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August 17, 2009

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RECEIVED

10:32 am, Aug 20, 2009

Alameda County Environmental Health

Mr. Jerry Wickham, P.G. Alameda County Health Care Services Agency Environmental Health Services 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502

Subject:

Submittal of Second Quarter 2009 Groundwater Monitoring Report

Former Regal Station #120, LOP Case No. RO0002875

3875 Telegraph Avenue, Oakland, California

Dear Mr. Wickham:

Pursuant to your request, please find attached the Second Quarter 2009 Groundwater Monitoring Report ("Quarterly Report"), prepared by West Environmental Services & Technology, Inc. (WEST) on behalf of Wickland Corporation (Wickland) for the former Regal Station #120 (Local Oversight Program Case No. RO0002875), located at 3875 Telegraph Avenue in Oakland, California.

In accordance with the Alameda County Health Care Services Agency, Environmental Health Services requirements, I declare under penalty of perjury, that the information and/or recommendations contained in the attached document or report are true and correct to the best of my knowledge.

Please contact Dan Hall at 916/978-2460, or me at the number above, if you have any questions or wish to discuss this further.

Very truly yours,

THE LAW OFFICES OF DAVID E. FRANK

Lori J. Gualco

LJG/je Attachment

SECOND QUARTER 2009 GROUNDWATER MONITORING REPORT Former Regal Station #120 LOP Case No. RO0002875 3875 Telegraph Avenue Oakland, California

August 2009

Prepared for

Wickland Corporation P.O. Box 13648 Sacramento, California 95853

Prepared by

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SIGNATURE PAGE

All engineering information, conclusions and recommendations contained in this report have been prepared by a California Professional Engineer. All hydrogeologic and geologic information, conclusions and recommendations contained in this report have been prepared by a California Professional Geologist.

Peter M. Krasnoff

California Registered Civil Engineer (44031)

Date

EXP 6/30/11

7084

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Peter E. Morris

California Professional Geologist (7084)

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1.0 INTRODUCTION

This Second Quarter 2009 Groundwater Monitoring Report ("Quarterly Report") has been prepared by West Environmental Services & Technology, Inc., (WEST) for the former Regal Station #120, located at 3875 Telegraph Avenue in Oakland, California ("the Site;" Figure 1-1). This Quarterly Report presents the results of groundwater monitoring activities performed at the Site during the Second Quarter 2009, i.e., April to June 2009.

Groundwater monitoring was conducted during the Second Quarter 2009 in accordance with the procedures outlined in the *Preliminary Site Assessment/Soil, Soil Gas and Groundwater Investigation Work Plan* (WEST, 2007a) and *Addendum* (WEST, 2007b; "*Work Plan*"), as requested by the Alameda County Health Care Services Agency (ACEH, 2008). This *Quarterly Report* also presents a summary of the anticipated work for the upcoming quarter.

1.1 BACKGROUND

The approximately 0.9-acre Site is located at 3875 Telegraph Avenue in Oakland, California to the east of the Bay Area Rapid Transit District (BART) MacArthur Station parking lot. Between 1928 and 1935, Associated Oil Company was a tenant on the Site (Fidelity, 2007). In the 1930s, the Site was used for: an automobile parking lot; and two gasoline stations near the southwest corner (3855 Telegraph Avenue) and the northern portion (3881 Telegraph Avenue) of the Site (Figure 2-1; HLA, 1992). By the 1940s, the two gasoline stations had been removed.

In the 1950s, the southern portion of the Site was occupied by a tamale factory and restaurant; and the northern portion was occupied by another gasoline service station. Features of the gasoline service station included: a service station building; pump islands; a cashier's office; and two 200-gallon underground storage tanks (USTs) and one 400-gallon UST. Between 1961 and 1971, Regal Petroleum Corporation leased the northern portion of the Site and operated the gasoline service station. Between approximately 1971 and 1984, Wickland operated the gasoline

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service station on the northern portion of the Site. In the mid-1970s, permits were issued for: one 8,000-gallon UST; one 5,000-gallon UST; one 2,500-gallon UST; and one 10,000-gallon UST, at the Site.

In June 1984, as part of pre-construction evaluations, Harding Lawson Associates (HLA) drilled four borings for collection of soil samples for geotechnical testing. HLA noted the soil cores collected from approximately 15 feet below ground surface contained "gasoline odor." In December 1984, the four USTs, associated service station buildings and pump islands were removed (HLA, 1992). Prior to their removal, the four USTs were reportedly pressure tested (HLA, 1992). The findings of the pressure testing indicated that the USTs were integral, i.e., capable of handling the applied pressure without indication of leakage. Following removal of the USTs, the excavation was backfilled with imported material.

In early 1985, the Site was purchased by East Bay Outpatient Surgery for development as a surgery center. In May 1985, as part of the surgery center construction, the UST excavation backfill material was removed. The former UST excavation was subsequently over-excavated to a depth of approximately 15 feet below ground surface with approximately 1,070 cubic yards of soil removed for offsite disposal.

Investigations have been conducted at and near the Site since 2001. The investigations revealed indications of separate releases of petroleum hydrocarbons downgradient and upgradient of the Site (WEST, 2008). Soil investigations reported the presence of total petroleum hydrocarbons (TPH) up to 90 milligrams per kilogram (mg/kg) onsite (boring B-4) and up to 2,700 mg/kg in samples collected offsite in the BART parking lot (boring B-16). Groundwater samples collected from temporary wells revealed the presence of TPH as gasoline (TPHg) up to 140,000 micrograms per liter (μ g/l) in samples from onsite boring B-4 and offsite up to 280,000 μ g/l in samples collected from the BART parking lot boring B-16. The investigations also revealed the

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presence of TPH as diesel (TPHd) up to $530,000 \mu g/l$ in the sample collected upgradient of the Site within 39^{th} Street.

In March and April of 2008, WEST conducted soil, soil gas and groundwater investigations. The investigations revealed: the presence of benzene and methyl tertiary butyl ether (MTBE) in groundwater downgradient of the former USTs excavation; contributions of TPH to groundwater attributable to upgradient and offsite sources; and contributions of chlorinated volatile organic compounds (CVOCs) attributed to upgradient offsite sources.

Pursuant to a request from the ACEH, quarterly groundwater monitoring activities were conducted during the Second Quarter 2009 in accordance with the *Work Plan* (ACEH, 2008). In addition, in accordance with the California State Water Resources Control Board (SWRCB) Resolution No. 2009-0042, groundwater monitoring frequency will be reduced from quarterly to semi-annual beginning in the Third Quarter 2009, i.e., July to September.



2.0 GROUNDWATER MONITORING

2.1 Previous Groundwater Investigations

Groundwater investigations were conducted at the Site in March, April, October and December 2008. Four permanent groundwater monitoring wells, MW-1, MW-2, MW-3 and MW-4, were installed at the Site in March 2008 (Figure 2-1). A summary of the groundwater monitoring well construction details and the groundwater elevations are presented in Tables 2-1 and 2-2. Sampling of the four groundwater monitoring wells was conducted at the Site on April 24, 2008, October 2, 2008, December 23, 2008 and March 31, 2009 in accordance with the *Work Plan*. A summary of the groundwater analytical results is presented in Table 2-3.

2.2 SECOND QUARTER 2009 ACTIVITIES

Groundwater monitoring activities were conducted during the Second Quarter 2009 in accordance with the procedures outlined in the *Work Plan*. The Second Quarter 2009 activities included:

- Measurement of depth to groundwater in monitoring wells MW-1, MW-2, MW-3 and MW-4; and
- Collection of groundwater samples from monitoring wells MW-1, MW-2, MW-3 and MW-4.

2.2.1 Depth to Groundwater Measurement

Prior to groundwater sampling, depth to groundwater measurements were collected from monitoring wells MW-1, MW-2, MW-3 and MW-4. The depth to groundwater was measured in the monitoring wells in accordance with the procedures outlined in the *Work Plan*.

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The depths to groundwater measurements are summarized in Table 2-2. During the Second Quarter 2009, the depth to groundwater measurements in the monitoring wells ranged from 14.21 feet below ground surface (MW-3) to 15.45 feet below ground surface (MW-2). Groundwater elevations in the monitoring wells ranged from 63.77 feet above Mean Sea Level (MW-2) to 66.33 feet above Mean Sea Level (MW-1). Based on the Second Quarter 2009 groundwater elevations, the groundwater flow direction was estimated to the southwest with a hydraulic gradient of approximately 0.011 feet per foot (Figure 2-2).

2.2.2 Groundwater Sampling

Groundwater samples were collected from monitoring wells MW-1, MW-2, MW-3 and MW-4 on June 29, 2009 using low-flow sampling techniques (USEPA, 1996). Prior to sampling, water within the well casings was purged for a minimum of 15 minutes. Groundwater parameter data including: temperature; pH; electrical conductivity; turbidity; and dissolved oxygen (DO) were measured during well purging to monitor stability of parameters and recorded on groundwater sampling field data sheets. Copies of the groundwater sampling field data sheets are included in Appendix A.

Groundwater samples were collected once the indicator parameters collected during purging had stabilized for three consecutive readings, as follows: plus/minus 0.1 Standard Units (S.U.) for pH; plus/minus three percent for specific conductance; and plus/minus 10 percent for turbidity and DO (USEPA, 1996).

Following purging, the groundwater samples were collected into laboratory-supplied zero headspace 40-milliliter glass volatile organic analysis (VOA) vials pre-preserved with hydrochloric acid and an unpreserved one-liter amber glass bottle. Following sample collection, the samples were labeled, placed in a chilled cooler and transported to K Prime, Inc, a California Department of Public Health (CDPH), Environmental Laboratory Accreditation Program (ELAP) certified laboratory pursuant to ASTM D4840 chain-of-custody protocols. The groundwater

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samples and a laboratory-prepared travel blank were submitted to K Prime, Inc. of Santa Rosa, California. The groundwater samples were analyzed for: TPHg and TPHd by United States Environmental Protection Agency (USEPA) Method 8015M; petroleum-related VOCs, including MTBE and CVOCs by USEPA Method 8260B. The analytical results for the groundwater samples are summarized in Table 2-3 and depicted on Figure 2-3. Copies of laboratory data certificates and chain-of-custody forms are included in Appendix B.

2.2.3 Analytical Results

Laboratory analysis of groundwater samples collected from monitoring wells MW-1, MW-2, MW-3 and MW-4 did not reveal the presence of MTBE above the laboratory-reporting limit ranging from $0.500 \,\mu\text{g/l}$ to $20.0 \,\mu\text{g/l}$. Laboratory analysis of the groundwater samples revealed the highest concentrations of petroleum hydrocarbons in the sample collected from monitoring well MW-4 including: TPHg at 5,460 $\,\mu\text{g/l}$; and TPHd at 1,190 $\,\mu\text{g/l}$. Laboratory analysis of groundwater samples collected from the upgradient monitoring well, MW-1, revealed: TPHd at 59 $\,\mu\text{g/l}$; tetrachloroethene (PCE) at 12.4 $\,\mu\text{g/l}$; trichloroethene (TCE) at 5.22 $\,\mu\text{g/l}$; and cis-1,2-dicholorethene (DCE) at 12.3 $\,\mu\text{g/l}$.

Laboratory analysis of groundwater samples collected from the downgradient monitoring well, MW-2, revealed: TPHg at 4,570 μ g/l; TPHd at 707 μ g/l; benzene at 193 μ g/l; toluene at 9.31 μ g/l; ethyl benzene at 113 μ g/l; and xylenes at 53.09 μ g/l. Laboratory analysis of groundwater samples collected from the cross-gradient monitoring well, MW-3, revealed: TPHg at 547 μ g/l; TPHd at 234 μ g/l; benzene at 1.33 μ g/l; and ethyl benzene at 21.3 μ g/l. A summary of the groundwater sample analytical results is presented in Table 2-3 and depicted on Figure 2-3.



2.2.4 Waste Management

Purge water generated during the groundwater monitoring activities was containerized in a United States Department of Transportation-approved, United Nations-tested 1A2 open-top steel drum and stored in a secure area. The purge water will be transported offsite for disposal pending waste profile acceptance from an appropriate disposal facility.



3.0 ANTICIPATED ACTIVITIES

Pursuant to the ACEH July 24, 2009 letter (ACEH, 2009) and consistent with the SWRCB Resolution No. 2009-0042, the groundwater monitoring frequency at the Site will be reduced from quarterly to semi-annual. Based on the previous groundwater monitoring data, semi-annual monitoring will be conducted during the First and Third calendar quarters beginning with the Third Quarter 2009.

Activities for the Third Quarter 2009 will include sampling of the four existing groundwater monitoring wells, MW-1, MW-2, MW-3 and MW-4. The groundwater monitoring well sampling will include: depth to groundwater measurements; and collection of groundwater samples from monitoring wells MW-1, MW-2, MW-3 and MW-4.



4.0 REFERENCES

- Alameda County Health Care Services Agency (ACEH), Fuel Leak Case No. R00002875 and Geotracker Global ID T06019716388, Regal #120/East Bay Surgery Center, 3875 Telegraph Avenue, Oakland, CA 94609, July 10, 2008 (ACEH, 2008).
- Alameda County Health Care Services Agency (ACEH), Fuel Leak Case No. RO0002875 and Geotracker Global ID T06019716388, Regal #120/East Bay Surgery Center, 3875 Telegraph Avenue, Oakland, CA 94609, July 24, 2009 (ACEH, 2009).
- ASTM, Standard Guide for Sample Chain-of-Custody Procedures D 4840-99 (ASTM D 4840).
- Cambria Environmental Technology, Inc., *Site Conceptual Model, Former Shell Service Station,* 500 40th Street, Oakland, California, November 21, 2005 (Cambria, 2005).
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- Gribi Associates, Report of Phase II Environmental Site Assessment, The Surgery Center, 3875 Telegraph Avenue, Oakland, California, February 7, 2005 (Gribi, 2005).
- Harding Lawson Associates (HLA), Soil Investigation, Outpatient Medical Clinic, Oakland, California, June 28, 1984 (HLA, 1984).
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- San Francisco Bay Area Rapid Transit District, Letter to Ms. Kathy Kuhlman, City of Oakland, Request for Additional Investigation at MacArthur BART Station, February 2, 2006 (BART, 2006a).
- San Francisco Bay Area Rapid Transit District, Letter to Mr. Don Hwang, Alameda County Environmental Health, *Surgery Center Site at 3875 Telegraph Avenue, Oakland, California*, October 4, 2006 (BART, 2006b).
- Terracon, Contamination Investigation, East Bay Surgery Center, 3875 Telegraph Avenue, Oakland, California, September 19, 2001 (Terracon, 2001).



USEPA, Low-Flow (Minimal Drawdown) Ground-water Sampling Procedures, Office of Research and Development, Washington D.C., EPA/540/S-95/504, April 1996 (USEPA, 1996).



5.0 DISTRIBUTION LIST

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Geotracker (SWRCB)

TABLE 2-1 SUMMARY OF GROUNDWATER MONITORING WELL CONSTRUCTION DETAILS 3875 Telegraph Avenue Oakland, California

			M	onitoring Well C	onstruction Det	ails	
Well ID	Date Installed	Well Diameter	Total Depth	Screen Interval	Sand Pack Interval	Bentonite Seal	Grout Seal
		(inches)	(ft bgs)	(ft bgs)	(ft bgs)	(ft bgs)	(ft bgs)
MW-1	3/29/08	1	30	15 to 30	13 to 30	11 to 13	0 to 11
MW-2	3/29/08	1	23	13 to 23	11 to 25	9 to 11	0 to 9
MW-3	3/29/08	1	22	12 to 22	10 to 25	8 to 10	0 to 8
MW-4	3/29/08	0.75	22	12 to 22	10 to 22	2 to 10	0 to 2

Notes:

ft bgs: feet below ground surface

TABLE 2-2 SUMMARY OF GROUNDWATER ELEVATION DATA

3875 Telegraph Avenue Oakland, California

Well ID	Top of Casing Elevation	Date	Depth to Water	Groundwater Elevation		
Well ID	(ft MSL)	Date	(ft bgs)	(ft MSL)		
		4/24/08	14.70	66.52		
		5/20/08	14.67	66.55		
MW 1	91.22	10/2/08	15.45	65.77		
MW-1	81.22	12/23/08	16.75	64.47		
		3/21/09	13.37	67.85		
		6/29/09	14.89	66.33		
		4/24/08	15.00	64.22		
		5/20/08	15.21	64.01		
MW-2	79.22	10/2/08	15.79	63.43		
IVI VV -Z		12/23/08	14.08	65.14		
		3/21/09	14.10	65.12		
		6/29/09	15.45	63.77		
		4/24/08	13.85	64.60		
		5/20/08	14.11	64.34		
MW-3		10/2/08	14.66	63.79		
IVI VV -3	76.43	12/23/08	12.93	65.52		
		3/21/09	12.92	65.53		
		6/29/09	14.21	64.24		
		4/24/08	13.82	66.72		
		5/20/08	14.18	66.36		
MW-4	80.54	10/2/08	15.09	65.45		
1A1 AA - .4	00.54	12/23/08	13.16	67.38		
		3/21/09	13.17	67.37		
		6/29/09	14.89	65.65		

Notes:

ft MSL: feet above Mean Sea Level using North American Vertical Datum of 1988

ft bgs: feet below ground surface

TABLE 2-3 SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS 3875 Telegraph Avenue

Oakland, California

			Petro Hydroc		Petroleum-Related VOCs										CVOCs					
Well ID	Depth (ft)	Date	ТРНд	TPHd	Benzene	Toluene	Ethyl benzene	Xylenes	MTBE	tert-Butyl benzene	1,2,4-TMB	1,3,5-TMB	n-Butyl benzene	sec-Butyl benzene	Naph- thalene	n-Propyl benzene	PCE	TCE	cis-1,2- DCE	PCM
			(µg/l)	$(\mu g/l)$	(µg/l)	(µg/l)	(µg/l)	(µg/l)	$(\mu g/l)$	(µg/l)	(µg/l)	$(\mu g/l)$	(µg/l)	(µg/l)	$(\mu g/l)$	(µg/l)	(µg/l)	$(\mu g/l)$	(µg/l)	(µg/l)
		4/24/08	< 50	< 50	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	<1.00	< 0.500	8.49	2.55	10.3	< 0.500
		10/2/08	< 50	65	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	<1.00	< 0.500	14.9	6.44	20.4	0.540
MW-1	15-30	12/23/08	< 50	< 50	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	<1.00	< 0.500	18.1	6.20	24.5	0.660
		3/21/09	< 50	< 50	< 0.500	< 0.500	< 0.500	< 0.500	0.5	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	<1.00	< 0.500	13.9	5.97	16.2	0.610
		6/29/09	< 50	59	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	<1.00	< 0.500	12.4	5.22	12.3	< 0.500
	13-23	4/24/08	6,140	1,270	391	31.5	366	334.3	<20.0	<20.0	144	31.2	<20.0	<20.0	64	198	<20.0	<20.0	<20.0	<20.0
		10/2/08	4,210	573	423	16	137	91.7	< 5.00	< 5.00	53.8	14.1	15.9	12.6	37.8	133	< 5.00	< 5.00	< 5.00	< 5.00
MW-2		12/23/08	4,490	694	336	27.6	148	88.06	<4.00	<4.00	33.8	14.1	27.4	18	48.4	197	<4.00	<4.00	<4.00	<4.00
		3/21/09	5,070	623	398	27.6	322	127.7	<4.00	<4.00	44.2	14.2	17.3	17.8	37.8	213	<4.00	<4.00	<4.00	<4.00
		6/29/09	4,570	707	193	9.31	113	53.09	<2.50	< 2.50	20.5	8.08	15.5	11.6	31.3	98.4	<2.50	<2.50	< 2.50	
		4/24/08	1,730	506	<4.00	<4.00	229	<4.00	<4.00	<4.00	10.1	7.27	7.59	6.02	75	88.7	<4.00	<4.00	<4.00	
		10/2/08	627	620	1.68	< 0.500	67.8	< 0.500	< 0.500	0.71	2.33	< 0.500	2.6	3.54	21.6	36.6	0.51	0.6	2.14	
MW-3	12-22	12/23/08	620	554	1.36	< 0.500	80.5	< 0.500	< 0.500	1.03	0.87	6.63	4.75	5.36	11	56.9	< 0.500	< 0.500	1.26	< 0.500
		3/21/09	597	200	< 2.00	< 2.00	34.9	< 2.00	< 2.00	< 2.00	< 2.00	3.88	2.94	4.33	7.72	37.8	< 2.00	< 2.00	< 2.00	< 2.00
		6/29/09	547	234	1.33	< 0.500	21.3	< 0.500	< 0.500	0.900	< 0.500	< 0.500	2.12	2.58	10.1	23.4	< 0.500	< 0.500	0.780	< 0.500
		4/24/08	7,290	2,390	<10.0	<10.0	656	27.7	<10.0	<10.0	101	<10.0	64.1	30.4	341	433	<10.0	<10.0	<10.0	<10.0
		10/2/08	5,800	958	< 5.00	< 5.00	106	< 5.00	< 5.00	< 5.00	15.3	< 5.00	58.5	26	59.9	306	< 5.00	< 5.00	< 5.00	< 5.00
MW-4	12-22	12/23/08	5,470	1,220	< 2.50	<2.50	157	3.4	< 2.50	<2.50	34.7	7.29	104	34.8	139	397	<2.50	< 2.50	< 2.50	<2.50
		3/21/09	5,690	969	< 5.00	< 5.00	163	< 5.00	< 5.00	< 5.00	8.13	< 5.00	63.1	28.3	86.5	320	< 5.00	< 5.00	< 5.00	< 5.00
		6/29/09	5,460	1,190	<20.0	<20.0	52.5	<20.0	<20.0	<20.0	<20.0	<20.0	52.5	<20.0	<40.0	229	<20.0	<20.0	<20.0	<20.0

Notes:

ft.: feet

μg/l: micrograms per liter PCE: Tetrachloroethene
CVOCs: Chlorinated Volatile Organic Compounds
TPHg: Total Petroleum Hydrocarbons as Gasoline
PCM: Perchloromethane

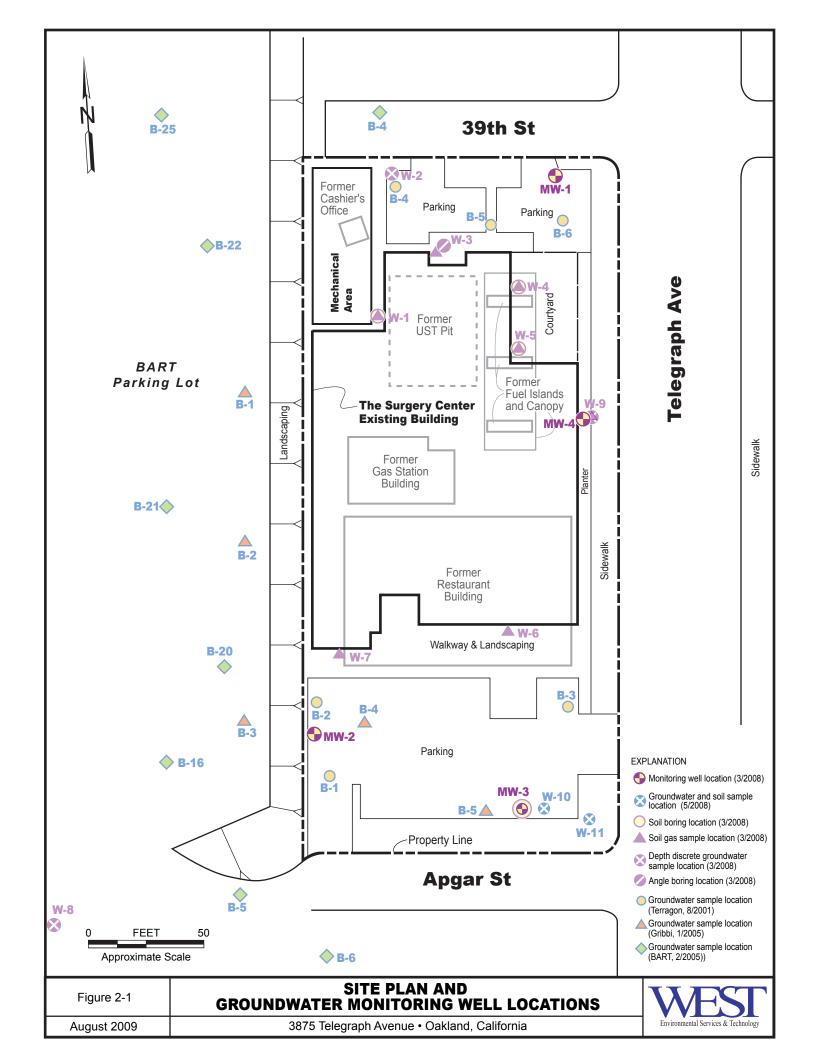
TPHd: Total Petroleum Hydrocarbons as Diesel

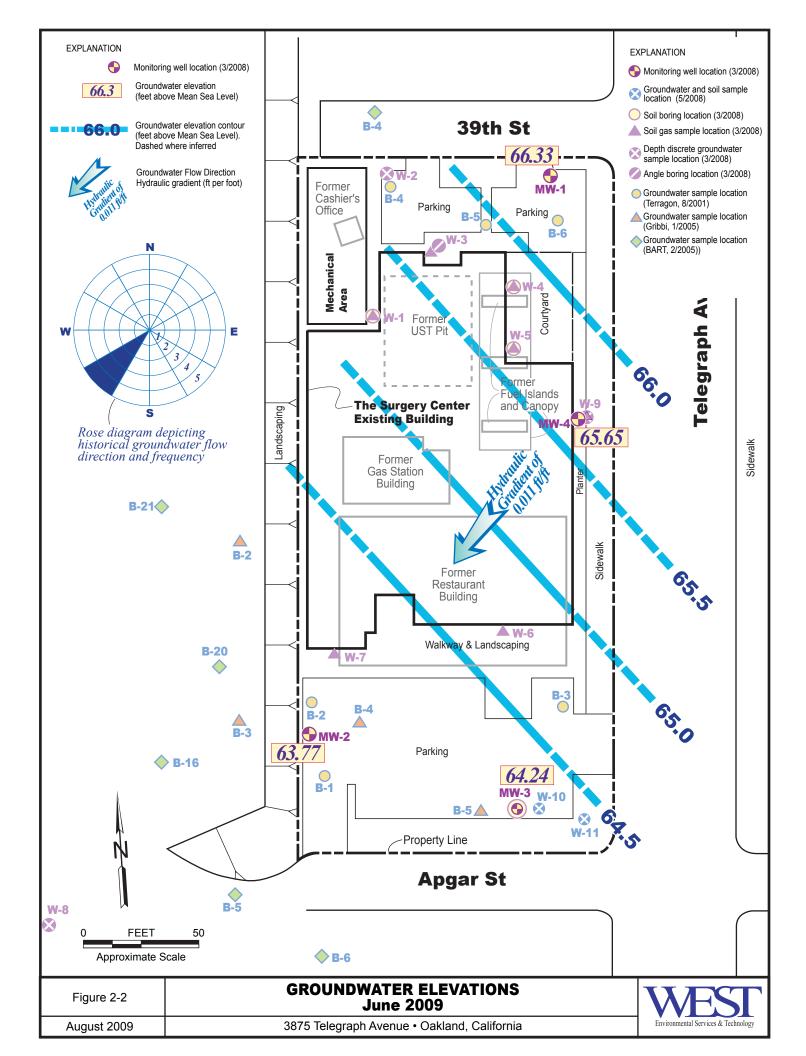
MTBE: Methyl Tertiary Butyl Ether TMB: Trimethylbenzene

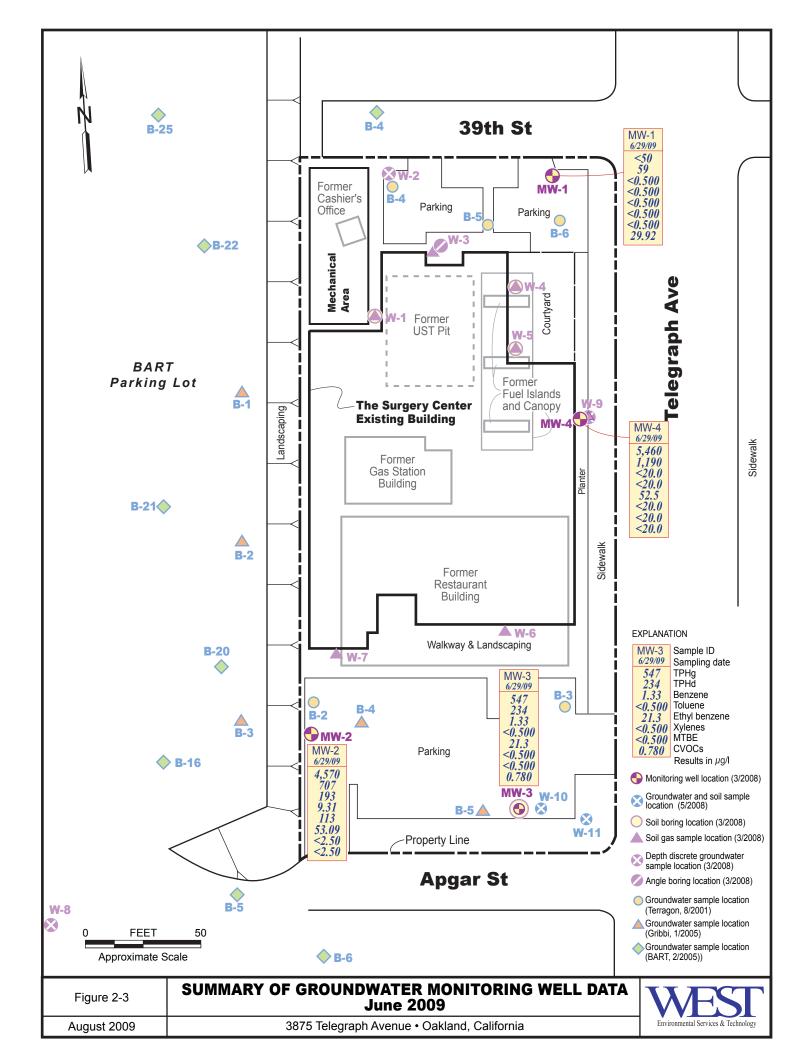
<1.0: Less than the laboratory-reporting limit

cis-1,2-DCE: Dichloroethene











APPENDIX A

GROUNDWATER MONITORING WELL SAMPLING FIELD SHEETS



Location ID: MW-	Date: 6/29/09
Sampled By: JZ	Sampling Time: 14:00
Project/Site Name: 3875 Telegren	on Aue Project No: Wickland, Dakland
Location type: monitoring well, suppl	y well, soil boring, other
Sampling Method: 💮 🗸 🗸 🗸	o Plan Peristaltic
Weather (Skies, temperature, wind):	Cler Suny 24°C
Well Diameter (in)	39th 7
Well Elevation (ft)	mw-1
Depth to Water (ft)) 14.89	PARKING 2
Standing Water Volume (gal)	PARKLUG 1
Purge Rate: (gal/min)	BUILDING \
Purge Method: Low Plow	2
	Sketch of sampling location
Observations/Comments: 4 WA & 12 6	Amber

Time (24 hr)	Depth to Water . (ft)	Purge Volume (gal)	Temp (°C)	PH (S.U.)	E. Cond. (µS/cm)	Turbidity (NTUs)	Dissolved Oxygen (%)	Dissolved Oxygen (mg/L)	Remarks
13:39	15.75	0.01	20.2	7.12	544	1.70	4.)	0.54	
13:42	17.45	0.1	17.3	6.74	577		3.3	6.30	turn pump down
13:45	17.76	6.2	19.3	6.58	566	6.93	2.2	0.20	pump at sloved
13:48	18.19	0.3	19.4	6.55	555		2.1	0-13	* *
13:51	18.25	0.4	19.2	6.52	853		2.6	0.24	
13:54	18.35	0.5	19.1	6.48	539	0.25	3.4	0.32	



00000
Location ID: MW-2 Date: 6.29.09
Sampled By: 32 Sampling Time: 19:90
Project/Site Name: 3875 Telegraph Ave Project No: Wickley Declare
Location type: monitoring well, supply well, soil boring, other
Sampling Method:
Weather (Skies, temperature, wind): Clear Suny 24°C
Well Diameter (in).
Well Elevation (ff)
Well Casing Depth (ft) 22.8
Depth to Water (ft)) 15.45 BART PARK
Standing Water Volume (gal) PARKING
1 Telegranh
Purde Rate: (gai/min)
Purge Method: Now Plow Apper
Sketch of sampling location
Observations/Comments: 4 VOA + 12 amzer

Time (24 hr)	Depth to Water . (ft)	Purge Volume (gal)	Temp (°C)	PH (S.U.)	E. Cond. (µS/cm)	Turbidity (NTUs)	Dissolved Oxygen (%)	Dissolved Oxygen (mg/L)	Remarks
14:22	15.67	0.0)	22.1	6.56	634	2.78	6.7	060	
14:25	15.70	0.1	21.6	6.45	615	2.65	4.9	0.43	<u> </u>
14:28	15.38	0.2	21.9	6.45	599	2.17	5.6	0.50	
14:31	15.77	0-3	21.6	6.44	594	2.62	4.9	0.43	*
14:34	15.77	0.4	20.7	6.43	593	1.66	3.6	0.33	
14:33	15.77	0.5	20.6	6.42	594	1.48	3.3	0.29	9.
				\$25-					



Location ID: MW-3	Date: 6.29.09
Sampled By:	Sampling Time: 15:10
Project/Site Name: 3875 Telegraph	AveProject No: Wickland . Oakland
	bly well, soil boring, other
Sampling Method: low F	Plow
Weather (Skies, temperature, wind):	Clear Stry 240L
Well Diameter (in) Well Elevation (ff) Well Casing Depth (ff) Depth to Water (ft))	BART PARKUS
Standing Water Volume (gal) Purge Rate: (gal/min) Purge Method:	Sketch of sampling location
Observations/Comments: 4 VOAs + 1	12 Ambr

Time (24 hr)	Depth to Water . (ft)	Purge Volume (gal)	Temp (°C)	PH (S.U.)	E. Cond. (µS/cm)	Turbidity (NTUs)	Dissolved Oxygen (%)	Dissolved Oxygen (mg/L)	Remarks
14:52	15.24	(0.0)	19.0	6.49	561	2.34	9.9	0.94	
	16.75	0.1	19.0	6.42	568	1.31	4.9	0.45	turn pump down
14:58	17.28	0.2	19.9	6.40	576		4.)	0.38	
15:01	17.5	0.3	19.0	6.39	575		4.2	0.39	il il
15:04	18.15	0.4	19.0	6.39	572	1.51	3.5	0.33	pump at s buest
15:07	18.75	0.5	18.9	6-39	562	1.46	3.2	0.30	
							ii ii		
								10	



Location ID: MW-4			Date:		
Sampled By: JZ			Sampling	Time:	15:55
Project/Site Name: 3875 Telegraph	n Ave	Proj	ect No: U	sicklend.	Ocklad,
	ply well,	soil bor	ing, oth	∍r	
	Frow				
Weather (Skies, temperature, wind):	Clear	Emy	2406		
2111			394		24
Well Diameter (in) 3/4"		-			1
Well Elevation (ff)				7	Teleseph
Well Casing Depth (ft) 21.5				$\neg \mid$	
Depth to Water (ft) 14.85			SITE	8.	
			BUILDING	May &	4
Standing Water Volume (gal)				2874	All I
Purge Rate: (gal/min)				'	5
Purge Method: Low Cls					
		Ske	etch of sampling	location	.00
Observations/Comments: 400A5 +	12 Ami	ser .	+ Duplice	e "Mu	016:30

Time (24 hr)	Depth to Water . (ft)	Purge Volume (gal)	Temp (°C)	PH (S.U.)	E. Cond. (µS/cm)	Turbidity (NTUs)	Dissolved Oxygen (%)	Dissolved Oxygen (mg/L)	Remarks
15:32	15.20	.0.0)	17.7	6.76	425	65.2	4.2	0.40	
15:35	15.35	0.1	19.0	6.54	398	58.9	3.7	0.34	2
15,38	15.33	0.2	17.0	6.49	386	143	30	6.29	* 3.
15,41	15.33	0.3	18.9	649	393	59.6	2.8	0.26	
15:44	(5.3)	0.4	18.9	6.47	389	32.9	2.6	0.24	a = = = =
15:47	15.33	0.5	18.8	6.47	375	24.2	2.6	0.24	
15:50	15.33	0.6	18.8	648	374	20.5	2.5	0.24	187



APPENDIX B

LABORATORY DATA CERTIFICATES

K PRIME, Inc.

CONSULTING ANALYTICAL CHEMISTS

3621 Westwind Blvd.

Santa Rosa CA 95403 Phone: 707 527 7574 FAX: 707 527 7879

TRANSMITTAL

DATE:

07/16/09

TO: MR. PETER MORRIS

WEST ENVIRONMENTAL S&T

ACCT: 9946 PROI: MICKLAND DAKLAND

711 GRAND AVENUE. SUITE 220

SAN RAFAFI CA 94901

Phone:

415-460-6770 415-460-6//1

Fax: Email:

main@w-e-s-t.com

FROM:

SUBJECT: LABORATORY RESULTS FOR YOUR PROJECT

Richard A. Kagel, Ph.D. Laboratory Director RAHMUTINO

WICKLAND. OAKLAND

Enclosed please finc K Prime's laboratory reports for the following samples:

SAMPLE ID	TYPE	DATE	TIME	KPI LAB #
Mu-1	WATER	06/29/09	14:00	78377
MH-2	WATER	06/29/09	14:40	78378
MH-3	WATER	06/29/09	15:10	78379
Mi-4	WATER	06/29/09	15:55	78380
Mwi-8	WATER	06/29/09	16:30	78381

The above listed sample group was received on on the chain of custody document.

06/30/09 and tested as requested

Please call me if you have any questions or need further information. Thank you for this opportunity to be of service.

K PRIME, INC.

K PRIME PROJECT: 9946

CLIENT PROJECT: WICKLAND.OAKLAND

REFERENCE: EPA 8015C

METHOD: GRO-GASOLINE RANGE ORGANICS

SAMPLE TYPE: WATER UNITS:

		TIME	BATCH	DATE	MRL	SAMPLE	GRO
	SAMPLED	SAMPLED	ID	ANALYZED		CONC	PATTERN
78377	06/29/09	14:00	070109W1	07/01/09	0.050	ND	
78378	06/29/09	14:40	070109W1	07/01/09	0.050	4.57	
78379	06/29/09	15:10	070109W1	07/01/09	0.050	0.547	
78380	06/29/09	15:55	070109W1	07/01/09	0.050	5.46	
	78378 78379	78377 06/29/09 78378 06/29/09 78379 06/29/09	78377 06/29/09 14:00 78378 06/29/09 14:40 78379 06/29/09 15:10	78377 06/29/09 14:00 070109W1 78378 06/29/09 14:40 070109W1 78379 06/29/09 15:10 070109W1	78377 06/29/09 14:00 070109W1 07/01/09 78378 06/29/09 14:40 070109W1 07/01/09 78379 06/29/09 15:10 070109W1 07/01/09	78377 06/29/09 14:00 070109W1 070109 0.050 78378 06/29/09 14:40 070109W1 070109 0.050 78379 06/29/09 15:10 070109W1 07/01/09 0.050	78377 06/29/09 14:00 070109W1 07/01/09 0.050 ND 78378 06/29/09 14:40 070109W1 07/01/09 0.050 4.57 78379 06/29/09 15:10 070109W1 07/01/09 0.050 0.547

ND - NOT DETECTED AT OR ABOVE THE STATED METHOD REPORTING LIMIT NA - NOT APPLICABLE OR AVAILABLE

MRL - METHOD REPORTING LIMIT

ARE - UNKNOWN HYDROCARBON WITH A SINGLE PEAK
AN - UNKNOWN HYDROCARBON WITH SEVERAL PEAKS
AS - HEAVIER HYDROCARBON THAN GASOLINE CONTRIBUTING TO GRO VALUE

CO - HYDROCARBON RESPONSE IN GASOLINE RANGE BUT DOES NOT RESEMBLE GASOLINE

APPROVED BY: DATE:

PAGE 1 OF 1

K PRIME, INC. LABORATORY QUALITY CONTROL REPORT

METHOD: GRO-GASOLINE RANGE ORGANICS REFERENCE: EPA 8015C

METHOD BLANK ID: B070109W1 SAMPLE TYPE: WATER

K PRIME, INC.

SAMPLE ID: MW-1

LAB NO: 78377 DATE SAMPLED: 06/29/09 TIME SAMPLED: 14:00

K PRIME PROJECT: 9946 CLIENT PROJECT: WICKLAND.OAKLAND

BATCH#: 070109W1 DATE ANALYZED: 7/6/09

DATE EXTRACTED: DATE ANALYZED:

0.050

SAMPLE TYPE: UNITS:

DATE EXTRACTED: 07/02/09 DATE ANALYZED: 07/02/09

UNITS:

REPORTING SAMPLE LIMIT

SAMPLE ID: L070109W1 DUPLICATE ID: 0070109W1 BATCH#: 070109W1 WATER

07/02/09 07/02/09 mg/L

CONC

ND

mg/L

BATCH#: 070109W1

METHOD: VOLATILE ORGANIC COMPOUNDS

REFERENCE: EPA 5030/8260

SAMPLE TYPE: WATER UNITS: ug/L

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC	
DICHLORODIFLUOROMETHANE	75-71-8	0.500	ND	_
CHLOROMETHANE	74-87-3	0.500	ND.	_
/INYL CHLORIDE	75-01-4	0.500	ND	_
BROMOMETHANE	74-83-9	0.500	ND	_
HLOROETHANE	75-00-3	0.500	ND	Ξ
FRICHLOROFLUOROMETHANE	75-69-4	0.500	ND	Ξ
,1-DICHLOROETHENE	75-35-4	0.500	ND	_
RICHLOROTRIFLUOROETHANE	76-13-1	0,500	ND	

ACCURACY (MATRIX SPIKE)

COMPOUND NAME

TPH-G

PARAMETER	SPIKE	SAMPLE	SPIKE	RECOVERY	LIMITS
	ADDEO	RESULT	RESULT	(%)	(%)
TPH-G	0.250	ND	0.248	99	60-140

PRECISION (SPIKE DUPLICATE)

COMPOUND NAME	REPORTING	SPIKE	DUPLICATE	RPD	LIMITS
	LIMIT	RESULT	RESULT	(%)	(%)
TPH-G	0.050	0,248	0,234	5.8	±20

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT NA - NOT APPLICABLE

COMPOUND NAME	CAS NO.	REPORTING	SAMPLE
- 		LIMIT	CONC
DICHLORODIFLUOROMETHANE	75-71-8	0.500	ND
CHLOROMETHANE	74-87-3	0.500	ND.
VINYL CHLORIDE	75-01-4	0.500	ND
BROMOMETHANE	74-83-9	0.500	ND
CHLOROETHANE	75-00-3	0.500	ND
TRICHLOROFLUOROMETHANE	75-69-4	0.500	ND
1,1-DICHLOROETHENE	75-35-4	0.500	ND
TRICHLOROTRIFLUOROETHANE	76-13-1	0,500	ND
METHYLENE CHLORIDE	75-09-2	2.50	ND
TRANS-1,2-DICHLOROETHENE	156-60-5	0.500	ND
1,1-DICHLOROETHANE	75-34-3	0.500	ND
CIS-1,2-DICHLOROETHENE	156-59-2	0.500	12.3
2,2-DICHLOROPROPANE	594-20-7	0.500	ND
BROMOCHLOROMETHANE	74-97-5	0.500	ND
CHLOROFORM	67-66-3	0.500	ND
1,1,1-TRICHLOROETHANE	71-55-6	0.500	ND
CARBON TETRACHLORIDE	56-23-5	0.500	ND
1,1-DICHLOROPROPENE	563-58-6	0,500	ND
BENZENE	71-43-2	0.500	ND
1,2-DICHLOROETHANE	107-06-2	0.500	ND
TRICHLOROETHENE	79-01-6	0.500	5,22
1.2-DICHLOROPROPANE	78-87-5	0.500	ND
DIBROMOMETHANE	74-95-3	0.500	ND
BROMODICHLOROMETHANE	75-27-4	0.500	ND
TRANS-1,3-DICHLOROPROPENE	10061-02-6	0.500	ND
TOLUENÉ	108-88-3	0.500	ND
CIS-1,3-DICHLOROPROPENE	10061-01-5	0.500	ND
1,1,2-TRICHLOROETHANE	79-00-5	0.500	ND
TETRACHLOROETHENE	127-18-4	0.500	12,4
1,3-DICHLOROPROPANE	142-28-9	0.500	ND
DIBROMOCHLOROMETHANE	124-48-1	0.500	NĐ
1,2-DIBROMOETHANE	106-93-4	0.500	ND
CHLOROBENZENE	108-90-7	0.500	ND
1,1,1,2-TETRACHLOROETHANE	630-20-6	0.500	ND
ETHYLBENZENE	100-41-4	0.500	ND
XYLENE (M+P)	1330-20-7	0.500	ND
XYLENE (O)	1330-20-7	0.500	ND
STYRENÊ.	100-42-5	0.500	ND
BROMOFORM	75-25-2	0.500	ND
ISOPROPYLBENZENE	98-82-8	0.500	ND
1,1,2,2-TETRACHLOROETHANE	79-34-5	0.500	ND
BROMOBENZENE	108-86-1	0.500	ND
1,2,3-TRICHLOROPROPANE	96-18-4	0.500	ND
N-PROPYLBENZENE	103-65-1	0.500	ND
2-CHLOROTOLUENE	95-49-8	0.500	ND
1,3,5-TRIMETHYLBENZENE	108-67-8	0.500	ND

PAGE 1 OF 2

K PRIME, INC.

SAMPLE ID: MW-1 LAB NO: 78377 DATE SAMPLED: 06/29/09 TIME SAMPLED: 14:00

K PRIME PROJECT: 9946 ELIENT PROJECT: WICKLAND.OAKLAND DATE AN.

BATCH #: 070109W1 DATE ANALYZED: 7/6/09

SAMPLE TYPE: WATER UNITS: ug/L

METHOD: VOLATILE ORGANIC COMPOUNDS REFERENCE: EPA 5030/8260

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
4-CHLOROTOLUENE	106-43-4	0.500	ND
TERT-BUTYLBENZENE	98-06-6	0.500	ND
1,2,4-TRIMETHYLBENZENE	95-63-6	0.500	ND
SEC-BUTYLBENZENE	135-98-8	0.500	ND
1,3-DICHLOROBENZENE	541-73-1	0.500	ND
4-ISOPROPYLTOLUENE	99-87-6	0.500	ND
1,4-DICHLOROBENZENE	106-46-7	0.500	ND
N-BUTYLBENZENE	104-51-6	0.500	ND
1,2-DICHLOROBENZENE	95-50-1	0.500	ND
1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	0.500	NO
1,2,4-TRICHLOROBENZENE	120-82-1	1.00	ND
HEXACHLOROBUTADIENE	87-68-3	1.00	ND
NAPHTHALENE	91-20-3	1.00	ND
1,2,3-TRICHLOROBENZENE	87-61-6	1,00	ND
METHYL TERT-BUTYL ETHER (MTBE)	1634-04-4	0.500	ND

SURROGATE RECOVERY	%
DIBROMOFLUOROMETHANE	88
TOLUENE-D8	91
4-BROMOFLUOROBENZENE	92

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT NA -NOT APPLICABLE OR AVAILABLE

APPROVED BY:	W
DATE:	7116109

K PRIME, INC.

SAMPLE ID: MW-2 LAB NO: 78378 DATE SAMPLED: 06/29/09 TIME SAMPLED: 14:40 BATCH #: 070109W1

K PRIME PROJECT: 9946 CLIENT PROJECT: WICKLAND.OAKLAND

BATCH #: 070109 DATE ANALYZED: 7/6/09

METHOD: VOLATILE ORGANIC COMPOUNDS REFERENCE: EPA 5030/8260 SAMPLE TYPE: WATER UNITS: ug/L

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC	
DICHLORODIFLUOROMETHANE	75-71-8	2.50	ND	
CHLOROMETHANE	74-87-3	2.50	ND	
VINYL CHLORIDE	75-01-4	2.50	ND	
BROMOMETHANE	74-83-9	2.50	ND	
CHLOROETHANE	75-00-3	2.50	ND	
TRICHLOROFLUOROMETHANE	75-69-4	2.50	ND	
1.1-DICHLOROETHENE	75-35-4	2.50	ND	
TRICHLOROTRIFLUOROETHANE	76-13-1	2.50	ND	
METHYLENE CHLORIDE	75-09-2	12.5	ND	
TRANS-1.2-DICHLOROETHENE	156-60-5	2.50	ND	
1.1-DICHLOROETHANE	75-34-3	2.50	ND	
CIS-1.2-DICHLOROETHENE	156-59-2	2.50	ND	
2,2-DICHLOROPROPANE	594-20-7	2.50	ND	
BROMOCHLOROMETHANE	74-97-5	2.50	ND	
CHLOROFORM	67-66-3	2.50	ND	
1.1.1-TRICHLOROETHANE	71-55-6	2.50	ND	
CARBON TETRACHLORIDE	56-23-5	2.50	ND	
1.1-DICHLOROPROPENE	563-58-6	2.50	ND	
BENZENE	71-43-2	2.50	193	
1.2-DICHLORGETHANE	107-06-2	2.50	ND	
TRICHLOROETHENE	79-01-6	2.50	ND	
1.2-DICHLOROPROPANE	78-87-5	2.50	ND	
DIBROMOMETHANE	74-95-3	2.50	ND	
BROMODICHLOROMETHANE	75-27-4	2.50	ND	
TRANS-1.3-DICHLOROPROPENE	10061-02-6	2.50	ND	
TOLUENE	108-88-3	2.50	9.31	
CIS-1.3-DICHLOROPROPENE	10061-01-5	2.50	ND .	
1.1.2-TRICHLOROETHANE	-79-00-5	2.50	ND	
TETRACHLOROETHENE	127-18-4	2.50	ND	
1.3-DICHLOROPROPANE	142-28-9	2.50	ND	
DIBROMOCHLOROMETHANE	124-48-1	2.50	ND	
1.2-DIBROMOETHANE	106-93-4	2.50	ND	
CHLOROBENZENE	108-90-7	2.50	ND	
1,1,1,2-TETRACHLOROETHANE	630-20-6	2.50	ND ND	
ETHYLBENZENE	100-41-4	2.50	113	
XYLENE (M+P)	1330-20-7	2.50	48.3	
XYLENE (O)	1330-20-7	2.50	4.79	
STYRENE	100-42-5	2.50	ND ND	
BROMOFORM	75-25-2	2,50	ND	
SOPROPYLBENZENE	98-82-8	2.50	60.1	
1.1.2.2-TETRACHLOROETHANE	79-34-5	2.50	ND ND	
BROMOBENZENE	108-86-1	2.50	ND ND	
1,2,3-TRICHLOROPROPANE	96-18-4	2.50	ND ND	
N-PROPYLBENZENE	103-65-1	2.50	98.4	
2-CHLOROTOLUENE	95-49-8	2.50	ND 90.4	
			8.08	
1,3,5-TRIMETHYLBENZENE	108-67-8	2.50	5.08	

PAGE 2 OF 2 PAGE 1 OF 2

K PRIME, INC. LABORATORY REPORT

SAMPLE ID: MW-2 LAB NO: 78378 DATE SAMPLED: 06/29/09 TIME SAMPLED: 14:40

BATCH #: 070109W1 DATE ANALYZED: 7/6/09

K PRIME PROJECT: 9946

REFERENCE: EPA 5030/8260

CLIENT PROJECT: WICKLAND.OAKLAND

METHOD: VOLATILE ORGANIC COMPOUNDS

SAMPLE TYPE: WATER UNITS: ug/L

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
4-CHLOROTOLUENE	106-43-4	2.50	ND
TERT-BUTYLBENZENE	98-06-6	2.50	ND
†,2,4-TRIMETHYLBENZENE	95-63-6	2.50	20.5
SEC-BUTYLBENZENE	135-98-8	2.50	11.6
1,3-DICHLOROBENZENE	541-73-1	2.50	ND
4-ISOPROPYLTOLUENE	99-87-6	2.50	ND
1,4-DICHLOROBENZENE	106-46-7	2.50	ND
N-BUTYLBENZENE	104-51-8	2.50	15.5
1,2-DICHLOROBENZENE	95-50-1	2.50	ND
1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	2.50	ND
1,2,4-TRICHLOROBENZENE	120-82-1	5.00	ND
HEXACHLOROBUTADIENE	87-68-3	5.00	ND
NAPHTHALENE	91-20-3	5.00	31.3
1,2,3-TRICHLOROBENZENE	87-61-6	5.00	ND
METHYL TERT-BUTYL ETHER (MTBE)	1634-04-4	2.50	ND

SURROGATE RECOVERY	%
DIBROMOFLUOROMETHANE	86
TOLUENE-D8	94
4-BROMOFLUOROBENZENE	100

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT NA -NOT APPLICABLE OR AVAILABLE

APPROVED BY:	ch .
DATE	2016/09

K PRIME, INC. LABORATORY REPORT

SAMPLE ID: MW-3 LAB NO: 78379 DATE SAMPLED: 06/29/09 DATE SAMPLED: 06/29/09
TIME SAMPLED: 15:10
BATCH #: 070109W1
DATE ANALYZED: 7/8/09

K PRIME PROJECT: 9946 CLIENT PROJECT: WICKLAND.OAKLAND

METHOD: VOLATILE ORGANIC COMPOUNDS REFERENCE: EPA 5030/8260

SAMPLE TYPE: WATER UNITS: ua/L

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
DICHLORODIFLUOROMETHANE	75-71-8	0.500	ND
CHLOROMETHANE	74-87-3	0.500	ND
VINYL CHLORIDE	75-01-4	0.500	ND
BROMOMETHANE	74-83-9	0.500	ND
CHLOROETHANE	75-00-3	0.500	ND
TRICHLOROFLUOROMETHANE	75-69-4	0.500	ND
1.1-DICHLOROETHENE	75-35-4	0.500	ND
TRICHLOROTRIFLUOROETHANE	76-13-1	0.500	ND
METHYLENE CHLORIDE	75-09-2	2.50	ND
TRANS-1,2-DICHLOROETHENE	156-60-5	0.500	ND
1,1-DICHLOROETHANE	75-34-3	0.500	ND
CIS-1,2-DICHLOROETHENE	156-59-2	0.500	0.780
2,2-DICHLOROPROPANE	594-20-7	0.500	ND
BROMOCHLOROMETHANE	74-97-5	0.500	ND
CHLOROFORM	67-66-3	0.500	ND
1,1,1-TRICHLOROETHANE	71-55-6	0.500	ND
CARBON TETRACHLORIDE	56-23-5	0.500	ND
1.1-DICHLOROPROPENE	563-58-6	0.500	ND
BENZENE	71-43-2	0.500	1.33
1,2-DICHLOROETHANE	107-06-2	0.500	ND
TRICHLOROETHENE	79-01-6	0.500	ND
1,2-DICHLOROPROPANE	78-87-5	0.500	ND
DIBROMOMETHANE	74-95-3	0.500	ND
BROMODICHLOROMETHANE	75-27-4	0.500	ND
TRANS-1,3-DICHLOROPROPENE	10061-02-6	0.500	ND
TOLUENE	108-88-3	0.500	ND
CIS-1,3-DICHLOROPROPENE	10061-01-5	0.500	ND
1,1,2-TRICHLOROETHANE	79-00-5	0.500	ND
TETRACHLOROETHENE	127-18-4	0.500	ND
1.3-DICHLOROPROPANE	142-28-9	0.500	ND
DIBROMOCHLOROMETHANE	124-48-1	0.500	ND
1.2-DIBROMOETHANE	106-93-4	0.500	ND
CHLOROBENZENE	108-90-7	0.500	ND
1.1.1.2-TETRACHLOROETHANE	630-20-6	0.500	ND
ETHYLBENZENE	100-41-4	0.500	21.3
XYLENE (M+P)	1330-20-7	0.500	ND
XYLENE (O)	1330-20-7	0.500	ND
STYRENE	100-42-5	0.500	ND
BROMOFORM	75-25-2	0.500	ND
ISOPROPYLBENZENE	98-82-8	0.500	11.2
1.1.2.2-TETRACHLOROETHANE	79-34-5	0.500	ND
BROMOBENZENE	108-86-1	0.500	ND
1,2,3-TRICHLOROPROPANE	96-18-4	0.500	ND
N-PROPYLBENZENE	103-65-1	0.500	23.4
2-CHLOROTOLUENE	95-49-8	0.500	ND
1.3.5-TRIMETHYLBENZENE	108-67-8	0.500	ND

PAGE 1 OF 2

PAGE 2 OF 2

K PRIME, INC.

SAMPLE ID: MW-3 LAB NO: 78379 DATE SAMPLED: 06/29/09 TIME SAMPLED: 15:10 BATCH #: 070/109W1 DATE ANALYZED: 7/8/09

K PRIME PROJECT: 9946

CLIENT PROJECT: WICKLAND OAKLAND

METHOD: VOLATILE ORGANIC COMPOUNDS REFERENCE: EPA 5030/8260

SAMPLE TYPE: WATER UNITS: ug/L

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
4-CHLOROTOLUENE	106-43-4	0.500	ND
TERT-BUTYLBENZENE	98-06-6	0.500	0.900
1,2,4-TRIMETHYLBENZENE	95-63-6	0.500	ND
SEC-BUTYLBENZENE	135-98-8	0.500	2,58
1,3-DICHLOROBENZENE	541-73-1	0.500	ND
4-ISOPROPYLTOLUENE	99-87-6	0.500	ND
1,4-DICHLOROBENZENE	106-46-7	0.500	ND
N-BUTYLBENZENE	104-51-8	0.500	2.12
1,2-DICHLOROBENZENE	95-50-1	0.500	ND '
1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	0.500	ND
1,2,4-TRICHLOROBENZENE	120-82-1	1.00	ND
HEXACHLOROBUTADIENE	87-68-3	1.00	ND
NAPHTHALENE	91-20-3	1.00	10.1
1,2,3-TRICHLOROBENZENE	87-61-6	1.00	ND
METHYL TERT-BUTYL ETHER (MTBE)	1634-04-4	0.500	ND

SURROGATE RECOVERY	%
DIBROMOFLUOROMETHANE	86
TOLUENE-D8	94
4-BROMOFLUOROBENZENE	98

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT NA -NOT APPLICABLE OR AVAILABLE

APPROVED BY:	ch
DATE:	adualn9

K PRIME, INC.

SAMPLE ID: MW-4 LAB NO: 78380 DATE SAMPLED: 06/29/09

K PRIME PROJECT: 9946 CLIENT PROJECT: WICKLAND.OAKLAND

DATE SAMPLED: 06/29/09
TIME SAMPLED: 15:55
BATCH #: 070109W1
DATE ANALYZED: 7/6/09

METHOD: VOLATILE ORGANIC COMPOUNDS REFERENCE: EPA 5030/8260

SAMPLE TYPE: WATER UNITS: ug/L

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
DICHLORODIFLUOROMETHANE	75-71-8	20.0	ND
CHLOROMETHANE	74-87-3	20.0	ND
VINYL CHLORIDE	75-01-4	20.0	ND
BROMOMETHANE	74-83-9	20.0	ND
CHLOROETHANE	75-00-3	20.0	ND
TRICHLOROFLUOROMETHANE	75-69-4	20.0	ND
1,1-DICHLOROETHENE	75-35-4	20.0	ND
TRICHLOROTRIFLUOROETHANE	76-13-1	20.0	ND
METHYLENE CHLORIDE	75-09-2	100	ND
TRANS-1,2-DICHLOROETHENE	156-60-5	20.0	NĎ
1.1-DICHLOROETHANE	75-34-3	20.0	ND
CIS-1,2-DICHLOROETHENE	156-59-2	20.0	ND
2.2-DICHLOROPROPANE	594-20-7	20.0	ND
BROMOCHLOROMETHANE	74-97-5	20.0	ND
CHLOROFORM	67-66-3	20.0	ND
1.1.1-TRICHLOROETHANE	71-55-6	20.0	ND
CARBON TETRACHLORIDE	56-23-5	20.0	ND
1.1-DICHLOROPROPENE	563-58-6	20.0	ND
BENZENE	71-43-2	20.0	ND :
1,2-DICHLOROETHANE	107-06-2	20.0	ND
TRICHLOROETHENE	79-01-6	20.0	ND
1.2-DICHLOROPROPANE	78-87-5	20.0	ND
DIBROMOMETHANE	74-95-3	20.0	ND
BROMODICHLOROMETHANE	75-27-4	20.0	ND
TRANS-1.3-DICHLOROPROPENE	10061-02-6	20.0	ND
TOLUENE	108-88-3	20.0	ND
CIS-1,3-DICHLOROPROPENE	10061-01-6	20.0	ND
1.1.2-TRICHLOROETHANE	79-00-5	20.0	ND
TETRACHLOROETHENE	127-18-4	20.0	ND ND
1,3-DICHLOROPROPANE	142-28-9	20.0	ND
DIBROMOCHLOROMETHANE	124-48-1	20.0	ND ND
1,2-DIBROMOETHANE	106-93-4	20.0	ND
CHLOROBENZENE	108-90-7	20.0	ND ND
1,1,1,2-TETRACHLOROETHANE	630-20-6	20.0	ND
ETHYLBENZENE	100-41-4	20.0	52.5
	1330-20-7	20.0	ND
XYLENE (M+P) XYLENE (O)	1330-20-7	20.0	ND ND
STYRENE	100-42-5	20.0	ND ND
BROMOFORM	75-25-2	20.0	ND ND
ISOPROPYLBENZENE	98-82-8	20.0	71.5
1,1,2,2-TETRACHLOROETHANE	79-34-5	20.0	ND ND
BROMOBENZENE	108-86-1	20.0	ND ND
	96-18-4	20.0	ND
1,2,3-TRICHLOROPROPANE			229
N-PROPYLBENZENE	103-65-1	20.0	
2-CHLOROTOLUENE	95-49-8	20.0	ND ND
1,3,5-TRIMETHYLBENZENE	108-67-8	20.0	ND

PAGE 1 OF 2 PAGE 2 OF 2

K PRIME, INC. LABORATORY REPORT

SAMPLE ID: MW-4 LAB NO: 78380

DATE SAMPLED: 06/29/09 TIME SAMPLED: 15:55

K PRIME PROJECT: 9946

CLIENT PROJECT: WICKLAND,OAKLAND

BATCH #: 070109W1 DATE ANALYZED: 7/6/09

METHOD: VOLATILE ORGANIC COMPOUNDS

REFERENCE: EPA 5030/8260

SAMPLE TYPE: WATER UNITS: ug/L

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
4-CHLOROTOLUENE	106-43-4	20.0	ND
TERT-BUTYLBENZENE	98-06-6	20.0	ND
1,2,4-TRIMETHYLBENZENE	95-63-6	20.0	ND
SEC-BUTYLBENZENE	135-98-8	20.0	ND
1,3-DICHLOROBENZENE	541-73-1	20.0	ND
4-ISOPROPYLTOLUENE	99-87-6	20.0	ND
1,4-DICHLOROBENZENE	106-46-7	20.0	ND
N-BUTYLBENZENE	104-51-8	20.0	52.5
1,2-DICHLOROBENZENE	95-5D-1	20.0	ND
1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	20.0	ND
1,2,4-TRICHLOROBENZENE	120-82-1	40.0	ND
HEXACHLOROBUTADIENE	87-68-3	40.0	ND
NAPHTHALENE	91-20-3	40.0	ND
1,2,3-TRICHLOROBENZENE	87-61-6	40.0	ND
METHYL TERT-BUTYL ETHER (MTBE)	1634-04-4	20.0	ND

SURROGATE RECOVERY	%
DIBROMOFLUOROMETHANE	82
TOLUENE-D8	92
4-BROMOFLUOROBENZENE	94

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT NA -NOT APPLICABLE OR AVAILABLE

APPROVED BY:	w.
DATE:	2/16/09

K PRIME, INC.

LABORATORY METHOD BLANK REPORT

METHOD BLANK ID: B070109W1

BATCH #: 070109W1 DATE ANALYZED: 7/2/09

METHOD: VOLATILE ORGANIC COMPOUNDS REFERENCE: EPA 5030/8260

SAMPLE TYPE: WATER

UNITS: ua/L

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
DICHLORODIFLUOROMETHANE	75-71-8	0.500	ND
CHLOROMETHANE	74-87-3	0.500	ND.
VINYL CHLORIDE	75-01-4	0.500	ND
BROMOMETHANE	74-83-9	0.500	ND
CHLOROETHANE	75-00-3	0.500	ND
TRICHLOROFLUOROMETHANE	75-69-4	0.500	ND
1,1-DICHLOROETHENE	75-35-4	0.500	ND
TRICHLOROTRIFLUOROETHANE	76-13-1	0,500	ND
METHYLENE CHLORIDE	75-09-2	2.50	ND
TRANS-1,2-DICHLOROETHENE	156-60-5	0.500	ND
1.1-DICHLOROETHANE	75-34-3	0.500	ND
CIS-1.2-DICHLOROETHENE	156-59-2	0.500	ND
2,2-DICHLOROPROPANE	594-20-7	0.500	ND
BROMOCHLOROMETHANE	74-97-5	0.500	ND
CHLOROFORM	67-66-3	0.500	ND
1.1.1-TRICHLOROETHANE	71-55-6	0.500	ND
CARBON TETRACHLORIDE	56-23-5	0.500	ND
1.1-DICHLOROPROPENE	563-58-6	0.500	ND
BENZENE	71-43-2	0.500	ND
1.2-DICHLOROETHANE	107-06-2	0.500	ND
TRICHLOROETHENE	79-01-6	0.500	ND
1.2-DICHLOROPROPANE	78-87-5	0.500	ND
DIBROMOMETHANE	74-95-3	0.500	ND
BROMODICHLOROMETHANE	75-27-4	0.500	ND
TRANS-1,3-DICHLOROPROPENE	10061-02-6	0.500	ND
TOLUENE	108-88-3	0.500	ND
CIS-1.3-DICHLOROPROPENE	10061-01-5	0.500	ND
1.1.2-TRICHLOROETHANE	79-00-5	0.500	ND
TETRACHLOROETHENE	127-18-4	0.500	ND
1.3-DICHLOROPROPANE	142-28-9	0.500	ND
DIBROMOCHLOROMETHANE	124-48-1	0.500	ND
1.2-DIBROMOETHANE	106-93-4	0.500	ND
CHI OROBENZENE	108-90-7	0.500	ND
1,1,1,2-TETRACHLOROETHANE	630-20-6	0.500	ND
ETHYLBENZENE	100-41-4	0.500	ND
XYLENE (M+P)	1330-20-7	0.500	ND
XYLENE (O)	1330-20-7	0.500	ND
STYRENE	100-42-5	0.500	ND
BROMOFORM	75-25-2	0.500	ND
ISOPROPYLBENZENE	98-82-8	0.500	ND
1.1.2.2-TETRACHLOROETHANE	79-34-5	0.500	ND
BROMOBENZENE	108-86-1	0.500	ND
1.2.3-TRICHLOROPROPANE	96-18-4	0.500	ND
N-PROPYLBENZENE	103-65-1	0.500	ND ND
N-PROPYLBENZENE 2-CHLOROTOLUENE	95-49-8	0.500	ND ND
Z-GHLURU IULUENE	108-67-8	0.500	ND ND

PAGE 1 OF 2

K PRIME, INC.

LABORATORY METHOD BLANK REPORT

METHOD BLANK ID: 8070109W1

BATCH #: 070109W1 DATE ANALYZED: 7/2/09

METHOD: VOLATILE ORGANIC COMPOUNDS

REFERENCE: EPA 5030/8260

SAMPLE TYPE: WATER

UNITS: ug/L

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
4-CHLOROTOLUENE	106-43-4	0.500	ND
TERT-BUTYLBENZENE	98-06-6	0.500	ND
1,2,4-TRIMETHYLBENZENE	95-63-6	0.500	ND
SEC-BUTYLBENZENE	135-98-8	0.500	ND
1,3-DICHLOROBENZENE	541-73-1	0.500	ND
4-ISOPROPYLTOLUENE	99-87-6	0.500	ND
1,4-DICHLOROBENZENE	106-46-7	0.500	ND
N-BUTYLBENZENE	104-51-8	0.500	ND
1,2-DICHLOROBENZENE	95-50-1	0.500	ND
1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	0.500	ND
1,2,4-TRICHLOROBENZENE	120-82-1	1.00	ND
HEXACHLOROBUTADIENE	87-68-3	1.00	ND
NAPHTHALENE	91-20-3	1.00	ND
1,2,3-TRICHLOROBENZENE	87-61-6	1.00	ND
METHYL TERT-BUTYL ETHER (MTBE)	1634-04-4	0.500	ND

SURROGATE RECOVERY	%
DIBROMOFLUOROMETHANE	84
TOLUENE-D8	90
4-BROMOFLUOROBENZENE	94

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT NA -NOT APPLICABLE OR AVAILABLE

PAGE 2 OF 2

K PRIME, INC. LABORATORY QC REPORT

METHOD: VOLATILE ORGANIC COMPOUNDS

REFERENCE: EPA 5030/8260

SAMPLE ID: B070109W1 SPIKE ID: D070109W1

DUPLICATE ID: D070109W1 BATCH #: 070109W1

SAMPLE TYPE: WATER UNITS: µg/L

ACCURACY (MATRIX SPIKE)

PARAMETER	SPIKE	SAMPLE	SPIKE	RECOVERY	LIMITS
	ADDED	RESULT	RESULT	(%)	(%)
1,1 DICHLOROETHENE	10.0	ND	8.26	83	60-140
BENZENE	10.0	ND	6.93	69	60-140
TRICHLOROETHENE	10.0	ND	7.38	74	60-140
TOLUENE	10.0	ND .	7.39	74	60-140
CHLOROBENZENE	1.0.0	ND	9.88	99	60-140

PRECISION (SPIKE DUPLICATE)

COMPOUND NAME	REPORTING	SPIKE	DUPLICATE	RPD	LIMITS
	LIMIT	RESULT	RESULT	(%)	(%)
1,1 DICHLOROETHENE	0.500	8.26	9.21	10.9	±20
BENZENE	0.500	6.93	7.33	5.6	±20
TRICHLOROETHENE	0.500	7.38	7.64	3.5	±20
TOLUENE	0.500	7.39	7.53	1.9	±20
CHLOROBENZENE	0.500	9.88	10.2	3.6	±20

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT NA - NOT AVAILABLE OR APPLICABLE

K PRIME, INC. LABORATORY REPORT

K PRIME PROJECT: 9946

CLIENT PROJECT: WICKLAND.OAKLAND

METHOD: DRO REFERENCE: EPA 8015C

SAMPLE TYPE: WATER

UNITS: ma/L

	SAMPLE ID	LAB NO.	DATE SAMPLED	BATCH JD	EXTRACT DATE	DATE ANALYZED	MRL	SAMPLE CONC	DRO PATTERN
	MW-1	78377	6/29/2009	061809W1	7/1/2009	7/1/2009	0.050	0.059	
-	MW-2	78378	6/29/2009	061809W1	7/1/2009	7/1/2009	0.050	0.707	AK
ĺ	MW-3	78379	6/29/2009	061809W1	7/1/2009	7/1/2009	0.050	0.234	AK
- 1	MW-4	78380	6/29/2009	061809W74	7/1/2000	7/1/2000	0.050	1 10	AK

NOTES: DRO

ND

Diesel Range Organics (C12-C34) Not Detected at or above the stated MRL Not Applicable or Available NA MRL Method Reporting Limit

AD Typical pattern for diesel

AM

Hydrocarbon response is in the C12-C22 range Heavier hydrocarbons contributing to diesel range quantitation

AC AJ AK Heavier hydrocarbon than diesel Lighter hydrocarbon then diesel

Unknown hydrocarbon with a single peak ΑE

AN Unknown hydrocarbon with several peaks

> APPROVED BY: DATE:

> > PAGE 1 OF 1

K PRIME, INC. LABORATORY QUALITY CONTROL REPORT

BATCH ID: 061809W1

DATE ANALYZED: 06/19/09

DATE EXTRACTED: 06/18/09

METHOD: DRO

REFERENCE: EPA 8015C

SAMPLE TYPE: WATER UNITS:

ma/L

METHOD BLANK ID: B061809W1

COMPOUND NAME	REPORTING	SAMPLE
	LIMIT	CONC
DRO	0.050	· ND

SAMPLE ID: L061809W1

DUPLICATE ID: D061809W1

ACCURACY (MATRIX SPIKE)

PARAMETER	SPIKE	SAMPLE	SPIKE	RECOVERY	LIMITS
	ADDED	RESULT	RESULT	(%)	(%)
DRO	2.50	ND	2 21	88	60-140

PRECISION (SPIKE DUPLICATE)

COMPOUND NAME	REPORTING	SPIKE	DUPLICATE	RPD	LIMITS
	LIMIT	RESULT	RESULT	(%)	(%)
DRO	0.050	2.21	2.18	1.0	±20

NOTES:

NOTES:
DRO - DIESEL RANGE ORGANICS (C12-C34)
ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT

NA - NOT APPLICABLE OR AVAILABLE



711 Grand Avenue, Suite 220 San Rafael, Culifornia 94901 415.460.6770 • Fax 415.460.6771 main@westenvironmental.com

SAMPLE ANALYSIS/COMPOSITE REQUEST FORM

CHAIN-OF-CUSTODY

invoice to: WEST, inc.					Date: 6 - 30 -09 Page 1 of 1											
Project: Wickland,Oaklar	ıd					Loc	ation	: 387	5 Tek	grap	h Av	re				
Project Manager: Peter N	Aorris .					Phone: 415/460-6770 Fax: 415/460-6771								1		
Laboratory: KPrime, Inc.	Santa Rosa, CA					Turnaround time 1 2 3 5 7 10						Ste	l			
Sampler Signature:	0					(days) X										
C						Analyses Requested										
Sample ID	Date	Time	Турс	# Containers	Composite	VOCs/BTEX/MTBE (USEPA8260B)	TPH4/TPHg (USEPA 8015M)		The second secon				KA	1.64		ногр
MW-I	6.29.09	14:00	₩	5	<u> </u>	×	x		\neg	\neg	1			377		-
MW-2	"	14:40	W	5		х	х	-			1			378		
MW-3))	15:10	W	5		х	х			T				378		
MW-4	t,	15:55	W	5		х	Х				7			380		1
Frip Blank MU-8	, H	16:30	W	5									\neg	3.51		х
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duli Casdo Relinquished by: (Signature M. H.		G/301° 1:13					- 12	eceive) ***	rd by: Lan	(Sign	aturo	:) •	6	Dat (49/ !!!	09	