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*By dehloptoxic at 2:13 pm, Mar 01, 2007*



March 1, 2007

Alameda County Environmental Health Services  
Environmental Protection  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577  
Attn: Jerry Wickham

**RE: Soil Vapor Sampling at Cargill Salt Alameda Facility, 2016 Clement Avenue,  
Alameda, California, SLIC Case No. RO0002480**

Dear Mr. Wickham,

The attached report was prepared to respond to your November 29, 2006 letter request to submit a soil vapor sampling report. The attached report was prepared by Crawford Consulting, Inc. for Cargill Salt.

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached report are true and correct to the best of my knowledge.

Should you have any questions concerning the attached report, please don't hesitate to call me at (510) 790-8625.

Sincerely,

A handwritten signature in black ink, appearing to read "Teri Peterson".

Teri Peterson  
Environmental Manager



CRAWFORD  
CONSULTING  
INC.

February 28, 2007  
Project No. CS1605

Teri Peterson  
Cargill Salt  
7220 Central Avenue  
Newark, CA 94560-4206

Re: Soil Vapor Sampling at Cargill Salt Alameda Facility, 2016 Clement Avenue,  
Alameda, California, SLIC Case No. RO0002480

Dear Teri:

This letter report presents the results of soil vapor sampling conducted at the Cargill Salt Alameda Facility located at 2016 Clement Avenue in Alameda, California (see Figure 1).

Groundwater characterization and monitoring programs at the site have shown that groundwater beneath the site has been impacted by volatile organic compounds (VOCs), primarily tetrachloroethene (PCE) and its breakdown product, trichloroethene (TCE). PCE is present at concentrations in groundwater that exceed Environmental Screening Levels (ESLs) established by the California Regional Water Quality Control Board – San Francisco Bay Region (RWQCB) for evaluation of potential vapor intrusion concerns. Soil vapor sampling at the site to further evaluate the potential for indoor air intrusion was requested by Alameda County Environmental Health (ACEH) in an August 24, 2006 letter to Cargill Salt.

Plans for the soil vapor sampling were proposed in the November 8, 2006 “Work Plan for Cargill Salt Alameda Facility” prepared by Crawford Consulting, Inc. (Crawford). Alameda County Environmental Health (ACEH) approved the plans for soil vapor sampling in a November 29, 2006 letter to Cargill Salt.

Soil vapor sampling was conducted at the site on December 29, 2006. Crawford coordinated and supervised the soil vapor sampling activities. Soil vapor sampling and on-site analysis was conducted by TEG, a soil vapor sampling firm based in Rancho Cordova, California.

Field procedures and results of the soil vapor analyses are presented in this report.

## **Procedures**

### *Summary of Field Procedures*

Soil vapor samples were collected from the vadose zone at 11 on-site locations (SV-1 through SV-11, see Figure 2). Prior to conducting the field work, the probe locations were cleared for underground utilities by C. Cruz Subsurface Locators of Milpitas, California, and Underground Service Alert was notified prior to mobilizing to the site to give utility companies an opportunity to mark underground utility lines.

The soil vapor samples were collected and analyzed by TEG using temporary probes and an on-site mobile laboratory. The sampling and analysis methodologies generally followed DTSC protocols as prescribed in "Interim Final Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air, Department of Toxic Substances Control, California Environmental Protection Agency, December 15, 2004, (Revised February 7, 2005)." The following methodologies were employed:

- A purge volume optimization evaluation was performed at the first sample location.
- A 30-minute equilibrium time was used to minimize effects of subsurface disturbance.
- Leak testing was conducted using a tracer gas to test for bentonite seal leaks.
- Analysis of soil vapor samples for VOCs was by EPA Method 8260B using an on-site mobile laboratory equipped with a gas chromatograph/mass spectrophotometer (GC/MS).

Per the Work Plan, the targeted soil vapor sampling depth was one foot above the water table. The depth to groundwater in on-site groundwater monitoring wells MW-2 and MW-3 was measured to determine the current ground water elevation. Based on those measurements the targeted sampling depths were 2 to 3 feet below ground surface.

#### *Description of Sample Collection Techniques*

At all but one of the probe locations, soil vapor samples were collected from probe assemblies driven into the ground. The soil vapor probes were assembled by feeding 1/8-inch diameter nylon tubing through the center of 4-foot long sections of flushed-threaded one-inch-outer-diameter hollow steel rods. The nylon tubing was attached near the bottom of the rods with an air-tight steel fitting. A stainless-steel conical tip was inserted into the bottom of the rods that was designed to detach when the rods were retracted. The probe was then driven into the ground using an electric roto-hammer. The rods were then retracted approximately 6 to 12 inches allowing the steel tip to fall off and expose the intake end of the nylon tubing to the void space in the hole. At the ground surface, dry bentonite granules were poured around the rods to fill void space around the probe rods. The bentonite was hydrated and left undisturbed for at least 30 minutes before sampling.

The samples were collected through the nylon tubing using a graduated syringe to extract the desired volume of sample. The first probe (SV-1) was sampled and analyzed three times using three different initial purge volumes (purge volumes of 1, 3 and 7) in order to establish the sampling protocol for the rest of the probes. The purge volume resulting in the highest analytical result was then used as the purge volume for subsequent sampling. In this program, three purge volumes provided that result.

Leak testing was conducted using a tracer gas (1,1-difluoroethane) around the probe rods at each location. If the tracer gas was then detected in the chemical analysis of the soil gas sample this would have indicated that air from above the ground surface diluted the sample. No leaks were detected. New nylon tubing was used in each sample probe.

At probe location SV-9 a soil vapor sample could not be recovered using the sampling technique employed at the other locations due to clayier soil conditions. Instead, a temporary soil vapor implant was used to collect a soil vapor sample. After the probe rods were driven into the

ground they were completely removed from the ground. Nylon sample tubing with a filter at the inlet was inserted to the bottom of the hole. The hole was back filled with approximately six inches of fine sand then filled the rest of the way with granular bentonite. The bentonite was wetted and allowed to form a seal before sample collection. Soil vapor samples were withdrawn using a syringe.

After each sample was analyzed the probe was removed from the ground and the probe hole was filled with cement grout.

## Results

Results of the soil vapor analyses from the December 2006 sampling event are presented in TEG's data report (see Attachment A) and are summarized on Table 1 and Figure 2. PCE was detected at 9 of the 11 locations at concentrations of 0.23 to 2.9 micrograms per Liter ( $\mu\text{g/L}$ ) of vapor.

The shallow soil vapor ESLs established by the RWQCB<sup>1</sup> for evaluation of potential vapor intrusion concerns for PCE are 0.4  $\mu\text{g/L}$  for residential land use and 1.4  $\mu\text{g/L}$  for commercial/industrial land use. At buildings where soil-vapor screening levels for vapor intrusion concerns are approached or exceeded, the RWQCB recommends further evaluation of the need to carry out an indoor air study.

It should be noted that the soil vapor ESLs are based on a site model with certain assumed hydrogeologic conditions and assumed soil vapor/indoor air attenuation factors. This should be considered when comparing the soil vapor ESLs to results from a specific site. For example, the ESL soil vapor site model assumes a depth to groundwater of greater than 10 feet and that buildings are underlain by very permeable (e.g. sandy) fill material. At the Cargill Alameda site, the depth to groundwater is shallower (at approximately 3 to 5 feet below ground surface) and soils are silty sands, clayey sands, and sandy clays with moderate to low permeability.

Only two of the soil vapor sample concentrations exceeded the commercial/industrial soil vapor ESL threshold of 1.4  $\mu\text{g/L}$ . These concentrations (2.4 and 2.9  $\mu\text{g/L}$ ) were detected at locations (SV-1 and SV-10, respectively) near the southwestern corner of the site where the highest concentrations of PCE in groundwater have been detected. One of these of these locations (SV-10) was adjacent to a small off-site building located along the rear property line. This building is used as a laundry room for the apartments on the adjacent property.

None of the other soil vapor samples collected adjacent to or within 15 feet of a building exceeded the commercial/industrial ESL. Concentrations of PCE in soil vapor in the five samples (SV-5 through SV-9) located adjacent to or near the facility building on site ranged from not detected (at less than 0.25  $\mu\text{g/L}$ )<sup>2</sup> to 1.1  $\mu\text{g/L}$ . These five samples were collected beneath the asphalt driveway adjacent to the facility building. It should be noted that the facility building is currently vacant and there are no immediate plans for occupation or industrial activities at the building. Concentrations of PCE in soil vapor at the three locations (SV-2, SV-3, and SV-4)

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<sup>1</sup> RWQCB, Screening For Environmental Concerns At Sites With Contaminated Soil and Groundwater, Interim Final - February 2005

<sup>2</sup> As shown in TEG's data report, the standard reporting limit at a dilution factor of 1 for the samples was 0.10  $\mu\text{g/L}$ . However, due to coelution interference encountered in most of the samples, a smaller sample volume with a higher dilution factor was used for most of the samples. As shown on Table 1, the reporting limit was either 0.1 or 0.25  $\mu\text{g/L}$  for most of the samples, and was 0.5  $\mu\text{g/L}$  for sample SV-3.

adjacent to the industrial building at the sheet metal facility northwest of the subject property were 0.23  $\mu\text{g/L}$ , not detected (at less than 0.5  $\mu\text{g/L}$ ), and 0.61  $\mu\text{g/L}$ , respectively.

As discussed in the Work Plan, the potential for significant lateral migration of soil vapor in the vadose zone at the site appears limited as the vadose zone is very thin (approximately 3 to 5 feet). The results for PCE in soil vapor for soil vapor sampling locations SV-11 and SV-9, located approximately 25 and 45 feet southeast from the locations where the highest PCE soil vapor concentrations were detected (SV-1 and SV-10) were 0.33  $\mu\text{g/L}$  and not detected (at less than 0.25  $\mu\text{g/L}$ ), respectively.

Toluene and xylenes were also detected at low concentrations in the soil vapor samples from each location. These compounds are routinely detected in soil vapor sampling investigations and appear to be related to ambient background conditions. The concentrations reported for these compounds are below ESLs established by the RWQCB for evaluation of potential vapor intrusion concerns.

We recommend reviewing the results presented herein with ACEH.

Please call if you have any questions about this letter.

Sincerely,

CRAWFORD CONSULTING, INC.



Mark C. Wheeler, P.G. 4563  
Principal Geologist

Attachments: Table 1. PCE Concentrations in Soil Vapor  
Figure 1. Site Location  
Figure 2. Soil Vapor PCE Results  
Attachment A. TEG Data Report

Table 1. PCE Concentrations in Soil Vapor  
Cargill Alameda Facility

Results shown in micrograms per liter ( $\mu\text{g/L}$ ) of vapor.

												Shallow Soil Gas Screening Levels for Evaluation of Potential Vapor Intrusion Concerns <sup>1,2</sup>	
Probe ID	SV-1	SV-2	SV-3	SV-4	SV-5	SV-6	SV-7	SV-8	SV-9	SV-10	SV-11	Residential Land Use <sup>3</sup>	Commercial/Industrial Land Use
Field Date	12/29/06	12/29/06	12/29/06	12/29/06	12/29/06	12/29/06	12/29/06	12/29/06	12/29/06	12/29/06	12/29/06		
RL <sup>4</sup>	0.1	0.1	0.5	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25		
PCE <sup>5</sup>	<b>2.4</b>	<b>0.23</b>	<0.5	<b>0.61</b>	<b>0.51</b>	<b>0.91</b>	<b>1.1</b>	<b>0.63</b>	<0.25	<b>2.9</b>	<b>0.33</b>	0.4	1.4

Notes:

Bold indicates result above Reporting Limit.

<sup>1</sup> California Regional Water Quality Control Board - San Francisco Bay Region (RWQCB), Screening For Environmental Concerns At Sites With Contaminated Soil and Groundwater, February 2005, Appendix 1, Table E-2.

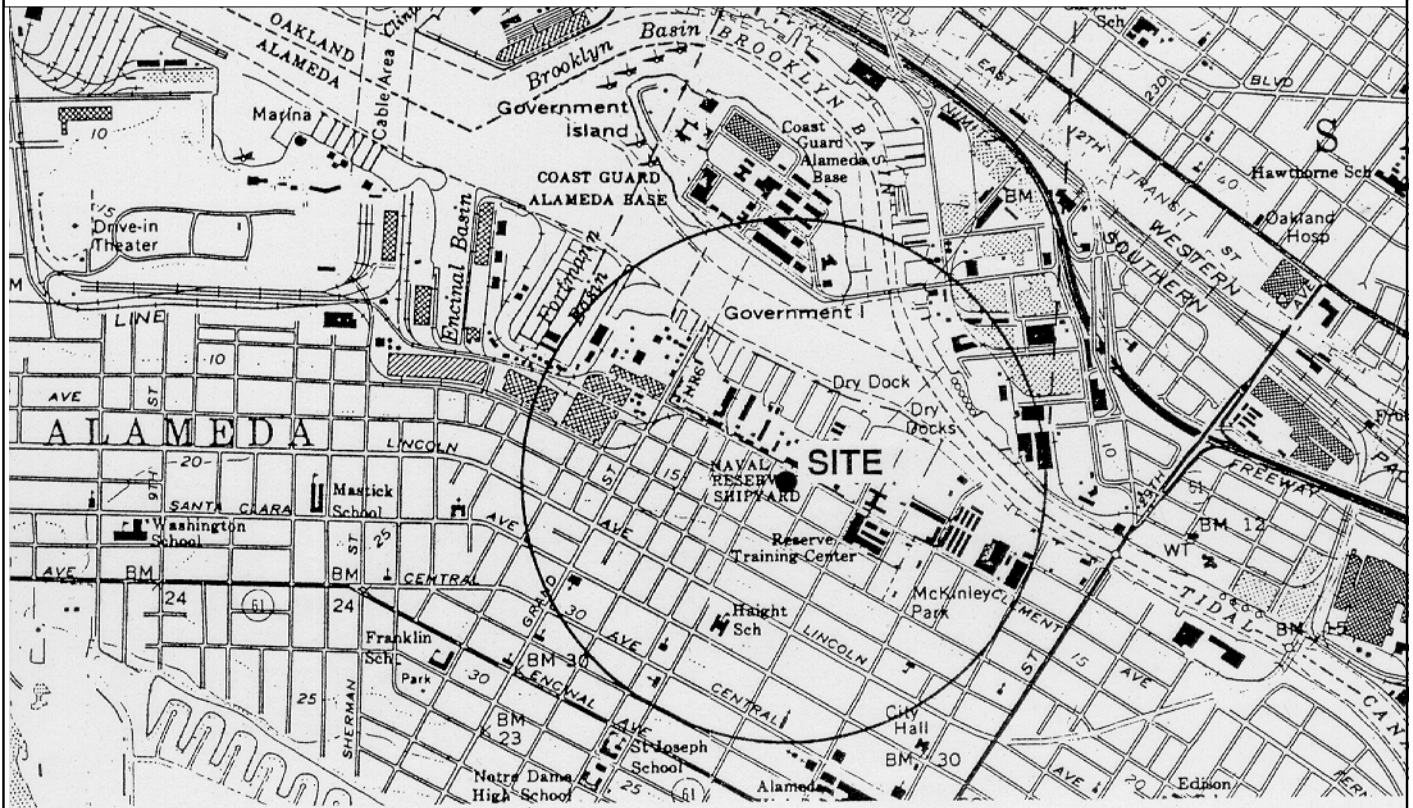
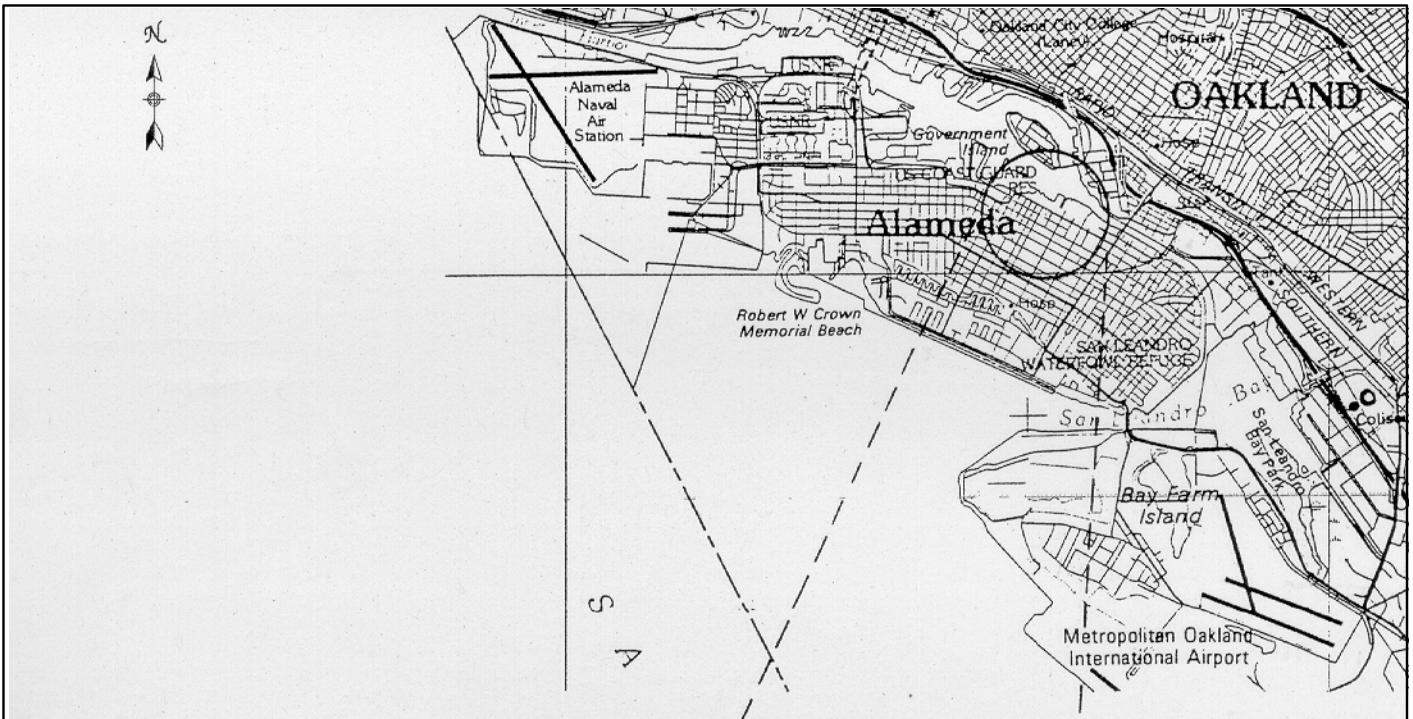
<sup>2</sup> Shallow soil gas defined as soil gas sample data collected within 1.5 meters (five feet) from a building foundation or the ground surface. The RWQCB soil gas ESLs assume that very permeable (e.g., sandy) fill material is present below building foundation or could be present below future buildings following redevelopment. The RWQCB states that assuming high permeability soils are present is appropriate for use in screening level assessments (RWQCB, 2005). As noted in the text of this report, however, soils at the Cargill Alameda site are of moderate to low permeability.

<sup>3</sup> "Residential" screening levels generally considered adequate for other sensitive uses (e.g., day-care centers, hospitals, etc.) (RWQCB, 2005).

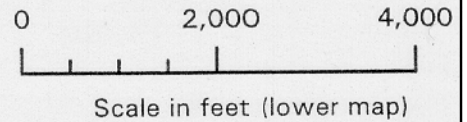
<sup>4</sup> RL = Reporting Limit

<sup>5</sup> PCE = Tetrachloroethene

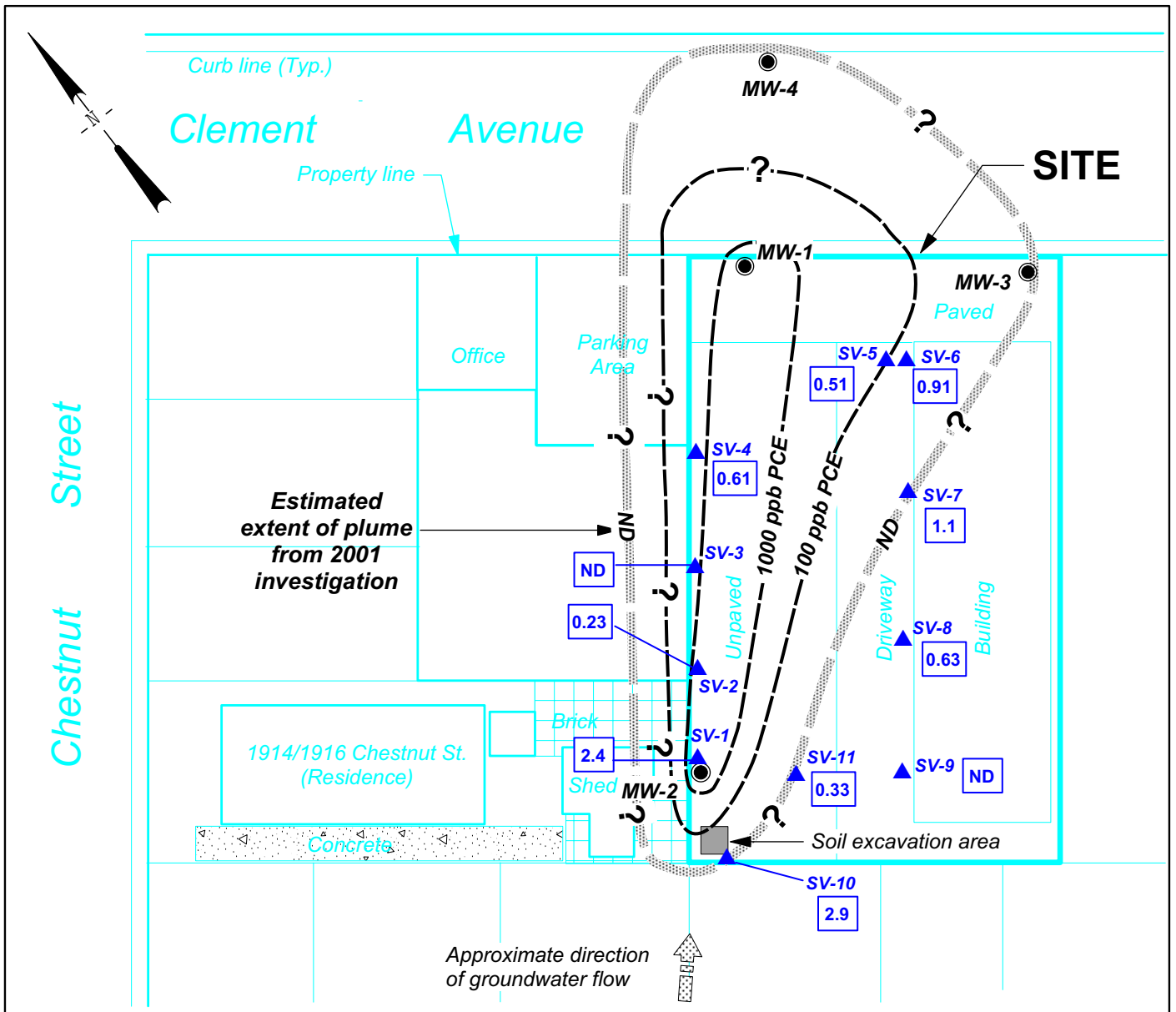
Analyses performed using Method 8260B.



Base map (upper): U.S.G.S. 1:1,000,000-scale series (Topographic)  
 San Francisco Quadrangle, California, 1978.  
 Base map (lower): U.S.G.S. 7.5 minute series (Topographic)  
 Oakland East and Oakland West Quadrangles, California,  
 1959, Photorevised 1980.

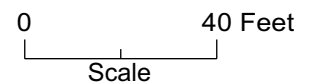


Project No. CS1605  
 Cargill Salt Dispensing Systems Division  
 2016 Clement Avenue, Alameda, California  
**Figure 1. Site Location**



**EXPLANATION**

- Monitoring well
- ▲ Soil vapor sampling location
- 0.33 Soil vapor PCE concentration in micrograms per liter; sample collected on 12/29/06.
- ND = not detected



Project No. CS1605  
 Cargill Salt Dispensing Systems Division  
 2016 Clement Avenue, Alameda, California  
**Figure 2. Soil Vapor PCE Results**



**Attachment A**  
**TEG Data Report**



19 January 2007

Mr. Mark Wheeler  
Crawford Consulting, Inc.  
2 North 1<sup>st</sup> Street, Fourth Floor  
San Jose, CA 95113

**SUBJECT: DATA REPORT - Crawford Consulting, Inc. Project #CS1605  
Cargill / Alameda, California**

**TEG Project # 61229D**

Mr. Wheeler:

Please find enclosed a data report for the samples analyzed from the above referenced project for Crawford Consulting, Inc. The samples were analyzed on site in TEG's mobile laboratory. TEG conducted a total of 14 analyses on 14 soil vapor samples.

-- 14 analyses on soil vapors for selected volatile organic hydrocarbons by EPA method 8260B.

The results of the analyses are summarized in the enclosed tables. Applicable detection limits and calibration data are included in the tables.

1,1 difluoroethane was used as a leak check compound around the probe rods during the soil vapor sampling. No 1,1 difluoroethane was detected in any of the vapor samples reported at or above the DTSC recommended leak check compound reporting limit of 10 µg/L of vapor.

TEG appreciates the opportunity to have provided analytical services to Crawford Consulting, Inc. on this project. If you have any further questions relating to these data or report, please do not hesitate to contact us.

Sincerely,

Mark Jerpbak  
Director, TEG-Northern California



Crawford Consulting, Inc. Project #CS1605  
Cargill, Alameda, California

TEG Project #61229D

EPA Method 8260B VOC Analyses of SOIL VAPOR in ug/L of Vapor

SAMPLE NUMBER:		Probe	SV-1	SV-1	SV-1	SV-2
		Blank				
SAMPLE DEPTH (feet):			3.0	3.0	3.0	3.0
PURGE VOLUME:			1	3	7	3
COLLECTION DATE:		12/29/06	12/29/06	12/29/06	12/29/06	12/29/06
COLLECTION TIME:		08:40	09:10	09:30	09:50	10:10
DILUTION FACTOR (VOCs):		1	1	1	1	1
	RL					
Dichlorodifluoromethane	0.10	nd	nd	nd	nd	nd
Vinyl Chloride	0.10	nd	nd	nd	nd	nd
Chloroethane	0.10	nd	nd	nd	nd	nd
Trichlorofluoromethane	0.10	nd	nd	nd	nd	nd
1,1-Dichloroethene	0.10	nd	nd	nd	nd	nd
1,1,2-Trichloro-trifluoroethane	0.10	nd	nd	nd	nd	nd
Methylene Chloride	0.10	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.10	nd	nd	nd	nd	nd
1,1-Dichloroethane	0.10	nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	0.10	nd	nd	nd	nd	nd
Chloroform	0.10	nd	nd	nd	nd	nd
1,1,1-Trichloroethane	0.10	nd	nd	nd	nd	nd
Carbon Tetrachloride	0.10	nd	nd	nd	nd	nd
1,2-Dichloroethane	0.10	nd	nd	nd	nd	nd
Benzene	0.10	nd	nd	nd	nd	nd
Trichloroethene	0.10	nd	nd	nd	nd	nd
<b>Toluene</b>	0.20	nd	1.0	0.38	0.37	19
1,1,2-Trichloroethane	0.10	nd	nd	nd	nd	nd
<b>Tetrachloroethene</b>	0.10	nd	1.5	2.4	1.7	0.23
Ethylbenzene	0.10	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	0.10	nd	nd	nd	nd	nd
<b>m,p-Xylene</b>	0.20	nd	0.40	0.29	0.34	1.0
<b>o-Xylene</b>	0.10	nd	0.13	nd	0.11	0.30
1,1,2,2-Tetrachloroethane	0.10	nd	nd	nd	nd	nd
1,1 Difluoroethane (leak check)	10	nd	nd	nd	nd	nd
Surrogate Recovery (DBFM)		93%	88%	81%	69%	62%
Surrogate Recovery (1,2-DCA-d4)		94%	92%	87%	71%	63%
Surrogate Recovery (Toluene-d8)		93%	88%	82%	74%	84%

'RL' Indicates reporting limit at a dilution factor of 1  
'nd' Indicates not detected at listed reporting limits

Analyses performed in TEG-Northern California's lab  
Analyses performed by: Mr. John Henkelman

page 1



Crawford Consulting, Inc. Project #CS1605  
Cargill, Alameda, California

TEG Project #61229D

EPA Method 8260B VOC Analyses of SOIL VAPOR in ug/L of Vapor

SAMPLE NUMBER:		SV-2	SV-3	SV-4	SV-5	SV-6
		dup				
SAMPLE DEPTH (feet):		3.0	3.0	3.0	3.0	3.0
PURGE VOLUME:		3	3	3	3	3
COLLECTION DATE:		12/29/06	12/29/06	12/29/06	12/29/06	12/29/06
COLLECTION TIME:		10:30	12:10	12:33	14:28	14:10
DILUTION FACTOR (VOCs):		1	5	2.5	2.5	2.5
	RL					
Dichlorodifluoromethane	0.10	nd	nd	nd	nd	nd
Vinyl Chloride	0.10	nd	nd	nd	nd	nd
Chloroethane	0.10	nd	nd	nd	nd	nd
Trichlorofluoromethane	0.10	nd	nd	nd	nd	nd
1,1-Dichloroethene	0.10	nd	nd	nd	nd	nd
1,1,2-Trichloro-trifluoroethane	0.10	nd	nd	nd	nd	nd
Methylene Chloride	0.10	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.10	nd	nd	nd	nd	nd
1,1-Dichloroethane	0.10	nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	0.10	nd	nd	nd	nd	nd
Chloroform	0.10	nd	nd	nd	nd	nd
1,1,1-Trichloroethane	0.10	nd	nd	nd	nd	nd
Carbon Tetrachloride	0.10	nd	nd	nd	nd	nd
1,2-Dichloroethane	0.10	nd	nd	nd	nd	nd
Benzene	0.10	nd	nd	nd	nd	nd
Trichloroethene	0.10	nd	nd	nd	nd	nd
<b>Toluene</b>	0.20	16	28	4.4	19	2.4
1,1,2-Trichloroethane	0.10	nd	nd	nd	nd	nd
<b>Tetrachloroethene</b>	0.10	0.13	nd	0.61	0.51	0.91
Ethylbenzene	0.10	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	0.10	nd	nd	nd	nd	nd
<b>m,p-Xylene</b>	0.20	1.2	1.5	1.1	0.75	0.87
<b>o-Xylene</b>	0.10	0.35	nd	0.37	0.26	0.29
1,1,2,2-Tetrachloroethane	0.10	nd	nd	nd	nd	nd
1,1 Difluoroethane (leak check)	10	nd	nd	nd	nd	nd
Surrogate Recovery (DBFM)		70%	79%	86%	78%	88%
Surrogate Recovery (1,2-DCA-d4)		74%	82%	86%	80%	93%
Surrogate Recovery (Toluene-d8)		93%	89%	91%	91%	88%

'RL' Indicates reporting limit at a dilution factor of 1  
'nd' Indicates not detected at listed reporting limits

Analyses performed in TEG-Northern California's lab  
Analyses performed by: Mr. John Henkelman

page 2



Crawford Consulting, Inc. Project #CS1605  
Cargill, Alameda, California

TEG Project #61229D

EPA Method 8260B VOC Analyses of SOIL VAPOR in ug/L of Vapor

SAMPLE NUMBER:		SV-7	SV-8	SV-9	SV-10	SV-11
SAMPLE DEPTH (feet):		2.5	2.0	2.0	3.0	3.0
PURGE VOLUME:		3	3	3	3	3
COLLECTION DATE:		12/29/06	12/29/06	12/29/06	12/29/06	12/29/06
COLLECTION TIME:		13:47	13:26	13:10	12:50	14:48
DILUTION FACTOR (VOCs):		2.5	2.5	2.5	2.5	2.5
	RL					
Dichlorodifluoromethane	0.10	nd	nd	nd	nd	nd
Vinyl Chloride	0.10	nd	nd	nd	nd	nd
Chloroethane	0.10	nd	nd	nd	nd	nd
Trichlorofluoromethane	0.10	nd	nd	nd	nd	nd
1,1-Dichloroethene	0.10	nd	nd	nd	nd	nd
1,1,2-Trichloro-trifluoroethane	0.10	nd	nd	nd	nd	nd
Methylene Chloride	0.10	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.10	nd	nd	nd	nd	nd
1,1-Dichloroethane	0.10	nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	0.10	nd	nd	nd	nd	nd
Chloroform	0.10	nd	nd	nd	nd	nd
1,1,1-Trichloroethane	0.10	nd	nd	nd	nd	nd
Carbon Tetrachloride	0.10	nd	nd	nd	nd	nd
1,2-Dichloroethane	0.10	nd	nd	nd	nd	nd
Benzene	0.10	nd	nd	nd	nd	nd
Trichloroethene	0.10	nd	nd	nd	nd	nd
<b>Toluene</b>	0.20	1.4	3.9	0.72	3.1	0.57
1,1,2-Trichloroethane	0.10	nd	nd	nd	nd	nd
<b>Tetrachloroethene</b>	0.10	1.1	0.63	nd	2.9	0.33
Ethylbenzene	0.10	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	0.10	nd	nd	nd	nd	nd
<b>m,p-Xylene</b>	0.20	0.76	0.53	0.73	0.71	0.59
<b>o-Xylene</b>	0.10	0.26	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	0.10	nd	nd	nd	nd	nd
1,1 Difluoroethane (leak check)	10	nd	nd	nd	nd	nd
Surrogate Recovery (DBFM)		90%	84%	100%	88%	90%
Surrogate Recovery (1,2-DCA-d4)		91%	85%	112%	90%	91%
Surrogate Recovery (Toluene-d8)		90%	89%	91%	91%	86%

'RL' Indicates reporting limit at a dilution factor of 1  
'nd' Indicates not detected at listed reporting limits

Analyses performed in TEG-Northern California's lab  
Analyses performed by: Mr. John Henkelman

page 3



Crawford Consulting, Inc. Project #CS1605  
Cargill, Alameda, California

TEG Project #61229D

CALIBRATION STANDARDS - Initial Calibration / LCS

Instrument: Agilent 5973N MSD

COMPOUND	INITIAL CALIBRATION		LCS	
	RF	%RSD	RF	%DIFF
Dichlorodifluoromethane*	0.306	3.3%	0.309	1.0%
Vinyl Chloride*	0.481	11.7%	0.497	3.3%
Chloroethane*	0.262	24.1%	0.311	18.7%
Trichlorofluoromethane*	0.862	12.3%	0.813	5.7%
1,1-Dichloroethene	0.354	10.5%	0.316	10.7%
1,1,2-Trichloro-trifluoroethane*	0.560	12.1%	0.536	4.3%
Methylene Chloride	0.445	10.7%	0.412	7.4%
trans-1,2-Dichloroethene	0.425	13.2%	0.458	7.8%
1,1-Dichloroethane	0.450	7.5%	0.443	1.6%
cis-1,2-Dichloroethene	0.326	16.5%	0.322	1.2%
Chloroform	0.490	12.6%	0.471	3.9%
1,1,1-Trichloroethane	0.457	11.7%	0.472	3.3%
Carbon Tetrachloride	0.385	11.7%	0.413	7.3%
1,2-Dichloroethane	0.330	14.7%	0.313	5.2%
Benzene	1.228	15.1%	1.184	3.6%
Trichloroethene	0.324	11.4%	0.316	2.5%
Toluene	0.942	14.7%	0.899	4.6%
1,1,2-Trichloroethane	0.146	16.2%	0.142	2.7%
Tetrachloroethene	0.427	12.9%	0.377	11.7%
Ethylbenzene	0.687	19.0%	0.598	13.0%
1,1,1,2-Tetrachloroethane	0.420	19.1%	0.376	10.5%
m,p-Xylene	0.709	17.4%	0.794	12.0%
o-Xylene	0.652	14.4%	0.675	3.5%
1,1,2,2-Tetrachloroethane	0.283	13.9%	0.304	7.4%
<u>ACCEPTABLE LIMITS:</u>		<u>20.0%</u>		<u>15.0%</u>
<u>'*' INDICATES RSD NOT TO EXCEED 30% &amp; LCS NOT TO EXCEED 25%</u>				