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RECEIVED

Environmental Health Services Environmental Protection 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577 10:41 am, Aug 19, 2011 Alameda County Environmental Health

SUBJECT: Perjury Statement

To Whom it May Concern:

I declare, under penalty of perjury, that the information and/or recommendations contained in the requested attached reports in your letter dated August 8, 2011 are true and correct to the best of my knowledge.

Signed: Jone concer allen JANE A. ALLEN

February 4, 2008

GROUNDWATER MONITORING REPORT Fourth Quarter, 2007

325 Martin Luther King Jr. Way Oakland, California

Project No. 270308

Prepared For

Jane and Kimball Allen 2 Lone Tree Avenue Mill Valley, CA 94941

Prepared By

AEI Consultants 2500 Camino Diablo, Suite 200 Walnut Creek, CA 94597 (925) 283-6000



ENVIRONMENTAL & ENGINEERING SERVICES

www.aeiconsultants.com

February 4, 2008

Jane and Kimball Allen 2 Lone Tree Avenue Mill Valley, California 94941

Subject: Quarterly Groundwater Monitoring Report Fourth Quarter, 2007 325 Martin Luther King Jr. Way Oakland, California Project No. 270308

Dear Mr. and Mrs. Allen:

AEI Consultants (AEI) has prepared this report on behalf of Jane and Kimball Allen to document the ongoing groundwater investigation at the above referenced site (Figure 1, Site Location Map). The groundwater investigation is being performed in accordance with the requirements of the Alameda County Health Care Services Agency (ACHCSA). The purpose of these activities is to monitor groundwater quality in the vicinity of the identified release of fuel products at the site. This report presents the findings of the second episode (Fourth Quarter, 2007) of groundwater monitoring and sampling conducted on November 21, 2007.

I Background

The subject property is located on the western corner of the intersection of Martin Luther King Jr. Way and 4th Street in a mixed commercial and industrial area of Oakland. The property measures approximately 100 feet along Martin Luther King and approximately 150 feet along 4th Street with the property building covering essentially 100% of the land area. The northwestern portion of the building along 4th Street has also had the address 671 4th Street. The building is currently vacant, but was previously occupied by Pucci Enterprises as warehouse space and cold storage freezers.

Touchstone Developments completed a Phase I Environmental Site Assessment (ESA) of the property dated November 1, 1993 and identified a 10,000-gallon former fuel UST that currently exists below the north side of the building. The fuel UST was used to provide fuel for the Pucci Enterprises truck fleet. Marvin Busby Company, Inc. decommissioned the tank on October 20, 1993 by steam cleaning the tank, pumping remaining sludge out of the tank, and filling the tank with concrete slurry. At the time of the UST closure, the eastern section of the building had not yet been built. The tank could not be removed because of its proximity to the footing of the 671 4th Street building. After tank closure,

the eastern portion of the building (325 Martin Luther King) was constructed. Although records show that the UST was abandoned following proper procedures applicable at that time, no documentation was available of sampling around the tank prior to abandonment. A number of site investigations were performed by several environmental consultants during 2005 and 2006.

AEI performed a Phase II Subsurface Investigation in May 2005. A total two borings (SB-2 and SB-4) were completed with soil and groundwater samples collected (SB-1 and SB-3 encountered refusal at 4 feet bgs, possibly the top of the concrete filled UST). A release was discovered during the investigation, which indicated an impact to groundwater. Total petroleum hydrocarbon (TPH) as gasoline (TPH-g), TPH as diesel (TPH-d), and benzene were detected in groundwater up to 780 micrograms per liter (μ g/L), 420 μ g/L, and 53 μ g/L, respectively.

In September 2005, an additional investigation was performed by Terra Firma. Groundwater samples were reportedly collected from four (4) soil borings (labeled 50901-1 to 50901-4). Details on the methods, field observations (including soil conditions), or analytical reports were not made available to AEI. Based on the information provided, groundwater sample analyses revealed the highest concentrations of TPH-g, TPH-d, and benzene at 20,000 μ g/l, 3600 μ g/l, and 990 μ g/l, from the two borings to the south of the UST. Two borings southwest of the UST contained lower, but still detectable, concentrations fuel contaminants.

In June 2006, Ceres Associated performed another subsurface investigation. The project included the analyses of soil and groundwater from an additional five soil borings (labeled SB-5 to SB-9). Significant concentrations of fuel contaminants were detected in both soil and groundwater, particularly in SB-7, located southeast of the UST. Logs of the borings were not made available to AEI.

A fourth consultant, LRM Consulting, prepared release notification documentation and a workplan for the ACHCSA in August 2006. The workplan included additional research into possible additional source locations (dispenser, piping, offsite releases, etc) and the installation of three (3) monitoring wells. The wells were proposed as 2" PVC wells with a screen interval of approximately 5 to 20 feet bgs.

The ACHCSA had several comments relating to the previous assessments, following which AEI was retained to prepare a comprehensive workplan. The workplan, titled *Site Characterization Workplan*, prepared in March of 2007, detailed soil boring investigation and well installation activities to effectively characterize the release.

In May of 2007, AEI performed a soil and groundwater investigation by advancing an additional twelve (12) soil borings at the property. The soil boring locations were chosen to help determine the magnitude and extent of the petroleum release. Low to moderate concentrations of petroleum hydrocarbons were detected in the soil adjacent to the abandoned UST and in groundwater. Contaminant distributions in groundwater

suggested that the release of hydrocarbons is limited in extent; confined to the 325 Martin Luther King Jr. Way unit. On August 10, 2007, AEI installed three (3) groundwater monitoring wells in the area of the release. Elevated petroleum hydrocarbons were detected in well MW-3, adjacent to the abandoned UST, during the initial monitoring event. Please refer to AEI's *Monitoring Well Installation Report*, dated September 21, 2008, for the well construction details and a comprehensive history of the subject site.

II Summary of Monitoring Activities

AEI measured the depth to groundwater in the three (3) monitoring wells (labeled MW-1 through MW-3) on November 21, 2007. The well locations are shown on Figure 3. The depth to static groundwater from the top of the well casings was measured with an electric water level indicator prior to sampling.

The wells were purged with a battery-powered submersible pump. Temperature, pH, specific conductivity, dissolved oxygen (DO), and the oxidation-reduction potential (ORP) were measured and the turbidity was visually noted during purging of the wells. At least three (3) well volumes of water were purged from each well. The wells were allowed to recharge to at least 90% of their original level prior to sample collection.

Groundwater samples were collected with new disposable plastic bailers into 40 ml volatile organic analysis (VOA) vials and 1-liter amber bottles. VOAs were capped so that no head space or air bubbles were visible within the sample containers. Samples were transported on ice under proper chain of custody protocol to McCampbell Analytical, Inc. of Pittsburgh, California (Department of Health Services Certification #1644).

Three (3) samples were analyzed for total petroleum hydrocarbons as gasoline (TPH-g), methyl tertiary-butyl ether (MTBE), benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA methods 8021B/8015Cm and total petroleum hydrocarbons as diesel (TPH-d) by EPA method 8015C.

III Field Results

Groundwater levels for the current monitoring episode ranged from 6.55 (MW-1 and MW-2) to 6.71 (MW-3) feet above mean sea level (amsl). These groundwater elevations were an average of 0.03 feet lower than the previous episode. Based on these measurements, groundwater flows in a southerly direction at a gradient of approximately 0.005 ft/ft.

Groundwater elevation data, flow direction, and hydraulic gradient are summarized in Table 2: Groundwater Elevation Data. The water table elevations and the estimated groundwater flow direction are presented on Figure 3: Water Table Elevations. Please refer to Appendix A for the Groundwater Monitoring Well Field Sampling Forms, which include water quality data and other parameters collected during well purging.

IV Groundwater Quality

No detectable concentrations of petroleum hydrocarbons were reported in the groundwater samples collected from monitoring wells MW-1 and MW-2, with the exception of MTBE detected in MW-1 at a concentration of 12 μ g/L. In MW-3, concentrations of TPH-g and TPH-d increased from 24,000 μ g/L to 36,000 μ g/L and from 2,100 μ g/L to 3,800 μ g/L, respectively. Benzene and total xylenes concentrations increased in MW-3 from 2,600 μ g/L to 4,900 μ g/L and 2,400 μ g/L to 2,700 μ g/L, respectively. Ethylbenzene and toluene concentrations decreased from 6.7 μ g/L to 0.64 μ g/L.

A summary of groundwater analytical data is presented in Table 3: Groundwater Sample Analytical Data and illustrated on Figure 4, Dissolved Phase Hydrocarbon Concentrations. Laboratory analytical reports and chain of custody documentation are included in Appendix B.

V Summary

This report documents the findings of the 4th Quarter 2007 groundwater monitoring event, the second event at the site. Overall, the findings of this event are generally consistent with the initial groundwater monitoring event conducted in August of 2007. Elevated concentrations of fuel hydrocarbons were detected in the source well, MW-3, while no contaminants were detected in the down-gradient wells, MW-1 and MW-2, which the exception of MTBE in MW-1.

A Corrective Action Plan (CAP) is currently being preparing for remediation onsite and will be submitted shortly under separate cover.

The next event is tentatively scheduled for the 1st quarter 2008, in late February 2008.

VI Report Limitations

This report presents a summary of work completed by AEI Consultants. The completed work includes observations and descriptions of site conditions encountered. Where appropriate, it includes analytical results for samples taken during the course of the work. The number and location of samples are chosen to provide the requested information, but it cannot be assumed that they are representative of areas not sampled. All conclusions and/or recommendations are based on these analyses and observations, and the governing regulations. Conclusions beyond those stated and reported herein should not be inferred from this document.

These services were performed in accordance with generally accepted practices, in the environmental engineering field, which existed at the time and location of the work.

If you have any questions regarding our investigation, please do not hesitate to contact either of the undersigned at (925) 283-6000.

Sincerely, AEI Consultants

Adrian M. Angel

Adrian M. Angel Project Geologist

ERED MCINT Peter McIntyre, PG/REA O, Senior Project Manager CALIFO

Figures

Figure 1: Site Location Map Figure 2: Site Plan Figure 3: Water Table Elevations (11/21/07) Figure 4: Dissolved Phase Hydrocarbon Concentrations (11/21/07)

Tables

Table 1: Monitoring Well Construction DetailsTable 2: Groundwater Elevation DataTable 3: Groundwater Monitoring Sample Analytical Data

Appendix A: Groundwater Monitoring Well Field Sampling Forms

Appendix B: Laboratory Analyses With Chain of Custody Documentation



Previous Documentation

AEI Consultants, Soil and Groundwater Investigation Report, September 21, 2007

AEI Consultants, Site Characterization Workplan, March 8, 2007

AEI Consultants, Phase II Subsurface Investigation Report, May 18, 2005

Alameda County Health Care Services Agency, Fuel Leak Case No. RO0002930, 325 Martin Luther King Jr. Way, Oakland, CA 94607, December 22, 2006

Ceres Associates, Soil and Groundwater Investigation Report, June 8, 2006

Helley, E.J., et al, *Quaternary Geology of Alameda County and Surrounding Areas, California*, 1997

LRM Consulting, Inc., Notice of Unauthorized Release and Supplemental Investigation Workplan, August 29, 2006

Norfleet Consultants, Groundwater Study and Water Supply History of the East Bay Plain, Alameda and Contra Costa Counties, CA, June 19, 1998

Terra Firma, Findings of Environmental Subsurface Investigation, September 16, 2005

Touchstone Developments, Phase I Investigation, November 1, 1993

Distribution:

Jane and Kimball Allen (2 hard copies) 2 Lone Tree Way Mill Valley, CA 94549

Alameda County Environmental Health Services (ACEHS) (electronic) Attn: Mr. Jerry Wickham 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502

GeoTracker (electronic)

FIGURES











TABLES



Table 1 - AEI Project # 270308Monitoring Well Construction Details

Well ID	Date	Top of	Well Box	Well	Slotted	Slot	Sand	Sand	Bentonite	Grout
	Installed	Casing	Rim	Depth	Casing	Size	Interval	Size	Interval	Interval
		Elevation	Elevation							
		(ft amsl)	(ft amsl)	(ft)	(ft)	(in)	(ft)		(ft)	(ft)
MW-1	08/10/07	14.92	-	18.0	8 - 18	0.010	7 - 18	# 2/12	7 - 8	0.75 - 7
MW-2	08/10/07	15.27	-	17.0	7 - 17	0.010	6 - 17	# 2/12	6 - 7	0.75 - 6
MW-3	08/10/07	15.26	-	18.0	8 - 18	0.010	7 - 18	# 2/12	7 - 8	0.75 - 7
Notes:										
ft amsl = feet	above mean se	a level								

Well ID	Date	Well	Depth to	Groundwater
(Screen Interval)	Collected	Elevation	water	Elevation
		(ft amsl)	(ft)	(ft amsl)
MW-1	8/21/2007	14.92	8.38	6.54
(8 - 18)	11/21/2007	14.92	8.37	6.55
MW-2	8/21/2007	15.27	8.78	6.49
(7 - 17)	11/21/2007	15.27	8.72	6.55
MW-3	8/21/2007	15.26	8.59	6.67
(8 - 18)	11/21/2007	15.26	8.55	6.71

Table 2 - AEI Project # 270308

Groundwater Elevation Data

Event #	Date	Average Water Table Elevation (ft amsl)	Change from Previous Episode (ft)	Flow Direction (gradient) (ft/ft)
1	8/21/2007	8.58	NA	0.003 / S
2	11/21/2007	8.55	-0.03	0.005 S

ft amsl = feet above mean sea level

All water level depths are measured from the top of casing

Table 3 - AEI Project # 270308

Groundwater Monitoring Sample Analytical Data

Sample ID	Date	TPHg μg/L	TPHd μg/L	MTBE µg/L	Benzene µg/L	Ethylbenzene µg/L	Toluene μg/L	Xylenes µg/L	Lead µg/L
MW-1	8/21/2007 11/21/2007	<50 <50	<50 <50	15 12	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5
MW-2	8/21/2007 11/21/2007	<50 <50	<50 <50	<5.0 <5.0	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5
MW-3	8/21/2007 11/21/2007	24,000 36,000	2,100 3,800	<180 <500	2,600 4,900	450 230	3,500 1,200	2,400 2,700	8.6 -

Notes:

TPHd = total petroleum hydrocarbons as diesel (C10-C23) using EPA Method 8015

TPHg = total petroleum hydrocarbons as gasoline (C6-C12) using EPA Method 8015

Benzene, toluene, ethylbenzene, and xylenes using EPA Method 8021B

MTBE = methyl-tertiary butyl ether using EPA Method 8021B

Lead using EPA Method E200.8

µg/L= micrograms per liter

ND<50 = non detect at respective reporting limit

APPENDIX A

MONITORING WELL FIELD SAMPLING FORMS



AEI CONSULTANTS GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-1

Project Name:	ALLEN	Date of Sampling: 11/21/2007
Job Number:	270308	Name of Sampler: A Nieto
Project Address:	235 Martin Luther King Jr way, Oakland Ca	

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")		2"	
Wellhead Condition	ОК		
Elevation of Top of Casing (feet above msl)	14.92		
Depth of Well	18.00		
Depth to Water (from top of casing)		8.37	
Water Elevation (feet above msl)	6.55		
Well Volumes Purged	3		
Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	4.6		
Actual Volume Purged (gallons)	5.0		
Appearance of Purge Water	Clear		
Free Product Present?	no Thickness (ft):		

GROUNDWATER SAMPLES

Number of Samples/Container Size							
Time	Vol Removed (gal)	Temperature (deg C)	рН	Conductivity (μ sec/cm)	DO (mg/L)	ORP (meV)	Comments
8:38	1	18.08	6.71	2,729	1.57	208.1	Clear
8:39	2	18.07	6.73	2,782	1.30	201.0	Clear
8:40	3	18.17	6.73	2,776	1.14	197.0	Clear
8:41	4	18.15	6.71	2,741	1.02	194.1	Clear
8:42	5	18.11	6.71	2,707	0.97	192.0	Clear

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Light brown with no hydrocarbon odors notes.

AEI CONSULTANTS GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-2

Project Name:	ALLEN	Date of Sampling: 11/21/2007
Job Number:	270308	Name of Sampler: A Nieto
Project Address:	235 Martin Luther King Jr way, Oakland Ca	

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")		2"	
Wellhead Condition	OK 🗸		
Elevation of Top of Casing (feet above msl)	15.27		
Depth of Well	18.52		
Depth to Water (from top of casing)		8.72	
Water Elevation (feet above msl)		6.55	
Well Volumes Purged	3		
Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	4.7		
Actual Volume Purged (gallons)	5.0		
Appearance of Purge Water	Clear		
Free Product Present?	no	Thickness (ft):	

GROUNDWATER SAMPLES

Number of Samples/Container Size							
Time	Vol Removed (gal)	Temperature (deg C)	рН	Conductivity (μ sec/cm)	DO (mg/L)	ORP (meV)	Comments
9:15	1	18.39	6.29	2,527	3.93	240.5	Clear
9:18	2	18.60	6.41	2,519	3.10	225.5	Clear
9:20	3	18.65	6.69	2,517	2.57	217.1	Clear
9:25	4	18.65	6.75	2,481	2.37	213.7	Clear
9:30	5	18.62	6.85	2,497	2.07	209.7	Clear

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Brown with no hydrocarbon odors noted.

AEI CONSULTANTS GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-3

Project Name:	ALLEN	Date of Sampling: 11/21/2007
Job Number:	270308	Name of Sampler: A Nieto
Project Address:	235 Martin Luther King Jr way, Oakland Ca	

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")		2"	
Wellhead Condition	ОК		
Elevation of Top of Casing (feet above msl)	15.26		
Depth of Well		17.56	
Depth to Water (from top of casing)	8.55		
Water Elevation (feet above msl)	6.71		
Well Volumes Purged	3		
Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	4.3		
Actual Volume Purged (gallons)	5.0		
Appearance of Purge Water	Dark Grey and clears by 0.5 gallons		
Free Product Present?	Yes / No	Thickness (ft):	

GROUNDWATER SAMPLES

Number of Sample	es/Container S	Size					
Time	Vol Removed (gal)	Temperature (deg C)	рН	Conductivity (μ sec/cm)	DO (mg/L)	ORP (meV)	Comments
9:45	1	18.35	6.56	2,143	2.01	-121.6	Clear
9:50	2	18.47	6.58	2,165	1.31	-130.2	Clear
10:00	3	18.54	6.6	2,181	0.99	-137.6	Clear
10:05	4	18.58	6.63	2,143	0.73	-141.2	Clear
10:10	5	18.58	6.65	2,043	0.61	-136.9	Clear

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Dark grey with strong petroleum odors.

APPENDIX B

LABORATORY ANALYTICAL AND CHAIN OF CUSTODY DOCUMENTATION





McCampbell Analytical, Inc.

"When Ouality 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

AEI Consultants	Client Project ID: #270308; Allen	Date Sampled: 11/21/07	
2500 Camino Diablo, Ste. #200		Date Received: 11/21/07	
Walnut Creek, CA 94597	Client Contact: Adrian Angel	Date Reported: 11/28/07	
	Client P.O.:	Date Completed: 11/28/07	

WorkOrder: 0711555

November 28, 2007

Dear Adrian:

Enclosed are:

- 1). the results of **3** analyzed samples from your **#270308; Allen project,**
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill 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 please contact me. McCampbell Analytical Laboratories strives for excellence

in quality, service and cost. Thank you for your business and I look forward to working with you again.

Best regards,

Angela Rydelius, Lab Manager

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MW-1		11/2/62	9.99	4	VIL	X			-	X			X	X			-		-		-	-	-	-	-	-	~	+	+		
MW-2		11	C15 19		1	x	+			X			x	X		-	-		-	-	+	-	-	-	-	-	-		+	<u> </u>	
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McCampbell Analytical, Inc.

AW
18 C

1534 Willow Pass Rd

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Pittsburg, CA 94565-1701 (925) 252-9262				Work	Order	: 0711	555	Client	D: AEL				
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Report to: Adrian Angel	Email:	aangel@aeico	nsultants.com		Bill to: De	enise Mo	ockel		Re	equested [·]	TAT:	5 c	days
AEI Consultants 2500 Camino Diablo, Ste. #20 Walnut Creek, CA 94597	TEL: 0 ProjectNo: PO:	(925) 283-6000 #270308; Aller	FAX: (925) 283	3-6121	AE 25 Wa dm	El Consu 00 Cam alnut Cr nockel@	ultants nino Diabl reek, CA 9 ⊉aeiconsu	o, Ste. #20 94597 ultants.con	00 Da Da n	ate Recei ate Print	ived: ed:	11/21/2 11/21/2	2007 2007
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0711555-002	MW-2	Water	11/21/07 9:12:00	А		В					
0711555-003	MW-3	Water	11/21/07 9:27:00	А		В					

Test Legend:

1 G-MBTEX_W	2 PREDF REPORT	3 TPH(D)_W	4	5
6	7	8	9	10
11	12			

Prepared by: Maria Venegas

Comments:

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



McCampbell Analytical, Inc. "When Ouality Counts"

Sample Receipt Checklist

Client Name:	AEI Consultants				Date a	and Time Received:	11/21/07	11:51:02 AM
Project Name:	#270308; Allen				Check	list completed and r	eviewed by:	Maria Venegas
WorkOrder N°:	0711555	Matrix <u>Water</u>			Carrie	r: <u>Client Drop-In</u>		
		Chain	of Cu	stody (C	OC) Informa	ition		
Chain of custody	y present?		Yes		No 🗆			
Chain of custody	y signed when relingu	shed and received?	Yes	\checkmark	No 🗆			
Chain of custody	v agrees with sample	abels?	Yes	✓	No 🗌			
Sample IDs note	d by Client on COC?		Yes	\checkmark	No 🗆			
Date and Time o	f collection noted by Cl	ient on COC?	Yes	✓	No 🗆			
Sampler's name	noted on COC?		Yes	✓	No 🗆			
		<u>S:</u>	ample	Receipt	Information	<u>l</u>		
Custody seals in	tact on shipping conta	iner/cooler?	Yes		No 🗆		NA 🔽	
Shipping contain	er/cooler in good cond	lition?	Yes	✓	No 🗆			
Samples in prop	er containers/bottles?		Yes	✓	No 🗆			
Sample containe	ers intact?		Yes	\checkmark	No 🗆			
Sufficient sample	e volume for indicated	test?	Yes	✓	No 🗌			
		Sample Prese	rvatio	n and Ho	old Time (HT)) Information		
					···			
All samples rece	ived within holding tim	e?	Yes	V	No 🛄		_	
Container/Temp	Blank temperature		Coole	er Temp:	14.6°C		NA	
Water - VOA via	Ils have zero headspa	ce / no bubbles?	Yes	✓	No 🗆	No VOA vials subm	itted	
Sample labels c	hecked for correct pre	servation?	Yes	✓	No 🗌			
TTLC Metal - pH	acceptable upon rece	ipt (pH<2)?	Yes		No 🗆		NA 🗹	

Client contacted:

Date contacted:

Contacted by:

Comments:

	McCampbell	Analy	ical, Inc	<u>.</u>	1534 W Web: www.1 Telep	'illow Pass Road, l nccampbell.com hone: 877-252-92	Pittsburg, CA 94565 E-mail: main@mcca 62 Fax: 925-252-9	5-1701 mpbell.com 9269		
AEI C	Consultants		Client Proj	ect ID: #	270308; Allen		Date Sample	ed: 11/21/07		
2500 0	Camino Diablo, Ste. #200						Date Receiv	ed: 11/21/07		
Walni	it Creek CA 94597		Client Cor	ntact: Ad	drian Angel Date Extracted: 11/26/07-1					
vv ann	n Cleek, CA 94397		Client P.O	.:			Date Analyz	ed 11/26/07	-11/27/	/07
Extracti	Gasolin on method SW5030B	EX and MTBE	* Work Order	r: 0711	.555					
Lab ID	Client ID	Matrix	TPH(g)	MTBI	E Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-1	W	ND	12	ND	ND	ND	ND	1	98
002A	MW-2	W	ND	ND	ND	ND	ND	ND	1	105
003A	MW-3	W	36,000,a	ND<50	00 4900	1200	230	2700	100	112
Rep	porting Limit for DF =1;	W	50	5.0	0.5	0.5	0.5	0.5	1	μg/L
ND at	means not detected at or	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request; p) see attached narrative.



	CCampbell Analyti	<u>cal, Inc.</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								
AEI Consulta	ants	Client Project ID:	#270308; Allen	Date Sampled: 11/21/	/07						
2500 Camino	Diablo, Ste. #200			Date Received: 11/21/	1/07						
Walnut Creek	. CA 94597	Client Contact:	Adrian Angel	Date Extracted: 11/21/	07						
	,	Client P.O.:	Date Analyzed 11/22/07-11/26/								
	Diesel Rang	ge (C10-C23) Extr	actable Hydrocarbons a								
Extraction method	SW3510C	Analytica	methods SW8015C	Work Or	der: 07	11555					
	Client ID	Matrix	IPH(d	DF	% 55						
0711555-001B	MW-1	W	ND	1	87						
0711555-002B	MW-2	W	ND		1	80					
0711555-003B	MW-3	W	3800,d,	1	99						

Reporting Limit for $DF = 1$;	W	50	µg/L
ND means not detected at or above the reporting limit	S	NA	NA

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

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range/jet fuel range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit.





"When Ouality Counts"

QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0711555

EPA Method SW8021B/8015Cm	Extra	ction SW	5030B		Ва	tchID: 32	033	Spiked Sample ID: 0711536-001A						
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acc	eptance	e Criteria (%)	1		
, indigite	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD		
TPH(btex ^f)	ND	60	79.7	78.3	1.84	104	98.1	5.83	70 - 130	30	70 - 130	30		
MTBE	ND	10	84.6	89	5.04	93.7	96.8	3.27	70 - 130	30	70 - 130	30		
Benzene	ND	10	96.6	99.3	2.72	94	103	9.16	70 - 130	30	70 - 130	30		
Toluene	ND	10	93.7	96.5	2.83	104	112	7.64	70 - 130	30	70 - 130	30		
Ethylbenzene	ND	10	98.1	100	2.35	102	105	3.12	70 - 130	30	70 - 130	30		
Xylenes	ND	30	92.3	95.7	3.55	113	113	0	70 - 130	30	70 - 130	30		
%SS:	91	10	99	102	3.34	89	96	7.95	70 - 130	30	70 - 130	30		
All target compounds in the Method E NONE	Blank of this	extraction	batch we	ere ND les	ss than the	method F	L with th	e following	exceptions:					

BATCH 32033 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0711555-001A	11/21/07 9:22 AM	11/27/07	11/27/07 3:41 AM	0711555-002A	11/21/07 9:12 AM	11/26/07	11/26/07 1:50 AM
0711555-003A	11/21/07 9:27 AM	11/26/07	11/26/07 3:19 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.

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

cluttered chromatogram; sample peak coelutes with surrogate peak.





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QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder 0711555

EPA Method SW8015C	Extraction SW3510C				BatchID: 32014			Spiked Sample ID: N/A				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			1
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(d)	N/A	1000	N/A	N/A	N/A	107	98.7	7.88	N/A	N/A	70 - 130	30
%SS:	N/A	2500	N/A	N/A	N/A	91	86	4.92	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 32014 SUMMARY									
Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed		
0711555-001B	11/21/07 9:22 AM	11/21/07	11/26/07 7:01 PM	0711555-002B	11/21/07 9:12 AM	11/21/07	11/22/07 7:41 AM		
0711555-003B	11/21/07 9:27 AM	11/21/07	11/26/07 9:19 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 / 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.



A QA/QC Officer