ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

April 15, 2014

Ms. Tianna Nourot
Waste Management – California Bay Area
10840 Altamont Pass Road
Livermore, CA 94551
(*Sent via E-mail to: TNourot@wm.com*)

Southfront LLC
P.O. Box 399
Pleasanton, CA 94566-0399

Subject: Case Closure for Site Cleanup Program Case RO0003076 and GeoTracker Global ID T10000003066, Waste Management, 6175 Southfront Road, Livermore, CA 94550

Dear Responsible Parties:

This letter confirms the completion of site investigation and remedial actions for the Site Cleanup Program (SCP) case at the above referenced site. We are also transmitting the enclosed case closure summary. These documents confirm the completion of the investigation and cleanup of the reported releases at the subject site with the provision that the information provided to this agency was accurate and representative of existing conditions. The subject SCP case is closed. This case closure letter and the case closure summary can also be viewed on the State Water Resources Control Board's Geotracker website (http://geotracker.swrcb.ca.gov) and the Alameda County Environmental Health website (http://www.acgov.org/aceh/index.htm).

A site management requirement to review the case if land use changes was placed on the site in the August 31, 1998 closure of former fuel leak case RO0000640. Since the residual petroleum hydrocarbon contamination was not re-evaluated, this site management requirement remains in place. Therefore, case closure is granted for the current commercial land use only. Site Management Requirements are further described in section IV of the attached Case Closure Summary.

If you have any questions, please call Jerry Wickham at (510) 567-6791. Thank you.

Sincerely,

Dilan Roe, P.E.
LOP and SCP Program Manager

Enclosure: Case Closure Summary

cc: Danielle Stefani, Livermore Pleasanton Fire Department, 3560 Nevada St, Pleasanton, CA 94566
(*Sent via E-mail to: dstefani@lpfire.org*)

Colleen Winey (QIC 8021), Zone 7 Water Agency, 100 North Canyons Pkwy, Livermore, CA 94551
(*Sent via E-mail to: cwiney@zone7water.com*)

Joe Turner, Brown & Caldwell, 10540 White Rock Road, Suite 180, Rancho Cordova, CA 95670
(*Sent via E-mail to: JTurner@BrwnCald.com*)

Jerry Wickham, ACEH (*Sent via E-mail to: jerry.wickham@acgov.org*)
GeoTracker, e-File

CASE CLOSURE SUMMARY
SITE CLEANUP PROGRAM

I. AGENCY INFORMATION

Date: February 5, 2014

Agency Name: Alameda County Environmental Health	Address: 1131 Harbor Bay Parkway
City/State/Zip: Alameda, CA 94502-6577	Phone: (510) 567-6791
Responsible Staff Person: Jerry Wickham	Title: Senior Hazardous Materials Specialist

II. CASE INFORMATION

Site Facility Name: Waste Management		
Site Facility Address: 6175 Southfront Road, Livermore, CA 94551		
RB Case No.: ---	Local Case No.: ---	LOP Case No.: RO0003076
URF Filing Date: ---	Geotracker ID: T10000003066	APN: 99B-5875-17-6
Current Land Use: Commercial		

Responsible Parties	Addresses	Phone Numbers
Southfront LLC	P.O. Box 399 Pleasanton, CA 94566-0399	No phone number
Ms. Tianna Nourot Waste Management – California Bay Area	10840 Altamont Pass Road Livermore, CA 94551	No phone number

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and Type of Release: Petroleum hydrocarbons were released during operation of a gasoline and diesel underground storage tank. The tanks were removed in April 1992. Investigation and cleanup of the petroleum hydrocarbons was undertaken as part of fuel leak case RO0000640. The fuel leak was closed by ACEH on August 31, 1998. As part of a property transfer assessment, a limited Phase 2 investigation in July 2010 detected petroleum hydrocarbons as diesel and motor oil were detected in soil and groundwater in the steam pressure wash rack area. A sol vapor survey conducted during the limited Phase 2 investigation detected vinyl chloride and 1,2-dichloroethene. Additional soil vapor sampling in 2012 detected vinyl chloride, tetrachloroethene (PCE), and cis-1,2-dichloroethene in soil vapor in the area of the Maintenance Shop and Break Room. Vinyl chloride was also detected in one groundwater sample in the same area. The source of the vinyl chloride and PCE appears to be discharges of chlorinated solvents in the area of the Maintenance Shop and Break Room. However, the specific location and type of release was not identified.
Primary constituents of concern: Vinyl chloride, tetrachloroethene, benzene, petroleum hydrocarbons
Areas of site investigated for this case: Maintenance building, break room/offices, and wash rack area
Remediation attempted or completed: No remediation was attempted as part of this case. Excavation and groundwater extraction was conducted in the area of the former USTs as part of fuel leak case RO0000640.

Monitoring wells installed? No.	Number: 0	Proper screened interval? NA
Highest GW Depth Below Ground Surface: approximately 6 fbgs	Lowest Depth: Approximately 15 fbgs	Flow Direction: West northwest to northwest
Most Sensitive Current Groundwater Use: Drinking water source		

Summary of Production Wells in Vicinity: The nearest water supply well appears to be approximately 600 feet southwest of the site. Based on the distance from the site and cross gradient direction, the well is not expected to be a receptor for the site. No other water supply wells were identified within 1,000 feet of the site.	
Are drinking water wells affected? No	Aquifer Name: Spring Subbasin of Livermore-Amador Groundwater Basin
Is surface water affected? No	Nearest SW Name: An unlined flood control channel is approximately 1,400 feet north of the site.
Off-Site Beneficial Use Impacts (Addresses/Locations): ---	
Reports on file? Yes	Where are reports filed? Alameda County Environmental Health

GROUNDWATER SPECIFIC CRITERIA		
Has a determination been made that under current and reasonably expected future scenarios, the contaminant plume poses a low threat to human health and safety and to the environment and water quality objectives will be achieved within a reasonable time frame?		Yes
Site Data		Comments
Plume Length	Not applicable for VOCs Unknown for petroleum hydrocarbons	Vinyl chloride was detected in only one location; a plume of VOCs does not appear to be present. A plume of residual petroleum hydrocarbons from the former USTs remains on site.
Estimated Age of Plume	Not applicable for VOCs Petroleum hydrocarbon plume is greater than 24 years old	
Non-Aqueous Phase Liquid (NAPL)	No NAPL	
Plume Stable or Decreasing	Not applicable for VOCs Petroleum hydrocarbon plume likely decreasing	
Distance to Nearest Water Supply Well	Approximately 600 feet	
Distance to Nearest Surface Water and Direction	1,400 feet crossgradient	

GROUNDWATER CONCENTRATIONS FOR PRIMARY CONSTITUENTS OF CONCERN

Constituent	Historic Site Maximum (ppb)	Current Site Maximum (ppb)	Constituent	Historic Site Maximum (ppb)	Current Site Maximum (ppb)
Vinyl chloride	1.9	1.9	TPH gasoline	61,000	<50
Napthalene	73	73	TPH diesel	5,400	1,000
Benzene	9,000	91	TPH motor oil	27,000	4,600
Toluene	6,300	31	Xylenes	4,300	240
Ethylbenzene		300			

VAPOR SPECIFIC CRITERIA	
Are maximum soil vapor concentrations less than relevant screening criteria?	No. See Additional Comments and Conclusion.
Has a determination been made that the potential for vapor intrusion poses a low threat to human health and safety under the current land use?	Yes
Has a determination been made that the potential for vapor intrusion poses a low threat to human health and safety if land use changes to a residential or other conservative land use in the future?	No

DIRECT CONTACT CRITERIA	
Are maximum soil concentrations within the upper 10 feet less than relevant screening criteria?	Yes
Has a determination been made that the potential for direct contact with site contamination in shallow soil (upper 10 feet) poses a low threat to human health and safety under the current land use?	Yes
Has a determination been made that the potential for direct contact with site contamination in shallow soil (upper 10 feet) poses a low threat to human health and safety if land use changes to a residential or other conservative land use in the future?	No

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? Yes		
Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? Yes		
Does corrective action protect public health for current land use? Alameda County Environmental Health staff does not make specific determinations concerning public health risk. However, based upon the information available in our files to date, it does not appear that the release would present a risk to human health based upon current land use and conditions.		
Site Management Requirements: A site management requirement to review the case if land use changes was placed on the site in the August 31, 1998 closure of fuel leak case RO0000640. Since the residual petroleum hydrocarbon contamination was not re-evaluated, this site management requirement remains in place. Therefore, case closure is granted for the current commercial land use only. If a change in land use to any residential or other conservative land use, or if any redevelopment occurs, Alameda County Environmental Health (ACEH) must be notified as required by Government Code Section 65850.2.2. Due to the potential for vapor intrusion to indoor air for future buildings, ACEH will re-evaluate the case upon receipt of approved development/construction plans. Excavation or construction activities in areas of residual contamination require planning and implementation of appropriate health and safety procedures by the responsible party prior to and during excavation and construction activities.		
Should corrective action be reviewed if land use changes? Yes		
Was a deed restriction or deed notification filed? No		Date Recorded: ---
Monitoring Wells Decommissioned: ---	Number Decommissioned: 0	Number Retained: 0
List Enforcement Actions Taken: None		
List Enforcement Actions Rescinded: None		

V. ADDITIONAL COMMENTS AND CONCLUSION

Additional Comments:

Vinyl chloride was detected in soil vapor samples collected in 2010 and 2012 in the area of the Break Room/Offices at concentrations up to 17,000 micrograms per cubic meter (µg/m^3). Sub-slab vapor samples were collected from the Break Room/Offices during three sampling events between November 15, 2012 and September 27, 2013. Vinyl chloride was detected in two of three sub-slab vapor samples collected on November 15, 2013 but was not detected during two subsequent sub-slab sampling events. Based on the detections of vinyl chloride in sub-slab vapor samples, two indoor air sampling events were conducted inside the Break Room/Offices on February 2, 2013 and September 27, 2013. Vinyl chloride was not detected in indoor air above a reporting limit of 0.042 µg/m^3. Vinyl chloride was detected in one of five groundwater samples collected in the area of the Break Room/Offices at a concentration of 1.9 micrograms per liter. Therefore, a significant mass of vinyl chloride or other chlorinated solvents was not identified in groundwater. The source of the vinyl chloride was not identified. Based on the indoor air sampling results and the apparent absence of a significant mass of vinyl chloride in the subsurface, vinyl chloride does not appear to pose a risk for vapor intrusion to the Break Room/Offices building.

Tetrachloroethene (PCE) was detected in sub-slab vapor samples collected from the Break Room/Offices at concentrations up to 760 µg/m^3. PCE was not detected in groundwater samples collected in the area of the Break Room/Offices. The source of the PCE detected in sub-slab vapor samples was not identified. PCE was not detected at concentrations above a reporting limit of 0.22 µg/m^3 in indoor air samples collected from the Break Room/Offices. Based on the indoor air sampling results and the apparent absence of a significant mass of vinyl chloride in the subsurface, PCE does not appear to pose a risk for vapor intrusion to the Break Room/Offices building.

Conclusion:

Alameda County Environmental Health staff believe that the site meets the conditions for case closure. Based upon the information available in our files to date, no further investigation or cleanup is necessary at this time.

VI. LOCAL AGENCY REPRESENTATIVE DATA

Prepared by: Jerry Wickham, P.G.	Title: Senior Hazardous Materials Specialist
Signature: Jerry Wickham	Date: 01/23/2014
Approved by: Dilan Roe	Title: Program Manager
Signature: Dilan Roe	Date: 1/23/2014

This closure approval is based upon the available information and with the provision that the information provided to this agency was accurate and representative of site conditions.

VII. REGIONAL BOARD AND PUBLIC NOTIFICATION

Regional Board Staff Name: Cherie McCaulou	Title: Engineering Geologist
Regional Board Notification Date: 01/29/14	
Public Notification Date: 01/29/14	

VIII. MONITORING WELL DECOMMISSIONING

Date Requested by ACEH: NA	Date of Well Decommissioning Report: NA	
All Monitoring Wells Decommissioned: NA	Number Decommissioned: 0	Number Retained: 0
Reason Wells Retained: NA		
Additional requirements for submittal of groundwater data from retained wells: NA		
ACEH Concurrence - Signature: Jerry Wickham		Date: 01/23/14

Attachments:

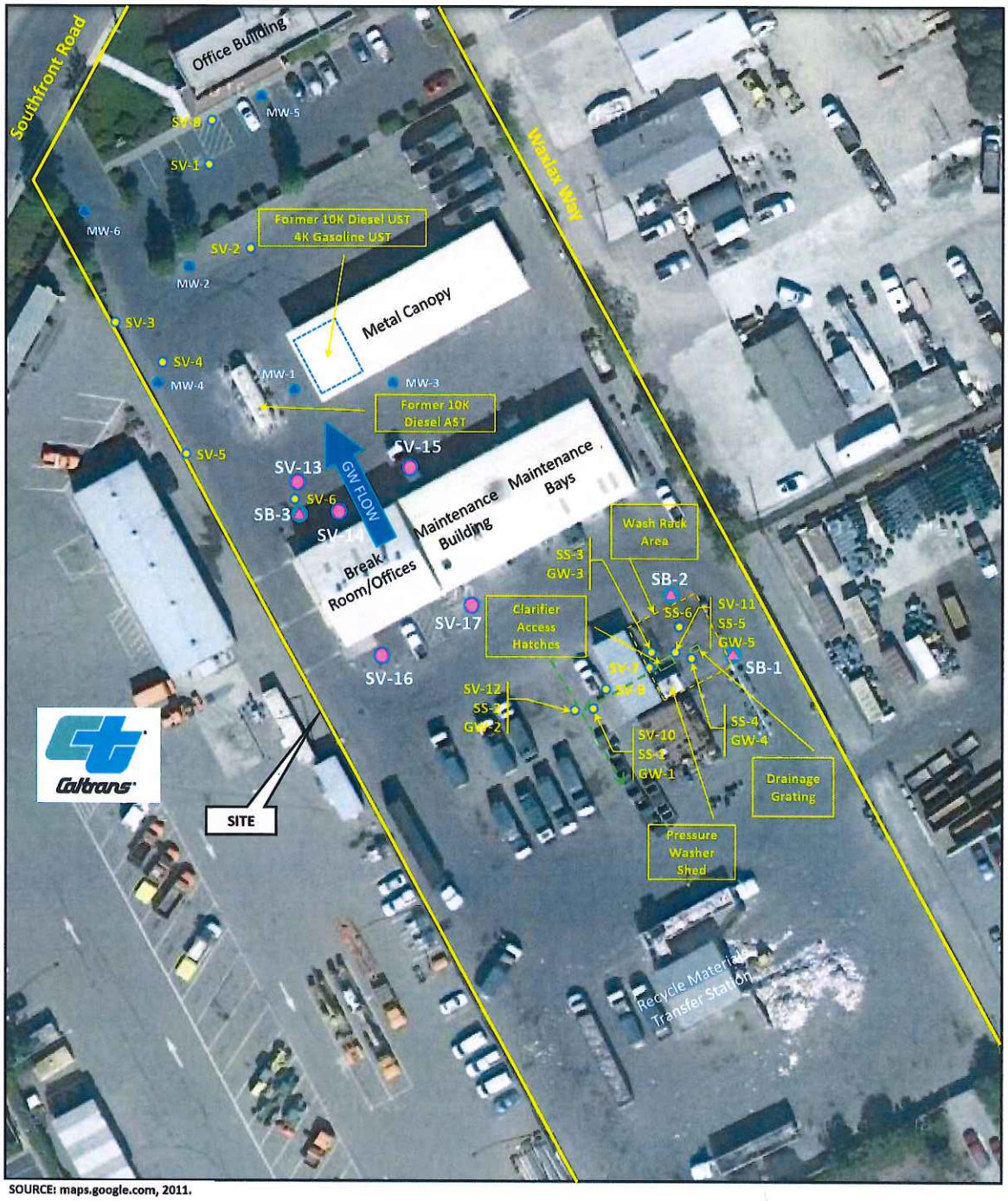
1. Vicinity Map and Site Map (2 pp)
2. Site Plans and Sampling Locations (4 pp)
3. Analytical Results Maps (4 pp)
4. Soil Analytical Data (2 pp)
5. Indoor Air and Soil Vapor Analytical Data (5 pp)
6. Groundwater Analytical Data (9 pp)

This document and the related CASE CLOSURE LETTER & REMEDIAL ACTION COMPLETION CERTIFICATE shall be retained by the lead agency as part of the official site file.

Source: Google Earth 2010

SCS ENGINEERS Environmental Consultants	6601 Koll Center Parkway, Suite 140 Pleasanton, CA 94566 Ph: (925) 426-0080 Fax: (925) 426-0707	**FIGURE 1 - SITE VICINITY MAP** 6175 Southfront Road Livermore, California
PROJECT NO: 01209250.00	CHECKED BY: SJC	
DESIGNED BY: TMS / SCALE: None	APPROVED BY: SJC	
DRAWN BY: TMS / DATE: 1/2010	FILE:	

ATTACHMENT 1



SOURCE: maps.google.com, 2011.

Legend:

- SCS Limited Phase II Sampling Location (soil vapor, soil and/or groundwater sample), July 27-28, 2010.
- Sanitary Sewer Line (with direction of flow).
- MW-1 — Former groundwater monitoring well location (approximate).
- SB-1 — Soil and groundwater sample location for TPH-diesel and TPH-motor oil. SB-3 is groundwater only for VOCs (1/5/12).
- SV-13 — Soil vapor sample location for VOCs, including vinyl chloride. (1/9/12).

N

0 feet 50

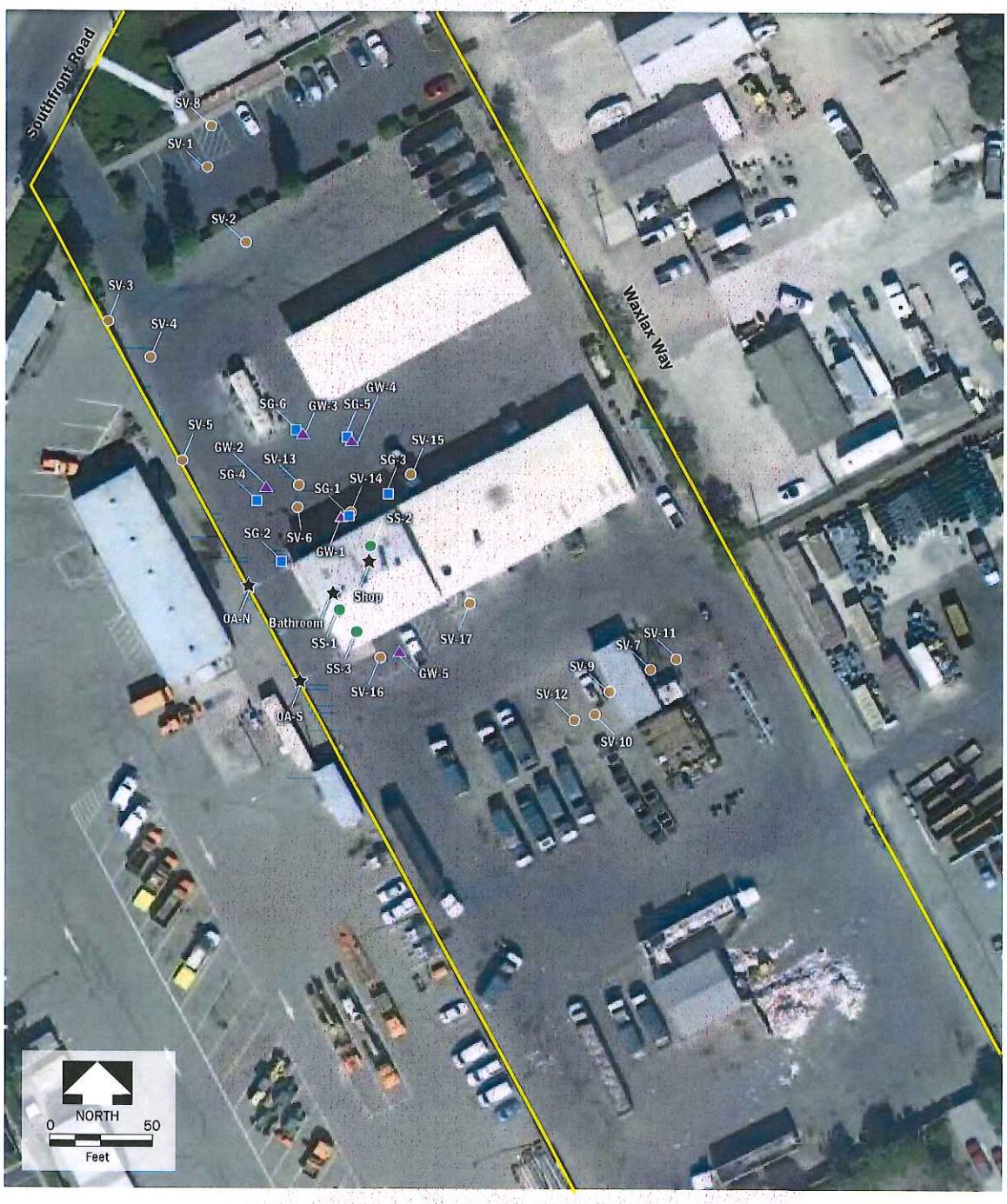
TITLE:	Plot Plan, Previous Sample Locations and Additional Sample Locations
LOCATION:	6175 Southfront Road Livermore, California

TETRA TECH GEO

CHECKED:	TC
DRAFTED:	KH
FILE:	117-2402099.01
DATE:	01-19-12

FIGURE: 1

P:\42000\142782 - WM Livermore Hauling Inv\Summary Report\Figures



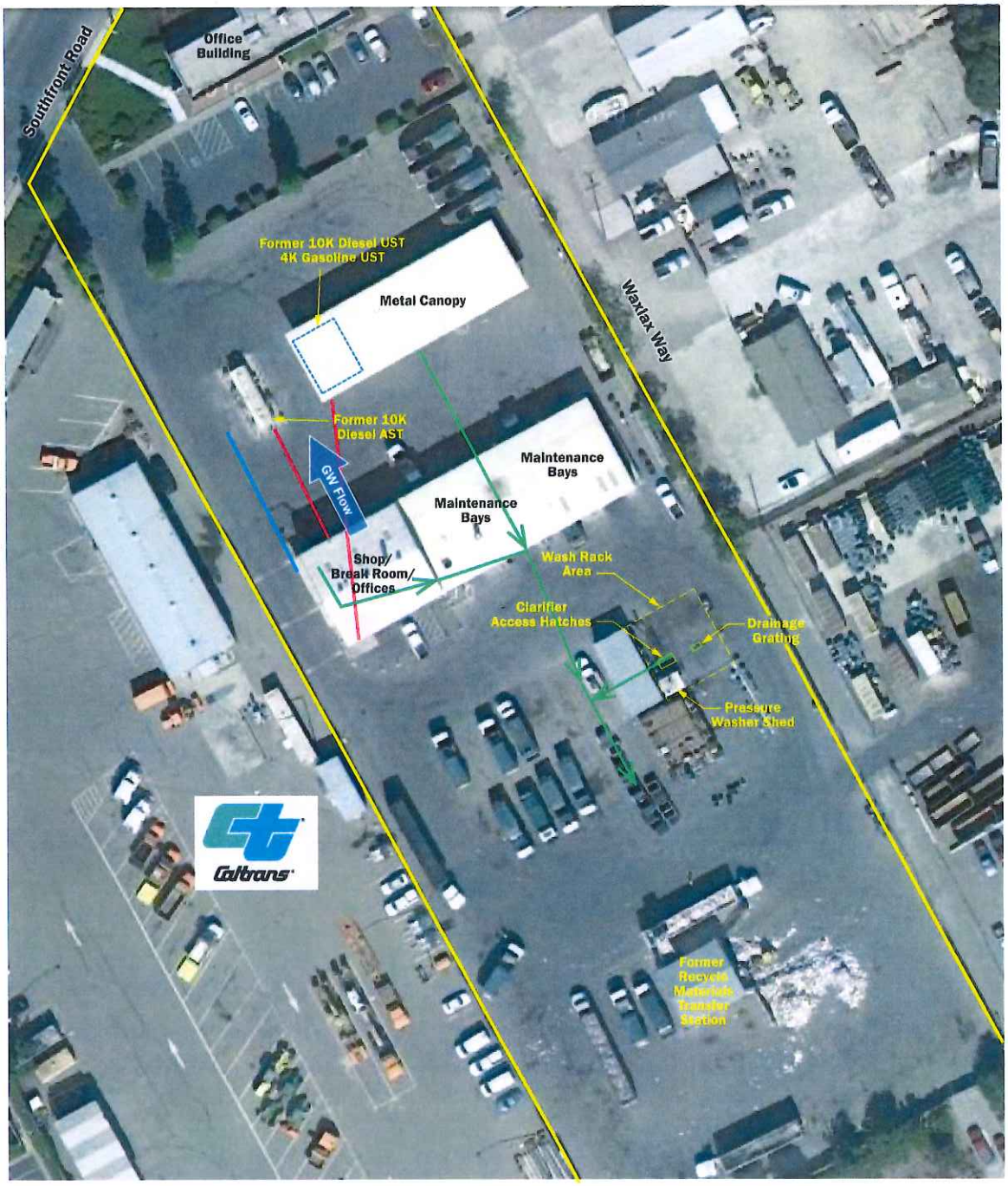
Legend

- SV-1 Historical Soil Vapor Locations
- SS-1 Sub-Slab Soil Vapor Locations
- GW-1 Temporary Goundwater Sample
- SG-1 Sub Surface Soil Vapor Locations
- OA-N Ambient/Indoor Air Locations

SITE	6175 Southfront Road, Livermore, California
TITLE	Soil Vapor and Groundwater Sample Locations
Brown AND Caldwell	DATE 02-05-2013 / PROJECT 142782 / Figure 3

ATTACHMENT 2

Source: maps.google.com, 2011



Legend

- Sanitary sewer line (with direction of flow)
- Electrical
- Water

SITE
6175 Southfront Road, Livermore, California

TITLE
Existing Site Features

Brown AND Caldwell

DATE 2-5-2013

PROJECT 142782

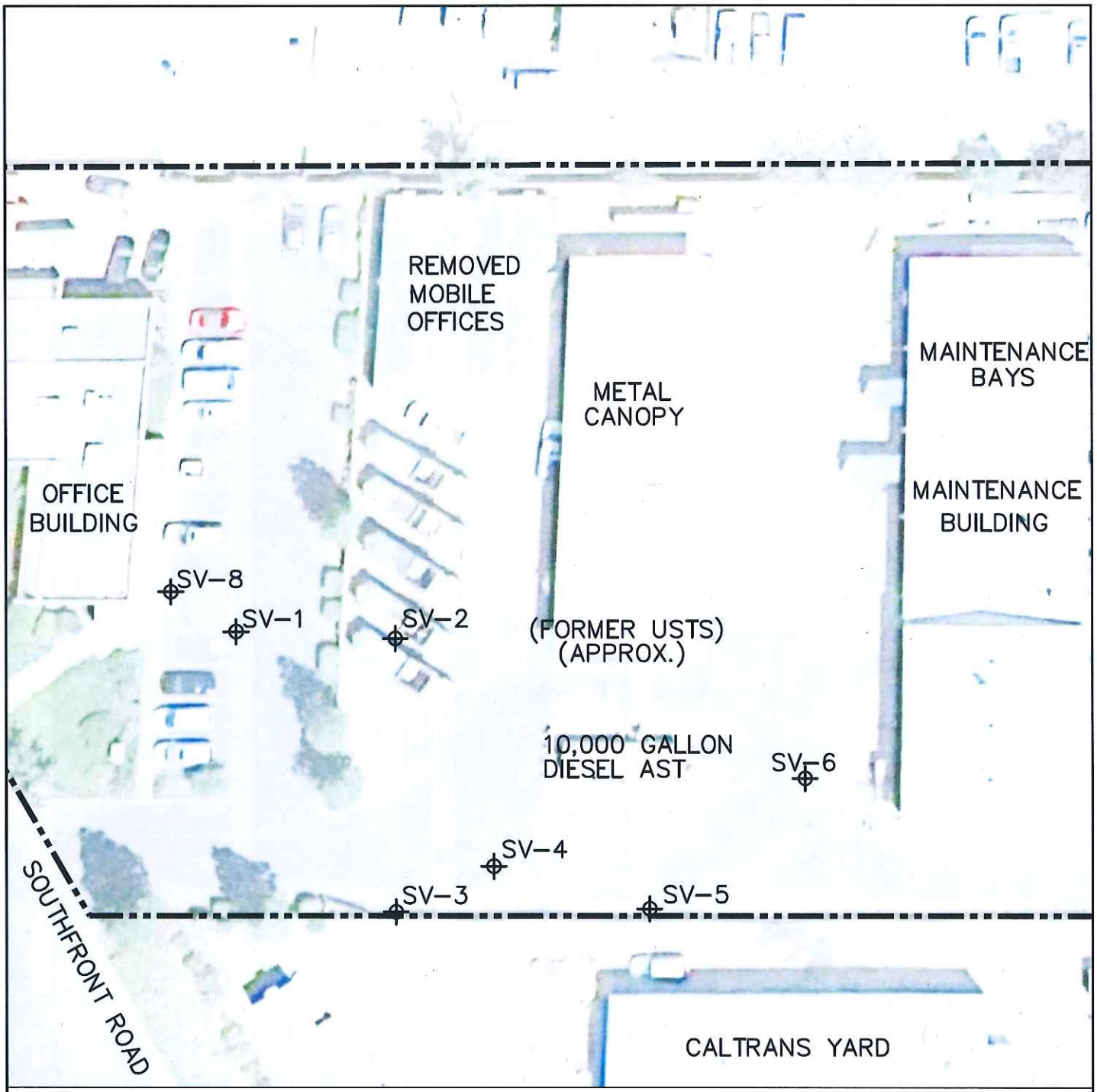
Figure 2

NORTH

0 50

Feet

Source: maps.google.com, 2011



40 0 40

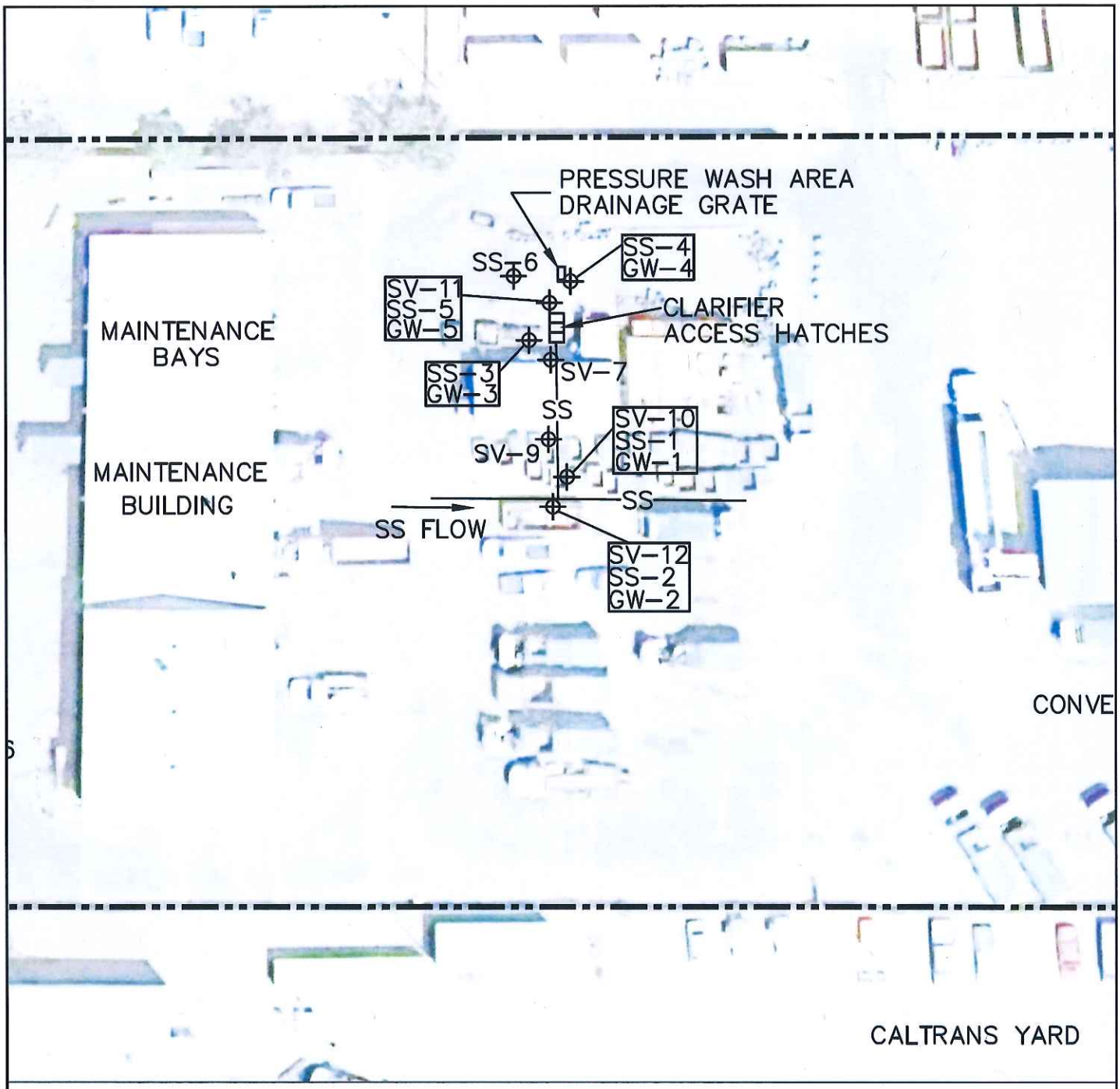
APPROXIMATE SCALE IN FEET

LEGEND

SOIL VAPOR SAMPLE LOCATION

APPROXIMATE SITE BOUNDARY

SCS ENGINEERS ENVIRONMENTAL CONSULTANTS 6601 KOLL CENTER PARKWAY, SUITE 140 PLEASANTON, CALIFORNIA 94566 PHONE: (925) 426-0080 FAX.: (925) 426-0707	SITE PLAN SHOWING SOIL VAPOR SAMPLE LOCATIONS 6175 SOUTHFRONT ROAD LIVERMORE, CALIFORNIA	FIGURE 2	PROJECT NO. 01209250.01 DATE: 8-18-2010



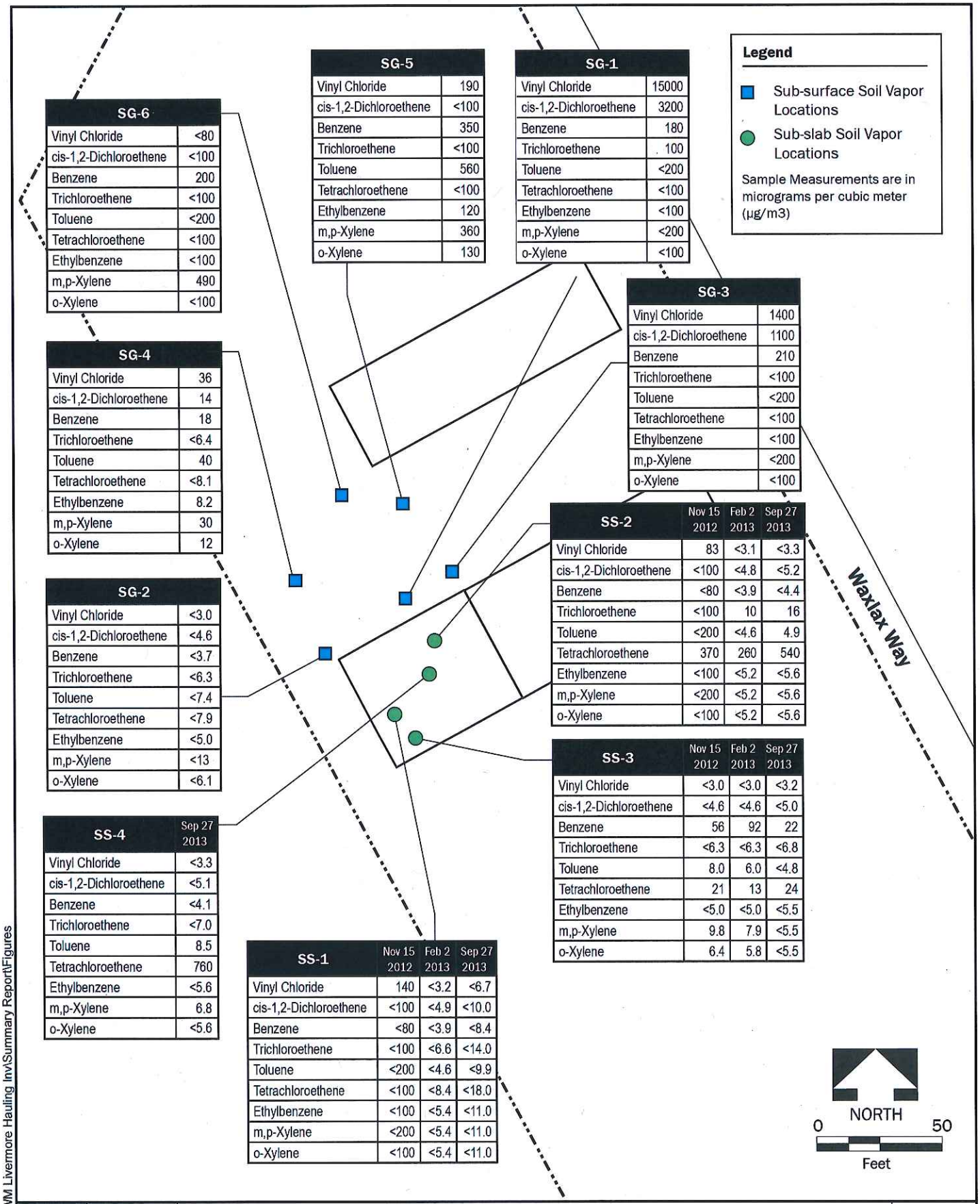
LEGEND

SS	SANITARY SEWER
⌖	SOIL VAPOR, SOIL, AND/OR GROUNDWATER SAMPLE LOCATION
— · —	APPROXIMATE SITE BOUNDARY

40 0 40

APPROXIMATE SCALE IN FEET

SCS ENGINEERS ENVIRONMENTAL CONSULTANTS 6601 KOLL CENTER PARKWAY, SUITE 140 PLEASANTON, CALIFORNIA 94566 PHONE: (925) 426-0080 FAX.: (925) 426-0707	SITE PLAN SHOWING PRESSURE WASH AREA SAMPLE LOCATIONS 6175 SOUTHFRONT ROAD LIVERMORE, CALIFORNIA	FIGURE 3	PROJECT NO. 01209250.01 DATE: 8-18-2010



SG-6	
Vinyl Chloride	<80
cis-1,2-Dichloroethene	<100
Benzene	200
Trichloroethene	<100
Toluene	<200
Tetrachloroethene	<100
Ethylbenzene	<100
m,p-Xylene	490
o-Xylene	<100

SG-5	
Vinyl Chloride	190
cis-1,2-Dichloroethene	<100
Benzene	350
Trichloroethene	<100
Toluene	560
Tetrachloroethene	<100
Ethylbenzene	120
m,p-Xylene	360
o-Xylene	130

SG-1	
Vinyl Chloride	15000
cis-1,2-Dichloroethene	3200
Benzene	180
Trichloroethene	100
Toluene	<200
Tetrachloroethene	<100
Ethylbenzene	<100
m,p-Xylene	<200
o-Xylene	<100

SG-3	
Vinyl Chloride	1400
cis-1,2-Dichloroethene	1100
Benzene	210
Trichloroethene	<100
Toluene	<200
Tetrachloroethene	<100
Ethylbenzene	<100
m,p-Xylene	<200
o-Xylene	<100

SG-4	
Vinyl Chloride	36
cis-1,2-Dichloroethene	14
Benzene	18
Trichloroethene	<6.4
Toluene	40
Tetrachloroethene	<8.1
Ethylbenzene	8.2
m,p-Xylene	30
o-Xylene	12

SG-2	
Vinyl Chloride	<3.0
cis-1,2-Dichloroethene	<4.6
Benzene	<3.7
Trichloroethene	<6.3
Toluene	<7.4
Tetrachloroethene	<7.9
Ethylbenzene	<5.0
m,p-Xylene	<13
o-Xylene	<6.1

SS-2	Nov 15 2012	Feb 2 2013	Sep 27 2013
Vinyl Chloride	83	<3.1	<3.3
cis-1,2-Dichloroethene	<100	<4.8	<5.2
Benzene	<80	<3.9	<4.4
Trichloroethene	<100	10	16
Toluene	<200	<4.6	4.9
Tetrachloroethene	370	260	540
Ethylbenzene	<100	<5.2	<5.6
m,p-Xylene	<200	<5.2	<5.6
o-Xylene	<100	<5.2	<5.6

SS-3	Nov 15 2012	Feb 2 2013	Sep 27 2013
Vinyl Chloride	<3.0	<3.0	<3.2
cis-1,2-Dichloroethene	<4.6	<4.6	<5.0
Benzene	56	92	22
Trichloroethene	<6.3	<6.3	<6.8
Toluene	8.0	6.0	<4.8
Tetrachloroethene	21	13	24
Ethylbenzene	<5.0	<5.0	<5.5
m,p-Xylene	9.8	7.9	<5.5
o-Xylene	6.4	5.8	<5.5

SS-4	Sep 27 2013
Vinyl Chloride	<3.3
cis-1,2-Dichloroethene	<5.1
Benzene	<4.1
Trichloroethene	<7.0
Toluene	8.5
Tetrachloroethene	760
Ethylbenzene	<5.6
m,p-Xylene	6.8
o-Xylene	<5.6

SS-1	Nov 15 2012	Feb 2 2013	Sep 27 2013
Vinyl Chloride	140	<3.2	<6.7
cis-1,2-Dichloroethene	<100	<4.9	<10.0
Benzene	<80	<3.9	<8.4
Trichloroethene	<100	<6.6	<14.0
Toluene	<200	<4.6	<9.9
Tetrachloroethene	<100	<8.4	<18.0
Ethylbenzene	<100	<5.4	<11.0
m,p-Xylene	<200	<5.4	<11.0
o-Xylene	<100	<5.4	<11.0

P:\420001\142782 - WM Livermore Hauling Inv\Summary Report\Figures

DATE 10-21-13 | PROJECT 142782

Brown AND Caldwell

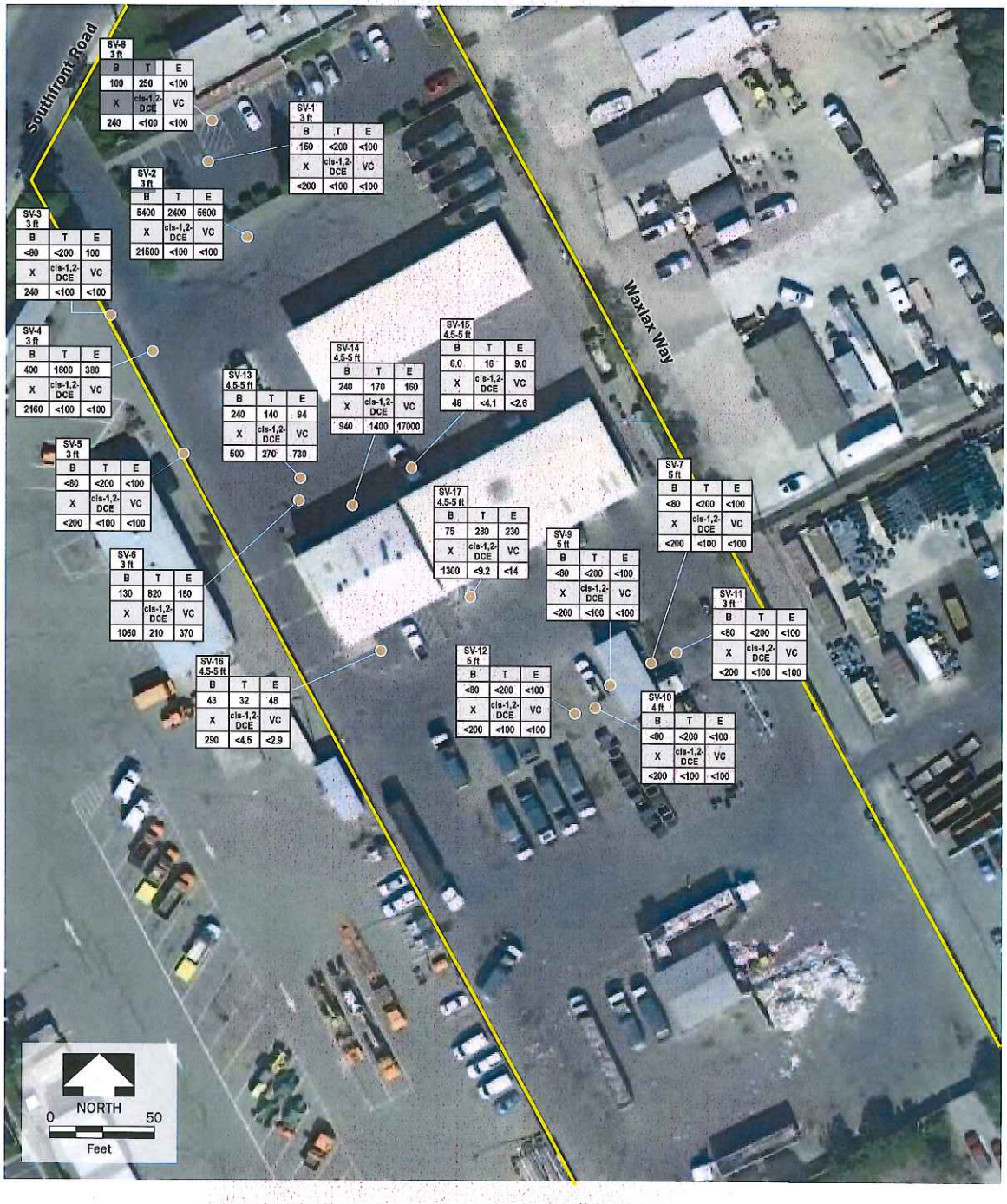
SITE: **6175 Southfront Road, Livermore, California**

TITLE: **Soil Vapor Analytical Results**

Figure

ATTACHMENT 3

P:\42000\142782 - WM Livermore Hauling Inv\Work Plan\Graphics



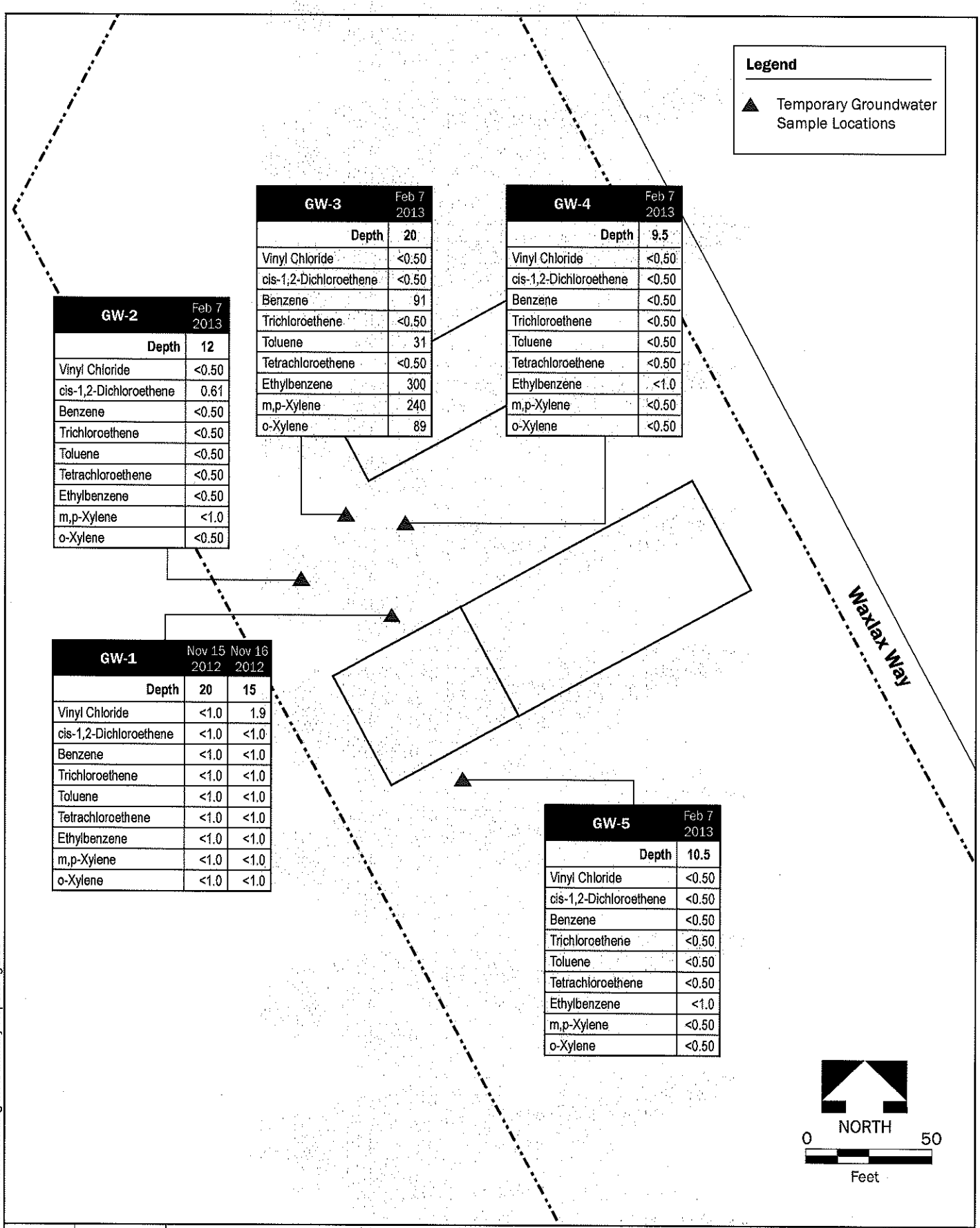
Legend

B	Benzene
T	Toluene
E	Ethylbenzene
X	Total Xylenes
cis 1,2-DCE	cis 1,2-Dicholoroehene
VC	Vinyl Chloride

Sample measurements are in micrograms per cubic meter (µg/m3)

SITE: **6175 Southfront Road, Livermore, California**		
TITLE: **Soil Vapor Sample Locations and Results**		
Brown AND Caldwell	DATE: 5/18/2012 PROJECT: 142782	**Figure 3**

Source: maps.google.com, 2011



GW-2	Feb 7 2013
Depth	12
Vinyl Chloride	<0.50
cis-1,2-Dichloroethene	0.61
Benzene	<0.50
Trichloroethene	<0.50
Toluene	<0.50
Tetrachloroethene	<0.50
Ethylbenzene	<0.50
m,p-Xylene	<1.0
o-Xylene	<0.50

GW-3	Feb 7 2013
Depth	20
Vinyl Chloride	<0.50
cis-1,2-Dichloroethene	<0.50
Benzene	91
Trichloroethene	<0.50
Toluene	31
Tetrachloroethene	<0.50
Ethylbenzene	300
m,p-Xylene	240
o-Xylene	89

GW-4	Feb 7 2013
Depth	9.5
Vinyl Chloride	<0.50
cis-1,2-Dichloroethene	<0.50
Benzene	<0.50
Trichloroethene	<0.50
Toluene	<0.50
Tetrachloroethene	<0.50
Ethylbenzene	<1.0
m,p-Xylene	<0.50
o-Xylene	<0.50

GW-1	Nov 15 2012	Nov 16 2012
Depth	20	15
Vinyl Chloride	<1.0	1.9
cis-1,2-Dichloroethene	<1.0	<1.0
Benzene	<1.0	<1.0
Trichloroethene	<1.0	<1.0
Toluene	<1.0	<1.0
Tetrachloroethene	<1.0	<1.0
Ethylbenzene	<1.0	<1.0
m,p-Xylene	<1.0	<1.0
o-Xylene	<1.0	<1.0

GW-5	Feb 7 2013
Depth	10.5
Vinyl Chloride	<0.50
cis-1,2-Dichloroethene	<0.50
Benzene	<0.50
Trichloroethene	<0.50
Toluene	<0.50
Tetrachloroethene	<0.50
Ethylbenzene	<1.0
m,p-Xylene	<0.50
o-Xylene	<0.50

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DATE 02-05-13 | PROJECT 142782

Brown AND Caldwell

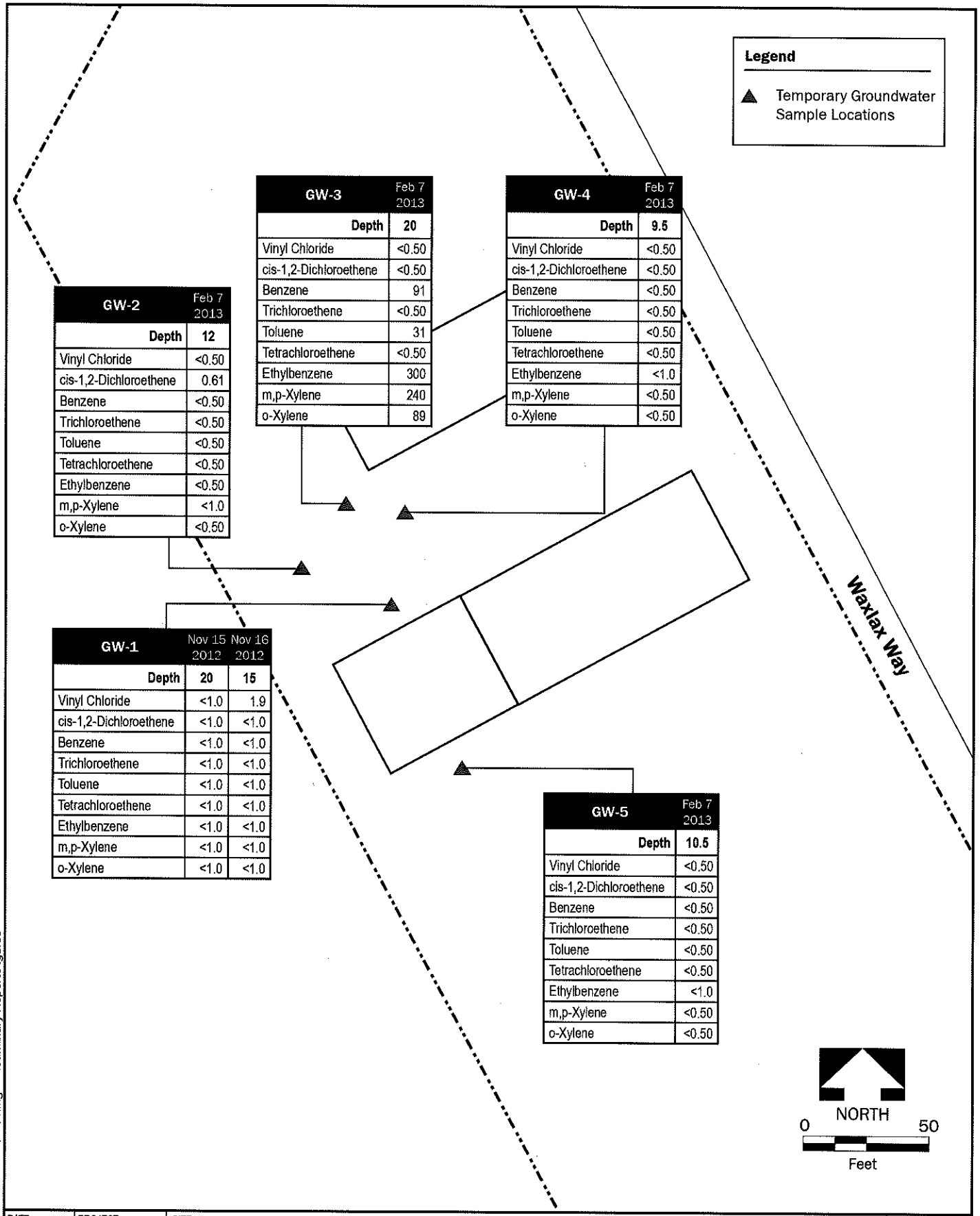
SITE

6175 Southfront Road, Livermore, California

TITLE

Soil Vapor Analytical Results

Figure 5



GW-2	Feb 7 2013
Depth	12
Vinyl Chloride	<0.50
cis-1,2-Dichloroethene	0.61
Benzene	<0.50
Trichloroethene	<0.50
Toluene	<0.50
Tetrachloroethene	<0.50
Ethylbenzene	<0.50
m,p-Xylene	<1.0
o-Xylene	<0.50

GW-3	Feb 7 2013
Depth	20
Vinyl Chloride	<0.50
cis-1,2-Dichloroethene	<0.50
Benzene	91
Trichloroethene	<0.50
Toluene	31
Tetrachloroethene	<0.50
Ethylbenzene	300
m,p-Xylene	240
o-Xylene	89

GW-4	Feb 7 2013
Depth	9.5
Vinyl Chloride	<0.50
cis-1,2-Dichloroethene	<0.50
Benzene	<0.50
Trichloroethene	<0.50
Toluene	<0.50
Tetrachloroethene	<0.50
Ethylbenzene	<1.0
m,p-Xylene	<0.50
o-Xylene	<0.50

GW-1	Nov 15 2012	Nov 16 2012
Depth	20	15
Vinyl Chloride	<1.0	1.9
cis-1,2-Dichloroethene	<1.0	<1.0
Benzene	<1.0	<1.0
Trichloroethene	<1.0	<1.0
Toluene	<1.0	<1.0
Tetrachloroethene	<1.0	<1.0
Ethylbenzene	<1.0	<1.0
m,p-Xylene	<1.0	<1.0
o-Xylene	<1.0	<1.0

GW-5	Feb 7 2013
Depth	10.5
Vinyl Chloride	<0.50
cis-1,2-Dichloroethene	<0.50
Benzene	<0.50
Trichloroethene	<0.50
Toluene	<0.50
Tetrachloroethene	<0.50
Ethylbenzene	<1.0
m,p-Xylene	<0.50
o-Xylene	<0.50

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DATE 02-05-13 | PROJECT 142782

Brown AND Caldwell

SITE

6175 Southfront Road, Livermore, California

TITLE

Soil Vapor Analytical Results

Figure 5

Table 2.
Summary of Soil Sample Analytical Results
6175 Southfront Road
Livermore, California

Sample ID	Sample Date	Sample Depth (feet)	TPH-g	TPH-d	TPH-mo	VOCs
			mg/kg			
SS-1, 10	7/28/2010	10	<1.0	**1.5**	<5.0	ND
SS-1, 19.5	7/28/2010	20	<1.0	<1.0	<5.0	ND
SS-2, 10	7/28/2010	10	<1.0	**1.7**	<5.0	ND
SS-2, 15	7/28/2010	15	<1.0	**1.1**	<5.0	ND
SS-3, 11	7/28/2010	11	<1.0	<1.0	<5.0	ND
SS-3, 15	7/28/2010	15	<1.0	<1.0	<5.0	ND
SS-4, 15	7/28/2010	15	<1.0	<1.0	<5.0	ND
SS-4, 19.5	7/28/2010	20	<1.0	**1.3**	<5.0	ND
SS-5, 2.5	7/28/2010	3	<1.0	**3.9**	<5.0	ND
SS-5, 10	7/28/2010	10	<1.0	**3.0**	<5.0	ND
SS-6, 2.5	7/28/2010	3	<1.0	<1.0	<5.0	ND
SS-6, 15	7/28/2010	15	<1.0	**2.1**	**6.1**	ND
Commercial ESL (soils <3 meters deep)			83	83	2,500	varies
Commercial ESL (soils >3 meters deep)			83	83	5,000	varies

Notes:

TPH-g = Total Petroleum Hydrocarbons as gasoline; analyzed using EPA Method 8015Bm

TPH-d = Total Petroleum Hydrocarbons as diesel fuel; analyzed using EPA Method 8015B

TPH-mo = Total Petroleum Hydrocarbons as motor oil; analyzed using EPA Method 8015B

VOCs = Volatile Organic Compounds; analyzed using EPA Method 8260B

mg/kg = milligrams per kilogram (or parts per million; ppm)

ND = Not Detected (includes all constituents analyzed by this EPA Method)

ESL = Environmental Screening Level - San Francisco Bay Regional Water Quality Control Board, Interim Final - November 2007, Revised May 2008 (applies to property above groundwater that is a current or potential drinking water resource).

ATTACHMENT 4

TABLE 1

Analytical Results Summary - Soil
6175 Southfront Avenue
Livermore, California

Boring	Depth below grade (feet)	Date	EPA 8015M w/SGT (mg/kg)	
			TPH Diesel	TPH Motor Oil
SB-1-5'	5	1/5/2012	< 1.0	9.1
SB-2-5'	5	1/5/2012	< 1.0	< 1.0
	ESL		83	370

Notes:

mg/Kg	milligrams per kilogram or parts per million (ppm).
TPH	Total petroleum hydrocarbons.
SGT	Silica gel treatment to remove naturally occuring organic material (polar compounds).
ESL	Regional Water Quality Control Board - San Francisco Bay Region, Environmental Screening Levels (ESLs), Table A2 - Shallow Soil Screening Levels (<3m), Commercial/Industrial Land Use, May 2008.
---	No reported value.
Shaded Value	Detected concentration.
Bold Value	Exceeds the ESL value.

Table 2. VOC Detections in Ambient/Indoor Air
Vapor Intrusion Assessment Summary Report
Former Waste Management of Alameda County, Inc. property, 6175 Southfront Road, Livermore, California

Location	Commercial CHHSL	BATHROOM		BATHROOM-DUP		OA-N		OA-S		SHOP		SHOP-DUP	
Date	2/2/2013	2/2/2013	9/27/2013	2/2/2013	9/27/2013	2/2/2013	9/27/2013	2/2/2013	9/27/2013	2/2/2013	9/27/2013	2/2/2013	9/27/2013
Benzene	0.141	**1.1**	**0.35**	**1.1**	**0.42**	**0.80**	**0.37**	**0.76**	**0.35**	**0.96**	**0.36**	**1.0**	**0.36**
cis-1,2-Dichloroethene	51.1	<0.13	<0.13	<0.13	<0.13	<0.13	<0.12	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13
Ethyl Benzene	NE	**0.71**	**0.26**	**0.77**	**0.24**	**0.32**	**0.24**	**0.32**	**0.22**	**0.59**	**0.33**	**0.57**	**0.34**
m,p-Xylene	1020	**2.3**	**0.85**	**2.4**	**0.83**	**0.87**	**0.78**	**0.98**	**0.73**	**2.0**	**1.2**	**1.9**	**1.2**
o-Xylene	1020	**0.93**	**0.3**	**1.0**	**0.31**	**0.36**	**0.28**	**0.44**	**0.27**	**0.67**	**0.38**	**0.71**	**0.38**
Tetrachloroethene	0.693	<0.22	<0.22	<0.22	<0.22	<0.22	<0.21	<0.22	<0.22	<0.22	<0.23	<0.22	<0.22
Toluene	438	**8.1**	**1.5**	**8.2**	**1.3**	**1.6**	**1.3**	**1.7**	**1.2**	**17**	**14**	**17**	**14**
trans-1,2-Dichloroethene	102	<0.65	<0.66	<0.64	<0.66	<0.65	<0.63	<0.65	<0.64	<0.64	<0.67	<0.64	<0.66
Trichloroethene	2.04	<0.18	<0.18	<0.17	<0.18	<0.18	<0.17	<0.18	<0.17	<0.17	<0.18	<0.17	<0.18
Vinyl Chloride	0.0524	<0.042	<0.042	<0.041	<0.042	<0.042	<0.040	<0.042	<0.041	<0.041	<0.043	<0.041	<0.042

Notes:
All results in ug/m3
CHHSL - California Human Health Screening Level
NE - not established
bold - detection
highlighted - exceeds CHHSL

ATTACHMENT 5

Table 1. VOC Detections in Sub-Slab Soil Vapor
Vapor Intrusion Assessment Summary Report
Former Waste Management of Alameda County, Inc. property, 6175 Southfront Road, Livermore, California

Location		SS-1	SS-1 Dup	SS-1	SS-1	SS-2	SS-2	SS-2	SS-3	SS-3	SS-3	SS-3	SS-4
Purge volume	Commercial	1	1	1	1	1	1	1	1	1	1	1	1
Date	CHHSL	11/15/2012	11/15/2012	2/2/2013	9/27/2013	11/15/2012	2/2/2013	9/27/2013	11/15/2012	11/15/2012	2/2/2013	9/27/2013	9/27/2013
Vinyl Chloride	44.8	**140**	**110**	<3.2	<6.7	**83**	<3.1	<3.3	<80	<3.0	<3.0	<3.2	<3.3
cis-1,2-Dichloroethene	44400	<100	<100	<4.9	<10	<100	<4.8	<5.2	<100	<4.6	<4.6	<5.0	<5.1
Benzene	122	<80	<80	<3.9	<8.4	<80	<3.9	<4.2	<80	**56**	**92**	**22**	<4.1
Trichloroethene	1770	<100	<100	<6.6	<14	<100	**10**	**16**	<100	<6.3	<6.3	<6.8	<7.0
Toluene	378000	<200	<200	<4.6	<9.9	<200	<4.6	<4.9	<200	**8.0**	**6.0**	<4.8	**8.5**
Tetrachloroethene	603	<100	<100	<8.4	<18	**370**	**260**	**540**	<100	**21**	**13**	**24**	**760**
Ethylbenzene	NE	<100	<100	<5.4	<11	<100	<5.2	<5.6	<100	<5.0	<5.0	<5.5	<5.6
m,p-Xylene	887000	<200	<200	<5.4	<11	<200	<5.2	<5.6	<200	**9.8**	**7.9**	<5.5	**6.8**
o-Xylene	879000	<100	<100	<5.4	<11	<100	<5.2	<5.6	<100	**6.4**	**5.8**	<5.5	<5.6
2-Propanol	NE	NA	NA	**49**	**1500**	NA	**17**	<13	NA	<11	<11	<12	<13
1,1-Difluoroethane	NE	<100	<100	NA	NA	<100	NA	NA	<100	NA	NA	NA	NA
Acetone	NE	NA	NA	<29	<62	NA	**30**	<31	NA	<28	**36**	**640**	**200**
Ethanol	NE	NA	NA	<9.3	<20	NA	<9.1	<9.8	NA	<8.8	**11**	<9.6	**15**
Hexane	NE	NA	NA	<4.4	<9.3	NA	<4.3	<4.6	NA	**180**	**11**	**20**	<4.6
Cyclohexane	NE	NA	NA	<4.2	<9.0	NA	<4.2	<4.5	NA	**240**	**310**	**220**	**5.3**
Heptane	NE	NA	NA	<5.1	<11	NA	<5.0	<5.3	NA	**46**	**4.8**	**7.1**	<5.3

Notes:
All results are ug/m3
CHHSL - California Human Health Screening Levels
NE - not established
NA - not analyzed
bold - detection
highlighted - exceeds CHHSL

Table 2. VOC Detections in Soil Vapor
Additional Investigation Summary Report
Former Waste Management of Alameda County, Inc. property, 6175 Southfront Road, Livermore, California

Location		SG1-7	SG1-7	SG1-7	SG-2-7.5	SG-2-7.5	SG-3-3	SG-4-9	SG-4-9	SG-5-4	SG-6-3
Purge volume	Commercial	1	3	10	1	1	1	1	1	1	1
Date	CHHSL	11/15/2012	11/15/2012	11/15/2012	11/16/2012	11/16/2012	11/16/2012	11/16/2012	11/16/2012	11/16/2012	11/16/2012
Vinyl Chloride	44.8	**15000**	**13000**	**13000**	<80	<3.0	**1400**	<80	**36**	**190**	<80
cis-1,2-Dichloroethene	44400	**3200**	**3100**	**2700**	<100	<4.6	**1100**	<100	**14**	<100	<100
Benzene	122	**180**	**180**	**120**	<80	<3.7	**210**	**83**	**18**	**350**	**200**
Trichloroethene	1770	**100**	<100	<100	<100	<6.3	<100	<100	<6.4	<100	<100
Toluene	378000	<200	<200	<200	<200	**7.4**	<200	<200	**40**	**560**	<200
Tetrachloroethene	603	<100	<100	<100	<100	<7.9	<100	<100	<8.1	<100	<100
Ethylbenzene	NE	<100	<100	<100	<100	<5.0	<100	<100	**8.2**	**120**	<100
m,p-Xylene	887000	<200	<200	<200	<200	**13**	<200	<200	**30**	**360**	**490**
o-Xylene	879000	<100	<100	<100	<100	**6.1**	<100	<100	**12**	**130**	<100
2-Propanol	NE	NA	NA	NA	NA	**360**	NA	NA	**43**	NA	NA
1,1-Difluoroethane	NE	<100	<100	<100	<100	NA	<100	<100	NA	<100	<100
Acetone	NE	NA	NA	NA	NA	**48**	NA	NA	<28	NA	NA
Ethanol	NE	NA	NA	NA	NA	**15**	NA	NA	**41**	NA	NA
Hexane	NE	NA	NA	NA	NA	<4.1	NA	NA	**89**	NA	NA
Cyclohexane	NE	NA	NA	NA	NA	<4.0	NA	NA	**44**	NA	NA
Heptane	NE	NA	NA	NA	NA	<4.8	NA	NA	**31**	NA	NA

Notes:
All results are ug/m3
CHHSL - California Human Health Screening Levels
NE - not established
NA - not analyzed
bold - detection
highlighted - exceeds CHHSL

Table 1.
Summary of Soil Vapor Sample Analytical Results
6175 Southfront Road
Livermore, California

Sample ID	Sample Date	Benzene	cis-1,2-Dichloroethene	Ethylbenzene	Toluene	Vinyl Chloride	Total Xylenes
		µg/L-vapor					
SV-1	7/27/2010	**0.15**	ND	ND	ND	ND	ND
SV-2	7/27/2010	**5.4**	ND	**5.6**	**2.4**	ND	**21.5**
SV-3	7/27/2010	ND	ND	**0.10**	ND	ND	**0.24**
SV-4	7/27/2010	**0.40**	ND	**0.38**	**1.6**	ND	**2.16**
SV-5	7/27/2010	ND	ND	ND	ND	ND	ND
SV-6	7/27/2010	**0.13**	**0.21**	**0.18**	**0.82**	**0.37**	**1.06**
SV-7	7/27/2010	ND	ND	ND	ND	ND	ND
SV-8	7/27/2010	**0.10**	ND	ND	**0.25**	ND	**0.24**
SV-9	7/27/2010	ND	ND	ND	ND	ND	ND
SV-10	7/27/2010	ND	ND	ND	ND	ND	ND
SV-11	7/27/2010	ND	ND	ND	ND	ND	ND
SV-12	7/27/2010	ND	ND	ND	ND	ND	ND
Commercial ESL		0.28	20	3.3	180	0.1	58

Notes:

VOCs = Volatile Organic Compounds; analyzed using EPA Method 8260B (compounds not listed were not detected)

µg/L = micrograms per liter

ND = Not Detected

ESL = Environmental Screening Level - San Francisco Bay Regional Water Quality Control Board, Interim Final - November 2007, Revised May 2008 (applies to property above groundwater that is a current or potential drinking water resource).

TABLE 3

Analytical Results Summary - Soil Vapor
6175 Southfront Avenue
Livermore, California

Sample ID	Date	Depth (ft, bgs)	ASTM-1946D	VOCs by TO-15 (µg/m3)	
			Hellum (%)	Vinyl Chloride	Other VOCs
SV-13 (1)	1/9/2012	4.5 - 5	ND	**730**	+ 27 others
SV-14 (1)	1/9/2012	4.5 - 5	ND	**17,000**	+ 17 others
SV-15	1/9/2012	4.5 - 5	20	< 2.6	+ 15 others
SV-16	1/9/2012	4.5 - 5	ND	< 2.9	+ 20 others
SV-17 (1)	1/9/2012	4.5 - 5	ND	< 9.2	+ 19 others
ESL			---	100	< ESL (varies)

Notes:

	All samples passed shut-in leak detection test.
ft, bgs	Feet below ground surface.
(1)	Low volume sample due to restricted air flow in the formation at this location.
µg/m3	micrograms per cubic meter.
ND	Not Detected. See laboratory analytical data sheets for compound-specific reporting limitis
ESL	California Regional Water Quality Control Board - San Francisco Bay Region, Environmental Screening Levels (ESLs), Table E-2, Shallow Soil Gas Screening Levels for Evaluation of Potential Vapor Intrusion Concerns, Commericial/Industrial exposure, May 2008.
Shaded Value	Detected concentration.
Bold Value	Exceeds the ESL value.

Table 5. VOC Detections in Groundwater
Additional Investigation Summary Report
Former Waste Management of Alameda County, Inc. property, 6175 Southfront Road, Livermore, California

Location	ESL	GW-1-20	GW-1-15	GW-2-12	GW-3-20	GW-4-9.5	GW-5-10.5
Date		11/15/2012	11/16/2012	2/7/2013	2/7/2013	2/7/2013	2/7/2013
Vinyl Chloride	0.5	<1.0	**1.9**	<0.50	<0.50	<0.50	<0.50
cis-1,2-Dichloroethene	6.0	<1.0	<1.0	**0.61**	<0.50	<0.50	<0.50
Benzene	1.0	<1.0	<1.0	<0.50	**91**	<0.50	<0.50
Trichloroethene	5.0	<1.0	<1.0	<0.50	<0.50	<0.50	<0.50
Toluene	40	<1.0	<1.0	<0.50	**31**	<0.50	<0.50
Tetrachloroethene	5.0	<1.0	<1.0	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	30	<1.0	<1.0	<0.50	**300**	<0.50	<0.50
m,p-Xylene	20	<1.0	<1.0	<1.0	**240**	<1.0	<1.0
o-Xylene	20	<1.0	<1.0	<0.50	**89**	<0.50	<0.50
Isopropyl benzene	NE	NA	NA	<0.50	**27**	<0.50	<0.50
n-Propylbenzene	NE	NA	NA	<0.50	**84**	<0.50	<0.50
1,3,5-Trimethylbenzene	NE	NA	NA	<0.50	**140**	<0.50	<0.50
tert-Butylbenzene	NE	NA	NA	<0.50	**21**	<0.50	<0.50
1,2,4-Trimethylbenzene	NE	NA	NA	<0.50	**560**	<0.50	<0.50
sec-Butylbenzene	NE	NA	NA	<0.50	**5.6**	<0.50	<0.50
p-Isopropyltoluene	NE	NA	NA	<0.50	**3.8**	<0.50	<0.50
n-Butylbenzene	NE	NA	NA	<0.50	**19**	<0.50	<0.50
Napthalene	6.2	NA	NA	<0.50	**73**	<0.50	<0.50

All results are ug/l
ESL - Bay Region Water Quality Control Board Environmental Screening Level
NE - not established
NA - not analyzed
bold - detection
highlighted - exceeds ESL

ATTACHMENT 6

TABLE 2

Analytical Results Summary - Groundwater
6175 Southfront Avenue
Livermore, California

		GC FID (mg/L)	EPA 8015M w/SGT (mg/L)		VOCs EPA 8260B (µg/L)		
Boring	Date	TPH Gasoline	TPH Diesel	TPH Motor Oil	Toluene	Vinyl Chloride	Other VOCs
SB-1-W (1)	1/5/2012	NA	< 0.050	< 0.050	NA	NA	NA
SB-2-W (2)	1/5/2012	NA	< 0.050	< 0.050	NA	NA	NA
SB-3-W (1,3)	1/5/2012	< 0.050	< 0.050	< 0.050	1.1	< 0.5	ND
ESL (E-1)		---	---	---	530,000	13	
ESL (F-1a)		0.1	0.1	0.1	40	0.5	
MCL		---	---	---	150	0.5	

Notes:

(1) Field filtered with a 0.45 µm cartridge filter.
(2) Laboratory filtered prior to analysis. Elevated sediment precluded efficient field filtering.
(3) TPH portion of the sample extracted beyond prescribed hold time; however, data are conistent with VOC results are considered representative.
mg/L milligrams per liter or parts per million (ppm).
µg/L micrograms per liter or parts per billion (ppb).
TPH Total petroleum hydrocarbons.
SGT Silica gel treatment to remove naturally occuring organic material (polar compounds).
VOCs Volatile organic compounds.
NA Not Analyzed.
ND Not Detected. See laboratory analytical data sheets for compound-specific reporting limiits.
ESL (E-1) California Regional Water Quality Control Board - San Francisco Bay Region, Environmental Screening Levels (ESLs), Table E-1, Groundwater Screening Levels for Evaluation of Potential Vapor Instrusion Concerns, Commercial/Industrial Land Use, May 2008.
ESL (F-1a) California Regional Water Quality Control Board - San Francisco Bay Region, Environmental Screening Levels (ESLs), Table F-1a, Groundwater Screening Levels (groundwater is a current or potential drinking water source), May 2008.
MCL California State Water Resources Control Board, Primary Maxiimun Contaminant Level, on-line searchable database as of 2/3/12.
--- No reported value.
Shaded Value Detected concentration.
Bold Value Exceeds the ESL value.

Table 3.
Summary of Groundwater Sample Analytical Results
6175 Southfront Road
Livermore, California

Sample ID	Sample Date	TPH-g	TPH-d	TPH-mo	VOCs
		µg/L			
GW-1	7/28/2010	<50	<50	<250	ND
GW-2	7/28/2010	<50	<50	<250	ND
GW-3	7/28/2010	<50	<50	<250	ND
GW-4	7/28/2010	<50	**1,000**	**4,600**	ND
GW-5	7/28/2010	<50	<50	<250	ND
ESL		100	100	100	varies

Notes:

TPH-g = Total Petroleum Hydrocarbons as gasoline; analyzed using EPA Method 8015Bm

TPH-d = Total Petroleum Hydrocarbons as diesel fuel; analyzed using EPA Method 8015B

TPH-mo = Total Petroleum Hydrocarbons as motor oil; analyzed using EPA Method 8015B

VOCs = Volatile Organic Compounds; analyzed using EPA Method 8260B

µg/L = micrograms per liter (or parts per billion; ppb)

ND = Not Detected (includes all constituents analyzed by this EPA Method)

ESL = Environmental Screening Level - San Francisco Bay Regional Water Quality Control Board, Interim Final - November 2007, Revised May 2008 (applies to groundwater that is a current or potential drinking water resource).

Table 3 Summary of Ground-Water Analytical Results, Livermore-Dublin Disposal, Livermore, California

Monitoring Well (MW) or Soil Boring (SB)[1]	Date[2]	TPH-G (mg/l)	TPH-D (mg/l)	B (µg/l)	T (µg/l)	X (µg/l)	E (µg/l)
MW-1	12/10/88	NA	NA	17,000	23,000	18,000	3,800
	8/16/90	61	1.0	9,000	6,300	3,500	860
	10/9/90	47	ND	4,300	3,500	2,100	450
MW-2	9/15/89	0.89	ND	1,300	1,200	890	220
	8/16/90	18	0.40	2,600	1,200	800	200
	10/9/90	17	ND	3,800	3,100	1,600	350
MW-3	9/15/89	ND	ND	ND	ND	ND	ND
	8/16/90	ND	0.24	ND	ND	ND	ND
	10/9/90	ND	ND	0.80	1.1	0.90	ND
MW-4	9/15/89	ND	ND	24.0	1.2	20.0	5.0
	8/16/90	0.20	ND	18.0	1.8	2.4	4.0
	10/9/90	ND	ND	14.0	2.2	5.0	3.0
MW-5	10/10/90	ND	ND	1.2	0.49	ND	ND
MW-6	10/9/90	3.8	ND	220	310	280	58
MW-7	10/8/90	0.96	ND	100	34	110	32
SB-1	10/4/90	2.0	ND	55	160	180	34
SB-2	10/4/90	ND	ND	ND	ND	ND	ND
SB-3	10/4/90	2.7	ND	430	390	290	63
SB-4	10/4/90	19	15	870	1500	1400	260
SB-5	10/5/90	ND	ND	ND	ND	ND	ND
SB-6	10/5/90	ND	ND	ND	ND	ND	ND
SB-8	10/5/90	ND	ND	ND	ND	ND	ND

1. Soil Boring water collected by Hydropunch™

2. 12/10/88 Sampled by Hydro-Search, Inc. (Presented in "Additional Site Assessment Livermore-Dublin Disposal Livermore, California", dated December 6, 1989)
   9/15/89 Sampled by Hydro-Search, Inc.
   8/16/90 Sampled by California Water Labs
   10/4 to 10/10/90 Sampled by Hydro-Search, Inc.

Total Petroleum Hydrocarbons (TPH)-Gasoline (G) analyzed by Environmental Protection Agency (EPA) method 5030/8015 (mod).
TPH-Diesel (D) analyzed by EPA method 3510/8015 (mod)

The following were analyzed by EPA 8020/602 for all dates:

B = Benzene
T = Toluene
X = Total Xylenes
E = Ethylbenzene

NA = Not Analyzed
ND = Not Detected at the detection limits stated.

TABLE 5

ANALYTICAL DATA SUMMARY

LIVERMORE-DUBLIN DISPOSAL FACILITY
LIVERMORE, CALIFORNIA

Well I.D.	Sample Date	TRPH (µg/L)	TEPH-D (µg/L)	TPPH-G (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Xylenes Total (µg/L)	MTBE (µg/L)
MW-1	8/16/90	NA	1,000	61,000	9,000	6,300	860	3,500	NA
MW-1	2/14/91	<5,000	5,300	14,000	3,600	2,300	400	2,400	NA
MW-1	5/14/91	NA	<500	16,000	2,900	2,100	85	1,000	NA
MW-1	12/12/91	NA	340	7,400	2,400	450	10	450	NA
MW-1	2/6/92	<5,000	4,000	13,000	2,500	1,400	160	850	NA
MW-2	8/16/90	NA	400	18,000	2,600	1,200	200	800	NA
MW-2	2/14/91	<5,000	5,400	13,000	2,800	2,100	420	3,500	NA
MW-2	5/14/91	NA	<500	12,000	6,200	460	190	410	NA
MW-2	12/12/91	NA	720	14,000	4,900	1,500	<10	4,300	NA
MW-2	2/6/92	<5,000	620	7,600	2,900	450	120	930	NA
MW-2	6/17/92	<5,000	500	2,700	740	32	9	93	NA
MW-2	8/17/92	<5,000	140	2,900	670	12	13	65	NA
MW-2	11/20/92	<5,000	120	480	190	17	9.2	16	NA
MW-2	2/22/93	<5,000	<50	120	<0.3	<0.3	<0.3	1.2	NA
MW-2	5/20/93	27,000	<100	8,400	780	150	25	450	NA
MW-2	8/17/93	<5,000	<50	320	<12	<3	<3	<6	NA
MW-2	11/16/93	**	**	**	**	**	**	**	NA
MW-2	2/24/94	<1,000	<50	1,400	320	38	72	61	NA
MW-2	5/13/94	<1,000	<50	370	10	1.8	0.3	5.8	NA
MW-2	8/16/94	<1,000	<50	80	1.5	0.7	<0.3	4.4	NA
MW-2	11/8/94	<1,000	<50	<50	0.8	<0.3	<0.3	<0.6	NA
MW-2	1/30/95	1,200	<50	660	240	14	52	53	NA
MW-2	5/2/95	13,000	<50	700	470	24	41	92	NA
MW-2	8/2/95	<1,000	<50	140	30	0.38	2.9	11	NA
MW-2	10/31/95	1,500	<50	2,800	1,500	9.2	74	43	NA
MW-2	3/14/96	<1,000	1,200	5,100	1,400	<20	260	140	NA
MW-2	6/14/96	<1,000	390	700	140	<5	29	33	NA
MW-2	3/27/97	<1,100	200	<50	9.1	<0.50	2.6	0.96	NA
MW-2	11/7/97	<5,000	120	<50	1.5	<0.50	<0.50	<0.50	<2.5

TABLE 5 (Continued)

ANALYTICAL DATA SUMMARY

LIVERMORE-DUBLIN DISPOSAL FACILITY
LIVERMORE, CALIFORNIA

Well I.D.	Sample Date	TRPH (µg/L)	TEPH-D (µg/L)	TPPH-G (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Xylenes Total (µg/L)	MTBE (µg/L)
MW-3	8/16/90	NA	240	<50	<0.5	<0.5	<0.5	<0.5	NA
MW-3	2/14/91	<5,000	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
MW-3	5/14/91	NA	60	<50	<0.5	<0.5	<0.5	<0.5	NA
MW-3	12/12/91	NA	50	<50	<0.5	<0.5	<0.5	<0.5	NA
MW-3	2/6/92	<5,000	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
MW-3	6/17/92	<5,000	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
MW-3	8/17/92	<5,000	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
MW-3	11/20/92	<5,000	<50	<50	1.8	7.2	0.75	4.4	NA
MW-3	2/22/93	<5,000	<100	<50	<0.3	<0.3	<0.3	<0.6	NA
MW-3	5/20/93	<5,000	<50	<50	<0.3	<0.3	<0.3	<0.6	NA
MW-3	8/17/93	<5,000	<100	<50	<0.3	<0.3	<0.3	<0.3	NA
MW-3	11/16/93	<1,100	<50	<50	<0.3	<0.3	<0.3	<0.5	NA
MW-3	2/24/94	<1,000	<51	<50	<0.3	<0.3	<0.3	<0.6	NA
MW-3	5/13/94	<1,000	<50	<50	<0.3	<0.3	<0.3	<0.6	NA
MW-3	8/16/94	<1,000	<50	<50	<0.3	<0.3	<0.3	<0.6	NA
MW-3	11/8/94	<1,000	<50	<50	<0.3	<0.3	<0.3	<0.6	NA
MW-3	1/30/95	<1,000	<50	<50	<0.3	<0.3	<0.3	<0.6	NA
MW-4	8/16/90	NA	<100	200	18	1.8	4	2.4	NA
MW-4	2/14/91	<5	<50	<50	1.5	<0.5	<0.5	<0.5	NA
MW-4	5/14/91	NA	<50	<50	1.1	<0.5	<0.5	<0.5	NA
MW-4	12/12/91	NA	60	140	<0.5	0.6	11	2.6	NA
MW-4	2/6/92	<5,000	<50	120	51	0.6	5.9	1.6	NA
MW-4	6/17/92	<5,000	60	200	11	0.5	3.9	1.5	NA
MW-4	8/17/92	<5,000	<50	74	4.1	<0.5	1.9	1.9	NA
MW-4	11/20/92	<5,000	<50	70	4.5	6.6	3.7	4.2	NA
MW-4	2/22/93	<5,000	<50	420	25	<0.3	9.7	2.4	NA
MW-4	5/20/93	<5,000	<100	<50	<0.3	<0.3	<0.3	<0.6	NA
MW-4	8/17/93	<5,000	<50	280	<3	<3	<3	<6	NA
MW-4	11/16/93	<1,020	<51	160	4.9	<0.3	2.62	0.942	NA
MW-4	2/24/94	<1,000	<50	70	1.9	<0.3	1.6	<0.6	NA
MW-4	5/13/94	<1,000	<50	210	2.3	<0.3	2.8	0.9	NA
MW-4	8/16/94	<1,000	<50	33	4.1	2.1	7.6	2.6	NA
MW-4	11/8/94	<1,000	<50	120	0.67	<0.3	1.5	<0.6	NA

TABLE 5 (Continued)

ANALYTICAL DATA SUMMARY

LIVERMORE-DUBLIN DISPOSAL FACILITY
LIVERMORE, CALIFORNIA

Well I.D.	Sample Date	TRPH (µg/L)	TEPH-D (µg/L)	TPPH-G (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Xylenes Total (µg/L)	MTBE (µg/L)
MW-4	1/30/95	<1,000	<50	<50	0.41	<0.3	0.46	<0.6	NA
MW-4	8/2/95	<1,000	<50	<50	0.37	<0.3	0.33	<0.6	NA
MW-4	3/14/96	<1,000	69	130	1.6	<0.50	1.3	<0.50	NA
MW-4	3/27/97	<1,100	120	130	<0.50	0.52	1.2	<0.50	NA
MW-4	11/7/97	<5,000	71	<50	<0.50	<0.50	<0.50	<0.50	<2.5
MW-5	2/14/91	<5,000	<50	<50	<50	<50	<50	<50	NA
MW-5	5/14/91	NA	100	<50	<50	<50	<50	<50	NA
MW-5	12/12/91	NA	410	64,000	490	140	10	1,500	NA
MW-5	2/6/92	<5,000	<50	<50	<50	<50	<50	<50	NA
MW-5	6/1792	<5,000	<50	<50	<50	<50	<50	<50	NA
MW-5	8/17/92	<5,000	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
MW-5	11/20/92	<5,000	<50	<50	1.6	6.8	0.66	3.9	NA
MW-5	2/22/93	<5,000	<50	80	2.6	53	0.6	1.3	NA
MW-5	5/20/93	<5,000	<100	160	5.7	0.4	3.8	8.3	NA
MW-5	8/17/93	<5,000	<50	<50	<0.3	<0.3	<0.3	<0.3	NA
MW-5	11/16/93	<1,110	<51.5	<50	<0.3	<0.3	<0.3	<0.5	NA
MW-5	2/24/94	<1,000	<50	<50	<0.3	<0.3	<0.3	<0.6	NA
MW-5	5/13/94	<1,000	<50	<50	<0.3	<0.3	<0.3	<0.6	NA
MW-5	8/16/94	<1,000	<50	<50	<0.3	<0.3	<0.3	<0.6	NA
MW-5	11/18/94	<1,000	<50	<50	<0.3	<0.3	<0.3	<0.6	NA
MW-5	1/30/95	4.3	<50	<50	<0.3	<0.3	<0.3	<0.6	NA
MW-5	3/14/96	<1,000	120	79	<0.50	<0.50	3.7	1.4	NA
MW-5	3/27/97	<1,100	120	<50	<0.50	<0.50	2.3	<0.50	NA
MW-5	11/7/97	<5,000	<50	<50	<0.50	<0.50	<0.50	<0.50	<2.5
MW-6	2/14/91	<5,000	1,400	2,900	580	420	110	990	NA
MW-6	5/14/91	NA	<50	1,600	360	36	31	42	NA
MW-6	12/12/91	NA	<50	<50	>0.5	<0.5	<0.5	<0.5	NA
MW-6	2/6/92	<5,000	560	3,000	560	93	31	290	NA
MW-6	6/17/92	<5,000	90	610	49	2.8	5.6	12	NA
MW-6	8/17/92	<5,000	340	790	50	3.9	6.7	32	NA
MW-6	11/20/92	<5,000	260	980	96	12	14	14	NA

TABLE 5 (Continued)

ANALYTICAL DATA SUMMARY

LIVERMORE-DUBLIN DISPOSAL FACILITY
LIVERMORE, CALIFORNIA

Well I.D.	Sample Date	TRPH (µg/L)	TEPH-D (µg/L)	TPPH-G (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Xylenes Total (µg/L)	MTBE (µg/L)
MW-6	2/22/93	<5,000	<50	3,300	810	<0.3	2.6	520	NA
MW-6	5/20/93	<5,000	<100	4,600	370	5.6	4.4	190	NA
MW-6	8/17/93	<5,000	<50	650	<3	<3	<3	<6	NA
MW-6	11/16/93	<1.06	<50.5	328	11.2	<0.3	2.21	4.74	NA
MW-6	2/24/94	1,100	<50	1,900	240	2.7	93	290	NA
MW-6	5/13/94	1,200	<50	330	6.6	0.4	0.4	18	NA
MW-6	8/16/94	2,900	<50	<50	43	0.31	<0.3	0.61	NA
MW-6	11/8/94	<1,000	<50	260	14	1.1	1.7	2.9	NA
MW-6	1/30/95	<1,000	<50	<50	3.4	<0.3	0.45	0.75	NA
MW-6	5/2/95	12	<50	620	91	0.80	93	45	NA
MW-6	8/2/95	<1,000	<50	110	3.3	<0.3	3.5	<0.6	NA
MW-6	10/31/95	<1,000	<50	210	26	<0.3	4.7	7.2	NA
MW-6	3/14/96	<1,000	1,600	2,700	210	<10	100	66	NA
MW-6	6/14/96	<1,000	310	720	52	<5	26	9.8	NA
MW-6	3/27/97	<1,100	700	700	<5.0	40	12	7.6	NA
MW-6	11/7/97	<5,000	370	220	5.8	<0.50	1.5	0.51	2.8
MW-7	2/14/91	NA	110	200	11	1.5	14	62	NA
MW-7	5/14/91	NA	100	63	4	0.6	0.9	1.5	NA
MW-7	12/12/91	NA	<50	60	<0.5	<0.5	1.5	0.6	NA
MW-7	2/6/92	<5,000	60	290	3.6	2.3	7.1	14	NA
MW-7	6/17/92	<5,000	60	150	8.5	0.6	8.6	5	NA
MW-7	8/17/92	<5,000	50	69	4.1	0.82	1.2	4.8	NA
MW-7	2/22/93	<5,000	<50	960	44	<0.3	2	38	NA
MW-7	5/20/93	<5,000	<100	<50	<0.3	<0.3	<0.3	<0.6	NA
MW-7	8/17/93	<5,000	<50	100	<3	<3	<3	<6	NA
MW-7	11/16/93	<1,050	<53.2	171	0.922	<0.3	1.96	<0.5	NA
MW-7	2/24/94	<1,000	<50	160	5.8	<0.3	2.5	12	NA
MW-7	5/13/94	<1,000	<50	<50	<0.3	<0.3	<0.3	<0.6	NA
MW-7	8/16/94	<1,000	<50	<50	0.37	0.33	<0.3	<0.6	NA
MW-7	11/8/94	<1,000	<50	<50	<0.3	<0.3	<0.3	<0.6	NA
MW-7	1/30/95	<1,000	<50	<50	<0.3	<0.3	0.37	<0.6	NA

TABLE 5 (Continued)

ANALYTICAL DATA SUMMARY

LIVERMORE-DUBLIN DISPOSAL FACILITY
LIVERMORE, CALIFORNIA

Well I.D.	Sample Date	TRPH (µg/L)	TEPH-D (µg/L)	TPPH-G (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Xylenes Total (µg/L)	MTBE (µg/L)
MW-7	8/2/95	<1,000	<50	<50	<0.3	<0.3	<0.3	<0.6	NA
MW-7	3/14/96	<1,000	380	490	2.4	<1.2	25	6.1	NA
MW-7	3/27/97	<1,100	230	160	1.4	<1.0	7.8	2	NA
MW-7	11/7/97	<5,000	74	110	1.2	<0.50	5.1	1.3	<2.5

Notes:

Total Petroleum Hydrocarbons and Oil and Grease were analyzed using USEPA Methods 413.2, 418.1, 3510, and SM5520B.
Total Extractable Petroleum Hydrocarbons as Diesel were analyzed using USEPA Method Modified 8015/3510.
Total Purgeable Petroleum Hydrocarbons as Gasoline were analyzed using USEPA Methods 602/5030, 8015Mod/8020, or 624.

**	Groundwater sample not collected from MW-2 on November 16, 1993 because extraction pump was out of operation.
NA	Not Analyzed.
<5,000	Not detected at or above stated detection limit.
µg/L	Micrograms per liter.