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CONESTOGA-ROVERS & ASSOCIATES



GROUNDWATER MONITORING REPORT – FIRST QUARTER 2010

FORMER OLYMPIC SERVICE STATION 1436 GRANT AVENUE SAN LORENZO, CALIFORNIA

AGENCY CASE NO. RO0373

Prepared by: Conestoga-Rovers & Associates

5900 Hollis Street, Suite A Emeryville, California U.S.A. 94608

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1.0 INTRODUCTION

Conestoga-Rovers & Associates (CRA), on behalf of the George and Frida Jaber 1989 Family Trust, has prepared the *Groundwater Monitoring Report - First Quarter 2010* documenting groundwater monitoring and sampling activities and analytic results for the former Olympic Service Station site located at 1436 Grant Avenue in San Lorenzo, California.

1.1 <u>SITE BACKGROUND</u>

The site is located at the southwest corner of the intersection of Channel Street and Grant Avenue in San Lorenzo, California (Figure 1). San Lorenzo Auto Repair currently operates on the site. Soil and groundwater investigations, as well as five quarterly groundwater monitoring and sampling events occurred on the site from 1999 to 2002. No additional work appears to have occurred between 2002 and 2007. Alameda County Environmental Health Department (ACEHD) requested reinstatement of the groundwater monitoring program in a letter dated December 4, 2006, and monitoring/sampling resumed in February 2007. The property is owned by the George and Frida Jaber 1989 Family Trust and Mr. Tony Malonzo operates the auto repair shop at the site. Commercial properties are located south and southwest of the site. A school is located north of the site and the remaining properties in the vicinity of the site are residential.

On July 10, 1998, four steel, single-walled underground storage tanks (USTs) were removed from the site. These USTs consisted of one 10,000-gallon gasoline, one 8,000-gallon gasoline, one 5,000-gallon diesel and one 250-gallon used-oil tank (Figure 2). Six dispensers, located on two islands north of the auto repair building, were also removed. The primary constituents of concern (COCs) in groundwater at the site are benzene and methyl tert-butyl ether (MTBE).

1.2 <u>SITE INFORMATION</u>

Site Address Site Use Client and Contact

Consultant and Contact Person Lead Agency and Contact Agency Case No. 1436 Grant Avenue, San Lorenzo San Lorenzo Auto Repair George and Frida Jaber 1989 Family Trust, Philip Jaber CRA, Eric Syrstad ACEH, Mark Detterman RO#0373

2.0 <u>SITE ACTIVITIES AND RESULTS</u>

2.1 <u>CURRENT QUARTER'S ACTIVITIES</u>

On February 3, 2010, Muskan Environmental Sampling (MES) monitored and sampled groundwater in wells MW-1, MW-2 and MW-3 (Figure 2). Depth to water in each well was monitored using an electric interface probe. A minimum of three casing volumes of groundwater were purged from each well prior to sampling. During purging, field parameters of temperature, pH, and electrical conductivity were monitored and recorded after the extraction of each successive casing volume. Purging was performed using a new disposable bailer. Well purging continued until consecutive pH, specific conductance, and temperature measurements appeared to stabilize. Groundwater sampling was performed using a new disposable bailer for all wells. Monitoring well construction details are presented in Table 1. Field data sheets for monitoring and sampling of each well are presented in Appendix C.

Groundwater samples were collected in laboratory-prepared containers, sealed, labeled and placed in an ice-cooled chest for subsequent delivery under chain-of-custody procedures to a state-certified analytical laboratory for chemical analysis. McCampbell Analytical, a state-certified laboratory, analyzed the groundwater samples for Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) by EPA Method 8021, MTBE by EPA Method 8260B, and total petroleum hydrocarbons as gasoline (TPHg) by EPA Method 8015M. The analytical laboratory reports are presented as Appendix B.

On February 9 through February 12, 2010, CRA conducted site investigation activities, installing four soil vapor probes, five soil borings, and one monitoring well. On February 25, 2010, CRA collected soil vapor samples from the four soil vapor probes. A site investigation report detailing the activities will be submitted under separate cover.

2.2 <u>CURRENT QUARTER'S RESULTS</u>

Groundwater Flow Direction Hydraulic Gradient Average Depth to Water Is Free Product Present on Site Current Remediation Techniques Southwest 0.004 5.87 ft No Monitored Natural Attenuation

2.2.1 <u>GROUNDWATER FLOW DIRECTION</u>

Based on the February 3, 2010 depth-to-water measurements, the overall groundwater flow direction and gradient beneath the site was calculated to the southwest at a gradient of 0.004 ft/ft (Figure 2). The calculated groundwater flow direction and gradient are generally consistent with previous results, which indicate groundwater flow ranging west to southwest. Depth-to-water and groundwater elevation data are presented in Table 2.

2.2.2 <u>HYDROCARBON DISTRIBUTION IN GROUNDWATER</u>

TPHg was not detected in any wells. Benzene was detected in well MW-3 at a concentration of $0.55 \ \mu g/L$. No toluene, ethylbenzene, or total xylenes constituents were detected in any of the wells. MTBE was detected in wells MW-1, MW-2, and MW-3 at concentrations of 39, 0.86, and $25 \ \mu g/L$, respectively. Groundwater monitoring and analytical data are presented in Table 2 and the analytical laboratory report is presented as Appendix B.

2.3 **PROPOSED ACTIVITIES**

CRA will contract a groundwater sampling company to gauge and sample monitoring wells MW-1 through MW-3 according to the established semi-annual monitoring and reporting program for this site, with sampling activities conducted during the first and third quarters. Groundwater samples will be analyzed for TPHg by EPA Method 8015, BTEX, and MTBE by EPA Method 8260B. Following field activities, CRA will prepare a groundwater monitoring report that includes a groundwater contour map and tabulated analytical data.

As discussed above, CRA has recently completed site investigation activities and will submit a site investigation report under separate cover.

All of Which is Respectfully Submitted, CONESTOGA-ROVERS & ASSOCIATES

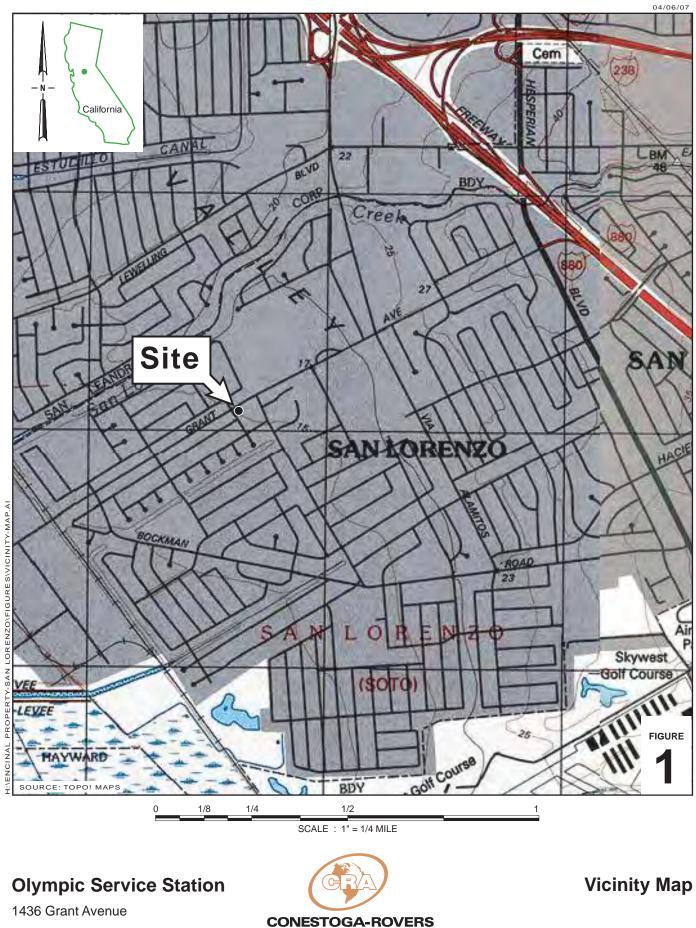
Ćalvin Hee Staff Scientist

CHESSIONAL GEOLO Tuis a.) SYRSTAD No. 8652 ശ OFCALIF

Eric A. Syrstad, P.G **Project Geologist**

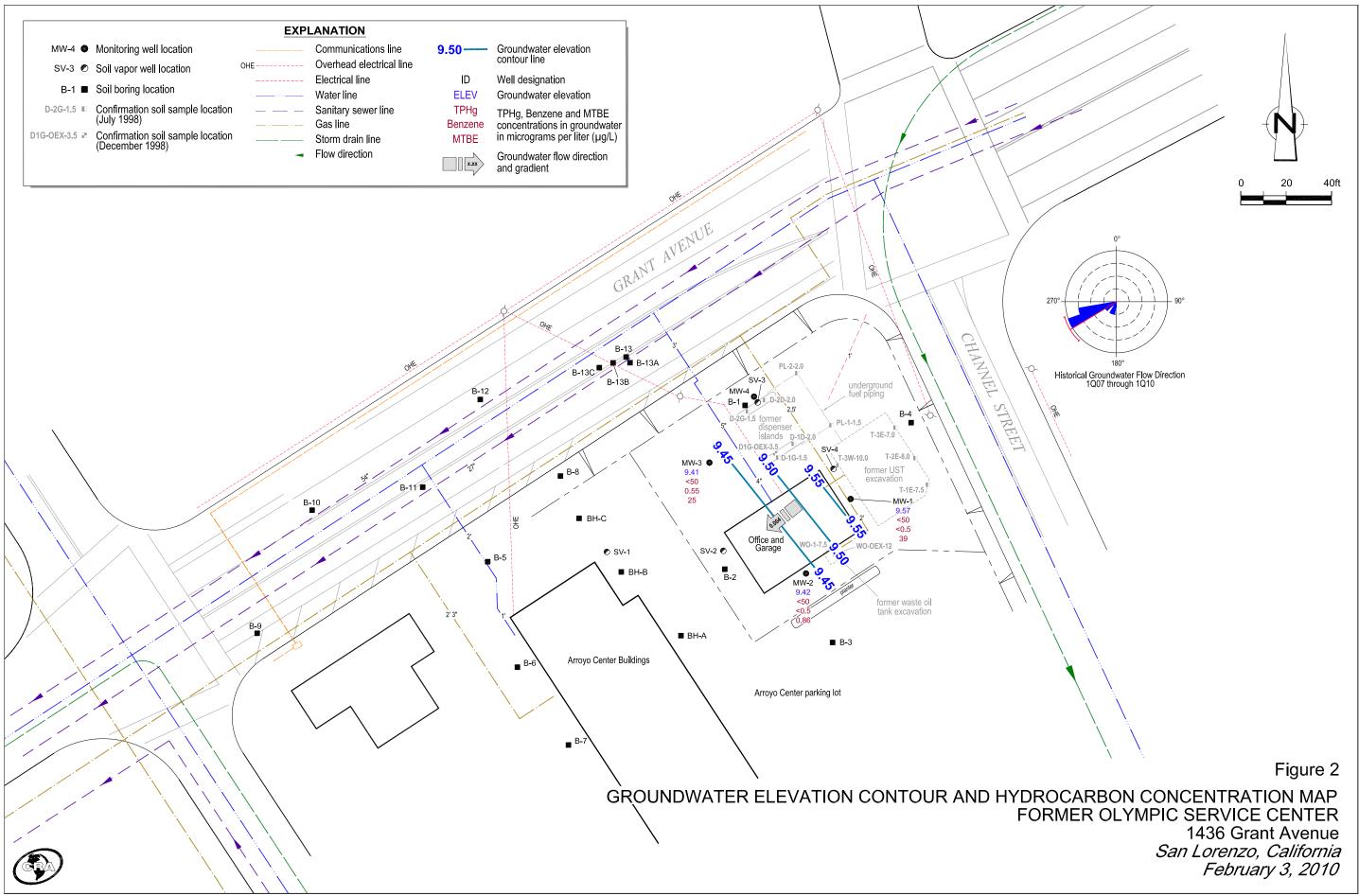
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FIGURES



San Lorenzo, California

CONESTOGA-ROVERS & ASSOCIATES



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TABLES

TABLE 1

MONITORING WELL CONSTRUCTION DETAILS ENCINAL PROPERTIES FORMER OLYMPIC SERVICE STATON 1436 GRANT AVENUE SAN LORENZO, CALIFORNIA

Well ID	Date Installed	Borehole diameter (in)	Depth of borehole (ft)	Casing diameter (in)	Screened interval (ft bgs)	Slot Size (in)	Filter Pack (ft bgs)	Bentonite seal (ft bgs)	Cement (ft bgs)	TOC elevation (ft above msl)
MW-1	9/24/1999	8	26.5	2	5-26.5	0.020	3.5-26.5	3-3.5	1.5-3	15.71
MW-2	9/24/1999	8	20.0	2	5-20	0.020	3.5-20	3-3.5	1.5-3	15.17
MW-3	9/24/1999	8	21.5	2	5-21	0.020	3.5-21.5	3-3.5	1.5-3	15.13

Abbreviations / Notes

ft = feet

in = inches

ft bgs = feet below grade surface

ft above msl = feet above mean sea level

TOC = top of casing

TOC elevations were surveyed on March 8, 2007 by Virgil Chavez Land Surveying.

Prior to this date, TOC elevation were relative to a project datum determined by Aqua Science Engineers, Inc. in 1998.

Well ID	Date	DTW	GWE		ТРНто	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE		DIPE	TAME	ETBE	TBA	Ethanol	EDB	1,2 - DCA	Notes
TOC	Sampled	(ft)	(ft above msl)	Oil & Grease				C.			ал 1 [°] 1 ал (ал а Л	`	SVOCs & HVOCs								
(ft above msl) Final FSL (F-	-1a) · Groundwa	ter is a curr	ent or potential	•				Co	ncentrations	s in micrograms p	0	.)								-	
drinking wat	•		ent of potential	NE	NE	100	100	1	40	30	20	5		NE	NE	NE	NE	NE	NE	0.5	
Final ESL (E-	,	Res	sidential	NE	NE	use soil gas	use soil gas	540	380,000	170,000	160,000	24,000		NE	NE	NE	use soil gas	NE	NE	200	
Groundwater Levels for Eva Potential Vap	aluation of	Con	nmercial	NE	NE	use soil gas	use soil gas	1,800	530,000	170,000	160,000	80,000		NE	NE	NE	use soil gas	NE	NE	690	
Grab Grounda	water Samples																				
Pit Water	9/13/1998					2,100	3,600	350	130	39	380	17,000									
BH-A	4/30/2002	17/8			<100	<100	180	< 0.50	< 0.50	8.8	< 0.50	82		< 0.50	< 0.50	< 0.50	<5.0				
BH-B	4/30/2002	16/8			<100	<200	2,300	120	11	60	150	2,000		<5.0	<5.0	<5.0	<50				
BH-C	4/30/2002	16/8			<100	<150	1,200	57	0.72	43	87	240		< 0.50	1.0	< 0.50	<5.0				
B-1-gw	2/25/2008	3/3.95				260,000	4,600	330	<5.0	33	<5.0	370		<5.0	<5.0	<5.0	<20	<500	<5.0	<5.0	*
B-2-gw	2/25/2008	7.5/6.95				1,900	540	12	<2.5	<2.5	<2.5	220		<2.5	<2.5	<2.5	<10	<250	<2.5	<2.5	*
B-3-gw	2/26/2008	8/NA				<50	<50	< 0.5	< 0.5	< 0.5	< 0.5	4.0		< 0.5	< 0.5	< 0.5	<2.0	<50	< 0.5	< 0.5	*
B-4-gw	2/25/2008	7.5/7.80				6,800	7,300	150	<50	150	<50	2,700		<50	<50	<50	1,700	<5,000	<50	<50	*
B-5-gw	2/26/2008	8/6.40				250	320	<10	<10	13	<10	630		<10	<10	<10	<40	<1,000	<10	<10	*
B-6-gw	2/26/2008	8/6.95				120	<50	<5.0	<5.0	<5.0	<5.0	240		<5.0	<5.0	<5.0	<20	<500	<5.0	<5.0	*
B-7-gw	2/26/2008	8/6.55				84	<50	< 0.5	< 0.5	< 0.5	< 0.5	27		< 0.5	< 0.5	< 0.5	<2.0	<50	< 0.5	< 0.5	*
B-8-gw	2/25/2008	8/6.10				1,000	930	37	<2.5	64	23	160		<2.5	<2.5	<2.5	<10	<250	<2.5	<2.5	*
В-9	2/11/2010	6.33				<50	<50	<2.5	<2.5	<2.5	<2.5	160		<2.5	<2.5	<2.5	<10	<250	<2.5	<2.5	*
B-10	2/11/2010	6.89				<50	<50	< 0.5	< 0.5	< 0.5	< 0.5	5.1		< 0.5	< 0.5	< 0.5	<2.0	<50	< 0.5	< 0.5	*
B-11	2/10/2010	5.20				3,700	130	0.69	< 0.5	< 0.5	< 0.5	25		< 0.5	< 0.5	< 0.5	<2.0	<50	< 0.5	< 0.5	*
B-12	2/11/2010	6.65				<50	<50	< 0.5	< 0.5	< 0.5	< 0.5	1.2		< 0.5	< 0.5	< 0.5	<2.0	<50	< 0.5	< 0.5	*
B-13C	2/12/2010	8.97				3,400	2,300	<2.5	<2.5	<2.5	<2.5	92		<2.5	<2.5	<2.5	92	<250	<2.5	<2.5	*
Ouarterly Grou	undwater Samples	3																			
∼ MW-1	10/6/1999	8.35	6.65			84	3,900	<25	<25	<25	<25	3,500									*
15.00	1/13/2000	7.90	7.10			<50	<1,300	18	<13	<13	<13	1,700									
	4/12/2000	7.08	7.92			56	<1,000	66	<10	<10	<10	1,600									*
	7/19/2000	7.66	7.34			52	<1,000	<10	<10	<10	<10	1,200									*
	10/25/2000	7.91	7.09			76	4,100	120	<25	<25	<25	6,100									*
	2/16/2007	6.32	8.68																		
	3/1/2007	5.88	9.12		<250	<50	<50	<1.2	<1.2	<1.2	<1.2	78		<1.2	<1.2	<1.2	<12	<120	<1.2	<1.2	*
15.71	5/1/2007	7.24	8.47		<250	<50	<50	<5.0	<5.0	<5.0	<5.0	250		<5.0	<5.0	<5.0	<50	<500	<5.0	<5.0	*
	8/1/2007	7.77	7.94			<50	<50	<25	<25	<25	<25	520		<25	<25	<25	<250	<2500	<25	<25	*
	11/1/2007	7.71	8.00			<50	<50	<12	<12	<12	<12	460		<12	<12	<12	<120	<1,200	<12	<12	
	2/1/2008	5.71	10.00			<50	<50	<2.5	<2.5	<2.5	<2.5	110		<2.5	<2.5	<2.5	<10	<250	<2.5	<2.5	*
	5/2/2008	7.52	8.19		<250	<50	<50	<5.0	<5.0	<5.0	<5.0	240		<5.0	<5.0	<5.0	<20	<500	<5.0	<5.0	

TABLE 2

GROUNDWATER ANALYTICAL DATA ENCINAL PROPERTIES FORMER OLYMPIAN SERVICE STATION 1436 GRANT AVENUE, SAN LORENZO, CALIFORNIA

Well ID TOC	Date Sampled	DTW (ft)	GWE (ft above msl)	Oil & Grease	ТРНто	TPHd	TPHg			Ethylbenzene	C C	MTBE	SVOCs & HVOCs		TAME	ETBE	TBA	Ethanol	EDB	1,2- DCA	Notes
(ft above msl)	1a) · Croundwa	tor is a au	rrent or potential	•				Co	ncentration	s in micrograms p	er liter (μg/I	L)								→	
drinking wat	,		frent of potential	NE	NE	100	100	1	40	30	20	5		NE	NE	NE	NE	NE	NE	0.5	
Final ESL (E- Groundwater		R	esidential	NE	NE	use soil gas	use soil gas	540	380,000	170,000	160,000	24,000		NE	NE	NE	use soil gas	NE	NE	200	
Levels for Ev Potential Var	aluation of	C	ommercial	NE	NE	use soil gas	use soil gas	1,800	530,000	170,000	160,000	80,000		NE	NE	NE	use soil gas	NE	NE	690	
MW-1 cont.	8/1/2008	8.02	7.69			<50	<50	<10	<10	<10	<10	500		<10	<10	<10	<40	<1,000	<10	<10	*
	11/4/2008	7.28	8.43			<50	<50	<5.0	<5.0	<5.0	<5.0	260		<5.0	<5.0	<5.0	26	<500	<5.0	<5.0	
	8/11/2009	8.08	7.63			<50	<50	<5.0	<5.0	<5.0	<5.0	270		<5.0	<5.0	<5.0	<20	<500	<5.0	<5.0	
	2/3/2010	6.14	9.57				<50	<0.5	<0.5	<0.5	<0.5	39									
MW-2	10/6/1999	7.87	6.59	<1,000	<500	<50	70	< 0.5	<0.5	< 0.5	< 0.5	11	ND								*
14.46	1/13/2000	7.46	7.00	<1,000	<500	<50	<50	< 0.5	< 0.5	< 0.5	< 0.5	6.2	ND								
	4/12/2000	6.67	7.79	1,100	<500	<50	<50	< 0.5	< 0.5	< 0.5	< 0.5	39									
	7/19/2000	7.23	7.23	1,300	<500	<50	<1,000	<10	<10	<10	<10	990									
	10/25/2000	7.52	6.94		<500	<50	370	<2.5	<2.5	<2.5	<2.5	690									
	2/16/2007	5.89	8.57																		
	3/1/2007	5.45	9.01		<250	<50	<50	< 0.5	< 0.5	< 0.5	< 0.5	9.8		< 0.5	< 0.5	< 0.5	<5.0	<50	< 0.5	< 0.5	*
15.17	5/1/2007	6.83	8.34		<250	<50	<50	<5.0	<5.0	<5.0	<5.0	120		<5.0	<5.0	<5.0	<50	<500	<5.0	<5.0	*
	8/1/2007	7.35	7.82			<50	<50	<5.0	<5.0	<5.0	<5.0	130		<5.0	<5.0	<5.0	<50	<500	<5.0	<5.0	*
	11/1/2007	7.27	7.90			<50	<50	< 0.5	< 0.5	< 0.5	< 0.5	19		< 0.5	< 0.5	< 0.5	<5.0	<50	< 0.5	< 0.5	
	2/1/2008	5.25	9.92			<50	<50	< 0.5	< 0.5	< 0.5	< 0.5	3.3		<0.5	< 0.5	< 0.5	<2.0	<50	< 0.5	< 0.5	*
	5/2/2008	7.12	8.05			<50	<50	<2.5	<2.5	<2.5	<2.5	83.0		<2.5	<2.5	<2.5	<10	<250	<2.5	<2.5	
	8/1/2008	7.59	7.58			<50	<50	<1.0	<1.0	<1.0	<1.0	52		<1.0	<1.0	<1.0	<4.0	<100	<1.0	<1.0	*
	11/4/2008	6.84	8.33			80	<50	< 0.5	< 0.5	<0.5	< 0.5	5.9		< 0.5	< 0.5	< 0.5	<2.0	<50	< 0.5	< 0.5	*
	8/11/2009	7.65	7.52			<50	<50	< 0.5	< 0.5	< 0.5	< 0.5	9.4		< 0.5	<0.5	< 0.5	<2.0	<50	< 0.5	< 0.5	
	2/3/2010	5.75	9.42				<50	<0.5	<0.5	<0.5	<0.5	0.86									
MW-3	10/6/1999	7.90	6.51			300	3,900	900	89	160	560	790									
14.41	1/13/2000	7.50	6.91			210	740	110	4.8	35	18	290									
	4/12/2000	6.61	7.80			640	2,200	650	9.7	180	24	140									
	7/19/2000	7.24	7.17			270	2,700	420	<2.5	160	<2.5	99									*
	10/25/2000	7.52	6.89			150	710	180	<2.5	24	<2.5	71									*
	2/16/2007	5.90	8.51																		
	3/1/2007	5.44	8.97		<250	<50	82	20	<1.7	<1.7	<1.7	100		<1.7	<1.7	<1.7	<17	<170	<1.7	<1.7	*
15.13	5/1/2007	6.87	8.26		<250	<50	<50	<5.0	<5.0	<5.0	<5.0	88		<5.0	<5.0	<5.0	<50	<500	<5.0	<5.0	*
	8/1/2007	7.40	7.73			<50	130	12	<2.5	<2.5	<2.5	98		<2.5	<2.5	<2.5	<25	<250	<2.5	<2.5	*
	11/1/2007	7.35	7.78			<50	77	<2.5	<2.5	<2.5	<2.5	68		<2.5	<2.5	<2.5	<25	<250	<2.5	<2.5	*
	2/1/2008	5.28	9.85			<50	<50	<2.5	<2.5	<2.5	<2.5	97		<2.5	<2.5	<2.5	<10	<250	<2.5	<2.5	

TABLE 2

GROUNDWATER ANALYTICAL DATA ENCINAL PROPERTIES FORMER OLYMPIAN SERVICE STATION 1436 GRANT AVENUE, SAN LORENZO, CALIFORNIA

Well ID TOC	Date Sampled	DTW (ft)	GWE (ft above msl)	Oil & Grease	ТРНто	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	SVOCs & HVOCs	DIPE	TAME	ETBE	TBA	Ethanol	EDB	1,2 - DCA	Notes
(ft above msl)	,		y	◀				<i>Co</i>	ncentrations	s in micrograms p	er liter (µg/L	.)								→	
Final ESL (F-1 drinking wate		ter is a cu	rrent or potential	NE	NE	100	100	1	40	30	20	5		NE	NE	NE	NE	NE	NE	0.5	
Final ESL (E-1	,	R	esidential	NE	NE	use soil gas	use soil gas	540	380,000	170,000	160,000	24,000		NE	NE	NE	use soil gas	NE	NE	200	
Groundwater Levels for Eva Potential Vapo	luation of	С	ommercial	NE	NE	use soil gas	use soil gas	1,800	530,000	170,000	160,000	80,000		NE	NE	NE	use soil gas	NE	NE	690	
MW-3 cont.	5/2/2008	7.15	7.98			<50	68	2.3	<1.7	<1.7	<1.7	86		<1.7	<1.7	<1.7	7.20	<170	<1.7	<1.7	
	8/1/2008	7.66	7.47			<50	85	3.5	<1.0	<1.0	<1.0	66		<1.0	<1.0	<1.0	7.2	<100	<1.0	<1.0	*
	11/4/2008	6.96	8.17			<50	<50	<1.0	<1.0	<1.0	<1.0	40		<1.0	<1.0	<1.0	<4.0	<100	<1.0	<1.0	
	8/11/2009	7.72	7.41			<50	110	33	< 0.5	< 0.5	< 0.5	28		< 0.5	< 0.5	< 0.5	<2.0	<50	< 0.5	< 0.5	*
	2/3/2010	5.72	9.41				<50	0.55	<0.5	<0.5	<0.5	25									

Abbreviations / Notes

NE = Not Evaluated

TOC = Top of casing

DTW = Depth to water

GWE = Groundwater elevation in feet above mean sea level

ft above msl = feet above mean sea level

17/8 = Depth to first encountered groundwater/depth of static groundwater

<n = Not detected above laboratory reporting limit

-- = Not sampled, not analyzed, not available

ND = Not detected above laboratory reporting limit

Oil and grease by EPA Method 5520 E&F

TPHd = Total Petroleum Hydrocarbons as diesel range by EPA Method 8015

TPHg = Total Petroleum Hydrocarbons as gasoline range by EPA Method 8015

TPHmo = Total Petroleum Hydrocarbons as motor oil by EPA Method 8015

Benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8020

MTBE = Methyl tertiary butyl ether by EPA Method 8260

Di-isopropyl ether (DIPE), tertiary-amyl methyl ether (TAME), ethyl tertiary-butyl ether (ETBE), tertiary-butyl alcohol (TBA) by EPA Method 8260B

SVOCs = Semi-volatile organic compounds by EPA Method 8270, refer to corresponding analytical laboratory report for a full list of compounds

HVOCs = Halogenated volatile organic compoundy by EPA Method 8010, refer to corresponding analytical laboratory report for a full list of compounds

1,2 DCA = 1,2 dichloroethane

EDB = 1,2-dibromoethane

* = See Analytical Laboratory Report for laboratory sample description and TPH chromatogram interpretation.

TOC elevations were surveyed on March 8, 2007 by Virgil Chavez Land Surveying. Prior to this date, TOC elevation were relative to a project datum determined by Aqua Science Engineers, Inc. in 1998.

TABLE 2

GROUNDWATER ANALYTICAL DATA ENCINAL PROPERTIES FORMER OLYMPIAN SERVICE STATION 1436 GRANT AVENUE, SAN LORENZO, CALIFORNIA

APPENDIX A

STANDARD FIELD PROCEDURES FOR GROUNDWATER MONITORING AND SAMPLING

Conestoga-Rovers & Associates

STANDARD FIELD PROCEDURES FOR GROUNDWATER MONITORING AND SAMPLING

This document presents standard field methods for groundwater monitoring, purging and sampling, and well development. These procedures are designed to comply with Federal, State and local regulatory guidelines. Cambria's specific field procedures are summarized below.

Groundwater Elevation Monitoring

Prior to performing monitoring activities, the historical monitoring and analytical data of each monitoring well shall be reviewed to determine if any of the wells are likely to contain non-aqueous phase liquid (NAPL) and to determine the order in which the wells will be monitored (i.e. cleanest to dirtiest). Groundwater monitoring should not be performed when the potential exists for surface water to enter the well (i.e. flooding during a rainstorm).

Prior to monitoring, each well shall be opened and the well cap removed to allow water levels to stabilize and equilibrate. The condition of the well box and well cap shall be observed and recommended repairs noted. Any surface water that may have entered and flooded the well box should be evacuated prior to removing the well cap. In wells with no history of NAPL, the static water level and total well depth shall be measured to the nearest 0.01 foot with an electronic water level meter. Wells with the highest contaminant concentrations shall be measured last. In wells with a history of NAPL, the NAPL level/thickness and static water level shall be measured to the nearest 0.01 foot using an electronic interface probe. The water level meter and/or interface probe shall be thoroughly cleaned and decontaminated at the beginning of the monitoring event and between each well. Monitoring equipment shall be washed using soapy water consisting of Liqui-noxTM or AlconoxTM followed by one rinse of clean tap water and then two rinses of distilled water.

Groundwater Purging and Sampling

Prior to groundwater purging and sampling, the historical analytical data of each monitoring well shall be reviewed to determine the order in which the wells should be purged and sampled (i.e. cleanest to dirtiest). No purging or groundwater sampling shall be performed on wells with a measurable thickness of NAPL or floating NAPL globules. If a sheen is observed, the well should be purged and a groundwater sample collected only if no NAPL is present. Wells shall be purged either by hand using a disposal or PVC bailer or by using an aboveground pump (e.g. peristaltic or WatteraTM) or down-hole pump (e.g. GrundfosTM or DC Purger pump).

Groundwater wells shall be purged approximately three to ten well-casing volumes (depending on the regulatory agency requirements) or until groundwater parameters of temperature, pH, and conductivity have stabilized to within 10% for three consecutive readings. Temperature, pH, and conductivity shall be measured and recorded at least once per well casing volume removed. The total volume of groundwater removed shall be recorded along with any other notable physical characteristic such as color and odor. If required, field parameters such as turbidity, dissolved oxygen (DO), and oxidation-reduction potential (ORP) shall also be measured prior to collection of each groundwater sample.

Groundwater samples shall be collected after the well has been purged. If the well is slow to recharge, a sample shall be collected after the water column is allowed to recharge to 80% of the pre-purging static water level. If the well does not recover to 80% in 2 hours, a sample shall be collected once there is enough groundwater in the well. Groundwater samples shall be collected using clean disposable bailers or pumps (if an operating remediation system exists on site and the project manager approves of its use for sampling) and shall be decanted into clean containers supplied by the analytical laboratory. New latex gloves and disposable tubing or bailers shall be

Conestoga-Rovers & Associates

used for sampling each well. If a PVC bailer or down-hole pump is used for groundwater purging, it shall be decontaminated before purging each well by using soapy water consisting of Liqui-noxTM or AlconoxTM followed by one rinse of clean tap water and then two rinses of distilled water. If a submersible pump with non-dedicated discharge tubing is used for groundwater purging, both the inside and outside of pump and discharge tubing shall be decontaminated as described above.

Sample Handling

Except for samples that will be tested in the field, or that require special handling or preservation, samples shall be stored in coolers chilled to 4° C for shipment to the analytical laboratory. Samples shall be labeled, placed in protective foam sleeves or bubble wrap as needed, stored on crushed ice at or below 4° C, and submitted under chain-of-custody (COC) to the laboratory. The laboratory shall be notified of the sample shipment schedule and arrival time. Samples shall be shipped to the laboratory within a time frame to allow for extraction and analysis to be performed within the standard sample holding times.

Sample labels shall be filled out using indelible ink and must contain the site name; field identification number; the date, time, and location of sample collection; notation of the type of sample; identification of preservatives used; remarks; and the signature of the sampler. Field identification must be sufficient to allow easy cross-reference with the field datasheet.

All samples submitted to the laboratory shall be accompanied by a COC record to ensure adequate documentation. A copy of the COC shall be retained in the project file. Information on the COC shall consist of the project name and number; project location; sample numbers; sampler/recorder's signature; date and time of collection of each sample; sample type; analyses requested; name of person receiving the sample; and date of receipt of sample.

Laboratory-supplied trip blanks shall accompany the samples and be analyzed to check for crosscontamination, if requested by the project manager.

Waste Handling and Disposal

Groundwater extracted during sampling shall be stored onsite in sealed U.S. DOT H17 55-gallon drums and shall be labeled with the contents, date of generation, generator identification, and consultant contact. Extracted groundwater may be disposed offsite by a licensed waste handler or may be treated and discharged via an operating onsite groundwater extraction/treatment system.

H:\- MGT IR Group Info\SOPs\Groundwater Monitoring and Sampling SOP 07-2005.doc

APPENDIX B

CERTIFIED ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY DOCUMENTATION

McCampbell An "When Quality		Web: www.mco	ow Pass Road, Pittsburg, campbell.com E-mail: m ne: 877-252-9262 Fax:	ain@mccampbell.com
Conestoga-Rovers & Associates	Client Project ID: #629100		Date Sampled:	02/03/10
5900 Hollis St, Suite A	Properties Former Olympic	c Station	Date Received:	02/05/10
	Client Contact: Eric Syrst	ad	Date Reported:	02/11/10
Emeryville, CA 94608	Client P.O.:		Date Completed:	02/10/10

WorkOrder: 1002154

February 11, 2010

Dear Eric:

Enclosed within are:

- 1) The results of the **3** analyzed samples from your project: **#629100; Encinal Properties Former**
- 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.

	ebsite: <u>www.m</u>	1534 WII PITTSBU ccampbel	LLOW PA RG, CA 94 Lcom En	SS RO 4565-1 nail: n	AD 701 nain@	mee	mpb	ell.co	000					G	UR eo7			ou	DF			OF E PD Cho	F eck	RUS I I I I I I I I I I I I	H Ex	OI 24 cel	HR	v	48 H Vri	te On (D d "J" flag	W) 🗆 is required
Report To: EC Company: Cone Sa(Eme Tele: (5\0)\12 Project #: 620 Project Location Sampler Signatur	- 1436 G	cant and Er	Ave.	Same	Lo Lo	ne: 4	ner	pli	AA	M	R	Soc Jes Stat	hie D	as Gas (602 / 8021 +		fotal Petroleum Oil & Grease (1664 / 5520 E/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 502.2 / 601 / 8010 / 8021 (HVOCs)	MTBE / BTEX ONLY (EPA 602 / 8021) >>	EPA 505/ 608 / 8081 (C1 Pesticides)	EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners	EPA 507 / 8141 (NP Pesticides)	8151 (Acidic CI Herbicides)	EPA 524.2 / 624 / 8260 (VOCs)	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 / 290.8 / 6010 / 6020)	Other 80968 Aq	Comment Filter Samples for Metal analysis: Yes / No
SAMPLE ID	Field Point Name	Date	Time	# Containers	Type Containers	Water	Soil	Sludge	Other	ICE	HCL	HNO3	Other	BTEX & TPH	TPH as Diesel (8015)	Total Petroleu	Total Petroleu	EPA 502.2 / 60	MTBE / BTE)	EPA 505/ 608	EPA 608 / 808	EPA 507 / 814	EPA 515 / 81	EPA 524.2 / 65	EPA 525.2 / 63	EPA 8270 SIJ	CAM 17 Meta	LUFT 5 Metal	Lead (200.7/)	MIBE	
MW-2 MW-2 MW-3 TIS		2-3-10	10:35 9:30 10:00		ADV	XII				XXX	X		1	×																X X	HB/CO
115							-			4	,																•				- //0/(/
- 6																	10	-													
Relinquished By: Relinquished By:	S	Date: Z - <u>5-10</u> Bate: 2/5/10	Time: 31.15 Time: SASab	1	cived B	y:		K		1	el		+	GO HE DE API	E/t ^e OD 0 AD S CHL PRO	CON PAC ORI PRL/	DITI TE A NAT ATE	ION BSE ED CON	NT_IN L.	AB	8.0	50						CON	MMI	ENTS:	
Belinquished By: EVICK (Jusey	Date:	Time: 7.47p		eived B	_		VC	l	Q	7				ESEF			vo	DAS	08		ME pH<		S	оті	IER	_				

.

McCampbell Analytical, Inc.



1534 Willow Pass Rd Pittsburg CA 94565-1701

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

(925) 252-9262				,	Work()rder:	10021	154	0	lientCo	ode: CET	E			
	WaterTrax	writeOn	EDF		Excel	[Fax		Email		HardCop	y 🗌	ThirdParty	J-`	flag
Report to:					E	Bill to:					R	eques	sted TAT:	5 c	days
Eric Syrstad	Email:	esyrstad@crav	world.com			Aco	counts I	Payable)						
Conestoga-Rovers & Associates 5900 Hollis St, Suite A	cc: PO:	chee@crawor	ld.com				•	a-Rovei s St, Ste		sociate	s L	oate R	Received:	02/05/	2010
Emeryville, CA 94608 (510) 420-0700 FAX (510) 420-9170	•	#629100; Enc Olympic Statio	inal Properties Fo on	rmer		Em	eryville	, CA 94	608		L	ate P	rinted:	02/05/	2010
								Requ	iested	Tests (See legen	d belo	w)		
Lab ID Client ID		Matrix	Collection Date	Hold	1	2	3	4	5	6	7	В	9 10	11	12

1002154-001	MW-1	Water	2/3/2010 10:35	А	В	Α					
1002154-002	MW-2	Water	2/3/2010 9:30	Α	В						
1002154-003	MW-3	Water	2/3/2010 10:00	А	В						

Test Legend:

1	G-MBTEX_W
6	
11	

2	MTBE_W
7	
12	

3	PREDF REPORT
8	

4	
9	

5	
10	

Prepared by: Melissa Valles

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.



McCampbell Analytical, Inc.

"When Ouality Counts"

Sample Receipt Checklist

Client Name:	Conestog	ga-Rover	's & A	ssociates				Date a	and Ti	me Received:	2/5/2010 9):22:59 PM
Project Name:	#629100;	Encinal	Prope	rties Form	ner Oly	mpic St	tatio	Check	dist co	ompleted and re	eviewed by:	Melissa Valles
WorkOrder N°:	1002154		Matrix	Water				Carrie	er:	EnviroTech (RC	<u>C)</u>	
				<u>Chai</u>	n of Cu	stody (C	OC) I	nforma	ation			
Chain of custody	present?				Yes		1	vo 🗆				
Chain of custody	signed whe	n relinquis	hed and	d received?	Yes	✓	1	No 🗆				
Chain of custody	agrees with	sample la	bels?		Yes		1	No 🗌				
Sample IDs noted	by Client on	COC?			Yes		1	No 🗆				
Date and Time of	collection no	oted by Clie	ent on C	OC?	Yes	✓	1	No 🗆				
Sampler's name r	noted on CO	C?			Yes		1	No 🗆				
				<u>s</u>	Sample	Receipt	Infor	mation	<u>1</u>			
Custody seals int	tact on shipp	ing contair	ner/cool	ler?	Yes		1	No 🗆			NA 🔽	
Shipping containe	er/cooler in g	jood condit	tion?		Yes	✓	1	No 🗆				
Samples in prope	er containers	/bottles?			Yes	✓	1	No 🗆				
Sample containe	rs intact?				Yes		1	No 🗆				
Sufficient sample	e volume for	indicated t	est?		Yes		1	No 🗌				
			<u>Sa</u>	ample Prese	ervation	and Ho	ld Tir	ne (HT)) Info	ormation		
All samples recei	ived within he	olding time	?		Yes	✓	1	No 🗆				
Container/Temp E	Blank temper	ature			Coole	r Temp:	2.6°0	C			NA 🗆	
Water - VOA vial	ls have zero	headspac	e / no b	oubbles?	Yes		1	No 🗆	No V	/OA vials submi	itted 🗆	
Sample labels ch	necked for co	orrect pres	ervatior	n?	Yes	✓	1	No 🗌				
Metal - pH accept	table upon re	eceipt (pH∢	<2)?		Yes		1	No 🗆			NA 🗹	
Samples Receive	ed on Ice?				Yes	✓	1	No 🗆				
				(Ice Typ	be: WE	TICE)					
* NOTE: If the "N	No" box is ch	ecked, se	e comm	nents below.								

Client contacted:

Date contacted:

Contacted by:

Comments:

	McCampbe	ell Ana en Ouality C		cal, Iı	<u>nc.</u>	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							
Cones	toga-Rovers & Asso	ciates				: #629100; Encinal Date Sampled: 02/03/10 er Olympic Station							
5900 H	Iollis St, Suite A			rioperu		nympic Stat	IOII	Date Receive	ed: 02/05	5/10			
				Client C	Contact: Eri	ic Syrstad		Date Extract	ed: 02/09	9/10-02/	/10/10		
Emery	ville, CA 94608			Client P	.0.:			Date Analyz	ed: 02/09	0/10-02/	/10/10		
Extractio	Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MT Extraction method: SW5030B Analytical methods: SW8021B/8015Bm											1002154	
Lab ID	Client ID	Matrix	TP	H(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments	
001A	MW-1	w	Ν	ND		ND	ND	ND	ND	1	98		
002A	MW-2	W	Ν	ND		ND	ND	ND	ND	1	101		
003A	MW-3	w	Ν	ND		0.55	ND	ND	ND	1	100		
											<u> </u>		
Repor	ting Limit for DF =1;	w		50	5.0	0.5	0.5	0.5	0.5		μg/I		
	ans not detected at or e the reporting limit	S		1.0	0.05	0.005	0.005	0.005	0.005		mg/k		

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

cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:

Angela Rydelius, Lab Manager

	McCampbell Analyti "When Ouality Counts"	cal, Inc.	Web: www.mccamp		-	ccampbell.c	om
Conestoga-	Rovers & Associates	Client Project ID:		Date Sample	ed: 02	/03/10	
5900 Hollis	St. Suite A	Properties Former	Olympic Station	red: 02/05/10			
		Client Contact: E	Eric Syrstad	Date Extract	ed: 02	/09/10	
Emeryville,	CA 94608	Client P.O.:		Date Analyz	xed 02	/09/10	
Extraction metho	d SW5030B	-	-Butyl Ether* methods SW8260B		Wo	ork Order:	1002154
Lab ID	Client ID	Matrix	Methyl-t-butyl ether (MTBE)	DF	% SS	Comments
001B	MW-1	W	39		2	97	
002B	MW-2	W	0.86		1	94	
003B	MW-3	W	25		1	95	
	Reporting Limit for DF =1;	W	0.5			μg/L	
N	D means not detected at or above the reporting limit	S	NA			NA	

* 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/method detection 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



McCampbell Analytical, Inc.

"When Ouality Counts"

QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water QC Matrix: Water BatchID: 48510 WorkOrder 1002154 EPA Method SW8021B/8015Bm Extraction SW5030B Spiked Sample ID: 1002150-006A MSD MS-MSD LCS LCSD LCS-LCSD Spiked MS Sample Acceptance Criteria (%) Analyte % RPD MS / MSD LCS/LCSD RPD µg/L µg/L % Rec. % Rec. % Rec. % Rec. % RPD RPD TPH(btex) 97.2 93.3 4.05 94.9 95.9 1.10 70 - 130 70 - 130 ND 60 20 20 10 91.6 MTBE ND 113 116 3.05 102 10.8 70 - 130 2.0 70 - 130 20 Benzene ND 10 94.9 95.5 0.610 96.1 94.1 2.12 70 - 130 20 70 - 130 20 Toluene ND 10 94.7 94.8 0.158 95.2 93.9 1.36 70 - 130 20 70 - 13020 Ethylbenzene ND 10 93.2 93.8 0.660 93.8 92.6 1.35 70 - 130 20 70 - 130 20 Xylenes ND 30 95.9 96.1 0.210 96.3 95.4 0.980 70 - 130 2.0 70 - 130 20 20 %SS: 99 10 97 97 0 100 97 3.06 70 - 130 20 70 - 130 All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE

BATCH 48510 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1002154-001A	02/03/10 10:35 AM	02/09/10	02/09/10 7:19 AM	1002154-002A	02/03/10 9:30 AM	02/09/10	02/09/10 7:52 AM
1002154-003A	02/03/10 10:00 AM	02/10/10	02/10/10 4:19 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.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

NR = matrix interference and/or 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, or inconsistency in sample containers.





McCampbell Analytical, Inc.

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

"When Ouality Counts"

QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water	W.O. Sample Matrix: Water						Batch	ID: 48508	WorkOrder 1002154					
EPA Method SW8260B	Extra	Extraction SW5030B						Spiked Sample ID: 1002148-010B						
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acce	eptance	Criteria (%)			
, indigite	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD		
Methyl-t-butyl ether (MTBE)	ND	10	90.5	104	14.2	95.5	95.1	0.420	70 - 130	30	70 - 130	30		
%SS1:	115	25	106	110	3.81	109	111	1.63	70 - 130	30	70 - 130	30		
All target compounds in the Method NONE	_									50	70 - 150			

BATCH 48508 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1002154-001B	02/03/10 10:35 AM	02/09/10	02/09/10 4:34 PM	1002154-002B	02/03/10 9:30 AM	02/09/10	02/09/10 6:05 AM
1002154-003B	02/03/10 10:00 AM	02/09/10	02/09/10 6:48 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 acetone may occasionally appear in the method blank at low levels.



APPENDIX C

FIELD DATA SHEETS



WELL GAUGING SHEET

Site Address:	1436 Grant	Avenue, Sai	1 Lorenzo, C	A	1	2	
Date:	2/3/2010		_	Signature:	X	2	
Well ID	Time	Depth to SPH	Depth to Water	SPH Thickness	Depth to Bottom		Comments
MW-1	9:00		6.14		24.37		
MN-2	8:50		5.75		19.35		
MN-3	8:55		5.72		19.05		
	<u> </u>						
_							



WELL SAMPLING FORM

Date:		2/3/2010						
Client:		Conestoga-F	Rovers and	Associates				
Site Add	ess:	1436 Grant	Avenue, Sa	in Lorenzó	, CA			
Well ID:		MN-1						
Well Diar	neter:	2"						
Purging D	evice:	Dispos	able Bai	121				
Sampling	Method:	Disposable	Bailer	_				
Total Wel	l Depth:			24.37	Fe=	mg/L		
Depth to	Water:			6.14	ORP=	mV		
Water Co	lumn Heigh	it:		18.23	DO=	mg/L		
Gallons/fi	2			0.16				
1 Casing	Volume (ga	d):		2.91	COMM	ENTS: twibid, silt	- V	
3 Casing	Volumes (g	al):		8.73	very	turbia, 2111	1	
TIME: 10:15	CASING VOLUME (gal) 3.0	TEMP (Celsius)	_{рн} 6.75	COND. (µS)	-			
10:20	6.0 9.0	18.9 19.5	6.76	1022	-			
Sample ID:	Sample D	ate:	Sample Time:	Containe	г Туре	Preservative	Analytes	
MU-1	2/3/1	0	10:35	40 mL VOA		HCI, ICE	TPHg. BTEX, MTBE	8015. 8021. 8260
						Signat	ure:	4



WELL SAMPLING FORM

Date:		2/3/2010										
Client:		Conestoga-I	Rovers and	Associates								
Site Add	ress:	1436 Grant	Avenue, Sa	an Lorenzo	, ČA							
Well ID:		MN-2										
Well Dia	meter:	2"										
Purging D	Device:	Disposa	ble Ba	der								
Sampling	Method;	Disposable	Bailer									
Total We	II Depth:			19.35	Fe=	mg/L						
Depth to	Water			5.75	ORP=	mV						
Water Co	olumn Heigh	t:		13.60		mg/L						
Gallons/fi	ì:			0.16								
1 Casing	Volume (ga	1):		2.17	сомм	ENTS:						
	Volumes (g			6.51	ver+turbid, silty							
TIME:	CASING VOLUME (gal)	TEMP (Celsius)	pН	COND. (µS)								
9:15	2.5	19.2	6.70		1							
9:20	5.0	19.0	6.63	1261]							
9:25	6.5	19-0	6-64	1268								
Sample			Sample									
ID:	Sample Da	ate:	Time:	Containe	r Type	Preservative	Analytes					
WH-2	2/3/1	0	9:30	40 mL VOA		HCI, ICE	TPHg. BTEN, MITBE	8015, 8021, 8260				
						Signat	ure: A	ß				



WELL SAMPLING FORM

Date:		2/3/2010						
Client:		Conestoga-Rovers and Associates						
Site Address: Well ID:		1436 Grant Avenue, San Lorenzo, CA MW-3						
Purging Device:		Disposable Bailer						
Sampling	Method:	Disposable						
Total Well	Depth:		19.05	Fe= mg/L				
Depth to Water:				5.72	ORP= mV			
Water Column Height:				13.33	DO= mg/L			
Gallons/ft:				0.16				
1 Casing Volume (gal): 2.13					comments: very turbid, silt x			
3 Casing Volumes (gal): 6.39								
TIME: 9:45 9:50 9:55	$\begin{array}{c} \text{CASING} \\ \text{VOLUME} \\ \text{(gal)} \\ \hline 2.0 \\ \hline 4.0 \\ \hline 6.0 \end{array}$		_{рн} 6.81 6.77 6.74					
Sample ID: Sample Date:		Sample Time:	Containe	r Type	Preservative	Analytes		
MN-3			10:00	40 mL VOA		HCI. ICE	TPHg. BTEX. MTRE	8015.8021.8260
						Signat		R