Prepared for

Hopyard Cleaners
2771 Hopyard Road
Pleasanton, California 94612

FOURTH QUARTER 2009 GROUNDWATER AND SVE MONITORING REPORT

HOPYARD CLEANERS
2771 Hopyard Road
Pleasanton, California
Self- Monitoring Program No. R2-2008-0032

Prepared by

Geosyntec consultants

engineers | scientists | innovators

475 14th Street, Suite 400
Oakland, California 94612

Project Number: WR0574

28 January 2010

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

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
$\mu g/m^3$	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
trans-1,2-DCE	trans-1,2-dichloroethene
VOC	Volatile organic compounds

1. INTRODUCTION

On behalf of the property owner, Ms. Clare Leung, Geosyntec Consultants (Geosyntec) prepared this fourth 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 in 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 in 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* were approved by the RWQCB on 9 December 2008.

1.3 Work Performed This Quarter (Fourth Quarter 2009)

The following work was performed in the third quarter 2009:

- The fourth quarter groundwater monitoring event was performed on 8 October 2009. This work is discussed in detail in this report.
- SVE monitoring was conducted on 13 October, 11 November, and 11 December 2009. This work is also discussed in detail in this report.
- The *Enhanced In Situ Bioremediation Pilot Study Work Plan* (EISB Work Plan) was submitted to the RWQCB on 30 October 2009. This EISB Work Plan was approved by the RWQCB in a letter dated 8 December 2009.

2. QUARTERLY GROUNDWATER MONITORING

Quarterly groundwater monitoring was performed at the Site on 8 October 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 2008[1] 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 peristaltic 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 6 July 2009, during the third quarter 2009 monitoring event, in monitoring wells MW-1 through MW-7. On 8 October 2009, the PDBs were removed from the wells and sampled. Samples were delivered to Test America Laboratory of Pleasanton, California, for analysis under standard chain-of-custody procedures. Groundwater samples from the Site monitoring wells were analyzed for VOCs by Environmental Protection Agency (EPA) Method 8260B. New PDBs for the first quarter 2010 sampling event were deployed in wells MW-1 through MW-7 on 8 October 2009 after the fourth quarter 2009 sampling was completed at each well.

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[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 fourth quarter 2009, groundwater in the A Zone (MW-1 through MW-4) beneath the Site was encountered between 17.56 and 19.87 feet bgs, corresponding to groundwater elevations between 306.40 and 308.13 feet above Mean Sea Level (MSL). Groundwater in the B Zone was encountered between 37.38 and 39.89 ft bgs, corresponding to groundwater elevations between 287.07 and 287.30 feet MSL.

Groundwater elevations over time are shown in Figure 3. The groundwater elevations in the A Zone monitoring wells have ranged from 306.4 to 314.8 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 287.1 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, when there are periods of precipitation, and lower elevations in the summer and fall, after periods of little or no rainfall. In the fourth quarter 2009, groundwater elevations were the lowest observed in both the A Zone and B Zone since monitoring began at the Site.

Water levels measured during the fourth quarter 2009 event were used to construct groundwater elevation contours for the A Zone and B Zone, as shown in Figures 4 and 5, respectively. Table 3 summarizes groundwater gradients and flow directions for this and previous monitoring events. The fourth quarter 2009 A Zone groundwater contours indicate a general groundwater flow to the west-northwest with an average gradient of approximately 0.0069 feet per feet (ft/ft) (36.4 feet per mile (ft/mi)). The B Zone groundwater contours indicate general groundwater flow to the southwest under a gradient of approximately 0.0013 ft/ft (6.7 ft/mi). During the fourth quarter 2009, the gradients and flow directions for both the A and B Zones are consistent with previous monitoring events, as shown on Table 3.

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 for groundwater samples are provided in Appendix B. Table 4 summarizes analytical results for groundwater samples collected during the fourth quarter 2009 event together with historical results. Analytical results for the fourth quarter 2009 sampling event are also shown in Figures 4 and 5 for the A Zone and B Zone, respectively. Isoconcentration contour maps for PCE and TCE are shown in 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 collected from the four A Zone monitoring wells consistently show the highest VOC concentrations at MW-2. During the fourth quarter 2009, the PCE concentration in the original and duplicate samples collected from MW-2 were both 15,000 micrograms per liter (µg/L). PCE concentrations in samples collected from MW-2 have historically ranged from 4,700 to 18,000 µg/L. During the fourth quarter 2009, TCE and cis-1,2-DCE concentrations in samples collected from MW-2 and VOC concentrations observed in samples collected from the other A Zone wells (MW-1, MW-3, and MW-4) were consistent with historical results. Duplicate samples collected from MW-2 contained 11µg/L trans-1,2-trichloroethene (trans-1,2-DCE), just above the analytical detection limit of 10 µg/L. This represents the first detection of trans-1,2-DCE in groundwater since initiation of groundwater monitoring at the Site.

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

PCE is the only VOC detected in the B Zone groundwater. During the fourth quarter 2009, the highest detection of PCE, 30 µg/L, was in the sample collected from the

closest B Zone monitoring well to the Site, MW-5. Farther downgradient from the Site, PCE was detected in the sample collected from MW-7 at 11 µg/L and was not detected in the sample collected from MW-6.

2.5 Results Discussion

Time-series graphs of PCE and TCE concentrations in all Site monitoring wells are shown in Figure 9. The highest concentrations of PCE and TCE have historically been detected in A Zone monitoring well MW-2. As shown in Figure 10, concentrations of TCE and PCE in MW-2 generally vary inversely with groundwater elevations measured in this well. The concentration of PCE and TCE in samples collected from MW-2 have increased overall since the fourth quarter 2008, which corresponds to an overall decline in groundwater elevations. PCE and TCE concentrations in A Zone wells MW-1, MW-3, and MW-4 and in B Zone wells MW-5 and MW-7 are generally stable or declining.

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 fourth quarter 2009, Geosyntec conducted the system monitoring on 13 October, 11 November, and 11 December 2009. The SVE system layout is shown in Figure 2. The SVE well locations and piping layout inside the dry cleaners is shown in Figure 11, and the process and instrumentation diagram is provided in 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 and to evaluate the composition of VOCs in the extracted vapors.

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 report is 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 2008, 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, SVE 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.

During the September 2009 monitoring event, it was noted that the SVE timer had drifted approximately 45 minutes. Accordingly, the system ran from approximately 8:45 and to 12:45 pm for period of the third quarter 2009. Due to the drift in the timer, the 4 September 2009 system monitoring was unknowingly conducted less than 20 minutes after startup, resulting in higher influent and SVE well VOC concentrations compared to previous SVE monitoring, which is conducted approximately 1 hour after startup to allow for equilibration of the extracted vapor VOC concentrations. Upon discovery that the timer had drifted, Geosyntec set the timer back to run from 8 am to 12 pm on 22 September 2009 and re-conducted system monitoring approximately 1 hour after startup. The high influent and well concentration from 4 September 2009 are shown on Tables 5 and 7 and on Figure 13. However, to be conservative the 4 September 2009 influent concentration was not used to calculation mass removal for the SVE system.

During the fourth quarter 2009, the SVE system continued to operate for 4 hours per day with the system timer set to run from approximately 8 am to 12 pm each day. On 14 September 2009, it was noted that the influent vacuum gauge was malfunctioning and in need of replacement. The gauge was replaced on 18 November 2009 by Mako Industries.

3.3 SVE Performance Evaluation

During the fourth quarter 2009, SVE influent VOC concentrations measured in the field using a PID ranged from 1,946 to 5,134 micrograms per cubic meter ($\mu g/m^3$) as equivalent PCE (0.282 to 0.744 parts per million by volume (ppmv)). After sixteen months of operation, the SVE system has removed a total of approximately 11.00 pounds (lbs) (0.82 gallons) of VOCs as equivalent PCE (Table 5 and Figure 14).

Laboratory analysis of SVE influent samples indicate that PCE is the primary COC being removed from the target remediation zone, as shown in Table 6 and in the laboratory analytical report provided in Appendix B. Observed discrepancies in total VOC concentrations between PID readings and laboratory analytical results on 4 August 2008 were corrected by reducing the time lapse between PID analysis and

sample collection. This change in sampling procedure led to greater agreement in VOC concentrations between PID and analytic results on 2 September 2008, 5 December 2008, 12 March 2009, 11 June 2009, and 11 December 2009. Although sampling methods were not altered, PID readings on 4 September 2009 were an order of magnitude higher than the VOC concentrations observed in laboratory analytical results. The discrepancy between PID and laboratory readings may be due to the altered startup time of the SVE system. Laboratory influent VOC samples were likely more equilibrated than PID samples, which were taken approximately 30 minutes earlier.

As shown on Figure 15, PCE concentrations in SVE influent samples analyzed by the laboratory decreased from 24,000 $\mu g/m^3$ on 21 August 2008 to 1700 $\mu g/m^3$ on 12 March 2009. After this initial decline, PCE concentrations increased in SVE influent samples collected on 11 June and 4 September 2009. PCE concentrations detected in the 11 December 2009 sample were slightly lower, at 2,000 $\mu g/m^3$. Overall, TCE concentrations have remained below the soil gas cleanup standard for TCE of 4,100 $\mu g/m^3$ in all samples and have decreased from 280 $\mu g/m^3$ on 21 August 2008 to 36 $\mu g/m^3$ on 12 March 2009. TCE concentrations rose slightly in samples collected on 11 June and 4 September 2009. The SVE influent sample collected on 11 December 2009 contained 87 $\mu g/m^3$ TCE, similar to the concentration observed in samples collected on 4 September 2009. Based on visual observation of the time-series graph presented on Figure 15, PCE and TCE concentrations do not appear to exhibit a declining trend over the last four quarters of SVE influent sampling.

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 $\mu g/m^3$). During the fourth quarter 2009 operations, wellhead PID screening results at all SVE wells were above the soil gas cleanup standard for PCE, which is similar to previous results.

4. FUTURE WORK

The following work will be completed during the first quarter 2010:

- EISB pilot study pre-design field activities, described in the EISB Work Plan[2], will be conducted in January 2010. A technical memorandum summarizing pre-design field activities and results and detailing the final design of the pilot study will be submitted to the RWQCB by 15 March 2010.
- The next quarterly groundwater monitoring event will be performed in January 2010. Results of the first quarter 2010 monitoring report will be submitted to the RWQCB by 30 April 2010.
- SVE monitoring will continue on a monthly basis at a minimum with one sample being collected for TO-15 analysis during the first quarter 2010. Results of the monitoring will be presented in the first quarter 2010 monitoring report due to the RWQCB on 30 April 2010.
- Review SVE system operations to develop a plan for system optimization.

[2] Geosyntec Consultants, 2009. *Enhanced In Situ Bioremediation Pilot Study Work Plan, Hopyard Cleaners, 2771 Hopyard Road, Pleasanton, California,* 30 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	10/8/2009	18.23	307.54
		7/6/2009	15.63	310.14
		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	10/8/2009	17.56	308.13
		7/6/2009	15.03	310.66
		4/27/2009	13.27	312.42
		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	10/8/2009	18.58	307.69
		7/6/2009	15.98	310.29
		4/27/2009	14.02	312.25
		1/26/2009	17.10	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

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)
MW-4 (25-35 ft bgs)	326.27	10/8/2009	19.87	306.40
		7/6/2009	17.16	309.11
		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
B Zone Monitoring Wells				
MW-5 (50-60 ft bgs)	327.19	10/8/2009	39.89	287.30
		7/6/2009	34.84	292.35
		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
		8/3/2007	30.51	296.68
MW-6 (49-59 ft bgs)	324.48	10/8/2009	37.38	287.10
		7/6/2009	32.33	292.15
		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	10/8/2009	37.48	287.07
		7/6/2009	32.41	292.14
		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			
10/8/2009	0.0069	36.4	West-Northwest
7/6/2009	0.0064	33.8	West-Northwest
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			
10/8/2009	0.0013	6.7	Southwest
7/6/2009	0.0012	6.1	Southwest
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	trans-1,2-DCE	PCE	TCE
A Zone Monitoring Wells						
MW-1 (20-30 ft bgs)	10/8/2009	PDB Sampler	220	<25	1,500	340
	7/6/2009	PDB Sampler	210	<20	1,700	270
	4/27/2009	PDB Sampler	180	<20	1,500	240
	1/26/2009	PDB Sampler	240	<20	1,700	320
	12/10/2008	PDB Sampler	250	<20	1,900	350
	7/14/2008	PDB Sampler	230	<20	1,700	250
	5/16/2008	Purge and Sample	250	<20	1,600	280
	5/16/2008	PDB Sampler*	260	<20	1,900	310
	2/29/2008	PDB Sampler*	330	<20	2,000	330
	2/15/2008	Purge and Sample	230	<20	1,400	250
	1/2/2008	Purge and Sample	230	<20	1,600	270
	8/3/2007	Purge and Sample	260	<20	1,600	270
	5/11/2007	Purge and Sample	310	<20	2,500	310
	2/9/2007	Purge and Sample	270 / 270	<20	2,400 / 2,300	290 / 290
	11/20/2006	Purge and Sample	370	<50	3,100	370
MW-2 (20-30 ft bgs)	10/8/2009	PDB Sampler	540 / 560	<100 / 11	15,000 / 15,000	870 / 900
	7/6/2009	PDB Sampler	610 / 650	<100 / <100	17,000 / 18,000	880 / 930
	4/27/2009	PDB Sampler	770 / 710	<100 / <100	14,000 / 14,000	850 / 850
	1/26/2009	PDB Sampler	760 / 770	<100 / <100	12,000 / 12,000	720 / 730
	12/10/2008	PDB Sampler	840 / 770	<100 / <100	15,000 /15,000	790 / 740
	7/14/2008	PDB Sampler	820 / 830	<100 / <50	9,500 / 8,100	530 / 500
	5/16/2008	Purge and Sample	900 / 930	<50 / <50	5,800 / 5,900	460 / 450
	5/16/2008	PDB Sampler*	940	<50 / <50	6,700	480
	2/29/2008	PDB Sampler*	780	<50	5,300	360
	2/15/2008	Purge and Sample	690 / 690	<50 / <50	4,100 / 4,000	320 / 300
	1/2/2008	Purge and Sample	940 / 890	<50 / <50	8,200 / 8,200	560 / 580
	8/3/2007	Purge and Sample	1,200 / 1,100	<50 / <50	8,000 / 8,100	590 / 570
	5/11/2007	Purge and Sample	1,000 / 980	<50 / <50	7,200 / 7,300	490 / 450
	2/9/2007	Purge and Sample	760	<50 / <20	4,700	350
	11/20/2006	Purge and Sample	800 / 800	<50 / <40	5,700 / 5,800	370 / 360
MW-3 (20-30 ft bgs)	10/8/2009	PDB Sampler	5.3	<0.50	48	5.0
	7/6/2009	PDB Sampler	4.1	<0.50	47	4.6
	4/27/2009	PDB Sampler	4.4	<0.50	48	4.7
	1/26/2009	PDB Sampler	4.6	<0.50	42	4.7
	12/10/2008	PDB Sampler	5.6	<0.50	60	5.5
	7/14/2008	PDB Sampler	4.3	<0.50	43	4.0
	5/16/2008	Purge and Sample	5.0	<0.50	39	4.3
	5/16/2008	PDB Sampler*	5.4	<0.50	46	4.4
	2/29/2008	PDB Sampler*	6.9	<0.50	58	5.9
	2/15/2008	Purge and Sample	6.2	<0.50	44	5.1
	1/2/2008	Purge and Sample	5.2	<0.50	46	4.6
	8/3/2007	Purge and Sample	4.7	<0.50	37	4.2
	5/11/2007	Purge and Sample	5.5	<0.50	43	4.4
	2/9/2007	Purge and Sample	5.3	<0.50	42	4.2
	11/20/2006	Purge and Sample	9.5	<1.0	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	trans-1,2-DCE	PCE	TCE
MW-4 (25-35 ft bgs)	10/8/2009	PDB Sampler	3.3	<0.50	<0.50	3.2
	7/6/2009	PDB Sampler	3.0	<0.50	<0.50	3.4
	4/27/2009	PDB Sampler	3.7	<0.50	<0.50	4.3
	1/26/2009	PDB Sampler	4.3	<0.50	<0.50	4.9
	12/10/2008	PDB Sampler	4.0	<0.50	<0.50	3.7
	7/14/2008	PDB Sampler	4.7	<0.50	<0.50	4.0
	5/16/2008	Purge and Sample	3.7	<0.50	<0.50	2.6
	5/16/2008	PDB Sampler*	3.6	<0.50	<0.50	2.7
	2/29/2008	PDB Sampler*	3.4	<0.50	<0.50	3.0
	2/15/2008	Purge and Sample	4.2	<0.50	<0.50	4.0
	1/3/2008	Purge and Sample	4.2	<0.50	<0.50	3.5
	8/3/2007	Purge and Sample	4.6	<0.50	<0.50	3.5
B Zone Monitoring Wells						
MW-5 (50-60 ft bgs)	10/8/2009	PDB Sampler	<0.50	<0.50	30	<0.50
	7/6/2009	PDB Sampler	<0.50	<0.50	34	<0.50
	4/27/2009	PDB Sampler	<0.50	<0.50	35	<0.50
	1/26/2009	PDB Sampler	<0.50	<0.50	37	<0.50
	12/10/2008	PDB Sampler	<0.50	<0.50	49	<0.50
	7/14/2008	PDB Sampler	<0.50	<0.50	31	<0.50
	5/16/2008	Purge and Sample	<0.50	<0.50	24	<0.50
	5/16/2008	PDB Sampler*	<0.50	<0.50	34	<0.50
	2/29/2008	PDB Sampler (52.5 ft bgs)*	<0.50	<0.50	41	<0.50
	2/29/2008	PDB Sampler (57.5 ft bgs)*	<0.50	<0.50	33	<0.50
	2/15/2008	Purge and Sample	<0.50	<0.50	26	<0.50
	1/3/2008	Purge and Sample	<0.50	<0.50	38	<0.50
	8/3/2007	Purge and Sample	<0.50	<0.50	37	<0.50
MW-6 (49-59 ft bgs)	10/8/2009	PDB Sampler	<0.50	<0.50	<0.50	<0.50
	7/6/2009	PDB Sampler	<0.50	<0.50	<0.50	<0.50
	4/27/2009	PDB Sampler	<0.50	<0.50	<0.50	<0.50
	1/26/2009	PDB Sampler	<0.50	<0.50	<0.50	<0.50
	12/10/2008	PDB Sampler (51.5 ft bgs)*	<0.50	<0.50	<0.50	<0.50
	12/10/2008	PDB Sampler (56.5 ft bgs)*	<0.50	<0.50	<0.50	<0.50
MW-7 (45-55 ft bgs)	10/8/2009	PDB Sampler	<0.50	<0.50	11	<0.50
	7/6/2009	PDB Sampler	<0.50	<0.50	5.3	<0.50
	4/27/2009	PDB Sampler	<0.50	<0.50	5.7	<0.50
	1/26/2009	PDB Sampler	<0.50	<0.50	9.9	<0.50
	12/10/2008	PDB Sampler (47.5 ft bgs)*	<0.50	<0.50	9.8	<0.50
	12/10/2008	PDB Sampler (52.5 ft bgs)*	<0.50	<0.50	10	<0.50

Notes:

Table shows only compounds detected above the laboratory reporting limit.

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

trans-1,2-DCE = trans-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 as PCE)	Mid-Point Conc. (ug/m^3 as PCE)	Effluent Conc. (ug/m^3 as PCE)	Temp. Before GAC Vessels (°F) (1)	Vacuum (in water)	Flowrate (cfm)	Flowrate (scfm)	Total Operation Time (hr)	Equivalent PCE Conc. (mg/m^3 as PCE)	Mass Removal Rate (lbs/hr)	Mass Removal Rate (lbs/day)	Mass Removal per Monitoring Event (lbs as PCE)	Cumulative Mass Removal (lbs as PCE)
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	1,359.63	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	1,611.59	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	2,059.43	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	2,268.99	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	2,273.13	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 (2)	5,520 (2)	690 (2)	--	136	189.44	128.95	2,479.38	6.9 (2)	0.0008	0.0200	0.17	9.22
5-Feb-09	10:30	11,563.8	4,470	59.1	10.0	154,600 (2)	93,840 (2)	104,880 (2)	--	136	205.04	138.90	2,480.21	154.56 (2)	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	2,675.16	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	2,675.20	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	2,771.60	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	2,772.10	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	2,800.06	1.10	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	2,857.98	3.31	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	2,962.03	2.87	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	3,105.98	0.083	0.0008	0.0181	0.11	9.70
7-Jul-09	9:00	15,207.7	3,410	79.3	8.0	3,340	483.0	558.9	112.8	109	156.41	112.22	3,210.03	3.34	0.0007	0.0173	0.07	9.77
6-Aug-09	8:40	15,927.3	2,750	75.5	7.0	4,485	1,614.6	710.7	101.3	95	126.14	95.30	3,329.98	4.49	0.0014	0.0335	0.17	9.94
4-Sep-09	8:55	16,623.6	3,220	80.9	-- (3)	40,586 (4)	0.0	0.0	102.1	95	147.70	110.47	3,446.02	40.586 (4)	-- (4)	-- (4)	-- (4)	9.94
22-Sep-09	10:15	17,056.4	-- (5)	-- (5)	-- (3)	6,445	924.6	855.6	118.1	95	147.70	110.47	3,518.24	6.44	0.0023	0.0543	0.43	10.37
13-Oct-09	10:02	17,560.8	3,190	66.4	-- (3)	5,134	1,139	1,711	78.2	95	146.32	112.53	3,602.20	5.13	0.0024	0.0586	0.20	10.57
11-Nov-09	9:15	18,257.1	3,480	65.2	-- (3)	3,940	2,180	655.5	95.7	95	159.63	122.96	3,718.07	3.94	0.0021	0.0502	0.24	10.81

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. ($^{\circ}$F)	Influent Vacuum (in Hg)	Influent Conc. (ug/m^3 as PCE)	Mid-Point Conc. (ug/m^3 as PCE)	Effluent Conc. (ug/m^3 as PCE)	Temp. Before GAC Vessels (^{o}F) (1)	Vacuum (in water)	Flowrate (cfm)	Flowrate (scfm)	Total Operation Time (hr)	Equivalent PCE Conc. (mg/m^3 as PCE)	Mass Removal Rate (lbs/hr)	Mass Removal Rate (lbs/day)	Mass Removal per Monitoring Event (lbs as PCE)	Cumulative Mass Removal (lbs as PCE)
11-Dec-09	9:15	18976.8	3260	56.1	5.0	1,946	207.0	213.9	81.2	68	149.53	127.43	3,838.07	1.95	0.0014	0.0337	0.17	10.98

Notes/Assumptions:

A. Inlet pipe diameter is 3".

B. 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 pm) per day on 10 April 2009. SVE monitoring is conducted approximately 1 hour after SVE system startup.

C. Vapor density of PCE is estimated to be 6,900 g/m^3 at 20C.

D. SCFM(at 14.7psia and 68°F) = CFM x([(Pg + Patm)/(Patm)] x [(68 +460)/(Tact +460)])

E. Concentrations and mass removal are calculated as mass of PCE.

(1) 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^{o}F prior to entering the carbon vessels.

(2) PID readings from 5 February 2009 were anomolously high, indicating possible instrumentation error. To be conservative, this influent concentration was not included in mass removal calculations.

(3) From the beginning of September through mid-November 2009, the influent vacuum gauge was malfuncting. Flow rate and mass removal were calculated using the influent vacuum measured on 6 August 2009 (7.0 in Hg). The vacuum gauge was replaced on 18 November 2009 by Mako Industries, Inc.

(4) The timer on the SVE system drifted prior to the 4 Sepember 2009 monitoring event, and SVE system started approximately 45 minutes later than scheduled. Therefore, system monitoring was conducted less than 20 minutes after SVE system startup, resulting in high influent concentations, than those measured 1 hour after startup. To be conservative, the influent concentations from 4 September 2009 were not used in the mass removal calulations and SVE system monitoring was conducted again on 22 September 2009.

(5) On 22 September 2009, influent temperature and flow rate readings could not be obtained due to equiptment problems. These values are assumed to be equivalent to those measured on 4 September 2009 and the 4 September 2009 values were used to flow rate and calculate mass removal.

ft/min = feet per minute
ug/m^3 = micrograms per cubic meter
^{o}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/m^3 = milligrams per cubic meter
yr = year
lbs = pounds
"--" = not measured or not calculated

Table 6
SVE Influent Analytical Summary
Hopyard Cleaners
2771 Hopyard Road, Pleasanton, California

VOC	Sample Date													
	21-Aug-08		2-Sep-08		5-Dec-08		12-Mar-09		11-Jun-09		4-Sep-09		11-Dec-09	
units	**ppmv**	**ug/m^3**	**ppmv**	**ug/m^3**	**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	0.600	4,100	0.430	2,900
TCE	0.051	280	0.029	160	0.012	64	0.0068	36	0.01	54	0.017	89	0.016	87
Other[1]	0.022	66	0.0075	22	0.043	112.6	0.0134	35.1	0.0207	56.9	0.036	96	0.0026	13
Total VOCs	*3.651*	*24,346*	*1.237*	*8,682*	*0.395*	*2,476.6*	*0.270*	*1,771.1*	*0.321*	*2,110.9*	*0.653*	*4,285*	*0.4486*	*3,000*
Influent PID Reading[2]	*13.8*	*95,220*	*1.8*	*12,420*	*0.7*	*4,830*	*0.159*	*1,097*	*0.012*	*83*	*5.882*	*40,586*	*0.282*	*1,946*

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/m^3 - 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; 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; freon 12 was detected at 0.0025 ppmv, acetone was detected at 0.027 ppmv, and 2-butanone was detected at 0.0065 ppmv on 4 September 2009; and freon 12 was detected at 0.0026 ppmv on 11 December 2009.

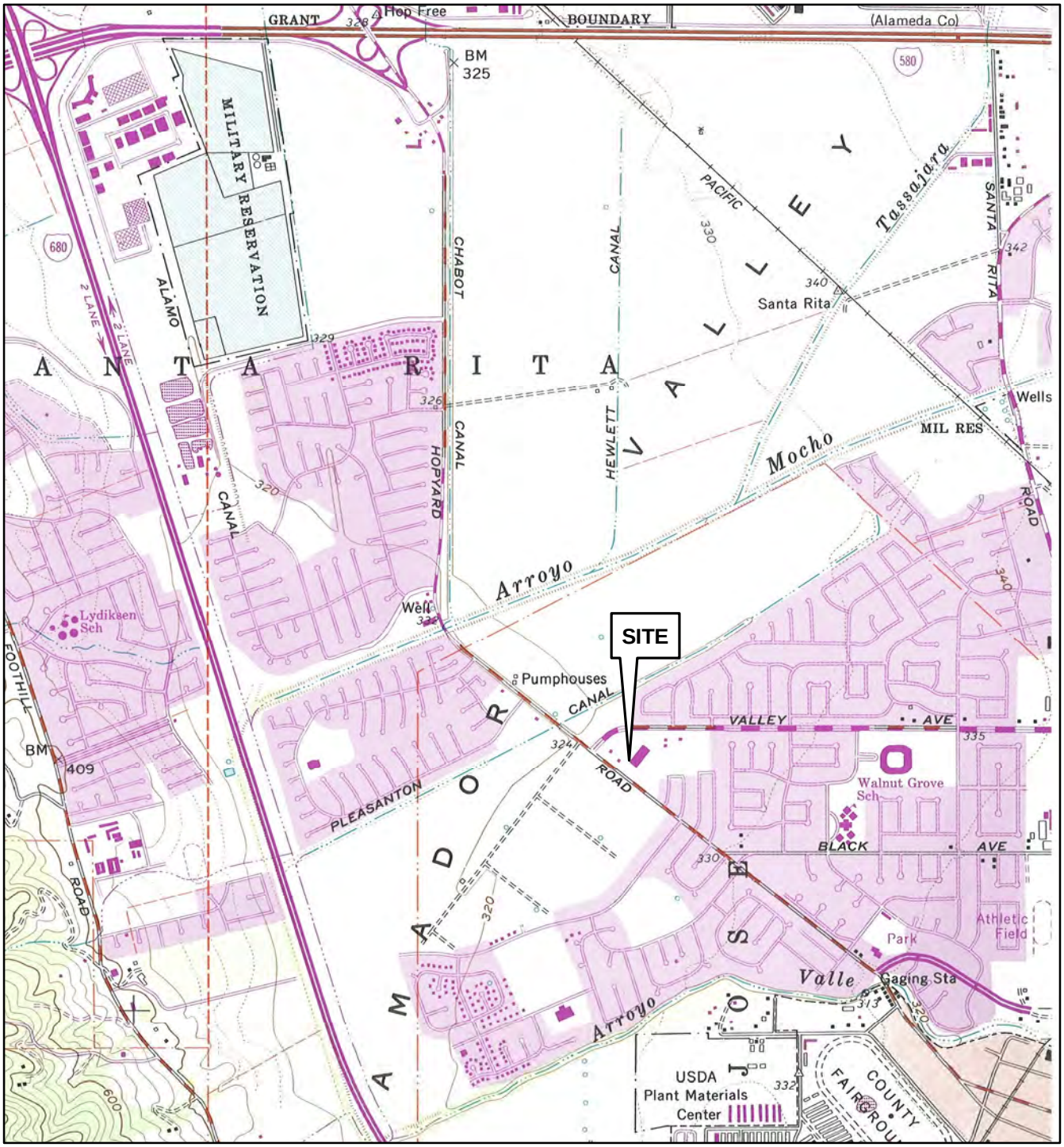
(2) PID screening results from the date sampling was conducted, as presented on Table 5. PID results are calculated as parts per million by volume to ug/m^3 as PCE.

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] ug/m^3 as PCE	PID [2] ppmv	Time	Vacuum (in Hg)	PID [2] ug/m^3 as PCE	PID [2] ppmv	Time	Vacuum (in Hg)	PID [2] ug/m^3 as PCE	PID [2] ppmv	Time	Vacuum (in Hg)	PID [2] ug/m^3 as PCE	PID [2] ppmv	Time	Vacuum (in Hg)	PID [2] ug/m^3 as PCE	PID [2] 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 [4]	12.2 [4]	9:26	OFF	73,830 [4]	10.7 [4]	9:24	2.9	74,520 [4]	10.8 [4]	9:29	OFF	178,710 [4]	25.9 [4]	9:40	2.9	252,540 [4]	36.6 [4]
5-Feb-09	Cycle Wells [3]	14	10:41	230	4.5	10:43	1.5	189,750 [4]	27.5 [4]	10:42	1.2	158,700 [4]	23.0 [4]	10:40	OFF	107,640 [4]	15.6 [4]	10:45	1.5	230,460 [4]	33.4 [4]	10:39	OFF	142,830 [4]	20.7 [4]
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	90	0.013	9:10	0.9	76	0.011	9:07	0.8	62	0.009	9:15	0.9	90	0.013	9:05	0.9	76	0.011
7-Jul-09	11th Month	4	9:28	180	2.0	9:29	0.7	2,670	0.387	9:26	0.8	1,953	0.283	9:24	0.7	2,857	0.414	9:31	0.9	2,691	0.390	9:22	0.9	3,567	0.517
6-Aug-09	12th Month	4	9:34	170	1.5	9:35	0.6	3,968	0.575	9:33	0.7	4,513	0.654	9:31	0.7	5,610	0.813	9:37	0.7	4,230	0.613	9:28	0.7	6,969	1.01
4-Sep-09	13th Month	4	9:37	165	2.0	9:38	0.6	140,139 [5]	20.31 [5]	9:36	0.7	5,203 [5]	0.754 [5]	9:33	0.7	7,349 [5]	1.065 [5]	9:39	0.7	15,560 [5]	2.255 [5]	9:31	0.7	13,379 [5]	1.939 [5]
22-Sep-09	13th Month	4	10:40	160	2.0	10:43	0.6	10,702	1.551	10:46	0.7	5,603	0.812	10:42	0.7	7,638	1.107	10:44	0.7	10,633	1.541	10:41	0.7	8,694	1.260
13-Oct-09	14th Month	4	9:52	160	2.0	9:44	0.7	8,508	1.233	9:50	0.7	6,031	0.874	9:42	0.7	9,322	1.351	9:48	0.7	5,251	0.761	9:40	0.7	7,017	1.017
11-Nov-09	15th Month	4	9:35	170	1.5	9:36	0.6	7,625	1.105	9:34	0.7	3,574	0.518	9:32	0.7	4,333	0.628	9:38	0.7	4,637	0.672	9:30	0.7	9,177	1.330
11-Dec-09	16th Month	4	9:35	175	1.5	9:38	0.7	1,932	0.280	9:36	0.7	2,194	0.318	9:33	0.7	1,539	0.223	9:38	0.7	3,767	0.546	9:30	0.7	2,512	0.364

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 wells
(4) PID readings from 5 February 2009 were anomolously high, indicating possible instrumentation error.
(5) The timer on the SVE system drifted prior to the 4 Sepember 2009 monitoring event, and SVE system started approximately 45 minutes later than scheduled. Therefore, system monitoring was conducted in closer proximitey to SVE system startup than other monitoring events, resulting in higher measured concentations.
ft = feet
min = minute
in Hg = inches of mercury
ug/m^3 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

0 1,000 2,000 Feet

N

Figure 1
Site Location Map

Hopyard Cleaners
2771 Hopyard Road
Pleasanton, California

Project: WR0574	January 2010	Geosyntec consultants

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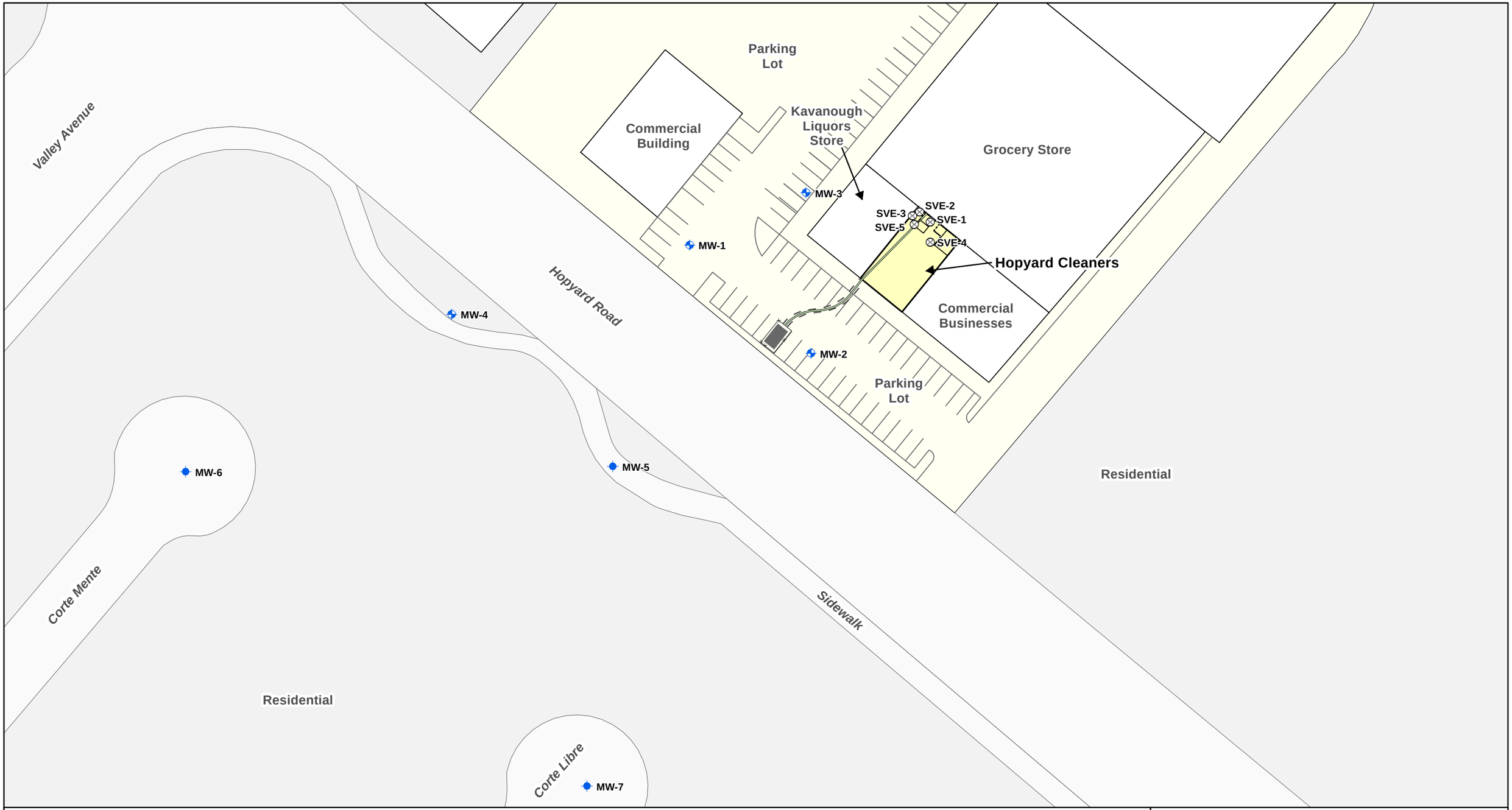

Legend

Sample Locations

- A Zone Groundwater Monitoring Well
- B Zone Groundwater Monitoring Well
- Soil Vapor Extraction Well
- SVE Conveyance Piping
- SVE Piping
- Trench Cut
- SVE Mobile Treatment System
- Fence

N

Feet
0 60

Figure 2

Site Layout and Vicinity Map

Project: WR0574
Date: January 2010

Hopyard Cleaners
2771 Hopyard Road
Pleasanton, California

Geosyntec consultants

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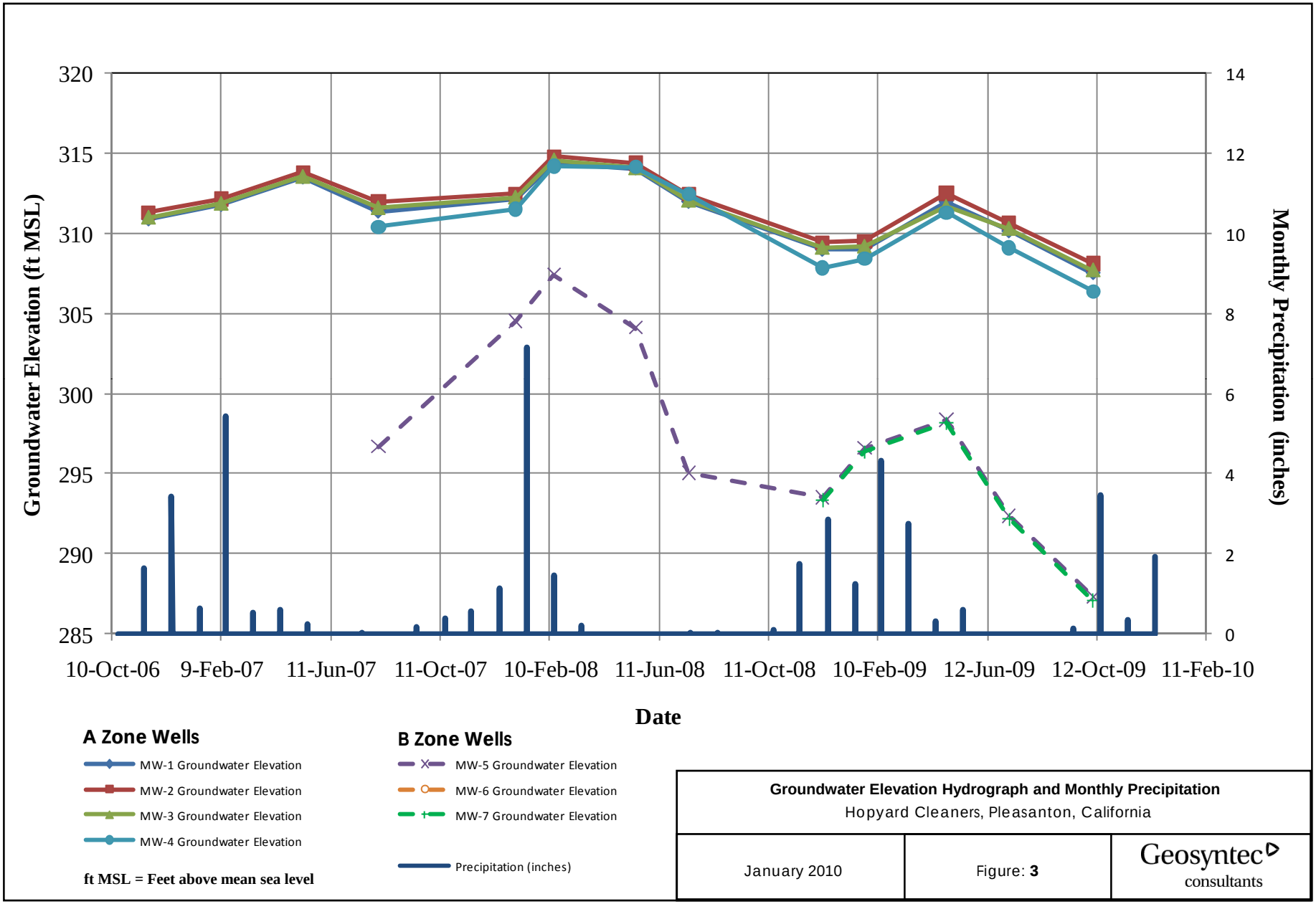
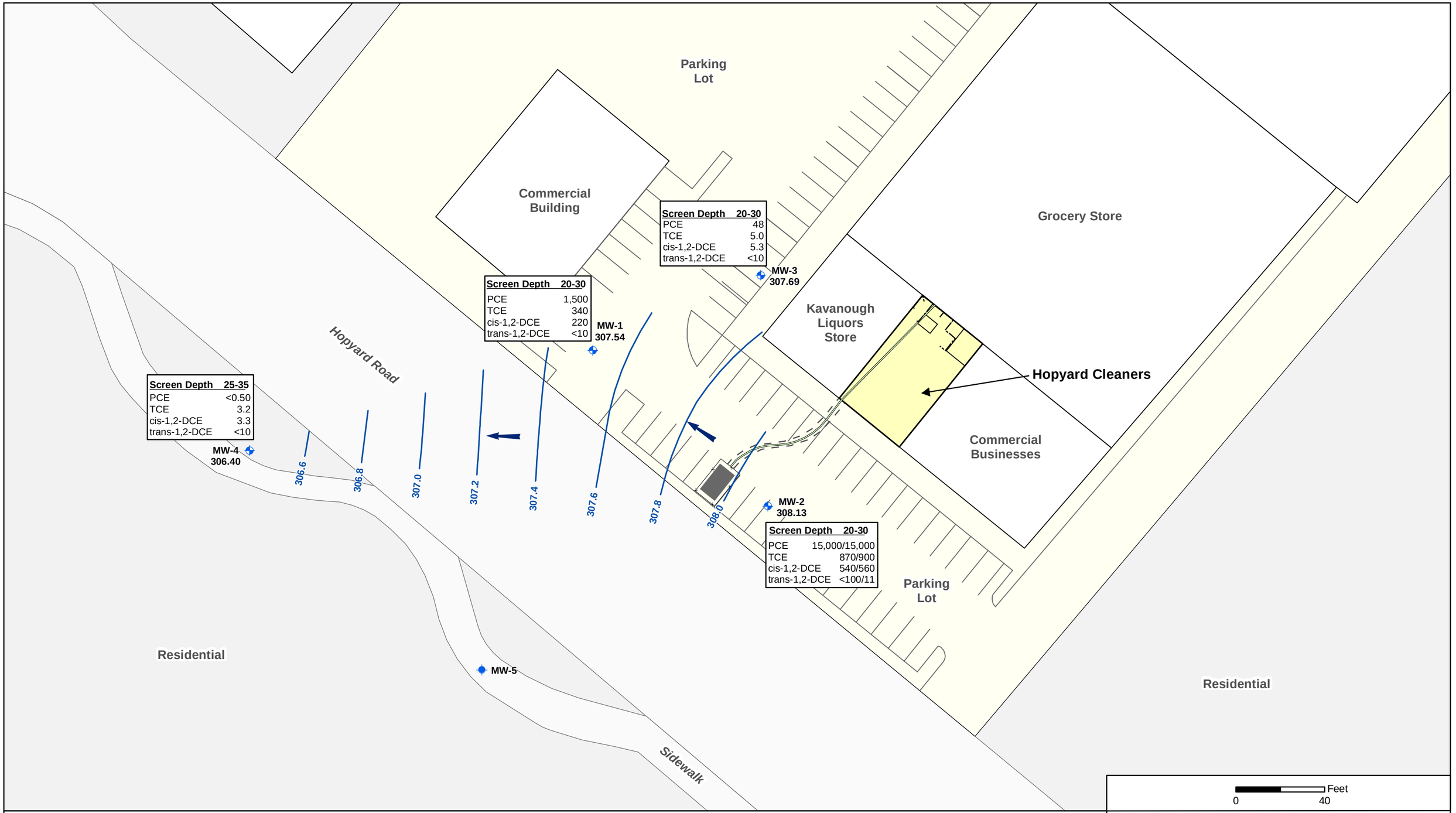


Groundwater Elevation Hydrograph and Monthly Precipitation
Hopyard Cleaners, Pleasanton, California

January 2010	Figure: **3**	Geosyntec consultants



Legend

- **MW-1** A Zone Groundwater Monitoring Well
- **307.54** and Groundwater Elevation
- **MW-5** B Zone Groundwater Monitoring Well
- General Direction of Groundwater Flow
- Groundwater Elevation Contour
- SVE Conveyance Piping
- SVE Piping
- Trench Cut
- SVE Mobile Treatment System
- Fence

Screen Depth	25-35
PCE	<0.50
TCE	3.2
cis-1,2-DCE	3.3
trans-1,2-DCE	<10

Notes:
PCE = Tetrachloroethene
TCE = Trichloroethene
cis-1,2-DCE = cis-1,2-Dichloroethene
trans-1,2-DCE = trans-1,2-dichlorothene
" / " Indicates primary sample result / duplicate sample result.
Groundwater elevations 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).

N

0 40 Feet

Figure 4
A Zone Groundwater Elevation Contours and Analytical Results
Fourth Quarter 2009

Project: WR0574
Date: January 2010

Hopyard Cleaners
2771 Hopyard Road
Pleasanton, California

Geosyntec consultants

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Parking Lot

Commercial Building

Grocery Store

Valley Avenue

MW-3

Kavanough Liquors Store

MW-1

Hopyard Cleaners

Hopyard Road

MW-4

Commercial Businesses

MW-2

Parking Lot

Screen Depth	49-59
PCE	<0.50
TCE	<0.50
cis-1,2-DCE	<0.50

MW-6
287.10

Screen Depth	50-60
PCE	30
TCE	<0.50
cis-1,2-DCE	<0.50

MW-5
287.30

Residential

287.28

287.24

287.20

Corte Mente

Sidewalk

287.16

287.12

Residential

287.08

Corte Libre

MW-7
287.08

Screen Depth	45-55
PCE	11
TCE	<0.50
cis-1,2-DCE	<0.50

Feet
0 60

Legend

- MW-5 — B Zone Groundwater Monitoring Well
- 287.30 — and Groundwater Elevation
- MW-1 — A Zone Groundwater Monitoring Well
- General Direction of Groundwater Flow
- Groundwater Elevation Contour
- SVE Conveyance Piping
- SVE Piping
- Trench Cut
- SVE Mobile Treatment System
- Fence

Screen Depth	45-55
PCE	11
TCE	<0.50
cis-1,2-DCE	<0.50

Notes:
PCE = Tetrachloroethene
TCE = Trichloroethene
cis-1,2-DCE = cis-1,2-Dichloroethene
" / " Indicates primary sample result / duplicate sample result.
Groundwater elevations 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).

N

Figure 5
B Zone Groundwater Elevation Contours and Analytical Results
Fourth Quarter 2009

Project: WR0574
Date: January 2010

Hopyard Cleaners
2771 Hopyard Road
Pleasanton, California

Geosyntec consultants

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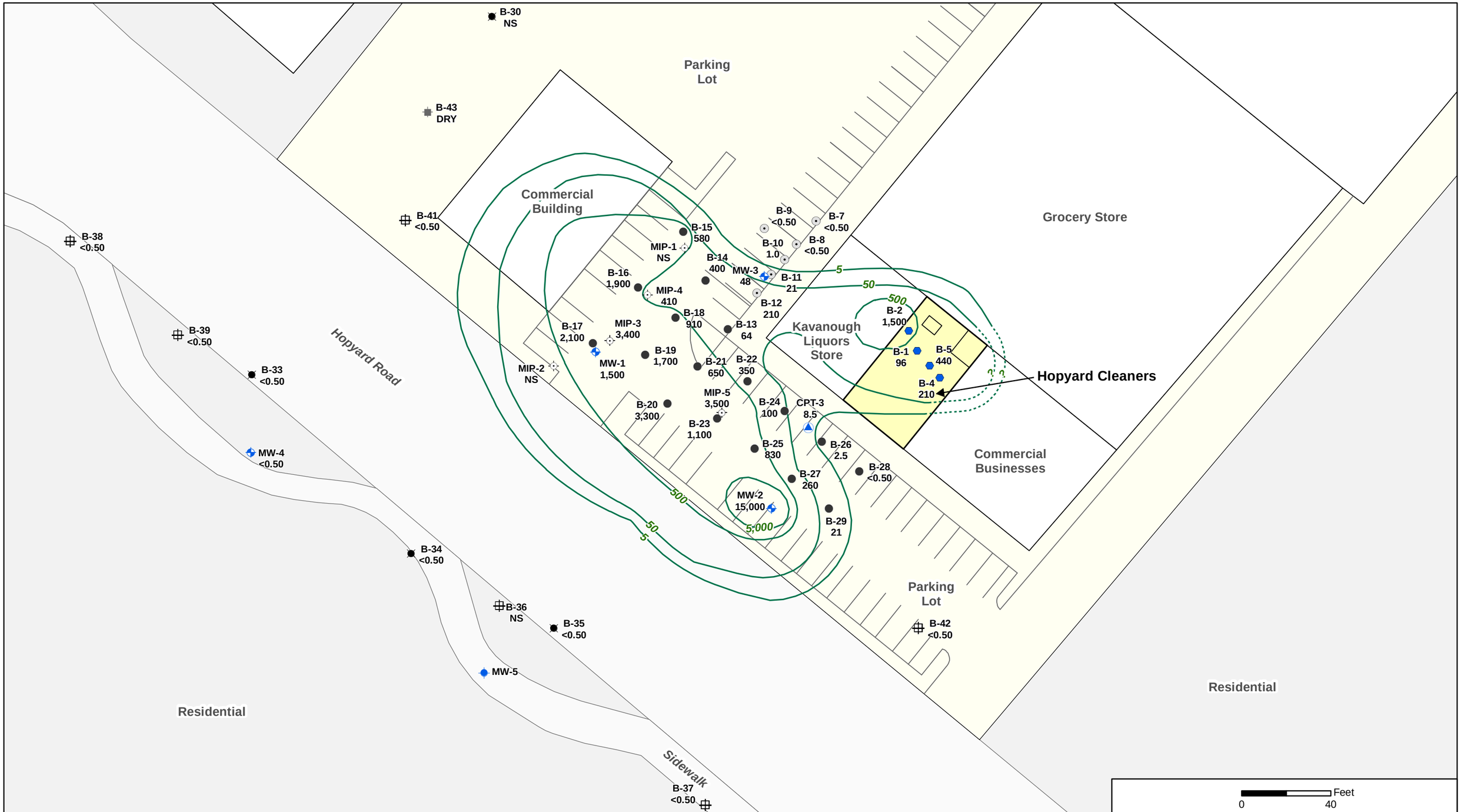

Legend

- A Zone Groundwater Monitoring Well
- B Zone Groundwater Monitoring Well
- CPT Groundwater Sampling Location (April 2008)
- Temporary Well/Boring Location (June 2007)
- Hydropunch/Boring Location (March 2007)
- MIP Location (January 2006)
- Grab Groundwater/Boring Location (January 2005)
- Hydropunch/Boring Location (May 2004)
- Hydropunch/Boring Location (September 2003)
- Hydropunch/Boring Location (April 2003)
- PCE Contour in Groundwater (ug/L)
- Estimated PCE Contour in Groundwater (ug/L)

Notes:
PCE = Tetrachloroethene
Analytical results in micrograms per liter (ug/L).
Screen depth in feet below ground surface (ft bgs).

N

Feet
0 40

Figure 6
PCE Iscoconcentration Contours in
A Zone Groundwater (20 to 35 ft bgs)
April 2003 through Fourth Quarter 2009

Project: WR0574
Date: January 2010

Hopyard Cleaners
2771 Hopyard Road
Pleasanton, California

Geosyntec consultants

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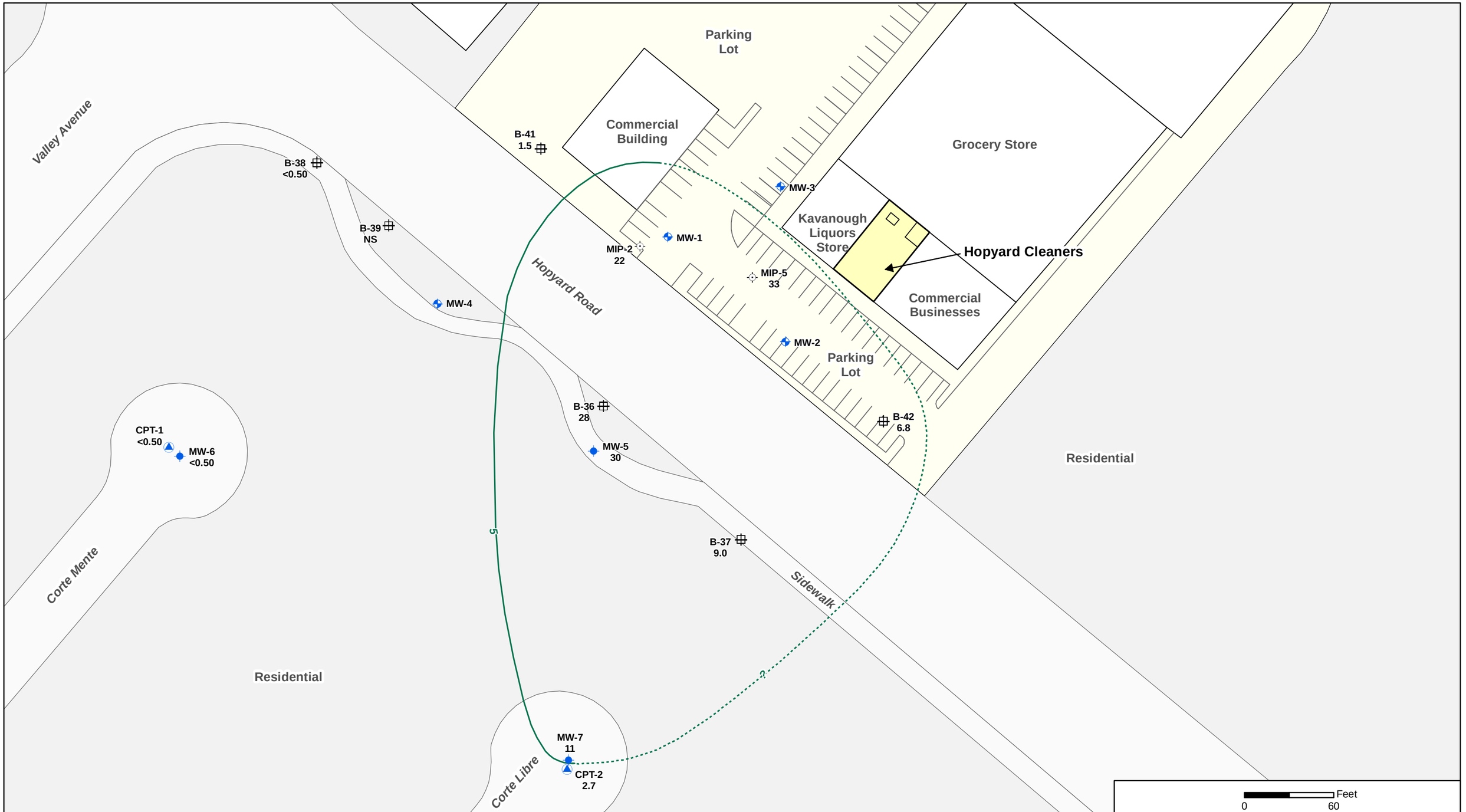

Legend

- B Zone Groundwater Monitoring Well
- A Zone Groundwater Monitoring Well
- CPT Groundwater Sampling Location (April 2008)
- Hydropunch/Boring Location (March 2007)
- MIP Location (January 2006)
- PCE Contour in Groundwater (ug/L)
- Estimated PCE Contour in Groundwater (ug/L)

Notes:
PCE = Tetrachloroethene
Analytical results in micrograms per liter (ug/L).
Screen depth in feet below ground surface (ft bgs).

N

Figure 7
PCE Iscoconcentration Contours in B Zone Groundwater (40 to 60 ft bgs) January 2006 through Fourth Quarter 2009

Project: WR0574
Date: January 2010

Hopyard Cleaners
2771 Hopyard Road
Pleasanton, California

Geosyntec consultants

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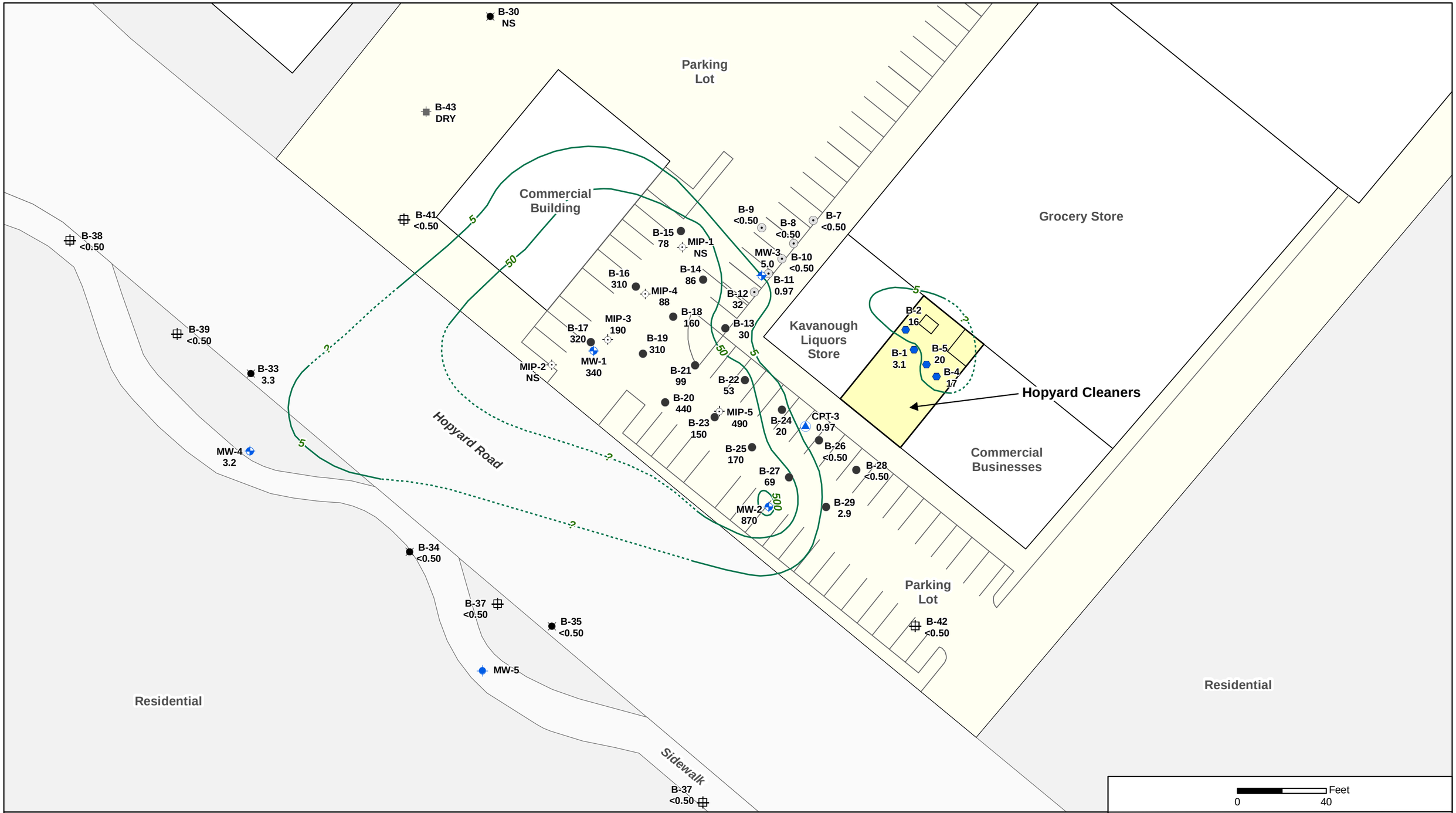

Legend

- A Zone Groundwater Monitoring Well
- B Zone Groundwater Monitoring Well
- CPT Groundwater Sampling Location (April 2008)
- Temporary Well/Boring Location (June 2007)
- Hydropunch/Boring Location (March 2007)
- MIP Location (January 2006)
- Grab Groundwater/Boring Location (January 2005)
- Hydropunch/Boring Location (May 2004)
- Hydropunch/Boring Location (September 2003)
- Hydropunch/Boring Location (April 2003)
- TCE Contour in Groundwater (ug/L)
- Estimated TCE Contour in Groundwater (ug/L)

Notes:
TCE = Trichloroethene
Analytical results in micrograms per liter (ug/L).
Screen depth in feet below ground surface (ft bgs).

N

Figure 8
TCE Isoconcentration Contours in A Zone Groundwater (20 to 35 ft bgs) April 2003 through Fourth Quarter 2009

Project: WR0574
Date: January 2010

Hopyard Cleaners
2771 Hopyard Road
Pleasanton, California

Geosyntec consultants

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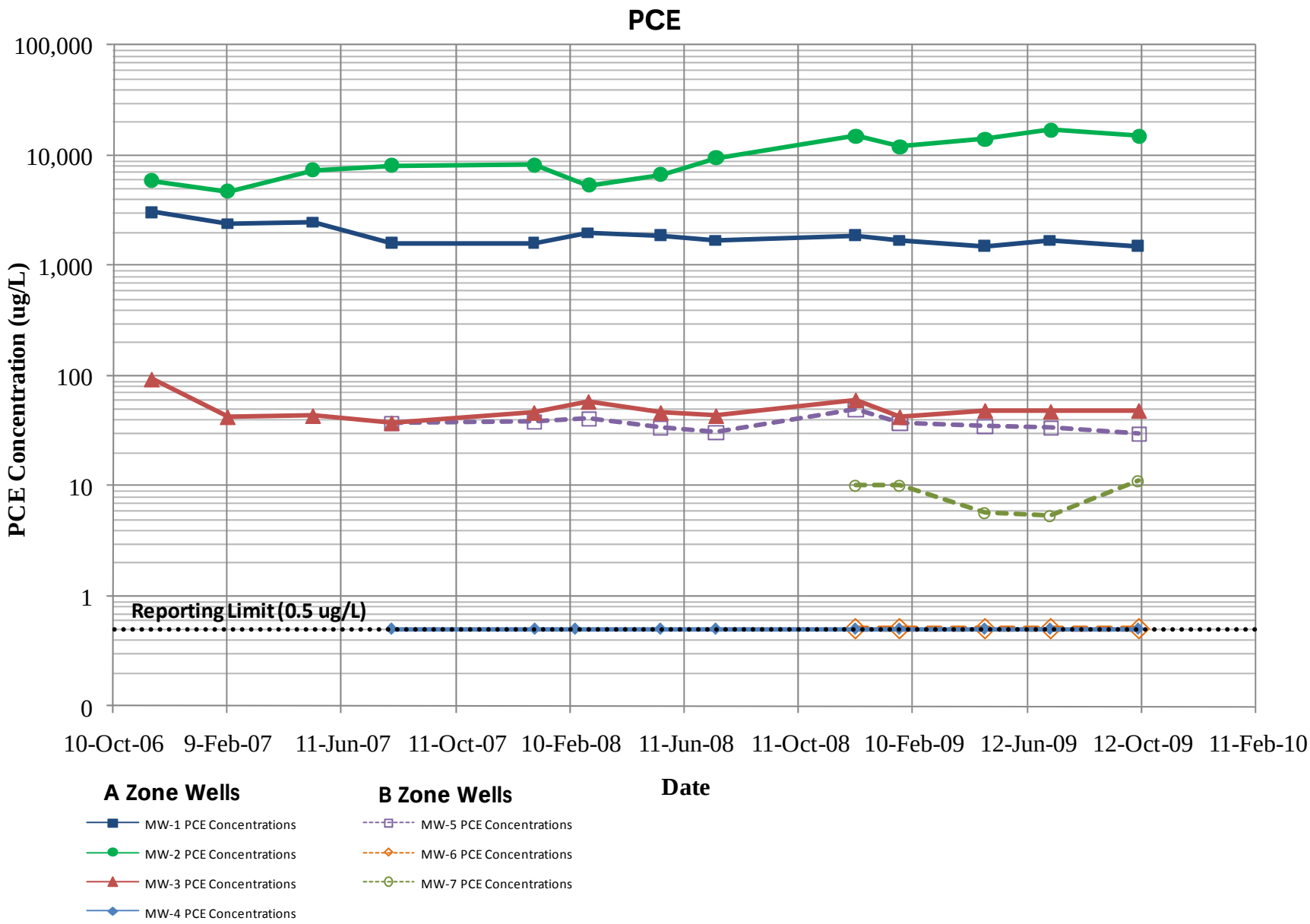
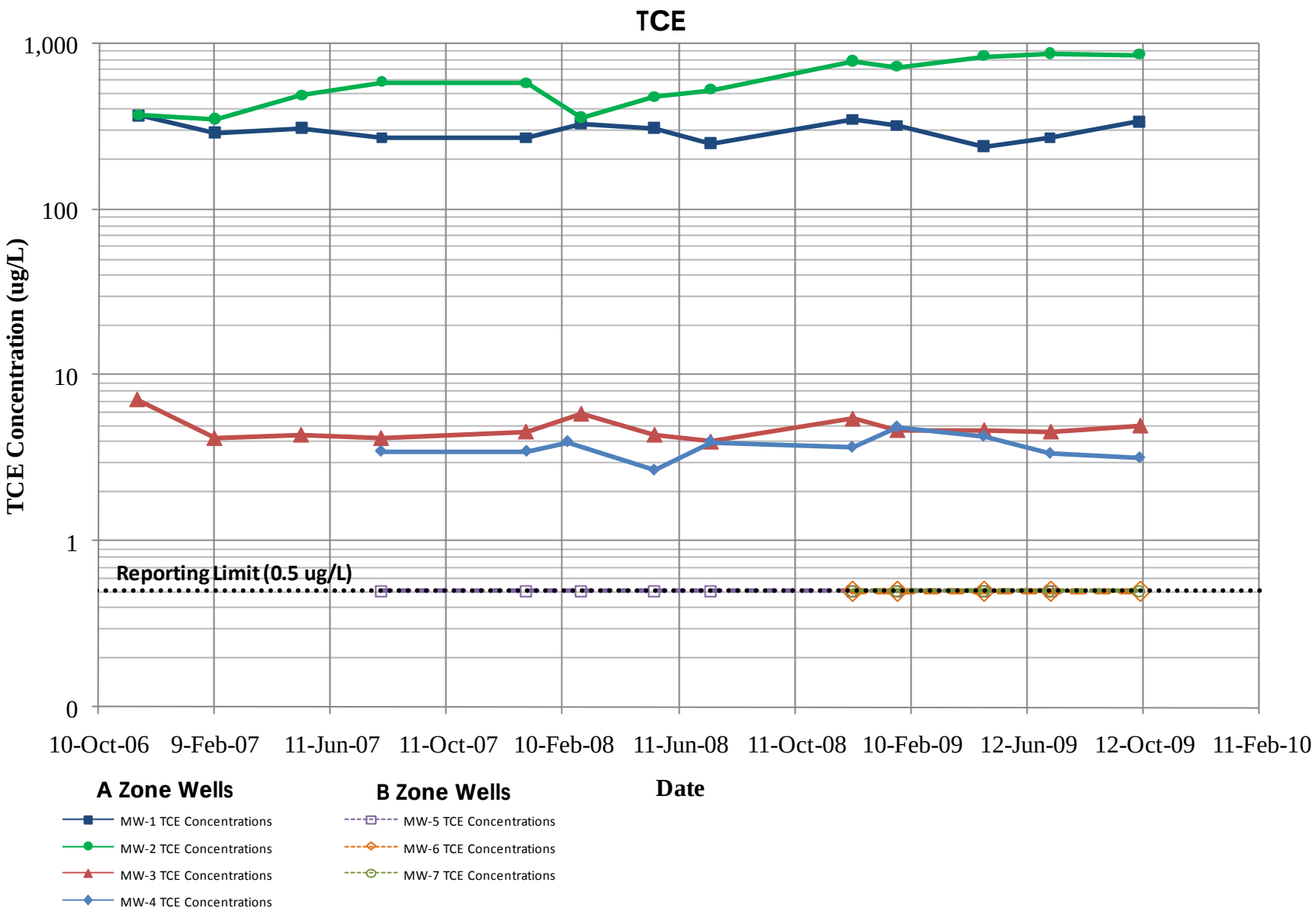


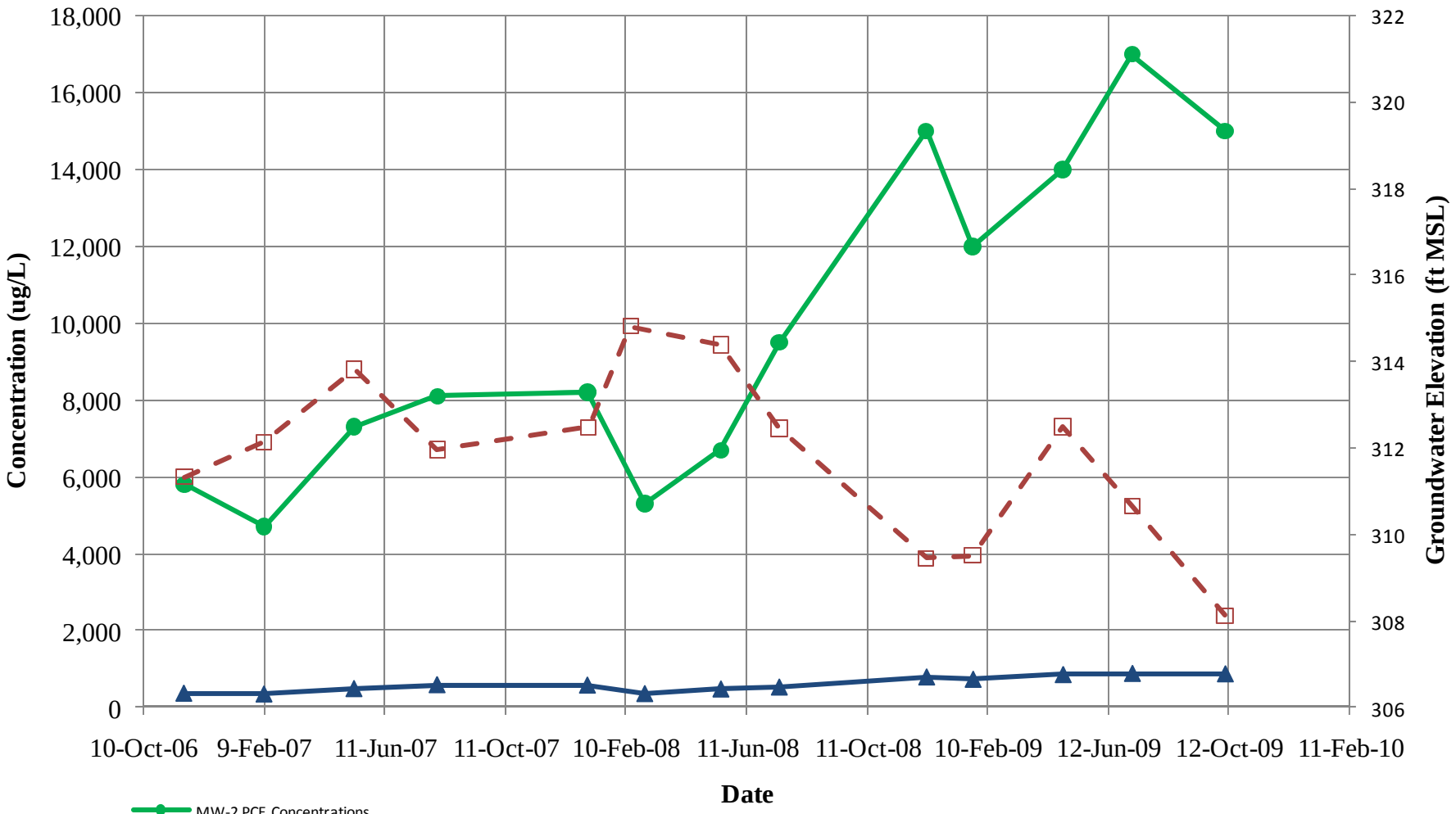


PCE = tetrachloroethene
TCE = trichloroethene
ug/L = micrograms per liter

PCE and TCE Groundwater Concentrations Over Time

Hopyard Cleaners, Pleasanton, California

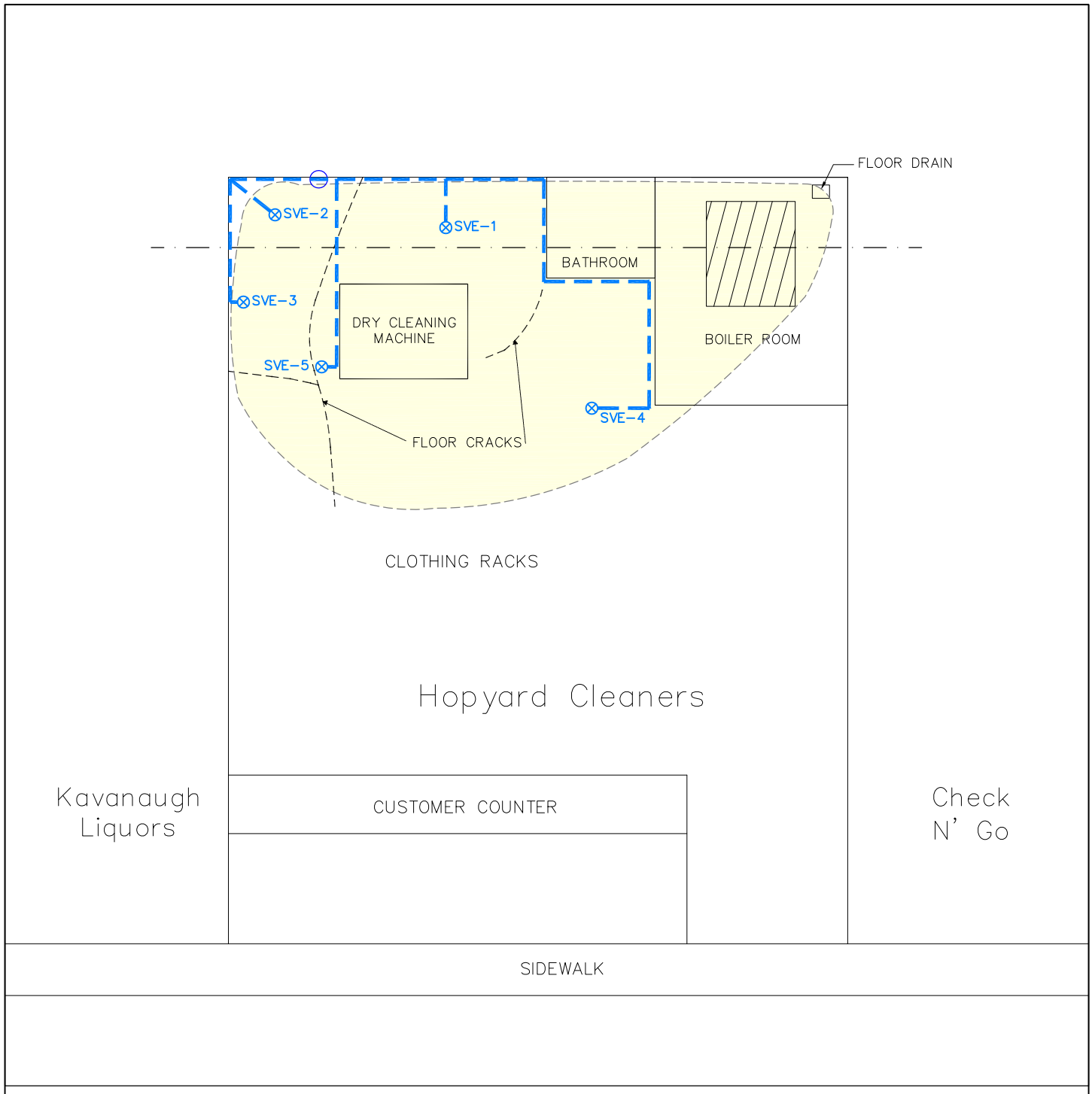
January 2010	Figure: **9**	Geosyntec consultants



PCE = tetrachloroethene
TCE = trichloroethene
ug/L = micrograms per liter
ft MSL = feet above mean sea level

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

January 2010	Figure: **10**	Geosyntec consultants



LEGEND

- SVE-1 — Soil Vapor Extraction Well
- Approximate SVE Conveyance Piping Location
- Approximate SVE Manifold Location
- Approximate Sewer Location
- Approximate Floor Crack Location
- On-Site Soil Target Remedial Area

0 4 8

APPROX. SCALE IN FEET

Figure 11

Soil Vapor Extraction Well Locations And Piping System

Project: WR0574 Date: January 2010	Hopyard Cleaners 2771 Hopyard Road Pleasanton, California	Geosyntec consultants

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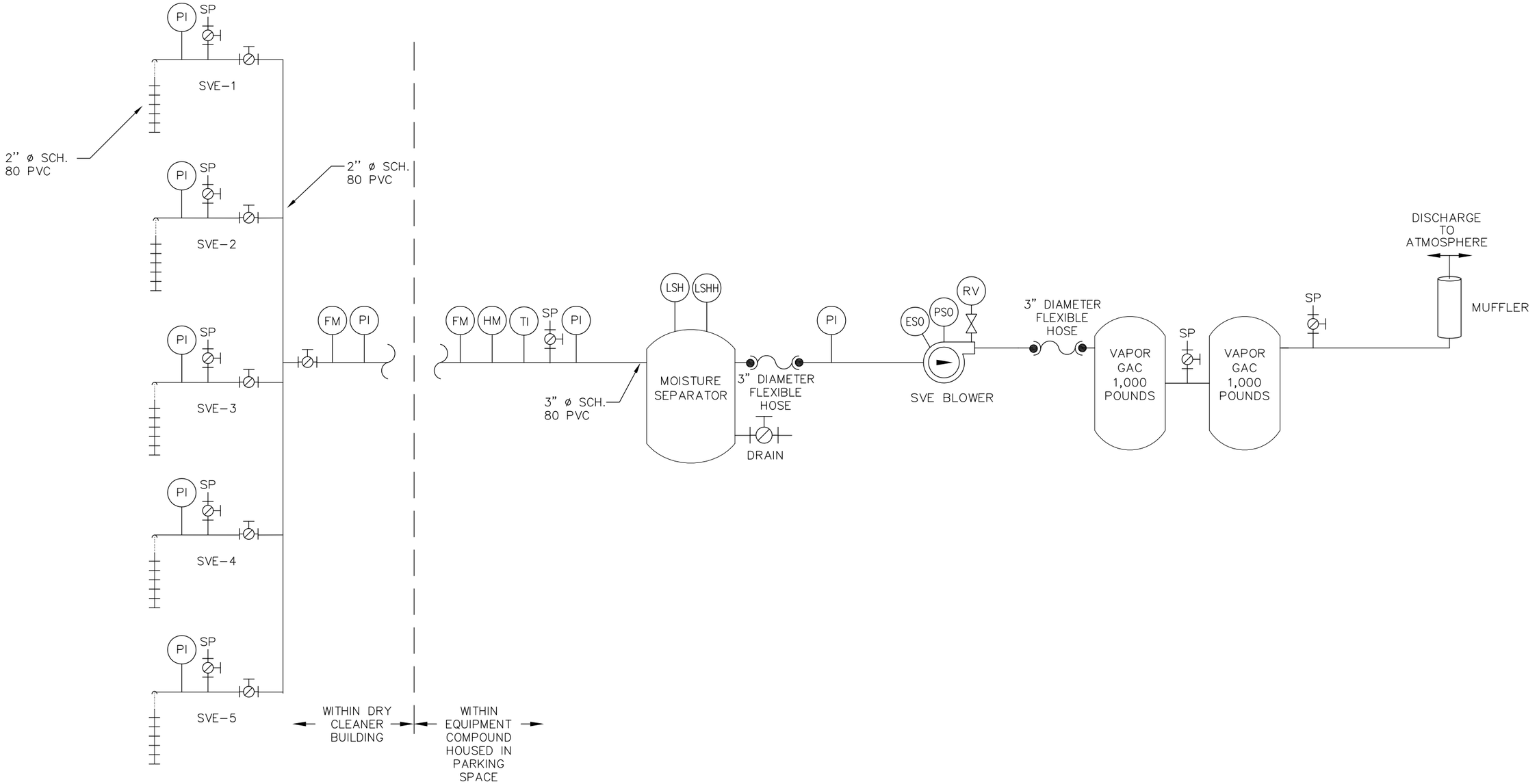

LEGEND

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

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

Figure 12

Revised SVE Process and Instrumentation Diagram

Project: WR0574 Date: January 2010	Hopyard Cleaners 2771 Hopyard Road Pleasanton, California	Geosyntec consultants

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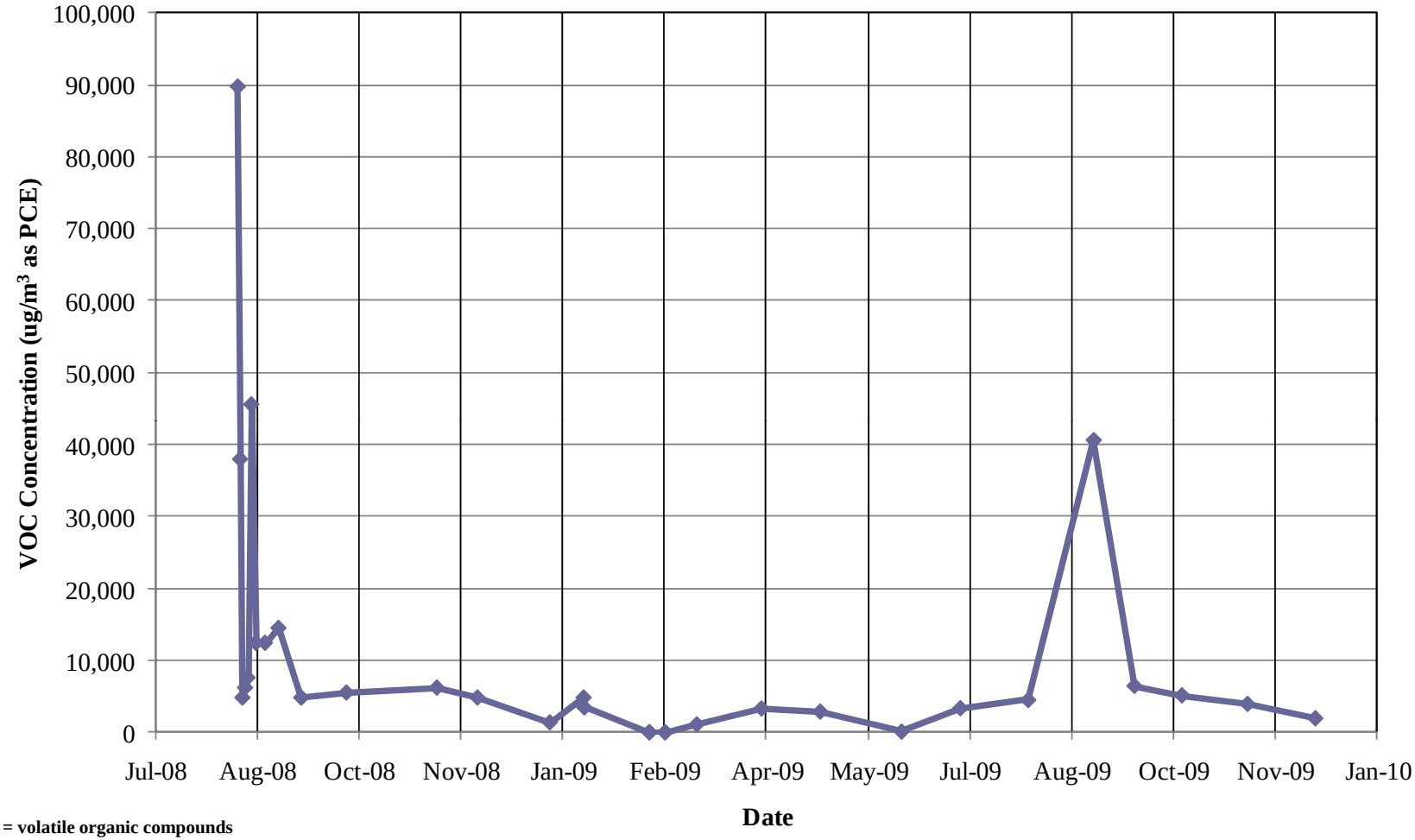
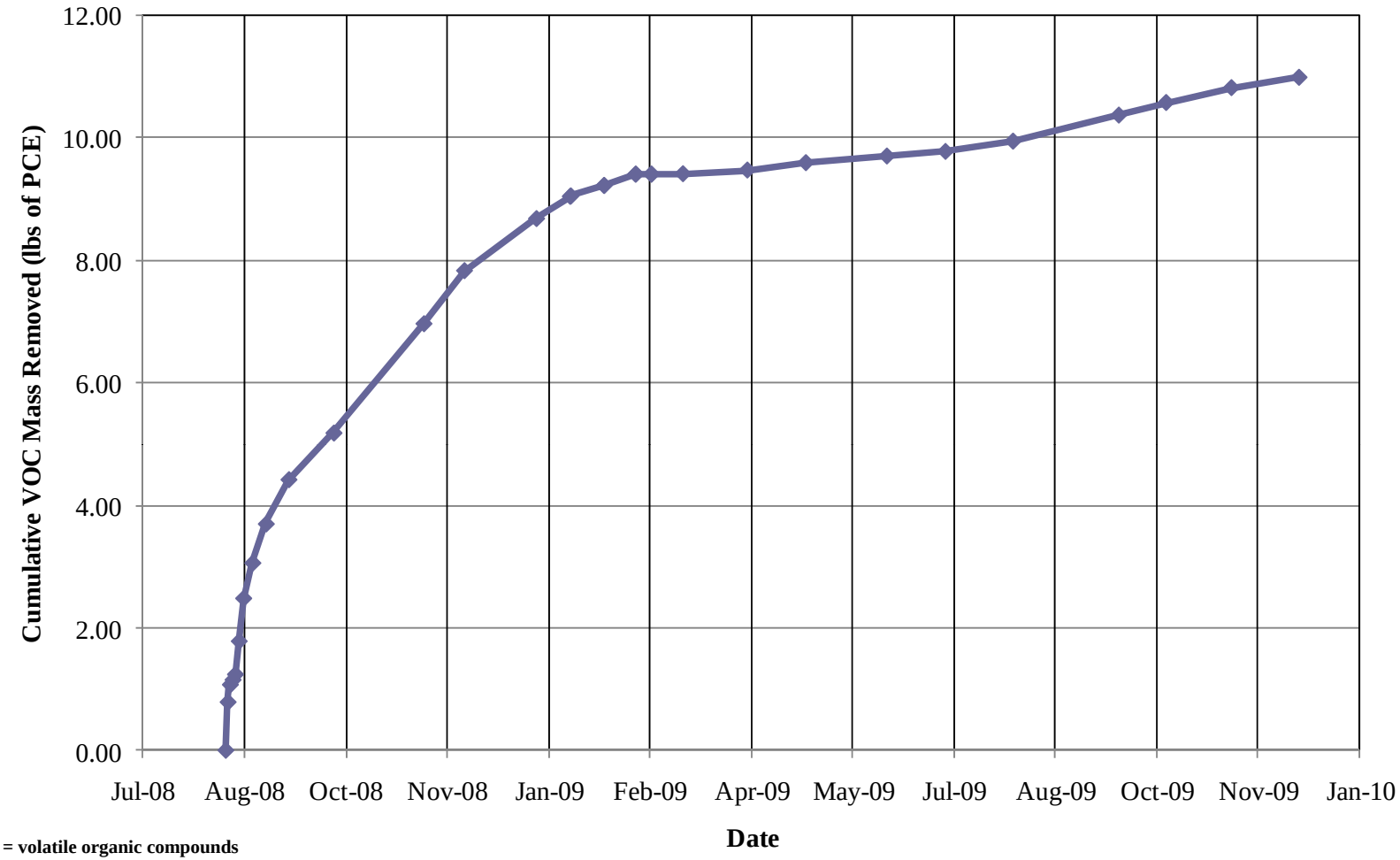


VOC = volatile organic compounds
ppmv = parts per million by volume

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.
-Field measurements from 4 September 2009 are elevated due to proximity of measurement to SVE start-up.

SVE Influent Concentrations Over Time
Hopyard Cleaners, Pleasanton, California

January 2010	Figure: **13**	Geosyntec consultants

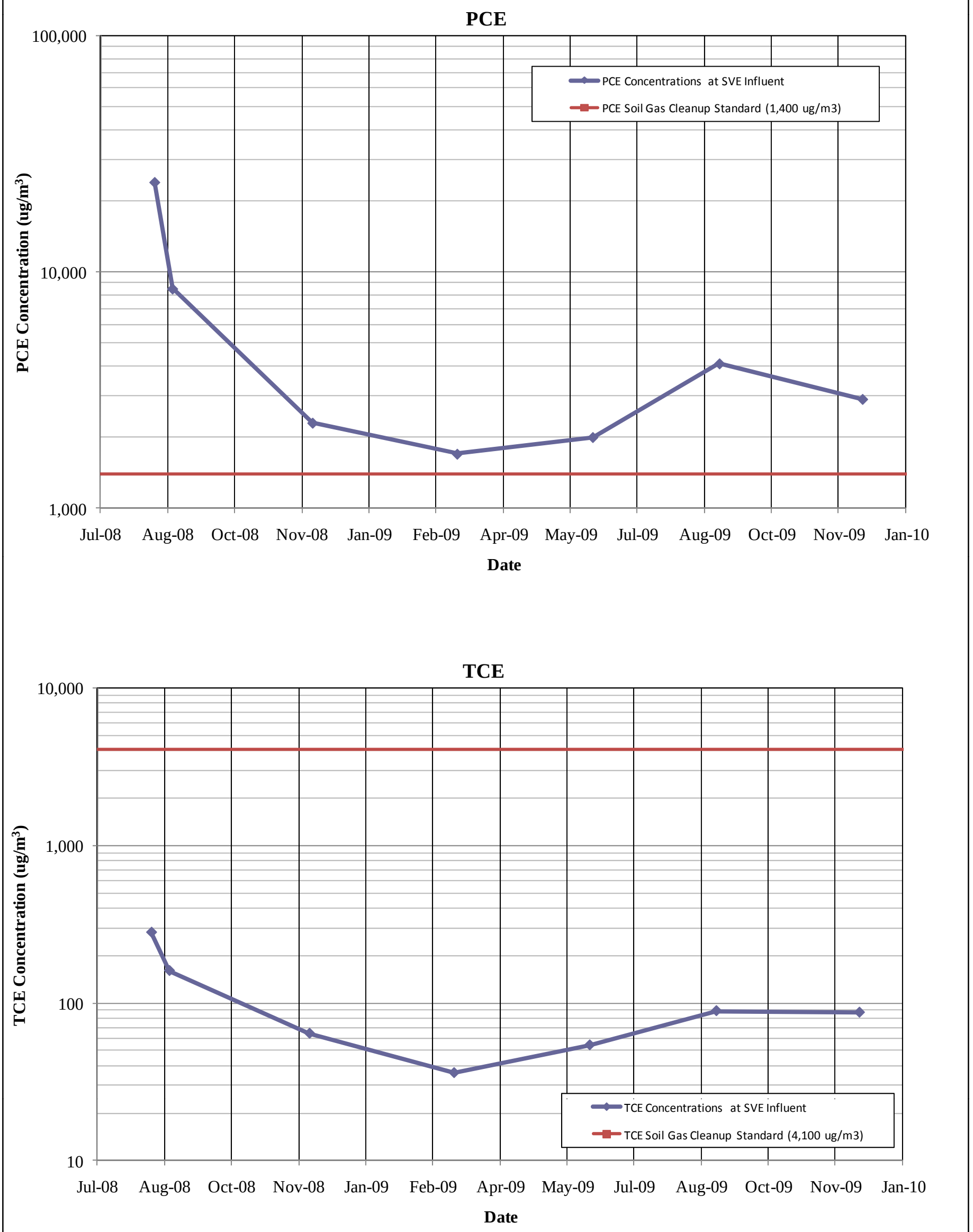


VOC = volatile organic compounds
PCE = tetrachloroethene
lbs = pounds

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.
-Field measurements from 4 September 2009 were not included in the mass removal calculations. Concentrations measured on this data were elevated due to proximity of measurement to SVE start-up.

SVE Cumulative Mass Removal
Hopyard Cleaners, Pleasanton, California

January 2010	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

January 2010	Figure: **15**	Geosyntec consultants

APPENDIX A

Environmental Sampling Services Field Report

Environmental
Sampling Services, LLC

October 9, 2009

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

SUBJECT: October 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 October 8, 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

Jacqueline Lee
Manager

Enclosure

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FIELD ACTIVITY REPORT
FOR

OCTOBER 2009
QUARTERLY GROUNDWATER
MONITORING EVENT

HOPYARD CLEANERS
2771 HOPYARD ROAD
PLEASANTON, CALIFORNIA

Prepared for: Geosyntec Consultants
475-14th Street, Suite 450
Oakland, California 94612

Date Prepared: October 9, 2009

Environmental
Sampling Services, LLC

FIELD ACTIVITY REPORT
FOR

OCTOBER 2009
QUARTERLY GROUNDWATER
MONITORING EVENT

HOPYARD CLEANERS
2771 HOPYARD ROAD
PLEASANTON, CALIFORNIA

Task 1: Obtain Depth to Groundwater Level Measurements from Seven Monitoring Wells
Task 2: Collect Seven Groundwater Samples and Install Seven New Passive Diffusion Bag Samplers
ESS Personnel: Jacqueline Lee
Date of Activities: October 8, 2009

Decontamination Procedures

A Solinst® Water Level Meter and cutting implements were 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.

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.

New PDBS were installed in each well after sample collection.

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Laboratory

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

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

Sample Containers /Sample Handling

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

All samples were placed in a chilled cooler, along with the Trip and Temperature Blanks, for storage and transportation.

Quality Assurance /Quality Control Samples

One QA/QC sample was submitted to TestAmerica for analysis:

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

No other QA/QC samples were requested.

Storage and Sample Collection of Investigative Derived Wastewater

Approximately 5 gallons of decontamination water and less than 0.5 gallons of excess groundwater were transferred and stored in a new 55-gallon drum.

The drum was sealed closed, labeled, and stored inside the secured Treatment System compound.

Chain of Custody (COC) Form

Standard chain of custody procedures were used for 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 remained in ESS's possession and were relinquished directly to TestAmerica October 8, 2009.

Environmental
Sampling Services, LLC

All work was performed according to Geosyntec's directives for Hopyard Cleaners' October 2009 Quarterly Monitoring Event, dated September 21, 2009.

Environmental Sampling Services, LLC

Jacqueline Lee
Manager

Attachments:
Table 1: Summary of October 2009 Groundwater Monitoring Event
Water Quality Sample Log Sheets
Chain of Custody

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

Well/Sample Identification	Measurement Date (mm/dd/yy)	Measurement Time	Depth to Groundwater (Ft., below TOC)	Sample Date	Sample Time	QA/QC Type	QA/QC Sample Identification
MW-1	10/08/09	9:13	18.23	10/08/09	10:02	None	NA
MW-2	10/08/09	9:19	17.56	10/08/09	11:56	None	NA
MW-3	10/08/09	9:16	18.58	10/08/09	9:39	None	NA
MW-4	10/08/09	9:07	19.87	10/08/09	10:50	None	NA
MW-5	10/08/09	9:11	39.89	10/08/09	10:23	None	NA
MW-6	10/08/09	9:01	37.38	10/08/09	11:33	None	NA
MW-7	10/08/09	8:56	37.48	10/08/09	11:11	None	NA

Legend:
TOC = Top of Well Casing
All measurements obtained with Solinst® Water Level Meter, Serial Number 49914

Environmental Sampling Services

WATER QUALITY SAMPLE LOG SHEET | WELL IDENTIFICATION: **MW-1** DATE: 10/08/2009

Project Name: Hopyard Cleaners Pleasanton, CA Project Task: Quarterly Monitoring Project/Task No. WR0574
Client: Geosyntec Cons. Lab: TestAmerica Weather Conditions: 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: 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 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): 18.23 @ 9:56 (BTOC) Water Level (Prior To) / After Sampling: 18.23 (BTOC)
TD = 30.27' - 18.23 (DTW) = 12.04 (ft.of water) x "K" = 1.96 (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
10/8/09	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: 0 Liters Casing Volumes Removed: NA
Method of disposal of discharged water: (55 Gallon Drum(s)) Poly Tank Treatment System Other: _____
Date/Time Sampled: 10/8/09 @ 10:02 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

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WATER QUALITY SAMPLE LOG SHEET | WELL IDENTIFICATION: **MW-2** DATE: 10/08/2009

Project Name: Hopyard Cleaners Pleasanton, CA Project Task: Quarterly Monitoring Project/Task No. WR0574
Client: Geosyntec Cons. Lab: TestAmerica Weather Conditions: clear skies, 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 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): 17.57@11:52 (BTOC) Water Level (Prior To) / After Sampling: 17.57 (BTOC)
TD = 30.31' - 17.57 (DTW) = 12.74 (ft.of water) x "K" = 2.07 (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
10/8/09	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: 0 Liters Casing Volumes Removed: NA
Method of disposal of discharged water (55 Gallon Drum(s)) Poly Tank Treatment System Other: _____
Date/Time Sampled: 10/8/09 @ 11:56 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: _____

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WATER QUALITY SAMPLE LOG SHEET

WELL IDENTIFICATION: **MW-3** DATE: 10/08/2009

Project Name: Hopyard Cleaners Pleasanton, CA Project Task: Quarterly Monitoring Project/Task No. WR0574
Client: Geosyntec Cons. Lab: TestAmerica Weather Conditions: 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: 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 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): 18.58 @ 9:26 (BTOC) Water Level (Prior To) / After Sampling: 18.58 (BTOC)
TD = 30.29' - 18.58 (DTW) = 11.71 (ft.of water) x "K" = 1.90 (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
10/8/09	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: 0 Liters Casing Volumes Removed: NA
Method of disposal of discharged water: (55 Gallon Drum(s)) Poly Tank Treatment System Other: _____
Date/Time Sampled: 10/8/09 @ 9:39 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

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WATER QUALITY SAMPLE LOG SHEET | WELL IDENTIFICATION: **MW-4** DATE: 10/08/2009

Project Name: Hopyard Cleaners Pleasanton, CA Project Task: Quarterly Monitoring Project/Task No. WR0574
Client: Geosyntec Cons. Lab: TestAmerica Weather Conditions: Partly cloudy 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: wtr. inside annulus 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 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): 19.86 @ 10:43 (BTOC) Water Level (Prior To)/ After Sampling: 19.86 (BTOC)
TD = 34.56' - 19.86 (DTW) = 14.70 (ft.of water) x "K" = 2.39 (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
10/8/09	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: 0 Liters Casing Volumes Removed: NA
Method of disposal of discharged water: (55 Gallon Drum(s)) Poly Tank Treatment System Other: _____
Date/Time Sampled: 10/8/09 @ 10:50 Analysis: VOCs (8260B) - 3 VOAs w/HCl
QA/QC: None @ — Duplicate MS/MSD Equipment Rinseate Field Blank Lab Split
Comments: Existing lock is very difficult to open; due to submergence, should get a new lock next time.

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

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WATER QUALITY SAMPLE LOG SHEET | WELL IDENTIFICATION: **MW-5** DATE: 10/08/2009

Project Name: Hopyard Cleaners Pleasanton, CA Project Task: Quarterly Monitoring Project/Task No. WR0574
Client: Geosyntec Cons. Lab: TestAmerica Weather Conditions: Partly Cloudy 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 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): 39.89 @ 10:21 (BTOC) Water Level (Prior To) / After Sampling: 39.89 (BTOC)
TD = 59.96' - 39.89 (DTW) = 20.07 (ft.of water) x "K" = 3.27 (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
10/8/09	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: ~~0~~ Liters Casing Volumes Removed: NA
Method of disposal of discharged water: (55 Gallon Drum(s)) Poly Tank Treatment System Other: ____
Date/Time Sampled: 10/8/09 @ 10:23 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]

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WATER QUALITY SAMPLE LOG SHEET

WELL IDENTIFICATION: **MW-6** DATE: 10/08/2009

Project Name: Hopyard Cleaners Pleasanton, CA Project Task: Quarterly Monitoring Project/Task No. WR0574
Client: Geosyntec Cons. Lab: TestAmerica Weather Conditions: Clear skies, 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 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 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): 37.35 @ 11:31 (BTOC) Water Level (Prior To) / After Sampling: 37.35 (BTOC)
TD = 58.56' - 37.35 (DTW) = 21.21 (ft.of water) x "K" = 3.45 (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
10/8/09	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: ~~0~~ Liters Casing Volumes Removed: NA
Method of disposal of discharged water: (55 Gallon Drum(s)) Poly Tank Treatment System Other: _____
Date/Time Sampled: 10/8/09 @ 11:33 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

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Environmental Sampling Services

WATER QUALITY SAMPLE LOG SHEET | WELL IDENTIFICATION: **MW-7** DATE: 10/8/2009

Project Name: Hopyard Cleaners Pleasanton, CA Project Task: Quarterly Monitoring Project/Task No. WR0574

Client: Geosyntec Cons. Lab: TestAmerica Weather Conditions: Clear Skies 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 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): 37.47 @11:09 (BTOC) Water Level (Prior To / After Sampling: 37.47 (BTOC)

TD = 54.96' - 37.47 (DTW) = 17.49 (ft.of water) x "K" = 2.85 (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
10/8/09	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: 0 Liters Casing Volumes Removed: NA

Method of disposal of discharged water: (55 Gallon Drum(s)) Poly Tank Treatment System Other: _____

Date/Time Sampled: 10/8/09 @ 11:11 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

6680 Alhambra Ave., #102 • Martinez, CA 94553-6105 • (925) 372-8108 • Fax: (925) 372-6705
www.envsampling.com

Environmental Sampling Services, LLC

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Log Code: ESSM www.envsampling.com

CHAIN OF CUSTODY RECORD

Page 1 of 1

TURN AROUND TIME Other:

LABORATORY: TestAmerica-Pleasanton
Lab Code: CHRP

☐ 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 ☐ **Sampler's Signature:**
GeoTracker No.: SL0600116931
Reporting Requirement: Hard Copy : Yes ☑ No ☐
EDD File: Yes ☐ No ☑ Electronic (EDF) : Yes ☑ No ☐

SAMPLE ID	FIELD POINT NAME	Sample Date	Sample Time	Number of Containers	Type of Container[1]	Matrix: Groundwater	Soil	Soil Vapor	Water	Other	Preservative: Ice	HCl	HNO_3	H_2SO_4	Analysis Request: VOCs (8260B)	Field Filtered (FF)	Comments
TripBlank-1	QCTB1	10/8/09	08:00	2	1				X		X	X			X		
MW-3	MW-3	10/8/09	09:39	3	1	X					X	X			X		
MW-1	MW-1	10/8/09	10:02	3	1	X					X	X			X		
MW-5	MW-5	10/8/09	10:23	3	1	X					X	X			X		
MW-4	MW-4	10/8/09	10:50	3	1	X					X	X			X		
MW-7	MW-7	10/8/09	11:11	3	1	X					X	X			X		
MW-6	MW-6	10/8/09	11:33	3	1	X					X	X			X		
MW-2	MW-2	10/8/09	11:56	3	1	X					X	X			X		

Relinquished By:	Date:	Time:	Received By:
	10/8/2009	13:55	
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

APPENDIX B

Groundwater and SVE Monitoring Laboratory Analytical Reports

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 720-23121-1

Job Description: Hopyard Cleaners

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

Attention: Ms. Melissa Asher

Approved for release.
Afsaneh Salimpour
Project Manager I
10/15/2009 6:05 PM

Afsaneh Salimpour
Project Manager I
afsaneh.salimpour@testamericainc.com
10/15/2009

cc: Ms. Angela Liang

CA ELAP Certification # 2496
The Chain(s) of Custody are included and are an integral part of this report.
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A trip blank is required to be provided for volatile analyses. If trip blank results are not included in the report, either the trip blank was not submitted or requested to be analyzed.

TestAmerica Laboratories, Inc.
TestAmerica San Francisco 1220 Quarry Lane, Pleasanton, CA 94566
Tel (925) 484-1919 Fax (925) 600-3002 www.testamericainc.com

EXECUTIVE SUMMARY - Detections

Client: Geosyntec Consultants, Inc. Job Number: 720-23121-1

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-23121-2	**MW-3**				
cis-1,2-Dichloroethene		5.3	0.50	ug/L	8260B
Tetrachloroethene		48	0.50	ug/L	8260B
Trichloroethene		5.0	0.50	ug/L	8260B
720-23121-3	**MW-1**				
cis-1,2-Dichloroethene		220	25	ug/L	8260B
Tetrachloroethene		1500	25	ug/L	8260B
Trichloroethene		340	25	ug/L	8260B
720-23121-4	**MW-5**				
Tetrachloroethene		30	0.50	ug/L	8260B
720-23121-5	**MW-4**				
cis-1,2-Dichloroethene		3.3	0.50	ug/L	8260B
Trichloroethene		3.2	0.50	ug/L	8260B
720-23121-6	**MW-7**				
Tetrachloroethene		11	0.50	ug/L	8260B
720-23121-8	**MW-2**				
cis-1,2-Dichloroethene		540	100	ug/L	8260B
Tetrachloroethene		15000	100	ug/L	8260B
Trichloroethene		870	100	ug/L	8260B

METHOD SUMMARY

Client: Geosyntec Consultants, Inc. Job Number: 720-23121-1

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: 720-23121-1

Method	Analyst	Analyst ID
SW846 8260B	Le, Lien	LL
SW846 8260B	Tran, Megan	MT

SAMPLE SUMMARY

Client: Geosyntec Consultants, Inc. Job Number: 720-23121-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
720-23121-1	TRIP BLANK-1	Water	10/08/2009 0800	10/08/2009 1355
720-23121-2	MW-3	Water	10/08/2009 0939	10/08/2009 1355
720-23121-3	MW-1	Water	10/08/2009 1002	10/08/2009 1355
720-23121-4	MW-5	Water	10/08/2009 1023	10/08/2009 1355
720-23121-5	MW-4	Water	10/08/2009 1050	10/08/2009 1355
720-23121-6	MW-7	Water	10/08/2009 1111	10/08/2009 1355
720-23121-7	MW-6	Water	10/08/2009 1133	10/08/2009 1355
720-23121-8	MW-2	Water	10/08/2009 1156	10/08/2009 1355

Client: Geosyntec Consultants, Inc. Job Number: 720-23121-1

Client Sample ID: **TRIP BLANK-1**

Lab Sample ID: 720-23121-1 Date Sampled: 10/08/2009 0800
Client Matrix: Water Date Received: 10/08/2009 1355

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 720-59314	Instrument ID: HP7
Preparation:	5030B		Lab File ID: 10100907.D
Dilution:	1.0		Initial Weight/Volume: 10 mL
Date Analyzed:	10/10/2009 1250		Final Weight/Volume: 10 mL
Date Prepared:	10/10/2009 1250		

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		0.50
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
4-Methyl-2-pentanone (MIBK)	ND		50
Naphthalene	ND		1.0

Client: Geosyntec Consultants, Inc. Job Number: 720-23121-1

Client Sample ID: **TRIP BLANK-1**

Lab Sample ID: 720-23121-1 Date Sampled: 10/08/2009 0800
Client Matrix: Water Date Received: 10/08/2009 1355

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 720-59314	Instrument ID: HP7
Preparation:	5030B		Lab File ID: 10100907.D
Dilution:	1.0		Initial Weight/Volume: 10 mL
Date Analyzed:	10/10/2009 1250		Final Weight/Volume: 10 mL
Date Prepared:	10/10/2009 1250		

Analyte	Result (ug/L)	Qualifier	RL
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		10
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	76		67 - 130
1,2-Dichloroethane-d4 (Surr)	111		67 - 130
Toluene-d8 (Surr)	92		70 - 130

Client: Geosyntec Consultants, Inc. Job Number: 720-23121-1

Client Sample ID: **MW-3**

Lab Sample ID: 720-23121-2 Date Sampled: 10/08/2009 0939
Client Matrix: Water Date Received: 10/08/2009 1355

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 720-59462	Instrument ID: HP5
Preparation:	5030B		Lab File ID: 10130935.D
Dilution:	1.0		Initial Weight/Volume: 10 mL
Date Analyzed:	10/14/2009 0143		Final Weight/Volume: 10 mL
Date Prepared:	10/14/2009 0143		

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		0.50
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	5.3		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
4-Methyl-2-pentanone (MIBK)	ND		50
Naphthalene	ND		1.0

Client: Geosyntec Consultants, Inc. Job Number: 720-23121-1

Client Sample ID: **MW-3**

Lab Sample ID: 720-23121-2 Date Sampled: 10/08/2009 0939
Client Matrix: Water Date Received: 10/08/2009 1355

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 720-59462	Instrument ID: HP5
Preparation:	5030B		Lab File ID: 10130935.D
Dilution:	1.0		Initial Weight/Volume: 10 mL
Date Analyzed:	10/14/2009 0143		Final Weight/Volume: 10 mL
Date Prepared:	10/14/2009 0143		

Analyte	Result (ug/L)	Qualifier	RL
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	5.0		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		10
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	99		67 - 130
1,2-Dichloroethane-d4 (Surr)	117		67 - 130
Toluene-d8 (Surr)	99		70 - 130

Client: Geosyntec Consultants, Inc. Job Number: 720-23121-1

Client Sample ID: **MW-1**

Lab Sample ID: 720-23121-3 Date Sampled: 10/08/2009 1002
Client Matrix: Water Date Received: 10/08/2009 1355

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 720-59462	Instrument ID: HP5
Preparation:	5030B		Lab File ID: 10130936.D
Dilution:	50		Initial Weight/Volume: 10 mL
Date Analyzed:	10/14/2009 0214		Final Weight/Volume: 10 mL
Date Prepared:	10/14/2009 0214		

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		25
Acetone	ND		2500
Benzene	ND		25
Dichlorobromomethane	ND		25
Bromobenzene	ND		50
Chlorobromomethane	ND		50
Bromoform	ND		50
Bromomethane	ND		50
2-Butanone (MEK)	ND		2500
n-Butylbenzene	ND		50
sec-Butylbenzene	ND		50
tert-Butylbenzene	ND		50
Carbon disulfide	ND		250
Carbon tetrachloride	ND		25
Chlorobenzene	ND		25
Chloroethane	ND		50
Chloroform	ND		50
Chloromethane	ND		50
2-Chlorotoluene	ND		25
4-Chlorotoluene	ND		25
Chlorodibromomethane	ND		25
1,2-Dichlorobenzene	ND		25
1,3-Dichlorobenzene	ND		25
1,4-Dichlorobenzene	ND		25
1,3-Dichloropropane	ND		50
1,1-Dichloropropene	ND		25
1,2-Dibromo-3-Chloropropane	ND		50
Ethylene Dibromide	ND		25
Dibromomethane	ND		25
Dichlorodifluoromethane	ND		25
1,1-Dichloroethane	ND		25
1,2-Dichloroethane	ND		25
1,1-Dichloroethene	ND		25
cis-1,2-Dichloroethene	220		25
trans-1,2-Dichloroethene	ND		25
1,2-Dichloropropane	ND		25
cis-1,3-Dichloropropene	ND		25
trans-1,3-Dichloropropene	ND		25
Ethylbenzene	ND		25
Hexachlorobutadiene	ND		50
2-Hexanone	ND		2500
Isopropylbenzene	ND		25
4-Isopropyltoluene	ND		50
Methylene Chloride	ND		250
4-Methyl-2-pentanone (MIBK)	ND		2500
Naphthalene	ND		50

Client: Geosyntec Consultants, Inc. Job Number: 720-23121-1

Client Sample ID: **MW-1**

Lab Sample ID: 720-23121-3 Date Sampled: 10/08/2009 1002
Client Matrix: Water Date Received: 10/08/2009 1355

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 720-59462	Instrument ID: HP5
Preparation:	5030B		Lab File ID: 10130936.D
Dilution:	50		Initial Weight/Volume: 10 mL
Date Analyzed:	10/14/2009 0214		Final Weight/Volume: 10 mL
Date Prepared:	10/14/2009 0214		

Analyte	Result (ug/L)	Qualifier	RL
N-Propylbenzene	ND		50
Styrene	ND		25
1,1,1,2-Tetrachloroethane	ND		25
1,1,2,2-Tetrachloroethane	ND		25
Tetrachloroethene	1500		25
Toluene	ND		25
1,2,3-Trichlorobenzene	ND		50
1,2,4-Trichlorobenzene	ND		50
1,1,1-Trichloroethane	ND		25
1,1,2-Trichloroethane	ND		25
Trichloroethene	340		25
Trichlorofluoromethane	ND		50
1,2,3-Trichloropropane	ND		25
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25
1,2,4-Trimethylbenzene	ND		25
1,3,5-Trimethylbenzene	ND		25
Vinyl acetate	ND		500
Vinyl chloride	ND		25
Xylenes, Total	ND		50
2,2-Dichloropropane	ND		25

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	95		67 - 130
1,2-Dichloroethane-d4 (Surr)	114		67 - 130
Toluene-d8 (Surr)	99		70 - 130

Client: Geosyntec Consultants, Inc. Job Number: 720-23121-1

Client Sample ID: **MW-5**

Lab Sample ID: 720-23121-4 Date Sampled: 10/08/2009 1023
Client Matrix: Water Date Received: 10/08/2009 1355

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 720-59462	Instrument ID: HP5
Preparation:	5030B		Lab File ID: 10130937.D
Dilution:	1.0		Initial Weight/Volume: 10 mL
Date Analyzed:	10/14/2009 0245		Final Weight/Volume: 10 mL
Date Prepared:	10/14/2009 0245		

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		0.50
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
4-Methyl-2-pentanone (MIBK)	ND		50
Naphthalene	ND		1.0

Client: Geosyntec Consultants, Inc. Job Number: 720-23121-1

Client Sample ID: **MW-5**

Lab Sample ID: 720-23121-4 Date Sampled: 10/08/2009 1023
Client Matrix: Water Date Received: 10/08/2009 1355

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 720-59462	Instrument ID: HP5
Preparation:	5030B		Lab File ID: 10130937.D
Dilution:	1.0		Initial Weight/Volume: 10 mL
Date Analyzed:	10/14/2009 0245		Final Weight/Volume: 10 mL
Date Prepared:	10/14/2009 0245		

Analyte	Result (ug/L)	Qualifier	RL
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	30		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		10
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	97		67 - 130
1,2-Dichloroethane-d4 (Surr)	116		67 - 130
Toluene-d8 (Surr)	98		70 - 130

Client: Geosyntec Consultants, Inc. Job Number: 720-23121-1

Client Sample ID: **MW-4**

Lab Sample ID: 720-23121-5 Date Sampled: 10/08/2009 1050
Client Matrix: Water Date Received: 10/08/2009 1355

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 720-59462	Instrument ID: HP5
Preparation:	5030B		Lab File ID: 10130938.D
Dilution:	1.0		Initial Weight/Volume: 10 mL
Date Analyzed:	10/14/2009 0317		Final Weight/Volume: 10 mL
Date Prepared:	10/14/2009 0317		

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		0.50
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	3.3		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
4-Methyl-2-pentanone (MIBK)	ND		50
Naphthalene	ND		1.0

Client: Geosyntec Consultants, Inc. Job Number: 720-23121-1

Client Sample ID: **MW-4**

Lab Sample ID: 720-23121-5 Date Sampled: 10/08/2009 1050
Client Matrix: Water Date Received: 10/08/2009 1355

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 720-59462	Instrument ID: HP5
Preparation:	5030B		Lab File ID: 10130938.D
Dilution:	1.0		Initial Weight/Volume: 10 mL
Date Analyzed:	10/14/2009 0317		Final Weight/Volume: 10 mL
Date Prepared:	10/14/2009 0317		

Analyte	Result (ug/L)	Qualifier	RL
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	3.2		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		10
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	96		67 - 130
1,2-Dichloroethane-d4 (Surr)	116		67 - 130
Toluene-d8 (Surr)	99		70 - 130

Client: Geosyntec Consultants, Inc. Job Number: 720-23121-1

Client Sample ID: **MW-7**

Lab Sample ID: 720-23121-6 Date Sampled: 10/08/2009 1111
Client Matrix: Water Date Received: 10/08/2009 1355

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 720-59462	Instrument ID: HP5
Preparation:	5030B		Lab File ID: 10130939.D
Dilution:	1.0		Initial Weight/Volume: 10 mL
Date Analyzed:	10/14/2009 0347		Final Weight/Volume: 10 mL
Date Prepared:	10/14/2009 0347		

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		0.50
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
4-Methyl-2-pentanone (MIBK)	ND		50
Naphthalene	ND		1.0

Client: Geosyntec Consultants, Inc. Job Number: 720-23121-1

Client Sample ID: **MW-7**

Lab Sample ID: 720-23121-6 Date Sampled: 10/08/2009 1111
Client Matrix: Water Date Received: 10/08/2009 1355

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 720-59462	Instrument ID: HP5
Preparation:	5030B		Lab File ID: 10130939.D
Dilution:	1.0		Initial Weight/Volume: 10 mL
Date Analyzed:	10/14/2009 0347		Final Weight/Volume: 10 mL
Date Prepared:	10/14/2009 0347		

Analyte	Result (ug/L)	Qualifier	RL
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	11		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		10
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	95		67 - 130
1,2-Dichloroethane-d4 (Surr)	116		67 - 130
Toluene-d8 (Surr)	97		70 - 130

Client: Geosyntec Consultants, Inc. Job Number: 720-23121-1

Client Sample ID: **MW-6**

Lab Sample ID: 720-23121-7 Date Sampled: 10/08/2009 1133
Client Matrix: Water Date Received: 10/08/2009 1355

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 720-59462	Instrument ID: HP5
Preparation:	5030B		Lab File ID: 10130940.D
Dilution:	1.0		Initial Weight/Volume: 10 mL
Date Analyzed:	10/14/2009 0419		Final Weight/Volume: 10 mL
Date Prepared:	10/14/2009 0419		

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		0.50
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
4-Methyl-2-pentanone (MIBK)	ND		50
Naphthalene	ND		1.0

Client: Geosyntec Consultants, Inc. Job Number: 720-23121-1

Client Sample ID: **MW-6**

Lab Sample ID: 720-23121-7 Date Sampled: 10/08/2009 1133
Client Matrix: Water Date Received: 10/08/2009 1355

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 720-59462	Instrument ID: HP5
Preparation:	5030B		Lab File ID: 10130940.D
Dilution:	1.0		Initial Weight/Volume: 10 mL
Date Analyzed:	10/14/2009 0419		Final Weight/Volume: 10 mL
Date Prepared:	10/14/2009 0419		

Analyte	Result (ug/L)	Qualifier	RL
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		10
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	93		67 - 130
1,2-Dichloroethane-d4 (Surr)	117		67 - 130
Toluene-d8 (Surr)	98		70 - 130

Client: Geosyntec Consultants, Inc. Job Number: 720-23121-1

Client Sample ID: **MW-2**

Lab Sample ID: 720-23121-8 Date Sampled: 10/08/2009 1156
Client Matrix: Water Date Received: 10/08/2009 1355

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 720-59462	Instrument ID: HP5
Preparation:	5030B		Lab File ID: 10130941.D
Dilution:	200		Initial Weight/Volume: 10 mL
Date Analyzed:	10/14/2009 0450		Final Weight/Volume: 10 mL
Date Prepared:	10/14/2009 0450		

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		100
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	540		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
4-Methyl-2-pentanone (MIBK)	ND		10000
Naphthalene	ND		200

Client: Geosyntec Consultants, Inc. Job Number: 720-23121-1

Client Sample ID: **MW-2**

Lab Sample ID: 720-23121-8 Date Sampled: 10/08/2009 1156
Client Matrix: Water Date Received: 10/08/2009 1355

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 720-59462	Instrument ID: HP5
Preparation:	5030B		Lab File ID: 10130941.D
Dilution:	200		Initial Weight/Volume: 10 mL
Date Analyzed:	10/14/2009 0450		Final Weight/Volume: 10 mL
Date Prepared:	10/14/2009 0450		

Analyte	Result (ug/L)	Qualifier	RL
N-Propylbenzene	ND		200
Styrene	ND		100
1,1,1,2-Tetrachloroethane	ND		100
1,1,2,2-Tetrachloroethane	ND		100
Tetrachloroethene	15000		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	870		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		2000
Vinyl chloride	ND		100
Xylenes, Total	ND		200
2,2-Dichloropropane	ND		100

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	94		67 - 130
1,2-Dichloroethane-d4 (Surr)	116		67 - 130
Toluene-d8 (Surr)	97		70 - 130

DATA REPORTING QUALIFIERS

Lab Section	Qualifier	Description

Client: Geosyntec Consultants, Inc. Job Number: 720-23121-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:720-59314					
LCS 720-59314/3	Lab Control Sample	T	Water	8260B	
LCSD 720-59314/4	Lab Control Sample Duplicate	T	Water	8260B	
MB 720-59314/24	Method Blank	T	Water	8260B	
720-23121-1	TRIP BLANK-1	T	Water	8260B	
Analysis Batch:720-59462					
LCS 720-59462/4	Lab Control Sample	T	Water	8260B	
LCSD 720-59462/5	Lab Control Sample Duplicate	T	Water	8260B	
MB 720-59462/8	Method Blank	T	Water	8260B	
720-23121-2	MW-3	T	Water	8260B	
720-23121-3	MW-1	T	Water	8260B	
720-23121-4	MW-5	T	Water	8260B	
720-23121-5	MW-4	T	Water	8260B	
720-23121-6	MW-7	T	Water	8260B	
720-23121-7	MW-6	T	Water	8260B	
720-23121-8	MW-2	T	Water	8260B	

Report Basis
T = Total

Client: Geosyntec Consultants, Inc.

Job Number: 720-23121-1

Method Blank - Batch: 720-59314

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 720-59314/24
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/10/2009 1025
Date Prepared: 10/10/2009 1025

Analysis Batch: 720-59314
Prep Batch: N/A
Units: ug/L

Instrument ID: ChemStation 3.0
Lab File ID: 10100903.D
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

Analyte	Result	Qual	RL
Methyl tert-butyl ether	ND		0.50
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.

Client: Geosyntec Consultants, Inc. Job Number: 720-23121-1

Method Blank - Batch: 720-59314

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 720-59314/24
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/10/2009 1025
Date Prepared: 10/10/2009 1025

Analysis Batch: 720-59314
Prep Batch: N/A
Units: ug/L

Instrument ID: ChemStation 3.0
Lab File ID: 10100903.D
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 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		10
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene	76	67 - 130
1,2-Dichloroethane-d4 (Surr)	100	67 - 130
Toluene-d8 (Surr)	95	70 - 130

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

Client: Geosyntec Consultants, Inc. Job Number: 720-23121-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-59314

Method: 8260B
Preparation: 5030B

LCS Lab Sample ID:	LCS 720-59314/3	Analysis Batch:	720-59314	Instrument ID:	ChemStation 3.0
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	10100905.D
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	10 mL
Date Analyzed:	10/10/2009 1145			Final Weight/Volume:	10 mL
Date Prepared:	10/10/2009 1145				

LCSD Lab Sample ID:	LCSD 720-59314/4	Analysis Batch:	720-59314	Instrument ID:	ChemStation 3.0
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	10100904.D
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	10 mL
Date Analyzed:	10/10/2009 1112			Final Weight/Volume:	10 mL
Date Prepared:	10/10/2009 1112				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Benzene	97	110	80 - 130	12	20		
Chlorobenzene	101	111	80 - 122	10	20		
1,1-Dichloroethene	89	107	70 - 130	18	20		
Toluene	96	111	80 - 126	14	20		
Trichloroethene	100	110	72 - 138	10	20		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
4-Bromofluorobenzene	106	108	67 - 130
1,2-Dichloroethane-d4 (Surr)	105	105	67 - 130
Toluene-d8 (Surr)	101	102	70 - 130

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

Client: Geosyntec Consultants, Inc. Job Number: 720-23121-1

Method Blank - Batch: 720-59462

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 720-59462/8
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/13/2009 2207
Date Prepared: 10/13/2009 2207

Analysis Batch: 720-59462
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent75MSD
Lab File ID: 10130928.D
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

Analyte	Result	Qual	RL
Methyl tert-butyl ether	ND		0.50
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.

Client: Geosyntec Consultants, Inc. Job Number: 720-23121-1

Method Blank - Batch: 720-59462

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 720-59462/8
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/13/2009 2207
Date Prepared: 10/13/2009 2207

Analysis Batch: 720-59462
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent75MSD
Lab File ID: 10130928.D
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 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		10
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene	102	67 - 130
1,2-Dichloroethane-d4 (Surr)	111	67 - 130
Toluene-d8 (Surr)	102	70 - 130

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

Client: Geosyntec Consultants, Inc. Job Number: 720-23121-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-59462

Method: 8260B
Preparation: 5030B

LCS Lab Sample ID:	LCS 720-59462/4	Analysis Batch:	720-59462	Instrument ID:	Agilent75MSD
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	10130924.D
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	10 mL
Date Analyzed:	10/13/2009 2002			Final Weight/Volume:	10 mL
Date Prepared:	10/13/2009 2002				

LCSD Lab Sample ID:	LCSD 720-59462/5	Analysis Batch:	720-59462	Instrument ID:	Agilent75MSD
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	10130925.D
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	10 mL
Date Analyzed:	10/13/2009 2032			Final Weight/Volume:	10 mL
Date Prepared:	10/13/2009 2032				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Benzene	107	107	80 - 130	0	20		
Chlorobenzene	108	108	80 - 122	0	20		
1,1-Dichloroethene	104	105	70 - 130	1	20		
Toluene	106	107	80 - 126	1	20		
Trichloroethene	105	106	72 - 138	1	20		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
4-Bromofluorobenzene	109	110	67 - 130
1,2-Dichloroethane-d4 (Surr)	110	107	67 - 130
Toluene-d8 (Surr)	102	103	70 - 130

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

720-23121

119563

Environmental Sampling Services, LLC

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 ☐ 24 Hours ☐ 48 Hours ☐ 1 Week ☑ Normal Other:

LABORATORY: TestAmerica-Pleasanton
Lab Code: CHRP

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 ☐ Sampler's Signature:
GeoTracker No.: SL0600116931
Reporting Requirement: Hard Copy : Yes ☑ No ☐
EDD File: Yes ☐ No ☑ Electronic (EDF) : Yes ☑ No ☐

SAMPLE ID	FIELD POINT NAME	Sample Date	Sample Time	Number of Containers	Type of Container[1]	Matrix: Groundwater	Soil	Soil Vapor	Water	Other	Preservative: Ice	HCl	HNO_3	H_2SO_4	VOCs (8260B)	Field Filtered (FF)	Comments
Trip Blank-1	QCTB1	10/8/09	08:00	2	1				X		X	X			X		
MW-3	MW-3	10/8/09	09:39	3	1	X						XX			X		
MW-1	MW-1	10/8/09	10:02	3	1	X						XX			X		
MW-5	MW-5	10/8/09	10:23	3	1	X						XX			X		
MW-4	MW-4	10/8/09	10:50	3	1	X						XX			X		
MW-7	MW-7	10/8/09	11:11	3	1	X						XX			X		
MW-6	MW-6	10/8/09	11:33	3	1	X						XX			X		
MW-2	MW-2	10/8/09	11:56	3	1	X						XX			X		

Relinquished By:	Date:	Time:	Received By:
	10/8/2009	13:55	
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

4.4°C

Please email COC for confirmation to masher@geosyntec.com

SAMPLE RECEIPT
☐ Intact ☐ Cold
☐ On Ice ☐ Ambient
Preservative Correct?
☐ Yes ☐ No ☐ NA

Page 30 of 31

10/15/2009

Login Sample Receipt Check List

Client: Geosyntec Consultants, Inc.

Job Number: 720-23121-1

Login Number: 23121

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	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 720-23121-2

Job Description: Hopyard Cleaners

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

Attention: Ms. Melissa Asher

Approved for release.
Afsaneh Salimpour
Project Manager I
10/23/2009 5:34 PM

Afsaneh Salimpour
Project Manager I
afsaneh.salimpour@testamericainc.com
10/23/2009

cc: Ms. Angela Liang

CA ELAP Certification # 2496
The Chain(s) of Custody are included and are an integral part of this report.
The report shall not be reproduced except in full, without the written approval of the laboratory. The client, by accepting this report, also agrees not to alter any reports whether in the hard copy or electronic format and to use reasonable efforts to preserve the reports in the form and substance originally provided by TestAmerica.
A trip blank is required to be provided for volatile analyses. If trip blank results are not included in the report, either the trip blank was not submitted or requested to be analyzed.

TestAmerica Laboratories, Inc.
TestAmerica San Francisco 1220 Quarry Lane, Pleasanton, CA 94566
Tel (925) 484-1919 Fax (925) 600-3002 www.testamericainc.com

Comments
No additional comments.

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

GC/MS VOA
No analytical or quality issues were noted.

EXECUTIVE SUMMARY - Detections

Client: Geosyntec Consultants, Inc. Job Number: 720-23121-2

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-23121-8	**MW-2**				
cis-1,2-Dichloroethene		560	10	ug/L	8260B
trans-1,2-Dichloroethene		11	10	ug/L	8260B
Tetrachloroethene		15000	1000	ug/L	8260B
Trichloroethene		900	10	ug/L	8260B

METHOD SUMMARY

Client: Geosyntec Consultants, Inc. Job Number: 720-23121-2

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: 720-23121-2

Method	Analyst	Analyst ID
SW846 8260B	Chen, Amy	AC

SAMPLE SUMMARY

Client: Geosyntec Consultants, Inc. Job Number: 720-23121-2

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
720-23121-8	MW-2	Water	10/08/2009 1156	10/08/2009 1355

Client: Geosyntec Consultants, Inc. Job Number: 720-23121-2

Client Sample ID: **MW-2**

Lab Sample ID: 720-23121-8 Date Sampled: 10/08/2009 1156
Client Matrix: Water Date Received: 10/08/2009 1355

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 720-60049	Instrument ID: HP5
Preparation:	5030B		Lab File ID: 10220917.D
Dilution:	20		Initial Weight/Volume: 10 mL
Date Analyzed:	10/22/2009 1953		Final Weight/Volume: 10 mL
Date Prepared:	10/22/2009 1953		

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		10
Acetone	ND		1000
Benzene	ND		10
Dichlorobromomethane	ND		10
Bromobenzene	ND		20
Chlorobromomethane	ND		20
Bromoform	ND		20
Bromomethane	ND		20
2-Butanone (MEK)	ND		1000
n-Butylbenzene	ND		20
sec-Butylbenzene	ND		20
tert-Butylbenzene	ND		20
Carbon disulfide	ND		100
Carbon tetrachloride	ND		10
Chlorobenzene	ND		10
Chloroethane	ND		20
Chloroform	ND		20
Chloromethane	ND		20
2-Chlorotoluene	ND		10
4-Chlorotoluene	ND		10
Chlorodibromomethane	ND		10
1,2-Dichlorobenzene	ND		10
1,3-Dichlorobenzene	ND		10
1,4-Dichlorobenzene	ND		10
1,3-Dichloropropane	ND		20
1,1-Dichloropropene	ND		10
1,2-Dibromo-3-Chloropropane	ND		20
Ethylene Dibromide	ND		10
Dibromomethane	ND		10
Dichlorodifluoromethane	ND		10
1,1-Dichloroethane	ND		10
1,2-Dichloroethane	ND		10
1,1-Dichloroethene	ND		10
cis-1,2-Dichloroethene	560		10
trans-1,2-Dichloroethene	11		10
1,2-Dichloropropane	ND		10
cis-1,3-Dichloropropene	ND		10
trans-1,3-Dichloropropene	ND		10
Ethylbenzene	ND		10
Hexachlorobutadiene	ND		20
2-Hexanone	ND		1000
Isopropylbenzene	ND		10
4-Isopropyltoluene	ND		20
Methylene Chloride	ND		100
4-Methyl-2-pentanone (MIBK)	ND		1000
Naphthalene	ND		20

Client: Geosyntec Consultants, Inc. Job Number: 720-23121-2

Client Sample ID: **MW-2**

Lab Sample ID: 720-23121-8 Date Sampled: 10/08/2009 1156
Client Matrix: Water Date Received: 10/08/2009 1355

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 720-60049	Instrument ID: HP5
Preparation:	5030B		Lab File ID: 10220917.D
Dilution:	20		Initial Weight/Volume: 10 mL
Date Analyzed:	10/22/2009 1953		Final Weight/Volume: 10 mL
Date Prepared:	10/22/2009 1953		

Analyte	Result (ug/L)	Qualifier	RL
N-Propylbenzene	ND		20
Styrene	ND		10
1,1,1,2-Tetrachloroethane	ND		10
1,1,2,2-Tetrachloroethane	ND		10
Toluene	ND		10
1,2,3-Trichlorobenzene	ND		20
1,2,4-Trichlorobenzene	ND		20
1,1,1-Trichloroethane	ND		10
1,1,2-Trichloroethane	ND		10
Trichloroethene	900		10
Trichlorofluoromethane	ND		20
1,2,3-Trichloropropane	ND		10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10
1,2,4-Trimethylbenzene	ND		10
1,3,5-Trimethylbenzene	ND		10
Vinyl acetate	ND		200
Vinyl chloride	ND		10
Xylenes, Total	ND		20
2,2-Dichloropropane	ND		10

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	96		67 - 130
1,2-Dichloroethane-d4 (Surr)	92		67 - 130
Toluene-d8 (Surr)	99		70 - 130

Client: Geosyntec Consultants, Inc. Job Number: 720-23121-2

Client Sample ID: **MW-2**

Lab Sample ID: 720-23121-8 Date Sampled: 10/08/2009 1156
Client Matrix: Water Date Received: 10/08/2009 1355

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 720-60079	Instrument ID: HP4
Preparation:	5030B		Lab File ID: 10220928.D
Dilution:	2000		Initial Weight/Volume: 10 mL
Date Analyzed:	10/22/2009 2244		Final Weight/Volume: 10 mL
Date Prepared:	10/22/2009 2244		

Analyte	Result (ug/L)	Qualifier	RL
Tetrachloroethene	15000		1000

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	91		67 - 130
1,2-Dichloroethane-d4 (Surr)	77		67 - 130
Toluene-d8 (Surr)	98		70 - 130

DATA REPORTING QUALIFIERS

Lab Section	Qualifier	Description

Client: Geosyntec Consultants, Inc. Job Number: 720-23121-2

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:720-60049					
LCS 720-60049/4	Lab Control Sample	T	Water	8260B	
LCSD 720-60049/5	Lab Control Sample Duplicate	T	Water	8260B	
MB 720-60049/8	Method Blank	T	Water	8260B	
720-23121-8	MW-2	T	Water	8260B	
Analysis Batch:720-60079					
LCS 720-60079/4	Lab Control Sample	T	Water	8260B	
LCSD 720-60079/5	Lab Control Sample Duplicate	T	Water	8260B	
MB 720-60079/8	Method Blank	T	Water	8260B	
720-23121-8	MW-2	T	Water	8260B	

Report Basis
T = Total

Client: Geosyntec Consultants, Inc. Job Number: 720-23121-2

Method Blank - Batch: 720-60049

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 720-60049/8
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/22/2009 1922
Date Prepared: 10/22/2009 1922

Analysis Batch: 720-60049
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent75MSD
Lab File ID: 10220916.D
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

Analyte	Result	Qual	RL
Methyl tert-butyl ether	ND		0.50
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.

Client: Geosyntec Consultants, Inc. Job Number: 720-23121-2

Method Blank - Batch: 720-60049

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 720-60049/8
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/22/2009 1922
Date Prepared: 10/22/2009 1922

Analysis Batch: 720-60049
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent75MSD
Lab File ID: 10220916.D
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 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		10
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene	96	67 - 130
1,2-Dichloroethane-d4 (Surr)	90	67 - 130
Toluene-d8 (Surr)	99	70 - 130

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

Client: Geosyntec Consultants, Inc. Job Number: 720-23121-2

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-60049

Method: 8260B
Preparation: 5030B

LCS Lab Sample ID:	LCS 720-60049/4	Analysis Batch:	720-60049	Instrument ID:	Agilent75MSD
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	10220912.D
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	10 mL
Date Analyzed:	10/22/2009 1718			Final Weight/Volume:	10 mL
Date Prepared:	10/22/2009 1718				

LCSD Lab Sample ID:	LCSD 720-60049/5	Analysis Batch:	720-60049	Instrument ID:	Agilent75MSD
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	10220913.D
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	10 mL
Date Analyzed:	10/22/2009 1749			Final Weight/Volume:	10 mL
Date Prepared:	10/22/2009 1749				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Benzene	105	104	80 - 130	0	20		
Chlorobenzene	106	106	80 - 122	0	20		
1,1-Dichloroethene	109	108	70 - 130	1	20		
Toluene	100	99	80 - 126	1	20		
Trichloroethene	106	105	72 - 138	1	20		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
4-Bromofluorobenzene	100	102	67 - 130
1,2-Dichloroethane-d4 (Surr)	87	89	67 - 130
Toluene-d8 (Surr)	102	102	70 - 130

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

Client: Geosyntec Consultants, Inc. Job Number: 720-23121-2

Method Blank - Batch: 720-60079

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 720-60079/8
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/22/2009 2212
Date Prepared: 10/22/2009 2212

Analysis Batch: 720-60079
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent 75MSD
Lab File ID: 10220927.D
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

Analyte	Result	Qual	RL
Methyl tert-butyl ether	ND		0.50
Benzene	ND		0.50
Dichlorobromomethane	ND		0.50
Bromobenzene	ND		1.0
Chlorobromomethane	ND		1.0
Bromoform	ND		1.0
Bromomethane	ND		1.0
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

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

Client: Geosyntec Consultants, Inc. Job Number: 720-23121-2

Method Blank - Batch: 720-60079

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 720-60079/8
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/22/2009 2212
Date Prepared: 10/22/2009 2212

Analysis Batch: 720-60079
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent 75MSD
Lab File ID: 10220927.D
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

Analyte	Result	Qual	RL
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	0.651		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		10
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene	93	67 - 130
1,2-Dichloroethane-d4 (Surr)	81	67 - 130
Toluene-d8 (Surr)	98	70 - 130

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

Client: Geosyntec Consultants, Inc. Job Number: 720-23121-2

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-60079

Method: 8260B
Preparation: 5030B

LCS Lab Sample ID:	LCS 720-60079/4	Analysis Batch:	720-60079	Instrument ID:	Agilent 75MSD
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	10220925.D
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	10 mL
Date Analyzed:	10/22/2009 2109			Final Weight/Volume:	10 mL
Date Prepared:	10/22/2009 2109				

LCSD Lab Sample ID:	LCSD 720-60079/5	Analysis Batch:	720-60079	Instrument ID:	Agilent 75MSD
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	10220926.D
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	10 mL
Date Analyzed:	10/22/2009 2140			Final Weight/Volume:	10 mL
Date Prepared:	10/22/2009 2140				

	% Rec.					
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Benzene	108	108	80 - 130	0	20		
Chlorobenzene	105	106	80 - 122	0	20		
1,1-Dichloroethene	105	106	70 - 130	1	20		
Toluene	106	110	80 - 126	4	20		
Trichloroethene	109	110	72 - 138	0	20		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
4-Bromofluorobenzene	96	94	67 - 130
1,2-Dichloroethane-d4 (Surr)	74	74	67 - 130
Toluene-d8 (Surr)	98	98	70 - 130

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

720-23121-2

Salimpour, Afsaneh

From: MAsher@Geosyntec.com
Sent: Wednesday, October 21, 2009 5:46 PM
To: Salimpour, Afsaneh
Cc: Brewer, Melissa
Subject: Duplicate Question for Hopyard Cleaners Job # 720-23121-1
Importance: High

Afsnaeh,

We had some miscommunication on our end about collecting a duplicate sample on 10/8/2009 for the Hopyard Cleaners site. Do you have any sample left to run one duplicate? I know the 14 day hold time ends tomorrow, but it would be helpful if we could have a duplicate run on one of our samples.

Thank you,

Melissa Asher, P.E.
Engineer

475 14th Street
Suite 400
Oakland, CA 94612
Phone:510-836-3034
Fax: 510-836-3036
www.geosyntec.com

Geosyntec_logoV10_USE-T

RUSH

Login Sample Receipt Check List

Client: Geosyntec Consultants, Inc.

Job Number: 720-23121-2

Login Number: 23121

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	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	

Air Toxics LTD.
Laboratory Services Since 1989

12/28/2009
Ms. Angela Liang
GeoSyntec Consultants
475 14th Street
Suite 400
Oakland CA 94612

Project Name: Hopyard
Project #: WR0574
Workorder #: 0912316

Dear Ms. Angela Liang

The following report includes the data for the above referenced project for sample(s) received on 12/14/2009 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 your 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

Air Toxics LTD.
Laboratory Services Since 1989

WORK ORDER #: 0912316

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. #**	WR0574
FAX:	510-836-3036	**PROJECT #**	WR0574 Hopyard
DATE RECEIVED:	12/14/2009	**CONTACT:**	Kyle Vagadori
DATE COMPLETED:	12/28/2009		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	SVE-INFLUENT	Modified TO-15	3.0 "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: Linda D. Frumarn DATE: 12/28/09

Laboratory Director

Certfication 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: 07/01/09, Expiration date: 06/30/10
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-15
GeoSyntec Consultants
Workorder# 0912316

One 1 Liter Summa Canister sample was received on December 14, 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.

Requirement	***TO-15***	***ATL Modifications***
Daily CCV	</= 30% Difference	</= 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

All Quality Control Limit exceedences and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page. Target compound non-detects in the samples that are associated with high bias in QC analyses have not been flagged.

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 not 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

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

Client Sample ID: SVE-INFLUENT

Lab ID#: 0912316-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.8	2.6	8.8	13
Trichloroethene	1.8	16	9.6	87
Tetrachloroethene	1.8	430	12	2900

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SVE-INFLUENT

Lab ID#: 0912316-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**y122121**	**Date of Collection:**	**12/11/09 9:42:00 AM**
Dil. Factor:	**3.58**	**Date of Analysis:**	**12/21/09 10:08 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.8	2.6	8.8	13
Freon 114	1.8	Not Detected	12	Not Detected
Chloromethane	7.2	Not Detected	15	Not Detected
Vinyl Chloride	1.8	Not Detected	4.6	Not Detected
1,3-Butadiene	1.8	Not Detected	4.0	Not Detected
Bromomethane	1.8	Not Detected	7.0	Not Detected
Chloroethane	1.8	Not Detected	4.7	Not Detected
Freon 11	1.8	Not Detected	10	Not Detected
Ethanol	7.2	Not Detected	13	Not Detected
Freon 113	1.8	Not Detected	14	Not Detected
1,1-Dichloroethene	1.8	Not Detected	7.1	Not Detected
Acetone	7.2	Not Detected	17	Not Detected
2-Propanol	7.2	Not Detected	18	Not Detected
Carbon Disulfide	1.8	Not Detected	5.6	Not Detected
3-Chloropropene	7.2	Not Detected	22	Not Detected
Methylene Chloride	1.8	Not Detected	6.2	Not Detected
Methyl tert-butyl ether	1.8	Not Detected	6.4	Not Detected
trans-1,2-Dichloroethene	1.8	Not Detected	7.1	Not Detected
Hexane	1.8	Not Detected	6.3	Not Detected
1,1-Dichloroethane	1.8	Not Detected	7.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.8	Not Detected	5.3	Not Detected
cis-1,2-Dichloroethene	1.8	Not Detected	7.1	Not Detected
Tetrahydrofuran	1.8	Not Detected	5.3	Not Detected
Chloroform	1.8	Not Detected	8.7	Not Detected
1,1,1-Trichloroethane	1.8	Not Detected	9.8	Not Detected
Cyclohexane	1.8	Not Detected	6.2	Not Detected
Carbon Tetrachloride	1.8	Not Detected	11	Not Detected
2,2,4-Trimethylpentane	1.8	Not Detected	8.4	Not Detected
Benzene	1.8	Not Detected	5.7	Not Detected
1,2-Dichloroethane	1.8	Not Detected	7.2	Not Detected
Heptane	1.8	Not Detected	7.3	Not Detected
Trichloroethene	1.8	16	9.6	87
1,2-Dichloropropane	1.8	Not Detected	8.3	Not Detected
1,4-Dioxane	7.2	Not Detected	26	Not Detected
Bromodichloromethane	1.8	Not Detected	12	Not Detected
cis-1,3-Dichloropropene	1.8	Not Detected	8.1	Not Detected
4-Methyl-2-pentanone	1.8	Not Detected	7.3	Not Detected
Toluene	1.8	Not Detected	6.7	Not Detected
trans-1,3-Dichloropropene	1.8	Not Detected	8.1	Not Detected

Air Toxics LTD.
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Client Sample ID: SVE-INFLUENT

Lab ID#: 0912316-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**y122121**	**Date of Collection:**	**12/11/09 9:42:00 AM**
Dil. Factor:	**3.58**	**Date of Analysis:**	**12/21/09 10:08 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,2-Trichloroethane	1.8	Not Detected	9.8	Not Detected
Tetrachloroethene	1.8	430	12	2900
2-Hexanone	7.2	Not Detected	29	Not Detected
Dibromochloromethane	1.8	Not Detected	15	Not Detected
1,2-Dibromoethane (EDB)	1.8	Not Detected	14	Not Detected
Chlorobenzene	1.8	Not Detected	8.2	Not Detected
Ethyl Benzene	1.8	Not Detected	7.8	Not Detected
m,p-Xylene	1.8	Not Detected	7.8	Not Detected
o-Xylene	1.8	Not Detected	7.8	Not Detected
Styrene	1.8	Not Detected	7.6	Not Detected
Bromoform	1.8	Not Detected	18	Not Detected
Cumene	1.8	Not Detected	8.8	Not Detected
1,1,2,2-Tetrachloroethane	1.8	Not Detected	12	Not Detected
Propylbenzene	1.8	Not Detected	8.8	Not Detected
4-Ethyltoluene	1.8	Not Detected	8.8	Not Detected
1,3,5-Trimethylbenzene	1.8	Not Detected	8.8	Not Detected
1,2,4-Trimethylbenzene	1.8	Not Detected	8.8	Not Detected
1,3-Dichlorobenzene	1.8	Not Detected	11	Not Detected
1,4-Dichlorobenzene	1.8	Not Detected	11	Not Detected
alpha-Chlorotoluene	1.8	Not Detected	9.3	Not Detected
1,2-Dichlorobenzene	1.8	Not Detected	11	Not Detected
1,2,4-Trichlorobenzene	7.2	Not Detected UJ	53	Not Detected UJ
Hexachlorobutadiene	7.2	Not Detected	76	Not Detected

UJ = Non-detected compound associated with low bias in the CCV

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	130	70-130
4-Bromofluorobenzene	105	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 0912316-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**y122111**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/21/09 02:50 PM**	

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

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 0912316-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**y122111**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/21/09 02:50 PM**	

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 UJ	15	Not Detected UJ
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected

UJ = Non-detected compound associated with low bias in the CCV

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	122	70-130
4-Bromofluorobenzene	107	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: CCV

Lab ID#: 0912316-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**y122103**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/21/09 08:43 AM**	

Compound	%Recovery
Freon 12	115
Freon 114	106
Chloromethane	105
Vinyl Chloride	110
1,3-Butadiene	110
Bromomethane	109
Chloroethane	113
Freon 11	116
Ethanol	112
Freon 113	110
1,1-Dichloroethene	117
Acetone	101
2-Propanol	112
Carbon Disulfide	106
3-Chloropropene	103
Methylene Chloride	111
Methyl tert-butyl ether	122
trans-1,2-Dichloroethene	108
Hexane	112
1,1-Dichloroethane	113
2-Butanone (Methyl Ethyl Ketone)	114
cis-1,2-Dichloroethene	115
Tetrahydrofuran	121
Chloroform	115
1,1,1-Trichloroethane	122
Cyclohexane	110
Carbon Tetrachloride	122
2,2,4-Trimethylpentane	114
Benzene	110
1,2-Dichloroethane	134 Q
Heptane	117
Trichloroethene	118
1,2-Dichloropropane	112
1,4-Dioxane	108
Bromodichloromethane	124
cis-1,3-Dichloropropene	120
4-Methyl-2-pentanone	128
Toluene	113
trans-1,3-Dichloropropene	129

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: CCV

Lab ID#: 0912316-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**y122103**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/21/09 08:43 AM**	

Compound	%Recovery
1,1,2-Trichloroethane	114
Tetrachloroethene	114
2-Hexanone	119
Dibromochloromethane	123
1,2-Dibromoethane (EDB)	121
Chlorobenzene	111
Ethyl Benzene	118
m,p-Xylene	118
o-Xylene	119
Styrene	122
Bromoform	125
Cumene	123
1,1,2,2-Tetrachloroethane	112
Propylbenzene	118
4-Ethyltoluene	117
1,3,5-Trimethylbenzene	114
1,2,4-Trimethylbenzene	118
1,3-Dichlorobenzene	107
1,4-Dichlorobenzene	108
alpha-Chlorotoluene	123
1,2-Dichlorobenzene	104
1,2,4-Trichlorobenzene	68 Q
Hexachlorobutadiene	80

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130
1,2-Dichloroethane-d4	112	70-130
4-Bromofluorobenzene	104	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 0912316-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**y122104**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/21/09 09:26 AM**	

Compound	%Recovery
Freon 12	114
Freon 114	104
Chloromethane	104
Vinyl Chloride	107
1,3-Butadiene	110
Bromomethane	106
Chloroethane	110
Freon 11	113
Ethanol	184 Q
Freon 113	96
1,1-Dichloroethene	102
Acetone	98
2-Propanol	106
Carbon Disulfide	106
3-Chloropropene	101
Methylene Chloride	99
Methyl tert-butyl ether	120
trans-1,2-Dichloroethene	104
Hexane	112
1,1-Dichloroethane	107
2-Butanone (Methyl Ethyl Ketone)	114
cis-1,2-Dichloroethene	117
Tetrahydrofuran	115
Chloroform	108
1,1,1-Trichloroethane	116
Cyclohexane	108
Carbon Tetrachloride	118
2,2,4-Trimethylpentane	111
Benzene	110
1,2-Dichloroethane	128
Heptane	117
Trichloroethene	117
1,2-Dichloropropane	112
1,4-Dioxane	108
Bromodichloromethane	119
cis-1,3-Dichloropropene	121
4-Methyl-2-pentanone	126
Toluene	108
trans-1,3-Dichloropropene	136 Q

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 0912316-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**y122104**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/21/09 09:26 AM**	

Compound	%Recovery
1,1,2-Trichloroethane	119
Tetrachloroethene	123
2-Hexanone	124
Dibromochloromethane	129
1,2-Dibromoethane (EDB)	131 Q
Chlorobenzene	118
Ethyl Benzene	124
m,p-Xylene	126
o-Xylene	126
Styrene	129
Bromoform	130
Cumene	126
1,1,2,2-Tetrachloroethane	119
Propylbenzene	119
4-Ethyltoluene	120
1,3,5-Trimethylbenzene	117
1,2,4-Trimethylbenzene	119
1,3-Dichlorobenzene	110
1,4-Dichlorobenzene	112
alpha-Chlorotoluene	123
1,2-Dichlorobenzene	109
1,2,4-Trichlorobenzene	64 Q
Hexachlorobutadiene	78

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130
1,2-Dichloroethane-d4	107	70-130
4-Bromofluorobenzene	109	70-130

Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

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Project Manager Angela Liang

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Address 475 14th St. #400 City Oakland State CA Zip 94612

Phone 510.285.2700 Fax 510.836.3036

Project Info:
P.O. # WR05-74
Project # WR05-74
Project Name Hayward

Turn Around Time:
[X] Normal
[ ] Rush
specify

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N_2 He

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)
01A	SVE-INFLUENT	1035	Dec 11 2009	9:42	Modified TO-15	26 in Hg	4 in Hg		

Relinquished by: (signature) Date/Time Dec 11th, 2009 / 14:45 PST — Received by: (signature) Monica Gregson ATL 12/14/09 830

Relinquished by: (signature) Date/Time — Received by: (signature) Date/Time

Relinquished by: (signature) Date/Time — Received by: (signature) Date/Time

Notes:

Lab Use Only

Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
Fed Ex	7982 1039 8445	NA	Good	Yes No (None)	0912316

Form 1293 rev.11