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SUPPLEMENTAL
SITE INVESTIGATION REPORT

October 2009

2960 Castro Valley Blvd.
Castro Valley, CA 94546

Case No. RO0002998

98 Battery Street, # 200 San Francisco, CA 94111

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Case No. RO0002998

Prepared by
Endpoint Consulting, Inc.
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1.0 INTRODUCTION

On behalf of the RR Retail Group, Endpoint Consulting, Inc. (Endpoint) conducted a supplemental soil vapor and groundwater investigation at the site (site) located at 2960 Castro Valley Blvd., Castro Valley, California (see Figure 1). The investigation was performed in accordance with Endpoint's *Supplemental Site Investigation Workplan* dated June 30, 2009 and the *Workplan Addendum* dated August 17, 2009. The work plan was approved by the Alameda County Health Services Agency (ACHCSA) in letters dated August 13, 2009 and September 3, 2009.

The following sections summarize the procedures and results of the supplemental field investigation and the well survey. Based on these results and those from previous investigations conducted at the site, recommendations are also set forth regarding closure of the site.

2.0 SITE BACKGROUND

The site is located in a mixed commercial/residential area and on the western corner of the Adobe Center Shopping Center, which covers a 3.07-acre parcel of land located on the northeast corner of the intersection of Castro Valley Blvd., and Anita Avenue. The site is entirely encompassed within a multiple-unit, single-story building approximating 45 long by 40 feet wide. The building consists of reinforced concrete block and steel frame construction, with slab-on-grade floors (Property Solutions, Inc., 2002b; AEI Consultants, 2007). Properties immediately surrounding the site include the remaining portions of the strip mall to the east, residential homes to the north and west across Anita Street, and a Chevron gasoline service station immediately to the south (see Figure 2).

Dry cleaning operations at the site date back to 1990 (Property Solutions, Inc., 2002a), continuing until 2002 (Personal Communication with Gabriel Chui). Since 2002, dry cleaning operations have ceased, with the Dry Cleaning Club of America reducing in size to the western-most portion of the site (2960 Castro Valley Blvd.) serving solely as a dry cleaning drop off location; since completion of the workplan, the Dry Cleaning Club of America has ceased operations and this portion of the site is currently vacant. The eastern portion of the site is currently occupied by a restaurant with the address of 2966 Castro Valley Blvd. (see Figure 3).

Past dry cleaning operations involved the use of tetrachloroethene (PCE) in a self-contained, closed-loop dry cleaning unit. Fresh PCE was reportedly stored in 10-gallon buckets in the toilet room at the subject property. PCE wastes were temporarily stored in a 16-gallon drum located near the dry cleaning unit and historically removed from the subject property by Safety Kleen under manifest procedures (Property Solutions, 2002b).

3.0 PREVIOUS INVESTIGATIONS

The following table summarizes previous investigations performed at the site

Date	Site Investigation Activities	Report Reference
August 2002	Seven soil gas samples (SG-1 through SG-7) were collected. 6 soil borings were advanced (SB-1 through SB-6). Six grab groundwater samples were collected (W-1 through W-6). VOCs were analyzed for in all samples. PCE was not detected in any soil gas samples; however, detection limits were above environmental screening levels (ESLs) adopted by the Regional Water Quality Control Board ([RWQCB], 2008. PCE was detected in 3 out of 12 soil samples, with the maximum concentration of 140 µg/kg (SB-3 at 3 feet bgs), less than the commercial/industrial ESL (700 µg/kg). PCE was detected in 2 of 4 grab groundwater samples collected at a depth of 12 to 13 feet bgs, with detected concentrations ranging from 5.0 ug/L (SB-1) to 6.8 µg/L (SB-3); these concentrations are at or slightly above the drinking water standard maximum contaminant level (MCL) of 5 µg/L.	Property Solutions 2002
April 2007	Six soil borings were advanced (SB-1 through SB-6). PCE was detected in 2 of 5 soil samples collected, with maximum concentration of 0.076 mg/kg at a depth of 1 foot below ground surface (bgs) at boring SB-5. PCE was also detected in 3 of 5 groundwater samples collected, with the maximum concentration of 6.7 µg/L in a groundwater sample collected from boring SB-5.	AEI 2007

Based on a review of the above-referenced investigations, the ACHCSA requested a workplan to further characterize soil vapor concentrations at the site, evaluate the potential for preferential migration of PCE in groundwater and soil vapor along sewer lines at the site, and to conduct an area well survey. The following sections summarize the investigations performed in response to the ACHCSA's request and per the approved workplan.

4.0 SUPPLEMENTAL SOIL VAPOR AND GROUNDWATER INVESTIGAITON ACTIVIITES

Per the approved workplan, the supplemental site investigation included collecting three (3) soil vapor samples (SV1 through SV3) and two (2) sub-slab vapor samples (SS-1 and SS-2) from the former location of the dry cleaning machine, one (1) soil vapor sample (SV4) along the indoor-portion of the sewer line emanating from the site, and one (1) grab groundwater sample (GW-1) near the sewer clean out. These activities are summarized below.

4.1 Investigation Field Activities

4.1.1 Pre-Field Activities

As required by the Occupational Health and Safety Administration (OSHA) Standard "Hazardous Waste Operations and Emergency Response" guidelines (29 CFR 1910.120), and by the California Occupational Health and Safety Administration (Cal-OSHA) "Hazardous Waste Operations and Emergency Response" guidelines (CCR Title 8, Section 5192), LRM prepared a site-specific Health and Safety Plan prior to the commencement of fieldwork. The Plan was reviewed by field staff and contractors before beginning field operations.

To complete the necessary scope of work, a permit (W2009-0880) was obtained from the Alameda County Department of Public Works. More than 48 hours prior to the initiation of fieldwork, the soil boring locations were marked with white paint and Underground Service Alert (USA) was notified. Also, a private utility locator was used to screen the boring locations in order to identify any subsurface obstructions. For additional safety, the soil boring near the sewer clean out was cleared through the use of a hand auger to the top few feet prior to drilling advancement.

4.1.2 Soil Vapor, Sub-slab Vapor, and Groundwater Sampling

The locations of the soil vapor, sub-slab vapor, and groundwater samples are illustrated on Figure 3.

On October 5, 2009, the drilling and sampling was completed by Vironex, Inc. of Pacheco, California, a state-licensed driller. Per the approved workplan, the soil-vapor sample depths had been proposed for approximately five feet bgs, and sub-slab samples were proposed for the depth immediately beneath the sub-slab, approximated at 0.5 feet bgs. The sole deviations from the workplan included: at location SV-3 inside the building, drilling refusal was

encountered at approximately 1.5 feet bgs, and a soil vapor probe was installed at that depth. At location SV-2, also inside the building, a soil vapor probe was installed at the proposed depth (5 feet bgs), however, no vapor flow was achieved at this location and no soil vapor sample could be collected. As described below, all other samples were collected per the approved workplan.

Vapor Sampling:

Inside the existing restaurant at 2966 Castro Valley Blvd. and within the footprint of the former dry cleaning machine[1], two sub-slab soil vapor samples (SS-1 and SS-2) and two shallow soil vapor samples (SV1 and SV3) were collected. At each location, a drill was used to create a 1-1/4 inch hole in the concrete slab. Following that, rods were advanced using a slide hammer. After the target depth had been achieved, the probes were installed through the center of the rods and the rods were withdrawn.

Following completion of these sample points within the building, soil-vapor boring SV-4 was completed outside the building using the same methodology, except that the rods were advanced using a Geoprobe instead of a slide hammer.

Five vapor samples (SS-1 and SS-2, SV1, SV3, SV4) were collected using 1-liter Summa canisters attached directly to the sampling manifold. Two canisters were used for each hole to purge the Teflon tubing and to collect the vapor samples. Before sampling, the Summa canisters held a vacuum approximately 29 inches of mercury (" Hg). Fresh Summa canisters were used for each soil vapor sample. A stepped purge vs. contaminant concentration test was completed prior to sample collection to determine the optimum purge volume. Based on the highest PID reading from a Tedlar bag, a purge volume of seven casing volumes was used throughout the vapor sampling. At each location, prior to sampling, a shut-in test and a leak test were performed per the approved work plan. Throughout the sampling process, a clear plastic container (shroud) was used to cover the sample train and filled with 10% to 16% helium by volume to test the integrity of the soil vapor sample point seal and all fittings and connections. No breakthrough was indicated during the vapor sample collection, as the helium was recorded at 0% ppmv in the vapor samples (see Table 1 and Attachment A).

After purging the sampling tube, a soil vapor sample was collected in the laboratory-cleaned Summa canister. The initial and final canister vacuums were noted and precautions were taken to leave 5” Hg vacuum in the canister. A partial vacuum was left in the Summa canister as a means to determine if leakage occurred during transit to the laboratory. The final vacuum gauge reading was recorded on a tag attached to the Summa canister. All samples were labeled and shipped under chain-of-custody documentation to McCampbell Analytical, Inc. (McCampbell), a California state-certified laboratory, for analysis of volatile organic

[1] Based on site inspection, scaling of the building dimensions, and discussions with Mr. Gabriel Chiu, the location of the former dry cleaning machine adopted from AEI (2007) and depicted in the workplan was revised (see Figure 3).

compounds (VOCs) by EPA Method TO-15. The field data sheets including purging, leak check test, and sample collection information are presented in Attachment A.

Groundwater Sampling:

One exploratory boring, designated as GW-1, was completed at the location shown on Figure 3. The boring was extended to approximately 16 feet bgs. After hand augering the upper few feet to avoid utility conflicts, the soils were continuously cored with a geoprobe and examined for lithology and evidence of contamination. Upon retracting the rods and installing PVC casing to facilitate groundwater sampling, groundwater was measured at approximately 10.9 feet bgs. A boring log for GW-1 is included in Attachment B.

A grab groundwater sample was then collected by using small diameter vinyl tubing fitted with a chuck ball tip. Groundwater was surged to the surface and decanted in to VOAs, which were labeled, entered on a chain of custody, and then placed in a cooler, on ice, prior to same-day delivery to McCampbell.

Laboratory Analysis:

The vapor samples in Summa canisters, the grab groundwater sample, and a soil sample of drill cuttings were transported on the same day to McCampbell for analysis. The vapor samples were analyzed for EPA Method 8010 constituents (chlorinated VOCs) by EPA Method TO-15. The grab groundwater sample was analyzed by EPA Method 8260B for 8010 constituents. A composite sample from the drill cuttings, designated as Comp S1, was collected and submitted for analyses by EPA Method 8260 (8010 list of analytes), and for total lead. The laboratory analytical report is included as Attachment C.

Backfill and Soil Disposal:

Following completion of sampling, all of the borings were backfilled with neat cement grout to surface. Boring GW-1 was tremmied. Quick-setting concrete was used to seal the borings at the surface. Mr. John Shouldice of the Alameda County Public Works department witnessed the grouting of GW-1.

The drill cuttings were placed in a 5-gallon pail which was labeled and left on site pending proper disposal by a certified transportation and disposal company.

4.2 Investigation Results

SUBSURFACE CONDITIONS

The boring advanced at location GW-1 was examined for lithologic information and evidence of contamination. No evidence of contamination was observed at this location in the field. The soils consisted predominantly of clayey to sandy silt, with some gravels present within

sandy silt below 15 feet bgs.

SOIL VAPOR

PCE was detected in all vapor samples collected (SS-1, SS-2, SV1, SV3, and SV4), ranging from 110 micrograms per cubic meters (µg/m^3) to 3,000 µg/m^3 (see Table 1). The highest concentration was detected in the soil vapor sample from boring SV-1 located within the footprint of the former dry cleaning machine, while the lowest concentration was detected in the soil vapor sample placed along the sewer line emanating from the site.

In addition to PCE, trichloroethene (TCE) and cis-1,2- dichloroethene (cis-1,2-DCE), daughter products of PCE, were also detected in the vapor sample from boring SV-1; these occurred at 800 µg/m^3 of TCE and 21 µg/m^3 of cis-1,2-DCE. No other chlorinated solvents were detected in the vapor samples.

As shown on Table 1, PCE concentrations at SV-1 (3,000 µg/m^3) and SS-2 (1,500 µg/m^3) exceeded the commercial/industrial RWQCB soil vapor ESL of 1,400 µg/m^3. The sole TCE and cis-1,2-DCE detections occurred below their respective commercial/industrial ESLs.

It should be noted that while the highly conservative ESL for PCE was exceeded in SV-1 and SS-2, the cumulative carcinogenic risk, conservatively back-calculated below from the detected concentrations relative to the ESL, approximate 2.34 x 10^{-6} for SV-1 and 1.07 x 10^{-6} in SS-2. These conservative risk estimates are at the lower end of the target acceptable risk management range of 1 x 10^{-4} to 1 x 10^{-6} adopted by the USEPA and DTSC.

Sample	Chemical	Detected Concentration (ug/m3)	Commercial/Industrial ESL (ug/m3)	Estimated Carcinogenic Risk
SV-1	PCE	3000	1,400	2.14E-06
	TCE	800	4,100	1.95E-07
			Cumulative Risk	**2.34E-06**
SS-2	PCE	1500	1,400	1.07E-06
			Cumulative Risk	**1.07E-06**
Target risk level for ESLs = 1 x 10-6				

GROUNDWATER

PCE was not detected above the laboratory reporting limit of 0.5 µg/L in the grab groundwater sample collected from boring GW-1, located near the sewer clean out (see Attachment C).

5.0 WELL SURVEY RESULTS

A well survey for the area within 0.5 miles downgradient of the Property was completed using data provided by the Alameda County Public Works department. This survey indicates the potential presence of one production well within the search radius, as shown on Figure 1 and Attachment D. This well is located approximately 2,000 feet southwest (assumed to be hydraulically downgradient) of the site on Tyee Court, was reportedly drilled in 1953, is 52 feet deep, and has no known uses. Based on the age and depth of the well, it is unlikely to be used as a water supply well. Based on the low to non-detect concentrations of PCE in groundwater at the site and based on the well survey results, there do not appear to be any water-producing wells that could potentially be impacted by PCE impacts at the site.

6.0 CONCLUSIONS AND RECOMMENDATIONS

Through the various rounds of investigations to date, PCE detections in soil and groundwater beneath the site have been sporadic and have occurred at low concentrations. Specifically, soil concentrations have been below ESLs (Property Solutions, 2002 and AEI, 2007), while groundwater detections have been sporadic with concentrations ranging from non-detect to slightly above the MCL (Property Solutions, 2002, AEI, 2007). Supplementing these results, this supplemental investigation further corroborated the sporadic nature of PCE in groundwater, confirming the absence of preferential migration along sewer lines and the absence of viable groundwater receptors downgradient of the site. Combined with the termination of PCE usage at the site in 2002, these results indicate the absence of any primary sources or significant secondary sources of PCE contamination at the site.

While PCE and a single detection of TCE was encountered in soil vapor beneath the footprint of the former dry cleaning machine used historically at the site, the detected concentrations correspond to conservative risk estimates which are at the lower end of the acceptable risk management range and do not constitute a significant vapor intrusion risk.

Based on the available information, the site appears to qualify for low-risk closure and no further action is accordingly recommended.

7.0 REFERENCES

AEI, 2007. Phase II Subsurface Investigation, by AEI Consultants, May 8, 2007

California Regional Water Quality Control Board, San Francisco Bay Region, 2008. Screening for Environmental Concerns at Sites with Contaminated Soil & Groundwater, Interim Final.

LRM, 2009a. Supplemental Site Investigation Workplan, by Consulting, Inc., June 30, 2009

LRM, 2009b. Supplemental Site Investigation Workplan Addendum, by Consulting, Inc., August 17, 2009

Property Solutions, 2002. Limited Phase II Subsurface Investigation, by Property Solutions, Inc. September 27, 2002

Soil Vapor and Sub-slab Vapor Analytical Results

2960 Castro Valley Boulevard
Castro Valley, California

					Concentration (ug/m^3) (2)			
Location ID	Sample ID	Sample Location	Sample Depth (feet)	Sample Date	PCE	TCE	cis-1,2-DCE	Leak Check Compound Helium (ppmv, %) (3)
SS-1	SS-1	inside Bldg.	0.5 (1)	10/5/2009	900	<11	<8.1	0
SS-2	SS-2	inside Bldg.	0.5 (1)	10/5/2009	**1,500**	<11	<8.1	0
SV-1	SV1	inside Bldg.	5	10/5/2009	**3,000**	800	21	0
SV-2	--	inside Bldg.	5	10/5/2009	--	--	--	--
SV-3	SV3	inside Bldg.	1.5	10/5/2009	1,200	<11	<8.1	0
SV-4	SV4	outside Bldg.	5	10/5/2009	110	<11	<8.1	0
				ESL - Commercial	*1,400*	*41,000*	*20,000*	*na*

Abbreviations:
Bldg. = building (restaurant)
ESL = Environmental Screening Level- Soil Gas (Vapor Intrusion Concerns) (Table E, RWQCB, 2008).
"<" = less than the laboratory reporting limit
na = not available or not applicable

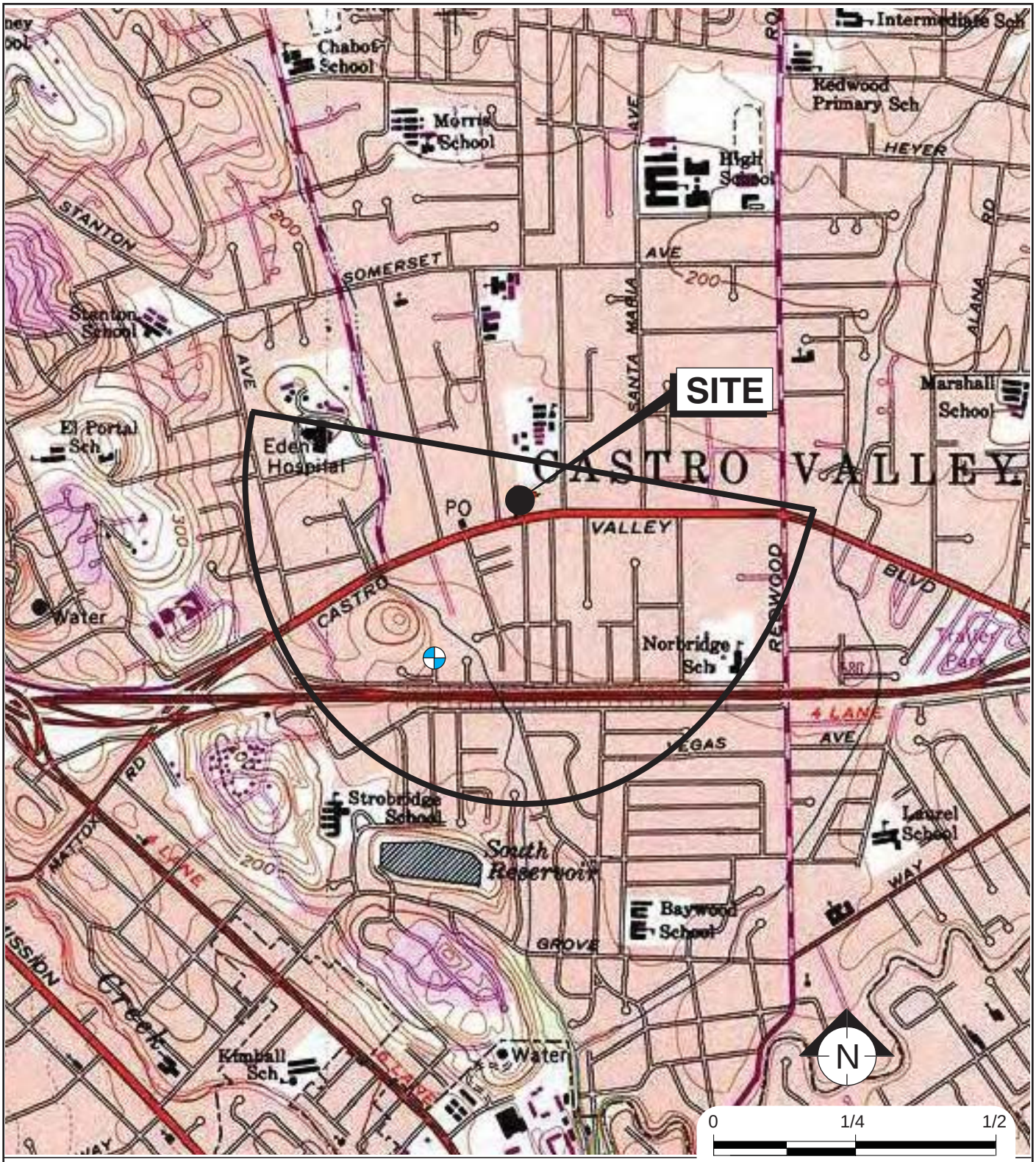
Notes:

"--" Not sampled due to no vapor flow.
(1) Sample was collected 3 to 4 inches below the slab.
(2) Only detected compounds are shown. Samples were analyzed by McCampbell Analytical Inc., Pittsburg, California, using EPA TO-15 method.
(3) Samples were analyzed by Helium meter in the field per approved workplan.

Bold number exceeds ESL-commercial sites.

TABLES

FIGURES



Base map: TOPO! 2003 National Geographic (www.nationalgeographic.com/topo).

EXPLANATION

Approximate location of one possible water producing well

SITE VICINITY MAP AND WELL SURVEY RADIUS

2960 CASTRO VALLEY BOULEVARD
CASTRO VALLEY, CALIFORNIA

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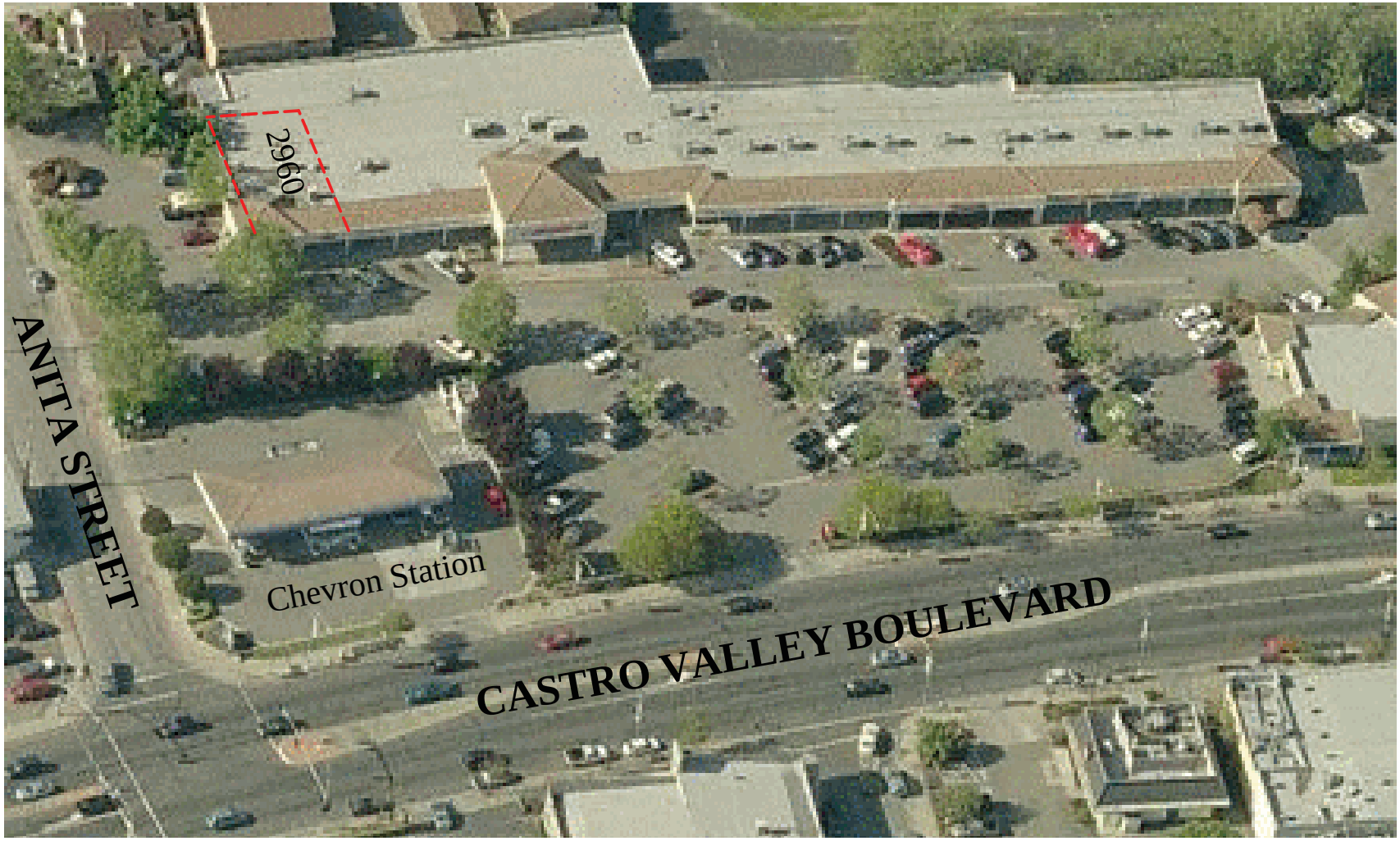
Date: 10/15/2009

Figure: 1



Source: Microsoft Virtual Earth

N

0 100 200 300 400 500

Scale Approximate

SITE MAP

2960 CASTRO VALLEY BOULEVARD
CASTRO VALLEY, CALIFORNIA

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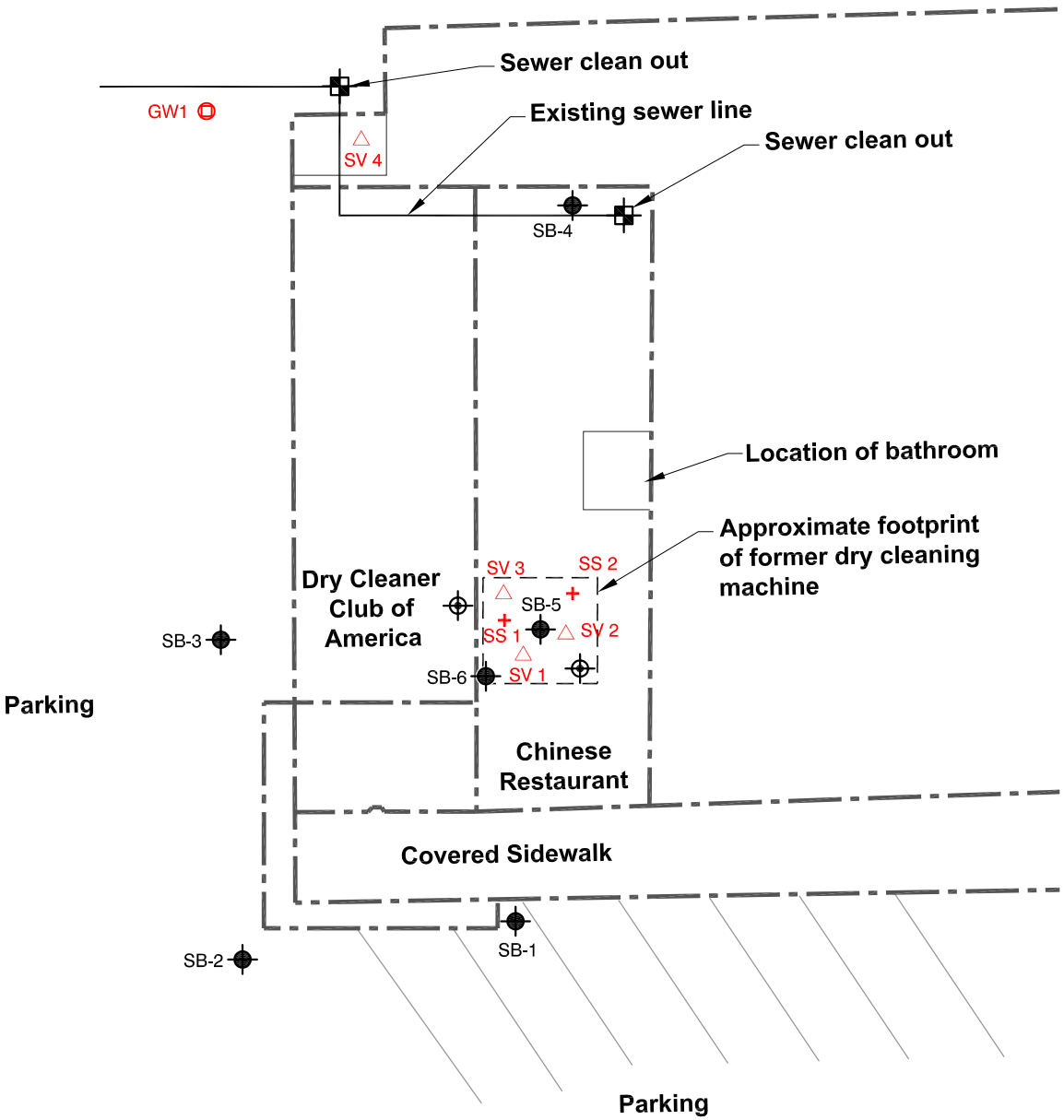
Date: 6/24/2009

Figure: **2**



LEGEND:

- △ Soil Vapor sample location (2009)
- \+ Sub-slab vapor sample location (2009)
- ⊕ AEI soil borings (2007)
- ◎ Grab Groundwater sample location (2009)
- ⊞ Sewer clean out
- ⊕ Floor cuts assumed to be Property Solutions borings

Boring locations are approximate

Base Map: Google Earth, 2009.

N

0 10 20

Scale (feet)

SAMPLING LOCATIONS

2960 CASTRO VALLEY BOULEVARD
CASTRO VALLEY, CALIFORNIA

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Date: 10/15/2009

Figure: 3

Attachment A

Field Data Sheets

SV1

APPENDIX B - FIELD FORM FOR SOIL VAPOR/SUB SLAB SAMPLING

Project Name: 2960 Castro Valley
Date: 10-5-09 Project Number: _____
Site Location: 2960 Castro Valley
Weather: clear + mild
Field Personnel: JC + Jeremy - Vironex
Recorded by: JC

Soil Vapor Probe No: SV1
~~Sub Slab Probe No~~: _____
PID Serial No: 00485 PID Lamp: 10.6 eV
MDG 2002 Serial No: 216
Tracer Gas: Helium

Surface Type: Asphalt _____ Concrete X Grass _____ Other _____
Surface Thickness (i.e., asphalt or concrete) 4"

1 Casing Volume:
Sub Slab Volume _____ L
Soil Vapor Probe Volume 107 ml L

Initial Vacuum Prior to Pumping -29 Hg inches of ~~water~~
Shut-in Test 7 Hg inches of ~~Water~~ held for 80 seconds
Field Tubing: Blank PID Reading 0 ppmv
Shut in Test Completed Prior to Purging: X Yes _____ No

SV1

Purging

Date	Start Time	End Time	Elapsed Time (min.)	Bag Volume (L)	Purge Rate (LPM)	Cumulative Volume (L)	Tracer Gas		Sample (ppmv, %)	VOCs by PID (ppmv)
P	10-5-09	1052	1055	2m45s			Shroud (%)			
T		1055	1059	4	5	200	Min	Max	0	6.1
							10.6	14.4		

Helium Concentration in Field Screen Samples is Less than 5% of Minimum Concentration in the Shroud?

____Y____ Yes _____ No

Sample Collection

Date	Time	Sample ID		Summa Canister ID	Flow Controller #	Vaccum Gage #	Initial Vacuum (in of Hg)	Final Vacuum (in Hg)
10-5-09	1100	SV1	1106	6301		MAN 316-674	-29	-5

SV2 (Stepped Purge)

APPENDIX B - FIELD FORM FOR SOIL VAPOR/SUB SLAB SAMPLING

Project Name: 2960 Castro Valley
Date: 10-5-09 Project Number: _____
Site Location: 2960 Castro Valley
Weather: clear + mild
Field Personnel: JG + Virginia
Recorded by: JG

(No flow)

Soil Vapor Probe No: SV2
Sub Slab Probe No: _____
PID Serial No: 00485 PID Lamp: 10.6 eV
MDG 2002 Serial No: helium meter 216
Tracer Gas: helium

Surface Type: Asphalt _____ Concrete X Grass _____ Other _____
Surface Thickness (i.e., asphalt or concrete) 4"

1 Casing Volume:
Sub Slab Volume _____ L
Soil Vapor Probe Volume 107 ml ~~L~~

Initial Vacuum Prior to Pumping _____ inches of water
Shut-in Test ~~-27~~ inches of ~~Water~~ held for 80 seconds
Field Tubing: Blank PID Reading 0 ppmv
Shut in Test Completed Prior to Purging: X Yes _____ No

SV 2 Step Purge

Purging

Date	Start Time	End Time	Elapsed Time (min.)	Bag Volume (L)	Purge Rate (LPM)	Cumulative Volume (L)	Tracer Gas		Sample (ppmv, %)	VOCs by PID (ppmv)
10-5-09	859	9	325		200		Shroud (%)			
	9	910	10 m	0			Min	Max		

P T

No flow after 10 m (Tedlar)

Helium Concentration in Field Screen Samples is Less than 5% of Minimum Concentration in the Shroud?

_____ **Yes** _____ **No** No sample - no flow

Sample Collection

Date	Time	Sample ID		Summa Canister ID	Flow Controller #	Vaccum Gage #	Initial Vacuum (in of Hg)	Final Vacuum (in Hg)

32
96

225 S
= 3 min 45

SV3

0.5-1.5

APPENDIX B - FIELD FORM FOR SOIL VAPOR/SUB SLAB SAMPLING

Project Name: 2960 Castro Valley
Date: 10-5-09 Project Number: _____
Site Location: 2960 Castro Valley
Weather: clear + mild
Field Personnel: JC + Jeremy-Vivanco
Recorded by: JC

Soil Vapor Probe No: SV 3
Sub Slab Probe No: _____
PID Serial No: CC 485 PID Lamp: 10.6 eV
MDG 2002 Serial No: 216
Tracer Gas: helium

Surface Type: Asphalt _____ Concrete X Grass _____ Other _____
Surface Thickness (i.e., asphalt or concrete) 4

1 Casing Volume:
Sub Slab Volume _____ L
Soil Vapor Probe Volume 107 ml L

Initial Vacuum Prior to Pumping -30 inches of ~~water~~ Hg
Shut-in Test 7 inches of ~~Water~~ Hg held for 80 seconds
Field Tubing: Blank PID Reading 0 ppmv
Shut in Test Completed Prior to Purging: X Yes _____ No

SV 3

Purging

Date	Start Time	End Time	Elapsed Time (min.)	Bag Volume (L)	Purge Rate (LPM)	Cumulative Volume (L)	Tracer Gas		Sample (ppmv, %)	VOCs by PID (ppmv)
P 10-5-09	10:30	10:34	3m55				Shroud (%)			
T	10:34	10:37		X5	200	200	Min	Max	0	7.7
							10.1	15.2		

Helium Concentration in Field Screen Samples is Less than 5% of Minimum Concentration in the Shroud?

X **Yes** _____ **No**

Sample Collection

Date	Time	Sample ID		Summa Canister ID	Flow Controller #	Vaccum Gage #	Initial Vacuum (in of Hg)	Final Vacuum (in Hg)
10-5-09	10:39	SV3	10:49	1510		MAN316-685	-29	-5

SV4

Purging

Date	Start Time	End Time	Elapsed Time (min.)	Bag Volume (L)	Purge Rate (LPM)	Cumulative Volume (L)	Tracer Gas		Sample (ppmv, %)	VOCs by PID (ppmv)
10-5-09	1225	1228	2m 55s				Shroud (%)			
	1222	1226	4	1/5	200	5-L	Min	Max	0	37
							10.4	13.2		

Helium Concentration in Field Screen Samples is Less than 5% of Minimum Concentration in the Shroud?

__X__ **Yes** _____ **No**

Sample Collection

Date	Time	Sample ID		Summa Canister ID	Flow Controller #	Vaccum Gage #	Initial Vacuum (in of Hg)	Final Vacuum (in Hg)
10-5-09	1243	SV4	1258end	6202		MA13/6675	-29	-5

SS1

Purging

Date	Start Time	End Time	Elapsed Time (min.)	Bag Volume (L)	Purge Rate (LPM)	Cumulative Volume (L)	Tracer Gas		Sample (ppmv, %)	VOCs by PID (ppmv)
10-5-09	1007	1008	1 15				Shroud (%)			
~~100~~	1008	1012	4	1/4	200	1/4 L	Min	Max	0	5.1
							10.0	13.9		

P
T

Helium Concentration in Field Screen Samples is Less than 5% of Minimum Concentration in the Shroud?

_____ Yes _____ No

Sample Collection

Date	Time	Sample ID		Summa Canister ID	Flow Controller #	Vaccum Gage #	Initial Vacuum (in of Hg)	Final Vacuum (in Hg)
10-5-09	1010	SS1	1020hrs	6174	5634860	MAN316-676	-30	-5

552

Purging

Date	Start Time	End Time	Elapsed Time (min.)	Bag Volume (L)	Purge Rate (LPM)	Cumulative Volume (L)	Tracer Gas		Sample (ppmv, %)	VOCs by PID (ppmv)
10-5-01	917	917	105				Shroud (%)			
	928	925	3M	1/3	200	1/3 L	Min	Max	0 helium	16 ppm
	929	929	325							
	930	933	3M	1/2	200	1/2 L			0	50.7
	940	941	1M15S							
	942	946	4	1/3	200	1/3 L			0	103
	948									

Helium Concentration in Field Screen Samples is Less than 5% of Minimum Concentration in the Shroud?

____X____ **Yes** _____ **No**

Sample Collection

Date	Time	Sample ID		Summa Canister ID	Flow Controller #	Vaccum Gage #	Initial Vacuum (in of Hg)	Final Vacuum (in Hg)
10-5-01	948-956	552		6412	602999001	MAN 316-686	-30	-5

Attachment B

Boring Logs

PROJECT:	2960 CASTRO VALLEY BLVD. Castro Valley, California	Log of Boring GW-1 PAGE 1 OF 1

Boring location: See Site Plan, Figure 2		Logged by: Joel Greger Drilled By: Vironex
Date started: 10/5/09	Date finished: 10/5/09	
Drilling method: Geoprobe		
Hammer weight/drop:	Hammer type:	
Sampler:		

DEPTH (feet)	SAMPLES: Sample Number	SAMPLES: Sample	SAMPLES: Blow Count	SAMPLES: Recovery (feet)	OVM (ppm)	LITHOLOGY	MATERIAL DESCRIPTION
1						FILL	4-inch Asphalt over sand and gravel base
3						ML	SILT (ML) light brown, slightly moist, stiff becoming dark brown, small roots
4						ML	CLAYEY SILT (ML) dark greenish brown, slightly moist to moist, stiff
5						ML	SANDY SILT (ML) orangish brown
8						ML	CLAYEY SILT (ML) olive green, moist
11						ML	▽ becoming saturated, small roots
12						ML	CLAYEY SILT (ML), becoming SANDY SILT (ML) at 12.8 feet sand, very fine grained, saturated, stiff
15						ML	SANDY SILT (ML) brown, with 10 to 15??, subrounded gravel up to 1/2 inch diameter, saturated, stiff
16							
17							
18							
19							
20							

Boring terminated at a depth of 16 feet below ground surface.
Boring backfilled with tremie pipe.
Groundwater encountered at a depth of 10.9 feet during drilling.

Endpoint. Strategy. Science. Sustainability.

Date:	Figure:
10/12/2009	A-1

Attachment C

Laboratory Analytical Report

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Endpoint 98 Battery Street, Suite 200 San Francisco, CA 94111	Client Project ID: 2960 Casro Valley	Date Sampled: 10/05/09
		Date Received: 10/05/09
	Client Contact: Mehrdad Javaher	Date Reported: 10/09/09
	Client P.O.:	Date Completed: 10/09/09

WorkOrder: 0910092

October 09, 2009

Dear Mehrdad:

Enclosed within are:

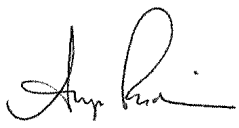
1) The results of the **7** analyzed samples from your project: **2960 Casro Valley,**
2) A QC report for the above samples,
3) A copy of the chain of custody, and
4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McCampbell Analytical Laboratories for your analytical needs.

Best regards,



Angela Rydelius
Laboratory Manager
McCampbell Analytical, Inc.

0910092

McCAMPBELL ANALYTICAL, INC.

1534 WILLOW PASS ROAD
PITTSBURG, CA 94565-1701
Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (877) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAY

☒ GeoTracker EDF ☒ PDF ☐ Excel ☐ Write On (DW)

Report To: Mehrdad Javaheriaan Bill To: End point
Company: End Point
98 Battery St. # 200
San Francisco CA
E-Mail: mjavaheriaan@rm-consulting.com
Tele: (510) 5935382 Fax: ( )
Project #: Project Name: 2960 Castro Valley
Project Location: 2960 Castro Valley Blvd. Castro Valley
Sampler Signature: Jed Ir

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED ICE	METHOD PRESERVED HCL	METHOD PRESERVED HNO_3	METHOD PRESERVED Other
GW-1		10-5-09	1240Pm	3	VOA	X					X	X		
SS-1			1020AM	1	Sm.			X						
SS-2			956AM					X						
SV 1			1146AM					X						
SV 3			1049AM					X						
SV 4			1258PM					X						
Comp S1			1229PM	1	L		X				X			

Analysis Request

MTBE / BTEX & TPH as Gas (602 / 8021 + 8015)	MTBE / BTEX ONLY (EPA 602 / 8021)	TPH as Diesel / Motor Oil (8015)	Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 502.2 / 601 (8010) 8021 (HVOCs)	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners	EPA 507 / 8141 (NP Pesticides)	EPA 515 / 8151 (Acidic Cl Herbicides)	EPA 524.2 / 624 / 8260 (VOCs) 8010 List	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.7 / 200.8 / 6010 / 6020)	LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)	Lead (200.7 / 200.8 / 6010 / 6020)	Other: TO15 8260 8010 List	Comments
										X							
																X	
																X	
																X	
																X	
																X	
					X												

Filter Samples for Metals analysis: Yes / No

Relinquished By:	Date:	Time:	Received By:
Jed Ir	10-5-09	232Pm	ENVIRO-TECH SR.
ENVIRO-TECH SERVICES AA	10/5	15:31	Derek Carter
Derek Carter	10/5		

ICE/t° 1.0
COMMENTS:
GOOD CONDITION
HEAD SPACE ABSENT
DECHLORINATED IN LAB
APPROPRIATE CONTAINERS
PRESERVED IN LAB

VOAS O&G METALS OTHER
PRESERVATION pH<2

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0910092 **ClientCode: EPB**

☐ WaterTrax ☐ WriteOn ☑ EDF ☑ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Mehrdad Javaher
Endpoint
98 Battery Street, Suite 200
San Francisco, CA 94111
415-706-8935 FAX

Email: mehrdad@endpoint-inc.com
cc:
PO:
ProjectNo: 2960 Casro Valley

Bill to:
Accounts Payable
Endpoint
98 Battery Street, Suite 200
San Francisco, CA 94111
cage2usa@aol.com

Requested TAT: 5 days

Date Received: **10/05/2009**
Date Printed: **10/05/2009**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
0910092-001	GW-1	Water	10/5/2009 12:40	☐		A	A									
0910092-002	SS-1	Soil Vapor	10/5/2009 10:20	☐				A								
0910092-003	SS-2	Soil Vapor	10/5/2009 9:56	☐				A								
0910092-004	SV1	Soil Vapor	10/5/2009 11:16	☐				A								
0910092-005	SV3	Soil Vapor	10/5/2009 10:49	☐				A								
0910092-006	SV4	Soil Vapor	10/5/2009 12:38	☐				A								
0910092-007	CompS1	Soil	10/5/2009 12:29	☐	A											

Test Legend:

1	8010BMS_S	2	8010BMS_W	3	PREDF REPORT	4	TO15-8010_SOIL(UG/M3)	5	
6		7		8		9		10	
11		12							

The following SampIDs: 002A, 003A, 004A, 005A, 006A contain testgroup.

Prepared by: Ana Venegas

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

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Sample Receipt Checklist

Client Name: **Endpoint** Date and Time Received: **10/5/2009 5:15:07 PM**

Project Name: **2960 Casro Valley** Checklist completed and reviewed by: Ana Venegas

WorkOrder N°: **0910092** Matrix Soil/Soil Vapor/Water Carrier: Derik Cartan (MAI Courier)

Chain of Custody (COC) Information

Chain of custody present?	Yes ☑	No ☐
Chain of custody signed when relinquished and received?	Yes ☑	No ☐
Chain of custody agrees with sample labels?	Yes ☑	No ☐
Sample IDs noted by Client on COC?	Yes ☑	No ☐
Date and Time of collection noted by Client on COC?	Yes ☑	No ☐
Sampler's name noted on COC?	Yes ☑	No ☐

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	NA ☑
Shipping container/cooler in good condition?	Yes ☑	No ☐	
Samples in proper containers/bottles?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature	Cooler Temp: 1.6°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☑	No ☐	No VOA vials submitted ☐
Sample labels checked for correct preservation?	Yes ☑	No ☐	
Metal - pH acceptable upon receipt (pH<2)?	Yes ☐	No ☐	NA ☑
Samples Received on Ice?	Yes ☑	No ☐	

(Ice Type: WET ICE)

** NOTE: If the "No" box is checked, see comments below.*

Client contacted: Date contacted: Contacted by:

Comments:

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Telephone: 877-252-9262 Fax: 925-252-9269

Endpoint	Client Project ID: 2960 Casro Valley	Date Sampled: 10/05/09
		Date Received: 10/05/09
98 Battery Street, Suite 200	Client Contact: Mehrdad Javaher	Date Extracted: 10/05/09
San Francisco, CA 94111	Client P.O.:	Date Analyzed 10/07/09

Halogenated Volatile Organics by P&T and GC-MS (8010 Basic Target List)*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 0910092

					Reporting Limit for DF =1	
Lab ID	0910092-007A					
Client ID	CompS1					
Matrix	S				S	W
DF	1					

Compound	Concentration				mg/kg	µg/L
Bromodichloromethane	ND				0.005	NA
Bromoform	ND				0.005	NA
Bromomethane	ND				0.005	NA
Carbon Tetrachloride	ND				0.005	NA
Chlorobenzene	ND				0.005	NA
Chloroethane	ND				0.005	NA
Chloroform	ND				0.005	NA
Chloromethane	ND				0.005	NA
Dibromochloromethane	ND				0.005	NA
1,2-Dibromoethane (EDB)	ND				0.004	NA
1,2-Dichlorobenzene	ND				0.005	NA
1,3-Dichlorobenzene	ND				0.005	NA
1,4-Dichlorobenzene	ND				0.005	NA
Dichlorodifluoromethane	ND				0.005	NA
1,1-Dichloroethane	ND				0.005	NA
1,2-Dichloroethane (1,2-DCA)	ND				0.004	NA
1,1-Dichloroethene	ND				0.005	NA
cis-1,2-Dichloroethene	ND				0.005	NA
trans-1,2-Dichloroethene	ND				0.005	NA
1,2-Dichloropropane	ND				0.005	NA
cis-1,3-Dichloropropene	ND				0.005	NA
trans-1,3-Dichloropropene	ND				0.005	NA
Freon 113	ND				0.1	NA
Methylene chloride	ND				0.005	NA
1,1,1,2-Tetrachloroethane	ND				0.005	NA
1,1,2,2-Tetrachloroethane	ND				0.005	NA
Tetrachloroethene	ND				0.005	NA
1,1,1-Trichloroethane	ND				0.005	NA
1,1,2-Trichloroethane	ND				0.005	NA
Trichloroethene	ND				0.005	NA
Trichlorofluoromethane	ND				0.005	NA
Vinyl Chloride	ND				0.005	NA

Surrogate Recoveries (%)					
%SS1:	86				
%SS2:	112				
%SS3:	102				
Comments					

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak.

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Telephone: 877-252-9262 Fax: 925-252-9269

Endpoint	Client Project ID: 2960 Casro Valley	Date Sampled: 10/05/09
		Date Received: 10/05/09
98 Battery Street, Suite 200	Client Contact: Mehrdad Javaher	Date Extracted: 10/07/09
San Francisco, CA 94111	Client P.O.:	Date Analyzed 10/07/09

Halogenated Volatile Organics by P&T and GC-MS (8010 Basic Target List)*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 0910092

					Reporting Limit for DF =1	
Lab ID	0910092-001A					
Client ID	GW-1					
Matrix	W				S	W
DF	1					

Compound	Concentration				µg/kg	µg/L
Bromodichloromethane	ND				NA	0.5
Bromoform	ND				NA	0.5
Bromomethane	ND				NA	0.5
Carbon Tetrachloride	ND				NA	0.5
Chlorobenzene	ND				NA	0.5
Chloroethane	ND				NA	0.5
Chloroform	ND				NA	0.5
Chloromethane	ND				NA	0.5
Dibromochloromethane	ND				NA	0.5
1,2-Dibromoethane (EDB)	ND				NA	0.5
1,2-Dichlorobenzene	ND				NA	0.5
1,3-Dichlorobenzene	ND				NA	0.5
1,4-Dichlorobenzene	ND				NA	0.5
Dichlorodifluoromethane	ND				NA	0.5
1,1-Dichloroethane	ND				NA	0.5
1,2-Dichloroethane (1,2-DCA)	ND				NA	0.5
1,1-Dichloroethene	ND				NA	0.5
cis-1,2-Dichloroethene	ND				NA	0.5
trans-1,2-Dichloroethene	ND				NA	0.5
1,2-Dichloropropane	ND				NA	0.5
cis-1,3-Dichloropropene	ND				NA	0.5
trans-1,3-Dichloropropene	ND				NA	0.5
Freon 113	ND				NA	10
Methylene chloride	ND				NA	0.5
1,1,1,2-Tetrachloroethane	ND				NA	0.5
1,1,2,2-Tetrachloroethane	ND				NA	0.5
Tetrachloroethene	ND				NA	0.5
1,1,1-Trichloroethane	ND				NA	0.5
1,1,2-Trichloroethane	ND				NA	0.5
Trichloroethene	ND				NA	0.5
Trichlorofluoromethane	ND				NA	0.5
Vinyl Chloride	ND				NA	0.5
Surrogate Recoveries (%)						
%SS1:	91					
%SS2:	100					
%SS3:	99					
Comments	b1					

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak.

b1) aqueous sample that contains greater than ~1 vol. % sediment

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Endpoint	Client Project ID: 2960 Casro Valley	Date Sampled: 10/05/09
		Date Received: 10/05/09
98 Battery Street, Suite 200	Client Contact: Mehrdad Javaher	Date Extracted: 10/08/09
San Francisco, CA 94111	Client P.O.:	Date Analyzed 10/08/09

Halogenated Volatile Organic Compounds in µg/m³*

Extraction Method: TO15 Analytical Method: TO15 Work Order: 0910092

Lab ID	0910092-002A	0910092-003A	0910092-004A	0910092-005A	Reporting Limit for DF =1	
Client ID	SS-1	SS-2	SV1	SV3		
Matrix	Soil Vapor	Soil Vapor	Soil Vapor	Soil Vapor		
DF	1	1	1	1	Soil Vapor	W
Initial Pressure (psia)	13.82	14.88	13.98	14.77		
Final Pressure (psia)	27.54	29.68	27.9	29.48		
Compound	**Concentration**				µg/m³	ug/L
Bromodichloromethane	ND	ND	ND	ND	14	NA
Bromoform	ND	ND	ND	ND	21	NA
Bromomethane	ND	ND	ND	ND	7.9	NA
Carbon Tetrachloride	ND	ND	ND	ND	13	NA
Chlorobenzene	ND	ND	ND	ND	9.4	NA
Chloroethane	ND	ND	ND	ND	5.4	NA
Chloroform	ND	ND	ND	ND	9.9	NA
Chloromethane	ND	ND	ND	ND	4.2	NA
Dibromochloromethane	ND	ND	ND	ND	17	NA
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	16	NA
1,2-Dichlorobenzene	ND	ND	ND	ND	12	NA
1,3-Dichlorobenzene	ND	ND	ND	ND	12	NA
1,4-Dichlorobenzene	ND	ND	ND	ND	12	NA
Dichlorodifluoromethane	ND	ND	ND	ND	10	NA
1,1-Dichloroethane	ND	ND	ND	ND	8.2	NA
1,2-Dichloroethane (1,2-DCA)	ND	ND	ND	ND	8.2	NA
1,1-Dichloroethene	ND	ND	ND	ND	8.1	NA
cis-1,2-Dichloroethene	ND	ND	21	ND	8.1	NA
trans-1,2-Dichloroethene	ND	ND	ND	ND	8.1	NA
1,2-Dichloropropane	ND	ND	ND	ND	9.4	NA
cis-1,3-Dichloropropene	ND	ND	ND	ND	9.2	NA
trans-1,3-Dichloropropene	ND	ND	ND	ND	9.2	NA
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND	ND	ND	14	NA
Freon 113	ND	ND	ND	ND	16	NA
Methylene chloride	ND	ND	ND	ND	7.1	NA
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	14	NA
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	14	NA
Tetrachloroethene	900	1500	3000	1200	14	NA
1,2,4-Trichlorobenzene	ND	ND	ND	ND	15	NA
1,1,1-Trichloroethane	ND	ND	ND	ND	11	NA
1,1,2-Trichloroethane	ND	ND	ND	ND	11	NA
Trichloroethene	ND	ND	800	ND	11	NA
Trichlorofluoromethane	ND	ND	ND	ND	11	NA
Vinyl Chloride	ND	ND	ND	ND	5.2	NA
Surrogate Recoveries (%)						
%SS1:	96	97	99	99		
%SS2:	101	102	105	104		
%SS3:	103	110	107	107		
Comments						

*vapor samples are reported in µg/m³.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak.

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

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Endpoint	Client Project ID: 2960 Casro Valley	Date Sampled: 10/05/09
		Date Received: 10/05/09
98 Battery Street, Suite 200	Client Contact: Mehrdad Javaher	Date Extracted: 10/08/09
San Francisco, CA 94111	Client P.O.:	Date Analyzed 10/08/09

Halogenated Volatile Organic Compounds in µg/m³*

Extraction Method: TO15 Analytical Method: TO15 Work Order: 0910092

					Reporting Limit for DF =1	
Lab ID	0910092-006A					
Client ID	SV4					
Matrix	Soil Vapor					
DF	1				Soil Vapor	W
Initial Pressure (psia)	14.9					
Final Pressure (psia)	29.75					

Compound	Concentration				µg/m³	ug/L
Bromodichloromethane	ND				14	NA
Bromoform	ND				21	NA
Bromomethane	ND				7.9	NA
Carbon Tetrachloride	ND				13	NA
Chlorobenzene	ND				9.4	NA
Chloroethane	ND				5.4	NA
Chloroform	ND				9.9	NA
Chloromethane	ND				4.2	NA
Dibromochloromethane	ND				17	NA
1,2-Dibromoethane (EDB)	ND				16	NA
1,2-Dichlorobenzene	ND				12	NA
1,3-Dichlorobenzene	ND				12	NA
1,4-Dichlorobenzene	ND				12	NA
Dichlorodifluoromethane	ND				10	NA
1,1-Dichloroethane	ND				8.2	NA
1,2-Dichloroethane (1,2-DCA)	ND				8.2	NA
1,1-Dichloroethene	ND				8.1	NA
cis-1,2-Dichloroethene	ND				8.1	NA
trans-1,2-Dichloroethene	ND				8.1	NA
1,2-Dichloropropane	ND				9.4	NA
cis-1,3-Dichloropropene	ND				9.2	NA
trans-1,3-Dichloropropene	ND				9.2	NA
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND				14	NA
Freon 113	ND				16	NA
Methylene chloride	ND				7.1	NA
1,1,1,2-Tetrachloroethane	ND				14	NA
1,1,2,2-Tetrachloroethane	ND				14	NA
Tetrachloroethene	110				14	NA
1,2,4-Trichlorobenzene	ND				15	NA
1,1,1-Trichloroethane	ND				11	NA
1,1,2-Trichloroethane	ND				11	NA
Trichloroethene	ND				11	NA
Trichlorofluoromethane	ND				11	NA
Vinyl Chloride	ND				5.2	NA

Surrogate Recoveries (%)					
%SS1:	98				
%SS2:	102				
%SS3:	106				

Comments					

*vapor samples are reported in µg/m³.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak.

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

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Telephone: 877-252-9262 Fax: 925-252-9269

Endpoint	Client Project ID: 2960 Casro Valley	Date Sampled: 10/05/09
		Date Received: 10/05/09
98 Battery Street, Suite 200	Client Contact: Mehrdad Javaher	Date Extracted: 10/08/09
San Francisco, CA 94111	Client P.O.:	Date Analyzed 10/08/09

Halogenated Volatile Organic Compounds in nL/L*

Extraction Method: TO15 Analytical Method: TO15 Work Order: 0910092

Lab ID	0910092-002A	0910092-003A	0910092-004A	0910092-005A	Reporting Limit for DF =1	
Client ID	SS-1	SS-2	SV1	SV3		
Matrix	Soil Vapor	Soil Vapor	Soil Vapor	Soil Vapor		
DF	1	1	1	1	Soil Vapor	W
Initial Pressure (psia)	13.82	14.88	13.98	14.77		
Final Pressure (psia)	27.54	29.68	27.9	29.48		
Compound	**Concentration**				nL/L	ug/L
Bromodichloromethane	ND	ND	ND	ND	2.0	NA
Bromoform	ND	ND	ND	ND	2.0	NA
Bromomethane	ND	ND	ND	ND	2.0	NA
Carbon Tetrachloride	ND	ND	ND	ND	2.0	NA
Chlorobenzene	ND	ND	ND	ND	2.0	NA
Chloroethane	ND	ND	ND	ND	2.0	NA
Chloroform	ND	ND	ND	ND	2.0	NA
Chloromethane	ND	ND	ND	ND	2.0	NA
Dibromochloromethane	ND	ND	ND	ND	2.0	NA
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	2.0	NA
1,2-Dichlorobenzene	ND	ND	ND	ND	2.0	NA
1,3-Dichlorobenzene	ND	ND	ND	ND	2.0	NA
1,4-Dichlorobenzene	ND	ND	ND	ND	2.0	NA
Dichlorodifluoromethane	ND	ND	ND	ND	2.0	NA
1,1-Dichloroethane	ND	ND	ND	ND	2.0	NA
1,2-Dichloroethane (1,2-DCA)	ND	ND	ND	ND	2.0	NA
1,1-Dichloroethene	ND	ND	ND	ND	2.0	NA
cis-1,2-Dichloroethene	ND	ND	5.3	ND	2.0	NA
trans-1,2-Dichloroethene	ND	ND	ND	ND	2.0	NA
1,2-Dichloropropane	ND	ND	ND	ND	2.0	NA
cis-1,3-Dichloropropene	ND	ND	ND	ND	2.0	NA
trans-1,3-Dichloropropene	ND	ND	ND	ND	2.0	NA
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND	ND	ND	2.0	NA
Freon 113	ND	ND	ND	ND	2.0	NA
Methylene chloride	ND	ND	ND	ND	2.0	NA
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	2.0	NA
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	2.0	NA
Tetrachloroethene	130	220	430	180	2.0	NA
1,2,4-Trichlorobenzene	ND	ND	ND	ND	2.0	NA
1,1,1-Trichloroethane	ND	ND	ND	ND	2.0	NA
1,1,2-Trichloroethane	ND	ND	ND	ND	2.0	NA
Trichloroethene	ND	ND	150	ND	2.0	NA
Trichlorofluoromethane	ND	ND	ND	ND	2.0	NA
Vinyl Chloride	ND	ND	ND	ND	2.0	NA
Surrogate Recoveries (%)						
%SS1:	96	97	99	99		
%SS2:	101	102	105	104		
%SS3:	103	110	107	107		
Comments						

*vapor samples are reported in nL/L.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak.

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

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Endpoint	Client Project ID: 2960 Casro Valley	Date Sampled: 10/05/09
		Date Received: 10/05/09
98 Battery Street, Suite 200	Client Contact: Mehrdad Javaher	Date Extracted: 10/08/09
San Francisco, CA 94111	Client P.O.:	Date Analyzed 10/08/09

Halogenated Volatile Organic Compounds in nL/L*

Extraction Method: TO15 Analytical Method: TO15 Work Order: 0910092

					Reporting Limit for DF =1	
Lab ID	0910092-006A					
Client ID	SV4					
Matrix	Soil Vapor					
DF	1				Soil Vapor	W
Initial Pressure (psia)	14.9					
Final Pressure (psia)	29.75					

Compound	Concentration				nL/L	ug/L
Bromodichloromethane	ND				2.0	NA
Bromoform	ND				2.0	NA
Bromomethane	ND				2.0	NA
Carbon Tetrachloride	ND				2.0	NA
Chlorobenzene	ND				2.0	NA
Chloroethane	ND				2.0	NA
Chloroform	ND				2.0	NA
Chloromethane	ND				2.0	NA
Dibromochloromethane	ND				2.0	NA
1,2-Dibromoethane (EDB)	ND				2.0	NA
1,2-Dichlorobenzene	ND				2.0	NA
1,3-Dichlorobenzene	ND				2.0	NA
1,4-Dichlorobenzene	ND				2.0	NA
Dichlorodifluoromethane	ND				2.0	NA
1,1-Dichloroethane	ND				2.0	NA
1,2-Dichloroethane (1,2-DCA)	ND				2.0	NA
1,1-Dichloroethene	ND				2.0	NA
cis-1,2-Dichloroethene	ND				2.0	NA
trans-1,2-Dichloroethene	ND				2.0	NA
1,2-Dichloropropane	ND				2.0	NA
cis-1,3-Dichloropropene	ND				2.0	NA
trans-1,3-Dichloropropene	ND				2.0	NA
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND				2.0	NA
Freon 113	ND				2.0	NA
Methylene chloride	ND				2.0	NA
1,1,1,2-Tetrachloroethane	ND				2.0	NA
1,1,2,2-Tetrachloroethane	ND				2.0	NA
Tetrachloroethene	16				2.0	NA
1,2,4-Trichlorobenzene	ND				2.0	NA
1,1,1-Trichloroethane	ND				2.0	NA
1,1,2-Trichloroethane	ND				2.0	NA
Trichloroethene	ND				2.0	NA
Trichlorofluoromethane	ND				2.0	NA
Vinyl Chloride	ND				2.0	NA

Surrogate Recoveries (%)					
%SS1:	98				
%SS2:	102				
%SS3:	106				

Comments					

*vapor samples are reported in nL/L.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak.

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

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QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Soil QC Matrix: Soil BatchID: 46185 WorkOrder 0910092

EPA Method SW8260B **Extraction SW5030B** **Spiked Sample ID: 0910020-006A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Chlorobenzene	ND	0.050	113	93.9	18.2	104	86.2	18.3	60 - 130	30	60 - 130	30
1,2-Dibromoethane (EDB)	ND	0.050	95	82.6	14.0	89.1	74.8	17.4	60 - 130	30	60 - 130	30
1,2-Dichloroethane (1,2-DCA)	ND	0.050	118	101	15.5	99.9	84.5	16.7	60 - 130	30	60 - 130	30
1,1-Dichloroethene	ND	0.050	129	110	15.9	109	92.5	16.1	60 - 130	30	60 - 130	30
Trichloroethene	ND	0.050	130	108	18.5	114	94.2	19.2	60 - 130	30	60 - 130	30
%SS1:	106	0.12	71	72	0.496	71	72	1.83	70 - 130	30	70 - 130	30
%SS2:	102	0.12	94	94	0	95	95	0	70 - 130	30	70 - 130	30
%SS3:	113	0.012	87	89	3.03	87	86	1.02	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 46185 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0910092-007A	10/05/09 12:29 PM	10/05/09	10/07/09 3:59 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and freon 113 may occasionally appear in the method blank at low levels.

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QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water QC Matrix: Water BatchID: 46224 WorkOrder 0910092

EPA Method SW8260B **Extraction SW5030B** **Spiked Sample ID: 0910055-010A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Chlorobenzene	ND	10	101	97.7	3.25	87.1	87	0.0796	70 - 130	30	70 - 130	30
1,2-Dibromoethane (EDB)	ND	10	101	105	3.67	99.3	102	2.59	70 - 130	30	70 - 130	30
1,2-Dichloroethane (1,2-DCA)	ND	10	95.4	98.6	3.33	109	115	4.77	70 - 130	30	70 - 130	30
1,1-Dichloroethene	ND	10	111	105	6.24	106	106	0	70 - 130	30	70 - 130	30
Trichloroethene	ND	10	114	112	1.42	101	105	3.65	70 - 130	30	70 - 130	30
%SS1:	76	25	90	94	3.78	122	127	3.60	70 - 130	30	70 - 130	30
%SS2:	89	25	101	99	1.68	95	96	0.894	70 - 130	30	70 - 130	30
%SS3:	80	2.5	104	103	1.46	94	102	8.59	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 46224 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0910092-001A	10/05/09 12:40 PM	10/07/09	10/07/09 4:31 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and freon 113 may occasionally appear in the method blank at low levels.

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QC SUMMARY REPORT FOR TO15

W.O. Sample Matrix: Soil Vapor QC Matrix: Soil Vapor BatchID: 46248 WorkOrder: 0910092

EPA Method TO15 **Extraction TO15** **Spiked Sample ID: N/A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	nL/L	nL/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
1,3-Butadiene	N/A	25	N/A	N/A	N/A	85.3	89.9	5.20	N/A	N/A	70 - 130	30
Chlorobenzene	N/A	25	N/A	N/A	N/A	108	108	0	N/A	N/A	70 - 130	30
1,2-Dibromoethane (EDB)	N/A	25	N/A	N/A	N/A	113	114	1.13	N/A	N/A	70 - 130	30
1,2-Dichloroethane (1,2-DCA)	N/A	25	N/A	N/A	N/A	106	107	0.885	N/A	N/A	70 - 130	30
1,2-Dichloro-1,1,2,2-tetrafluoroetha	N/A	25	N/A	N/A	N/A	88.9	96.6	8.26	N/A	N/A	70 - 130	30
Freon 113	N/A	25	N/A	N/A	N/A	103	106	3.01	N/A	N/A	70 - 130	30
1,1,1,2-Tetrachloroethane	N/A	25	N/A	N/A	N/A	111	112	0.743	N/A	N/A	70 - 130	30
1,1,2,2-Tetrachloroethane	N/A	25	N/A	N/A	N/A	97.5	98.2	0.654	N/A	N/A	70 - 130	30
1,2,4-Trichlorobenzene	N/A	25	N/A	N/A	N/A	81.8	84.5	3.25	N/A	N/A	70 - 130	30
Trichloroethene	N/A	25	N/A	N/A	N/A	105	104	0.726	N/A	N/A	70 - 130	30
Xylenes	N/A	75	N/A	N/A	N/A	109	109	0	N/A	N/A	70 - 130	30
%SS1:	N/A	500	N/A	N/A	N/A	105	106	1.41	N/A	N/A	70 - 130	30
%SS2:	N/A	500	N/A	N/A	N/A	109	109	0	N/A	N/A	70 - 130	30
%SS3:	N/A	500	N/A	N/A	N/A	109	109	0	N/A	N/A	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 46248 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0910092-002A	10/05/09 10:20 AM	10/08/09	10/08/09 12:29 PM	0910092-003A	10/05/09 9:56 AM	10/08/09	10/08/09 1:18 PM
0910092-003A	10/05/09 9:56 AM	10/08/09	10/08/09 7:09 PM	0910092-004A	10/05/09 11:16 AM	10/08/09	10/08/09 2:06 PM
0910092-004A	10/05/09 11:16 AM	10/08/09	10/08/09 7:52 PM	0910092-005A	10/05/09 10:49 AM	10/08/09	10/08/09 2:56 PM
0910092-005A	10/05/09 10:49 AM	10/08/09	10/08/09 8:32 PM	0910092-006A	10/05/09 12:38 PM	10/08/09	10/08/09 3:45 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

* MS and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.
NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.

DHS ELAP Certification 1644

QA/QC Officer

Attachment D

Well Survey Results

WELL SURVEY - 2960 Castro Valley Blvd.
PRODUCTION WELLS OR UNKNOWN USE

T/R	Section	Address	Owner	Drill date	Elev.	Depth	Water depth	Diam.	Use
3S/2W	9A 1	TYEE CT.	SAM WALLACE	7/53	0	52	0	0	

T/R = Township/Range
IRR = Irrigation