lean clay, soft moist, 90% fines, 10% fine sand	OVM = MinRAE 2000 PID calibrated with 100 ppm isobutylene standard.
1410	X				
5	X				
6					
7				Rootlets throughout	Place 10' of screen 5-15'
8					✓ water @ 1600 - no water in hole
9					
10					
11					
12					
13					
14					
15				Boring ended @ 15'	

PROJECT: 0013164970.01	Log of Boring No. SB-10		
BORING LOCATION: Alameda, CA	ELEVATION AND DATUM:		
DRILLING CONTRACTOR: Cascade	DATE STARTED: 9/4/13	DATE FINISHED: 9/4/15	
DRILLING METHOD: Direct Push	TOTAL DEPTH: 15'	MEASURING POINT:	
DRILLING EQUIPMENT: Geoprobe 6600	DEPTH TO WATER: FIRST 8'	COMPL	
SAMPLING METHOD: 2" Acetate sleeve	LOGGED BY: Scott Graham		
HAMMER WEIGHT: —	DROP: —	RESPONSIBLE PROFESSIONAL: REG. NO.	

DEPTH (feet)	SAMPLES			DESCRIPTION NAME (USCS Symbol): color, moist. % by weight, plast., consistency, structure, cementation, react. W/HCl, geo. inter.	REMARKS
	Sample No.	Sample Type	Blows/ Foot		
1				4" Asphalt (10YR 3/1) Very Dark gray Well graded gravel with sand, dense, moist 75% angular gravel to 1.5", 20% fine-coarse sand, 5% fines	Hand augered to 2'
2					
14.50 X				Very Dark gray (10YR 3/1) Clayey Sand, dense moist, 75% fine-med sand, 20% fine 5% subround gravel to 1"	OVM = MinRAE 2000 PID calibrated with 100 ppm isobutylene standard.
3					
4					OVM = MinRAE 2000 PID calibrated with 100 ppm Isobutylene standard.
14.55 X				Very dark greenish gray (10Y3/1) Lean clay, firm, moist, 90% fines, 10% fine sand	Place 10' of Screen 5-15'
5					✓ watch @ 1600 - no water in hole
6					
7				roots & organics 7-8' bgs	
8					
9				Black (N 2.5/1) Clayey Sand, wet, med dense 60% fine sand, 40% fines	
10					
11				Greenish gray (10GV 5/1) Lean Clay firm moist 90% fines, 10% fine sand	
12					
13				color change to Brown (10YR 5/3), 20% fine sand, 80% fines	
14					
15				Boring ended @ 15'	

PROJECT: <b>0013164970.01</b>				Log of Boring No. <b>SB-11</b>		
BORING LOCATION: <b>Alameda, CA</b>				ELEVATION AND DATUM:		
DRILLING CONTRACTOR: <b>Cascade</b>				DATE STARTED: <b>9/4/13</b>	DATE FINISHED: <b>9/4/13</b>	
DRILLING METHOD: <b>Direct Push</b>				TOTAL DEPTH: <b>5</b>	MEASURING POINT:	
DRILLING EQUIPMENT: <b>Geoprobe 6600</b>				DEPTH TO WATER: FIRST	COMPL	
SAMPLING METHOD: <b>2" Acetate Sleeve</b>				LOGGED BY: <b>Scott Cawthon</b>		
HAMMER WEIGHT: — DROP: —				RESPONSIBLE PROFESSIONAL: <b>REG. NO.</b>		
DEPTH (feet)	SAMPLES			DESCRIPTION	REMARKS	
	Sample No.	Sample Size	Blows/ Foot	OVM Reading (ppm)	NAME (USCS Symbol): color, moist. % by weight, plast., consistency, structure, cementation, react. W/HCl, geo. inter.	
					Surface Elevation:	
1				0.0	very dark gray (10YR3/1) Silty gravel with sand dense, moist, 55% angular gravel to 1.5", 30% fine-coarse sand, 20% fines	Hand augered to 2'
15.15	X			0.0	Greenish Black (10V 2.5/1) Silty sand, dense, moist 75% fine sand, 20% fines, 5% gravel to 1"	OVM = MinRAE 2000 PID calibrated with 100 ppm isobutylene standard.
2						OVM = MinRAE 2000 PID calibrated with 100 ppm isobutylene standard.
3						
4						
15.25	X			0.0	Greenish Black (10Y2.5/1) Lean clay, firm moist, 90% fines, 10% fine sand	
5					Boring ended @ 5' bss	

PROJECT: OD13164970.01	Log of Boring No. SB-12		
BORING LOCATION: Alameda, CA	ELEVATION AND DATUM:		
DRILLING CONTRACTOR: Cascade	DATE STARTED 9/4/13	DATE FINISHED 9/4/13	
DRILLING METHOD: Direct Push	TOTAL DEPTH: 5	MEASURING POINT:	
DRILLING EQUIPMENT: Geoprobe 6600	DEPTH TO WATER: FIRST	COMPL	
SAMPLING METHOD: 2" Acetate Sleeve	LOGGED BY: Scott Graham		
HAMMER WEIGHT: —	DROP: —	RESPONSIBLE PROFESSIONAL: REG. NO.	

DEPTH (feet)	SAMPLES			DESCRIPTION NAME (USCS Symbol): color, moist. % by weight, plast., consistency, structure, cementation, react. W/HCl, geo. inter. Surface Elevation:	REMARKS
	Sample No.	Sample Type	Blows/ Foot		
1				4" Asphalt Very dark grayish brown (10YR 3/2) 51% gravel with sand, 50% angular gravel to 1.5", 3% fine-coarse sand 2% fines	Hand augered to 2'
2	X			Very Dark greenish gray (10Y 3/1) Clayey sand, dense, moist, 85% fine sand, 15% fines	OVM = MinRAE 2000 PID calibrated with 100 ppm isobutylene standard.
3					OVM = MinRAE 2000 PID calibrated with 100 ppm isobutylene standard.
4					
5	X			Very Dark gray (N 3/1) Lean clay, soft moist 95% fines, 5% fine sand Boring ended @ 5' bss	

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**APPENDIX C**

Laboratory Analytical Reports

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pleasanton

1220 Quarry Lane

Pleasanton, CA 94566

Tel: (925)484-1919

TestAmerica Job ID: 720-52127-1

Client Project/Site: City of Alameda

For:

AMEC Environment & Infrastructure, Inc.

1465 North McDowell Blvd

Suite 200

Petaluma, California 94954

Attn: Mr. Gary Lieberman



---

Authorized for release by:

9/17/2013 4:11:20 PM

Afsaneh Salimpour, Project Manager I

afsaneh.salimpour@testamericainc.com

### LINKS

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results through

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The  
Expert

Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

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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## Definitions/Glossary

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

### Qualifiers

#### GC/MS Semi VOA

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the control limits
X	Surrogate is outside control limits

#### GC Semi VOA

Qualifier	Qualifier Description
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
X	Surrogate is outside control limits
F	MS/MSD Recovery and/or RPD exceeds the control limits

### 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
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

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## Case Narrative

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

### Job ID: 720-52127-1

Laboratory: TestAmerica Pleasanton

#### Narrative

##### Job Narrative 720-52127-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 9/5/2013 3:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 0.8° C, 1.0° C, 1.1° C and 1.3° C.

Except:

The container label for the following sample(s) did not match the information listed on the Chain-of-Custody (COC): (#2) S-SB1-5. The container labels list S-SB1-2 time 08:15. The COC lists S-SB1-5 time 08:15. ) (#26) S-SB12-5. The container labels list time 15:50. The COC lists time 15:45.

#### GC/MS VOA

Method(s) 8260B: Internal standard response for the following sample 52127-20,22,24,26 exceeded the lower control limit and confirmed by reanalysis. As such, the sample results may be biased high.

Method(s) 8260B: Internal standard response for the following sample 52127-2,4,6,9,11,12,13,14 exceeded the lower control limit and confirmed by reanalysis. As such, the sample results may be biased high.

Method(s) 8260B: Internal standard response for the following sample 52127-15 exceeded the lower control limit and confirmed by reanalysis. As such, the sample results may be biased high.

Method(s) 8260B: Internal standard response for the following sample 52127-5 exceeded the lower control limit and confirmed by reanalysis. As such, the sample results may be biased high.

No other analytical or quality issues were noted.

#### GC/MS Semi VOA

Method(s) 8270C SIM: Surrogate recovery for the following sample(s) was outside control limits: S-SB2-5 (720-52127-4). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8270C SIM: The following sample(s) was diluted due to the abundance of non-target analytes: S-SB1-5 (720-52127-2), S-SB3-3 (720-52127-6). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

#### GC Semi VOA

Method(s) 8015B: Due to the level of dilution required for the following sample(s), surrogate recoveries are not reported: S-SB7-3.5 (720-52127-13).

Method(s) 8015B: Due to the level of dilution required for the following sample(s), surrogate recoveries are not reported: (720-52127-9 MS), (720-52127-9 MSD), S-SB11-2 (720-52127-23), S-SB4-3 (720-52127-9).

Method(s) 8015B: Due to the high concentration of C10-C28, the matrix spike / matrix spike duplicate (MS/MSD) for batch 144195 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

No other analytical or quality issues were noted.

#### Metals

## Case Narrative

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

### Job ID: 720-52127-1 (Continued)

#### Laboratory: TestAmerica Pleasanton (Continued)

No other analytical or quality issues were noted.

#### General Chemistry

No analytical or quality issues were noted.

#### Organic Prep

No analytical or quality issues were noted.

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# Detection Summary

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

## Client Sample ID: S-SB1-2

## Lab Sample ID: 720-52127-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	13		5.0		ug/Kg	1		8270C SIM	Total/NA
Anthracene	10		5.0		ug/Kg	1		8270C SIM	Total/NA
Benzo[a]anthracene	39		5.0		ug/Kg	1		8270C SIM	Total/NA
Benzo[a]pyrene	52		5.0		ug/Kg	1		8270C SIM	Total/NA
Benzo[b]fluoranthene	98		5.0		ug/Kg	1		8270C SIM	Total/NA
Benzo[g,h,i]perylene	32		5.0		ug/Kg	1		8270C SIM	Total/NA
Benzo[k]fluoranthene	27		5.0		ug/Kg	1		8270C SIM	Total/NA
Chrysene	52		5.0		ug/Kg	1		8270C SIM	Total/NA
Dibenz(a,h)anthracene	7.1		5.0		ug/Kg	1		8270C SIM	Total/NA
Fluoranthene	77		5.0		ug/Kg	1		8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	28		5.0		ug/Kg	1		8270C SIM	Total/NA
Phenanthrene	26		5.0		ug/Kg	1		8270C SIM	Total/NA
Pyrene	82		5.0		ug/Kg	1		8270C SIM	Total/NA
Diesel Range Organics [C10-C28]	13		0.99		mg/Kg	1		8015B	Silica Gel Cleanup

## Client Sample ID: S-SB1-5

## Lab Sample ID: 720-52127-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	12		10		ug/Kg	2		8270C SIM	Total/NA
Anthracene	35		10		ug/Kg	2		8270C SIM	Total/NA
Benzo[a]anthracene	54		10		ug/Kg	2		8270C SIM	Total/NA
Benzo[a]pyrene	45		10		ug/Kg	2		8270C SIM	Total/NA
Benzo[b]fluoranthene	70		10		ug/Kg	2		8270C SIM	Total/NA
Benzo[g,h,i]perylene	17		10		ug/Kg	2		8270C SIM	Total/NA
Benzo[k]fluoranthene	25		10		ug/Kg	2		8270C SIM	Total/NA
Chrysene	68		10		ug/Kg	2		8270C SIM	Total/NA
Fluoranthene	110		10		ug/Kg	2		8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	16		10		ug/Kg	2		8270C SIM	Total/NA
Naphthalene	45		10		ug/Kg	2		8270C SIM	Total/NA
Phenanthrene	130		10		ug/Kg	2		8270C SIM	Total/NA
Pyrene	97		10		ug/Kg	2		8270C SIM	Total/NA
Diesel Range Organics [C10-C28]	51		2.0		mg/Kg	2		8015B	Silica Gel Cleanup

## Client Sample ID: S-SB2-5

## Lab Sample ID: 720-52127-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
MTBE	4.3		3.9		ug/Kg	1		8260B/CA_LUFT MS	Total/NA
Phenanthrene	5.6		4.9		ug/Kg	1		8270C SIM	Total/NA
Diesel Range Organics [C10-C28]	4.0		0.99		mg/Kg	1		8015B	Silica Gel Cleanup

## Client Sample ID: S-SB2-3.5

## Lab Sample ID: 720-52127-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	8.5		4.9		ug/Kg	1		8270C SIM	Total/NA
Benzo[a]pyrene	7.8		4.9		ug/Kg	1		8270C SIM	Total/NA
Benzo[b]fluoranthene	21		4.9		ug/Kg	1		8270C SIM	Total/NA
Benzo[g,h,i]perylene	7.1		4.9		ug/Kg	1		8270C SIM	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

# Detection Summary

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

## Client Sample ID: S-SB2-3.5 (Continued)

## Lab Sample ID: 720-52127-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chrysene	21		4.9		ug/Kg	1		8270C SIM	Total/NA
Fluoranthene	5.9		4.9		ug/Kg	1		8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	5.5		4.9		ug/Kg	1		8270C SIM	Total/NA
Naphthalene	8.8		4.9		ug/Kg	1		8270C SIM	Total/NA
Phenanthrene	20		4.9		ug/Kg	1		8270C SIM	Total/NA
Pyrene	5.8		4.9		ug/Kg	1		8270C SIM	Total/NA
Diesel Range Organics [C10-C28]	6.2		0.99		mg/Kg	1		8015B	Silica Gel Cleanup

## Client Sample ID: S-SB3-3

## Lab Sample ID: 720-52127-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	24		10		ug/Kg	2		8270C SIM	Total/NA
Benzo[a]pyrene	41		10		ug/Kg	2		8270C SIM	Total/NA
Benzo[b]fluoranthene	60		10		ug/Kg	2		8270C SIM	Total/NA
Benzo[g,h,i]perylene	18		10		ug/Kg	2		8270C SIM	Total/NA
Benzo[k]fluoranthene	17		10		ug/Kg	2		8270C SIM	Total/NA
Chrysene	43		10		ug/Kg	2		8270C SIM	Total/NA
Fluoranthene	39		10		ug/Kg	2		8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	18		10		ug/Kg	2		8270C SIM	Total/NA
Phenanthrene	16		10		ug/Kg	2		8270C SIM	Total/NA
Pyrene	47		10		ug/Kg	2		8270C SIM	Total/NA
Diesel Range Organics [C10-C28]	150		2.0		mg/Kg	2		8015B	Silica Gel Cleanup

## Client Sample ID: S-SB3-5.5

## Lab Sample ID: 720-52127-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	5.5		5.0		ug/Kg	1		8270C SIM	Total/NA
Pyrene	6.7 *		5.0		ug/Kg	1		8270C SIM	Total/NA
Diesel Range Organics [C10-C28]	2.3		0.99		mg/Kg	1		8015B	Silica Gel Cleanup

## Client Sample ID: W-SB3-8

## Lab Sample ID: 720-52127-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	12		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	1700		20		mg/L	1		SM 2540C	Total/NA

## Client Sample ID: S-SB4-3

## Lab Sample ID: 720-52127-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	110		25		ug/Kg	5		8270C SIM	Total/NA
Anthracene	160		25		ug/Kg	5		8270C SIM	Total/NA
Benzo[a]anthracene	340		25		ug/Kg	5		8270C SIM	Total/NA
Benzo[a]pyrene	360		25		ug/Kg	5		8270C SIM	Total/NA
Benzo[b]fluoranthene	540		25		ug/Kg	5		8270C SIM	Total/NA
Benzo[g,h,i]perylene	340		25		ug/Kg	5		8270C SIM	Total/NA
Benzo[k]fluoranthene	130		25		ug/Kg	5		8270C SIM	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

# Detection Summary

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

## Client Sample ID: S-SB4-3 (Continued)

Lab Sample ID: 720-52127-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chrysene	510		25		ug/Kg		5	8270C SIM	Total/NA
Dibenz(a,h)anthracene	120		25		ug/Kg		5	8270C SIM	Total/NA
Fluoranthene	670		25		ug/Kg		5	8270C SIM	Total/NA
Fluorene	57		25		ug/Kg		5	8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	290		25		ug/Kg		5	8270C SIM	Total/NA
Naphthalene	380		25		ug/Kg		5	8270C SIM	Total/NA
Phenanthrene	900		25		ug/Kg		5	8270C SIM	Total/NA
Pyrene	690 *		25		ug/Kg		5	8270C SIM	Total/NA
Diesel Range Organics [C10-C28]	180			5.0	mg/Kg		5	8015B	Silica Gel Cleanup

## Client Sample ID: S-SB4-5

Lab Sample ID: 720-52127-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
MTBE	9.7		3.8		ug/Kg		1	8260B/CA_LUFT MS	Total/NA
Benzo[a]anthracene	5.5		5.0		ug/Kg		1	8270C SIM	Total/NA
Benzo[a]pyrene	8.5		5.0		ug/Kg		1	8270C SIM	Total/NA
Benzo[b]fluoranthene	9.4		5.0		ug/Kg		1	8270C SIM	Total/NA
Benzo[g,h,i]perylene	10		5.0		ug/Kg		1	8270C SIM	Total/NA
Chrysene	7.0		5.0		ug/Kg		1	8270C SIM	Total/NA
Fluoranthene	10		5.0		ug/Kg		1	8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	6.7		5.0		ug/Kg		1	8270C SIM	Total/NA
Pyrene	11 *		5.0		ug/Kg		1	8270C SIM	Total/NA

## Client Sample ID: S-SB6-3

Lab Sample ID: 720-52127-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Anthracene	8.3		5.0		ug/Kg		1	8270C SIM	Total/NA
Benzo[a]anthracene	23		5.0		ug/Kg		1	8270C SIM	Total/NA
Benzo[a]pyrene	24		5.0		ug/Kg		1	8270C SIM	Total/NA
Benzo[b]fluoranthene	22		5.0		ug/Kg		1	8270C SIM	Total/NA
Benzo[g,h,i]perylene	23		5.0		ug/Kg		1	8270C SIM	Total/NA
Benzo[k]fluoranthene	19		5.0		ug/Kg		1	8270C SIM	Total/NA
Chrysene	29		5.0		ug/Kg		1	8270C SIM	Total/NA
Dibenz(a,h)anthracene	6.2		5.0		ug/Kg		1	8270C SIM	Total/NA
Fluoranthene	54		5.0		ug/Kg		1	8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	18		5.0		ug/Kg		1	8270C SIM	Total/NA
Naphthalene	8.7		5.0		ug/Kg		1	8270C SIM	Total/NA
Phenanthrene	43		5.0		ug/Kg		1	8270C SIM	Total/NA
Pyrene	93 *		5.0		ug/Kg		1	8270C SIM	Total/NA

## Client Sample ID: S-SB6-5.5

Lab Sample ID: 720-52127-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chrysene	5.5		5.0		ug/Kg		1	8270C SIM	Total/NA
Fluoranthene	8.1		5.0		ug/Kg		1	8270C SIM	Total/NA
Naphthalene	7.2		5.0		ug/Kg		1	8270C SIM	Total/NA
Phenanthrene	7.9		5.0		ug/Kg		1	8270C SIM	Total/NA
Pyrene	11 *		5.0		ug/Kg		1	8270C SIM	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

# Detection Summary

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

## Client Sample ID: S-SB6-5.5 (Continued)

## Lab Sample ID: 720-52127-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	2.1		1.0		mg/Kg	1		8015B	Silica Gel Cleanup

## Client Sample ID: S-SB7-3.5

## Lab Sample ID: 720-52127-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	180		7.8		ug/Kg	1		8260B/CA_LUFT MS	Total/NA
Acenaphthene	910		250		ug/Kg	50		8270C SIM	Total/NA
Anthracene	1400		250		ug/Kg	50		8270C SIM	Total/NA
Benzo[a]anthracene	5300		250		ug/Kg	50		8270C SIM	Total/NA
Benzo[a]pyrene	4900		250		ug/Kg	50		8270C SIM	Total/NA
Benzo[b]fluoranthene	8200		250		ug/Kg	50		8270C SIM	Total/NA
Benzo[g,h,i]perylene	2900		250		ug/Kg	50		8270C SIM	Total/NA
Benzo[k]fluoranthene	2100		250		ug/Kg	50		8270C SIM	Total/NA
Chrysene	5500		250		ug/Kg	50		8270C SIM	Total/NA
Dibenz(a,h)anthracene	1000		250		ug/Kg	50		8270C SIM	Total/NA
Fluoranthene	15000		250		ug/Kg	50		8270C SIM	Total/NA
Fluorene	970		250		ug/Kg	50		8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	2900		250		ug/Kg	50		8270C SIM	Total/NA
Naphthalene	1100		250		ug/Kg	50		8270C SIM	Total/NA
Phenanthrene	9400		250		ug/Kg	50		8270C SIM	Total/NA
Pyrene	12000 *		250		ug/Kg	50		8270C SIM	Total/NA
Diesel Range Organics [C10-C28]	1100		10		mg/Kg	10		8015B	Silica Gel Cleanup

## Client Sample ID: S-SB7-5

## Lab Sample ID: 720-52127-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	5.6		5.0		ug/Kg	1		8270C SIM	Total/NA
Anthracene	11		5.0		ug/Kg	1		8270C SIM	Total/NA
Benzo[a]anthracene	44		5.0		ug/Kg	1		8270C SIM	Total/NA
Benzo[a]pyrene	47		5.0		ug/Kg	1		8270C SIM	Total/NA
Benzo[b]fluoranthene	52		5.0		ug/Kg	1		8270C SIM	Total/NA
Benzo[g,h,i]perylene	37		5.0		ug/Kg	1		8270C SIM	Total/NA
Benzo[k]fluoranthene	16		5.0		ug/Kg	1		8270C SIM	Total/NA
Chrysene	50		5.0		ug/Kg	1		8270C SIM	Total/NA
Dibenz(a,h)anthracene	6.5		5.0		ug/Kg	1		8270C SIM	Total/NA
Fluoranthene	100		5.0		ug/Kg	1		8270C SIM	Total/NA
Fluorene	5.8		5.0		ug/Kg	1		8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	27		5.0		ug/Kg	1		8270C SIM	Total/NA
Naphthalene	8.4		5.0		ug/Kg	1		8270C SIM	Total/NA
Phenanthrene	70		5.0		ug/Kg	1		8270C SIM	Total/NA
Pyrene	100 *		5.0		ug/Kg	1		8270C SIM	Total/NA

## Client Sample ID: S-SB5-2

## Lab Sample ID: 720-52127-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	10		9.9		ug/Kg	2		8270C SIM	Total/NA
Benzo[a]anthracene	35		9.9		ug/Kg	2		8270C SIM	Total/NA
Benzo[a]pyrene	51		9.9		ug/Kg	2		8270C SIM	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

# Detection Summary

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

## Client Sample ID: S-SB5-2 (Continued)

## Lab Sample ID: 720-52127-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[b]fluoranthene	73		9.9		ug/Kg	2		8270C SIM	Total/NA
Benzo[g,h,i]perylene	58		9.9		ug/Kg	2		8270C SIM	Total/NA
Benzo[k]fluoranthene	23		9.9		ug/Kg	2		8270C SIM	Total/NA
Chrysene	45		9.9		ug/Kg	2		8270C SIM	Total/NA
Dibenz(a,h)anthracene	12		9.9		ug/Kg	2		8270C SIM	Total/NA
Fluoranthene	64		9.9		ug/Kg	2		8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	38		9.9		ug/Kg	2		8270C SIM	Total/NA
Phenanthrene	31		9.9		ug/Kg	2		8270C SIM	Total/NA
Pyrene	70 *		9.9		ug/Kg	2		8270C SIM	Total/NA
Diesel Range Organics [C10-C28]	110		3.0		mg/Kg	3		8015B	Silica Gel Cleanup

## Client Sample ID: S-SB5-5

## Lab Sample ID: 720-52127-16

No Detections.

## Client Sample ID: S-SB8-3

## Lab Sample ID: 720-52127-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Anthracene	6.6		5.0		ug/Kg	1		8270C SIM	Total/NA
Benzo[a]anthracene	13		5.0		ug/Kg	1		8270C SIM	Total/NA
Benzo[a]pyrene	17		5.0		ug/Kg	1		8270C SIM	Total/NA
Benzo[b]fluoranthene	24		5.0		ug/Kg	1		8270C SIM	Total/NA
Benzo[g,h,i]perylene	21		5.0		ug/Kg	1		8270C SIM	Total/NA
Benzo[k]fluoranthene	7.8		5.0		ug/Kg	1		8270C SIM	Total/NA
Chrysene	18		5.0		ug/Kg	1		8270C SIM	Total/NA
Fluoranthene	55		5.0		ug/Kg	1		8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	14		5.0		ug/Kg	1		8270C SIM	Total/NA
Naphthalene	14		5.0		ug/Kg	1		8270C SIM	Total/NA
Phenanthrene	26		5.0		ug/Kg	1		8270C SIM	Total/NA
Pyrene	50 *		5.0		ug/Kg	1		8270C SIM	Total/NA
Diesel Range Organics [C10-C28]	5.0		1.0		mg/Kg	1		8015B	Silica Gel Cleanup

## Client Sample ID: S-SB8-5

## Lab Sample ID: 720-52127-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
MTBE	8.7		4.5		ug/Kg	1		8260B/CA_LUFT MS	Total/NA

## Client Sample ID: S-SB9-2

## Lab Sample ID: 720-52127-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	1.1		0.99		mg/Kg	1		8015B	Silica Gel Cleanup

## Client Sample ID: S-SB9-5

## Lab Sample ID: 720-52127-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoranthene	11		4.9		ug/Kg	1		8270C SIM	Total/NA
Phenanthrene	9.4		4.9		ug/Kg	1		8270C SIM	Total/NA
Pyrene	6.7 *		4.9		ug/Kg	1		8270C SIM	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

# Detection Summary

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

## Client Sample ID: S-SB9-5 (Continued)

## Lab Sample ID: 720-52127-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	1.7		0.99		mg/Kg	1		8015B	Silica Gel Cleanup

## Client Sample ID: S-SB10-2.5

## Lab Sample ID: 720-52127-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	8.2		4.9		ug/Kg	1		8270C SIM	Total/NA
Benzo[a]pyrene	11		4.9		ug/Kg	1		8270C SIM	Total/NA
Benzo[b]fluoranthene	18		4.9		ug/Kg	1		8270C SIM	Total/NA
Benzo[g,h,i]perylene	15		4.9		ug/Kg	1		8270C SIM	Total/NA
Benzo[k]fluoranthene	5.8		4.9		ug/Kg	1		8270C SIM	Total/NA
Chrysene	12		4.9		ug/Kg	1		8270C SIM	Total/NA
Fluoranthene	21		4.9		ug/Kg	1		8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	10		4.9		ug/Kg	1		8270C SIM	Total/NA
Naphthalene	6.6		4.9		ug/Kg	1		8270C SIM	Total/NA
Phenanthrene	10		4.9		ug/Kg	1		8270C SIM	Total/NA
Pyrene	18		4.9		ug/Kg	1		8270C SIM	Total/NA
Diesel Range Organics [C10-C28]	28		0.99		mg/Kg	1		8015B	Silica Gel Cleanup

## Client Sample ID: S-SB10-5

## Lab Sample ID: 720-52127-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	5.0		5.0		ug/Kg	1		8270C SIM	Total/NA
Benzo[a]pyrene	6.3		5.0		ug/Kg	1		8270C SIM	Total/NA
Benzo[b]fluoranthene	8.1		5.0		ug/Kg	1		8270C SIM	Total/NA
Fluoranthene	8.1		5.0		ug/Kg	1		8270C SIM	Total/NA
Pyrene	6.4		5.0		ug/Kg	1		8270C SIM	Total/NA
Diesel Range Organics [C10-C28]	1.1		0.99		mg/Kg	1		8015B	Silica Gel Cleanup

## Client Sample ID: S-SB11-2

## Lab Sample ID: 720-52127-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	5.6		5.0		ug/Kg	1		8270C SIM	Total/NA
Benzo[a]anthracene	8.5		5.0		ug/Kg	1		8270C SIM	Total/NA
Benzo[a]pyrene	14		5.0		ug/Kg	1		8270C SIM	Total/NA
Benzo[b]fluoranthene	21		5.0		ug/Kg	1		8270C SIM	Total/NA
Benzo[g,h,i]perylene	18		5.0		ug/Kg	1		8270C SIM	Total/NA
Chrysene	22		5.0		ug/Kg	1		8270C SIM	Total/NA
Fluoranthene	23		5.0		ug/Kg	1		8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	12		5.0		ug/Kg	1		8270C SIM	Total/NA
Naphthalene	15		5.0		ug/Kg	1		8270C SIM	Total/NA
Phenanthrene	21		5.0		ug/Kg	1		8270C SIM	Total/NA
Pyrene	26		5.0		ug/Kg	1		8270C SIM	Total/NA
Diesel Range Organics [C10-C28]	450		10		mg/Kg	10		8015B	Silica Gel Cleanup

## Client Sample ID: S-SB11-5

## Lab Sample ID: 720-52127-24

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

# Detection Summary

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

**Client Sample ID: S-SB12-2**

**Lab Sample ID: 720-52127-25**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	4.2		0.99		mg/Kg	1		8015B	Silica Gel Cleanup

**Client Sample ID: S-SB12-5**

**Lab Sample ID: 720-52127-26**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[b]fluoranthene	6.1		5.0		ug/Kg	1		8270C SIM	Total/NA
Fluoranthene	6.8		5.0		ug/Kg	1		8270C SIM	Total/NA
Pyrene	5.2		5.0		ug/Kg	1		8270C SIM	Total/NA

**Client Sample ID: S-DRUM-(1-4)**

**Lab Sample ID: 720-52127-31**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	38		1.5		mg/Kg	4		6010B	Total/NA
Nickel	29		1.5		mg/Kg	4		6010B	Total/NA
Lead	170		1.5		mg/Kg	4		6010B	Total/NA
Zinc	69		4.5		mg/Kg	4		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

# Client Sample Results

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

**Client Sample ID: S-SB1-2**

**Lab Sample ID: 720-52127-1**

Date Collected: 09/04/13 08:00

Matrix: Solid

Date Received: 09/05/13 15:45

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	ND		4.5		ug/Kg		09/05/13 20:01	09/06/13 11:06	1
Benzene	ND		4.5		ug/Kg		09/05/13 20:01	09/06/13 11:06	1
Ethylbenzene	ND		4.5		ug/Kg		09/05/13 20:01	09/06/13 11:06	1
Toluene	ND		4.5		ug/Kg		09/05/13 20:01	09/06/13 11:06	1
Xylenes, Total	ND		8.9		ug/Kg		09/05/13 20:01	09/06/13 11:06	1
Naphthalene	ND		8.9		ug/Kg		09/05/13 20:01	09/06/13 11:06	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene	90		45 - 131				09/05/13 20:01	09/06/13 11:06	1
1,2-Dichloroethane-d4 (Surr)	107		60 - 140				09/05/13 20:01	09/06/13 11:06	1
Toluene-d8 (Surr)	95		58 - 140				09/05/13 20:01	09/06/13 11:06	1

## Method: 8270C SIM - PAHs by GCMS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0		ug/Kg		09/10/13 10:21	09/11/13 21:45	1
<b>Acenaphthylene</b>	<b>13</b>		5.0		ug/Kg		09/10/13 10:21	09/11/13 21:45	1
<b>Anthracene</b>	<b>10</b>		5.0		ug/Kg		09/10/13 10:21	09/11/13 21:45	1
<b>Benzo[a]anthracene</b>	<b>39</b>		5.0		ug/Kg		09/10/13 10:21	09/11/13 21:45	1
<b>Benzo[a]pyrene</b>	<b>52</b>		5.0		ug/Kg		09/10/13 10:21	09/11/13 21:45	1
<b>Benzo[b]fluoranthene</b>	<b>98</b>		5.0		ug/Kg		09/10/13 10:21	09/11/13 21:45	1
<b>Benzo[g,h,i]perylene</b>	<b>32</b>		5.0		ug/Kg		09/10/13 10:21	09/11/13 21:45	1
<b>Benzo[k]fluoranthene</b>	<b>27</b>		5.0		ug/Kg		09/10/13 10:21	09/11/13 21:45	1
<b>Chrysene</b>	<b>52</b>		5.0		ug/Kg		09/10/13 10:21	09/11/13 21:45	1
<b>Dibenz(a,h)anthracene</b>	<b>7.1</b>		5.0		ug/Kg		09/10/13 10:21	09/11/13 21:45	1
<b>Fluoranthene</b>	<b>77</b>		5.0		ug/Kg		09/10/13 10:21	09/11/13 21:45	1
Fluorene	ND		5.0		ug/Kg		09/10/13 10:21	09/11/13 21:45	1
<b>Indeno[1,2,3-cd]pyrene</b>	<b>28</b>		5.0		ug/Kg		09/10/13 10:21	09/11/13 21:45	1
Naphthalene	ND		5.0		ug/Kg		09/10/13 10:21	09/11/13 21:45	1
<b>Phenanthrene</b>	<b>26</b>		5.0		ug/Kg		09/10/13 10:21	09/11/13 21:45	1
<b>Pyrene</b>	<b>82</b>		5.0		ug/Kg		09/10/13 10:21	09/11/13 21:45	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl	56		33 - 120				09/10/13 10:21	09/11/13 21:45	1
Terphenyl-d14	91		35 - 146				09/10/13 10:21	09/11/13 21:45	1

## Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Diesel Range Organics [C10-C28]</b>	<b>13</b>		0.99		mg/Kg		09/12/13 21:50	09/13/13 19:08	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Capric Acid (Surr)	0		0 - 1				09/12/13 21:50	09/13/13 19:08	1
p-Terphenyl	108		38 - 148				09/12/13 21:50	09/13/13 19:08	1

TestAmerica Pleasanton

# Client Sample Results

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

## Client Sample ID: S-SB1-5

Date Collected: 09/04/13 08:15

Date Received: 09/05/13 15:45

## Lab Sample ID: 720-52127-2

Matrix: Solid

### Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	ND		4.2		ug/Kg		09/05/13 20:01	09/09/13 11:25	1
Benzene	ND		4.2		ug/Kg		09/05/13 20:01	09/09/13 11:25	1
Ethylbenzene	ND		4.2		ug/Kg		09/05/13 20:01	09/09/13 11:25	1
Toluene	ND		4.2		ug/Kg		09/05/13 20:01	09/09/13 11:25	1
Xylenes, Total	ND		8.5		ug/Kg		09/05/13 20:01	09/09/13 11:25	1
Naphthalene	ND		8.5		ug/Kg		09/05/13 20:01	09/09/13 11:25	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene	61		45 - 131				09/05/13 20:01	09/09/13 11:25	1
1,2-Dichloroethane-d4 (Surr)	110		60 - 140				09/05/13 20:01	09/09/13 11:25	1
Toluene-d8 (Surr)	89		58 - 140				09/05/13 20:01	09/09/13 11:25	1

### Method: 8270C SIM - PAHs by GCMS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		10		ug/Kg		09/10/13 10:21	09/11/13 22:09	2
<b>Acenaphthylene</b>	<b>12</b>		10		ug/Kg		09/10/13 10:21	09/11/13 22:09	2
<b>Anthracene</b>	<b>35</b>		10		ug/Kg		09/10/13 10:21	09/11/13 22:09	2
<b>Benzo[a]anthracene</b>	<b>54</b>		10		ug/Kg		09/10/13 10:21	09/11/13 22:09	2
<b>Benzo[a]pyrene</b>	<b>45</b>		10		ug/Kg		09/10/13 10:21	09/11/13 22:09	2
<b>Benzo[b]fluoranthene</b>	<b>70</b>		10		ug/Kg		09/10/13 10:21	09/11/13 22:09	2
<b>Benzo[g,h,i]perylene</b>	<b>17</b>		10		ug/Kg		09/10/13 10:21	09/11/13 22:09	2
<b>Benzo[k]fluoranthene</b>	<b>25</b>		10		ug/Kg		09/10/13 10:21	09/11/13 22:09	2
<b>Chrysene</b>	<b>68</b>		10		ug/Kg		09/10/13 10:21	09/11/13 22:09	2
Dibenz(a,h)anthracene	ND		10		ug/Kg		09/10/13 10:21	09/11/13 22:09	2
<b>Fluoranthene</b>	<b>110</b>		10		ug/Kg		09/10/13 10:21	09/11/13 22:09	2
Fluorene	ND		10		ug/Kg		09/10/13 10:21	09/11/13 22:09	2
<b>Indeno[1,2,3-cd]pyrene</b>	<b>16</b>		10		ug/Kg		09/10/13 10:21	09/11/13 22:09	2
<b>Naphthalene</b>	<b>45</b>		10		ug/Kg		09/10/13 10:21	09/11/13 22:09	2
<b>Phenanthrene</b>	<b>130</b>		10		ug/Kg		09/10/13 10:21	09/11/13 22:09	2
<b>Pyrene</b>	<b>97</b>		10		ug/Kg		09/10/13 10:21	09/11/13 22:09	2
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl	69		33 - 120				09/10/13 10:21	09/11/13 22:09	2
Terphenyl-d14	83		35 - 146				09/10/13 10:21	09/11/13 22:09	2

### Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Diesel Range Organics [C10-C28]</b>	<b>51</b>		2.0		mg/Kg		09/12/13 21:50	09/13/13 19:57	2
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Capric Acid (Surr)	0.2		0 - 1				09/12/13 21:50	09/13/13 19:57	2
p-Terphenyl	98		38 - 148				09/12/13 21:50	09/13/13 19:57	2

TestAmerica Pleasanton

# Client Sample Results

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

**Client Sample ID: S-SB2-5**

**Lab Sample ID: 720-52127-4**

**Matrix: Solid**

**Date Collected: 09/04/13 09:25**

**Date Received: 09/05/13 15:45**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	4.3		3.9		ug/Kg		09/05/13 20:01	09/09/13 11:51	1
Benzene	ND		3.9		ug/Kg		09/05/13 20:01	09/09/13 11:51	1
Ethylbenzene	ND		3.9		ug/Kg		09/05/13 20:01	09/09/13 11:51	1
Toluene	ND		3.9		ug/Kg		09/05/13 20:01	09/09/13 11:51	1
Xylenes, Total	ND		7.8		ug/Kg		09/05/13 20:01	09/09/13 11:51	1
Naphthalene	ND		7.8		ug/Kg		09/05/13 20:01	09/09/13 11:51	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene	74		45 - 131				09/05/13 20:01	09/09/13 11:51	1
1,2-Dichloroethane-d4 (Surr)	99		60 - 140				09/05/13 20:01	09/09/13 11:51	1
Toluene-d8 (Surr)	93		58 - 140				09/05/13 20:01	09/09/13 11:51	1

**Method: 8270C SIM - PAHs by GCMS (SIM)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		4.9		ug/Kg		09/10/13 10:21	09/11/13 22:32	1
Acenaphthylene	ND		4.9		ug/Kg		09/10/13 10:21	09/11/13 22:32	1
Anthracene	ND		4.9		ug/Kg		09/10/13 10:21	09/11/13 22:32	1
Benzo[a]anthracene	ND		4.9		ug/Kg		09/10/13 10:21	09/11/13 22:32	1
Benzo[a]pyrene	ND		4.9		ug/Kg		09/10/13 10:21	09/11/13 22:32	1
Benzo[b]fluoranthene	ND		4.9		ug/Kg		09/10/13 10:21	09/11/13 22:32	1
Benzo[g,h,i]perylene	ND		4.9		ug/Kg		09/10/13 10:21	09/11/13 22:32	1
Benzo[k]fluoranthene	ND		4.9		ug/Kg		09/10/13 10:21	09/11/13 22:32	1
Chrysene	ND		4.9		ug/Kg		09/10/13 10:21	09/11/13 22:32	1
Dibenz(a,h)anthracene	ND		4.9		ug/Kg		09/10/13 10:21	09/11/13 22:32	1
Fluoranthene	ND		4.9		ug/Kg		09/10/13 10:21	09/11/13 22:32	1
Fluorene	ND		4.9		ug/Kg		09/10/13 10:21	09/11/13 22:32	1
Indeno[1,2,3-cd]pyrene	ND		4.9		ug/Kg		09/10/13 10:21	09/11/13 22:32	1
Naphthalene	ND		4.9		ug/Kg		09/10/13 10:21	09/11/13 22:32	1
<b>Phenanthrene</b>	<b>5.6</b>		4.9		ug/Kg		09/10/13 10:21	09/11/13 22:32	1
Pyrene	ND		4.9		ug/Kg		09/10/13 10:21	09/11/13 22:32	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl	30	X	33 - 120				09/10/13 10:21	09/11/13 22:32	1
Terphenyl-d14	56		35 - 146				09/10/13 10:21	09/11/13 22:32	1

**Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	4.0		0.99		mg/Kg		09/12/13 21:50	09/13/13 14:56	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Capric Acid (Surr)	0.1		0 - 1				09/12/13 21:50	09/13/13 14:56	1
p-Terphenyl	89		38 - 148				09/12/13 21:50	09/13/13 14:56	1

TestAmerica Pleasanton

# Client Sample Results

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

## Client Sample ID: S-SB2-3.5

Date Collected: 09/04/13 09:30

Date Received: 09/05/13 15:45

## Lab Sample ID: 720-52127-5

Matrix: Solid

### Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	ND		3.8		ug/Kg		09/05/13 20:01	09/06/13 12:57	1
Benzene	ND		3.8		ug/Kg		09/05/13 20:01	09/06/13 12:57	1
Ethylbenzene	ND		3.8		ug/Kg		09/05/13 20:01	09/06/13 12:57	1
Toluene	ND		3.8		ug/Kg		09/05/13 20:01	09/06/13 12:57	1
Xylenes, Total	ND		7.6		ug/Kg		09/05/13 20:01	09/06/13 12:57	1
Naphthalene	ND		7.6		ug/Kg		09/05/13 20:01	09/06/13 12:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	73		45 - 131				09/05/13 20:01	09/06/13 12:57	1
1,2-Dichloroethane-d4 (Surr)	118		60 - 140				09/05/13 20:01	09/06/13 12:57	1
Toluene-d8 (Surr)	87		58 - 140				09/05/13 20:01	09/06/13 12:57	1

### Method: 8270C SIM - PAHs by GCMS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		4.9		ug/Kg		09/10/13 10:21	09/11/13 22:55	1
Acenaphthylene	ND		4.9		ug/Kg		09/10/13 10:21	09/11/13 22:55	1
Anthracene	ND		4.9		ug/Kg		09/10/13 10:21	09/11/13 22:55	1
Benzo[a]anthracene	8.5		4.9		ug/Kg		09/10/13 10:21	09/11/13 22:55	1
Benzo[a]pyrene	7.8		4.9		ug/Kg		09/10/13 10:21	09/11/13 22:55	1
Benzo[b]fluoranthene	21		4.9		ug/Kg		09/10/13 10:21	09/11/13 22:55	1
Benzo[g,h,i]perylene	7.1		4.9		ug/Kg		09/10/13 10:21	09/11/13 22:55	1
Benzo[k]fluoranthene	ND		4.9		ug/Kg		09/10/13 10:21	09/11/13 22:55	1
Chrysene	21		4.9		ug/Kg		09/10/13 10:21	09/11/13 22:55	1
Dibenz(a,h)anthracene	ND		4.9		ug/Kg		09/10/13 10:21	09/11/13 22:55	1
Fluoranthene	5.9		4.9		ug/Kg		09/10/13 10:21	09/11/13 22:55	1
Fluorene	ND		4.9		ug/Kg		09/10/13 10:21	09/11/13 22:55	1
Indeno[1,2,3-cd]pyrene	5.5		4.9		ug/Kg		09/10/13 10:21	09/11/13 22:55	1
Naphthalene	8.8		4.9		ug/Kg		09/10/13 10:21	09/11/13 22:55	1
Phenanthrene	20		4.9		ug/Kg		09/10/13 10:21	09/11/13 22:55	1
Pyrene	5.8		4.9		ug/Kg		09/10/13 10:21	09/11/13 22:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	47		33 - 120				09/10/13 10:21	09/11/13 22:55	1
Terphenyl-d14	63		35 - 146				09/10/13 10:21	09/11/13 22:55	1

### Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	6.2		0.99		mg/Kg		09/12/13 21:50	09/13/13 16:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.001		0 - 1				09/12/13 21:50	09/13/13 16:09	1
p-Terphenyl	94		38 - 148				09/12/13 21:50	09/13/13 16:09	1

TestAmerica Pleasanton

# Client Sample Results

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

**Client Sample ID: S-SB3-3**

**Lab Sample ID: 720-52127-6**

**Matrix: Solid**

Date Collected: 09/04/13 10:00

Date Received: 09/05/13 15:45

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	ND		4.3		ug/Kg		09/05/13 20:01	09/09/13 12:43	1
Benzene	ND		4.3		ug/Kg		09/05/13 20:01	09/09/13 12:43	1
Ethylbenzene	ND		4.3		ug/Kg		09/05/13 20:01	09/09/13 12:43	1
Toluene	ND		4.3		ug/Kg		09/05/13 20:01	09/09/13 12:43	1
Xylenes, Total	ND		8.5		ug/Kg		09/05/13 20:01	09/09/13 12:43	1
Naphthalene	ND		8.5		ug/Kg		09/05/13 20:01	09/09/13 12:43	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene	73		45 - 131				09/05/13 20:01	09/09/13 12:43	1
1,2-Dichloroethane-d4 (Surr)	104		60 - 140				09/05/13 20:01	09/09/13 12:43	1
Toluene-d8 (Surr)	92		58 - 140				09/05/13 20:01	09/09/13 12:43	1

## Method: 8270C SIM - PAHs by GCMS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		10		ug/Kg		09/10/13 10:21	09/11/13 23:19	2
Acenaphthylene	ND		10		ug/Kg		09/10/13 10:21	09/11/13 23:19	2
Anthracene	ND		10		ug/Kg		09/10/13 10:21	09/11/13 23:19	2
<b>Benzo[a]anthracene</b>	<b>24</b>		10		ug/Kg		09/10/13 10:21	09/11/13 23:19	2
<b>Benzo[a]pyrene</b>	<b>41</b>		10		ug/Kg		09/10/13 10:21	09/11/13 23:19	2
<b>Benzo[b]fluoranthene</b>	<b>60</b>		10		ug/Kg		09/10/13 10:21	09/11/13 23:19	2
<b>Benzo[g,h,i]perylene</b>	<b>18</b>		10		ug/Kg		09/10/13 10:21	09/11/13 23:19	2
<b>Benzo[k]fluoranthene</b>	<b>17</b>		10		ug/Kg		09/10/13 10:21	09/11/13 23:19	2
<b>Chrysene</b>	<b>43</b>		10		ug/Kg		09/10/13 10:21	09/11/13 23:19	2
Dibenz(a,h)anthracene	ND		10		ug/Kg		09/10/13 10:21	09/11/13 23:19	2
<b>Fluoranthene</b>	<b>39</b>		10		ug/Kg		09/10/13 10:21	09/11/13 23:19	2
Fluorene	ND		10		ug/Kg		09/10/13 10:21	09/11/13 23:19	2
<b>Indeno[1,2,3-cd]pyrene</b>	<b>18</b>		10		ug/Kg		09/10/13 10:21	09/11/13 23:19	2
Naphthalene	ND		10		ug/Kg		09/10/13 10:21	09/11/13 23:19	2
<b>Phenanthrene</b>	<b>16</b>		10		ug/Kg		09/10/13 10:21	09/11/13 23:19	2
<b>Pyrene</b>	<b>47</b>		10		ug/Kg		09/10/13 10:21	09/11/13 23:19	2
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl	69		33 - 120				09/10/13 10:21	09/11/13 23:19	2
Terphenyl-d14	86		35 - 146				09/10/13 10:21	09/11/13 23:19	2

## Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Diesel Range Organics [C10-C28]</b>	<b>150</b>		2.0		mg/Kg		09/12/13 21:50	09/13/13 20:21	2
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Capric Acid (Surr)	0.07		0 - 1				09/12/13 21:50	09/13/13 20:21	2
p-Terphenyl	79		38 - 148				09/12/13 21:50	09/13/13 20:21	2

TestAmerica Pleasanton

# Client Sample Results

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

## Client Sample ID: S-SB3-5.5

Date Collected: 09/04/13 10:05

Date Received: 09/05/13 15:45

## Lab Sample ID: 720-52127-7

Matrix: Solid

### Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	ND		3.9		ug/Kg		09/05/13 20:01	09/06/13 13:52	1
Benzene	ND		3.9		ug/Kg		09/05/13 20:01	09/06/13 13:52	1
Ethylbenzene	ND		3.9		ug/Kg		09/05/13 20:01	09/06/13 13:52	1
Toluene	ND		3.9		ug/Kg		09/05/13 20:01	09/06/13 13:52	1
Xylenes, Total	ND		7.7		ug/Kg		09/05/13 20:01	09/06/13 13:52	1
Naphthalene	ND		7.7		ug/Kg		09/05/13 20:01	09/06/13 13:52	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene	95		45 - 131				09/05/13 20:01	09/06/13 13:52	1
1,2-Dichloroethane-d4 (Surr)	107		60 - 140				09/05/13 20:01	09/06/13 13:52	1
Toluene-d8 (Surr)	97		58 - 140				09/05/13 20:01	09/06/13 13:52	1

### Method: 8270C SIM - PAHs by GCMS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0		ug/Kg		09/10/13 10:21	09/12/13 15:02	1
Acenaphthylene	ND		5.0		ug/Kg		09/10/13 10:21	09/12/13 15:02	1
Anthracene	ND		5.0		ug/Kg		09/10/13 10:21	09/12/13 15:02	1
Benzo[a]anthracene	ND		5.0		ug/Kg		09/10/13 10:21	09/12/13 15:02	1
Benzo[a]pyrene	ND		5.0		ug/Kg		09/10/13 10:21	09/12/13 15:02	1
Benzo[b]fluoranthene	ND		5.0		ug/Kg		09/10/13 10:21	09/12/13 15:02	1
Benzo[g,h,i]perylene	ND		5.0		ug/Kg		09/10/13 10:21	09/12/13 15:02	1
Benzo[k]fluoranthene	ND		5.0		ug/Kg		09/10/13 10:21	09/12/13 15:02	1
Chrysene	ND		5.0		ug/Kg		09/10/13 10:21	09/12/13 15:02	1
Dibenz(a,h)anthracene	ND		5.0		ug/Kg		09/10/13 10:21	09/12/13 15:02	1
Fluoranthene	ND		5.0		ug/Kg		09/10/13 10:21	09/12/13 15:02	1
Fluorene	ND		5.0		ug/Kg		09/10/13 10:21	09/12/13 15:02	1
Indeno[1,2,3-cd]pyrene	ND		5.0		ug/Kg		09/10/13 10:21	09/12/13 15:02	1
<b>Naphthalene</b>	<b>5.5</b>		5.0		ug/Kg		09/10/13 10:21	09/12/13 15:02	1
Phenanthrene	ND		5.0		ug/Kg		09/10/13 10:21	09/12/13 15:02	1
<b>Pyrene</b>	<b>6.7 *</b>		5.0		ug/Kg		09/10/13 10:21	09/12/13 15:02	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl	76		33 - 120				09/10/13 10:21	09/12/13 15:02	1
Terphenyl-d14	88		35 - 146				09/10/13 10:21	09/12/13 15:02	1

### Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	2.3		0.99		mg/Kg		09/12/13 21:50	09/13/13 15:20	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Capric Acid (Surr)	0.007		0 - 1				09/12/13 21:50	09/13/13 15:20	1
p-Terphenyl	109		38 - 148				09/12/13 21:50	09/13/13 15:20	1

TestAmerica Pleasanton

# Client Sample Results

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

**Client Sample ID: W-SB3-8**

**Lab Sample ID: 720-52127-8**

**Matrix: Water**

Date Collected: 09/04/13 10:10

Date Received: 09/05/13 15:45

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	12		0.50		ug/L			09/06/13 20:04	1
Benzene	ND		0.50		ug/L			09/06/13 20:04	1
Ethylbenzene	ND		0.50		ug/L			09/06/13 20:04	1
Toluene	ND		0.50		ug/L			09/06/13 20:04	1
Xylenes, Total	ND		1.0		ug/L			09/06/13 20:04	1
Naphthalene	ND		1.0		ug/L			09/06/13 20:04	1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene	92			67 - 130				09/06/13 20:04	1
1,2-Dichloroethane-d4 (Surr)	97			72 - 130				09/06/13 20:04	1
Toluene-d8 (Surr)	99			70 - 130				09/06/13 20:04	1

## Method: 8270C SIM - PAHs by GCMS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.10		ug/L		09/10/13 11:49	09/10/13 21:57	1
Acenaphthene	ND		0.10		ug/L		09/10/13 11:49	09/10/13 21:57	1
Acenaphthylene	ND		0.10		ug/L		09/10/13 11:49	09/10/13 21:57	1
Fluorene	ND		0.10		ug/L		09/10/13 11:49	09/10/13 21:57	1
Phenanthrene	ND		0.10		ug/L		09/10/13 11:49	09/10/13 21:57	1
Anthracene	ND		0.10		ug/L		09/10/13 11:49	09/10/13 21:57	1
Benzo[a]anthracene	ND		0.10		ug/L		09/10/13 11:49	09/10/13 21:57	1
Chrysene	ND		0.10		ug/L		09/10/13 11:49	09/10/13 21:57	1
Benzo[a]pyrene	ND		0.10		ug/L		09/10/13 11:49	09/10/13 21:57	1
Benzo[b]fluoranthene	ND		0.10		ug/L		09/10/13 11:49	09/10/13 21:57	1
Benzo[k]fluoranthene	ND		0.10		ug/L		09/10/13 11:49	09/10/13 21:57	1
Benzo[g,h,i]perylene	ND		0.10		ug/L		09/10/13 11:49	09/10/13 21:57	1
Indeno[1,2,3-cd]pyrene	ND		0.10		ug/L		09/10/13 11:49	09/10/13 21:57	1
Fluoranthene	ND		0.10		ug/L		09/10/13 11:49	09/10/13 21:57	1
Pyrene	ND		0.10		ug/L		09/10/13 11:49	09/10/13 21:57	1
Dibenz(a,h)anthracene	ND		0.10		ug/L		09/10/13 11:49	09/10/13 21:57	1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl	73			29 - 120			09/10/13 11:49	09/10/13 21:57	1
Terphenyl-d14	68			45 - 120			09/10/13 11:49	09/10/13 21:57	1

## Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		51		ug/L		09/10/13 17:38	09/11/13 13:05	1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Capric Acid (Surr)	0.2			0 - 5			09/10/13 17:38	09/11/13 13:05	1
p-Terphenyl	86			31 - 150			09/10/13 17:38	09/11/13 13:05	1

## General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1700		20	mg/L			09/06/13 17:56	1

TestAmerica Pleasanton

# Client Sample Results

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

**Client Sample ID: S-SB4-3**

**Lab Sample ID: 720-52127-9**

**Matrix: Solid**

Date Collected: 09/04/13 10:30

Date Received: 09/05/13 15:45

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	ND		4.2		ug/Kg		09/05/13 20:01	09/09/13 13:09	1
Benzene	ND		4.2		ug/Kg		09/05/13 20:01	09/09/13 13:09	1
Ethylbenzene	ND		4.2		ug/Kg		09/05/13 20:01	09/09/13 13:09	1
Toluene	ND		4.2		ug/Kg		09/05/13 20:01	09/09/13 13:09	1
Xylenes, Total	ND		8.4		ug/Kg		09/05/13 20:01	09/09/13 13:09	1
Naphthalene	ND		8.4		ug/Kg		09/05/13 20:01	09/09/13 13:09	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene	56		45 - 131				09/05/13 20:01	09/09/13 13:09	1
1,2-Dichloroethane-d4 (Surr)	104		60 - 140				09/05/13 20:01	09/09/13 13:09	1
Toluene-d8 (Surr)	86		58 - 140				09/05/13 20:01	09/09/13 13:09	1

## Method: 8270C SIM - PAHs by GCMS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		25		ug/Kg		09/10/13 10:21	09/12/13 17:23	5
<b>Acenaphthylene</b>	<b>110</b>		25		ug/Kg		09/10/13 10:21	09/12/13 17:23	5
<b>Anthracene</b>	<b>160</b>		25		ug/Kg		09/10/13 10:21	09/12/13 17:23	5
<b>Benzo[a]anthracene</b>	<b>340</b>		25		ug/Kg		09/10/13 10:21	09/12/13 17:23	5
<b>Benzo[a]pyrene</b>	<b>360</b>		25		ug/Kg		09/10/13 10:21	09/12/13 17:23	5
<b>Benzo[b]fluoranthene</b>	<b>540</b>		25		ug/Kg		09/10/13 10:21	09/12/13 17:23	5
<b>Benzo[g,h,i]perylene</b>	<b>340</b>		25		ug/Kg		09/10/13 10:21	09/12/13 17:23	5
<b>Benzo[k]fluoranthene</b>	<b>130</b>		25		ug/Kg		09/10/13 10:21	09/12/13 17:23	5
<b>Chrysene</b>	<b>510</b>		25		ug/Kg		09/10/13 10:21	09/12/13 17:23	5
<b>Dibenz(a,h)anthracene</b>	<b>120</b>		25		ug/Kg		09/10/13 10:21	09/12/13 17:23	5
<b>Fluoranthene</b>	<b>670</b>		25		ug/Kg		09/10/13 10:21	09/12/13 17:23	5
<b>Fluorene</b>	<b>57</b>		25		ug/Kg		09/10/13 10:21	09/12/13 17:23	5
<b>Indeno[1,2,3-cd]pyrene</b>	<b>290</b>		25		ug/Kg		09/10/13 10:21	09/12/13 17:23	5
<b>Naphthalene</b>	<b>380</b>		25		ug/Kg		09/10/13 10:21	09/12/13 17:23	5
<b>Phenanthrene</b>	<b>900</b>		25		ug/Kg		09/10/13 10:21	09/12/13 17:23	5
<b>Pyrene</b>	<b>690</b> *		25		ug/Kg		09/10/13 10:21	09/12/13 17:23	5
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl	54		33 - 120				09/10/13 10:21	09/12/13 17:23	5
Terphenyl-d14	71		35 - 146				09/10/13 10:21	09/12/13 17:23	5

## Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Diesel Range Organics [C10-C28]</b>	<b>180</b>		5.0		mg/Kg		09/13/13 13:43	09/17/13 11:34	5
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Capric Acid (Surr)	0		0 - 1				09/13/13 13:43	09/17/13 11:34	5
p-Terphenyl	0	XD	38 - 148				09/13/13 13:43	09/17/13 11:34	5

TestAmerica Pleasanton

# Client Sample Results

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

## Client Sample ID: S-SB4-5

Date Collected: 09/04/13 10:35

Date Received: 09/05/13 15:45

## Lab Sample ID: 720-52127-10

Matrix: Solid

### Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	9.7		3.8		ug/Kg		09/05/13 20:01	09/09/13 13:35	1
Benzene	ND		3.8		ug/Kg		09/05/13 20:01	09/09/13 13:35	1
Ethylbenzene	ND		3.8		ug/Kg		09/05/13 20:01	09/09/13 13:35	1
Toluene	ND		3.8		ug/Kg		09/05/13 20:01	09/09/13 13:35	1
Xylenes, Total	ND		7.6		ug/Kg		09/05/13 20:01	09/09/13 13:35	1
Naphthalene	ND		7.6		ug/Kg		09/05/13 20:01	09/09/13 13:35	1
<b>Surrogate</b>		%Recovery	Qualifier	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene	82			45 - 131			09/05/13 20:01	09/09/13 13:35	1
1,2-Dichloroethane-d4 (Surr)	104			60 - 140			09/05/13 20:01	09/09/13 13:35	1
Toluene-d8 (Surr)	102			58 - 140			09/05/13 20:01	09/09/13 13:35	1

### Method: 8270C SIM - PAHs by GCMS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0		ug/Kg		09/10/13 10:21	09/12/13 17:00	1
Acenaphthylene	ND		5.0		ug/Kg		09/10/13 10:21	09/12/13 17:00	1
Anthracene	ND		5.0		ug/Kg		09/10/13 10:21	09/12/13 17:00	1
Benzo[a]anthracene	5.5		5.0		ug/Kg		09/10/13 10:21	09/12/13 17:00	1
Benzo[a]pyrene	8.5		5.0		ug/Kg		09/10/13 10:21	09/12/13 17:00	1
Benzo[b]fluoranthene	9.4		5.0		ug/Kg		09/10/13 10:21	09/12/13 17:00	1
Benzo[g,h,i]perylene	10		5.0		ug/Kg		09/10/13 10:21	09/12/13 17:00	1
Benzo[k]fluoranthene	ND		5.0		ug/Kg		09/10/13 10:21	09/12/13 17:00	1
Chrysene	7.0		5.0		ug/Kg		09/10/13 10:21	09/12/13 17:00	1
Dibenz(a,h)anthracene	ND		5.0		ug/Kg		09/10/13 10:21	09/12/13 17:00	1
Fluoranthene	10		5.0		ug/Kg		09/10/13 10:21	09/12/13 17:00	1
Fluorene	ND		5.0		ug/Kg		09/10/13 10:21	09/12/13 17:00	1
Indeno[1,2,3-cd]pyrene	6.7		5.0		ug/Kg		09/10/13 10:21	09/12/13 17:00	1
Naphthalene	ND		5.0		ug/Kg		09/10/13 10:21	09/12/13 17:00	1
Phenanthrene	ND		5.0		ug/Kg		09/10/13 10:21	09/12/13 17:00	1
Pyrene	11 *		5.0		ug/Kg		09/10/13 10:21	09/12/13 17:00	1
<b>Surrogate</b>		%Recovery	Qualifier	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl	58			33 - 120			09/10/13 10:21	09/12/13 17:00	1
Terphenyl-d14	78			35 - 146			09/10/13 10:21	09/12/13 17:00	1

### Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		0.99		mg/Kg		09/13/13 13:43	09/16/13 22:09	1
<b>Surrogate</b>		%Recovery	Qualifier	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Capric Acid (Surr)	0.0007			0 - 1			09/13/13 13:43	09/16/13 22:09	1
p-Terphenyl	102			38 - 148			09/13/13 13:43	09/16/13 22:09	1

TestAmerica Pleasanton

# Client Sample Results

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

## Client Sample ID: S-SB6-3

Date Collected: 09/04/13 11:05

Date Received: 09/05/13 15:45

## Lab Sample ID: 720-52127-11

Matrix: Solid

### Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	ND		3.4		ug/Kg		09/05/13 20:01	09/09/13 14:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	75		45 - 131				09/05/13 20:01	09/09/13 14:01	1
1,2-Dichloroethane-d4 (Surr)	112		60 - 140				09/05/13 20:01	09/09/13 14:01	1
Toluene-d8 (Surr)	94		58 - 140				09/05/13 20:01	09/09/13 14:01	1

### Method: 8270C SIM - PAHs by GCMS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0		ug/Kg		09/10/13 10:21	09/12/13 14:00	1
Acenaphthylene	ND		5.0		ug/Kg		09/10/13 10:21	09/12/13 14:00	1
Anthracene	8.3		5.0		ug/Kg		09/10/13 10:21	09/12/13 14:00	1
Benzo[a]anthracene	23		5.0		ug/Kg		09/10/13 10:21	09/12/13 14:00	1
Benzo[a]pyrene	24		5.0		ug/Kg		09/10/13 10:21	09/12/13 14:00	1
Benzo[b]fluoranthene	22		5.0		ug/Kg		09/10/13 10:21	09/12/13 14:00	1
Benzo[g,h,i]perylene	23		5.0		ug/Kg		09/10/13 10:21	09/12/13 14:00	1
Benzo[k]fluoranthene	19		5.0		ug/Kg		09/10/13 10:21	09/12/13 14:00	1
Chrysene	29		5.0		ug/Kg		09/10/13 10:21	09/12/13 14:00	1
Dibenz(a,h)anthracene	6.2		5.0		ug/Kg		09/10/13 10:21	09/12/13 14:00	1
Fluoranthene	54		5.0		ug/Kg		09/10/13 10:21	09/12/13 14:00	1
Fluorene	ND		5.0		ug/Kg		09/10/13 10:21	09/12/13 14:00	1
Indeno[1,2,3-cd]pyrene	18		5.0		ug/Kg		09/10/13 10:21	09/12/13 14:00	1
Naphthalene	8.7		5.0		ug/Kg		09/10/13 10:21	09/12/13 14:00	1
Phenanthrene	43		5.0		ug/Kg		09/10/13 10:21	09/12/13 14:00	1
Pyrene	93 *		5.0		ug/Kg		09/10/13 10:21	09/12/13 14:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	73		33 - 120				09/10/13 10:21	09/12/13 14:00	1
Terphenyl-d14	132		35 - 146				09/10/13 10:21	09/12/13 14:00	1

### Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		1.0		mg/Kg		09/13/13 13:43	09/16/13 22:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.006		0 - 1				09/13/13 13:43	09/16/13 22:33	1
p-Terphenyl	86		38 - 148				09/13/13 13:43	09/16/13 22:33	1

TestAmerica Pleasanton

# Client Sample Results

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

## Client Sample ID: S-SB6-5.5

Date Collected: 09/04/13 11:15

Date Received: 09/05/13 15:45

## Lab Sample ID: 720-52127-12

Matrix: Solid

### Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	ND		4.3		ug/Kg		09/05/13 20:01	09/09/13 14:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	74		45 - 131				09/05/13 20:01	09/09/13 14:27	1
1,2-Dichloroethane-d4 (Surr)	102		60 - 140				09/05/13 20:01	09/09/13 14:27	1
Toluene-d8 (Surr)	92		58 - 140				09/05/13 20:01	09/09/13 14:27	1

### Method: 8270C SIM - PAHs by GCMS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0		ug/Kg		09/10/13 10:21	09/12/13 14:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Acenaphthylene	ND		45 - 131				09/10/13 10:21	09/12/13 14:20	1
Anthracene	ND		60 - 140				09/10/13 10:21	09/12/13 14:20	1
Benzo[a]anthracene	ND		58 - 140				09/10/13 10:21	09/12/13 14:20	1
Benzo[a]pyrene	ND		58 - 140				09/10/13 10:21	09/12/13 14:20	1
Benzo[b]fluoranthene	ND		58 - 140				09/10/13 10:21	09/12/13 14:20	1
Benzo[g,h,i]perylene	ND		58 - 140				09/10/13 10:21	09/12/13 14:20	1
Benzo[k]fluoranthene	ND		58 - 140				09/10/13 10:21	09/12/13 14:20	1
<b>Chrysene</b>	<b>5.5</b>		58 - 140				09/10/13 10:21	09/12/13 14:20	1
Dibenz(a,h)anthracene	ND		58 - 140				09/10/13 10:21	09/12/13 14:20	1
<b>Fluoranthene</b>	<b>8.1</b>		58 - 140				09/10/13 10:21	09/12/13 14:20	1
Fluorene	ND		58 - 140				09/10/13 10:21	09/12/13 14:20	1
Indeno[1,2,3-cd]pyrene	ND		58 - 140				09/10/13 10:21	09/12/13 14:20	1
<b>Naphthalene</b>	<b>7.2</b>		58 - 140				09/10/13 10:21	09/12/13 14:20	1
<b>Phenanthrene</b>	<b>7.9</b>		58 - 140				09/10/13 10:21	09/12/13 14:20	1
<b>Pyrene</b>	<b>11 *</b>		58 - 140				09/10/13 10:21	09/12/13 14:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	69		33 - 120				09/10/13 10:21	09/12/13 14:20	1
Terphenyl-d14	98		35 - 146				09/10/13 10:21	09/12/13 14:20	1

### Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Diesel Range Organics [C10-C28]</b>	<b>2.1</b>		1.0		mg/Kg		09/13/13 13:43	09/16/13 23:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.001		0 - 1				09/13/13 13:43	09/16/13 23:19	1
p-Terphenyl	82		38 - 148				09/13/13 13:43	09/16/13 23:19	1

TestAmerica Pleasanton

# Client Sample Results

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

## Client Sample ID: S-SB7-3.5

Date Collected: 09/04/13 11:30

Date Received: 09/05/13 15:45

## Lab Sample ID: 720-52127-13

Matrix: Solid

### Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	ND		3.9		ug/Kg		09/05/13 20:01	09/09/13 14:53	1
Benzene	ND		3.9		ug/Kg		09/05/13 20:01	09/09/13 14:53	1
Ethylbenzene	ND		3.9		ug/Kg		09/05/13 20:01	09/09/13 14:53	1
Toluene	ND		3.9		ug/Kg		09/05/13 20:01	09/09/13 14:53	1
Xylenes, Total	ND		7.8		ug/Kg		09/05/13 20:01	09/09/13 14:53	1
<b>Naphthalene</b>	<b>180</b>		7.8		ug/Kg		09/05/13 20:01	09/09/13 14:53	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene	60		45 - 131				09/05/13 20:01	09/09/13 14:53	1
1,2-Dichloroethane-d4 (Surr)	103		60 - 140				09/05/13 20:01	09/09/13 14:53	1
Toluene-d8 (Surr)	82		58 - 140				09/05/13 20:01	09/09/13 14:53	1

### Method: 8270C SIM - PAHs by GCMS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acenaphthene</b>	<b>910</b>		250		ug/Kg		09/10/13 10:21	09/12/13 17:46	50
Acenaphthylene	ND		250		ug/Kg		09/10/13 10:21	09/12/13 17:46	50
<b>Anthracene</b>	<b>1400</b>		250		ug/Kg		09/10/13 10:21	09/12/13 17:46	50
<b>Benzo[a]anthracene</b>	<b>5300</b>		250		ug/Kg		09/10/13 10:21	09/12/13 17:46	50
<b>Benzo[a]pyrene</b>	<b>4900</b>		250		ug/Kg		09/10/13 10:21	09/12/13 17:46	50
<b>Benzo[b]fluoranthene</b>	<b>8200</b>		250		ug/Kg		09/10/13 10:21	09/12/13 17:46	50
<b>Benzo[g,h,i]perylene</b>	<b>2900</b>		250		ug/Kg		09/10/13 10:21	09/12/13 17:46	50
<b>Benzo[k]fluoranthene</b>	<b>2100</b>		250		ug/Kg		09/10/13 10:21	09/12/13 17:46	50
<b>Chrysene</b>	<b>5500</b>		250		ug/Kg		09/10/13 10:21	09/12/13 17:46	50
<b>Dibenz(a,h)anthracene</b>	<b>1000</b>		250		ug/Kg		09/10/13 10:21	09/12/13 17:46	50
<b>Fluoranthene</b>	<b>15000</b>		250		ug/Kg		09/10/13 10:21	09/12/13 17:46	50
<b>Fluorene</b>	<b>970</b>		250		ug/Kg		09/10/13 10:21	09/12/13 17:46	50
<b>Indeno[1,2,3-cd]pyrene</b>	<b>2900</b>		250		ug/Kg		09/10/13 10:21	09/12/13 17:46	50
<b>Naphthalene</b>	<b>1100</b>		250		ug/Kg		09/10/13 10:21	09/12/13 17:46	50
<b>Phenanthrene</b>	<b>9400</b>		250		ug/Kg		09/10/13 10:21	09/12/13 17:46	50
<b>Pyrene</b>	<b>12000</b> *		250		ug/Kg		09/10/13 10:21	09/12/13 17:46	50
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl	75		33 - 120				09/10/13 10:21	09/12/13 17:46	50
Terphenyl-d14	105		35 - 146				09/10/13 10:21	09/12/13 17:46	50

### Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Diesel Range Organics [C10-C28]</b>	<b>1100</b>		10		mg/Kg		09/13/13 13:43	09/17/13 00:32	10
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Capric Acid (Surr)	0		0 - 1				09/13/13 13:43	09/17/13 00:32	10
p-Terphenyl	0	XD	38 - 148				09/13/13 13:43	09/17/13 00:32	10

TestAmerica Pleasanton

# Client Sample Results

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

## Client Sample ID: S-SB7-5

Date Collected: 09/04/13 11:40

Date Received: 09/05/13 15:45

## Lab Sample ID: 720-52127-14

Matrix: Solid

### Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	ND		3.6		ug/Kg		09/05/13 20:01	09/09/13 15:19	1
Benzene	ND		3.6		ug/Kg		09/05/13 20:01	09/09/13 15:19	1
Ethylbenzene	ND		3.6		ug/Kg		09/05/13 20:01	09/09/13 15:19	1
Toluene	ND		3.6		ug/Kg		09/05/13 20:01	09/09/13 15:19	1
Xylenes, Total	ND		7.2		ug/Kg		09/05/13 20:01	09/09/13 15:19	1
Naphthalene	ND		7.2		ug/Kg		09/05/13 20:01	09/09/13 15:19	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene	80		45 - 131				09/05/13 20:01	09/09/13 15:19	1
1,2-Dichloroethane-d4 (Surr)	108		60 - 140				09/05/13 20:01	09/09/13 15:19	1
Toluene-d8 (Surr)	95		58 - 140				09/05/13 20:01	09/09/13 15:19	1

### Method: 8270C SIM - PAHs by GCMS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	5.6		5.0		ug/Kg		09/10/13 10:21	09/12/13 13:09	1
Acenaphthylene	ND		5.0		ug/Kg		09/10/13 10:21	09/12/13 13:09	1
Anthracene	11		5.0		ug/Kg		09/10/13 10:21	09/12/13 13:09	1
Benzo[a]anthracene	44		5.0		ug/Kg		09/10/13 10:21	09/12/13 13:09	1
Benzo[a]pyrene	47		5.0		ug/Kg		09/10/13 10:21	09/12/13 13:09	1
Benzo[b]fluoranthene	52		5.0		ug/Kg		09/10/13 10:21	09/12/13 13:09	1
Benzo[g,h,i]perylene	37		5.0		ug/Kg		09/10/13 10:21	09/12/13 13:09	1
Benzo[k]fluoranthene	16		5.0		ug/Kg		09/10/13 10:21	09/12/13 13:09	1
Chrysene	50		5.0		ug/Kg		09/10/13 10:21	09/12/13 13:09	1
Dibenz(a,h)anthracene	6.5		5.0		ug/Kg		09/10/13 10:21	09/12/13 13:09	1
Fluoranthene	100		5.0		ug/Kg		09/10/13 10:21	09/12/13 13:09	1
Fluorene	5.8		5.0		ug/Kg		09/10/13 10:21	09/12/13 13:09	1
Indeno[1,2,3-cd]pyrene	27		5.0		ug/Kg		09/10/13 10:21	09/12/13 13:09	1
Naphthalene	8.4		5.0		ug/Kg		09/10/13 10:21	09/12/13 13:09	1
Phenanthrene	70		5.0		ug/Kg		09/10/13 10:21	09/12/13 13:09	1
Pyrene	100 *		5.0		ug/Kg		09/10/13 10:21	09/12/13 13:09	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl	51		33 - 120				09/10/13 10:21	09/12/13 13:09	1
Terphenyl-d14	88		35 - 146				09/10/13 10:21	09/12/13 13:09	1

### Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		0.99		mg/Kg		09/13/13 13:43	09/16/13 23:44	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Capric Acid (Surr)	0.0007		0 - 1				09/13/13 13:43	09/16/13 23:44	1
p-Terphenyl	97		38 - 148				09/13/13 13:43	09/16/13 23:44	1

TestAmerica Pleasanton

# Client Sample Results

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

## Client Sample ID: S-SB5-2

Date Collected: 09/04/13 13:00

Date Received: 09/05/13 15:45

## Lab Sample ID: 720-52127-15

Matrix: Solid

### Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	ND		3.5		ug/Kg		09/05/13 20:01	09/06/13 11:13	1
Benzene	ND		3.5		ug/Kg		09/05/13 20:01	09/06/13 11:13	1
Ethylbenzene	ND		3.5		ug/Kg		09/05/13 20:01	09/06/13 11:13	1
Toluene	ND		3.5		ug/Kg		09/05/13 20:01	09/06/13 11:13	1
Xylenes, Total	ND		7.0		ug/Kg		09/05/13 20:01	09/06/13 11:13	1
Naphthalene	ND		7.0		ug/Kg		09/05/13 20:01	09/06/13 11:13	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene	66		45 - 131				09/05/13 20:01	09/06/13 11:13	1
1,2-Dichloroethane-d4 (Surr)	88		60 - 140				09/05/13 20:01	09/06/13 11:13	1
Toluene-d8 (Surr)	85		58 - 140				09/05/13 20:01	09/06/13 11:13	1

### Method: 8270C SIM - PAHs by GCMS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		9.9		ug/Kg		09/10/13 10:21	09/12/13 13:32	2
<b>Acenaphthylene</b>	<b>10</b>		9.9		ug/Kg		09/10/13 10:21	09/12/13 13:32	2
Anthracene	ND		9.9		ug/Kg		09/10/13 10:21	09/12/13 13:32	2
<b>Benzo[a]anthracene</b>	<b>35</b>		9.9		ug/Kg		09/10/13 10:21	09/12/13 13:32	2
<b>Benzo[a]pyrene</b>	<b>51</b>		9.9		ug/Kg		09/10/13 10:21	09/12/13 13:32	2
<b>Benzo[b]fluoranthene</b>	<b>73</b>		9.9		ug/Kg		09/10/13 10:21	09/12/13 13:32	2
<b>Benzo[g,h,i]perylene</b>	<b>58</b>		9.9		ug/Kg		09/10/13 10:21	09/12/13 13:32	2
<b>Benzo[k]fluoranthene</b>	<b>23</b>		9.9		ug/Kg		09/10/13 10:21	09/12/13 13:32	2
<b>Chrysene</b>	<b>45</b>		9.9		ug/Kg		09/10/13 10:21	09/12/13 13:32	2
<b>Dibenz(a,h)anthracene</b>	<b>12</b>		9.9		ug/Kg		09/10/13 10:21	09/12/13 13:32	2
<b>Fluoranthene</b>	<b>64</b>		9.9		ug/Kg		09/10/13 10:21	09/12/13 13:32	2
Fluorene	ND		9.9		ug/Kg		09/10/13 10:21	09/12/13 13:32	2
<b>Indeno[1,2,3-cd]pyrene</b>	<b>38</b>		9.9		ug/Kg		09/10/13 10:21	09/12/13 13:32	2
Naphthalene	ND		9.9		ug/Kg		09/10/13 10:21	09/12/13 13:32	2
<b>Phenanthrene</b>	<b>31</b>		9.9		ug/Kg		09/10/13 10:21	09/12/13 13:32	2
<b>Pyrene</b>	<b>70</b> *		9.9		ug/Kg		09/10/13 10:21	09/12/13 13:32	2
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl	71		33 - 120				09/10/13 10:21	09/12/13 13:32	2
Terphenyl-d14	88		35 - 146				09/10/13 10:21	09/12/13 13:32	2

### Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Diesel Range Organics [C10-C28]</b>	<b>110</b>		3.0		mg/Kg		09/13/13 13:43	09/17/13 11:47	3
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Capric Acid (Surr)	0		0 - 1				09/13/13 13:43	09/17/13 11:47	3
p-Terphenyl	63		38 - 148				09/13/13 13:43	09/17/13 11:47	3

TestAmerica Pleasanton

# Client Sample Results

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

## Client Sample ID: S-SB5-5

Date Collected: 09/04/13 13:10  
Date Received: 09/05/13 15:45

## Lab Sample ID: 720-52127-16

Matrix: Solid

### Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	ND		3.4		ug/Kg		09/05/13 20:01	09/09/13 16:11	1
Benzene	ND		3.4		ug/Kg		09/05/13 20:01	09/09/13 16:11	1
Ethylbenzene	ND		3.4		ug/Kg		09/05/13 20:01	09/09/13 16:11	1
Toluene	ND		3.4		ug/Kg		09/05/13 20:01	09/09/13 16:11	1
Xylenes, Total	ND		6.7		ug/Kg		09/05/13 20:01	09/09/13 16:11	1
Naphthalene	ND		6.7		ug/Kg		09/05/13 20:01	09/09/13 16:11	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene	83		45 - 131				09/05/13 20:01	09/09/13 16:11	1
1,2-Dichloroethane-d4 (Surr)	107		60 - 140				09/05/13 20:01	09/09/13 16:11	1
Toluene-d8 (Surr)	95		58 - 140				09/05/13 20:01	09/09/13 16:11	1

### Method: 8270C SIM - PAHs by GCMS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 13:55	1
Acenaphthylene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 13:55	1
Anthracene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 13:55	1
Benzo[a]anthracene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 13:55	1
Benzo[a]pyrene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 13:55	1
Benzo[b]fluoranthene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 13:55	1
Benzo[g,h,i]perylene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 13:55	1
Benzo[k]fluoranthene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 13:55	1
Chrysene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 13:55	1
Dibenz(a,h)anthracene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 13:55	1
Fluoranthene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 13:55	1
Fluorene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 13:55	1
Indeno[1,2,3-cd]pyrene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 13:55	1
Naphthalene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 13:55	1
Phenanthrene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 13:55	1
Pyrene	ND *		5.0		ug/Kg		09/10/13 10:25	09/12/13 13:55	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl	61		33 - 120				09/10/13 10:25	09/12/13 13:55	1
Terphenyl-d14	70		35 - 146				09/10/13 10:25	09/12/13 13:55	1

### Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		0.99		mg/Kg		09/13/13 13:43	09/17/13 00:56	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Capric Acid (Surr)	0.01		0 - 1				09/13/13 13:43	09/17/13 00:56	1
p-Terphenyl	87		38 - 148				09/13/13 13:43	09/17/13 00:56	1

TestAmerica Pleasanton

# Client Sample Results

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

## Client Sample ID: S-SB8-3

Date Collected: 09/04/13 13:25

Date Received: 09/05/13 15:45

## Lab Sample ID: 720-52127-17

Matrix: Solid

### Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	ND		4.0		ug/Kg		09/05/13 20:01	09/09/13 11:29	1
Benzene	ND		4.0		ug/Kg		09/05/13 20:01	09/09/13 11:29	1
Ethylbenzene	ND		4.0		ug/Kg		09/05/13 20:01	09/09/13 11:29	1
Toluene	ND		4.0		ug/Kg		09/05/13 20:01	09/09/13 11:29	1
Xylenes, Total	ND		7.9		ug/Kg		09/05/13 20:01	09/09/13 11:29	1
Naphthalene	ND		7.9		ug/Kg		09/05/13 20:01	09/09/13 11:29	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene	85		45 - 131				09/05/13 20:01	09/09/13 11:29	1
1,2-Dichloroethane-d4 (Surr)	111		60 - 140				09/05/13 20:01	09/09/13 11:29	1
Toluene-d8 (Surr)	95		58 - 140				09/05/13 20:01	09/09/13 11:29	1

### Method: 8270C SIM - PAHs by GCMS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 14:18	1
Acenaphthylene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 14:18	1
<b>Anthracene</b>	<b>6.6</b>		5.0		ug/Kg		09/10/13 10:25	09/12/13 14:18	1
Benzo[a]anthracene	13		5.0		ug/Kg		09/10/13 10:25	09/12/13 14:18	1
Benzo[a]pyrene	17		5.0		ug/Kg		09/10/13 10:25	09/12/13 14:18	1
Benzo[b]fluoranthene	24		5.0		ug/Kg		09/10/13 10:25	09/12/13 14:18	1
Benzo[g,h,i]perylene	21		5.0		ug/Kg		09/10/13 10:25	09/12/13 14:18	1
Benzo[k]fluoranthene	7.8		5.0		ug/Kg		09/10/13 10:25	09/12/13 14:18	1
Chrysene	18		5.0		ug/Kg		09/10/13 10:25	09/12/13 14:18	1
Dibenz(a,h)anthracene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 14:18	1
Fluoranthene	55		5.0		ug/Kg		09/10/13 10:25	09/12/13 14:18	1
Fluorene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 14:18	1
Indeno[1,2,3-cd]pyrene	14		5.0		ug/Kg		09/10/13 10:25	09/12/13 14:18	1
Naphthalene	14		5.0		ug/Kg		09/10/13 10:25	09/12/13 14:18	1
Phenanthrene	26		5.0		ug/Kg		09/10/13 10:25	09/12/13 14:18	1
Pyrene	50 *		5.0		ug/Kg		09/10/13 10:25	09/12/13 14:18	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl	43		33 - 120				09/10/13 10:25	09/12/13 14:18	1
Terphenyl-d14	58		35 - 146				09/10/13 10:25	09/12/13 14:18	1

### Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	5.0		1.0		mg/Kg		09/13/13 13:43	09/17/13 03:47	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Capric Acid (Surr)	0.08		0 - 1				09/13/13 13:43	09/17/13 03:47	1
p-Terphenyl	73		38 - 148				09/13/13 13:43	09/17/13 03:47	1

TestAmerica Pleasanton

# Client Sample Results

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

## Client Sample ID: S-SB8-5

Date Collected: 09/04/13 13:30

Date Received: 09/05/13 15:45

## Lab Sample ID: 720-52127-18

Matrix: Solid

### Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	8.7		4.5		ug/Kg		09/05/13 20:01	09/09/13 11:57	1
Benzene	ND		4.5		ug/Kg		09/05/13 20:01	09/09/13 11:57	1
Ethylbenzene	ND		4.5		ug/Kg		09/05/13 20:01	09/09/13 11:57	1
Toluene	ND		4.5		ug/Kg		09/05/13 20:01	09/09/13 11:57	1
Xylenes, Total	ND		8.9		ug/Kg		09/05/13 20:01	09/09/13 11:57	1
Naphthalene	ND		8.9		ug/Kg		09/05/13 20:01	09/09/13 11:57	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene	86		45 - 131				09/05/13 20:01	09/09/13 11:57	1
1,2-Dichloroethane-d4 (Surr)	111		60 - 140				09/05/13 20:01	09/09/13 11:57	1
Toluene-d8 (Surr)	98		58 - 140				09/05/13 20:01	09/09/13 11:57	1

### Method: 8270C SIM - PAHs by GCMS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 14:41	1
Acenaphthylene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 14:41	1
Anthracene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 14:41	1
Benzo[a]anthracene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 14:41	1
Benzo[a]pyrene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 14:41	1
Benzo[b]fluoranthene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 14:41	1
Benzo[g,h,i]perylene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 14:41	1
Benzo[k]fluoranthene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 14:41	1
Chrysene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 14:41	1
Dibenz(a,h)anthracene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 14:41	1
Fluoranthene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 14:41	1
Fluorene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 14:41	1
Indeno[1,2,3-cd]pyrene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 14:41	1
Naphthalene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 14:41	1
Phenanthrene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 14:41	1
Pyrene	ND *		5.0		ug/Kg		09/10/13 10:25	09/12/13 14:41	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl	52		33 - 120				09/10/13 10:25	09/12/13 14:41	1
Terphenyl-d14	71		35 - 146				09/10/13 10:25	09/12/13 14:41	1

### Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		0.99		mg/Kg		09/13/13 13:43	09/17/13 01:45	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Capric Acid (Surr)	0.0003		0 - 1				09/13/13 13:43	09/17/13 01:45	1
p-Terphenyl	79		38 - 148				09/13/13 13:43	09/17/13 01:45	1

TestAmerica Pleasanton

# Client Sample Results

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

**Client Sample ID: S-SB9-2**

Date Collected: 09/04/13 13:50

Date Received: 09/05/13 15:45

**Lab Sample ID: 720-52127-19**

Matrix: Solid

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	ND		3.8		ug/Kg		09/05/13 20:01	09/09/13 12:25	1
Benzene	ND		3.8		ug/Kg		09/05/13 20:01	09/09/13 12:25	1
Ethylbenzene	ND		3.8		ug/Kg		09/05/13 20:01	09/09/13 12:25	1
Toluene	ND		3.8		ug/Kg		09/05/13 20:01	09/09/13 12:25	1
Xylenes, Total	ND		7.7		ug/Kg		09/05/13 20:01	09/09/13 12:25	1
Naphthalene	ND		7.7		ug/Kg		09/05/13 20:01	09/09/13 12:25	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene	99		45 - 131				09/05/13 20:01	09/09/13 12:25	1
1,2-Dichloroethane-d4 (Surr)	115		60 - 140				09/05/13 20:01	09/09/13 12:25	1
Toluene-d8 (Surr)	101		58 - 140				09/05/13 20:01	09/09/13 12:25	1

## Method: 8270C SIM - PAHs by GCMS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 15:04	1
Acenaphthylene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 15:04	1
Anthracene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 15:04	1
Benzo[a]anthracene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 15:04	1
Benzo[a]pyrene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 15:04	1
Benzo[b]fluoranthene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 15:04	1
Benzo[g,h,i]perylene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 15:04	1
Benzo[k]fluoranthene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 15:04	1
Chrysene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 15:04	1
Dibenz(a,h)anthracene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 15:04	1
Fluoranthene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 15:04	1
Fluorene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 15:04	1
Indeno[1,2,3-cd]pyrene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 15:04	1
Naphthalene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 15:04	1
Phenanthrene	ND		5.0		ug/Kg		09/10/13 10:25	09/12/13 15:04	1
Pyrene	ND *		5.0		ug/Kg		09/10/13 10:25	09/12/13 15:04	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl	61		33 - 120				09/10/13 10:25	09/12/13 15:04	1
Terphenyl-d14	76		35 - 146				09/10/13 10:25	09/12/13 15:04	1

## Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1.1		0.99		mg/Kg		09/13/13 13:43	09/17/13 02:58	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Capric Acid (Surr)	0.001		0 - 1				09/13/13 13:43	09/17/13 02:58	1
p-Terphenyl	85		38 - 148				09/13/13 13:43	09/17/13 02:58	1

TestAmerica Pleasanton

# Client Sample Results

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

## Client Sample ID: S-SB9-5

Date Collected: 09/04/13 14:10  
Date Received: 09/05/13 15:45

## Lab Sample ID: 720-52127-20

Matrix: Solid

### Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	ND		5.1		ug/Kg		09/05/13 20:01	09/09/13 12:52	1
Benzene	ND		5.1		ug/Kg		09/05/13 20:01	09/09/13 12:52	1
Ethylbenzene	ND		5.1		ug/Kg		09/05/13 20:01	09/09/13 12:52	1
Toluene	ND		5.1		ug/Kg		09/05/13 20:01	09/09/13 12:52	1
Xylenes, Total	ND		10		ug/Kg		09/05/13 20:01	09/09/13 12:52	1
Naphthalene	ND		10		ug/Kg		09/05/13 20:01	09/09/13 12:52	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene	78		45 - 131				09/05/13 20:01	09/09/13 12:52	1
1,2-Dichloroethane-d4 (Surr)	111		60 - 140				09/05/13 20:01	09/09/13 12:52	1
Toluene-d8 (Surr)	89		58 - 140				09/05/13 20:01	09/09/13 12:52	1

### Method: 8270C SIM - PAHs by GCMS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		4.9		ug/Kg		09/10/13 10:25	09/12/13 15:27	1
Acenaphthylene	ND		4.9		ug/Kg		09/10/13 10:25	09/12/13 15:27	1
Anthracene	ND		4.9		ug/Kg		09/10/13 10:25	09/12/13 15:27	1
Benzo[a]anthracene	ND		4.9		ug/Kg		09/10/13 10:25	09/12/13 15:27	1
Benzo[a]pyrene	ND		4.9		ug/Kg		09/10/13 10:25	09/12/13 15:27	1
Benzo[b]fluoranthene	ND		4.9		ug/Kg		09/10/13 10:25	09/12/13 15:27	1
Benzo[g,h,i]perylene	ND		4.9		ug/Kg		09/10/13 10:25	09/12/13 15:27	1
Benzo[k]fluoranthene	ND		4.9		ug/Kg		09/10/13 10:25	09/12/13 15:27	1
Chrysene	ND		4.9		ug/Kg		09/10/13 10:25	09/12/13 15:27	1
Dibenz(a,h)anthracene	ND		4.9		ug/Kg		09/10/13 10:25	09/12/13 15:27	1
<b>Fluoranthene</b>	<b>11</b>		4.9		ug/Kg		09/10/13 10:25	09/12/13 15:27	1
Fluorene	ND		4.9		ug/Kg		09/10/13 10:25	09/12/13 15:27	1
Indeno[1,2,3-cd]pyrene	ND		4.9		ug/Kg		09/10/13 10:25	09/12/13 15:27	1
Naphthalene	ND		4.9		ug/Kg		09/10/13 10:25	09/12/13 15:27	1
<b>Phenanthrene</b>	<b>9.4</b>		4.9		ug/Kg		09/10/13 10:25	09/12/13 15:27	1
<b>Pyrene</b>	<b>6.7 *</b>		4.9		ug/Kg		09/10/13 10:25	09/12/13 15:27	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl	48		33 - 120				09/10/13 10:25	09/12/13 15:27	1
Terphenyl-d14	63		35 - 146				09/10/13 10:25	09/12/13 15:27	1

### Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1.7		0.99		mg/Kg		09/13/13 13:43	09/17/13 01:21	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Capric Acid (Surr)	0.01		0 - 1				09/13/13 13:43	09/17/13 01:21	1
p-Terphenyl	74		38 - 148				09/13/13 13:43	09/17/13 01:21	1

TestAmerica Pleasanton

# Client Sample Results

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

## Client Sample ID: S-SB10-2.5

Date Collected: 09/04/13 14:50

Date Received: 09/05/13 15:45

## Lab Sample ID: 720-52127-21

Matrix: Solid

### Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	ND		3.6		ug/Kg		09/05/13 20:01	09/09/13 13:20	1
Benzene	ND		3.6		ug/Kg		09/05/13 20:01	09/09/13 13:20	1
Ethylbenzene	ND		3.6		ug/Kg		09/05/13 20:01	09/09/13 13:20	1
Toluene	ND		3.6		ug/Kg		09/05/13 20:01	09/09/13 13:20	1
Xylenes, Total	ND		7.2		ug/Kg		09/05/13 20:01	09/09/13 13:20	1
Naphthalene	ND		7.2		ug/Kg		09/05/13 20:01	09/09/13 13:20	1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene	94			45 - 131			09/05/13 20:01	09/09/13 13:20	1
1,2-Dichloroethane-d4 (Surr)	121			60 - 140			09/05/13 20:01	09/09/13 13:20	1
Toluene-d8 (Surr)	98			58 - 140			09/05/13 20:01	09/09/13 13:20	1

### Method: 8270C SIM - PAHs by GCMS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		4.9		ug/Kg		09/10/13 13:34	09/11/13 14:49	1
Acenaphthylene	ND		4.9		ug/Kg		09/10/13 13:34	09/11/13 14:49	1
Anthracene	ND		4.9		ug/Kg		09/10/13 13:34	09/11/13 14:49	1
Benzo[a]anthracene	8.2		4.9		ug/Kg		09/10/13 13:34	09/11/13 14:49	1
Benzo[a]pyrene	11		4.9		ug/Kg		09/10/13 13:34	09/11/13 14:49	1
Benzo[b]fluoranthene	18		4.9		ug/Kg		09/10/13 13:34	09/11/13 14:49	1
Benzo[g,h,i]perylene	15		4.9		ug/Kg		09/10/13 13:34	09/11/13 14:49	1
Benzo[k]fluoranthene	5.8		4.9		ug/Kg		09/10/13 13:34	09/11/13 14:49	1
Chrysene	12		4.9		ug/Kg		09/10/13 13:34	09/11/13 14:49	1
Dibenz(a,h)anthracene	ND		4.9		ug/Kg		09/10/13 13:34	09/11/13 14:49	1
Fluoranthene	21		4.9		ug/Kg		09/10/13 13:34	09/11/13 14:49	1
Fluorene	ND		4.9		ug/Kg		09/10/13 13:34	09/11/13 14:49	1
Indeno[1,2,3-cd]pyrene	10		4.9		ug/Kg		09/10/13 13:34	09/11/13 14:49	1
Naphthalene	6.6		4.9		ug/Kg		09/10/13 13:34	09/11/13 14:49	1
Phenanthrene	10		4.9		ug/Kg		09/10/13 13:34	09/11/13 14:49	1
Pyrene	18		4.9		ug/Kg		09/10/13 13:34	09/11/13 14:49	1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl	64			33 - 120			09/10/13 13:34	09/11/13 14:49	1
Terphenyl-d14	70			35 - 146			09/10/13 13:34	09/11/13 14:49	1

### Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	28		0.99		mg/Kg		09/13/13 13:43	09/17/13 10:48	1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Capric Acid (Surr)	0			0 - 1			09/13/13 13:43	09/17/13 10:48	1
p-Terphenyl	56			38 - 148			09/13/13 13:43	09/17/13 10:48	1

TestAmerica Pleasanton

# Client Sample Results

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

## Client Sample ID: S-SB10-5

Date Collected: 09/04/13 14:55  
Date Received: 09/05/13 15:45

## Lab Sample ID: 720-52127-22

Matrix: Solid

### Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	ND		4.2		ug/Kg		09/05/13 20:01	09/09/13 13:48	1
Benzene	ND		4.2		ug/Kg		09/05/13 20:01	09/09/13 13:48	1
Ethylbenzene	ND		4.2		ug/Kg		09/05/13 20:01	09/09/13 13:48	1
Toluene	ND		4.2		ug/Kg		09/05/13 20:01	09/09/13 13:48	1
Xylenes, Total	ND		8.5		ug/Kg		09/05/13 20:01	09/09/13 13:48	1
Naphthalene	ND		8.5		ug/Kg		09/05/13 20:01	09/09/13 13:48	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene	88		45 - 131				09/05/13 20:01	09/09/13 13:48	1
1,2-Dichloroethane-d4 (Surr)	120		60 - 140				09/05/13 20:01	09/09/13 13:48	1
Toluene-d8 (Surr)	95		58 - 140				09/05/13 20:01	09/09/13 13:48	1

### Method: 8270C SIM - PAHs by GCMS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0		ug/Kg		09/10/13 13:34	09/11/13 15:12	1
Acenaphthylene	ND		5.0		ug/Kg		09/10/13 13:34	09/11/13 15:12	1
Anthracene	ND		5.0		ug/Kg		09/10/13 13:34	09/11/13 15:12	1
<b>Benzo[a]anthracene</b>	<b>5.0</b>		5.0		ug/Kg		09/10/13 13:34	09/11/13 15:12	1
<b>Benzo[a]pyrene</b>	<b>6.3</b>		5.0		ug/Kg		09/10/13 13:34	09/11/13 15:12	1
<b>Benzo[b]fluoranthene</b>	<b>8.1</b>		5.0		ug/Kg		09/10/13 13:34	09/11/13 15:12	1
Benzo[g,h,i]perylene	ND		5.0		ug/Kg		09/10/13 13:34	09/11/13 15:12	1
Benzo[k]fluoranthene	ND		5.0		ug/Kg		09/10/13 13:34	09/11/13 15:12	1
Chrysene	ND		5.0		ug/Kg		09/10/13 13:34	09/11/13 15:12	1
Dibenz(a,h)anthracene	ND		5.0		ug/Kg		09/10/13 13:34	09/11/13 15:12	1
<b>Fluoranthene</b>	<b>8.1</b>		5.0		ug/Kg		09/10/13 13:34	09/11/13 15:12	1
Fluorene	ND		5.0		ug/Kg		09/10/13 13:34	09/11/13 15:12	1
Indeno[1,2,3-cd]pyrene	ND		5.0		ug/Kg		09/10/13 13:34	09/11/13 15:12	1
Naphthalene	ND		5.0		ug/Kg		09/10/13 13:34	09/11/13 15:12	1
Phenanthrene	ND		5.0		ug/Kg		09/10/13 13:34	09/11/13 15:12	1
<b>Pyrene</b>	<b>6.4</b>		5.0		ug/Kg		09/10/13 13:34	09/11/13 15:12	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl	61		33 - 120				09/10/13 13:34	09/11/13 15:12	1
Terphenyl-d14	64		35 - 146				09/10/13 13:34	09/11/13 15:12	1

### Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Diesel Range Organics [C10-C28]</b>	<b>1.1</b>		0.99		mg/Kg		09/13/13 13:43	09/17/13 03:22	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Capric Acid (Surr)	0.002		0 - 1				09/13/13 13:43	09/17/13 03:22	1
p-Terphenyl	102		38 - 148				09/13/13 13:43	09/17/13 03:22	1

TestAmerica Pleasanton

# Client Sample Results

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

## Client Sample ID: S-SB11-2

Date Collected: 09/04/13 15:15  
Date Received: 09/05/13 15:45

## Lab Sample ID: 720-52127-23

Matrix: Solid

### Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	ND		3.7		ug/Kg		09/05/13 20:01	09/09/13 14:15	1
Benzene	ND		3.7		ug/Kg		09/05/13 20:01	09/09/13 14:15	1
Ethylbenzene	ND		3.7		ug/Kg		09/05/13 20:01	09/09/13 14:15	1
Toluene	ND		3.7		ug/Kg		09/05/13 20:01	09/09/13 14:15	1
Xylenes, Total	ND		7.4		ug/Kg		09/05/13 20:01	09/09/13 14:15	1
Naphthalene	ND		7.4		ug/Kg		09/05/13 20:01	09/09/13 14:15	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene	99		45 - 131				09/05/13 20:01	09/09/13 14:15	1
1,2-Dichloroethane-d4 (Surr)	121		60 - 140				09/05/13 20:01	09/09/13 14:15	1
Toluene-d8 (Surr)	101		58 - 140				09/05/13 20:01	09/09/13 14:15	1

### Method: 8270C SIM - PAHs by GCMS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0		ug/Kg		09/10/13 13:34	09/11/13 15:35	1
<b>Acenaphthylene</b>	<b>5.6</b>		5.0		ug/Kg		09/10/13 13:34	09/11/13 15:35	1
Anthracene	ND		5.0		ug/Kg		09/10/13 13:34	09/11/13 15:35	1
<b>Benzo[a]anthracene</b>	<b>8.5</b>		5.0		ug/Kg		09/10/13 13:34	09/11/13 15:35	1
<b>Benzo[a]pyrene</b>	<b>14</b>		5.0		ug/Kg		09/10/13 13:34	09/11/13 15:35	1
<b>Benzo[b]fluoranthene</b>	<b>21</b>		5.0		ug/Kg		09/10/13 13:34	09/11/13 15:35	1
<b>Benzo[g,h,i]perylene</b>	<b>18</b>		5.0		ug/Kg		09/10/13 13:34	09/11/13 15:35	1
Benzo[k]fluoranthene	ND		5.0		ug/Kg		09/10/13 13:34	09/11/13 15:35	1
<b>Chrysene</b>	<b>22</b>		5.0		ug/Kg		09/10/13 13:34	09/11/13 15:35	1
Dibenz(a,h)anthracene	ND		5.0		ug/Kg		09/10/13 13:34	09/11/13 15:35	1
<b>Fluoranthene</b>	<b>23</b>		5.0		ug/Kg		09/10/13 13:34	09/11/13 15:35	1
Fluorene	ND		5.0		ug/Kg		09/10/13 13:34	09/11/13 15:35	1
<b>Indeno[1,2,3-cd]pyrene</b>	<b>12</b>		5.0		ug/Kg		09/10/13 13:34	09/11/13 15:35	1
<b>Naphthalene</b>	<b>15</b>		5.0		ug/Kg		09/10/13 13:34	09/11/13 15:35	1
<b>Phenanthrene</b>	<b>21</b>		5.0		ug/Kg		09/10/13 13:34	09/11/13 15:35	1
<b>Pyrene</b>	<b>26</b>		5.0		ug/Kg		09/10/13 13:34	09/11/13 15:35	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl	74		33 - 120				09/10/13 13:34	09/11/13 15:35	1
Terphenyl-d14	86		35 - 146				09/10/13 13:34	09/11/13 15:35	1

### Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Diesel Range Organics [C10-C28]</b>	<b>450</b>		10		mg/Kg		09/13/13 13:43	09/17/13 09:57	10
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Capric Acid (Surr)	0		0 - 1				09/13/13 13:43	09/17/13 09:57	10
p-Terphenyl	0	XD	38 - 148				09/13/13 13:43	09/17/13 09:57	10

TestAmerica Pleasanton

# Client Sample Results

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

**Client Sample ID: S-SB11-5**

Date Collected: 09/04/13 15:25

Date Received: 09/05/13 15:45

**Lab Sample ID: 720-52127-24**

Matrix: Solid

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	ND		4.5		ug/Kg		09/05/13 20:01	09/09/13 14:43	1
Benzene	ND		4.5		ug/Kg		09/05/13 20:01	09/09/13 14:43	1
Ethylbenzene	ND		4.5		ug/Kg		09/05/13 20:01	09/09/13 14:43	1
Toluene	ND		4.5		ug/Kg		09/05/13 20:01	09/09/13 14:43	1
Xylenes, Total	ND		9.1		ug/Kg		09/05/13 20:01	09/09/13 14:43	1
Naphthalene	ND		9.1		ug/Kg		09/05/13 20:01	09/09/13 14:43	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene	86		45 - 131				09/05/13 20:01	09/09/13 14:43	1
1,2-Dichloroethane-d4 (Surr)	114		60 - 140				09/05/13 20:01	09/09/13 14:43	1
Toluene-d8 (Surr)	95		58 - 140				09/05/13 20:01	09/09/13 14:43	1

## Method: 8270C SIM - PAHs by GCMS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		4.9		ug/Kg		09/10/13 13:34	09/11/13 15:58	1
Acenaphthylene	ND		4.9		ug/Kg		09/10/13 13:34	09/11/13 15:58	1
Anthracene	ND		4.9		ug/Kg		09/10/13 13:34	09/11/13 15:58	1
Benzo[a]anthracene	ND		4.9		ug/Kg		09/10/13 13:34	09/11/13 15:58	1
Benzo[a]pyrene	ND		4.9		ug/Kg		09/10/13 13:34	09/11/13 15:58	1
Benzo[b]fluoranthene	ND		4.9		ug/Kg		09/10/13 13:34	09/11/13 15:58	1
Benzo[g,h,i]perylene	ND		4.9		ug/Kg		09/10/13 13:34	09/11/13 15:58	1
Benzo[k]fluoranthene	ND		4.9		ug/Kg		09/10/13 13:34	09/11/13 15:58	1
Chrysene	ND		4.9		ug/Kg		09/10/13 13:34	09/11/13 15:58	1
Dibenz(a,h)anthracene	ND		4.9		ug/Kg		09/10/13 13:34	09/11/13 15:58	1
Fluoranthene	ND		4.9		ug/Kg		09/10/13 13:34	09/11/13 15:58	1
Fluorene	ND		4.9		ug/Kg		09/10/13 13:34	09/11/13 15:58	1
Indeno[1,2,3-cd]pyrene	ND		4.9		ug/Kg		09/10/13 13:34	09/11/13 15:58	1
Naphthalene	ND		4.9		ug/Kg		09/10/13 13:34	09/11/13 15:58	1
Phenanthrene	ND		4.9		ug/Kg		09/10/13 13:34	09/11/13 15:58	1
Pyrene	ND		4.9		ug/Kg		09/10/13 13:34	09/11/13 15:58	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl	55		33 - 120				09/10/13 13:34	09/11/13 15:58	1
Terphenyl-d14	53		35 - 146				09/10/13 13:34	09/11/13 15:58	1

## Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		0.99		mg/Kg		09/13/13 13:43	09/17/13 02:09	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Capric Acid (Surr)	0.005		0 - 1				09/13/13 13:43	09/17/13 02:09	1
p-Terphenyl	86		38 - 148				09/13/13 13:43	09/17/13 02:09	1

TestAmerica Pleasanton

# Client Sample Results

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

**Client Sample ID: S-SB12-2**

Date Collected: 09/04/13 15:40

Date Received: 09/05/13 15:45

**Lab Sample ID: 720-52127-25**

Matrix: Solid

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	ND		3.6		ug/Kg		09/05/13 20:01	09/09/13 15:11	1
Benzene	ND		3.6		ug/Kg		09/05/13 20:01	09/09/13 15:11	1
Ethylbenzene	ND		3.6		ug/Kg		09/05/13 20:01	09/09/13 15:11	1
Toluene	ND		3.6		ug/Kg		09/05/13 20:01	09/09/13 15:11	1
Xylenes, Total	ND		7.1		ug/Kg		09/05/13 20:01	09/09/13 15:11	1
Naphthalene	ND		7.1		ug/Kg		09/05/13 20:01	09/09/13 15:11	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene	92		45 - 131				09/05/13 20:01	09/09/13 15:11	1
1,2-Dichloroethane-d4 (Surr)	126		60 - 140				09/05/13 20:01	09/09/13 15:11	1
Toluene-d8 (Surr)	97		58 - 140				09/05/13 20:01	09/09/13 15:11	1

**Method: 8270C SIM - PAHs by GCMS (SIM)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0		ug/Kg		09/10/13 13:34	09/11/13 16:22	1
Acenaphthylene	ND		5.0		ug/Kg		09/10/13 13:34	09/11/13 16:22	1
Anthracene	ND		5.0		ug/Kg		09/10/13 13:34	09/11/13 16:22	1
Benzo[a]anthracene	ND		5.0		ug/Kg		09/10/13 13:34	09/11/13 16:22	1
Benzo[a]pyrene	ND		5.0		ug/Kg		09/10/13 13:34	09/11/13 16:22	1
Benzo[b]fluoranthene	ND		5.0		ug/Kg		09/10/13 13:34	09/11/13 16:22	1
Benzo[g,h,i]perylene	ND		5.0		ug/Kg		09/10/13 13:34	09/11/13 16:22	1
Benzo[k]fluoranthene	ND		5.0		ug/Kg		09/10/13 13:34	09/11/13 16:22	1
Chrysene	ND		5.0		ug/Kg		09/10/13 13:34	09/11/13 16:22	1
Dibenz(a,h)anthracene	ND		5.0		ug/Kg		09/10/13 13:34	09/11/13 16:22	1
Fluoranthene	ND		5.0		ug/Kg		09/10/13 13:34	09/11/13 16:22	1
Fluorene	ND		5.0		ug/Kg		09/10/13 13:34	09/11/13 16:22	1
Indeno[1,2,3-cd]pyrene	ND		5.0		ug/Kg		09/10/13 13:34	09/11/13 16:22	1
Naphthalene	ND		5.0		ug/Kg		09/10/13 13:34	09/11/13 16:22	1
Phenanthrene	ND		5.0		ug/Kg		09/10/13 13:34	09/11/13 16:22	1
Pyrene	ND		5.0		ug/Kg		09/10/13 13:34	09/11/13 16:22	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl	70		33 - 120				09/10/13 13:34	09/11/13 16:22	1
Terphenyl-d14	74		35 - 146				09/10/13 13:34	09/11/13 16:22	1

**Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	4.2		0.99		mg/Kg		09/13/13 13:43	09/17/13 03:22	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Capric Acid (Surr)	0.02		0 - 1				09/13/13 13:43	09/17/13 03:22	1
p-Terphenyl	91		38 - 148				09/13/13 13:43	09/17/13 03:22	1

TestAmerica Pleasanton

# Client Sample Results

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

**Client Sample ID: S-SB12-5**

Date Collected: 09/04/13 15:45

Date Received: 09/05/13 15:45

**Lab Sample ID: 720-52127-26**

Matrix: Solid

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	ND		4.8		ug/Kg		09/05/13 20:01	09/09/13 15:39	1
Benzene	ND		4.8		ug/Kg		09/05/13 20:01	09/09/13 15:39	1
Ethylbenzene	ND		4.8		ug/Kg		09/05/13 20:01	09/09/13 15:39	1
Toluene	ND		4.8		ug/Kg		09/05/13 20:01	09/09/13 15:39	1
Xylenes, Total	ND		9.6		ug/Kg		09/05/13 20:01	09/09/13 15:39	1
Naphthalene	ND		9.6		ug/Kg		09/05/13 20:01	09/09/13 15:39	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene	86		45 - 131				09/05/13 20:01	09/09/13 15:39	1
1,2-Dichloroethane-d4 (Surr)	115		60 - 140				09/05/13 20:01	09/09/13 15:39	1
Toluene-d8 (Surr)	95		58 - 140				09/05/13 20:01	09/09/13 15:39	1

**Method: 8270C SIM - PAHs by GCMS (SIM)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0		ug/Kg		09/10/13 13:34	09/11/13 16:45	1
Acenaphthylene	ND		5.0		ug/Kg		09/10/13 13:34	09/11/13 16:45	1
Anthracene	ND		5.0		ug/Kg		09/10/13 13:34	09/11/13 16:45	1
Benzo[a]anthracene	ND		5.0		ug/Kg		09/10/13 13:34	09/11/13 16:45	1
Benzo[a]pyrene	ND		5.0		ug/Kg		09/10/13 13:34	09/11/13 16:45	1
<b>Benzo[b]fluoranthene</b>	<b>6.1</b>		5.0		ug/Kg		09/10/13 13:34	09/11/13 16:45	1
Benzo[g,h,i]perylene	ND		5.0		ug/Kg		09/10/13 13:34	09/11/13 16:45	1
Benzo[k]fluoranthene	ND		5.0		ug/Kg		09/10/13 13:34	09/11/13 16:45	1
Chrysene	ND		5.0		ug/Kg		09/10/13 13:34	09/11/13 16:45	1
Dibenz(a,h)anthracene	ND		5.0		ug/Kg		09/10/13 13:34	09/11/13 16:45	1
<b>Fluoranthene</b>	<b>6.8</b>		5.0		ug/Kg		09/10/13 13:34	09/11/13 16:45	1
Fluorene	ND		5.0		ug/Kg		09/10/13 13:34	09/11/13 16:45	1
Indeno[1,2,3-cd]pyrene	ND		5.0		ug/Kg		09/10/13 13:34	09/11/13 16:45	1
Naphthalene	ND		5.0		ug/Kg		09/10/13 13:34	09/11/13 16:45	1
Phenanthrene	ND		5.0		ug/Kg		09/10/13 13:34	09/11/13 16:45	1
<b>Pyrene</b>	<b>5.2</b>		5.0		ug/Kg		09/10/13 13:34	09/11/13 16:45	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl	57		33 - 120				09/10/13 13:34	09/11/13 16:45	1
Terphenyl-d14	79		35 - 146				09/10/13 13:34	09/11/13 16:45	1

**Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		0.99		mg/Kg		09/13/13 13:43	09/17/13 02:34	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Capric Acid (Surr)	0.01		0 - 1				09/13/13 13:43	09/17/13 02:34	1
p-Terphenyl	75		38 - 148				09/13/13 13:43	09/17/13 02:34	1

TestAmerica Pleasanton

# Client Sample Results

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

**Client Sample ID: S-DRUM-(1-4)**

**Lab Sample ID: 720-52127-31**

**Matrix: Solid**

Date Collected: 09/04/13 16:00  
Date Received: 09/05/13 15:45

**Method: 6010B - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.37		mg/Kg		09/09/13 12:01	09/10/13 12:58	4
Chromium	38		1.5		mg/Kg		09/09/13 12:01	09/10/13 12:58	4
Nickel	29		1.5		mg/Kg		09/09/13 12:01	09/10/13 12:58	4
Lead	170		1.5		mg/Kg		09/09/13 12:01	09/10/13 12:58	4
Zinc	69		4.5		mg/Kg		09/09/13 12:01	09/10/13 12:58	4

# QC Sample Results

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS

**Lab Sample ID:** MB 720-143715/5

**Matrix:** Solid

**Analysis Batch:** 143715

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
MTBE	ND		5.0		ug/Kg			09/06/13 08:50	1
Benzene	ND		5.0		ug/Kg			09/06/13 08:50	1
Ethylbenzene	ND		5.0		ug/Kg			09/06/13 08:50	1
Toluene	ND		5.0		ug/Kg			09/06/13 08:50	1
Xylenes, Total	ND		10		ug/Kg			09/06/13 08:50	1
Naphthalene	ND		10		ug/Kg			09/06/13 08:50	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene	85		45 - 131		09/06/13 08:50	1
1,2-Dichloroethane-d4 (Surr)	91		60 - 140		09/06/13 08:50	1
Toluene-d8 (Surr)	92		58 - 140		09/06/13 08:50	1

**Lab Sample ID:** LCS 720-143715/6

**Matrix:** Solid

**Analysis Batch:** 143715

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

Analyte	Spike	LCS	LCS	D	%Rec	Limits	%Rec.
	Added	Result	Qualifier				
MTBE	50.0	46.5		ug/Kg	93	70 - 144	
Benzene	50.0	44.7		ug/Kg	89	70 - 130	
Ethylbenzene	50.0	43.6		ug/Kg	87	80 - 137	
Toluene	50.0	44.2		ug/Kg	88	80 - 128	
m-Xylene & p-Xylene	100	89.1		ug/Kg	89	70 - 146	
o-Xylene	50.0	45.1		ug/Kg	90	70 - 140	
Naphthalene	50.0	50.4		ug/Kg	101	60 - 147	

Surrogate	LCS	LCS	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene	99		45 - 131			
1,2-Dichloroethane-d4 (Surr)	88		60 - 140			
Toluene-d8 (Surr)	96		58 - 140			

**Lab Sample ID:** LCSD 720-143715/7

**Matrix:** Solid

**Analysis Batch:** 143715

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

Analyte	Spike	LCSD	LCSD	D	%Rec	Limits	%Rec.	RPD	Limit
	Added	Result	Qualifier						
MTBE	50.0	47.6		ug/Kg	95	70 - 144	2	20	
Benzene	50.0	45.5		ug/Kg	91	70 - 130	2	20	
Ethylbenzene	50.0	43.7		ug/Kg	87	80 - 137	0	20	
Toluene	50.0	44.3		ug/Kg	89	80 - 128	0	20	
m-Xylene & p-Xylene	100	90.0		ug/Kg	90	70 - 146	1	20	
o-Xylene	50.0	45.1		ug/Kg	90	70 - 140	0	20	
Naphthalene	50.0	50.7		ug/Kg	101	60 - 147	1	20	

Surrogate	LCSD	LCSD	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene	94		45 - 131			
1,2-Dichloroethane-d4 (Surr)	88		60 - 140			
Toluene-d8 (Surr)	97		58 - 140			

TestAmerica Pleasanton

# QC Sample Results

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

**Lab Sample ID:** MB 720-143717/5

**Matrix:** Solid

**Analysis Batch:** 143717

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
MTBE	ND		5.0		ug/Kg			09/06/13 08:47	1
Benzene	ND		5.0		ug/Kg			09/06/13 08:47	1
Ethylbenzene	ND		5.0		ug/Kg			09/06/13 08:47	1
Toluene	ND		5.0		ug/Kg			09/06/13 08:47	1
Xylenes, Total	ND		10		ug/Kg			09/06/13 08:47	1
Naphthalene	ND		10		ug/Kg			09/06/13 08:47	1

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	Spike	MB						
4-Bromofluorobenzene	98		45 - 131				09/06/13 08:47	1
1,2-Dichloroethane-d4 (Surr)	106		60 - 140				09/06/13 08:47	1
Toluene-d8 (Surr)	99		58 - 140				09/06/13 08:47	1

**Lab Sample ID:** LCS 720-143717/6

**Matrix:** Solid

**Analysis Batch:** 143717

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

Analyte	Spike	LCS	LCS	Result	Qualifier	Unit	D	%Rec	Limits	Prepared	Analyzed	Dil Fac
	Added											
MTBE	50.0		54.3			ug/Kg		109	70 - 144			
Benzene	50.0		51.7			ug/Kg		103	70 - 130			
Ethylbenzene	50.0		53.1			ug/Kg		106	80 - 137			
Toluene	50.0		51.3			ug/Kg		103	80 - 128			
m-Xylene & p-Xylene	100		103			ug/Kg		103	70 - 146			
o-Xylene	50.0		53.7			ug/Kg		107	70 - 140			
Naphthalene	50.0		55.6			ug/Kg		111	60 - 147			

Surrogate	LCSD	LCSD	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	Spike	LCSD						
4-Bromofluorobenzene	100		45 - 131					
1,2-Dichloroethane-d4 (Surr)	101		60 - 140					
Toluene-d8 (Surr)	99		58 - 140					

**Lab Sample ID:** LCSD 720-143717/7

**Matrix:** Solid

**Analysis Batch:** 143717

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

Analyte	Spike	LCSD	LCSD	Result	Qualifier	Unit	D	%Rec	Limits	Prepared	Analyzed	RPD
	Added											
MTBE	50.0		52.9			ug/Kg		106	70 - 144			3
Benzene	50.0		50.2			ug/Kg		100	70 - 130			3
Ethylbenzene	50.0		50.9			ug/Kg		102	80 - 137			4
Toluene	50.0		49.6			ug/Kg		99	80 - 128			3
m-Xylene & p-Xylene	100		98.7			ug/Kg		99	70 - 146			4
o-Xylene	50.0		51.6			ug/Kg		103	70 - 140			4
Naphthalene	50.0		53.4			ug/Kg		107	60 - 147			4

Surrogate	LCSD	LCSD	%Recovery	Qualifier	Limits	Prepared	Analyzed	RPD
	Spike	LCSD						
4-Bromofluorobenzene	101		45 - 131					
1,2-Dichloroethane-d4 (Surr)	103		60 - 140					
Toluene-d8 (Surr)	100		58 - 140					

TestAmerica Pleasanton

# QC Sample Results

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

**Lab Sample ID:** MB 720-143755/5

**Matrix:** Water

**Analysis Batch:** 143755

**Client Sample ID:** Method Blank

**Prep Type:** Total/NA

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Methyl tert-butyl ether	ND		0.50		ug/L			09/06/13 17:03	1
Benzene	ND		0.50		ug/L			09/06/13 17:03	1
Ethylbenzene	ND		0.50		ug/L			09/06/13 17:03	1
Toluene	ND		0.50		ug/L			09/06/13 17:03	1
Xylenes, Total	ND		1.0		ug/L			09/06/13 17:03	1
Naphthalene	ND		1.0		ug/L			09/06/13 17:03	1
MB		MB							
Surrogate	%Recovery	Qualifier	Limits			Prepared		Analyzed	Dil Fac
4-Bromofluorobenzene	91		67 - 130					09/06/13 17:03	1
1,2-Dichloroethane-d4 (Surr)	95		72 - 130					09/06/13 17:03	1
Toluene-d8 (Surr)	98		70 - 130					09/06/13 17:03	1

**Lab Sample ID:** LCS 720-143755/6

**Matrix:** Water

**Analysis Batch:** 143755

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

Analyte	Spike		LCS Result	LCS Qualifier	Unit	D	%Rec	Limits	%Rec.
	Added	Result							
Methyl tert-butyl ether	25.0	21.9	ug/L		88		62 - 130		
Benzene	25.0	20.8	ug/L		83		79 - 130		
Ethylbenzene	25.0	20.3	ug/L		81		80 - 120		
Toluene	25.0	21.2	ug/L		85		78 - 120		
m-Xylene & p-Xylene	50.0	44.5	ug/L		89		70 - 142		
o-Xylene	25.0	23.7	ug/L		95		70 - 130		
Naphthalene	25.0	24.0	ug/L		96		70 - 130		
LCS		LCS							
Surrogate	%Recovery	Qualifier	Limits						
4-Bromofluorobenzene	92		67 - 130						
1,2-Dichloroethane-d4 (Surr)	92		72 - 130						
Toluene-d8 (Surr)	98		70 - 130						

**Lab Sample ID:** LCSD 720-143755/7

**Matrix:** Water

**Analysis Batch:** 143755

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

Analyte	Spike		LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
	Added	Result									
Methyl tert-butyl ether	25.0	21.4	ug/L		86		62 - 130	2	20		
Benzene	25.0	20.9	ug/L		83		79 - 130	0	20		
Ethylbenzene	25.0	20.1	ug/L		80		80 - 120	1	20		
Toluene	25.0	21.0	ug/L		84		78 - 120	1	20		
m-Xylene & p-Xylene	50.0	44.1	ug/L		88		70 - 142	1	20		
o-Xylene	25.0	23.5	ug/L		94		70 - 130	1	20		
Naphthalene	25.0	23.2	ug/L		93		70 - 130	3	20		
LCSD		LCSD									
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene	92		67 - 130								
1,2-Dichloroethane-d4 (Surr)	95		72 - 130								
Toluene-d8 (Surr)	98		70 - 130								

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# QC Sample Results

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

**Lab Sample ID:** MB 720-143819/5

**Matrix:** Solid

**Analysis Batch:** 143819

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
MTBE	ND		5.0		ug/Kg			09/09/13 09:11	1
Benzene	ND		5.0		ug/Kg			09/09/13 09:11	1
Ethylbenzene	ND		5.0		ug/Kg			09/09/13 09:11	1
Toluene	ND		5.0		ug/Kg			09/09/13 09:11	1
Xylenes, Total	ND		10		ug/Kg			09/09/13 09:11	1
Naphthalene	ND		10		ug/Kg			09/09/13 09:11	1

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	Spike	MB						
4-Bromofluorobenzene	104		45 - 131				09/09/13 09:11	1
1,2-Dichloroethane-d4 (Surr)	112		60 - 140				09/09/13 09:11	1
Toluene-d8 (Surr)	100		58 - 140				09/09/13 09:11	1

**Lab Sample ID:** LCS 720-143819/6

**Matrix:** Solid

**Analysis Batch:** 143819

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

Analyte	Spike	LCS	LCS	Result	Qualifier	Unit	D	%Rec	Limits	Prepared	Analyzed	Dil Fac
	Added											
MTBE	50.0		54.6			ug/Kg		109	70 - 144			
Benzene	50.0		53.1			ug/Kg		106	70 - 130			
Ethylbenzene	50.0		54.0			ug/Kg		108	80 - 137			
Toluene	50.0		51.9			ug/Kg		104	80 - 128			
m-Xylene & p-Xylene	100		109			ug/Kg		109	70 - 146			
o-Xylene	50.0		53.8			ug/Kg		108	70 - 140			
Naphthalene	50.0		54.1			ug/Kg		108	60 - 147			

Surrogate	LCSD	LCSD	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	Spike	LCSD						
4-Bromofluorobenzene	104		45 - 131					
1,2-Dichloroethane-d4 (Surr)	109		60 - 140					
Toluene-d8 (Surr)	101		58 - 140					

**Lab Sample ID:** LCSD 720-143819/7

**Matrix:** Solid

**Analysis Batch:** 143819

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

Analyte	Spike	LCSD	LCSD	Result	Qualifier	Unit	D	%Rec	Limits	Prepared	Analyzed	RPD
	Added											
MTBE	50.0		56.2			ug/Kg		112	70 - 144			3
Benzene	50.0		53.7			ug/Kg		107	70 - 130			1
Ethylbenzene	50.0		54.8			ug/Kg		110	80 - 137			1
Toluene	50.0		53.2			ug/Kg		106	80 - 128			2
m-Xylene & p-Xylene	100		111			ug/Kg		111	70 - 146			2
o-Xylene	50.0		54.4			ug/Kg		109	70 - 140			1
Naphthalene	50.0		56.7			ug/Kg		113	60 - 147			5

Surrogate	LCSD	LCSD	%Recovery	Qualifier	Limits	Prepared	Analyzed	RPD
	Spike	LCSD						
4-Bromofluorobenzene	101		45 - 131					
1,2-Dichloroethane-d4 (Surr)	106		60 - 140					
Toluene-d8 (Surr)	101		58 - 140					

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# QC Sample Results

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

**Lab Sample ID:** MB 720-143820/5

**Matrix:** Solid

**Analysis Batch:** 143820

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
MTBE	ND		5.0		ug/Kg			09/09/13 09:12	1
Benzene	ND		5.0		ug/Kg			09/09/13 09:12	1
Ethylbenzene	ND		5.0		ug/Kg			09/09/13 09:12	1
Toluene	ND		5.0		ug/Kg			09/09/13 09:12	1
Xylenes, Total	ND		10		ug/Kg			09/09/13 09:12	1
Naphthalene	ND		10		ug/Kg			09/09/13 09:12	1

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	Spike	MB						
4-Bromofluorobenzene	91		45 - 131				09/09/13 09:12	1
1,2-Dichloroethane-d4 (Surr)	98		60 - 140				09/09/13 09:12	1
Toluene-d8 (Surr)	99		58 - 140				09/09/13 09:12	1

**Lab Sample ID:** LCS 720-143820/6

**Matrix:** Solid

**Analysis Batch:** 143820

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

Analyte	Spike	LCS	LCS	Result	Qualifier	Unit	D	%Rec	Limits	%Rec.	Dil Fac
	Added	Result	Qualifier								
MTBE	50.0	48.7		ug/Kg				97	70 - 144		
Benzene	50.0	46.3		ug/Kg				93	70 - 130		
Ethylbenzene	50.0	45.1		ug/Kg				90	80 - 137		
Toluene	50.0	46.4		ug/Kg				93	80 - 128		
m-Xylene & p-Xylene	100	97.3		ug/Kg				97	70 - 146		
o-Xylene	50.0	51.0		ug/Kg				102	70 - 140		
Naphthalene	50.0	56.7		ug/Kg				113	60 - 147		

Surrogate	LCS	LCS	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	Spike	MB						
4-Bromofluorobenzene	93		45 - 131					
1,2-Dichloroethane-d4 (Surr)	92		60 - 140					
Toluene-d8 (Surr)	99		58 - 140					

**Lab Sample ID:** LCSD 720-143820/7

**Matrix:** Solid

**Analysis Batch:** 143820

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

Analyte	Spike	LCSD	LCSD	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
	Added	Result	Qualifier								
MTBE	50.0	48.7		ug/Kg				97	70 - 144	0	20
Benzene	50.0	45.1		ug/Kg				90	70 - 130	3	20
Ethylbenzene	50.0	43.2		ug/Kg				86	80 - 137	4	20
Toluene	50.0	44.3		ug/Kg				89	80 - 128	5	20
m-Xylene & p-Xylene	100	93.0		ug/Kg				93	70 - 146	4	20
o-Xylene	50.0	48.8		ug/Kg				98	70 - 140	4	20
Naphthalene	50.0	53.6		ug/Kg				107	60 - 147	6	20

Surrogate	LCSD	LCSD	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	Spike	MB						
4-Bromofluorobenzene	93		45 - 131					
1,2-Dichloroethane-d4 (Surr)	93		60 - 140					
Toluene-d8 (Surr)	100		58 - 140					

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# QC Sample Results

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

## Method: 8270C SIM - PAHs by GCMS (SIM)

**Lab Sample ID:** MB 720-143916/1-A

**Matrix:** Solid

**Analysis Batch:** 144011

**Client Sample ID:** Method Blank

**Prep Type:** Total/NA

**Prep Batch:** 143916

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							Prepared	Analyzed	Dil Fac
Acenaphthene	ND				5.0		ug/Kg		09/10/13 10:21	09/11/13 19:50	1
Acenaphthylene	ND				5.0		ug/Kg		09/10/13 10:21	09/11/13 19:50	1
Anthracene	ND				5.0		ug/Kg		09/10/13 10:21	09/11/13 19:50	1
Benzo[a]anthracene	ND				5.0		ug/Kg		09/10/13 10:21	09/11/13 19:50	1
Benzo[a]pyrene	ND				5.0		ug/Kg		09/10/13 10:21	09/11/13 19:50	1
Chrysene	ND				5.0		ug/Kg		09/10/13 10:21	09/11/13 19:50	1
Benzo[b]fluoranthene	ND				5.0		ug/Kg		09/10/13 10:21	09/11/13 19:50	1
Benzo[k]fluoranthene	ND				5.0		ug/Kg		09/10/13 10:21	09/11/13 19:50	1
Benzo[g,h,i]perylene	ND				5.0		ug/Kg		09/10/13 10:21	09/11/13 19:50	1
Fluorene	ND				5.0		ug/Kg		09/10/13 10:21	09/11/13 19:50	1
Indeno[1,2,3-cd]pyrene	ND				5.0		ug/Kg		09/10/13 10:21	09/11/13 19:50	1
Fluoranthene	ND				5.0		ug/Kg		09/10/13 10:21	09/11/13 19:50	1
Naphthalene	ND				5.0		ug/Kg		09/10/13 10:21	09/11/13 19:50	1
Phenanthrene	ND				5.0		ug/Kg		09/10/13 10:21	09/11/13 19:50	1
Pyrene	ND				5.0		ug/Kg		09/10/13 10:21	09/11/13 19:50	1
Dibenz(a,h)anthracene	ND				5.0		ug/Kg		09/10/13 10:21	09/11/13 19:50	1

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	Result	Qualifier				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	74		33 - 120			09/10/13 10:21	09/11/13 19:50	1
Terphenyl-d14	92		35 - 146			09/10/13 10:21	09/11/13 19:50	1

**Lab Sample ID:** LCS 720-143916/4-A

**Matrix:** Solid

**Analysis Batch:** 144011

**Client Sample ID:** Lab Control Sample  
**Prep Type:** Total/NA  
**Prep Batch:** 143916

Analyte	Spike	LCS	LCS	Result	Qualifier	Unit	D	%Rec	Limits	%Rec.
	Added	Result	Qualifier							
Acenaphthene	330	238				ug/Kg		72	49 - 120	
Acenaphthylene	330	248				ug/Kg		75	52 - 120	
Anthracene	330	246				ug/Kg		75	52 - 120	
Benzo[a]anthracene	330	279				ug/Kg		84	52 - 120	
Benzo[a]pyrene	330	270				ug/Kg		82	54 - 120	
Chrysene	330	243				ug/Kg		74	40 - 120	
Benzo[b]fluoranthene	330	326				ug/Kg		99	51 - 120	
Benzo[k]fluoranthene	330	245				ug/Kg		74	56 - 120	
Benzo[g,h,i]perylene	330	207				ug/Kg		63	48 - 120	
Fluorene	330	250				ug/Kg		76	52 - 120	
Indeno[1,2,3-cd]pyrene	330	235				ug/Kg		71	48 - 120	
Fluoranthene	330	265				ug/Kg		80	57 - 120	
Naphthalene	330	223				ug/Kg		68	46 - 120	
Phenanthrene	330	256				ug/Kg		78	48 - 120	
Pyrene	330	262				ug/Kg		79	53 - 120	
Dibenz(a,h)anthracene	330	241				ug/Kg		73	50 - 120	

Surrogate	LCS	LCS	%Recovery	Qualifier	Limits
	Result	Qualifier			
2-Fluorobiphenyl	56		33 - 120		
Terphenyl-d14	91		35 - 146		

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# QC Sample Results

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

## Method: 8270C SIM - PAHs by GCMS (SIM) (Continued)

**Lab Sample ID: LCSD 720-143916/5-A**

**Matrix: Solid**

**Analysis Batch: 144011**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 143916**

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	RPD	Limit
	Added	Result	Qualifier							
Acenaphthene	332	259		ug/Kg		78	49 - 120	9	20	
Acenaphthylene	332	269		ug/Kg		81	52 - 120	8	20	
Anthracene	332	267		ug/Kg		80	52 - 120	8	20	
Benzo[a]anthracene	332	306		ug/Kg		92	52 - 120	9	20	
Benzo[a]pyrene	332	287		ug/Kg		87	54 - 120	6	20	
Chrysene	332	267		ug/Kg		80	40 - 120	9	20	
Benzo[b]fluoranthene	332	343		ug/Kg		103	51 - 120	5	20	
Benzo[k]fluoranthene	332	274		ug/Kg		83	56 - 120	11	20	
Benzo[g,h,i]perylene	332	209		ug/Kg		63	48 - 120	1	20	
Fluorene	332	283		ug/Kg		85	52 - 120	12	20	
Indeno[1,2,3-cd]pyrene	332	243		ug/Kg		73	48 - 120	3	20	
Fluoranthene	332	272		ug/Kg		82	57 - 120	3	20	
Naphthalene	332	244		ug/Kg		73	46 - 120	9	20	
Phenanthrene	332	272		ug/Kg		82	48 - 120	6	20	
Pyrene	332	285		ug/Kg		86	53 - 120	8	20	
Dibenz(a,h)anthracene	332	248		ug/Kg		75	50 - 120	3	20	

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl	77		33 - 120
Terphenyl-d14	97		35 - 146

**Lab Sample ID: 720-52127-1 MS**

**Matrix: Solid**

**Analysis Batch: 144011**

**Client Sample ID: S-SB1-2**

**Prep Type: Total/NA**

**Prep Batch: 143916**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier				
Acenaphthene	ND		330	230		ug/Kg		70	33 - 120
Acenaphthylene	13		330	241		ug/Kg		69	28 - 120
Anthracene	10		330	258		ug/Kg		75	36 - 120
Benzo[a]anthracene	39		330	280		ug/Kg		73	29 - 120
Benzo[a]pyrene	52		330	281		ug/Kg		69	24 - 120
Chrysene	52		330	270		ug/Kg		66	29 - 120
Benzo[b]fluoranthene	98		330	362		ug/Kg		80	17 - 132
Benzo[k]fluoranthene	27		330	243		ug/Kg		65	35 - 120
Benzo[g,h,i]perylene	32		330	176		ug/Kg		44	21 - 120
Fluorene	ND		330	259		ug/Kg		79	35 - 120
Indeno[1,2,3-cd]pyrene	28		330	206		ug/Kg		54	20 - 126
Fluoranthene	77		330	302		ug/Kg		68	24 - 120
Naphthalene	ND		330	215		ug/Kg		64	32 - 120
Phenanthrene	26		330	245		ug/Kg		66	28 - 120
Pyrene	82		330	286		ug/Kg		62	24 - 123
Dibenz(a,h)anthracene	7.1		330	201		ug/Kg		59	36 - 120

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl	67		33 - 120
Terphenyl-d14	77		35 - 146

TestAmerica Pleasanton

# QC Sample Results

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

## Method: 8270C SIM - PAHs by GCMS (SIM) (Continued)

**Lab Sample ID: 720-52127-1 MSD**

**Matrix: Solid**

**Analysis Batch: 144011**

**Client Sample ID: S-SB1-2**

**Prep Type: Total/NA**

**Prep Batch: 143916**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier							
Acenaphthene	ND		333	248		ug/Kg		75	33 - 120	8	20	
Acenaphthylene	13		333	278		ug/Kg		80	28 - 120	14	20	
Anthracene	10		333	252		ug/Kg		73	36 - 120	2	20	
Benzo[a]anthracene	39		333	312		ug/Kg		82	29 - 120	11	20	
Benzo[a]pyrene	52		333	319		ug/Kg		80	24 - 120	13	20	
Chrysene	52		333	287		ug/Kg		71	29 - 120	6	20	
Benzo[b]fluoranthene	98		333	357		ug/Kg		78	17 - 132	2	20	
Benzo[k]fluoranthene	27		333	245		ug/Kg		65	35 - 120	1	20	
Benzo[g,h,i]perylene	32		333	181		ug/Kg		45	21 - 120	3	20	
Fluorene	ND		333	270		ug/Kg		81	35 - 120	4	20	
Indeno[1,2,3-cd]pyrene	28		333	176		ug/Kg		44	20 - 126	16	20	
Fluoranthene	77		333	302		ug/Kg		68	24 - 120	0	20	
Naphthalene	ND		333	229		ug/Kg		67	32 - 120	6	20	
Phenanthrene	26		333	274		ug/Kg		75	28 - 120	11	20	
Pyrene	82		333	335		ug/Kg		76	24 - 123	16	20	
Dibenz(a,h)anthracene	7.1		333	171		ug/Kg		49	36 - 120	16	20	

**MSD**   **MSD**

<b>Surrogate</b>	<b>MSD</b>	<b>MSD</b>	<b>Limits</b>
	<b>%Recovery</b>	<b>Qualifier</b>	
2-Fluorobiphenyl	74		33 - 120
Terphenyl-d14	87		35 - 146

**Lab Sample ID: MB 720-143926/1-A**

**Matrix: Water**

**Analysis Batch: 143928**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 143926**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acenaphthene	ND		0.10		ug/L		09/10/13 11:49	09/10/13 19:38	1
Acenaphthylene	ND		0.10		ug/L		09/10/13 11:49	09/10/13 19:38	1
Anthracene	ND		0.10		ug/L		09/10/13 11:49	09/10/13 19:38	1
Benzo[a]anthracene	ND		0.10		ug/L		09/10/13 11:49	09/10/13 19:38	1
Benzo[a]pyrene	ND		0.10		ug/L		09/10/13 11:49	09/10/13 19:38	1
Chrysene	ND		0.10		ug/L		09/10/13 11:49	09/10/13 19:38	1
Benzo[b]fluoranthene	ND		0.10		ug/L		09/10/13 11:49	09/10/13 19:38	1
Benzo[k]fluoranthene	ND		0.10		ug/L		09/10/13 11:49	09/10/13 19:38	1
Benzo[g,h,i]perylene	ND		0.10		ug/L		09/10/13 11:49	09/10/13 19:38	1
Fluorene	ND		0.10		ug/L		09/10/13 11:49	09/10/13 19:38	1
Indeno[1,2,3-cd]pyrene	ND		0.10		ug/L		09/10/13 11:49	09/10/13 19:38	1
Fluoranthene	ND		0.10		ug/L		09/10/13 11:49	09/10/13 19:38	1
Naphthalene	ND		0.10		ug/L		09/10/13 11:49	09/10/13 19:38	1
Phenanthrene	ND		0.10		ug/L		09/10/13 11:49	09/10/13 19:38	1
Pyrene	ND		0.10		ug/L		09/10/13 11:49	09/10/13 19:38	1
Dibenz(a,h)anthracene	ND		0.10		ug/L		09/10/13 11:49	09/10/13 19:38	1

**MB**   **MB**

<b>Surrogate</b>	<b>MB</b>	<b>MB</b>	<b>Limits</b>	<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
	<b>%Recovery</b>	<b>Qualifier</b>				
2-Fluorobiphenyl	68		29 - 120	09/10/13 11:49	09/10/13 19:38	1
Terphenyl-d14	83		45 - 120	09/10/13 11:49	09/10/13 19:38	1

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# QC Sample Results

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

## Method: 8270C SIM - PAHs by GCMS (SIM) (Continued)

**Lab Sample ID: LCS 720-143926/2-A**

**Matrix: Water**

**Analysis Batch: 143928**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 143926**

Analyte	Spike	LCS	LCS	Unit	D	%Rec	Limits
	Added	Result	Qualifier				
Acenaphthene	10.0	7.39		ug/L		74	42 - 120
Acenaphthylene	10.0	7.70		ug/L		77	39 - 120
Anthracene	10.0	7.95		ug/L		80	53 - 120
Benzo[a]anthracene	10.0	8.53		ug/L		85	48 - 120
Benzo[a]pyrene	10.0	8.09		ug/L		81	43 - 120
Chrysene	10.0	7.50		ug/L		75	47 - 120
Benzo[b]fluoranthene	10.0	9.28		ug/L		93	42 - 120
Benzo[k]fluoranthene	10.0	7.66		ug/L		77	42 - 120
Benzo[g,h,i]perylene	10.0	7.34		ug/L		73	24 - 120
Fluorene	10.0	7.94		ug/L		79	45 - 120
Indeno[1,2,3-cd]pyrene	10.0	7.74		ug/L		77	25 - 120
Fluoranthene	10.0	8.65		ug/L		87	57 - 120
Naphthalene	10.0	7.06		ug/L		71	29 - 120
Phenanthrene	10.0	7.96		ug/L		80	46 - 120
Pyrene	10.0	8.27		ug/L		83	47 - 120
Dibenz(a,h)anthracene	10.0	7.69		ug/L		77	21 - 120

**LCS LCS**

Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl	83		29 - 120
Terphenyl-d14	88		45 - 120

**Lab Sample ID: LCSD 720-143926/3-A**

**Matrix: Water**

**Analysis Batch: 143928**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 143926**

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	Limit
	Added	Result	Qualifier						
Acenaphthene	10.0	7.18		ug/L		72	42 - 120	3	35
Acenaphthylene	10.0	7.51		ug/L		75	39 - 120	2	35
Anthracene	10.0	7.63		ug/L		76	53 - 120	4	35
Benzo[a]anthracene	10.0	8.16		ug/L		82	48 - 120	4	35
Benzo[a]pyrene	10.0	7.85		ug/L		78	43 - 120	3	35
Chrysene	10.0	7.35		ug/L		74	47 - 120	2	35
Benzo[b]fluoranthene	10.0	8.90		ug/L		89	42 - 120	4	35
Benzo[k]fluoranthene	10.0	7.62		ug/L		76	42 - 120	1	35
Benzo[g,h,i]perylene	10.0	7.06		ug/L		71	24 - 120	4	35
Fluorene	10.0	8.07		ug/L		81	45 - 120	2	35
Indeno[1,2,3-cd]pyrene	10.0	7.53		ug/L		75	25 - 120	3	35
Fluoranthene	10.0	8.13		ug/L		81	57 - 120	6	35
Naphthalene	10.0	6.63		ug/L		66	29 - 120	6	35
Phenanthrene	10.0	7.57		ug/L		76	46 - 120	5	35
Pyrene	10.0	7.58		ug/L		76	47 - 120	9	35
Dibenz(a,h)anthracene	10.0	7.45		ug/L		75	21 - 120	3	35

**LCSD LCSD**

Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl	72		29 - 120
Terphenyl-d14	82		45 - 120

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# QC Sample Results

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

## Method: 8270C SIM - PAHs by GCMS (SIM) (Continued)

**Lab Sample ID: MB 720-143941/1-A**

**Matrix: Solid**

**Analysis Batch: 144011**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 143941**

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
	Result	Qualifier							Prepared	Analyzed	Dil Fac	
Acenaphthene	ND				4.9		ug/Kg		09/10/13 13:34	09/11/13 12:53	1	
Acenaphthylene	ND				4.9		ug/Kg		09/10/13 13:34	09/11/13 12:53	1	
Anthracene	ND				4.9		ug/Kg		09/10/13 13:34	09/11/13 12:53	1	
Benzo[a]anthracene	ND				4.9		ug/Kg		09/10/13 13:34	09/11/13 12:53	1	
Benzo[a]pyrene	ND				4.9		ug/Kg		09/10/13 13:34	09/11/13 12:53	1	
Chrysene	ND				4.9		ug/Kg		09/10/13 13:34	09/11/13 12:53	1	
Benzo[b]fluoranthene	ND				4.9		ug/Kg		09/10/13 13:34	09/11/13 12:53	1	
Benzo[k]fluoranthene	ND				4.9		ug/Kg		09/10/13 13:34	09/11/13 12:53	1	
Benzo[g,h,i]perylene	ND				4.9		ug/Kg		09/10/13 13:34	09/11/13 12:53	1	
Fluorene	ND				4.9		ug/Kg		09/10/13 13:34	09/11/13 12:53	1	
Indeno[1,2,3-cd]pyrene	ND				4.9		ug/Kg		09/10/13 13:34	09/11/13 12:53	1	
Fluoranthene	ND				4.9		ug/Kg		09/10/13 13:34	09/11/13 12:53	1	
Naphthalene	ND				4.9		ug/Kg		09/10/13 13:34	09/11/13 12:53	1	
Phenanthrene	ND				4.9		ug/Kg		09/10/13 13:34	09/11/13 12:53	1	
Pyrene	ND				4.9		ug/Kg		09/10/13 13:34	09/11/13 12:53	1	
Dibenz(a,h)anthracene	ND				4.9		ug/Kg		09/10/13 13:34	09/11/13 12:53	1	
<b>Surrogate</b>		<b>MB</b>	<b>MB</b>	<b>Recovery</b>		<b>Qualifier</b>	<b>Limits</b>	<b>Prepared</b>		<b>Analyzed</b>	<b>Dil Fac</b>	
2-Fluorobiphenyl				72			33 - 120			09/10/13 13:34	09/11/13 12:53	1
Terphenyl-d14				86			35 - 146			09/10/13 13:34	09/11/13 12:53	1

**Lab Sample ID: LCS 720-143941/2-A**

**Matrix: Solid**

**Analysis Batch: 144011**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 143941**

Analyte	Spike	LCS	LCS	Result	Qualifier	Unit	D	%Rec	Limits	%Rec.
	Added	Result	Qualifier							
Acenaphthene	329	261				ug/Kg		79	49 - 120	
Acenaphthylene	329	284				ug/Kg		86	52 - 120	
Anthracene	329	270				ug/Kg		82	52 - 120	
Benzo[a]anthracene	329	290				ug/Kg		88	52 - 120	
Benzo[a]pyrene	329	287				ug/Kg		87	54 - 120	
Chrysene	329	256				ug/Kg		78	40 - 120	
Benzo[b]fluoranthene	329	317				ug/Kg		96	51 - 120	
Benzo[k]fluoranthene	329	272				ug/Kg		83	56 - 120	
Benzo[g,h,i]perylene	329	297				ug/Kg		90	48 - 120	
Fluorene	329	255				ug/Kg		78	52 - 120	
Indeno[1,2,3-cd]pyrene	329	298				ug/Kg		91	48 - 120	
Fluoranthene	329	279				ug/Kg		85	57 - 120	
Naphthalene	329	253				ug/Kg		77	46 - 120	
Phenanthrene	329	269				ug/Kg		82	48 - 120	
Pyrene	329	269				ug/Kg		82	53 - 120	
Dibenz(a,h)anthracene	329	296				ug/Kg		90	50 - 120	
<b>Surrogate</b>		<b>LCS</b>	<b>LCS</b>	<b>Recovery</b>		<b>Qualifier</b>	<b>Limits</b>			
2-Fluorobiphenyl				91			33 - 120			
Terphenyl-d14				89			35 - 146			

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# QC Sample Results

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

## Method: 8270C SIM - PAHs by GCMS (SIM) (Continued)

Lab Sample ID: LCSD 720-143941/3-A				Client Sample ID: Lab Control Sample Dup						
				Prep Type: Total/NA						
				Prep Batch: 143941						
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD	Limit
Acenaphthene	330	254		ug/Kg	77	49 - 120	3	20		
Acenaphthylene	330	274		ug/Kg	83	52 - 120	3	20		
Anthracene	330	263		ug/Kg	80	52 - 120	3	20		
Benzo[a]anthracene	330	291		ug/Kg	88	52 - 120	0	20		
Benzo[a]pyrene	330	283		ug/Kg	86	54 - 120	1	20		
Chrysene	330	288		ug/Kg	87	40 - 120	12	20		
Benzo[b]fluoranthene	330	330		ug/Kg	100	51 - 120	4	20		
Benzo[k]fluoranthene	330	259		ug/Kg	78	56 - 120	5	20		
Benzo[g,h,i]perylene	330	297		ug/Kg	90	48 - 120	0	20		
Fluorene	330	276		ug/Kg	84	52 - 120	8	20		
Indeno[1,2,3-cd]pyrene	330	299		ug/Kg	91	48 - 120	0	20		
Fluoranthene	330	277		ug/Kg	84	57 - 120	1	20		
Naphthalene	330	242		ug/Kg	73	46 - 120	5	20		
Phenanthrene	330	259		ug/Kg	78	48 - 120	4	20		
Pyrene	330	249		ug/Kg	76	53 - 120	8	20		
Dibenz(a,h)anthracene	330	297		ug/Kg	90	50 - 120	0	20		
Surrogate										
Surrogate		LCSD %Recovery	LCSD Qualifier	Limits						
2-Fluorobiphenyl		84		33 - 120						
Terphenyl-d14		89		35 - 146						

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 720-143964/1-A				Client Sample ID: Method Blank						
				Prep Type: Silica Gel Cleanup						
				Prep Batch: 143964						
Analyte	MB Result	MB Qualifier	MB RL	MB MDL	MB Unit	D	Prepared	Analyzed	Dil Fac	
Diesel Range Organics [C10-C28]	ND		50	ug/L		09/10/13 17:38	09/11/13 16:30		1	
Surrogate										
Surrogate		MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Capric Acid (Surr)		0		0 - 5			09/10/13 17:38	09/11/13 16:30	1	
p-Terphenyl		85		31 - 150			09/10/13 17:38	09/11/13 16:30	1	

Lab Sample ID: LCS 720-143964/2-A				Client Sample ID: Lab Control Sample						
				Prep Type: Silica Gel Cleanup						
				Prep Batch: 143964						
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits			
Diesel Range Organics [C10-C28]	2500	1630		ug/L	65	32 - 119				
Surrogate										
Surrogate		LCS %Recovery	LCS Qualifier	Limits						
p-Terphenyl		107		31 - 150						

# QC Sample Results

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

## Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

**Lab Sample ID: LCSD 720-143964/3-A**

**Matrix: Water**

**Analysis Batch: 144004**

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec.	RPD	
	Added	Result	Qualifier					
Diesel Range Organics [C10-C28]	2500	1570		ug/L	63	32 - 119	4	35
<b>Surrogate</b>								
<i>p-Terphenyl</i>	103			31 - 150				

**Lab Sample ID: MB 720-144160/1-A**

**Matrix: Solid**

**Analysis Batch: 144161**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Diesel Range Organics [C10-C28]	ND		0.99		mg/Kg		09/12/13 21:50	09/13/13 17:30	1
<b>Surrogate</b>									
<i>Capric Acid (Sur)</i>	0.001		0 - 1				09/12/13 21:50	09/13/13 17:30	1
<i>p-Terphenyl</i>	114		38 - 148				09/12/13 21:50	09/13/13 17:30	1

**Lab Sample ID: LCS 720-144160/2-A**

**Matrix: Solid**

**Analysis Batch: 144161**

Analyte	Spike	LCS	LCS	Unit	D	%Rec.	Limits
	Added	Result	Qualifier				
Diesel Range Organics [C10-C28]	82.5	68.2		mg/Kg		83	36 - 112
<b>Surrogate</b>							
<i>p-Terphenyl</i>	92			38 - 148			

**Lab Sample ID: LCSD 720-144160/3-A**

**Matrix: Solid**

**Analysis Batch: 144161**

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec.	RPD
	Added	Result	Qualifier				
Diesel Range Organics [C10-C28]	83.3	67.3		mg/Kg		81	36 - 112
<b>Surrogate</b>							
<i>p-Terphenyl</i>	93			38 - 148			

**Lab Sample ID: MB 720-144195/1-A**

**Matrix: Solid**

**Analysis Batch: 144281**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Diesel Range Organics [C10-C28]	ND		0.99		mg/Kg		09/13/13 13:43	09/17/13 04:59	1

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# QC Sample Results

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

## Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

**Lab Sample ID:** MB 720-144195/1-A

**Matrix:** Solid

**Analysis Batch:** 144281

**Client Sample ID:** Method Blank

**Prep Type:** Silica Gel Cleanup

**Prep Batch:** 144195

Surrogate	MB	MB	%Recovery	Qualifier	Limits
Capric Acid (Surrogate)		0.002			0 - 1
p-Terphenyl		103			38 - 148

**Prepared:** 09/13/13 13:43

**Analyzed:** 09/17/13 04:59

**Dil Fac:** 1

**Prepared:** 09/13/13 13:43

**Analyzed:** 09/17/13 04:59

**Dil Fac:** 1

**Lab Sample ID:** LCS 720-144195/2-A

**Matrix:** Solid

**Analysis Batch:** 144281

**Client Sample ID:** Lab Control Sample

**Prep Type:** Silica Gel Cleanup

**Prep Batch:** 144195

Analyte	Spike	LCS	LCS	Unit	D	%Rec.	Limits
	Added	Result	Qualifier				
Diesel Range Organics [C10-C28]	83.2	63.6		mg/Kg		76	36 - 112
Surrogate	LCS	LCS					
p-Terphenyl	%Recovery	Qualifier	Limits				
	97		38 - 148				

**Lab Sample ID:** LCSD 720-144195/3-A

**Matrix:** Solid

**Analysis Batch:** 144281

**Client Sample ID:** Lab Control Sample Dup

**Prep Type:** Silica Gel Cleanup

**Prep Batch:** 144195

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec.	RPD	Limits
	Added	Result	Qualifier					
Diesel Range Organics [C10-C28]	82.6	58.0		mg/Kg		70	36 - 112	
Surrogate	LCSD	LCSD						
p-Terphenyl	%Recovery	Qualifier	Limits					
	93		38 - 148					

**Lab Sample ID:** 720-52127-9 MS

**Matrix:** Solid

**Analysis Batch:** 144363

**Client Sample ID:** S-SB4-3

**Prep Type:** Silica Gel Cleanup

**Prep Batch:** 144195

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec.
	Result	Qualifier	Added					
Diesel Range Organics [C10-C28]	180		83.3	251		mg/Kg		83
Surrogate	MS	MS						
p-Terphenyl	%Recovery	Qualifier	Limits					
	0	X D	38 - 148					

**Lab Sample ID:** 720-52127-9 MSD

**Matrix:** Solid

**Analysis Batch:** 144363

**Client Sample ID:** S-SB4-3

**Prep Type:** Silica Gel Cleanup

**Prep Batch:** 144195

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec.
	Result	Qualifier	Added					
Diesel Range Organics [C10-C28]	180		82.6	217	F	mg/Kg		42
Surrogate	MSD	MSD						
p-Terphenyl	%Recovery	Qualifier	Limits					
	0	X D	38 - 148					

TestAmerica Pleasanton

# QC Sample Results

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

## Method: 6010B - Metals (ICP)

**Lab Sample ID: MB 720-143847/1-A**

**Matrix: Solid**

**Analysis Batch: 143951**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 143847**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Cadmium	ND		0.13		mg/Kg		09/09/13 12:01	09/10/13 11:35	1
Chromium	ND		0.50		mg/Kg		09/09/13 12:01	09/10/13 11:35	1
Nickel	ND		0.50		mg/Kg		09/09/13 12:01	09/10/13 11:35	1
Lead	ND		0.50		mg/Kg		09/09/13 12:01	09/10/13 11:35	1
Zinc	ND		1.5		mg/Kg		09/09/13 12:01	09/10/13 11:35	1

**Lab Sample ID: LCS 720-143847/2-A**

**Matrix: Solid**

**Analysis Batch: 143951**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 143847**

Analyte	Spikes	LCS	LCS	Unit	D	%Rec.	Limits	RPD
	Added	Result	Qualifier					
Cadmium	50.0	46.2		mg/Kg		92	80 - 120	
Chromium	50.0	45.1		mg/Kg		90	80 - 120	
Nickel	50.0	46.7		mg/Kg		93	80 - 120	
Lead	50.0	46.4		mg/Kg		93	80 - 120	
Zinc	50.0	45.3		mg/Kg		91	80 - 120	

**Lab Sample ID: LCSD 720-143847/3-A**

**Matrix: Solid**

**Analysis Batch: 143951**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 143847**

Analyte	Spikes	LCSD	LCSD	Unit	D	%Rec.	Limits	RPD	Limit
	Added	Result	Qualifier						
Cadmium	50.0	46.5		mg/Kg		93	80 - 120	1	20
Chromium	50.0	44.0		mg/Kg		88	80 - 120	3	20
Nickel	50.0	47.2		mg/Kg		94	80 - 120	1	20
Lead	50.0	46.8		mg/Kg		94	80 - 120	1	20
Zinc	50.0	45.2		mg/Kg		90	80 - 120	0	20

## Method: SM 2540C - Solids, Total Dissolved (TDS)

**Lab Sample ID: MB 720-143774/2**

**Matrix: Water**

**Analysis Batch: 143774**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB	MB	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Total Dissolved Solids	ND		10		mg/L			09/06/13 17:56	1

**Lab Sample ID: LCS 720-143774/1**

**Matrix: Water**

**Analysis Batch: 143774**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spikes	LCS	LCS	Unit	D	%Rec.	Limits	RPD
	Added	Result	Qualifier					
Total Dissolved Solids	1000	982		mg/L		98	85 - 115	

TestAmerica Pleasanton

# QC Association Summary

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

## GC/MS VOA

### Analysis Batch: 143715

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52127-15	S-SB5-2	Total/NA	Solid	8260B/CA_LUFT MS	143735
LCS 720-143715/6	Lab Control Sample	Total/NA	Solid	8260B/CA_LUFT MS	
LCSD 720-143715/7	Lab Control Sample Dup	Total/NA	Solid	8260B/CA_LUFT MS	
MB 720-143715/5	Method Blank	Total/NA	Solid	8260B/CA_LUFT MS	

### Analysis Batch: 143717

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52127-1	S-SB1-2	Total/NA	Solid	8260B/CA_LUFT MS	143734
720-52127-5	S-SB2-3.5	Total/NA	Solid	8260B/CA_LUFT MS	143734
720-52127-7	S-SB3-5.5	Total/NA	Solid	8260B/CA_LUFT MS	143734
LCS 720-143717/6	Lab Control Sample	Total/NA	Solid	8260B/CA_LUFT MS	
LCSD 720-143717/7	Lab Control Sample Dup	Total/NA	Solid	8260B/CA_LUFT MS	
MB 720-143717/5	Method Blank	Total/NA	Solid	8260B/CA_LUFT MS	

### Prep Batch: 143734

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52127-1	S-SB1-2	Total/NA	Solid	5035	
720-52127-5	S-SB2-3.5	Total/NA	Solid	5035	
720-52127-7	S-SB3-5.5	Total/NA	Solid	5035	

### Prep Batch: 143735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52127-15	S-SB5-2	Total/NA	Solid	5035	

### Analysis Batch: 143755

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52127-8	W-SB3-8	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-143755/6	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-143755/7	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
MB 720-143755/5	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	

### Analysis Batch: 143819

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52127-17	S-SB8-3	Total/NA	Solid	8260B/CA_LUFT MS	143837
720-52127-18	S-SB8-5	Total/NA	Solid	8260B/CA_LUFT MS	143837
720-52127-19	S-SB9-2	Total/NA	Solid	8260B/CA_LUFT MS	143837
720-52127-20	S-SB9-5	Total/NA	Solid	8260B/CA_LUFT MS	143837

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# QC Association Summary

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

## GC/MS VOA (Continued)

### Analysis Batch: 143819 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52127-21	S-SB10-2.5	Total/NA	Solid	8260B/CA_LUFT MS	143837
720-52127-22	S-SB10-5	Total/NA	Solid	8260B/CA_LUFT MS	143837
720-52127-23	S-SB11-2	Total/NA	Solid	8260B/CA_LUFT MS	143837
720-52127-24	S-SB11-5	Total/NA	Solid	8260B/CA_LUFT MS	143837
720-52127-25	S-SB12-2	Total/NA	Solid	8260B/CA_LUFT MS	143837
720-52127-26	S-SB12-5	Total/NA	Solid	8260B/CA_LUFT MS	143837
LCS 720-143819/6	Lab Control Sample	Total/NA	Solid	8260B/CA_LUFT MS	143837
LCSD 720-143819/7	Lab Control Sample Dup	Total/NA	Solid	8260B/CA_LUFT MS	143837
MB 720-143819/5	Method Blank	Total/NA	Solid	8260B/CA_LUFT MS	143837

### Analysis Batch: 143820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52127-2	S-SB1-5	Total/NA	Solid	8260B/CA_LUFT MS	143834
720-52127-4	S-SB2-5	Total/NA	Solid	8260B/CA_LUFT MS	143834
720-52127-6	S-SB3-3	Total/NA	Solid	8260B/CA_LUFT MS	143834
720-52127-9	S-SB4-3	Total/NA	Solid	8260B/CA_LUFT MS	143834
720-52127-10	S-SB4-5	Total/NA	Solid	8260B/CA_LUFT MS	143834
720-52127-11	S-SB6-3	Total/NA	Solid	8260B/CA_LUFT MS	143834
720-52127-12	S-SB6-5.5	Total/NA	Solid	8260B/CA_LUFT MS	143834
720-52127-13	S-SB7-3.5	Total/NA	Solid	8260B/CA_LUFT MS	143834
720-52127-14	S-SB7-5	Total/NA	Solid	8260B/CA_LUFT MS	143834
720-52127-16	S-SB5-5	Total/NA	Solid	8260B/CA_LUFT MS	143834
LCS 720-143820/6	Lab Control Sample	Total/NA	Solid	8260B/CA_LUFT MS	143834
LCSD 720-143820/7	Lab Control Sample Dup	Total/NA	Solid	8260B/CA_LUFT MS	143834
MB 720-143820/5	Method Blank	Total/NA	Solid	8260B/CA_LUFT MS	143834

### Prep Batch: 143834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52127-2	S-SB1-5	Total/NA	Solid	5035	
720-52127-4	S-SB2-5	Total/NA	Solid	5035	
720-52127-6	S-SB3-3	Total/NA	Solid	5035	
720-52127-9	S-SB4-3	Total/NA	Solid	5035	
720-52127-10	S-SB4-5	Total/NA	Solid	5035	
720-52127-11	S-SB6-3	Total/NA	Solid	5035	

TestAmerica Pleasanton

# QC Association Summary

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

## GC/MS VOA (Continued)

### Prep Batch: 143834 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52127-12	S-SB6-5.5	Total/NA	Solid	5035	5
720-52127-13	S-SB7-3.5	Total/NA	Solid	5035	6
720-52127-14	S-SB7-5	Total/NA	Solid	5035	7
720-52127-16	S-SB5-5	Total/NA	Solid	5035	8

### Prep Batch: 143837

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52127-17	S-SB8-3	Total/NA	Solid	5035	9
720-52127-18	S-SB8-5	Total/NA	Solid	5035	10
720-52127-19	S-SB9-2	Total/NA	Solid	5035	11
720-52127-20	S-SB9-5	Total/NA	Solid	5035	12
720-52127-21	S-SB10-2.5	Total/NA	Solid	5035	13
720-52127-22	S-SB10-5	Total/NA	Solid	5035	14
720-52127-23	S-SB11-2	Total/NA	Solid	5035	
720-52127-24	S-SB11-5	Total/NA	Solid	5035	
720-52127-25	S-SB12-2	Total/NA	Solid	5035	
720-52127-26	S-SB12-5	Total/NA	Solid	5035	

## GC/MS Semi VOA

### Prep Batch: 143916

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52127-1	S-SB1-2	Total/NA	Solid	3546	
720-52127-1 MS	S-SB1-2	Total/NA	Solid	3546	
720-52127-1 MSD	S-SB1-2	Total/NA	Solid	3546	
720-52127-2	S-SB1-5	Total/NA	Solid	3546	
720-52127-4	S-SB2-5	Total/NA	Solid	3546	
720-52127-5	S-SB2-3.5	Total/NA	Solid	3546	
720-52127-6	S-SB3-3	Total/NA	Solid	3546	
720-52127-7	S-SB3-5.5	Total/NA	Solid	3546	
720-52127-9	S-SB4-3	Total/NA	Solid	3546	
720-52127-10	S-SB4-5	Total/NA	Solid	3546	
720-52127-11	S-SB6-3	Total/NA	Solid	3546	
720-52127-12	S-SB6-5.5	Total/NA	Solid	3546	
720-52127-13	S-SB7-3.5	Total/NA	Solid	3546	
720-52127-14	S-SB7-5	Total/NA	Solid	3546	
720-52127-15	S-SB5-2	Total/NA	Solid	3546	
720-52127-16	S-SB5-5	Total/NA	Solid	3546	
720-52127-17	S-SB8-3	Total/NA	Solid	3546	
720-52127-18	S-SB8-5	Total/NA	Solid	3546	
720-52127-19	S-SB9-2	Total/NA	Solid	3546	
720-52127-20	S-SB9-5	Total/NA	Solid	3546	
LCS 720-143916/4-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 720-143916/5-A	Lab Control Sample Dup	Total/NA	Solid	3546	
MB 720-143916/1-A	Method Blank	Total/NA	Solid	3546	

### Prep Batch: 143926

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52127-8	W-SB3-8	Total/NA	Water	3510C	
LCS 720-143926/2-A	Lab Control Sample	Total/NA	Water	3510C	

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# QC Association Summary

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

## GC/MS Semi VOA (Continued)

### Prep Batch: 143926 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 720-143926/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 720-143926/1-A	Method Blank	Total/NA	Water	3510C	

### Analysis Batch: 143928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52127-8	W-SB3-8	Total/NA	Water	8270C SIM	143926
LCS 720-143926/2-A	Lab Control Sample	Total/NA	Water	8270C SIM	143926
LCSD 720-143926/3-A	Lab Control Sample Dup	Total/NA	Water	8270C SIM	143926
MB 720-143926/1-A	Method Blank	Total/NA	Water	8270C SIM	143926

### Prep Batch: 143941

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52127-21	S-SB10-2.5	Total/NA	Solid	3546	
720-52127-22	S-SB10-5	Total/NA	Solid	3546	
720-52127-23	S-SB11-2	Total/NA	Solid	3546	
720-52127-24	S-SB11-5	Total/NA	Solid	3546	
720-52127-25	S-SB12-2	Total/NA	Solid	3546	
720-52127-26	S-SB12-5	Total/NA	Solid	3546	
LCS 720-143941/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 720-143941/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
MB 720-143941/1-A	Method Blank	Total/NA	Solid	3546	

### Analysis Batch: 144011

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52127-1	S-SB1-2	Total/NA	Solid	8270C SIM	143916
720-52127-1 MS	S-SB1-2	Total/NA	Solid	8270C SIM	143916
720-52127-1 MSD	S-SB1-2	Total/NA	Solid	8270C SIM	143916
720-52127-2	S-SB1-5	Total/NA	Solid	8270C SIM	143916
720-52127-4	S-SB2-5	Total/NA	Solid	8270C SIM	143916
720-52127-5	S-SB2-3.5	Total/NA	Solid	8270C SIM	143916
720-52127-6	S-SB3-3	Total/NA	Solid	8270C SIM	143916
720-52127-21	S-SB10-2.5	Total/NA	Solid	8270C SIM	143941
720-52127-22	S-SB10-5	Total/NA	Solid	8270C SIM	143941
720-52127-23	S-SB11-2	Total/NA	Solid	8270C SIM	143941
720-52127-24	S-SB11-5	Total/NA	Solid	8270C SIM	143941
720-52127-25	S-SB12-2	Total/NA	Solid	8270C SIM	143941
720-52127-26	S-SB12-5	Total/NA	Solid	8270C SIM	143941
LCS 720-143916/4-A	Lab Control Sample	Total/NA	Solid	8270C SIM	143916
LCS 720-143941/2-A	Lab Control Sample	Total/NA	Solid	8270C SIM	143941
LCSD 720-143916/5-A	Lab Control Sample Dup	Total/NA	Solid	8270C SIM	143916
LCSD 720-143941/3-A	Lab Control Sample Dup	Total/NA	Solid	8270C SIM	143941
MB 720-143916/1-A	Method Blank	Total/NA	Solid	8270C SIM	143916
MB 720-143941/1-A	Method Blank	Total/NA	Solid	8270C SIM	143941

### Analysis Batch: 144092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52127-9	S-SB4-3	Total/NA	Solid	8270C SIM	143916
720-52127-10	S-SB4-5	Total/NA	Solid	8270C SIM	143916
720-52127-13	S-SB7-3.5	Total/NA	Solid	8270C SIM	143916
720-52127-14	S-SB7-5	Total/NA	Solid	8270C SIM	143916
720-52127-15	S-SB5-2	Total/NA	Solid	8270C SIM	143916

TestAmerica Pleasanton

# QC Association Summary

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

## GC/MS Semi VOA (Continued)

### Analysis Batch: 144092 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52127-16	S-SB5-5	Total/NA	Solid	8270C SIM	143916
720-52127-17	S-SB8-3	Total/NA	Solid	8270C SIM	143916
720-52127-18	S-SB8-5	Total/NA	Solid	8270C SIM	143916
720-52127-19	S-SB9-2	Total/NA	Solid	8270C SIM	143916
720-52127-20	S-SB9-5	Total/NA	Solid	8270C SIM	143916

### Analysis Batch: 144093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52127-7	S-SB3-5.5	Total/NA	Solid	8270C SIM	143916
720-52127-11	S-SB6-3	Total/NA	Solid	8270C SIM	143916
720-52127-12	S-SB6-5.5	Total/NA	Solid	8270C SIM	143916

## GC Semi VOA

### Prep Batch: 143964

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52127-8	W-SB3-8	Silica Gel Cleanup	Water	3510C SGC	
LCS 720-143964/2-A	Lab Control Sample	Silica Gel Cleanup	Water	3510C SGC	
LCSD 720-143964/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Water	3510C SGC	
MB 720-143964/1-A	Method Blank	Silica Gel Cleanup	Water	3510C SGC	

### Analysis Batch: 144004

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52127-8	W-SB3-8	Silica Gel Cleanup	Water	8015B	143964
LCS 720-143964/2-A	Lab Control Sample	Silica Gel Cleanup	Water	8015B	143964
LCSD 720-143964/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Water	8015B	143964
MB 720-143964/1-A	Method Blank	Silica Gel Cleanup	Water	8015B	143964

### Prep Batch: 144160

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52127-1	S-SB1-2	Silica Gel Cleanup	Solid	3546	
720-52127-2	S-SB1-5	Silica Gel Cleanup	Solid	3546	
720-52127-4	S-SB2-5	Silica Gel Cleanup	Solid	3546	
720-52127-5	S-SB2-3.5	Silica Gel Cleanup	Solid	3546	
720-52127-6	S-SB3-3	Silica Gel Cleanup	Solid	3546	
720-52127-7	S-SB3-5.5	Silica Gel Cleanup	Solid	3546	
LCS 720-144160/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	3546	
LCSD 720-144160/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Solid	3546	
MB 720-144160/1-A	Method Blank	Silica Gel Cleanup	Solid	3546	

### Analysis Batch: 144161

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52127-4	S-SB2-5	Silica Gel Cleanup	Solid	8015B	144160
720-52127-5	S-SB2-3.5	Silica Gel Cleanup	Solid	8015B	144160
720-52127-7	S-SB3-5.5	Silica Gel Cleanup	Solid	8015B	144160
LCS 720-144160/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	8015B	144160
LCSD 720-144160/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Solid	8015B	144160
MB 720-144160/1-A	Method Blank	Silica Gel Cleanup	Solid	8015B	144160

# QC Association Summary

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

## GC Semi VOA (Continued)

### Analysis Batch: 144162

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52127-1	S-SB1-2	Silica Gel Cleanup	Solid	8015B	144160
720-52127-2	S-SB1-5	Silica Gel Cleanup	Solid	8015B	144160
720-52127-6	S-SB3-3	Silica Gel Cleanup	Solid	8015B	144160

### Prep Batch: 144195

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52127-9	S-SB4-3	Silica Gel Cleanup	Solid	3546	
720-52127-9 MS	S-SB4-3	Silica Gel Cleanup	Solid	3546	
720-52127-9 MSD	S-SB4-3	Silica Gel Cleanup	Solid	3546	
720-52127-10	S-SB4-5	Silica Gel Cleanup	Solid	3546	
720-52127-11	S-SB6-3	Silica Gel Cleanup	Solid	3546	
720-52127-12	S-SB6-5.5	Silica Gel Cleanup	Solid	3546	
720-52127-13	S-SB7-3.5	Silica Gel Cleanup	Solid	3546	
720-52127-14	S-SB7-5	Silica Gel Cleanup	Solid	3546	
720-52127-15	S-SB5-2	Silica Gel Cleanup	Solid	3546	
720-52127-16	S-SB5-5	Silica Gel Cleanup	Solid	3546	
720-52127-17	S-SB8-3	Silica Gel Cleanup	Solid	3546	
720-52127-18	S-SB8-5	Silica Gel Cleanup	Solid	3546	
720-52127-19	S-SB9-2	Silica Gel Cleanup	Solid	3546	
720-52127-20	S-SB9-5	Silica Gel Cleanup	Solid	3546	
720-52127-21	S-SB10-2.5	Silica Gel Cleanup	Solid	3546	
720-52127-22	S-SB10-5	Silica Gel Cleanup	Solid	3546	
720-52127-23	S-SB11-2	Silica Gel Cleanup	Solid	3546	
720-52127-24	S-SB11-5	Silica Gel Cleanup	Solid	3546	
720-52127-25	S-SB12-2	Silica Gel Cleanup	Solid	3546	
720-52127-26	S-SB12-5	Silica Gel Cleanup	Solid	3546	
LCS 720-144195/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	3546	
LCSD 720-144195/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Solid	3546	
MB 720-144195/1-A	Method Blank	Silica Gel Cleanup	Solid	3546	

### Analysis Batch: 144281

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52127-10	S-SB4-5	Silica Gel Cleanup	Solid	8015B	144195
720-52127-11	S-SB6-3	Silica Gel Cleanup	Solid	8015B	144195
720-52127-12	S-SB6-5.5	Silica Gel Cleanup	Solid	8015B	144195
720-52127-13	S-SB7-3.5	Silica Gel Cleanup	Solid	8015B	144195
720-52127-14	S-SB7-5	Silica Gel Cleanup	Solid	8015B	144195
720-52127-22	S-SB10-5	Silica Gel Cleanup	Solid	8015B	144195
LCS 720-144195/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	8015B	144195
LCSD 720-144195/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Solid	8015B	144195
MB 720-144195/1-A	Method Blank	Silica Gel Cleanup	Solid	8015B	144195

### Analysis Batch: 144282

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52127-16	S-SB5-5	Silica Gel Cleanup	Solid	8015B	144195
720-52127-17	S-SB8-3	Silica Gel Cleanup	Solid	8015B	144195
720-52127-18	S-SB8-5	Silica Gel Cleanup	Solid	8015B	144195
720-52127-19	S-SB9-2	Silica Gel Cleanup	Solid	8015B	144195
720-52127-20	S-SB9-5	Silica Gel Cleanup	Solid	8015B	144195
720-52127-24	S-SB11-5	Silica Gel Cleanup	Solid	8015B	144195
720-52127-25	S-SB12-2	Silica Gel Cleanup	Solid	8015B	144195

TestAmerica Pleasanton

# QC Association Summary

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

## GC Semi VOA (Continued)

### Analysis Batch: 144282 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52127-26	S-SB12-5	Silica Gel Cleanup	Solid	8015B	144195

### Analysis Batch: 144363

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52127-9	S-SB4-3	Silica Gel Cleanup	Solid	8015B	144195
720-52127-9 MS	S-SB4-3	Silica Gel Cleanup	Solid	8015B	144195
720-52127-9 MSD	S-SB4-3	Silica Gel Cleanup	Solid	8015B	144195
720-52127-23	S-SB11-2	Silica Gel Cleanup	Solid	8015B	144195

### Analysis Batch: 144364

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52127-15	S-SB5-2	Silica Gel Cleanup	Solid	8015B	144195
720-52127-21	S-SB10-2.5	Silica Gel Cleanup	Solid	8015B	144195

## Metals

### Prep Batch: 143847

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52127-31	S-DRUM-(1-4)	Total/NA	Solid	3050B	143847
LCS 720-143847/2-A	Lab Control Sample	Total/NA	Solid	3050B	143847
LCSD 720-143847/3-A	Lab Control Sample Dup	Total/NA	Solid	3050B	143847
MB 720-143847/1-A	Method Blank	Total/NA	Solid	3050B	143847

### Analysis Batch: 143951

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52127-31	S-DRUM-(1-4)	Total/NA	Solid	6010B	143847
LCS 720-143847/2-A	Lab Control Sample	Total/NA	Solid	6010B	143847
LCSD 720-143847/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	143847
MB 720-143847/1-A	Method Blank	Total/NA	Solid	6010B	143847

## General Chemistry

### Analysis Batch: 143774

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52127-8	W-SB3-8	Total/NA	Water	SM 2540C	
LCS 720-143774/1	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 720-143774/2	Method Blank	Total/NA	Water	SM 2540C	

## Lab Chronicle

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

**Client Sample ID: S-SB1-2**

**Lab Sample ID: 720-52127-1**

Matrix: Solid

Date Collected: 09/04/13 08:00

Date Received: 09/05/13 15:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			143734	09/05/13 20:01	PDR	TAL PLS
Total/NA	Analysis	8260B/CA_LUFTMS		1	143717	09/06/13 11:06	PDR	TAL PLS
Total/NA	Prep	3546			143916	09/10/13 10:21	BB	TAL PLS
Total/NA	Analysis	8270C SIM		1	144011	09/11/13 21:45	MQL	TAL PLS
Silica Gel Cleanup	Prep	3546			144160	09/12/13 21:50	DBT	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	144162	09/13/13 19:08	JL	TAL PLS

**Client Sample ID: S-SB1-5**

**Lab Sample ID: 720-52127-2**

Matrix: Solid

Date Collected: 09/04/13 08:15

Date Received: 09/05/13 15:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			143834	09/05/13 20:01	PDR	TAL PLS
Total/NA	Analysis	8260B/CA_LUFTMS		1	143820	09/09/13 11:25	ASC	TAL PLS
Total/NA	Prep	3546			143916	09/10/13 10:21	BB	TAL PLS
Total/NA	Analysis	8270C SIM		2	144011	09/11/13 22:09	MQL	TAL PLS
Silica Gel Cleanup	Prep	3546			144160	09/12/13 21:50	DBT	TAL PLS
Silica Gel Cleanup	Analysis	8015B		2	144162	09/13/13 19:57	JL	TAL PLS

**Client Sample ID: S-SB2-5**

**Lab Sample ID: 720-52127-4**

Matrix: Solid

Date Collected: 09/04/13 09:25

Date Received: 09/05/13 15:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			143834	09/05/13 20:01	PDR	TAL PLS
Total/NA	Analysis	8260B/CA_LUFTMS		1	143820	09/09/13 11:51	ASC	TAL PLS
Total/NA	Prep	3546			143916	09/10/13 10:21	BB	TAL PLS
Total/NA	Analysis	8270C SIM		1	144011	09/11/13 22:32	MQL	TAL PLS
Silica Gel Cleanup	Prep	3546			144160	09/12/13 21:50	DBT	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	144161	09/13/13 14:56	JL	TAL PLS

**Client Sample ID: S-SB2-3.5**

**Lab Sample ID: 720-52127-5**

Matrix: Solid

Date Collected: 09/04/13 09:30

Date Received: 09/05/13 15:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			143734	09/05/13 20:01	PDR	TAL PLS
Total/NA	Analysis	8260B/CA_LUFTMS		1	143717	09/06/13 12:57	PDR	TAL PLS
Total/NA	Prep	3546			143916	09/10/13 10:21	BB	TAL PLS
Total/NA	Analysis	8270C SIM		1	144011	09/11/13 22:55	MQL	TAL PLS
Silica Gel Cleanup	Prep	3546			144160	09/12/13 21:50	DBT	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	144161	09/13/13 16:09	JL	TAL PLS

TestAmerica Pleasanton

## Lab Chronicle

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

### Client Sample ID: S-SB3-3

Date Collected: 09/04/13 10:00  
Date Received: 09/05/13 15:45

### Lab Sample ID: 720-52127-6

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			143834	09/05/13 20:01	PDR	TAL PLS
Total/NA	Analysis	8260B/CA_LUFTMS		1	143820	09/09/13 12:43	ASC	TAL PLS
Total/NA	Prep	3546			143916	09/10/13 10:21	BB	TAL PLS
Total/NA	Analysis	8270C SIM		2	144011	09/11/13 23:19	MQL	TAL PLS
Silica Gel Cleanup	Prep	3546			144160	09/12/13 21:50	DBT	TAL PLS
Silica Gel Cleanup	Analysis	8015B		2	144162	09/13/13 20:21	JL	TAL PLS

### Client Sample ID: S-SB3-5.5

Date Collected: 09/04/13 10:05  
Date Received: 09/05/13 15:45

### Lab Sample ID: 720-52127-7

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			143734	09/05/13 20:01	PDR	TAL PLS
Total/NA	Analysis	8260B/CA_LUFTMS		1	143717	09/06/13 13:52	PDR	TAL PLS
Total/NA	Prep	3546			143916	09/10/13 10:21	BB	TAL PLS
Total/NA	Analysis	8270C SIM		1	144093	09/12/13 15:02	MQL	TAL PLS
Silica Gel Cleanup	Prep	3546			144160	09/12/13 21:50	DBT	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	144161	09/13/13 15:20	JL	TAL PLS

### Client Sample ID: W-SB3-8

Date Collected: 09/04/13 10:10  
Date Received: 09/05/13 15:45

### Lab Sample ID: 720-52127-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	143755	09/06/13 20:04	ASC	TAL PLS
Total/NA	Prep	3510C			143926	09/10/13 11:49	JRM	TAL PLS
Total/NA	Analysis	8270C SIM		1	143928	09/10/13 21:57	MQL	TAL PLS
Silica Gel Cleanup	Prep	3510C SGC			143964	09/10/13 17:38	DFR	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	144004	09/11/13 13:05	DCH	TAL PLS
Total/NA	Analysis	SM 2540C		1	143774	09/06/13 17:56	EYT	TAL PLS

### Client Sample ID: S-SB4-3

Date Collected: 09/04/13 10:30  
Date Received: 09/05/13 15:45

### Lab Sample ID: 720-52127-9

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			143834	09/05/13 20:01	PDR	TAL PLS
Total/NA	Analysis	8260B/CA_LUFTMS		1	143820	09/09/13 13:09	ASC	TAL PLS
Total/NA	Prep	3546			143916	09/10/13 10:21	BB	TAL PLS
Total/NA	Analysis	8270C SIM		5	144092	09/12/13 17:23	MQL	TAL PLS
Silica Gel Cleanup	Prep	3546			144195	09/13/13 13:43	DBT	TAL PLS
Silica Gel Cleanup	Analysis	8015B		5	144363	09/17/13 11:34	JL	TAL PLS

TestAmerica Pleasanton

## Lab Chronicle

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

### Client Sample ID: S-SB4-5

Date Collected: 09/04/13 10:35  
Date Received: 09/05/13 15:45

### Lab Sample ID: 720-52127-10

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			143834	09/05/13 20:01	PDR	TAL PLS
Total/NA	Analysis	8260B/CA_LUFTMS		1	143820	09/09/13 13:35	ASC	TAL PLS
Total/NA	Prep	3546			143916	09/10/13 10:21	BB	TAL PLS
Total/NA	Analysis	8270C SIM		1	144092	09/12/13 17:00	MQL	TAL PLS
Silica Gel Cleanup	Prep	3546			144195	09/13/13 13:43	DBT	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	144281	09/16/13 22:09	DCH	TAL PLS

### Client Sample ID: S-SB6-3

Date Collected: 09/04/13 11:05  
Date Received: 09/05/13 15:45

### Lab Sample ID: 720-52127-11

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			143834	09/05/13 20:01	PDR	TAL PLS
Total/NA	Analysis	8260B/CA_LUFTMS		1	143820	09/09/13 14:01	ASC	TAL PLS
Total/NA	Prep	3546			143916	09/10/13 10:21	BB	TAL PLS
Total/NA	Analysis	8270C SIM		1	144093	09/12/13 14:00	MQL	TAL PLS
Silica Gel Cleanup	Prep	3546			144195	09/13/13 13:43	DBT	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	144281	09/16/13 22:33	DCH	TAL PLS

### Client Sample ID: S-SB6-5.5

Date Collected: 09/04/13 11:15  
Date Received: 09/05/13 15:45

### Lab Sample ID: 720-52127-12

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			143834	09/05/13 20:01	PDR	TAL PLS
Total/NA	Analysis	8260B/CA_LUFTMS		1	143820	09/09/13 14:27	ASC	TAL PLS
Total/NA	Prep	3546			143916	09/10/13 10:21	BB	TAL PLS
Total/NA	Analysis	8270C SIM		1	144093	09/12/13 14:20	MQL	TAL PLS
Silica Gel Cleanup	Prep	3546			144195	09/13/13 13:43	DBT	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	144281	09/16/13 23:19	DCH	TAL PLS

### Client Sample ID: S-SB7-3.5

Date Collected: 09/04/13 11:30  
Date Received: 09/05/13 15:45

### Lab Sample ID: 720-52127-13

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			143834	09/05/13 20:01	PDR	TAL PLS
Total/NA	Analysis	8260B/CA_LUFTMS		1	143820	09/09/13 14:53	ASC	TAL PLS
Total/NA	Prep	3546			143916	09/10/13 10:21	BB	TAL PLS
Total/NA	Analysis	8270C SIM		50	144092	09/12/13 17:46	MQL	TAL PLS
Silica Gel Cleanup	Prep	3546			144195	09/13/13 13:43	DBT	TAL PLS
Silica Gel Cleanup	Analysis	8015B		10	144281	09/17/13 00:32	DCH	TAL PLS

TestAmerica Pleasanton

## Lab Chronicle

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

### Client Sample ID: S-SB7-5

Date Collected: 09/04/13 11:40  
Date Received: 09/05/13 15:45

### Lab Sample ID: 720-52127-14

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			143834	09/05/13 20:01	PDR	TAL PLS
Total/NA	Analysis	8260B/CA_LUFTMS		1	143820	09/09/13 15:19	ASC	TAL PLS
Total/NA	Prep	3546			143916	09/10/13 10:21	BB	TAL PLS
Total/NA	Analysis	8270C SIM		1	144092	09/12/13 13:09	MQL	TAL PLS
Silica Gel Cleanup	Prep	3546			144195	09/13/13 13:43	DBT	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	144281	09/16/13 23:44	DCH	TAL PLS

### Client Sample ID: S-SB5-2

Date Collected: 09/04/13 13:00  
Date Received: 09/05/13 15:45

### Lab Sample ID: 720-52127-15

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			143735	09/05/13 20:01	PDR	TAL PLS
Total/NA	Analysis	8260B/CA_LUFTMS		1	143715	09/06/13 11:13	ASC	TAL PLS
Total/NA	Prep	3546			143916	09/10/13 10:21	BB	TAL PLS
Total/NA	Analysis	8270C SIM		2	144092	09/12/13 13:32	MQL	TAL PLS
Silica Gel Cleanup	Prep	3546			144195	09/13/13 13:43	DBT	TAL PLS
Silica Gel Cleanup	Analysis	8015B		3	144364	09/17/13 11:47	JL	TAL PLS

### Client Sample ID: S-SB5-5

Date Collected: 09/04/13 13:10  
Date Received: 09/05/13 15:45

### Lab Sample ID: 720-52127-16

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			143834	09/05/13 20:01	PDR	TAL PLS
Total/NA	Analysis	8260B/CA_LUFTMS		1	143820	09/09/13 16:11	ASC	TAL PLS
Total/NA	Prep	3546			143916	09/10/13 10:25	BB	TAL PLS
Total/NA	Analysis	8270C SIM		1	144092	09/12/13 13:55	MQL	TAL PLS
Silica Gel Cleanup	Prep	3546			144195	09/13/13 13:43	DBT	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	144282	09/17/13 00:56	JL	TAL PLS

### Client Sample ID: S-SB8-3

Date Collected: 09/04/13 13:25  
Date Received: 09/05/13 15:45

### Lab Sample ID: 720-52127-17

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			143837	09/05/13 20:01	PDR	TAL PLS
Total/NA	Analysis	8260B/CA_LUFTMS		1	143819	09/09/13 11:29	ASC	TAL PLS
Total/NA	Prep	3546			143916	09/10/13 10:25	BB	TAL PLS
Total/NA	Analysis	8270C SIM		1	144092	09/12/13 14:18	MQL	TAL PLS
Silica Gel Cleanup	Prep	3546			144195	09/13/13 13:43	DBT	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	144282	09/17/13 03:47	JL	TAL PLS

TestAmerica Pleasanton

## Lab Chronicle

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

### Client Sample ID: S-SB8-5

Date Collected: 09/04/13 13:30  
Date Received: 09/05/13 15:45

### Lab Sample ID: 720-52127-18

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			143837	09/05/13 20:01	PDR	TAL PLS
Total/NA	Analysis	8260B/CA_LUFTMS		1	143819	09/09/13 11:57	ASC	TAL PLS
Total/NA	Prep	3546			143916	09/10/13 10:25	BB	TAL PLS
Total/NA	Analysis	8270C SIM		1	144092	09/12/13 14:41	MQL	TAL PLS
Silica Gel Cleanup	Prep	3546			144195	09/13/13 13:43	DBT	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	144282	09/17/13 01:45	JL	TAL PLS

### Client Sample ID: S-SB9-2

Date Collected: 09/04/13 13:50  
Date Received: 09/05/13 15:45

### Lab Sample ID: 720-52127-19

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			143837	09/05/13 20:01	PDR	TAL PLS
Total/NA	Analysis	8260B/CA_LUFTMS		1	143819	09/09/13 12:25	ASC	TAL PLS
Total/NA	Prep	3546			143916	09/10/13 10:25	BB	TAL PLS
Total/NA	Analysis	8270C SIM		1	144092	09/12/13 15:04	MQL	TAL PLS
Silica Gel Cleanup	Prep	3546			144195	09/13/13 13:43	DBT	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	144282	09/17/13 02:58	JL	TAL PLS

### Client Sample ID: S-SB9-5

Date Collected: 09/04/13 14:10  
Date Received: 09/05/13 15:45

### Lab Sample ID: 720-52127-20

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			143837	09/05/13 20:01	PDR	TAL PLS
Total/NA	Analysis	8260B/CA_LUFTMS		1	143819	09/09/13 12:52	ASC	TAL PLS
Total/NA	Prep	3546			143916	09/10/13 10:25	BB	TAL PLS
Total/NA	Analysis	8270C SIM		1	144092	09/12/13 15:27	MQL	TAL PLS
Silica Gel Cleanup	Prep	3546			144195	09/13/13 13:43	DBT	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	144282	09/17/13 01:21	JL	TAL PLS

### Client Sample ID: S-SB10-2.5

Date Collected: 09/04/13 14:50  
Date Received: 09/05/13 15:45

### Lab Sample ID: 720-52127-21

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			143837	09/05/13 20:01	PDR	TAL PLS
Total/NA	Analysis	8260B/CA_LUFTMS		1	143819	09/09/13 13:20	ASC	TAL PLS
Total/NA	Prep	3546			143941	09/10/13 13:34	DBT	TAL PLS
Total/NA	Analysis	8270C SIM		1	144011	09/11/13 14:49	MQL	TAL PLS
Silica Gel Cleanup	Prep	3546			144195	09/13/13 13:43	DBT	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	144364	09/17/13 10:48	JL	TAL PLS

TestAmerica Pleasanton

## Lab Chronicle

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

### Client Sample ID: S-SB10-5

Date Collected: 09/04/13 14:55  
Date Received: 09/05/13 15:45

### Lab Sample ID: 720-52127-22

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			143837	09/05/13 20:01	PDR	TAL PLS
Total/NA	Analysis	8260B/CA_LUFTMS		1	143819	09/09/13 13:48	ASC	TAL PLS
Total/NA	Prep	3546			143941	09/10/13 13:34	DBT	TAL PLS
Total/NA	Analysis	8270C SIM		1	144011	09/11/13 15:12	MQL	TAL PLS
Silica Gel Cleanup	Prep	3546			144195	09/13/13 13:43	DBT	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	144281	09/17/13 03:22	DCH	TAL PLS

### Client Sample ID: S-SB11-2

Date Collected: 09/04/13 15:15  
Date Received: 09/05/13 15:45

### Lab Sample ID: 720-52127-23

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			143837	09/05/13 20:01	PDR	TAL PLS
Total/NA	Analysis	8260B/CA_LUFTMS		1	143819	09/09/13 14:15	ASC	TAL PLS
Total/NA	Prep	3546			143941	09/10/13 13:34	DBT	TAL PLS
Total/NA	Analysis	8270C SIM		1	144011	09/11/13 15:35	MQL	TAL PLS
Silica Gel Cleanup	Prep	3546			144195	09/13/13 13:43	DBT	TAL PLS
Silica Gel Cleanup	Analysis	8015B		10	144363	09/17/13 09:57	JL	TAL PLS

### Client Sample ID: S-SB11-5

Date Collected: 09/04/13 15:25  
Date Received: 09/05/13 15:45

### Lab Sample ID: 720-52127-24

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			143837	09/05/13 20:01	PDR	TAL PLS
Total/NA	Analysis	8260B/CA_LUFTMS		1	143819	09/09/13 14:43	ASC	TAL PLS
Total/NA	Prep	3546			143941	09/10/13 13:34	DBT	TAL PLS
Total/NA	Analysis	8270C SIM		1	144011	09/11/13 15:58	MQL	TAL PLS
Silica Gel Cleanup	Prep	3546			144195	09/13/13 13:43	DBT	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	144282	09/17/13 02:09	JL	TAL PLS

### Client Sample ID: S-SB12-2

Date Collected: 09/04/13 15:40  
Date Received: 09/05/13 15:45

### Lab Sample ID: 720-52127-25

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			143837	09/05/13 20:01	PDR	TAL PLS
Total/NA	Analysis	8260B/CA_LUFTMS		1	143819	09/09/13 15:11	ASC	TAL PLS
Total/NA	Prep	3546			143941	09/10/13 13:34	DBT	TAL PLS
Total/NA	Analysis	8270C SIM		1	144011	09/11/13 16:22	MQL	TAL PLS
Silica Gel Cleanup	Prep	3546			144195	09/13/13 13:43	DBT	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	144282	09/17/13 03:22	JL	TAL PLS

TestAmerica Pleasanton

## Lab Chronicle

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

**Client Sample ID: S-SB12-5**

Date Collected: 09/04/13 15:45

Date Received: 09/05/13 15:45

**Lab Sample ID: 720-52127-26**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			143837	09/05/13 20:01	PDR	TAL PLS
Total/NA	Analysis	8260B/CA_LUFTMS		1	143819	09/09/13 15:39	ASC	TAL PLS
Total/NA	Prep	3546			143941	09/10/13 13:34	DBT	TAL PLS
Total/NA	Analysis	8270C SIM		1	144011	09/11/13 16:45	MQL	TAL PLS
Silica Gel Cleanup	Prep	3546			144195	09/13/13 13:43	DBT	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	144282	09/17/13 02:34	JL	TAL PLS

**Client Sample ID: S-DRUM-(1-4)**

Date Collected: 09/04/13 16:00

Date Received: 09/05/13 15:45

**Lab Sample ID: 720-52127-31**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			143847	09/09/13 12:01	CTD	TAL PLS
Total/NA	Analysis	6010B		4	143951	09/10/13 12:58	EFH	TAL PLS

### Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

## Certification Summary

Client: AMEC Environment & Infrastructure, Inc.  
Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

### Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-14

1

2

3

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5

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TestAmerica Pleasanton

## Method Summary

Client: AMEC Environment & Infrastructure, Inc.

Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

Method	Method Description	Protocol	Laboratory
8260B/CA_LUFTM S	8260B / CA LUFT MS	SW846	TAL PLS
8270C SIM	PAHs by GCMS (SIM)	SW846	TAL PLS
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL PLS
6010B	Metals (ICP)	SW846	TAL PLS
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PLS

### Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

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

### Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

## Sample Summary

Client: AMEC Environment & Infrastructure, Inc.  
 Project/Site: City of Alameda

TestAmerica Job ID: 720-52127-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-52127-1	S-SB1-2	Solid	09/04/13 08:00	09/05/13 15:45
720-52127-2	S-SB1-5	Solid	09/04/13 08:15	09/05/13 15:45
720-52127-4	S-SB2-5	Solid	09/04/13 09:25	09/05/13 15:45
720-52127-5	S-SB2-3.5	Solid	09/04/13 09:30	09/05/13 15:45
720-52127-6	S-SB3-3	Solid	09/04/13 10:00	09/05/13 15:45
720-52127-7	S-SB3-5.5	Solid	09/04/13 10:05	09/05/13 15:45
720-52127-8	W-SB3-8	Water	09/04/13 10:10	09/05/13 15:45
720-52127-9	S-SB4-3	Solid	09/04/13 10:30	09/05/13 15:45
720-52127-10	S-SB4-5	Solid	09/04/13 10:35	09/05/13 15:45
720-52127-11	S-SB6-3	Solid	09/04/13 11:05	09/05/13 15:45
720-52127-12	S-SB6-5.5	Solid	09/04/13 11:15	09/05/13 15:45
720-52127-13	S-SB7-3.5	Solid	09/04/13 11:30	09/05/13 15:45
720-52127-14	S-SB7-5	Solid	09/04/13 11:40	09/05/13 15:45
720-52127-15	S-SB5-2	Solid	09/04/13 13:00	09/05/13 15:45
720-52127-16	S-SB5-5	Solid	09/04/13 13:10	09/05/13 15:45
720-52127-17	S-SB8-3	Solid	09/04/13 13:25	09/05/13 15:45
720-52127-18	S-SB8-5	Solid	09/04/13 13:30	09/05/13 15:45
720-52127-19	S-SB9-2	Solid	09/04/13 13:50	09/05/13 15:45
720-52127-20	S-SB9-5	Solid	09/04/13 14:10	09/05/13 15:45
720-52127-21	S-SB10-2.5	Solid	09/04/13 14:50	09/05/13 15:45
720-52127-22	S-SB10-5	Solid	09/04/13 14:55	09/05/13 15:45
720-52127-23	S-SB11-2	Solid	09/04/13 15:15	09/05/13 15:45
720-52127-24	S-SB11-5	Solid	09/04/13 15:25	09/05/13 15:45
720-52127-25	S-SB12-2	Solid	09/04/13 15:40	09/05/13 15:45
720-52127-26	S-SB12-5	Solid	09/04/13 15:45	09/05/13 15:45
720-52127-31	S-DRUM-(1-4)	Solid	09/04/13 16:00	09/05/13 15:45

Seq. No. 13081465 North McDowell Blvd.  
Suite 200  
Petaluma, CA 94954  
(707) 793-3800Lab: Test America

## CHAIN OF CUSTODY FORM

ameco

Job Number: 0013164970**720-52127**

148421

Name/Location: City of Alameda, 1616 Fortmann WayProject Manager: Gary Lieberman Recorder: Scott Graham

(Signature Required)

## ANALYSIS REQUESTED

STATION		DEPTH
DESCRIPTION		
SB-1	1.5-2	X
SB-1	4.5-5	X
SB-2	1.5-2	X
SB-2	4.5-5	X
SB-2	3.3-5	X
SB-3	2.5-3	X
SB-3	5-5.5	X
SB-3	8-10'	X
SB-4	2.5-3	X
SB-4	7.5-5	X

8260 STEX-MB5  
8270 S19-PAHs  
TITLE 22 METALS  
TPHd-methane  
TDS

MATRIX	#	CONTAINERS	SAMPLE NUMBER	DATE				STATION DESCRIPTION	DEPTH
				YR	MO	DAY	TIME		
1 Water	X	Soil	125-SB1-2	13	09	04	08:00	SB-1	1.5-2
2	X	Air	125-SB1-5	13	09	04	08:15	SB-1	4.5-5
3	X	H2SO4	125-SB2-2	13	09	04	08:35	SB-2	1.5-2
4	X	HNO3	125-SB2-5	13	09	04	09:25	SB-2	4.5-5
5	X	HCl	125-SB2-3.5	13	09	04	09:30	SB-2	3.3-5
6	X	AcOH	125-SB3-3	13	09	04	10:00	SB-3	2.5-3
7	X	H2O	125-SB3-5.5	13	09	04	10:05	SB-3	5-5.5
8	X		125-SB3-8	13	09	04	10:10	SB-3	8-10'
9	X		125-BB4-3	13	09	04	10:30	SB-4	2.5-3
10	X		125-SB4-5	13	09	04	10:35	SB-4	7.5-5

## ADDITIONAL INFORMATION

REPORT TO: Gary.Lieberman@ameco.comPO#: C012203310TAT: Standard

Comments: Field Filtered Y/N



720-52127 Chain of Custody

CHAIN OF CUSTODY RECORD			
Relinquished By (Signature)	(Print Name)	(Company)	(Date/Time)
<u>T. Stitt</u>	<u>Scott Graham AMEC</u>	<u>TA</u>	<u>9.5.13 10:30</u>
Received By (Signature)	(Print Name)	(Company)	(Date/Time)
<u>T. Stitt</u>	<u>T. Stitt</u>	<u>TA</u>	<u>9.5.13 15:45</u>
Relinquished By (Signature)	(Print Name)	(Company)	(Date/Time)
<u>J. L. Lieberman</u>	<u>J. L. Lieberman</u>	<u>TAP</u>	<u>9/5/13 15:45</u>
Received By (Signature)	(Print Name)	(Company)	(Date/Time)
Relinquished By (Signature)	(Print Name)	(Company)	(Date/Time)
Received By (Signature)	(Print Name)	(Company)	(Date/Time)
Method of Shipment:			

Seq. No. 13091465 North McDowell Blvd.  
Suite 200  
Petaluma, CA 94954  
(707) 793-3800

## CHAIN OF CUSTODY FORM

Lab: Test AmericasSamplers: Scott GrahamJob Number: 0013164970**720-52127****amec**Name/Location: City of Alameda, 1616 Fortmann WayProject Manager: Gary LiebermanRecorder: Scott Graham  
(Signature Required)

148421

ANALYSIS REQUESTED

MATERIAL	CONTAINERS	SAMPLE NUMBER	DATE			
			YR	MO	DAY	TIME
Water	Soil	125-SBG-2	130904	11	05	
	Air	125-SBG-5	130904	11	15	
	H <sub>2</sub> SO <sub>4</sub>	125-SBG-5	130904	11	30	
	HNO <sub>3</sub>	125-SBG-2	130904	11	30	
	HCl	125-SBG-5	130904	11	40	
	H <sub>2</sub> O	125-SBG-2	130904	11	40	
11		125-SBG-2	130904	11	55	
12		125-SBG-5	130904	11	55	
13		125-SBG-5	130904	11	55	
14		125-SBG-2	130904	11	55	
15		125-SBG-5	130904	11	55	
16		125-SBG-5	130904	11	55	
17		125-SBG-3	130904	11	55	
18		125-SBG-5	130904	11	55	
19		125-SBG-2	130904	11	55	
20		125-SBG-5	130904	11	55	

## ADDITIONAL INFORMATION

REPORT TO: Gary.Lieberman@AMEC.comPO#: C012203310TAT: Standard

Comments: Field Filtered Y/N

STATION DESCRIPTION	DEPTH
SB-6	2.53
SB-6	5.55
SB-7	3.35
SB-7	4.55
SB-5	1.52
SB-5	4.55
SB-8	2.53
SB-8	9.55
SB-9	1.52
SB-9	4.55

CHAIN OF CUSTODY RECORD			
Relinquished By (Signature)	(Print Name)	(Company)	(Date/Time)
<u>Scott Graham</u>	<u>Scott Graham</u>	<u>AMEC</u>	<u>1030</u>
Received By (Signature):	(Print Name)	(Company)	(Date/Time)
<u>T. Stitt</u>	<u>T. Stitt</u>	<u>TA</u>	<u>9-5-13 1030</u>
Relinquished By (Signature)	(Print Name)	(Company)	(Date/Time)
<u>Justin Hinkle</u>	<u>Justin Hinkle</u>	<u>TAP</u>	<u>9/5/13 1545</u>
Received By (Signature):	(Print Name)	(Company)	(Date/Time)
Relinquished By (Signature)	(Print Name)	(Company)	(Date/Time)
Received By (Signature)	(Print Name)	(Company)	(Date/Time)
Method of Shipment:			



## Login Sample Receipt Checklist

Client: AMEC Environment & Infrastructure, Inc.

Job Number: 720-52127-1

**Login Number:** 52127

**List Source:** TestAmerica Pleasanton

**List Number:** 1

**Creator:** Bullock, Tracy

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are 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	
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 containers received and the COC.	False	
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.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	