

May 19, 2008

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3:17 pm, May 20, 2008

Alameda County
Environmental Health

**GROUNDWATER SAMPLING REPORT
10-INCH WATER WELL
FORMER CARNATION FACILITY**

1310 14th Street
Oakland, California

AEI Project No. 277205
ACEH Case No. RO00018

Prepared For

Mr. Mark Hall
Hall Equities for
Encinal 14th Street, LLC
18550 Olympic Boulevard, #250
Walnut Creek, CA 94596

Prepared By

AEI Consultants
2500 Camino Diablo
Walnut Creek, California 94597
(925) 944-2899

AEI

1.0 INTRODUCTION

AEI Consultants (AEI) has been retained by Encinal 14th Street, LLC represented by Mark Hall, Hall Equities Walnut Creek, California to provide environmental engineering and consulting services related to ongoing environmental concerns at the former Carnation Dairy Facility located at 1310 14th Street, Oakland, California (Figure 1). The ongoing investigation and mitigation of the release is being performed under the direction of the Alameda County Environmental Health Department (ACEH) Local Oversight Program (LOP).

AEI has prepared this report summarizing the results of analysis of a groundwater sample for the deep well discovered onsite during demolition activities in 2007. This sampling was done in support of the request by Encinal 14th Street, LLC, Alameda County, California (Figure 1) for site closure for portion of the site outside of the Nestle deed restricted northwest quadrant of the site.

2.0 SITE DESCRIPTION & HISTORY

The approximately 6-acre site is located at 1310 Fourteenth Street in a mixed commercial and residential area. It is bounded to the north by Sixteenth Street and commercial properties, to the east by Poplar Street and commercial properties, to the west by Mandela Parkway and residences, and to the south Fourteenth Street and commercial properties (Figure 1). The site is currently owned by Encinal 14th Street, LLC. The dairy facility was originally owned by American Creamery and was constructed in 1915. Carnation purchased the facility in 1929. Several additions and improvements to the buildings were made between 1946 and 1973 to meet operation requirements. The Nestlé USA, Inc most recently owned the site after its acquisition of Carnation.

3.0 WATER WELL

An unidentified water well was found in the underground vault adjacent to the bunker oil tank T-1 (Figure 2). The well consisted of a 10-inch diameter casing with approximately 150 feet of 4-inch production casing and pump. A review of California Department of Water Resources (DWR), which was included in the site summary report, found no record of this well. The only deep well included in the well driller's reports was a well located to the north and east in DeFremery Park. According to the driller's log, this well contained a well developed water sand at a depth of approximately 45 feet bgs.

Based on this data AEI proposed the following scope of sampling which was approved by the ACEH.

1. Purge 100 gallons of water from a depth of 45 feet bgs using a 12 volt submersible pump
2. Collect a groundwater sample from 45 feet bgs using the submersible pump.

3. Analyze the Groundwater sample for Total Petroleum Hydrocarbons Multi-range (gasoline, diesel, and bunker oil) and Volatile Organic Compounds by method 8260.

4.0 GROUNDWATER SAMPLING

On May 7, 2008, AEI de-watered the T-1 excavation to allow access to the well. The 10-inch casing was broken/rusted off at a depth of approximately 7 feet below the top of the casing, approximately 4 feet below the top groundwater. The excavation was deepened to the top of solid casing and a section of 12-inch steel casing set over the top of the 10-inch casing by Martell Well Services (C-57 #510952) of Pittsburg, CA. The 12-inch casing was plumbed and then driven approximately 1-foot down over the top of the 10-inch casing. The excavation was then backfilled to above the top of the groundwater to allow access to the well for destruction at a future date under supervision of the Alameda County Public Works Agency, Water Resources Department.

A groundwater sample was collected from the well on May 9, 2008. The well was purged using a 12 volt submersible pump placed at a depth of 45 feet below the top of the casing. 100 gallons of water were purged at an average rate of 1.78 gallons per minute. Groundwater parameters of temperature, pH, specific conductivity, dissolved oxygen (DO), and oxidation-reduction potential (ORP) were measured during purging. A visual evaluation of turbidity was made and noted. Groundwater measurements recorded in the field are reported on the field sampling forms presented in Appendix A. Three (3) 40-milliliter VOAs and two (2) 1-liter amber bottles of groundwater were collected, labeled and transported to McCampbell Analytical, Inc. of Pittsburg, California (Department of Health Services Certification #1644). The groundwater samples were analyzed for volatile organic compounds (VOCs) by method 8260B and multi-range hydrocarbons (TPH-g, TPH-d, TPH-mo, and TPH-bo) by methods SW 8015CM, SW 8015C.

5.0 FINDINGS

TPH-g, TPH-d, TPH-mo, and TPH-bo were all reported as non detectable at detection limits of 50 µg/l, 50 µg/l, 250 µg/l, and 100 µg/l, respectively. Analysis for VOCs reported Methyl-tert-butyl ether (MTBE) at a concentration of 11 µg/l. All other VOCs were reported as non-detectable at their respective detection limits. A copy of the analytical report is attached in Appendix A.

6.0 CONCLUSIONS & RECOMMENDATION

The MTBE concentration reported in the groundwater sample from the well is below the RWQCB risk based screening level for drinking water or 13 µg/l (Table F-3 – Interim Final – Nov. 2007).

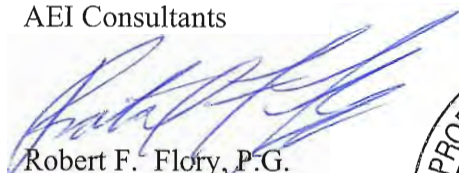
AEI believes no further action is necessary in regard to impact to groundwater in the 10-inch water well at the subject site.

7.0 CLOSING STATEMENT AND SIGNATURE

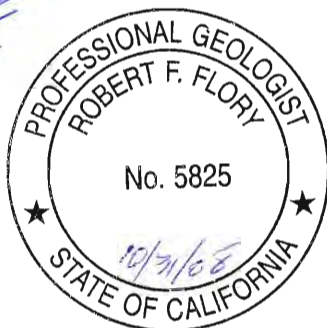
The recommendations and conclusions rendered in this report were based on previous field investigations and laboratory testing of soil and groundwater samples. All specified work was performed in accordance with generally accepted practices in environmental engineering, engineering geology, and hydrogeology fields under the direction of appropriate registered professional(s).

We look forward to hearing your comments regarding this report. Should you have any questions or need any additional information, please contact me at (925) 944-2899.

Sincerely,
AEI Consultants



Robert F. Flory, P.G.
Senior Project Geologist

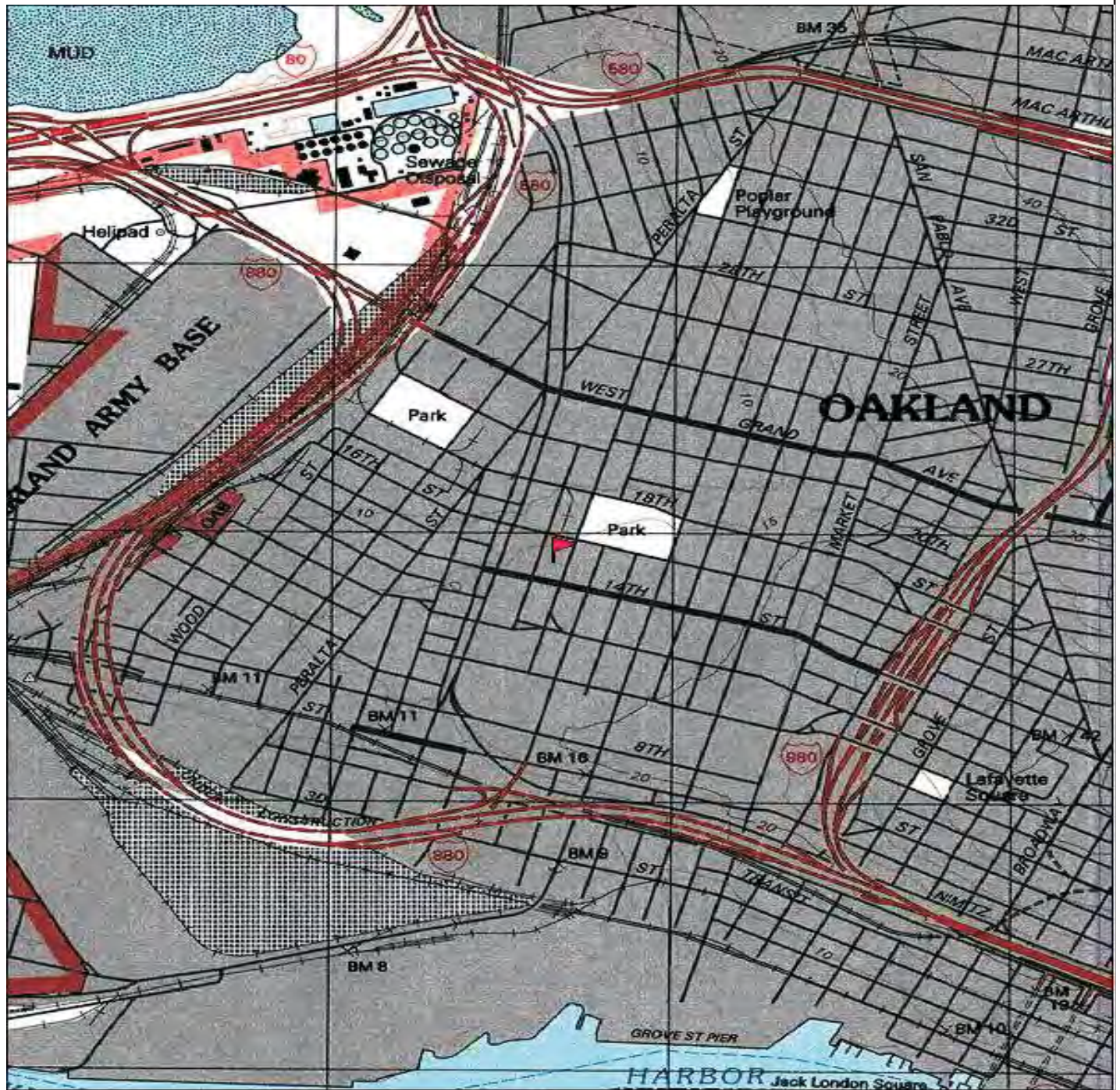


Distribution:

Mark Hall (electronic)
Encinal 14th Street, LLC
1855 Olympic Boulevard, # 250, Walnut creek, CA 94596

Jerry Wickham (electronic)
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502

FIGURES



Map created with TOPO!® ©2003 National Geographic (www.nationalgeographic.com topo)

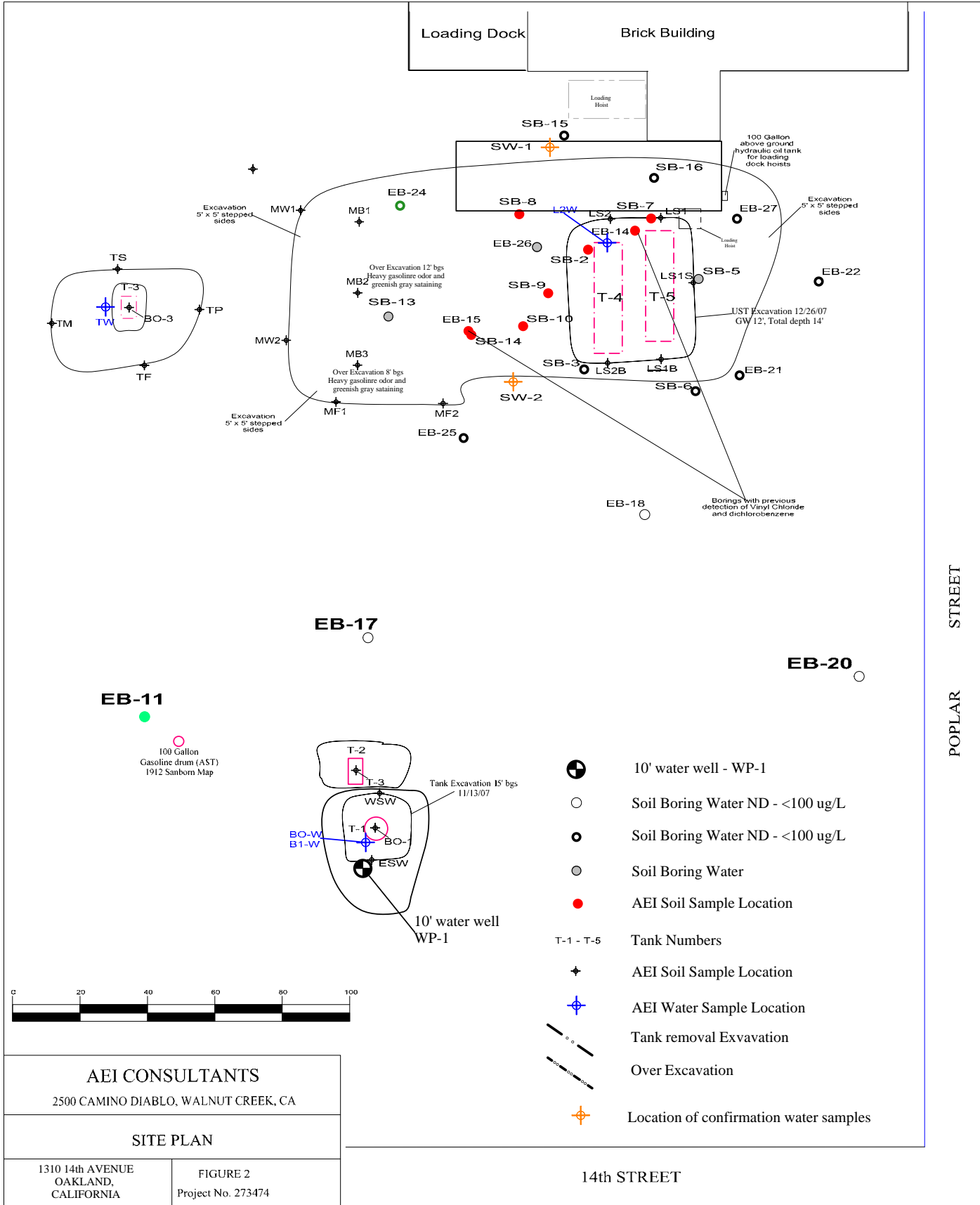
AEI CONSULTANTS

2500 Camino Diablo, Walnut Creek, CA 94597

SITE LOCATION PLAN

1310 14th Street
Oakland, California

FIGURE 1
Job No: 277205



APPENDIX A

Attachments

AEI CONSULTANTS

Monitoring Well Number: WP-1

Project Name:	Former Carnation Site - Encinal	Date of Sampling:	5/9/2008
Job Number:	273474	Name of Sampler:	RFF
Project Address:	1310 14th Street, Oakland, CA		

MONITORING WELL DATA

Well Casing Diameter	10-inches		
Wellhead Condition	10 feet of 12-inch casing set over broken end of 10-inch		
Depth of Well (feet)	150		
Depth to Water (feet from top of casing) Pre-purge	4.25	@ (Time)	1225
Depth to Water (feet from top of casing) Post-purge	4.28	@ (Time)	1329
Sample time	1330		
Sample ID	WP-1		
Appearance of Purge Water	Clear		
Free Product Present?	No	Thickness (ft):	----

GROUNDWATER SAMPLES

Number of Samples/Container Size				3 VOAs, 2 Amber			
Time	Vol Removed (gallons)	Temperature (deg C)	pH	Conductivity (µS/cm)	DO (mg/L)	ORP (meV)	Comments
1230	0						
1233	5	24.11	7.10	461	4.25	311	Slightly milky
1237	10	24.02	7.00	485	3.12	309	
1240	15	23.87	6.98	476	2.78	305	Slightly silty
1243	20	23.91	6.97	461	1.98	301	
1246	25	23.78	6.92	453	1.80	291	Clear
1249	30	23.82	6.96	439	1.86	286	
1252	35	23.70	6.95	425	1.82	250	
1255	40	23.61	6.95	431	1.80	238	
1258	45	23.63	6.94	438	1.84	221	
1301	50	23.65	6.94	431	1.83	210	
1304	55	23.72	6.94	425	1.75	198	
1304	60	23.68	6.93	420	1.79	190	
1307	65	23.71	6.91	425	1.71	189	
1310	70	23.75	6.90	435	1.70	190	
1313	75	23.72	6.88	421	1.72	189	
1316	80	23.69	6.89	427	1.76	188	
1319	85	23.67	6.87	425	1.54	188	
1322	90	23.68	6.88	428	1.67	187	
1325	95	23.70	6.89	427	1.66	189	
1328	100	23.68	6.88	429	1.67	191	Clear
1330	Sample						

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

Pump depth - 45 feet



McC Campbell Analytical, Inc.

"When Quality Counts"

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

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #273474; Carnation	Date Sampled: 05/09/08
		Date Received: 05/09/08
	Client Contact: Robert Flory	Date Reported: 05/15/08
	Client P.O.:	Date Completed: 05/14/08

WorkOrder: 0805261

May 15, 2008

Dear Robert:

Enclosed within are:

- 1) The results of the **1** analyzed sample from your project: **#273474; Carnation,**
- 2) A QC report for the above sample,
- 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

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McC Campbell Analytical, Inc.

085241

RUSH

5 day per email

McCampbell Analytical, Inc.
 1534 WILLOW PASS ROAD
 PITTSBURG, CA 94565-1701
 Telephone: (925) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD
TURN AROUND TIME RUSH 24 HR 48 HR 72 HR 5 DAY
 GeoTracker EDF PDF Excel Write On (DW)

Report To: Robert Flory Bill To: AEI Consultants
 Company: AEI Consultants
 2500 Camino Diablo
 Walnut Creek, CA 94597 E-Mail: rflory@aeiconsultants.com
 Tel: (925) 944-2899, extension 122 Fax: (925) 944-2895
 Project #: 273474 Project Name: Carnation
 Project Location: 1310 1th Street, Oakland, California
 Sampler Signature:

Analysis Request										Other	Comments				
BTEX & TPH as Gas (602/8020 + 8015)/MTBE	TPH Multirange (8015) -g, -d, -bo, -mo	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	VOCs EPA 8260	BTEX ONLY (EPA 602 / 8020)	Pesticides EPA 608 / 8080	PCBs EPA 608 / 8080	EPA 624 / 8260 (9) Oxygenates & scavengers	EPA 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals	LUFT 5 Metals	Lead (7240/7421/239.2/6010)		Filter Samples for Metals Analysis: Yes / No
WP-1	WP-1	5/9/08	1330	3	3										

Relinquished By: Date: 5/9/08 Time: 2:38 PM Received By: Date: Time: Received By:
 Relinquished By: Date: Time: Received By:
 Relinquished By: Date: Time: Received By:

ICE/t° 72:
 GOOD CONDITION
 HEAD SPACE ABSENT
 DECHLORINATED IN LAB
 PRESERVATION APPROPRIATE
 CONTAINERS
 PERSERVED IN LAB
 VOCS O&G METALS OTHER

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
 Pittsburg, CA 94565-1701
 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0805261

ClientCode: AEL

WriteOn
 EDF
 Excel
 Fax
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:	Robert Flory	Email: rflory@aeiconsultants.com	Bill to:	Denise Mockel	Requested TAT:	5 days
	AEI Consultants	cc:		AEI Consultants	Date Received:	05/09/2008
	2500 Camino Diablo, Ste. #200	PO:		2500 Camino Diablo, Ste. #200	Date Printed:	05/09/2008
	Walnut Creek, CA 94597	ProjectNo: #273474; Carnation		Walnut Creek, CA 94597		
	(925) 283-6000 FAX (925) 283-6121			dmockel@aeiconsultants.com		

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
0805261-001	WP-1	Water	5/9/2008 13:30	<input type="checkbox"/>	B	A	A										

Test Legend:

1	8260B_W	2	G-MBTEX_W	3	PREDF REPORT	4		5	
6		7		8		9		10	
11		12							

The following SampID: 001A contains testgroup.

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.



Sample Receipt Checklist

Client Name: **AEI Consultants** Date and Time Received: **5/9/08 3:17:37 PM**
 Project Name: **#273474; Carnation** Checklist completed and reviewed by: **Melissa Valles**
 WorkOrder N°: **0805261** Matrix Water Carrier: Client Drop-In

Chain of Custody (COC) Information

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

Sample Receipt Information

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

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes No
 Container/Temp Blank temperature Cooler Temp: 7.2°C NA
 Water - VOA vials have zero headspace / no bubbles? Yes No No VOA vials submitted
 Sample labels checked for correct preservation? Yes No
 TTLC Metal - pH acceptable upon receipt (pH<2)? Yes No NA

Client contacted: Date contacted: Contacted by:

Comments:



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AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #273474; Carnation	Date Sampled: 05/09/08
		Date Received: 05/09/08
	Client Contact: Robert Flory	Date Extracted: 05/12/08
	Client P.O.:	Date Analyzed 05/12/08

Volatile Organics by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0805261

Lab ID	0805261-001B
Client ID	WP-1
Matrix	Water

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND	1.0	10	tert-Amyl methyl ether (TAME)	ND	1.0	0.5
Benzene	ND	1.0	0.5	Bromobenzene	ND	1.0	0.5
Bromochloromethane	ND	1.0	0.5	Bromodichloromethane	ND	1.0	0.5
Bromoform	ND	1.0	0.5	Bromomethane	ND	1.0	0.5
2-Butanone (MEK)	ND	1.0	2.0	t-Butyl alcohol (TBA)	ND	1.0	2.0
n-Butyl benzene	ND	1.0	0.5	sec-Butyl benzene	ND	1.0	0.5
tert-Butyl benzene	ND	1.0	0.5	Carbon Tetrachloride	ND	1.0	0.5
Carbon Disulfide	ND	1.0	0.5	Chlorobenzene	ND	1.0	0.5
Chloroethane	ND	1.0	0.5	Chloroform	ND	1.0	0.5
Chloromethane	ND	1.0	0.5	2-Chlorotoluene	ND	1.0	0.5
4-Chlorotoluene	ND	1.0	0.5	Dibromochloromethane	ND	1.0	0.5
1,2-Dibromo-3-chloropropane	ND	1.0	0.2	1,2-Dibromoethane (EDB)	ND	1.0	0.5
Dibromomethane	ND	1.0	0.5	1,2-Dichlorobenzene	ND	1.0	0.5
1,3-Dichlorobenzene	ND	1.0	0.5	1,4-Dichlorobenzene	ND	1.0	0.5
Dichlorodifluoromethane	ND	1.0	0.5	1,1-Dichloroethane	ND	1.0	0.5
1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.5	1,1-Dichloroethene	ND	1.0	0.5
cis-1,2-Dichloroethene	ND	1.0	0.5	trans-1,2-Dichloroethene	ND	1.0	0.5
1,2-Dichloropropane	ND	1.0	0.5	1,3-Dichloropropane	ND	1.0	0.5
2,2-Dichloropropane	ND	1.0	0.5	1,1-Dichloropropene	ND	1.0	0.5
cis-1,3-Dichloropropene	ND	1.0	0.5	trans-1,3-Dichloropropene	ND	1.0	0.5
Diisopropyl ether (DIPE)	ND	1.0	0.5	Ethylbenzene	ND	1.0	0.5
Ethyl tert-butyl ether (ETBE)	ND	1.0	0.5	Freon 113	ND	1.0	10
Hexachlorobutadiene	ND	1.0	0.5	Hexachloroethane	ND	1.0	0.5
2-Hexanone	ND	1.0	0.5	Isopropylbenzene	ND	1.0	0.5
4-Isopropyl toluene	ND	1.0	0.5	Methyl-t-butyl ether (MTBE)	11	1.0	0.5
Methylene chloride	ND	1.0	0.5	4-Methyl-2-pentanone (MIBK)	ND	1.0	0.5
Naphthalene	ND	1.0	0.5	n-Propyl benzene	ND	1.0	0.5
Styrene	ND	1.0	0.5	1,1,1,2-Tetrachloroethane	ND	1.0	0.5
1,1,2,2-Tetrachloroethane	ND	1.0	0.5	Tetrachloroethene	ND	1.0	0.5
Toluene	ND	1.0	0.5	1,2,3-Trichlorobenzene	ND	1.0	0.5
1,2,4-Trichlorobenzene	ND	1.0	0.5	1,1,1-Trichloroethane	ND	1.0	0.5
1,1,2-Trichloroethane	ND	1.0	0.5	Trichloroethene	ND	1.0	0.5
Trichlorofluoromethane	ND	1.0	0.5	1,2,3-Trichloropropane	ND	1.0	0.5
1,2,4-Trimethylbenzene	ND	1.0	0.5	1,3,5-Trimethylbenzene	ND	1.0	0.5
Vinyl Chloride	ND	1.0	0.5	Xylenes	ND	1.0	0.5

Surrogate Recoveries (%)

%SS1:	106	%SS2:	99
%SS3:	103		

Comments:

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

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

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; J) analyte detected below quantitation limits; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative; q) reported in ppm.



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AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #273474; Carnation	Date Sampled: 05/09/08
	Client Contact: Robert Flory	Date Received: 05/09/08
	Client P.O.:	Date Extracted: 05/13/08
		Date Analyzed: 05/13/08

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*

Extraction method SW5030B

Analytical methods SW8015Cm

Work Order: 0805261

Lab ID	Client ID	Matrix	TPH(g)	DF	% SS
001A	WP-1	W	ND	1	102

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

* 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 McC Campbell 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.



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AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #273474; Carnation	Date Sampled: 05/09/08
	Client Contact: Robert Flory	Date Received: 05/09/08
	Client P.O.:	Date Analyzed: 05/15/08
		Date Extracted: 05/09/08

Total Extractable Petroleum Hydrocarbons*

Extraction method SW3510C

Analytical methods SW8015C

Work Order: 0805261

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	TPH-Motor Oil (C18-C36)	TPH-Bunker Oil (C10-C36)	DF	% SS
001A	WP-1	W	ND	ND	ND	1	95

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	50	250	100	µg/L
	S	NA	NA	NA	mg/Kg

* water samples are reported in µg/L, wipe samples in µg/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 µg/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 McC Campbell 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 (cooking oil?); h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) kerosene/kerosene range; l) bunker oil range (?); no recognizable pattern; m) fuel oil; n) stoddard solvent/mineral spirits; p) see attached narrative.



QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0805261

Analyte	EPA Method SW8260B		Extraction SW5030B			BatchID: 35516			Spiked Sample ID: 0805270-007B			
	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
tert-Amyl methyl ether (TAME)	ND	10	116	116	0	106	104	1.56	70 - 130	30	70 - 130	30
Benzene	ND	10	109	109	0	103	101	2.39	70 - 130	30	70 - 130	30
t-Butyl alcohol (TBA)	ND	50	103	104	1.17	106	107	0.626	70 - 130	30	70 - 130	30
Chlorobenzene	ND	10	103	102	1.25	96.6	93.4	3.41	70 - 130	30	70 - 130	30
1,2-Dibromoethane (EDB)	ND	10	109	110	1.17	98.6	96.6	1.98	70 - 130	30	70 - 130	30
1,2-Dichloroethane (1,2-DCA)	ND	10	120	120	0	127	123	3.04	70 - 130	30	70 - 130	30
1,1-Dichloroethene	ND	10	93.2	94.3	1.14	93.9	92.4	1.67	70 - 130	30	70 - 130	30
Diisopropyl ether (DIPE)	ND	10	101	100	0.629	93.7	91.3	2.63	70 - 130	30	70 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	10	112	112	0	107	105	1.78	70 - 130	30	70 - 130	30
Methyl-t-butyl ether (MTBE)	ND	10	110	110	0	120	115	3.88	70 - 130	30	70 - 130	30
Toluene	ND	10	95.1	95.2	0.00964	83.3	81.5	2.19	70 - 130	30	70 - 130	30
Trichloroethene	ND	10	101	101	0	94	93	1.03	70 - 130	30	70 - 130	30
%SS1:	107	10	101	101	0	103	102	1.30	70 - 130	30	70 - 130	30
%SS2:	99	10	99	98	0.402	96	96	0	70 - 130	30	70 - 130	30
%SS3:	101	10	101	102	0.556	92	91	1.47	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 35516 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0805261-001B	05/09/08 1:30 PM	05/12/08	05/12/08 3:24 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.

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



QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0805261

EPA Method SW8021B/8015Cm	Extraction SW5030B			BatchID: 35512			Spiked Sample ID: 0805246-006A					
	Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) [£]	ND	60	96.6	94.5	2.17	96.1	81	17.1	70 - 130	20	70 - 130	20
MTBE	ND	10	98.7	97.1	1.65	108	95.3	12.6	70 - 130	20	70 - 130	20
Benzene	ND	10	89.3	88.4	1.02	92.1	96.3	4.43	70 - 130	20	70 - 130	20
Toluene	ND	10	80.5	82.7	2.72	89.6	91.4	1.93	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	88.6	88.9	0.340	89.9	91.5	1.79	70 - 130	20	70 - 130	20
Xylenes	ND	30	88.1	87.7	0.459	80.7	80.8	0.0571	70 - 130	20	70 - 130	20
%SS:	95	10	98	95	3.49	103	111	6.64	70 - 130	20	70 - 130	20

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

BATCH 35512 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0805261-001A	05/09/08 1:30 PM	05/13/08	05/13/08 6:16 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.

£ 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.



QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0805261

EPA Method SW8015C		Extraction SW3510C			BatchID: 35538			Spiked Sample ID: N/A				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH-Diesel (C10-C23)	N/A	1000	N/A	N/A	N/A	106	112	6.05	N/A	N/A	70 - 130	30
%SS:	N/A	2500	N/A	N/A	N/A	105	100	4.84	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 35538 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0805261-001A	05/09/08 1:30 PM	05/09/08	05/15/08 7:04 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.