

VIA E-MAIL

September 18, 2014

Ms. Sharon Miller  
Allied Land Company  
2421 Blanding Avenue  
Alameda, CA 94501

**RECEIVED**

*By Alameda County Environmental Health at 12:10 pm, Mar 09, 2015*

**REPORT  
LIMITED PHASE II INVESTIGATION  
ALLIED ENGINEERING PROPERTY  
2421 BLANDING AVENUE  
ALAMEDA, CA**

Dear Ms. Miller:

## **1.0 INTRODUCTION**

GEOLOGICA INC. (GEOLOGICA) is pleased to submit this Report describing the results of a limited Phase II environmental investigation conducted at the above-referenced property. The work at the above referenced address (the “property”) was generally completed as described in our proposal dated April 10, 2014. The scope of work for our field program was developed based on several discussions with Larry Jones of Cushman & Wakefield and review of the March 12, 2014 Phase I Environmental Site Assessment (ESA) Report prepared by Professional Service Industries, Inc. (PSI). GEOLOGICA made visits to the subject property on December 6 and December 12, 2013 to visually assess site conditions and on July 9 and 10, 2014 to mark proposed boring locations and clear the locations with a private utility locator. We also discussed site conditions with Rob Miller of Allied Engineering.

## **2.0 BACKGROUND**

The 2.92-acre property is developed with an approximately 83,500 sq ft building and has a more than 60-year history of industrial use for metal machining and fabrication. The property is situated in a commercial / industrial area immediately adjacent to the Oakland Estuary as shown on **Figure 1**. Groundwater levels in at the site have reportedly ranged from 5 to 7 feet below ground surface and are tidally influenced. Since 1951, Allied Engineering’s services have ranged from simple machining operations to the

design and manufacture of complex, precision hardware for aerospace use. Site configuration has changed over the years, but operations have included specialized, heavy duty precision machining equipment involving the use and storage of hazardous materials including: petroleum hydrocarbons (hydraulic oils/lubricants/greases, fuels, etc.), coolants, solvents/degreasers (naphtha, acetone, isopropanol, etc.), various metals, compressed gases, and others. A schematic site layout plan is shown on **Figure 2**.

## 2.1 Known Environmental Issues at the Property

The March 2014 Phase I ESA identified two Recognized Environmental Conditions (RECs) for the property. These consist of:

1. UST Hydrocarbon Release (“Active LUST Case”) – The Phase I ESA identified the presence of an active Leaking Underground Storage Tank (LUST) Site on the property as a REC for the property. The LUST case is listed in the California Regional Water Quality Control Board (RWQCB) Geotracker website in association with a 2,000-gallon underground gasoline storage tank (UST) removed in 2004, along with a nearby fuel dispenser and product piping. Testing of soil and groundwater from eight borings (B1 through B8) installed by Geo-Logic<sup>1</sup> (2010) indicated that Total Petroleum Hydrocarbon (TPH) as gasoline and BTEX were present in soil and groundwater near the tank. Three monitoring wells (MW-1, MW-2, and MW-3) were installed in 2010 and have been monitored semi-annually. The most elevated concentrations of fuel constituents have been observed in groundwater near well MW-2, which is near the former fuel dispenser location (approximately 30 ft south of the former UST).
2. Metals Detected in Soil & Groundwater (“Active SLIC Case”) – The Phase I ESA identified metals in soil east of the drum storage area as a REC. The property is listed as an inactive Spills, Leaks, Investigations & Cleanups (SLIC) Site by the RWQCB. GeoTracker does not identify contaminants of concern or specify the reason for the SLIC Site listing. The Phase I ESA reported that a February 13, 1985 letter in the RWQCB file for the Site identified elevated concentrations of lead and oil & grease in a sludge sample collected from a spill area east of the drum storage area. Testing conducted as part of the LUST Site investigation in 2007 reportedly found concentrations of the metals cadmium, chromium, lead, and nickel, among others, at levels exceeding both RWQCB environmental screening levels (ESLs) and California hazardous waste disposal criteria (TTLCs) in soil and groundwater in borings B3 and / or B7, which were installed near the

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<sup>1</sup> Note: Geo-Logic of Crockett, CA and GEOLOGICA of San Francisco, CA are not affiliated in any way.

UST area, but close to the estuary embankment. Metal debris was reportedly observed in boring B7 and is present in surface soil along the embankment east of the building adjacent to the estuary. Groundwater samples collected in 2010 from wells MW-1, MW-2, and MW-3 showed lower metals concentrations than were reported in the groundwater “grab” samples collected from soil borings, presumably because the wells extend deeper than the soil borings, though some exceedances of ESLs for nickel, cadmium, and lead were noted in the wells.

## 2.2 Issues of Potential Environmental Interest

During our reconnaissance of the property and in the March 2014 Phase I ESA, the following issues were noted with regard to their potential for releases to the subsurface. They are also noted on **Figure 2**:

1. Interior Subgrade Containment Units - Various subgrade or sub-slab features involving use, storage, or accumulation of petroleum hydrocarbons or chemicals were noted including:
  - a) Milling machine in-floor pits;
  - b) Existing or former floor trenches for piping or conduit;
  - c) Oil-water separator unit along with subgrade industrial sewer lines;
  - d) Floor sumps, discharge lines, or drains (if any);
  - e) Former gasoline UST (see above).

While the entire building and former metal machining areas are sealed with concrete flooring, locations where cutting oil accumulated in a subgrade pit (machine pits in Bays 1 and 2), or where subgrade piping is present (oil water separator in the High Bay Shop), or with floor penetrations (floor sump in Bay 3) may have a heightened potential for release to the subsurface.

2. Buried Metal Shavings/Debris and Fill Materials – Metal shaving and metal chips within soils along the water front and sloughing into the estuary at the embankment were observed on land that we understand is partly or wholly on an Army Corps of Engineers easement. There is also evidence in historic boring logs of several feet of emplaced fill beneath the site. It is our experience that historic fill was sometimes brought from contaminated source areas.

3. Unpaved areas Outside the Building – Unpaved areas (such as the exterior storage yard) or areas of exterior deteriorated pavement represent areas where a historic surface release or minor spill could result in impacts to soil or water.
4. Prior Use – The property was reportedly developed with private residences as early as 1897. In 1941, the property was redeveloped and a smaller version of the current building was erected for a steel fabrication and metal machining business. No information was identified in the Phase I ESA regarding possible hazardous materials usage prior to Allied Engineering; however, the use of hydrocarbons, solvents, and metals would be expected.
5. Cutting Oil Disposal – The Phase I ESA noted that cutting oil used in metal machining operations on the property may have been discarded in the parking area between the on-site building and the adjacent Body Shoppe auto body repair business.

### 2.3 Investigation Objectives

The purpose of the Phase II investigation was two-fold:

1. To investigate targeted areas around the site, identified during our preliminary site visits and in the March 2014 Phase I ESA, where potential releases of hazardous materials may have occurred.
2. To broadly investigate the site as a whole to establish background conditions at the property.

### 3.0 SCOPE OF WORK COMPLETED

Our Scope of Work included the following tasks:

**TASK 1: PRELIMINARY FIELD ACTIVITIES.** Prior to conducting field activities, GEOLOGICA conducted the following:

Assess Presence of Subsurface Utilities – GEOLOGICA reviewed available as-built blueprints and contacted Underground Services Alert (USA) to help establish the approximate location of subsurface utilities within the area investigated. After GEOLOGICA identified possible boring locations, GEOLOGICA engaged a private utility locator, JR Associates of San Jose, to perform a geophysical survey on July 10, 2014 to clear each boring location.

Permitting & Mobilization Activities – GEOLOGICA obtained drilling permits from the Alameda County environmental Health Department prior to drilling, contracted with drilling and laboratory testing subcontractors, and scheduled field activities.

**TASK 2: FIELD PROGRAM.** Field work was completed on July 9 and 14, 2014 and included advancing one test pit exploration near the former annealing pit near the east end of the property and nine soil borings at locations inside and around the exterior of the building. A GEOLOGICA geologist/hydrogeologist was present during all field activities and was responsible for: making detailed observations of site activities; and providing technical assistance for drilling and soil sampling activities, and collecting groundwater “grab” samples from temporary soil borings. All field activities were completed under the direct supervision of a California Professional Geologist. Soil and groundwater quality were evaluated as follows:

Test Pit Exploration – During the July 9, 2014 site visit, GEOLOGICA observed a large concrete-lined pit that was reportedly used for annealing metal parts in the unpaved area near the eastern property line fence. In discussion with the property owner’s representative, Larry Jones, we recommended sampling soil and groundwater, if present, at the north end of the pit where a fluid collection sump appeared to be present. This area was investigated by advancing a test pit exploration at the north end of the pit on July 9, 2014. The test pit was advanced by All Clean, a cleanup contractor engaged by Allied Engineering. One soil sample (TP-1-8.5’) was collected at a depth of 8.5 feet (ft) below ground surface (bgs) and one groundwater “grab” sample (TP-1) was collected at a depth of approximately 9 ft bgs from the test pit on July 9, 2014.

Drilling and Soil Sampling – The drilling program included advancing two soil borings to 4 ft total depth (TD), and seven soil borings to depths of 15 to 16 ft TD. One to three soil samples from each of the soil borings were collected for possible laboratory chemical testing. Soil borings were advanced in areas detailed on **Figure 2**. Boring were advanced inside the building adjacent to the oil water separator in the High Bay Shop, adjacent to the large machine pit at the west end of Bay 1, next to a soil filled floor sump in Bay 3, and adjacent to machine pits in Bays 1 and 2. Borings were advanced outside the building in the parking area between the main building and the adjacent auto body shop where cutting oil may have been discarded and adjacent to equipment storage areas in the unpaved yard on the east end of the property.

Direct push explorations were advanced to depths of 4 to 16 feet bgs using a truck-mounted vibratory hammer (Geoprobe) drilling rig. Soil samples were retrieved in continuous four-foot intervals during direct push probe advancement by withdrawing the probe rod and removing the 1.5-inch-diameter acetate liner attached to the tip. For each

boring, the entire sample collected from each four-foot long, acetate tube was screened for visual and olfactory signs of contamination. To collect soil samples for chemical analysis, the plastic liner retrieved from the probe rod was cut to isolate an approximately 6-inch long section of the recovered soil cores, sealed with Teflon, sealed with Teflon sheeting and plastic endcaps sealed with Teflon sheeting and plastic end caps, labeled, and placed in an ice chest cooled with bagged ice. Soil samples were collected for possible laboratory chemical testing at depths of 4, 6, and 9 ft bgs.

Groundwater “Grab” Sample Collection – Groundwater “grab” samples were collected from six of the soil borings (A-1-A, A-3, A-4, A-5, A-8, and A-9) at the locations shown on **Figure 2**. Groundwater “grab” samples were collected from boring A-5 in the parking area on the southeast side of the building where cutting oil was reportedly discarded, and one location in the High Bay Shop adjacent to an oil water separator, one location in Bay 1 between a machine pit in the High Bay Shop and a machine pit in Bay 1 that extend below the groundwater table, one location in Bay 2 adjacent to machine pits and a hazardous materials storage area, and one location in Bay 3 adjacent to a soil-filled floor sump (see Figure 1). For this, the borings were advanced to depths of up to 16 ft bgs (5 to 10 ft below the groundwater table) using a direct push/vibratory hammer drill rig. After encountering the groundwater table, a temporary 3/4” diameter PVC casing equipped with 10 ft of slotted screen was installed to facilitate groundwater sampling. Groundwater samples were collected using a clean, dedicated bailer to fill pre-cleaned sample containers provided by the analytical laboratory.

Boring Closure – Borings were abandoned on the day they were completed by backfilling with cement grout in accordance with applicable local and state requirements. Surface paving was repaired by patching with concrete. Residual soil not retained for laboratory chemical analysis was stored in a 55-gallon steel drum on the property pending receipt and review of laboratory testing results.

**Task 3 - Laboratory Testing.** The July 2014 soil and groundwater testing program consisted of the following:

Soil Testing – One soil sample from the test pit exploration and seven soil samples from the soil borings were submitted to a California-certified analytical laboratory for analysis. The analytical testing program for soil included:

- Total Petroleum Hydrocarbons (TPH) as diesel (TPH-d) and motor oil (TPH-mo) by EPA Method 8015M;
- VOCs by EPA Method 8260B; and

- 17 California Assessment Method (CAM) metals by EPA Methods 6000/7000.

The soil sample results were reported on a dry weight basis. Samples for TPH analysis were processed with silica gel cleanup. The silica gel cleanup step was intended to remove natural organic carbon that could result in a false positive detection of petroleum when decaying vegetation or other non-petroleum materials are present.

Groundwater Testing – One groundwater “grab” sample from the test pit exploration and six groundwater “grab” samples collected from the soil borings were analyzed for:

- TPH-d and TPH-mo by EPA Method 8015M;
- VOCs by EPA Method 8260B; and
- 17 CAM metals by EPA Methods 6000/7000.

Samples for TPH analysis were processed with silica gel cleanup to remove natural organic carbon. Samples collected for metals analysis were filtered and preserved by the analytical laboratory.

GEOLOGICA submitted the soil and groundwater samples collected during the July 2014 field program to the Test America laboratory in Pleasanton, CA within 24 hours of collection. All samples were packed in ice chests cooled with bagged ice and shipped under EPA standard chain of custody protocols. Copies of the laboratory testing reports are provided in Attachment A.

## **4.0 RESULTS**

The results of the July 2014 field program are discussed in the following sections.

### **4.1 Subsurface Conditions**

Soil Conditions – Soils encountered beneath the property in the borings advanced during the July 2014 field program generally consisted of clayey fine sand that graded to silty fine sand below depths of 10 to 12 ft bgs.

Groundwater Conditions – Groundwater was encountered at depths of 9 to 12.5 ft bgs in the test pit and soil boring explorations advanced in July 2014. The locations were not surveyed so a local groundwater flow direction could not be determined.



## 4.2 Soil Testing Results

Sections below discuss chemical testing analytes reported in soil samples collected at the Site in July 2014. **Table 1** provides a summary of soil sample results. The locations of constituent detections in soil are schematically illustrated on **Figure 3**.

Petroleum Hydrocarbons – TPH quantified as diesel (TPHd) was reported at concentrations ranging from 1.2 to 43 milligrams per kilogram (mg/kg) in five of the eight soil samples submitted for analysis. None of the reported TPHd concentrations exceed the San Francisco Bay area Regional Water Quality Control Board's (RWQCB's) Table A or Table B Environmental Screening Level (ESL) for commercial/industrial land use of 110 mg/kg. TPH quantified as motor oil (TPHmo) was reported in one sample (A-7-4') at a concentration of 120 mg/kg, below the Table A and Table B ESL of 500 mg/kg. TPH quantified as gasoline (TPHg) was not detected in the soil samples.

VOCs – Acetone was reported at a concentration of 96 micrograms per kilogram (ug/kg) in the sample collected at a depth of 4 ft bgs in boring A-3. No other VOCs were reported in soil samples collected during the July 2014 field program. The reported acetone concentration in sample A-3-4' is well below the Table A and Table B ESL of 500 mg/kg.

Metals – The metals antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, vanadium, and zinc were reported in one or more of the soil samples collected during the July 2014 field program. Arsenic concentrations in seven of the eight soil samples exceeded the Table A and Table B ESL of 1.6 mg/kg. With the possible exception of the arsenic detection at 15 mg/kg in the sample from boring A-3, the arsenic concentrations in soil at the Site were within the range typical of bay area soil. Concentrations of chromium, copper, lead, molybdenum, and zinc were also elevated in the A-3 sample compared to the other borings, possibly indicating metals impacts in that area. However, with the exception of arsenic, none of the metals concentrations reported in the soil samples collected in July 2014 exceed their respective Table A and Table B ESL values.

## 4.3 Groundwater Testing Results

Sections below discuss chemical testing analytes reported in groundwater “grab” samples collected at the Site in July 2014. **Table 2** provides a summary of groundwater sample results.

Petroleum Hydrocarbons – TPHd was reported at concentrations of 8.3 and 8.5 milligrams per liter (mg/L) in two of the seven groundwater samples submitted for



analysis. The reported TPHd concentrations exceed the San Francisco Bay area Regional Water Quality Control Board's (RWQCB's) Table A ESL of 0.1 mg/L and the Table B ESL of 0.64 mg/L. TPHmo was reported in three samples at concentrations ranging from 0.18 to 9.9 mg/L, above the Table A ESL of 0.1 mg/L and above the Table B ESL of 0.64 mg/L in samples TP-1 and A-3. TPHg was not detected in the groundwater samples. The locations of hydrocarbon detections in groundwater are schematically illustrated on **Figure 4**.

VOCs – The VOCs methyl tert-butyl ether (MTBE), 1,2-dichloroethane (1,2-DCA), 1,1-dichloroethene (1,1-DCE), vinyl chloride (VC), cis-1,2-dichloroethene (cis-DCE), trans-1,2-dichloroethene (trans-DCE), tetrachloroethene (PCE), and trichloroethene (TCE) were reported in one or more of the groundwater “grab” samples collected in July 2014. Detected concentrations of several constituents exceeded their respective Table A ESLs including:

- MTBE at 6.1 micrograms per liter (ug/L) in sample A-5;
- 1,2-DCA at 1.7 ug/L in sample A-8;
- VC at concentrations of 4 and 1.8 ug/L in samples A-4 and A-8, respectively;
- cis-DCE at concentrations ranging from 13 to 54 ug/L in samples A-1A, A-5, A-8 and A-9;
- PCE at concentrations ranging from 9.8 to 160 ug/L in samples A-1A, A-5, and A-8; and,
- TCE at concentrations ranging from 48 to 70 ug/L in samples A-1A, A-5, and A-8.

In addition, the PCE detections in samples A-1A and A-5 of 120 and 160 ug/L, respectively, exceeded the Table B ESL of 63 ug/L for this constituent. None of the detected VOC concentrations in groundwater exceed respective RWQCB Table E-1 groundwater ESLs for Evaluation of Potential Vapor Intrusion. The locations of VOC detections in groundwater are schematically illustrated on **Figure 5**.

Metals – The metals barium, cobalt, lead, mercury, molybdenum, nickel, vanadium, and zinc were reported in one or more of the groundwater samples collected during the July 2014 field program. Detected concentrations of several metals exceeded their respective Table A and Table B ESLs including:

- Cobalt at concentrations of 0.0053 and 0.086 mg/L in samples TP-1 and A-3, respectively;

- Lead at concentrations ranging from 0.0067 to 0.046 mg/L in samples TP-1, A-1A, A-4, A-5, A-8 and A-9;
- Mercury at a concentration of 0.0011 mg/L in sample A-3;
- Nickel at concentrations ranging from 0.010 to 0.340 mg/L in samples TP-1, A-1A, A-3, A-8 and A-9; and,
- Vanadium at concentrations of 0.110 and 0.047 mg/L in samples A-5 and A-8, respectively.

The locations of metals detections in groundwater are schematically illustrated on **Figure 6**.

## 5.0 DISCUSSION AND CONCLUSIONS

Soil - None of the reported constituent detections in soil exceeded their respective Table A or Table B commercial / industrial ESLs. Trace detections of petroleum hydrocarbons, one VOC, and several metals in the soil samples collected in the July 2014 program were reported at concentrations that do not typically require corrective action. Previous sampling indicated that soil directly impacted by metal fragments and debris may contain elevated concentrations of several metals. Metal fragments and debris were not encountered in the borings advanced in July 2014, which were generally advanced in areas not visibly impacted with metal debris. Consequently, it appears that impacts from historic metal machining operations at the Site may be limited to areas with visible metal debris, rather than a wide spread problem.

Groundwater - Several VOCs were detected in groundwater “grab” samples collected at locations across the property that were not found in the soil samples collected during the July 2014 field program. VOCs detected consist primarily of chlorinated solvent compounds generally associated with industrial solvents widely used in the past in machine shops, auto servicing, and heavy manufacturing. The VOC impacts to groundwater were identified within the shop buildings and on the south side of Bay 1 near the auto body shop. This may indicate that small areas of VOC impacted soil are present on the Allied property that were not identified in this preliminary screening level evaluation, or, that VOCs are migrating onto the property from adjacent properties to the south. Levels of PCE detected exceed the Table A and B ESLs; the VOC detections are not typically at levels for which the RWQCB would require active remediation, though groundwater monitoring might be required.

Several metals were detected in groundwater “grab” samples collected at locations across the property. With the possible exception of the arsenic, chromium,

copper, lead, molybdenum, and zinc concentrations in the A-3-4' soil sample, which appeared to be elevated compared to the other borings, metals concentrations in soil were not particularly elevated compared to the RWQCB ESLs or regional background metals concentrations. None of these metals were particularly elevated in the groundwater sample collected from boring A-3. Consequently, the metals reported in the groundwater 'grab' samples may be present as an artifact of the sampling process or may be part of natural regional background levels for groundwater.

Levels of metals and VOCs may be lower than detected in this study if permanent wells were installed and sampled. In our experience, groundwater samples collected from permanent monitoring wells generally exhibit lower concentrations than groundwater "grab" samples collected from an open borehole, as was done for the July 2014 field program.

Should you have any questions about this letter, please don't hesitate to call Brian at (415) 597-7883.

Sincerely,

GEOLOGICA INC.



Daniel W. Matthews  
Associate Hydrogeologist, P.G



Brian F. Aubry, P.G., C.E.G., C.Hg.  
Principal

Attachments:

Table 1 – Summary of Soil Sample Results

Table 2 – Summary of Groundwater "Grab" Sample Results

Figure 1 – Site Location Map

Figure 2 – Schematic Site Layout and Exploration Plan

Figure 3 – Constituent Detections in Soil, July 2014

Figure 4 – TPH Detections in Groundwater, July 2014

Figure 5 – VOC Detections in Groundwater, July 2014

Figure 6 – Metal Detections in Groundwater, July 2014

Attachment A – Laboratory Testing Reports



# **TABLES**

**Table 1**  
**Summary of Soil Sample Results**  
**Allied Engineering, Alameda, CA**

Method	Analyte	Sample ID Sample Depth, ft bgs	Units	Method Reporting Limit	TP-1	A-1	A-3	A-4	A-6	A-7	A-8	A-9	SFB RWQCB Table A C/I ESLs <sup>(1)</sup>	SFB RWQCB Table B C/I ESLs <sup>(2)</sup>
					TP-1-8.5'	A-1-4'	A-3-4'	A-4-4'	A-6-4'	A-7-4'	A-8-4'	A-9-4'		
					8.5	4	4	4	4	4	4	4		
Date Analyzed					7/9/2014	7/14/2014	7/14/2014	7/14/2014	7/14/2014	7/14/2014	7/14/2014	7/14/2014		

**Total Petroleum Hydrocarbons**

8260B	TPH-gasoline	mg/kg	0.26-0.3	ND	NA	ND	ND	ND	ND	ND	ND	ND	500	500
8015B	TPH-diesel	mg/kg	1.1-1.3	4.6	1.2	20	ND	2.3	43	ND	ND	ND	110	110
	TPH-motor oil	mg/kg	54-64	ND	ND	ND	ND	ND	120	ND	ND	ND	500	500

**Volatile Organic Compounds**

8260B	Methyl tert-butyl ether	ug/kg	5.2-5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	23	8,400
	Benzene	ug/kg	5.2-5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	44	1,200
	Acetone	ug/kg	57	ND	ND	96	ND	ND	ND	ND	ND	ND	500	500
	Toluene	ug/kg	5.2-5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,900	9,300
	Ethylbenzene	ug/kg	5.2-5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,300	4,700
	Xylenes (Total)	ug/kg	10-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	3,300	11,000
	Trichloroethene (TCE)	ug/kg	5.2-5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	460	8,300

**Metals**

3050B	Antimony	mg/kg	1.5-2.2	ND	ND	9	ND	ND	ND	ND	ND	ND	40	40
	Arsenic	mg/kg	3.1-4.5	2.2	2.5	15	2.8	2.4	1.3	2	2.2	1.6	1.6	
	Barium	mg/kg	1.5-2.2	77	150	180	57	65	220	100	48	1,500	1,500	
	Beryllium	mg/kg	0.31-0.45	0.35	0.3	ND	0.22	0.27	0.56	0.28	0.24	8	8	
	Cadmium	mg/kg	0.39-0.56	0.1	ND	ND	ND	ND	0.16	ND	ND	12	12	
	Chromium (total)	mg/kg	1.5-2.2	39	26	100	35	30	35	24	27	2,500	2,500	
	Cobalt	mg/kg	0.62-0.89	4.4	4.7	8.3	4.3	1.6	6.5	5.1	1.6	80	80	
	Copper	mg/kg	4.6-6.7	12	14	130	8.4	7.1	26	9	4.1	230	230	
	Lead	mg/kg	1.5-2.2	5.8	55	290	2	7	14	3.8	2.4	320	320	
	Mercury (7471A)	mg/kg	0.011-0.10	0.087	0.043	0.42	0.02	0.039	0.44	0.031	0.025	10	10	
	Molybdenum	mg/kg	1.5-2.2	ND	ND	6.6	ND	ND	ND	ND	ND	40	40	
	Nickel	mg/kg	1.5-2.2	36	28	33	37	22	54	21	19	150	150	
	Selenium	mg/kg	3.1-4.5	ND	ND	ND	ND	ND	ND	ND	ND	10	10	
	Silver	mg/kg	0.77-1.1	ND	ND	ND	ND	ND	ND	ND	ND	40	40	
	Thallium	mg/kg	1.5-2.2	ND	ND	ND	ND	ND	ND	ND	ND	10	10	
	Vanadium	mg/kg	1.5-2.2	25	18	32	21	20	22	15	19	200	200	
	Zinc	mg/kg	4.6-6.7	30	23	250	20	22	45	13	16	600	600	


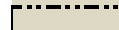
Notes:

- 1) Environmental Screening Levels (ESLs) for Shallow Soil, Groundwater that IS Current or Potential Source of Drinking Water; SF RWQCB, Final (Revised December 2013)
- 2) Environmental Screening Levels (ESLs) for Shallow Soil, Groundwater that IS NOT Current or Potential Source of Drinking Water; SF RWQCB, Final (Revised December 2013)

ug/kg = micrograms per kilogram

mg/kg = micrograms per kilogram

ND = Not Detected

 = Exceeds Table A ESL  
 = Exceeds Table A & B ESLs

**Table 2**  
**Summary of Groundwater "Grab" Sample Results**  
**Allied Engineering, Alameda, CA**

Method	Analyte	Method Reporting Limit	TP-1	A-1A	A-3	A-4	A-5	A-8	A-9	SFB RWQCB Table A ESLs <sup>(1)</sup>	SFB RWQCB Table B ESLs <sup>(2)</sup>	SFB RWQCB Table E-1 ESLs <sup>(3)</sup>
Date Analyzed			7/10/2014	7/14/2014	7/14/2014	7/14/2014	7/14/2014	7/14/2014	7/14/2014			

**Total Petroleum Hydrocarbons** (reported in mg/L)

Method	Analyte	Method Reporting Limit	TP-1	A-1A	A-3	A-4	A-5	A-8	A-9	SFB RWQCB Table A ESLs <sup>(1)</sup>	SFB RWQCB Table B ESLs <sup>(2)</sup>	SFB RWQCB Table E-1 ESLs <sup>(3)</sup>
8260B	TPH-gasoline (TPHg)	0.20-0.3	ND	ND	ND	ND	ND	ND	ND	0.1	0.5	-
8015B	TPH-diesel (TPHd)	0.1-0.16	8.3	ND	8.5	ND	ND	ND	ND	0.1	0.64	-
	TPH-motor oil (TPHmo)	0.1-0.31	2.6	0.18	9.9	ND	ND	ND	ND	0.1	0.64	-

**Volatile Organic Compounds** (reported in ug/L)

Method	Analyte	Method Reporting Limit	TP-1	A-1A	A-3	A-4	A-5	A-8	A-9	SFB RWQCB Table A ESLs <sup>(1)</sup>	SFB RWQCB Table B ESLs <sup>(2)</sup>	SFB RWQCB Table E-1 ESLs <sup>(3)</sup>
8260B	Methyl tert-butyl ether (MTBE)	0.50	ND	2.6	ND	1.1	6.1	ND	ND	5	1,800	100,000
	Benzene	0.50	ND	ND	ND	ND	ND	ND	ND	1	27	270
	Toluene	0.50	ND	ND	ND	ND	ND	ND	ND	40	130	-
	Ethylbenzene	0.50	ND	ND	ND	ND	ND	ND	ND	30	43	3,100
	Xylenes (Total)	1.0	ND	ND	ND	ND	ND	ND	ND	20	100	-
	1,2-Dichloroethane (1,2-DCA)	0.50	ND	ND	ND	ND	ND	1.7	ND	0.5	100	1,000
	1,1-Dichloroethene (1,1-DCE)	0.50	ND	ND	ND	ND	ND	0.79	ND	6	25	130,000
	Vinyl chloride (VC)	0.50	ND	ND	ND	4	ND	1.8	ND	0.5	1.8	18
	cis-1,2-dichloroethene (cis-DCE)	0.50	ND	19	ND	ND	13	54	19	6	590	26,000
	trans-1,2-dichloroethene (trans-DCE)	0.50	ND	0.52	ND	ND	ND	10	2.8	10	590	120,000
	Tetrachloroethene (PCE)	0.50	ND	120	ND	ND	160	9.8	ND	5	63	640
Trichloroethene (TCE)	0.50	ND	70	ND	ND	48	69	4.6	5	130	1,300	

**Dissolved Metals** (reported in mg/L)

Method	Analyte	Method Reporting Limit	TP-1	A-1A	A-3	A-4	A-5	A-8	A-9	SFB RWQCB Table A ESLs <sup>(1)</sup>	SFB RWQCB Table B ESLs <sup>(2)</sup>	SFB RWQCB Table E-1 ESLs <sup>(3)</sup>
6010B	Antimony	0.010	ND	ND	ND	ND	ND	ND	ND	0.006	0.030	-
	Arsenic	0.010	ND	ND	ND	ND	ND	ND	ND	0.010	0.036	-
	Barium	0.0050	0.049	0.098	0.320	0.110	0.150	0.087	0.220	1	1	-
	Beryllium	0.0020	ND	ND	ND	ND	ND	ND	ND	0.00053	0.00053	-
	Cadmium	0.0020	ND	ND	ND	ND	ND	ND	ND	0.00025	0.00025	-
	Chromium (total)	0.010	ND	ND	ND	ND	ND	ND	ND	0.050	0.180	-
	Cobalt	0.0020	0.0053	0.0022	0.086	ND	ND	ND	ND	0.003	0.003	-
	Copper	0.020	ND	ND	ND	ND	ND	ND	ND	0.0031	0.0031	-
	Lead	0.0050	0.046	0.013	ND	0.0095	0.0067	0.0094	0.0094	0.0025	0.0025	-
	Mercury (7470A)	0.00020	ND	ND	0.0011	ND	ND	ND	ND	0.000025	0.000025	-
	Molybdenum	0.010	0.018	0.016	0.067	0.015	0.019	0.022	0.036	0.078	0.240	-
	Nickel	0.010	0.033	0.010	0.340	ND	ND	0.023	0.037	0.0082	0.0082	-
	Selenium	0.020	ND	ND	ND	ND	ND	ND	ND	0.005	0.005	-
	Silver	0.0050	ND	ND	ND	ND	ND	ND	ND	0.00019	0.00019	-
	Thallium	0.010	ND	ND	ND	ND	ND	ND	ND	0.002	0.004	-
	Vanadium	0.010	ND	ND	ND	ND	0.110	0.047	ND	0.019	0.019	-
	Zinc	0.020	0.070	0.022	0.044	0.020	ND	ND	ND	0.081	0.081	-

Notes:

- 1) Groundwater Environmental Screening Levels (ESLs) for Groundwater that IS Current or Potential Source of Drinking Water; SF RWQCB, Final (Revised December 2013)
- 2) Groundwater ESLs for Groundwater that IS NOT Current or Potential Source of Drinking Water; SF RWQCB, Final (Revised December 2013)
- 2) Groundwater ESLs for Evaluation of Potential Vapor Intrusion (volatile chemicals only) ;SF RWQCB, Final (Revised December 2013), Commercial / Industrial Land Use, Fine - Coarse Soil Mix.

ug/L = micrograms per liter

— = Exceeds Table A ESL

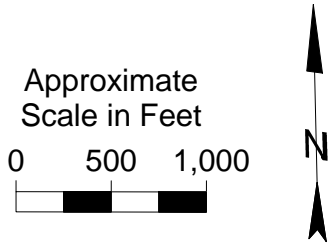
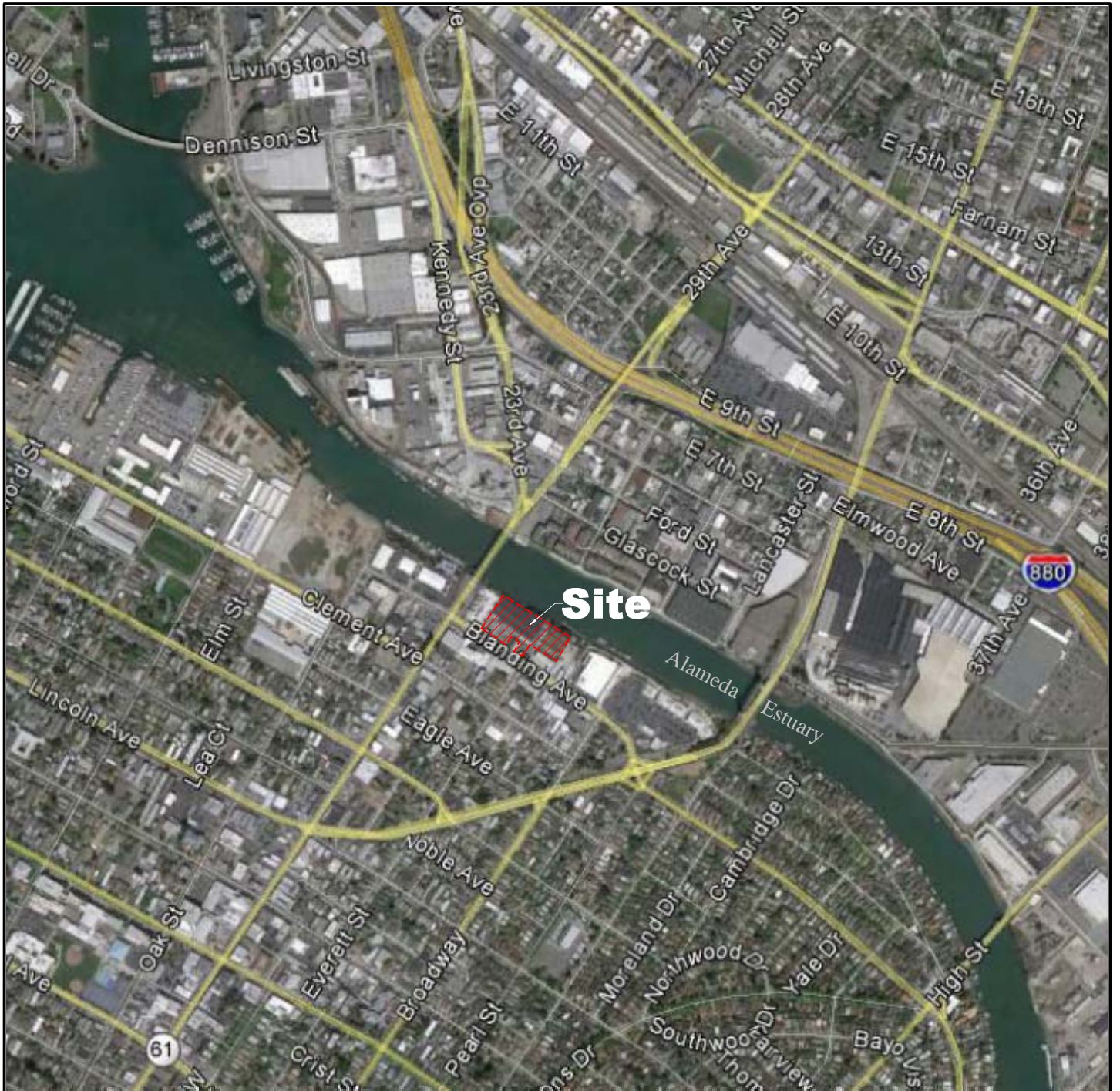
mg/L = milligrams per liter

— = Exceeds Table A & B ESLs

ND = Not detected

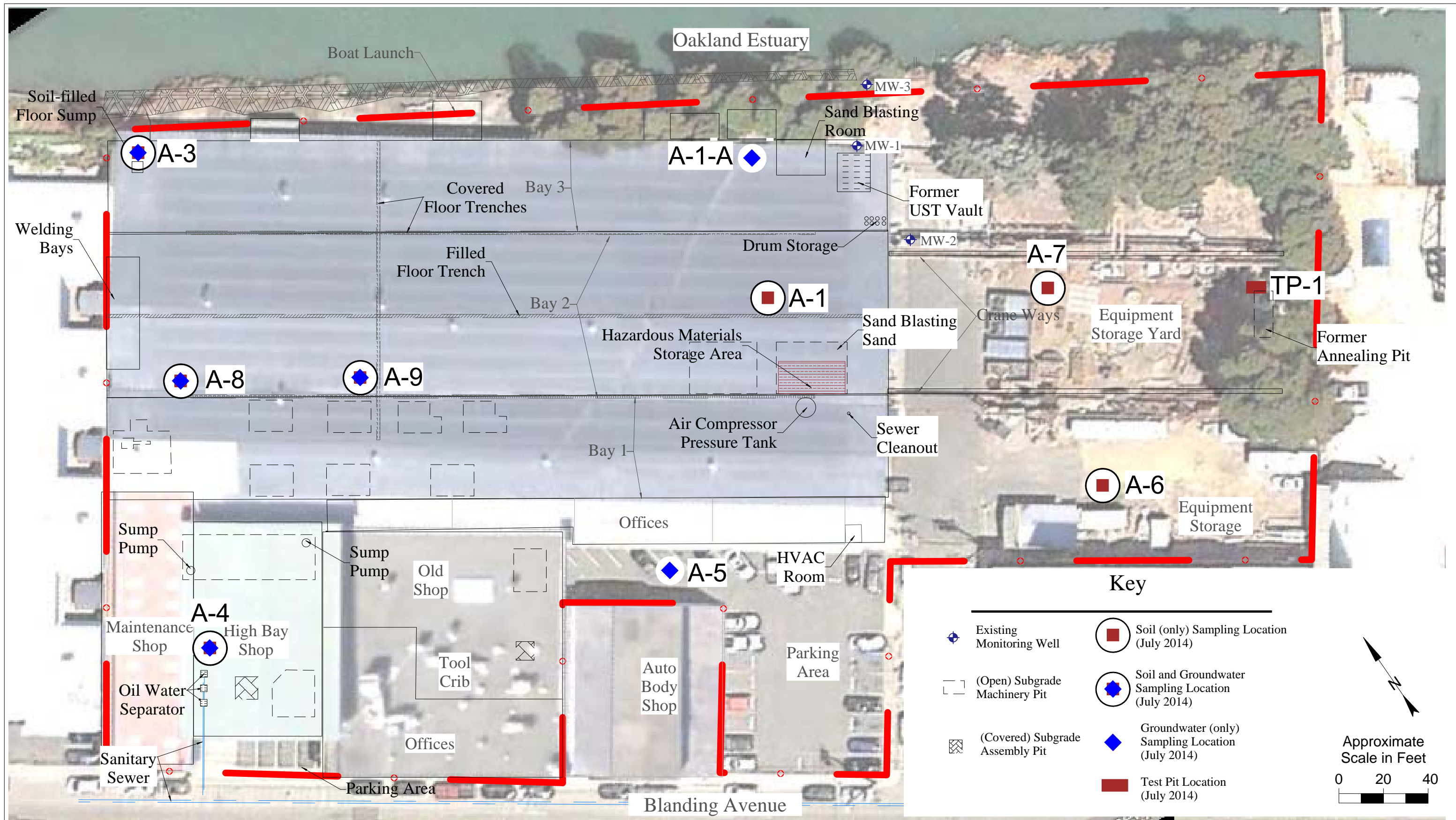
# FIGURES





<p><b>geologica</b></p>	<p><b>Former Allied Engineering &amp; Production Corporation</b></p>	<p><b>Figure 1</b></p>
<p>San Francisco, CA</p>	<p>2421 Blanding Avenue Alameda, California</p>	<p>Site Location Map</p>



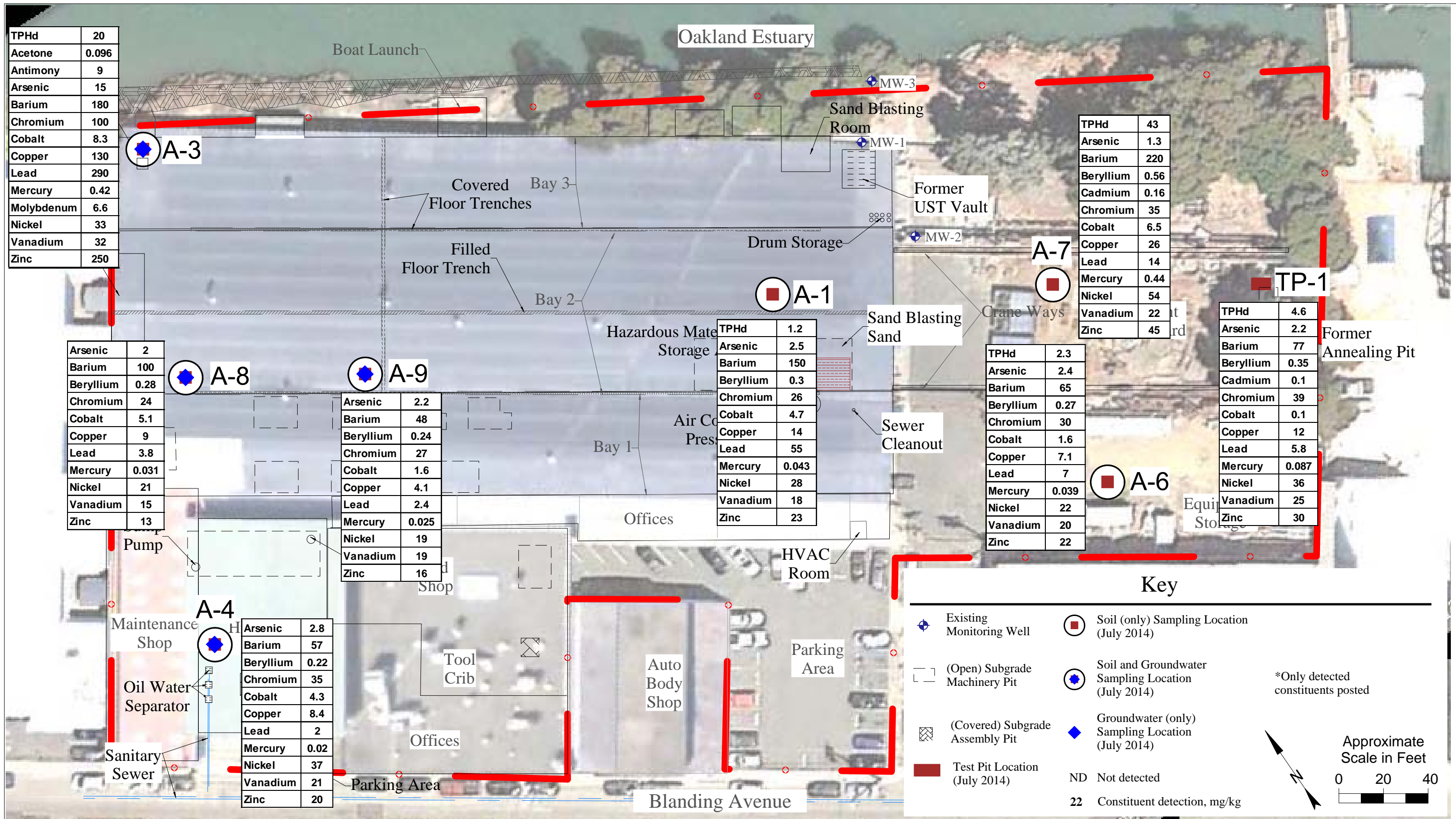


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 2421 Blanding Avenue  
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**Figure 2**  
**Schematic Site Layout and Exploration Plan**



TPHd	20
Acetone	0.096
Antimony	9
Arsenic	15
Barium	180
Chromium	100
Cobalt	8.3
Copper	130
Lead	290
Mercury	0.42
Molybdenum	6.6
Nickel	33
Vanadium	32
Zinc	250

TPHd	43
Arsenic	1.3
Barium	220
Beryllium	0.56
Cadmium	0.16
Chromium	35
Cobalt	6.5
Copper	26
Lead	14
Mercury	0.44
Nickel	54
Vanadium	22
Zinc	45

TPHd	4.6
Arsenic	2.2
Barium	77
Beryllium	0.35
Cadmium	0.1
Chromium	39
Cobalt	0.1
Copper	12
Lead	5.8
Mercury	0.087
Nickel	36
Vanadium	25
Zinc	30

Arsenic	2
Barium	100
Beryllium	0.28
Chromium	24
Cobalt	5.1
Copper	9
Lead	3.8
Mercury	0.031
Nickel	21
Vanadium	15
Zinc	13

Arsenic	2.2
Barium	48
Beryllium	0.24
Chromium	27
Cobalt	1.6
Copper	4.1
Lead	2.4
Mercury	0.025
Nickel	19
Vanadium	19
Zinc	16

TPHd	1.2
Arsenic	2.5
Barium	150
Beryllium	0.3
Chromium	26
Cobalt	4.7
Copper	14
Lead	55
Mercury	0.043
Nickel	28
Vanadium	18
Zinc	23

TPHd	2.3
Arsenic	2.4
Barium	65
Beryllium	0.27
Chromium	30
Cobalt	1.6
Copper	7.1
Lead	7
Mercury	0.039
Nickel	22
Vanadium	20
Zinc	22

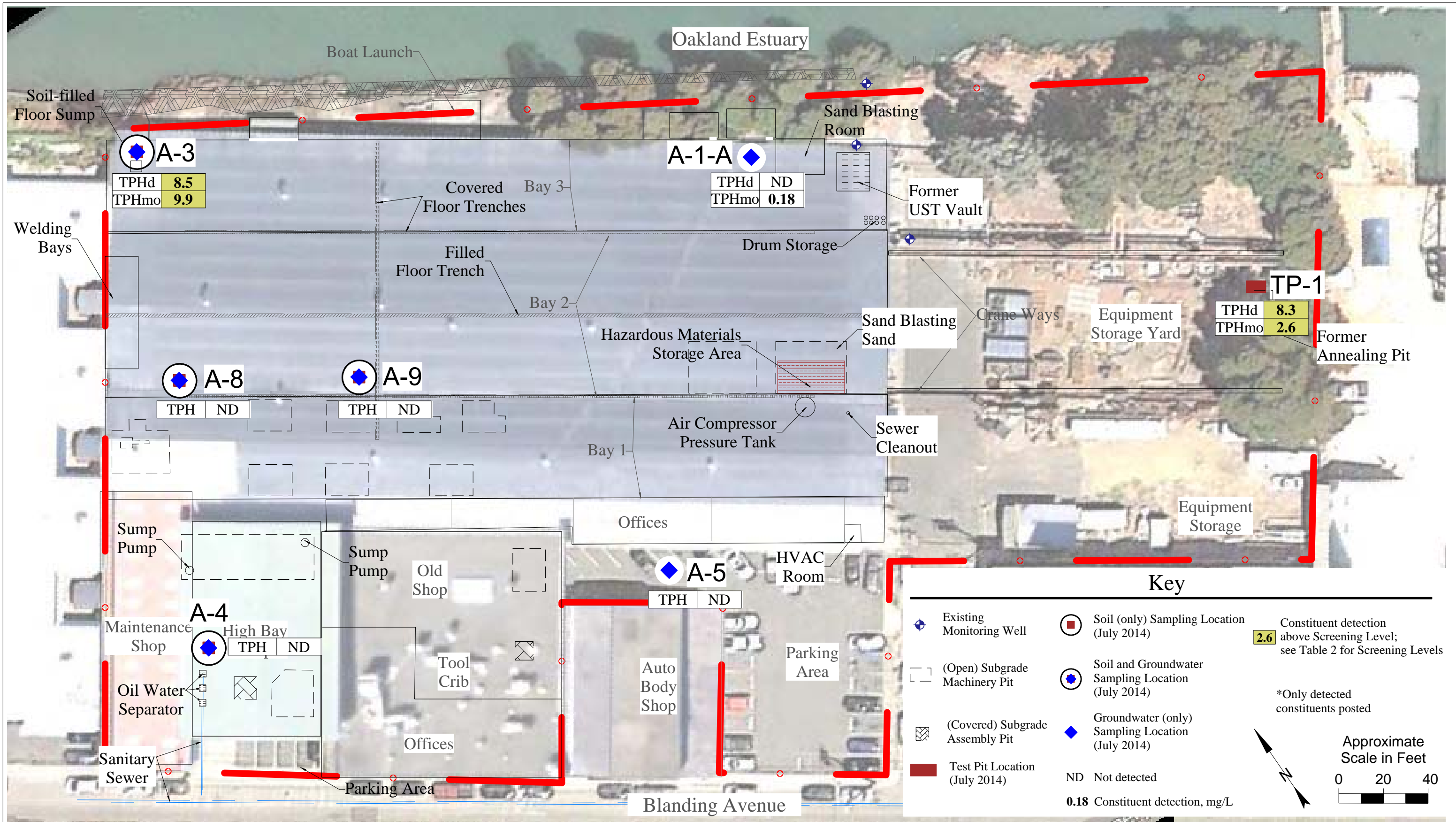
Arsenic	2.8
Barium	57
Beryllium	0.22
Chromium	35
Cobalt	4.3
Copper	8.4
Lead	2
Mercury	0.02
Nickel	37
Vanadium	21
Zinc	20

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2421 Blanding Avenue  
Alameda, California

**Figure 3**  
**Constituents Detections in Soil**  
**July 2014**



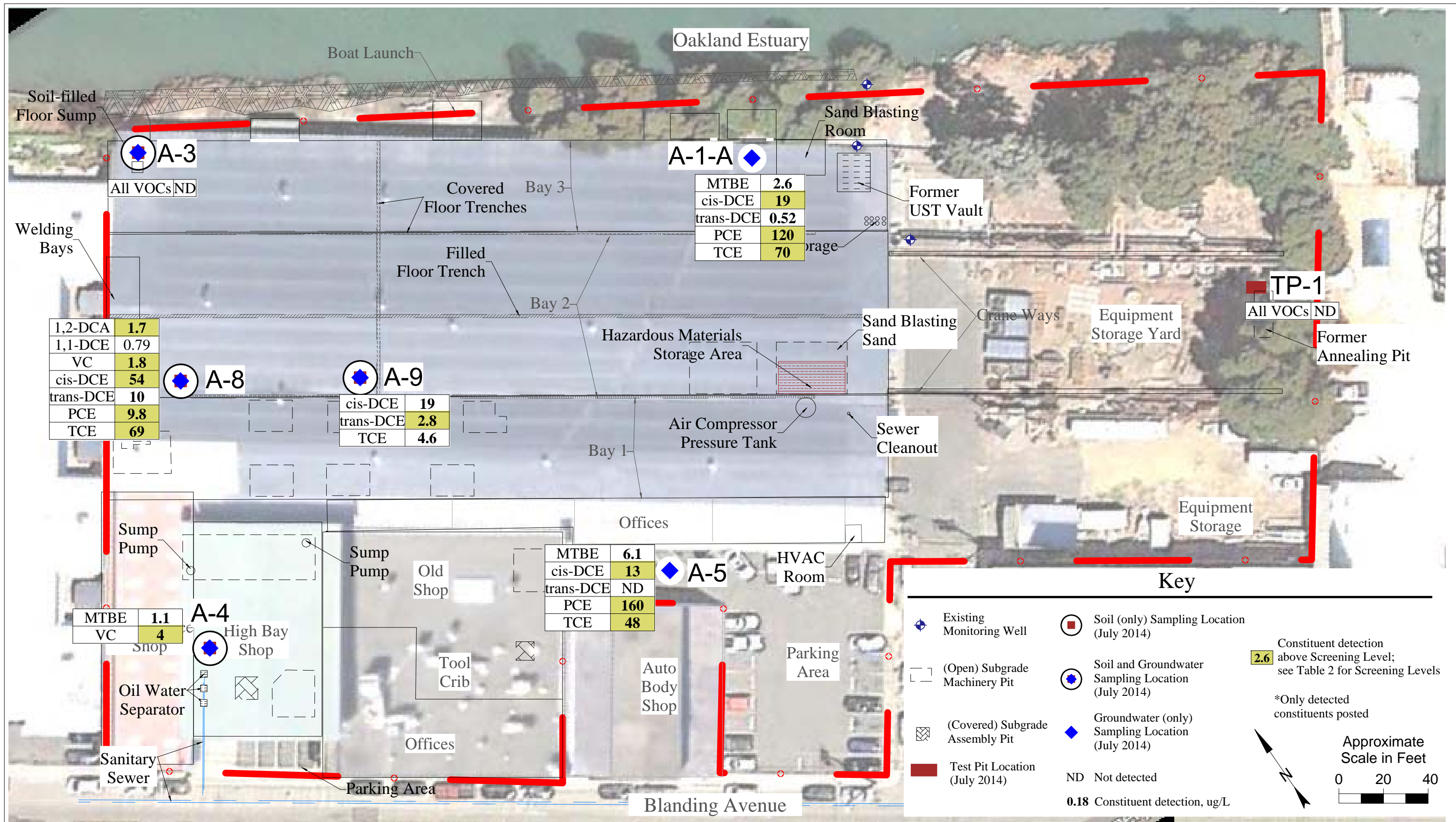


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**Figure 4**  
**TPH Detections in Groundwater**  
**July 2014**



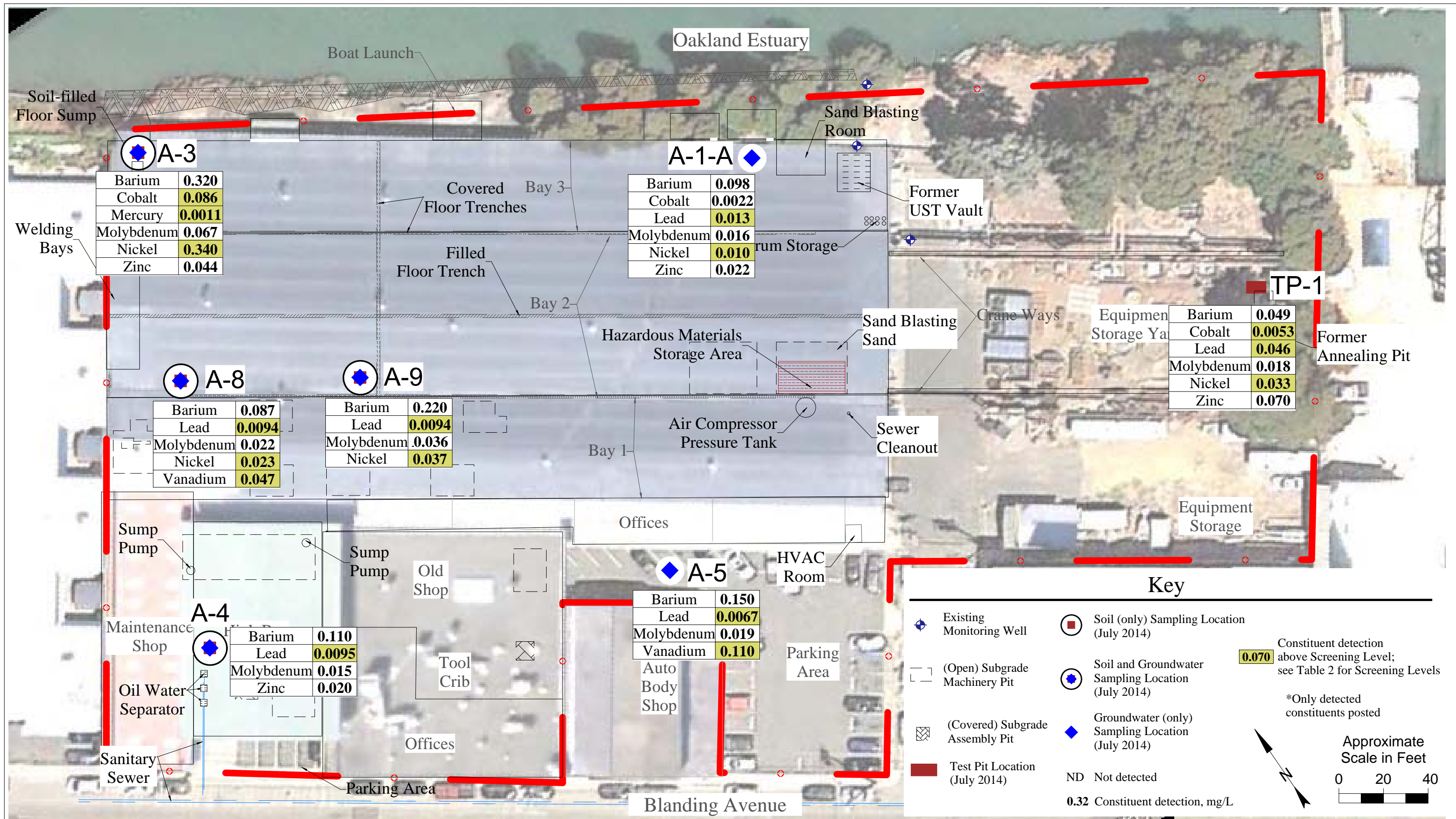
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**Figure 5**  
**VOC Detections in Groundwater**  
**July 2014**





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**Figure 6**

**Metal Detections in Groundwater  
 July 2014**

# **APPENDIX A**

## **LABORATORY TESTING 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: 720-58577-1  
Client Project/Site: Allied Engineering Alameda

For:  
Geologica Inc  
5 Third St.  
Suite 224  
San Francisco, California 94103

Attn: Mr. Dan Matthews



Authorized for release by:  
7/17/2014 3:35:26 PM

Micah Smith, Project Manager II  
(925)484-1919  
[micah.smith@testamericainc.com](mailto:micah.smith@testamericainc.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



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: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58577-1

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
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)

# Case Narrative

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58577-1

**Job ID: 720-58577-1**

**Laboratory: TestAmerica Pleasanton**

## Narrative

**Job Narrative**  
**720-58577-1**

### Comments

No additional comments.

### Receipt

The samples were received on 7/10/2014 6:50 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.4° C.

Except:

The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. No project name listed on the COC. Logged in as Allied Engineering Alameda as requested via email.

### GC/MS VOA

Method(s) 8260B: No MS/MSD was report for batch 163042 because the auto sampler stopped. The associated LCS/LCSD was within limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### GC VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

### GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

### Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

### General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: Geologica Inc  
 Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58577-1

## Client Sample ID: TP-1-8.5'

## Lab Sample ID: 720-58577-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	4.6		1.1		mg/Kg	1	*	8015B	Silica Gel Cleanup
Arsenic	2.2		0.84		mg/Kg	1	*	6010B	Total/NA
Barium	77		0.42		mg/Kg	1	*	6010B	Total/NA
Beryllium	0.35		0.084		mg/Kg	1	*	6010B	Total/NA
Cadmium	0.10		0.10		mg/Kg	1	*	6010B	Total/NA
Chromium	39		0.42		mg/Kg	1	*	6010B	Total/NA
Cobalt	4.4		0.17		mg/Kg	1	*	6010B	Total/NA
Copper	12		1.3		mg/Kg	1	*	6010B	Total/NA
Lead	5.8		0.42		mg/Kg	1	*	6010B	Total/NA
Nickel	36		0.42		mg/Kg	1	*	6010B	Total/NA
Vanadium	25		0.42		mg/Kg	1	*	6010B	Total/NA
Zinc	30		1.3		mg/Kg	1	*	6010B	Total/NA
Mercury	0.087		0.0099		mg/Kg	1	*	7471A	Total/NA

## Client Sample ID: TP-1

## Lab Sample ID: 720-58577-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	8300		160		ug/L	3		8015B	Silica Gel Cleanup
Motor Oil Range Organics [C24-C36]	2600		310		ug/L	3		8015B	Silica Gel Cleanup
Barium	0.49		0.0050		mg/L	1		6010B	Dissolved
Cobalt	0.0053		0.0020		mg/L	1		6010B	Dissolved
Lead	0.046		0.0050		mg/L	1		6010B	Dissolved
Molybdenum	0.018		0.010		mg/L	1		6010B	Dissolved
Nickel	0.033		0.010		mg/L	1		6010B	Dissolved
Zinc	0.070		0.020		mg/L	1		6010B	Dissolved

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

# Client Sample Results

Client: Geologica Inc  
 Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58577-1

**Client Sample ID: TP-1-8.5'**

**Lab Sample ID: 720-58577-1**

**Date Collected: 07/10/14 10:00**

**Matrix: Solid**

**Date Received: 07/10/14 18:50**

**Percent Solids: 87.8**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		5.6		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
Acetone	ND		56		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
Benzene	ND		5.6		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
Dichlorobromomethane	ND		5.6		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
Bromobenzene	ND		5.6		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
Chlorobromomethane	ND		22		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
Bromoform	ND		5.6		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
Bromomethane	ND		11		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
2-Butanone (MEK)	ND		56		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
n-Butylbenzene	ND		5.6		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
sec-Butylbenzene	ND		5.6		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
tert-Butylbenzene	ND		5.6		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
Carbon disulfide	ND		5.6		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
Carbon tetrachloride	ND		5.6		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
Chlorobenzene	ND		5.6		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
Chloroethane	ND		11		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
Chloroform	ND		5.6		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
Chloromethane	ND		11		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
2-Chlorotoluene	ND		5.6		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
4-Chlorotoluene	ND		5.6		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
Chlorodibromomethane	ND		5.6		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
1,2-Dichlorobenzene	ND		5.6		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
1,3-Dichlorobenzene	ND		5.6		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
1,4-Dichlorobenzene	ND		5.6		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
1,3-Dichloropropane	ND		5.6		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
1,1-Dichloropropene	ND		5.6		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
1,2-Dibromo-3-Chloropropane	ND		11		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
Ethylene Dibromide	ND		5.6		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
Dibromomethane	ND		11		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
Dichlorodifluoromethane	ND		11		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
1,1-Dichloroethane	ND		5.6		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
1,2-Dichloroethane	ND		5.6		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
1,1-Dichloroethene	ND		5.6		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
cis-1,2-Dichloroethene	ND		5.6		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
trans-1,2-Dichloroethene	ND		5.6		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
1,2-Dichloropropane	ND		5.6		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
cis-1,3-Dichloropropene	ND		5.6		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
trans-1,3-Dichloropropene	ND		5.6		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
Ethylbenzene	ND		5.6		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
Hexachlorobutadiene	ND		5.6		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
2-Hexanone	ND		56		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
Isopropylbenzene	ND		5.6		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
4-Isopropyltoluene	ND		5.6		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
Methylene Chloride	ND		11		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
4-Methyl-2-pentanone (MIBK)	ND		56		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
Naphthalene	ND		11		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
N-Propylbenzene	ND		5.6		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
Styrene	ND		5.6		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1
1,1,1,2-Tetrachloroethane	ND		5.6		ug/Kg	*	07/15/14 20:33	07/16/14 00:05	1

TestAmerica Pleasanton

# Client Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58577-1

**Client Sample ID: TP-1-8.5'**

**Lab Sample ID: 720-58577-1**

Date Collected: 07/10/14 10:00

Matrix: Solid

Date Received: 07/10/14 18:50

Percent Solids: 87.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		5.6		ug/Kg	☼	07/15/14 20:33	07/16/14 00:05	1
Tetrachloroethene	ND		5.6		ug/Kg	☼	07/15/14 20:33	07/16/14 00:05	1
Toluene	ND		5.6		ug/Kg	☼	07/15/14 20:33	07/16/14 00:05	1
1,2,3-Trichlorobenzene	ND		5.6		ug/Kg	☼	07/15/14 20:33	07/16/14 00:05	1
1,2,4-Trichlorobenzene	ND		5.6		ug/Kg	☼	07/15/14 20:33	07/16/14 00:05	1
1,1,1-Trichloroethane	ND		5.6		ug/Kg	☼	07/15/14 20:33	07/16/14 00:05	1
1,1,2-Trichloroethane	ND		5.6		ug/Kg	☼	07/15/14 20:33	07/16/14 00:05	1
Trichloroethene	ND		5.6		ug/Kg	☼	07/15/14 20:33	07/16/14 00:05	1
Trichlorofluoromethane	ND		5.6		ug/Kg	☼	07/15/14 20:33	07/16/14 00:05	1
1,2,3-Trichloropropane	ND		5.6		ug/Kg	☼	07/15/14 20:33	07/16/14 00:05	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.6		ug/Kg	☼	07/15/14 20:33	07/16/14 00:05	1
1,2,4-Trimethylbenzene	ND		5.6		ug/Kg	☼	07/15/14 20:33	07/16/14 00:05	1
1,3,5-Trimethylbenzene	ND		5.6		ug/Kg	☼	07/15/14 20:33	07/16/14 00:05	1
Vinyl acetate	ND		56		ug/Kg	☼	07/15/14 20:33	07/16/14 00:05	1
Vinyl chloride	ND		5.6		ug/Kg	☼	07/15/14 20:33	07/16/14 00:05	1
Xylenes, Total	ND		11		ug/Kg	☼	07/15/14 20:33	07/16/14 00:05	1
2,2-Dichloropropane	ND		5.6		ug/Kg	☼	07/15/14 20:33	07/16/14 00:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	92		45 - 131	07/15/14 20:33	07/16/14 00:05	1
1,2-Dichloroethane-d4 (Surr)	102		60 - 140	07/15/14 20:33	07/16/14 00:05	1
Toluene-d8 (Surr)	91		58 - 140	07/15/14 20:33	07/16/14 00:05	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]	4.6		1.1		mg/Kg	☼	07/14/14 11:20	07/14/14 23:52	1
Motor Oil Range Organics [C24-C36]	ND		57		mg/Kg	☼	07/14/14 11:20	07/14/14 23:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0		0 - 1	07/14/14 11:20	07/14/14 23:52	1
p-Terphenyl	94		38 - 148	07/14/14 11:20	07/14/14 23:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.42		mg/Kg	☼	07/12/14 08:48	07/14/14 20:54	1
Arsenic	2.2		0.84		mg/Kg	☼	07/12/14 08:48	07/14/14 20:54	1
Barium	77		0.42		mg/Kg	☼	07/12/14 08:48	07/14/14 20:54	1
Beryllium	0.35		0.084		mg/Kg	☼	07/12/14 08:48	07/14/14 20:54	1
Cadmium	0.10		0.10		mg/Kg	☼	07/12/14 08:48	07/14/14 20:54	1
Chromium	39		0.42		mg/Kg	☼	07/12/14 08:48	07/14/14 20:54	1
Cobalt	4.4		0.17		mg/Kg	☼	07/12/14 08:48	07/14/14 20:54	1
Copper	12		1.3		mg/Kg	☼	07/12/14 08:48	07/14/14 20:54	1
Lead	5.8		0.42		mg/Kg	☼	07/12/14 08:48	07/14/14 20:54	1
Molybdenum	ND		0.42		mg/Kg	☼	07/12/14 08:48	07/14/14 20:54	1
Nickel	36		0.42		mg/Kg	☼	07/12/14 08:48	07/14/14 20:54	1
Selenium	ND		0.84		mg/Kg	☼	07/12/14 08:48	07/14/14 20:54	1
Silver	ND		0.21		mg/Kg	☼	07/12/14 08:48	07/14/14 20:54	1
Thallium	ND		0.42		mg/Kg	☼	07/12/14 08:48	07/14/14 20:54	1
Vanadium	25		0.42		mg/Kg	☼	07/12/14 08:48	07/14/14 20:54	1
Zinc	30		1.3		mg/Kg	☼	07/12/14 08:48	07/14/14 20:54	1

TestAmerica Pleasanton



# Client Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58577-1

**Client Sample ID: TP-1-8.5'**

**Lab Sample ID: 720-58577-1**

**Date Collected: 07/10/14 10:00**

**Matrix: Solid**

**Date Received: 07/10/14 18:50**

**Percent Solids: 87.8**

**Method: 7471A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.087		0.0099		mg/Kg	☼	07/12/14 09:37	07/14/14 16:10	1

- 1
- 2
- 3
- 4
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- 8
- 9
- 10
- 11
- 12
- 13
- 14

# Client Sample Results

Client: Geologica Inc  
 Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58577-1

**Client Sample ID: TP-1**

**Lab Sample ID: 720-58577-2**

**Date Collected: 07/10/14 10:30**

**Matrix: Water**

**Date Received: 07/10/14 18:50**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			07/16/14 22:37	1
Acetone	ND		50		ug/L			07/16/14 22:37	1
Benzene	ND		0.50		ug/L			07/16/14 22:37	1
Dichlorobromomethane	ND		0.50		ug/L			07/16/14 22:37	1
Bromobenzene	ND		1.0		ug/L			07/16/14 22:37	1
Chlorobromomethane	ND		1.0		ug/L			07/16/14 22:37	1
Bromoform	ND		1.0		ug/L			07/16/14 22:37	1
Bromomethane	ND		1.0		ug/L			07/16/14 22:37	1
2-Butanone (MEK)	ND		50		ug/L			07/16/14 22:37	1
n-Butylbenzene	ND		1.0		ug/L			07/16/14 22:37	1
sec-Butylbenzene	ND		1.0		ug/L			07/16/14 22:37	1
tert-Butylbenzene	ND		1.0		ug/L			07/16/14 22:37	1
Carbon disulfide	ND		5.0		ug/L			07/16/14 22:37	1
Carbon tetrachloride	ND		0.50		ug/L			07/16/14 22:37	1
Chlorobenzene	ND		0.50		ug/L			07/16/14 22:37	1
Chloroethane	ND		1.0		ug/L			07/16/14 22:37	1
Chloroform	ND		1.0		ug/L			07/16/14 22:37	1
Chloromethane	ND		1.0		ug/L			07/16/14 22:37	1
2-Chlorotoluene	ND		0.50		ug/L			07/16/14 22:37	1
4-Chlorotoluene	ND		0.50		ug/L			07/16/14 22:37	1
Chlorodibromomethane	ND		0.50		ug/L			07/16/14 22:37	1
1,2-Dichlorobenzene	ND		0.50		ug/L			07/16/14 22:37	1
1,3-Dichlorobenzene	ND		0.50		ug/L			07/16/14 22:37	1
1,4-Dichlorobenzene	ND		0.50		ug/L			07/16/14 22:37	1
1,3-Dichloropropane	ND		1.0		ug/L			07/16/14 22:37	1
1,1-Dichloropropene	ND		0.50		ug/L			07/16/14 22:37	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			07/16/14 22:37	1
Ethylene Dibromide	ND		0.50		ug/L			07/16/14 22:37	1
Dibromomethane	ND		0.50		ug/L			07/16/14 22:37	1
Dichlorodifluoromethane	ND		0.50		ug/L			07/16/14 22:37	1
1,1-Dichloroethane	ND		0.50		ug/L			07/16/14 22:37	1
1,2-Dichloroethane	ND		0.50		ug/L			07/16/14 22:37	1
1,1-Dichloroethene	ND		0.50		ug/L			07/16/14 22:37	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			07/16/14 22:37	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			07/16/14 22:37	1
1,2-Dichloropropane	ND		0.50		ug/L			07/16/14 22:37	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			07/16/14 22:37	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			07/16/14 22:37	1
Ethylbenzene	ND		0.50		ug/L			07/16/14 22:37	1
Hexachlorobutadiene	ND		1.0		ug/L			07/16/14 22:37	1
2-Hexanone	ND		50		ug/L			07/16/14 22:37	1
Isopropylbenzene	ND		0.50		ug/L			07/16/14 22:37	1
4-Isopropyltoluene	ND		1.0		ug/L			07/16/14 22:37	1
Methylene Chloride	ND		5.0		ug/L			07/16/14 22:37	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			07/16/14 22:37	1
Naphthalene	ND		1.0		ug/L			07/16/14 22:37	1
N-Propylbenzene	ND		1.0		ug/L			07/16/14 22:37	1
Styrene	ND		0.50		ug/L			07/16/14 22:37	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			07/16/14 22:37	1

TestAmerica Pleasanton

# Client Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58577-1

**Client Sample ID: TP-1**

**Lab Sample ID: 720-58577-2**

**Date Collected: 07/10/14 10:30**

**Matrix: Water**

**Date Received: 07/10/14 18:50**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			07/16/14 22:37	1
Tetrachloroethene	ND		0.50		ug/L			07/16/14 22:37	1
Toluene	ND		0.50		ug/L			07/16/14 22:37	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			07/16/14 22:37	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			07/16/14 22:37	1
1,1,1-Trichloroethane	ND		0.50		ug/L			07/16/14 22:37	1
1,1,2-Trichloroethane	ND		0.50		ug/L			07/16/14 22:37	1
Trichloroethene	ND		0.50		ug/L			07/16/14 22:37	1
Trichlorofluoromethane	ND		1.0		ug/L			07/16/14 22:37	1
1,2,3-Trichloropropane	ND		0.50		ug/L			07/16/14 22:37	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			07/16/14 22:37	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			07/16/14 22:37	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			07/16/14 22:37	1
Vinyl acetate	ND		10		ug/L			07/16/14 22:37	1
Vinyl chloride	ND		0.50		ug/L			07/16/14 22:37	1
Xylenes, Total	ND		1.0		ug/L			07/16/14 22:37	1
2,2-Dichloropropane	ND		0.50		ug/L			07/16/14 22:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		67 - 130		07/16/14 22:37	1
1,2-Dichloroethane-d4 (Surr)	94		72 - 130		07/16/14 22:37	1
Toluene-d8 (Surr)	97		70 - 130		07/16/14 22:37	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>8300</b>		160		ug/L		07/15/14 10:19	07/15/14 21:26	3
<b>Motor Oil Range Organics [C24-C36]</b>	<b>2600</b>		310		ug/L		07/15/14 10:19	07/15/14 21:26	3

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.4		0 - 5	07/15/14 10:19	07/15/14 21:26	3
p-Terphenyl	124		31 - 150	07/15/14 10:19	07/15/14 21:26	3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		07/14/14 08:22	07/15/14 13:18	1
Arsenic	ND		0.010		mg/L		07/14/14 08:22	07/15/14 13:18	1
<b>Barium</b>	<b>0.49</b>		0.0050		mg/L		07/14/14 08:22	07/15/14 13:18	1
Beryllium	ND		0.0020		mg/L		07/14/14 08:22	07/15/14 13:18	1
Cadmium	ND		0.0020		mg/L		07/14/14 08:22	07/15/14 13:18	1
Chromium	ND		0.010		mg/L		07/14/14 08:22	07/15/14 13:18	1
<b>Cobalt</b>	<b>0.0053</b>		0.0020		mg/L		07/14/14 08:22	07/15/14 13:18	1
Copper	ND		0.020		mg/L		07/14/14 08:22	07/15/14 13:18	1
<b>Lead</b>	<b>0.046</b>		0.0050		mg/L		07/14/14 08:22	07/15/14 13:18	1
<b>Molybdenum</b>	<b>0.018</b>		0.010		mg/L		07/14/14 08:22	07/15/14 13:18	1
<b>Nickel</b>	<b>0.033</b>		0.010		mg/L		07/14/14 08:22	07/15/14 13:18	1
Selenium	ND		0.020		mg/L		07/14/14 08:22	07/15/14 13:18	1
Silver	ND		0.0050		mg/L		07/14/14 08:22	07/15/14 13:18	1
Thallium	ND		0.010		mg/L		07/14/14 08:22	07/15/14 13:18	1
Vanadium	ND		0.010		mg/L		07/14/14 08:22	07/15/14 13:18	1
<b>Zinc</b>	<b>0.070</b>		0.020		mg/L		07/14/14 08:22	07/15/14 13:18	1

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# Client Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58577-1

**Client Sample ID: TP-1**

**Lab Sample ID: 720-58577-2**

**Date Collected: 07/10/14 10:30**

**Matrix: Water**

**Date Received: 07/10/14 18:50**

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		07/15/14 10:10	07/15/14 14:37	1

- 1
- 2
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- 13
- 14

# QC Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58577-1

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

**Lab Sample ID: MB 720-163042/4**

**Matrix: Solid**

**Analysis Batch: 163042**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		5.0		ug/Kg			07/15/14 19:15	1
Acetone	ND		50		ug/Kg			07/15/14 19:15	1
Benzene	ND		5.0		ug/Kg			07/15/14 19:15	1
Dichlorobromomethane	ND		5.0		ug/Kg			07/15/14 19:15	1
Bromobenzene	ND		5.0		ug/Kg			07/15/14 19:15	1
Chlorobromomethane	ND		20		ug/Kg			07/15/14 19:15	1
Bromoform	ND		5.0		ug/Kg			07/15/14 19:15	1
Bromomethane	ND		10		ug/Kg			07/15/14 19:15	1
2-Butanone (MEK)	ND		50		ug/Kg			07/15/14 19:15	1
n-Butylbenzene	ND		5.0		ug/Kg			07/15/14 19:15	1
sec-Butylbenzene	ND		5.0		ug/Kg			07/15/14 19:15	1
tert-Butylbenzene	ND		5.0		ug/Kg			07/15/14 19:15	1
Carbon disulfide	ND		5.0		ug/Kg			07/15/14 19:15	1
Carbon tetrachloride	ND		5.0		ug/Kg			07/15/14 19:15	1
Chlorobenzene	ND		5.0		ug/Kg			07/15/14 19:15	1
Chloroethane	ND		10		ug/Kg			07/15/14 19:15	1
Chloroform	ND		5.0		ug/Kg			07/15/14 19:15	1
Chloromethane	ND		10		ug/Kg			07/15/14 19:15	1
2-Chlorotoluene	ND		5.0		ug/Kg			07/15/14 19:15	1
4-Chlorotoluene	ND		5.0		ug/Kg			07/15/14 19:15	1
Chlorodibromomethane	ND		5.0		ug/Kg			07/15/14 19:15	1
1,2-Dichlorobenzene	ND		5.0		ug/Kg			07/15/14 19:15	1
1,3-Dichlorobenzene	ND		5.0		ug/Kg			07/15/14 19:15	1
1,4-Dichlorobenzene	ND		5.0		ug/Kg			07/15/14 19:15	1
1,3-Dichloropropane	ND		5.0		ug/Kg			07/15/14 19:15	1
1,1-Dichloropropene	ND		5.0		ug/Kg			07/15/14 19:15	1
1,2-Dibromo-3-Chloropropane	ND		10		ug/Kg			07/15/14 19:15	1
Ethylene Dibromide	ND		5.0		ug/Kg			07/15/14 19:15	1
Dibromomethane	ND		10		ug/Kg			07/15/14 19:15	1
Dichlorodifluoromethane	ND		10		ug/Kg			07/15/14 19:15	1
1,1-Dichloroethane	ND		5.0		ug/Kg			07/15/14 19:15	1
1,2-Dichloroethane	ND		5.0		ug/Kg			07/15/14 19:15	1
1,1-Dichloroethene	ND		5.0		ug/Kg			07/15/14 19:15	1
cis-1,2-Dichloroethene	ND		5.0		ug/Kg			07/15/14 19:15	1
trans-1,2-Dichloroethene	ND		5.0		ug/Kg			07/15/14 19:15	1
1,2-Dichloropropane	ND		5.0		ug/Kg			07/15/14 19:15	1
cis-1,3-Dichloropropene	ND		5.0		ug/Kg			07/15/14 19:15	1
trans-1,3-Dichloropropene	ND		5.0		ug/Kg			07/15/14 19:15	1
Ethylbenzene	ND		5.0		ug/Kg			07/15/14 19:15	1
Hexachlorobutadiene	ND		5.0		ug/Kg			07/15/14 19:15	1
2-Hexanone	ND		50		ug/Kg			07/15/14 19:15	1
Isopropylbenzene	ND		5.0		ug/Kg			07/15/14 19:15	1
4-Isopropyltoluene	ND		5.0		ug/Kg			07/15/14 19:15	1
Methylene Chloride	ND		10		ug/Kg			07/15/14 19:15	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/Kg			07/15/14 19:15	1
Naphthalene	ND		10		ug/Kg			07/15/14 19:15	1
N-Propylbenzene	ND		5.0		ug/Kg			07/15/14 19:15	1
Styrene	ND		5.0		ug/Kg			07/15/14 19:15	1

TestAmerica Pleasanton

# QC Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58577-1

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

**Lab Sample ID: MB 720-163042/4**

**Matrix: Solid**

**Analysis Batch: 163042**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/Kg			07/15/14 19:15	1
1,1,2,2-Tetrachloroethane	ND		5.0		ug/Kg			07/15/14 19:15	1
Tetrachloroethene	ND		5.0		ug/Kg			07/15/14 19:15	1
Toluene	ND		5.0		ug/Kg			07/15/14 19:15	1
1,2,3-Trichlorobenzene	ND		5.0		ug/Kg			07/15/14 19:15	1
1,2,4-Trichlorobenzene	ND		5.0		ug/Kg			07/15/14 19:15	1
1,1,1-Trichloroethane	ND		5.0		ug/Kg			07/15/14 19:15	1
1,1,2-Trichloroethane	ND		5.0		ug/Kg			07/15/14 19:15	1
Trichloroethene	ND		5.0		ug/Kg			07/15/14 19:15	1
Trichlorofluoromethane	ND		5.0		ug/Kg			07/15/14 19:15	1
1,2,3-Trichloropropane	ND		5.0		ug/Kg			07/15/14 19:15	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/Kg			07/15/14 19:15	1
1,2,4-Trimethylbenzene	ND		5.0		ug/Kg			07/15/14 19:15	1
1,3,5-Trimethylbenzene	ND		5.0		ug/Kg			07/15/14 19:15	1
Vinyl acetate	ND		50		ug/Kg			07/15/14 19:15	1
Vinyl chloride	ND		5.0		ug/Kg			07/15/14 19:15	1
Xylenes, Total	ND		10		ug/Kg			07/15/14 19:15	1
2,2-Dichloropropane	ND		5.0		ug/Kg			07/15/14 19:15	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	94		45 - 131		07/15/14 19:15	1
1,2-Dichloroethane-d4 (Surr)	99		60 - 140		07/15/14 19:15	1
Toluene-d8 (Surr)	93		58 - 140		07/15/14 19:15	1

**Lab Sample ID: LCS 720-163042/5**

**Matrix: Solid**

**Analysis Batch: 163042**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	50.0	45.1		ug/Kg		90	70 - 144
Acetone	250	197		ug/Kg		79	30 - 162
Benzene	50.0	43.3		ug/Kg		87	70 - 130
Dichlorobromomethane	50.0	48.7		ug/Kg		97	70 - 131
Bromobenzene	50.0	48.9		ug/Kg		98	70 - 130
Chlorobromomethane	50.0	46.4		ug/Kg		93	70 - 130
Bromoform	50.0	55.7		ug/Kg		111	59 - 158
Bromomethane	50.0	47.2		ug/Kg		94	59 - 132
2-Butanone (MEK)	250	200		ug/Kg		80	53 - 124
n-Butylbenzene	50.0	45.9		ug/Kg		92	70 - 142
sec-Butylbenzene	50.0	45.1		ug/Kg		90	70 - 136
tert-Butylbenzene	50.0	45.9		ug/Kg		92	70 - 130
Carbon disulfide	50.0	38.5		ug/Kg		77	60 - 140
Carbon tetrachloride	50.0	49.7		ug/Kg		99	70 - 138
Chlorobenzene	50.0	45.3		ug/Kg		91	70 - 130
Chloroethane	50.0	42.8		ug/Kg		86	65 - 130
Chloroform	50.0	46.0		ug/Kg		92	77 - 127
Chloromethane	50.0	39.9		ug/Kg		80	55 - 140
2-Chlorotoluene	50.0	45.1		ug/Kg		90	70 - 138

TestAmerica Pleasanton

# QC Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58577-1

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

**Lab Sample ID: LCS 720-163042/5**

**Matrix: Solid**

**Analysis Batch: 163042**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chlorotoluene	50.0	44.8		ug/Kg		90	70 - 136
Chlorodibromomethane	50.0	53.6		ug/Kg		107	70 - 146
1,2-Dichlorobenzene	50.0	47.6		ug/Kg		95	70 - 130
1,3-Dichlorobenzene	50.0	46.8		ug/Kg		94	70 - 131
1,4-Dichlorobenzene	50.0	47.4		ug/Kg		95	70 - 130
1,3-Dichloropropane	50.0	46.3		ug/Kg		93	70 - 140
1,1-Dichloropropene	50.0	46.4		ug/Kg		93	70 - 130
1,2-Dibromo-3-Chloropropane	50.0	49.1		ug/Kg		98	60 - 145
Ethylene Dibromide	50.0	49.2		ug/Kg		98	70 - 140
Dibromomethane	50.0	47.8		ug/Kg		96	70 - 139
Dichlorodifluoromethane	50.0	50.5		ug/Kg		101	37 - 158
1,1-Dichloroethane	50.0	43.2		ug/Kg		86	70 - 130
1,2-Dichloroethane	50.0	44.7		ug/Kg		89	70 - 130
1,1-Dichloroethene	50.0	40.9		ug/Kg		82	76 - 122
cis-1,2-Dichloroethene	50.0	43.3		ug/Kg		87	70 - 138
trans-1,2-Dichloroethene	50.0	44.7		ug/Kg		89	67 - 130
1,2-Dichloropropane	50.0	44.9		ug/Kg		90	73 - 127
cis-1,3-Dichloropropene	50.0	49.4		ug/Kg		99	68 - 147
trans-1,3-Dichloropropene	50.0	54.4		ug/Kg		109	70 - 136
Ethylbenzene	50.0	42.0		ug/Kg		84	80 - 137
Hexachlorobutadiene	50.0	47.9		ug/Kg		96	70 - 132
2-Hexanone	250	206		ug/Kg		83	44 - 133
Isopropylbenzene	50.0	45.0		ug/Kg		90	88 - 128
4-Isopropyltoluene	50.0	45.6		ug/Kg		91	70 - 133
Methylene Chloride	50.0	43.5		ug/Kg		87	70 - 134
4-Methyl-2-pentanone (MIBK)	250	214		ug/Kg		86	60 - 160
Naphthalene	50.0	47.3		ug/Kg		95	60 - 147
N-Propylbenzene	50.0	45.0		ug/Kg		90	70 - 130
Styrene	50.0	48.2		ug/Kg		96	70 - 130
1,1,1,2-Tetrachloroethane	50.0	49.7		ug/Kg		99	70 - 130
1,1,1,2,2-Tetrachloroethane	50.0	48.0		ug/Kg		96	70 - 146
Tetrachloroethene	50.0	46.7		ug/Kg		93	70 - 132
Toluene	50.0	43.8		ug/Kg		88	80 - 128
1,2,3-Trichlorobenzene	50.0	46.5		ug/Kg		93	60 - 140
1,2,4-Trichlorobenzene	50.0	47.7		ug/Kg		95	60 - 140
1,1,1-Trichloroethane	50.0	44.9		ug/Kg		90	70 - 130
1,1,2-Trichloroethane	50.0	46.8		ug/Kg		94	70 - 130
Trichloroethene	50.0	46.9		ug/Kg		94	70 - 133
Trichlorofluoromethane	50.0	52.2		ug/Kg		104	60 - 140
1,2,3-Trichloropropane	50.0	49.8		ug/Kg		100	70 - 146
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	41.9		ug/Kg		84	60 - 140
1,2,4-Trimethylbenzene	50.0	45.5		ug/Kg		91	70 - 130
1,3,5-Trimethylbenzene	50.0	46.5		ug/Kg		93	70 - 131
Vinyl acetate	50.0	51.8		ug/Kg		104	38 - 176
Vinyl chloride	50.0	42.2		ug/Kg		84	58 - 125
m-Xylene & p-Xylene	50.0	46.3		ug/Kg		93	70 - 146
o-Xylene	50.0	44.5		ug/Kg		89	70 - 140

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# QC Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58577-1

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

**Lab Sample ID: LCS 720-163042/5**

**Matrix: Solid**

**Analysis Batch: 163042**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,2-Dichloropropane	50.0	36.7		ug/Kg		73	70 - 162

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	97		45 - 131
1,2-Dichloroethane-d4 (Surr)	94		60 - 140
Toluene-d8 (Surr)	97		58 - 140

**Lab Sample ID: LCSD 720-163042/6**

**Matrix: Solid**

**Analysis Batch: 163042**

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

**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methyl tert-butyl ether	50.0	45.0		ug/Kg		90	70 - 144	0	20
Acetone	250	237		ug/Kg		95	30 - 162	19	30
Benzene	50.0	43.7		ug/Kg		87	70 - 130	1	20
Dichlorobromomethane	50.0	47.8		ug/Kg		96	70 - 131	2	20
Bromobenzene	50.0	50.2		ug/Kg		100	70 - 130	2	20
Chlorobromomethane	50.0	46.9		ug/Kg		94	70 - 130	1	20
Bromoform	50.0	56.6		ug/Kg		113	59 - 158	2	20
Bromomethane	50.0	47.4		ug/Kg		95	59 - 132	0	20
2-Butanone (MEK)	250	223		ug/Kg		89	53 - 124	10	20
n-Butylbenzene	50.0	45.8		ug/Kg		92	70 - 142	0	20
sec-Butylbenzene	50.0	46.4		ug/Kg		93	70 - 136	3	20
tert-Butylbenzene	50.0	46.9		ug/Kg		94	70 - 130	2	20
Carbon disulfide	50.0	39.2		ug/Kg		78	60 - 140	2	20
Carbon tetrachloride	50.0	49.9		ug/Kg		100	70 - 138	0	20
Chlorobenzene	50.0	45.4		ug/Kg		91	70 - 130	0	20
Chloroethane	50.0	43.6		ug/Kg		87	65 - 130	2	20
Chloroform	50.0	45.8		ug/Kg		92	77 - 127	0	20
Chloromethane	50.0	41.2		ug/Kg		82	55 - 140	3	20
2-Chlorotoluene	50.0	46.3		ug/Kg		93	70 - 138	3	20
4-Chlorotoluene	50.0	45.6		ug/Kg		91	70 - 136	2	20
Chlorodibromomethane	50.0	52.2		ug/Kg		104	70 - 146	2	20
1,2-Dichlorobenzene	50.0	48.2		ug/Kg		96	70 - 130	1	20
1,3-Dichlorobenzene	50.0	47.4		ug/Kg		95	70 - 131	1	20
1,4-Dichlorobenzene	50.0	47.6		ug/Kg		95	70 - 130	0	20
1,3-Dichloropropane	50.0	46.2		ug/Kg		92	70 - 140	0	20
1,1-Dichloropropene	50.0	46.8		ug/Kg		94	70 - 130	1	20
1,2-Dibromo-3-Chloropropane	50.0	51.9		ug/Kg		104	60 - 145	5	20
Ethylene Dibromide	50.0	49.1		ug/Kg		98	70 - 140	0	20
Dibromomethane	50.0	47.2		ug/Kg		94	70 - 139	1	20
Dichlorodifluoromethane	50.0	51.0		ug/Kg		102	37 - 158	1	20
1,1-Dichloroethane	50.0	43.8		ug/Kg		88	70 - 130	1	20
1,2-Dichloroethane	50.0	44.0		ug/Kg		88	70 - 130	1	20
1,1-Dichloroethane	50.0	41.8		ug/Kg		84	76 - 122	2	20
cis-1,2-Dichloroethane	50.0	43.0		ug/Kg		86	70 - 138	1	20
trans-1,2-Dichloroethane	50.0	45.3		ug/Kg		91	67 - 130	1	20
1,2-Dichloropropane	50.0	44.9		ug/Kg		90	73 - 127	0	20

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# QC Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58577-1

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

**Lab Sample ID: LCSD 720-163042/6**

**Matrix: Solid**

**Analysis Batch: 163042**

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

**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD	
							RPD	Limit		
cis-1,3-Dichloropropene	50.0	49.1		ug/Kg		98	68 - 147	1	20	
trans-1,3-Dichloropropene	50.0	53.6		ug/Kg		107	70 - 136	1	20	
Ethylbenzene	50.0	42.4		ug/Kg		85	80 - 137	1	20	
Hexachlorobutadiene	50.0	46.9		ug/Kg		94	70 - 132	2	20	
2-Hexanone	250	213		ug/Kg		85	44 - 133	3	20	
Isopropylbenzene	50.0	45.3		ug/Kg		91	88 - 128	1	20	
4-Isopropyltoluene	50.0	46.6		ug/Kg		93	70 - 133	2	20	
Methylene Chloride	50.0	43.3		ug/Kg		87	70 - 134	0	20	
4-Methyl-2-pentanone (MIBK)	250	218		ug/Kg		87	60 - 160	2	20	
Naphthalene	50.0	47.5		ug/Kg		95	60 - 147	1	20	
N-Propylbenzene	50.0	45.9		ug/Kg		92	70 - 130	2	20	
Styrene	50.0	48.3		ug/Kg		97	70 - 130	0	20	
1,1,1,2-Tetrachloroethane	50.0	49.9		ug/Kg		100	70 - 130	0	20	
1,1,1,2-Tetrachloroethane	50.0	49.5		ug/Kg		99	70 - 146	3	20	
Tetrachloroethene	50.0	46.9		ug/Kg		94	70 - 132	0	20	
Toluene	50.0	44.4		ug/Kg		89	80 - 128	1	20	
1,2,3-Trichlorobenzene	50.0	45.5		ug/Kg		91	60 - 140	2	20	
1,2,4-Trichlorobenzene	50.0	46.1		ug/Kg		92	60 - 140	3	20	
1,1,1-Trichloroethane	50.0	44.7		ug/Kg		89	70 - 130	0	20	
1,1,2-Trichloroethane	50.0	46.5		ug/Kg		93	70 - 130	1	20	
Trichloroethene	50.0	47.3		ug/Kg		95	70 - 133	1	20	
Trichlorofluoromethane	50.0	53.7		ug/Kg		107	60 - 140	3	20	
1,2,3-Trichloropropane	50.0	51.4		ug/Kg		103	70 - 146	3	20	
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	41.8		ug/Kg		84	60 - 140	0	20	
1,2,4-Trimethylbenzene	50.0	46.4		ug/Kg		93	70 - 130	2	20	
1,3,5-Trimethylbenzene	50.0	47.3		ug/Kg		95	70 - 131	2	20	
Vinyl acetate	50.0	52.2		ug/Kg		104	38 - 176	1	20	
Vinyl chloride	50.0	42.5		ug/Kg		85	58 - 125	1	20	
m-Xylene & p-Xylene	50.0	45.9		ug/Kg		92	70 - 146	1	20	
o-Xylene	50.0	44.0		ug/Kg		88	70 - 140	1	20	
2,2-Dichloropropane	50.0	36.6		ug/Kg		73	70 - 162	0	20	

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	96		45 - 131
1,2-Dichloroethane-d4 (Surr)	92		60 - 140
Toluene-d8 (Surr)	96		58 - 140

**Lab Sample ID: MB 720-163107/4**

**Matrix: Water**

**Analysis Batch: 163107**

**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			07/16/14 16:27	1
Acetone	ND		50		ug/L			07/16/14 16:27	1
Benzene	ND		0.50		ug/L			07/16/14 16:27	1
Dichlorobromomethane	ND		0.50		ug/L			07/16/14 16:27	1
Bromobenzene	ND		1.0		ug/L			07/16/14 16:27	1

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# QC Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58577-1

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

Lab Sample ID: MB 720-163107/4

Matrix: Water

Analysis Batch: 163107

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chlorobromomethane	ND		1.0		ug/L			07/16/14 16:27	1
Bromoform	ND		1.0		ug/L			07/16/14 16:27	1
Bromomethane	ND		1.0		ug/L			07/16/14 16:27	1
2-Butanone (MEK)	ND		50		ug/L			07/16/14 16:27	1
n-Butylbenzene	ND		1.0		ug/L			07/16/14 16:27	1
sec-Butylbenzene	ND		1.0		ug/L			07/16/14 16:27	1
tert-Butylbenzene	ND		1.0		ug/L			07/16/14 16:27	1
Carbon disulfide	ND		5.0		ug/L			07/16/14 16:27	1
Carbon tetrachloride	ND		0.50		ug/L			07/16/14 16:27	1
Chlorobenzene	ND		0.50		ug/L			07/16/14 16:27	1
Chloroethane	ND		1.0		ug/L			07/16/14 16:27	1
Chloroform	ND		1.0		ug/L			07/16/14 16:27	1
Chloromethane	ND		1.0		ug/L			07/16/14 16:27	1
2-Chlorotoluene	ND		0.50		ug/L			07/16/14 16:27	1
4-Chlorotoluene	ND		0.50		ug/L			07/16/14 16:27	1
Chlorodibromomethane	ND		0.50		ug/L			07/16/14 16:27	1
1,2-Dichlorobenzene	ND		0.50		ug/L			07/16/14 16:27	1
1,3-Dichlorobenzene	ND		0.50		ug/L			07/16/14 16:27	1
1,4-Dichlorobenzene	ND		0.50		ug/L			07/16/14 16:27	1
1,3-Dichloropropane	ND		1.0		ug/L			07/16/14 16:27	1
1,1-Dichloropropene	ND		0.50		ug/L			07/16/14 16:27	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			07/16/14 16:27	1
Ethylene Dibromide	ND		0.50		ug/L			07/16/14 16:27	1
Dibromomethane	ND		0.50		ug/L			07/16/14 16:27	1
Dichlorodifluoromethane	ND		0.50		ug/L			07/16/14 16:27	1
1,1-Dichloroethane	ND		0.50		ug/L			07/16/14 16:27	1
1,2-Dichloroethane	ND		0.50		ug/L			07/16/14 16:27	1
1,1-Dichloroethene	ND		0.50		ug/L			07/16/14 16:27	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			07/16/14 16:27	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			07/16/14 16:27	1
1,2-Dichloropropane	ND		0.50		ug/L			07/16/14 16:27	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			07/16/14 16:27	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			07/16/14 16:27	1
Ethylbenzene	ND		0.50		ug/L			07/16/14 16:27	1
Hexachlorobutadiene	ND		1.0		ug/L			07/16/14 16:27	1
2-Hexanone	ND		50		ug/L			07/16/14 16:27	1
Isopropylbenzene	ND		0.50		ug/L			07/16/14 16:27	1
4-Isopropyltoluene	ND		1.0		ug/L			07/16/14 16:27	1
Methylene Chloride	ND		5.0		ug/L			07/16/14 16:27	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			07/16/14 16:27	1
Naphthalene	ND		1.0		ug/L			07/16/14 16:27	1
N-Propylbenzene	ND		1.0		ug/L			07/16/14 16:27	1
Styrene	ND		0.50		ug/L			07/16/14 16:27	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			07/16/14 16:27	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			07/16/14 16:27	1
Tetrachloroethene	ND		0.50		ug/L			07/16/14 16:27	1
Toluene	ND		0.50		ug/L			07/16/14 16:27	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			07/16/14 16:27	1

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# QC Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58577-1

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

**Lab Sample ID: MB 720-163107/4**

**Matrix: Water**

**Analysis Batch: 163107**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.0		ug/L			07/16/14 16:27	1
1,1,1-Trichloroethane	ND		0.50		ug/L			07/16/14 16:27	1
1,1,2-Trichloroethane	ND		0.50		ug/L			07/16/14 16:27	1
Trichloroethene	ND		0.50		ug/L			07/16/14 16:27	1
Trichlorofluoromethane	ND		1.0		ug/L			07/16/14 16:27	1
1,2,3-Trichloropropane	ND		0.50		ug/L			07/16/14 16:27	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			07/16/14 16:27	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			07/16/14 16:27	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			07/16/14 16:27	1
Vinyl acetate	ND		10		ug/L			07/16/14 16:27	1
Vinyl chloride	ND		0.50		ug/L			07/16/14 16:27	1
Xylenes, Total	ND		1.0		ug/L			07/16/14 16:27	1
2,2-Dichloropropane	ND		0.50		ug/L			07/16/14 16:27	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	94		67 - 130		07/16/14 16:27	1
1,2-Dichloroethane-d4 (Surr)	87		72 - 130		07/16/14 16:27	1
Toluene-d8 (Surr)	96		70 - 130		07/16/14 16:27	1

**Lab Sample ID: LCS 720-163107/5**

**Matrix: Water**

**Analysis Batch: 163107**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	25.0	23.2		ug/L		93	62 - 130
Acetone	125	107		ug/L		85	26 - 180
Benzene	25.0	23.1		ug/L		92	79 - 130
Dichlorobromomethane	25.0	25.4		ug/L		101	70 - 130
Bromobenzene	25.0	26.0		ug/L		104	70 - 130
Chlorobromomethane	25.0	24.5		ug/L		98	70 - 130
Bromoform	25.0	26.4		ug/L		105	68 - 136
Bromomethane	25.0	23.4		ug/L		94	43 - 151
2-Butanone (MEK)	125	111		ug/L		89	54 - 130
n-Butylbenzene	25.0	25.9		ug/L		103	70 - 142
sec-Butylbenzene	25.0	25.3		ug/L		101	70 - 134
tert-Butylbenzene	25.0	25.1		ug/L		100	70 - 135
Carbon disulfide	25.0	15.2		ug/L		61	58 - 130
Carbon tetrachloride	25.0	23.6		ug/L		95	70 - 146
Chlorobenzene	25.0	24.5		ug/L		98	70 - 130
Chloroethane	25.0	22.7		ug/L		91	62 - 138
Chloroform	25.0	23.6		ug/L		94	70 - 130
Chloromethane	25.0	20.3		ug/L		81	52 - 175
2-Chlorotoluene	25.0	25.5		ug/L		102	70 - 130
4-Chlorotoluene	25.0	25.5		ug/L		102	70 - 130
Chlorodibromomethane	25.0	27.7		ug/L		111	70 - 145
1,2-Dichlorobenzene	25.0	26.1		ug/L		104	70 - 130
1,3-Dichlorobenzene	25.0	26.3		ug/L		105	70 - 130
1,4-Dichlorobenzene	25.0	26.6		ug/L		107	70 - 130

TestAmerica Pleasanton

# QC Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58577-1

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

**Lab Sample ID: LCS 720-163107/5**

**Matrix: Water**

**Analysis Batch: 163107**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichloropropane	25.0	24.1		ug/L		97	70 - 130
1,1-Dichloropropene	25.0	24.2		ug/L		97	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	27.2		ug/L		109	70 - 136
Ethylene Dibromide	25.0	25.7		ug/L		103	70 - 130
Dibromomethane	25.0	24.0		ug/L		96	70 - 130
Dichlorodifluoromethane	25.0	19.3		ug/L		77	34 - 132
1,1-Dichloroethane	25.0	23.0		ug/L		92	70 - 130
1,2-Dichloroethane	25.0	20.7		ug/L		83	61 - 132
1,1-Dichloroethene	25.0	18.7		ug/L		75	64 - 128
cis-1,2-Dichloroethene	25.0	22.1		ug/L		88	70 - 130
trans-1,2-Dichloroethene	25.0	23.1		ug/L		92	68 - 130
1,2-Dichloropropane	25.0	25.0		ug/L		100	70 - 130
cis-1,3-Dichloropropene	25.0	27.9		ug/L		111	70 - 130
trans-1,3-Dichloropropene	25.0	30.5		ug/L		122	70 - 140
Ethylbenzene	25.0	23.7		ug/L		95	80 - 120
Hexachlorobutadiene	25.0	27.0		ug/L		108	70 - 130
2-Hexanone	125	111		ug/L		88	60 - 164
Isopropylbenzene	25.0	24.6		ug/L		99	70 - 130
4-Isopropyltoluene	25.0	25.4		ug/L		102	70 - 130
Methylene Chloride	25.0	22.4		ug/L		90	70 - 147
4-Methyl-2-pentanone (MIBK)	125	114		ug/L		91	58 - 130
Naphthalene	25.0	27.0		ug/L		108	70 - 130
N-Propylbenzene	25.0	25.9		ug/L		104	70 - 130
Styrene	25.0	26.0		ug/L		104	70 - 130
1,1,1,2-Tetrachloroethane	25.0	28.2		ug/L		113	70 - 130
1,1,1,2,2-Tetrachloroethane	25.0	26.5		ug/L		106	70 - 130
Tetrachloroethene	25.0	25.3		ug/L		101	70 - 130
Toluene	25.0	24.7		ug/L		99	78 - 120
1,2,3-Trichlorobenzene	25.0	27.6		ug/L		111	70 - 130
1,2,4-Trichlorobenzene	25.0	28.5		ug/L		114	70 - 130
1,1,1-Trichloroethane	25.0	22.4		ug/L		90	70 - 130
1,1,2-Trichloroethane	25.0	26.2		ug/L		105	70 - 130
Trichloroethene	25.0	24.5		ug/L		98	70 - 130
Trichlorofluoromethane	25.0	20.9		ug/L		84	66 - 132
1,2,3-Trichloropropane	25.0	24.3		ug/L		97	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	19.6		ug/L		78	42 - 162
1,2,4-Trimethylbenzene	25.0	25.6		ug/L		103	70 - 132
1,3,5-Trimethylbenzene	25.0	25.7		ug/L		103	70 - 130
Vinyl acetate	25.0	33.9		ug/L		136	43 - 163
Vinyl chloride	25.0	20.2		ug/L		81	54 - 135
m-Xylene & p-Xylene	25.0	24.0		ug/L		96	70 - 142
o-Xylene	25.0	24.2		ug/L		97	70 - 130
2,2-Dichloropropane	25.0	25.9		ug/L		103	70 - 140

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	94		67 - 130
1,2-Dichloroethane-d4 (Surr)	84		72 - 130

TestAmerica Pleasanton

# QC Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58577-1

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

**Lab Sample ID: LCS 720-163107/5**

**Matrix: Water**

**Analysis Batch: 163107**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	97		70 - 130

**Lab Sample ID: LCSD 720-163107/6**

**Matrix: Water**

**Analysis Batch: 163107**

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

**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	RPD Limit
							Limits	RPD		
Methyl tert-butyl ether	25.0	24.3		ug/L		97	62 - 130	5	20	
Acetone	125	108		ug/L		86	26 - 180	1	30	
Benzene	25.0	22.6		ug/L		91	79 - 130	2	20	
Dichlorobromomethane	25.0	25.3		ug/L		101	70 - 130	0	20	
Bromobenzene	25.0	25.7		ug/L		103	70 - 130	1	20	
Chlorobromomethane	25.0	25.0		ug/L		100	70 - 130	2	20	
Bromoform	25.0	26.7		ug/L		107	68 - 136	1	20	
Bromomethane	25.0	22.8		ug/L		91	43 - 151	2	20	
2-Butanone (MEK)	125	130		ug/L		104	54 - 130	15	20	
n-Butylbenzene	25.0	24.7		ug/L		99	70 - 142	5	20	
sec-Butylbenzene	25.0	24.4		ug/L		98	70 - 134	4	20	
tert-Butylbenzene	25.0	24.3		ug/L		97	70 - 135	3	20	
Carbon disulfide	25.0	14.9		ug/L		60	58 - 130	2	20	
Carbon tetrachloride	25.0	23.1		ug/L		92	70 - 146	2	20	
Chlorobenzene	25.0	24.3		ug/L		97	70 - 130	1	20	
Chloroethane	25.0	22.5		ug/L		90	62 - 138	1	20	
Chloroform	25.0	23.2		ug/L		93	70 - 130	2	20	
Chloromethane	25.0	20.0		ug/L		80	52 - 175	2	20	
2-Chlorotoluene	25.0	24.5		ug/L		98	70 - 130	4	20	
4-Chlorotoluene	25.0	24.6		ug/L		98	70 - 130	3	20	
Chlorodibromomethane	25.0	27.8		ug/L		111	70 - 145	0	20	
1,2-Dichlorobenzene	25.0	25.6		ug/L		102	70 - 130	2	20	
1,3-Dichlorobenzene	25.0	25.9		ug/L		104	70 - 130	2	20	
1,4-Dichlorobenzene	25.0	26.3		ug/L		105	70 - 130	1	20	
1,3-Dichloropropane	25.0	24.7		ug/L		99	70 - 130	2	20	
1,1-Dichloropropene	25.0	23.2		ug/L		93	70 - 130	4	20	
1,2-Dibromo-3-Chloropropane	25.0	28.4		ug/L		114	70 - 136	4	20	
Ethylene Dibromide	25.0	26.3		ug/L		105	70 - 130	2	20	
Dibromomethane	25.0	23.8		ug/L		95	70 - 130	1	20	
Dichlorodifluoromethane	25.0	18.5		ug/L		74	34 - 132	4	20	
1,1-Dichloroethane	25.0	22.6		ug/L		91	70 - 130	1	20	
1,2-Dichloroethane	25.0	20.7		ug/L		83	61 - 132	0	20	
1,1-Dichloroethene	25.0	18.1		ug/L		72	64 - 128	3	20	
cis-1,2-Dichloroethene	25.0	22.0		ug/L		88	70 - 130	1	20	
trans-1,2-Dichloroethene	25.0	23.0		ug/L		92	68 - 130	0	20	
1,2-Dichloropropane	25.0	25.1		ug/L		100	70 - 130	0	20	
cis-1,3-Dichloropropene	25.0	28.1		ug/L		112	70 - 130	1	20	
trans-1,3-Dichloropropene	25.0	30.7		ug/L		123	70 - 140	1	20	
Ethylbenzene	25.0	22.9		ug/L		92	80 - 120	3	20	
Hexachlorobutadiene	25.0	25.4		ug/L		102	70 - 130	6	20	
2-Hexanone	125	116		ug/L		93	60 - 164	5	20	

TestAmerica Pleasanton

# QC Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58577-1

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

**Lab Sample ID: LCSD 720-163107/6**

**Matrix: Water**

**Analysis Batch: 163107**

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

**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Isopropylbenzene	25.0	23.9		ug/L		96	70 - 130	3	20
4-Isopropyltoluene	25.0	24.3		ug/L		97	70 - 130	4	20
Methylene Chloride	25.0	22.4		ug/L		90	70 - 147	0	20
4-Methyl-2-pentanone (MIBK)	125	119		ug/L		95	58 - 130	5	20
Naphthalene	25.0	27.3		ug/L		109	70 - 130	1	20
N-Propylbenzene	25.0	24.6		ug/L		98	70 - 130	5	20
Styrene	25.0	25.8		ug/L		103	70 - 130	1	20
1,1,1,2-Tetrachloroethane	25.0	27.9		ug/L		111	70 - 130	1	20
1,1,1,2,2-Tetrachloroethane	25.0	27.1		ug/L		108	70 - 130	2	20
Tetrachloroethene	25.0	24.4		ug/L		97	70 - 130	4	20
Toluene	25.0	24.0		ug/L		96	78 - 120	3	20
1,2,3-Trichlorobenzene	25.0	27.3		ug/L		109	70 - 130	1	20
1,2,4-Trichlorobenzene	25.0	28.4		ug/L		113	70 - 130	0	20
1,1,1-Trichloroethane	25.0	21.5		ug/L		86	70 - 130	4	20
1,1,2-Trichloroethane	25.0	27.4		ug/L		110	70 - 130	5	20
Trichloroethene	25.0	23.7		ug/L		95	70 - 130	3	20
Trichlorofluoromethane	25.0	20.2		ug/L		81	66 - 132	3	20
1,2,3-Trichloropropane	25.0	24.4		ug/L		97	70 - 130	0	20
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	19.3		ug/L		77	42 - 162	2	20
1,2,4-Trimethylbenzene	25.0	24.8		ug/L		99	70 - 132	3	20
1,3,5-Trimethylbenzene	25.0	24.6		ug/L		98	70 - 130	4	20
Vinyl acetate	25.0	34.5		ug/L		138	43 - 163	2	20
Vinyl chloride	25.0	19.5		ug/L		78	54 - 135	3	20
m-Xylene & p-Xylene	25.0	23.2		ug/L		93	70 - 142	3	20
o-Xylene	25.0	23.4		ug/L		94	70 - 130	3	20
2,2-Dichloropropane	25.0	24.2		ug/L		97	70 - 140	7	20

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	95		67 - 130
1,2-Dichloroethane-d4 (Surr)	85		72 - 130
Toluene-d8 (Surr)	97		70 - 130

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

**Lab Sample ID: MB 720-162933/1-A**

**Matrix: Solid**

**Analysis Batch: 162914**

**Client Sample ID: Method Blank**

**Prep Type: Silica Gel Cleanup**

**Prep Batch: 162933**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		0.99		mg/Kg		07/14/14 11:20	07/15/14 05:57	1
Motor Oil Range Organics [C24-C36]	ND		49		mg/Kg		07/14/14 11:20	07/15/14 05:57	1

Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Capric Acid (Surr)	0		0 - 1	07/14/14 11:20	07/15/14 05:57	1
p-Terphenyl	110		38 - 148	07/14/14 11:20	07/15/14 05:57	1

TestAmerica Pleasanton

# QC Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58577-1

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

**Lab Sample ID: LCS 720-162933/2-A**

**Matrix: Solid**

**Analysis Batch: 162914**

**Client Sample ID: Lab Control Sample**

**Prep Type: Silica Gel Cleanup**

**Prep Batch: 162933**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	82.5	50.5		mg/Kg		61	36 - 112
<b>Surrogate</b>		<b>LCS %Recovery</b>	<b>LCS Qualifier</b>				<b>Limits</b>
<i>p-Terphenyl</i>		100					38 - 148

**Lab Sample ID: LCSD 720-162933/3-A**

**Matrix: Solid**

**Analysis Batch: 162914**

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

**Prep Type: Silica Gel Cleanup**

**Prep Batch: 162933**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	82.8	49.1		mg/Kg		59	36 - 112	3	35
<b>Surrogate</b>		<b>LCSD %Recovery</b>	<b>LCSD Qualifier</b>				<b>Limits</b>		
<i>p-Terphenyl</i>		98					38 - 148		

**Lab Sample ID: MB 720-163015/1-A**

**Matrix: Water**

**Analysis Batch: 163000**

**Client Sample ID: Method Blank**

**Prep Type: Silica Gel Cleanup**

**Prep Batch: 163015**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		50		ug/L		07/15/14 10:19	07/15/14 21:01	1
Motor Oil Range Organics [C24-C36]	ND		99		ug/L		07/15/14 10:19	07/15/14 21:01	1
<b>Surrogate</b>	<b>MB %Recovery</b>	<b>MB Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>Capric Acid (Surr)</i>	0		0 - 5				07/15/14 10:19	07/15/14 21:01	1
<i>p-Terphenyl</i>	91		31 - 150				07/15/14 10:19	07/15/14 21:01	1

**Lab Sample ID: LCS 720-163015/2-A**

**Matrix: Water**

**Analysis Batch: 163000**

**Client Sample ID: Lab Control Sample**

**Prep Type: Silica Gel Cleanup**

**Prep Batch: 163015**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	2500	1940		ug/L		78	32 - 119
<b>Surrogate</b>		<b>LCS %Recovery</b>	<b>LCS Qualifier</b>				<b>Limits</b>
<i>p-Terphenyl</i>		96					31 - 150

**Lab Sample ID: LCSD 720-163015/3-A**

**Matrix: Water**

**Analysis Batch: 163000**

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

**Prep Type: Silica Gel Cleanup**

**Prep Batch: 163015**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	2500	2180		ug/L		87	32 - 119	12	35

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# QC Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58577-1

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

**Lab Sample ID:** LCSD 720-163015/3-A  
**Matrix:** Water  
**Analysis Batch:** 163000

**Client Sample ID:** Lab Control Sample Dup  
**Prep Type:** Silica Gel Cleanup  
**Prep Batch:** 163015

<i>Surrogate</i>	<i>LCSD %Recovery</i>	<i>LCSD Qualifier</i>	<i>Limits</i>
<i>p-Terphenyl</i>	107		31 - 150

## Method: 6010B - Metals (ICP)

**Lab Sample ID:** MB 720-162897/1-A  
**Matrix:** Solid  
**Analysis Batch:** 162953

**Client Sample ID:** Method Blank  
**Prep Type:** Total/NA  
**Prep Batch:** 162897

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	ND		0.50		mg/Kg		07/12/14 08:48	07/14/14 13:33	1
Arsenic	ND		1.0		mg/Kg		07/12/14 08:48	07/14/14 13:33	1
Barium	ND		0.50		mg/Kg		07/12/14 08:48	07/14/14 13:33	1
Beryllium	ND		0.10		mg/Kg		07/12/14 08:48	07/14/14 13:33	1
Cadmium	ND		0.13		mg/Kg		07/12/14 08:48	07/14/14 13:33	1
Chromium	ND		0.50		mg/Kg		07/12/14 08:48	07/14/14 13:33	1
Cobalt	ND		0.20		mg/Kg		07/12/14 08:48	07/14/14 13:33	1
Copper	ND		1.5		mg/Kg		07/12/14 08:48	07/14/14 13:33	1
Lead	ND		0.50		mg/Kg		07/12/14 08:48	07/14/14 13:33	1
Molybdenum	ND		0.50		mg/Kg		07/12/14 08:48	07/14/14 13:33	1
Nickel	ND		0.50		mg/Kg		07/12/14 08:48	07/14/14 13:33	1
Selenium	ND		1.0		mg/Kg		07/12/14 08:48	07/14/14 13:33	1
Silver	ND		0.25		mg/Kg		07/12/14 08:48	07/14/14 13:33	1
Thallium	ND		0.50		mg/Kg		07/12/14 08:48	07/14/14 13:33	1
Vanadium	ND		0.50		mg/Kg		07/12/14 08:48	07/14/14 13:33	1
Zinc	ND		1.5		mg/Kg		07/12/14 08:48	07/14/14 13:33	1

**Lab Sample ID:** LCS 720-162897/2-A  
**Matrix:** Solid  
**Analysis Batch:** 162953

**Client Sample ID:** Lab Control Sample  
**Prep Type:** Total/NA  
**Prep Batch:** 162897

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Antimony	50.0	46.2		mg/Kg		92	80 - 120
Arsenic	50.0	46.6		mg/Kg		93	80 - 120
Barium	50.0	47.8		mg/Kg		96	80 - 120
Beryllium	50.0	48.3		mg/Kg		97	80 - 120
Cadmium	50.0	46.5		mg/Kg		93	80 - 120
Chromium	50.0	48.7		mg/Kg		97	80 - 120
Cobalt	50.0	48.3		mg/Kg		97	80 - 120
Copper	50.0	48.8		mg/Kg		98	80 - 120
Lead	50.0	46.7		mg/Kg		93	80 - 120
Molybdenum	50.0	47.5		mg/Kg		95	80 - 120
Nickel	50.0	46.8		mg/Kg		94	80 - 120
Selenium	50.0	46.5		mg/Kg		93	80 - 120
Silver	25.0	23.6		mg/Kg		94	80 - 120
Thallium	50.0	48.0		mg/Kg		96	80 - 120
Vanadium	50.0	49.1		mg/Kg		98	80 - 120
Zinc	50.0	47.5		mg/Kg		95	80 - 120

TestAmerica Pleasanton

# QC Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58577-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCSD 720-162897/3-A

Matrix: Solid

Analysis Batch: 162953

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 162897

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.	
							Limits	RPD
Antimony	50.0	46.8		mg/Kg		94	80 - 120	1
Arsenic	50.0	47.1		mg/Kg		94	80 - 120	1
Barium	50.0	47.9		mg/Kg		96	80 - 120	0
Beryllium	50.0	48.3		mg/Kg		97	80 - 120	0
Cadmium	50.0	46.8		mg/Kg		94	80 - 120	1
Chromium	50.0	48.9		mg/Kg		98	80 - 120	0
Cobalt	50.0	48.7		mg/Kg		97	80 - 120	1
Copper	50.0	48.8		mg/Kg		98	80 - 120	0
Lead	50.0	47.3		mg/Kg		95	80 - 120	1
Molybdenum	50.0	48.3		mg/Kg		97	80 - 120	2
Nickel	50.0	47.2		mg/Kg		94	80 - 120	1
Selenium	50.0	47.1		mg/Kg		94	80 - 120	1
Silver	25.0	24.0		mg/Kg		96	80 - 120	2
Thallium	50.0	48.2		mg/Kg		96	80 - 120	0
Vanadium	50.0	49.2		mg/Kg		98	80 - 120	0
Zinc	50.0	47.7		mg/Kg		95	80 - 120	0

Lab Sample ID: LCSSRM 720-162897/25-A

Matrix: Solid

Analysis Batch: 162953

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 162897

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec.	
							Limits	RPD
Antimony	74.6	34.9		mg/Kg		47	11 - 101	
Arsenic	45.5	41.6		mg/Kg		91	69 - 119	
Barium	579	524		mg/Kg		90	61 - 117	
Beryllium	155	143		mg/Kg		92	56 - 102	
Cadmium	201	175		mg/Kg		87	67 - 118	
Chromium	106	97.3		mg/Kg		92	67 - 121	
Cobalt	247	224		mg/Kg		91	64 - 133	
Copper	130	122		mg/Kg		94	68 - 126	
Lead	302	250		mg/Kg		83	62 - 113	
Molybdenum	165	138		mg/Kg		83	62 - 128	
Nickel	305	263		mg/Kg		86	65 - 117	
Selenium	133	124		mg/Kg		93	63 - 126	
Silver	33.5	30.1		mg/Kg		90	51 - 130	
Thallium	191	161		mg/Kg		84	64 - 124	
Vanadium	214	204		mg/Kg		95	67 - 123	
Zinc	388	334		mg/Kg		86	62 - 110	

Lab Sample ID: LCS 720-162915/2-A

Matrix: Water

Analysis Batch: 163036

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 162915

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Limits	RPD
Antimony	1.00	0.944		mg/L		94	80 - 120	
Arsenic	1.00	0.962		mg/L		96	80 - 120	
Barium	1.00	0.958		mg/L		96	80 - 120	
Beryllium	1.00	0.973		mg/L		97	80 - 120	

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# QC Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58577-1

## Method: 6010B - Metals (ICP) (Continued)

**Lab Sample ID: LCS 720-162915/2-A**  
**Matrix: Water**  
**Analysis Batch: 163036**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 162915**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Limits	
Cadmium	1.00	0.951		mg/L		95	80 - 120	
Chromium	1.00	0.978		mg/L		98	80 - 120	
Cobalt	1.00	0.974		mg/L		97	80 - 120	
Copper	1.00	0.987		mg/L		99	80 - 120	
Lead	1.00	0.964		mg/L		96	80 - 120	
Molybdenum	1.00	0.948		mg/L		95	80 - 120	
Nickel	1.00	0.957		mg/L		96	80 - 120	
Selenium	1.00	0.988		mg/L		99	80 - 120	
Silver	0.500	0.491		mg/L		98	80 - 120	
Thallium	1.00	0.998		mg/L		100	80 - 120	
Vanadium	1.00	0.951		mg/L		95	80 - 120	
Zinc	1.00	0.969		mg/L		97	80 - 120	

**Lab Sample ID: LCSD 720-162915/3-A**  
**Matrix: Water**  
**Analysis Batch: 163036**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total Recoverable**  
**Prep Batch: 162915**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	
							Limits		RPD	Limit
Antimony	1.00	0.930		mg/L		93	80 - 120	2	20	
Arsenic	1.00	0.943		mg/L		94	80 - 120	2	20	
Barium	1.00	0.940		mg/L		94	80 - 120	2	20	
Beryllium	1.00	0.954		mg/L		95	80 - 120	2	20	
Cadmium	1.00	0.930		mg/L		93	80 - 120	2	20	
Chromium	1.00	0.961		mg/L		96	80 - 120	2	20	
Cobalt	1.00	0.954		mg/L		95	80 - 120	2	20	
Copper	1.00	0.968		mg/L		97	80 - 120	2	20	
Lead	1.00	0.942		mg/L		94	80 - 120	2	20	
Molybdenum	1.00	0.938		mg/L		94	80 - 120	1	20	
Nickel	1.00	0.936		mg/L		94	80 - 120	2	20	
Selenium	1.00	0.977		mg/L		98	80 - 120	1	20	
Silver	0.500	0.481		mg/L		96	80 - 120	2	20	
Thallium	1.00	0.972		mg/L		97	80 - 120	3	20	
Vanadium	1.00	0.939		mg/L		94	80 - 120	1	20	
Zinc	1.00	0.948		mg/L		95	80 - 120	2	20	

**Lab Sample ID: MB 720-162879/1-C**  
**Matrix: Water**  
**Analysis Batch: 163036**

**Client Sample ID: Method Blank**  
**Prep Type: Dissolved**  
**Prep Batch: 162915**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	ND		0.010		mg/L		07/14/14 08:21	07/15/14 12:55	1
Arsenic	ND		0.010		mg/L		07/14/14 08:21	07/15/14 12:55	1
Barium	ND		0.0050		mg/L		07/14/14 08:21	07/15/14 12:55	1
Beryllium	ND		0.0020		mg/L		07/14/14 08:21	07/15/14 12:55	1
Cadmium	ND		0.0020		mg/L		07/14/14 08:21	07/15/14 12:55	1
Chromium	ND		0.010		mg/L		07/14/14 08:21	07/15/14 12:55	1
Cobalt	ND		0.0020		mg/L		07/14/14 08:21	07/15/14 12:55	1
Copper	ND		0.020		mg/L		07/14/14 08:21	07/15/14 12:55	1
Lead	ND		0.0050		mg/L		07/14/14 08:21	07/15/14 12:55	1

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# QC Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58577-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 720-162879/1-C

Matrix: Water

Analysis Batch: 163036

Client Sample ID: Method Blank

Prep Type: Dissolved

Prep Batch: 162915

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Molybdenum	ND		0.010		mg/L		07/14/14 08:21	07/15/14 12:55	1
Nickel	ND		0.010		mg/L		07/14/14 08:21	07/15/14 12:55	1
Selenium	ND		0.020		mg/L		07/14/14 08:21	07/15/14 12:55	1
Silver	ND		0.0050		mg/L		07/14/14 08:21	07/15/14 12:55	1
Thallium	ND		0.010		mg/L		07/14/14 08:21	07/15/14 12:55	1
Vanadium	ND		0.010		mg/L		07/14/14 08:21	07/15/14 12:55	1
Zinc	ND		0.020		mg/L		07/14/14 08:21	07/15/14 12:55	1

Lab Sample ID: 720-58577-2 MS

Matrix: Water

Analysis Batch: 163036

Client Sample ID: TP-1

Prep Type: Dissolved

Prep Batch: 162915

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier					
Antimony	ND		1.00	0.931		mg/L		92	75 - 125	
Arsenic	ND		1.00	0.975		mg/L		97	75 - 125	
Barium	0.49		1.00	1.42		mg/L		92	75 - 125	
Beryllium	ND		1.00	0.946		mg/L		95	75 - 125	
Cadmium	ND		1.00	0.893		mg/L		89	75 - 125	
Chromium	ND		1.00	0.942		mg/L		94	75 - 125	
Cobalt	0.0053		1.00	0.907		mg/L		90	75 - 125	
Copper	ND		1.00	0.978		mg/L		96	75 - 125	
Lead	0.046		1.00	0.930		mg/L		88	75 - 125	
Molybdenum	0.018		1.00	0.940		mg/L		92	75 - 125	
Nickel	0.033		1.00	0.913		mg/L		88	75 - 125	
Selenium	ND		1.00	0.971		mg/L		96	75 - 125	
Silver	ND		0.500	0.485		mg/L		97	75 - 125	
Thallium	ND		1.00	0.876		mg/L		88	75 - 125	
Vanadium	ND		1.00	0.949		mg/L		94	75 - 125	
Zinc	0.070		1.00	0.970		mg/L		90	75 - 125	

Lab Sample ID: 720-58577-2 MSD

Matrix: Water

Analysis Batch: 163036

Client Sample ID: TP-1

Prep Type: Dissolved

Prep Batch: 162915

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier							
Antimony	ND		1.00	0.948		mg/L		94	75 - 125	2	20	
Arsenic	ND		1.00	0.990		mg/L		98	75 - 125	2	20	
Barium	0.49		1.00	1.44		mg/L		94	75 - 125	1	20	
Beryllium	ND		1.00	0.964		mg/L		96	75 - 125	2	20	
Cadmium	ND		1.00	0.907		mg/L		91	75 - 125	2	20	
Chromium	ND		1.00	0.957		mg/L		95	75 - 125	2	20	
Cobalt	0.0053		1.00	0.922		mg/L		92	75 - 125	2	20	
Copper	ND		1.00	0.991		mg/L		97	75 - 125	1	20	
Lead	0.046		1.00	0.945		mg/L		90	75 - 125	2	20	
Molybdenum	0.018		1.00	0.960		mg/L		94	75 - 125	2	20	
Nickel	0.033		1.00	0.927		mg/L		89	75 - 125	2	20	
Selenium	ND		1.00	0.986		mg/L		98	75 - 125	2	20	
Silver	ND		0.500	0.497		mg/L		99	75 - 125	2	20	
Thallium	ND		1.00	0.886		mg/L		89	75 - 125	1	20	

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# QC Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58577-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 720-58577-2 MSD  
Matrix: Water  
Analysis Batch: 163036

Client Sample ID: TP-1  
Prep Type: Dissolved  
Prep Batch: 162915

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Vanadium	ND		1.00	0.968		mg/L		96	75 - 125	2	20
Zinc	0.070		1.00	0.985		mg/L		92	75 - 125	2	20

## Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 720-163013/1-A  
Matrix: Water  
Analysis Batch: 163030

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 163013

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	ND		0.00020		mg/L		07/15/14 10:10	07/15/14 14:21	1

Lab Sample ID: LCS 720-163013/2-A  
Matrix: Water  
Analysis Batch: 163030

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 163013

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec.
		Result	Qualifier				Limits
Mercury	0.0100	0.00922		mg/L		92	85 - 115

Lab Sample ID: LCSD 720-163013/3-A  
Matrix: Water  
Analysis Batch: 163030

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 163013

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	Limit
		Result	Qualifier				Limits		
Mercury	0.0100	0.00874		mg/L		87	85 - 115	5	20

Lab Sample ID: MB 720-162879/1-D  
Matrix: Water  
Analysis Batch: 163030

Client Sample ID: Method Blank  
Prep Type: Dissolved  
Prep Batch: 163013

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	ND		0.00020		mg/L		07/15/14 10:10	07/15/14 14:35	1

## Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 720-162899/1-A  
Matrix: Solid  
Analysis Batch: 162971

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 162899

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	ND		0.010		mg/Kg		07/12/14 09:37	07/14/14 15:56	1

Lab Sample ID: LCS 720-162899/2-A  
Matrix: Solid  
Analysis Batch: 162971

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 162899

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec.
		Result	Qualifier				Limits
Mercury	0.833	0.883		mg/Kg		106	80 - 120

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# QC Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58577-1

## Method: 7471A - Mercury (CVAA) (Continued)

Lab Sample ID: LCSD 720-162899/3-A  
Matrix: Solid  
Analysis Batch: 162971

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 162899

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.833	0.892		mg/Kg		107	80 - 120	1	20

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

# QC Association Summary

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58577-1

## GC/MS VOA

### Analysis Batch: 163042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-58577-1	TP-1-8.5'	Total/NA	Solid	8260B	163054
LCS 720-163042/5	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 720-163042/6	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 720-163042/4	Method Blank	Total/NA	Solid	8260B	

### Prep Batch: 163054

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-58577-1	TP-1-8.5'	Total/NA	Solid	5030B	

### Analysis Batch: 163107

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-58577-2	TP-1	Total/NA	Water	8260B	
LCS 720-163107/5	Lab Control Sample	Total/NA	Water	8260B	
LCSD 720-163107/6	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 720-163107/4	Method Blank	Total/NA	Water	8260B	

## GC Semi VOA

### Analysis Batch: 162914

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-58577-1	TP-1-8.5'	Silica Gel Cleanup	Solid	8015B	162933
LCS 720-162933/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	8015B	162933
LCSD 720-162933/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Solid	8015B	162933
MB 720-162933/1-A	Method Blank	Silica Gel Cleanup	Solid	8015B	162933

### Prep Batch: 162933

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-58577-1	TP-1-8.5'	Silica Gel Cleanup	Solid	3546	
LCS 720-162933/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	3546	
LCSD 720-162933/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Solid	3546	
MB 720-162933/1-A	Method Blank	Silica Gel Cleanup	Solid	3546	

### Analysis Batch: 162999

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-58577-2	TP-1	Silica Gel Cleanup	Water	8015B	163015

### Analysis Batch: 163000

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 720-163015/2-A	Lab Control Sample	Silica Gel Cleanup	Water	8015B	163015
LCSD 720-163015/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Water	8015B	163015
MB 720-163015/1-A	Method Blank	Silica Gel Cleanup	Water	8015B	163015

### Prep Batch: 163015

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-58577-2	TP-1	Silica Gel Cleanup	Water	3510C SGC	
LCS 720-163015/2-A	Lab Control Sample	Silica Gel Cleanup	Water	3510C SGC	
LCSD 720-163015/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Water	3510C SGC	
MB 720-163015/1-A	Method Blank	Silica Gel Cleanup	Water	3510C SGC	

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# QC Association Summary

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58577-1

## Metals

### Filtration Batch: 162879

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-58577-2	TP-1	Dissolved	Water	FILTRATION	
720-58577-2 MS	TP-1	Dissolved	Water	FILTRATION	
720-58577-2 MSD	TP-1	Dissolved	Water	FILTRATION	
MB 720-162879/1-C	Method Blank	Dissolved	Water	FILTRATION	
MB 720-162879/1-D	Method Blank	Dissolved	Water	FILTRATION	

### Prep Batch: 162897

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-58577-1	TP-1-8.5'	Total/NA	Solid	3050B	
LCS 720-162897/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 720-162897/3-A	Lab Control Sample Dup	Total/NA	Solid	3050B	
LCSSRM 720-162897/25-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 720-162897/1-A	Method Blank	Total/NA	Solid	3050B	

### Prep Batch: 162899

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-58577-1	TP-1-8.5'	Total/NA	Solid	7471A	
LCS 720-162899/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 720-162899/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
MB 720-162899/1-A	Method Blank	Total/NA	Solid	7471A	

### Prep Batch: 162915

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-58577-2	TP-1	Dissolved	Water	3005A	162879
720-58577-2 MS	TP-1	Dissolved	Water	3005A	162879
720-58577-2 MSD	TP-1	Dissolved	Water	3005A	162879
LCS 720-162915/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 720-162915/3-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	
MB 720-162879/1-C	Method Blank	Dissolved	Water	3005A	162879

### Analysis Batch: 162953

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 720-162897/2-A	Lab Control Sample	Total/NA	Solid	6010B	162897
LCSD 720-162897/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	162897
LCSSRM 720-162897/25-A	Lab Control Sample	Total/NA	Solid	6010B	162897
MB 720-162897/1-A	Method Blank	Total/NA	Solid	6010B	162897

### Analysis Batch: 162971

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-58577-1	TP-1-8.5'	Total/NA	Solid	7471A	162899
LCS 720-162899/2-A	Lab Control Sample	Total/NA	Solid	7471A	162899
LCSD 720-162899/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	162899
MB 720-162899/1-A	Method Blank	Total/NA	Solid	7471A	162899

### Analysis Batch: 162991

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-58577-1	TP-1-8.5'	Total/NA	Solid	6010B	162897

### Prep Batch: 163013

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-58577-2	TP-1	Dissolved	Water	7470A	162879

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# QC Association Summary

Client: Geologica Inc  
 Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58577-1

## Metals (Continued)

### Prep Batch: 163013 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 720-163013/2-A	Lab Control Sample	Total/NA	Water	7470A	
LCSD 720-163013/3-A	Lab Control Sample Dup	Total/NA	Water	7470A	
MB 720-162879/1-D	Method Blank	Dissolved	Water	7470A	162879
MB 720-163013/1-A	Method Blank	Total/NA	Water	7470A	

### Analysis Batch: 163030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-58577-2	TP-1	Dissolved	Water	7470A	163013
LCS 720-163013/2-A	Lab Control Sample	Total/NA	Water	7470A	163013
LCSD 720-163013/3-A	Lab Control Sample Dup	Total/NA	Water	7470A	163013
MB 720-162879/1-D	Method Blank	Dissolved	Water	7470A	163013
MB 720-163013/1-A	Method Blank	Total/NA	Water	7470A	163013

### Analysis Batch: 163036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-58577-2	TP-1	Dissolved	Water	6010B	162915
720-58577-2 MS	TP-1	Dissolved	Water	6010B	162915
720-58577-2 MSD	TP-1	Dissolved	Water	6010B	162915
LCS 720-162915/2-A	Lab Control Sample	Total Recoverable	Water	6010B	162915
LCSD 720-162915/3-A	Lab Control Sample Dup	Total Recoverable	Water	6010B	162915
MB 720-162879/1-C	Method Blank	Dissolved	Water	6010B	162915

## General Chemistry

### Analysis Batch: 163045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-58577-1	TP-1-8.5'	Total/NA	Solid	Moisture	

# Lab Chronicle

Client: Geologica Inc  
 Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58577-1

**Client Sample ID: TP-1-8.5'**

**Lab Sample ID: 720-58577-1**

**Date Collected: 07/10/14 10:00**

**Matrix: Solid**

**Date Received: 07/10/14 18:50**

**Percent Solids: 87.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			163054	07/15/14 20:33	LPL	TAL PLS
Total/NA	Analysis	8260B		1	163042	07/16/14 00:05	PDR	TAL PLS
Silica Gel Cleanup	Prep	3546			162933	07/14/14 11:20	STL	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	162914	07/14/14 23:52	JL	TAL PLS
Total/NA	Prep	3050B			162897	07/12/14 08:48	CTD	TAL PLS
Total/NA	Analysis	6010B		1	162991	07/14/14 20:54	SLK	TAL PLS
Total/NA	Prep	7471A			162899	07/12/14 09:37	ECT	TAL PLS
Total/NA	Analysis	7471A		1	162971	07/14/14 16:10	EFH	TAL PLS
Total/NA	Analysis	Moisture		1	163045	07/15/14 17:40	EYT	TAL PLS

**Client Sample ID: TP-1**

**Lab Sample ID: 720-58577-2**

**Date Collected: 07/10/14 10:30**

**Matrix: Water**

**Date Received: 07/10/14 18:50**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	163107	07/16/14 22:37	PDR	TAL PLS
Silica Gel Cleanup	Prep	3510C SGC			163015	07/15/14 10:19	NVP	TAL PLS
Silica Gel Cleanup	Analysis	8015B		3	162999	07/15/14 21:26	JL	TAL PLS
Dissolved	Filtration	FILTRATION			162879	07/11/14 14:42	ASB	TAL PLS
Dissolved	Prep	3005A			162915	07/14/14 08:22	ECT	TAL PLS
Dissolved	Analysis	6010B		1	163036	07/15/14 13:18	SLK	TAL PLS
Dissolved	Filtration	FILTRATION			162879	07/11/14 14:42	ASB	TAL PLS
Dissolved	Prep	7470A			163013	07/15/14 10:10	ECT	TAL PLS
Dissolved	Analysis	7470A		1	163030	07/15/14 14:37	EFH	TAL PLS

**Laboratory References:**

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

# Certification Summary

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58577-1

## Laboratory: TestAmerica Pleasanton

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-16

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
6010B	3050B	Solid	Thallium
Moisture		Solid	Percent Moisture

- 1
- 2
- 3
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- 10
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- 12
- 13
- 14

# Method Summary

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58577-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PLS
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL PLS
6010B	Metals (ICP)	SW846	TAL PLS
7470A	Mercury (CVAA)	SW846	TAL PLS
7471A	Mercury (CVAA)	SW846	TAL PLS
Moisture	Percent Moisture	EPA	TAL PLS

**Protocol References:**

EPA = US Environmental Protection Agency

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: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58577-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-58577-1	TP-1-8.5'	Solid	07/10/14 10:00	07/10/14 18:50
720-58577-2	TP-1	Water	07/10/14 10:30	07/10/14 18:50

- 1
- 2
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# TestAmerica

**720-58577**  
 TESTAMERICA San Francisco Chain of Custody  
 1220 Quarry Lane • Pleasanton CA 94566-4756  
 Phone: (925) 484-1919 • Fax: (925) 600-3002

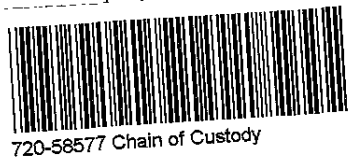
Reference #: 154896

Date 7/10/14 Page 1 of 1

7/17/2014

THE LEADER IN ENVIRONMENTAL TESTING

Report To					Analysis Request														
Attn: <u>Dan Matthews</u>					<input type="checkbox"/> TPH EPA - <input type="checkbox"/> 8015/8021 <input type="checkbox"/> 8260B <input type="checkbox"/> Gas w/ <input type="checkbox"/> BTEX <input type="checkbox"/> MTBE <input type="checkbox"/> Purgeable Aromatics <input type="checkbox"/> BTEX EPA - <input type="checkbox"/> 8021 <input type="checkbox"/> 8260B <input type="checkbox"/> TEPH EPA 8015M* <input checked="" type="checkbox"/> Silica Gel <input checked="" type="checkbox"/> Diesel <input type="checkbox"/> Motor Oil <input type="checkbox"/> Other <input type="checkbox"/> Fuel Tests EPA 8260B; <input type="checkbox"/> Gas <input type="checkbox"/> BTEX <input type="checkbox"/> Five Oxygenates <input type="checkbox"/> DCA, EDB <input type="checkbox"/> <input type="checkbox"/> Purgeable Halocarbons <input type="checkbox"/> (HVOCs) EPA 8021 by 8260B <input checked="" type="checkbox"/> Volatile Organics GC/MS (VOCs) <input type="checkbox"/> EPA 8260B <input type="checkbox"/> 624 <input type="checkbox"/> Semivolatiles GC/MS <input type="checkbox"/> EPA 8270 <input type="checkbox"/> 625 <input type="checkbox"/> Oil and Grease <input type="checkbox"/> Petroleum <input type="checkbox"/> (EPA 1664) <input type="checkbox"/> Total <input type="checkbox"/> Pesticides <input type="checkbox"/> EPA 8081 <input type="checkbox"/> 608 <input type="checkbox"/> PCBs <input type="checkbox"/> EPA 8092 <input type="checkbox"/> 608 <input type="checkbox"/> PNAs by <input type="checkbox"/> 8270 <input type="checkbox"/> 8310 <input type="checkbox"/> CAM17 Metals <input type="checkbox"/> (EPA 6010/7470/7471) <input type="checkbox"/> Metals: <input type="checkbox"/> Lead <input type="checkbox"/> LUFT <input type="checkbox"/> RCRA <input type="checkbox"/> Other: <input type="checkbox"/> Low Level Metals by EPA 200.8/6020 <input type="checkbox"/> (ICP-MS): <input type="checkbox"/> W.E.T (STLC) <input type="checkbox"/> TCLP <input type="checkbox"/> Hexavalent Chromium <input type="checkbox"/> pH (24h hold time for H <sub>2</sub> O) <input type="checkbox"/> Spec Cond. <input type="checkbox"/> Alkalinity <input type="checkbox"/> TSS <input type="checkbox"/> TDS <input type="checkbox"/> <input type="checkbox"/> Anions: <input type="checkbox"/> Cl <input type="checkbox"/> SO <sub>4</sub> <input type="checkbox"/> NO <sub>3</sub> <input type="checkbox"/> F <input type="checkbox"/> Br <input type="checkbox"/> NO <sub>2</sub> <input type="checkbox"/> PO <sub>4</sub>														
Company: <u>Geologica Inc</u>																			
Address: <u>5 Third St, Ste 224, SF</u>																			
Phone: _____ Email: _____																			
Bill To:		Sampled By: <u>gr</u>																	
Attn:		Phone: _____																	
Sample ID	Date	Time	Mat rx	Pres erv.															
<u>TP-1-8.5'</u>	<u>7/10/14</u>	<u>10:00</u>	<u>S</u>																
<u>TP-1</u>	<u>7/10/14</u>	<u>10:30</u>	<u>W</u>																



Project Info.		Sample Receipt		1) Relinquished by:		2) Relinquished by:		3) Relinquished by:			
Project Name:	# of Containers:	Signature:	Time:	Signature:	Time:	Signature:	Time:	Signature:	Time:		
Project#:	Head Space:	Printed Name:	Date:	Printed Name:	Date:	Printed Name:	Date:	Printed Name:	Date:		
PO#:	Temp: <u>1.4°C</u>	Company:		Company:		Company:		Company:			
Credit Card#:	Conforms to record:	Company: <u>Geologica</u>		Company: <u>TA</u>		Company: <u>TA</u>		Company: <u>TA</u>			
T A T	<u>5</u> Day	72h	48h	24h	Other:	1) Received by:		2) Received by:		3) Received by:	
Report: <input type="checkbox"/> Routine <input type="checkbox"/> Level 3 <input type="checkbox"/> Level 4 <input type="checkbox"/> EDD <input type="checkbox"/> State Tank Fund EDF <input type="checkbox"/> Global ID		Signature:	Time:	Signature:	Time:	Signature:	Time:	Signature:	Time:	Signature:	Time:
Special Instructions / Comments: ★ Soil by dry weight ★ filter metals @ Lab See Terms and Conditions on reverse *TestAmerica SF reports 8015M from C <sub>7</sub> -C <sub>24</sub> (industry norm). Default for 8015B is C <sub>10</sub> -C <sub>26</sub>		Printed Name:	Date:	Printed Name:	Date:	Printed Name:	Date:	Printed Name:	Date:	Printed Name:	Date:
		Company:		Company:		Company:		Company:		Company:	

Page 36 of 37

## Login Sample Receipt Checklist

Client: Geologica Inc

Job Number: 720-58577-1

Login Number: 58577

List Source: TestAmerica Pleasanton

List Number: 1

Creator: Bullock, Tracy

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ 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.	False	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

# 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: 720-58627-1  
Client Project/Site: Allied Engineering Alameda

For:  
Geologica Inc  
5 Third St.  
Suite 224  
San Francisco, California 94103

Attn: Brian Aubry



Authorized for release by:  
7/21/2014 4:39:33 PM

Micah Smith, Project Manager II  
(925)484-1919  
[micah.smith@testamericainc.com](mailto:micah.smith@testamericainc.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



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: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery exceeds the control limits
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### Metals

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery exceeds the control limits
F2	MS/MSD RPD exceeds control limits

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
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)

# Case Narrative

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

**Job ID: 720-58627-1**

**Laboratory: TestAmerica Pleasanton**

## Narrative

### Job Narrative 720-58627-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 7/14/2014 5:40 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.4° C and 1.9° C.

Except:

The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. All samples on page 3 of the COC are missing the date. As requested in the attached email, samples were logged in with the sampled date of 7/14/14. Also, the first sample on the COC, A-1, is marked for tests but is also on hold. As requested, this sample is on hold.

#### GC/MS VOA

Method(s) 8260B: Sample A-3 (720-58627-3) was collected in properly preserved vials for analysis of volatile organic compounds (VOCs). However, the pH was outside the required criteria when verified by the laboratory, and corrective action was not possible. Sample was analyzed within 7 days of collection.

Method(s) 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for batch #163209 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### Metals

Method(s) 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for prep batch 163101 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method(s) 6010B: The following sample(s) was diluted due to the abundance of non-target analyte Fe: A-3-4' (720-58627-15). Elevated reporting limits (RLs) are provided.

Method(s) 7470A: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for prep batch 163220 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

## Client Sample ID: A-1A

## Lab Sample ID: 720-58627-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	2.6		0.50		ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	19		0.50		ug/L	1		8260B	Total/NA
trans-1,2-Dichloroethene	0.52		0.50		ug/L	1		8260B	Total/NA
Tetrachloroethene	120		0.50		ug/L	1		8260B	Total/NA
Trichloroethene	70		0.50		ug/L	1		8260B	Total/NA
Motor Oil Range Organics [C24-C36]	180		100		ug/L	1		8015B	Silica Gel Cleanup
Barium	0.098		0.0050		mg/L	1		6010B	Dissolved
Cobalt	0.0022		0.0020		mg/L	1		6010B	Dissolved
Lead	0.013		0.0050		mg/L	1		6010B	Dissolved
Molybdenum	0.016		0.010		mg/L	1		6010B	Dissolved
Nickel	0.010		0.010		mg/L	1		6010B	Dissolved
Zinc	0.022		0.020		mg/L	1		6010B	Dissolved

## Client Sample ID: A-3

## Lab Sample ID: 720-58627-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	8500		160		ug/L	3		8015B	Silica Gel Cleanup
Motor Oil Range Organics [C24-C36]	9900		320		ug/L	3		8015B	Silica Gel Cleanup
Barium	0.32		0.0050		mg/L	1		6010B	Dissolved
Cobalt	0.086		0.0020		mg/L	1		6010B	Dissolved
Molybdenum	0.067		0.010		mg/L	1		6010B	Dissolved
Nickel	0.34		0.010		mg/L	1		6010B	Dissolved
Zinc	0.044		0.020		mg/L	1		6010B	Dissolved
Mercury	0.0011		0.00020		mg/L	1		7470A	Dissolved

## Client Sample ID: A-4

## Lab Sample ID: 720-58627-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	1.1		0.50		ug/L	1		8260B	Total/NA
Vinyl chloride	4.0		0.50		ug/L	1		8260B	Total/NA
Barium	0.11		0.0050		mg/L	1		6010B	Dissolved
Lead	0.0095		0.0050		mg/L	1		6010B	Dissolved
Molybdenum	0.015		0.010		mg/L	1		6010B	Dissolved
Zinc	0.020		0.020		mg/L	1		6010B	Dissolved

## Client Sample ID: A-5

## Lab Sample ID: 720-58627-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	6.1		0.50		ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	13		0.50		ug/L	1		8260B	Total/NA
Tetrachloroethene	160		0.50		ug/L	1		8260B	Total/NA
Trichloroethene	48		0.50		ug/L	1		8260B	Total/NA
Barium	0.15		0.0050		mg/L	1		6010B	Dissolved
Lead	0.0067		0.0050		mg/L	1		6010B	Dissolved
Molybdenum	0.019		0.010		mg/L	1		6010B	Dissolved
Vanadium	0.11		0.010		mg/L	1		6010B	Dissolved

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

# Detection Summary

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

## Client Sample ID: A-8

## Lab Sample ID: 720-58627-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichloroethane	1.7		0.50		ug/L	1		8260B	Total/NA
1,1-Dichloroethene	0.79		0.50		ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	54		0.50		ug/L	1		8260B	Total/NA
trans-1,2-Dichloroethene	10		0.50		ug/L	1		8260B	Total/NA
Tetrachloroethene	9.8		0.50		ug/L	1		8260B	Total/NA
Trichloroethene	69		0.50		ug/L	1		8260B	Total/NA
Vinyl chloride	1.8		0.50		ug/L	1		8260B	Total/NA
Barium	0.087		0.0050		mg/L	1		6010B	Dissolved
Lead	0.0094		0.0050		mg/L	1		6010B	Dissolved
Molybdenum	0.022		0.010		mg/L	1		6010B	Dissolved
Nickel	0.023		0.010		mg/L	1		6010B	Dissolved
Vanadium	0.047		0.010		mg/L	1		6010B	Dissolved

## Client Sample ID: A-9

## Lab Sample ID: 720-58627-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	19		0.50		ug/L	1		8260B	Total/NA
trans-1,2-Dichloroethene	2.8		0.50		ug/L	1		8260B	Total/NA
Trichloroethene	4.6		0.50		ug/L	1		8260B	Total/NA
Barium	0.22		0.0050		mg/L	1		6010B	Dissolved
Lead	0.0094		0.0050		mg/L	1		6010B	Dissolved
Molybdenum	0.036		0.010		mg/L	1		6010B	Dissolved
Nickel	0.037		0.010		mg/L	1		6010B	Dissolved

## Client Sample ID: TRIPBLANKS

## Lab Sample ID: 720-58627-8

No Detections.

## Client Sample ID: A-1-4'

## Lab Sample ID: 720-58627-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	1.2		1.2		mg/Kg	1	*	8015B	Silica Gel Cleanup
Arsenic	2.5		1.1		mg/Kg	1	*	6010B	Total/NA
Barium	150		0.54		mg/Kg	1	*	6010B	Total/NA
Beryllium	0.30		0.11		mg/Kg	1	*	6010B	Total/NA
Chromium	26		0.54		mg/Kg	1	*	6010B	Total/NA
Cobalt	4.7		0.22		mg/Kg	1	*	6010B	Total/NA
Copper	14		1.6		mg/Kg	1	*	6010B	Total/NA
Lead	55		0.54		mg/Kg	1	*	6010B	Total/NA
Nickel	28		0.54		mg/Kg	1	*	6010B	Total/NA
Vanadium	18		0.54		mg/Kg	1	*	6010B	Total/NA
Zinc	23		1.6		mg/Kg	1	*	6010B	Total/NA
Mercury	0.043		0.011		mg/Kg	1	*	7471A	Total/NA

## Client Sample ID: A-3-4'

## Lab Sample ID: 720-58627-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	96		57		ug/Kg	1	*	8260B	Total/NA
Diesel Range Organics [C10-C28]	20		1.2		mg/Kg	1	*	8015B	Silica Gel Cleanup

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

# Detection Summary

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

## Client Sample ID: A-3-4' (Continued)

Lab Sample ID: 720-58627-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	9.0		2.2		mg/Kg	4	☼	6010B	Total/NA
Arsenic	15		4.4		mg/Kg	4	☼	6010B	Total/NA
Barium	180		2.2		mg/Kg	4	☼	6010B	Total/NA
Chromium	100		2.2		mg/Kg	4	☼	6010B	Total/NA
Cobalt	8.3		0.88		mg/Kg	4	☼	6010B	Total/NA
Copper	130		6.6		mg/Kg	4	☼	6010B	Total/NA
Lead	290		2.2		mg/Kg	4	☼	6010B	Total/NA
Molybdenum	6.6		2.2		mg/Kg	4	☼	6010B	Total/NA
Nickel	33		2.2		mg/Kg	4	☼	6010B	Total/NA
Vanadium	32		2.2		mg/Kg	4	☼	6010B	Total/NA
Zinc	250		6.6		mg/Kg	4	☼	6010B	Total/NA
Mercury	0.42		0.010		mg/Kg	1	☼	7471A	Total/NA

## Client Sample ID: A-4-4'

Lab Sample ID: 720-58627-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.8		0.93		mg/Kg	1	☼	6010B	Total/NA
Barium	57		0.46		mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.22		0.093		mg/Kg	1	☼	6010B	Total/NA
Chromium	35		0.46		mg/Kg	1	☼	6010B	Total/NA
Cobalt	4.3		0.19		mg/Kg	1	☼	6010B	Total/NA
Copper	8.4		1.4		mg/Kg	1	☼	6010B	Total/NA
Lead	2.0		0.46		mg/Kg	1	☼	6010B	Total/NA
Nickel	37		0.46		mg/Kg	1	☼	6010B	Total/NA
Vanadium	21		0.46		mg/Kg	1	☼	6010B	Total/NA
Zinc	20		1.4		mg/Kg	1	☼	6010B	Total/NA
Mercury	0.020		0.011		mg/Kg	1	☼	7471A	Total/NA

## Client Sample ID: A-6-4'

Lab Sample ID: 720-58627-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	2.3		1.1		mg/Kg	1	☼	8015B	Silica Gel Cleanup
Arsenic	2.4		1.1		mg/Kg	1	☼	6010B	Total/NA
Barium	65		0.54		mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.27		0.11		mg/Kg	1	☼	6010B	Total/NA
Chromium	30		0.54		mg/Kg	1	☼	6010B	Total/NA
Cobalt	1.6		0.22		mg/Kg	1	☼	6010B	Total/NA
Copper	7.1		1.6		mg/Kg	1	☼	6010B	Total/NA
Lead	7.0		0.54		mg/Kg	1	☼	6010B	Total/NA
Nickel	22		0.54		mg/Kg	1	☼	6010B	Total/NA
Vanadium	20		0.54		mg/Kg	1	☼	6010B	Total/NA
Zinc	22		1.6		mg/Kg	1	☼	6010B	Total/NA
Mercury	0.039		0.010		mg/Kg	1	☼	7471A	Total/NA

## Client Sample ID: A-7-4'

Lab Sample ID: 720-58627-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	43		1.3		mg/Kg	1	☼	8015B	Silica Gel Cleanup

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

# Detection Summary

Client: Geologica Inc  
 Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

## Client Sample ID: A-7-4' (Continued)

## Lab Sample ID: 720-58627-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Motor Oil Range Organics [C24-C36]	120		65		mg/Kg	1	☼	8015B	Silica Gel Cleanup
Arsenic	1.3		1.0		mg/Kg	1	☼	6010B	Total/NA
Barium	220		0.52		mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.56		0.10		mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.16		0.13		mg/Kg	1	☼	6010B	Total/NA
Chromium	35		0.52		mg/Kg	1	☼	6010B	Total/NA
Cobalt	6.5		0.21		mg/Kg	1	☼	6010B	Total/NA
Copper	26		1.6		mg/Kg	1	☼	6010B	Total/NA
Lead	14		0.52		mg/Kg	1	☼	6010B	Total/NA
Nickel	54		0.52		mg/Kg	1	☼	6010B	Total/NA
Vanadium	22		0.52		mg/Kg	1	☼	6010B	Total/NA
Zinc	45		1.6		mg/Kg	1	☼	6010B	Total/NA
Mercury	0.44		0.011		mg/Kg	1	☼	7471A	Total/NA

## Client Sample ID: A-8-4'

## Lab Sample ID: 720-58627-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.0		1.2		mg/Kg	1	☼	6010B	Total/NA
Barium	100		0.58		mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.28		0.12		mg/Kg	1	☼	6010B	Total/NA
Chromium	24		0.58		mg/Kg	1	☼	6010B	Total/NA
Cobalt	5.1		0.23		mg/Kg	1	☼	6010B	Total/NA
Copper	9.0		1.7		mg/Kg	1	☼	6010B	Total/NA
Lead	3.8		0.58		mg/Kg	1	☼	6010B	Total/NA
Nickel	21		0.58		mg/Kg	1	☼	6010B	Total/NA
Vanadium	15		0.58		mg/Kg	1	☼	6010B	Total/NA
Zinc	13		1.7		mg/Kg	1	☼	6010B	Total/NA
Mercury	0.031		0.010		mg/Kg	1	☼	7471A	Total/NA

## Client Sample ID: A-9-4'

## Lab Sample ID: 720-58627-29

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.2		1.1		mg/Kg	1	☼	6010B	Total/NA
Barium	48		0.55		mg/Kg	1	☼	6010B	Total/NA
Beryllium	0.24		0.11		mg/Kg	1	☼	6010B	Total/NA
Chromium	27		0.55		mg/Kg	1	☼	6010B	Total/NA
Cobalt	1.6		0.22		mg/Kg	1	☼	6010B	Total/NA
Copper	4.1		1.6		mg/Kg	1	☼	6010B	Total/NA
Lead	2.4		0.55		mg/Kg	1	☼	6010B	Total/NA
Nickel	19		0.55		mg/Kg	1	☼	6010B	Total/NA
Vanadium	19		0.55		mg/Kg	1	☼	6010B	Total/NA
Zinc	16		1.6		mg/Kg	1	☼	6010B	Total/NA
Mercury	0.025		0.0097		mg/Kg	1	☼	7471A	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

# Client Sample Results

Client: Geologica Inc  
 Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

**Client Sample ID: A-1A**

**Lab Sample ID: 720-58627-2**

**Date Collected: 07/14/14 15:00**

**Matrix: Water**

**Date Received: 07/14/14 17:40**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Methyl tert-butyl ether</b>	<b>2.6</b>		0.50		ug/L			07/17/14 02:04	1
Acetone	ND		50		ug/L			07/17/14 02:04	1
Benzene	ND		0.50		ug/L			07/17/14 02:04	1
Dichlorobromomethane	ND		0.50		ug/L			07/17/14 02:04	1
Bromobenzene	ND		1.0		ug/L			07/17/14 02:04	1
Chlorobromomethane	ND		1.0		ug/L			07/17/14 02:04	1
Bromoform	ND		1.0		ug/L			07/17/14 02:04	1
Bromomethane	ND		1.0		ug/L			07/17/14 02:04	1
2-Butanone (MEK)	ND		50		ug/L			07/17/14 02:04	1
n-Butylbenzene	ND		1.0		ug/L			07/17/14 02:04	1
sec-Butylbenzene	ND		1.0		ug/L			07/17/14 02:04	1
tert-Butylbenzene	ND		1.0		ug/L			07/17/14 02:04	1
Carbon disulfide	ND		5.0		ug/L			07/17/14 02:04	1
Carbon tetrachloride	ND		0.50		ug/L			07/17/14 02:04	1
Chlorobenzene	ND		0.50		ug/L			07/17/14 02:04	1
Chloroethane	ND		1.0		ug/L			07/17/14 02:04	1
Chloroform	ND		1.0		ug/L			07/17/14 02:04	1
Chloromethane	ND		1.0		ug/L			07/17/14 02:04	1
2-Chlorotoluene	ND		0.50		ug/L			07/17/14 02:04	1
4-Chlorotoluene	ND		0.50		ug/L			07/17/14 02:04	1
Chlorodibromomethane	ND		0.50		ug/L			07/17/14 02:04	1
1,2-Dichlorobenzene	ND		0.50		ug/L			07/17/14 02:04	1
1,3-Dichlorobenzene	ND		0.50		ug/L			07/17/14 02:04	1
1,4-Dichlorobenzene	ND		0.50		ug/L			07/17/14 02:04	1
1,3-Dichloropropane	ND		1.0		ug/L			07/17/14 02:04	1
1,1-Dichloropropene	ND		0.50		ug/L			07/17/14 02:04	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			07/17/14 02:04	1
Ethylene Dibromide	ND		0.50		ug/L			07/17/14 02:04	1
Dibromomethane	ND		0.50		ug/L			07/17/14 02:04	1
Dichlorodifluoromethane	ND		0.50		ug/L			07/17/14 02:04	1
1,1-Dichloroethane	ND		0.50		ug/L			07/17/14 02:04	1
1,2-Dichloroethane	ND		0.50		ug/L			07/17/14 02:04	1
1,1-Dichloroethene	ND		0.50		ug/L			07/17/14 02:04	1
<b>cis-1,2-Dichloroethene</b>	<b>19</b>		0.50		ug/L			07/17/14 02:04	1
<b>trans-1,2-Dichloroethene</b>	<b>0.52</b>		0.50		ug/L			07/17/14 02:04	1
1,2-Dichloropropane	ND		0.50		ug/L			07/17/14 02:04	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			07/17/14 02:04	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			07/17/14 02:04	1
Ethylbenzene	ND		0.50		ug/L			07/17/14 02:04	1
Hexachlorobutadiene	ND		1.0		ug/L			07/17/14 02:04	1
2-Hexanone	ND		50		ug/L			07/17/14 02:04	1
Isopropylbenzene	ND		0.50		ug/L			07/17/14 02:04	1
4-Isopropyltoluene	ND		1.0		ug/L			07/17/14 02:04	1
Methylene Chloride	ND		5.0		ug/L			07/17/14 02:04	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			07/17/14 02:04	1
Naphthalene	ND		1.0		ug/L			07/17/14 02:04	1
N-Propylbenzene	ND		1.0		ug/L			07/17/14 02:04	1
Styrene	ND		0.50		ug/L			07/17/14 02:04	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			07/17/14 02:04	1

TestAmerica Pleasanton



# Client Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

**Client Sample ID: A-1A**

**Lab Sample ID: 720-58627-2**

**Date Collected: 07/14/14 15:00**

**Matrix: Water**

**Date Received: 07/14/14 17:40**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			07/17/14 02:04	1
<b>Tetrachloroethene</b>	<b>120</b>		0.50		ug/L			07/17/14 02:04	1
Toluene	ND		0.50		ug/L			07/17/14 02:04	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			07/17/14 02:04	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			07/17/14 02:04	1
1,1,1-Trichloroethane	ND		0.50		ug/L			07/17/14 02:04	1
1,1,2-Trichloroethane	ND		0.50		ug/L			07/17/14 02:04	1
<b>Trichloroethene</b>	<b>70</b>		0.50		ug/L			07/17/14 02:04	1
Trichlorofluoromethane	ND		1.0		ug/L			07/17/14 02:04	1
1,2,3-Trichloropropane	ND		0.50		ug/L			07/17/14 02:04	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			07/17/14 02:04	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			07/17/14 02:04	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			07/17/14 02:04	1
Vinyl acetate	ND		10		ug/L			07/17/14 02:04	1
Vinyl chloride	ND		0.50		ug/L			07/17/14 02:04	1
Xylenes, Total	ND		1.0		ug/L			07/17/14 02:04	1
2,2-Dichloropropane	ND		0.50		ug/L			07/17/14 02:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		67 - 130		07/17/14 02:04	1
1,2-Dichloroethane-d4 (Surr)	101		72 - 130		07/17/14 02:04	1
Toluene-d8 (Surr)	101		70 - 130		07/17/14 02:04	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]	ND		51		ug/L		07/15/14 10:19	07/15/14 18:11	1
<b>Motor Oil Range Organics [C24-C36]</b>	<b>180</b>		100		ug/L		07/15/14 10:19	07/15/14 18:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.0002		0 - 5	07/15/14 10:19	07/15/14 18:11	1
p-Terphenyl	106		31 - 150	07/15/14 10:19	07/15/14 18:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		07/16/14 13:01	07/18/14 19:47	1
Arsenic	ND		0.010		mg/L		07/16/14 13:01	07/18/14 19:47	1
<b>Barium</b>	<b>0.098</b>		0.0050		mg/L		07/16/14 13:01	07/18/14 19:47	1
Beryllium	ND		0.0020		mg/L		07/16/14 13:01	07/18/14 19:47	1
Cadmium	ND		0.0020		mg/L		07/16/14 13:01	07/18/14 19:47	1
Chromium	ND		0.010		mg/L		07/16/14 13:01	07/18/14 19:47	1
<b>Cobalt</b>	<b>0.0022</b>		0.0020		mg/L		07/16/14 13:01	07/18/14 19:47	1
Copper	ND		0.020		mg/L		07/16/14 13:01	07/18/14 19:47	1
<b>Lead</b>	<b>0.013</b>		0.0050		mg/L		07/16/14 13:01	07/18/14 19:47	1
<b>Molybdenum</b>	<b>0.016</b>		0.010		mg/L		07/16/14 13:01	07/18/14 19:47	1
<b>Nickel</b>	<b>0.010</b>		0.010		mg/L		07/16/14 13:01	07/18/14 19:47	1
Selenium	ND		0.020		mg/L		07/16/14 13:01	07/18/14 19:47	1
Silver	ND		0.0050		mg/L		07/16/14 13:01	07/18/14 19:47	1
Thallium	ND		0.010		mg/L		07/16/14 13:01	07/18/14 19:47	1
Vanadium	ND		0.010		mg/L		07/16/14 13:01	07/18/14 19:47	1
<b>Zinc</b>	<b>0.022</b>		0.020		mg/L		07/16/14 13:01	07/18/14 19:47	1

TestAmerica Pleasanton

# Client Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

**Client Sample ID: A-1A**

**Lab Sample ID: 720-58627-2**

**Date Collected: 07/14/14 15:00**

**Matrix: Water**

**Date Received: 07/14/14 17:40**

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		07/17/14 17:40	07/17/14 21:20	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

# Client Sample Results

Client: Geologica Inc  
 Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

**Client Sample ID: A-3**

**Lab Sample ID: 720-58627-3**

**Date Collected: 07/14/14 11:40**

**Matrix: Water**

**Date Received: 07/14/14 17:40**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			07/17/14 02:33	1
Acetone	ND		50		ug/L			07/17/14 02:33	1
Benzene	ND		0.50		ug/L			07/17/14 02:33	1
Dichlorobromomethane	ND		0.50		ug/L			07/17/14 02:33	1
Bromobenzene	ND		1.0		ug/L			07/17/14 02:33	1
Chlorobromomethane	ND		1.0		ug/L			07/17/14 02:33	1
Bromoform	ND		1.0		ug/L			07/17/14 02:33	1
Bromomethane	ND		1.0		ug/L			07/17/14 02:33	1
2-Butanone (MEK)	ND		50		ug/L			07/17/14 02:33	1
n-Butylbenzene	ND		1.0		ug/L			07/17/14 02:33	1
sec-Butylbenzene	ND		1.0		ug/L			07/17/14 02:33	1
tert-Butylbenzene	ND		1.0		ug/L			07/17/14 02:33	1
Carbon disulfide	ND		5.0		ug/L			07/17/14 02:33	1
Carbon tetrachloride	ND		0.50		ug/L			07/17/14 02:33	1
Chlorobenzene	ND		0.50		ug/L			07/17/14 02:33	1
Chloroethane	ND		1.0		ug/L			07/17/14 02:33	1
Chloroform	ND		1.0		ug/L			07/17/14 02:33	1
Chloromethane	ND		1.0		ug/L			07/17/14 02:33	1
2-Chlorotoluene	ND		0.50		ug/L			07/17/14 02:33	1
4-Chlorotoluene	ND		0.50		ug/L			07/17/14 02:33	1
Chlorodibromomethane	ND		0.50		ug/L			07/17/14 02:33	1
1,2-Dichlorobenzene	ND		0.50		ug/L			07/17/14 02:33	1
1,3-Dichlorobenzene	ND		0.50		ug/L			07/17/14 02:33	1
1,4-Dichlorobenzene	ND		0.50		ug/L			07/17/14 02:33	1
1,3-Dichloropropane	ND		1.0		ug/L			07/17/14 02:33	1
1,1-Dichloropropene	ND		0.50		ug/L			07/17/14 02:33	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			07/17/14 02:33	1
Ethylene Dibromide	ND		0.50		ug/L			07/17/14 02:33	1
Dibromomethane	ND		0.50		ug/L			07/17/14 02:33	1
Dichlorodifluoromethane	ND		0.50		ug/L			07/17/14 02:33	1
1,1-Dichloroethane	ND		0.50		ug/L			07/17/14 02:33	1
1,2-Dichloroethane	ND		0.50		ug/L			07/17/14 02:33	1
1,1-Dichloroethene	ND		0.50		ug/L			07/17/14 02:33	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			07/17/14 02:33	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			07/17/14 02:33	1
1,2-Dichloropropane	ND		0.50		ug/L			07/17/14 02:33	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			07/17/14 02:33	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			07/17/14 02:33	1
Ethylbenzene	ND		0.50		ug/L			07/17/14 02:33	1
Hexachlorobutadiene	ND		1.0		ug/L			07/17/14 02:33	1
2-Hexanone	ND		50		ug/L			07/17/14 02:33	1
Isopropylbenzene	ND		0.50		ug/L			07/17/14 02:33	1
4-Isopropyltoluene	ND		1.0		ug/L			07/17/14 02:33	1
Methylene Chloride	ND		5.0		ug/L			07/17/14 02:33	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			07/17/14 02:33	1
Naphthalene	ND		1.0		ug/L			07/17/14 02:33	1
N-Propylbenzene	ND		1.0		ug/L			07/17/14 02:33	1
Styrene	ND		0.50		ug/L			07/17/14 02:33	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			07/17/14 02:33	1

TestAmerica Pleasanton

# Client Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

**Client Sample ID: A-3**

**Lab Sample ID: 720-58627-3**

Date Collected: 07/14/14 11:40

Matrix: Water

Date Received: 07/14/14 17:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			07/17/14 02:33	1
Tetrachloroethene	ND		0.50		ug/L			07/17/14 02:33	1
Toluene	ND		0.50		ug/L			07/17/14 02:33	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			07/17/14 02:33	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			07/17/14 02:33	1
1,1,1-Trichloroethane	ND		0.50		ug/L			07/17/14 02:33	1
1,1,2-Trichloroethane	ND		0.50		ug/L			07/17/14 02:33	1
Trichloroethene	ND		0.50		ug/L			07/17/14 02:33	1
Trichlorofluoromethane	ND		1.0		ug/L			07/17/14 02:33	1
1,2,3-Trichloropropane	ND		0.50		ug/L			07/17/14 02:33	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			07/17/14 02:33	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			07/17/14 02:33	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			07/17/14 02:33	1
Vinyl acetate	ND		10		ug/L			07/17/14 02:33	1
Vinyl chloride	ND		0.50		ug/L			07/17/14 02:33	1
Xylenes, Total	ND		1.0		ug/L			07/17/14 02:33	1
2,2-Dichloropropane	ND		0.50		ug/L			07/17/14 02:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97		67 - 130		07/17/14 02:33	1
1,2-Dichloroethane-d4 (Surr)	107		72 - 130		07/17/14 02:33	1
Toluene-d8 (Surr)	101		70 - 130		07/17/14 02:33	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>8500</b>		160		ug/L		07/15/14 10:19	07/15/14 20:37	3
<b>Motor Oil Range Organics [C24-C36]</b>	<b>9900</b>		320		ug/L		07/15/14 10:19	07/15/14 20:37	3

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.6		0 - 5	07/15/14 10:19	07/15/14 20:37	3
p-Terphenyl	81		31 - 150	07/15/14 10:19	07/15/14 20:37	3

## Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		07/16/14 13:01	07/18/14 12:50	1
Arsenic	ND		0.010		mg/L		07/16/14 13:01	07/18/14 12:50	1
<b>Barium</b>	<b>0.32</b>		0.0050		mg/L		07/16/14 13:01	07/18/14 12:50	1
Beryllium	ND		0.0020		mg/L		07/16/14 13:01	07/18/14 12:50	1
Cadmium	ND		0.0020		mg/L		07/16/14 13:01	07/18/14 12:50	1
Chromium	ND		0.010		mg/L		07/16/14 13:01	07/18/14 12:50	1
<b>Cobalt</b>	<b>0.086</b>		0.0020		mg/L		07/16/14 13:01	07/18/14 12:50	1
Copper	ND		0.020		mg/L		07/16/14 13:01	07/18/14 12:50	1
Lead	ND		0.0050		mg/L		07/16/14 13:01	07/18/14 12:50	1
<b>Molybdenum</b>	<b>0.067</b>		0.010		mg/L		07/16/14 13:01	07/18/14 12:50	1
<b>Nickel</b>	<b>0.34</b>		0.010		mg/L		07/16/14 13:01	07/18/14 12:50	1
Selenium	ND		0.020		mg/L		07/16/14 13:01	07/18/14 12:50	1
Silver	ND		0.0050		mg/L		07/16/14 13:01	07/18/14 12:50	1
Thallium	ND		0.010		mg/L		07/16/14 13:01	07/18/14 12:50	1
Vanadium	ND		0.010		mg/L		07/16/14 13:01	07/18/14 12:50	1
<b>Zinc</b>	<b>0.044</b>		0.020		mg/L		07/16/14 13:01	07/18/14 12:50	1

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# Client Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

**Client Sample ID: A-3**

**Lab Sample ID: 720-58627-3**

**Date Collected: 07/14/14 11:40**

**Matrix: Water**

**Date Received: 07/14/14 17:40**

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0011		0.00020		mg/L		07/17/14 17:40	07/17/14 21:18	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

# Client Sample Results

Client: Geologica Inc  
 Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

**Client Sample ID: A-4**

**Lab Sample ID: 720-58627-4**

**Date Collected: 07/14/14 13:50**

**Matrix: Water**

**Date Received: 07/14/14 17:40**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Methyl tert-butyl ether</b>	<b>1.1</b>		0.50		ug/L			07/17/14 03:02	1
Acetone	ND		50		ug/L			07/17/14 03:02	1
Benzene	ND		0.50		ug/L			07/17/14 03:02	1
Dichlorobromomethane	ND		0.50		ug/L			07/17/14 03:02	1
Bromobenzene	ND		1.0		ug/L			07/17/14 03:02	1
Chlorobromomethane	ND		1.0		ug/L			07/17/14 03:02	1
Bromoform	ND		1.0		ug/L			07/17/14 03:02	1
Bromomethane	ND		1.0		ug/L			07/17/14 03:02	1
2-Butanone (MEK)	ND		50		ug/L			07/17/14 03:02	1
n-Butylbenzene	ND		1.0		ug/L			07/17/14 03:02	1
sec-Butylbenzene	ND		1.0		ug/L			07/17/14 03:02	1
tert-Butylbenzene	ND		1.0		ug/L			07/17/14 03:02	1
Carbon disulfide	ND		5.0		ug/L			07/17/14 03:02	1
Carbon tetrachloride	ND		0.50		ug/L			07/17/14 03:02	1
Chlorobenzene	ND		0.50		ug/L			07/17/14 03:02	1
Chloroethane	ND		1.0		ug/L			07/17/14 03:02	1
Chloroform	ND		1.0		ug/L			07/17/14 03:02	1
Chloromethane	ND		1.0		ug/L			07/17/14 03:02	1
2-Chlorotoluene	ND		0.50		ug/L			07/17/14 03:02	1
4-Chlorotoluene	ND		0.50		ug/L			07/17/14 03:02	1
Chlorodibromomethane	ND		0.50		ug/L			07/17/14 03:02	1
1,2-Dichlorobenzene	ND		0.50		ug/L			07/17/14 03:02	1
1,3-Dichlorobenzene	ND		0.50		ug/L			07/17/14 03:02	1
1,4-Dichlorobenzene	ND		0.50		ug/L			07/17/14 03:02	1
1,3-Dichloropropane	ND		1.0		ug/L			07/17/14 03:02	1
1,1-Dichloropropene	ND		0.50		ug/L			07/17/14 03:02	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			07/17/14 03:02	1
Ethylene Dibromide	ND		0.50		ug/L			07/17/14 03:02	1
Dibromomethane	ND		0.50		ug/L			07/17/14 03:02	1
Dichlorodifluoromethane	ND		0.50		ug/L			07/17/14 03:02	1
1,1-Dichloroethane	ND		0.50		ug/L			07/17/14 03:02	1
1,2-Dichloroethane	ND		0.50		ug/L			07/17/14 03:02	1
1,1-Dichloroethene	ND		0.50		ug/L			07/17/14 03:02	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			07/17/14 03:02	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			07/17/14 03:02	1
1,2-Dichloropropane	ND		0.50		ug/L			07/17/14 03:02	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			07/17/14 03:02	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			07/17/14 03:02	1
Ethylbenzene	ND		0.50		ug/L			07/17/14 03:02	1
Hexachlorobutadiene	ND		1.0		ug/L			07/17/14 03:02	1
2-Hexanone	ND		50		ug/L			07/17/14 03:02	1
Isopropylbenzene	ND		0.50		ug/L			07/17/14 03:02	1
4-Isopropyltoluene	ND		1.0		ug/L			07/17/14 03:02	1
Methylene Chloride	ND		5.0		ug/L			07/17/14 03:02	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			07/17/14 03:02	1
Naphthalene	ND		1.0		ug/L			07/17/14 03:02	1
N-Propylbenzene	ND		1.0		ug/L			07/17/14 03:02	1
Styrene	ND		0.50		ug/L			07/17/14 03:02	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			07/17/14 03:02	1

TestAmerica Pleasanton

# Client Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

**Client Sample ID: A-4**

**Lab Sample ID: 720-58627-4**

Date Collected: 07/14/14 13:50

Matrix: Water

Date Received: 07/14/14 17:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			07/17/14 03:02	1
Tetrachloroethene	ND		0.50		ug/L			07/17/14 03:02	1
Toluene	ND		0.50		ug/L			07/17/14 03:02	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			07/17/14 03:02	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			07/17/14 03:02	1
1,1,1-Trichloroethane	ND		0.50		ug/L			07/17/14 03:02	1
1,1,2-Trichloroethane	ND		0.50		ug/L			07/17/14 03:02	1
Trichloroethene	ND		0.50		ug/L			07/17/14 03:02	1
Trichlorofluoromethane	ND		1.0		ug/L			07/17/14 03:02	1
1,2,3-Trichloropropane	ND		0.50		ug/L			07/17/14 03:02	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			07/17/14 03:02	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			07/17/14 03:02	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			07/17/14 03:02	1
Vinyl acetate	ND		10		ug/L			07/17/14 03:02	1
<b>Vinyl chloride</b>	<b>4.0</b>		0.50		ug/L			07/17/14 03:02	1
Xylenes, Total	ND		1.0		ug/L			07/17/14 03:02	1
2,2-Dichloropropane	ND		0.50		ug/L			07/17/14 03:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		67 - 130		07/17/14 03:02	1
1,2-Dichloroethane-d4 (Surr)	100		72 - 130		07/17/14 03:02	1
Toluene-d8 (Surr)	102		70 - 130		07/17/14 03:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		07/16/14 13:01	07/18/14 12:56	1
Arsenic	ND		0.010		mg/L		07/16/14 13:01	07/18/14 12:56	1
<b>Barium</b>	<b>0.11</b>		0.0050		mg/L		07/16/14 13:01	07/18/14 12:56	1
Beryllium	ND		0.0020		mg/L		07/16/14 13:01	07/18/14 12:56	1
Cadmium	ND		0.0020		mg/L		07/16/14 13:01	07/18/14 12:56	1
Chromium	ND		0.010		mg/L		07/16/14 13:01	07/18/14 12:56	1
Cobalt	ND		0.0020		mg/L		07/16/14 13:01	07/18/14 12:56	1
Copper	ND		0.020		mg/L		07/16/14 13:01	07/18/14 12:56	1
<b>Lead</b>	<b>0.0095</b>		0.0050		mg/L		07/16/14 13:01	07/18/14 12:56	1
<b>Molybdenum</b>	<b>0.015</b>		0.010		mg/L		07/16/14 13:01	07/18/14 12:56	1
Nickel	ND		0.010		mg/L		07/16/14 13:01	07/18/14 12:56	1
Selenium	ND		0.020		mg/L		07/16/14 13:01	07/18/14 12:56	1
Silver	ND		0.0050		mg/L		07/16/14 13:01	07/18/14 12:56	1
Thallium	ND		0.010		mg/L		07/16/14 13:01	07/18/14 12:56	1
Vanadium	ND		0.010		mg/L		07/16/14 13:01	07/18/14 12:56	1
<b>Zinc</b>	<b>0.020</b>		0.020		mg/L		07/16/14 13:01	07/18/14 12:56	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		07/17/14 17:40	07/17/14 21:22	1

TestAmerica Pleasanton

# Client Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

**Client Sample ID: A-5**

**Lab Sample ID: 720-58627-5**

**Date Collected: 07/14/14 09:00**

**Matrix: Water**

**Date Received: 07/14/14 17:40**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Methyl tert-butyl ether</b>	<b>6.1</b>		0.50		ug/L			07/17/14 03:30	1
Acetone	ND		50		ug/L			07/17/14 03:30	1
Benzene	ND		0.50		ug/L			07/17/14 03:30	1
Dichlorobromomethane	ND		0.50		ug/L			07/17/14 03:30	1
Bromobenzene	ND		1.0		ug/L			07/17/14 03:30	1
Chlorobromomethane	ND		1.0		ug/L			07/17/14 03:30	1
Bromoform	ND		1.0		ug/L			07/17/14 03:30	1
Bromomethane	ND		1.0		ug/L			07/17/14 03:30	1
2-Butanone (MEK)	ND		50		ug/L			07/17/14 03:30	1
n-Butylbenzene	ND		1.0		ug/L			07/17/14 03:30	1
sec-Butylbenzene	ND		1.0		ug/L			07/17/14 03:30	1
tert-Butylbenzene	ND		1.0		ug/L			07/17/14 03:30	1
Carbon disulfide	ND		5.0		ug/L			07/17/14 03:30	1
Carbon tetrachloride	ND		0.50		ug/L			07/17/14 03:30	1
Chlorobenzene	ND		0.50		ug/L			07/17/14 03:30	1
Chloroethane	ND		1.0		ug/L			07/17/14 03:30	1
Chloroform	ND		1.0		ug/L			07/17/14 03:30	1
Chloromethane	ND		1.0		ug/L			07/17/14 03:30	1
2-Chlorotoluene	ND		0.50		ug/L			07/17/14 03:30	1
4-Chlorotoluene	ND		0.50		ug/L			07/17/14 03:30	1
Chlorodibromomethane	ND		0.50		ug/L			07/17/14 03:30	1
1,2-Dichlorobenzene	ND		0.50		ug/L			07/17/14 03:30	1
1,3-Dichlorobenzene	ND		0.50		ug/L			07/17/14 03:30	1
1,4-Dichlorobenzene	ND		0.50		ug/L			07/17/14 03:30	1
1,3-Dichloropropane	ND		1.0		ug/L			07/17/14 03:30	1
1,1-Dichloropropene	ND		0.50		ug/L			07/17/14 03:30	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			07/17/14 03:30	1
Ethylene Dibromide	ND		0.50		ug/L			07/17/14 03:30	1
Dibromomethane	ND		0.50		ug/L			07/17/14 03:30	1
Dichlorodifluoromethane	ND		0.50		ug/L			07/17/14 03:30	1
1,1-Dichloroethane	ND		0.50		ug/L			07/17/14 03:30	1
1,2-Dichloroethane	ND		0.50		ug/L			07/17/14 03:30	1
1,1-Dichloroethene	ND		0.50		ug/L			07/17/14 03:30	1
<b>cis-1,2-Dichloroethene</b>	<b>13</b>		0.50		ug/L			07/17/14 03:30	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			07/17/14 03:30	1
1,2-Dichloropropane	ND		0.50		ug/L			07/17/14 03:30	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			07/17/14 03:30	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			07/17/14 03:30	1
Ethylbenzene	ND		0.50		ug/L			07/17/14 03:30	1
Hexachlorobutadiene	ND		1.0		ug/L			07/17/14 03:30	1
2-Hexanone	ND		50		ug/L			07/17/14 03:30	1
Isopropylbenzene	ND		0.50		ug/L			07/17/14 03:30	1
4-Isopropyltoluene	ND		1.0		ug/L			07/17/14 03:30	1
Methylene Chloride	ND		5.0		ug/L			07/17/14 03:30	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			07/17/14 03:30	1
Naphthalene	ND		1.0		ug/L			07/17/14 03:30	1
N-Propylbenzene	ND		1.0		ug/L			07/17/14 03:30	1
Styrene	ND		0.50		ug/L			07/17/14 03:30	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			07/17/14 03:30	1

TestAmerica Pleasanton



# Client Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

**Client Sample ID: A-5**

**Lab Sample ID: 720-58627-5**

Date Collected: 07/14/14 09:00

Matrix: Water

Date Received: 07/14/14 17:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			07/17/14 03:30	1
<b>Tetrachloroethene</b>	<b>160</b>		0.50		ug/L			07/17/14 03:30	1
Toluene	ND		0.50		ug/L			07/17/14 03:30	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			07/17/14 03:30	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			07/17/14 03:30	1
1,1,1-Trichloroethane	ND		0.50		ug/L			07/17/14 03:30	1
1,1,2-Trichloroethane	ND		0.50		ug/L			07/17/14 03:30	1
<b>Trichloroethene</b>	<b>48</b>		0.50		ug/L			07/17/14 03:30	1
Trichlorofluoromethane	ND		1.0		ug/L			07/17/14 03:30	1
1,2,3-Trichloropropane	ND		0.50		ug/L			07/17/14 03:30	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			07/17/14 03:30	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			07/17/14 03:30	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			07/17/14 03:30	1
Vinyl acetate	ND		10		ug/L			07/17/14 03:30	1
Vinyl chloride	ND		0.50		ug/L			07/17/14 03:30	1
Xylenes, Total	ND		1.0		ug/L			07/17/14 03:30	1
2,2-Dichloropropane	ND		0.50		ug/L			07/17/14 03:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97		67 - 130		07/17/14 03:30	1
1,2-Dichloroethane-d4 (Surr)	104		72 - 130		07/17/14 03:30	1
Toluene-d8 (Surr)	102		70 - 130		07/17/14 03:30	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		60		ug/L		07/15/14 10:19	07/15/14 19:00	1
Motor Oil Range Organics [C24-C36]	ND		120		ug/L		07/15/14 10:19	07/15/14 19:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0		0 - 5	07/15/14 10:19	07/15/14 19:00	1
p-Terphenyl	94		31 - 150	07/15/14 10:19	07/15/14 19:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		07/16/14 13:01	07/18/14 13:11	1
Arsenic	ND		0.010		mg/L		07/16/14 13:01	07/18/14 13:11	1
<b>Barium</b>	<b>0.15</b>		0.0050		mg/L		07/16/14 13:01	07/18/14 13:11	1
Beryllium	ND		0.0020		mg/L		07/16/14 13:01	07/18/14 13:11	1
Cadmium	ND		0.0020		mg/L		07/16/14 13:01	07/18/14 13:11	1
Chromium	ND		0.010		mg/L		07/16/14 13:01	07/18/14 13:11	1
Cobalt	ND		0.0020		mg/L		07/16/14 13:01	07/18/14 13:11	1
Copper	ND		0.020		mg/L		07/16/14 13:01	07/18/14 13:11	1
<b>Lead</b>	<b>0.0067</b>		0.0050		mg/L		07/16/14 13:01	07/18/14 13:11	1
<b>Molybdenum</b>	<b>0.019</b>		0.010		mg/L		07/16/14 13:01	07/18/14 13:11	1
Nickel	ND		0.010		mg/L		07/16/14 13:01	07/18/14 13:11	1
Selenium	ND		0.020		mg/L		07/16/14 13:01	07/18/14 13:11	1
Silver	ND		0.0050		mg/L		07/16/14 13:01	07/18/14 13:11	1
Thallium	ND		0.010		mg/L		07/16/14 13:01	07/18/14 13:11	1
<b>Vanadium</b>	<b>0.11</b>		0.010		mg/L		07/16/14 13:01	07/18/14 13:11	1
Zinc	ND		0.020		mg/L		07/16/14 13:01	07/18/14 13:11	1

TestAmerica Pleasanton

# Client Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

**Client Sample ID: A-5**

**Lab Sample ID: 720-58627-5**

**Date Collected: 07/14/14 09:00**

**Matrix: Water**

**Date Received: 07/14/14 17:40**

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		07/17/14 17:40	07/17/14 21:30	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

# Client Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

**Client Sample ID: A-8**

**Lab Sample ID: 720-58627-6**

**Date Collected: 07/14/14 12:15**

**Matrix: Water**

**Date Received: 07/14/14 17:40**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			07/17/14 03:59	1
Acetone	ND		50		ug/L			07/17/14 03:59	1
Benzene	ND		0.50		ug/L			07/17/14 03:59	1
Dichlorobromomethane	ND		0.50		ug/L			07/17/14 03:59	1
Bromobenzene	ND		1.0		ug/L			07/17/14 03:59	1
Chlorobromomethane	ND		1.0		ug/L			07/17/14 03:59	1
Bromoform	ND		1.0		ug/L			07/17/14 03:59	1
Bromomethane	ND		1.0		ug/L			07/17/14 03:59	1
2-Butanone (MEK)	ND		50		ug/L			07/17/14 03:59	1
n-Butylbenzene	ND		1.0		ug/L			07/17/14 03:59	1
sec-Butylbenzene	ND		1.0		ug/L			07/17/14 03:59	1
tert-Butylbenzene	ND		1.0		ug/L			07/17/14 03:59	1
Carbon disulfide	ND		5.0		ug/L			07/17/14 03:59	1
Carbon tetrachloride	ND		0.50		ug/L			07/17/14 03:59	1
Chlorobenzene	ND		0.50		ug/L			07/17/14 03:59	1
Chloroethane	ND		1.0		ug/L			07/17/14 03:59	1
Chloroform	ND		1.0		ug/L			07/17/14 03:59	1
Chloromethane	ND		1.0		ug/L			07/17/14 03:59	1
2-Chlorotoluene	ND		0.50		ug/L			07/17/14 03:59	1
4-Chlorotoluene	ND		0.50		ug/L			07/17/14 03:59	1
Chlorodibromomethane	ND		0.50		ug/L			07/17/14 03:59	1
1,2-Dichlorobenzene	ND		0.50		ug/L			07/17/14 03:59	1
1,3-Dichlorobenzene	ND		0.50		ug/L			07/17/14 03:59	1
1,4-Dichlorobenzene	ND		0.50		ug/L			07/17/14 03:59	1
1,3-Dichloropropane	ND		1.0		ug/L			07/17/14 03:59	1
1,1-Dichloropropene	ND		0.50		ug/L			07/17/14 03:59	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			07/17/14 03:59	1
Ethylene Dibromide	ND		0.50		ug/L			07/17/14 03:59	1
Dibromomethane	ND		0.50		ug/L			07/17/14 03:59	1
Dichlorodifluoromethane	ND		0.50		ug/L			07/17/14 03:59	1
1,1-Dichloroethane	ND		0.50		ug/L			07/17/14 03:59	1
<b>1,2-Dichloroethane</b>	<b>1.7</b>		0.50		ug/L			07/17/14 03:59	1
<b>1,1-Dichloroethene</b>	<b>0.79</b>		0.50		ug/L			07/17/14 03:59	1
<b>cis-1,2-Dichloroethene</b>	<b>54</b>		0.50		ug/L			07/17/14 03:59	1
<b>trans-1,2-Dichloroethene</b>	<b>10</b>		0.50		ug/L			07/17/14 03:59	1
1,2-Dichloropropane	ND		0.50		ug/L			07/17/14 03:59	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			07/17/14 03:59	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			07/17/14 03:59	1
Ethylbenzene	ND		0.50		ug/L			07/17/14 03:59	1
Hexachlorobutadiene	ND		1.0		ug/L			07/17/14 03:59	1
2-Hexanone	ND		50		ug/L			07/17/14 03:59	1
Isopropylbenzene	ND		0.50		ug/L			07/17/14 03:59	1
4-Isopropyltoluene	ND		1.0		ug/L			07/17/14 03:59	1
Methylene Chloride	ND		5.0		ug/L			07/17/14 03:59	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			07/17/14 03:59	1
Naphthalene	ND		1.0		ug/L			07/17/14 03:59	1
N-Propylbenzene	ND		1.0		ug/L			07/17/14 03:59	1
Styrene	ND		0.50		ug/L			07/17/14 03:59	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			07/17/14 03:59	1

TestAmerica Pleasanton

# Client Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

**Client Sample ID: A-8**

**Lab Sample ID: 720-58627-6**

Date Collected: 07/14/14 12:15

Matrix: Water

Date Received: 07/14/14 17:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			07/17/14 03:59	1
<b>Tetrachloroethene</b>	<b>9.8</b>		0.50		ug/L			07/17/14 03:59	1
Toluene	ND		0.50		ug/L			07/17/14 03:59	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			07/17/14 03:59	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			07/17/14 03:59	1
1,1,1-Trichloroethane	ND		0.50		ug/L			07/17/14 03:59	1
1,1,2-Trichloroethane	ND		0.50		ug/L			07/17/14 03:59	1
<b>Trichloroethene</b>	<b>69</b>		0.50		ug/L			07/17/14 03:59	1
Trichlorofluoromethane	ND		1.0		ug/L			07/17/14 03:59	1
1,2,3-Trichloropropane	ND		0.50		ug/L			07/17/14 03:59	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			07/17/14 03:59	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			07/17/14 03:59	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			07/17/14 03:59	1
Vinyl acetate	ND		10		ug/L			07/17/14 03:59	1
<b>Vinyl chloride</b>	<b>1.8</b>		0.50		ug/L			07/17/14 03:59	1
Xylenes, Total	ND		1.0		ug/L			07/17/14 03:59	1
2,2-Dichloropropane	ND		0.50		ug/L			07/17/14 03:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	96		67 - 130		07/17/14 03:59	1
1,2-Dichloroethane-d4 (Surr)	100		72 - 130		07/17/14 03:59	1
Toluene-d8 (Surr)	102		70 - 130		07/17/14 03:59	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		48		ug/L		07/15/14 10:19	07/15/14 17:15	1
Motor Oil Range Organics [C24-C36]	ND		95		ug/L		07/15/14 10:19	07/15/14 17:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.1		0 - 5	07/15/14 10:19	07/15/14 17:15	1
p-Terphenyl	91		31 - 150	07/15/14 10:19	07/15/14 17:15	1

## Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		07/16/14 13:01	07/18/14 13:15	1
Arsenic	ND		0.010		mg/L		07/16/14 13:01	07/18/14 13:15	1
<b>Barium</b>	<b>0.087</b>		0.0050		mg/L		07/16/14 13:01	07/18/14 13:15	1
Beryllium	ND		0.0020		mg/L		07/16/14 13:01	07/18/14 13:15	1
Cadmium	ND		0.0020		mg/L		07/16/14 13:01	07/18/14 13:15	1
Chromium	ND		0.010		mg/L		07/16/14 13:01	07/18/14 13:15	1
Cobalt	ND		0.0020		mg/L		07/16/14 13:01	07/18/14 13:15	1
Copper	ND		0.020		mg/L		07/16/14 13:01	07/18/14 13:15	1
<b>Lead</b>	<b>0.0094</b>		0.0050		mg/L		07/16/14 13:01	07/18/14 13:15	1
<b>Molybdenum</b>	<b>0.022</b>		0.010		mg/L		07/16/14 13:01	07/18/14 13:15	1
<b>Nickel</b>	<b>0.023</b>		0.010		mg/L		07/16/14 13:01	07/18/14 13:15	1
Selenium	ND		0.020		mg/L		07/16/14 13:01	07/18/14 13:15	1
Silver	ND		0.0050		mg/L		07/16/14 13:01	07/18/14 13:15	1
Thallium	ND		0.010		mg/L		07/16/14 13:01	07/18/14 13:15	1
<b>Vanadium</b>	<b>0.047</b>		0.010		mg/L		07/16/14 13:01	07/18/14 13:15	1
Zinc	ND		0.020		mg/L		07/16/14 13:01	07/18/14 13:15	1

TestAmerica Pleasanton

# Client Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

**Client Sample ID: A-8**

**Lab Sample ID: 720-58627-6**

**Date Collected: 07/14/14 12:15**

**Matrix: Water**

**Date Received: 07/14/14 17:40**

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		07/17/14 17:40	07/17/14 21:33	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

# Client Sample Results

Client: Geologica Inc  
 Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

**Client Sample ID: A-9**

**Lab Sample ID: 720-58627-7**

**Date Collected: 07/14/14 13:55**

**Matrix: Water**

**Date Received: 07/14/14 17:40**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			07/17/14 04:27	1
Acetone	ND		50		ug/L			07/17/14 04:27	1
Benzene	ND		0.50		ug/L			07/17/14 04:27	1
Dichlorobromomethane	ND		0.50		ug/L			07/17/14 04:27	1
Bromobenzene	ND		1.0		ug/L			07/17/14 04:27	1
Chlorobromomethane	ND		1.0		ug/L			07/17/14 04:27	1
Bromoform	ND		1.0		ug/L			07/17/14 04:27	1
Bromomethane	ND		1.0		ug/L			07/17/14 04:27	1
2-Butanone (MEK)	ND		50		ug/L			07/17/14 04:27	1
n-Butylbenzene	ND		1.0		ug/L			07/17/14 04:27	1
sec-Butylbenzene	ND		1.0		ug/L			07/17/14 04:27	1
tert-Butylbenzene	ND		1.0		ug/L			07/17/14 04:27	1
Carbon disulfide	ND		5.0		ug/L			07/17/14 04:27	1
Carbon tetrachloride	ND		0.50		ug/L			07/17/14 04:27	1
Chlorobenzene	ND		0.50		ug/L			07/17/14 04:27	1
Chloroethane	ND		1.0		ug/L			07/17/14 04:27	1
Chloroform	ND		1.0		ug/L			07/17/14 04:27	1
Chloromethane	ND		1.0		ug/L			07/17/14 04:27	1
2-Chlorotoluene	ND		0.50		ug/L			07/17/14 04:27	1
4-Chlorotoluene	ND		0.50		ug/L			07/17/14 04:27	1
Chlorodibromomethane	ND		0.50		ug/L			07/17/14 04:27	1
1,2-Dichlorobenzene	ND		0.50		ug/L			07/17/14 04:27	1
1,3-Dichlorobenzene	ND		0.50		ug/L			07/17/14 04:27	1
1,4-Dichlorobenzene	ND		0.50		ug/L			07/17/14 04:27	1
1,3-Dichloropropane	ND		1.0		ug/L			07/17/14 04:27	1
1,1-Dichloropropene	ND		0.50		ug/L			07/17/14 04:27	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			07/17/14 04:27	1
Ethylene Dibromide	ND		0.50		ug/L			07/17/14 04:27	1
Dibromomethane	ND		0.50		ug/L			07/17/14 04:27	1
Dichlorodifluoromethane	ND		0.50		ug/L			07/17/14 04:27	1
1,1-Dichloroethane	ND		0.50		ug/L			07/17/14 04:27	1
1,2-Dichloroethane	ND		0.50		ug/L			07/17/14 04:27	1
1,1-Dichloroethene	ND		0.50		ug/L			07/17/14 04:27	1
<b>cis-1,2-Dichloroethene</b>	<b>19</b>		0.50		ug/L			07/17/14 04:27	1
<b>trans-1,2-Dichloroethene</b>	<b>2.8</b>		0.50		ug/L			07/17/14 04:27	1
1,2-Dichloropropane	ND		0.50		ug/L			07/17/14 04:27	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			07/17/14 04:27	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			07/17/14 04:27	1
Ethylbenzene	ND		0.50		ug/L			07/17/14 04:27	1
Hexachlorobutadiene	ND		1.0		ug/L			07/17/14 04:27	1
2-Hexanone	ND		50		ug/L			07/17/14 04:27	1
Isopropylbenzene	ND		0.50		ug/L			07/17/14 04:27	1
4-Isopropyltoluene	ND		1.0		ug/L			07/17/14 04:27	1
Methylene Chloride	ND		5.0		ug/L			07/17/14 04:27	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			07/17/14 04:27	1
Naphthalene	ND		1.0		ug/L			07/17/14 04:27	1
N-Propylbenzene	ND		1.0		ug/L			07/17/14 04:27	1
Styrene	ND		0.50		ug/L			07/17/14 04:27	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			07/17/14 04:27	1

TestAmerica Pleasanton

# Client Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

**Client Sample ID: A-9**

**Lab Sample ID: 720-58627-7**

Date Collected: 07/14/14 13:55

Matrix: Water

Date Received: 07/14/14 17:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			07/17/14 04:27	1
Tetrachloroethene	ND		0.50		ug/L			07/17/14 04:27	1
Toluene	ND		0.50		ug/L			07/17/14 04:27	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			07/17/14 04:27	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			07/17/14 04:27	1
1,1,1-Trichloroethane	ND		0.50		ug/L			07/17/14 04:27	1
1,1,2-Trichloroethane	ND		0.50		ug/L			07/17/14 04:27	1
<b>Trichloroethene</b>	<b>4.6</b>		0.50		ug/L			07/17/14 04:27	1
Trichlorofluoromethane	ND		1.0		ug/L			07/17/14 04:27	1
1,2,3-Trichloropropane	ND		0.50		ug/L			07/17/14 04:27	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			07/17/14 04:27	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			07/17/14 04:27	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			07/17/14 04:27	1
Vinyl acetate	ND		10		ug/L			07/17/14 04:27	1
Vinyl chloride	ND		0.50		ug/L			07/17/14 04:27	1
Xylenes, Total	ND		1.0		ug/L			07/17/14 04:27	1
2,2-Dichloropropane	ND		0.50		ug/L			07/17/14 04:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97		67 - 130		07/17/14 04:27	1
1,2-Dichloroethane-d4 (Surr)	101		72 - 130		07/17/14 04:27	1
Toluene-d8 (Surr)	102		70 - 130		07/17/14 04:27	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]	ND		52		ug/L		07/15/14 10:19	07/15/14 16:51	1
Motor Oil Range Organics [C24-C36]	ND		100		ug/L		07/15/14 10:19	07/15/14 16:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0		0 - 5	07/15/14 10:19	07/15/14 16:51	1
p-Terphenyl	90		31 - 150	07/15/14 10:19	07/15/14 16:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		07/16/14 13:01	07/18/14 13:20	1
Arsenic	ND		0.010		mg/L		07/16/14 13:01	07/18/14 13:20	1
<b>Barium</b>	<b>0.22</b>		0.0050		mg/L		07/16/14 13:01	07/18/14 13:20	1
Beryllium	ND		0.0020		mg/L		07/16/14 13:01	07/18/14 13:20	1
Cadmium	ND		0.0020		mg/L		07/16/14 13:01	07/18/14 13:20	1
Chromium	ND		0.010		mg/L		07/16/14 13:01	07/18/14 13:20	1
Cobalt	ND		0.0020		mg/L		07/16/14 13:01	07/18/14 13:20	1
Copper	ND		0.020		mg/L		07/16/14 13:01	07/18/14 13:20	1
<b>Lead</b>	<b>0.0094</b>		0.0050		mg/L		07/16/14 13:01	07/18/14 13:20	1
<b>Molybdenum</b>	<b>0.036</b>		0.010		mg/L		07/16/14 13:01	07/18/14 13:20	1
<b>Nickel</b>	<b>0.037</b>		0.010		mg/L		07/16/14 13:01	07/18/14 13:20	1
Selenium	ND		0.020		mg/L		07/16/14 13:01	07/18/14 13:20	1
Silver	ND		0.0050		mg/L		07/16/14 13:01	07/18/14 13:20	1
Thallium	ND		0.010		mg/L		07/16/14 13:01	07/18/14 13:20	1
Vanadium	ND		0.010		mg/L		07/16/14 13:01	07/18/14 13:20	1
Zinc	ND		0.020		mg/L		07/16/14 13:01	07/18/14 13:20	1

TestAmerica Pleasanton

# Client Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

**Client Sample ID: A-9**

**Lab Sample ID: 720-58627-7**

**Date Collected: 07/14/14 13:55**

**Matrix: Water**

**Date Received: 07/14/14 17:40**

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		07/17/14 17:40	07/17/14 21:36	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14



# Client Sample Results

Client: Geologica Inc  
 Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

**Client Sample ID: TRIPBLANKS**

**Lab Sample ID: 720-58627-8**

**Date Collected: 07/14/14 00:00**

**Matrix: Water**

**Date Received: 07/14/14 17:40**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			07/17/14 00:39	1
Acetone	ND		50		ug/L			07/17/14 00:39	1
Benzene	ND		0.50		ug/L			07/17/14 00:39	1
Dichlorobromomethane	ND		0.50		ug/L			07/17/14 00:39	1
Bromobenzene	ND		1.0		ug/L			07/17/14 00:39	1
Chlorobromomethane	ND		1.0		ug/L			07/17/14 00:39	1
Bromoform	ND		1.0		ug/L			07/17/14 00:39	1
Bromomethane	ND		1.0		ug/L			07/17/14 00:39	1
2-Butanone (MEK)	ND		50		ug/L			07/17/14 00:39	1
n-Butylbenzene	ND		1.0		ug/L			07/17/14 00:39	1
sec-Butylbenzene	ND		1.0		ug/L			07/17/14 00:39	1
tert-Butylbenzene	ND		1.0		ug/L			07/17/14 00:39	1
Carbon disulfide	ND		5.0		ug/L			07/17/14 00:39	1
Carbon tetrachloride	ND		0.50		ug/L			07/17/14 00:39	1
Chlorobenzene	ND		0.50		ug/L			07/17/14 00:39	1
Chloroethane	ND		1.0		ug/L			07/17/14 00:39	1
Chloroform	ND		1.0		ug/L			07/17/14 00:39	1
Chloromethane	ND		1.0		ug/L			07/17/14 00:39	1
2-Chlorotoluene	ND		0.50		ug/L			07/17/14 00:39	1
4-Chlorotoluene	ND		0.50		ug/L			07/17/14 00:39	1
Chlorodibromomethane	ND		0.50		ug/L			07/17/14 00:39	1
1,2-Dichlorobenzene	ND		0.50		ug/L			07/17/14 00:39	1
1,3-Dichlorobenzene	ND		0.50		ug/L			07/17/14 00:39	1
1,4-Dichlorobenzene	ND		0.50		ug/L			07/17/14 00:39	1
1,3-Dichloropropane	ND		1.0		ug/L			07/17/14 00:39	1
1,1-Dichloropropene	ND		0.50		ug/L			07/17/14 00:39	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			07/17/14 00:39	1
Ethylene Dibromide	ND		0.50		ug/L			07/17/14 00:39	1
Dibromomethane	ND		0.50		ug/L			07/17/14 00:39	1
Dichlorodifluoromethane	ND		0.50		ug/L			07/17/14 00:39	1
1,1-Dichloroethane	ND		0.50		ug/L			07/17/14 00:39	1
1,2-Dichloroethane	ND		0.50		ug/L			07/17/14 00:39	1
1,1-Dichloroethene	ND		0.50		ug/L			07/17/14 00:39	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			07/17/14 00:39	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			07/17/14 00:39	1
1,2-Dichloropropane	ND		0.50		ug/L			07/17/14 00:39	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			07/17/14 00:39	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			07/17/14 00:39	1
Ethylbenzene	ND		0.50		ug/L			07/17/14 00:39	1
Hexachlorobutadiene	ND		1.0		ug/L			07/17/14 00:39	1
2-Hexanone	ND		50		ug/L			07/17/14 00:39	1
Isopropylbenzene	ND		0.50		ug/L			07/17/14 00:39	1
4-Isopropyltoluene	ND		1.0		ug/L			07/17/14 00:39	1
Methylene Chloride	ND		5.0		ug/L			07/17/14 00:39	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			07/17/14 00:39	1
Naphthalene	ND		1.0		ug/L			07/17/14 00:39	1
N-Propylbenzene	ND		1.0		ug/L			07/17/14 00:39	1
Styrene	ND		0.50		ug/L			07/17/14 00:39	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			07/17/14 00:39	1

TestAmerica Pleasanton

# Client Sample Results

Client: Geologica Inc  
 Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

**Client Sample ID: TRIPBLANKS**

**Lab Sample ID: 720-58627-8**

**Date Collected: 07/14/14 00:00**

**Matrix: Water**

**Date Received: 07/14/14 17:40**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			07/17/14 00:39	1
Tetrachloroethene	ND		0.50		ug/L			07/17/14 00:39	1
Toluene	ND		0.50		ug/L			07/17/14 00:39	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			07/17/14 00:39	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			07/17/14 00:39	1
1,1,1-Trichloroethane	ND		0.50		ug/L			07/17/14 00:39	1
1,1,2-Trichloroethane	ND		0.50		ug/L			07/17/14 00:39	1
Trichloroethene	ND		0.50		ug/L			07/17/14 00:39	1
Trichlorofluoromethane	ND		1.0		ug/L			07/17/14 00:39	1
1,2,3-Trichloropropane	ND		0.50		ug/L			07/17/14 00:39	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			07/17/14 00:39	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			07/17/14 00:39	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			07/17/14 00:39	1
Vinyl acetate	ND		10		ug/L			07/17/14 00:39	1
Vinyl chloride	ND		0.50		ug/L			07/17/14 00:39	1
Xylenes, Total	ND		1.0		ug/L			07/17/14 00:39	1
2,2-Dichloropropane	ND		0.50		ug/L			07/17/14 00:39	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	100		67 - 130					07/17/14 00:39	1
1,2-Dichloroethane-d4 (Surr)	103		72 - 130					07/17/14 00:39	1
Toluene-d8 (Surr)	101		70 - 130					07/17/14 00:39	1

# Client Sample Results

Client: Geologica Inc  
 Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

**Client Sample ID: A-1-4'**  
**Date Collected: 07/14/14 10:22**  
**Date Received: 07/14/14 17:40**

**Lab Sample ID: 720-58627-9**  
**Matrix: Solid**  
**Percent Solids: 82.7**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		5.5		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
Acetone	ND		55		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
Benzene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
Dichlorobromomethane	ND		5.5		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
Bromobenzene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
Chlorobromomethane	ND		22		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
Bromoform	ND		5.5		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
Bromomethane	ND		11		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
2-Butanone (MEK)	ND		55		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
n-Butylbenzene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
sec-Butylbenzene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
tert-Butylbenzene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
Carbon disulfide	ND		5.5		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
Carbon tetrachloride	ND		5.5		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
Chlorobenzene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
Chloroethane	ND		11		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
Chloroform	ND		5.5		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
Chloromethane	ND		11		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
2-Chlorotoluene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
4-Chlorotoluene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
Chlorodibromomethane	ND		5.5		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
1,2-Dichlorobenzene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
1,3-Dichlorobenzene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
1,4-Dichlorobenzene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
1,3-Dichloropropane	ND		5.5		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
1,1-Dichloropropene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
1,2-Dibromo-3-Chloropropane	ND		11		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
Ethylene Dibromide	ND		5.5		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
Dibromomethane	ND		11		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
Dichlorodifluoromethane	ND		11		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
1,1-Dichloroethane	ND		5.5		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
1,2-Dichloroethane	ND		5.5		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
1,1-Dichloroethene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
cis-1,2-Dichloroethene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
trans-1,2-Dichloroethene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
1,2-Dichloropropane	ND		5.5		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
cis-1,3-Dichloropropene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
trans-1,3-Dichloropropene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
Ethylbenzene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
Hexachlorobutadiene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
2-Hexanone	ND		55		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
Isopropylbenzene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
4-Isopropyltoluene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
Methylene Chloride	ND		11		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
4-Methyl-2-pentanone (MIBK)	ND		55		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
Naphthalene	ND		11		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
N-Propylbenzene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
Styrene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1
1,1,1,2-Tetrachloroethane	ND		5.5		ug/Kg	*	07/17/14 19:55	07/17/14 22:43	1

TestAmerica Pleasanton

# Client Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

**Client Sample ID: A-1-4'**

**Lab Sample ID: 720-58627-9**

**Date Collected: 07/14/14 10:22**

**Matrix: Solid**

**Date Received: 07/14/14 17:40**

**Percent Solids: 82.7**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		5.5		ug/Kg	☼	07/17/14 19:55	07/17/14 22:43	1
Tetrachloroethene	ND		5.5		ug/Kg	☼	07/17/14 19:55	07/17/14 22:43	1
Toluene	ND		5.5		ug/Kg	☼	07/17/14 19:55	07/17/14 22:43	1
1,2,3-Trichlorobenzene	ND		5.5		ug/Kg	☼	07/17/14 19:55	07/17/14 22:43	1
1,2,4-Trichlorobenzene	ND		5.5		ug/Kg	☼	07/17/14 19:55	07/17/14 22:43	1
1,1,1-Trichloroethane	ND		5.5		ug/Kg	☼	07/17/14 19:55	07/17/14 22:43	1
1,1,2-Trichloroethane	ND		5.5		ug/Kg	☼	07/17/14 19:55	07/17/14 22:43	1
Trichloroethene	ND		5.5		ug/Kg	☼	07/17/14 19:55	07/17/14 22:43	1
Trichlorofluoromethane	ND		5.5		ug/Kg	☼	07/17/14 19:55	07/17/14 22:43	1
1,2,3-Trichloropropane	ND		5.5		ug/Kg	☼	07/17/14 19:55	07/17/14 22:43	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.5		ug/Kg	☼	07/17/14 19:55	07/17/14 22:43	1
1,2,4-Trimethylbenzene	ND		5.5		ug/Kg	☼	07/17/14 19:55	07/17/14 22:43	1
1,3,5-Trimethylbenzene	ND		5.5		ug/Kg	☼	07/17/14 19:55	07/17/14 22:43	1
Vinyl acetate	ND		55		ug/Kg	☼	07/17/14 19:55	07/17/14 22:43	1
Vinyl chloride	ND		5.5		ug/Kg	☼	07/17/14 19:55	07/17/14 22:43	1
Xylenes, Total	ND		11		ug/Kg	☼	07/17/14 19:55	07/17/14 22:43	1
2,2-Dichloropropane	ND		5.5		ug/Kg	☼	07/17/14 19:55	07/17/14 22:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	85		45 - 131	07/17/14 19:55	07/17/14 22:43	1
1,2-Dichloroethane-d4 (Surr)	101		60 - 140	07/17/14 19:55	07/17/14 22:43	1
Toluene-d8 (Surr)	90		58 - 140	07/17/14 19:55	07/17/14 22:43	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>1.2</b>		1.2		mg/Kg	☼	07/18/14 11:59	07/18/14 23:36	1
Motor Oil Range Organics [C24-C36]	ND		60		mg/Kg	☼	07/18/14 11:59	07/18/14 23:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0		0 - 1	07/18/14 11:59	07/18/14 23:36	1
p-Terphenyl	86		38 - 148	07/18/14 11:59	07/18/14 23:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.54		mg/Kg	☼	07/16/14 13:49	07/18/14 21:11	1
<b>Arsenic</b>	<b>2.5</b>		1.1		mg/Kg	☼	07/16/14 13:49	07/18/14 21:11	1
<b>Barium</b>	<b>150</b>		0.54		mg/Kg	☼	07/16/14 13:49	07/18/14 21:11	1
<b>Beryllium</b>	<b>0.30</b>		0.11		mg/Kg	☼	07/16/14 13:49	07/18/14 21:11	1
Cadmium	ND		0.13		mg/Kg	☼	07/16/14 13:49	07/18/14 21:11	1
<b>Chromium</b>	<b>26</b>		0.54		mg/Kg	☼	07/16/14 13:49	07/18/14 21:11	1
<b>Cobalt</b>	<b>4.7</b>		0.22		mg/Kg	☼	07/16/14 13:49	07/18/14 21:11	1
<b>Copper</b>	<b>14</b>		1.6		mg/Kg	☼	07/16/14 13:49	07/18/14 21:11	1
<b>Lead</b>	<b>55</b>		0.54		mg/Kg	☼	07/16/14 13:49	07/18/14 21:11	1
Molybdenum	ND		0.54		mg/Kg	☼	07/16/14 13:49	07/18/14 21:11	1
<b>Nickel</b>	<b>28</b>		0.54		mg/Kg	☼	07/16/14 13:49	07/18/14 21:11	1
Selenium	ND		1.1		mg/Kg	☼	07/16/14 13:49	07/18/14 21:11	1
Silver	ND		0.27		mg/Kg	☼	07/16/14 13:49	07/18/14 21:11	1
Thallium	ND		0.54		mg/Kg	☼	07/16/14 13:49	07/18/14 21:11	1
<b>Vanadium</b>	<b>18</b>		0.54		mg/Kg	☼	07/16/14 13:49	07/18/14 21:11	1
<b>Zinc</b>	<b>23</b>		1.6		mg/Kg	☼	07/16/14 13:49	07/18/14 21:11	1

TestAmerica Pleasanton

# Client Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

**Client Sample ID: A-1-4'**

**Lab Sample ID: 720-58627-9**

**Date Collected: 07/14/14 10:22**

**Matrix: Solid**

**Date Received: 07/14/14 17:40**

**Percent Solids: 82.7**

**Method: 7471A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.043		0.011		mg/Kg	☼	07/16/14 20:13	07/18/14 16:46	1

- 1
- 2
- 3
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- 13
- 14

# Client Sample Results

Client: Geologica Inc  
 Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

**Client Sample ID: A-3-4'**  
**Date Collected: 07/14/14 11:10**  
**Date Received: 07/14/14 17:40**

**Lab Sample ID: 720-58627-15**  
**Matrix: Solid**  
**Percent Solids: 85.4**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
<b>Acetone</b>	<b>96</b>		57		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
Benzene	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
Dichlorobromomethane	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
Bromobenzene	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
Chlorobromomethane	ND		23		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
Bromoform	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
Bromomethane	ND		11		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
2-Butanone (MEK)	ND		57		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
n-Butylbenzene	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
sec-Butylbenzene	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
tert-Butylbenzene	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
Carbon disulfide	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
Carbon tetrachloride	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
Chlorobenzene	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
Chloroethane	ND		11		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
Chloroform	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
Chloromethane	ND		11		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
2-Chlorotoluene	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
4-Chlorotoluene	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
Chlorodibromomethane	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
1,2-Dichlorobenzene	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
1,3-Dichlorobenzene	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
1,4-Dichlorobenzene	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
1,3-Dichloropropane	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
1,1-Dichloropropene	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
1,2-Dibromo-3-Chloropropane	ND		11		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
Ethylene Dibromide	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
Dibromomethane	ND		11		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
Dichlorodifluoromethane	ND		11		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
1,1-Dichloroethane	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
1,2-Dichloroethane	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
1,1-Dichloroethene	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
cis-1,2-Dichloroethene	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
trans-1,2-Dichloroethene	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
1,2-Dichloropropane	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
cis-1,3-Dichloropropene	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
trans-1,3-Dichloropropene	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
Ethylbenzene	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
Hexachlorobutadiene	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
2-Hexanone	ND		57		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
Isopropylbenzene	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
4-Isopropyltoluene	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
Methylene Chloride	ND		11		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
4-Methyl-2-pentanone (MIBK)	ND		57		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
Naphthalene	ND		11		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
N-Propylbenzene	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
Styrene	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
1,1,1,2-Tetrachloroethane	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1

TestAmerica Pleasanton

# Client Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

**Client Sample ID: A-3-4'**

**Lab Sample ID: 720-58627-15**

**Date Collected: 07/14/14 11:10**

**Matrix: Solid**

**Date Received: 07/14/14 17:40**

**Percent Solids: 85.4**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
Tetrachloroethene	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
Toluene	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
1,2,3-Trichlorobenzene	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
1,2,4-Trichlorobenzene	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
1,1,1-Trichloroethane	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
1,1,2-Trichloroethane	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
Trichloroethene	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
Trichlorofluoromethane	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
1,2,3-Trichloropropane	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
1,2,4-Trimethylbenzene	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
1,3,5-Trimethylbenzene	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
Vinyl acetate	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
Vinyl chloride	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
Xylenes, Total	ND		11		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1
2,2-Dichloropropane	ND		5.7		ug/Kg	☼	07/17/14 19:55	07/17/14 23:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	90		45 - 131	07/17/14 19:55	07/17/14 23:11	1
1,2-Dichloroethane-d4 (Surr)	105		60 - 140	07/17/14 19:55	07/17/14 23:11	1
Toluene-d8 (Surr)	92		58 - 140	07/17/14 19:55	07/17/14 23:11	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>20</b>		1.2		mg/Kg	☼	07/18/14 11:59	07/19/14 01:32	1
Motor Oil Range Organics [C24-C36]	ND		58		mg/Kg	☼	07/18/14 11:59	07/19/14 01:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.05		0 - 1	07/18/14 11:59	07/19/14 01:32	1
p-Terphenyl	64		38 - 148	07/18/14 11:59	07/19/14 01:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>9.0</b>		2.2		mg/Kg	☼	07/16/14 13:49	07/18/14 10:22	4
<b>Arsenic</b>	<b>15</b>		4.4		mg/Kg	☼	07/16/14 13:49	07/18/14 10:22	4
<b>Barium</b>	<b>180</b>		2.2		mg/Kg	☼	07/16/14 13:49	07/18/14 10:22	4
Beryllium	ND		0.44		mg/Kg	☼	07/16/14 13:49	07/18/14 10:22	4
Cadmium	ND		0.55		mg/Kg	☼	07/16/14 13:49	07/18/14 10:22	4
<b>Chromium</b>	<b>100</b>		2.2		mg/Kg	☼	07/16/14 13:49	07/18/14 10:22	4
<b>Cobalt</b>	<b>8.3</b>		0.88		mg/Kg	☼	07/16/14 13:49	07/18/14 10:22	4
<b>Copper</b>	<b>130</b>		6.6		mg/Kg	☼	07/16/14 13:49	07/18/14 10:22	4
<b>Lead</b>	<b>290</b>		2.2		mg/Kg	☼	07/16/14 13:49	07/18/14 10:22	4
<b>Molybdenum</b>	<b>6.6</b>		2.2		mg/Kg	☼	07/16/14 13:49	07/18/14 10:22	4
<b>Nickel</b>	<b>33</b>		2.2		mg/Kg	☼	07/16/14 13:49	07/18/14 10:22	4
Selenium	ND		4.4		mg/Kg	☼	07/16/14 13:49	07/18/14 10:22	4
Silver	ND		1.1		mg/Kg	☼	07/16/14 13:49	07/18/14 10:22	4
Thallium	ND		2.2		mg/Kg	☼	07/16/14 13:49	07/18/14 21:21	4
<b>Vanadium</b>	<b>32</b>		2.2		mg/Kg	☼	07/16/14 13:49	07/18/14 10:22	4
<b>Zinc</b>	<b>250</b>		6.6		mg/Kg	☼	07/16/14 13:49	07/18/14 10:22	4

TestAmerica Pleasanton



# Client Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

**Client Sample ID: A-3-4'**

**Lab Sample ID: 720-58627-15**

**Date Collected: 07/14/14 11:10**

**Matrix: Solid**

**Date Received: 07/14/14 17:40**

**Percent Solids: 85.4**

**Method: 7471A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.42		0.010		mg/Kg	☼	07/16/14 20:13	07/18/14 16:48	1

- 1
- 2
- 3
- 4
- 5
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- 10
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- 12
- 13
- 14

# Client Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

**Client Sample ID: A-4-4'**  
**Date Collected: 07/14/14 13:30**  
**Date Received: 07/14/14 17:40**

**Lab Sample ID: 720-58627-18**  
**Matrix: Solid**  
**Percent Solids: 85.7**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		5.6		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
Acetone	ND		56		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
Benzene	ND		5.6		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
Dichlorobromomethane	ND		5.6		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
Bromobenzene	ND		5.6		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
Chlorobromomethane	ND		22		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
Bromoform	ND		5.6		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
Bromomethane	ND		11		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
2-Butanone (MEK)	ND		56		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
n-Butylbenzene	ND		5.6		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
sec-Butylbenzene	ND		5.6		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
tert-Butylbenzene	ND		5.6		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
Carbon disulfide	ND		5.6		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
Carbon tetrachloride	ND		5.6		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
Chlorobenzene	ND		5.6		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
Chloroethane	ND		11		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
Chloroform	ND		5.6		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
Chloromethane	ND		11		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
2-Chlorotoluene	ND		5.6		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
4-Chlorotoluene	ND		5.6		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
Chlorodibromomethane	ND		5.6		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
1,2-Dichlorobenzene	ND		5.6		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
1,3-Dichlorobenzene	ND		5.6		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
1,4-Dichlorobenzene	ND		5.6		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
1,3-Dichloropropane	ND		5.6		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
1,1-Dichloropropene	ND		5.6		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
1,2-Dibromo-3-Chloropropane	ND		11		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
Ethylene Dibromide	ND		5.6		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
Dibromomethane	ND		11		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
Dichlorodifluoromethane	ND		11		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
1,1-Dichloroethane	ND		5.6		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
1,2-Dichloroethane	ND		5.6		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
1,1-Dichloroethene	ND		5.6		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
cis-1,2-Dichloroethene	ND		5.6		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
trans-1,2-Dichloroethene	ND		5.6		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
1,2-Dichloropropane	ND		5.6		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
cis-1,3-Dichloropropene	ND		5.6		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
trans-1,3-Dichloropropene	ND		5.6		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
Ethylbenzene	ND		5.6		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
Hexachlorobutadiene	ND		5.6		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
2-Hexanone	ND		56		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
Isopropylbenzene	ND		5.6		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
4-Isopropyltoluene	ND		5.6		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
Methylene Chloride	ND		11		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
4-Methyl-2-pentanone (MIBK)	ND		56		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
Naphthalene	ND		11		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
N-Propylbenzene	ND		5.6		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
Styrene	ND		5.6		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1
1,1,1,2-Tetrachloroethane	ND		5.6		ug/Kg	*	07/17/14 19:55	07/17/14 23:40	1

TestAmerica Pleasanton

# Client Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

**Client Sample ID: A-4-4'**

**Lab Sample ID: 720-58627-18**

Date Collected: 07/14/14 13:30

Matrix: Solid

Date Received: 07/14/14 17:40

Percent Solids: 85.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		5.6		ug/Kg	☼	07/17/14 19:55	07/17/14 23:40	1
Tetrachloroethene	ND		5.6		ug/Kg	☼	07/17/14 19:55	07/17/14 23:40	1
Toluene	ND		5.6		ug/Kg	☼	07/17/14 19:55	07/17/14 23:40	1
1,2,3-Trichlorobenzene	ND		5.6		ug/Kg	☼	07/17/14 19:55	07/17/14 23:40	1
1,2,4-Trichlorobenzene	ND		5.6		ug/Kg	☼	07/17/14 19:55	07/17/14 23:40	1
1,1,1-Trichloroethane	ND		5.6		ug/Kg	☼	07/17/14 19:55	07/17/14 23:40	1
1,1,2-Trichloroethane	ND		5.6		ug/Kg	☼	07/17/14 19:55	07/17/14 23:40	1
Trichloroethene	ND		5.6		ug/Kg	☼	07/17/14 19:55	07/17/14 23:40	1
Trichlorofluoromethane	ND		5.6		ug/Kg	☼	07/17/14 19:55	07/17/14 23:40	1
1,2,3-Trichloropropane	ND		5.6		ug/Kg	☼	07/17/14 19:55	07/17/14 23:40	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.6		ug/Kg	☼	07/17/14 19:55	07/17/14 23:40	1
1,2,4-Trimethylbenzene	ND		5.6		ug/Kg	☼	07/17/14 19:55	07/17/14 23:40	1
1,3,5-Trimethylbenzene	ND		5.6		ug/Kg	☼	07/17/14 19:55	07/17/14 23:40	1
Vinyl acetate	ND		56		ug/Kg	☼	07/17/14 19:55	07/17/14 23:40	1
Vinyl chloride	ND		5.6		ug/Kg	☼	07/17/14 19:55	07/17/14 23:40	1
Xylenes, Total	ND		11		ug/Kg	☼	07/17/14 19:55	07/17/14 23:40	1
2,2-Dichloropropane	ND		5.6		ug/Kg	☼	07/17/14 19:55	07/17/14 23:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	93		45 - 131	07/17/14 19:55	07/17/14 23:40	1
1,2-Dichloroethane-d4 (Surr)	97		60 - 140	07/17/14 19:55	07/17/14 23:40	1
Toluene-d8 (Surr)	92		58 - 140	07/17/14 19:55	07/17/14 23:40	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		1.2		mg/Kg	☼	07/18/14 11:59	07/18/14 22:09	1
Motor Oil Range Organics [C24-C36]	ND		58		mg/Kg	☼	07/18/14 11:59	07/18/14 22:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.004		0 - 1	07/18/14 11:59	07/18/14 22:09	1
p-Terphenyl	85		38 - 148	07/18/14 11:59	07/18/14 22:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.46		mg/Kg	☼	07/16/14 13:49	07/18/14 21:26	1
<b>Arsenic</b>	<b>2.8</b>		0.93		mg/Kg	☼	07/16/14 13:49	07/18/14 21:26	1
<b>Barium</b>	<b>57</b>		0.46		mg/Kg	☼	07/16/14 13:49	07/18/14 21:26	1
<b>Beryllium</b>	<b>0.22</b>		0.093		mg/Kg	☼	07/16/14 13:49	07/18/14 21:26	1
Cadmium	ND		0.12		mg/Kg	☼	07/16/14 13:49	07/18/14 21:26	1
<b>Chromium</b>	<b>35</b>		0.46		mg/Kg	☼	07/16/14 13:49	07/18/14 21:26	1
<b>Cobalt</b>	<b>4.3</b>		0.19		mg/Kg	☼	07/16/14 13:49	07/18/14 21:26	1
<b>Copper</b>	<b>8.4</b>		1.4		mg/Kg	☼	07/16/14 13:49	07/18/14 21:26	1
<b>Lead</b>	<b>2.0</b>		0.46		mg/Kg	☼	07/16/14 13:49	07/18/14 21:26	1
Molybdenum	ND		0.46		mg/Kg	☼	07/16/14 13:49	07/18/14 21:26	1
<b>Nickel</b>	<b>37</b>		0.46		mg/Kg	☼	07/16/14 13:49	07/18/14 21:26	1
Selenium	ND		0.93		mg/Kg	☼	07/16/14 13:49	07/18/14 21:26	1
Silver	ND		0.23		mg/Kg	☼	07/16/14 13:49	07/18/14 21:26	1
Thallium	ND		0.46		mg/Kg	☼	07/16/14 13:49	07/18/14 21:26	1
<b>Vanadium</b>	<b>21</b>		0.46		mg/Kg	☼	07/16/14 13:49	07/18/14 21:26	1
<b>Zinc</b>	<b>20</b>		1.4		mg/Kg	☼	07/16/14 13:49	07/18/14 21:26	1

TestAmerica Pleasanton

# Client Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

**Client Sample ID: A-4-4'**

**Lab Sample ID: 720-58627-18**

**Date Collected: 07/14/14 13:30**

**Matrix: Solid**

**Date Received: 07/14/14 17:40**

**Percent Solids: 85.7**

**Method: 7471A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.020		0.011		mg/Kg	☼	07/16/14 20:13	07/18/14 16:50	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

# Client Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

**Client Sample ID: A-6-4'**

**Lab Sample ID: 720-58627-24**

**Date Collected: 07/14/14 09:53**

**Matrix: Solid**

**Date Received: 07/14/14 17:40**

**Percent Solids: 90.1**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
Acetone	ND		53		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
Benzene	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
Dichlorobromomethane	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
Bromobenzene	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
Chlorobromomethane	ND		21		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
Bromoform	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
Bromomethane	ND		11		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
2-Butanone (MEK)	ND		53		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
n-Butylbenzene	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
sec-Butylbenzene	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
tert-Butylbenzene	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
Carbon disulfide	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
Carbon tetrachloride	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
Chlorobenzene	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
Chloroethane	ND		11		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
Chloroform	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
Chloromethane	ND		11		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
2-Chlorotoluene	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
4-Chlorotoluene	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
Chlorodibromomethane	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
1,2-Dichlorobenzene	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
1,3-Dichlorobenzene	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
1,4-Dichlorobenzene	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
1,3-Dichloropropane	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
1,1-Dichloropropene	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
1,2-Dibromo-3-Chloropropane	ND		11		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
Ethylene Dibromide	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
Dibromomethane	ND		11		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
Dichlorodifluoromethane	ND		11		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
1,1-Dichloroethane	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
1,2-Dichloroethane	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
1,1-Dichloroethene	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
cis-1,2-Dichloroethene	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
trans-1,2-Dichloroethene	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
1,2-Dichloropropane	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
cis-1,3-Dichloropropene	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
trans-1,3-Dichloropropene	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
Ethylbenzene	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
Hexachlorobutadiene	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
2-Hexanone	ND		53		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
Isopropylbenzene	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
4-Isopropyltoluene	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
Methylene Chloride	ND		11		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
4-Methyl-2-pentanone (MIBK)	ND		53		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
Naphthalene	ND		11		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
N-Propylbenzene	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
Styrene	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
1,1,1,2-Tetrachloroethane	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1

TestAmerica Pleasanton

# Client Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

**Client Sample ID: A-6-4'**

**Lab Sample ID: 720-58627-24**

Date Collected: 07/14/14 09:53

Matrix: Solid

Date Received: 07/14/14 17:40

Percent Solids: 90.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
Tetrachloroethene	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
Toluene	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
1,2,3-Trichlorobenzene	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
1,2,4-Trichlorobenzene	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
1,1,1-Trichloroethane	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
1,1,2-Trichloroethane	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
Trichloroethene	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
Trichlorofluoromethane	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
1,2,3-Trichloropropane	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
1,2,4-Trimethylbenzene	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
1,3,5-Trimethylbenzene	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
Vinyl acetate	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
Vinyl chloride	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
Xylenes, Total	ND		11		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1
2,2-Dichloropropane	ND		5.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	85		45 - 131	07/17/14 19:55	07/18/14 00:10	1
1,2-Dichloroethane-d4 (Surr)	101		60 - 140	07/17/14 19:55	07/18/14 00:10	1
Toluene-d8 (Surr)	90		58 - 140	07/17/14 19:55	07/18/14 00:10	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		1.1		mg/Kg	☼	07/18/14 11:59	07/18/14 22:38	1
Motor Oil Range Organics [C24-C36]	ND		55		mg/Kg	☼	07/18/14 11:59	07/18/14 22:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.003		0 - 1	07/18/14 11:59	07/18/14 22:38	1
p-Terphenyl	89		38 - 148	07/18/14 11:59	07/18/14 22:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.54		mg/Kg	☼	07/16/14 13:49	07/18/14 21:31	1
Arsenic	2.4		1.1		mg/Kg	☼	07/16/14 13:49	07/18/14 21:31	1
Barium	65		0.54		mg/Kg	☼	07/16/14 13:49	07/18/14 21:31	1
Beryllium	0.27		0.11		mg/Kg	☼	07/16/14 13:49	07/18/14 21:31	1
Cadmium	ND		0.13		mg/Kg	☼	07/16/14 13:49	07/18/14 21:31	1
Chromium	30		0.54		mg/Kg	☼	07/16/14 13:49	07/18/14 21:31	1
Cobalt	1.6		0.22		mg/Kg	☼	07/16/14 13:49	07/18/14 21:31	1
Copper	7.1		1.6		mg/Kg	☼	07/16/14 13:49	07/18/14 21:31	1
Lead	7.0		0.54		mg/Kg	☼	07/16/14 13:49	07/18/14 21:31	1
Molybdenum	ND		0.54		mg/Kg	☼	07/16/14 13:49	07/18/14 21:31	1
Nickel	22		0.54		mg/Kg	☼	07/16/14 13:49	07/18/14 21:31	1
Selenium	ND		1.1		mg/Kg	☼	07/16/14 13:49	07/18/14 21:31	1
Silver	ND		0.27		mg/Kg	☼	07/16/14 13:49	07/18/14 21:31	1
Thallium	ND		0.54		mg/Kg	☼	07/16/14 13:49	07/18/14 21:31	1
Vanadium	20		0.54		mg/Kg	☼	07/16/14 13:49	07/18/14 21:31	1
Zinc	22		1.6		mg/Kg	☼	07/16/14 13:49	07/18/14 21:31	1

TestAmerica Pleasanton

# Client Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

**Client Sample ID: A-6-4'**

**Lab Sample ID: 720-58627-24**

**Date Collected: 07/14/14 09:53**

**Matrix: Solid**

**Date Received: 07/14/14 17:40**

**Percent Solids: 90.1**

**Method: 7471A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.039		0.010		mg/Kg	☼	07/16/14 20:13	07/18/14 16:53	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14



# Client Sample Results

Client: Geologica Inc  
 Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

**Client Sample ID: A-7-4'**  
**Date Collected: 07/14/14 10:05**  
**Date Received: 07/14/14 17:40**

**Lab Sample ID: 720-58627-25**  
**Matrix: Solid**  
**Percent Solids: 77.2**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
Acetone	ND		63		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
Benzene	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
Dichlorobromomethane	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
Bromobenzene	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
Chlorobromomethane	ND		25		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
Bromoform	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
Bromomethane	ND		13		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
2-Butanone (MEK)	ND		63		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
n-Butylbenzene	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
sec-Butylbenzene	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
tert-Butylbenzene	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
Carbon disulfide	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
Carbon tetrachloride	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
Chlorobenzene	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
Chloroethane	ND		13		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
Chloroform	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
Chloromethane	ND		13		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
2-Chlorotoluene	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
4-Chlorotoluene	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
Chlorodibromomethane	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
1,2-Dichlorobenzene	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
1,3-Dichlorobenzene	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
1,4-Dichlorobenzene	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
1,3-Dichloropropane	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
1,1-Dichloropropene	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
1,2-Dibromo-3-Chloropropane	ND		13		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
Ethylene Dibromide	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
Dibromomethane	ND		13		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
Dichlorodifluoromethane	ND		13		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
1,1-Dichloroethane	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
1,2-Dichloroethane	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
1,1-Dichloroethene	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
cis-1,2-Dichloroethene	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
trans-1,2-Dichloroethene	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
1,2-Dichloropropane	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
cis-1,3-Dichloropropene	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
trans-1,3-Dichloropropene	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
Ethylbenzene	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
Hexachlorobutadiene	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
2-Hexanone	ND		63		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
Isopropylbenzene	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
4-Isopropyltoluene	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
Methylene Chloride	ND		13		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
4-Methyl-2-pentanone (MIBK)	ND		63		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
Naphthalene	ND		13		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
N-Propylbenzene	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
Styrene	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
1,1,1,2-Tetrachloroethane	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1

TestAmerica Pleasanton

# Client Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

**Client Sample ID: A-7-4'**

**Lab Sample ID: 720-58627-25**

**Date Collected: 07/14/14 10:05**

**Matrix: Solid**

**Date Received: 07/14/14 17:40**

**Percent Solids: 77.2**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
Tetrachloroethene	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
Toluene	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
1,2,3-Trichlorobenzene	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
1,2,4-Trichlorobenzene	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
1,1,1-Trichloroethane	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
1,1,2-Trichloroethane	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
Trichloroethene	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
Trichlorofluoromethane	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
1,2,3-Trichloropropane	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
1,2,4-Trimethylbenzene	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
1,3,5-Trimethylbenzene	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
Vinyl acetate	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
Vinyl chloride	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
Xylenes, Total	ND		13		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1
2,2-Dichloropropane	ND		6.3		ug/Kg	☼	07/17/14 19:55	07/18/14 00:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	76		45 - 131	07/17/14 19:55	07/18/14 00:39	1
1,2-Dichloroethane-d4 (Surr)	103		60 - 140	07/17/14 19:55	07/18/14 00:39	1
Toluene-d8 (Surr)	90		58 - 140	07/17/14 19:55	07/18/14 00:39	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>43</b>		1.3		mg/Kg	☼	07/18/14 11:59	07/19/14 02:59	1
<b>Motor Oil Range Organics [C24-C36]</b>	<b>120</b>		65		mg/Kg	☼	07/18/14 11:59	07/19/14 02:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.3		0 - 1	07/18/14 11:59	07/19/14 02:59	1
p-Terphenyl	61		38 - 148	07/18/14 11:59	07/19/14 02:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.52		mg/Kg	☼	07/16/14 13:49	07/18/14 21:45	1
<b>Arsenic</b>	<b>1.3</b>		1.0		mg/Kg	☼	07/16/14 13:49	07/18/14 21:45	1
<b>Barium</b>	<b>220</b>		0.52		mg/Kg	☼	07/16/14 13:49	07/18/14 21:45	1
<b>Beryllium</b>	<b>0.56</b>		0.10		mg/Kg	☼	07/16/14 13:49	07/18/14 21:45	1
<b>Cadmium</b>	<b>0.16</b>		0.13		mg/Kg	☼	07/16/14 13:49	07/18/14 21:45	1
<b>Chromium</b>	<b>35</b>		0.52		mg/Kg	☼	07/16/14 13:49	07/18/14 21:45	1
<b>Cobalt</b>	<b>6.5</b>		0.21		mg/Kg	☼	07/16/14 13:49	07/18/14 21:45	1
<b>Copper</b>	<b>26</b>		1.6		mg/Kg	☼	07/16/14 13:49	07/18/14 21:45	1
<b>Lead</b>	<b>14</b>		0.52		mg/Kg	☼	07/16/14 13:49	07/18/14 21:45	1
Molybdenum	ND		0.52		mg/Kg	☼	07/16/14 13:49	07/18/14 21:45	1
<b>Nickel</b>	<b>54</b>		0.52		mg/Kg	☼	07/16/14 13:49	07/18/14 21:45	1
Selenium	ND		1.0		mg/Kg	☼	07/16/14 13:49	07/18/14 21:45	1
Silver	ND		0.26		mg/Kg	☼	07/16/14 13:49	07/18/14 21:45	1
Thallium	ND		0.52		mg/Kg	☼	07/16/14 13:49	07/18/14 21:45	1
<b>Vanadium</b>	<b>22</b>		0.52		mg/Kg	☼	07/16/14 13:49	07/18/14 21:45	1
<b>Zinc</b>	<b>45</b>		1.6		mg/Kg	☼	07/16/14 13:49	07/18/14 21:45	1

TestAmerica Pleasanton

# Client Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

**Client Sample ID: A-7-4'**

**Lab Sample ID: 720-58627-25**

**Date Collected: 07/14/14 10:05**

**Matrix: Solid**

**Date Received: 07/14/14 17:40**

**Percent Solids: 77.2**

**Method: 7471A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.44		0.011		mg/Kg	☼	07/16/14 20:13	07/18/14 16:56	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

# Client Sample Results

Client: Geologica Inc  
 Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

**Client Sample ID: A-8-4'**  
**Date Collected: 07/14/14 12:00**  
**Date Received: 07/14/14 17:40**

**Lab Sample ID: 720-58627-26**  
**Matrix: Solid**  
**Percent Solids: 80.8**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		5.9		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
Acetone	ND		59		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
Benzene	ND		5.9		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
Dichlorobromomethane	ND		5.9		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
Bromobenzene	ND		5.9		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
Chlorobromomethane	ND		24		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
Bromoform	ND		5.9		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
Bromomethane	ND		12		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
2-Butanone (MEK)	ND		59		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
n-Butylbenzene	ND		5.9		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
sec-Butylbenzene	ND		5.9		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
tert-Butylbenzene	ND		5.9		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
Carbon disulfide	ND		5.9		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
Carbon tetrachloride	ND		5.9		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
Chlorobenzene	ND		5.9		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
Chloroethane	ND		12		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
Chloroform	ND		5.9		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
Chloromethane	ND		12		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
2-Chlorotoluene	ND		5.9		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
4-Chlorotoluene	ND		5.9		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
Chlorodibromomethane	ND		5.9		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
1,2-Dichlorobenzene	ND		5.9		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
1,3-Dichlorobenzene	ND		5.9		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
1,4-Dichlorobenzene	ND		5.9		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
1,3-Dichloropropane	ND		5.9		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
1,1-Dichloropropene	ND		5.9		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
1,2-Dibromo-3-Chloropropane	ND		12		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
Ethylene Dibromide	ND		5.9		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
Dibromomethane	ND		12		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
Dichlorodifluoromethane	ND		12		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
1,1-Dichloroethane	ND		5.9		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
1,2-Dichloroethane	ND		5.9		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
1,1-Dichloroethene	ND		5.9		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
cis-1,2-Dichloroethene	ND		5.9		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
trans-1,2-Dichloroethene	ND		5.9		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
1,2-Dichloropropane	ND		5.9		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
cis-1,3-Dichloropropene	ND		5.9		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
trans-1,3-Dichloropropene	ND		5.9		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
Ethylbenzene	ND		5.9		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
Hexachlorobutadiene	ND		5.9		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
2-Hexanone	ND		59		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
Isopropylbenzene	ND		5.9		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
4-Isopropyltoluene	ND		5.9		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
Methylene Chloride	ND		12		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
4-Methyl-2-pentanone (MIBK)	ND		59		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
Naphthalene	ND		12		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
N-Propylbenzene	ND		5.9		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
Styrene	ND		5.9		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1
1,1,1,2-Tetrachloroethane	ND		5.9		ug/Kg	*	07/17/14 19:55	07/18/14 01:08	1

TestAmerica Pleasanton

# Client Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

**Client Sample ID: A-8-4'**

**Lab Sample ID: 720-58627-26**

Date Collected: 07/14/14 12:00

Matrix: Solid

Date Received: 07/14/14 17:40

Percent Solids: 80.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		5.9		ug/Kg	☼	07/17/14 19:55	07/18/14 01:08	1
Tetrachloroethene	ND		5.9		ug/Kg	☼	07/17/14 19:55	07/18/14 01:08	1
Toluene	ND		5.9		ug/Kg	☼	07/17/14 19:55	07/18/14 01:08	1
1,2,3-Trichlorobenzene	ND		5.9		ug/Kg	☼	07/17/14 19:55	07/18/14 01:08	1
1,2,4-Trichlorobenzene	ND		5.9		ug/Kg	☼	07/17/14 19:55	07/18/14 01:08	1
1,1,1-Trichloroethane	ND		5.9		ug/Kg	☼	07/17/14 19:55	07/18/14 01:08	1
1,1,2-Trichloroethane	ND		5.9		ug/Kg	☼	07/17/14 19:55	07/18/14 01:08	1
Trichloroethene	ND		5.9		ug/Kg	☼	07/17/14 19:55	07/18/14 01:08	1
Trichlorofluoromethane	ND		5.9		ug/Kg	☼	07/17/14 19:55	07/18/14 01:08	1
1,2,3-Trichloropropane	ND		5.9		ug/Kg	☼	07/17/14 19:55	07/18/14 01:08	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.9		ug/Kg	☼	07/17/14 19:55	07/18/14 01:08	1
1,2,4-Trimethylbenzene	ND		5.9		ug/Kg	☼	07/17/14 19:55	07/18/14 01:08	1
1,3,5-Trimethylbenzene	ND		5.9		ug/Kg	☼	07/17/14 19:55	07/18/14 01:08	1
Vinyl acetate	ND		59		ug/Kg	☼	07/17/14 19:55	07/18/14 01:08	1
Vinyl chloride	ND		5.9		ug/Kg	☼	07/17/14 19:55	07/18/14 01:08	1
Xylenes, Total	ND		12		ug/Kg	☼	07/17/14 19:55	07/18/14 01:08	1
2,2-Dichloropropane	ND		5.9		ug/Kg	☼	07/17/14 19:55	07/18/14 01:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	84		45 - 131	07/17/14 19:55	07/18/14 01:08	1
1,2-Dichloroethane-d4 (Surr)	101		60 - 140	07/17/14 19:55	07/18/14 01:08	1
Toluene-d8 (Surr)	90		58 - 140	07/17/14 19:55	07/18/14 01:08	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		1.2		mg/Kg	☼	07/18/14 11:59	07/18/14 23:07	1
Motor Oil Range Organics [C24-C36]	ND		61		mg/Kg	☼	07/18/14 11:59	07/18/14 23:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0		0 - 1	07/18/14 11:59	07/18/14 23:07	1
p-Terphenyl	86		38 - 148	07/18/14 11:59	07/18/14 23:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.58		mg/Kg	☼	07/16/14 13:49	07/18/14 21:50	1
<b>Arsenic</b>	<b>2.0</b>		1.2		mg/Kg	☼	07/16/14 13:49	07/18/14 21:50	1
<b>Barium</b>	<b>100</b>		0.58		mg/Kg	☼	07/16/14 13:49	07/18/14 21:50	1
<b>Beryllium</b>	<b>0.28</b>		0.12		mg/Kg	☼	07/16/14 13:49	07/18/14 21:50	1
Cadmium	ND		0.14		mg/Kg	☼	07/16/14 13:49	07/18/14 21:50	1
<b>Chromium</b>	<b>24</b>		0.58		mg/Kg	☼	07/16/14 13:49	07/18/14 21:50	1
<b>Cobalt</b>	<b>5.1</b>		0.23		mg/Kg	☼	07/16/14 13:49	07/18/14 21:50	1
<b>Copper</b>	<b>9.0</b>		1.7		mg/Kg	☼	07/16/14 13:49	07/18/14 21:50	1
<b>Lead</b>	<b>3.8</b>		0.58		mg/Kg	☼	07/16/14 13:49	07/18/14 21:50	1
Molybdenum	ND		0.58		mg/Kg	☼	07/16/14 13:49	07/18/14 21:50	1
<b>Nickel</b>	<b>21</b>		0.58		mg/Kg	☼	07/16/14 13:49	07/18/14 21:50	1
Selenium	ND		1.2		mg/Kg	☼	07/16/14 13:49	07/18/14 21:50	1
Silver	ND		0.29		mg/Kg	☼	07/16/14 13:49	07/18/14 21:50	1
Thallium	ND		0.58		mg/Kg	☼	07/16/14 13:49	07/18/14 21:50	1
<b>Vanadium</b>	<b>15</b>		0.58		mg/Kg	☼	07/16/14 13:49	07/18/14 21:50	1
<b>Zinc</b>	<b>13</b>		1.7		mg/Kg	☼	07/16/14 13:49	07/18/14 21:50	1

TestAmerica Pleasanton

# Client Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

**Client Sample ID: A-8-4'**

**Lab Sample ID: 720-58627-26**

**Date Collected: 07/14/14 12:00**

**Matrix: Solid**

**Date Received: 07/14/14 17:40**

**Percent Solids: 80.8**

**Method: 7471A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.031		0.010		mg/Kg	☼	07/16/14 20:13	07/18/14 17:03	1

- 1
- 2
- 3
- 4
- 5
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- 10
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- 12
- 13
- 14

# Client Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

**Client Sample ID: A-9-4'**

**Lab Sample ID: 720-58627-29**

**Date Collected: 07/14/14 14:15**

**Matrix: Solid**

**Date Received: 07/14/14 17:40**

**Percent Solids: 88.4**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
Acetone	ND		55		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
Benzene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
Dichlorobromomethane	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
Bromobenzene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
Chlorobromomethane	ND		22		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
Bromoform	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
Bromomethane	ND		11		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
2-Butanone (MEK)	ND		55		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
n-Butylbenzene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
sec-Butylbenzene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
tert-Butylbenzene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
Carbon disulfide	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
Carbon tetrachloride	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
Chlorobenzene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
Chloroethane	ND		11		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
Chloroform	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
Chloromethane	ND		11		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
2-Chlorotoluene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
4-Chlorotoluene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
Chlorodibromomethane	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
1,2-Dichlorobenzene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
1,3-Dichlorobenzene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
1,4-Dichlorobenzene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
1,3-Dichloropropane	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
1,1-Dichloropropene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
1,2-Dibromo-3-Chloropropane	ND		11		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
Ethylene Dibromide	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
Dibromomethane	ND		11		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
Dichlorodifluoromethane	ND		11		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
1,1-Dichloroethane	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
1,2-Dichloroethane	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
1,1-Dichloroethene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
cis-1,2-Dichloroethene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
trans-1,2-Dichloroethene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
1,2-Dichloropropane	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
cis-1,3-Dichloropropene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
trans-1,3-Dichloropropene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
Ethylbenzene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
Hexachlorobutadiene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
2-Hexanone	ND		55		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
Isopropylbenzene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
4-Isopropyltoluene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
Methylene Chloride	ND		11		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
4-Methyl-2-pentanone (MIBK)	ND		55		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
Naphthalene	ND		11		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
N-Propylbenzene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
Styrene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
1,1,1,2-Tetrachloroethane	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1

TestAmerica Pleasanton

# Client Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

**Client Sample ID: A-9-4'**

**Lab Sample ID: 720-58627-29**

Date Collected: 07/14/14 14:15

Matrix: Solid

Date Received: 07/14/14 17:40

Percent Solids: 88.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
Tetrachloroethene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
Toluene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
1,2,3-Trichlorobenzene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
1,2,4-Trichlorobenzene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
1,1,1-Trichloroethane	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
1,1,2-Trichloroethane	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
Trichloroethene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
Trichlorofluoromethane	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
1,2,3-Trichloropropane	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
1,2,4-Trimethylbenzene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
1,3,5-Trimethylbenzene	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
Vinyl acetate	ND		55		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
Vinyl chloride	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
Xylenes, Total	ND		11		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1
2,2-Dichloropropane	ND		5.5		ug/Kg	*	07/17/14 19:55	07/18/14 01:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	91		45 - 131	07/17/14 19:55	07/18/14 01:37	1
1,2-Dichloroethane-d4 (Surr)	103		60 - 140	07/17/14 19:55	07/18/14 01:37	1
Toluene-d8 (Surr)	92		58 - 140	07/17/14 19:55	07/18/14 01:37	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		1.1		mg/Kg	*	07/18/14 11:59	07/18/14 23:36	1
Motor Oil Range Organics [C24-C36]	ND		56		mg/Kg	*	07/18/14 11:59	07/18/14 23:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0		0 - 1	07/18/14 11:59	07/18/14 23:36	1
p-Terphenyl	97		38 - 148	07/18/14 11:59	07/18/14 23:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.55		mg/Kg	*	07/16/14 13:49	07/18/14 21:55	1
<b>Arsenic</b>	<b>2.2</b>		1.1		mg/Kg	*	07/16/14 13:49	07/18/14 21:55	1
<b>Barium</b>	<b>48</b>		0.55		mg/Kg	*	07/16/14 13:49	07/18/14 21:55	1
<b>Beryllium</b>	<b>0.24</b>		0.11		mg/Kg	*	07/16/14 13:49	07/18/14 21:55	1
Cadmium	ND		0.14		mg/Kg	*	07/16/14 13:49	07/18/14 21:55	1
<b>Chromium</b>	<b>27</b>		0.55		mg/Kg	*	07/16/14 13:49	07/18/14 21:55	1
<b>Cobalt</b>	<b>1.6</b>		0.22		mg/Kg	*	07/16/14 13:49	07/18/14 21:55	1
<b>Copper</b>	<b>4.1</b>		1.6		mg/Kg	*	07/16/14 13:49	07/18/14 21:55	1
<b>Lead</b>	<b>2.4</b>		0.55		mg/Kg	*	07/16/14 13:49	07/18/14 21:55	1
Molybdenum	ND		0.55		mg/Kg	*	07/16/14 13:49	07/18/14 21:55	1
<b>Nickel</b>	<b>19</b>		0.55		mg/Kg	*	07/16/14 13:49	07/18/14 21:55	1
Selenium	ND		1.1		mg/Kg	*	07/16/14 13:49	07/18/14 21:55	1
Silver	ND		0.27		mg/Kg	*	07/16/14 13:49	07/18/14 21:55	1
Thallium	ND		0.55		mg/Kg	*	07/16/14 13:49	07/18/14 21:55	1
<b>Vanadium</b>	<b>19</b>		0.55		mg/Kg	*	07/16/14 13:49	07/18/14 21:55	1
<b>Zinc</b>	<b>16</b>		1.6		mg/Kg	*	07/16/14 13:49	07/18/14 21:55	1

TestAmerica Pleasanton



# Client Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

**Client Sample ID: A-9-4'**

**Lab Sample ID: 720-58627-29**

**Date Collected: 07/14/14 14:15**

**Matrix: Solid**

**Date Received: 07/14/14 17:40**

**Percent Solids: 88.4**

**Method: 7471A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.025		0.0097		mg/Kg	☼	07/16/14 20:13	07/18/14 17:06	1

- 1
- 2
- 3
- 4
- 5
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- 10
- 11
- 12
- 13
- 14

# QC Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

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

**Lab Sample ID: MB 720-163126/7**

**Matrix: Water**

**Analysis Batch: 163126**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			07/16/14 21:02	1
Acetone	ND		50		ug/L			07/16/14 21:02	1
Benzene	ND		0.50		ug/L			07/16/14 21:02	1
Dichlorobromomethane	ND		0.50		ug/L			07/16/14 21:02	1
Bromobenzene	ND		1.0		ug/L			07/16/14 21:02	1
Chlorobromomethane	ND		1.0		ug/L			07/16/14 21:02	1
Bromoform	ND		1.0		ug/L			07/16/14 21:02	1
Bromomethane	ND		1.0		ug/L			07/16/14 21:02	1
2-Butanone (MEK)	ND		50		ug/L			07/16/14 21:02	1
n-Butylbenzene	ND		1.0		ug/L			07/16/14 21:02	1
sec-Butylbenzene	ND		1.0		ug/L			07/16/14 21:02	1
tert-Butylbenzene	ND		1.0		ug/L			07/16/14 21:02	1
Carbon disulfide	ND		5.0		ug/L			07/16/14 21:02	1
Carbon tetrachloride	ND		0.50		ug/L			07/16/14 21:02	1
Chlorobenzene	ND		0.50		ug/L			07/16/14 21:02	1
Chloroethane	ND		1.0		ug/L			07/16/14 21:02	1
Chloroform	ND		1.0		ug/L			07/16/14 21:02	1
Chloromethane	ND		1.0		ug/L			07/16/14 21:02	1
2-Chlorotoluene	ND		0.50		ug/L			07/16/14 21:02	1
4-Chlorotoluene	ND		0.50		ug/L			07/16/14 21:02	1
Chlorodibromomethane	ND		0.50		ug/L			07/16/14 21:02	1
1,2-Dichlorobenzene	ND		0.50		ug/L			07/16/14 21:02	1
1,3-Dichlorobenzene	ND		0.50		ug/L			07/16/14 21:02	1
1,4-Dichlorobenzene	ND		0.50		ug/L			07/16/14 21:02	1
1,3-Dichloropropane	ND		1.0		ug/L			07/16/14 21:02	1
1,1-Dichloropropene	ND		0.50		ug/L			07/16/14 21:02	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			07/16/14 21:02	1
Ethylene Dibromide	ND		0.50		ug/L			07/16/14 21:02	1
Dibromomethane	ND		0.50		ug/L			07/16/14 21:02	1
Dichlorodifluoromethane	ND		0.50		ug/L			07/16/14 21:02	1
1,1-Dichloroethane	ND		0.50		ug/L			07/16/14 21:02	1
1,2-Dichloroethane	ND		0.50		ug/L			07/16/14 21:02	1
1,1-Dichloroethene	ND		0.50		ug/L			07/16/14 21:02	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			07/16/14 21:02	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			07/16/14 21:02	1
1,2-Dichloropropane	ND		0.50		ug/L			07/16/14 21:02	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			07/16/14 21:02	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			07/16/14 21:02	1
Ethylbenzene	ND		0.50		ug/L			07/16/14 21:02	1
Hexachlorobutadiene	ND		1.0		ug/L			07/16/14 21:02	1
2-Hexanone	ND		50		ug/L			07/16/14 21:02	1
Isopropylbenzene	ND		0.50		ug/L			07/16/14 21:02	1
4-Isopropyltoluene	ND		1.0		ug/L			07/16/14 21:02	1
Methylene Chloride	ND		5.0		ug/L			07/16/14 21:02	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			07/16/14 21:02	1
Naphthalene	ND		1.0		ug/L			07/16/14 21:02	1
N-Propylbenzene	ND		1.0		ug/L			07/16/14 21:02	1
Styrene	ND		0.50		ug/L			07/16/14 21:02	1

TestAmerica Pleasanton

# QC Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

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

Lab Sample ID: MB 720-163126/7

Matrix: Water

Analysis Batch: 163126

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			07/16/14 21:02	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			07/16/14 21:02	1
Tetrachloroethene	ND		0.50		ug/L			07/16/14 21:02	1
Toluene	ND		0.50		ug/L			07/16/14 21:02	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			07/16/14 21:02	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			07/16/14 21:02	1
1,1,1-Trichloroethane	ND		0.50		ug/L			07/16/14 21:02	1
1,1,2-Trichloroethane	ND		0.50		ug/L			07/16/14 21:02	1
Trichloroethene	ND		0.50		ug/L			07/16/14 21:02	1
Trichlorofluoromethane	ND		1.0		ug/L			07/16/14 21:02	1
1,2,3-Trichloropropane	ND		0.50		ug/L			07/16/14 21:02	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			07/16/14 21:02	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			07/16/14 21:02	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			07/16/14 21:02	1
Vinyl acetate	ND		10		ug/L			07/16/14 21:02	1
Vinyl chloride	ND		0.50		ug/L			07/16/14 21:02	1
Xylenes, Total	ND		1.0		ug/L			07/16/14 21:02	1
2,2-Dichloropropane	ND		0.50		ug/L			07/16/14 21:02	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		67 - 130		07/16/14 21:02	1
1,2-Dichloroethane-d4 (Surr)	100		72 - 130		07/16/14 21:02	1
Toluene-d8 (Surr)	100		70 - 130		07/16/14 21:02	1

Lab Sample ID: LCS 720-163126/8

Matrix: Water

Analysis Batch: 163126

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	25.0	24.3		ug/L		97	62 - 130
Acetone	125	116		ug/L		93	26 - 180
Benzene	25.0	24.2		ug/L		97	79 - 130
Dichlorobromomethane	25.0	26.3		ug/L		105	70 - 130
Bromobenzene	25.0	25.7		ug/L		103	70 - 130
Chlorobromomethane	25.0	24.3		ug/L		97	70 - 130
Bromoform	25.0	28.1		ug/L		112	68 - 136
Bromomethane	25.0	23.4		ug/L		93	43 - 151
2-Butanone (MEK)	125	115		ug/L		92	54 - 130
n-Butylbenzene	25.0	28.3		ug/L		113	70 - 142
sec-Butylbenzene	25.0	27.5		ug/L		110	70 - 134
tert-Butylbenzene	25.0	26.6		ug/L		106	70 - 135
Carbon disulfide	25.0	14.5		ug/L		58	58 - 130
Carbon tetrachloride	25.0	23.4		ug/L		93	70 - 146
Chlorobenzene	25.0	25.7		ug/L		103	70 - 130
Chloroethane	25.0	22.5		ug/L		90	62 - 138
Chloroform	25.0	24.7		ug/L		99	70 - 130
Chloromethane	25.0	21.8		ug/L		87	52 - 175
2-Chlorotoluene	25.0	26.9		ug/L		107	70 - 130

TestAmerica Pleasanton

# QC Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

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

**Lab Sample ID: LCS 720-163126/8**

**Matrix: Water**

**Analysis Batch: 163126**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chlorotoluene	25.0	27.2		ug/L		109	70 - 130
Chlorodibromomethane	25.0	28.1		ug/L		112	70 - 145
1,2-Dichlorobenzene	25.0	26.5		ug/L		106	70 - 130
1,3-Dichlorobenzene	25.0	26.9		ug/L		108	70 - 130
1,4-Dichlorobenzene	25.0	26.8		ug/L		107	70 - 130
1,3-Dichloropropane	25.0	26.4		ug/L		106	70 - 130
1,1-Dichloropropene	25.0	24.7		ug/L		99	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	27.6		ug/L		110	70 - 136
Ethylene Dibromide	25.0	27.0		ug/L		108	70 - 130
Dibromomethane	25.0	25.2		ug/L		101	70 - 130
Dichlorodifluoromethane	25.0	20.7		ug/L		83	34 - 132
1,1-Dichloroethane	25.0	23.4		ug/L		94	70 - 130
1,2-Dichloroethane	25.0	24.1		ug/L		96	61 - 132
1,1-Dichloroethene	25.0	17.8		ug/L		71	64 - 128
cis-1,2-Dichloroethene	25.0	23.9		ug/L		95	70 - 130
trans-1,2-Dichloroethene	25.0	21.9		ug/L		87	68 - 130
1,2-Dichloropropane	25.0	25.5		ug/L		102	70 - 130
cis-1,3-Dichloropropene	25.0	27.7		ug/L		111	70 - 130
trans-1,3-Dichloropropene	25.0	30.4		ug/L		122	70 - 140
Ethylbenzene	25.0	26.4		ug/L		106	80 - 120
Hexachlorobutadiene	25.0	26.8		ug/L		107	70 - 130
2-Hexanone	125	128		ug/L		102	60 - 164
Isopropylbenzene	25.0	26.9		ug/L		108	70 - 130
4-Isopropyltoluene	25.0	27.1		ug/L		108	70 - 130
Methylene Chloride	25.0	21.7		ug/L		87	70 - 147
4-Methyl-2-pentanone (MIBK)	125	131		ug/L		104	58 - 130
Naphthalene	25.0	28.6		ug/L		115	70 - 130
N-Propylbenzene	25.0	27.3		ug/L		109	70 - 130
Styrene	25.0	27.5		ug/L		110	70 - 130
1,1,1,2-Tetrachloroethane	25.0	26.0		ug/L		104	70 - 130
1,1,1,2,2-Tetrachloroethane	25.0	27.4		ug/L		110	70 - 130
Tetrachloroethene	25.0	24.7		ug/L		99	70 - 130
Toluene	25.0	24.4		ug/L		98	78 - 120
1,2,3-Trichlorobenzene	25.0	27.0		ug/L		108	70 - 130
1,2,4-Trichlorobenzene	25.0	28.3		ug/L		113	70 - 130
1,1,1-Trichloroethane	25.0	23.8		ug/L		95	70 - 130
1,1,2-Trichloroethane	25.0	27.2		ug/L		109	70 - 130
Trichloroethene	25.0	24.1		ug/L		96	70 - 130
Trichlorofluoromethane	25.0	24.3		ug/L		97	66 - 132
1,2,3-Trichloropropane	25.0	26.8		ug/L		107	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	18.8		ug/L		75	42 - 162
1,2,4-Trimethylbenzene	25.0	27.6		ug/L		110	70 - 132
1,3,5-Trimethylbenzene	25.0	27.6		ug/L		110	70 - 130
Vinyl acetate	25.0	34.5		ug/L		138	43 - 163
Vinyl chloride	25.0	22.3		ug/L		89	54 - 135
m-Xylene & p-Xylene	25.0	26.4		ug/L		106	70 - 142
o-Xylene	25.0	27.0		ug/L		108	70 - 130

TestAmerica Pleasanton

# QC Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

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

**Lab Sample ID: LCS 720-163126/8**

**Matrix: Water**

**Analysis Batch: 163126**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,2-Dichloropropane	25.0	25.9		ug/L		104	70 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	101		67 - 130
1,2-Dichloroethane-d4 (Surr)	99		72 - 130
Toluene-d8 (Surr)	101		70 - 130

**Lab Sample ID: LCSD 720-163126/11**

**Matrix: Water**

**Analysis Batch: 163126**

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

**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methyl tert-butyl ether	25.0	22.3		ug/L		89	62 - 130	9	20
Acetone	125	99.7		ug/L		80	26 - 180	16	30
Benzene	25.0	24.3		ug/L		97	79 - 130	0	20
Dichlorobromomethane	25.0	25.7		ug/L		103	70 - 130	3	20
Bromobenzene	25.0	26.0		ug/L		104	70 - 130	1	20
Chlorobromomethane	25.0	23.6		ug/L		94	70 - 130	3	20
Bromoform	25.0	26.1		ug/L		104	68 - 136	7	20
Bromomethane	25.0	23.1		ug/L		92	43 - 151	1	20
2-Butanone (MEK)	125	102		ug/L		82	54 - 130	12	20
n-Butylbenzene	25.0	29.1		ug/L		117	70 - 142	3	20
sec-Butylbenzene	25.0	28.6		ug/L		115	70 - 134	4	20
tert-Butylbenzene	25.0	27.8		ug/L		111	70 - 135	4	20
Carbon disulfide	25.0	14.7		ug/L		59	58 - 130	2	20
Carbon tetrachloride	25.0	23.7		ug/L		95	70 - 146	1	20
Chlorobenzene	25.0	25.8		ug/L		103	70 - 130	1	20
Chloroethane	25.0	22.6		ug/L		90	62 - 138	0	20
Chloroform	25.0	24.5		ug/L		98	70 - 130	1	20
Chloromethane	25.0	22.3		ug/L		89	52 - 175	2	20
2-Chlorotoluene	25.0	27.6		ug/L		110	70 - 130	3	20
4-Chlorotoluene	25.0	27.9		ug/L		112	70 - 130	3	20
Chlorodibromomethane	25.0	26.6		ug/L		107	70 - 145	5	20
1,2-Dichlorobenzene	25.0	26.4		ug/L		106	70 - 130	0	20
1,3-Dichlorobenzene	25.0	27.4		ug/L		109	70 - 130	2	20
1,4-Dichlorobenzene	25.0	27.1		ug/L		108	70 - 130	1	20
1,3-Dichloropropane	25.0	25.1		ug/L		100	70 - 130	5	20
1,1-Dichloropropene	25.0	25.0		ug/L		100	70 - 130	1	20
1,2-Dibromo-3-Chloropropane	25.0	23.9		ug/L		96	70 - 136	14	20
Ethylene Dibromide	25.0	25.3		ug/L		101	70 - 130	7	20
Dibromomethane	25.0	23.9		ug/L		95	70 - 130	6	20
Dichlorodifluoromethane	25.0	21.1		ug/L		84	34 - 132	2	20
1,1-Dichloroethane	25.0	23.6		ug/L		94	70 - 130	1	20
1,2-Dichloroethane	25.0	23.2		ug/L		93	61 - 132	4	20
1,1-Dichloroethene	25.0	18.1		ug/L		72	64 - 128	2	20
cis-1,2-Dichloroethene	25.0	24.0		ug/L		96	70 - 130	0	20
trans-1,2-Dichloroethene	25.0	22.0		ug/L		88	68 - 130	1	20
1,2-Dichloropropane	25.0	25.3		ug/L		101	70 - 130	1	20

TestAmerica Pleasanton

# QC Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

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

**Lab Sample ID: LCSD 720-163126/11**

**Matrix: Water**

**Analysis Batch: 163126**

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

**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD	
							RPD	Limit		
cis-1,3-Dichloropropene	25.0	26.9		ug/L		108	70 - 130	3	20	
trans-1,3-Dichloropropene	25.0	29.1		ug/L		116	70 - 140	5	20	
Ethylbenzene	25.0	26.8		ug/L		107	80 - 120	2	20	
Hexachlorobutadiene	25.0	27.1		ug/L		108	70 - 130	1	20	
2-Hexanone	125	105		ug/L		84	60 - 164	20	20	
Isopropylbenzene	25.0	27.3		ug/L		109	70 - 130	2	20	
4-Isopropyltoluene	25.0	27.9		ug/L		112	70 - 130	3	20	
Methylene Chloride	25.0	21.6		ug/L		86	70 - 147	1	20	
4-Methyl-2-pentanone (MIBK)	125	109		ug/L		87	58 - 130	18	20	
Naphthalene	25.0	26.1		ug/L		104	70 - 130	9	20	
N-Propylbenzene	25.0	28.3		ug/L		113	70 - 130	3	20	
Styrene	25.0	27.6		ug/L		110	70 - 130	0	20	
1,1,1,2-Tetrachloroethane	25.0	26.1		ug/L		104	70 - 130	1	20	
1,1,2,2-Tetrachloroethane	25.0	25.3		ug/L		101	70 - 130	8	20	
Tetrachloroethene	25.0	24.9		ug/L		99	70 - 130	1	20	
Toluene	25.0	25.0		ug/L		100	78 - 120	2	20	
1,2,3-Trichlorobenzene	25.0	25.5		ug/L		102	70 - 130	6	20	
1,2,4-Trichlorobenzene	25.0	27.0		ug/L		108	70 - 130	5	20	
1,1,1-Trichloroethane	25.0	24.1		ug/L		96	70 - 130	1	20	
1,1,2-Trichloroethane	25.0	25.5		ug/L		102	70 - 130	6	20	
Trichloroethene	25.0	24.3		ug/L		97	70 - 130	1	20	
Trichlorofluoromethane	25.0	24.8		ug/L		99	66 - 132	2	20	
1,2,3-Trichloropropane	25.0	25.0		ug/L		100	70 - 130	7	20	
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	19.0		ug/L		76	42 - 162	1	20	
1,2,4-Trimethylbenzene	25.0	28.2		ug/L		113	70 - 132	2	20	
1,3,5-Trimethylbenzene	25.0	28.4		ug/L		114	70 - 130	3	20	
Vinyl acetate	25.0	30.9		ug/L		124	43 - 163	11	20	
Vinyl chloride	25.0	22.6		ug/L		90	54 - 135	2	20	
m-Xylene & p-Xylene	25.0	26.7		ug/L		107	70 - 142	1	20	
o-Xylene	25.0	27.3		ug/L		109	70 - 130	1	20	
2,2-Dichloropropane	25.0	27.3		ug/L		109	70 - 140	5	20	

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	102		67 - 130
1,2-Dichloroethane-d4 (Surr)	94		72 - 130
Toluene-d8 (Surr)	101		70 - 130

**Lab Sample ID: MB 720-163209/4**

**Matrix: Solid**

**Analysis Batch: 163209**

**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		5.0		ug/Kg			07/17/14 18:50	1
Acetone	ND		50		ug/Kg			07/17/14 18:50	1
Benzene	ND		5.0		ug/Kg			07/17/14 18:50	1
Dichlorobromomethane	ND		5.0		ug/Kg			07/17/14 18:50	1
Bromobenzene	ND		5.0		ug/Kg			07/17/14 18:50	1

TestAmerica Pleasanton

# QC Sample Results

Client: Geologica Inc  
 Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

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

Lab Sample ID: MB 720-163209/4

Matrix: Solid

Analysis Batch: 163209

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chlorobromomethane	ND		20		ug/Kg			07/17/14 18:50	1
Bromoform	ND		5.0		ug/Kg			07/17/14 18:50	1
Bromomethane	ND		10		ug/Kg			07/17/14 18:50	1
2-Butanone (MEK)	ND		50		ug/Kg			07/17/14 18:50	1
n-Butylbenzene	ND		5.0		ug/Kg			07/17/14 18:50	1
sec-Butylbenzene	ND		5.0		ug/Kg			07/17/14 18:50	1
tert-Butylbenzene	ND		5.0		ug/Kg			07/17/14 18:50	1
Carbon disulfide	ND		5.0		ug/Kg			07/17/14 18:50	1
Carbon tetrachloride	ND		5.0		ug/Kg			07/17/14 18:50	1
Chlorobenzene	ND		5.0		ug/Kg			07/17/14 18:50	1
Chloroethane	ND		10		ug/Kg			07/17/14 18:50	1
Chloroform	ND		5.0		ug/Kg			07/17/14 18:50	1
Chloromethane	ND		10		ug/Kg			07/17/14 18:50	1
2-Chlorotoluene	ND		5.0		ug/Kg			07/17/14 18:50	1
4-Chlorotoluene	ND		5.0		ug/Kg			07/17/14 18:50	1
Chlorodibromomethane	ND		5.0		ug/Kg			07/17/14 18:50	1
1,2-Dichlorobenzene	ND		5.0		ug/Kg			07/17/14 18:50	1
1,3-Dichlorobenzene	ND		5.0		ug/Kg			07/17/14 18:50	1
1,4-Dichlorobenzene	ND		5.0		ug/Kg			07/17/14 18:50	1
1,3-Dichloropropane	ND		5.0		ug/Kg			07/17/14 18:50	1
1,1-Dichloropropene	ND		5.0		ug/Kg			07/17/14 18:50	1
1,2-Dibromo-3-Chloropropane	ND		10		ug/Kg			07/17/14 18:50	1
Ethylene Dibromide	ND		5.0		ug/Kg			07/17/14 18:50	1
Dibromomethane	ND		10		ug/Kg			07/17/14 18:50	1
Dichlorodifluoromethane	ND		10		ug/Kg			07/17/14 18:50	1
1,1-Dichloroethane	ND		5.0		ug/Kg			07/17/14 18:50	1
1,2-Dichloroethane	ND		5.0		ug/Kg			07/17/14 18:50	1
1,1-Dichloroethene	ND		5.0		ug/Kg			07/17/14 18:50	1
cis-1,2-Dichloroethene	ND		5.0		ug/Kg			07/17/14 18:50	1
trans-1,2-Dichloroethene	ND		5.0		ug/Kg			07/17/14 18:50	1
1,2-Dichloropropane	ND		5.0		ug/Kg			07/17/14 18:50	1
cis-1,3-Dichloropropene	ND		5.0		ug/Kg			07/17/14 18:50	1
trans-1,3-Dichloropropene	ND		5.0		ug/Kg			07/17/14 18:50	1
Ethylbenzene	ND		5.0		ug/Kg			07/17/14 18:50	1
Hexachlorobutadiene	ND		5.0		ug/Kg			07/17/14 18:50	1
2-Hexanone	ND		50		ug/Kg			07/17/14 18:50	1
Isopropylbenzene	ND		5.0		ug/Kg			07/17/14 18:50	1
4-Isopropyltoluene	ND		5.0		ug/Kg			07/17/14 18:50	1
Methylene Chloride	ND		10		ug/Kg			07/17/14 18:50	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/Kg			07/17/14 18:50	1
Naphthalene	ND		10		ug/Kg			07/17/14 18:50	1
N-Propylbenzene	ND		5.0		ug/Kg			07/17/14 18:50	1
Styrene	ND		5.0		ug/Kg			07/17/14 18:50	1
1,1,1,2-Tetrachloroethane	ND		5.0		ug/Kg			07/17/14 18:50	1
1,1,2,2-Tetrachloroethane	ND		5.0		ug/Kg			07/17/14 18:50	1
Tetrachloroethene	ND		5.0		ug/Kg			07/17/14 18:50	1
Toluene	ND		5.0		ug/Kg			07/17/14 18:50	1
1,2,3-Trichlorobenzene	ND		5.0		ug/Kg			07/17/14 18:50	1

TestAmerica Pleasanton

# QC Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

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

**Lab Sample ID: MB 720-163209/4**

**Matrix: Solid**

**Analysis Batch: 163209**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		5.0		ug/Kg			07/17/14 18:50	1
1,1,1-Trichloroethane	ND		5.0		ug/Kg			07/17/14 18:50	1
1,1,2-Trichloroethane	ND		5.0		ug/Kg			07/17/14 18:50	1
Trichloroethene	ND		5.0		ug/Kg			07/17/14 18:50	1
Trichlorofluoromethane	ND		5.0		ug/Kg			07/17/14 18:50	1
1,2,3-Trichloropropane	ND		5.0		ug/Kg			07/17/14 18:50	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/Kg			07/17/14 18:50	1
1,2,4-Trimethylbenzene	ND		5.0		ug/Kg			07/17/14 18:50	1
1,3,5-Trimethylbenzene	ND		5.0		ug/Kg			07/17/14 18:50	1
Vinyl acetate	ND		50		ug/Kg			07/17/14 18:50	1
Vinyl chloride	ND		5.0		ug/Kg			07/17/14 18:50	1
Xylenes, Total	ND		10		ug/Kg			07/17/14 18:50	1
2,2-Dichloropropane	ND		5.0		ug/Kg			07/17/14 18:50	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	94		45 - 131		07/17/14 18:50	1
1,2-Dichloroethane-d4 (Surr)	100		60 - 140		07/17/14 18:50	1
Toluene-d8 (Surr)	94		58 - 140		07/17/14 18:50	1

**Lab Sample ID: LCS 720-163209/5**

**Matrix: Solid**

**Analysis Batch: 163209**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	50.0	45.1		ug/Kg		90	70 - 144
Acetone	250	206		ug/Kg		82	30 - 162
Benzene	50.0	43.5		ug/Kg		87	70 - 130
Dichlorobromomethane	50.0	49.3		ug/Kg		99	70 - 131
Bromobenzene	50.0	48.3		ug/Kg		97	70 - 130
Chlorobromomethane	50.0	45.8		ug/Kg		92	70 - 130
Bromoform	50.0	54.2		ug/Kg		108	59 - 158
Bromomethane	50.0	48.6		ug/Kg		97	59 - 132
2-Butanone (MEK)	250	204		ug/Kg		82	53 - 124
n-Butylbenzene	50.0	46.4		ug/Kg		93	70 - 142
sec-Butylbenzene	50.0	45.0		ug/Kg		90	70 - 136
tert-Butylbenzene	50.0	45.3		ug/Kg		91	70 - 130
Carbon disulfide	50.0	40.7		ug/Kg		81	60 - 140
Carbon tetrachloride	50.0	50.4		ug/Kg		101	70 - 138
Chlorobenzene	50.0	45.0		ug/Kg		90	70 - 130
Chloroethane	50.0	44.4		ug/Kg		89	65 - 130
Chloroform	50.0	46.8		ug/Kg		94	77 - 127
Chloromethane	50.0	41.0		ug/Kg		82	55 - 140
2-Chlorotoluene	50.0	45.5		ug/Kg		91	70 - 138
4-Chlorotoluene	50.0	45.8		ug/Kg		92	70 - 136
Chlorodibromomethane	50.0	53.3		ug/Kg		107	70 - 146
1,2-Dichlorobenzene	50.0	46.9		ug/Kg		94	70 - 130
1,3-Dichlorobenzene	50.0	47.1		ug/Kg		94	70 - 131
1,4-Dichlorobenzene	50.0	47.3		ug/Kg		95	70 - 130

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# QC Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

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

**Lab Sample ID: LCS 720-163209/5**

**Matrix: Solid**

**Analysis Batch: 163209**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichloropropane	50.0	46.5		ug/Kg		93	70 - 140
1,1-Dichloropropene	50.0	47.8		ug/Kg		96	70 - 130
1,2-Dibromo-3-Chloropropane	50.0	47.6		ug/Kg		95	60 - 145
Ethylene Dibromide	50.0	49.1		ug/Kg		98	70 - 140
Dibromomethane	50.0	47.1		ug/Kg		94	70 - 139
Dichlorodifluoromethane	50.0	50.5		ug/Kg		101	37 - 158
1,1-Dichloroethane	50.0	43.6		ug/Kg		87	70 - 130
1,2-Dichloroethane	50.0	45.9		ug/Kg		92	70 - 130
1,1-Dichloroethene	50.0	41.3		ug/Kg		83	76 - 122
cis-1,2-Dichloroethene	50.0	44.2		ug/Kg		88	70 - 138
trans-1,2-Dichloroethene	50.0	44.7		ug/Kg		89	67 - 130
1,2-Dichloropropane	50.0	45.2		ug/Kg		90	73 - 127
cis-1,3-Dichloropropene	50.0	50.8		ug/Kg		102	68 - 147
trans-1,3-Dichloropropene	50.0	55.8		ug/Kg		112	70 - 136
Ethylbenzene	50.0	42.5		ug/Kg		85	80 - 137
Hexachlorobutadiene	50.0	46.4		ug/Kg		93	70 - 132
2-Hexanone	250	205		ug/Kg		82	44 - 133
Isopropylbenzene	50.0	44.9		ug/Kg		90	88 - 128
4-Isopropyltoluene	50.0	45.5		ug/Kg		91	70 - 133
Methylene Chloride	50.0	43.2		ug/Kg		86	70 - 134
4-Methyl-2-pentanone (MIBK)	250	215		ug/Kg		86	60 - 160
Naphthalene	50.0	45.1		ug/Kg		90	60 - 147
N-Propylbenzene	50.0	45.4		ug/Kg		91	70 - 130
Styrene	50.0	48.2		ug/Kg		96	70 - 130
1,1,1,2-Tetrachloroethane	50.0	49.4		ug/Kg		99	70 - 130
1,1,1,2,2-Tetrachloroethane	50.0	46.5		ug/Kg		93	70 - 146
Tetrachloroethene	50.0	47.0		ug/Kg		94	70 - 132
Toluene	50.0	43.6		ug/Kg		87	80 - 128
1,2,3-Trichlorobenzene	50.0	44.7		ug/Kg		89	60 - 140
1,2,4-Trichlorobenzene	50.0	47.2		ug/Kg		94	60 - 140
1,1,1-Trichloroethane	50.0	45.4		ug/Kg		91	70 - 130
1,1,2-Trichloroethane	50.0	46.7		ug/Kg		93	70 - 130
Trichloroethene	50.0	46.4		ug/Kg		93	70 - 133
Trichlorofluoromethane	50.0	54.4		ug/Kg		109	60 - 140
1,2,3-Trichloropropane	50.0	48.1		ug/Kg		96	70 - 146
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	41.2		ug/Kg		82	60 - 140
1,2,4-Trimethylbenzene	50.0	46.3		ug/Kg		93	70 - 130
1,3,5-Trimethylbenzene	50.0	46.7		ug/Kg		93	70 - 131
Vinyl acetate	50.0	46.7	J	ug/Kg		93	38 - 176
Vinyl chloride	50.0	43.3		ug/Kg		87	58 - 125
m-Xylene & p-Xylene	50.0	46.5		ug/Kg		93	70 - 146
o-Xylene	50.0	44.7		ug/Kg		89	70 - 140
2,2-Dichloropropane	50.0	38.5		ug/Kg		77	70 - 162

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	98		45 - 131
1,2-Dichloroethane-d4 (Surr)	97		60 - 140

TestAmerica Pleasanton

# QC Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

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

**Lab Sample ID: LCS 720-163209/5**

**Matrix: Solid**

**Analysis Batch: 163209**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	98		58 - 140

**Lab Sample ID: LCSD 720-163209/6**

**Matrix: Solid**

**Analysis Batch: 163209**

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

**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	Limit
							Limits	RPD		
Methyl tert-butyl ether	50.0	44.4		ug/Kg		89	70 - 144	2	20	
Acetone	250	172		ug/Kg		69	30 - 162	18	30	
Benzene	50.0	43.5		ug/Kg		87	70 - 130	0	20	
Dichlorobromomethane	50.0	48.2		ug/Kg		96	70 - 131	2	20	
Bromobenzene	50.0	49.4		ug/Kg		99	70 - 130	2	20	
Chlorobromomethane	50.0	46.2		ug/Kg		92	70 - 130	1	20	
Bromoform	50.0	54.1		ug/Kg		108	59 - 158	0	20	
Bromomethane	50.0	50.7		ug/Kg		101	59 - 132	4	20	
2-Butanone (MEK)	250	198		ug/Kg		79	53 - 124	3	20	
n-Butylbenzene	50.0	46.3		ug/Kg		93	70 - 142	0	20	
sec-Butylbenzene	50.0	45.4		ug/Kg		91	70 - 136	1	20	
tert-Butylbenzene	50.0	46.0		ug/Kg		92	70 - 130	1	20	
Carbon disulfide	50.0	41.7		ug/Kg		83	60 - 140	2	20	
Carbon tetrachloride	50.0	51.0		ug/Kg		102	70 - 138	1	20	
Chlorobenzene	50.0	45.1		ug/Kg		90	70 - 130	0	20	
Chloroethane	50.0	46.3		ug/Kg		93	65 - 130	4	20	
Chloroform	50.0	46.2		ug/Kg		92	77 - 127	1	20	
Chloromethane	50.0	42.1		ug/Kg		84	55 - 140	3	20	
2-Chlorotoluene	50.0	45.6		ug/Kg		91	70 - 138	0	20	
4-Chlorotoluene	50.0	45.6		ug/Kg		91	70 - 136	1	20	
Chlorodibromomethane	50.0	52.5		ug/Kg		105	70 - 146	1	20	
1,2-Dichlorobenzene	50.0	47.3		ug/Kg		95	70 - 130	1	20	
1,3-Dichlorobenzene	50.0	47.3		ug/Kg		95	70 - 131	0	20	
1,4-Dichlorobenzene	50.0	47.5		ug/Kg		95	70 - 130	0	20	
1,3-Dichloropropane	50.0	45.0		ug/Kg		90	70 - 140	3	20	
1,1-Dichloropropene	50.0	47.2		ug/Kg		94	70 - 130	1	20	
1,2-Dibromo-3-Chloropropane	50.0	47.0		ug/Kg		94	60 - 145	1	20	
Ethylene Dibromide	50.0	47.8		ug/Kg		96	70 - 140	3	20	
Dibromomethane	50.0	45.9		ug/Kg		92	70 - 139	3	20	
Dichlorodifluoromethane	50.0	52.0		ug/Kg		104	37 - 158	3	20	
1,1-Dichloroethane	50.0	43.9		ug/Kg		88	70 - 130	1	20	
1,2-Dichloroethane	50.0	44.1		ug/Kg		88	70 - 130	4	20	
1,1-Dichloroethene	50.0	42.9		ug/Kg		86	76 - 122	4	20	
cis-1,2-Dichloroethene	50.0	43.0		ug/Kg		86	70 - 138	3	20	
trans-1,2-Dichloroethene	50.0	45.6		ug/Kg		91	67 - 130	2	20	
1,2-Dichloropropane	50.0	43.9		ug/Kg		88	73 - 127	3	20	
cis-1,3-Dichloropropene	50.0	49.4		ug/Kg		99	68 - 147	3	20	
trans-1,3-Dichloropropene	50.0	54.0		ug/Kg		108	70 - 136	3	20	
Ethylbenzene	50.0	42.1		ug/Kg		84	80 - 137	1	20	
Hexachlorobutadiene	50.0	47.6		ug/Kg		95	70 - 132	3	20	
2-Hexanone	250	189		ug/Kg		75	44 - 133	9	20	

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# QC Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

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

**Lab Sample ID: LCSD 720-163209/6**

**Matrix: Solid**

**Analysis Batch: 163209**

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

**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD	
							RPD	Limit		
Isopropylbenzene	50.0	44.9		ug/Kg		90	88 - 128	0	20	
4-Isopropyltoluene	50.0	46.0		ug/Kg		92	70 - 133	1	20	
Methylene Chloride	50.0	43.6		ug/Kg		87	70 - 134	1	20	
4-Methyl-2-pentanone (MIBK)	250	197		ug/Kg		79	60 - 160	9	20	
Naphthalene	50.0	45.4		ug/Kg		91	60 - 147	1	20	
N-Propylbenzene	50.0	45.4		ug/Kg		91	70 - 130	0	20	
Styrene	50.0	47.7		ug/Kg		95	70 - 130	1	20	
1,1,1,2-Tetrachloroethane	50.0	49.8		ug/Kg		100	70 - 130	1	20	
1,1,1,2,2-Tetrachloroethane	50.0	46.0		ug/Kg		92	70 - 146	1	20	
Tetrachloroethene	50.0	47.1		ug/Kg		94	70 - 132	0	20	
Toluene	50.0	43.7		ug/Kg		87	80 - 128	0	20	
1,2,3-Trichlorobenzene	50.0	45.7		ug/Kg		91	60 - 140	2	20	
1,2,4-Trichlorobenzene	50.0	47.3		ug/Kg		95	60 - 140	0	20	
1,1,1-Trichloroethane	50.0	46.1		ug/Kg		92	70 - 130	1	20	
1,1,1,2-Trichloroethane	50.0	45.4		ug/Kg		91	70 - 130	3	20	
Trichloroethene	50.0	46.8		ug/Kg		94	70 - 133	1	20	
Trichlorofluoromethane	50.0	55.3		ug/Kg		111	60 - 140	2	20	
1,2,3-Trichloropropane	50.0	47.5		ug/Kg		95	70 - 146	1	20	
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	43.2		ug/Kg		86	60 - 140	5	20	
1,2,4-Trimethylbenzene	50.0	46.5		ug/Kg		93	70 - 130	0	20	
1,3,5-Trimethylbenzene	50.0	47.0		ug/Kg		94	70 - 131	1	20	
Vinyl acetate	50.0	44.5	J	ug/Kg		89	38 - 176	5	20	
Vinyl chloride	50.0	45.1		ug/Kg		90	58 - 125	4	20	
m-Xylene & p-Xylene	50.0	46.2		ug/Kg		92	70 - 146	1	20	
o-Xylene	50.0	44.3		ug/Kg		89	70 - 140	1	20	
2,2-Dichloropropane	50.0	39.1		ug/Kg		78	70 - 162	1	20	

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	97		45 - 131
1,2-Dichloroethane-d4 (Surr)	96		60 - 140
Toluene-d8 (Surr)	97		58 - 140

**Lab Sample ID: 720-58627-9 MS**

**Matrix: Solid**

**Analysis Batch: 163209**

**Client Sample ID: A-1-4'**

**Prep Type: Total/NA**

**Prep Batch: 163234**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits	
				Result	Qualifier				Limit	
Methyl tert-butyl ether	ND		59.0	57.8		ug/Kg	☼	98	69 - 130	
Acetone	ND		295	294		ug/Kg	☼	99	37 - 150	
Benzene	ND		59.0	53.5		ug/Kg	☼	91	70 - 130	
Dichlorobromomethane	ND		59.0	59.5		ug/Kg	☼	101	64 - 135	
Bromobenzene	ND		59.0	63.8		ug/Kg	☼	108	70 - 130	
Chlorobromomethane	ND		59.0	58.1		ug/Kg	☼	98	65 - 130	
Bromoform	ND		59.0	66.9		ug/Kg	☼	113	58 - 132	
Bromomethane	ND		59.0	62.0		ug/Kg	☼	105	56 - 130	
2-Butanone (MEK)	ND		295	259		ug/Kg	☼	88	41 - 150	
n-Butylbenzene	ND		59.0	60.2		ug/Kg	☼	102	60 - 145	

TestAmerica Pleasanton

# QC Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

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

**Lab Sample ID: 720-58627-9 MS**

**Matrix: Solid**

**Analysis Batch: 163209**

**Client Sample ID: A-1-4'**

**Prep Type: Total/NA**

**Prep Batch: 163234**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec. Limits
	Result	Qualifier	Added	Result	Qualifier				
sec-Butylbenzene	ND		59.0	61.1		ug/Kg	*	103	64 - 137
tert-Butylbenzene	ND		59.0	63.6		ug/Kg	*	108	63 - 134
Carbon disulfide	ND		59.0	49.9		ug/Kg	*	85	10 - 150
Carbon tetrachloride	ND		59.0	60.2		ug/Kg	*	102	54 - 130
Chlorobenzene	ND		59.0	55.1		ug/Kg	*	93	70 - 130
Chloroethane	ND		59.0	56.6		ug/Kg	*	96	61 - 130
Chloroform	ND		59.0	57.0		ug/Kg	*	97	67 - 130
Chloromethane	ND		59.0	52.4		ug/Kg	*	89	50 - 131
2-Chlorotoluene	ND		59.0	60.4		ug/Kg	*	102	70 - 130
4-Chlorotoluene	ND		59.0	59.1		ug/Kg	*	100	70 - 130
Chlorodibromomethane	ND		59.0	62.4		ug/Kg	*	106	60 - 141
1,2-Dichlorobenzene	ND		59.0	57.1		ug/Kg	*	97	70 - 130
1,3-Dichlorobenzene	ND		59.0	58.8		ug/Kg	*	100	70 - 130
1,4-Dichlorobenzene	ND		59.0	58.2		ug/Kg	*	99	70 - 130
1,3-Dichloropropane	ND		59.0	55.8		ug/Kg	*	94	70 - 130
1,1-Dichloropropene	ND		59.0	56.8		ug/Kg	*	96	67 - 130
1,2-Dibromo-3-Chloropropane	ND		59.0	60.8		ug/Kg	*	103	57 - 130
Ethylene Dibromide	ND		59.0	57.4		ug/Kg	*	97	66 - 135
Dibromomethane	ND		59.0	57.7		ug/Kg	*	98	65 - 131
Dichlorodifluoromethane	ND		59.0	63.7		ug/Kg	*	108	38 - 130
1,1-Dichloroethane	ND		59.0	54.9		ug/Kg	*	93	67 - 130
1,2-Dichloroethane	ND		59.0	54.8		ug/Kg	*	93	70 - 130
1,1-Dichloroethene	ND		59.0	53.2		ug/Kg	*	90	64 - 130
cis-1,2-Dichloroethene	ND		59.0	53.0		ug/Kg	*	90	68 - 131
trans-1,2-Dichloroethene	ND		59.0	55.6		ug/Kg	*	94	70 - 130
1,2-Dichloropropane	ND		59.0	55.7		ug/Kg	*	94	65 - 133
cis-1,3-Dichloropropene	ND		59.0	60.0		ug/Kg	*	102	46 - 139
trans-1,3-Dichloropropene	ND		59.0	64.0		ug/Kg	*	108	55 - 131
Ethylbenzene	ND		59.0	53.3		ug/Kg	*	90	65 - 130
Hexachlorobutadiene	ND		59.0	56.7		ug/Kg	*	96	58 - 132
2-Hexanone	ND		295	230		ug/Kg	*	78	44 - 150
Isopropylbenzene	ND		59.0	56.3		ug/Kg	*	95	65 - 130
4-Isopropyltoluene	ND		59.0	62.0		ug/Kg	*	105	69 - 134
Methylene Chloride	ND		59.0	55.4		ug/Kg	*	94	63 - 130
4-Methyl-2-pentanone (MIBK)	ND		295	248		ug/Kg	*	84	51 - 140
Naphthalene	ND		59.0	43.6		ug/Kg	*	74	45 - 146
N-Propylbenzene	ND		59.0	62.2		ug/Kg	*	105	70 - 130
Styrene	ND		59.0	55.9		ug/Kg	*	95	58 - 135
1,1,1,2-Tetrachloroethane	ND		59.0	64.8		ug/Kg	*	110	64 - 133
1,1,2,2-Tetrachloroethane	ND		59.0	66.7		ug/Kg	*	113	70 - 131
Tetrachloroethene	ND		59.0	54.5		ug/Kg	*	92	67 - 130
Toluene	ND		59.0	57.0		ug/Kg	*	97	70 - 130
1,2,3-Trichlorobenzene	ND		59.0	47.2		ug/Kg	*	80	58 - 138
1,2,4-Trichlorobenzene	ND		59.0	51.7		ug/Kg	*	88	49 - 144
1,1,1-Trichloroethane	ND		59.0	55.1		ug/Kg	*	93	57 - 133
1,1,2-Trichloroethane	ND		59.0	56.0		ug/Kg	*	95	68 - 132
Trichloroethene	ND		59.0	55.6		ug/Kg	*	94	66 - 130
Trichlorofluoromethane	ND		59.0	67.5		ug/Kg	*	114	61 - 130

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# QC Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

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

**Lab Sample ID: 720-58627-9 MS**

**Matrix: Solid**

**Analysis Batch: 163209**

**Client Sample ID: A-1-4'**

**Prep Type: Total/NA**

**Prep Batch: 163234**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier					
1,2,3-Trichloropropane	ND		59.0	69.1		ug/Kg	*	117		62 - 150
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		59.0	52.9		ug/Kg	*	90		52 - 130
1,2,4-Trimethylbenzene	ND		59.0	62.1		ug/Kg	*	105		64 - 140
1,3,5-Trimethylbenzene	ND		59.0	63.5		ug/Kg	*	108		67 - 134
Vinyl acetate	ND		59.0	ND		ug/Kg	*	64		52 - 150
Vinyl chloride	ND		59.0	53.9		ug/Kg	*	91		62 - 130
m-Xylene & p-Xylene	ND		59.0	57.5		ug/Kg	*	97		70 - 130
o-Xylene	ND		59.0	54.8		ug/Kg	*	93		68 - 130
2,2-Dichloropropane	ND		59.0	49.1		ug/Kg	*	83		63 - 130

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	90		45 - 131
1,2-Dichloroethane-d4 (Surr)	94		60 - 140
Toluene-d8 (Surr)	94		58 - 140

**Lab Sample ID: 720-58627-9 MSD**

**Matrix: Solid**

**Analysis Batch: 163209**

**Client Sample ID: A-1-4'**

**Prep Type: Total/NA**

**Prep Batch: 163234**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier							
Methyl tert-butyl ether	ND		58.5	53.0		ug/Kg	*	91		69 - 130	9	20
Acetone	ND		292	256		ug/Kg	*	88		37 - 150	14	20
Benzene	ND		58.5	51.4		ug/Kg	*	88		70 - 130	4	20
Dichlorobromomethane	ND		58.5	55.7		ug/Kg	*	95		64 - 135	7	20
Bromobenzene	ND		58.5	65.8		ug/Kg	*	113		70 - 130	3	20
Chlorobromomethane	ND		58.5	55.4		ug/Kg	*	95		65 - 130	5	20
Bromoform	ND		58.5	62.0		ug/Kg	*	106		58 - 132	8	20
Bromomethane	ND		58.5	62.6		ug/Kg	*	107		56 - 130	1	20
2-Butanone (MEK)	ND		292	230		ug/Kg	*	79		41 - 150	12	20
n-Butylbenzene	ND		58.5	62.6		ug/Kg	*	107		60 - 145	4	20
sec-Butylbenzene	ND		58.5	67.7		ug/Kg	*	116		64 - 137	10	20
tert-Butylbenzene	ND		58.5	71.8		ug/Kg	*	123		63 - 134	12	20
Carbon disulfide	ND		58.5	48.9		ug/Kg	*	84		10 - 150	2	20
Carbon tetrachloride	ND		58.5	58.2		ug/Kg	*	99		54 - 130	3	20
Chlorobenzene	ND		58.5	52.5		ug/Kg	*	90		70 - 130	5	20
Chloroethane	ND		58.5	57.3		ug/Kg	*	98		61 - 130	1	20
Chloroform	ND		58.5	54.5		ug/Kg	*	93		67 - 130	4	20
Chloromethane	ND		58.5	52.5		ug/Kg	*	90		50 - 131	0	20
2-Chlorotoluene	ND		58.5	64.4		ug/Kg	*	110		70 - 130	6	20
4-Chlorotoluene	ND		58.5	61.5		ug/Kg	*	105		70 - 130	4	20
Chlorodibromomethane	ND		58.5	57.9		ug/Kg	*	99		60 - 141	7	20
1,2-Dichlorobenzene	ND		58.5	52.9		ug/Kg	*	91		70 - 130	8	20
1,3-Dichlorobenzene	ND		58.5	55.0		ug/Kg	*	94		70 - 130	7	20
1,4-Dichlorobenzene	ND		58.5	54.9		ug/Kg	*	94		70 - 130	6	20
1,3-Dichloropropane	ND		58.5	51.2		ug/Kg	*	88		70 - 130	9	20
1,1-Dichloropropene	ND		58.5	54.6		ug/Kg	*	93		67 - 130	4	20
1,2-Dibromo-3-Chloropropane	ND		58.5	59.3		ug/Kg	*	101		57 - 130	2	20

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# QC Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

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

Lab Sample ID: 720-58627-9 MSD

Matrix: Solid

Analysis Batch: 163209

Client Sample ID: A-1-4'

Prep Type: Total/NA

Prep Batch: 163234

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Ethylene Dibromide	ND		58.5	52.5		ug/Kg	*	90	66 - 135	9	20
Dibromomethane	ND		58.5	53.1		ug/Kg	*	91	65 - 131	8	20
Dichlorodifluoromethane	ND		58.5	63.4		ug/Kg	*	109	38 - 130	0	20
1,1-Dichloroethane	ND		58.5	52.1		ug/Kg	*	89	67 - 130	5	20
1,2-Dichloroethane	ND		58.5	49.9		ug/Kg	*	85	70 - 130	9	20
1,1-Dichloroethene	ND		58.5	51.2		ug/Kg	*	87	64 - 130	4	20
cis-1,2-Dichloroethene	ND		58.5	50.3		ug/Kg	*	86	68 - 131	5	20
trans-1,2-Dichloroethene	ND		58.5	54.4		ug/Kg	*	93	70 - 130	2	20
1,2-Dichloropropane	ND		58.5	53.0		ug/Kg	*	91	65 - 133	5	20
cis-1,3-Dichloropropene	ND		58.5	56.3		ug/Kg	*	96	46 - 139	6	20
trans-1,3-Dichloropropene	ND		58.5	59.2		ug/Kg	*	101	55 - 131	8	20
Ethylbenzene	ND		58.5	52.6		ug/Kg	*	90	65 - 130	1	20
Hexachlorobutadiene	ND		58.5	54.3		ug/Kg	*	93	58 - 132	4	20
2-Hexanone	ND		292	211		ug/Kg	*	72	44 - 150	9	20
Isopropylbenzene	ND		58.5	55.3		ug/Kg	*	95	65 - 130	2	20
4-Isopropyltoluene	ND		58.5	67.8		ug/Kg	*	116	69 - 134	9	20
Methylene Chloride	ND		58.5	53.4		ug/Kg	*	91	63 - 130	3	20
4-Methyl-2-pentanone (MIBK)	ND		292	227		ug/Kg	*	78	51 - 140	9	20
Naphthalene	ND		58.5	26.1	F2	ug/Kg	*	45	45 - 146	50	20
N-Propylbenzene	ND		58.5	69.0		ug/Kg	*	118	70 - 130	10	20
Styrene	ND		58.5	51.2		ug/Kg	*	88	58 - 135	9	20
1,1,1,2-Tetrachloroethane	ND		58.5	63.3		ug/Kg	*	108	64 - 133	2	20
1,1,2,2-Tetrachloroethane	ND		58.5	70.8		ug/Kg	*	121	70 - 131	6	20
Tetrachloroethene	ND		58.5	52.1		ug/Kg	*	89	67 - 130	5	20
Toluene	ND		58.5	56.2		ug/Kg	*	96	70 - 130	1	20
1,2,3-Trichlorobenzene	ND		58.5	32.3	F1 F2	ug/Kg	*	55	58 - 138	38	20
1,2,4-Trichlorobenzene	ND		58.5	36.3	F2	ug/Kg	*	62	49 - 144	35	20
1,1,1-Trichloroethane	ND		58.5	54.1		ug/Kg	*	93	57 - 133	2	20
1,1,2-Trichloroethane	ND		58.5	51.8		ug/Kg	*	89	68 - 132	8	20
Trichloroethene	ND		58.5	53.7		ug/Kg	*	92	66 - 130	4	20
Trichlorofluoromethane	ND		58.5	67.2		ug/Kg	*	115	61 - 130	0	20
1,2,3-Trichloropropane	ND		58.5	72.7		ug/Kg	*	124	62 - 150	5	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		58.5	51.6		ug/Kg	*	88	52 - 130	2	20
1,2,4-Trimethylbenzene	ND		58.5	66.8		ug/Kg	*	114	64 - 140	7	20
1,3,5-Trimethylbenzene	ND		58.5	70.2		ug/Kg	*	120	67 - 134	10	20
Vinyl acetate	ND		58.5	ND	F1 F2	ug/Kg	*	48	52 - 150	29	20
Vinyl chloride	ND		58.5	55.3		ug/Kg	*	95	62 - 130	3	20
m-Xylene & p-Xylene	ND		58.5	55.6		ug/Kg	*	95	70 - 130	3	20
o-Xylene	ND		58.5	53.5		ug/Kg	*	92	68 - 130	2	20
2,2-Dichloropropane	ND		58.5	48.1		ug/Kg	*	82	63 - 130	2	20

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	83		45 - 131
1,2-Dichloroethane-d4 (Surr)	90		60 - 140
Toluene-d8 (Surr)	94		58 - 140

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# QC Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

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

**Lab Sample ID: MB 720-163015/1-A**

**Matrix: Water**

**Analysis Batch: 163000**

**Client Sample ID: Method Blank**

**Prep Type: Silica Gel Cleanup**

**Prep Batch: 163015**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		50		ug/L		07/15/14 10:19	07/15/14 21:01	1
Motor Oil Range Organics [C24-C36]	ND		99		ug/L		07/15/14 10:19	07/15/14 21:01	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0		0 - 5				07/15/14 10:19	07/15/14 21:01	1
p-Terphenyl	91		31 - 150				07/15/14 10:19	07/15/14 21:01	1

**Lab Sample ID: LCS 720-163015/2-A**

**Matrix: Water**

**Analysis Batch: 163000**

**Client Sample ID: Lab Control Sample**

**Prep Type: Silica Gel Cleanup**

**Prep Batch: 163015**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	2500	1940		ug/L		78	32 - 119
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
p-Terphenyl	96		31 - 150				

**Lab Sample ID: LCSD 720-163015/3-A**

**Matrix: Water**

**Analysis Batch: 163000**

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

**Prep Type: Silica Gel Cleanup**

**Prep Batch: 163015**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	2500	2180		ug/L		87	32 - 119	12	35
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
p-Terphenyl	107		31 - 150						

**Lab Sample ID: MB 720-163273/1-A**

**Matrix: Solid**

**Analysis Batch: 163253**

**Client Sample ID: Method Blank**

**Prep Type: Silica Gel Cleanup**

**Prep Batch: 163273**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		0.99		mg/Kg		07/18/14 11:59	07/19/14 04:26	1
Motor Oil Range Organics [C24-C36]	ND		50		mg/Kg		07/18/14 11:59	07/19/14 04:26	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.001		0 - 1				07/18/14 11:59	07/19/14 04:26	1
p-Terphenyl	93		38 - 148				07/18/14 11:59	07/19/14 04:26	1

**Lab Sample ID: LCS 720-163273/2-A**

**Matrix: Solid**

**Analysis Batch: 163253**

**Client Sample ID: Lab Control Sample**

**Prep Type: Silica Gel Cleanup**

**Prep Batch: 163273**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	82.5	53.7		mg/Kg		65	36 - 112

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# QC Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

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

**Lab Sample ID:** LCS 720-163273/2-A  
**Matrix:** Solid  
**Analysis Batch:** 163253

**Client Sample ID:** Lab Control Sample  
**Prep Type:** Silica Gel Cleanup  
**Prep Batch:** 163273

Surrogate	LCS		Limits
	%Recovery	Qualifier	
p-Terphenyl	109		38 - 148

**Lab Sample ID:** LCSD 720-163273/3-A  
**Matrix:** Solid  
**Analysis Batch:** 163253

**Client Sample ID:** Lab Control Sample Dup  
**Prep Type:** Silica Gel Cleanup  
**Prep Batch:** 163273

Analyte	Spike Added	LCSD		Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
		Result	Qualifier						
Diesel Range Organics [C10-C28]	83.2	49.7		mg/Kg		60	36 - 112	8	35

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
p-Terphenyl	108		38 - 148

## Method: 6010B - Metals (ICP)

**Lab Sample ID:** MB 720-163101/1-A  
**Matrix:** Solid  
**Analysis Batch:** 163290

**Client Sample ID:** Method Blank  
**Prep Type:** Total/NA  
**Prep Batch:** 163101

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	ND		0.50		mg/Kg		07/16/14 13:49	07/18/14 09:50	1
Arsenic	ND		1.0		mg/Kg		07/16/14 13:49	07/18/14 09:50	1
Barium	ND		0.50		mg/Kg		07/16/14 13:49	07/18/14 09:50	1
Beryllium	ND		0.10		mg/Kg		07/16/14 13:49	07/18/14 09:50	1
Cadmium	ND		0.13		mg/Kg		07/16/14 13:49	07/18/14 09:50	1
Chromium	ND		0.50		mg/Kg		07/16/14 13:49	07/18/14 09:50	1
Cobalt	ND		0.20		mg/Kg		07/16/14 13:49	07/18/14 09:50	1
Copper	ND		1.5		mg/Kg		07/16/14 13:49	07/18/14 09:50	1
Lead	ND		0.50		mg/Kg		07/16/14 13:49	07/18/14 09:50	1
Molybdenum	ND		0.50		mg/Kg		07/16/14 13:49	07/18/14 09:50	1
Nickel	ND		0.50		mg/Kg		07/16/14 13:49	07/18/14 09:50	1
Selenium	ND		1.0		mg/Kg		07/16/14 13:49	07/18/14 09:50	1
Silver	ND		0.25		mg/Kg		07/16/14 13:49	07/18/14 09:50	1
Vanadium	ND		0.50		mg/Kg		07/16/14 13:49	07/18/14 09:50	1
Zinc	ND		1.5		mg/Kg		07/16/14 13:49	07/18/14 09:50	1

**Lab Sample ID:** MB 720-163101/1-A  
**Matrix:** Solid  
**Analysis Batch:** 163352

**Client Sample ID:** Method Blank  
**Prep Type:** Total/NA  
**Prep Batch:** 163101

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Thallium	ND		0.50		mg/Kg		07/16/14 13:49	07/18/14 20:47	1

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# QC Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

## Method: 6010B - Metals (ICP) (Continued)

**Lab Sample ID: LCS 720-163101/2-A**

**Matrix: Solid**

**Analysis Batch: 163290**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 163101**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
							Limits	
Antimony	50.0	44.9		mg/Kg		90	80 - 120	
Arsenic	50.0	45.6		mg/Kg		91	80 - 120	
Barium	50.0	49.2		mg/Kg		98	80 - 120	
Beryllium	50.0	50.1		mg/Kg		100	80 - 120	
Cadmium	50.0	45.4		mg/Kg		91	80 - 120	
Chromium	50.0	49.0		mg/Kg		98	80 - 120	
Cobalt	50.0	47.5		mg/Kg		95	80 - 120	
Copper	50.0	49.0		mg/Kg		98	80 - 120	
Lead	50.0	45.8		mg/Kg		92	80 - 120	
Molybdenum	50.0	47.4		mg/Kg		95	80 - 120	
Nickel	50.0	45.9		mg/Kg		92	80 - 120	
Selenium	50.0	45.1		mg/Kg		90	80 - 120	
Silver	25.0	23.4		mg/Kg		94	80 - 120	
Vanadium	50.0	47.0		mg/Kg		94	80 - 120	
Zinc	50.0	46.3		mg/Kg		93	80 - 120	

**Lab Sample ID: LCS 720-163101/2-A**

**Matrix: Solid**

**Analysis Batch: 163352**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 163101**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
							Limits	
Thallium	50.0	48.3		mg/Kg		97	80 - 120	

**Lab Sample ID: LCSD 720-163101/3-A**

**Matrix: Solid**

**Analysis Batch: 163290**

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

**Prep Type: Total/NA**

**Prep Batch: 163101**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD	
							Limits		RPD	Limit
Antimony	50.0	43.2		mg/Kg		86	80 - 120	4	20	
Arsenic	50.0	43.9		mg/Kg		88	80 - 120	4	20	
Barium	50.0	46.8		mg/Kg		94	80 - 120	5	20	
Beryllium	50.0	47.2		mg/Kg		94	80 - 120	6	20	
Cadmium	50.0	43.3		mg/Kg		87	80 - 120	5	20	
Chromium	50.0	46.4		mg/Kg		93	80 - 120	6	20	
Cobalt	50.0	45.3		mg/Kg		91	80 - 120	5	20	
Copper	50.0	46.5		mg/Kg		93	80 - 120	5	20	
Lead	50.0	43.9		mg/Kg		88	80 - 120	4	20	
Molybdenum	50.0	45.7		mg/Kg		91	80 - 120	4	20	
Nickel	50.0	44.0		mg/Kg		88	80 - 120	4	20	
Selenium	50.0	43.2		mg/Kg		86	80 - 120	4	20	
Silver	25.0	22.4		mg/Kg		89	80 - 120	5	20	
Vanadium	50.0	44.8		mg/Kg		90	80 - 120	5	20	
Zinc	50.0	44.2		mg/Kg		88	80 - 120	5	20	

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# QC Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

## Method: 6010B - Metals (ICP) (Continued)

**Lab Sample ID: LCSD 720-163101/3-A**

**Matrix: Solid**

**Analysis Batch: 163352**

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

**Prep Type: Total/NA**

**Prep Batch: 163101**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Thallium	50.0	44.8		mg/Kg		90	80 - 120	8	20

**Lab Sample ID: LCSSRM 720-163101/25-A**

**Matrix: Solid**

**Analysis Batch: 163290**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 163101**

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	74.6	38.4		mg/Kg		51	11 - 101
Arsenic	45.5	39.9		mg/Kg		88	69 - 119
Barium	579	558		mg/Kg		96	61 - 117
Beryllium	155	147		mg/Kg		95	56 - 102
Cadmium	201	168		mg/Kg		84	67 - 118
Chromium	106	95.9		mg/Kg		91	67 - 121
Cobalt	247	217		mg/Kg		88	64 - 133
Copper	130	122		mg/Kg		94	68 - 126
Lead	302	240		mg/Kg		80	62 - 113
Molybdenum	165	138		mg/Kg		83	62 - 128
Nickel	305	252		mg/Kg		83	65 - 117
Selenium	133	119		mg/Kg		89	63 - 126
Silver	33.5	29.4		mg/Kg		88	51 - 130
Vanadium	214	188		mg/Kg		88	67 - 123
Zinc	388	323		mg/Kg		83	62 - 110

**Lab Sample ID: LCSSRM 720-163101/25-A**

**Matrix: Solid**

**Analysis Batch: 163352**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 163101**

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Thallium	191	175		mg/Kg		92	64 - 124

**Lab Sample ID: 720-58627-9 MS**

**Matrix: Solid**

**Analysis Batch: 163290**

**Client Sample ID: A-1-4'**

**Prep Type: Total/NA**

**Prep Batch: 163101**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	ND		46.5	16.0	F1	mg/Kg	*	33	75 - 125
Arsenic	ND		46.5	41.7		mg/Kg	*	84	75 - 125
Barium	170		46.5	182	F1	mg/Kg	*	17	75 - 125
Beryllium	ND		46.5	45.7		mg/Kg	*	98	75 - 125
Cadmium	ND		46.5	40.3		mg/Kg	*	87	75 - 125
Chromium	30		46.5	75.8		mg/Kg	*	99	75 - 125
Cobalt	5.4		46.5	46.9		mg/Kg	*	89	75 - 125
Copper	15		46.5	59.3		mg/Kg	*	95	75 - 125
Lead	58		46.5	93.1		mg/Kg	*	75	75 - 125
Molybdenum	ND		46.5	33.8	F1	mg/Kg	*	71	75 - 125
Nickel	30		46.5	69.5		mg/Kg	*	85	75 - 125
Selenium	ND		46.5	40.1		mg/Kg	*	84	75 - 125
Silver	ND		23.3	21.4		mg/Kg	*	90	75 - 125
Vanadium	20		46.5	60.3		mg/Kg	*	87	75 - 125

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# QC Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

## Method: 6010B - Metals (ICP) (Continued)

**Lab Sample ID: 720-58627-9 MS**  
**Matrix: Solid**  
**Analysis Batch: 163290**

**Client Sample ID: A-1-4'**  
**Prep Type: Total/NA**  
**Prep Batch: 163101**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Zinc	25		46.5	67.2		mg/Kg	☼	90	75 - 125

**Lab Sample ID: 720-58627-9 MS**  
**Matrix: Solid**  
**Analysis Batch: 163352**

**Client Sample ID: A-1-4'**  
**Prep Type: Total/NA**  
**Prep Batch: 163101**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Thallium	ND		46.5	44.0		mg/Kg	☼	95	75 - 125

**Lab Sample ID: 720-58627-9 MSD**  
**Matrix: Solid**  
**Analysis Batch: 163290**

**Client Sample ID: A-1-4'**  
**Prep Type: Total/NA**  
**Prep Batch: 163101**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	ND		45.8	14.0	F1	mg/Kg	☼	29	75 - 125	14	20
Arsenic	ND		45.8	41.7		mg/Kg	☼	85	75 - 125	0	20
Barium	170		45.8	256	F1 F2	mg/Kg	☼	179	75 - 125	34	20
Beryllium	ND		45.8	46.7		mg/Kg	☼	101	75 - 125	2	20
Cadmium	ND		45.8	40.4		mg/Kg	☼	88	75 - 125	0	20
Chromium	30		45.8	75.9		mg/Kg	☼	100	75 - 125	0	20
Cobalt	5.4		45.8	47.6		mg/Kg	☼	92	75 - 125	2	20
Copper	15		45.8	59.8		mg/Kg	☼	98	75 - 125	1	20
Lead	58		45.8	57.9	F1 F2	mg/Kg	☼	-0.4	75 - 125	47	20
Molybdenum	ND		45.8	32.8	F1	mg/Kg	☼	70	75 - 125	3	20
Nickel	30		45.8	72.8		mg/Kg	☼	93	75 - 125	5	20
Selenium	ND		45.8	39.5		mg/Kg	☼	84	75 - 125	1	20
Silver	ND		22.9	21.5		mg/Kg	☼	92	75 - 125	1	20
Vanadium	20		45.8	62.3		mg/Kg	☼	92	75 - 125	3	20
Zinc	25		45.8	66.3		mg/Kg	☼	89	75 - 125	1	20

**Lab Sample ID: 720-58627-9 MSD**  
**Matrix: Solid**  
**Analysis Batch: 163352**

**Client Sample ID: A-1-4'**  
**Prep Type: Total/NA**  
**Prep Batch: 163101**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Thallium	ND		45.8	42.3		mg/Kg	☼	92	75 - 125	4	20

**Lab Sample ID: LCS 720-163095/2-A**  
**Matrix: Water**  
**Analysis Batch: 163287**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 163095**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	1.00	0.921		mg/L		92	80 - 120
Arsenic	1.00	0.942		mg/L		94	80 - 120
Barium	1.00	0.906		mg/L		91	80 - 120
Beryllium	1.00	0.945		mg/L		94	80 - 120
Cadmium	1.00	0.923		mg/L		92	80 - 120
Chromium	1.00	0.914		mg/L		91	80 - 120
Cobalt	1.00	0.933		mg/L		93	80 - 120

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# QC Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 720-163095/2-A

Matrix: Water

Analysis Batch: 163287

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 163095

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Copper	1.00	0.945		mg/L		94	80 - 120
Lead	1.00	0.950		mg/L		95	80 - 120
Molybdenum	1.00	0.936		mg/L		94	80 - 120
Nickel	1.00	0.938		mg/L		94	80 - 120
Selenium	1.00	0.959		mg/L		96	80 - 120
Silver	0.500	0.465		mg/L		93	80 - 120
Thallium	1.00	0.969		mg/L		97	80 - 120
Vanadium	1.00	0.888		mg/L		89	80 - 120
Zinc	1.00	0.920		mg/L		92	80 - 120

Lab Sample ID: LCSD 720-163095/3-A

Matrix: Water

Analysis Batch: 163287

Client Sample ID: Lab Control Sample Dup

Prep Type: Total Recoverable

Prep Batch: 163095

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Antimony	1.00	0.929		mg/L		93	80 - 120	1	20
Arsenic	1.00	0.954		mg/L		95	80 - 120	1	20
Barium	1.00	0.907		mg/L		91	80 - 120	0	20
Beryllium	1.00	0.946		mg/L		95	80 - 120	0	20
Cadmium	1.00	0.928		mg/L		93	80 - 120	1	20
Chromium	1.00	0.923		mg/L		92	80 - 120	1	20
Cobalt	1.00	0.937		mg/L		94	80 - 120	0	20
Copper	1.00	0.956		mg/L		96	80 - 120	1	20
Lead	1.00	0.959		mg/L		96	80 - 120	1	20
Molybdenum	1.00	0.949		mg/L		95	80 - 120	1	20
Nickel	1.00	0.943		mg/L		94	80 - 120	1	20
Selenium	1.00	0.969		mg/L		97	80 - 120	1	20
Silver	0.500	0.470		mg/L		94	80 - 120	1	20
Thallium	1.00	0.977		mg/L		98	80 - 120	1	20
Vanadium	1.00	0.895		mg/L		89	80 - 120	1	20
Zinc	1.00	0.925		mg/L		92	80 - 120	0	20

Lab Sample ID: MB 720-163056/1-B

Matrix: Water

Analysis Batch: 163287

Client Sample ID: Method Blank

Prep Type: Dissolved

Prep Batch: 163095

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		07/16/14 13:01	07/18/14 12:26	1
Arsenic	ND		0.010		mg/L		07/16/14 13:01	07/18/14 12:26	1
Barium	ND		0.0050		mg/L		07/16/14 13:01	07/18/14 12:26	1
Beryllium	ND		0.0020		mg/L		07/16/14 13:01	07/18/14 12:26	1
Cadmium	ND		0.0020		mg/L		07/16/14 13:01	07/18/14 12:26	1
Chromium	ND		0.010		mg/L		07/16/14 13:01	07/18/14 12:26	1
Cobalt	ND		0.0020		mg/L		07/16/14 13:01	07/18/14 12:26	1
Copper	ND		0.020		mg/L		07/16/14 13:01	07/18/14 12:26	1
Lead	ND		0.0050		mg/L		07/16/14 13:01	07/18/14 12:26	1
Molybdenum	ND		0.010		mg/L		07/16/14 13:01	07/18/14 12:26	1
Nickel	ND		0.010		mg/L		07/16/14 13:01	07/18/14 12:26	1
Selenium	ND		0.020		mg/L		07/16/14 13:01	07/18/14 12:26	1

TestAmerica Pleasanton

# QC Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

## Method: 6010B - Metals (ICP) (Continued)

**Lab Sample ID: MB 720-163056/1-B**  
**Matrix: Water**  
**Analysis Batch: 163287**

**Client Sample ID: Method Blank**  
**Prep Type: Dissolved**  
**Prep Batch: 163095**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.0050		mg/L		07/16/14 13:01	07/18/14 12:26	1
Thallium	ND		0.010		mg/L		07/16/14 13:01	07/18/14 12:26	1
Vanadium	ND		0.010		mg/L		07/16/14 13:01	07/18/14 12:26	1
Zinc	ND		0.020		mg/L		07/16/14 13:01	07/18/14 12:26	1

**Lab Sample ID: 720-58627-2 MS**  
**Matrix: Water**  
**Analysis Batch: 163287**

**Client Sample ID: A-1A**  
**Prep Type: Dissolved**  
**Prep Batch: 163095**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	ND		1.00	0.946		mg/L		95	75 - 125
Arsenic	ND		1.00	0.990		mg/L		99	75 - 125
Barium	0.095		1.00	1.01		mg/L		92	75 - 125
Beryllium	ND		1.00	0.960		mg/L		96	75 - 125
Cadmium	ND		1.00	0.932		mg/L		93	75 - 125
Chromium	ND		1.00	0.935		mg/L		94	75 - 125
Cobalt	0.0024		1.00	0.931		mg/L		93	75 - 125
Copper	ND		1.00	0.970		mg/L		97	75 - 125
Lead	0.0088		1.00	0.957		mg/L		95	75 - 125
Molybdenum	0.027		1.00	0.976		mg/L		95	75 - 125
Nickel	0.010		1.00	0.943		mg/L		93	75 - 125
Selenium	ND		1.00	0.990		mg/L		99	75 - 125
Silver	ND		0.500	0.481		mg/L		96	75 - 125
Thallium	ND		1.00	0.963		mg/L		96	75 - 125
Vanadium	ND		1.00	0.928		mg/L		92	75 - 125
Zinc	0.021		1.00	0.944		mg/L		92	75 - 125

**Lab Sample ID: 720-58627-2 MSD**  
**Matrix: Water**  
**Analysis Batch: 163287**

**Client Sample ID: A-1A**  
**Prep Type: Dissolved**  
**Prep Batch: 163095**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	ND		1.00	0.946		mg/L		95	75 - 125	0	20
Arsenic	ND		1.00	0.991		mg/L		99	75 - 125	0	20
Barium	0.095		1.00	1.02		mg/L		92	75 - 125	0	20
Beryllium	ND		1.00	0.964		mg/L		96	75 - 125	0	20
Cadmium	ND		1.00	0.927		mg/L		93	75 - 125	1	20
Chromium	ND		1.00	0.922		mg/L		92	75 - 125	1	20
Cobalt	0.0024		1.00	0.926		mg/L		92	75 - 125	1	20
Copper	ND		1.00	0.959		mg/L		96	75 - 125	1	20
Lead	0.0088		1.00	0.951		mg/L		94	75 - 125	1	20
Molybdenum	0.027		1.00	0.992		mg/L		97	75 - 125	2	20
Nickel	0.010		1.00	0.938		mg/L		93	75 - 125	1	20
Selenium	ND		1.00	0.984		mg/L		98	75 - 125	1	20
Silver	ND		0.500	0.475		mg/L		95	75 - 125	1	20
Thallium	ND		1.00	0.957		mg/L		96	75 - 125	1	20
Vanadium	ND		1.00	0.917		mg/L		91	75 - 125	1	20
Zinc	0.021		1.00	0.938		mg/L		92	75 - 125	1	20

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# QC Sample Results

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

## Method: 7470A - Mercury (CVAA)

Lab Sample ID: LCS 720-163220/2-A  
Matrix: Water  
Analysis Batch: 163242

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 163220

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.0100	0.0109		mg/L		109	85 - 115

Lab Sample ID: LCSD 720-163220/3-A  
Matrix: Water  
Analysis Batch: 163242

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 163220

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.0100	0.0108		mg/L		108	85 - 115	1	20

Lab Sample ID: MB 720-163056/1-C  
Matrix: Water  
Analysis Batch: 163242

Client Sample ID: Method Blank  
Prep Type: Dissolved  
Prep Batch: 163220

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		07/17/14 17:40	07/17/14 21:10	1

Lab Sample ID: 720-58627-3 MS  
Matrix: Water  
Analysis Batch: 163242

Client Sample ID: A-3  
Prep Type: Dissolved  
Prep Batch: 163220

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.0011		0.0100	0.0187	F1	mg/L		176	70 - 130

Lab Sample ID: 720-58627-3 MSD  
Matrix: Water  
Analysis Batch: 163242

Client Sample ID: A-3  
Prep Type: Dissolved  
Prep Batch: 163220

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.0011		0.0100	0.0160	F1	mg/L		149	70 - 130	16	20

## Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 720-163147/1-A  
Matrix: Solid  
Analysis Batch: 163310

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 163147

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.010		mg/Kg		07/16/14 20:13	07/18/14 16:34	1

Lab Sample ID: LCS 720-163147/2-A  
Matrix: Solid  
Analysis Batch: 163310

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 163147

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.833	0.827		mg/Kg		99	80 - 120

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# QC Sample Results

Client: Geologica Inc  
 Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

## Method: 7471A - Mercury (CVAA) (Continued)

**Lab Sample ID: LCSD 720-163147/3-A**  
**Matrix: Solid**  
**Analysis Batch: 163310**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 163147**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.833	0.824		mg/Kg		99	80 - 120	0	20

**Lab Sample ID: 720-58627-9 MS**  
**Matrix: Solid**  
**Analysis Batch: 163310**

**Client Sample ID: A-1-4'**  
**Prep Type: Total/NA**  
**Prep Batch: 163147**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.043		0.902	0.938		mg/Kg	*	99	75 - 125

**Lab Sample ID: 720-58627-9 MSD**  
**Matrix: Solid**  
**Analysis Batch: 163310**

**Client Sample ID: A-1-4'**  
**Prep Type: Total/NA**  
**Prep Batch: 163147**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.043		0.889	0.933		mg/Kg	*	100	75 - 125	1	20

# QC Association Summary

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

## GC/MS VOA

### Analysis Batch: 163126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-58627-2	A-1A	Total/NA	Water	8260B	
720-58627-3	A-3	Total/NA	Water	8260B	
720-58627-4	A-4	Total/NA	Water	8260B	
720-58627-5	A-5	Total/NA	Water	8260B	
720-58627-6	A-8	Total/NA	Water	8260B	
720-58627-7	A-9	Total/NA	Water	8260B	
720-58627-8	TRIPBLANKS	Total/NA	Water	8260B	
LCS 720-163126/8	Lab Control Sample	Total/NA	Water	8260B	
LCSD 720-163126/11	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 720-163126/7	Method Blank	Total/NA	Water	8260B	

### Analysis Batch: 163209

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-58627-9	A-1-4'	Total/NA	Solid	8260B	163234
720-58627-9 MS	A-1-4'	Total/NA	Solid	8260B	163234
720-58627-9 MSD	A-1-4'	Total/NA	Solid	8260B	163234
720-58627-15	A-3-4'	Total/NA	Solid	8260B	163234
720-58627-18	A-4-4'	Total/NA	Solid	8260B	163234
720-58627-24	A-6-4'	Total/NA	Solid	8260B	163234
720-58627-25	A-7-4'	Total/NA	Solid	8260B	163234
720-58627-26	A-8-4'	Total/NA	Solid	8260B	163234
720-58627-29	A-9-4'	Total/NA	Solid	8260B	163234
LCS 720-163209/5	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 720-163209/6	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 720-163209/4	Method Blank	Total/NA	Solid	8260B	

### Prep Batch: 163234

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-58627-9	A-1-4'	Total/NA	Solid	5030B	
720-58627-9 MS	A-1-4'	Total/NA	Solid	5030B	
720-58627-9 MSD	A-1-4'	Total/NA	Solid	5030B	
720-58627-15	A-3-4'	Total/NA	Solid	5030B	
720-58627-18	A-4-4'	Total/NA	Solid	5030B	
720-58627-24	A-6-4'	Total/NA	Solid	5030B	
720-58627-25	A-7-4'	Total/NA	Solid	5030B	
720-58627-26	A-8-4'	Total/NA	Solid	5030B	
720-58627-29	A-9-4'	Total/NA	Solid	5030B	

## GC Semi VOA

### Analysis Batch: 162999

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-58627-3	A-3	Silica Gel Cleanup	Water	8015B	163015

### Analysis Batch: 163000

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-58627-2	A-1A	Silica Gel Cleanup	Water	8015B	163015
720-58627-5	A-5	Silica Gel Cleanup	Water	8015B	163015
720-58627-6	A-8	Silica Gel Cleanup	Water	8015B	163015
720-58627-7	A-9	Silica Gel Cleanup	Water	8015B	163015

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# QC Association Summary

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

## GC Semi VOA (Continued)

### Analysis Batch: 163000 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 720-163015/2-A	Lab Control Sample	Silica Gel Cleanup	Water	8015B	163015
LCSD 720-163015/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Water	8015B	163015
MB 720-163015/1-A	Method Blank	Silica Gel Cleanup	Water	8015B	163015

### Prep Batch: 163015

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-58627-2	A-1A	Silica Gel Cleanup	Water	3510C SGC	
720-58627-3	A-3	Silica Gel Cleanup	Water	3510C SGC	
720-58627-5	A-5	Silica Gel Cleanup	Water	3510C SGC	
720-58627-6	A-8	Silica Gel Cleanup	Water	3510C SGC	
720-58627-7	A-9	Silica Gel Cleanup	Water	3510C SGC	
LCS 720-163015/2-A	Lab Control Sample	Silica Gel Cleanup	Water	3510C SGC	
LCSD 720-163015/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Water	3510C SGC	
MB 720-163015/1-A	Method Blank	Silica Gel Cleanup	Water	3510C SGC	

### Analysis Batch: 163252

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-58627-9	A-1-4'	Silica Gel Cleanup	Solid	8015B	163273

### Analysis Batch: 163253

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-58627-15	A-3-4'	Silica Gel Cleanup	Solid	8015B	163273
720-58627-18	A-4-4'	Silica Gel Cleanup	Solid	8015B	163273
720-58627-24	A-6-4'	Silica Gel Cleanup	Solid	8015B	163273
720-58627-25	A-7-4'	Silica Gel Cleanup	Solid	8015B	163273
720-58627-26	A-8-4'	Silica Gel Cleanup	Solid	8015B	163273
720-58627-29	A-9-4'	Silica Gel Cleanup	Solid	8015B	163273
LCS 720-163273/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	8015B	163273
LCSD 720-163273/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Solid	8015B	163273
MB 720-163273/1-A	Method Blank	Silica Gel Cleanup	Solid	8015B	163273

### Prep Batch: 163273

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-58627-9	A-1-4'	Silica Gel Cleanup	Solid	3546	
720-58627-15	A-3-4'	Silica Gel Cleanup	Solid	3546	
720-58627-18	A-4-4'	Silica Gel Cleanup	Solid	3546	
720-58627-24	A-6-4'	Silica Gel Cleanup	Solid	3546	
720-58627-25	A-7-4'	Silica Gel Cleanup	Solid	3546	
720-58627-26	A-8-4'	Silica Gel Cleanup	Solid	3546	
720-58627-29	A-9-4'	Silica Gel Cleanup	Solid	3546	
LCS 720-163273/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	3546	
LCSD 720-163273/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Solid	3546	
MB 720-163273/1-A	Method Blank	Silica Gel Cleanup	Solid	3546	

## Metals

### Filtration Batch: 163056

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-58627-2	A-1A	Dissolved	Water	FILTRATION	
720-58627-2 MS	A-1A	Dissolved	Water	FILTRATION	

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# QC Association Summary

Client: Geologica Inc  
 Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

## Metals (Continued)

### Filtration Batch: 163056 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-58627-2 MSD	A-1A	Dissolved	Water	FILTRATION	
720-58627-3	A-3	Dissolved	Water	FILTRATION	
720-58627-3 MS	A-3	Dissolved	Water	FILTRATION	
720-58627-3 MSD	A-3	Dissolved	Water	FILTRATION	
720-58627-4	A-4	Dissolved	Water	FILTRATION	
720-58627-5	A-5	Dissolved	Water	FILTRATION	
720-58627-6	A-8	Dissolved	Water	FILTRATION	
720-58627-7	A-9	Dissolved	Water	FILTRATION	
MB 720-163056/1-B	Method Blank	Dissolved	Water	FILTRATION	
MB 720-163056/1-C	Method Blank	Dissolved	Water	FILTRATION	

### Prep Batch: 163095

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-58627-2	A-1A	Dissolved	Water	3005A	163056
720-58627-2 MS	A-1A	Dissolved	Water	3005A	163056
720-58627-2 MSD	A-1A	Dissolved	Water	3005A	163056
720-58627-3	A-3	Dissolved	Water	3005A	163056
720-58627-4	A-4	Dissolved	Water	3005A	163056
720-58627-5	A-5	Dissolved	Water	3005A	163056
720-58627-6	A-8	Dissolved	Water	3005A	163056
720-58627-7	A-9	Dissolved	Water	3005A	163056
LCS 720-163095/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 720-163095/3-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	
MB 720-163056/1-B	Method Blank	Dissolved	Water	3005A	163056

### Prep Batch: 163101

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-58627-9	A-1-4'	Total/NA	Solid	3050B	
720-58627-9 MS	A-1-4'	Total/NA	Solid	3050B	
720-58627-9 MSD	A-1-4'	Total/NA	Solid	3050B	
720-58627-15	A-3-4'	Total/NA	Solid	3050B	
720-58627-18	A-4-4'	Total/NA	Solid	3050B	
720-58627-24	A-6-4'	Total/NA	Solid	3050B	
720-58627-25	A-7-4'	Total/NA	Solid	3050B	
720-58627-26	A-8-4'	Total/NA	Solid	3050B	
720-58627-29	A-9-4'	Total/NA	Solid	3050B	
LCS 720-163101/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 720-163101/3-A	Lab Control Sample Dup	Total/NA	Solid	3050B	
LCSSRM 720-163101/25-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 720-163101/1-A	Method Blank	Total/NA	Solid	3050B	

### Prep Batch: 163147

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-58627-9	A-1-4'	Total/NA	Solid	7471A	
720-58627-9 MS	A-1-4'	Total/NA	Solid	7471A	
720-58627-9 MSD	A-1-4'	Total/NA	Solid	7471A	
720-58627-15	A-3-4'	Total/NA	Solid	7471A	
720-58627-18	A-4-4'	Total/NA	Solid	7471A	
720-58627-24	A-6-4'	Total/NA	Solid	7471A	
720-58627-25	A-7-4'	Total/NA	Solid	7471A	
720-58627-26	A-8-4'	Total/NA	Solid	7471A	

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# QC Association Summary

Client: Geologica Inc  
 Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

## Metals (Continued)

### Prep Batch: 163147 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-58627-29	A-9-4'	Total/NA	Solid	7471A	
LCS 720-163147/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 720-163147/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
MB 720-163147/1-A	Method Blank	Total/NA	Solid	7471A	

### Prep Batch: 163220

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-58627-2	A-1A	Dissolved	Water	7470A	163056
720-58627-3	A-3	Dissolved	Water	7470A	163056
720-58627-3 MS	A-3	Dissolved	Water	7470A	163056
720-58627-3 MSD	A-3	Dissolved	Water	7470A	163056
720-58627-4	A-4	Dissolved	Water	7470A	163056
720-58627-5	A-5	Dissolved	Water	7470A	163056
720-58627-6	A-8	Dissolved	Water	7470A	163056
720-58627-7	A-9	Dissolved	Water	7470A	163056
LCS 720-163220/2-A	Lab Control Sample	Total/NA	Water	7470A	
LCSD 720-163220/3-A	Lab Control Sample Dup	Total/NA	Water	7470A	
MB 720-163056/1-C	Method Blank	Dissolved	Water	7470A	163056

### Analysis Batch: 163242

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-58627-2	A-1A	Dissolved	Water	7470A	163220
720-58627-3	A-3	Dissolved	Water	7470A	163220
720-58627-3 MS	A-3	Dissolved	Water	7470A	163220
720-58627-3 MSD	A-3	Dissolved	Water	7470A	163220
720-58627-4	A-4	Dissolved	Water	7470A	163220
720-58627-5	A-5	Dissolved	Water	7470A	163220
720-58627-6	A-8	Dissolved	Water	7470A	163220
720-58627-7	A-9	Dissolved	Water	7470A	163220
LCS 720-163220/2-A	Lab Control Sample	Total/NA	Water	7470A	163220
LCSD 720-163220/3-A	Lab Control Sample Dup	Total/NA	Water	7470A	163220
MB 720-163056/1-C	Method Blank	Dissolved	Water	7470A	163220

### Analysis Batch: 163287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-58627-2 MS	A-1A	Dissolved	Water	6010B	163095
720-58627-2 MSD	A-1A	Dissolved	Water	6010B	163095
720-58627-3	A-3	Dissolved	Water	6010B	163095
720-58627-4	A-4	Dissolved	Water	6010B	163095
720-58627-5	A-5	Dissolved	Water	6010B	163095
720-58627-6	A-8	Dissolved	Water	6010B	163095
720-58627-7	A-9	Dissolved	Water	6010B	163095
LCS 720-163095/2-A	Lab Control Sample	Total Recoverable	Water	6010B	163095
LCSD 720-163095/3-A	Lab Control Sample Dup	Total Recoverable	Water	6010B	163095
MB 720-163056/1-B	Method Blank	Dissolved	Water	6010B	163095

### Analysis Batch: 163290

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-58627-9 MS	A-1-4'	Total/NA	Solid	6010B	163101
720-58627-9 MSD	A-1-4'	Total/NA	Solid	6010B	163101
720-58627-15	A-3-4'	Total/NA	Solid	6010B	163101

TestAmerica Pleasanton

# QC Association Summary

Client: Geologica Inc  
 Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

## Metals (Continued)

### Analysis Batch: 163290 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 720-163101/2-A	Lab Control Sample	Total/NA	Solid	6010B	163101
LCSD 720-163101/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	163101
LCSSRM 720-163101/25-A	Lab Control Sample	Total/NA	Solid	6010B	163101
MB 720-163101/1-A	Method Blank	Total/NA	Solid	6010B	163101

### Analysis Batch: 163310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-58627-9	A-1-4'	Total/NA	Solid	7471A	163147
720-58627-9 MS	A-1-4'	Total/NA	Solid	7471A	163147
720-58627-9 MSD	A-1-4'	Total/NA	Solid	7471A	163147
720-58627-15	A-3-4'	Total/NA	Solid	7471A	163147
720-58627-18	A-4-4'	Total/NA	Solid	7471A	163147
720-58627-24	A-6-4'	Total/NA	Solid	7471A	163147
720-58627-25	A-7-4'	Total/NA	Solid	7471A	163147
720-58627-26	A-8-4'	Total/NA	Solid	7471A	163147
720-58627-29	A-9-4'	Total/NA	Solid	7471A	163147
LCS 720-163147/2-A	Lab Control Sample	Total/NA	Solid	7471A	163147
LCSD 720-163147/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	163147
MB 720-163147/1-A	Method Blank	Total/NA	Solid	7471A	163147

### Analysis Batch: 163318

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-58627-2	A-1A	Dissolved	Water	6010B	163095

### Analysis Batch: 163352

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-58627-9	A-1-4'	Total/NA	Solid	6010B	163101
720-58627-9 MS	A-1-4'	Total/NA	Solid	6010B	163101
720-58627-9 MSD	A-1-4'	Total/NA	Solid	6010B	163101
720-58627-15	A-3-4'	Total/NA	Solid	6010B	163101
720-58627-18	A-4-4'	Total/NA	Solid	6010B	163101
720-58627-24	A-6-4'	Total/NA	Solid	6010B	163101
720-58627-25	A-7-4'	Total/NA	Solid	6010B	163101
720-58627-26	A-8-4'	Total/NA	Solid	6010B	163101
720-58627-29	A-9-4'	Total/NA	Solid	6010B	163101
LCS 720-163101/2-A	Lab Control Sample	Total/NA	Solid	6010B	163101
LCSD 720-163101/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	163101
LCSSRM 720-163101/25-A	Lab Control Sample	Total/NA	Solid	6010B	163101
MB 720-163101/1-A	Method Blank	Total/NA	Solid	6010B	163101

## General Chemistry

### Analysis Batch: 163231

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-58627-9	A-1-4'	Total/NA	Solid	Moisture	
720-58627-9 DU	A-1-4'	Total/NA	Solid	Moisture	
720-58627-15	A-3-4'	Total/NA	Solid	Moisture	
720-58627-18	A-4-4'	Total/NA	Solid	Moisture	
720-58627-24	A-6-4'	Total/NA	Solid	Moisture	
720-58627-25	A-7-4'	Total/NA	Solid	Moisture	

TestAmerica Pleasanton

# QC Association Summary

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

## General Chemistry (Continued)

### Analysis Batch: 163231 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-58627-26	A-8-4'	Total/NA	Solid	Moisture	
720-58627-29	A-9-4'	Total/NA	Solid	Moisture	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

# Lab Chronicle

Client: Geologica Inc  
 Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

## Client Sample ID: A-1A

Lab Sample ID: 720-58627-2

Date Collected: 07/14/14 15:00

Matrix: Water

Date Received: 07/14/14 17:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	163126	07/17/14 02:04	ASC	TAL PLS
Silica Gel Cleanup	Prep	3510C SGC			163015	07/15/14 10:19	NVP	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	163000	07/15/14 18:11	JL	TAL PLS
Dissolved	Filtration	FILTRATION			163056	07/15/14 18:54	ASB	TAL PLS
Dissolved	Prep	3005A			163095	07/16/14 13:01	JCR	TAL PLS
Dissolved	Analysis	6010B		1	163318	07/18/14 19:47	SLK	TAL PLS
Dissolved	Filtration	FILTRATION			163056	07/15/14 18:54	ASB	TAL PLS
Dissolved	Prep	7470A			163220	07/17/14 17:40	ASB	TAL PLS
Dissolved	Analysis	7470A		1	163242	07/17/14 21:20	SLK	TAL PLS

## Client Sample ID: A-3

Lab Sample ID: 720-58627-3

Date Collected: 07/14/14 11:40

Matrix: Water

Date Received: 07/14/14 17:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	163126	07/17/14 02:33	ASC	TAL PLS
Silica Gel Cleanup	Prep	3510C SGC			163015	07/15/14 10:19	NVP	TAL PLS
Silica Gel Cleanup	Analysis	8015B		3	162999	07/15/14 20:37	JL	TAL PLS
Dissolved	Filtration	FILTRATION			163056	07/15/14 18:54	ASB	TAL PLS
Dissolved	Prep	3005A			163095	07/16/14 13:01	JCR	TAL PLS
Dissolved	Analysis	6010B		1	163287	07/18/14 12:50	EFH	TAL PLS
Dissolved	Filtration	FILTRATION			163056	07/15/14 18:54	ASB	TAL PLS
Dissolved	Prep	7470A			163220	07/17/14 17:40	ASB	TAL PLS
Dissolved	Analysis	7470A		1	163242	07/17/14 21:18	SLK	TAL PLS

## Client Sample ID: A-4

Lab Sample ID: 720-58627-4

Date Collected: 07/14/14 13:50

Matrix: Water

Date Received: 07/14/14 17:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	163126	07/17/14 03:02	ASC	TAL PLS
Dissolved	Filtration	FILTRATION			163056	07/15/14 18:54	ASB	TAL PLS
Dissolved	Prep	3005A			163095	07/16/14 13:01	JCR	TAL PLS
Dissolved	Analysis	6010B		1	163287	07/18/14 12:56	EFH	TAL PLS
Dissolved	Filtration	FILTRATION			163056	07/15/14 18:54	ASB	TAL PLS
Dissolved	Prep	7470A			163220	07/17/14 17:40	ASB	TAL PLS
Dissolved	Analysis	7470A		1	163242	07/17/14 21:22	SLK	TAL PLS

# Lab Chronicle

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

## Client Sample ID: A-5

Lab Sample ID: 720-58627-5

Date Collected: 07/14/14 09:00

Matrix: Water

Date Received: 07/14/14 17:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	163126	07/17/14 03:30	ASC	TAL PLS
Silica Gel Cleanup	Prep	3510C SGC			163015	07/15/14 10:19	NVP	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	163000	07/15/14 19:00	JL	TAL PLS
Dissolved	Filtration	FILTRATION			163056	07/15/14 18:54	ASB	TAL PLS
Dissolved	Prep	3005A			163095	07/16/14 13:01	JCR	TAL PLS
Dissolved	Analysis	6010B		1	163287	07/18/14 13:11	EFH	TAL PLS
Dissolved	Filtration	FILTRATION			163056	07/15/14 18:54	ASB	TAL PLS
Dissolved	Prep	7470A			163220	07/17/14 17:40	ASB	TAL PLS
Dissolved	Analysis	7470A		1	163242	07/17/14 21:30	SLK	TAL PLS

## Client Sample ID: A-8

Lab Sample ID: 720-58627-6

Date Collected: 07/14/14 12:15

Matrix: Water

Date Received: 07/14/14 17:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	163126	07/17/14 03:59	ASC	TAL PLS
Silica Gel Cleanup	Prep	3510C SGC			163015	07/15/14 10:19	NVP	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	163000	07/15/14 17:15	JL	TAL PLS
Dissolved	Filtration	FILTRATION			163056	07/15/14 18:54	ASB	TAL PLS
Dissolved	Prep	3005A			163095	07/16/14 13:01	JCR	TAL PLS
Dissolved	Analysis	6010B		1	163287	07/18/14 13:15	EFH	TAL PLS
Dissolved	Filtration	FILTRATION			163056	07/15/14 18:54	ASB	TAL PLS
Dissolved	Prep	7470A			163220	07/17/14 17:40	ASB	TAL PLS
Dissolved	Analysis	7470A		1	163242	07/17/14 21:33	SLK	TAL PLS

## Client Sample ID: A-9

Lab Sample ID: 720-58627-7

Date Collected: 07/14/14 13:55

Matrix: Water

Date Received: 07/14/14 17:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	163126	07/17/14 04:27	ASC	TAL PLS
Silica Gel Cleanup	Prep	3510C SGC			163015	07/15/14 10:19	NVP	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	163000	07/15/14 16:51	JL	TAL PLS
Dissolved	Filtration	FILTRATION			163056	07/15/14 18:54	ASB	TAL PLS
Dissolved	Prep	3005A			163095	07/16/14 13:01	JCR	TAL PLS
Dissolved	Analysis	6010B		1	163287	07/18/14 13:20	EFH	TAL PLS
Dissolved	Filtration	FILTRATION			163056	07/15/14 18:54	ASB	TAL PLS
Dissolved	Prep	7470A			163220	07/17/14 17:40	ASB	TAL PLS
Dissolved	Analysis	7470A		1	163242	07/17/14 21:36	SLK	TAL PLS

TestAmerica Pleasanton

# Lab Chronicle

Client: Geologica Inc  
 Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

## Client Sample ID: TRIPBLANKS

Lab Sample ID: 720-58627-8

Date Collected: 07/14/14 00:00

Matrix: Water

Date Received: 07/14/14 17:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	163126	07/17/14 00:39	ASC	TAL PLS

## Client Sample ID: A-1-4'

Lab Sample ID: 720-58627-9

Date Collected: 07/14/14 10:22

Matrix: Solid

Date Received: 07/14/14 17:40

Percent Solids: 82.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			163234	07/17/14 19:55	LPL	TAL PLS
Total/NA	Analysis	8260B		1	163209	07/17/14 22:43	ASC	TAL PLS
Silica Gel Cleanup	Prep	3546			163273	07/18/14 11:59	STL	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	163252	07/18/14 23:36	JL	TAL PLS
Total/NA	Prep	3050B			163101	07/16/14 13:49	JCR	TAL PLS
Total/NA	Analysis	6010B		1	163352	07/18/14 21:11	SLK	TAL PLS
Total/NA	Prep	7471A			163147	07/16/14 20:13	ASB	TAL PLS
Total/NA	Analysis	7471A		1	163310	07/18/14 16:46	SLK	TAL PLS
Total/NA	Analysis	Moisture		1	163231	07/17/14 19:42	EYT	TAL PLS

## Client Sample ID: A-3-4'

Lab Sample ID: 720-58627-15

Date Collected: 07/14/14 11:10

Matrix: Solid

Date Received: 07/14/14 17:40

Percent Solids: 85.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			163234	07/17/14 19:55	LPL	TAL PLS
Total/NA	Analysis	8260B		1	163209	07/17/14 23:11	ASC	TAL PLS
Silica Gel Cleanup	Prep	3546			163273	07/18/14 11:59	STL	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	163253	07/19/14 01:32	JL	TAL PLS
Total/NA	Prep	3050B			163101	07/16/14 13:49	JCR	TAL PLS
Total/NA	Analysis	6010B		4	163290	07/18/14 10:22	EFH	TAL PLS
Total/NA	Prep	3050B			163101	07/16/14 13:49	JCR	TAL PLS
Total/NA	Analysis	6010B		4	163352	07/18/14 21:21	SLK	TAL PLS
Total/NA	Prep	7471A			163147	07/16/14 20:13	ASB	TAL PLS
Total/NA	Analysis	7471A		1	163310	07/18/14 16:48	SLK	TAL PLS
Total/NA	Analysis	Moisture		1	163231	07/17/14 19:42	EYT	TAL PLS

## Client Sample ID: A-4-4'

Lab Sample ID: 720-58627-18

Date Collected: 07/14/14 13:30

Matrix: Solid

Date Received: 07/14/14 17:40

Percent Solids: 85.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			163234	07/17/14 19:55	LPL	TAL PLS
Total/NA	Analysis	8260B		1	163209	07/17/14 23:40	ASC	TAL PLS
Silica Gel Cleanup	Prep	3546			163273	07/18/14 11:59	STL	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	163253	07/18/14 22:09	JL	TAL PLS

TestAmerica Pleasanton



# Lab Chronicle

Client: Geologica Inc  
 Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

## Client Sample ID: A-4-4'

Lab Sample ID: 720-58627-18

Date Collected: 07/14/14 13:30

Matrix: Solid

Date Received: 07/14/14 17:40

Percent Solids: 85.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			163101	07/16/14 13:49	JCR	TAL PLS
Total/NA	Analysis	6010B		1	163352	07/18/14 21:26	SLK	TAL PLS
Total/NA	Prep	7471A			163147	07/16/14 20:13	ASB	TAL PLS
Total/NA	Analysis	7471A		1	163310	07/18/14 16:50	SLK	TAL PLS
Total/NA	Analysis	Moisture		1	163231	07/17/14 19:42	EYT	TAL PLS

## Client Sample ID: A-6-4'

Lab Sample ID: 720-58627-24

Date Collected: 07/14/14 09:53

Matrix: Solid

Date Received: 07/14/14 17:40

Percent Solids: 90.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			163234	07/17/14 19:55	LPL	TAL PLS
Total/NA	Analysis	8260B		1	163209	07/18/14 00:10	ASC	TAL PLS
Silica Gel Cleanup	Prep	3546			163273	07/18/14 11:59	STL	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	163253	07/18/14 22:38	JL	TAL PLS
Total/NA	Prep	3050B			163101	07/16/14 13:49	JCR	TAL PLS
Total/NA	Analysis	6010B		1	163352	07/18/14 21:31	SLK	TAL PLS
Total/NA	Prep	7471A			163147	07/16/14 20:13	ASB	TAL PLS
Total/NA	Analysis	7471A		1	163310	07/18/14 16:53	SLK	TAL PLS
Total/NA	Analysis	Moisture		1	163231	07/17/14 19:42	EYT	TAL PLS

## Client Sample ID: A-7-4'

Lab Sample ID: 720-58627-25

Date Collected: 07/14/14 10:05

Matrix: Solid

Date Received: 07/14/14 17:40

Percent Solids: 77.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			163234	07/17/14 19:55	LPL	TAL PLS
Total/NA	Analysis	8260B		1	163209	07/18/14 00:39	ASC	TAL PLS
Silica Gel Cleanup	Prep	3546			163273	07/18/14 11:59	STL	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	163253	07/19/14 02:59	JL	TAL PLS
Total/NA	Prep	3050B			163101	07/16/14 13:49	JCR	TAL PLS
Total/NA	Analysis	6010B		1	163352	07/18/14 21:45	SLK	TAL PLS
Total/NA	Prep	7471A			163147	07/16/14 20:13	ASB	TAL PLS
Total/NA	Analysis	7471A		1	163310	07/18/14 16:56	SLK	TAL PLS
Total/NA	Analysis	Moisture		1	163231	07/17/14 19:42	EYT	TAL PLS

## Client Sample ID: A-8-4'

Lab Sample ID: 720-58627-26

Date Collected: 07/14/14 12:00

Matrix: Solid

Date Received: 07/14/14 17:40

Percent Solids: 80.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			163234	07/17/14 19:55	LPL	TAL PLS
Total/NA	Analysis	8260B		1	163209	07/18/14 01:08	ASC	TAL PLS

TestAmerica Pleasanton

# Lab Chronicle

Client: Geologica Inc  
 Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

**Client Sample ID: A-8-4'**

**Lab Sample ID: 720-58627-26**

Date Collected: 07/14/14 12:00

Matrix: Solid

Date Received: 07/14/14 17:40

Percent Solids: 80.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3546			163273	07/18/14 11:59	STL	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	163253	07/18/14 23:07	JL	TAL PLS
Total/NA	Prep	3050B			163101	07/16/14 13:49	JCR	TAL PLS
Total/NA	Analysis	6010B		1	163352	07/18/14 21:50	SLK	TAL PLS
Total/NA	Prep	7471A			163147	07/16/14 20:13	ASB	TAL PLS
Total/NA	Analysis	7471A		1	163310	07/18/14 17:03	SLK	TAL PLS
Total/NA	Analysis	Moisture		1	163231	07/17/14 19:42	EYT	TAL PLS

**Client Sample ID: A-9-4'**

**Lab Sample ID: 720-58627-29**

Date Collected: 07/14/14 14:15

Matrix: Solid

Date Received: 07/14/14 17:40

Percent Solids: 88.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			163234	07/17/14 19:55	LPL	TAL PLS
Total/NA	Analysis	8260B		1	163209	07/18/14 01:37	ASC	TAL PLS
Silica Gel Cleanup	Prep	3546			163273	07/18/14 11:59	STL	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	163253	07/18/14 23:36	JL	TAL PLS
Total/NA	Prep	3050B			163101	07/16/14 13:49	JCR	TAL PLS
Total/NA	Analysis	6010B		1	163352	07/18/14 21:55	SLK	TAL PLS
Total/NA	Prep	7471A			163147	07/16/14 20:13	ASB	TAL PLS
Total/NA	Analysis	7471A		1	163310	07/18/14 17:06	SLK	TAL PLS
Total/NA	Analysis	Moisture		1	163231	07/17/14 19:42	EYT	TAL PLS

**Laboratory References:**

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

# Certification Summary

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

## Laboratory: TestAmerica Pleasanton

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-16

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
6010B	3050B	Solid	Thallium
Moisture		Solid	Percent Moisture

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

# Method Summary

Client: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PLS
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL PLS
6010B	Metals (ICP)	SW846	TAL PLS
7470A	Mercury (CVAA)	SW846	TAL PLS
7471A	Mercury (CVAA)	SW846	TAL PLS
Moisture	Percent Moisture	EPA	TAL PLS

**Protocol References:**

EPA = US Environmental Protection Agency

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: Geologica Inc  
Project/Site: Allied Engineering Alameda

TestAmerica Job ID: 720-58627-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-58627-2	A-1A	Water	07/14/14 15:00	07/14/14 17:40
720-58627-3	A-3	Water	07/14/14 11:40	07/14/14 17:40
720-58627-4	A-4	Water	07/14/14 13:50	07/14/14 17:40
720-58627-5	A-5	Water	07/14/14 09:00	07/14/14 17:40
720-58627-6	A-8	Water	07/14/14 12:15	07/14/14 17:40
720-58627-7	A-9	Water	07/14/14 13:55	07/14/14 17:40
720-58627-8	TRIPBLANKS	Water	07/14/14 00:00	07/14/14 17:40
720-58627-9	A-1-4'	Solid	07/14/14 10:22	07/14/14 17:40
720-58627-15	A-3-4'	Solid	07/14/14 11:10	07/14/14 17:40
720-58627-18	A-4-4'	Solid	07/14/14 13:30	07/14/14 17:40
720-58627-24	A-6-4'	Solid	07/14/14 09:53	07/14/14 17:40
720-58627-25	A-7-4'	Solid	07/14/14 10:05	07/14/14 17:40
720-58627-26	A-8-4'	Solid	07/14/14 12:00	07/14/14 17:40
720-58627-29	A-9-4'	Solid	07/14/14 14:15	07/14/14 17:40



**Smith, Micah**

---

**From:** Greg Romero [gromero@geologica.net]  
**Sent:** Wednesday, July 16, 2014 8:21 AM  
**To:** Smith, Micah  
**Cc:** Brian Aubry  
**Subject:** Re: Sample Login Confirmation for 720-58627, Allied Engineering Alameda

Micah,

You guys proceeded correctly and to clarify: it is correct to use 7/14/14 for all samples listed on page 3 of the COC. Also all samples on that page are soil samples. ( P.S. All samples submitted - water and soil were collected 7/14/14)

Sample A-1(water sample) is to be placed on hold until further notice.

What are the hold times for the analysis we requested?

Thanks,  
Greg

On Jul 16, 2014, at 1:47 AM, " Brian Aubry" <[baubry@geologica.net](mailto:baubry@geologica.net)> wrote:

[See below](#)

**From:** Smith, Micah [<mailto:micah.smith@testamericainc.com>]  
**Sent:** Tuesday, July 15, 2014 6:51 PM  
**To:** Brian Aubry  
**Subject:** Sample Login Confirmation for 720-58627, Allied Engineering Alameda

Brian,  
There are a few discrepancies with this job. Can you let me know if we proceeded correctly?  
Thanks

All samples on page 3 of the COC are missing the date. Used date received for log in (7/14/14).

Also, the first sample on the COC, A-1, is marked for tests but is also on hold. Sample was placed on hold.

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at:  
[Project Feedback](#)

**MICAH SMITH**  
Project Manager II

**TestAmerica Pleasanton**  
THE LEADER IN ENVIRONMENTAL TESTING

Tel: 925.484.1919  
[www.testamericainc.com](http://www.testamericainc.com)

Reference: [162486]  
Attachments: 3

<Std\_Tal\_Login\_Ack for 720-58627-1.pdf>

<Std\_Tal\_Login\_Limits for 720-58627-1.pdf>

<COC 720-58627 (201407141949).pdf>

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13**
- 14

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

720-58627

TESTAMERICA Pleasanton Chain of Custody  
 1220 Quarry Lane • Pleasanton CA 94566-4756  
 Phone: (925) 484-1919 • Fax: (925) 600-3002

Reference #: 154955

Date 7/14/14 Page 1 of 4

7/21/2014

## Report To Analysis Request

Attn: <u>Brian Aubrey</u>		Volatile Organics GC/MS (VOCs) <input checked="" type="checkbox"/> EPA 8260B HVOCs by <input type="checkbox"/> EPA 8260B EPA 8260R: <input type="checkbox"/> Gas <input type="checkbox"/> BTEX <input type="checkbox"/> 5 Oxygenates <input type="checkbox"/> DCA, EDB <input type="checkbox"/> Ethanol TEPH EPA 8015B <input checked="" type="checkbox"/> Silica Gel <input checked="" type="checkbox"/> Diesel <input type="checkbox"/> Motor Oil <input type="checkbox"/> Other Semi-Volatile Organics GC/MS <input type="checkbox"/> EPA 8270C PNA/PAH's by <input type="checkbox"/> 8270C <input type="checkbox"/> 8270C SIM Oil and Grease (EPA 1664/9071) <input type="checkbox"/> Petroleum <input type="checkbox"/> Total Pesticides <input type="checkbox"/> EPA 8081 <input type="checkbox"/> EPA 8082 PCBs CAM17 Metals (EPA 6010/7470/7471) Metals: <input type="checkbox"/> 6010B <input type="checkbox"/> 200.7 <input type="checkbox"/> Lead <input type="checkbox"/> LUFT <input type="checkbox"/> RCRA <input type="checkbox"/> Other: Metals: <input type="checkbox"/> 6020 <input type="checkbox"/> 200.6 (ICP-MS) <input type="checkbox"/> WET (STLC) <input type="checkbox"/> TCLP <input type="checkbox"/> WET (D) <input type="checkbox"/> TCLP Hex. Chrom by <input type="checkbox"/> EPA 7186 <input type="checkbox"/> or EPA 7199 pH <input type="checkbox"/> 9040 <input type="checkbox"/> SM4500 <input type="checkbox"/> Spec. Cond. <input type="checkbox"/> Alkalinity <input type="checkbox"/> TSS <input type="checkbox"/> SS <input type="checkbox"/> TDS Anions: <input type="checkbox"/> Cl <input type="checkbox"/> SO <sub>4</sub> <input type="checkbox"/> NO <sub>3</sub> <input type="checkbox"/> F <input type="checkbox"/> Br <input type="checkbox"/> NO <sub>2</sub> <input type="checkbox"/> PO <sub>4</sub> <input type="checkbox"/> Perchlorate by EPA 314.0 COD <input type="checkbox"/> EPA 410.4 <input type="checkbox"/> SM5220D <input type="checkbox"/> Turbidity
Company: <u>Geologica Inc</u>		
Address:		
Bill To:	Sampled By: <u>GR</u>	
Attn:	Phone:	

Sample ID	Date	Time	Mat fix	Preserv	Volatile Organics GC/MS (VOCs)	HVOCs by EPA 8260B	EPA 8260R: Gas BTEX 5 Oxygenates DCA, EDB Ethanol	TEPH EPA 8015B Silica Gel Diesel Motor Oil Other	Semi-Volatile Organics GC/MS EPA 8270C	PNA/PAH's by 8270C 8270C SIM	Oil and Grease (EPA 1664/9071) Petroleum Total	Pesticides EPA 8081 EPA 8082	CAM17 Metals (EPA 6010/7470/7471)	Metals: 6010B 200.7 Lead LUFT RCRA Other	Metals: 6020 200.6 (ICP-MS)	WET (STLC) WET (D) TCLP	Hex. Chrom by EPA 7186 or EPA 7199	pH 9040 SM4500	Spec. Cond. Alkalinity TSS SS TDS	Anions: Cl SO <sub>4</sub> NO <sub>3</sub> F Br NO <sub>2</sub> PO <sub>4</sub>	Perchlorate by EPA 314.0	COD EPA 410.4 SM5220D Turbidity	Number of Containers		
A-1	7/14/14	1445	W		X			X					X										X	6	
A-1A		1500			X			X					X												6
A-3		1140			X			X					X												
A-4		1350			X			X					X												
A-5		900			X			X					X												
A-8		1215			X			X					X												
A-9		1355			X			X					X												
Trap Blanks					X																				

Project Info.		Sample Receipt	
Project Name/ #: <u>Allied Engineering</u>	# of Containers:	Head Space:	Temp: <u>1.4 / 1.9 °C</u>
PO#:	Credit Card Y/N: <input type="checkbox"/> If yes, please call with payment information ASAP		

TAT 10 Day <input type="checkbox"/> 5 Day <input checked="" type="checkbox"/> 4 Day <input type="checkbox"/> 3 Day <input type="checkbox"/> 2 Day <input type="checkbox"/> 1 Day <input type="checkbox"/> Other:	Report: <input type="checkbox"/> Routine <input type="checkbox"/> Level 3 <input type="checkbox"/> Level 4 <input type="checkbox"/> EDD <input type="checkbox"/> EDF Special Instructions / Comments: <input type="checkbox"/> Global ID <u>★ Filter Metals in Lab</u> See Terms and Conditions on reverse
---	---

1) Relinquished by:  
Greg Ramo 16:10  
 Signature Time  
Greg Ramo 7/14/14  
 Printed Name Date  
Geologica  
 Company

2) Relinquished by:  
Ed Martinez 7:14:14  
 Signature Time  
Ed Martinez 7.14.14  
 Printed Name Date  
Test America  
 Company

3) Relinquished by:  
 Signature Time  
 Signature Time  
 Printed Name Date  
 Company

1) Received by:  
Ed Martinez 10:10  
 Signature Time  
Ed Martinez 7-14-14  
 Printed Name Date  
Test America  
 Company

2) Received by:  
J. Barros 7/14/14  
 Signature Time  
J. Barros 7/14/14  
 Printed Name Date  
TAI  
 Company

720-58627 Chain of Custody  
 Signature Time  
 Signature Time  
 Printed Name Date  
 Company

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720-58627

**Report To** **Analysis Request**

Attn:		Company:		Address:		Email:		Bill To:		Sampled By:		Phone:		Attn:	
Sample ID		Date		Time		Mat. rix		Preserv		Volatile Organics GC/MS (VOCs) <input checked="" type="checkbox"/> EPA 8260B		HVOCs by <input type="checkbox"/> EPA 8260B		EPA 8260B: <input type="checkbox"/> Gas <input type="checkbox"/> BTEX <input type="checkbox"/> 5 Oxygenates <input type="checkbox"/> DCA, EDB <input type="checkbox"/> Ethanol	
A-1-4'		7/14/14		10:22		S				<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
A-1-6'				10:25											
A-1-9'				10:57											
A-1A-4'				1053											
A-1A-6'				1055											
A-1A-9'				1058											
A-3-4'				1110				<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
A-3-8'				1112											
A-3-10'				1115											

<input type="checkbox"/> WET (STLC)	<input type="checkbox"/> Hex. Chrom by <input type="checkbox"/> EPA 7196 <input type="checkbox"/> or EPA 7199	pH <input type="checkbox"/> 9040 <input type="checkbox"/> SM4500	<input type="checkbox"/> Spec. Cond. <input type="checkbox"/> Alkalinity	<input type="checkbox"/> TSS <input type="checkbox"/> SS <input type="checkbox"/> TDS	Anions: <input type="checkbox"/> Cl <input type="checkbox"/> SO <sub>4</sub> <input type="checkbox"/> NO <sub>3</sub> <input type="checkbox"/> F <input type="checkbox"/> Br <input type="checkbox"/> NO <sub>2</sub> <input type="checkbox"/> PO <sub>4</sub>	<input type="checkbox"/> Perchlorate by EPA 314.0	COD <input type="checkbox"/> EPA 410.4 <input type="checkbox"/> SM5220D <input type="checkbox"/> Turbidity	<b>Hold</b>	Number of Containers
-------------------------------------	--	---	--	---	---	---	---	-------------	----------------------

<b>Project Info.</b>		<b>Sample Receipt</b>	
Project Name/ #:		# of Containers:	
PO#:		Temp:	
Credit Card Y/N:		If yes, please call with payment information ASAP	

1) Relinquished by:  
Greg Romero 1610  
 Signature Time  
Greg Romero 7/14/14  
 Printed Name Date  
Cocologra  
 Company

2) Relinquished by:  
Ed Martinez 1740  
1840  
 Signature Time  
Ed Martinez 7-14-14  
 Printed Name Date  
Test America  
 Company

3) Relinquished by:  
 Signature Time  
 Printed Name Date  
 Company

T	10 Day	5 Day	4 Day	3 Day	2 Day	1 Day	Other:
A							
T							

Report:  Routine  Level 3  Level 4  EDD  EDF  
 Special Instructions / Comments:  Global ID \_\_\_\_\_  
**\* All soils by dry weight**  
 See Terms and Conditions on reverse

1) Received by:  
Ed Martinez 1610  
 Signature Time  
Ed Martinez 7-14-14  
 Printed Name Date  
Test America  
 Company

2) Received by:  
J. Hernandez 1840  
 Signature Time  
J. Hernandez 7/14/14  
 Printed Name Date  
TAP  
 Company

3) Received by:  
 Signature Time  
 Printed Name Date  
 Company





## Login Sample Receipt Checklist

Client: Geologica Inc

Job Number: 720-58627-1

**Login Number: 58627**

**List Source: TestAmerica Pleasanton**

**List Number: 1**

**Creator: Gonzales, Justinn**

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.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	False	SEE NCM
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	

**geologica**

[www.geologica.net](http://www.geologica.net)

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