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Prepared for

Hopyard Cleaners
2771 Hopyard Road
Pleasanton, California 94612

SECOND QUARTER 2009 GROUNDWATER AND SVE MONITORING REPORT

HOPYARD CLEANERS
2771 Hopyard Road
Pleasanton, California
Self- Monitoring Program No. R2-2006-0059

Prepared by

Geosyntec 
consultants

engineers | scientists | innovators

475 14th Street, Suite 400
Oakland, California 94612

Project Number: WR0574

31 July 2009

**Second Quarter 2009 Groundwater
and SVE Monitoring Report
Hopyard Cleaners
2771 Hopyard Road
Pleasanton, California
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Prepared by

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LIST OF ABBREVIATIONS

BAAQMD PTO	Bay Area Air Quality Management District Permit to Operate
cis-1,2-DCE	cis-1,2-dichloroethene
EISB	Enhanced in situ bioremediation
ESS	Environmental Sampling Services, Inc.
feet bgs	feet below ground surface
ft/ft	feet per feet
ft/mi	feet per mile
GAC	Granular activated carbon
Geosyntec	Geosyntec Consultants
lbs	pounds
ISCO	In situ chemical oxidation
MSL	Mean Sea Level
µg/L	micrograms per liter
µg/m ³	micrograms per cubic meter
PCE	tetrachloroethene
PDBs	Passive diffusion bag samples
PID	Photoionization detector
ppmv	parts per million by volume
QA/QC	Quality assurance/ quality control
RWQCB	California Regional Water Quality Control Board, San Francisco Bay Region
SVE	Soil vapor extraction
TCE	trichloroethene
VOC	Volatile organic compounds

1. INTRODUCTION

On behalf of the property owner, Ms. Clare Leung, Geosyntec Consultants (Geosyntec) prepared this second quarter 2009 groundwater and soil vapor extraction (SVE) monitoring report for the Hopyard Cleaners Site, which is located at 2771 Hopyard Road in Pleasanton, California (the “Site”). A Site location map is provided in Figure 1. The work described in this report was performed in compliance with the California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB) Order No. R2-2008-0032, issued on 29 May 2008.

1.1 Monitoring Well Network

The Site monitoring well network consists of seven wells (MW-1 through MW-7). For discussion purposes, the uppermost groundwater zone beneath the Site, which occurs from approximately 20 to 35 feet below ground surface (feet bgs), is referred to as the A Zone, and the deeper groundwater from approximately 40 to 60 feet bgs is referred to as the B Zone. Wells MW-1 through MW-4 are screened in the A Zone, and wells MW-5 through MW-7 are screened in the B Zone. Well completion details are summarized in Table 1. Well locations relative to the Site are shown on Figure 2.

1.2 SVE System

The SVE system was installed at the Site in August 2008. The SVE system consists of five SVE wells (SVE-1 through SVE-5) located inside Hopyard Cleaners and a skid-mounted treatment system located in the parking lot approximately 60 feet southwest of the Site. The SVE system layout is shown on Figure 2. Geosyntec conducted a pilot test of the SVE system on 19 and 21 August 2008. The SVE system installation, pilot test, and start-up were documented in the *SVE System Installation and Pilot Test Report*, which was submitted to the RWQCB on 29 September 2008. The full-scale SVE operations began on 21 August 2008. An *Addendum to the SVE System Installation and Pilot Test Report*, which included quarterly SVE influent volatile organic compounds (VOC) analysis and recommendations and conclusions, was submitted to the RWQCB on 1 December 2008. The *SVE System Installation and Pilot Test Report* and the *Addendum to the SVE System Installation and Pilot Test Report* was approved by the RWQCB on 9 December 2008.

1.3 Work Performed This Quarter (Second Quarter 2009)

The following work was performed in the second quarter of 2009:

- The second quarter groundwater monitoring event was performed on 27 April 2009. This work is discussed in detail in this report.
- SVE monitoring was conducted on 10 April, 6 May, and 11 June 2009. This work is also discussed in detail in this report.
- As detailed in the *Remedial Action Plan Addendum: Comprehensive Feasibility Study for ISCO & EISB* dated 24 November 2008, soil and groundwater samples were collected on 26 January 2009 for the enhanced in situ bioremediation (EISB) feasibility study. Sample collection, analytical methods, and preliminary results were summarized in the *First Quarter 2009 Groundwater and SVE Monitoring Report* dated 30 April 2009. The EISB treatability was completed in May 2009 with results reported by SiREM Labs of Guelph, Ontario, Canada, in late June 2009. Sample collection, analytical methods, and final results of the treatability study will be detailed in the EISB Treatability Study Report that will be submitted to the RWQCB by 15 August 2009.

2. QUARTERLY GROUNDWATER MONITORING

Quarterly groundwater monitoring was performed at the Site on 27 April 2009. Passive diffusion bags (PDBs) were used to collect samples from MW-1 through MW-7. A study to test the appropriateness of using PDBs was proposed in the *Results of Fourth Quarter 2007 Groundwater Monitoring* report submitted to the RWQCB on 31 January 2008¹ and was verbally approved by the RWQCB in a conference call on 12 March 2008. The PDB study was completed in the first and second quarters 2008. Results of the study showed that cis-1,2-dichloroethene (cis-1,2-DCE), tetrachloroethene (PCE), and trichloroethene (TCE) concentrations were slightly higher in samples collected from PDBs compared to samples collected using a submersible pump. Sample results reported as non-detect using the conventional sampling method were also non-detect using the PDB sampling method. These results indicate that PDB samplers are an appropriate and reliable method of monitoring VOCs at this Site. Therefore, beginning in the third quarter 2008, PDBs have replaced sampling via peristaltic pump.

2.1 Sampling and Analytical Procedures

The groundwater sampling fieldwork was performed by Environmental Sampling Services, Inc. (ESS), of Martinez, California. ESS's report, including field procedures and sampling logs, is provided in Appendix A.

The PDBs were deployed on 26 January 2009, during the first quarter 2009 monitoring event, in monitoring wells MW-1 through MW-7. On 27 April 2009, the PDBs were removed from the wells and sampled. Samples were hand-delivered to Test America of Pleasanton, California, for analysis. Groundwater samples from the Site monitoring wells were analyzed for VOCs by EPA Method 8260B. New PDBs for the third quarter 2009 sampling event were deployed in wells MW-1 through MW-7 on 27 April 2009 after the second quarter 2009 monitoring event was completed.

¹ Geosyntec Consultants, 2008. *Results of the Fourth Quarter 2007 Groundwater Monitoring, Hopyard Cleaners, 2771 Hopyard Road, Pleasanton, California, Self-Monitoring Program No. R2-2006-0059*, 31 January 2008.

2.2 Groundwater Elevations and Flow Conditions

Table 2 summarizes groundwater elevations measured during this and previous sampling events. During the second quarter 2009, groundwater in the A Zone (MW-1 through MW-4) beneath the Site was encountered between 13.27 and 14.96 feet bgs, corresponding to between 311.31 and 312.42 feet above Mean Sea Level (MSL). Groundwater in the B Zone was encountered between 26.32 and 28.83 feet bgs, which corresponds to groundwater elevations ranging from 298.16 to 298.36 feet MSL.

Water levels measured during the second quarter 2009 event were used to construct groundwater elevation contours for the A Zone and B Zone, as shown in Figure 3 and 4, respectively. Table 3 summarizes groundwater gradients and flow directions for this and previous monitoring events. The second quarter 2009 A Zone groundwater contours indicate a general groundwater flow to the west-northwest with an average gradient of 0.0048 feet per foot (ft/ft) (25.3 feet per mile (ft/mi)). The gradient and flow direction are consistent with previous monitoring events, as shown on Table 3. The B Zone groundwater contours indicate general groundwater flow to the southwest under a gradient of approximately 0.0011 ft/ft (5.9 ft/mi), consistent with previous monitoring events (fourth quarter 2008 and first quarter 2009).

Groundwater elevations over time are shown on Figure 5. Groundwater in the A Zone monitoring wells has ranged from 308.8 to 314.6 feet MSL, since monitoring began in November 2006. Groundwater elevations in the B Zone are lower than those measured in the A Zone, with elevations ranging from 293.3 to 307.4 feet MSL. Both the A Zone and B Zone groundwater elevations tend to fluctuate seasonally with higher elevations during the winter and spring and lower elevations in the summer and fall.

2.3 Data QA/QC

Geosyntec performed a quality assurance/quality control (QA/QC) review of the analytical data. Data were reviewed for completeness, accuracy, precision, sample contamination, conformance with holding times, and detection limits within acceptable ranges. Based on this review, the data are acceptable.

2.4 Analytical Results

Laboratory analytical reports are provided in Appendix B. Table 4 summarizes analytical results for groundwater samples collected during the second quarter 2009 event together with historical results. Analytical results for the current sampling event are also shown on Figures 3 and 4 for the A Zone and B Zone, respectively. Isoconcentration contour maps for PCE and TCE are shown on Figures 6 through 8. The isoconcentration contours were drawn using current data from monitoring wells along with results from grab groundwater samples previously collected at the Site. Results are summarized below.

2.4.1 A Zone Wells: MW-1 through MW-4

Analytical results for samples taken from the four A Zone monitoring wells show the highest VOC concentrations at MW-2. During the second quarter 2009, the PCE concentration in both the original and duplicate samples collected from MW-2 was 14,000 micrograms per liter ($\mu\text{g/L}$). This concentration is within the range of historical PCE concentrations at MW-2, which have ranged from 4,700 to 15,000 $\mu\text{g/L}$. VOC concentrations observed during the second quarter 2009 in the other A Zone wells (MW-1, MW-3, and MW-4) were consistent with historical results.

2.4.2 B Zone Wells: MW-5 through MW-7

PCE is the only VOC detected in the B Zone groundwater. The highest detection of PCE, 35 $\mu\text{g/L}$, was in the closest B Zone monitoring well to the Site, MW-5. Farther downgradient of the Site, PCE was detected at MW-7 at 5.7 $\mu\text{g/L}$ and was not detected at MW-6.

2.5 Results Discussion

Graphs of PCE and TCE concentrations versus time in all monitoring wells are shown on Figure 9. The highest concentrations of PCE and TCE have historically been detected in A Zone monitoring well MW-2, which shows a slight increasing trend over the past year. PCE and TCE concentrations in the other A Zone wells MW-1, MW-3, and MW-4 and in B Zone well MW-5 are stable or declining.

As shown on Figure 10, concentrations in MW-2 generally vary inversely with groundwater elevations measured in this well. The highest PCE concentration of 15,000 µg/L corresponded to the lowest groundwater elevation observed at this well.

3. SVE SYSTEM MONITORING AND PERFORMANCE EVALUATION

The SVE system was installed at the Site in August 2008. The SVE system consists of five SVE wells (SVE-1 through SVE-5) located inside Hopyard Cleaners and a skid-mounted treatment system located in the parking lot about 60 feet southwest of the Site. The full-scale SVE operations began on 21 August 2008. Startup monitoring of the SVE system was performed on day 1 through 5, day 7, and day 9 of system startup to evaluate system performance and air emissions for the Bay Area Air Quality Management District Permit to Operate (BAAQMD PTO). Monitoring was performed weekly for the first month and monthly, at a minimum, thereafter. During the second quarter 2009, Geosyntec conducted the system monitoring on 10 April, 6 May, and 11 June 2009. The SVE system layout is shown on Figure 2. The SVE well locations and piping layout inside the dry cleaners is shown on Figure 11, and the process and instrumentation diagram is provided as Figure 12.

3.1 SVE Monitoring Procedures

SVE monitoring includes the following procedures:

- Perform photoionization detector (PID) screening via Tedlar[®] bags of:
 - Samples collected from the system influent, mid-point between the two granular activated carbon (GAC) vessels, and the system effluent, and
 - Samples collected at each SVE wellhead.
- Record vacuum response at each SVE wellhead;
- Record flow rate and vacuum response at the manifold;
- Record vacuum, temperature, and flow rate readings at system influent;
- Record hour meter;
- Inspect the moisture separator water level and drain into 55-gallon drums, if necessary; and
- Record the electrical meter reading.

As discussed in the *SVE System Installation and Pilot Test Report* and subsequent *Addendum SVE System Installation and Pilot Test Report*, influent SVE samples were

collected in 1-liter Summa canisters for laboratory analysis by TO-15 during start-up testing and on a quarterly basis to correlate VOC concentrations with PID readings.

3.2 SVE Operation, Monitoring, and Maintenance

The system performance monitoring results are presented in Table 5. The laboratory analytical results for the SVE influent samples are summarized in Table 6 and the laboratory analytical reports are provided in Appendix B. The individual SVE well monitoring results are shown in Table 7.

The system was operated continuously 24 hours a day from the startup on 21 August 2008 through 2 September 2009, except for an approximately 2-hour time period on 29 August 2008 when the blower shut-off switch was tripped. During that time, even though measures were taken to reduce the noise from the system blower, Geosyntec received complaints regarding the noise at night from residents in the vicinity of the dry cleaners (both across Hopyard Road and Valley Road). Even though measures were taken to reduce noise from the system blowers, on 3 September 2008, the SVE system was modified to run 14 hours a day from 8 am to 10 pm.

In order to optimize the SVE system performance and efficiency, cycling of the SVE wells was started on 6 January 2009. Based on the results of the well cycling, the SVE system operation was reduced on 26 February 2009 to 2 hours per day with extraction from all five SVE wells.

Due to anomalously high mid-point and effluent concentrations observed during the 5 February 2009 SVE system monitoring, the Operations and Maintenance contractor, Mako, moved the blower from after the carbon vessels to in front of the carbon vessels in the treatment process, on 19 February 2009. The blower increases the temperature of the extracted vapor and therefore decreases the amount of water vapor that condenses in the carbon vessels, which results in an increased efficiency of the carbon. The carbon must remain below 120 degrees Fahrenheit to effectively treat the extracted vapor, therefore the recirculation valve on the system was opened to control (lower) the temperature. Monitoring of the temperature immediately before the carbon vessels was added to the system monitoring program, as shown in Table 5.

When the recirculation valve was opened to control the temperature, the extraction flow rate was reduced. Therefore operation was increased to 4 hours per day (8 am to 12 pm) on 10 April 2009 to increase the total extracted volume per day.

3.3 SVE Performance Evaluation

Influent concentrations of VOCs into the SVE system in the second quarter 2009 have ranged from 83 to 3,305 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) as equivalent PCE (0.012 to 0.479 parts per million by volume [ppmv]) with concentrations decreasing through the quarter (Table 5 and Figure 13). After ten months of operations, the SVE system has removed a total of approximately 9.7 pounds (lbs) (0.72 gallons) of VOCs as equivalent PCE (Table 5 and Figure 14).

The laboratory analytical results indicate that PCE is the primary COC being removed from the target remediation zone, as shown on Table 6 and in the laboratory analytical report provided in Appendix B. The PID reading of the sample collected on 21 August 2008 was significantly higher than the analytical result due to the time lapse between the PID measurement and sample collection. The laboratory samples collected on 2 September 2008, 5 December 2008, 12 March 2009, and 11 June 2009 were collected right after the PID measurements, and the analytical results indicate similar VOC concentrations to PID measurements.

Figure 15 presents the concentration versus time plots of PCE and TCE concentrations at the influent to the SVE treatment system. The PCE concentrations decreased from 24,000 $\mu\text{g}/\text{m}^3$ on 21 August 2008 to 1,700 and 2,000 $\mu\text{g}/\text{m}^3$ on 12 March 2009 and 11 June 2009, respectively, approaching the soil gas clean up standard of 1,400 $\mu\text{g}/\text{m}^3$. Similarly, TCE concentrations have remained below the soil gas cleanup standard of 4,100 $\mu\text{g}/\text{m}^3$ and have decreased from 280 $\mu\text{g}/\text{m}^3$ on 21 August 2008 to 36 and 54 $\mu\text{g}/\text{m}^3$ on 12 March 2009 and 11 June 2009, respectively. Although concentrations in the sample collected on 11 June 2009 were slightly higher than the concentrations in the sample collected on 12 March 2009, the overall decreasing trend of PCE and TCE concentrations shows that the SVE system has been effective at removing the COCs from the subsurface.

Table 7 presents the PID screening results of the SVE wells. Initial cycling of the wells in January and February 2009 demonstrated potential rebound effects. After two months of cycling, the rebound effects significantly decreased and concentrations in all wells but SVE-2 were below the soil gas cleanup standard for PCE (1,400 $\mu\text{g}/\text{m}^3$). During the second quarter 2009 operations, wellhead PID screening results were above the soil gas cleanup standard for PCE on the 10 April and 6 May 2009 monitoring

events but were less than $90 \mu/\text{m}^3$ as equivalent PCE on the 11 June 2009 monitoring event.

4. FUTURE WORK

The following work will be completed during the third quarter 2009:

- The *Revised Remedial Action Plan*, including a human health risk assessment will be submitted to the RWQCB.
- The next quarterly groundwater monitoring event will be performed in July 2009. Results of the third quarter 2009 monitoring report will be submitted to the RWQCB by 31 October 2009.
- SVE monitoring will continue on a monthly basis at a minimum with one sample being collected for TO-15 analysis during the third quarter 2009. Results of the monitoring will be presented in the third quarter 2009 monitoring report due to the RWQCB on 31 October 2009.
- The final EISB treatability study results will be reported to the RWQCB by 15 August 2009.
- Based on the SOD confirmation sampling results and the results of the EISB treatability study, remedial alternatives are being evaluated for shallow groundwater at the Site. A Work Plan for remedial implementation will be submitted to the RWQCB by 15 October 2009.

TABLES

Table 1
Monitoring Well Construction Summary
Hopyard Cleaners
Pleasanton, California

Well I.D.	Date of Completion	Northing	Easting	TOC Elevation (MSL)	Total Depth (ft bgs)		Screen Interval Depth (ft bgs)		Well Casing Material	Well Diameter (inches)
					Borehole	Well	Top	Bottom		
A Zone Monitoring Wells										
MW-1	9/29/2006	2071427.29	6157712.24	325.77	30	30	20.00	30.00	SCH 40 PVC	2
MW-2	9/26/2006	2071357.03	6157791.18	325.69	30	30	20.00	30.00	SCH 40 PVC	2
MW-3	9/27/2006	2071461.21	6157787.94	326.27	30	30	20.00	30.00	SCH 40 PVC	2
MW-4	7/20/2007	2071382.30	6157557.57	326.27	36.5	35	25.00	35.00	SCH 40 PVC	2
B Zone Monitoring Wells										
MW-5*	7/19/2007	2071292.25	6157654.24	327.19	60	60	50.00	60.00	SCH 40 PVC	2
MW-6	8/19/2008	2071280.12	6157384.43	324.48	59	59	49.00	59.00	SCH 40 PVC	2
MW-7	8/20/2008	2071076.06	6157645.52	324.55	56	55	45.00	55.00	SCH 40 PVC	2

Notes:

ft bgs = feet below ground surface

MSL = mean sea level

TOC = Top of Casing

Elevations are based on NAVD 88 Datum

* Conductor casing was installed from 0 to 40 ft bgs.

Table 2
Groundwater Elevations
Hopyard Cleaners
Pleasanton, California

Well I.D. (Screen Interval)	TOC Elevation (ft MSL)	Sample Date	Depth to Groundwater Below TOC (ft)	Groundwater Elevation (ft MSL)
A Zone Monitoring Wells				
MW-1 (20-30 ft bgs)	325.77	4/27/2009	13.81	311.96
		1/26/2009	16.71	309.06
		12/10/2008	16.78	308.99
		7/14/2008	13.79	311.98
		5/16/2008	11.70	314.07
		2/15/2008	11.38	314.39
		1/3/2008	13.63	312.14
		8/3/2007	14.40	311.37
		5/11/2007	12.27	313.50
		2/9/2007	13.98	311.79
11/20/2006	14.88	310.89		
MW-2 (20-30 ft bgs)	325.69	4/27/2009	13.27	312.50
		1/26/2009	16.17	309.52
		12/10/2008	16.24	309.45
		7/14/2008	13.23	312.46
		5/16/2008	11.30	314.39
		2/15/2008	10.87	314.82
		1/3/2008	13.21	312.48
		8/3/2007	13.72	311.97
		5/11/2007	11.87	313.82
		2/9/2007	13.55	312.14
11/20/2006	14.36	311.33		
MW-3 (20-30 ft bgs)	326.27	4/27/2009	14.02	311.67
		1/26/2009	17.1	309.17
		12/10/2008	17.17	309.10
		7/14/2008	14.21	312.06
		5/16/2008	12.18	314.09
		2/15/2008	11.68	314.59
		1/3/2008	14.02	312.25
		8/3/2007	14.68	311.59
		5/11/2007	12.72	313.55
		2/9/2007	14.41	311.86
11/20/2006	15.28	310.99		
MW-4 (25-35 ft bgs)	326.27	4/27/2009	14.96	311.31
		1/26/2009	17.86	308.41
		12/10/2008	18.41	307.86
		7/14/2008	13.81	312.46
		5/16/2008	12.12	314.15
		2/15/2008	12.05	314.22
		1/3/2008	14.73	311.54
8/3/2007	15.85	310.42		

Table 2
Groundwater Elevations
Hopyard Cleaners
Pleasanton, California

Well I.D. (Screen Interval)	TOC Elevation (ft MSL)	Sample Date	Depth to Groundwater Below TOC (ft)	Groundwater Elevation (ft MSL)
B Zone Monitoring Wells				
MW-5 (50-60 ft bgs)	327.19	4/27/2009	28.83	298.36
		1/26/2009	30.61	296.58
		12/10/2008	33.67	293.52
		7/14/2008	32.16	295.03
		5/16/2008	23.06	304.13
		2/15/2008	19.74	307.45
		1/3/2008	22.65	304.54
MW-6 (49-59 ft bgs)	324.48	8/3/2007	30.51	296.68
		4/27/2009	26.32	298.16
		1/26/2009	28.10	296.38
		12/10/2009	31.14	293.34
MW-7 (45-55 ft bgs)	324.55	4/27/2009	26.39	298.16
		1/26/2009	28.19	296.36
		12/10/2008	31.21	293.34

Notes:

ft MSL = feet above mean sea level

TOC = Top of Casing

ft bgs = feet below ground surface

Elevations are based on NAVD 88 Datum

Table 3
Groundwater Gradient Summary
Hopyard Cleaners
Pleasanton, California

Date	Gradient		General Flow Direction
	ft/ft	ft/mi	
A Zone			
4/27/2009	0.0050	26.4	West-Northwest
1/26/2009	0.0045	23.8	West-Northwest
12/10/2008	0.0068	36.1	West-Northwest
7/14/2008	0.0048	25.5	North
5/16/2008	0.0031	16.5	North-Northwest
2/15/2008	0.0038	20.5	Northwest
1/3/2008	0.0025	13.2	Northwest
8/3/2007	0.0070	37.0	West-Northwest
5/11/2007	0.0030	15.8	North-Northwest
2/9/2007	0.0010	5.3	North-Northwest
11/20/2006	0.0040	22.0	Northwest
B Zone			
4/27/2009	0.0011	5.9	Southwest
1/26/2009	0.0012	6.4	Southwest
12/10/2008	0.0012	6.1	Southwest

Notes:

ft/ft = feet per feet

ft/mi = feet per mile

Table 4
Groundwater Analytical Summary
Hopyard Cleaners
Pleasanton, California

Well I.D. (Screen Interval)	Sample Date	Sampling Method	Volatile Organic Compounds - EPA Method 8260B (ug/L)		
			cis-1,2-DCE	PCE	TCE
A Zone Monitoring Wells					
MW-1 (20-30 ft bgs)	4/27/2009	PDB Sampler	180	1,500	240
	1/26/2009	PDB Sampler	240	1,700	320
	12/10/2008	PDB Sampler	250	1,900	350
	7/14/2008	PDB Sampler	230	1,700	250
	5/16/2008	Purge and Sample	250	1,600	280
	5/16/2008	PDB Sampler*	260	1,900	310
	2/29/2008	PDB Sampler*	330	2,000	330
	2/15/2008	Purge and Sample	230	1,400	250
	1/2/2008	Purge and Sample	230	1,600	270
	8/3/2007	Purge and Sample	260	1,600	270
	5/11/2007	Purge and Sample	310	2,500	310
	2/9/2007	Purge and Sample	270 / 270	2,400 / 2,300	290 / 290
	11/20/2006	Purge and Sample	370	3,100	370
MW-2 (20-30 ft bgs)	4/27/2009	PDB Sampler	770 / 710	14,000 / 14,000	850 / 850
	1/26/2009	PDB Sampler	760 / 770	12,000 / 12,000	720 / 730
	12/10/2008	PDB Sampler	840 / 770	15,000 / 15,000	790 / 740
	7/14/2008	PDB Sampler	820 / 830	9,500 / 8,100	530 / 500
	5/16/2008	Purge and Sample	900 / 930	5,800 / 5,900	460 / 450
	5/16/2008	PDB Sampler*	940	6,700	480
	2/29/2008	PDB Sampler*	780	5,300	360
	2/15/2008	Purge and Sample	690 / 690	4,100 / 4,000	320 / 300
	1/2/2008	Purge and Sample	940 / 890	8,200 / 8,200	560 / 580
	8/3/2007	Purge and Sample	1,200 / 1,100	8,000 / 8,100	590 / 570
	5/11/2007	Purge and Sample	1,000 / 980	7,200 / 7,300	490 / 450
	2/9/2007	Purge and Sample	760	4,700	350
	11/20/2006	Purge and Sample	800 / 800	5,700 / 5,800	370 / 360
MW-3 (20-30 ft bgs)	4/27/2009	PDB Sampler	4.4	48	4.7
	1/26/2009	PDB Sampler	4.6	42	4.7
	12/10/2008	PDB Sampler	5.6	60	5.5
	7/14/2008	PDB Sampler	4.3	43	4.0
	5/16/2008	Purge and Sample	5.0	39	4.3
	5/16/2008	PDB Sampler*	5.4	46	4.4
	2/29/2008	PDB Sampler*	6.9	58	5.9
	2/15/2008	Purge and Sample	6.2	44	5.1
	1/2/2008	Purge and Sample	5.2	46	4.6
	8/3/2007	Purge and Sample	4.7	37	4.2
	5/11/2007	Purge and Sample	5.5	43	4.4
	2/9/2007	Purge and Sample	5.3	42	4.2
	11/20/2006	Purge and Sample	9.5	93	7.2

Table 4
Groundwater Analytical Summary
Hopyard Cleaners
Pleasanton, California

Well I.D. (Screen Interval)	Sample Date	Sampling Method	Volatile Organic Compounds - EPA Method 8260B (ug/L)		
			cis-1,2-DCE	PCE	TCE
MW-4 (25-35 ft bgs)	4/27/2009	PDB Sampler	3.7	<0.50	4.3
	1/26/2009	PDB Sampler	4.3	<0.50	4.9
	12/10/2008	PDB Sampler	4.0	<0.50	3.7
	7/14/2008	PDB Sampler	4.7	<0.50	4.0
	5/16/2008	Purge and Sample	3.7	<0.50	2.6
	5/16/2008	PDB Sampler*	3.6	<0.50	2.7
	2/29/2008	PDB Sampler*	3.4	<0.50	3.0
	2/15/2008	Purge and Sample	4.2	<0.50	4.0
	1/3/2008	Purge and Sample	4.2	<0.50	3.5
8/3/2007	Purge and Sample	4.6	<0.50	3.5	
B Zone Monitoring Wells					
MW-5 (50-60 ft bgs)	4/27/2009	PDB Sampler	<0.50	35	<0.50
	1/26/2009	PDB Sampler	<0.50	37	<0.50
	12/10/2008	PDB Sampler	<0.50	49	<0.50
	7/14/2008	PDB Sampler	<0.50	31	<0.50
	5/16/2008	Purge and Sample	<0.50	24	<0.50
	5/16/2008	PDB Sampler*	<0.50	34	<0.50
	2/29/2008	PDB Sampler (52.5 ft bgs)*	<0.50	41	<0.50
	2/29/2008	PDB Sampler (57.5 ft bgs)*	<0.50	33	<0.50
	2/15/2008	Purge and Sample	<0.50	26	<0.50
	1/3/2008	Purge and Sample	<0.50	38	<0.50
8/3/2007	Purge and Sample	<0.50	37	<0.50	
MW-6 (49-59 ft bgs)	4/27/2009	PDB Sampler	<0.50	<0.50	<0.50
	1/26/2009	PDB Sampler	<0.50	<0.50	<0.50
	12/10/2008	PDB Sampler (51.5 ft bgs)*	<0.50	<0.50	<0.50
	12/10/2008	PDB Sampler (56.5 ft bgs)*	<0.50	<0.50	<0.50
MW-7 (45-55 ft bgs)	4/27/2009	PDB Sampler	<0.50	5.7	<0.50
	1/26/2009	PDB Sampler	<0.50	9.9	<0.50
	12/10/2008	PDB Sampler (47.5 ft bgs)*	<0.50	9.8	<0.50
	12/10/2008	PDB Sampler (52.5 ft bgs)*	<0.50	10	<0.50

Notes:

Table shows only compounds detected above the laboratory reporting limit.

cis-1,2-DCE = cis-1,2-dichloroethene

PCE = tetrachloroethene

TCE = trichloroethene

"-- / --" = result on right represents duplicate sample

ft bgs = feet below ground surface

PDB = Passive Diffusion Bag Sampler

* Samples collected as part of the PDB comparison study. PDBs were deployed at two depths in the following wells to evaluate stratification: at 52.5 and 57.5 ft bgs in MW-5 for the 1st Quarter 2008 event, at 51.5 and 56.5 ft bgs in MW-6 for the 4th Quarter 2008 event, and at 47.5 and 52.5 ft bgs in MW-7 for the 4th Quarter 2008 event.

Table 5
SVE System Performance Monitoring Results
Hopyard Cleaners
2771 Hopyard Road, Pleasanton, California

Sample Date	SYSTEM MEASUREMENTS									MASS REMOVAL CALCULATIONS								
	Time	Operation Time (Hour)	Influent Flow Rate (ft/min)	System Temp. (°F)	Influent Vacuum (in Hg)	Influent Conc. (ug/m ³)	Mid-Point Conc. (ug/m ³)	Effluent Conc. (ug/m ³)	Temp. Before GAC Vessels (°F)*	Vacuum (in water)	Flowrate (cfm)	Flowrate (scfm)	Total Operation Time (hr)	PCE Conc. (mg/m ³)	Mass Removal Rate (lbs/hr)	Mass Removal Rate (lbs/day)	Mass Removed Since Last Sampling Event (lbs)	Cumulative Mass Removal (lbs)
21-Aug-08	9:15	7,569.2	--	--	10.0	89,700	1,380	690	--	136	--	--	--	89.7	--	--	0.00	0.00
22-Aug-08	9:25	7,593.3	4,590	83.5	10.0	37,950	2,070	0.0	--	136	210.54	136.22	24.17	38.0	0.0326	0.7817	0.79	0.79
23-Aug-08	10:00	7,618.0	4,690	78.3	9.5	4,830	1,380	690	--	129	215.13	144.06	48.75	4.8	0.0115	0.2770	0.28	1.07
24-Aug-08	14:02	7,646.0	4,550	79.5	10.0	6,210	2,070	0.0	--	136	208.71	136.04	76.78	6.2	0.0028	0.0675	0.08	1.15
25-Aug-08	16:22	7,672.4	4,450	87.2	10.0	7,590	2,070	690	--	136	204.12	131.17	103.12	7.6	0.0034	0.0814	0.09	1.24
27-Aug-08	8:14	7,712.1	4,520	74.0	10.0	45,540	690	0.0	--	136	207.33	136.53	142.98	45.5	0.0136	0.3261	0.54	1.78
29-Aug-08	8:02	7,757.7	4,380	77.9	9.5	12,420	--	--	--	129	200.91	134.64	190.78	12.4	0.0146	0.3508	0.70	2.48
2-Sep-08	9:14	7,853.3	4,250	77.5	10.0	12,420	690	0.0	--	136	194.95	127.54	287.98	12.4	0.0059	0.1424	0.58	3.06
8-Sep-08	8:40	7,996.2	4,290	76.8	8.5	14,490	690	0.0	--	116	196.78	138.60	379.14	14.5	0.0070	0.1677	0.64	3.69
18-Sep-08	10:40	8,238.2	4,300	79.0	8.0	4,830	0.0	0.0	--	109	197.24	141.59	520.31	4.8	0.0051	0.1230	0.72	4.42
8-Oct-08	10:00	8,715.1	4,300	83.8	8.0	5,520	0.0	0.0	--	109	197.24	140.34	799.92	5.5	0.0027	0.0653	0.76	5.18
17-Nov-08	9:30	9,675.1	4,300	66	8.0	6,210	0.0	0.0	--	109	197.24	145.09	1359.63	6.2	0.0032	0.0765	1.78	6.96
5-Dec-08	9:26	10,107.1	4,775	49.8	8.0	4,830	1,380	0.0	--	109	219.03	166.23	1611.59	4.8	0.0034	0.0825	0.87	7.83
6-Jan-09	9:10	10,847.7	4,610	53.5	7.5	1,380	0.0	0.0	--	102	211.46	162.96	2059.43	1.4	0.0019	0.0455	0.85	8.68
21-Jan-09	8:25	11,233.5	4,490	51.8	9.0	4,830	3,450	690	--	122	205.95	148.60	2268.99	4.8	0.0017	0.0415	0.36	9.04
21-Jan-09	15:30	11,240.5	3,445	67.8	10.5	3,450	2,070	2,070	--	143	158.02	102.64	2273.13	3.5	0.0016	0.0382	0.01	9.04
5-Feb-09	9:05	11,562.4	4,130	56.6	10.0	6,900**	5,520**	690**	--	136	189.44	128.95	2479.38	6.9**	0.0008	0.0200	0.17	9.22
5-Feb-09	10:30	11,563.8	4,470	59.1	10.0	154,600**	93,840**	104,880**	--	136	205.04	138.90	2480.21	154.56**	0.0009	0.0215	0.00	9.22
19-Feb-09	8:42	11,898.0	4,440	55.1	9.0	0.0	0.0	0.0	--	122	203.66	146.01	2675.16	0.0	0.0009	0.0226	0.18	9.40
19-Feb-09	12:00	11,899.7	3,110	63.8	10.0	0.0	0.0	0.0	102.3	136	142.65	95.77	2675.20	0.0	0.0000	0.0000	0.00	9.40
26-Feb-09	9:15	12,064.9	3,150	60.3	9.0	0.0	0.0	0.0	97.4	122	144.49	102.55	2771.60	0.0	0.0000	0.0000	0.00	9.40
26-Feb-09	10:07	12,068.8	3,500	60.9	8.0	0.0	0.0	0.0	94.8	109	160.54	119.25	2772.10	0.0	0.0000	0.0000	0.00	9.40
12-Mar-09	9:40	12,400.3	3,650	56.1	7.0	1,097	0.0	0.0	77.4	95	167.42	131.24	2800.06	1.097	0.0003	0.0065	0.01	9.41
10-Apr-09	8:43	13,095.4	3,680	62.1	8.0	3,305	1,207.5	248.4	86.5	109	168.80	125.09	2857.98	3.305	0.0010	0.0248	0.06	9.47
6-May-09	9:00	13,719.6	3,570	72.4	11.5	2,870	1,573.2	966.0	109.7	156	163.75	100.02	2962.03	2.870	0.0012	0.0278	0.12	9.59
11-Jun-09	8:43	14,583.4	3,590	72.1	5.0	83	20.7	13.8	99.1	68	164.67	136.11	3105.98	0.083	0.0008	0.0181	0.11	9.70

Notes/Assumptions:

- Inlet pipe diameter is 3".
- SVE operations were reduced from 24 hours per day to 14 hours (8 am to 10 pm) per day on 3 September 2008; SVE operations were reduced to 2 hours (8 am to 10 am) per day on 26 February 2009; and SVE operations were increased to 4 hours (8 am to 12 p
- Vapor density of PCE is estimated to be 6,900 g/m³ at 20C.
- SCFM(at 14.7psia and 68°F) = CFM x [(Pg + Patm)/(Patm)] x [(68 +460)/(Tact +460)]
- Concentrations and mass removal calculated as mass of PCE.

* On 19 February 2009, the blower was moved in front of the carbon vessels in the treatment process. Temperature measurement were collected before carbon vessels to confirm that vapor temperatures are below 120 prior to entering the carbon vessels.

** PID readings from 5 February 2009 were anomalously high, indicating possible instrumentation error. To be conservative, these influent concentrations were not included in mass removal calculations.

ft/min = feet per minute

ug/m³ = micrograms per cubic meter

°F = degrees Fahrenheit

in Hg = inches mercury

in water = inches water

cfm = cubic feet per minute

scfm = standard cubic feet per minute

hr = hour

mg/m³ = milligrams per cubic meter

yr = year

lbs = pounds

**Table 6
SVE Influent Analytical Summary
Hopyard Cleaners
Pleasanton, California**

VOC	Sample Date									
	21-Aug-08		2-Sep-08		5-Dec-08		12-Mar-09		11-Jun-09	
units	ppmv	ug/m ³	ppmv	ug/m ³	ppmv	ug/m ³	ppmv	ug/m ³	ppmv	ug/m ³
PCE	3.600	24,000	1.200	8,500	0.340	2,300	0.250	1,700	0.290	2,000
TCE	0.051	280	0.029	160	0.012	64	0.0068	36	0.010	54
Other ¹	0.022	66	0.0075	22	0.043	112.6	0.0134	35.1	0.0207	56.9
<i>Total VOCs</i>	<i>3.651</i>	<i>24,346</i>	<i>1.237</i>	<i>8,682</i>	<i>0.395</i>	<i>2,476.6</i>	<i>0.270</i>	<i>1,771.1</i>	<i>0.321</i>	<i>2,110.9</i>
<i>Influent PID Reading²</i>	<i>13.8</i>	<i>95,220</i>	<i>1.8</i>	<i>12,420</i>	<i>0.7</i>	<i>4,830</i>	<i>0.159</i>	<i>1,097</i>	<i>0.159</i>	<i>1,097</i>

Notes:

Table shows only compounds detected above the laboratory reporting limit

VOC - Volatile Organic Compound; analyzed by TO-15

ppmv - parts per million by volume

ug/m³ - micrograms per cubic meter

cis-1,2-DCE - cis-1,2-dichloroethene

PCE - tetrachloroethene

TCE - trichloroethene

PID - Photoionization Detector

(1) Tetrahydrofuran was detected at a concentration of 0.022 ppmv on 21 August 2008; 2-butanone was detected at a concentration of 0.0075 ppmv on 2 September 2008; freon 12 was detected at a concentration of 0.0014 ppmv, ethanol was detected at 0.0082 ppmv, acetone was detected at 0.0099 ppmv, carbon disulfide was detected at 0.0025 ppmv, methylene chloride was detected at 0.0014 ppmv, 2-butanone was detected at 0.0025 ppmv, tetrahydrofuran was detected at 0.0014 ppmv, benzene was detected at 0.0045 ppmv, and toluene was detected at 0.0076 ppmv on 5 December 2008; acetone was detected at 0.0079 ppmv, 2-butanone was detected at 0.0026 ppmv, and tetrahydrofuran was detected at 0.0029 ppmv on 12 March 2009; and acetone was detected at 0.0075 ppmv, 2-butanone was detected at 0.0021 ppmv, benzene was detected at 0.0035 ppmv, freon 12 was detected at 0.0016 ppmv, ethanol was detected at 4.6 (tr), and toluene was detected at 0.0014 ppmv on 11 June 2009.

(2) PID screening results from the date sampling was conducted, as presented on Table 5. PID results are calculated from parts per million by volume to ug/m³ as PCE.

Table 7
SVE Well Monitoring Results
Hopyard Cleaners
2771 Hopyard Road, Pleasanton, California

Monitoring Date	Monitoring Event	Extraction Duration ¹ (hr/day)	MANIFOLD			SVE-1				SVE-2				SVE-3				SVE-4				SVE-5			
			Time	Flow Rate (scfm)	Vacuum (in Hg)	Time	Vacuum (in Hg)	PID ²		Time	Vacuum (in Hg)	PID ²		Time	Vacuum (in Hg)	PID ²		Time	Vacuum (in Hg)	PID ²		Time	Vacuum (in Hg)	PID ²	
								ug/m ³ as PCE	ppmv			ug/m ³ as PCE	ppmv			ug/m ³ as PCE	ppmv			ug/m ³ as PCE	ppmv			ug/m ³ as PCE	ppmv
21-Aug-08	Start up Day 1	24	9:22	240	--	9:24	0	322,920	46.8	9:22	1.5	164,220	23.8	9:21	2.0	34,500	5.0	9:25	1.5	167,670	24.3	9:20	2.0	60,720	8.8
22-Aug-08	Start-up Day 2	24	9:41	240	--	9:42	0	141,450	20.5	9:40	1.75	82,800	12.0	9:38	2.0	14,490	2.1	9:44	1.5	57,960	8.4	9:37	2.0	28,980	4.2
23-Aug-08	Start-up Day 3	24	10:35	240	--	10:38	0	86,250	12.5	10:34	1.5	53,820	7.8	10:28	0	15,870	2.3	10:26	1.0	44,160	6.4	10:31	2.0	24,840	3.6
25-Aug-08	Start-up Day 5	24	16:52	235	--	16:50	0	64,170	9.3	16:58	0	33,810	4.9	16:55	1.0	11,040	1.6	4:46	1.0	33,120	4.8	16:53	2.0	17,940	2.6
27-Aug-08	Start-up Day 7	24	8:36	240	--	8:38	0	49,680	7.2	8:36	1.5	24,840	3.6	8:35	2.0	4,140	0.6	8:39	1.5	61,410	8.9	8:34	2.0	10,350	1.5
2-Sep-08	Start-up Day 13/Week 2	24	9:43	230	3.5	9:44	0	24,150	3.5	9:42	1.5	15,180	2.2	9:40	1.75	4,830	0.7	9:45	1.5	13,110	1.9	9:36	1.5	8,280	1.2
8-Sep-08	Start-up Week 3	14	8:58	230	3.75	9:01	0	17,940	2.6	8:59	1.25	19,320	2.8	8:58	1.5	16,560	2.4	9:02	1.25	8,280	1.2	8:57	1.5	14,490	2.1
18-Sep-08	1st Month	14	11:14	235	4	11:16	1.2	12,420	1.8	11:14	1.5	5,520	0.8	11:12	1.5	0	0.0	11:17	1.3	5,520	0.8	11:10	1.5	3,450	0.5
8-Oct-08	2nd Month	14	10:40	235	3.75	11:04	1.2	8,970	1.3	11:00	1.5	7,590	1.1	10:57	1.4	3,450	0.5	11:07	1.3	6,900	1.0	10:51	1.5	5,520	0.8
17-Nov-08	3rd Month	14	9:45	235	3.5	9:48	1.1	6,900	1.0	9:46	1.4	4,830	0.7	9:44	1.3	3,450	0.5	9:50	1.2	4,830	0.7	9:42	1.4	5,520	0.8
5-Dec-08	4th Month	14	11:20	240	3.5	11:21	1.1	4,830	0.7	11:19	1.3	3,450	0.5	11:18	1.3	2,070	0.3	11:22	1.1	3,450	0.5	11:17	1.4	3,450	0.5
6-Jan-09	5th Month	14	9:44	240	3.5	9:45	1.0	690	0.1	9:43	1.3	0	0	9:42	1.2	0	0.0	9:46	1.1	690	0.1	9:40	1.3	0	0.0
21-Jan-09	Cycle Wells ³	14	9:02	235	4.5	9:03	1.5	10,350	1.5	9:00	2.4	11,730	1.7	10:06	OFF	115,230	16.7	9:06	1.7	44,850	6.5	10:05	OFF	124,890	18.1
21-Jan-09	Cycle Wells ³	14	15:47	220	5.5	15:49	OFF	4,140	0.6	15:46	OFF	2,760	0.4	15:45	3.1	2,760	0.4	15:50	OFF	6,210	0.9	15:43	3.2	690	0.1
5-Feb-09	6th Month/Cycle Wells ³	14	9:27	230	5.0	9:28	OFF	84,180*	12.2*	9:26	OFF	73,830*	10.7*	9:24	2.9	74,520*	10.8*	9:29	OFF	178,710*	25.9*	9:40	2.9	252,540*	36.6*
5-Feb-09	Cycle Wells ³	14	10:41	230	4.5	10:43	1.5	189,750*	27.5*	10:42	1.2	158,700*	23.0*	10:40	OFF	107,640*	15.6*	10:45	1.5	230,460*	33.4*	10:39	OFF	142,830*	20.7*
19-Feb-09	Cycle Wells ³	14	9:02	235	4.5	9:03	1.5	0	0.0	9:02	2.3	0	0.0	9:00	OFF	40,710	5.9	9:04	1.5	0	0.0	8:59	OFF	15,180	2.2
19-Feb-09	Cycle Wells ³	14	12:10	165	3.0	12:10	OFF	0	0.0	12:09	OFF	0	0.0	12:07	2.0	0	0.0	12:12	OFF	0	0.0	12:06	2.1	0	0.0
26-Feb-09	Cycle Wells ³	2	9:29	165	3.0	9:31	OFF	21,390	3.1	9:28	OFF	17,940	2.6	9:27	2.0	0	0.0	9:32	OFF	65,550	9.5	9:26	2.1	0	0.0
26-Feb-09	Cycle Wells ³	2	10:19	230	2.0	10:19	0.7	690	0.1	10:18	0.7	0	0.0	10:17	0.7	0	0.0	10:20	0.8	690	0.1	10:16	0.9	0	0.0
12-Mar-09	7th Month	2	9:21	180	2.0	9:23	0.7	497	0.072	9:22	0.8	1,780	0.258	9:20	0.8	276	0.040	9:24	0.8	373	0.054	9:19	0.8	573	0.083
10-Apr-09	8th Month	4	9:08	180	2.0	9:09	0.7	4,733	0.686	9:07	0.9	4,099	0.594	9:05	0.8	2,125	0.308	9:10	0.9	5,058	0.733	9:04	0.9	2,829	0.410
6-May-09	9th Month	4	9:27	180	2.0	9:28	0.7	3,471	0.503	9:26	0.8	3,160	0.458	9:24	0.8	1,746	0.253	9:30	0.9	2,691	0.390	9:21	0.9	4,133	0.599
11-Jun-09	10th Month	4	9:09	180	2.0	9:13	0.7	89.7	0.013	9:10	0.9	75.9	0.011	9:07	0.8	62.1	0.009	9:15	0.9	89.7	0.013	9:05	0.9	75.9	0.011

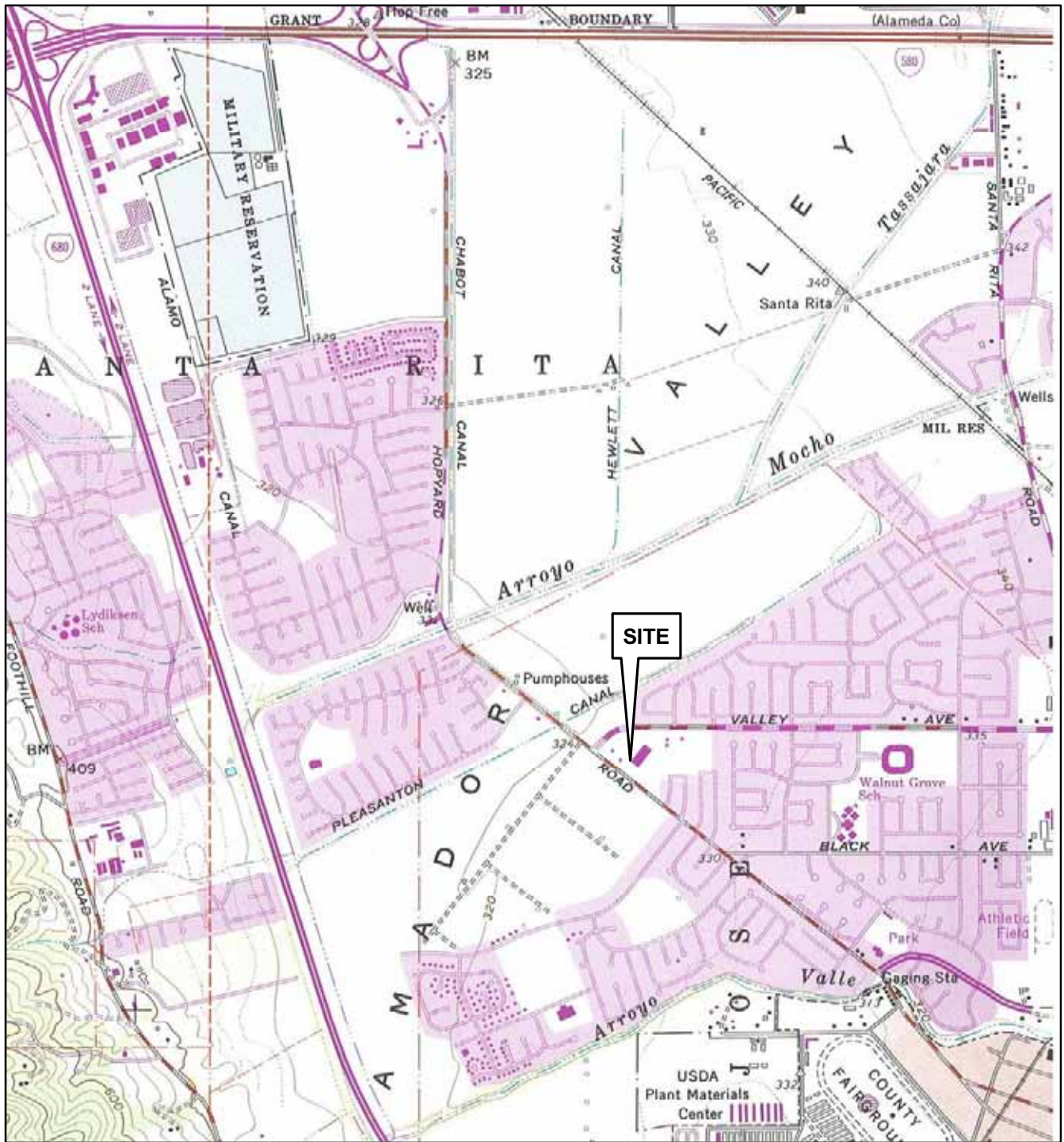
Notes:

- 1) A timer was installed on the system and was set to run from 8 am to 10 pm (14 hrs/day) on 3 September 2008. Operation was then reduced to 8 am to 10 am (2 hrs/day) on 26 February 2009 to optimize the system. Operation was increased to 8 am to 12 pm (4 hrs/day) on 10 April 2009
- 2) PID screening was conducted using a MiniRae 2000 capable of detecting VOCs in the ppmv range. Beginning on 12 March 2009, a ppbRae was used to detect concentrations at lower levels, in the parts per billion.
- 3) On 21 January, 5 February, 19 February, and 26 February 2009, monitoring was conducted twice: before cycling the SVE wells and approximately 30 minutes after cycling the SVE well.

*PID readings from 5 February 2009 were anomalously high, indicating possible instrumentation error.

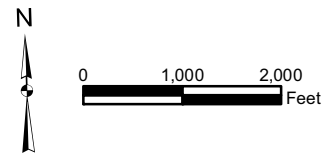
- ft = feet
- min = minute
- in Hg = inches of mercury
- ug/m³ as PCE = micrograms per cubic meter as equivalent tetrachloroethene
- ppmv = parts per million volume
- scfm = standard cubic feet per minute
- OFF = well turned off during well cycling

FIGURES



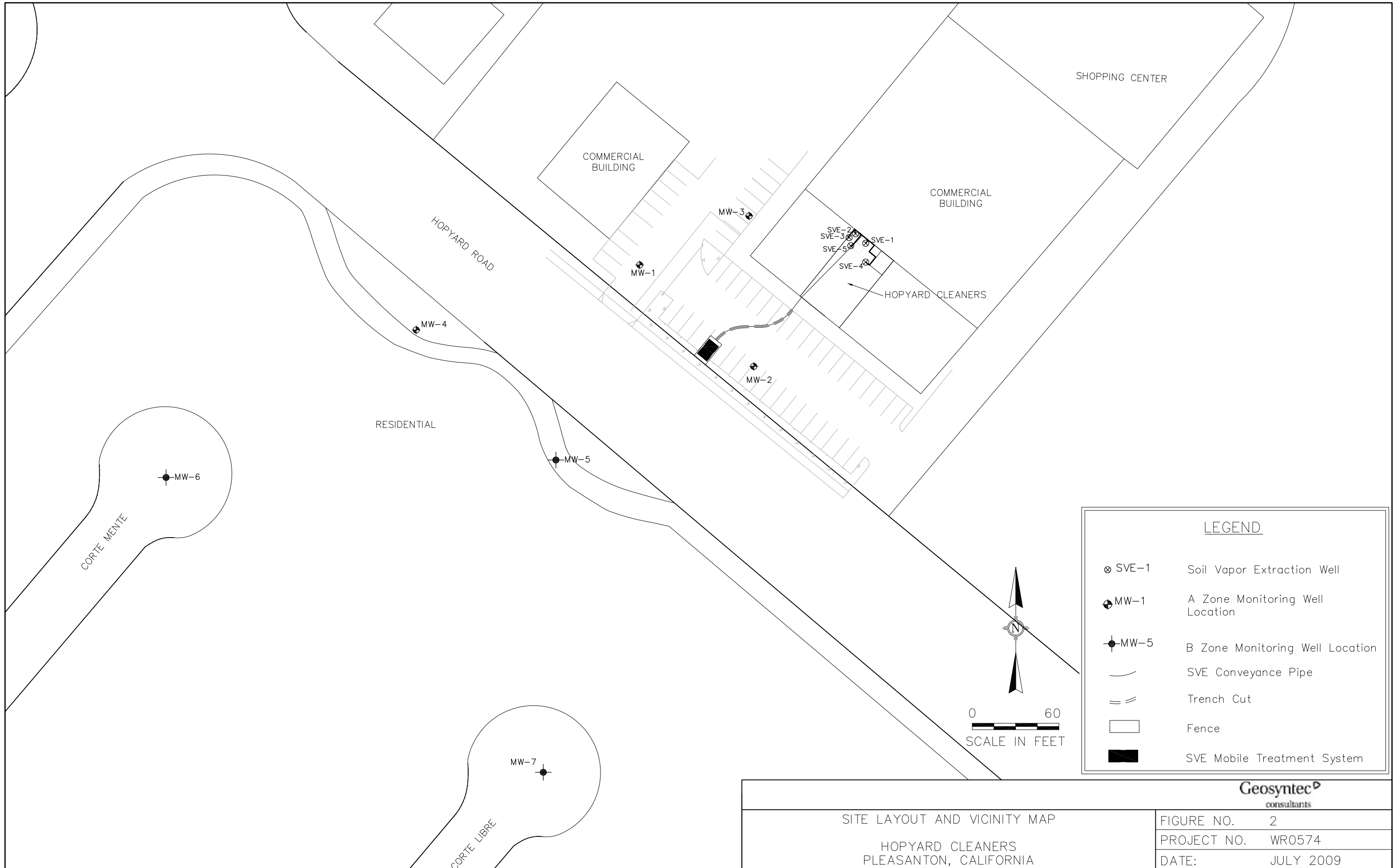
Topo Source: U.S.G.S 7.5 Minute Series,
 Dublin, CA Quadrangle (1980)
 Contour Interval = 40 Feet

**SITE LOCATION MAP
 HOPYARD CLEANERS
 2771 HOPYARD ROAD
 PLEASANTON, CALIFORNIA**



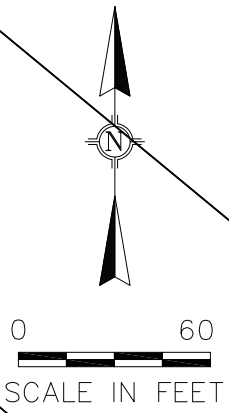
Geosyntec
 consultants

FIGURE NO.	1
PROJECT NO.	WR0574
DATE:	JULY 2009

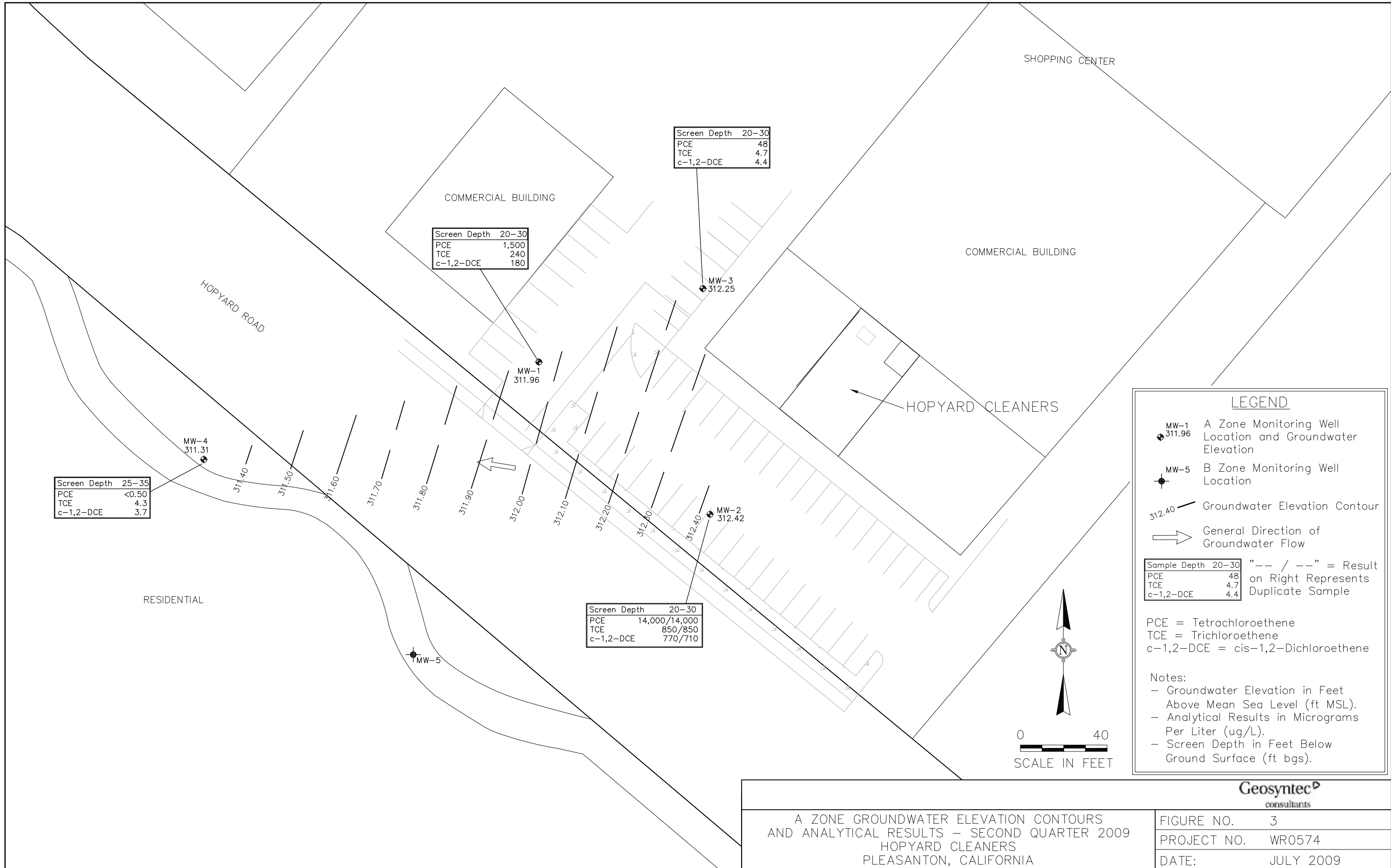


LEGEND

⊗ SVE-1	Soil Vapor Extraction Well
⊕ MW-1	A Zone Monitoring Well Location
⊖ MW-5	B Zone Monitoring Well Location
—	SVE Conveyance Pipe
≡≡	Trench Cut
□	Fence
■	SVE Mobile Treatment System



Geosyntec consultants	
SITE LAYOUT AND VICINITY MAP	FIGURE NO. 2
HOPYARD CLEANERS PLEASANTON, CALIFORNIA	PROJECT NO. WR0574
	DATE: JULY 2009



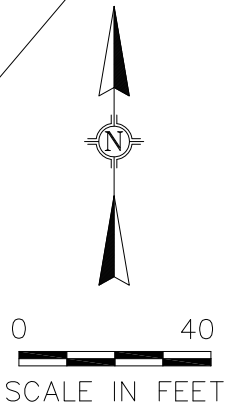
LEGEND

- MW-1 311.96 A Zone Monitoring Well Location and Groundwater Elevation
- MW-5 B Zone Monitoring Well Location
- 312.40 Groundwater Elevation Contour
- General Direction of Groundwater Flow

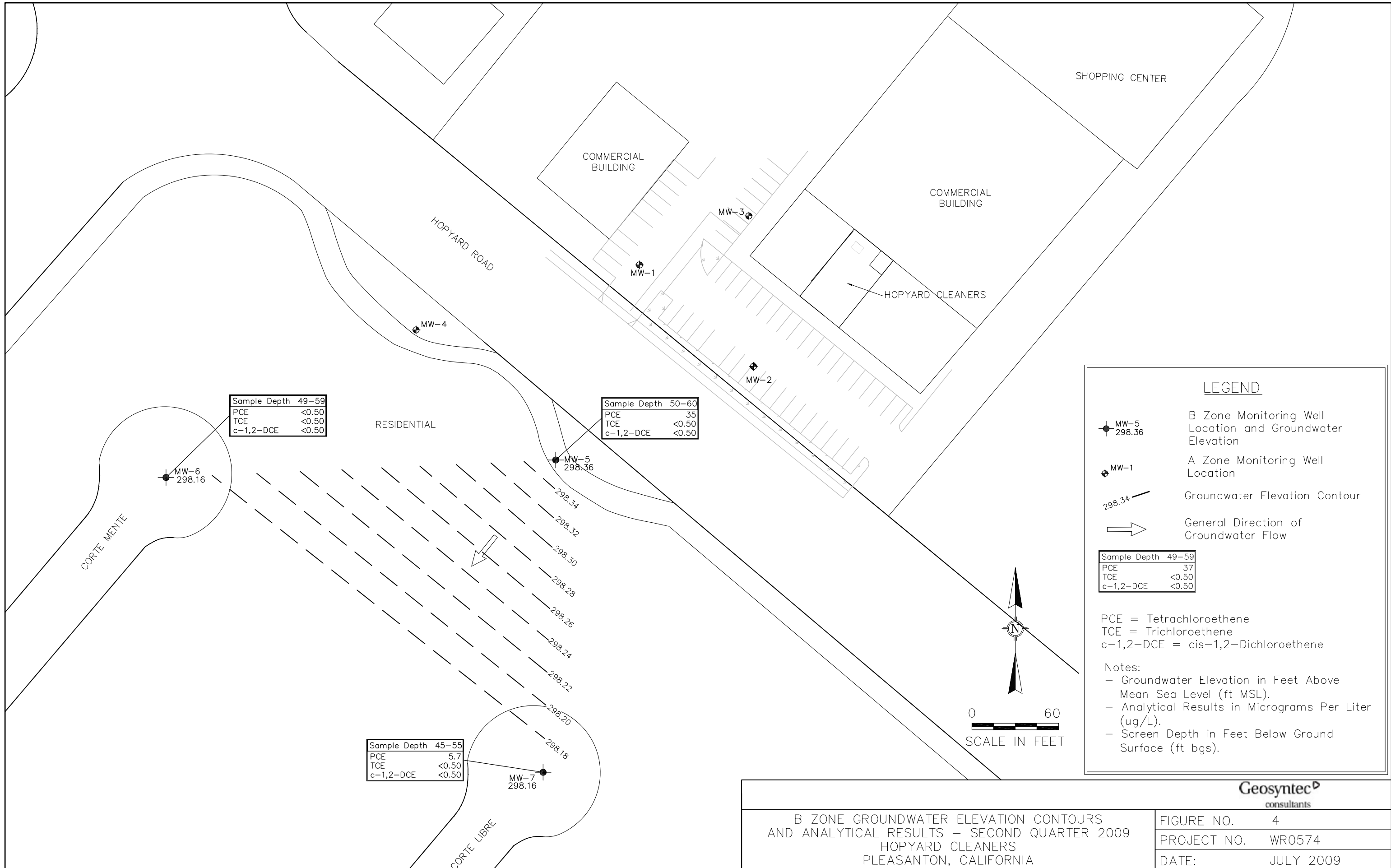
Sample Depth	20-30	"-- / --" = Result on Right Represents Duplicate Sample
PCE	48	
TCE	4.7	
c-1,2-DCE	4.4	

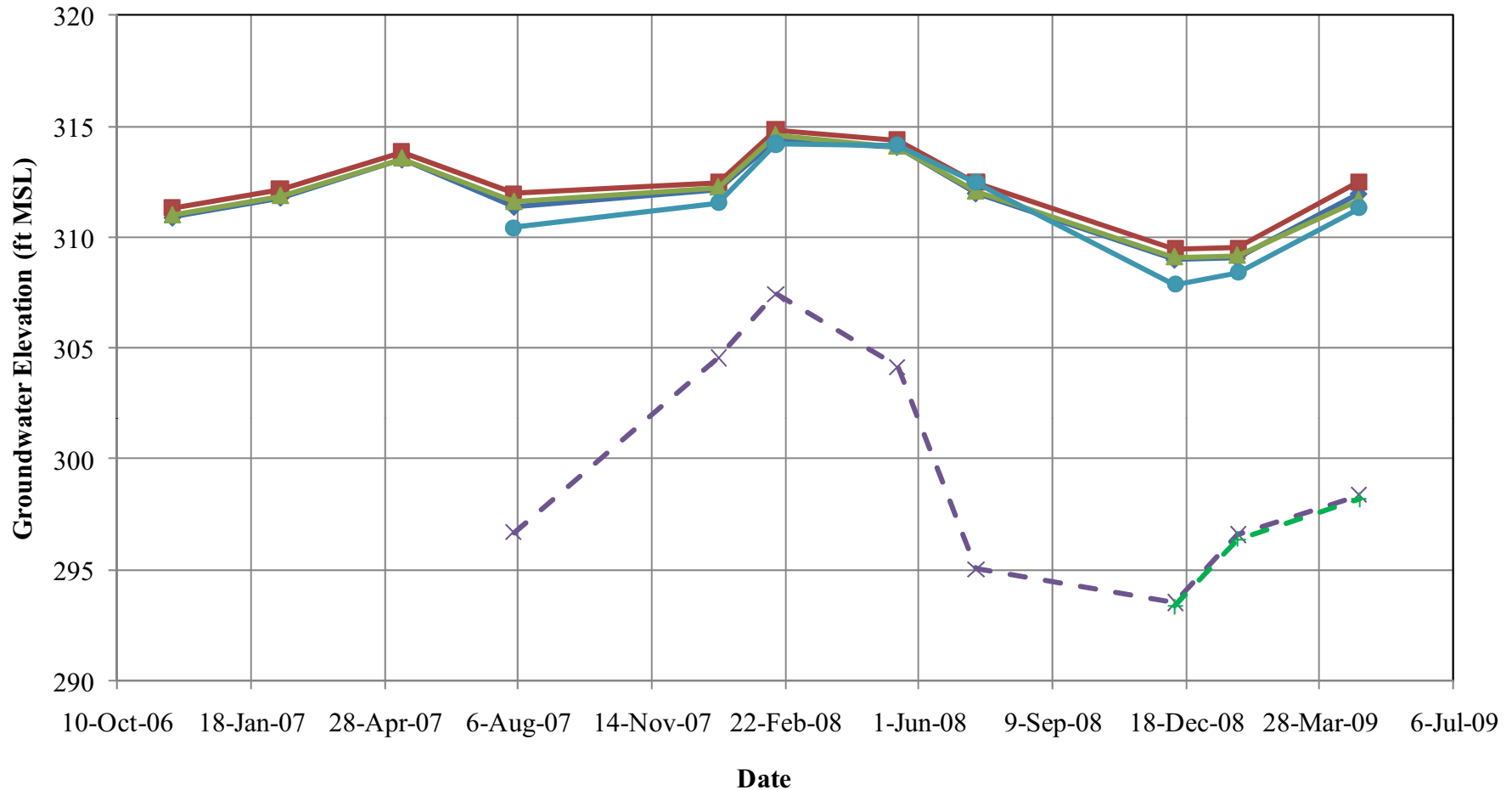
PCE = Tetrachloroethene
TCE = Trichloroethene
c-1,2-DCE = cis-1,2-Dichloroethene

Notes:
- Groundwater Elevation in Feet Above Mean Sea Level (ft MSL).
- Analytical Results in Micrograms Per Liter (ug/L).
- Screen Depth in Feet Below Ground Surface (ft bgs).



Geosyntec consultants	
A ZONE GROUNDWATER ELEVATION CONTOURS AND ANALYTICAL RESULTS – SECOND QUARTER 2009 HOPYARD CLEANERS PLEASANTON, CALIFORNIA	FIGURE NO. 3
	PROJECT NO. WR0574
	DATE: JULY 2009





A Zone Wells

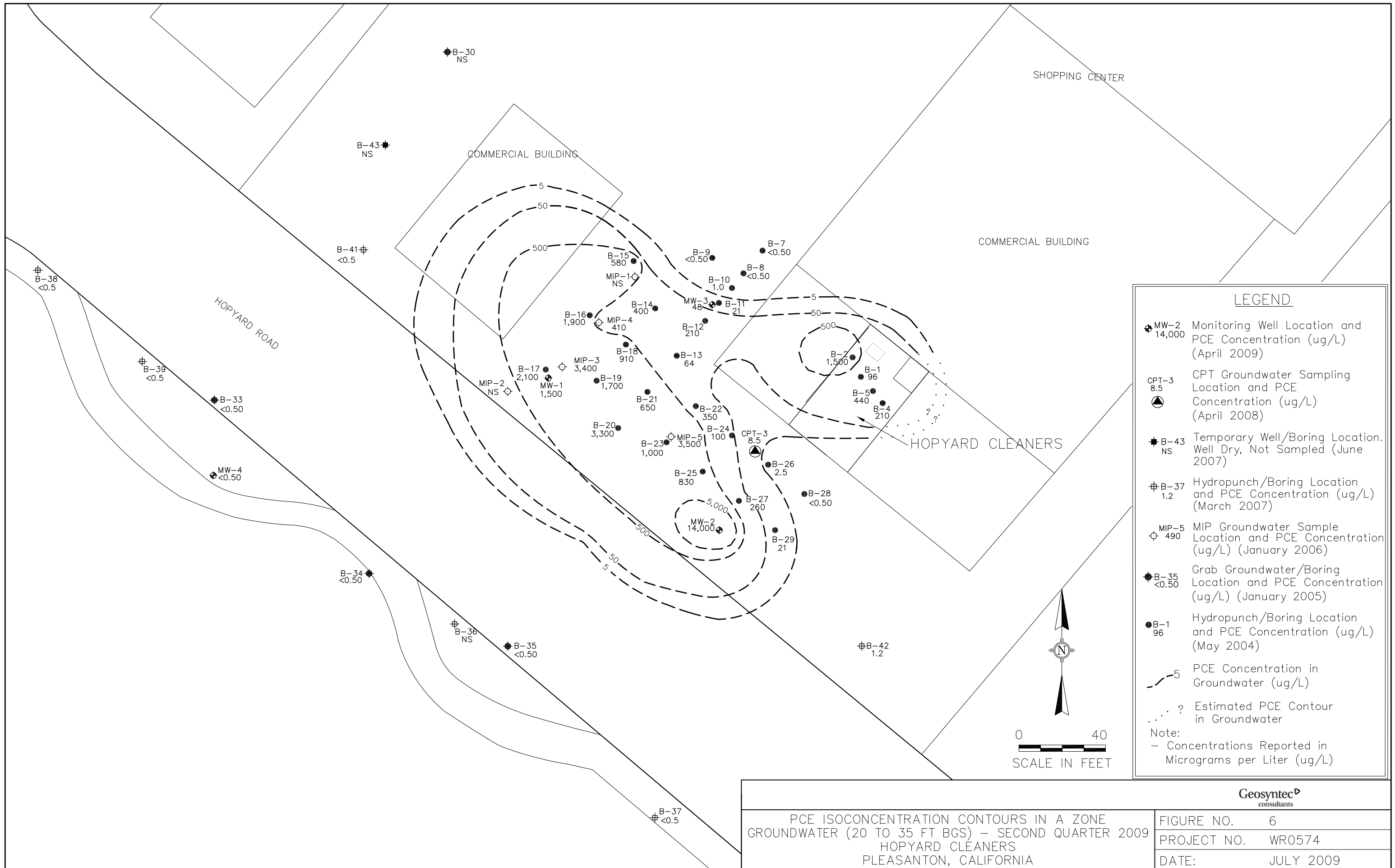
- MW-1 Groundwater Elevation
- MW-2 Groundwater Elevation
- MW-3 Groundwater Elevation
- MW-4 Groundwater Elevation

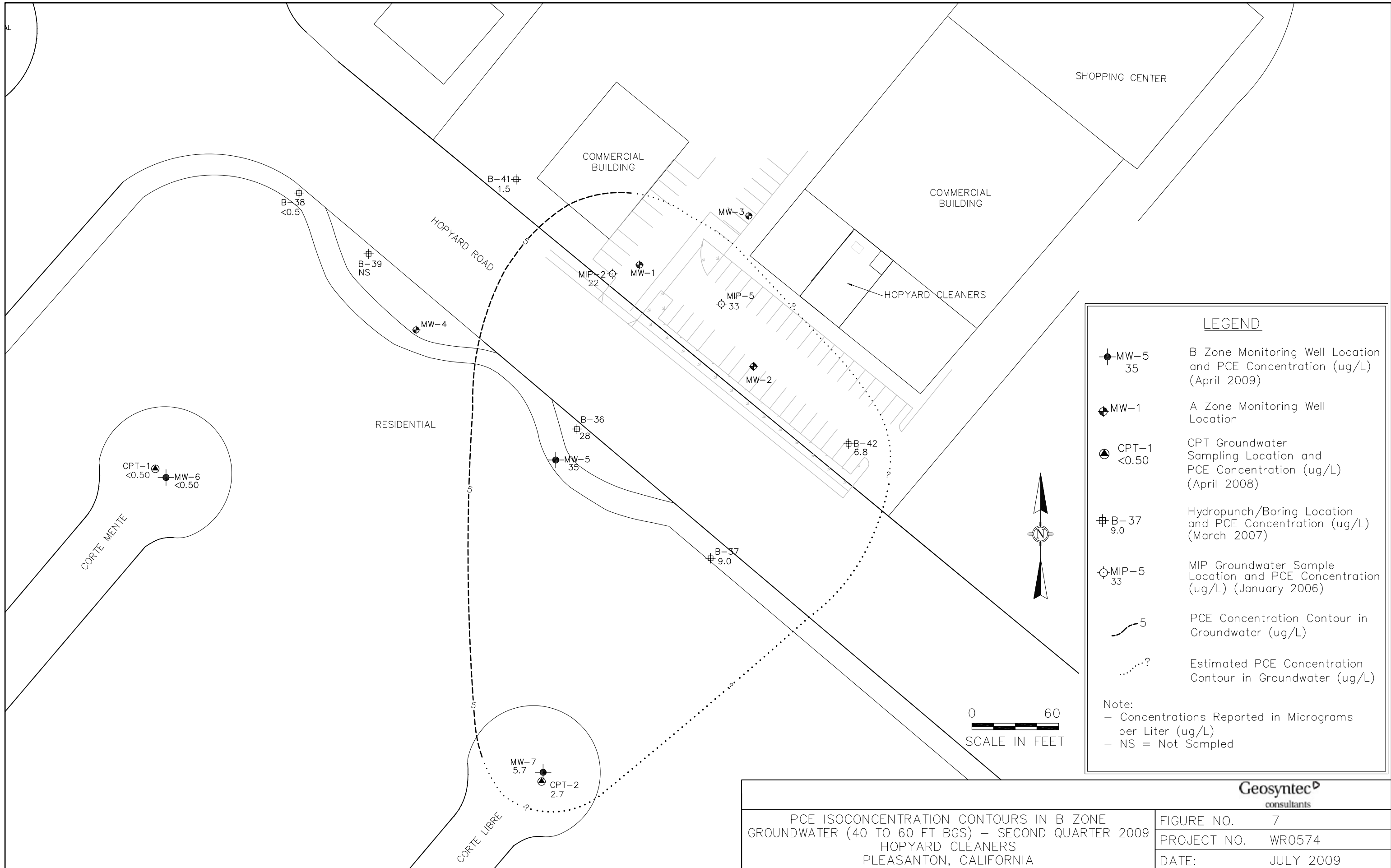
B Zone Wells

- MW-5 Groundwater Elevation
- MW-6 Groundwater Elevation
- MW-7 Groundwater Elevation

ft MSL = feet above mean sea level

Groundwater Hydrograph Hopyard Cleaners, Pleasanton, California		
July 2009	Figure: 5	Geosyntec consultants



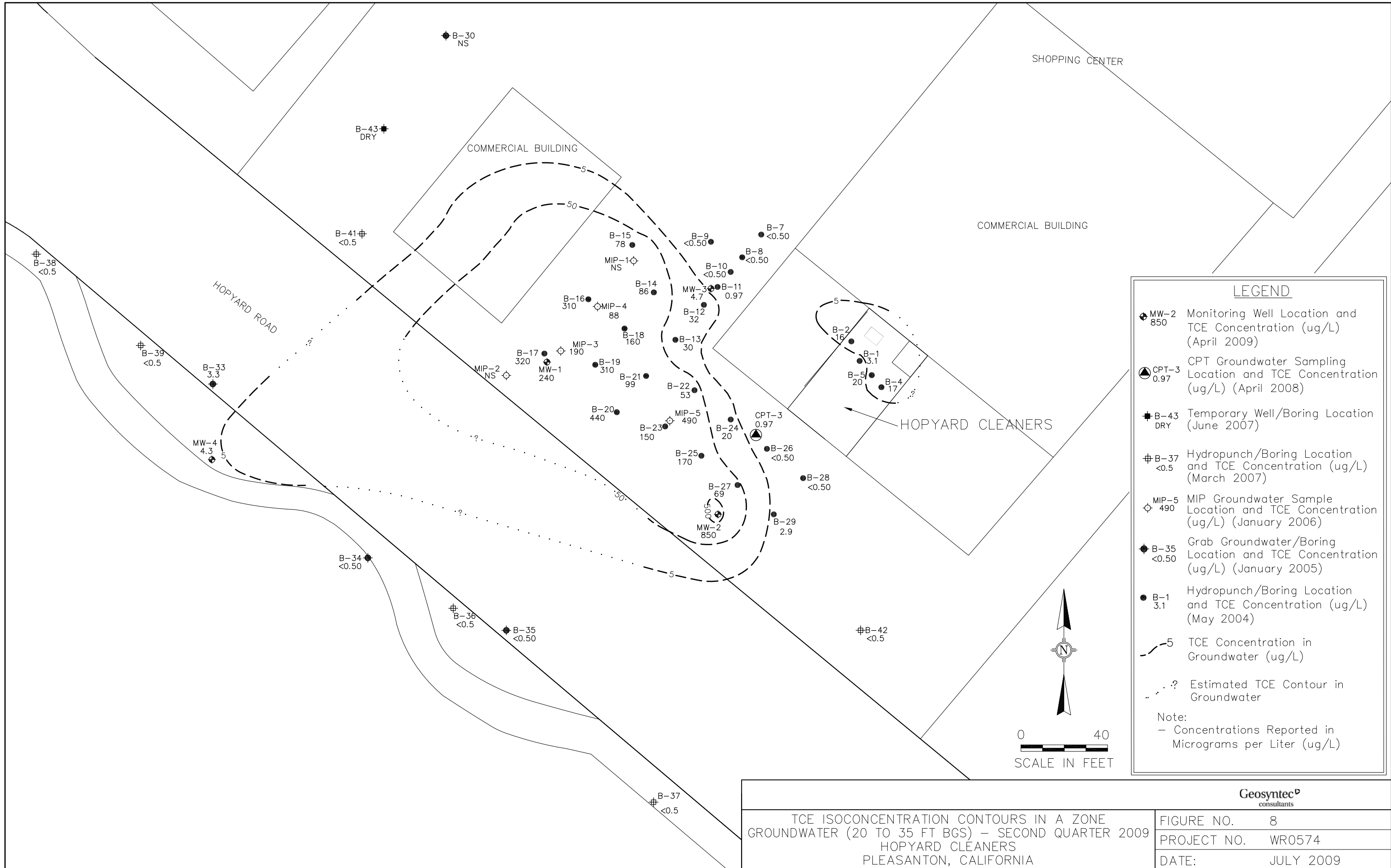


LEGEND

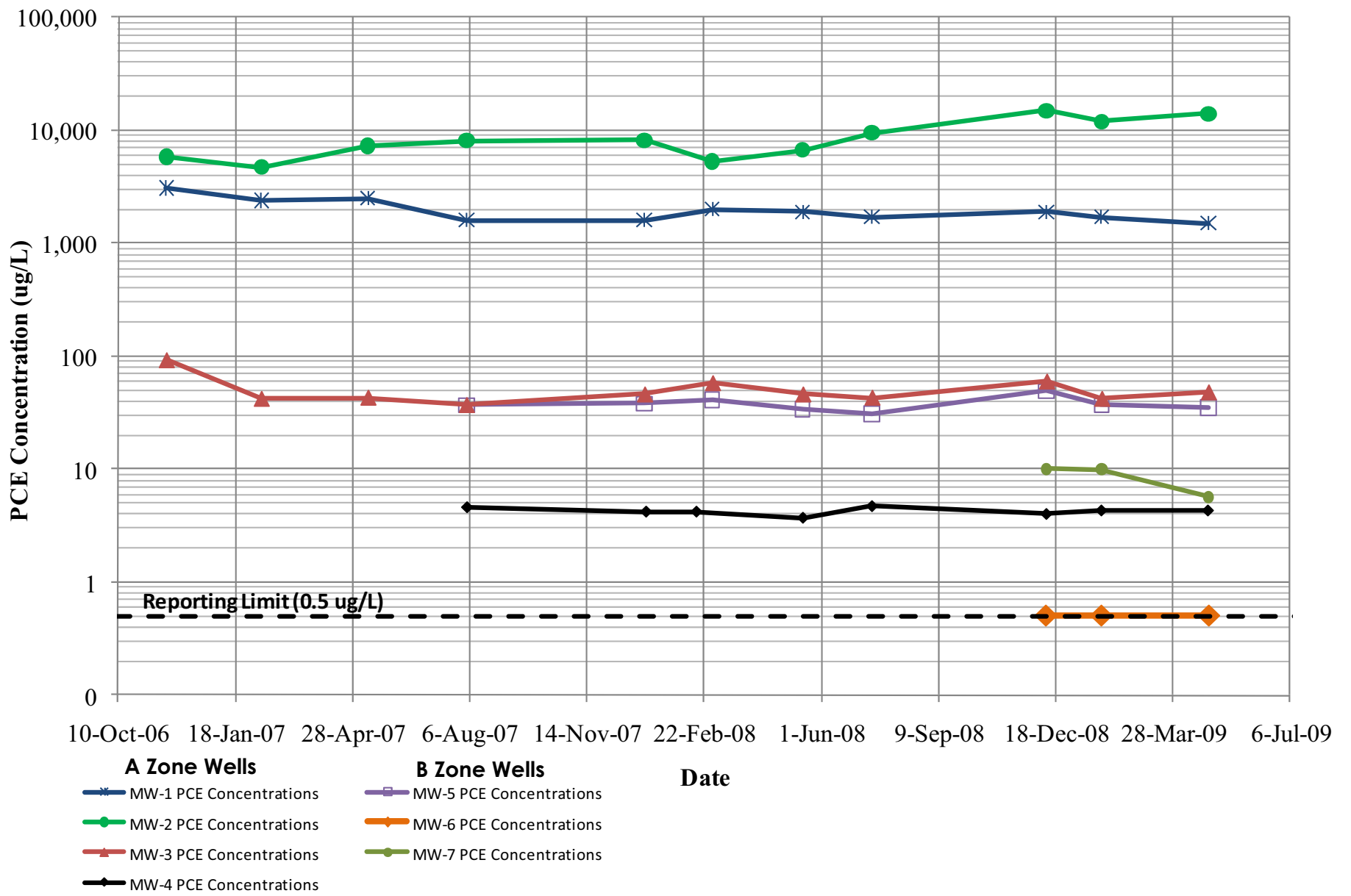
- MW-5
35 B Zone Monitoring Well Location and PCE Concentration (ug/L) (April 2009)
- MW-1 A Zone Monitoring Well Location
- CPT-1
<0.50 CPT Groundwater Sampling Location and PCE Concentration (ug/L) (April 2008)
- B-37
9.0 Hydropunch/Boring Location and PCE Concentration (ug/L) (March 2007)
- MIP-5
33 MIP Groundwater Sample Location and PCE Concentration (ug/L) (January 2006)
- 5 PCE Concentration Contour in Groundwater (ug/L)
- ? Estimated PCE Concentration Contour in Groundwater (ug/L)

Note:
 - Concentrations Reported in Micrograms per Liter (ug/L)
 - NS = Not Sampled

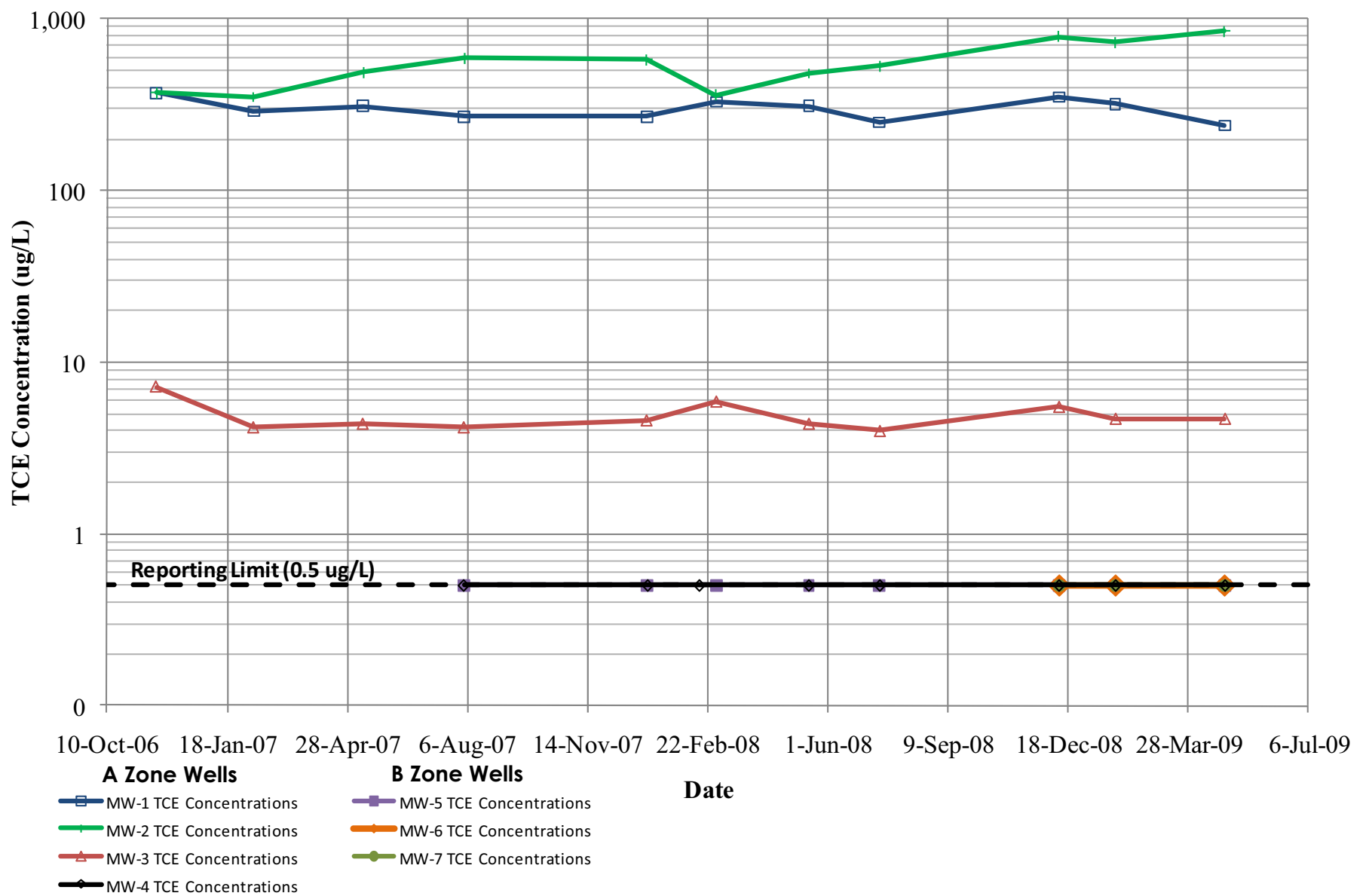
Geosyntec consultants	
PCE ISOCONCENTRATION CONTOURS IN B ZONE GROUNDWATER (40 TO 60 FT BGS) – SECOND QUARTER 2009 HOPYARD CLEANERS PLEASANTON, CALIFORNIA	FIGURE NO. 7
	PROJECT NO. WR0574
	DATE: JULY 2009



PCE



TCE



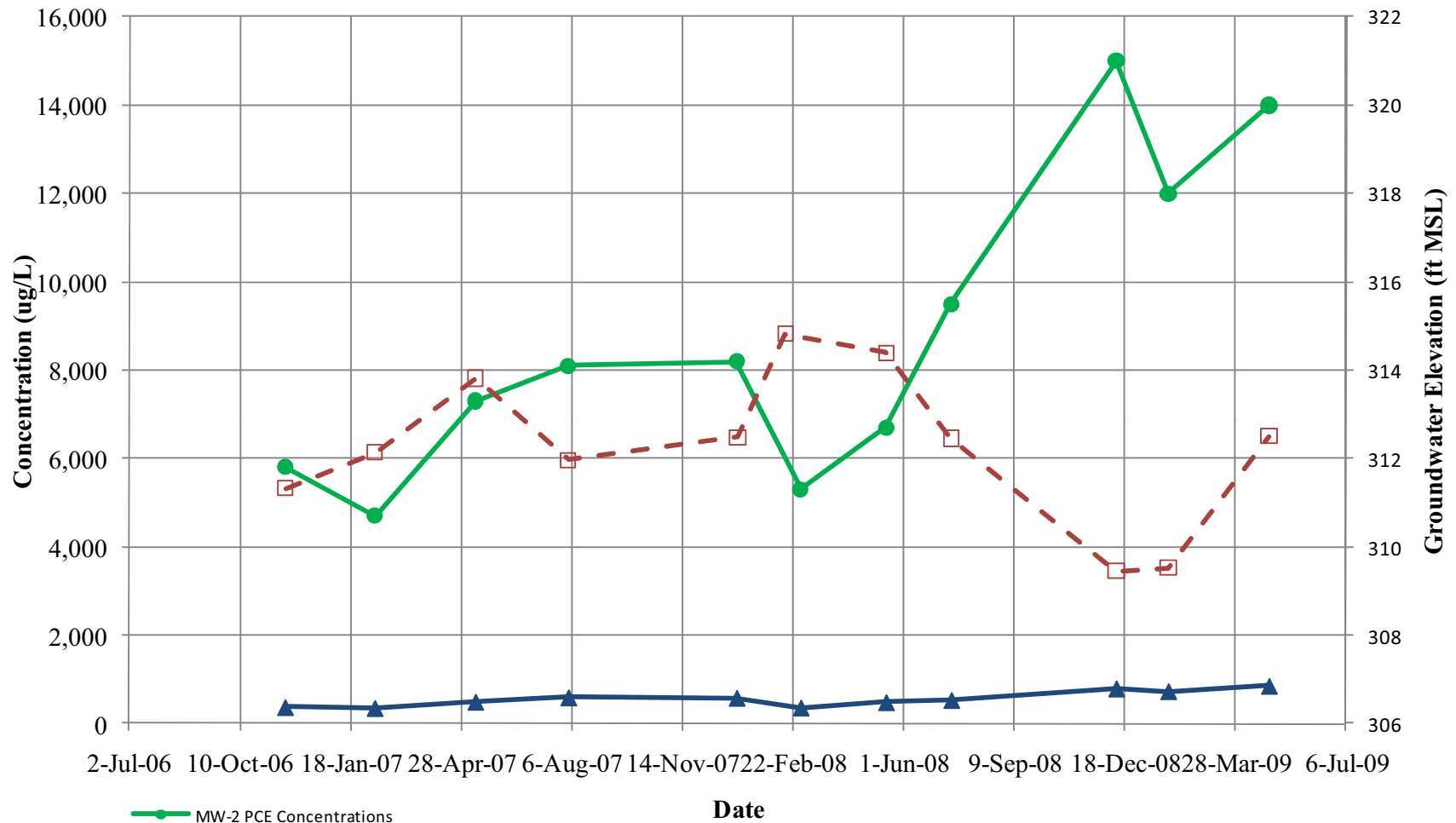
ug/L = micrograms per Liter

PCE and TCE Groundwater Concentrations Over Time
Hopyard Cleaners, Pleasanton, California

July 2009

Figure: 9

Geosyntec
consultants



● MW-2 PCE Concentrations
 ▲ MW-2 TCE Concentrations
 □ MW-2 Groundwater Elevation

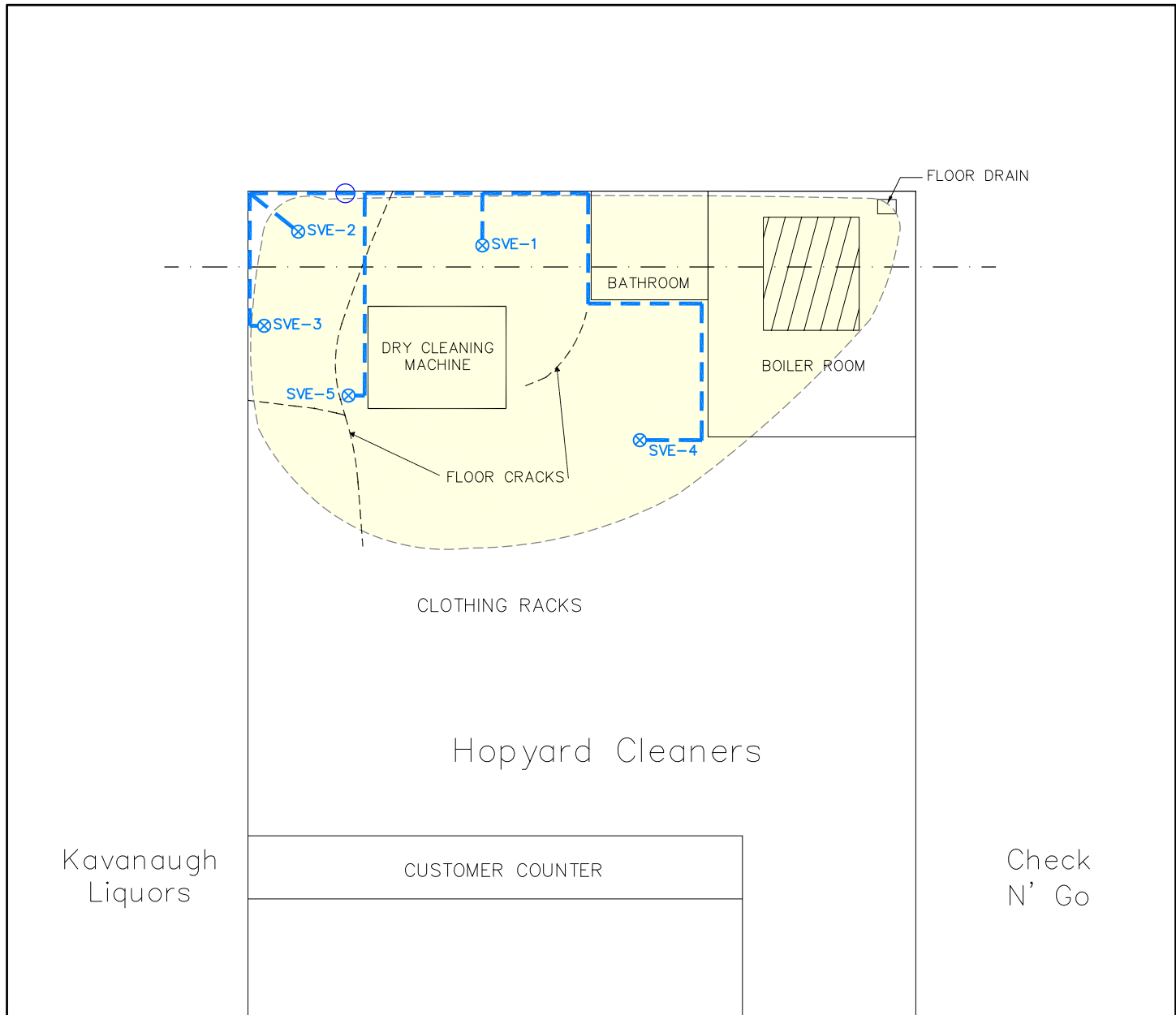
ug/L = micrograms per Liter
 ft MSL = feet above mean sea level

MW-2 Concentrations and Groundwater Elevations Over Time
 Hopyard Cleaners, Pleasanton, California







July 2009

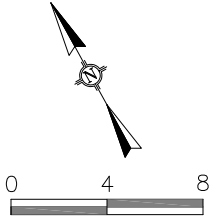
Figure: 10

Geosyntec
 consultants



LEGEND

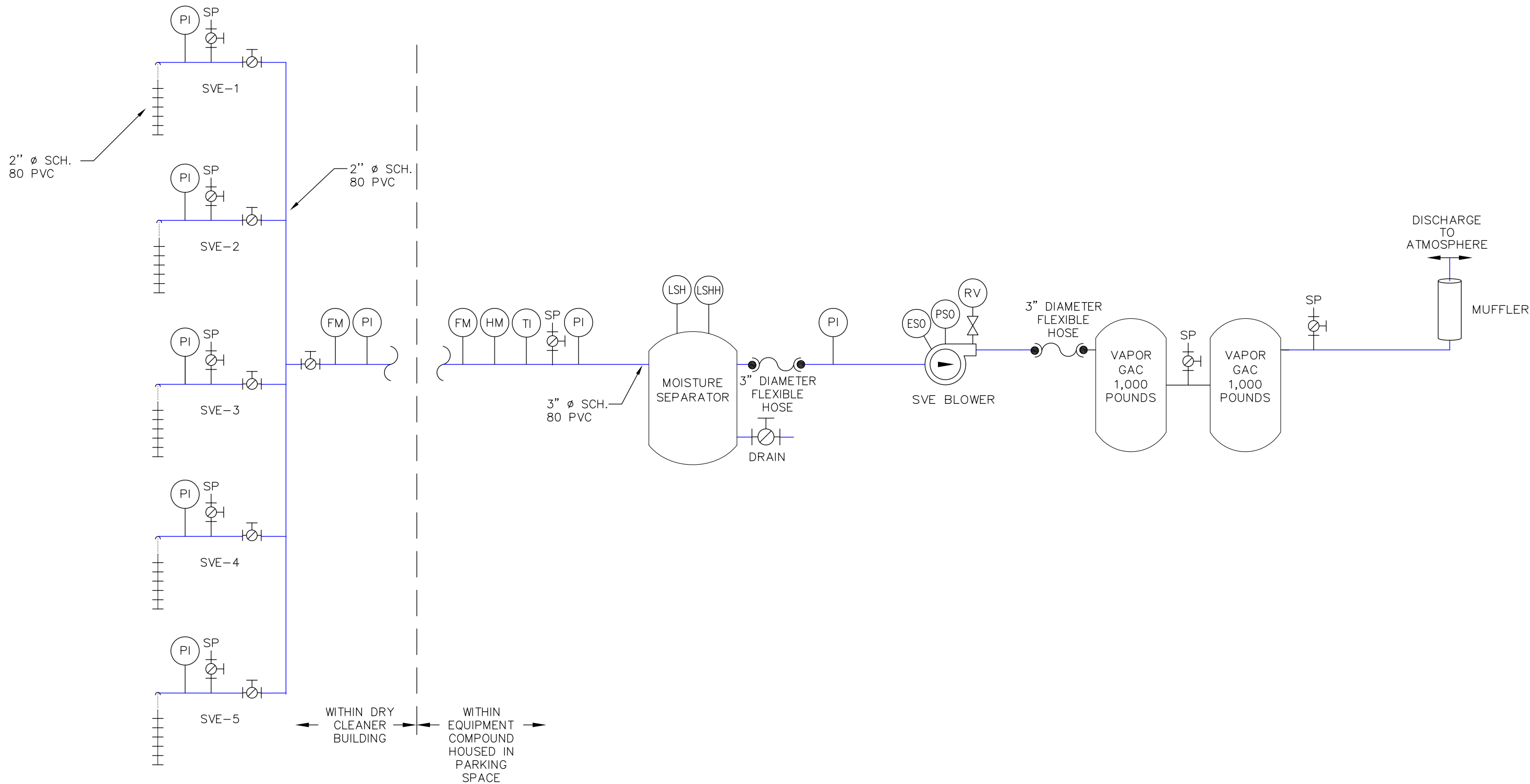
	Soil Vapor Extraction Well		Approximate Sewer Location
	Approximate SVE Conveyance Piping Location		Approximate Floor Crack Location
	Approximate SVE Manifold Location		On-Site Soil Target Remedial Area



APPROX.
SCALE IN FEET

Geosyntec
consultants

SOIL VAPOR EXTRACTION WELL LOCATIONS AND PIPING LAYOUT HOPYARD CLEANERS PLEASANTON, CALIFORNIA	FIGURE NO. 11
	PROJECT NO. WR0574
	DATE: JULY 2009

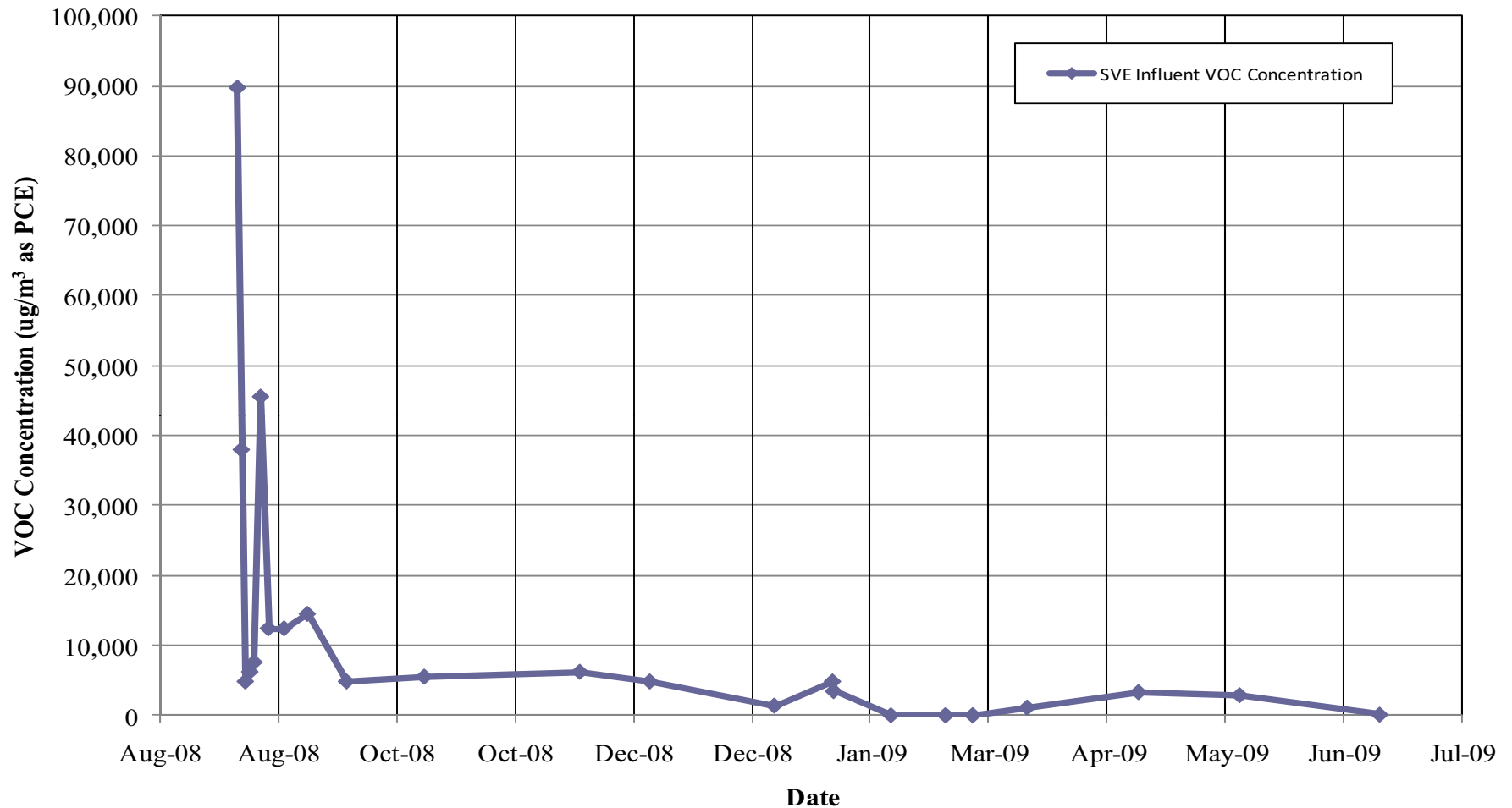


LEGEND

- | | | | | | |
|-------|-----------------------|--------|------------------------------|----|-----------------|
| (ESO) | Electrical Shut-Off | (LSH) | Level Switch High Alarm | ● | Camlock Fitting |
| (FM) | Flow Meter | (LSHH) | Level Switch High High Alarm | SP | Sample Port |
| (HM) | Hour Meter | (PSO) | Pressure Switch Shut-Off | ⊥ | Ball Valve |
| (PI) | Pressure Indicator | GAC | Granular Activated Carbon | ▭ | Muffler |
| (RV) | Re-circulation Valve | | | | |
| (TI) | Temperature Indicator | | | | |

Notes: Not to Scale.
SVE Treatment Process was Modified on 19 February 2009.

Geosyntec consultants	
REVISED SVE PROCESS AND INSTRUMENTATION DIAGRAM	FIGURE NO. 12
HOPYARD CLEANERS PLEASANTON, CALIFORNIA	PROJECT NO. WR0574
	DATE: JULY 2009



VOC = volatile organic compounds
 ppmv = parts per million by volume

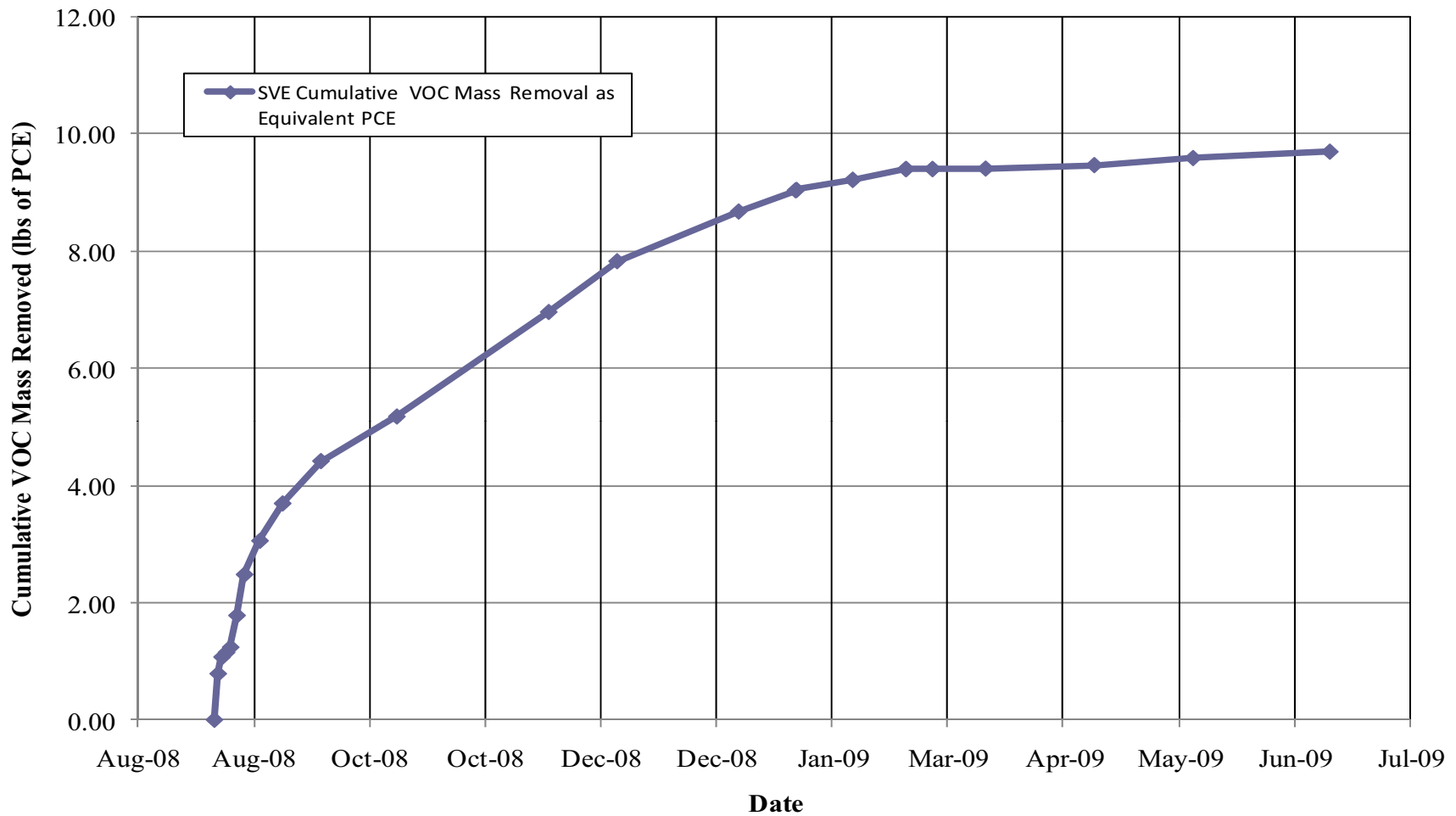
Notes:

- VOC concentrations plotted are field measurements from photoionization detector screening of the SVE influent.
- On 21 January, 5 February, 19 February, and 26 February 2009, SVE system monitoring was conducted twice, once before and after cycling of the SVE wells.
- Field measurements from 5 February 2009 are not plotted. These concentrations were anomalously high, indicating possible instrumentation error.

SVE Influent Concentrations Over Time
 Hopyard Cleaners, Pleasanton, California

July 2009

Figure: 13

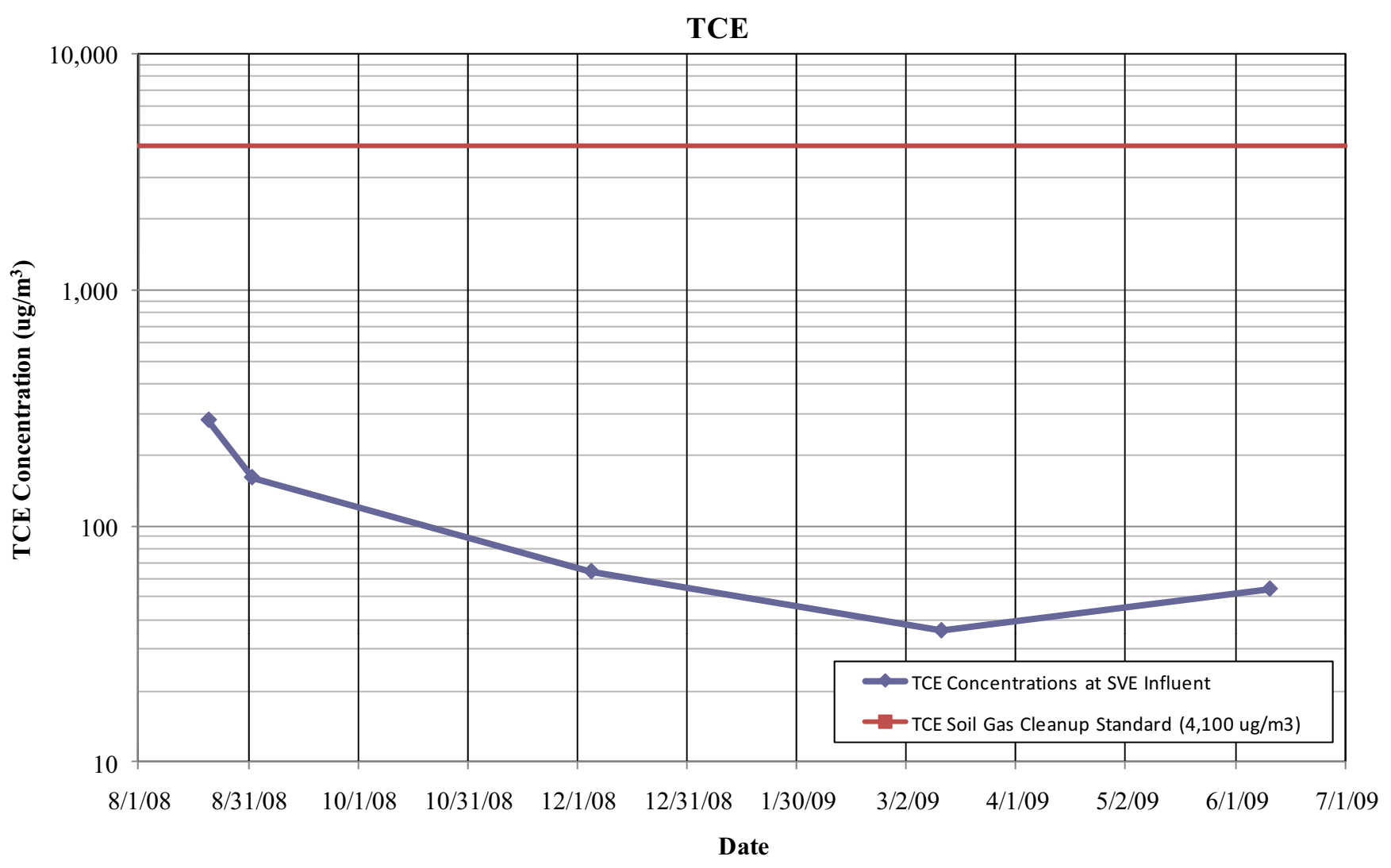
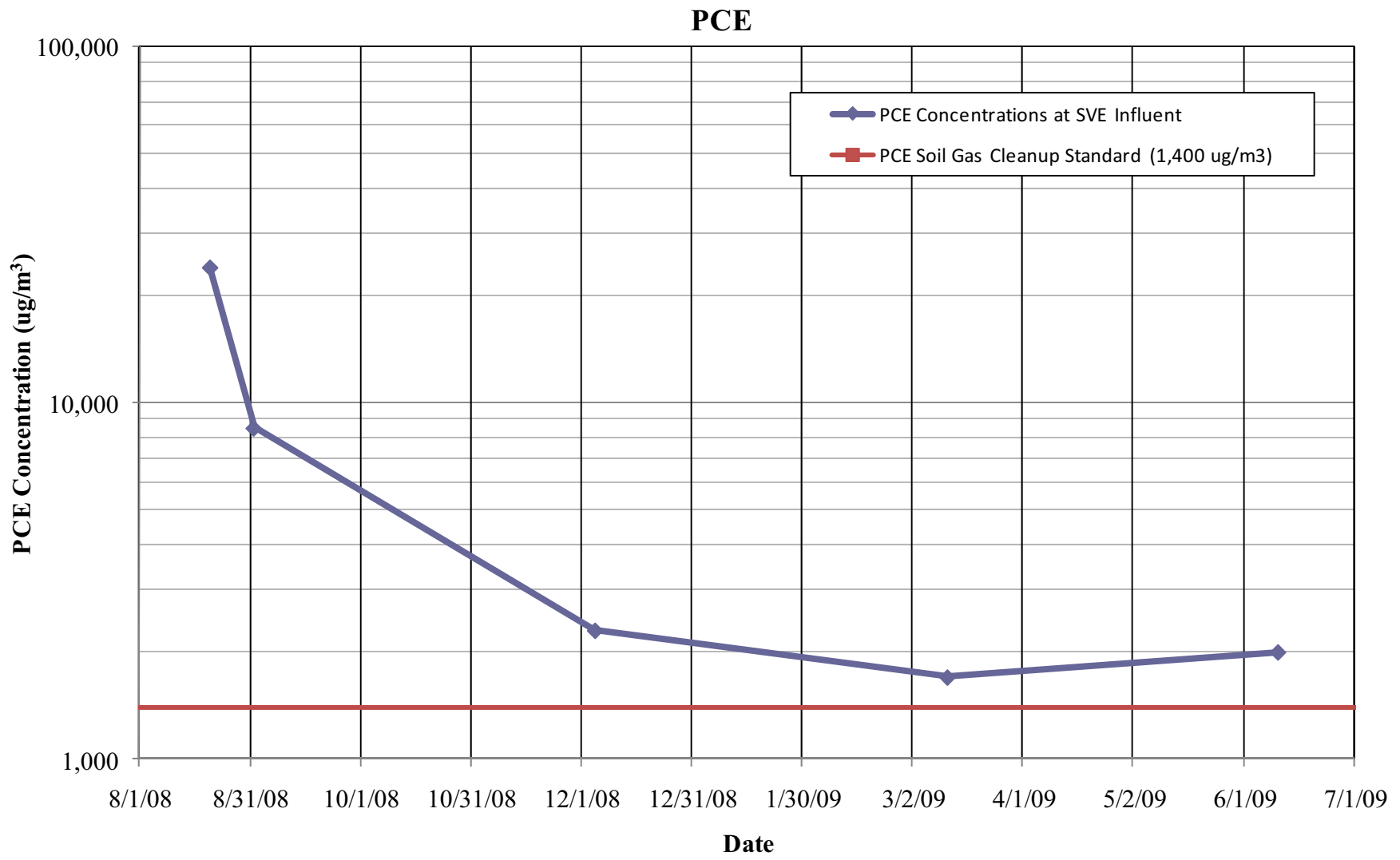


VOC = volatile organic compounds
PCE = tetrachloroethene
lbs = pounds

Notes:

- VOC concentrations plotted are field measurements from photoionization detector screening of the SVE influent.
- Field measurements from 5 February 2009 were not included in the mass removal calculations. The concentrations measured on this date were anomalously high, indicating possible instrumentation error.

SVE Cumulative Mass Removal		
Hopyard Cleaners, Pleasanton, California		
July 2009	Figure: 14	Geosyntec consultants



PCE = tetrachloroethene
TCE = trichloroethene
ug/m3 = micrograms per cubic meter
Soil Gas Cleanup Standards are 1,400 and 4,100 ug/m³ for PCE and TCE, respectively, and are from the California Regional Water Quality Control Board Order No. R2-2008-0032.

SVE Influent PCE and TCE Concentrations		
Hopyard Cleaners, Pleasanton, California		
July 2009	Figure: 15	Geosyntec consultants

APPENDIX A

Environmental Sampling Services Field Report



April 30, 2009

Ms. Melissa Asher
Senior Staff Engineer
Geosyntec Consultants
475-14th Street, Suite 450
Oakland, California 94612

SUBJECT: April 2009 Quarterly Groundwater Monitoring Event for Hopyard Cleaners, Pleasanton, California

Dear Ms. Asher,

Please find enclosed the Field Activity Report for the quarterly groundwater monitoring event at 2771 Hopyard Road that occurred April 27, 2009.

If you have any questions or concerns regarding this Field Activity Report, please do not hesitate to call me.

Sincerely,
Environmental Sampling Services, LLC

A handwritten signature in blue ink, appearing to read "Jacqueline Lee", is written over a horizontal line.

Jacqueline Lee
Manager

Enclosure



**FIELD ACTIVITY REPORT
FOR**

**APRIL 2009
QUARTERLY GROUNDWATER
MONITORING EVENT**

**HOPYARD CLEANERS
2771 HOPYARD ROAD
PLEASANTON, CALIFORNIA**

Task: Quarterly Groundwater Sampling Event
ESS Personnel: Jacqueline Lee
Date of Activities: April 27, 2009

Decontamination Procedures

All downhole equipment was cleaned with Liqui-Nox® laboratory-grade soap, potable water, and rinsed with distilled water prior to use and between each monitoring well.

Groundwater Level Measurements

Depth to groundwater for seven monitoring wells were measured and recorded following atmospheric equilibration of more than thirty minutes. All readings were performed with a Solinst® Water Level Meter, Serial Number 49914, and referenced to the surveyor's mark or north rim at the top of PVC well casing (Table 1). Three successive readings that agreed to within one-hundredth of a foot determined depth to groundwater.

Organic vapor readings were not required.

Passive Diffusion Bag Sampling

Groundwater samples were obtained from Passive Diffusion Bag Samplers (PDBS).

All sample labels were completed with waterproof ink and affixed to sample containers. All sample containers were wiped dry, sealed in Ziploc® bags, and placed a chilled cooler for storage and shipment to the laboratory.

Laboratory

TestAmerica of Pleasanton, California provided Trip Blank, sample containers with appropriate preservative, and conducted all laboratory analyses.

All monitoring wells were sampled for Volatile Organic Compounds (VOC) by EPA Method 8260B.



Sample Containers /Sample Handling

Each VOC sample set was contained in two or three, 40-ml VOA clear glass containers preserved with Hydrochloric Acid.

All samples were placed in the cooler containing the Trip Blank for storage and transportation.

Quality Assurance /Quality Control Samples

All QA/QC samples were submitted to TestAmerica for analysis.

Trip Blank

One Trip Blank set, labeled Trip Blank 1, was stored in a chilled cooler throughout the sampling event and submitted for analysis.

Duplicate

One blind duplicate was collected from MW-2 and labeled "MW-DUP @ 11:30". Each VOA duplicate sample container was collected in immediate succession by alternating between each VOA primary sample container. A total of four VOAs containers were collected from MW-2. Two of the containers were submitted as the blind duplicate.

No other QA/QC samples were requested.

Chain of Custody (COC) Form

Standard chain of custody procedures were used to documentation purposes. The COC included: sampler's name and signature, sample identification, Site Geotracker Identification, sample date and time, and analysis request section. Electronic Data Format (EDF) and standard turnaround time was requested.

Shipment of Samples

All groundwater samples were relinquished directly to TestAmerica April 27, 2009.

Storage of Investigative Derived Wastewater (IDW)

Approximately 4 gallons of purged groundwater and decontamination water generated from this sampling event are stored in one empty 55-gallon drum. It was labeled and is stored inside the treatment system enclosure. The treatment enclosure was secured upon completion of task.

All work was performed in accordance with Geosyntec's directive for Hopyard Cleaners, dated November 18, 2008 and subsequent directives.

Environmental Sampling Services, LLC

A handwritten signature in blue ink, appearing to read "Jacqueline Lee", is written over a horizontal line.

Jacqueline Lee
Manager

Attachments:

Table 1: Summary of Groundwater Monitoring Event
Water Sample Log Sheets
Chain of Custody



Table 1: April 2009 Quarterly Groundwater Monitoring Event
Project Name: Hopyard Cleaners
Project Location: 2771 Hopyard Road, Pleasanton, California

Well/Sample Identification	Date of Measurement	Time of Measurement	Depth to Groundwater (Ft., TOC)	Well Depth (Ft., TOC)	Sample Date	Sample Time	QA/QC Type	QA/QC Sample Identification
MW-1	4/27/2009	10:04	13.81	30.27	4/27/2009	10:25	None	NA
MW-2	4/27/2009	10:07	13.27	30.31	4/27/2009	11:07	Duplicate	MW-DUP
MW-3	4/27/2009	10:03	14.02	30.29	4/27/2009	10:42	None	NA
MW-4	4/27/2009	9:54	14.96	34.56	4/27/2009	13:10	None	NA
MW-5	4/27/2009	9:58	28.83	59.96	4/27/2009	13:35	None	NA
MW-6	4/27/2009	9:46	26.32	58.56	4/27/2009	14:30	None	NA
MW-7	4/27/2009	9:40	26.39	54.96	4/27/2009	14:08	None	NA

Legend:

TOC = Top of Well Casing
 NA = Not Applicable



**Environmental
Sampling Services**

WATER QUALITY SAMPLE LOG SHEET

WELL IDENTIFICATION: **MW-1** DATE: 4/27/09

Project Name: Hopyard Cleaners Pleasanton, CA Project Task: Quarterly Monitoring Project/Task No. WR0574
 Client: Geosyntec Cons. Lab: TestAmerica Weather Conditions: Overcast, cool GeoTracker #: SL0600116931
 Well Description: 2" 3.5" 4" 5" 6" Other: _____ Well Type: PVC Stainless Steel Other: _____
 Is Well Secured? (Yes) / No Bolt Size: 9/16" Type of lock / Lock number: Master P288
 Observations / Comments: _____ Screen Interval: 20' to 30'
 Purge Method: NA Teflon / PE Disposable Bailer Centrifugal Pump Peristaltic Pump Other: _____
 Pump Lines: NA New / Cleaned / Dedicated Bailer Line: NA New / Cleaned / Dedicated
 Method of Cleaning Pump: NA Liqui-nox Tap Water DI Rinse Other: _____
 Method of Cleaning Bailer: NA Liqui-nox Tap Water DI Rinse Other: _____
 Sampling Method: Passive Diffusion Bag

YSI Multi-Parameter Meter/Probe Serial No.: 556 MPS - 05F1258AH / 600XL 319340R - 00C1522
 Equipment Calibration: See Daily Equipment Calibration Sheet P.I.D. Reading: NA ppm
 Method to Measure Water Level: Slope/Solinst Indicator Serial No.: 25083 / 25742 / 21758 / 49914
 Water Level at Start (DTW): 13.81 (BTOC) Water Level Prior To / After Sampling: _____ (BTOC)
 TD = 30.27' - 13.81 (DTW) = 16.46 (ft. of water) x "K" = 2.68 (Gals./CV) x NA (No. of CV) = NA (Gals.)
 "K" = 0.163 (2" well) "K" = 0.50 (3.5" well) "K" = .653 (4" well) "K" = 1.02 (5" well) "k" = 1.46 (6" well)

FIELD WATER QUALITY PARAMETERS

Date	Time	Discharge (Liters)	pH +/- 0.1	Temp. (°C)	Specific Conductance µS +/- 3%	Turbidity (NTU's) +/- 10	Redox (mV) +/- 10	Dissolved Oxygen (mg/L) +/- 10%	Water Level (BTOC)	Color
		Initial								
		0.5								
		1.0								
		1.5								
		2.0								
		2.5								
		3.0								
		3.5								
		4.0								

Total Discharge: _____ Liters Casing Volumes Removed: NA
 Method of disposal of discharged water: 55 Gallon Drums Poly Tank Treatment System Other: _____
 Date/Time Sampled: 4/27/09 @ 10:25 Analysis: VOCs (8260B) - 8 ^{49C 4/27/09} VOAs w/HCl
 QA/QC: None @ _____ Duplicate MS/MSD Equipment Rinseate Field Blank Lab Split
 Comments: _____

Recorded by: Stephen Penman / Jacqueline Lee Signature



**Environmental
Sampling Services**

WATER QUALITY SAMPLE LOG SHEET WELL IDENTIFICATION: **MW-2** DATE: **4/27/09**

Project Name: Hopyard Cleaners Pleasanton, CA Project Task: Quarterly Monitoring Project/Task No. WR0574
 Client: Geosyntec Cons. Lab: TestAmerica Weather Conditions: Overcast, cool GeoTracker #: SL0600116931
 Well Description: 2" 3.5" 4" 5" 6" Other: _____ Well Type: PVC Stainless Steel Other: _____
 Is Well Secured? Yes / No Bolt Size: 9/16" Type of lock / Lock number: Master P288
 Observations / Comments: _____ Screen Interval: 20' to 30'
 Purge Method: NA Teflon / PE Disposable Bailer Centrifugal Pump Peristaltic Pump Other: _____
 Pump Lines: NA New / Cleaned / Dedicated Bailer Line: NA New / Cleaned / Dedicated
 Method of Cleaning Pump: NA Liqui-nox Tap Water DI Rinse Other: _____
 Method of Cleaning Bailer: NA Liqui-nox Tap Water DI Rinse Other: _____
 Sampling Method: Passive Diffusion Bag
 YSI Multi-Parameter Meter/Probe Serial No.: 556 MPS - 05F1258AH / 600XL 319340R - 00C1522
 Equipment Calibration: See Daily Equipment Calibration Sheet P.I.D. Reading: NA ppm
 Method to Measure Water Level: Slope/Solinst Indicator Serial No.: 25083 / 25742 / 21758 / 49914
 Water Level at Start (DTW): 13.27 @ 11:00 (BTOC) Water Level Prior To / After Sampling: _____ (BTOC)
 TD = 30.31' - 13.27 (DTW) = 17.04 (ft. of water) x "K" = 2.77 (Gals./CV) x NA (No. of CV) = NA (Gals.)
 "K" = 0.163 (2" well) "K" = 0.50 (3.5" well) "K" = .653 (4" well) "K" = 1.02 (5" well) "k" = 1.46 (6" well)

FIELD WATER QUALITY PARAMETERS

Date	Time	Discharge (Liters)	pH +/- 0.1	Temp. (°C)	Specific Conductance µS +/- 3%	Turbidity (NTU's) +/- 10	Redox (mV) +/- 10	Dissolved Oxygen (mg/L) +/- 10%	Water Level (BTOC)	Color
		Initial								
		0.5								
		1.0								
		1.5								
		2.0								
		2.5								
		3.0								
		3.5								
		4.0								

Total Discharge: _____ Liters Casing Volumes Removed: NA
 Method of disposal of discharged water: 55 Gallon Drum(s) Poly Tank Treatment System Other: _____
 Date/Time Sampled: 4/27/09 @ 11:07 Analysis: VOCs (8260B) - 5 ⁴ VOAs w/HCl ^{4/27/09}
 QA/QC: MW-DUP @ 11:30 Duplicate MS/MSD Equipment Rinseate Field Blank Lab Split
 Comments: _____

Recorded by: Stephen Penman / Jacqueline Lee Signature: _____ Page 1 of 1



**Environmental
Sampling Services**

WATER QUALITY SAMPLE LOG SHEET

WELL IDENTIFICATION: **MW-3** DATE: **4/27/09**

Project Name: Hopyard Cleaners Pleasanton, CA Project Task: Quarterly Monitoring Project/Task No. WR0574
 Client: Geosyntec Cons. Lab: TestAmerica Weather Conditions: Overcast, 100 GeoTracker #: SL0600116931
 Well Description: 2" 3.5" 4" 5" 6" Other: _____ Well Type: PVC Stainless Steel Other: _____
 Is Well Secured? Yes/ No Bolt Size: 9/16" Type of lock / Lock number: Master P288
 Observations / Comments: _____ Screen Interval: 20' to 30'
 Purge Method: NA Teflon / PE Disposable Bailor Centrifugal Pump Peristaltic Pump Other: _____
 Pump Lines: NA New / Cleaned / Dedicated Bailor Line: NA New / Cleaned / Dedicated
 Method of Cleaning Pump: NA Liqui-nox Tap Water DI Rinse Other: _____
 Method of Cleaning Bailor: NA Liqui-nox Tap Water DI Rinse Other: _____
 Sampling Method: Passive Diffusion Bag
 YSI Muti-Parameter Meter/Probe Serial No.: 556 MPS - 05F1258AH / 600XL 319340R - 00C1522
 Equipment Calibration: See Daily Equipment Calibration Sheet P.I.D. Reading: NA ppm
 Method to Measure Water Level: Slope/Solinst Indicator Serial No.: 25083 / 25742 / 21758 / 49914
 Water Level at Start (DTW): 14.19 @ 10:38 (BTOC) Water Level Prior To / After Sampling: _____ (BTOC)
 TD = 30.29' - 14.19 (DTW) = 16.10 (ft. of water) x "K" = 2.62 (Gals./CV) x NA (No. of CV) = NA (Gals.)
 "K" = 0.163 (2" well) "K" = 0.50 (3.5" well) "K" = .653 (4" well) "K" = 1.02 (5" well) "K" = 1.46 (6" well)

FIELD WATER QUALITY PARAMETERS

Date	Time	Discharge (Liters)	pH +/- 0.1	Temp. (°C)	Specific Conductance µS +/- 3%	Turbidity (NTU's) +/- 10	Redox (mV) +/- 10	Dissolved Oxygen (mg/L) +/- 10%	Water Level (BTOC)	Color
		Initial								
		0.5								
		1.0								
		1.5								
		2.0								
		2.5								
		3.0								
		3.5								
		4.0								

Total Discharge: _____ Liters Casing Volumes Removed: NA
 Method of disposal of discharged water: 55 Gallon Drum(s) Poly Tank Treatment System Other: _____
 Date/Time Sampled: 4/27/09 @ 10:42 Analysis: VOCs (8260B) - 3 VOAs w/HCl
 QA/QC: None @ _____ Duplicate MS/MSD Equipment Rinseate Field Blank Lab Split
 Comments: _____

Recorded by: Stephen Penman / Jacqueline Lee Signature:



**Environmental
Sampling Services**

WATER QUALITY SAMPLE LOG SHEET

WELL IDENTIFICATION: **MW-4** DATE: **4/27/2009**

Project Name: Hopyard Cleaners Pleasanton, CA Project Task: Quarterly Monitoring Project/Task No. WR0574
 Client: Geosyntec Cons. Lab: TestAmerica Weather Conditions: Overcast, cool GeoTracker #: SL0600116931
 Well Description: (2") 3.5" 4" 5" 6" Other: _____ Well Type: (PVC) Stainless Steel Other: _____
 Is Well Secured? (Yes)/ No Bolt Size: 9/16" Type of lock / Lock number: Master P288
 Observations / Comments: _____ Screen Interval: 20' to 30'
 Purge Method: (NA) Teflon / PE Disposable Bailor Centrifugal Pump Peristaltic Pump Other: _____
 Pump Lines: (NA) New / Cleaned / Dedicated Bailor Line: (NA) New / Cleaned / Dedicated
 Method of Cleaning Pump: (NA) Liqui-nox Tap Water DI Rinse Other: _____
 Method of Cleaning Bailor: (NA) Liqui-nox Tap Water DI Rinse Other: _____
 Sampling Method: (Passive Diffusion Bag)

YSI Multi-Parameter Meter/Probe Serial No.: 556 MPS - 05F1258AH / 600XL 319340R - 00C1522
 Equipment Calibration: See Daily Equipment Calibration Sheet P.I.D. Reading: NA ppm
 Method to Measure Water Level: Slope/Solinst Indicator Serial No.: 25083 / 25742 / 21758 / (49914)
 Water Level at Start (DTW): 14.95 @ 13:06 (BTOC) Water Level Prior To / After Sampling: _____ (BTOC)
 TD = 34.56' - 14.95' (DTW) = 19.61' (ft. of water) x "K" = 3.19 (Gals./CV) x NA (No. of CV) = NA (Gals.)
 "K" = 0.163 (2" well) "K" = 0.50 (3.5" well) "K" = .653 (4" well) "K" = 1.02 (5" well) "K" = 1.46 (6" well)

FIELD WATER QUALITY PARAMETERS

Date	Time	Discharge (Liters)	pH +/- 0.1	Temp. (°C)	Specific Conductance µS +/- 3%	Turbidity (NTU's) +/- 10	Redox (mV) +/- 10	Dissolved Oxygen (mg/L) +/- 10%	Water Level (BTOC)	Color
		Initial								
		0.5								
		1.0								
		1.5								
		2.0								
		2.5								
		3.0								
		3.5								
		4.0								

Total Discharge: _____ Liters Casing Volumes Removed: NA
 Method of disposal of discharged water: (55 Gallon Drum(s)) Poly Tank Treatment System Other: _____
 Date/Time Sampled: 4/27/09 @ 13:10 Analysis: VOCs (8260B) - 3 VOAs w/HCl
 QA/QC: None @ _____ Duplicate MS/MSD Equipment Rinseate Field Blank Lab Split
 Comments: _____

Recorded by: Stephen Penman / Jacqueline Lee Signature: _____



**Environmental
Sampling Services**

WATER QUALITY SAMPLE LOG SHEET WELL IDENTIFICATION: **MW-5** DATE: **4/27/09**

Project Name: Hopyard Cleaners Pleasanton, CA Project Task: Quarterly Monitoring Project/Task No. WR0574
 Client: Geosyntec Cons. Lab: TestAmerica Weather Conditions: Overcast, cool GeoTracker #: SL0600116931
 Well Description: (2") 3.5" 4" 5" 6" Other: Well Type: (PVC) Stainless Steel Other: _____
 Is Well Secured? (Yes) / No Bolt Size: 15/16" Type of lock / Lock number: Master "M13"
 Observations / Comments: _____ Screen Interval: _____
 Purge Method: (NA) Teflon / PE Disposable Bailer Centrifugal Pump Peristaltic Pump Other: _____
 Pump Lines: (NA) New / Cleaned / Dedicated Bailer Line: (NA) New / Cleaned / Dedicated
 Method of Cleaning Pump: (NA) Liqui-nox Tap Water DI Rinse Other: _____
 Method of Cleaning Bailer: (NA) Liqui-nox Tap Water DI Rinse Other: _____
 Sampling Method: (Passive Diffusion Bag)
 YSI Multi-Parameter Meter/Probe Serial No.: 556 MPS - 05F1258AH / 600XL 319340R - 00C1522
 Equipment Calibration: See Daily Equipment Calibration Sheet P.I.D. Reading: NA ppm
 Method to Measure Water Level: Slope/Solinst Indicator Serial No.: 25083 / 25742 / 21758 (49914)
 Water Level at Start (DTW): 28.86 @ 13:33 (BTOC) Water Level Prior To / After Sampling: _____ (BTOC)
 TD = 59.96' - 28.86 (DTW) = 31.10 (ft. of water) x "K" = 5.06 (Gals./CV) x NA (No. of CV) = NA (Gals.)
 "K" = 0.163 (2" well) "K" = 0.50 (3.5" well) "K" = .653 (4" well) "K" = 1.02 (5" well) "k" = 1.46 (6" well)

FIELD WATER QUALITY PARAMETERS

Date	Time	Discharge (Liters)	pH +/- 0.1	Temp. (°C)	Specific Conductance µS +/- 3%	Turbidity (NTU's) +/- 10	Redox (mV) +/- 10	Dissolved Oxygen (mg/L) +/- 10%	Water Level (BTOC)	Color
	NA	Initial	NA	NA	NA	NA	NA	NA	NA	NA
	NA	0.5	NA	NA	NA	NA	NA	NA	NA	NA
	NA	1.0	NA	NA	NA	NA	NA	NA	NA	NA
	NA	1.5	NA	NA	NA	NA	NA	NA	NA	NA
	NA	2.0	NA	NA	NA	NA	NA	NA	NA	NA
	NA	2.5	NA	NA	NA	NA	NA	NA	NA	NA
	NA	3.0	NA	NA	NA	NA	NA	NA	NA	NA
	NA	3.5	NA	NA	NA	NA	NA	NA	NA	NA
	NA	4.0	NA	NA	NA	NA	NA	NA	NA	NA

Total Discharge: _____ Liters Casing Volumes Removed: NA
 Method of disposal of discharged water: (55 Gallon Drum(s)) Poly Tank Treatment System Other: _____
 Date/Time Sampled: 4/27/09 @ 13:35 Analysis: VOCs (8260B) - 3 VOAs w/HCl
 QA/QC: None @ _____ Duplicate MS/MSD Equipment Rinseate Field Blank Lab Split
 Comments: _____

Recorded by: Stephen Penman / (Jacqueline Lee) Signature: [Signature] Page 1 of 1



**Environmental
Sampling Services**

WATER QUALITY SAMPLE LOG SHEET WELL IDENTIFICATION: **MW-6** DATE: **9/27/09**

Project Name: Hopyard Cleaners Pleasanton, CA Project Task: Quarterly Monitoring Project/Task No. WR0574
 Client: Geosyntec Cons. Lab: TestAmerica Weather Conditions: Overcast, cool GeoTracker #: SL0600116931
 Well Description: 2" 3.5" 4" 5" 6" Other: _____ Well Type: (PVC) Stainless Steel Other: _____
 Is Well Secured? (Yes) / No Bolt Size: 3/4" 9/16" Type of lock / Lock number: Dolphin
 Observations / Comments: _____ Screen Interval: _____
 Purge Method: (NA) Teflon / PE Disposable Bailor Centrifugal Pump Peristaltic Pump Other: _____
 Pump Lines: (NA) New / Cleaned / Dedicated Bailor Line: (NA) New / Cleaned / Dedicated
 Method of Cleaning Pump: (NA) Liqui-nox Tap Water DI Rinse Other: _____
 Method of Cleaning Bailor: (NA) Liqui-nox Tap Water DI Rinse Other: _____
 Sampling Method: Passive Diffusion Bag
 YSI Multi-Parameter Meter/Probe Serial No.: 556 MPS - 05F1258AH / 600XL 319340R - 00C1522
 Equipment Calibration: See Daily Equipment Calibration Sheet P.I.D. Reading: NA ppm
 Method to Measure Water Level: Slope/Solinst Indicator Serial No.: 25083 / 25742 / 21758 / 49914
 Water Level at Start (DTW): 26.36 @ 14:25 (BTOC) Water Level Prior To / After Sampling: _____ (BTOC)
 TD = 58.56' - 26.36 (DTW) = 32.20 (ft. of water) x "K" = 5.24 (Gals./CV) x NA (No. of CV) = NA (Gals.)
 "K" = 0.163 (2" well) "K" = 0.50 (3.5" well) "K" = .653 (4" well) "K" = 1.02 (5" well) "k" = 1.46 (6" well)

FIELD WATER QUALITY PARAMETERS

Date	Time	Discharge (Liters)	pH +/- 0.1	Temp. (°C)	Specific Conductance µS +/- 3%	Turbidity (NTU's) +/- 10	Redox (mV) +/- 10	Dissolved Oxygen (mg/L) +/- 10%	Water Level (BTOC)	Color
	NA	Initial	NA	NA	NA	NA	NA	NA	NA	NA
	NA	0.5	NA	NA	NA	NA	NA	NA	NA	NA
	NA	1.0	NA	NA	NA	NA	NA	NA	NA	NA
	NA	1.5	NA	NA	NA	NA	NA	NA	NA	NA
	NA	2.0	NA	NA	NA	NA	NA	NA	NA	NA
	NA	2.5	NA	NA	NA	NA	NA	NA	NA	NA
	NA	3.0	NA	NA	NA	NA	NA	NA	NA	NA
	NA	3.5	NA	NA	NA	NA	NA	NA	NA	NA
	NA	4.0	NA	NA	NA	NA	NA	NA	NA	NA

Total Discharge: _____ Liters Casing Volumes Removed: NA
 Method of disposal of discharged water: 55 Gallon Drums Poly Tank Treatment System Other: _____
 Date/Time Sampled: 9/27/09 @ 14:30 Analysis: VOCs (8260B) - 3 VOAs w/HCl
 QA/QC: None @ _____ Duplicate MS/MSD Equipment Rinseate Field Blank Lab Split
 Comments: _____

Recorded by: Stephen Penman / Jacqueline Lee Signature: _____ Page 1 of 1



**Environmental
Sampling Services**

WATER QUALITY SAMPLE LOG SHEET WELL IDENTIFICATION: **MW-7** DATE: **4/27/09**

Project Name: Hopyard Cleaners Pleasanton, CA Project Task: Quarterly Monitoring Project/Task No. WR0574
 Client: Geosyntec Cons. Lab: TestAmerica Weather Conditions: Cool, overcast GeoTracker #: SL0600116931
 Well Description: (2") 3.5" 4" 5" 6" Other: Well Type: (PVC) Stainless Steel Other:
 Is Well Secured? Yes / No Bolt Size: 3/4" Type of lock / Lock number: Dolphin
 Observations / Comments: _____ Screen Interval: _____
 Purge Method: (NA) Teflon / PE Disposable Bailer Centrifugal Pump Peristaltic Pump Other:
 Pump Lines: (NA) New / Cleaned / Dedicated Bailer Line: (NA) New / Cleaned / Dedicated
 Method of Cleaning Pump: (NA) Liqui-nox Tap Water DI Rinse Other:
 Method of Cleaning Bailer: (NA) Liqui-nox Tap Water DI Rinse Other:
 Sampling Method: (Passive Diffusion Bag)
 YSI Multi-Parameter Meter/Probe Serial No.: 556 MPS - 05F1258AH / 600XL 319340R - 00C1522
 Equipment Calibration: See Daily Equipment Calibration Sheet P.I.D. Reading: NA ppm
 Method to Measure Water Level: Slope/Solinst Indicator Serial No.: 25083 / 25742 / 21758 / 49912
 Water Level at Start (DTW): 26.43 @ 14:02 (BTOC) Water Level Prior To / After Sampling: _____ (BTOC)
 TD = 54.96' - 28.53' (DTW) = 28.53' (ft. of water) x "K" = 4.65' (Gals./CV) x NA (No. of CV) = NA (Gals.)
 "K" = 0.163 (2" well) "K" = 0.50 (3.5" well) "K" = .653 (4" well) "K" = 1.02 (5" well) "k" = 1.46 (6" well)

FIELD WATER QUALITY PARAMETERS

Date	Time	Discharge (Liters)	pH +/- 0.1	Temp. (°C)	Specific Conductance µS +/- 3%	Turbidity (NTU's) +/- 10	Redox (mV) +/- 10	Dissolved Oxygen (mg/L) +/- 10%	Water Level (BTOC)	Color
	NA	Initial	NA	NA	NA	NA	NA	NA	NA	NA
	NA	0.5	NA	NA	NA	NA	NA	NA	NA	NA
	NA	1.0	NA	NA	NA	NA	NA	NA	NA	NA
	NA	1.5	NA	NA	NA	NA	NA	NA	NA	NA
	NA	2.0	NA	NA	NA	NA	NA	NA	NA	NA
	NA	2.5	NA	NA	NA	NA	NA	NA	NA	NA
	NA	3.0	NA	NA	NA	NA	NA	NA	NA	NA
	NA	3.5	NA	NA	NA	NA	NA	NA	NA	NA
	NA	4.0	NA	NA	NA	NA	NA	NA	NA	NA

Total Discharge: _____ Liters Casing Volumes Removed: NA
 Method of disposal of discharged water: (55 Gallon Drum(s)) Poly Tank Treatment System Other:
 Date/Time Sampled: 4/27/09 @ 14:05 Analysis: VOCs (8260B) - 3 VOAs w/HCl
 QA/QC: None @ _____ Duplicate MS/MSD Equipment Rinseate Field Blank Lab Split
 Comments: _____

Recorded by: Stephen Penman / (Jacqueline Lee) Signature: _____ Page 1 of 1



**Environmental
Sampling Services**

6680 Alhambra Ave., #102
Martinez, California 94553-6105
Tel: (925) 372-8108 Fax: (925) 372-6705
Log Code: ESSM www.envsampling.com

CHAIN OF CUSTODY RECORD

Page 1 of 1
Other:

TURN AROUND TIME

LABORATORY:

TestAmerica-Pleasanton

Lab Code:

24 Hours
 48 Hours
 1 Week
 Normal

Report To: Melissa Asher Telephone: (510) 285-2700
Company: Geosyntec Consultants Fax: (510) 836-3036
Address: 475-14th Street, Suite 450 **Project Name:** Hopyard Cleaner
Oakland, CA 94612 **Project Number:** WRO574
E-Mail: aliang@geosyntec.com & masher@geosyntec.com
Sampler(s): Jacqueline Lee Sampler's Signature:
Stephen Penman 4/27/09 Sampler's Signature:
GeoTracker No.: SL0600116931
Reporting Requirement: Hard Copy : Yes No
EDD File: Yes No Electronic (EDF) : Yes No

Analysis Request

Comments

SAMPLE ID	FIELD POINT NAME	Sample		Number of Containers	Type of Container ¹	Matrix								Preservative	VOCs (8260B)	Field Filtered (FF)	Comments
		Date	Time			Groundwater	Soil	Soil Vapor	Water	Other	Ice	HCl	HNO ₃				
Trip Blank 1	QCTB1	4/27/09	8:45	2	1				X			X	X		X		
MW-1	MW-1	4/27/09	10:25	4	1	X						X	X		X		
MW-3	MW-3	4/27/09	10:42	3	1	X						X	X		X		
MW-2	MW-2	4/27/09	11:07	2	1	X						X	X		X		
MW-DUP	QC FB1	4/27/09	11:30	2	1	X						X	X		X		
MW-4	MW-4	4/27/09	13:10	3	1	X						X	X		X		
MW-5	MW-5	4/27/09	13:35	3	1	X						X	X		X		
MW-7	MW-7 ^{QC 4/29/09}	4/27/09	14:08	3	1	X						X	X		X		
MW-6	MW-6	4/27/09	14:30	3	1	X						X	X		X		

Relinquished By:
Date: 4/27/09 Time: 15:30 Received By: John Mulley

Relinquished By: _____ Date: _____ Time: _____ Received By: _____

Relinquished By: _____ Date: _____ Time: _____ Received By: _____

1 = Sample Container Type: 1 =VOA 2=Glass 3=Plastic 4=Summa Canister

QUESTIONS REGARDING COC, CALL ESS

Please email COC for confirmation | masher@geosyntec.com

SAMPLE RECEIPT

Intact Cold
 On Ice Ambient
Preservative Correct?
 Yes No NA

1.0c

APPENDIX B

Groundwater and SVE Monitoring Laboratory
Analytical Reports

ANALYTICAL REPORT

Job Number: 720-19490-1

Job Description: Hopyard Cleaners

For:

Geosyntec Consultants, Inc.
475 14th Street, Suite 450
Oakland, CA 94612

Attention: Ms. Melissa Asher



Approved for release.
Afsaneh Sallimpour
Project Manager I
5/15/2009 1:26 PM

Designee for
Surinder Sidhu
Customer Service Manager
surinder.sidhu@testamericainc.com
05/15/2009

cc: Ms. Angela Liang

EXECUTIVE SUMMARY - Detections

Client: Geosyntec Consultants, Inc.

Job Number: 720-19490-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-19490-2	MW-1				
cis-1,2-Dichloroethene		180	20	ug/L	8260B
Tetrachloroethene		1500	20	ug/L	8260B
Trichloroethene		240	20	ug/L	8260B
720-19490-3	MW-3				
cis-1,2-Dichloroethene		4.4	0.50	ug/L	8260B
Tetrachloroethene		48	0.50	ug/L	8260B
Trichloroethene		4.7	0.50	ug/L	8260B
720-19490-4	MW-2				
cis-1,2-Dichloroethene		770	100	ug/L	8260B
Tetrachloroethene		14000	100	ug/L	8260B
Trichloroethene		850	100	ug/L	8260B
720-19490-5	MW-DUP				
cis-1,2-Dichloroethene		710	100	ug/L	8260B
Tetrachloroethene		14000	100	ug/L	8260B
Trichloroethene		850	100	ug/L	8260B
720-19490-6	MW-4				
cis-1,2-Dichloroethene		3.7	0.50	ug/L	8260B
Trichloroethene		4.3	0.50	ug/L	8260B
720-19490-7	MW-5				
Tetrachloroethene		35	0.50	ug/L	8260B
720-19490-8	MW-7				
Tetrachloroethene		5.7	0.50	ug/L	8260B

METHOD SUMMARY

Client: Geosyntec Consultants, Inc.

Job Number: 720-19490-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds (GC/MS)	TAL SF	SW846 8260B	
Purge and Trap	TAL SF		SW846 5030B

Lab References:

TAL SF = TestAmerica San Francisco

Method References:

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

METHOD / ANALYST SUMMARY

Client: Geosyntec Consultants, Inc.

Job Number: 720-19490-1

Method	Analyst	Analyst ID
SW846 8260B	Chen, Amy	AC

SAMPLE SUMMARY

Client: Geosyntec Consultants, Inc.

Job Number: 720-19490-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
720-19490-1TB	TRIP BLANK 1	Water	04/27/2009 0845	04/27/2009 1530
720-19490-2	MW-1	Water	04/27/2009 1025	04/27/2009 1530
720-19490-3	MW-3	Water	04/27/2009 1042	04/27/2009 1530
720-19490-4	MW-2	Water	04/27/2009 1107	04/27/2009 1530
720-19490-5	MW-DUP	Water	04/27/2009 1130	04/27/2009 1530
720-19490-6	MW-4	Water	04/27/2009 1310	04/27/2009 1530
720-19490-7	MW-5	Water	04/27/2009 1335	04/27/2009 1530
720-19490-8	MW-7	Water	04/27/2009 1408	04/27/2009 1530
720-19490-9	MW-6	Water	04/27/2009 1430	04/27/2009 1530

Analytical Data

Client: Geosyntec Consultants, Inc.

Job Number: 720-19490-1

Client Sample ID: TRIP BLANK 1

Lab Sample ID: 720-19490-1TB
 Client Matrix: Water

Date Sampled: 04/27/2009 0845
 Date Received: 04/27/2009 1530

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 720-49724	Instrument ID: Varian 3900G
Preparation:	5030B		Lab File ID: e:\data\200905\050509\SA-
Dilution:	1.0		Initial Weight/Volume: 40 mL
Date Analyzed:	05/05/2009 1301		Final Weight/Volume: 40 mL
Date Prepared:	05/05/2009 1301		

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		0.50
Dichlorobromomethane	ND		0.50
Bromobenzene	ND		1.0
Chlorobromomethane	ND		1.0
Bromoform	ND		1.0
Bromomethane	ND		1.0
2-Butanone (MEK)	ND		50
n-Butylbenzene	ND		1.0
sec-Butylbenzene	ND		1.0
tert-Butylbenzene	ND		1.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		0.50
Chlorobenzene	ND		0.50
Chloroethane	ND		1.0
Chloroform	ND		1.0
Chloromethane	ND		1.0
2-Chlorotoluene	ND		0.50
4-Chlorotoluene	ND		0.50
Chlorodibromomethane	ND		0.50
1,2-Dichlorobenzene	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,3-Dichloropropane	ND		1.0
1,1-Dichloropropene	ND		0.50
1,2-Dibromo-3-Chloropropane	ND		1.0
Ethylene Dibromide	ND		0.50
Dibromomethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
1,1-Dichloroethane	ND		0.50
1,2-Dichloroethane	ND		0.50
1,1-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	ND		0.50
trans-1,2-Dichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
Ethylbenzene	ND		0.50
Hexachlorobutadiene	ND		1.0
2-Hexanone	ND		50
Isopropylbenzene	ND		0.50
4-Isopropyltoluene	ND		1.0
Methylene Chloride	ND		5.0

Analytical Data

Client: Geosyntec Consultants, Inc.

Job Number: 720-19490-1

Client Sample ID: TRIP BLANK 1

Lab Sample ID: 720-19490-1TB
Client Matrix: Water

Date Sampled: 04/27/2009 0845
Date Received: 04/27/2009 1530

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B Analysis Batch: 720-49724 Instrument ID: Varian 3900G
Preparation: 5030B Lab File ID: e:\data\200905\050509\SA-
Dilution: 1.0 Initial Weight/Volume: 40 mL
Date Analyzed: 05/05/2009 1301 Final Weight/Volume: 40 mL
Date Prepared: 05/05/2009 1301

Analyte	Result (ug/L)	Qualifier	RL
4-Methyl-2-pentanone (MIBK)	ND		50
Naphthalene	ND		1.0
N-Propylbenzene	ND		1.0
Styrene	ND		0.50
1,1,1,2-Tetrachloroethane	ND		0.50
1,1,2,2-Tetrachloroethane	ND		0.50
Tetrachloroethene	ND		0.50
Toluene	ND		0.50
1,2,3-Trichlorobenzene	ND		1.0
1,2,4-Trichlorobenzene	ND		1.0
1,1,1-Trichloroethane	ND		0.50
1,1,2-Trichloroethane	ND		0.50
Trichloroethene	ND		0.50
Trichlorofluoromethane	ND		1.0
1,2,3-Trichloropropane	ND		0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50
1,2,4-Trimethylbenzene	ND		0.50
1,3,5-Trimethylbenzene	ND		0.50
Vinyl acetate	ND		50
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	96	74 - 131
1,2-Dichloroethane-d4 (Surr)	96	72 - 125
Toluene-d8 (Surr)	95	82 - 120

Analytical Data

Client: Geosyntec Consultants, Inc.

Job Number: 720-19490-1

Client Sample ID: MW-1

Lab Sample ID: 720-19490-2
Client Matrix: Water

Date Sampled: 04/27/2009 1025
Date Received: 04/27/2009 1530

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 720-49724	Instrument ID: Varian 3900G
Preparation:	5030B		Lab File ID: e:\data\200905\050509\SA-
Dilution:	40		Initial Weight/Volume: 40 mL
Date Analyzed:	05/05/2009 1227		Final Weight/Volume: 40 mL
Date Prepared:	05/05/2009 1227		

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		200
Acetone	ND		2000
Benzene	ND		20
Dichlorobromomethane	ND		20
Bromobenzene	ND		40
Chlorobromomethane	ND		40
Bromoform	ND		40
Bromomethane	ND		40
2-Butanone (MEK)	ND		2000
n-Butylbenzene	ND		40
sec-Butylbenzene	ND		40
tert-Butylbenzene	ND		40
Carbon disulfide	ND		200
Carbon tetrachloride	ND		20
Chlorobenzene	ND		20
Chloroethane	ND		40
Chloroform	ND		40
Chloromethane	ND		40
2-Chlorotoluene	ND		20
4-Chlorotoluene	ND		20
Chlorodibromomethane	ND		20
1,2-Dichlorobenzene	ND		20
1,3-Dichlorobenzene	ND		20
1,4-Dichlorobenzene	ND		20
1,3-Dichloropropane	ND		40
1,1-Dichloropropene	ND		20
1,2-Dibromo-3-Chloropropane	ND		40
Ethylene Dibromide	ND		20
Dibromomethane	ND		20
Dichlorodifluoromethane	ND		20
1,1-Dichloroethane	ND		20
1,2-Dichloroethane	ND		20
1,1-Dichloroethene	ND		20
cis-1,2-Dichloroethene	180		20
trans-1,2-Dichloroethene	ND		20
1,2-Dichloropropane	ND		20
cis-1,3-Dichloropropene	ND		20
trans-1,3-Dichloropropene	ND		20
Ethylbenzene	ND		20
Hexachlorobutadiene	ND		40
2-Hexanone	ND		2000
Isopropylbenzene	ND		20
4-Isopropyltoluene	ND		40
Methylene Chloride	ND		200

Analytical Data

Client: Geosyntec Consultants, Inc.

Job Number: 720-19490-1

Client Sample ID: MW-1

Lab Sample ID: 720-19490-2
Client Matrix: Water

Date Sampled: 04/27/2009 1025
Date Received: 04/27/2009 1530

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 720-49724	Instrument ID: Varian 3900G
Preparation:	5030B		Lab File ID: e:\data\200905\050509\SA-
Dilution:	40		Initial Weight/Volume: 40 mL
Date Analyzed:	05/05/2009 1227		Final Weight/Volume: 40 mL
Date Prepared:	05/05/2009 1227		

Analyte	Result (ug/L)	Qualifier	RL
4-Methyl-2-pentanone (MIBK)	ND		2000
Naphthalene	ND		40
N-Propylbenzene	ND		40
Styrene	ND		20
1,1,1,2-Tetrachloroethane	ND		20
1,1,2,2-Tetrachloroethane	ND		20
Tetrachloroethene	1500		20
Toluene	ND		20
1,2,3-Trichlorobenzene	ND		40
1,2,4-Trichlorobenzene	ND		40
1,1,1-Trichloroethane	ND		20
1,1,2-Trichloroethane	ND		20
Trichloroethene	240		20
Trichlorofluoromethane	ND		40
1,2,3-Trichloropropane	ND		20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		20
1,2,4-Trimethylbenzene	ND		20
1,3,5-Trimethylbenzene	ND		20
Vinyl acetate	ND		2000
Vinyl chloride	ND		20
Xylenes, Total	ND		40
2,2-Dichloropropane	ND		20
Surrogate	%Rec	Acceptance Limits	
4-Bromofluorobenzene	95	74 - 131	
1,2-Dichloroethane-d4 (Surr)	96	72 - 125	
Toluene-d8 (Surr)	99	82 - 120	

Analytical Data

Client: Geosyntec Consultants, Inc.

Job Number: 720-19490-1

Client Sample ID: MW-3

Lab Sample ID: 720-19490-3
Client Matrix: Water

Date Sampled: 04/27/2009 1042
Date Received: 04/27/2009 1530

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 720-49724	Instrument ID: Varian 3900G
Preparation:	5030B		Lab File ID: e:\data\200905\050509\SA-
Dilution:	1.0		Initial Weight/Volume: 40 mL
Date Analyzed:	05/05/2009 1335		Final Weight/Volume: 40 mL
Date Prepared:	05/05/2009 1335		

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		0.50
Dichlorobromomethane	ND		0.50
Bromobenzene	ND		1.0
Chlorobromomethane	ND		1.0
Bromoform	ND		1.0
Bromomethane	ND		1.0
2-Butanone (MEK)	ND		50
n-Butylbenzene	ND		1.0
sec-Butylbenzene	ND		1.0
tert-Butylbenzene	ND		1.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		0.50
Chlorobenzene	ND		0.50
Chloroethane	ND		1.0
Chloroform	ND		1.0
Chloromethane	ND		1.0
2-Chlorotoluene	ND		0.50
4-Chlorotoluene	ND		0.50
Chlorodibromomethane	ND		0.50
1,2-Dichlorobenzene	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,3-Dichloropropane	ND		1.0
1,1-Dichloropropene	ND		0.50
1,2-Dibromo-3-Chloropropane	ND		1.0
Ethylene Dibromide	ND		0.50
Dibromomethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
1,1-Dichloroethane	ND		0.50
1,2-Dichloroethane	ND		0.50
1,1-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	4.4		0.50
trans-1,2-Dichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
Ethylbenzene	ND		0.50
Hexachlorobutadiene	ND		1.0
2-Hexanone	ND		50
Isopropylbenzene	ND		0.50
4-Isopropyltoluene	ND		1.0
Methylene Chloride	ND		5.0

Analytical Data

Client: Geosyntec Consultants, Inc.

Job Number: 720-19490-1

Client Sample ID: MW-3

Lab Sample ID: 720-19490-3
Client Matrix: Water

Date Sampled: 04/27/2009 1042
Date Received: 04/27/2009 1530

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 720-49724	Instrument ID: Varian 3900G
Preparation:	5030B		Lab File ID: e:\data\200905\050509\SA-
Dilution:	1.0		Initial Weight/Volume: 40 mL
Date Analyzed:	05/05/2009 1335		Final Weight/Volume: 40 mL
Date Prepared:	05/05/2009 1335		

Analyte	Result (ug/L)	Qualifier	RL
4-Methyl-2-pentanone (MIBK)	ND		50
Naphthalene	ND		1.0
N-Propylbenzene	ND		1.0
Styrene	ND		0.50
1,1,1,2-Tetrachloroethane	ND		0.50
1,1,2,2-Tetrachloroethane	ND		0.50
Tetrachloroethene	48		0.50
Toluene	ND		0.50
1,2,3-Trichlorobenzene	ND		1.0
1,2,4-Trichlorobenzene	ND		1.0
1,1,1-Trichloroethane	ND		0.50
1,1,2-Trichloroethane	ND		0.50
Trichloroethene	4.7		0.50
Trichlorofluoromethane	ND		1.0
1,2,3-Trichloropropane	ND		0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50
1,2,4-Trimethylbenzene	ND		0.50
1,3,5-Trimethylbenzene	ND		0.50
Vinyl acetate	ND		50
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	91	74 - 131
1,2-Dichloroethane-d4 (Surr)	97	72 - 125
Toluene-d8 (Surr)	101	82 - 120

Analytical Data

Client: Geosyntec Consultants, Inc.

Job Number: 720-19490-1

Client Sample ID: MW-2

Lab Sample ID: 720-19490-4
Client Matrix: Water

Date Sampled: 04/27/2009 1107
Date Received: 04/27/2009 1530

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 720-49724	Instrument ID: Varian 3900G
Preparation:	5030B		Lab File ID: e:\data\200905\050509\SA-
Dilution:	200		Initial Weight/Volume: 40 mL
Date Analyzed:	05/05/2009 1408		Final Weight/Volume: 40 mL
Date Prepared:	05/05/2009 1408		

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		1000
Acetone	ND		10000
Benzene	ND		100
Dichlorobromomethane	ND		100
Bromobenzene	ND		200
Chlorobromomethane	ND		200
Bromoform	ND		200
Bromomethane	ND		200
2-Butanone (MEK)	ND		10000
n-Butylbenzene	ND		200
sec-Butylbenzene	ND		200
tert-Butylbenzene	ND		200
Carbon disulfide	ND		1000
Carbon tetrachloride	ND		100
Chlorobenzene	ND		100
Chloroethane	ND		200
Chloroform	ND		200
Chloromethane	ND		200
2-Chlorotoluene	ND		100
4-Chlorotoluene	ND		100
Chlorodibromomethane	ND		100
1,2-Dichlorobenzene	ND		100
1,3-Dichlorobenzene	ND		100
1,4-Dichlorobenzene	ND		100
1,3-Dichloropropane	ND		200
1,1-Dichloropropene	ND		100
1,2-Dibromo-3-Chloropropane	ND		200
Ethylene Dibromide	ND		100
Dibromomethane	ND		100
Dichlorodifluoromethane	ND		100
1,1-Dichloroethane	ND		100
1,2-Dichloroethane	ND		100
1,1-Dichloroethene	ND		100
cis-1,2-Dichloroethene	770		100
trans-1,2-Dichloroethene	ND		100
1,2-Dichloropropane	ND		100
cis-1,3-Dichloropropene	ND		100
trans-1,3-Dichloropropene	ND		100
Ethylbenzene	ND		100
Hexachlorobutadiene	ND		200
2-Hexanone	ND		10000
Isopropylbenzene	ND		100
4-Isopropyltoluene	ND		200
Methylene Chloride	ND		1000

Analytical Data

Client: Geosyntec Consultants, Inc.

Job Number: 720-19490-1

Client Sample ID: MW-2

Lab Sample ID: 720-19490-4
Client Matrix: Water

Date Sampled: 04/27/2009 1107
Date Received: 04/27/2009 1530

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 720-49724	Instrument ID: Varian 3900G
Preparation:	5030B		Lab File ID: e:\data\200905\050509\SA-
Dilution:	200		Initial Weight/Volume: 40 mL
Date Analyzed:	05/05/2009 1408		Final Weight/Volume: 40 mL
Date Prepared:	05/05/2009 1408		

Analyte	Result (ug/L)	Qualifier	RL
4-Methyl-2-pentanone (MIBK)	ND		10000
Naphthalene	ND		200
N-Propylbenzene	ND		200
Styrene	ND		100
1,1,1,2-Tetrachloroethane	ND		100
1,1,2,2-Tetrachloroethane	ND		100
Tetrachloroethene	14000		100
Toluene	ND		100
1,2,3-Trichlorobenzene	ND		200
1,2,4-Trichlorobenzene	ND		200
1,1,1-Trichloroethane	ND		100
1,1,2-Trichloroethane	ND		100
Trichloroethene	850		100
Trichlorofluoromethane	ND		200
1,2,3-Trichloropropane	ND		100
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		100
1,2,4-Trimethylbenzene	ND		100
1,3,5-Trimethylbenzene	ND		100
Vinyl acetate	ND		10000
Vinyl chloride	ND		100
Xylenes, Total	ND		200
2,2-Dichloropropane	ND		100

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	96	74 - 131
1,2-Dichloroethane-d4 (Surr)	99	72 - 125
Toluene-d8 (Surr)	100	82 - 120

Analytical Data

Client: Geosyntec Consultants, Inc.

Job Number: 720-19490-1

Client Sample ID: MW-DUP

Lab Sample ID: 720-19490-5

Date Sampled: 04/27/2009 1130

Client Matrix: Water

Date Received: 04/27/2009 1530

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B Analysis Batch: 720-49724 Instrument ID: Varian 3900G
Preparation: 5030B Lab File ID: e:\data\200905\050509\sa-
Dilution: 200 Initial Weight/Volume: 40 mL
Date Analyzed: 05/05/2009 1657 Final Weight/Volume: 40 mL
Date Prepared: 05/05/2009 1657

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		1000
Acetone	ND		10000
Benzene	ND		100
Dichlorobromomethane	ND		100
Bromobenzene	ND		200
Chlorobromomethane	ND		200
Bromoform	ND		200
Bromomethane	ND		200
2-Butanone (MEK)	ND		10000
n-Butylbenzene	ND		200
sec-Butylbenzene	ND		200
tert-Butylbenzene	ND		200
Carbon disulfide	ND		1000
Carbon tetrachloride	ND		100
Chlorobenzene	ND		100
Chloroethane	ND		200
Chloroform	ND		200
Chloromethane	ND		200
2-Chlorotoluene	ND		100
4-Chlorotoluene	ND		100
Chlorodibromomethane	ND		100
1,2-Dichlorobenzene	ND		100
1,3-Dichlorobenzene	ND		100
1,4-Dichlorobenzene	ND		100
1,3-Dichloropropane	ND		200
1,1-Dichloropropene	ND		100
1,2-Dibromo-3-Chloropropane	ND		200
Ethylene Dibromide	ND		100
Dibromomethane	ND		100
Dichlorodifluoromethane	ND		100
1,1-Dichloroethane	ND		100
1,2-Dichloroethane	ND		100
1,1-Dichloroethene	ND		100
cis-1,2-Dichloroethene	710		100
trans-1,2-Dichloroethene	ND		100
1,2-Dichloropropane	ND		100
cis-1,3-Dichloropropene	ND		100
trans-1,3-Dichloropropene	ND		100
Ethylbenzene	ND		100
Hexachlorobutadiene	ND		200
2-Hexanone	ND		10000
Isopropylbenzene	ND		100
4-Isopropyltoluene	ND		200
Methylene Chloride	ND		1000

Analytical Data

Client: Geosyntec Consultants, Inc.

Job Number: 720-19490-1

Client Sample ID: MW-DUP

Lab Sample ID: 720-19490-5
Client Matrix: Water

Date Sampled: 04/27/2009 1130
Date Received: 04/27/2009 1530

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 720-49724	Instrument ID: Varian 3900G
Preparation:	5030B		Lab File ID: e:\data\200905\050509\sa-
Dilution:	200		Initial Weight/Volume: 40 mL
Date Analyzed:	05/05/2009 1657		Final Weight/Volume: 40 mL
Date Prepared:	05/05/2009 1657		

Analyte	Result (ug/L)	Qualifier	RL
4-Methyl-2-pentanone (MIBK)	ND		10000
Naphthalene	ND		200
N-Propylbenzene	ND		200
Styrene	ND		100
1,1,1,2-Tetrachloroethane	ND		100
1,1,2,2-Tetrachloroethane	ND		100
Tetrachloroethene	14000		100
Toluene	ND		100
1,2,3-Trichlorobenzene	ND		200
1,2,4-Trichlorobenzene	ND		200
1,1,1-Trichloroethane	ND		100
1,1,2-Trichloroethane	ND		100
Trichloroethene	850		100
Trichlorofluoromethane	ND		200
1,2,3-Trichloropropane	ND		100
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		100
1,2,4-Trimethylbenzene	ND		100
1,3,5-Trimethylbenzene	ND		100
Vinyl acetate	ND		10000
Vinyl chloride	ND		100
Xylenes, Total	ND		200
2,2-Dichloropropane	ND		100
Surrogate	%Rec		Acceptance Limits
4-Bromofluorobenzene	96		74 - 131
1,2-Dichloroethane-d4 (Surr)	96		72 - 125
Toluene-d8 (Surr)	102		82 - 120

Analytical Data

Client: Geosyntec Consultants, Inc.

Job Number: 720-19490-1

Client Sample ID: MW-4

Lab Sample ID: 720-19490-6
Client Matrix: Water

Date Sampled: 04/27/2009 1310
Date Received: 04/27/2009 1530

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 720-49724	Instrument ID: Varian 3900G
Preparation:	5030B		Lab File ID: e:\data\200905\050509\SA-
Dilution:	1.0		Initial Weight/Volume: 40 mL
Date Analyzed:	05/05/2009 1442		Final Weight/Volume: 40 mL
Date Prepared:	05/05/2009 1442		

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		0.50
Dichlorobromomethane	ND		0.50
Bromobenzene	ND		1.0
Chlorobromomethane	ND		1.0
Bromoform	ND		1.0
Bromomethane	ND		1.0
2-Butanone (MEK)	ND		50
n-Butylbenzene	ND		1.0
sec-Butylbenzene	ND		1.0
tert-Butylbenzene	ND		1.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		0.50
Chlorobenzene	ND		0.50
Chloroethane	ND		1.0
Chloroform	ND		1.0
Chloromethane	ND		1.0
2-Chlorotoluene	ND		0.50
4-Chlorotoluene	ND		0.50
Chlorodibromomethane	ND		0.50
1,2-Dichlorobenzene	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,3-Dichloropropane	ND		1.0
1,1-Dichloropropene	ND		0.50
1,2-Dibromo-3-Chloropropane	ND		1.0
Ethylene Dibromide	ND		0.50
Dibromomethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
1,1-Dichloroethane	ND		0.50
1,2-Dichloroethane	ND		0.50
1,1-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	3.7		0.50
trans-1,2-Dichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
Ethylbenzene	ND		0.50
Hexachlorobutadiene	ND		1.0
2-Hexanone	ND		50
Isopropylbenzene	ND		0.50
4-Isopropyltoluene	ND		1.0
Methylene Chloride	ND		5.0

Analytical Data

Client: Geosyntec Consultants, Inc.

Job Number: 720-19490-1

Client Sample ID: MW-4

Lab Sample ID: 720-19490-6
Client Matrix: Water

Date Sampled: 04/27/2009 1310
Date Received: 04/27/2009 1530

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 720-49724	Instrument ID: Varian 3900G
Preparation:	5030B		Lab File ID: e:\data\200905\050509\SA-
Dilution:	1.0		Initial Weight/Volume: 40 mL
Date Analyzed:	05/05/2009 1442		Final Weight/Volume: 40 mL
Date Prepared:	05/05/2009 1442		

Analyte	Result (ug/L)	Qualifier	RL
4-Methyl-2-pentanone (MIBK)	ND		50
Naphthalene	ND		1.0
N-Propylbenzene	ND		1.0
Styrene	ND		0.50
1,1,1,2-Tetrachloroethane	ND		0.50
1,1,2,2-Tetrachloroethane	ND		0.50
Tetrachloroethene	ND		0.50
Toluene	ND		0.50
1,2,3-Trichlorobenzene	ND		1.0
1,2,4-Trichlorobenzene	ND		1.0
1,1,1-Trichloroethane	ND		0.50
1,1,2-Trichloroethane	ND		0.50
Trichloroethene	4.3		0.50
Trichlorofluoromethane	ND		1.0
1,2,3-Trichloropropane	ND		0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50
1,2,4-Trimethylbenzene	ND		0.50
1,3,5-Trimethylbenzene	ND		0.50
Vinyl acetate	ND		50
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	91	74 - 131
1,2-Dichloroethane-d4 (Surr)	95	72 - 125
Toluene-d8 (Surr)	96	82 - 120

Analytical Data

Client: Geosyntec Consultants, Inc.

Job Number: 720-19490-1

Client Sample ID: MW-5

Lab Sample ID: 720-19490-7
Client Matrix: Water

Date Sampled: 04/27/2009 1335
Date Received: 04/27/2009 1530

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 720-49724	Instrument ID: Varian 3900G
Preparation:	5030B		Lab File ID: e:\data\200905\050509\SA-
Dilution:	1.0		Initial Weight/Volume: 40 mL
Date Analyzed:	05/05/2009 1515		Final Weight/Volume: 40 mL
Date Prepared:	05/05/2009 1515		

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		0.50
Dichlorobromomethane	ND		0.50
Bromobenzene	ND		1.0
Chlorobromomethane	ND		1.0
Bromoform	ND		1.0
Bromomethane	ND		1.0
2-Butanone (MEK)	ND		50
n-Butylbenzene	ND		1.0
sec-Butylbenzene	ND		1.0
tert-Butylbenzene	ND		1.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		0.50
Chlorobenzene	ND		0.50
Chloroethane	ND		1.0
Chloroform	ND		1.0
Chloromethane	ND		1.0
2-Chlorotoluene	ND		0.50
4-Chlorotoluene	ND		0.50
Chlorodibromomethane	ND		0.50
1,2-Dichlorobenzene	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,3-Dichloropropane	ND		1.0
1,1-Dichloropropene	ND		0.50
1,2-Dibromo-3-Chloropropane	ND		1.0
Ethylene Dibromide	ND		0.50
Dibromomethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
1,1-Dichloroethane	ND		0.50
1,2-Dichloroethane	ND		0.50
1,1-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	ND		0.50
trans-1,2-Dichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
Ethylbenzene	ND		0.50
Hexachlorobutadiene	ND		1.0
2-Hexanone	ND		50
Isopropylbenzene	ND		0.50
4-Isopropyltoluene	ND		1.0
Methylene Chloride	ND		5.0

Analytical Data

Client: Geosyntec Consultants, Inc.

Job Number: 720-19490-1

Client Sample ID: MW-5

Lab Sample ID: 720-19490-7
Client Matrix: Water

Date Sampled: 04/27/2009 1335
Date Received: 04/27/2009 1530

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 720-49724	Instrument ID: Varian 3900G
Preparation:	5030B		Lab File ID: e:\data\200905\050509\SA-
Dilution:	1.0		Initial Weight/Volume: 40 mL
Date Analyzed:	05/05/2009 1515		Final Weight/Volume: 40 mL
Date Prepared:	05/05/2009 1515		

Analyte	Result (ug/L)	Qualifier	RL
4-Methyl-2-pentanone (MIBK)	ND		50
Naphthalene	ND		1.0
N-Propylbenzene	ND		1.0
Styrene	ND		0.50
1,1,1,2-Tetrachloroethane	ND		0.50
1,1,2,2-Tetrachloroethane	ND		0.50
Tetrachloroethene	35		0.50
Toluene	ND		0.50
1,2,3-Trichlorobenzene	ND		1.0
1,2,4-Trichlorobenzene	ND		1.0
1,1,1-Trichloroethane	ND		0.50
1,1,2-Trichloroethane	ND		0.50
Trichloroethene	ND		0.50
Trichlorofluoromethane	ND		1.0
1,2,3-Trichloropropane	ND		0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50
1,2,4-Trimethylbenzene	ND		0.50
1,3,5-Trimethylbenzene	ND		0.50
Vinyl acetate	ND		50
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	88	74 - 131
1,2-Dichloroethane-d4 (Surr)	98	72 - 125
Toluene-d8 (Surr)	97	82 - 120

Analytical Data

Client: Geosyntec Consultants, Inc.

Job Number: 720-19490-1

Client Sample ID: MW-7

Lab Sample ID: 720-19490-8
Client Matrix: Water

Date Sampled: 04/27/2009 1408
Date Received: 04/27/2009 1530

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 720-49724	Instrument ID: Varian 3900G
Preparation:	5030B		Lab File ID: e:\data\200905\050509\sa-
Dilution:	1.0		Initial Weight/Volume: 40 mL
Date Analyzed:	05/05/2009 1549		Final Weight/Volume: 40 mL
Date Prepared:	05/05/2009 1549		

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		0.50
Dichlorobromomethane	ND		0.50
Bromobenzene	ND		1.0
Chlorobromomethane	ND		1.0
Bromoform	ND		1.0
Bromomethane	ND		1.0
2-Butanone (MEK)	ND		50
n-Butylbenzene	ND		1.0
sec-Butylbenzene	ND		1.0
tert-Butylbenzene	ND		1.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		0.50
Chlorobenzene	ND		0.50
Chloroethane	ND		1.0
Chloroform	ND		1.0
Chloromethane	ND		1.0
2-Chlorotoluene	ND		0.50
4-Chlorotoluene	ND		0.50
Chlorodibromomethane	ND		0.50
1,2-Dichlorobenzene	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,3-Dichloropropane	ND		1.0
1,1-Dichloropropene	ND		0.50
1,2-Dibromo-3-Chloropropane	ND		1.0
Ethylene Dibromide	ND		0.50
Dibromomethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
1,1-Dichloroethane	ND		0.50
1,2-Dichloroethane	ND		0.50
1,1-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	ND		0.50
trans-1,2-Dichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
Ethylbenzene	ND		0.50
Hexachlorobutadiene	ND		1.0
2-Hexanone	ND		50
Isopropylbenzene	ND		0.50
4-Isopropyltoluene	ND		1.0
Methylene Chloride	ND		5.0

Analytical Data

Client: Geosyntec Consultants, Inc.

Job Number: 720-19490-1

Client Sample ID: MW-7

Lab Sample ID: 720-19490-8
Client Matrix: Water

Date Sampled: 04/27/2009 1408
Date Received: 04/27/2009 1530

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 720-49724	Instrument ID: Varian 3900G
Preparation:	5030B		Lab File ID: e:\data\200905\050509\sa-
Dilution:	1.0		Initial Weight/Volume: 40 mL
Date Analyzed:	05/05/2009 1549		Final Weight/Volume: 40 mL
Date Prepared:	05/05/2009 1549		

Analyte	Result (ug/L)	Qualifier	RL
4-Methyl-2-pentanone (MIBK)	ND		50
Naphthalene	ND		1.0
N-Propylbenzene	ND		1.0
Styrene	ND		0.50
1,1,1,2-Tetrachloroethane	ND		0.50
1,1,2,2-Tetrachloroethane	ND		0.50
Tetrachloroethene	5.7		0.50
Toluene	ND		0.50
1,2,3-Trichlorobenzene	ND		1.0
1,2,4-Trichlorobenzene	ND		1.0
1,1,1-Trichloroethane	ND		0.50
1,1,2-Trichloroethane	ND		0.50
Trichloroethene	ND		0.50
Trichlorofluoromethane	ND		1.0
1,2,3-Trichloropropane	ND		0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50
1,2,4-Trimethylbenzene	ND		0.50
1,3,5-Trimethylbenzene	ND		0.50
Vinyl acetate	ND		50
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	95	74 - 131
1,2-Dichloroethane-d4 (Surr)	98	72 - 125
Toluene-d8 (Surr)	95	82 - 120

Analytical Data

Client: Geosyntec Consultants, Inc.

Job Number: 720-19490-1

Client Sample ID: MW-6

Lab Sample ID: 720-19490-9
Client Matrix: Water

Date Sampled: 04/27/2009 1430
Date Received: 04/27/2009 1530

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 720-49724	Instrument ID: Varian 3900G
Preparation:	5030B		Lab File ID: e:\data\200905\050509\SA-
Dilution:	1.0		Initial Weight/Volume: 40 mL
Date Analyzed:	05/05/2009 1623		Final Weight/Volume: 40 mL
Date Prepared:	05/05/2009 1623		

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		0.50
Dichlorobromomethane	ND		0.50
Bromobenzene	ND		1.0
Chlorobromomethane	ND		1.0
Bromoform	ND		1.0
Bromomethane	ND		1.0
2-Butanone (MEK)	ND		50
n-Butylbenzene	ND		1.0
sec-Butylbenzene	ND		1.0
tert-Butylbenzene	ND		1.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		0.50
Chlorobenzene	ND		0.50
Chloroethane	ND		1.0
Chloroform	ND		1.0
Chloromethane	ND		1.0
2-Chlorotoluene	ND		0.50
4-Chlorotoluene	ND		0.50
Chlorodibromomethane	ND		0.50
1,2-Dichlorobenzene	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,3-Dichloropropane	ND		1.0
1,1-Dichloropropene	ND		0.50
1,2-Dibromo-3-Chloropropane	ND		1.0
Ethylene Dibromide	ND		0.50
Dibromomethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
1,1-Dichloroethane	ND		0.50
1,2-Dichloroethane	ND		0.50
1,1-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	ND		0.50
trans-1,2-Dichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
Ethylbenzene	ND		0.50
Hexachlorobutadiene	ND		1.0
2-Hexanone	ND		50
Isopropylbenzene	ND		0.50
4-Isopropyltoluene	ND		1.0
Methylene Chloride	ND		5.0

Analytical Data

Client: Geosyntec Consultants, Inc.

Job Number: 720-19490-1

Client Sample ID: MW-6

Lab Sample ID: 720-19490-9
Client Matrix: Water

Date Sampled: 04/27/2009 1430
Date Received: 04/27/2009 1530

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 720-49724	Instrument ID: Varian 3900G
Preparation:	5030B		Lab File ID: e:\data\200905\050509\SA-
Dilution:	1.0		Initial Weight/Volume: 40 mL
Date Analyzed:	05/05/2009 1623		Final Weight/Volume: 40 mL
Date Prepared:	05/05/2009 1623		

Analyte	Result (ug/L)	Qualifier	RL
4-Methyl-2-pentanone (MIBK)	ND		50
Naphthalene	ND		1.0
N-Propylbenzene	ND		1.0
Styrene	ND		0.50
1,1,1,2-Tetrachloroethane	ND		0.50
1,1,2,2-Tetrachloroethane	ND		0.50
Tetrachloroethene	ND		0.50
Toluene	ND		0.50
1,2,3-Trichlorobenzene	ND		1.0
1,2,4-Trichlorobenzene	ND		1.0
1,1,1-Trichloroethane	ND		0.50
1,1,2-Trichloroethane	ND		0.50
Trichloroethene	ND		0.50
Trichlorofluoromethane	ND		1.0
1,2,3-Trichloropropane	ND		0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50
1,2,4-Trimethylbenzene	ND		0.50
1,3,5-Trimethylbenzene	ND		0.50
Vinyl acetate	ND		50
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	93	74 - 131
1,2-Dichloroethane-d4 (Surr)	95	72 - 125
Toluene-d8 (Surr)	100	82 - 120

DATA REPORTING QUALIFIERS

Lab Section	Qualifier	Description
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Quality Control Results

Client: Geosyntec Consultants, Inc.

Job Number: 720-19490-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:720-49724					
LCS 720-49724/2	Lab Control Sample	T	Water	8260B	
LCSD 720-49724/1	Lab Control Sample Duplicate	T	Water	8260B	
MB 720-49724/4	Method Blank	T	Water	8260B	
720-19490-1TB	TRIP BLANK 1	T	Water	8260B	
720-19490-2	MW-1	T	Water	8260B	
720-19490-2MS	Matrix Spike	T	Water	8260B	
720-19490-2MSD	Matrix Spike Duplicate	T	Water	8260B	
720-19490-3	MW-3	T	Water	8260B	
720-19490-4	MW-2	T	Water	8260B	
720-19490-5	MW-DUP	T	Water	8260B	
720-19490-6	MW-4	T	Water	8260B	
720-19490-7	MW-5	T	Water	8260B	
720-19490-8	MW-7	T	Water	8260B	
720-19490-9	MW-6	T	Water	8260B	

Report Basis

T = Total

Quality Control Results

Client: Geosyntec Consultants, Inc.

Job Number: 720-19490-1

Method Blank - Batch: 720-49724

Method: 8260B

Preparation: 5030B

Lab Sample ID: MB 720-49724/4

Analysis Batch: 720-49724

Instrument ID: Varian 3900G

Client Matrix: Water

Prep Batch: N/A

Lab File ID: e:\data\200905\050509\MB

Dilution: 1.0

Units: ug/L

Initial Weight/Volume: 40 mL

Date Analyzed: 05/05/2009 0907

Final Weight/Volume: 40 mL

Date Prepared: 05/05/2009 0907

Analyte	Result	Qual	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		0.50
Dichlorobromomethane	ND		0.50
Bromobenzene	ND		1.0
Chlorobromomethane	ND		1.0
Bromoform	ND		1.0
Bromomethane	ND		1.0
2-Butanone (MEK)	ND		50
n-Butylbenzene	ND		1.0
sec-Butylbenzene	ND		1.0
tert-Butylbenzene	ND		1.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		0.50
Chlorobenzene	ND		0.50
Chloroethane	ND		1.0
Chloroform	ND		1.0
Chloromethane	ND		1.0
2-Chlorotoluene	ND		0.50
4-Chlorotoluene	ND		0.50
Chlorodibromomethane	ND		0.50
1,2-Dichlorobenzene	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,3-Dichloropropane	ND		1.0
1,1-Dichloropropene	ND		0.50
1,2-Dibromo-3-Chloropropane	ND		1.0
Ethylene Dibromide	ND		0.50
Dibromomethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
1,1-Dichloroethane	ND		0.50
1,2-Dichloroethane	ND		0.50
1,1-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	ND		0.50
trans-1,2-Dichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
Ethylbenzene	ND		0.50
Hexachlorobutadiene	ND		1.0
2-Hexanone	ND		50

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Geosyntec Consultants, Inc.

Job Number: 720-19490-1

Method Blank - Batch: 720-49724

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 720-49724/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/05/2009 0907
Date Prepared: 05/05/2009 0907

Analysis Batch: 720-49724
Prep Batch: N/A
Units: ug/L

Instrument ID: Varian 3900G
Lab File ID: e:\data\200905\050509\MB
Initial Weight/Volume: 40 mL
Final Weight/Volume: 40 mL

Analyte	Result	Qual	RL
Isopropylbenzene	ND		0.50
4-Isopropyltoluene	ND		1.0
Methylene Chloride	ND		5.0
4-Methyl-2-pentanone (MIBK)	ND		50
Naphthalene	ND		1.0
N-Propylbenzene	ND		1.0
Styrene	ND		0.50
1,1,1,2-Tetrachloroethane	ND		0.50
1,1,2,2-Tetrachloroethane	ND		0.50
Tetrachloroethene	ND		0.50
Toluene	ND		0.50
1,2,3-Trichlorobenzene	ND		1.0
1,2,4-Trichlorobenzene	ND		1.0
1,1,1-Trichloroethane	ND		0.50
1,1,2-Trichloroethane	ND		0.50
Trichloroethene	ND		0.50
Trichlorofluoromethane	ND		1.0
1,2,3-Trichloropropane	ND		0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50
1,2,4-Trimethylbenzene	ND		0.50
1,3,5-Trimethylbenzene	ND		0.50
Vinyl acetate	ND		50
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50
Surrogate	% Rec	Acceptance Limits	
4-Bromofluorobenzene	92	74 - 131	
1,2-Dichloroethane-d4 (Surr)	107	72 - 125	
Toluene-d8 (Surr)	96	82 - 120	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Geosyntec Consultants, Inc.

Job Number: 720-19490-1

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-49724**

**Method: 8260B
Preparation: 5030B**

LCS Lab Sample ID: LCS 720-49724/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/05/2009 0940
Date Prepared: 05/05/2009 0940

Analysis Batch: 720-49724
Prep Batch: N/A
Units: ug/L

Instrument ID: Varian 3900G
Lab File ID: e:\data\200905\050509\LS-
Initial Weight/Volume: 40 mL
Final Weight/Volume: 40 mL

LCSD Lab Sample ID: LCSD 720-49724/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/05/2009 1014
Date Prepared: 05/05/2009 1014

Analysis Batch: 720-49724
Prep Batch: N/A
Units: ug/L

Instrument ID: Varian 3900G
Lab File ID: e:\data\200905\050509\LD-V
Initial Weight/Volume: 40 mL
Final Weight/Volume: 40 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Benzene	90	95	70 - 130	5	20		
Chlorobenzene	103	102	70 - 130	1	20		
1,1-Dichloroethene	83	86	70 - 130	4	20		
Toluene	92	90	70 - 130	1	20		
Trichloroethene	91	86	70 - 130	6	20		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
4-Bromofluorobenzene	96		90		74 - 131		
1,2-Dichloroethane-d4 (Surr)	91		90		72 - 125		
Toluene-d8 (Surr)	98		96		82 - 120		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Geosyntec Consultants, Inc.

Job Number: 720-19490-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-49724**

**Method: 8260B
Preparation: 5030B**

MS Lab Sample ID: 720-19490-2
Client Matrix: Water
Dilution: 40
Date Analyzed: 05/05/2009 1047
Date Prepared: 05/05/2009 1047

Analysis Batch: 720-49724
Prep Batch: N/A

Instrument ID: Varian 3900G
Lab File ID: e:\data\200905\050509\SA-
Initial Weight/Volume: 40 mL
Final Weight/Volume: 40 mL

MSD Lab Sample ID: 720-19490-2
Client Matrix: Water
Dilution: 40
Date Analyzed: 05/05/2009 1120
Date Prepared: 05/05/2009 1120

Analysis Batch: 720-49724
Prep Batch: N/A

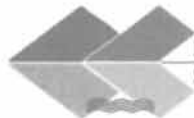
Instrument ID: Varian 3900G
Lab File ID: e:\data\200905\050509\SA-
Initial Weight/Volume: 40 mL
Final Weight/Volume: 40 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Benzene	87	92	70 - 130	5	20		
Chlorobenzene	93	107	70 - 130	14	20		
1,1-Dichloroethene	74	86	70 - 130	14	20		
Toluene	84	91	70 - 130	8	20		
Trichloroethene	87	85	70 - 130	2	20		
Surrogate	MS % Rec		MSD % Rec		Acceptance Limits		
4-Bromofluorobenzene	87		90		74 - 131		
1,2-Dichloroethane-d4 (Surr)	89		92		72 - 125		
Toluene-d8 (Surr)	94		96		82 - 120		

Calculations are performed before rounding to avoid round-off errors in calculated results.

720-19490

115978



**Environmental
Sampling Services**

6680 Alhambra Ave., #102
Martinez, California 94553-6105
Tel: (925) 372-8108 Fax: (925) 372-6705
Log Code: ESSM www.envsampling.com

CHAIN OF CUSTODY RECORD

Page 1 of 1

TURN AROUND TIME

LABORATORY:

TestAmerica-Pleasanton

Lab Code:

24 Hours
 48 Hours
 1 Week
 Normal

Other:

Report To: Melissa Asher Telephone: (510) 285-2700
 Company: Geosyntec Consultants Fax: (510) 836-3036
 Address: 475-14th Street, Suite 450 **Project Name:** Hopyard Cleaner
Oakland, CA 94612 **Project Number:** WRO574
 E-Mail: aliang@geosyntec.com & masher@geosyntec.com
 Sampler(s): Jacqueline Lee Sampler's Signature:
Stephen Penman 4/27/09 Sampler's Signature:
 GeoTracker No.: SL0600116931
 Reporting Requirement: Hard Copy: Yes No
 EDD File: Yes No Electronic (EDF): Yes No

Analysis Request

Comments

SAMPLE ID	FIELD POINT NAME	Sample		Number of Containers	Type of Container ¹	Matrix										Preservative	Field Filtered (FF)	Comments	
		Date	Time			Groundwater	Soil	Soil Vapor	Water	Other	Ice	HCl	HNO ₃	H ₂ SO ₄	VOCs (8260B)				
Trip Blank 1	QCTB1	4/27/09	8:45	2	1				X	X	X								
MW-1	MW-1	4/27/09	10:25	4	1	X								X					
MW-3	MW-3	4/27/09	10:42	3	1	X								X					
MW-2	MW-2	4/27/09	11:07	2	1	X								X					
MW-DUP	QCFB1	4/27/09	11:30	2	1	X								X					
MW-4	MW-4	4/27/09	13:10	3	1	X								X					
MW-5	MW-5	4/27/09	13:35	3	1	X								X					
MW-7	MW- 7 ⁷	4/27/09	14:08	3	1	X								X					
MW-6	MW-6	4/27/09	14:30	3	1	X								X					

Relinquished By: Date: 4/27/09 Time: 15:30 Received By: Jacqueline Lee
 Relinquished By: _____ Date: _____ Time: _____ Received By: _____
 Relinquished By: _____ Date: _____ Time: _____ Received By: _____

1 = Sample Container Type: 1 =VOA 2=Glass 3=Plastic 4=Summa Canister
QUESTIONS REGARDING COC, CALL ESS
 Please email COC for confirmation (masher@geosyntec.com)
SAMPLE RECEIPT
 Intact Cold
 On Ice Ambient
 Preservative Correct?
 Yes No NA
 1.00
 05/15/2009

Login Sample Receipt Check List

Client: Geosyntec Consultants, Inc.

Job Number: 720-19490-1

Login Number: 19490

List Source: TestAmerica San Francisco

Creator: Mullen, Joan

List Number: 1

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

6/23/2009

Ms. Angela Liang
GeoSyntec Consultants
475 14th Street
Suite 400
Oakland CA 94612

Project Name: Hopyard Cleaners
Project #: WR0574
Workorder #: 0906284

Dear Ms. Angela Liang

The following report includes the data for the above referenced project for sample(s) received on 6/12/2009 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for you air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kyle Vagadori at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Kyle Vagadori
Project Manager

WORK ORDER #: 0906284

Work Order Summary

CLIENT:	Ms. Angela Liang GeoSyntec Consultants 475 14th Street Suite 400 Oakland, CA 94612	BILL TO:	Ms. Angela Liang GeoSyntec Consultants 475 14th Street Suite 400 Oakland, CA 94612
PHONE:	510-836-3034	P.O. #	
FAX:	510-836-3036	PROJECT #	WR0574 Hopyard Cleaners
DATE RECEIVED:	06/12/2009	CONTACT:	Kyle Vagadori
DATE COMPLETED:	06/23/2009		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	SVE-INFL	Modified TO-15	4.0 "Hg	15 psi
02A	Lab Blank	Modified TO-15	NA	NA
03A	CCV	Modified TO-15	NA	NA
04A	LCS	Modified TO-15	NA	NA

CERTIFIED BY: 

DATE: 06/23/09

Laboratory Director

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/08, Expiration date: 06/30/09

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
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LABORATORY NARRATIVE
Modified TO-15
GeoSyntec Consultants
Workorder# 0906284

One 1 Liter Summa Canister sample was received on June 12, 2009. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

<i>Requirement</i>	<i>TO-15</i>	<i>ATL Modifications</i>
Daily CCV	$\leq 30\%$ Difference	$\leq 30\%$ Difference; Compounds exceeding this criterion and associated data are flagged and narrated.
Sample collection media	Summa canister	ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

- B - Compound present in laboratory blank greater than reporting limit (background subtraction no performed).
- J - Estimated value.
- E - Exceeds instrument calibration range.
- S - Saturated peak.
- Q - Exceeds quality control limits.
- U - Compound analyzed for but not detected above the reporting limit.
- UJ- Non-detected compound associated with low bias in the CCV
- N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

**Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

Client Sample ID: SVE-INFL

Lab ID#: 0906284-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	1.6	5.8	7.8
Ethanol	4.7	4.6 J	8.8	8.7 J
Acetone	4.7	7.5	11	18
2-Butanone (Methyl Ethyl Ketone)	1.2	2.1	3.4	6.1
Benzene	1.2	3.5	3.7	11
Trichloroethene	1.2	10	6.3	54
Toluene	1.2	1.4	4.4	5.3
Tetrachloroethene	1.2	290	7.9	2000

Client Sample ID: SVE-INFL

Lab ID#: 0906284-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	y061919	Date of Collection: 6/11/09 9:30:00 AM
Dil. Factor:	2.33	Date of Analysis: 6/19/09 08:37 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	1.6	5.8	7.8
Freon 114	1.2	Not Detected	8.1	Not Detected
Chloromethane	4.7	Not Detected	9.6	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
1,3-Butadiene	1.2	Not Detected	2.6	Not Detected
Bromomethane	1.2	Not Detected	4.5	Not Detected
Chloroethane	1.2	Not Detected	3.1	Not Detected
Freon 11	1.2	Not Detected	6.5	Not Detected
Ethanol	4.7	4.6 J	8.8	8.7 J
Freon 113	1.2	Not Detected	8.9	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Acetone	4.7	7.5	11	18
2-Propanol	4.7	Not Detected	11	Not Detected
Carbon Disulfide	1.2	Not Detected	3.6	Not Detected
3-Chloropropene	4.7	Not Detected	14	Not Detected
Methylene Chloride	1.2	Not Detected	4.0	Not Detected
Methyl tert-butyl ether	1.2	Not Detected	4.2	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Hexane	1.2	Not Detected	4.1	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.7	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.2	2.1	3.4	6.1
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Tetrahydrofuran	1.2	Not Detected	3.4	Not Detected
Chloroform	1.2	Not Detected	5.7	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Cyclohexane	1.2	Not Detected	4.0	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.3	Not Detected
2,2,4-Trimethylpentane	1.2	Not Detected	5.4	Not Detected
Benzene	1.2	3.5	3.7	11
1,2-Dichloroethane	1.2	Not Detected	4.7	Not Detected
Heptane	1.2	Not Detected	4.8	Not Detected
Trichloroethene	1.2	10	6.3	54
1,2-Dichloropropane	1.2	Not Detected	5.4	Not Detected
1,4-Dioxane	4.7	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	7.8	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.8	Not Detected
Toluene	1.2	1.4	4.4	5.3
trans-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected

Client Sample ID: SVE-INFL

Lab ID#: 0906284-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	y061919	Date of Collection: 6/11/09 9:30:00 AM
Dil. Factor:	2.33	Date of Analysis: 6/19/09 08:37 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,2-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Tetrachloroethene	1.2	290	7.9	2000
2-Hexanone	4.7	Not Detected	19	Not Detected
Dibromochloromethane	1.2	Not Detected	9.9	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.0	Not Detected
Chlorobenzene	1.2	Not Detected	5.4	Not Detected
Ethyl Benzene	1.2	Not Detected	5.0	Not Detected
m,p-Xylene	1.2	Not Detected	5.0	Not Detected
o-Xylene	1.2	Not Detected	5.0	Not Detected
Styrene	1.2	Not Detected	5.0	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
Cumene	1.2	Not Detected	5.7	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.0	Not Detected
Propylbenzene	1.2	Not Detected	5.7	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.7	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.0	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,2,4-Trichlorobenzene	4.7	Not Detected	34	Not Detected
Hexachlorobutadiene	4.7	Not Detected	50	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	109	70-130
4-Bromofluorobenzene	95	70-130



Client Sample ID: Lab Blank

Lab ID#: 0906284-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	y061905	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 6/19/09 10:25 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	2.0	Not Detected	4.1	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	0.50	Not Detected	1.9	Not Detected
Chloroethane	0.50	Not Detected	1.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	2.0	Not Detected	4.8	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	0.50	Not Detected	1.7	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected

Client Sample ID: Lab Blank

Lab ID#: 0906284-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	y061905	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 6/19/09 10:25 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	102	70-130
4-Bromofluorobenzene	98	70-130

Client Sample ID: CCV

Lab ID#: 0906284-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	y061902	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 6/19/09 08:18 AM

Compound	%Recovery
Freon 12	102
Freon 114	99
Chloromethane	106
Vinyl Chloride	108
1,3-Butadiene	96
Bromomethane	121
Chloroethane	102
Freon 11	100
Ethanol	104
Freon 113	102
1,1-Dichloroethene	110
Acetone	109
2-Propanol	113
Carbon Disulfide	115
3-Chloropropene	110
Methylene Chloride	104
Methyl tert-butyl ether	124
trans-1,2-Dichloroethene	108
Hexane	105
1,1-Dichloroethane	107
2-Butanone (Methyl Ethyl Ketone)	107
cis-1,2-Dichloroethene	110
Tetrahydrofuran	108
Chloroform	105
1,1,1-Trichloroethane	108
Cyclohexane	102
Carbon Tetrachloride	110
2,2,4-Trimethylpentane	106
Benzene	109
1,2-Dichloroethane	120
Heptane	116
Trichloroethene	118
1,2-Dichloropropane	116
1,4-Dioxane	114
Bromodichloromethane	120
cis-1,3-Dichloropropene	118
4-Methyl-2-pentanone	121
Toluene	111
trans-1,3-Dichloropropene	121

Client Sample ID: CCV

Lab ID#: 0906284-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	y061902	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 6/19/09 08:18 AM

Compound	%Recovery
1,1,2-Trichloroethane	116
Tetrachloroethene	115
2-Hexanone	118
Dibromochloromethane	120
1,2-Dibromoethane (EDB)	113
Chlorobenzene	111
Ethyl Benzene	110
m,p-Xylene	109
o-Xylene	107
Styrene	109
Bromoform	112
Cumene	106
1,1,2,2-Tetrachloroethane	101
Propylbenzene	110
4-Ethyltoluene	108
1,3,5-Trimethylbenzene	97
1,2,4-Trimethylbenzene	100
1,3-Dichlorobenzene	99
1,4-Dichlorobenzene	101
alpha-Chlorotoluene	108
1,2-Dichlorobenzene	98
1,2,4-Trichlorobenzene	109
Hexachlorobutadiene	108

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	96	70-130

Client Sample ID: LCS

Lab ID#: 0906284-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	y061903	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 6/19/09 08:54 AM

Compound	%Recovery
Freon 12	85
Freon 114	85
Chloromethane	90
Vinyl Chloride	91
1,3-Butadiene	75
Bromomethane	104
Chloroethane	89
Freon 11	88
Ethanol	67
Freon 113	99
1,1-Dichloroethene	107
Acetone	95
2-Propanol	100
Carbon Disulfide	104
3-Chloropropene	99
Methylene Chloride	100
Methyl tert-butyl ether	117
trans-1,2-Dichloroethene	97
Hexane	94
1,1-Dichloroethane	100
2-Butanone (Methyl Ethyl Ketone)	96
cis-1,2-Dichloroethene	108
Tetrahydrofuran	96
Chloroform	96
1,1,1-Trichloroethane	101
Cyclohexane	97
Carbon Tetrachloride	102
2,2,4-Trimethylpentane	94
Benzene	96
1,2-Dichloroethane	108
Heptane	103
Trichloroethene	104
1,2-Dichloropropane	103
1,4-Dioxane	102
Bromodichloromethane	108
cis-1,3-Dichloropropene	102
4-Methyl-2-pentanone	110
Toluene	103
trans-1,3-Dichloropropene	103

Client Sample ID: LCS

Lab ID#: 0906284-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	y061903	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 6/19/09 08:54 AM

Compound	%Recovery
1,1,2-Trichloroethane	102
Tetrachloroethene	102
2-Hexanone	106
Dibromochloromethane	106
1,2-Dibromoethane (EDB)	96
Chlorobenzene	96
Ethyl Benzene	96
m,p-Xylene	96
o-Xylene	96
Styrene	96
Bromoform	99
Cumene	96
1,1,2,2-Tetrachloroethane	89
Propylbenzene	99
4-Ethyltoluene	96
1,3,5-Trimethylbenzene	88
1,2,4-Trimethylbenzene	88
1,3-Dichlorobenzene	90
1,4-Dichlorobenzene	85
alpha-Chlorotoluene	98
1,2-Dichlorobenzene	86
1,2,4-Trichlorobenzene	96
Hexachlorobutadiene	92

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	98	70-130



CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice

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Page 1 of 1

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 Collected by: (Print and Sign) Melissa Asher Melissa Asher
 Company Gessytec Consultants Email Melissa.Asher@gessytec.com
 Address 475 14th St Suite 450 oakland State CA Zip 94612
 Phone 510-285-2700 Fax 510-836-3936

Project Info:	Turn Around Time:	<i>Lab Use Only:</i>
P.O. # _____	<input checked="" type="checkbox"/> Normal	Pressurized by: _____
Project # <u>WR0574</u>	<input type="checkbox"/> Rush	Date: _____
Project Name <u>Hopland Cleaners</u>	specify _____	Pressurization Gas: <u>N₂</u> <u>He</u>

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum			
						Initial	Final	Receipt	Final (psi)
<u>01A</u>	<u>SVE-INFL</u>	<u>31782</u>	<u>6/10/09</u> <u>6:11 AM</u>	<u>9:30</u>	<u>TO-15</u>	<u>30</u>	<u>-5</u>		

Relinquished by: (signature) <u>Melissa Asher</u> Date/Time <u>6/10/09 12:00</u>	Received by: (signature) <u>FedEx</u> Date/Time _____	Notes:
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) <u>Richard An</u> Date/Time <u>6/10/09 09:23</u>	

Lab Use Only	Shipper Name: <u>Fed Ex</u>	Air-Bill # <u>7976 7318 3367</u>	Temp (°C) <u>N/A</u>	Condition <u>Good</u>	Custody Seals Intact? <u>Yes</u> <u>No</u> <u>None</u>	Work Order # <u>0906284</u>