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Alameda County
Environmental Health

June 23, 2010

Ms. Barbara Jakub
Alameda County Health Care Services
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Subject: **Subsurface Investigation Results Report**
Shore Acres Gas
403 East 12th Street, Oakland, California
Apex Project No. SAG52.001

Ms. Jakub:

Enclosed please find a copy of the June 23, 2010, *Subsurface Investigation Results Report* for the above referenced site, prepared by our consultant, Apex Envirotech, Inc.

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

Sincerely,



Mr. Rashid Ghafoor



11244 Pyrites Way • Gold River, CA 95670
Phone 916.851.0174 • Fax 916.851.0177 • Toll Free 1.800.242.5249

June 23, 2010

Ms. Barbara Jakub
Alameda County Health Care Services
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Subject: **Subsurface Investigation Results Report**
Shore Acres Gas
403 East 12th Street, Oakland, California
Apex Project No. SAG52.001

Dear Ms. Jakub:

Apex Envirotech, Inc. (Apex) has been authorized by Mr. Rashid Ghafoor to submit this results report documenting the advancement of nine soil borings at the subject site (Figures 1 and 2). This work was performed in response to the Alameda County Environmental Health (ACEH) letter dated July 25, 2008. A copy of the ACEH letter is included as Appendix A.

This results report is based, in part, on information obtained by Apex from Mr. Ghafoor, and is subject to modification as newly acquired information may warrant.

BACKGROUND

1982 – Three 12,000-gallon underground storage tanks (USTs) were installed at the site.

May 6, 1999 – All three of the USTs were lined with fiberglass coating and corrosion protection by Ulrich Industrial Coatings.

August 6, 2003 – Dispensers at the site were upgraded.

September 13, 2005 – Site was received as a gift by present owner, Mr. Ghafoor.

July 10, 2006 – Geofon Incorporated (Geofon) supervised the advancement of two soil borings (GP-1 and GP-2) to collect soil and groundwater samples. Results are detailed in Geofon's report titled *Summary of Phase II Assessment Activities*, dated July 25, 2006.

July 25, 2008 – In a letter, the ACEH requested a workplan for a subsurface investigation at the site.

July 2008 – The USTs were emptied of all product, cleaned, sealed, and placed under temporary closure.

August 17, and 24 through 27, 2009 – Wright Environmental Services, Inc. (Wright) supervised the removal of the USTs, dispensers, and all associated piping at the site. Details of the removal are detailed in Wright's *Closure Report for Three Underground Storage Tanks*, dated September 2009.

GENERAL SITE INFORMATION

Site name	Shore Acres Gas
Site address	403 East 12 th Street, Oakland, California
Responsible party	Rashid Ghafoor
Current site use	Inactive Gas Station
Current phase of project	Subsurface investigation
Tanks at site	None
Number of wells	No wells

SOIL BORING ADVANCEMENT

On April 5 and 6, 2010, Apex personnel supervised the advancement of nine soil borings (SB-1 through SB-9) at the locations shown on Figure 2. Soil borings were advanced using a truck-mounted direct push drill rig, and direct push drilling techniques, operated by PeneCore Drilling of Woodland, California. All fieldwork was conducted in accordance with the Apex Standard Operating Procedures (SOPs) included as Appendix B.

Prior to drilling, permits were obtained from the ACEH, and Underground Service Alert was contacted for identification of public utilities at or entering the project site. As a further precaution, the first five feet of each boring were hand augured to avoid striking underground utilities.

Soil borings SB-1 through SB-5 and SB-8 were advanced to 30 feet below ground surface (bgs) and borings SB-6, SB-7, and SB-9 were advanced to a depth of 32.5 feet bgs. Initial groundwater was encountered between 28 and 30.5 feet bgs in the borings. Boring logs are included as Appendix C of this report.

Upon completion of sampling activities, the borings were backfilled with Portland cement to the surface. The drill cuttings are temporarily being stored onsite in Department of Transportation-approved 55-gallon drums pending waste characterization and disposal.

Soil and Groundwater Sampling

Soil samples were collected continuously at each location to total depth. All soil samples were screened in the field with the use of a photo ionization detector (PID). All soil samples collected were submitted under chain-of-custody (COC) documentation for analysis at a state-certified laboratory. The soil sample with the highest PID reading, the sample just above first encountered groundwater, and the deepest soil sample collected were submitted for chemical analysis. One discrete grab groundwater sample was collected from each boring and submitted

to a state-certified laboratory, along with the soil samples, for chemical analysis. Soil and groundwater sample results are included in Tables 1 and 2, respectively. A summary of analyses and analytical methods is shown below.

ANALYTICAL PROCEDURES

Analysis	Abbreviation	Designation	USEPA Method No.
Total Petroleum Hydrocarbons as Gasoline	TPHg	Gas-Range Hydrocarbons	8015M
Benzene	BTEX	Aromatic Volatile Organics	8260B
Toluene			
Ethylbenzene			
Xylenes (Total)			
Tertiary Butyl Alcohol	TBA	Fuel Oxygenates	
Methyl Tertiary Butyl Ether	MTBE		
Di-isopropyl Ether	DIPE		
Ethyl Tertiary Butyl Ether	ETBE		
Tertiary Amyl Methyl Ether	TAME		
Ethanol	EtOH		
1,2-Dichloroethane	1,2-DCA	Lead Scavengers	
Ethylene Dibromide	EDB		

CONCLUSIONS

Soil

Concentrations of TPHg in soil were detected in soil borings SB-1 through SB-9, with a maximum concentration of 6,100 milligrams per kilogram (mg/kg) in soil boring SB-6 at 9.5 feet bgs. Concentrations of benzene were detected in soil borings SB-1 through SB-4 and SB-6 through SB-9, with a maximum concentration of 21 mg/kg in soil boring SB-6 at 9.5 feet bgs. MTBE was detected in soil borings SB-1 through SB-3 and SB-6 through SB-9, with a maximum concentration of 5.5 mg/kg in soil boring SB-9 at 14.5 feet bgs. Soil analytical data is presented in Table 1.

Groundwater

Based on laboratory analytical data, TPHg was detected in grab groundwater samples from soil borings SB-1, SB-3, SB-4, SB-6, and SB-7, with a maximum concentration of 6,500 micrograms per liter ($\mu\text{g/L}$) in soil boring SB-4. Benzene was reported in soil borings SB-1, SB-3, SB-4, and SB-8, with a maximum concentration of 78 $\mu\text{g/L}$ at soil boring SB-4. MTBE was reported in all soil borings, except for soil boring SB-4, with a maximum concentration of 4,000 $\mu\text{g/L}$ in soil boring SB-6. Groundwater analytical data is presented in Table 2.

RECOMMENDATIONS

Apex recommends preparing a workplan for the installation of four groundwater monitoring wells to assess groundwater flow direction and to further delineate the extent of petroleum hydrocarbons in groundwater.

ATTACHMENTS

Figures

Figure 1: Site Vicinity Map

Figure 2: Site Plan Map

Tables

Table 1: Soil Analytical Data

Table 2: Groundwater Analytical Data

Appendices

Appendix A: Regulatory Correspondence

Appendix B: Apex Standard Operating Procedures

Appendix C: Boring Logs

Appendix D: Laboratory Analytical Report and Chain-of-Custody Form

REPORT DISTRIBUTION

Apex submitted a copy of this report, in final form, to:

Regulatory Oversight:

Ms. Barbara Jakub
Alameda County Health Care Services
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Ms. Cherie McCaulou
California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street
Oakland, California 94612

Responsible Party:

Mr. Rashid Ghafoor

REMARKS AND SIGNATURES

The information contained within this report reflects our professional opinions and was developed in accordance with currently available information, and accepted hydrogeologic and engineering practices.

The work described herein was performed under the direct review and supervision of the professional geologist, registered with the State of California, whose signature appears below.

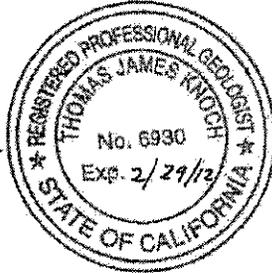
Apex appreciates the opportunity to provide Mr. Ghafoor with geologic, engineering, and environmental consulting services and trust this report meets your needs. If you have any questions or concerns, please do not hesitate to call us at 916-851-0174.

Sincerely,

APEX ENVIROTECH, INC.

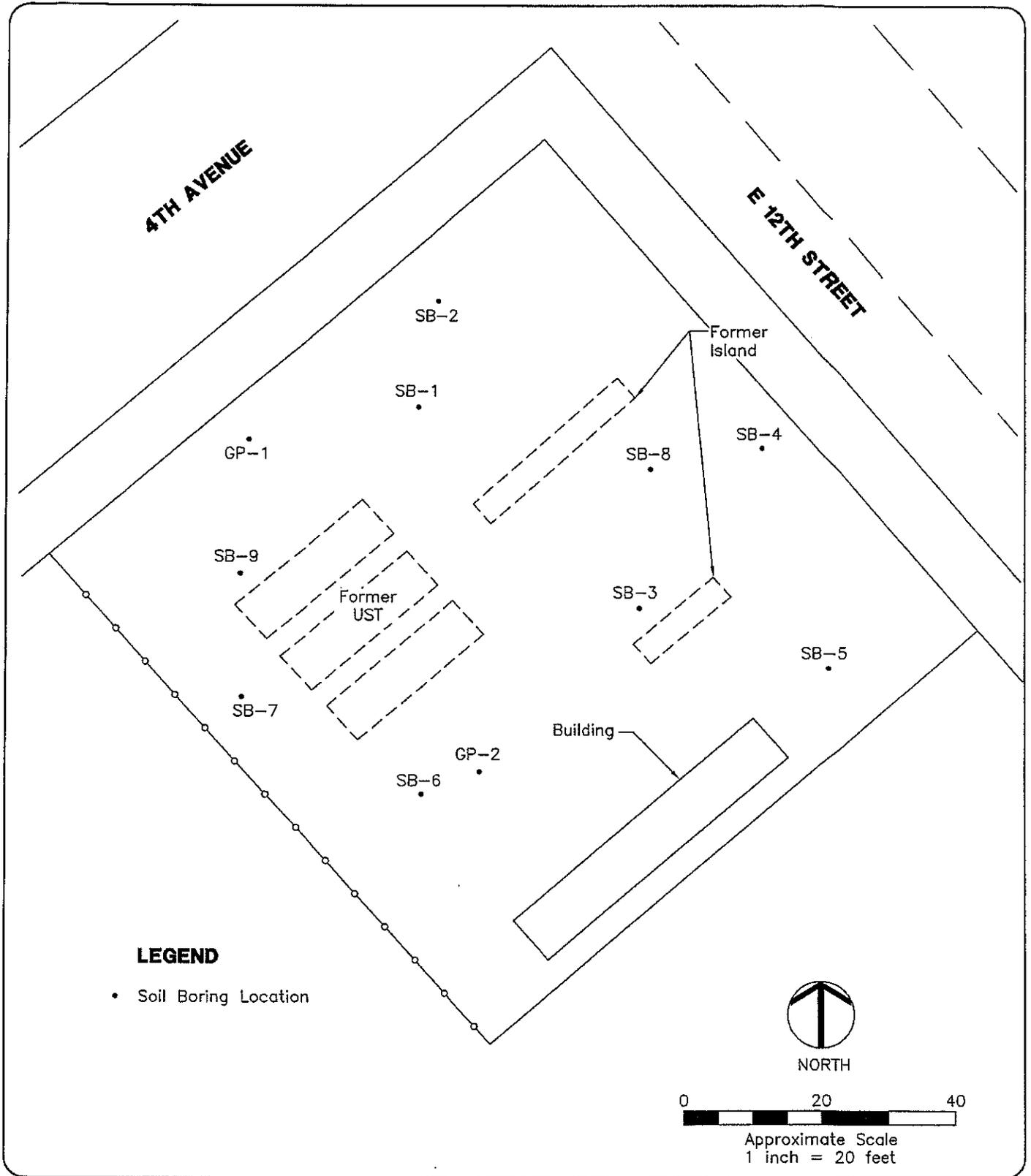


Brandon Poteet
Project Manager



Thomas J. Knoch
P.G. (6930)
Senior Geologist

FIGURES



	DRAWN BY: N. Rouillard	SITE PLAN MAP	FIGURE 2
	DATE: 6/15/10		
	REVISIONS	Shore Acre Gas 403 E 12th Street Oakland, California	PROJECT NUMBER:
			SAG52.001

TABLES

TABLE 1
SOIL ANALYTICAL DATA
 Shore Acres Gas
 403 East 12th Street
 Oakland, California

Sample ID	Depth (feet)	Date	TPH as Gasoline (mg/kg)	TPH as Diesel (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl benzene (mg/kg)	Total Xylenes (mg/kg)	Oxygenates by USEPA Method 8260						Lead Scavengers		Total Lead (mg/kg)	
									DIPE (mg/kg)	ETBE (mg/kg)	MTBE (mg/kg)	TAME (mg/kg)	TBA (mg/kg)	Ethanol (mg/kg)	Methanol (mg/kg)	1,2-DCA (mg/kg)		EDB (mg/kg)
Tank Removal																		
SS-D1	2	8/19/09	3,000	1800*	<0.25	0.34	39	180	<0.25	<0.25	<0.25	<0.25	<1.5	<2.5	<25	---	---	12
SS-D2	2	8/19/09	2,400	900*	<0.25	<0.25	36	120	<0.25	<0.25	<0.25	<0.25	<1.5	<2.5	<25	---	---	8.6
SS-D3	2	8/19/09	1,000	460*	<0.15	<0.15	12	14	<0.15	<0.15	<0.15	<0.15	<0.70	<1.5	<15	---	---	22
SS-D4	2	8/19/09	640	540*	<0.090	1.0	6.1	51	<0.090	<0.090	<0.090	<0.090	<0.50	<0.90	<9.0	---	---	12
SS-D5	2	8/19/09	140	320	<0.025	<0.025	1.3	3.2	<0.025	<0.025	<0.025	<0.025	<0.15	<0.25	<2.5	---	---	5.2
SS-D6	2	8/19/09	260	320*	<0.025	0.054	1.0	8.0	<0.025	<0.025	<0.025	<0.025	<0.15	<0.25	<2.5	---	---	10
SS-J1	2	8/19/09	160	39*	<0.025	<0.025	0.71	0.94	<0.025	<0.025	<0.025	<0.025	<0.15	<0.25	<2.5	---	---	38
SS-Isle	4	8/19/09	100	560*	<0.025	<0.025	0.30	0.084	<0.025	<0.025	<0.025	<0.025	<0.15	<0.25	<2.5	---	---	7.1
Stockpile SS (1,2)	---	8/19/09	<1.0	95*	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.050	<0.20	---	---	20
SS-7	18	8/27/09	1,600	310*	6.9	76	39	200	<0.25	<0.25	<0.25	<0.25	<1.5	---	---	<0.25	<0.25	---
Tank 1-SS-1	2	8/27/09	2,500	830*	4.2	100	69	360	<0.50	<0.50	<0.50	<0.50	<2.5	---	---	<0.50	<0.50	---
Tank 1-SS-2	2	8/27/09	480	62*	1.8	5.3	14	62	<0.040	<0.040	0.37	<0.040	0.51	---	---	<0.040	<0.040	---
Tank 2-SS-1	2	8/27/09	290	120*	0.37	2.4	6.3	31	<0.050	<0.050	0.18	<0.050	0.35	---	---	<0.050	<0.050	---
Tank 2-SS-2	2	8/27/09	80	330*	0.074	0.051	1.2	5.8	<0.025	<0.025	0.090	<0.025	0.16	---	---	<0.025	<0.025	---
Tank 3-SS-1	2	8/27/09	2,100	480*	2.4	41	62	320	<0.50	<0.50	<0.50	<0.50	<2.5	---	---	<0.50	<0.50	---
Tank 3-SS-2	2	8/27/09	130	75*	0.23	0.26	3.1	15	<0.025	<0.025	0.19	<0.025	0.15	---	---	<0.025	<0.025	---
Stockpile 2-SS-2-(1,2)	2	8/27/09	110	100*	<0.025	0.24	1.4	6.1	<0.025	<0.025	0.17	<0.025	0.99	---	---	<0.025	<0.025	---
Stockpile 3-SS-3-(1,2)	2	8/27/09	<1.0	8.6*	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.023	<0.005	0.88	---	---	<0.0050	<0.0050	---
Stockpile 4-SS-4-(1,2)	2	8/27/09	1,400	760*	0.36	2.2	23	110	<0.20	<0.20	<0.20	<0.20	<0.90	---	---	<0.20	<0.20	---
Soil Borings																		
GP-1-15.5	15.5	7/10/06	18.0	13.0	0.63	0.052	0.69	0.13	<0.005	<0.005	0.029	<0.005	0.27	---	---	---	---	---
GP-1-18.0	18	7/10/06	<1.0	<1.0	0.0056	0.0082	<0.005	0.019	<0.005	<0.005	0.54	<0.005	0.33	---	---	---	---	---
GP-2-12.0	12	7/10/06	3,600	600	17	180	98	440	<0.50	<0.50	<0.50	<0.50	<2.5	---	---	---	---	---
GP-2-20.0	20	7/10/06	1,100	79	3.2	41	25	130	<0.025	<0.025	0.041	<0.025	<0.15	---	---	---	---	---
SB-1-9.5'	9.5	4/5/10	1,600	---	5.1	43	30	180	<0.80	<0.80	<0.80	<0.80	<8.0	<40	---	<0.80	<0.80	---
SB-1-24.5'	24.5	4/5/10	<1.0	---	<0.005	<0.005	<0.005	<0.010	<0.005	<0.005	0.11	<0.005	<0.050	<0.25	---	<0.005	<0.005	---
SB-1-29.5'	29.5	4/5/10	<1.0	---	<0.005	<0.005	<0.005	<0.010	<0.005	<0.005	<0.005	<0.005	<0.050	<0.25	---	<0.005	<0.005	---
SB-2-9.5'	9.5	4/5/10	2.2	---	0.26	<0.010	0.066	<0.020	<0.010	<0.010	<0.010	<0.010	<0.10	<0.50	---	<0.010	<0.010	---
SB-2-24.5'	24.5	4/5/10	<1.0	---	<0.005	<0.005	<0.005	<0.010	<0.005	<0.005	0.053	<0.005	<0.050	<0.25	---	<0.005	<0.005	---
SB-2-29.5'	29.5	4/5/10	<1.0	---	<0.005	<0.005	<0.005	<0.010	<0.005	<0.005	<0.005	<0.005	<0.050	<0.25	---	<0.005	<0.005	---

TABLE 1
SOIL ANALYTICAL DATA
 Shore Acres Gas
 403 East 12th Street
 Oakland, California

Sample ID	Depth (feet)	Date	TPH as Gasoline (mg/kg)	TPH as Diesel (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl benzene (mg/kg)	Total Xylenes (mg/kg)	Oxygenates by USEPA Method 8260						Lead Scavengers		Total Lead (mg/kg)	
									DIPE (mg/kg)	ETBE (mg/kg)	MTBE (mg/kg)	TAME (mg/kg)	TBA (mg/kg)	Ethanol (mg/kg)	Methanol (mg/kg)	1,2-DCA (mg/kg)		EDB (mg/kg)
SB-3-14.5'	14.5	4/5/10	2,800	---	17	100	42	240	<2.0	<2.0	<2.0	<2.0	<20	<100	---	<2.0	<2.0	---
SB-3-24.5'	24.5	4/5/10	<1.0	---	<0.005	0.005	<0.005	0.013	<0.005	<0.005	0.10	<0.005	<0.050	<0.25	---	<0.005	<0.005	---
SB-3-29.5'	29.5	4/5/10	<1.0	---	<0.005	<0.005	<0.005	<0.010	<0.005	<0.005	0.010	<0.005	<0.050	<0.25	---	<0.005	<0.005	---
SB-4-14.5'	14.5	4/5/10	1,700	---	13	79	28	170	<1.0	<1.0	<1.0	<1.0	<10	<50	---	<1.0	<1.0	---
SB-4-19.5'	19.5	4/5/10	<1.0	---	<0.005	0.009	<0.005	0.026	<0.005	<0.005	<0.005	<0.005	<0.050	<0.25	---	<0.005	<0.005	---
SB-4-29.5'	29.5	4/5/10	<1.0	---	<0.005	<0.005	<0.005	<0.010	<0.005	<0.005	<0.005	<0.005	<0.050	<0.25	---	<0.005	<0.005	---
SB-5-14.5'	14.5	4/6/10	470	---	<0.20	0.45	6.2	37	<0.20	<0.20	<0.20	<0.20	<2.0	<10	---	<0.20	<0.20	---
SB-5-24.5'	24.5	4/6/10	<1.0	---	<0.005	<0.005	<0.005	<0.010	<0.005	<0.005	<0.005	<0.005	<0.050	<0.25	---	<0.005	<0.005	---
SB-5-29.5'	29.5	4/6/10	<1.0	---	<0.005	<0.005	<0.005	<0.010	<0.005	<0.005	<0.005	<0.005	<0.050	<0.25	---	<0.005	<0.005	---
SB-6-9.5'	9.5	4/6/10	6,100	---	21	170	95	580	<2.0	<2.0	<2.0	<2.0	<20	<100	---	<2.0	<2.0	---
SB-6-29.5'	29.5	4/6/10	<1.0	---	<0.005	<0.005	<0.005	<0.010	<0.005	<0.005	0.20	<0.005	<0.050	<0.25	---	<0.005	<0.005	---
SB-6-32'	32	4/6/10	<1.0	---	<0.005	<0.005	<0.005	<0.010	<0.005	<0.005	0.18	<0.005	<0.050	<0.25	---	<0.005	<0.005	---
SB-7-9.5'	9.5	4/6/10	4,000	---	12	46	55	360	<1.0	<1.0	4.0	<1.0	<10	<50	---	<1.0	<1.0	---
SB-7-29.5'	29.5	4/6/10	<1.0	---	<0.005	<0.005	<0.005	<0.010	<0.005	<0.005	0.18	<0.005	<0.050	<0.25	---	<0.005	<0.005	---
SB-7-32'	32	4/6/10	<1.0	---	<0.005	<0.005	<0.005	<0.010	<0.005	<0.005	0.11	<0.005	<0.050	<0.25	---	<0.005	<0.005	---
SB-8-9.5'	9.5	4/6/10	2,500	---	16	110	63	370	<2.0	<2.0	<2.0	<2.0	<20	<100	---	<2.0	<2.0	---
SB-8-24.5'	24.5	4/6/10	<1.0	---	<0.005	<0.005	<0.005	<0.010	<0.005	<0.005	0.033	<0.005	<0.050	<0.25	---	<0.005	<0.005	---
SB-8-29.5'	29.5	4/6/10	<1.0	---	<0.005	<0.005	<0.005	<0.010	<0.005	<0.005	<0.005	<0.005	<0.050	<0.25	---	<0.005	<0.005	---
SB-9-14.5'	14.5	4/6/10	390	---	3.0	3.0	9.1	41	<0.20	<0.20	5.5	<0.20	<2.0	<10	---	<0.20	<0.20	---
SB-9-29.5'	29.5	4/6/10	<1.0	---	<0.005	<0.005	<0.005	<0.010	<0.005	<0.005	0.090	<0.005	0.15	<0.25	---	<0.005	<0.005	---
SB-9-32'	32	4/6/10	<1.0	---	<0.005	<0.005	<0.005	<0.010	<0.005	<0.005	0.11	<0.005	<0.050	<0.25	---	<0.005	<0.005	---

Notes:

- - Not tested
- * - Hydrocarbons are lower-boiling than typical Diesel Fuel
- 1,2-DCA - 1,2-Dichloroethane
- DIPE - Di-isopropyl ether
- EDB - 1,2-Dibromoethane
- ETBE - Ethyl tertiary butyl ether
- mg/kg - Milligrams per kilogram
- MTBE - Methyl tertiary butyl ether
- TAME - Tertiary amyl methyl ether
- TBA - Tertiary butyl alcohol
- TPH - Total petroleum hydrocarbons

TABLE 2
GROUNDWATER ANALYTICAL DATA

Shore Acres Gas
403 East 12th Street
Oakland, California

Sample ID	Date of Sampling	TPH as		Aromatic Volatile Organics				Fuel Oxygenates					Lead Scavengers		
		Gasoline (µg/L)	Diesel (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-Benzene (µg/L)	Total Xylenes (µg/L)	DIPE (µg/L)	ETBE (µg/L)	MTBE (µg/L)	TAME (µg/L)	TBA (µg/L)	Ethanol (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)
Tank Pull															
Pit Sample 1	8/27/2009	21,000	21,000	3,800	1,000	1,200	3,700	<10	<10	15,000	39	17,000	---	<10	<10
Soil Borings															
SB-1	4/5/10	60	---	2.9	6.7	2.1	9.7	<0.5	<0.5	14	<0.5	<5.0	<5.0	<0.5	<0.5
SB-2	4/5/10	<50	---	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	45	<0.5	<5.0	<5.0	<0.5	<0.5
SB-3	4/5/10	170	---	1.5	11	4.8	27	<0.5	<0.5	110	<0.5	32	<5.0	<0.5	<0.5
SB-4	4/5/10	6,500	---	78	440	190	960	<5.0	<5.0	<5.0	<5.0	<50	<50	<5.0	<5.0
SB-5	4/6/10	<50	---	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	0.6	<0.5	<5.0	<5.0	<0.5	<0.5
SB-6	4/6/10	440	---	<20	<20	<20	<40	<20	<20	4,000	<20	<200	<200	<20	<20
SB-7	4/6/10	270	---	<12	<12	<12	<25	<12	<12	2,500	<12	<120	<120	<12	<12
SB-8	4/6/10	<50	---	0.6	1.3	0.6	3.3	<0.5	<0.5	26	<0.5	98	<5.0	<0.5	<0.5
SB-9	4/6/10	<50	---	<10	<10	<10	<20	<10	<10	1,800	<10	5,300	<100	<10	<10

Notes:

- - Not analyzed
- 1,2-DCA - 1,2-Dichloroethane
- µg/L - Micrograms per liter
- DIPE - Di-isopropyl ether
- EDB - 1,2-Dibromoethane
- ETBE - Ethyl tertiary butyl ether
- MTBE - Methyl tertiary butyl ether
- TAME - Tertiary amyl methyl ether
- TBA - Tertiary butyl ether
- TPH - Total petroleum hydrocarbons

APPENDIX A

REGULATORY CORRESPONDANCE



ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
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(510) 567-6700
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July 25, 2008

Rashid Ghafoor and Waseem Iqbal
226 Havenwood Circle
Pittsburg, CA 94567

Subject: Fuel Leak Case No. RO00002931 and Geotracker Global ID T0600174667, Shore Acres Gas, 403 E 12th St., Oakland, CA 94606

Dear Messrs. Ghafoor and Iqbal:

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the above-referenced site including the September 7, 2007 *Expedited Site Assessment Work Plan Addendum* that was submitted by Insight. This addendum proposes advancing nine direct push borings to be placed in transects downgradient and perpendicular to the source area.

ACEH requests that you perform the investigation at the site as per the addendum, ensure that the following analytes are analyzed for in soil and groundwater samples: total petroleum hydrocarbons as gasoline (TPHg) by EPA Method 8015M, benzene, toluene, ethylbenzene, toluene, xylenes, methyl tertiary butyl ether (MTBE), ethyl tertiary butyl ether (ETBE), di-isopropyl ether (DIPE), tertiary amyl methyl ether (TAME), tert butyl alcohol (TBA), ethylene dibromide (EDB), ethylene dibromide (EDB), 1,2-dichloroethane (1,2-DCA) and ethanol by EPA Method 8260 and send us the technical reports requested below.

TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Barbara Jakub), according to the following schedule:

- **November 25, 2008** –Soil and Water Investigation Report

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) Geotracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the Geotracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in Geotracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.swrcb.ca.gov/ust/electronic_submittal/report_rqmts.shtml).

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

Messrs. Ghafoor and Iqbal
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AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

If you have any questions, please call me at (510) 639-1287 or send me an electronic mail message at barbara.jakub@acgov.org.

Sincerely,



Barbara J. Jakub, P.G.
Hazardous Materials Specialist

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Mr. Mike Sgourakis, Apex Envirotech Inc., 11244 Pyrites Way, Gold River, CA 95670
Donna Drogos, ACEH
Barbara Jakub, ACEH
File

Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)	ISSUE DATE: July 5, 2005
	REVISION DATE: December 16, 2005
	PREVIOUS REVISIONS: October 31, 2005
SECTION: Miscellaneous Administrative Topics & Procedures	SUBJECT: Electronic Report Upload (ftp) Instructions

Effective **January 31, 2006**, the Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- Entire report including cover letter must be submitted to the ftp site as a **single portable document format (PDF) with no password protection**. (Please do not submit reports as attachments to electronic mail.)
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- Signature pages and perjury statements **must** be included and have either original or electronic signature.
- **Do not password protect the document**. Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted**.
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:
RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Additional Recommendations

- A separate copy of the tables in the document should be submitted by e-mail to your Caseworker in **Excel** format. These are for use by assigned Caseworker only.

Submission Instructions

- 1) Obtain User Name and Password:
 - a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
 - i) Send an e-mail to dehloptoxic@acgov.org
 - or
 - ii) Send a fax on company letterhead to (510) 337-9335, to the attention of Alicia Lam-Finneke.
 - b) In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses, and the Case Numbers (RO# available in Geotracker) you will be posting for**.
- 2) Upload Files to the ftp Site
 - a) Using Internet Explorer (IE4+), go to <ftp://alcoftp1.acgov.org>
 - (i) Note: Netscape and Firefox browsers will not open the FTP site.
 - b) Click on File, then on Login As.
 - c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
 - d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
 - e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.
- 3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
 - a) Send email to dehloptoxic@acgov.org notify us that you have placed a report on our ftp site.
 - b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name at acgov.org. (e.g., firstname.lastname@acgov.org)
 - c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload)

APPENDIX B

APEX STANDARD OPERATING PROCEDURES

APEX ENVIROTECH, INC.

STANDARD OPERATING PROCEDURES

SOP-1 HOLLOW STEM AUGER SOIL BORING SAMPLING

During drilling, soil samples for chemical analysis are collected in thin-walled brass tubes, of varying diameters and lengths (e.g., four or six inches long by two inches outside diameter). Three or four of the selected tubes, plus a spacer tube, are set in an 18-inch long split-barrel sampler of the appropriate inside-diameter.

Where possible, the split-barrel sampler is driven its entire length either hydraulically or using a 140-pound drop hammer. The sampler is extracted from the borehole and the brass tubes, containing the soil samples, are removed. Upon removal from the sampler, the selected brass tubes are either immediately trimmed and capped with aluminum foil or "Teflon" sheets and plastic caps or the samples are extruded from the tubes and sealed within other appropriate, cleaned sample containers. The samples are then hermetically sealed, labeled, and refrigerated for delivery, under strict chain-of-custody, to the analytical laboratory. These procedures minimize the potential for cross-contamination and volatilization of volatile organic compounds (VOC) prior to chemical analysis.

One soil sample collected at each sampling interval is analyzed in the field using either a portable photo ionization detector (PID), flame ionization detector (FID), organic vapor analyzer, catalytic gas detector, or an explosimeter. The purpose of this field analysis is to qualitatively determine the presence or absence of hydrocarbons, and the samples to be analyzed at the laboratory. The soil sample is sealed in either a brass tube, glass jar, or plastic bag to allow for some volatilization of VOC. The PID is then used to measure the concentrations of hydrocarbons within the container's headspace. The data is recorded on both field notes and the boring logs at the depth corresponding to the sampling point.

Other soil samples are collected to document the soil and/or stratigraphic profile beneath the project site, and estimate the relative permeability of the subsurface materials. All drilling and sampling equipment are either steam cleaned or washed in solution and doubly rinsed in deionized water prior to use at each site and between boreholes to minimize the potential for cross-contamination.

In the event the soil samples cannot be submitted to the analytical laboratory on the same day they are collected (e.g., due to weekends or holidays), the samples are temporarily stored until the first opportunity for submittal either on ice in a cooler, such as when in the field, or in a refrigerator at Apex's office.

SOP-2 DIRECT PUSH SOIL BORING SAMPLING

During drilling, soil samples for chemical analysis are collected in thin-walled plastic tubes, of varying diameters and lengths (e.g., two inches outer diameter by four feet long). The plastic sampling tube is placed inside a steel rod and driven into the subsurface to the desired depth using a direct push drill rig. The steel rod is then removed from the subsurface and the plastic tube containing the soil sample are removed from the steel rod. The process is repeated until the desired depth of the boring is reached.

Upon removal from the steel rods, approximately the bottom six inches of each tube is cut off and capped to be potentially submitted for analysis. The tubes capped with aluminum foil or "Teflon" sheets and plastic caps or the samples are extruded from the tubes and sealed within other appropriate, cleaned sample containers. The samples are then hermetically sealed, labeled, and refrigerated for delivery, under strict chain-of-custody, to the analytical laboratory. These procedures minimize the potential for cross-contamination and volatilization of volatile organic compounds (VOC) prior to chemical analysis.

The remaining portion of the plastic tube is cut open and a portion of the soil sample collected at each sampling interval is analyzed in the field using either a portable PID, FID, organic vapor analyzer, catalytic gas detector, or an explosimeter. The purpose of this field analysis is to qualitatively determine the presence or absence of hydrocarbons, and the samples to be analyzed at the laboratory. The soil sample is sealed in either a glass jar or plastic bag to allow for some volatilization of VOC. The PID is then used to measure the concentrations of hydrocarbons within the container's headspace. The data is recorded on both field notes and the boring logs at the depth corresponding to the sampling point.

Other soil samples are collected to document the soil and/or stratigraphic profile beneath the project site, and estimate the relative permeability of the subsurface materials. All drilling and sampling equipment are either steam cleaned or washed in solution and doubly rinsed in deionized water prior to use at each site and between boreholes to minimize the potential for cross-contamination.

In the event the soil samples cannot be submitted to the analytical laboratory on the same day they are collected (e.g., due to weekends or holidays), the samples are temporarily stored until the first opportunity for submittal either on ice in a cooler, such as when in the field, or in a refrigerator at Apex's office.

SOP-3 SOIL EXCAVATION AND SAMPLING

Excavation and subsequent soil sampling is performed under the direction of a registered geologist or civil engineer. To reduce the potential for cross-contamination, all excavation equipment is either steam cleaned or washed prior to use and between excavations. Soil samples for chemical analysis are collected in cleaned, thin-walled brass tubes of varying diameters and lengths (e.g., six inches long by two inches outside diameter) or other appropriate cleaned sample container. If used, one tube may be set in a two inch inside diameter, hand-driven sampler. To reduce the potential for cross-contamination between samples, the sampler is washed in a solution and doubly rinsed between each sampling event.

Upon recovery, a portion of the soil sample is sealed for later screening with either a portable PID, FID, or an explosimeter. Another portion of the sample is used for description of the excavated materials. A third portion of the sample is hermetically sealed, labeled and refrigerated for delivery, under strict chain-of-custody, to the analytical laboratory. These procedures minimize the potential for cross-contamination and volatilization of volatile organic compounds prior to chemical analysis.

In the event the soil samples cannot be submitted to the analytical laboratory on the same day they are collected (e.g., due to weekends or holidays), the samples are

temporarily stored until the first opportunity for submittal either on ice in a cooler, such as when in the field, or in a refrigerator at Apex's office.

SOP-4 SOIL CLASSIFICATION

Soil samples are classified according to the Unified Soil Classification System. Representative portions of the samples may be submitted, under strict chain-of-custody, to an analytical laboratory for further examination and verification of the in-field classification and analysis of soil mechanical and/or petrophysical properties. The soil types are indicated on logs of either excavations or borings together with depths corresponding to the sampling points and other pertinent information.

SOP-5 SAMPLE IDENTIFICATION AND CHAIN-OF-CUSTODY PROCEDURES

Sample identification and chain-of-custody procedures ensure sample integrity as well as document sample possession from the time of collection to ultimate disposal. Each sample container submitted for analysis is labeled to identify the job number, date, time of sample collection, a sample number unique to the sample, any in-field measurements made, sampling methodology, name(s) of on-site personnel, and any other pertinent field observations also recorded on the field excavation or boring log.

Chain-of-custody forms are used to record possession of the sample from time of collection to arrival at the laboratory. During shipment, the person with custody of the samples will relinquish them to the next person by signing the chain-of-custody form(s) and noting the date and time. The sample-control officer at the laboratory will verify sample integrity, correct preservation, confirm collection in the proper container(s), and ensure adequate volume for analysis.

If these conditions are met, the samples will be assigned unique laboratory log numbers for identification throughout analysis and reporting. The log numbers will be recorded on the chain-of-custody forms and in the legally-required log book maintained in the laboratory. The sample description, date received, client's name, and any other relevant information will also be recorded.

SOP-6 LABORATORY ANALYTICAL QUALITY ASSURANCE AND CONTROL

In addition to routine instrument calibration, replicates, spikes, blanks, spiked blanks, and certified reference materials are routinely analyzed at method-specific frequencies to monitor precision and bias. Additional components of the laboratory Quality Assurance/Quality Control program include:

1. Participation in state and federal laboratory accreditation/certification programs;
2. Participation in both U.S. EPA Performance Evaluation studies (WS and WP studies) and inter-laboratory performance evaluation programs;
3. Standard operating procedures describing routine and periodic instrument maintenance;
4. "Out-of-Control"/Corrective Action documentation procedures; and,

5. Multi-level review of raw data and client reports.

SOP-7 HOLLOW-STEM AUGER MONITORING WELL INSTALLATION AND DEVELOPMENT

Boreholes for monitoring wells are drilled using a truck-mounted, hollow-stem auger drill rig. The borehole diameter will be a minimum of four inches larger than the outside diameter of the casing when installing well screen. The hollow-stem auger provides minimal interruption of drilling while permitting soil sampling at desired intervals. Soil samples are collected by either hammering (with a 140-pound drop hammer) or hydraulically pushing a conventional split-barrel sampler containing pre-cleaned two inch-diameter brass tubes. A geologist or engineer from Apex Envirotech, Inc., continuously logs each borehole during drilling and constantly checks drill cuttings for indications of both the first recognizable occurrence of groundwater and volatile hydrocarbons using either a PID, FID, or an explosimeter. The sampler is rinsed between samples and either steam cleaned or washed with all other drilling equipment between borings to minimize the potential for cross-contamination.

Monitoring wells are cased with threaded, factory-perforated and blank Schedule 40 PVC. The perforated interval consists of slotted casing, generally with 0.020-inch wide by 1.5 inch long slots, with 42 slots per foot. A PVC cap may be secured to the bottom of the casing with stainless steel screws; no solvents or cements are used. Centering devices may be fastened to the casing to ensure even distribution of filter material and grout within the borehole annulus. The well casing is thoroughly washed and/or steam cleaned, or may be purchased as pre-cleaned, prior to installation.

After setting the casing inside the hollow-stem auger, sand or gravel filter material is poured into the annular space to fill from boring bottom to generally one foot above the perforated interval. A one to two foot thick bentonite plug is set above this filter material to prevent grout from infiltrating the filter pack. Either neat cement, containing about five percent bentonite or sand-cement grout is then tremmed into the annular space from the top of the bentonite plug to near surface. A traffic-rated vault is installed around each wellhead for wells located in parking lots or driveways, while steel "stovepipes" are usually set over wellheads in landscaped areas.

After installation, the wells are thoroughly developed to remove residual drilling materials from the wellbore, and to improve well performance by removing fine material from the filter pack that may pass into the well. Well development techniques used may include pumping, surging, bailing, swabbing, jetting, flushing, and air-lifting. All development water is collected either in drums or tanks for temporary storage, and properly disposed of depending on laboratory analytical results. To minimize the potential for cross-contamination between wells, all development equipment is either steam cleaned or properly washed prior to use. Following development, the well is allowed to stand undisturbed for a minimum of 24 hours before its first sampling.

SOP-8 ROTARY DRILLING MONITORING WELL INSTALLATION AND DEVELOPMENT

Boreholes for monitoring wells may be drilled using truck-mounted drill rigs capable of air- and mud-rotary drilling, and

continuous coring and/or drilling with tri-cone roller or fixed-blade drag bits. Generally, rotary drilling is used when more conventional hollow-stem auger drilling either is or becomes infeasible. Various drilling fluids (mud or air), used to keep the borehole from caving and to remove drill cuttings, are chosen according to the nature of the soils and/or geologic formations expected to be encountered as well as the monitoring program. Samples may be collected directly from cores. A geologist or engineer from Apex Envirotech, Inc., continuously logs each boring during drilling and checks returned drill cuttings for indications of both the first recognizable occurrence of groundwater and volatile hydrocarbons, using either a portable PID, FID, or explosimeter. All drilling equipment is either steam cleaned or washed between borings to minimize the potential for cross-contamination.

Frequently, hollow-stem augers are used to drill and sample to either a minimum depth or auger refusal. In such cases, the augers may be left in place as temporary surface casing, with the center plug removed and drilling/coring carried out through the augers. Alternatively, a shallow conductor casing, or surface casing, may be set by drilling to a desired depth with a large-diameter bit, then setting the casing and proceeding with the drilling/coring. After total drill depth (TD) is reached, the borehole may be logged by geophysical means or hydraulically tested. If casing is not set to the bottom of the borehole, the lower portion of the hole may be grouted or backfilled accordingly. The borehole may be drilled out (reamed) as necessary with a large-diameter bit.

Upon reaching TD, drilling fluid is circulated to remove cuttings. Selected casing is then run into the borehole and set to the desired depth. Monitoring wells are cased with clean, threaded, factory-perforated and blank casing. The perforated interval consists of slotted casing, generally with 0.020-inch-wide by 1.5 inch-long slots, with 42 slots per foot. Centering devices may be fastened to the casing to ensure even distribution of filter material and grout within the borehole annulus. The well casing is thoroughly washed and/or steam cleaned, or may be purchased as pre-cleaned, prior to installation. All recoverable drilling fluid and/or cuttings are collected for temporary storage and disposed of properly pending analytical results.

After setting the casing, sand or gravel filter material is poured into the annular space to fill from boring bottom to generally 1 foot above the perforated interval. A one to two foot-thick bentonite plug is set above this filter material to prevent grout from infiltrating the filter pack. Either neat cement, containing about five percent bentonite, or sand-cement grout is then tremmed into the annular space from the top of the bentonite plug to near surface. A traffic-rated vault is installed around each wellhead for wells located in parking lots or driveways, while steel "stovepipes" are usually set over wellheads in landscaped areas.

After installation, the wells are thoroughly developed to remove residual drilling materials from the wellbore, and to improve well performance by removing fine material from the filter pack that may pass into the well. Well development techniques used may include pumping, surging, bailing, swabbing, jetting, flushing, and air-lifting. All development water is collected either in drums or tanks for temporary storage, and properly disposed of pending laboratory analytical results. To minimize the potential for cross-contamination between wells, all development equipment is either steam cleaned or properly washed prior to use. Following development, the well is allowed to stand undisturbed for a minimum of 24 hours before its first sampling.

SOP-9 GROUNDWATER PURGING AND SAMPLING

Prior to water sampling, each well is purged by evacuating a minimum of three wetted well-casing volumes of groundwater. When required, purging will continue until either the discharge water temperature, conductivity, or pH stabilize, a maximum of ten wetted-casing volumes of groundwater have been recovered, or the well is bailed dry. When practical, the groundwater sample should be collected when the water level in the well recovers to at least 80 percent of its static level.

The sampling equipment consists of either a "Teflon" bailer, PVC bailer, or stainless steel bladder pump with a "Teflon" bladder. If the sampling system is dedicated to the well, then the bailer is usually "Teflon," but the bladder pump is PVC with a polypropylene bladder. In general and depending on the intended laboratory analysis, 40-milliliter glass, volatile organic analysis (VOA) vials, with "Teflon" septa, are used as sample containers.

The groundwater sample is decanted into each VOA vial in such a manner that there is no meniscus at the top of the vial. A cap is quickly secured to the top of the vial. The vial is then inverted and gently tapped to see if air bubbles are present. If none are present, the vial is labeled and refrigerated for delivery, under strict chain-of-custody, to the analytical laboratory. Label information should include a unique sample identification number, job identification number, date, time, type of analysis requested, and the sampler's name.

For quality control purposes, a duplicate water sample is collected from each well. This sample may also be analyzed or put on hold at the laboratory. When required, a trip blank, prepared at the laboratory, is placed in the transport cooler. It is labeled similar to the well samples, remains in the cooler during transport, and is analyzed by the laboratory along with the groundwater samples. In addition, a field blank may be prepared in the field when sampling equipment is not dedicated. The field blank is prepared after a pump or bailer has been either steam cleaned or properly washed, prior to use in the next well, and is analyzed along with the other samples. The field blank analysis demonstrates the effectiveness of the in-field cleaning procedures to prevent cross-contamination.

To minimize the potential for cross-contamination between wells, all well development and water sampling equipment not dedicated to a well is either steam cleaned or properly washed between uses. As a secondary precautionary measure, wells are sampled in order of least to highest concentrations as established by available previous analytical data.

In the event the water samples cannot be submitted to the analytical laboratory on the same day they are collected (e.g., due to weekends or holidays), the samples are temporarily stored until the first opportunity for submittal either on water ice in a cooler, such as when in the field, or in refrigerator at Apex's office.

SOP-10 MEASURING LIQUID LEVELS USING WATER LEVEL METER OR INTERFACE PROBE

Field equipment used for liquid-level gauging typically includes the measuring instrument (water-level meter or interface probe) and product bailer(s). The field kit also includes cleaning supplies (buckets, solution, spray bottles,

and deionized water) to be used in cleaning the equipment between wells.

Prior to measurement, the instrument tip is lowered into the well until it touches bottom. Using the previously established top-of-casing or top-of-box (i.e., wellhead vault) point, the probe cord (or halyard) is marked and a measuring tape (graduated in hundredths of a foot) is used to determine the distance between the probe end and the marking on the cord. This measurement is then recorded on the liquid-level data sheet as the "Measured Total Depth" of the well.

When necessary in using the interface probe to measure liquid levels, the probe is first electrically grounded to either the metal stove pipe or another metal object nearby. When no ground is available, reproducible measurements can be obtained by clipping the ground lead to the handle of the interface probe case.

The probe tip is then lowered into the well and submerged in the groundwater. An oscillating (beeping) tone indicates the probe is in water. The probe is slowly raised until either the oscillating tone ceases or becomes a steady tone. In either case, this is the depth-to-water (DTW) indication and the DTW measurement is made accordingly. The steady tone indicates floating liquid hydrocarbons (FLH). In this case, the probe is slowly raised until the steady tone ceases. This is the depth-to-product (DTP) indication and the DTP measurement is made accordingly.

The process of lowering and raising the probe must be repeated several times to ensure accurate measurements. The DTW and DTP measurements are recorded on the liquid-level data sheet. When FLH are indicated by the probe's response, a product bailer is lowered partially through the FLH-water interface to confirm the FLH on the water surface and as further indication of the FLH thickness, particularly in cases where the FLH layer is quite thin. This measurement is recorded on the data sheet as "FLH thickness."

In order to avoid cross-contamination of wells during the liquid-level measurement process, wells are measured in the order of "clean" to "dirty" (where such information is available). In addition, all measurement equipment is cleaned with solution and thoroughly rinsed with deionized water before use, between measurements in respective wells, and at the completion of the day's use.

**SOP-11
SOIL VAPOR SAMPLING: "TEDLAR" BAG SAMPLING
TECHNIQUE / REMEDIATION SYSTEM SAMPLING**

Prior to vapor sampling, the vacuum system must reach a stabilized air flow (cubic feet per minute) for approximately 15 minutes. Prior to the actual collection of the vapor sample, the following data is recorded: air flow, temperature, and pressure at collection ports and gauges.

The sampling equipment consists of a Tedlar™ bag (available in 1, 3, 5, and 10 liter sizes), a diaphragm pump, and 3/16-inch-diameter polyethylene tubing (approximately 1 foot long). The Tedlar™ bag should be fitted with an integral valve for filling and sealing the bag after sampling. The diaphragm pump inlet and outlet are fitted with 3/16-inch hose barbs for attaching the sample tubing. Prior to vapor sampling, the soil vapor source (vapor screen, vapor extraction well or manifold, etc.) must be isolated for sampling. A sample label with the sample number and date and time of sample collection is prepared and placed on the Tedlar™ bag.

If the sample is being collected from an operating vapor extraction system, the target vapor manifolds must be set up with sample ports that can be isolated without interrupting system operation. Prior to the actual collection of the vapor sample, source data is recorded: air flow, temperature, and pressure; or, well identification number and depth interval of screen.

Typical sampling ports consist of a 1/4 -inch ball valve fitted with a 3/16-inch hose barb to form a slip stream from the sample source.

The sampling procedure requires one end of the tubing be slipped over the sample port hose barb and the other end over the diaphragm pump inlet hose barb to form an air-tight connection. The sampling pump is then started and the pump is purged for one minute with the vapor to be sampled.

Following purging, the discharge of the pump is then connected to the "Tedlar" bag using a section of 3/16-inch tubing. The pump is restarted and the bag is opened and allowed to fill to approximately 3/4 of its capacity. Caution should be taken not to overfill the sampling bag. The sample is placed in a non-refrigerated dry cooler with sufficient packing to prevent damage during transport. Cooling samples will cause condensation of moisture within the sample, thereby distorting the laboratory analysis.

For quality control purposes, a duplicate vapor sample should be collected from each sampling port. This sample is then put on hold at the laboratory pending initial analysis. To ensure quality control and minimize the potential for cross-contamination prior to and during sampling, the diaphragm pump is thoroughly purged for approximately five minutes with nitrogen or clean air (i.e., compressed clean air). A "blank" sample of the discharged air is captured in a "Tedlar" bag at the end of the purging procedure and may be analyzed to ensure the purging was effective.

To minimize the potential for cross-contamination between air samples, the polyethylene tubing, if not sample dedicated, is thoroughly cleaned and rinsed.

Vapor samples are subject to very limited holding times, typically 48 hours. Thus, care must be taken to avoid delays in submittal of vapor samples to the laboratory. In the event the vapor samples cannot be submitted to the analytical laboratory on the same day they are collected, they are to be temporarily stored in the dry, non-refrigerated, packed cooler until the very first opportunity for submittal well within the required holding time, taking into account the time needed for shipment to and receipt by the laboratory.

**SOP-12
VAPOR SAMPLING: SUMMA CANISTER SAMPLING
TECHNIQUE**

Prior to vapor sampling, the vacuum system must reach a stabilized air flow (cubic feet per minute) for approximately 15 minutes. Prior to the actual collection of the vapor sample, the following data is recorded: air flow, temperature, and pressure at collection ports and gauges.

The sampling equipment consists of a sterilized, gas-tight, "Summa" stainless steel canister (available in one and six liter volumes), flow meter (if required, obtained and calibrated by the laboratory) and 1/4-inch-diameter polyethylene tubing approximately 2 feet in length.

The sampling ports are brass connections fitted with silicone septa and threaded into a tapped hole in the system piping.

The sampling procedure requires one end of the tubing to be slipped over the sampling port and the other end over the canister nozzle or flow meter (if required) to acquire an air-tight connection. The valve should be opened at this time and the initial pressure should then be recorded to verify that the Summa canister is under vacuum. The Summa canister is allowed to collect the soil vapor sample at a predetermined duration. After the sample has been collected record the final vacuum reading (approximately five pounds per square inch (psig)) to ensure that the flow meter was working properly, if applicable. Immediately following the sample collection, complete sampling information is recorded on the label on the air sampling canister (e.g., sample ID, date, time, location, and temperature). The sample is placed in a non-refrigerated, dry cooler with sufficient packing to ensure against damage during transport. Cooling samples will cause condensation of any moisture within the air sample, thereby distorting laboratory analysis.

Summa canister samples are subject to hold times of typically 30 days and with some compounds a more rigid hold time of 14 days is required.

SOP-13 SOIL VAPOR SAMPLING: SYRINGE SAMPLING TECHNIQUE

Prior to vapor sampling, the vacuum system must reach a stabilized air flow (cubic feet per minute) for approximately 15 minutes. Prior to the actual collection of the vapor sample, the following data is recorded: air flow, temperature, and pressure at collection ports and gauges.

The sampling equipment consists of a clean, 100cc, gas-tight syringe and silicone septa.

The sampling ports are brass connections, fitted with silicone septa, and threaded into a tapped hole in the system piping. Samples are collected by inserting a clean syringe into the septum and the plunger actuated several times. Each syringe should be purged of three syringe volumes before collecting the sample. On the fourth purge, the plunger is extracted slowly until the syringe is filled with a gas sample, then the syringe is withdrawn and the needle immediately plugged with a silicone stopper. The sample should be placed in a non-refrigerated, dry cooler with sufficient packing to eliminate breakage during transport. Cooling samples will cause condensation of moisture, thereby distorting laboratory analysis.

Duplicate air samples should be collected as in SOP-10. Vapor samples are also subject to the same hold times and must be stored as stated in SOP-10.

SOP-14 SOIL VAPOR SURVEY SAMPLING: "TEDLAR" BAG SAMPLING TECHNIQUE

The sampling equipment consists of a "Tedlar" bag (available in 1, 3, 5, and 10 liter sizes), an SKC universal sample pump, soil vapor probe, and 1/4-inch-diameter polyethylene tubing (approximately three feet long).

A Roto-hammer or slam bar is used to obtain a three foot hole into the ground area, where the soil vapor sample will be collected. Once the hole has been formed the soil vapor probe will be inserted into the hole and advanced the remaining two feet, five feet total below ground surface (bgs), with the use of either a slide hammer, using a tee adapter and using physical force. Once the vapor probe has

been inserted into the ground a bentonite seal must be formed between ambient air and the sample air. The bentonite must be hydrated and create an air tight seal around the probe. If required IPA can be placed on the joints of the vapor probe and analyzed for in the sample to ensure that ambient air is not diluting the soil vapor survey samples.

Once the sample apparatus has been set up new tubing will be connected to the inlet of the SKC sample pump. The pump operates at a low flow purge rate of 200 milliliters per minute to prevent air stripping of contaminants from the soil. Once three volumes have been evacuated (minimum 4.2 minutes of sample time) a sample can be collected. Verification with a PID will determine when the maximum concentration is obtained and a sample should be collected. If measurable concentrations are not obtained with the PID after 7 purge volumes (10 minutes) a sample should be collected. Once a sample has been determined to be collected new tubing will be placed on the effluent of the sample pump running to the Tedlar bag, which should be filled to 3/4 of volume capacity. Caution should be taken not to overfill the sampling bag. The sample is placed in a non-refrigerated dry cooler with sufficient packing to eliminate damage during transport. Cooling samples will cause condensation of moisture within the sample, thereby distorting laboratory analysis.

To minimize the potential for cross-contamination between air samples new polyethylene tubing will be used for every sample.

Vapor samples are also subject to the same hold times and must be stored as stated in SOP-10.

SOP-15 SOIL GAS SAMPLING FROM DIRECT PUSH SOIL BORING: "TEDLAR" BAG SAMPLING TECHNIQUE

To obtain soil gas samples from a direct push drill rig, advance a discreet sampling rod with a 6-inch retractable vapor screen to the desired sample depth. Release the sample screen cover from the screen and retract the rod 6-inches. Place a dry bentonite powder layer in the annulus to seal the borehole from surface air interference. Tamp the bentonite powder, place a hydrated bentonite layer in the annulus, and follow with a second dry bentonite layer. Attach the soil gas sampling diaphragm pump to the rod casing using polyethylene tubing.

The sampling equipment consists of a Tedlar™ bag (available in 1, 3, 5, and 10 liter sizes), a diaphragm pump, and 3/16-inch-diameter polyethylene tubing (approximately 1 foot long). The Tedlar™ bag should be fitted with an integral valve for filling and sealing the bag after sampling. The diaphragm pump inlet and outlet are fitted with 3/16-inch hose barbs for attaching the sample tubing. A sample label with the sample number and date and time of sample collection is prepared and placed on the Tedlar™ bag.

The sampling procedure requires one end of the tubing be slipped over the direct push drill rod sample port hose barb and the other end over the diaphragm pump inlet hose barb to form an air-tight connection. The sampling pump is then started and the pump is purged for 1 minute with the vapor to be sampled. Following purging, the discharge of the pump is then connected to the Tedlar™ bag using a section of 3/16-inch tubing. The pump is restarted and the bag is opened and allowed to fill to approximately 3/4 of its capacity. Caution should be taken not to overfill the sampling bag. The sample is placed in a non-refrigerated dry cooler with sufficient packing to prevent damage during

transport. Cooling samples will cause condensation of moisture within the sample, thereby distorting the laboratory analysis.

To minimize the potential for cross-contamination between air samples, the polyethylene tubing is replaced with new tubing.

Vapor samples are also subject to the same hold times and must be stored as stated in SOP-10.

SOP-16 SOIL GAS SAMPLING FROM SOIL VAPOR POINT

Installation of a soil vapor point may be performed with a hand auger or truck mounted auger drilling rig. Once the boring has achieved the desired depth, a 6-inch long slotted probe, capped on both ends with one end fitted with a Swagelok fitting attached to 3/16-inch diameter Nylon tubing of desired length is placed in the boring and 12 inches of filter pack placed in the annulus. A layer of dry bentonite powder or chips, followed by a layer of hydrated bentonite, and a final layer of dry bentonite powder or chips will be placed in the annulus above the filter pack. Excess tubing at the top is coiled and placed in a flush finished well box.

Soil vapor samples will be collected no sooner than one week after probe installation to permit soil vapors to accumulate within the probe. Soil vapor sampling will occur after a minimum of five consecutive precipitation-free days and after any on site irrigation has ceased.

The sampling equipment consists of a Tedlar™ bag (available in 1, 3, 5, and 10 liter sizes), a diaphragm pump, and 3/16-inch-diameter polyethylene tubing (approximately 1 foot long). The Tedlar™ bag should be fitted with an integral valve for filling and sealing the bag after sampling. The diaphragm pump inlet and outlet are fitted with 3/16-inch hose barbs for attaching the sample tubing. A sample label with the sample number and date and time of sample collection is prepared and placed on the Tedlar™ bag.

The sampling procedure requires the end of the tubing from the probe be connected to the diaphragm pump inlet hose barb to form an air-tight connection. The sampling pump is then started and the pump is purged for 1 minute with the vapor to be sampled. Following purging, the discharge of the pump is then connected to the Tedlar™ bag using a section of 3/16-inch tubing. The pump is restarted and the bag is opened and allowed to fill to approximately 3/4 of its capacity. Caution should be taken not to overfill the sampling bag. The sample is placed in a non-refrigerated dry cooler with sufficient packing to prevent damage during transport. Cooling samples will cause condensation of moisture within the sample, thereby distorting the laboratory analysis.

To minimize the potential for cross-contamination between air samples, the polyethylene tubing on the discharge side of the pump is replaced with new tubing.

Vapor samples are also subject to the same hold times and must be stored as stated in SOP-10.

APPENDIX C

BORING LOGS



Boring Log SB-1

(Page 1 of 2)

Shore Acres Gas
403 E 12th St
Oakland, CA

Project #SAG52.001

Date Completed : 4/5/10
Geologist : Anna Hibbert
Drilling Company : Penecore
Driller : Ramiro Morales
Method : Direct Push

Bore Hole Dia. (in) : 4
Depth Drilled (ft) : 30
Ini. Depth to Water (ft) : 29
Stc. Depth to Water (ft) : --

Depth in Feet	USCS	GRAPHIC	DESCRIPTION	Sample	PID	Boring: SB-1	Boring Construction Information
			<p>Sample Legend</p> <ul style="list-style-type: none"> Sample Location Not Submitted No Recovery <p>Groundwater</p> <ul style="list-style-type: none"> Static Water Level Initial Water Level 				
0			Asphalt				BORING CONSTRUCTION GROUT Material : Type II-V cement-0 - 30 ft
0 - 8			CLAY with trace SAND, dusky brown (5YR 2/2), low plasticity, moderately stiff, damp, no odor				
8 - 10	CL		Becomes CLAY with SAND, gray olive (10Y 4/2), moderate odor				
10 - 12			Becomes medium plasticity, stiff, strong odor				
10			SAND with trace SILT, gray olive (10Y 4/2), moderately graded, very fine to fine grained, rounded to well rounded, moderately dense, damp, strong odor	3,845			
12 - 16	SP						
15				730			
16 - 19.5	SM		SILTY SAND with sea shells, moderately graded, gray olive (10Y 4/2), very fine to medium grained, subrounded to well rounded, moderately dense, moist, strong to very strong odor				

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Boring Log SB-1

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Shore Acres Gas
403 E 12th St
Oakland, CA

Project #SAG52.001

Date Completed : 4/5/10
Geologist : Anna Hibbert
Drilling Company : Penecore
Driller : Ramiro Morales
Method : Direct Push

Bore Hole Dia. (in) : 4
Depth Drilled (ft) : 30
Ini. Depth to Water (ft) : 29
Stc. Depth to Water (ft) : ---

Depth in Feet	USCS	GRAPHIC	DESCRIPTION	Sample	PID	Boring: SB-1	Boring Construction Information
19.5	SM		CLAY with trace SAND, moderate olive brown (5Y 4/4), low plasticity, stiff, damp, slight odor		12.8		BORING CONSTRUCTION GROUT Material : Type II-V cement- 0 - 30 ft
24.5	CL				60.7		
29.5	SM		SILTY SAND, moderate olive brown (5Y 4/4), moderately graded, very fine to medium grained, rounded to well rounded, moderately dense, moist, no odor		4.7	30	
34.5							



Boring Log SB-2

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Shore Acres Gas
403 E 12th St
Oakland, CA

Project #SAG52.001

Date Completed : 4/5/10
Geologist : Anna Hibbert
Drilling Company : Penecore
Driller : Ramiro Morales
Method : Direct Push

Bore Hole Dia. (in) : 4
Depth Drilled (ft) : 30
Ini. Depth to Water (ft) : 29
Stc. Depth to Water (ft) : ---

Depth in Feet	USCS	GRAPHIC	Sample Legend	Groundwater	Sample	PID	Boring: SB-2	Boring Construction Information
			Sample Location Not Submitted No Recovery	Static Water Level Initial Water Level				
			DESCRIPTION					
0			Cement					BORING CONSTRUCTION GROUT Material : Type II-V cement-0 - 30 ft
	ML		SANDY SILT, moderately graded, gray olive (10Y 4/2), very fine grained, rounded to well rounded, moderately dense, damp, very strong odor					
5			SANDY CLAY, gray olive (10Y 4/2), some plasticity, stiff, damp, moderate odor					
	CL		Becomes dusky yellow (5Y 6/4), low plasticity, slight odor Becomes very strong odor					
10			SANDY SILT, gray olive (10Y 4/2), very fine to fine grained, rounded to well rounded, moderately dense to dense, damp, very strong odor		243			
	ML		CLAY with trace SAND, gray olive (10Y 4/2), some plasticity, stiff, damp, very strong odor					
	CL							
15			SILTY SAND, gray olive (10Y 4/2), moderately graded, very fine to fine grained, rounded to well rounded, moderately dense, damp, very strong odor		226			
	SM							
	CL		SANDY CLAY with sea shells, gray olive (10Y 4/2), very fine to fine grained sand, rounded to well rounded, low plasticity, moderately stiff to stiff, damp, very strong odor					
							19.5	

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Boring Log SB-2

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Shore Acres Gas
403 E 12th St
Oakland, CA

Project #SAG52.001

Date Completed : 4/5/10
Geologist : Anna Hibbert
Drilling Company : Penecore
Driller : Ramiro Morales
Method : Direct Push

Bore Hole Dia. (in) : 4
Depth Drilled (ft) : 30
Ini. Depth to Water (ft) : 29
Stc. Depth to Water (ft) : ---

Depth in Feet	USCS	GRAPHIC	DESCRIPTION	Sample	PID	Boring: SB-2	Boring Construction Information
		<ul style="list-style-type: none"> Sample Location Not Submitted No Recovery 	<ul style="list-style-type: none"> Static Water Level Initial Water Level 				
19.5			Becomes CLAY with trace SAND, light olive brown (5Y 5/6), stiff, no odor, visible oxidation		13.3		BORING CONSTRUCTION GROUT Material : Type II-V cement-0 - 30 ft
24.5	CL		Becomes dusky yellow (5Y 6/4)		1.4		
29.5	SM		SAND with trace SILT, moderate olive brown (5Y 4/4), moderately graded, very fine to fine grained, rounded to well rounded, moderately dense, moist to wet, no odor		0.2		
34.5						30	



Boring Log SB-3

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Shore Acres Gas
403 E 12th St
Oakland, CA

Project #SAG52.001

Date Completed : 4/5/10
Geologist : Anna Hibbert
Drilling Company : Penecore
Driller : Ramiro Morales
Method : Direct Push

Bore Hole Dia. (in) : 4
Depth Drilled (ft) : 30
Ini. Depth to Water (ft) : ---
Stc. Depth to Water (ft) : ---

Depth in Feet	USCS	GRAPHIC	Sample Legend	Groundwater	Sample	PID	Boring: SB-3	Boring Construction Information
			Sample Location Not Submitted No Recovery	Static Water Level Initial Water Level				
			DESCRIPTION					
0			Cement					BORING CONSTRUCTION GROUT Material : Type II-V cement-0 - 30 ft
			CLAY with trace SAND, gray olive (10Y 4/2), low plasticity, moderately stiff, damp, slight odor					
5			Visible oxidation, low to medium plasticity, stiff, very strong odor					
10	CL		Becomes some plasticity			2,669		
			Becomes SANDY CLAY, low to medium plasticity, moderately stiff to stiff					
15			Becomes SANDY CLAY with seashells, some plasticity, moderately stiff, strong odor			2,965		
							19.5	

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Boring Log SB-3

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Shore Acres Gas
403 E 12th St
Oakland, CA

Project #SAG52.001

Date Completed : 4/5/10
Geologist : Anna Hibbert
Drilling Company : Penecore
Driller : Ramiro Morales
Method : Direct Push

Bore Hole Dia. (in) : 4
Depth Drilled (ft) : 30
Ini. Depth to Water (ft) : ---
Stc. Depth to Water (ft) : ---

Depth in Feet	USCS	GRAPHIC	Sample Legend	Groundwater	Sample	PID	Boring: SB-3	Boring Construction Information
			Sample Location Not Submitted No Recovery	Static Water Level Initial Water Level				
DESCRIPTION								
19.5			Becomes CLAY with trace SAND, moderate olive brown (5Y 4/4), low plasticity, moderately stiff to stiff, slight odor			44.7		BORING CONSTRUCTION GROUT Material : Type II-V cement-0 - 30 ft
24.5	CL		Becomes CLAY with SAND, stiff			3.5		
			Becomes, CLAY with trace SAND, light olive brown (5Y 5/6), some plasticity, moderately stiff to stiff					
29.5	SP		SAND, moderately graded, very fine to fine grained, rounded to well rounded, loose, saturated, no odor			0.9		
34.5								

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Boring Log SB-4

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Shore Acres Gas
403 E 12th St
Oakland, CA

Project #SAG52.001

Date Completed : 4/5/10
Geologist : Anna Hibbert
Drilling Company : Penecore
Driller : Ramiro Morales
Method : Direct Push

Bore Hole Dia. (in) : 4
Depth Drilled (ft) : 30
Ini. Depth to Water (ft) : 28
Stc. Depth to Water (ft) : --

Sample Legend
 Sample Location
 Not Submitted
 No Recovery

Groundwater
 Static Water Level
 Initial Water Level

Depth
in
Feet

USCS

GRAPHIC

DESCRIPTION

Sample

PID

Boring: SB-4

Boring Construction
Information

0

Cement

SANDY SILT, gray olive (10Y 4/2), moderately dense,
damp, moderate odor

ML

5

SANDY CLAY, light olive brown (5Y 5/6), low
plasticity, moderately stiff to stiff, damp, slight odor

Becomes gray olive (10Y 4/2), visible oxidation, strong
odor

10

Becomes very strong odor

39.7

CL

15

3,864

Becomes SANDY CLAY with seashells, moderate odor
Becomes moderately stiff, damp to moist, slight odor

19.5

BORING CONSTRUCTION

GROUT

Material : Type II-V cement-
0 - 30 ft



Boring Log SB-4

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Shore Acres Gas
403 E 12th St
Oakland, CA

Project #SAG52.001

Date Completed : 4/5/10
Geologist : Anna Hibbert
Drilling Company : Penecore
Driller : Ramiro Morales
Method : Direct Push

Bore Hole Dia. (in) : 4
Depth Drilled (ft) : 30
Ini. Depth to Water (ft) : 28
Stc. Depth to Water (ft) : —

Depth in Feet	USCS	GRAPHIC	Sample Legend		Groundwater		Sample	PID	Boring: SB-4	Boring Construction Information	
			Sample Location	Not Submitted	No Recovery	Static Water Level					Initial Water Level
DESCRIPTION											
19.5	CL		Sample Location				2.1			BORING CONSTRUCTION GROUT Material : Type II-V cement-0 - 30 ft	
			No recovery								
24.5	ML										
	CL										
			SANDY SILT, moderate olive brown (5Y 4/4), very fine to fine grained, rounded to well rounded, moderately dense, moist to wet, strong odor								
	CL										
			CLAY with trace SAND, moderate olive brown (5Y 4/4), fine grained, rounded, low plasticity, stiff, damp, slight odor								
29.5	SM						1.1				
			SILTY SAND, moderate olive brown (5Y 4/4), very fine to fine grained, rounded to well rounded, moderately dense, wet to saturated, slight odor								
34.5											

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Boring Log SB-5

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Shore Acres Gas
403 E 12th St
Oakland, CA

Project #SAG52.001

Date Completed : 4/5/10
Geologist : Anna Hibbert
Drilling Company : Penecore
Driller : Ramiro Morales
Method : Direct Push

Bore Hole Dia. (in) : 4
Depth Drilled (ft) : 30
Ini. Depth to Water (ft) : 28.5
Stc. Depth to Water (ft) : ---

Depth in Feet	USCS	GRAPHIC	Sample Legend	Groundwater	Sample	PID	Boring: SB-5	Boring Construction Information
			Sample Location Not Submitted No Recovery	Static Water Level Initial Water Level				
			DESCRIPTION					
0			Cement					BORING CONSTRUCTION GROUT Material : Type II-V cement-0 - 30 ft
			CLAY with SAND, moderate olive brown (5Y 4/4), very fine to fine grained, rounded to well rounded, some plasticity, moderately stiff, damp, slight odor					
5			Becomes medium plasticity, stiff					
			Becomes SANDY CLAY with seashells, visible oxidation, gray olive (10Y 4/2), some plasticity, moderately stiff, strong odor					
10	CL		Becomes CLAY with trace SAND, no oxidation, very fine grained, well rounded, low plasticity, hard, very strong odor			1.3		
15			Visible oxidation			193		
			Becomes SANDY CLAY, no oxidation, medium plasticity, stiff, strong odor					
			Becomes SANDY CLAY with seashells, low plasticity, moderately stiff, moderate to strong odor					
							19.5	



Boring Log SB-5

(Page 2 of 2)

Shore Acres Gas
403 E 12th St
Oakland, CA

Project #SAG52.001

Date Completed : 4/5/10
Geologist : Anna Hibbert
Drilling Company : Penecore
Driller : Ramiro Morales
Method : Direct Push

Bore Hole Dia. (in) : 4
Depth Drilled (ft) : 30
Ini. Depth to Water (ft) : 28.5
Stc. Depth to Water (ft) : ---

Depth in Feet	USCS	GRAPHIC	Sample Legend	Groundwater	Sample	PID	Boring: SB-5	Boring Construction Information
			Sample Location Not Submitted No Recovery	Static Water Level Initial Water Level				
DESCRIPTION								
19.5						1.4		BORING CONSTRUCTION GROUT Material : Type II-V cement-0 - 30 ft
24.5	CL		Becomes CLAY with trace SAND, visible oxidation, moderate olive brown (5Y 4/4), some plasticity, stiff to hard, slight odor			0.4		
29.5	SM		SILTY SAND, moderately graded, moderate olive brown (5Y 4/4), very fine to fine grained, rounded to well rounded, moderately dense, moist, slight odor			7.4		
34.5							30	

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Boring Log SB-6

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Shore Acres Gas
403 E 12th St
Oakland, CA

Project #SAG52.001

Date Completed : 4/6/10
Geologist : Anna Hibbert
Drilling Company : Penecore
Driller : Ramiro Morales
Method : Direct Push

Bore Hole Dia. (in) : 4
Depth Drilled (ft) : 32.5
Ini. Depth to Water (ft) : 30
Stc. Depth to Water (ft) : —

Depth in Feet	USCS	GRAPHIC	Sample Legend		Groundwater		Sample	PID	Boring: SB-6	Boring Construction Information
			Sample Location	Not Submitted	No Recovery	Static Water Level				
DESCRIPTION										
0			Cement							BORING CONSTRUCTION GROUT Material : Type II-V cement-0-32.5 ft
0-5	ML		SANDY SILT, gray olive (10Y 4/2) with olive black (5Y 2/1), moderately dense, damp, moderate odor							
5			Becomes SILT with SAND, olive black (5Y 2/1), very strong odor							
5-10			CLAY with SAND, gray olive (10Y 4/2), low plasticity, hard, damp, very strong odor							
10	CL		Becomes SANDY CLAY	■			250			
10-15			Becomes CLAY with SAND, some plasticity, strong odor							
15			Becomes CLAY with trace SAND, moderate olive brown (5Y 4/4), stiff	□			132			
15-20	SM		Becomes gray olive (10Y 4/2)							
20			SILTY SAND, gray olive (10Y 4/2), moderately graded, very fine to fine grained, rounded to well rounded, moderately dense, damp, strong odor							
20-25			SANDY CLAY, gray olive (10Y 4/2), medium plasticity, moderately stiff, damp, strong odor	□			5.9			
25	CL		Becomes CLAY with trace SAND, moderate olive brown (5Y 4/4), fine grained, rounded, some plasticity, stiff to hard, slight odor							
25-30			Becomes olive gray (5Y 3/2), hard, slight to moderate odor	□			13.2			
30			Becomes moderate olive brown (5Y 4/4)							
30-32.5	SM		SILTY SAND, moderate olive brown (5Y 4/4), very fine to fine grained, rounded to well rounded, moderately dense, moist, slight to moderate odor	■			14.7			
32.5				■			11.5			

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Boring Log SB-7

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Shore Acres Gas
403 E 12th St
Oakland, CA

Project #SAG52.001

Date Completed : 4/6/10
Geologist : Anna Hibbert
Drilling Company : Penecore
Driller : Ramiro Morales
Method : Direct Push

Bore Hole Dia. (in) : 4
Depth Drilled (ft) : 32.5
Ini. Depth to Water (ft) : 30.5
Stc. Depth to Water (ft) : ---

Depth in Feet	USCS	GRAPHIC	Sample Legend		Groundwater		Sample	PID	Boring Construction Information
			Sample Location	Not Submitted	No Recovery	Static Water Level			
DESCRIPTION									
0									BORING CONSTRUCTION GROUT Material : Type II-V cement-0-32.5 ft
	ML		Cement						
			SANDY SILT, moderate olive brown (5Y 4/4), moderately dense, damp, slight odor						
			Cement						
			No recovery						
5									
	CL		SANDY CLAY, olive black (5Y 2/1), low plasticity, soft to moderately stiff, moist, very strong odor						
			CLAY with SAND, visible oxidation, gray olive (10Y 4/2), some plasticity, stiff, damp, strong to very strong odor						
10	SM		SILTY SAND, gray olive (10Y 4/2), moderately graded, very fine to fine grained, rounded to well rounded, moderately dense to dense, damp, strong odor				2,187		
	CL		CLAY with SAND, visible oxidation, gray olive (10Y 4/2), very fine to fine grained, rounded to well rounded, some plasticity, stiff to hard, damp, strong odor						
15	SM		Becomes CLAY with trace SAND, moderate olive brown (5Y 4/4), low to medium plasticity, hard, damp, slight odor				288		
	SM		Becomes CLAY with trace SAND with SANDY SILT, moderate olive brown (5Y 4/4) with yellow gray (5Y 4/4)						
	CL		SILTY SAND, gray olive (10Y 4/2), moderately graded, very fine to fine grained, rounded to well rounded, moderately dense to dense, damp, strong odor						
	CL		SANDY CLAY with seashells, visible oxidation, gray olive (10Y 4/2), very fine to fine grained, rounded to well rounded, low plasticity, moderately stiff, damp, slight odor						
									19.5



Boring Log SB-7

(Page 2 of 2)

Shore Acres Gas
403 E 12th St
Oakland, CA

Project #SAG52.001

Date Completed : 4/6/10
Geologist : Anna Hibbert
Drilling Company : Penecore
Driller : Ramiro Morales
Method : Direct Push

Bore Hole Dia. (in) : 4
Depth Drilled (ft) : 32.5
Ini. Depth to Water (ft) : 30.5
Stc. Depth to Water (ft) : ---

Depth in Feet	USCS	GRAPHIC	DESCRIPTION	Sample	PID	Groundwater ▼ Static Water Level ▽ Initial Water Level	Boring: SB-7	Boring Construction Information
19.5	CL		Becomes CLAY with trace SAND, very fine grained, well rounded, stiff, moderate odor	□	31.0		BORING CONSTRUCTION GROUT Material : Type II-V cement-0-32.5 ft	
	SM		SILTY SAND, moderately graded, gray olive (10Y 4/2), very fine to fine grained, well rounded, moderately dense, damp, strong odor					
			CLAY with trace SAND, moderate olive brown (5Y 4/4), very fine grained, well rounded, low plasticity, hard, damp, slight odor					
24.5	CL		Visible oxidation	□	33.1			
			Becomes light olive brown (5Y 5/6), fine grained, rounded, stiff					
29.5	ML		SANDY SILT, moderate olive brown (5Y 4/4), moderately dense, damp to moist, slight odor Becomes moist to wet Becomes damp	■	18.4	▽		
	CL		CLAY with trace SAND, moderate olive brown (5Y 4/4), some plasticity, moderately stiff, damp, slight odor	■	8.5			
34.5								



Boring Log SB-8

(Page 2 of 2)

Shore Acres Gas
403 E 12th St
Oakland, CA

Project #SAG52.001

Date Completed : 4/6/10
Geologist : Anna Hibbert
Drilling Company : Penecore
Driller : Ramiro Morales
Method : Direct Push

Bore Hole Dia. (in) : 4
Depth Drilled (ft) : 30
Ini. Depth to Water (ft) : 28
Stc. Depth to Water (ft) : ---

Depth in Feet	USCS	GRAPHIC	Sample Legend		Groundwater		Sample	PID	Boring: SB-8	Boring Construction Information	
			Sample Location	Not Submitted	No Recovery	Static Water Level					Initial Water Level
DESCRIPTION											
19.5	CL		■	□			42		BORING CONSTRUCTION GROUT Material : Type II-V cement-0-30 ft		
	SM		SILTY SAND, moderately graded, light olive brown (5Y 5/6), very fine to fine grained, rounded to well rounded, moderately dense, damp to moist, slight odor CLAY with trace SAND, moderate olive brown (5Y 4/4), low plasticity, hard, damp, slight odor								
24.5	CI		■				10.3				
			Becomes CLAY with SAND, very fine to fine grained, rounded to well rounded, stiff to hard								
29.5	SM		■				398				
			SILTY SAND, moderate olive brown (5Y 4/4), moderately graded, very fine to fine grained, rounded to well rounded, moderately dense, wet, slight odor								
34.5											



Boring Log SB-9

(Page 1 of 2)

Shore Acres Gas
403 E 12th St
Oakland, CA

Project #SAG52.001

Date Completed : 4/6/10
Geologist : Anna Hibbert
Drilling Company : Penecore
Driller : Ramiro Morales
Method : Direct Push

Bore Hole Dia. (in) : 4
Depth Drilled (ft) : 32.5
Ini. Depth to Water (ft) : ---
Stc. Depth to Water (ft) : ---

Sample Legend

- Sample Location
- Not Submitted
- No Recovery

Groundwater

- Static Water Level
- Initial Water Level

Depth in Feet	USCS	GRAPHIC	DESCRIPTION	Sample	PID	Boring: SB-9	Boring Construction Information
0			Asphalt				BORING CONSTRUCTION GROUT Material : Type II-V cement-0-32.5 ft
			SAND FILL				
5	CL						
10	SM		SILTY SAND, olive black (5Y 2/1), moderately graded, very fine to fine grained, rounded to well rounded, moderately dense, moist, very strong odor CLAY with SAND, gray olive (10Y 4/2), low plasticity, stiff, damp, strong odor Becomes CLAY with trace SAND, gray olive (10Y 4/2) with moderate olive brown (5Y 4/4), stiff to hard, slight odor				
15	CL		Becomes SANDY CLAY, gray olive (10Y 4/2), very fine to fine grained, rounded to well rounded, stiff, damp, strong odor Becomes SANDY CLAY with sea shells, moderately stiff to stiff		258		
			Becomes CLAY with trace SAND, stiff, moderate odor				
						19.5	

05-16-2010 C:\Documents and Settings\Administrator\Desktop\written boring logs\SAG52.001\SB-9.bor

APPENDIX D

**LABORATORY ANALYTICAL REPORT
AND CHAIN-OF-CUSTODY FORM**

argon laboratories

20 April 2010

Brandon Poteet
Apex Envirotech, Inc.
11244 Pyrites Way
Gold River, CA 95670

RE: Shore Acres Gas Project Data

Enclosed are the results for sample(s) received on 04/07/10 14:15 by Argon Laboratories. The sample(s) were analyzed according to instructions in accompanying chain-of-custody. Results are summarized on the following pages.

Please see quality control report for a summary of QC data pertaining to this project.

The sample(s) will be stored for 30 days after completion of analysis, then disposed of in accordance with State and Federal regulations. Sample(s) may be archived by prior arrangement.

Thank you for the opportunity to service the needs of your company.

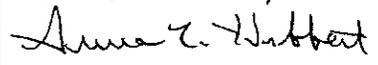
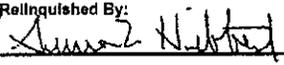
Sincerely,



Hiram Cueto
Lab Manager

Argon Analytical Services, Inc.
CHAIN OF CUSTODY

pg 2 of 3

Project Information:					Report To:					Samples Submitted To:											
Project No: SAG52.001 Project Title: Shore Acres Gas Location: 403 E 12th Street Oakland, CA					Consultant: Apex Envirotech, Inc. Address: 11244 Pyrites Way Gold River, CA 95382					Laboratory: Argon Labs Address: 2905 Railroad Avenue Ceres, CA 95307											
Sampler's Name: Anna Hibbert Sampler's Signature: 					Contact: Brandon Poteet Phone: 916-851-0174 Fax: 916-851-0177					Contact: (209) 581-9280 Fax: (209) 581-9282											
					Bill To:					Global ID #: T0600174667											
					Client: Apex Envirotech, Inc. Address: 11244 Pyrites Way Gold River, CA 95382					Date Report Required:											
TURN AROUND TIME										ANALYSIS											
RUSH		24 Hour		48 Hour		Standard (5 days)		Special (10-14 days)													
<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input checked="" type="checkbox"/>		TPhtg by 8/15 M BTEX, 5 fuel organics, PCB 1,2-PCA by and returned by 8/26/0											
										EDF Reports											
										COMMENTS											
Sample ID.	Field Pt.	Date	Time	# Containers	Matrix															Preservative	
SB-5-14.5'	SB-5	4/6/10	8:30	1	Soil	X	X													X	Ice
SB-5-24.5'	SB-5		8:50																		
SB-5-29.5'	SB-5		9:00																		
SB-6-9.5'	SB-6		9:40																		
SB-6-29.5'	SB-6		10:20																		
SB-6-32'	SB-6		10:25																		
SB-7-9.5'	SB-7		10:55																		
SB-7-29.5'	SB-7		11:30																		
SB-7-32'	SB-7		11:35																		
SB-8-9.5'	SB-8		12:20																		
SB-8-24.5'	SB-8		12:50																		
SB-8-29.5'	SB-8		13:00																		
Relinquished By: 		Date: 4/7/10	Time: 14:15	Received By: 		Date: 4/7/10	Time: 14:15	SPECIAL INSTRUCTIONS:													
Relinquished By:		Date:	Time:	Received By:		Date:	Time:														
Relinquished By:		Date:	Time:	Received By:		Date:	Time:														

Argon Laboratories Sample Receipt Checklist

Client Name: Apex Envirotech, Inc Date & Time Received: 04/07/10 14:15
 Project Name: Share Acres Gas Client Project Number: SAG52.001
 Received By: H.C. Matrix: Water Soil Sludge
 Sample Carrier: Client Laboratory Fed Ex UPS Other
 Argon Labs Project Number: K004010

Shipper Container in good condition? N/A _____ Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Samples received in proper containers? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Samples received under refrigeration? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Samples received intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Chain of custody present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Sufficient sample volume for requested tests? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Chain of Custody signed by all parties? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Samples received within holding time? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Chain of Custody matches all sample labels? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Do samples contain proper preservative? N/A <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
	Do VOA vials contain zero headspace? (None submitted <input type="checkbox"/>) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

ANY "No" RESPONSE MUST BE DETAILED IN THE COMMENTS SECTION BELOW

Date Client Contacted: _____ Person Contacted: _____
 Contacted By: _____ Subject: _____

Comments:

Action Taken:

ADDITIONAL TEST(S) REQUEST / OTHER

Contacted By: _____ Date: _____ Time: _____
 Call Received By: _____

Comments:



Apex Envirotech, Inc.
11244 Pyrites Way
Gold River, CA 95670

Project Number: SAG52.001
Project Name: Shore Acres Gas
Project Manager: Brandon Potect



Work Order No.:
K004010

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB-1-9.5'	K004010-01	Soil	04/05/10 12:25	04/07/10 14:15
SB-1-24.5'	K004010-02	Soil	04/05/10 12:45	04/07/10 14:15
SB-1-29.5'	K004010-03	Soil	04/05/10 13:00	04/07/10 14:15
SB-2-9.5'	K004010-04	Soil	04/05/10 14:50	04/07/10 14:15
SB-2-24.5'	K004010-05	Soil	04/05/10 15:20	04/07/10 14:15
SB-2-29.5'	K004010-06	Soil	04/05/10 15:30	04/07/10 14:15
SB-3-14.5'	K004010-07	Soil	04/05/10 17:05	04/07/10 14:15
SB-3-24.5'	K004010-08	Soil	04/05/10 17:25	04/07/10 14:15
SB-3-29.5'	K004010-09	Soil	04/05/10 17:35	04/07/10 14:15
SB-4-14.5'	K004010-10	Soil	04/05/10 18:05	04/07/10 14:15
SB-4-19.5'	K004010-11	Soil	04/05/10 18:15	04/07/10 14:15
SB-4-29.5'	K004010-12	Soil	04/05/10 18:35	04/07/10 14:15
SB-5-14.5'	K004010-13	Soil	04/06/10 08:30	04/07/10 14:15
SB-5-24.5'	K004010-14	Soil	04/06/10 08:50	04/07/10 14:15
SB-5-29.5'	K004010-15	Soil	04/06/10 09:00	04/07/10 14:15
SB-6-9.5'	K004010-16	Soil	04/06/10 09:40	04/07/10 14:15
SB-6-29.5'	K004010-17	Soil	04/06/10 10:20	04/07/10 14:15
SB-6-32'	K004010-18	Soil	04/06/10 10:25	04/07/10 14:15
SB-7-9.5'	K004010-19	Soil	04/06/10 10:55	04/07/10 14:15
SB-7-29.5'	K004010-20	Soil	04/06/10 11:30	04/07/10 14:15
SB-7-32'	K004010-21	Soil	04/06/10 11:35	04/07/10 14:15
SB-8-9.5'	K004010-22	Soil	04/06/10 12:20	04/07/10 14:15
SB-8-24.5'	K004010-23	Soil	04/06/10 12:50	04/07/10 14:15
SB-8-29.5'	K004010-24	Soil	04/06/10 13:00	04/07/10 14:15
SB-9-14.5'	K004010-25	Soil	04/06/10 13:55	04/07/10 14:15
SB-9-29.5'	K004010-26	Soil	04/06/10 14:20	04/07/10 14:15
SB-9-32'	K004010-27	Soil	04/06/10 14:30	04/07/10 14:15
SB-1	K004010-28	Water	04/05/10 14:00	04/07/10 14:15
SB-2	K004010-29	Water	04/05/10 15:40	04/07/10 14:15
SB-3	K004010-30	Water	04/05/10 17:40	04/07/10 14:15

Approved By

Argon Laboratories, Inc. California D.O.H.S. Cert. #2359



Apex Envirotech, Inc. 11244 Pyrites Way Gold River, CA 95670	Project Number: SAG52.001 Project Name: Shore Acres Gas Project Manager: Brandon Poteet	Work Order No.: K004010
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ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB-4	K004010-31	Water	04/05/10 18:40	04/07/10 14:15
SB-5	K004010-32	Water	04/06/10 09:15	04/07/10 14:15
SB-6	K004010-33	Water	04/06/10 10:35	04/07/10 14:15
SB-7	K004010-34	Water	04/06/10 11:45	04/07/10 14:15
SB-8	K004010-35	Water	04/06/10 13:10	04/07/10 14:15
SB-9	K004010-36	Water	04/06/10 14:45	04/07/10 14:15

Approved By

Argon Laboratories, Inc. California D.O.H.S. Cert. #2359



Apex Envirotech, Inc. 11244 Pyrites Way Gold River, CA 95670	Project Number: SAG52.001 Project Name: Shore Acres Gas Project Manager: Brandon Poteet	Work Order No.: K004010
--	---	----------------------------

Total Petroleum Hydrocarbons @ Gasoline

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
SB-1-9.5' (K004010-01) Soil Sampled: 05-Apr-10 12:25 Received: 07-Apr-10 14:15							
Total Petroleum Hydrocarbons @ Gasoline	1600	160	mg/kg	160	15-Apr-10	8015M	
Surr. Rec.:		116 %			"	"	
SB-1-24.5' (K004010-02) Soil Sampled: 05-Apr-10 12:45 Received: 07-Apr-10 14:15							
Total Petroleum Hydrocarbons @ Gasoline	ND	1.0	mg/kg	1	15-Apr-10	8015M	
Surr. Rec.:		112 %			"	"	
SB-1-29.5' (K004010-03) Soil Sampled: 05-Apr-10 13:00 Received: 07-Apr-10 14:15							
Total Petroleum Hydrocarbons @ Gasoline	ND	1.0	mg/kg	1	15-Apr-10	8015M	
Surr. Rec.:		117 %			"	"	
SB-2-9.5' (K004010-04) Soil Sampled: 05-Apr-10 14:50 Received: 07-Apr-10 14:15							
Total Petroleum Hydrocarbons @ Gasoline	2.2	1.0	mg/kg	1	15-Apr-10	8015M	
Surr. Rec.:		117 %			"	"	
SB-2-24.5' (K004010-05) Soil Sampled: 05-Apr-10 15:20 Received: 07-Apr-10 14:15							
Total Petroleum Hydrocarbons @ Gasoline	ND	1.0	mg/kg	1	15-Apr-10	8015M	
Surr. Rec.:		117 %			"	"	
SB-2-29.5' (K004010-06) Soil Sampled: 05-Apr-10 15:30 Received: 07-Apr-10 14:15							
Total Petroleum Hydrocarbons @ Gasoline	ND	1.0	mg/kg	1	15-Apr-10	8015M	
Surr. Rec.:		117 %			"	"	
SB-3-14.5' (K004010-07) Soil Sampled: 05-Apr-10 17:05 Received: 07-Apr-10 14:15							
Total Petroleum Hydrocarbons @ Gasoline	2800	400	mg/kg	400	15-Apr-10	8015M	
Surr. Rec.:		120 %			"	"	

Approved By

Argon Laboratories, Inc. California D.O.H.S. Cert. #2359



Apex Envirotech, Inc.
11244 Pyrites Way
Gold River, CA 95670

Project Number: SAG52.001
Project Name: Shore Acres Gas
Project Manager: Brandon Potect

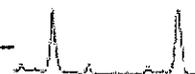
Work Order No.:
K004010

Total Petroleum Hydrocarbons @ Gasoline

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
SB-3-24.5' (K004010-08) Soil Sampled: 05-Apr-10 17:25 Received: 07-Apr-10 14:15							
Total Petroleum Hydrocarbons @ Gasoline	ND	1.0	mg/kg	1	15-Apr-10	8015M	
Surr. Rec.:		114 %			"	"	
SB-3-29.5' (K004010-09) Soil Sampled: 05-Apr-10 17:35 Received: 07-Apr-10 14:15							
Total Petroleum Hydrocarbons @ Gasoline	ND	1.0	mg/kg	1	15-Apr-10	8015M	
Surr. Rec.:		100 %			"	"	
SB-4-14.5' (K004010-10) Soil Sampled: 05-Apr-10 18:05 Received: 07-Apr-10 14:15							
Total Petroleum Hydrocarbons @ Gasoline	1700	200	mg/kg	200	15-Apr-10	8015M	
Surr. Rec.:		116 %			"	"	
SB-4-19.5' (K004010-11) Soil Sampled: 05-Apr-10 18:15 Received: 07-Apr-10 14:15							
Total Petroleum Hydrocarbons @ Gasoline	ND	1.0	mg/kg	1	15-Apr-10	8015M	
Surr. Rec.:		101 %			"	"	
SB-4-29.5' (K004010-12) Soil Sampled: 05-Apr-10 18:35 Received: 07-Apr-10 14:15							
Total Petroleum Hydrocarbons @ Gasoline	ND	1.0	mg/kg	1	15-Apr-10	8015M	
Surr. Rec.:		115 %			"	"	
SB-5-14.5' (K004010-13) Soil Sampled: 06-Apr-10 08:30 Received: 07-Apr-10 14:15							
Total Petroleum Hydrocarbons @ Gasoline	470	40	mg/kg	40	15-Apr-10	8015M	
Surr. Rec.:		105 %			"	"	
SB-5-24.5' (K004010-14) Soil Sampled: 06-Apr-10 08:50 Received: 07-Apr-10 14:15							
Total Petroleum Hydrocarbons @ Gasoline	ND	1.0	mg/kg	1	15-Apr-10	8015M	
Surr. Rec.:		126 %			"	"	

Approved By

Argon Laboratories, Inc. California D.O.H.S. Cert. #2359



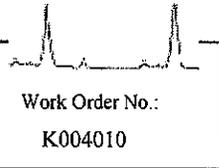
Apex Envirotech, Inc. 11244 Pyrites Way Gold River, CA 95670	Project Number: SAG52.001 Project Name: Shore Acres Gas Project Manager: Brandon Poteet	Work Order No.: K004010
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Total Petroleum Hydrocarbons @ Gasoline

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
SB-5-29.5' (K004010-15) Soil Sampled: 06-Apr-10 09:00 Received: 07-Apr-10 14:15							
Total Petroleum Hydrocarbons @ Gasoline	ND	1.0	mg/kg	1	15-Apr-10	8015M	
Surr. Rec.:		111 %			"	"	
SB-6-9.5' (K004010-16) Soil Sampled: 06-Apr-10 09:40 Received: 07-Apr-10 14:15							
Total Petroleum Hydrocarbons @ Gasoline	6100	400	mg/kg	400	15-Apr-10	8015M	
Surr. Rec.:		109 %			"	"	
SB-6-29.5' (K004010-17) Soil Sampled: 06-Apr-10 10:20 Received: 07-Apr-10 14:15							
Total Petroleum Hydrocarbons @ Gasoline	ND	1.0	mg/kg	1	15-Apr-10	8015M	
Surr. Rec.:		114 %			"	"	
SB-6-32' (K004010-18) Soil Sampled: 06-Apr-10 10:25 Received: 07-Apr-10 14:15							
Total Petroleum Hydrocarbons @ Gasoline	ND	1.0	mg/kg	1	15-Apr-10	8015M	
Surr. Rec.:		123 %			"	"	
SB-7-9.5' (K004010-19) Soil Sampled: 06-Apr-10 10:55 Received: 07-Apr-10 14:15							
Total Petroleum Hydrocarbons @ Gasoline	4000	160	mg/kg	160	15-Apr-10	8015M	
Surr. Rec.:		117 %			"	"	
SB-7-29.5' (K004010-20) Soil Sampled: 06-Apr-10 11:30 Received: 07-Apr-10 14:15							
Total Petroleum Hydrocarbons @ Gasoline	ND	1.0	mg/kg	1	16-Apr-10	8015M	
Surr. Rec.:		109 %			"	"	
SB-7-32' (K004010-21) Soil Sampled: 06-Apr-10 11:35 Received: 07-Apr-10 14:15							
Total Petroleum Hydrocarbons @ Gasoline	ND	1.0	mg/kg	1	16-Apr-10	8015M	
Surr. Rec.:		90 %			"	"	

Approved By

Argon Laboratories, Inc. California D.O.H.S. Cert. #2359



Apex Envirotech, Inc. 11244 Pyrites Way Gold River, CA 95670	Project Number: SAG52.001 Project Name: Shore Acres Gas Project Manager: Brandon Potteet	Work Order No.: K004010
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Total Petroleum Hydrocarbons @ Gasoline

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
SB-8-9.5' (K004010-22) Soil Sampled: 06-Apr-10 12:20 Received: 07-Apr-10 14:15							
Total Petroleum Hydrocarbons @ Gasoline	2500	400	mg/kg	400	16-Apr-10	8015M	
Surr. Rec.:		111 %			"	"	
SB-8-24.5' (K004010-23) Soil Sampled: 06-Apr-10 12:50 Received: 07-Apr-10 14:15							
Total Petroleum Hydrocarbons @ Gasoline	ND	1.0	mg/kg	1	16-Apr-10	8015M	
Surr. Rec.:		117 %			"	"	
SB-8-29.5' (K004010-24) Soil Sampled: 06-Apr-10 13:00 Received: 07-Apr-10 14:15							
Total Petroleum Hydrocarbons @ Gasoline	ND	1.0	mg/kg	1	16-Apr-10	8015M	
Surr. Rec.:		110 %			"	"	
SB-9-14.5' (K004010-25) Soil Sampled: 06-Apr-10 13:55 Received: 07-Apr-10 14:15							
Total Petroleum Hydrocarbons @ Gasoline	390	40	mg/kg	40	16-Apr-10	8015M	
Surr. Rec.:		113 %			"	"	
SB-9-29.5' (K004010-26) Soil Sampled: 06-Apr-10 14:20 Received: 07-Apr-10 14:15							
Total Petroleum Hydrocarbons @ Gasoline	ND	1.0	mg/kg	1	16-Apr-10	8015M	
Surr. Rec.:		116 %			"	"	
SB-9-32' (K004010-27) Soil Sampled: 06-Apr-10 14:30 Received: 07-Apr-10 14:15							
Total Petroleum Hydrocarbons @ Gasoline	ND	1.0	mg/kg	1	16-Apr-10	8015M	
Surr. Rec.:		112 %			"	"	
SB-1 (K004010-28) Water Sampled: 05-Apr-10 14:00 Received: 07-Apr-10 14:15							
Total Petroleum Hydrocarbons @ Gasoline	60	50	ug/L	1	16-Apr-10	8015M	
Surr. Rec.:		105 %			"	"	

Approved By
Argon Laboratories, Inc. California D.O.H.S. Cert. #2359



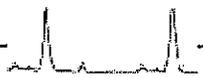
Apex Envirotech, Inc. 11244 Pyrites Way Gold River, CA 95670	Project Number: SAG52.001 Project Name: Shore Acres Gas Project Manager: Brandon Poteet	Work Order No.: K004010
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Total Petroleum Hydrocarbons @ Gasoline

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
SB-2 (K004010-29) Water Sampled: 05-Apr-10 15:40 Received: 07-Apr-10 14:15							
Total Petroleum Hydrocarbons @ Gasoline	ND	50	ug/L	1	16-Apr-10	8015M	
Surr. Rec.:		111 %			"	"	
SB-3 (K004010-30) Water Sampled: 05-Apr-10 17:40 Received: 07-Apr-10 14:15							
Total Petroleum Hydrocarbons @ Gasoline	170	50	ug/L	1	16-Apr-10	8015M	
Surr. Rec.:		111 %			"	"	
SB-4 (K004010-31) Water Sampled: 05-Apr-10 18:40 Received: 07-Apr-10 14:15							
Total Petroleum Hydrocarbons @ Gasoline	6500	250	ug/L	5	16-Apr-10	8015M	
Surr. Rec.:		123 %			"	"	
SB-5 (K004010-32) Water Sampled: 06-Apr-10 09:15 Received: 07-Apr-10 14:15							
Total Petroleum Hydrocarbons @ Gasoline	ND	50	ug/L	1	16-Apr-10	8015M	
Surr. Rec.:		115 %			"	"	
SB-6 (K004010-33) Water Sampled: 06-Apr-10 10:35 Received: 07-Apr-10 14:15							
Total Petroleum Hydrocarbons @ Gasoline	440	50	ug/L	1	16-Apr-10	8015M	
Surr. Rec.:		110 %			"	"	
SB-7 (K004010-34) Water Sampled: 06-Apr-10 11:45 Received: 07-Apr-10 14:15							
Total Petroleum Hydrocarbons @ Gasoline	270	50	ug/L	1	16-Apr-10	8015M	
Surr. Rec.:		104 %			"	"	
SB-8 (K004010-35) Water Sampled: 06-Apr-10 13:10 Received: 07-Apr-10 14:15							
Total Petroleum Hydrocarbons @ Gasoline	ND	50	ug/L	1	16-Apr-10	8015M	
Surr. Rec.:		118 %			"	"	

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Apex Envirotech, Inc. 11244 Pyrites Way Gold River, CA 95670	Project Number: SAG52.001 Project Name: Shore Acres Gas Project Manager: Brandon Poteet	Work Order No.: K004010
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Total Petroleum Hydrocarbons @ Gasoline

Analyte	Result	Reporting			Analyzed	Method	Notes
		Limit	Units	Dilution			
SB-9 (K004010-36) Water Sampled: 06-Apr-10 14:45 Received: 07-Apr-10 14:15							
Total Petroleum Hydrocarbons @ Gasoline	ND	50	ug/L	1	16-Apr-10	8015M	
Surr. Rec.:		101 %			"	"	

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Apex Envirotech, Inc.
11244 Pyrites Way
Gold River, CA 95670

Project Number: SAG52.001
Project Name: Shore Acres Gas
Project Manager: Brandon Potteet

Work Order No.:
K004010

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting			Analyzed	Method	Notes
		Limit	Units	Dilution			

SB-1-9.5' (K004010-01) Soil Sampled: 05-Apr-10 12:25 Received: 07-Apr-10 14:15

Benzene	5.1	0.80	mg/kg	160	13-Apr-10	8260B	
Toluene	43	0.80	"	"	"	"	
Xylenes, total	180	1.6	"	"	"	"	
Ethylbenzene	30	0.80	"	"	"	"	
Ethanol	ND	40	"	"	"	"	
t-Butanol	ND	8.0	"	"	"	"	
Methyl tert-Butyl Ether	ND	0.80	"	"	"	"	
Di-Isopropyl Ether	ND	0.80	"	"	"	"	
Ethyl tert-Butyl Ether	ND	0.80	"	"	"	"	
tert-Amyl Methyl Ether	ND	0.80	"	"	"	"	
1,2-Dichloroethane	ND	0.80	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.80	"	"	"	"	

Surr. Rec.: 96 %

SB-1-24.5' (K004010-02) Soil Sampled: 05-Apr-10 12:45 Received: 07-Apr-10 14:15

Benzene	ND	0.005	mg/kg	1	13-Apr-10	8260B	
Toluene	ND	0.005	"	"	"	"	
Xylenes, total	ND	0.010	"	"	"	"	
Ethylbenzene	ND	0.005	"	"	"	"	
Ethanol	ND	0.25	"	"	"	"	
t-Butanol	ND	0.050	"	"	"	"	
Methyl tert-Butyl Ether	0.11	0.005	"	"	"	"	
Di-Isopropyl Ether	ND	0.005	"	"	"	"	
Ethyl tert-Butyl Ether	ND	0.005	"	"	"	"	
tert-Amyl Methyl Ether	ND	0.005	"	"	"	"	
1,2-Dichloroethane	ND	0.005	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.005	"	"	"	"	

Surr. Rec.: 102 %

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Argon Laboratories, Inc. California D.O.H.S. Cert. #2359



Apex Envirotech, Inc. 11244 Pyrites Way Gold River, CA 95670	Project Number: SAG52.001 Project Name: Shore Acres Gas Project Manager: Brandon Poteet	Work Order No.: K004010
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Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
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SB-1-29.5' (K004010-03) Soil **Sampled: 05-Apr-10 13:00** **Received: 07-Apr-10 14:15**

Benzene	ND	0.005	mg/kg	1	13-Apr-10	8260B	
Toluene	ND	0.005	"	"	"	"	
Xylenes, total	ND	0.010	"	"	"	"	
Ethylbenzene	ND	0.005	"	"	"	"	
Ethanol	ND	0.25	"	"	"	"	
t-Butanol	ND	0.050	"	"	"	"	
Methyl tert-Butyl Ether	ND	0.005	"	"	"	"	
Di-Isopropyl Ether	ND	0.005	"	"	"	"	
Ethyl tert-Butyl Ether	ND	0.005	"	"	"	"	
tert-Amyl Methyl Ether	ND	0.005	"	"	"	"	
1,2-Dichloroethane	ND	0.005	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.005	"	"	"	"	

Surr. Rec.: 110 % " "

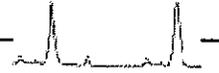
SB-2-9.5' (K004010-04) Soil **Sampled: 05-Apr-10 14:50** **Received: 07-Apr-10 14:15**

Benzene	0.26	0.010	mg/kg	2	13-Apr-10	8260B	
Toluene	ND	0.010	"	"	"	"	
Xylenes, total	ND	0.020	"	"	"	"	
Ethylbenzene	0.066	0.010	"	"	"	"	
Ethanol	ND	0.50	"	"	"	"	
t-Butanol	ND	0.10	"	"	"	"	
Methyl tert-Butyl Ether	ND	0.010	"	"	"	"	
Di-Isopropyl Ether	ND	0.010	"	"	"	"	
Ethyl tert-Butyl Ether	ND	0.010	"	"	"	"	
tert-Amyl Methyl Ether	ND	0.010	"	"	"	"	
1,2-Dichloroethane	ND	0.010	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.010	"	"	"	"	

Surr. Rec.: 80 % " "

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Apex Envirotech, Inc. 11244 Pyrites Way Gold River, CA 95670	Project Number: SAG52.001 Project Name: Shore Acres Gas Project Manager: Brandon Poteet	Work Order No.: K004010
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Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
SB-2-24.5' (K004010-05) Soil Sampled: 05-Apr-10 15:20 Received: 07-Apr-10 14:15							
Benzene	ND	0.005	mg/kg	1	13-Apr-10	8260B	
Toluene	ND	0.005	"	"	"	"	
Xylenes, total	ND	0.010	"	"	"	"	
Ethylbenzene	ND	0.005	"	"	"	"	
Ethanol	ND	0.25	"	"	"	"	
t-Butanol	ND	0.050	"	"	"	"	
Methyl tert-Butyl Ether	0.053	0.005	"	"	"	"	
Di-Isopropyl Ether	ND	0.005	"	"	"	"	
Ethyl tert-Butyl Ether	ND	0.005	"	"	"	"	
tert-Amyl Methyl Ether	ND	0.005	"	"	"	"	
1,2-Dichloroethane	ND	0.005	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.005	"	"	"	"	
Surr. Rec.:		105 %			"	"	
SB-2-29.5' (K004010-06) Soil Sampled: 05-Apr-10 15:30 Received: 07-Apr-10 14:15							
Benzene	ND	0.005	mg/kg	1	13-Apr-10	8260B	
Toluene	ND	0.005	"	"	"	"	
Xylenes, total	ND	0.010	"	"	"	"	
Ethylbenzene	ND	0.005	"	"	"	"	
Ethanol	ND	0.25	"	"	"	"	
t-Butanol	ND	0.050	"	"	"	"	
Methyl tert-Butyl Ether	ND	0.005	"	"	"	"	
Di-Isopropyl Ether	ND	0.005	"	"	"	"	
Ethyl tert-Butyl Ether	ND	0.005	"	"	"	"	
tert-Amyl Methyl Ether	ND	0.005	"	"	"	"	
1,2-Dichloroethane	ND	0.005	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.005	"	"	"	"	
Surr. Rec.:		103 %			"	"	

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Apex Envirotech, Inc. 11244 Pyrites Way Gold River, CA 95670	Project Number: SAG52.001 Project Name: Shore Acres Gas Project Manager: Brandon Poteet	Work Order No.: K004010
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Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
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SB-3-14.5' (K004010-07) Soil Sampled: 05-Apr-10 17:05 Received: 07-Apr-10 14:15

Benzene	17	2.0	mg/kg	400	13-Apr-10	8260B	
Toluene	100	2.0	"	"	"	"	
Xylenes, total	240	4.0	"	"	"	"	
Ethylbenzene	42	2.0	"	"	"	"	
Ethanol	ND	100	"	"	"	"	
t-Butanol	ND	20	"	"	"	"	
Methyl tert-Butyl Ether	ND	2.0	"	"	"	"	
Di-Isopropyl Ether	ND	2.0	"	"	"	"	
Ethyl tert-Butyl Ether	ND	2.0	"	"	"	"	
tert-Amyl Methyl Ether	ND	2.0	"	"	"	"	
1,2-Dichloroethane	ND	2.0	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	2.0	"	"	"	"	

Surr. Rec.: 106 % " "

SB-3-24.5' (K004010-08) Soil Sampled: 05-Apr-10 17:25 Received: 07-Apr-10 14:15

Benzene	ND	0.005	mg/kg	1	13-Apr-10	8260B	
Toluene	0.005	0.005	"	"	"	"	
Xylenes, total	0.013	0.010	"	"	"	"	
Ethylbenzene	ND	0.005	"	"	"	"	
Ethanol	ND	0.25	"	"	"	"	
t-Butanol	ND	0.050	"	"	"	"	
Methyl tert-Butyl Ether	0.10	0.005	"	"	"	"	
Di-Isopropyl Ether	ND	0.005	"	"	"	"	
Ethyl tert-Butyl Ether	ND	0.005	"	"	"	"	
tert-Amyl Methyl Ether	ND	0.005	"	"	"	"	
1,2-Dichloroethane	ND	0.005	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.005	"	"	"	"	

Surr. Rec.: 108 % " "

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Apex Envirotech, Inc. 11244 Pyrites Way Gold River, CA 95670	Project Number: SAG52.001 Project Name: Shore Acres Gas Project Manager: Brandon Poteet	Work Order No.: K004010
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Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
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SB-3-29.5' (K004010-09) Soil Sampled: 05-Apr-10 17:35 Received: 07-Apr-10 14:15

Benzene	ND	0.005	mg/kg	1	13-Apr-10	8260B	
Toluene	ND	0.005	"	"	"	"	
Xylenes, total	ND	0.010	"	"	"	"	
Ethylbenzene	ND	0.005	"	"	"	"	
Ethanol	ND	0.25	"	"	"	"	
t-Butanol	ND	0.050	"	"	"	"	
Methyl tert-Butyl Ether	0.010	0.005	"	"	"	"	
Di-Isopropyl Ether	ND	0.005	"	"	"	"	
Ethyl tert-Butyl Ether	ND	0.005	"	"	"	"	
tert-Amyl Methyl Ether	ND	0.005	"	"	"	"	
1,2-Dichloroethane	ND	0.005	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.005	"	"	"	"	

Surr. Rec.: 103 % " "

SB-4-14.5' (K004010-10) Soil Sampled: 05-Apr-10 18:05 Received: 07-Apr-10 14:15

Benzene	13	1.0	mg/kg	200	13-Apr-10	8260B	
Toluene	79	1.0	"	"	"	"	
Xylenes, total	170	2.0	"	"	"	"	
Ethylbenzene	28	1.0	"	"	"	"	
Ethanol	ND	50	"	"	"	"	
t-Butanol	ND	10	"	"	"	"	
Methyl tert-Butyl Ether	ND	1.0	"	"	"	"	
Di-Isopropyl Ether	ND	1.0	"	"	"	"	
Ethyl tert-Butyl Ether	ND	1.0	"	"	"	"	
tert-Amyl Methyl Ether	ND	1.0	"	"	"	"	
1,2-Dichloroethane	ND	1.0	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	1.0	"	"	"	"	

Surr. Rec.: 96 % " "

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Argon Laboratories, Inc. California D.O.H.S. Cert. #2359



Apex Envirotech, Inc. 11244 Pyrites Way Gold River, CA 95670	Project Number: SAG52.001 Project Name: Shore Acres Gas Project Manager: Brandon Poteet	Work Order No.: K004010
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Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
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SB-4-19.5' (K004010-11) Soil Sampled: 05-Apr-10 18:15 Received: 07-Apr-10 14:15

Benzene	ND	0.005	mg/kg	1	13-Apr-10	8260B	
Toluene	0.009	0.005	"	"	"	"	
Xylenes, total	0.026	0.010	"	"	"	"	
Ethylbenzene	ND	0.005	"	"	"	"	
Ethanol	ND	0.25	"	"	"	"	
t-Butanol	ND	0.050	"	"	"	"	
Methyl tert-Butyl Ether	ND	0.005	"	"	"	"	
Di-Isopropyl Ether	ND	0.005	"	"	"	"	
Ethyl tert-Butyl Ether	ND	0.005	"	"	"	"	
tert-Amyl Methyl Ether	ND	0.005	"	"	"	"	
1,2-Dichloroethane	ND	0.005	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.005	"	"	"	"	

Surr. Rec.: 102 % " "

SB-4-29.5' (K004010-12) Soil Sampled: 05-Apr-10 18:35 Received: 07-Apr-10 14:15

Benzene	ND	0.005	mg/kg	1	13-Apr-10	8260B	
Toluene	ND	0.005	"	"	"	"	
Xylenes, total	ND	0.010	"	"	"	"	
Ethylbenzene	ND	0.005	"	"	"	"	
Ethanol	ND	0.25	"	"	"	"	
t-Butanol	ND	0.050	"	"	"	"	
Methyl tert-Butyl Ether	ND	0.005	"	"	"	"	
Di-Isopropyl Ether	ND	0.005	"	"	"	"	
Ethyl tert-Butyl Ether	ND	0.005	"	"	"	"	
tert-Amyl Methyl Ether	ND	0.005	"	"	"	"	
1,2-Dichloroethane	ND	0.005	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.005	"	"	"	"	

Surr. Rec.: 101 % " "

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Apex Envirotech, Inc. 11244 Pyrites Way Gold River, CA 95670	Project Number: SAG52.001 Project Name: Shore Acres Gas Project Manager: Brandon Poteet	Work Order No.: K004010
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Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting			Dilution	Analyzed	Method	Notes
		Limit	Units					
SB-5-14.5' (K004010-13) Soil Sampled: 06-Apr-10 08:30 Received: 07-Apr-10 14:15								
Benzene	ND	0.20	mg/kg	40		13-Apr-10	8260B	
Toluene	0.45	0.20	"	"		"	"	
Xylenes, total	37	0.40	"	"		"	"	
Ethylbenzene	6.2	0.20	"	"		"	"	
Ethanol	ND	10	"	"		"	"	
t-Butanol	ND	2.0	"	"		"	"	
Methyl tert-Butyl Ether	ND	0.20	"	"		"	"	
Di-Isopropyl Ether	ND	0.20	"	"		"	"	
Ethyl tert-Butyl Ether	ND	0.20	"	"		"	"	
tert-Amyl Methyl Ether	ND	0.20	"	"		"	"	
1,2-Dichloroethane	ND	0.20	"	"		"	"	
1,2-Dibromoethane (EDB)	ND	0.20	"	"		"	"	
Surr. Rec.:		91 %				"	"	

SB-5-24.5' (K004010-14) Soil Sampled: 06-Apr-10 08:50 Received: 07-Apr-10 14:15								
Benzene	ND	0.005	mg/kg	1		13-Apr-10	8260B	
Toluene	ND	0.005	"	"		"	"	
Xylenes, total	ND	0.010	"	"		"	"	
Ethylbenzene	ND	0.005	"	"		"	"	
Ethanol	ND	0.25	"	"		"	"	
t-Butanol	ND	0.050	"	"		"	"	
Methyl tert-Butyl Ether	ND	0.005	"	"		"	"	
Di-Isopropyl Ether	ND	0.005	"	"		"	"	
Ethyl tert-Butyl Ether	ND	0.005	"	"		"	"	
tert-Amyl Methyl Ether	ND	0.005	"	"		"	"	
1,2-Dichloroethane	ND	0.005	"	"		"	"	
1,2-Dibromoethane (EDB)	ND	0.005	"	"		"	"	
Surr. Rec.:		101 %				"	"	

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Argon Laboratories, Inc. California D.O.H.S. Cert. #2359



Apex Envirotech, Inc. 11244 Pyrites Way Gold River, CA 95670	Project Number: SAG52.001 Project Name: Shore Acres Gas Project Manager: Brandon Poteet	Work Order No.: K004010
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Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
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SB-5-29.5' (K004010-15) Soil Sampled: 06-Apr-10 09:00 Received: 07-Apr-10 14:15

Benzene	ND	0.005	mg/kg	1	13-Apr-10	8260B	
Toluene	ND	0.005	"	"	"	"	
Xylenes, total	ND	0.010	"	"	"	"	
Ethylbenzene	ND	0.005	"	"	"	"	
Ethanol	ND	0.25	"	"	"	"	
t-Butanol	ND	0.050	"	"	"	"	
Methyl tert-Butyl Ether	ND	0.005	"	"	"	"	
Di-Isopropyl Ether	ND	0.005	"	"	"	"	
Ethyl tert-Butyl Ether	ND	0.005	"	"	"	"	
tert-Amyl Methyl Ether	ND	0.005	"	"	"	"	
1,2-Dichloroethane	ND	0.005	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.005	"	"	"	"	

Surr. Rec.: 103 % " "

SB-6-9.5' (K004010-16) Soil Sampled: 06-Apr-10 09:40 Received: 07-Apr-10 14:15

Benzene	21	2.0	mg/kg	400	13-Apr-10	8260B	
Toluene	170	2.0	"	"	"	"	
Xylenes, total	580	4.0	"	"	"	"	
Ethylbenzene	95	2.0	"	"	"	"	
Ethanol	ND	100	"	"	"	"	
t-Butanol	ND	20	"	"	"	"	
Methyl tert-Butyl Ether	ND	2.0	"	"	"	"	
Di-Isopropyl Ether	ND	2.0	"	"	"	"	
Ethyl tert-Butyl Ether	ND	2.0	"	"	"	"	
tert-Amyl Methyl Ether	ND	2.0	"	"	"	"	
1,2-Dichloroethane	ND	2.0	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	2.0	"	"	"	"	

Surr. Rec.: 102 % " "

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Apex Envirotech, Inc.
11244 Pyrites Way
Gold River, CA 95670

Project Number: SAG52.001
Project Name: Shore Acres Gas
Project Manager: Brandon Poteet

Work Order No.:
K004010

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting			Dilution	Analyzed	Method	Notes
		Limit	Units					
SB-6-29.5' (K004010-17) Soil Sampled: 06-Apr-10 10:20 Received: 07-Apr-10 14:15								
Benzene	ND	0.005	mg/kg		1	13-Apr-10	8260B	
Toluene	ND	0.005	"	"	"	"	"	
Xylenes, total	ND	0.010	"	"	"	"	"	
Ethylbenzene	ND	0.005	"	"	"	"	"	
Ethanol	ND	0.25	"	"	"	"	"	
t-Butanol	ND	0.050	"	"	"	"	"	
Methyl tert-Butyl Ether	0.20	0.005	"	"	"	"	"	
Di-Isopropyl Ether	ND	0.005	"	"	"	"	"	
Ethyl tert-Butyl Ether	ND	0.005	"	"	"	"	"	
tert-Amyl Methyl Ether	ND	0.005	"	"	"	"	"	
1,2-Dichloroethane	ND	0.005	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.005	"	"	"	"	"	

Surr. Rec.: 101 % " "

SB-6-32' (K004010-18) Soil Sampled: 06-Apr-10 10:25 Received: 07-Apr-10 14:15

Benzene	ND	0.005	mg/kg		1	13-Apr-10	8260B	
Toluene	ND	0.005	"	"	"	"	"	
Xylenes, total	ND	0.010	"	"	"	"	"	
Ethylbenzene	ND	0.005	"	"	"	"	"	
Ethanol	ND	0.25	"	"	"	"	"	
t-Butanol	ND	0.050	"	"	"	"	"	
Methyl tert-Butyl Ether	0.18	0.005	"	"	"	"	"	
Di-Isopropyl Ether	ND	0.005	"	"	"	"	"	
Ethyl tert-Butyl Ether	ND	0.005	"	"	"	"	"	
tert-Amyl Methyl Ether	ND	0.005	"	"	"	"	"	
1,2-Dichloroethane	ND	0.005	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.005	"	"	"	"	"	

Surr. Rec.: 103 % " "

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Argon Laboratories, Inc. California D.O.H.S. Cert. #2359



Apex Envirotech, Inc. 11244 Pyrites Way Gold River, CA 95670	Project Number: SAG52.001 Project Name: Shore Acres Gas Project Manager: Brandon Potect	Work Order No.: K004010
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Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
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SB-7-9.5' (K004010-19) Soil Sampled: 06-Apr-10 10:55 Received: 07-Apr-10 14:15

Benzene	12	1.0	mg/kg	200	13-Apr-10	8260B	
Toluene	46	1.0	"	"	"	"	
Xylenes, total	360	2.0	"	"	"	"	
Ethylbenzene	55	1.0	"	"	"	"	
Ethanol	ND	50	"	"	"	"	
t-Butanol	ND	10	"	"	"	"	
Methyl tert-Butyl Ether	4.0	1.0	"	"	"	"	
Di-Isopropyl Ether	ND	1.0	"	"	"	"	
Ethyl tert-Butyl Ether	ND	1.0	"	"	"	"	
tert-Amyl Methyl Ether	ND	1.0	"	"	"	"	
1,2-Dichloroethane	ND	1.0	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	1.0	"	"	"	"	

Surr. Rec.: 90 % " "

SB-7-29.5' (K004010-20) Soil Sampled: 06-Apr-10 11:30 Received: 07-Apr-10 14:15

Benzene	ND	0.005	mg/kg	1	13-Apr-10	8260B	
Toluene	ND	0.005	"	"	"	"	
Xylenes, total	ND	0.010	"	"	"	"	
Ethylbenzene	ND	0.005	"	"	"	"	
Ethanol	ND	0.25	"	"	"	"	
t-Butanol	ND	0.050	"	"	"	"	
Methyl tert-Butyl Ether	0.18	0.005	"	"	"	"	
Di-Isopropyl Ether	ND	0.005	"	"	"	"	
Ethyl tert-Butyl Ether	ND	0.005	"	"	"	"	
tert-Amyl Methyl Ether	ND	0.005	"	"	"	"	
1,2-Dichloroethane	ND	0.005	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.005	"	"	"	"	

Surr. Rec.: 100 % " "

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Apex Envirotech, Inc. 11244 Pyrites Way Gold River, CA 95670	Project Number: SAG52.001 Project Name: Shore Acres Gas Project Manager: Brandon Poteet	Work Order No.: K004010
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Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
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SB-7-32' (K004010-21) Soil Sampled: 06-Apr-10 11:35 Received: 07-Apr-10 14:15

Benzene	ND	0.005	mg/kg	1	13-Apr-10	8260B	
Toluene	ND	0.005	"	"	"	"	
Xylenes, total	ND	0.010	"	"	"	"	
Ethylbenzene	ND	0.005	"	"	"	"	
Ethanol	ND	0.25	"	"	"	"	
t-Butanol	ND	0.050	"	"	"	"	
Methyl tert-Butyl Ether	0.11	0.005	"	"	"	"	
Di-Isopropyl Ether	ND	0.005	"	"	"	"	
Ethyl tert-Butyl Ether	ND	0.005	"	"	"	"	
tert-Amyl Methyl Ether	ND	0.005	"	"	"	"	
1,2-Dichloroethane	ND	0.005	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.005	"	"	"	"	

Surr. Rec.: 97 % " "

SB-8-9.5' (K004010-22) Soil Sampled: 06-Apr-10 12:20 Received: 07-Apr-10 14:15

Benzene	16	2.0	mg/kg	400	14-Apr-10	8260B	
Toluene	110	2.0	"	"	"	"	
Xylenes, total	370	4.0	"	"	"	"	
Ethylbenzene	63	2.0	"	"	"	"	
Ethanol	ND	100	"	"	"	"	
t-Butanol	ND	20	"	"	"	"	
Methyl tert-Butyl Ether	ND	2.0	"	"	"	"	
Di-Isopropyl Ether	ND	2.0	"	"	"	"	
Ethyl tert-Butyl Ether	ND	2.0	"	"	"	"	
tert-Amyl Methyl Ether	ND	2.0	"	"	"	"	
1,2-Dichloroethane	ND	2.0	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	2.0	"	"	"	"	

Surr. Rec.: 102 % " "

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Apex Envirotech, Inc. 11244 Pyrites Way Gold River, CA 95670	Project Number: SAG52.001 Project Name: Shore Acres Gas Project Manager: Brandon Poteet	Work Order No.: K004010
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Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
SB-8-24.5' (K004010-23) Soil Sampled: 06-Apr-10 12:50 Received: 07-Apr-10 14:15							
Benzene	ND	0.005	mg/kg	1	14-Apr-10	8260B	
Toluene	ND	0.005	"	"	"	"	
Xylenes, total	ND	0.010	"	"	"	"	
Ethylbenzene	ND	0.005	"	"	"	"	
Ethanol	ND	0.25	"	"	"	"	
t-Butanol	ND	0.050	"	"	"	"	
Methyl tert-Butyl Ether	0.033	0.005	"	"	"	"	
Di-Isopropyl Ether	ND	0.005	"	"	"	"	
Ethyl tert-Butyl Ether	ND	0.005	"	"	"	"	
tert-Amyl Methyl Ether	ND	0.005	"	"	"	"	
1,2-Dichloroethane	ND	0.005	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.005	"	"	"	"	
Surr. Rec.:		102 %			"	"	

SB-8-29.5' (K004010-24) Soil Sampled: 06-Apr-10 13:00 Received: 07-Apr-10 14:15							
Benzene	ND	0.005	mg/kg	1	14-Apr-10	8260B	
Toluene	ND	0.005	"	"	"	"	
Xylenes, total	ND	0.010	"	"	"	"	
Ethylbenzene	ND	0.005	"	"	"	"	
Ethanol	ND	0.25	"	"	"	"	
t-Butanol	ND	0.050	"	"	"	"	
Methyl tert-Butyl Ether	ND	0.005	"	"	"	"	
Di-Isopropyl Ether	ND	0.005	"	"	"	"	
Ethyl tert-Butyl Ether	ND	0.005	"	"	"	"	
tert-Amyl Methyl Ether	ND	0.005	"	"	"	"	
1,2-Dichloroethane	ND	0.005	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.005	"	"	"	"	
Surr. Rec.:		102 %			"	"	

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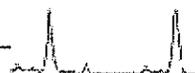
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Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting			Analyzed	Method	Notes
		Limit	Units	Dilution			
SB-9-14.5' (K004010-25) Soil Sampled: 06-Apr-10 13:55 Received: 07-Apr-10 14:15							
Benzene	3.0	0.20	mg/kg	40	14-Apr-10	8260B	
Toluene	3.0	0.20	"	"	"	"	
Xylenes, total	41	0.40	"	"	"	"	
Ethylbenzene	9.1	0.20	"	"	"	"	
Ethanol	ND	10	"	"	"	"	
t-Butanol	ND	2.0	"	"	"	"	
Methyl tert-Butyl Ether	5.5	0.20	"	"	"	"	
Di-Isopropyl Ether	ND	0.20	"	"	"	"	
Ethyl tert-Butyl Ether	ND	0.20	"	"	"	"	
tert-Amyl Methyl Ether	ND	0.20	"	"	"	"	
1,2-Dichloroethane	ND	0.20	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.20	"	"	"	"	
Surr. Rec.:		117%			"	"	
SB-9-29.5' (K004010-26) Soil Sampled: 06-Apr-10 14:20 Received: 07-Apr-10 14:15							
Benzene	ND	0.005	mg/kg	1	14-Apr-10	8260B	
Toluene	ND	0.005	"	"	"	"	
Xylenes, total	ND	0.010	"	"	"	"	
Ethylbenzene	ND	0.005	"	"	"	"	
Ethanol	ND	0.25	"	"	"	"	
t-Butanol	0.15	0.050	"	"	"	"	
Methyl tert-Butyl Ether	0.090	0.005	"	"	"	"	
Di-Isopropyl Ether	ND	0.005	"	"	"	"	
Ethyl tert-Butyl Ether	ND	0.005	"	"	"	"	
tert-Amyl Methyl Ether	ND	0.005	"	"	"	"	
1,2-Dichloroethane	ND	0.005	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.005	"	"	"	"	
Surr. Rec.:		103%			"	"	

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Apex Envirotech, Inc. 11244 Pyrites Way Gold River, CA 95670	Project Number: SAG52.001 Project Name: Shore Acres Gas Project Manager: Brandon Poteet	Work Order No.: K004010
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Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
SB-9-32' (K004010-27) Soil Sampled: 06-Apr-10 14:30 Received: 07-Apr-10 14:15							
Benzene	ND	0.005	mg/kg	1	14-Apr-10	8260B	
Toluene	ND	0.005	"	"	"	"	
Xylenes, total	ND	0.010	"	"	"	"	
Ethylbenzene	ND	0.005	"	"	"	"	
Ethanol	ND	0.25	"	"	"	"	
t-Butanol	ND	0.050	"	"	"	"	
Methyl tert-Butyl Ether	0.11	0.005	"	"	"	"	
Di-Isopropyl Ether	ND	0.005	"	"	"	"	
Ethyl tert-Butyl Ether	ND	0.005	"	"	"	"	
tert-Amyl Methyl Ether	ND	0.005	"	"	"	"	
1,2-Dichloroethane	ND	0.005	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.005	"	"	"	"	
Surr. Rec.:		106 %			"	"	
SB-1 (K004010-28) Water Sampled: 05-Apr-10 14:00 Received: 07-Apr-10 14:15							
Benzene	2.9	0.5	ug/L	1	12-Apr-10	8260B	
Toluene	6.7	0.5	"	"	"	"	
Xylenes, total	9.7	1.0	"	"	"	"	
Ethylbenzene	2.1	0.5	"	"	"	"	
Ethanol	ND	5.0	"	"	"	"	
t-Butanol	ND	5.0	"	"	"	"	
Methyl tert-Butyl Ether	14	0.5	"	"	"	"	
Di-Isopropyl Ether	ND	0.5	"	"	"	"	
Ethyl tert-Butyl Ether	ND	0.5	"	"	"	"	
tert-Amyl Methyl Ether	ND	0.5	"	"	"	"	
1,2-Dichloroethane	ND	0.5	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.5	"	"	"	"	
Surr. Rec.:		105 %			"	"	

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Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting		Units	Dilution	Analyzed	Method	Notes
		Limit						
SB-2 (K004010-29) Water Sampled: 05-Apr-10 15:40 Received: 07-Apr-10 14:15								
Benzene	ND	0.5		ug/L	1	12-Apr-10	8260B	
Toluene	ND	0.5		"	"	"	"	
Xylenes, total	ND	1.0		"	"	"	"	
Ethylbenzene	ND	0.5		"	"	"	"	
Ethanol	ND	5.0		"	"	"	"	
t-Butanol	ND	5.0		"	"	"	"	
Methyl tert-Butyl Ether	45	0.5		"	"	"	"	
Di-Isopropyl Ether	ND	0.5		"	"	"	"	
Ethyl tert-Butyl Ether	ND	0.5		"	"	"	"	
tert-Amyl Methyl Ether	ND	0.5		"	"	"	"	
1,2-Dichloroethane	ND	0.5		"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.5		"	"	"	"	
Surr. Rec.:								102 %
SB-3 (K004010-30) Water Sampled: 05-Apr-10 17:40 Received: 07-Apr-10 14:15								
Benzene	1.5	0.5		ug/L	1	12-Apr-10	8260B	
Toluene	11	0.5		"	"	"	"	
Xylenes, total	27	1.0		"	"	"	"	
Ethylbenzene	4.8	0.5		"	"	"	"	
Ethanol	ND	5.0		"	"	"	"	
t-Butanol	32	5.0		"	"	"	"	
Methyl tert-Butyl Ether	110	0.5		"	"	"	"	
Di-Isopropyl Ether	ND	0.5		"	"	"	"	
Ethyl tert-Butyl Ether	ND	0.5		"	"	"	"	
tert-Amyl Methyl Ether	ND	0.5		"	"	"	"	
1,2-Dichloroethane	ND	0.5		"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.5		"	"	"	"	
Surr. Rec.:								97 %

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Apex Envirotech, Inc. 11244 Pyrites Way Gold River, CA 95670	Project Number: SAG52.001 Project Name: Shore Acres Gas Project Manager: Brandon Poteet	Work Order No.: K004010
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Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
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SB-4 (K004010-31) Water Sampled: 05-Apr-10 18:40 Received: 07-Apr-10 14:15

Benzene	78	5.0	ug/L	10	12-Apr-10	8260B	
Toluene	440	5.0	"	"	"	"	
Xylenes, total	960	10	"	"	"	"	
Ethylbenzene	190	5.0	"	"	"	"	
Ethanol	ND	50	"	"	"	"	
t-Butanol	ND	50	"	"	"	"	
Methyl tert-Butyl Ether	ND	5.0	"	"	"	"	
Di-Isopropyl Ether	ND	5.0	"	"	"	"	
Ethyl tert-Butyl Ether	ND	5.0	"	"	"	"	
tert-Amyl Methyl Ether	ND	5.0	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	
Surr. Rec.:		106 %			"	"	

SB-5 (K004010-32) Water Sampled: 06-Apr-10 09:15 Received: 07-Apr-10 14:15

Benzene	ND	0.5	ug/L	1	12-Apr-10	8260B	
Toluene	ND	0.5	"	"	"	"	
Xylenes, total	ND	1.0	"	"	"	"	
Ethylbenzene	ND	0.5	"	"	"	"	
Ethanol	ND	5.0	"	"	"	"	
t-Butanol	ND	5.0	"	"	"	"	
Methyl tert-Butyl Ether	0.6	0.5	"	"	"	"	
Di-Isopropyl Ether	ND	0.5	"	"	"	"	
Ethyl tert-Butyl Ether	ND	0.5	"	"	"	"	
tert-Amyl Methyl Ether	ND	0.5	"	"	"	"	
1,2-Dichloroethane	ND	0.5	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.5	"	"	"	"	
Surr. Rec.:		97 %			"	"	

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Apex Envirotech, Inc. 11244 Pyrites Way Gold River, CA 95670	Project Number: SAG52.001 Project Name: Shore Acres Gas Project Manager: Brandon Poteet	Work Order No.: K004010
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Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
SB-6 (K004010-33) Water Sampled: 06-Apr-10 10:35 Received: 07-Apr-10 14:15							
Benzene	ND	20	ug/L	40	12-Apr-10	8260B	
Toluene	ND	20	"	"	"	"	
Xylenes, total	ND	40	"	"	"	"	
Ethylbenzene	ND	20	"	"	"	"	
Ethanol	ND	200	"	"	"	"	
t-Butanol	ND	200	"	"	"	"	
Methyl tert-Butyl Ether	4000	20	"	"	"	"	
Di-Isopropyl Ether	ND	20	"	"	"	"	
Ethyl tert-Butyl Ether	ND	20	"	"	"	"	
tert-Amyl Methyl Ether	ND	20	"	"	"	"	
1,2-Dichloroethane	ND	20	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	20	"	"	"	"	
Surr. Rec.:		103 %			"	"	

SB-7 (K004010-34) Water Sampled: 06-Apr-10 11:45 Received: 07-Apr-10 14:15							
Benzene	ND	12	ug/L	25	12-Apr-10	8260B	
Toluene	ND	12	"	"	"	"	
Xylenes, total	ND	25	"	"	"	"	
Ethylbenzene	ND	12	"	"	"	"	
Ethanol	ND	120	"	"	"	"	
t-Butanol	ND	120	"	"	"	"	
Methyl tert-Butyl Ether	2500	12	"	"	"	"	
Di-Isopropyl Ether	ND	12	"	"	"	"	
Ethyl tert-Butyl Ether	ND	12	"	"	"	"	
tert-Amyl Methyl Ether	ND	12	"	"	"	"	
1,2-Dichloroethane	ND	12	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	12	"	"	"	"	
Surr. Rec.:		99 %			"	"	

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Apex Envirotech, Inc.
11244 Pyrites Way
Gold River, CA 95670

Project Number: SAG52.001
Project Name: Shore Acres Gas
Project Manager: Brandon Poteet

Work Order No.:
K004010

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
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SB-8 (K004010-35) Water Sampled: 06-Apr-10 13:10 Received: 07-Apr-10 14:15

Benzene	0.6	0.5	ug/L	1	12-Apr-10	8260B	
Toluene	1.3	0.5	"	"	"	"	
Xylenes, total	3.3	1.0	"	"	"	"	
Ethylbenzene	0.6	0.5	"	"	"	"	
Ethanol	ND	5.0	"	"	"	"	
t-Butanol	98	5.0	"	"	"	"	
Methyl tert-Butyl Ether	26	0.5	"	"	"	"	
Di-Isopropyl Ether	ND	0.5	"	"	"	"	
Ethyl tert-Butyl Ether	ND	0.5	"	"	"	"	
tert-Amyl Methyl Ether	ND	0.5	"	"	"	"	
1,2-Dichloroethane	ND	0.5	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.5	"	"	"	"	

Surr. Rec.: 89 %

SB-9 (K004010-36) Water Sampled: 06-Apr-10 14:45 Received: 07-Apr-10 14:15

Benzene	ND	10	ug/L	20	12-Apr-10	8260B	
Toluene	ND	10	"	"	"	"	
Xylenes, total	ND	20	"	"	"	"	
Ethylbenzene	ND	10	"	"	"	"	
Ethanol	ND	100	"	"	"	"	
t-Butanol	5300	100	"	"	"	"	
Methyl tert-Butyl Ether	1800	10	"	"	"	"	
Di-Isopropyl Ether	ND	10	"	"	"	"	
Ethyl tert-Butyl Ether	ND	10	"	"	"	"	
tert-Amyl Methyl Ether	ND	10	"	"	"	"	
1,2-Dichloroethane	ND	10	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	10	"	"	"	"	

Surr. Rec.: 105 %

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Apex Envirotech, Inc. 11244 Pyrites Way Gold River, CA 95670	Project Number: SAG52.001 Project Name: Shore Acres Gas Project Manager: Brandon Potect	Work Order No.: K004010
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Total Petroleum Hydrocarbons @ Gasoline - Quality Control

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch K000535 - EPA 5030B										
Blank (K000535-BLK1)				Prepared & Analyzed: 04/15/10						
Surrogate: a,a,a-Trifluorotoluene	0.0535		mg/L	0.050		107	70-130			
Total Petroleum Hydrocarbons @ Gasoline	ND	1.0	mg/kg							
LCS (K000535-BS1)				Prepared & Analyzed: 04/15/10						
Total Petroleum Hydrocarbons @ Gasoline	1.14		mg/L	1.0		114	80-120			
LCS Dup (K000535-BSD1)				Prepared & Analyzed: 04/15/10						
Total Petroleum Hydrocarbons @ Gasoline	1.12		mg/L	1.0		112	80-120	2	20	
Matrix Spike (K000535-MS1)				Source: K004010-09		Prepared & Analyzed: 04/15/10				
Total Petroleum Hydrocarbons @ Gasoline	1.15		mg/L	1.0	ND	115	70-130			
Matrix Spike Dup (K000535-MSD1)				Source: K004010-09		Prepared & Analyzed: 04/15/10				
Total Petroleum Hydrocarbons @ Gasoline	1.21		mg/L	1.0	ND	121	70-130	5	20	
Batch K000541 - EPA 5030B										
Blank (K000541-BLK1)				Prepared & Analyzed: 04/15/10						
Surrogate: a,a,a-Trifluorotoluene	0.0535		mg/L	0.050		107	70-130			
Total Petroleum Hydrocarbons @ Gasoline	ND	1.0	mg/kg							
LCS (K000541-BS1)				Prepared & Analyzed: 04/15/10						
Total Petroleum Hydrocarbons @ Gasoline	0.91		mg/L	1.0		91	80-120			
LCS Dup (K000541-BSD1)				Prepared & Analyzed: 04/15/10						
Total Petroleum Hydrocarbons @ Gasoline	1.12		mg/L	1.0		112	80-120	21	20	
Matrix Spike (K000541-MS1)				Source: K004010-15		Prepared & Analyzed: 04/15/10				
Total Petroleum Hydrocarbons @ Gasoline	1.14		mg/L	1.0	ND	114	70-130			
Matrix Spike Dup (K000541-MSD1)				Source: K004010-15		Prepared & Analyzed: 04/15/10				
Total Petroleum Hydrocarbons @ Gasoline	1.15		mg/L	1.0	ND	115	70-130	0.8	20	
Batch K000542 - EPA 5030B										
Blank (K000542-BLK1)				Prepared & Analyzed: 04/16/10						
Surrogate: a,a,a-Trifluorotoluene	0.0530		mg/L	0.050		106	70-130			
Total Petroleum Hydrocarbons @ Gasoline	ND	1.0	mg/kg							
LCS (K000542-BS1)				Prepared & Analyzed: 04/16/10						
Total Petroleum Hydrocarbons @ Gasoline	0.96		mg/L	1.0		96	80-120			

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Apex Envirotech, Inc. 11244 Pyrites Way Gold River, CA 95670	Project Number: SAG52.001 Project Name: Shore Acres Gas Project Manager: Brandon Potect	Work Order No.: K004010
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Total Petroleum Hydrocarbons @ Gasoline - Quality Control

Argon Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch K000542 - EPA 5030B										
LCS Dup (K000542-BSD1)				Prepared & Analyzed: 04/16/10						
Total Petroleum Hydrocarbons @ Gasoline	1.04		mg/L	1.0		104	80-120	8	20	
Matrix Spike (K000542-MS1)				Source: K004010-24 Prepared & Analyzed: 04/16/10						
Total Petroleum Hydrocarbons @ Gasoline	1.20		mg/L	1.0	ND	120	70-130			
Matrix Spike Dup (K000542-MSD1)				Source: K004010-24 Prepared & Analyzed: 04/16/10						
Total Petroleum Hydrocarbons @ Gasoline	0.96		mg/L	1.0	ND	96	70-130	22	20	
Batch K000543 - EPA 5030B										
Blank (K000543-BLK1)				Prepared & Analyzed: 04/16/10						
<i>Surrogate: a,a,a-Trifluorotoluene</i>										
	53.0		ug/L	50		106	70-130			
Total Petroleum Hydrocarbons @ Gasoline	ND	50	"							
LCS (K000543-BS1)				Prepared & Analyzed: 04/16/10						
Total Petroleum Hydrocarbons @ Gasoline	961		ug/L	1000		96	80-120			
LCS Dup (K000543-BSD1)				Prepared & Analyzed: 04/16/10						
Total Petroleum Hydrocarbons @ Gasoline	1040		ug/L	1000		104	80-120	8	20	
Matrix Spike (K000543-MS1)				Source: K004010-32 Prepared & Analyzed: 04/16/10						
Total Petroleum Hydrocarbons @ Gasoline	961		ug/L	1000	ND	96	70-130			
Matrix Spike Dup (K000543-MSD1)				Source: K004010-32 Prepared & Analyzed: 04/16/10						
Total Petroleum Hydrocarbons @ Gasoline	1160		ug/L	1000	ND	116	70-130	19	20	

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Argon Laboratories, Inc. California D.O.H.S. Cert. #2359



Apex Envirotech, Inc.
11244 Pyrites Way
Gold River, CA 95670

Project Number: SAG52.001
Project Name: Shore Acres Gas
Project Manager: Brandon Potect

Work Order No.:
K004010

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Argon Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch K000516 - EPA 5030B

Blank (K000516-BLK1)

Prepared & Analyzed: 04/13/10

<i>Surrogate: Fluorobenzene</i>	0.0435		mg/kg	0.050		87	70-130			
Benzene	ND	0.005	"							
Toluene	ND	0.005	"							
Xylenes, total	ND	0.010	"							
Ethylbenzene	ND	0.005	"							
Ethanol	ND	0.25	"							
t-Butanol	ND	0.050	"							
Methyl tert-Butyl Ether	ND	0.005	"							
Di-Isopropyl Ether	ND	0.005	"							
Ethyl tert-Butyl Ether	ND	0.005	"							
tert-Amyl Methyl Ether	ND	0.005	"							
1,2-Dichloroethane	ND	0.005	"							
1,2-Dibromoethane (EDB)	ND	0.005	"							

LCS (K000516-BS1)

Prepared & Analyzed: 04/13/10

Methyl tert-Butyl Ether	0.025		mg/kg	0.025		102	80-120			
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LCS Dup (K000516-BSD1)

Prepared & Analyzed: 04/13/10

Methyl tert-Butyl Ether	0.024		mg/kg	0.025		95	80-120	7	20	
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Matrix Spike (K000516-MS1)

Source: K004010-03

Prepared & Analyzed: 04/13/10

Benzene	0.026		mg/kg	0.025	ND	104	70-130			
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Matrix Spike (K000516-MS2)

Source: K004010-21

Prepared & Analyzed: 04/13/10

Toluene	0.027		mg/kg	0.025	ND	107	70-130			
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Matrix Spike Dup (K000516-MSD1)

Source: K004010-03

Prepared & Analyzed: 04/13/10

Benzene	0.027		mg/kg	0.025	ND	108	70-130	3	20	
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Matrix Spike Dup (K000516-MSD2)

Source: K004010-21

Prepared & Analyzed: 04/13/10

Toluene	0.024		mg/kg	0.025	ND	97	70-130	9	20	
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Batch K000517 - EPA 5030B

Blank (K000517-BLK1)

Prepared & Analyzed: 04/12/10

<i>Surrogate: Fluorobenzene</i>	43.0		ug/L	50		86	70-130			
Benzene	ND	0.5	"							
Toluene	ND	0.5	"							
Xylenes, total	ND	1.0	"							

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Apex Envirotech, Inc.
11244 Pyrites Way
Gold River, CA 95670

Project Number: SAG52.001
Project Name: Shore Acres Gas
Project Manager: Brandon Poteet

Work Order No.:
K004010

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Argon Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch K000517 - EPA 5030B

Blank (K000517-BLK1)

Prepared & Analyzed: 04/12/10

Ethylbenzene	ND	0.5	ug/L							
Ethanol	ND	5.0	"							
t-Butanol	ND	5.0	"							
Methyl tert-Butyl Ether	ND	0.5	"							
Di-Isopropyl Ether	ND	0.5	"							
Ethyl tert-Butyl Ether	ND	0.5	"							
tert-Amyl Methyl Ether	ND	0.5	"							
1,2-Dichloroethane	ND	0.5	"							

LCS (K000517-BS1)

Prepared & Analyzed: 04/12/10

Methyl tert-Butyl Ether	24.8		ug/L	25	99		80-120			
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LCS Dup (K000517-BSD1)

Prepared & Analyzed: 04/12/10

Methyl tert-Butyl Ether	25.5		ug/L	25	102		80-120	3	20	
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Matrix Spike (K000517-MS1)

Source: K004010-36

Prepared & Analyzed: 04/12/10

Benzene	27.2		ug/L	25	ND	109	70-130			
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Matrix Spike Dup (K000517-MSD1)

Source: K004010-36

Prepared & Analyzed: 04/12/10

Benzene	28.9		ug/L	25	ND	116	70-130	6	20	
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Batch K000521 - EPA 5030B

Blank (K000521-BLK1)

Prepared & Analyzed: 04/14/10

Surrogate: Fluorobenzene	0.0465		mg/kg	0.050	93		70-130			
Benzene	ND	0.005	"							
Toluene	ND	0.005	"							
Xylenes, total	ND	0.010	"							
Ethylbenzene	ND	0.005	"							
Ethanol	ND	0.25	"							
t-Butanol	ND	0.050	"							
Methyl tert-Butyl Ether	ND	0.005	"							
Di-Isopropyl Ether	ND	0.005	"							
Ethyl tert-Butyl Ether	ND	0.005	"							
tert-Amyl Methyl Ether	ND	0.005	"							
1,2-Dichloroethane	ND	0.005	"							
1,2-Dibromoethane (EDB)	ND	0.005	"							

LCS (K000521-BS1)

Prepared & Analyzed: 04/14/10

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Argon Laboratories, Inc. California D.O.H.S. Cert. #2359



Apex Envirotech, Inc. 11244 Pyrites Way Gold River, CA 95670	Project Number: SAG52.001 Project Name: Shore Acres Gas Project Manager: Brandon Potteet	Work Order No.: K004010
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Volatile Organic Compounds by EPA Method 8260B - Quality Control

Argon Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch K000521 - EPA 5030B

LCS (K000521-BS1)

Prepared & Analyzed: 04/14/10

t-Butanol	0.120		mg/kg	0.12		96	80-120			
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LCS Dup (K000521-BSD1)

Prepared & Analyzed: 04/14/10

t-Butanol	0.132		mg/kg	0.12		106	80-120	10	20	
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Matrix Spike (K000521-MS1)

Source: K004010-24

Prepared & Analyzed: 04/14/10

Ethylbenzene	0.025		mg/kg	0.025	ND	100	70-130			
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Matrix Spike Dup (K000521-MSD1)

Source: K004010-24

Prepared & Analyzed: 04/14/10

Ethylbenzene	0.026		mg/kg	0.025	ND	106	70-130	5	20	
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Apex Envirotech, Inc.
11244 Pyrites Way
Gold River, CA 95670

Project Number: SAG52.001
Project Name: Shore Acres Gas
Project Manager: Brandon Poteet



Work Order No.:
K004010

Notes and Definitions

- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

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