

Project No.  
**7828.000.001**

April 19, 2013

Ms. Dilan Roe  
Alameda County Environmental Health  
1131 Harbor Bay Parkway  
Alameda, CA 94502-6577

**RECEIVED**

*By Alameda County Environmental Health at 11:03 am, Apr 24, 2013*

Subject: Jordan Ranch Parcel H (Case # R00002918)  
Dublin, California

## **SOIL GAS SAMPLING REPORT – THIRD ROUND**

- References:
1. Department of Toxic Substance Control (DTSC); Final Advisory Active Soil Gas Investigations; April 2012.
  2. ENGEO; Soil Gas Assessment, Jordan Ranch Parcel H (Case # R00002918), Dublin, California; Project No. 7828.000.001; July 24, 2012.

Dear Ms. Roe:

ENGEO conducted a third round of soil gas sampling at the Jordan Ranch Parcel H (Site), located in Dublin, California (Figure 1). The soil gas sampling was performed to evaluate potential vapor intrusion concerns within the former underground storage tank (UST) area (Figure 2).

### **BACKGROUND**

There are currently no structures within the former UST area. Construction of residential units within the Site may be planned for sometime in the future. As part of the proposed future development, up to five vertical feet of engineered fill may be placed on top of the existing grade for drainage purposes.

We installed four soil gas wells within the primary source area at the Site in June 2012. Details regarding the installation of the wells are provided in our referenced July 2012 soil gas assessment report. The first sampling event, performed at the time of well installation, yielded one detection of benzene that exceeded the residential environmental screening levels (ESLs) listed in Table E-2 published by the Regional Water Quality Control Board, San Francisco Region (SFRWQCB). During a subsequent soil gas monitoring event in October, constituents were not detected at concentrations above residential ESLs.

Elevated concentrations of total petroleum hydrocarbons as gasoline (TPHg) and benzene have been detected in shallow groundwater (within 20 feet of the ground surface); however, these groundwater zones are present in perched, thin, discontinuous lenses separated by large intervals of dry soil. As a result, the total contaminant mass present in these groundwater zones is relatively minor. The relatively limited detections in soil gas are attributed to the lack of significant quantities of contaminant mass within these groundwater zones. Furthermore, the remedial excavation of the former UST basin in 2011 removed the majority of the petroleum-impacted soil.

## SOIL GAS SAMPLING

We collected soil gas samples from the four soil gas monitoring wells on February 21, 2013. We performed the sample collection in accordance with the 2012 Department of Toxic Substances Control (DTSC) guidance as follows:

- Prior to the connection of the sampling apparatus (“sample train”) to the well casing and system, we performed a “shut-in” test to assess potential leaks in the system. The test involved capping the end of the manifold, then applying a vacuum with the vacuum pump, closing the purge valve, and observing the vacuum gauge for two minutes to determine if there was a drop in vacuum. We observed no significant decreases in vacuum during the shut-in tests performed for this sampling event.
- We then connected the sample train to the well casing by threading the permanent Swagelok® fitting on the well casing onto the manifold. The sample train consisted of a stainless steel twin summa manifold with built in flow controller set to 100-200 ml/min. A purge vacuum pump was attached to the manifold fitting closest to the well casing, and the sample canister was connected to the manifold fitting furthest away from the well casing. We then purged three well volumes of soil gas from each well, followed by collection of soil gas samples in the summa cannisters provided by the laboratory. Purge specifications are provided in Table A:

**TABLE A**  
Summary of Purging Process

Casing Length (feet)	Casing Volume Per Foot (ml)	Total Casing Volume (ml)	Sand Pack Pore Volume (ml) (50% Porosity)	Total Well Volume (ml)	Minutes (3x)
9.5	5	47.5	1,390	1437.5	27.8

Notes: Purge minutes are based on a flowrate of 150 ml/min  
Sandpack is 3" diameter by 2 feet in length

- After purging was completed, we closed the purge valve on the manifold and removed the vacuum pump so that it could be connected to the next well. Representative samples were collected by opening the sample canister valve and allowing the sample canister to extract soil gas until the vacuum in the sample canister reached approximately 4 to 5.5 inches of mercury. The leak detection compound 1,1-Difluoroethane was applied by wrapping a doused rag around the manifold fittings during sample collection. The soil gas sample train diagram is shown on Figure 4. We labeled each sample canister with a unique identification number, sampling time, and pre- and post-sample vacuum readings. The six soil gas samples were submitted to a State-certified laboratory for analysis of volatile organic compounds (VOCs), including TPHg and naphthalene, by EPA Test Method TO-15.

## LABORATORY ANALYTICAL RESULTS

The only reportable detection was that of toluene, at a concentration of 5.8 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ). No other analytes were detected above laboratory reporting limits. The leak check compound 1,1-DFA was detected only in SG-2 at a concentration well below the 10,000- $\mu\text{g}/\text{m}^3$  threshold that DTSC established for determining if significant leakage has occurred. Table 1 (attached) provides a cumulative summary of all soil gas detections for the four monitoring wells.

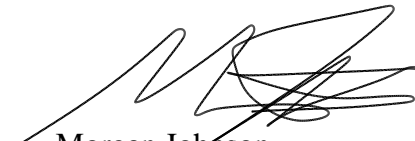
## **FUTURE WORK**

We submitted the results of the supplemental groundwater assessment, updated SCM, and risk assessment to ACEH in early April 2013. The updated SCM concluded that the Site meets the criteria of the SWRCB Low-Threat Closure Policy and the secondary source has been removed to the extent practicable. Additional soil gas sampling events will be conducted in May and August 2013. Provided these sampling events verify stable and/or decreasing trends in contaminants, we expect to submit a formal case closure request in September 2013.

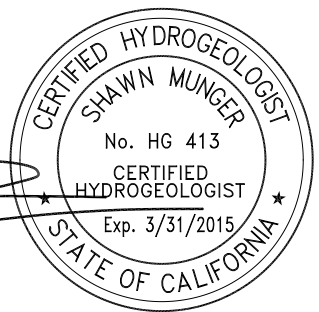

If you have any questions regarding this report, please do not hesitate to contact us.

Sincerely,


ENGEO Incorporated



Morgan Johnson



Shawn Munger, CHG



Jeffrey A. Adams, PhD, PE

Attachments: Table 1 – Soil Gas Analytical Data  
Figures  
Eurofins Air Toxics, Inc., Certified Laboratory Report and Chain of Custody

cc: Mr. Ravi Nandwana, BJP-ROF Jordan Ranch, LLC  
Mr. Kevin Fryer, BJP-ROF Jordan Ranch, LLC

**TABLE 1**

Soil Gas Analytical Data

Table 1  
Soil Gas Analytical Data  
Jordan Ranch Parcel H

Sample ID	Date	TPHg	Benzene	Toluene	EB	m,p-Xyl	o-Xyl	1,2,4-TMB	1,3,5-TMB	4-ET	Freon 11	Ethanol	Acetone	2-Prop	2,2,4-TMP	1,3-BTD	CDS	Hexane	2-BTN	CLF	CHX	HPT	NPTH	4-MP	1,1-DFA	
		µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3
SG-1	6/29/2012	3,900	14	9.7	<3.6	7.1	<3.6	6.2	<4.1	<4.1	13	<6.3	64	22	28	4.2	12	10	<9.9	<4.1	7.9	5.6	<18	<3.4	<9.1	
SG-1	10/4/2012	650	<4	<4.7	<5.5	<5.5	<5.5	<6.2	<6.2	<6.2	18	<9.5	<30	<12	<5.9	<2.8	<16	<4.4	<15	<6.2	<4.3	<5.2	<26	<5.2	<14	
SG-1	2/21/2013	<250	<3.9	<4.6	<5.4	<5.4	<5.4	<6.1	<6.1	<6.1	<6.9	<9.3	<29	<12	<5.8	<2.7	<15	<4.4	<14	<6	<4.2	<5.1	<26	<5	<13	
SG-2-1X	6/29/2012	3,000	11	12	6	18	13	9.7	7.4	12 K	13	12	<26	79	5.5	<2.4	<13	<3.8	<13	<5.2	<3.7	<4.4	<22	<4.4	<12	
SG-2-3X	6/29/2012	1,900	6.6	11	<3.5	13	8	7.7	5.3	4	14	7.7	20	<7.9	<3.8	<1.8	<10	<2.8	<9.5	<3.9	<2.8	<3.3	<17	<3.3	<8.7	
SG-2-10X	6/29/2012	1,100	5.2	9.9	<3.4	6.4	3.9	4	<3.8	<3.8	16	12	32	<7.6	<3.6	<1.7	<9.6	<2.7	<9.1	<3.8	<2.7	<3.2	<16	<3.2	<8.4	
SG-2	10/4/2012	450	<4	<4.7	<5.5	<5.5	<5.5	<6.2	<6.2	<6.2	14	<9.5	<30	<12	<5.9	<2.8	<16	<4.4	<15	<6.2	<4.3	<5.2	<26	<5.2	98	
SG-2	2/21/2013	<250	<3.9	5.8	<5.2	<5.2	<5.2	<5.9	<5.9	<6.8	23	<29	<12	<12	<5.6	<2.7	<15	<4.3	<14	<5.9	<4.2	<5	<25	<5	40	
SG-3	6/29/2012	30,000	94	220	41	140	41	22	<16	16 J	<19	100	2100	<33	<16	110	160	210	57	20	18	120	<70	<14	<36	
SG-3	10/4/2012	1,500	<4.6	<5.4	<6.3	<6.3	<6.3	<7.1	<7.1	<7.1	8.5	<11	<34	<14	<6.8	<3.2	37	<5.1	<17	<7	<5	<5.9	<30	<5.9	<16	
SG-3	2/21/2013	<470	<7.4	<8.7	<10	<10	<10	<11	<11	<13	<17	<55	<23	<11	<5.1	<29	<8.2	<27	<11	<8	<9.5	<49	<9.5	<25		
SG-4	6/29/2012	820	5.2	26	5.1	18	5.5	7.8	<4.2	<4.2	<4.8	<6.4	540	<8.4	<4	<1.9	<11	<3	<10	<4.2	<2.9	<3.5	<18	3.7	<9.2	
SG-4	10/4/2012	<270	<4.2	<5	<5.7	<5.7	<5.7	<6.5	<6.5	<6.5	<7.4	<9.9	<31	<13	<6.2	<2.9	<16	<4.6	<16	<6.4	<4.5	<5.4	<28	<5.4	<14	
SG-4	2/21/2013	<240	<3.8	<5.2	<4.5	<5.2	<5.2	<5.8	<5.8	<5.8	<6.7	<9	100	<12	<5.6	<2.6	<15	<4.2	<14	<5.8	<4.1	<4.9	<25	<4.9	<13	
CHHSL (Residential - Soil Gas)		NR	36.2	135,000	NR	315,000	315,000	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	0.072	NR	NR
ESL (Table E-2 Residential -Soil Gas)		370,000	42	160,000	490	52,000	52,000	NR	NR	NR	NR	NR	16,000,000	NR	NR	NR	NR	NR	NR	230	NR	NR	NR	36	NR	NR
DTSC 2003 Advisory 1,1-DFA		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	10,000

Notes:  
ET-Ethyltoluene  
TMB-Trimethylbenzene  
Prop-Propanol  
TMP-Trimethylpentane  
PCE-Tetrachloroethylene  
EB-Ethylbenzene  
BTD-Butadiene  
CDS-Carbon Disulfide  
BTN-Butanone  
CLF-Chloroform  
CHX-Cyclohexane  
HPT-Heptane  
4-MP-4-Methyl-2-pentanone  
NPTH-Napthalene  
ND-Not detected above laboratory reporting limits  
NR-Not reported  
J-Estimated Value  
K-Potential Interference

## **FIGURES**

- Figure 1 – Site Vicinity Map
- Figure 2 – Concentrations of VOCs in Soil Gas
- Figure 3 – Soil Gas Well Construction Diagram
- Figure 4 – Soil Gas Sample Train Diagram



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BASE MAP SOURCE: GOOGLE EARTH



VICINITY MAP  
JORDAN RANCH - PARCEL H  
DUBLIN, CALIFORNIA

PROJECT NO.: 7828.000.001

DATE: AS SHOWN

DRAWN BY: DLB

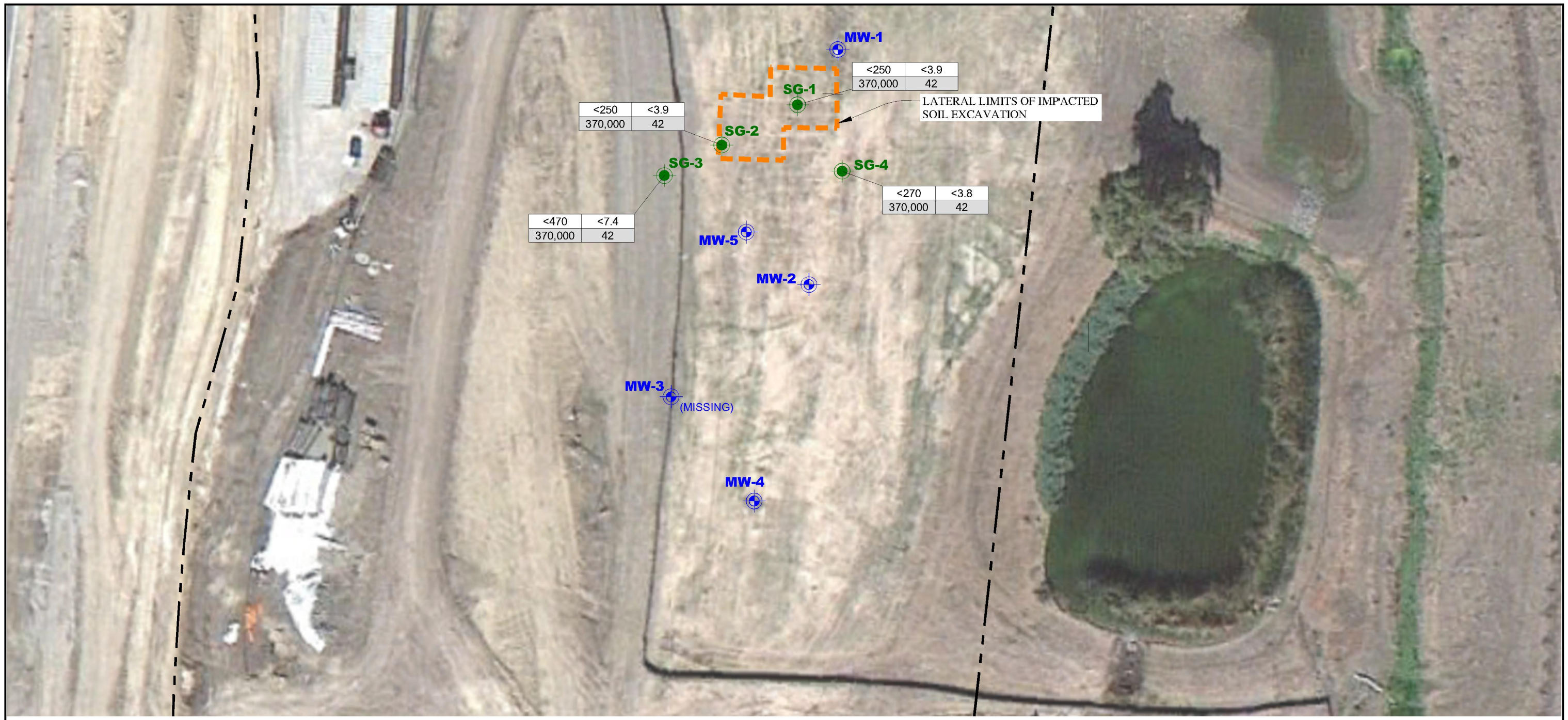
CHECKED BY: SM

FIGURE NO.



1



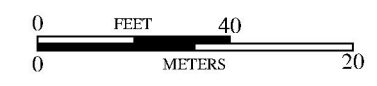
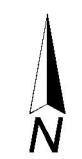
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**EXPLANATION**

- MW-5**  APPROXIMATE LOCATION OF MONITORING WELL
- SG-4**  APPROXIMATE LOCATION OF SOIL GAS WELL

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE (TPHg) CONCENTRATION ( $\mu\text{g}/\text{m}^3$ )	
<270	<4.2
10,000	84
RESIDENTIAL ENVIRONMENTAL SCREENING LEVELS (ESL.s)	

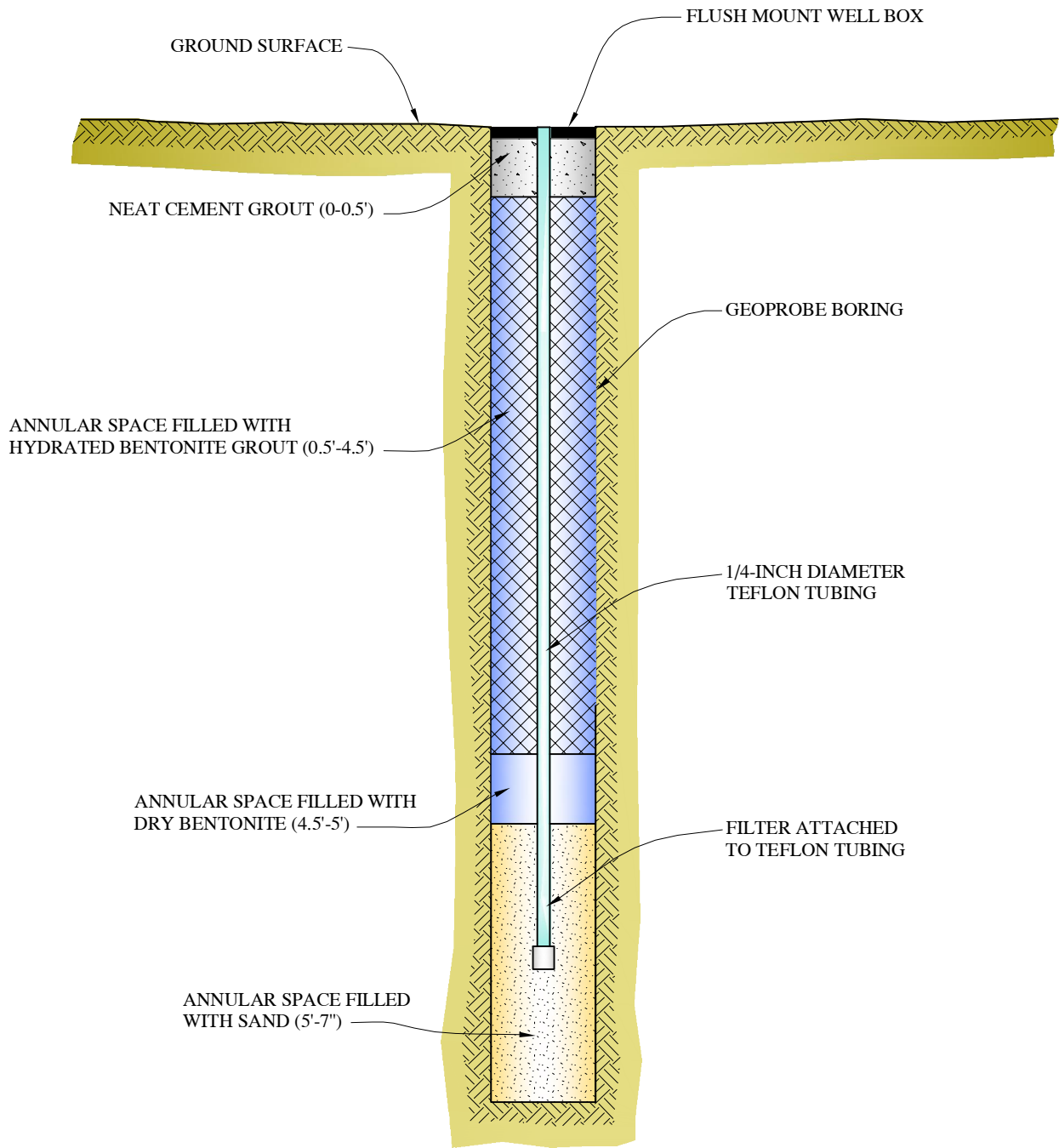


BASE MAP SOURCE: GOOGLE EARTH, ST. ANTON

	<p align="center"><b>CONCENTRATIONS OF VOLATILE ORGANIC COMPOUNDS IN SOIL GAS - FEBRUARY 2013</b></p> <p align="center">JORDAN RANCH - PARCEL H DUBLIN, CALIFORNIA</p>	<p>PROJECT NO.: 7828.000.001</p>	<p>FIGURE NO.</p>
		<p>SCALE: AS SHOWN</p>	<p align="center" style="font-size: 2em;"><b>2</b></p>
		<p>DRAWN BY: DLB    CHECKED BY: SM</p>	



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SOIL GAS WELL CONSTRUCTION DIAGRAM  
JORDAN RANCH - PARCEL H  
DUBLIN, CALIFORNIA

PROJECT NO.: 7828.000.001

SCALE: NO SCALE

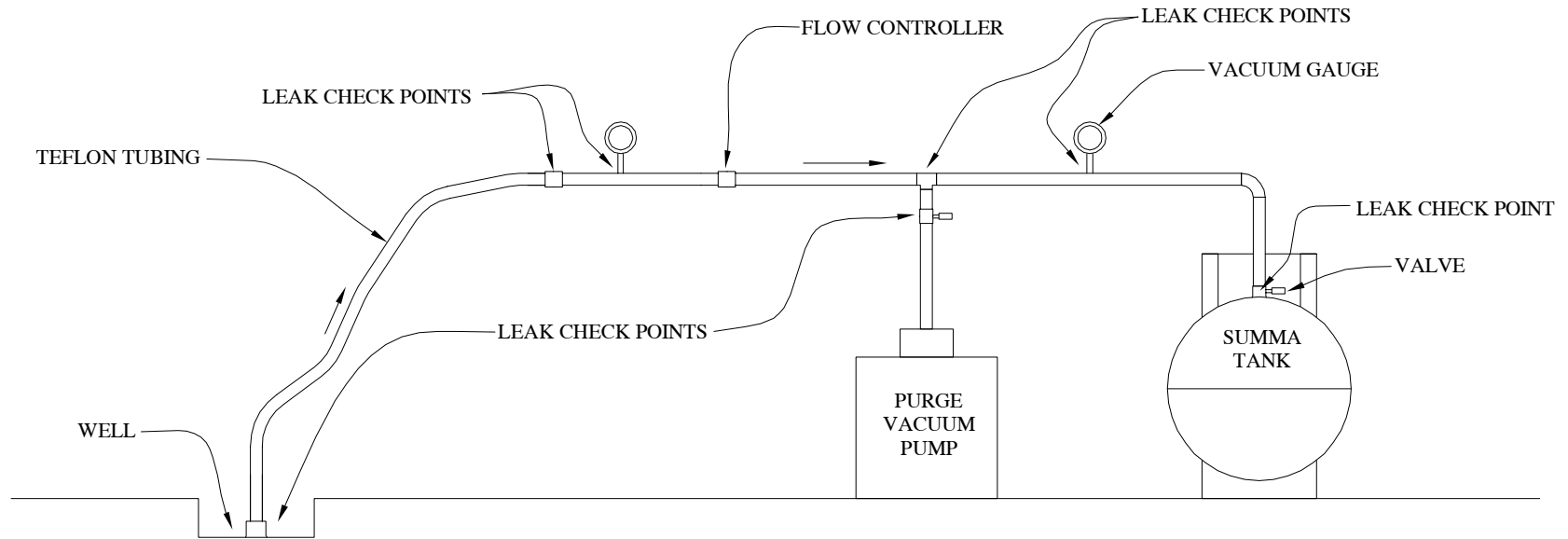
DRAWN BY: DLB


CHECKED BY: SM

FIGURE NO

3

G:\Drafting\DRAWING2\DWG\7828\000\SW-MONITORING\Q11-2013\SoilGas\7828000001-ParcelH-4-SoilGasSampleTrain-0413.dwg Plot Date: 4-19-13 dborde



	SOIL GAS SAMPLE TRAIN JORDAN RANCH - PARCEL H DUBLIN, CALIFORNIA		PROJECT NO.: 7828.000.001	FIGURE NO.  <span style="font-size: 2em;">4</span>
			SCALE: NO SCALE	
			DRAWN BY: DLB    CHECKED BY:	

**EUROFINS AIR TOXICS, INC.**

**Certified Laboratory Report and Chain of Custody**

7828.000.001  
April 19, 2013





**CHAIN-OF-CUSTODY RECORD**

**Sample Transportation Notice**

Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922.

180 BLUE RAVINE ROAD, SUITE B  
FOLSOM, CA 95630

(916) 985-1000 FAX (916) 985-1020

Project Manager Morgan Johnson

Collected by: (Print and Sign) Connie Ing

Company Engco Email mjohnson@engco.com  
c.ing@engco.com

Address 2010 Crow Canyon City San Ramon State CA Zip 94583

Phone 916-580-6518 Fax 888-279-2698

<b>Project Info:</b>	Turn Around Time:	Lab Use Only
	<input checked="" type="checkbox"/> Normal	Pressurized by:
P.O. # _____	<input type="checkbox"/> Rush	Date:
Project # <u>7828.000.061</u>	specify _____	Pressurization Gas:
Project Name <u>Jordan Ranch</u>		N He

Lab I.D.	Field Sample I.D. (Location)	Flow Controller ID	Can #	Date of Collection	Time of Collection	Analysis Requested	Canister Pressure/Vacuum			
							Initial	Final	Receipt	Final (psi)
<u>01A</u>	<u>SG-1</u>		<u>34656</u>	<u>2/21/13</u>	<u>14:30</u>	<u>modified TO-15w/TPH-g</u>	<u>-27</u>	<u>-5</u>		
<u>02A</u>	<u>SG-2</u>		<u>1354</u>	<u>2/21/13</u>	<u>16:15</u>	<u>modified TO-15w/TPH-g</u>	<u>-19</u>	<u>-5</u>		
<u>03A</u>	<u>SG-4</u>		<u>1371</u>	<u>2/21/13</u>	<u>17:00</u>	<u>modified TO-15w/TPH-g</u>	<u>-28</u>	<u>-5</u>		
<u>04A</u>	<u>SG-3</u>		<u>72309</u>	<u>2/21/13</u>	<u>17:30</u>	<u>modified TO-15w/TPH-g</u>	<u>-29</u>	<u>-5</u>		

Relinquished by: (signature) <u>[Signature]</u> Date/Time <u>2/22/13 8:45</u>	Received by: (signature) <u>[Signature]</u> Date/Time <u>2/25/13 8:45</u>	Notes: - Standard TAT - Leak test compound 1.1 DFA
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	<u>ON TRAC</u>		<u>25 int</u>	<u>Good</u>	Yes No <u>None</u>	<u>1302474</u>

3/12/2013  
Mr. Morgan Johnson  
Engeo Inc.  
2213 Plaza Dr.

Rocklin CA 95765

Project Name: Jordan Ranch  
Project #: 7828.000.001  
Workorder #: 1302474

Dear Mr. Morgan Johnson

The following report includes the data for the above referenced project for sample(s) received on 2/25/2013 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Kelly Buettner  
Project Manager

**WORK ORDER #: 1302474**

Work Order Summary

<b>CLIENT:</b>	Mr. Morgan Johnson Engeo Inc. 2213 Plaza Dr. Rocklin, CA 95765	<b>BILL TO:</b>	Accounts Payable Engeo Inc. 2010 Crow Canyon Place Suite 250 San Ramon, CA 94583-1545
<b>PHONE:</b>	916-786-8883	<b>P.O. #</b>	
<b>FAX:</b>	916-786-7891	<b>PROJECT #</b>	7828.000.001 Jordan Ranch
<b>DATE RECEIVED:</b>	02/25/2013	<b>CONTACT:</b>	Kelly Buettner
<b>DATE COMPLETED:</b>	03/12/2013		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	SG-1	Modified TO-15	5.5 "Hg	15 psi
02A	SG-2	Modified TO-15	5.0 "Hg	15 psi
03A	SG-4	Modified TO-15	4.5 "Hg	15 psi
04A	SG-3	Modified TO-15	4.0 "Hg	15 psi
05A	Lab Blank	Modified TO-15	NA	NA
06A	CCV	Modified TO-15	NA	NA
07A	LCS	Modified TO-15	NA	NA
07AA	LCSD	Modified TO-15	NA	NA

CERTIFIED BY:   
 Technical Director

DATE: 03/12/13

Certification numbers: AZ Licensure AZ0775, CA NELAP - 12282CA, NY NELAP - 11291,  
 TX NELAP - T104704434-12-4, UT NELAP CA009332012-3, WA NELAP - C935

Name of Accrediting Agency: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)

Accreditation number: CA300005, Effective date: 10/18/2012, Expiration date: 10/17/2013.

Eurofins Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563  
 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020





**LABORATORY NARRATIVE**  
**EPA Method TO-15**  
**Engeo Inc.**  
**Workorder# 1302474**

Four 1 Liter Summa Canister samples were received on February 25, 2013. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

**Receiving Notes**

There were no receiving discrepancies.

**Analytical Notes**

A single point calibration for TPH referenced to Gasoline was performed for each daily analytical batch. Recovery is reported as 100% in the associated results for each CCV.

The reported CCV for each daily batch may be derived from more than one analytical file due to the client's request for non-standard compounds. Non-standard compounds may have different acceptance criteria than the standard TO-14A/TO-15 compound list as per contract or verbal agreement.

**Definition of Data Qualifying Flags**

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

**Summary of Detected Compounds  
EPA METHOD TO-15 GC/MS FULL SCAN**

**Client Sample ID: SG-1**

**Lab ID#: 1302474-01A**

No Detections Were Found.

**Client Sample ID: SG-2**

**Lab ID#: 1302474-02A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Ethanol	4.8	12	9.1	23
Toluene	1.2	1.5	4.6	5.8
1,1-Difluoroethane	4.8	15	13	40

**Client Sample ID: SG-4**

**Lab ID#: 1302474-03A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Acetone	12	42	28	100

**Client Sample ID: SG-3**

**Lab ID#: 1302474-04A**

No Detections Were Found.



Air Toxics

Client Sample ID: SG-1

Lab ID#: 1302474-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p030610	Date of Collection:	2/21/13 2:30:00 PM
Dil. Factor:	2.47	Date of Analysis:	3/6/13 01:54 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.1	Not Detected
Freon 114	1.2	Not Detected	8.6	Not Detected
Chloromethane	12	Not Detected	26	Not Detected
Vinyl Chloride	1.2	Not Detected	3.2	Not Detected
1,3-Butadiene	1.2	Not Detected	2.7	Not Detected
Bromomethane	12	Not Detected	48	Not Detected
Chloroethane	4.9	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	6.9	Not Detected
Ethanol	4.9	Not Detected	9.3	Not Detected
Freon 113	1.2	Not Detected	9.5	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Acetone	12	Not Detected	29	Not Detected
2-Propanol	4.9	Not Detected	12	Not Detected
Carbon Disulfide	4.9	Not Detected	15	Not Detected
3-Chloropropene	4.9	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	43	Not Detected
Methyl tert-butyl ether	1.2	Not Detected	4.4	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Hexane	1.2	Not Detected	4.4	Not Detected
1,1-Dichloroethane	1.2	Not Detected	5.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.9	Not Detected	14	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Tetrahydrofuran	1.2	Not Detected	3.6	Not Detected
Chloroform	1.2	Not Detected	6.0	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.7	Not Detected
Cyclohexane	1.2	Not Detected	4.2	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.8	Not Detected
2,2,4-Trimethylpentane	1.2	Not Detected	5.8	Not Detected
Benzene	1.2	Not Detected	3.9	Not Detected
1,2-Dichloroethane	1.2	Not Detected	5.0	Not Detected
Heptane	1.2	Not Detected	5.1	Not Detected
Trichloroethene	1.2	Not Detected	6.6	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.7	Not Detected
1,4-Dioxane	4.9	Not Detected	18	Not Detected
Bromodichloromethane	1.2	Not Detected	8.3	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.0	Not Detected
Toluene	1.2	Not Detected	4.6	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.7	Not Detected
Tetrachloroethene	1.2	Not Detected	8.4	Not Detected
2-Hexanone	4.9	Not Detected	20	Not Detected





Client Sample ID: SG-1

Lab ID#: 1302474-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p030610	Date of Collection:	2/21/13 2:30:00 PM
Dil. Factor:	2.47	Date of Analysis:	3/6/13 01:54 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.5	Not Detected
Chlorobenzene	1.2	Not Detected	5.7	Not Detected
Ethyl Benzene	1.2	Not Detected	5.4	Not Detected
m,p-Xylene	1.2	Not Detected	5.4	Not Detected
o-Xylene	1.2	Not Detected	5.4	Not Detected
Styrene	1.2	Not Detected	5.3	Not Detected
Bromoform	1.2	Not Detected	13	Not Detected
Cumene	1.2	Not Detected	6.1	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.5	Not Detected
Propylbenzene	1.2	Not Detected	6.1	Not Detected
4-Ethyltoluene	1.2	Not Detected	6.1	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	6.1	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	6.1	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.4	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
1,2,4-Trichlorobenzene	4.9	Not Detected	37	Not Detected
Hexachlorobutadiene	4.9	Not Detected	53	Not Detected
Naphthalene	4.9	Not Detected	26	Not Detected
TPH ref. to Gasoline (MW=100)	62	Not Detected	250	Not Detected
1,1-Difluoroethane	4.9	Not Detected	13	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	89	70-130
1,2-Dichloroethane-d4	94	70-130
4-Bromofluorobenzene	96	70-130



Air Toxics

Client Sample ID: SG-2

Lab ID#: 1302474-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p030611	Date of Collection:	2/21/13 4:15:00 PM
Dil. Factor:	2.42	Date of Analysis:	3/6/13 02:27 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.0	Not Detected
Freon 114	1.2	Not Detected	8.4	Not Detected
Chloromethane	12	Not Detected	25	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
1,3-Butadiene	1.2	Not Detected	2.7	Not Detected
Bromomethane	12	Not Detected	47	Not Detected
Chloroethane	4.8	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	6.8	Not Detected
Ethanol	4.8	12	9.1	23
Freon 113	1.2	Not Detected	9.3	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Acetone	12	Not Detected	29	Not Detected
2-Propanol	4.8	Not Detected	12	Not Detected
Carbon Disulfide	4.8	Not Detected	15	Not Detected
3-Chloropropene	4.8	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	42	Not Detected
Methyl tert-butyl ether	1.2	Not Detected	4.4	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Hexane	1.2	Not Detected	4.3	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	Not Detected	14	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Tetrahydrofuran	1.2	Not Detected	3.6	Not Detected
Chloroform	1.2	Not Detected	5.9	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Cyclohexane	1.2	Not Detected	4.2	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.6	Not Detected
2,2,4-Trimethylpentane	1.2	Not Detected	5.6	Not Detected
Benzene	1.2	Not Detected	3.9	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.9	Not Detected
Heptane	1.2	Not Detected	5.0	Not Detected
Trichloroethene	1.2	Not Detected	6.5	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.6	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	8.1	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.0	Not Detected
Toluene	1.2	1.5	4.6	5.8
trans-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Tetrachloroethene	1.2	Not Detected	8.2	Not Detected
2-Hexanone	4.8	Not Detected	20	Not Detected



Air Toxics

Client Sample ID: SG-2

Lab ID#: 1302474-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p030611	Date of Collection:	2/21/13 4:15:00 PM
Dil. Factor:	2.42	Date of Analysis:	3/6/13 02:27 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.3	Not Detected
Chlorobenzene	1.2	Not Detected	5.6	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	Not Detected	5.2	Not Detected
o-Xylene	1.2	Not Detected	5.2	Not Detected
Styrene	1.2	Not Detected	5.2	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
Cumene	1.2	Not Detected	5.9	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.3	Not Detected
Propylbenzene	1.2	Not Detected	5.9	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.9	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.3	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,2,4-Trichlorobenzene	4.8	Not Detected	36	Not Detected
Hexachlorobutadiene	4.8	Not Detected	52	Not Detected
Naphthalene	4.8	Not Detected	25	Not Detected
TPH ref. to Gasoline (MW=100)	60	Not Detected	250	Not Detected
1,1-Difluoroethane	4.8	15	13	40

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	90	70-130
1,2-Dichloroethane-d4	106	70-130
4-Bromofluorobenzene	98	70-130





Air Toxics

Client Sample ID: SG-4

Lab ID#: 1302474-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p030612	Date of Collection:	2/21/13 5:00:00 PM
Dil. Factor:	2.38	Date of Analysis:	3/6/13 03:15 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.9	Not Detected
Freon 114	1.2	Not Detected	8.3	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
1,3-Butadiene	1.2	Not Detected	2.6	Not Detected
Bromomethane	12	Not Detected	46	Not Detected
Chloroethane	4.8	Not Detected	12	Not Detected
Freon 11	1.2	Not Detected	6.7	Not Detected
Ethanol	4.8	Not Detected	9.0	Not Detected
Freon 113	1.2	Not Detected	9.1	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Acetone	12	42	28	100
2-Propanol	4.8	Not Detected	12	Not Detected
Carbon Disulfide	4.8	Not Detected	15	Not Detected
3-Chloropropene	4.8	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	41	Not Detected
Methyl tert-butyl ether	1.2	Not Detected	4.3	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Hexane	1.2	Not Detected	4.2	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	Not Detected	14	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Tetrahydrofuran	1.2	Not Detected	3.5	Not Detected
Chloroform	1.2	Not Detected	5.8	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Cyclohexane	1.2	Not Detected	4.1	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.5	Not Detected
2,2,4-Trimethylpentane	1.2	Not Detected	5.6	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.8	Not Detected
Heptane	1.2	Not Detected	4.9	Not Detected
Trichloroethene	1.2	Not Detected	6.4	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.5	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	8.0	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.9	Not Detected
Toluene	1.2	Not Detected	4.5	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Tetrachloroethene	1.2	Not Detected	8.1	Not Detected
2-Hexanone	4.8	Not Detected	19	Not Detected



Client Sample ID: SG-4

Lab ID#: 1302474-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p030612	Date of Collection:	2/21/13 5:00:00 PM
Dil. Factor:	2.38	Date of Analysis:	3/6/13 03:15 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.1	Not Detected
Chlorobenzene	1.2	Not Detected	5.5	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	Not Detected	5.2	Not Detected
o-Xylene	1.2	Not Detected	5.2	Not Detected
Styrene	1.2	Not Detected	5.1	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
Cumene	1.2	Not Detected	5.8	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.2	Not Detected
Propylbenzene	1.2	Not Detected	5.8	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.8	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.2	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,2,4-Trichlorobenzene	4.8	Not Detected	35	Not Detected
Hexachlorobutadiene	4.8	Not Detected	51	Not Detected
Naphthalene	4.8	Not Detected	25	Not Detected
TPH ref. to Gasoline (MW=100)	60	Not Detected	240	Not Detected
1,1-Difluoroethane	4.8	Not Detected	13	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	96	70-130
1,2-Dichloroethane-d4	88	70-130
4-Bromofluorobenzene	97	70-130



Air Toxics

Client Sample ID: SG-3

Lab ID#: 1302474-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p030616	Date of Collection:	2/21/13 5:30:00 PM
Dil. Factor:	4.64	Date of Analysis:	3/6/13 06:04 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	2.3	Not Detected	11	Not Detected
Freon 114	2.3	Not Detected	16	Not Detected
Chloromethane	23	Not Detected	48	Not Detected
Vinyl Chloride	2.3	Not Detected	5.9	Not Detected
1,3-Butadiene	2.3	Not Detected	5.1	Not Detected
Bromomethane	23	Not Detected	90	Not Detected
Chloroethane	9.3	Not Detected	24	Not Detected
Freon 11	2.3	Not Detected	13	Not Detected
Ethanol	9.3	Not Detected	17	Not Detected
Freon 113	2.3	Not Detected	18	Not Detected
1,1-Dichloroethene	2.3	Not Detected	9.2	Not Detected
Acetone	23	Not Detected	55	Not Detected
2-Propanol	9.3	Not Detected	23	Not Detected
Carbon Disulfide	9.3	Not Detected	29	Not Detected
3-Chloropropene	9.3	Not Detected	29	Not Detected
Methylene Chloride	23	Not Detected	80	Not Detected
Methyl tert-butyl ether	2.3	Not Detected	8.4	Not Detected
trans-1,2-Dichloroethene	2.3	Not Detected	9.2	Not Detected
Hexane	2.3	Not Detected	8.2	Not Detected
1,1-Dichloroethane	2.3	Not Detected	9.4	Not Detected
2-Butanone (Methyl Ethyl Ketone)	9.3	Not Detected	27	Not Detected
cis-1,2-Dichloroethene	2.3	Not Detected	9.2	Not Detected
Tetrahydrofuran	2.3	Not Detected	6.8	Not Detected
Chloroform	2.3	Not Detected	11	Not Detected
1,1,1-Trichloroethane	2.3	Not Detected	13	Not Detected
Cyclohexane	2.3	Not Detected	8.0	Not Detected
Carbon Tetrachloride	2.3	Not Detected	14	Not Detected
2,2,4-Trimethylpentane	2.3	Not Detected	11	Not Detected
Benzene	2.3	Not Detected	7.4	Not Detected
1,2-Dichloroethane	2.3	Not Detected	9.4	Not Detected
Heptane	2.3	Not Detected	9.5	Not Detected
Trichloroethene	2.3	Not Detected	12	Not Detected
1,2-Dichloropropane	2.3	Not Detected	11	Not Detected
1,4-Dioxane	9.3	Not Detected	33	Not Detected
Bromodichloromethane	2.3	Not Detected	16	Not Detected
cis-1,3-Dichloropropene	2.3	Not Detected	10	Not Detected
4-Methyl-2-pentanone	2.3	Not Detected	9.5	Not Detected
Toluene	2.3	Not Detected	8.7	Not Detected
trans-1,3-Dichloropropene	2.3	Not Detected	10	Not Detected
1,1,2-Trichloroethane	2.3	Not Detected	13	Not Detected
Tetrachloroethene	2.3	Not Detected	16	Not Detected
2-Hexanone	9.3	Not Detected	38	Not Detected



Client Sample ID: SG-3

Lab ID#: 1302474-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p030616	Date of Collection:	2/21/13 5:30:00 PM
Dil. Factor:	4.64	Date of Analysis:	3/6/13 06:04 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	2.3	Not Detected	20	Not Detected
1,2-Dibromoethane (EDB)	2.3	Not Detected	18	Not Detected
Chlorobenzene	2.3	Not Detected	11	Not Detected
Ethyl Benzene	2.3	Not Detected	10	Not Detected
m,p-Xylene	2.3	Not Detected	10	Not Detected
o-Xylene	2.3	Not Detected	10	Not Detected
Styrene	2.3	Not Detected	9.9	Not Detected
Bromoform	2.3	Not Detected	24	Not Detected
Cumene	2.3	Not Detected	11	Not Detected
1,1,2,2-Tetrachloroethane	2.3	Not Detected	16	Not Detected
Propylbenzene	2.3	Not Detected	11	Not Detected
4-Ethyltoluene	2.3	Not Detected	11	Not Detected
1,3,5-Trimethylbenzene	2.3	Not Detected	11	Not Detected
1,2,4-Trimethylbenzene	2.3	Not Detected	11	Not Detected
1,3-Dichlorobenzene	2.3	Not Detected	14	Not Detected
1,4-Dichlorobenzene	2.3	Not Detected	14	Not Detected
alpha-Chlorotoluene	2.3	Not Detected	12	Not Detected
1,2-Dichlorobenzene	2.3	Not Detected	14	Not Detected
1,2,4-Trichlorobenzene	9.3	Not Detected	69	Not Detected
Hexachlorobutadiene	9.3	Not Detected	99	Not Detected
Naphthalene	9.3	Not Detected	49	Not Detected
TPH ref. to Gasoline (MW=100)	120	Not Detected	470	Not Detected
1,1-Difluoroethane	9.3	Not Detected	25	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	94	70-130
1,2-Dichloroethane-d4	106	70-130
4-Bromofluorobenzene	94	70-130

Client Sample ID: Lab Blank

Lab ID#: 1302474-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p030609	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	3/6/13 01:21 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected



Client Sample ID: Lab Blank

Lab ID#: 1302474-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p030609	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	3/6/13 01:21 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
Naphthalene	2.0	Not Detected	10	Not Detected
TPH ref. to Gasoline (MW=100)	25	Not Detected	100	Not Detected
1,1-Difluoroethane	2.0	Not Detected	5.4	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	95	70-130
1,2-Dichloroethane-d4	90	70-130
4-Bromofluorobenzene	92	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1302474-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p030602	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/6/13 09:15 AM

Compound	%Recovery
Freon 12	89
Freon 114	92
Chloromethane	89
Vinyl Chloride	100
1,3-Butadiene	94
Bromomethane	89
Chloroethane	86
Freon 11	89
Ethanol	87
Freon 113	91
1,1-Dichloroethene	90
Acetone	89
2-Propanol	86
Carbon Disulfide	86
3-Chloropropene	92
Methylene Chloride	87
Methyl tert-butyl ether	99
trans-1,2-Dichloroethene	91
Hexane	92
1,1-Dichloroethane	87
2-Butanone (Methyl Ethyl Ketone)	98
cis-1,2-Dichloroethene	102
Tetrahydrofuran	102
Chloroform	98
1,1,1-Trichloroethane	95
Cyclohexane	104
Carbon Tetrachloride	91
2,2,4-Trimethylpentane	95
Benzene	102
1,2-Dichloroethane	101
Heptane	113
Trichloroethene	86
1,2-Dichloropropane	101
1,4-Dioxane	109
Bromodichloromethane	101
cis-1,3-Dichloropropene	105
4-Methyl-2-pentanone	112
Toluene	102
trans-1,3-Dichloropropene	95
1,1,2-Trichloroethane	94
Tetrachloroethene	90
2-Hexanone	94

Client Sample ID: CCV

Lab ID#: 1302474-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p030602	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/6/13 09:15 AM

Compound	%Recovery
Dibromochloromethane	96
1,2-Dibromoethane (EDB)	107
Chlorobenzene	95
Ethyl Benzene	97
m,p-Xylene	100
o-Xylene	102
Styrene	106
Bromoform	97
Cumene	103
1,1,2,2-Tetrachloroethane	101
Propylbenzene	97
4-Ethyltoluene	104
1,3,5-Trimethylbenzene	106
1,2,4-Trimethylbenzene	103
1,3-Dichlorobenzene	96
1,4-Dichlorobenzene	95
alpha-Chlorotoluene	102
1,2-Dichlorobenzene	96
1,2,4-Trichlorobenzene	104
Hexachlorobutadiene	101
Naphthalene	88
TPH ref. to Gasoline (MW=100)	100
1,1-Difluoroethane	90

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	105	70-130
1,2-Dichloroethane-d4	89	70-130
4-Bromofluorobenzene	92	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1302474-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p030605	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/6/13 10:55 AM

Compound	%Recovery
Freon 12	98
Freon 114	100
Chloromethane	107
Vinyl Chloride	118
1,3-Butadiene	110
Bromomethane	102
Chloroethane	98
Freon 11	96
Ethanol	78
Freon 113	101
1,1-Dichloroethene	107
Acetone	100
2-Propanol	99
Carbon Disulfide	120
3-Chloropropene	117
Methylene Chloride	96
Methyl tert-butyl ether	110
trans-1,2-Dichloroethene	116
Hexane	101
1,1-Dichloroethane	108
2-Butanone (Methyl Ethyl Ketone)	100
cis-1,2-Dichloroethene	110
Tetrahydrofuran	101
Chloroform	98
1,1,1-Trichloroethane	102
Cyclohexane	113
Carbon Tetrachloride	99
2,2,4-Trimethylpentane	107
Benzene	103
1,2-Dichloroethane	96
Heptane	111
Trichloroethene	91
1,2-Dichloropropane	101
1,4-Dioxane	110
Bromodichloromethane	109
cis-1,3-Dichloropropene	114
4-Methyl-2-pentanone	118
Toluene	101
trans-1,3-Dichloropropene	106
1,1,2-Trichloroethane	102
Tetrachloroethene	99
2-Hexanone	103

Client Sample ID: LCS

Lab ID#: 1302474-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p030605	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/6/13 10:55 AM

Compound	%Recovery
Dibromochloromethane	103
1,2-Dibromoethane (EDB)	103
Chlorobenzene	98
Ethyl Benzene	108
m,p-Xylene	112
o-Xylene	113
Styrene	119
Bromoform	101
Cumene	115
1,1,2,2-Tetrachloroethane	103
Propylbenzene	108
4-Ethyltoluene	109
1,3,5-Trimethylbenzene	115
1,2,4-Trimethylbenzene	112
1,3-Dichlorobenzene	104
1,4-Dichlorobenzene	102
alpha-Chlorotoluene	110
1,2-Dichlorobenzene	121
1,2,4-Trichlorobenzene	104
Hexachlorobutadiene	99
Naphthalene	60
TPH ref. to Gasoline (MW=100)	Not Spiked
1,1-Difluoroethane	Not Spiked

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	95	70-130
4-Bromofluorobenzene	102	70-130





Air Toxics

Client Sample ID: LCSD

Lab ID#: 1302474-07AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p030606	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/6/13 11:25 AM

Compound	%Recovery
Freon 12	97
Freon 114	108
Chloromethane	106
Vinyl Chloride	118
1,3-Butadiene	108
Bromomethane	100
Chloroethane	99
Freon 11	95
Ethanol	76
Freon 113	105
1,1-Dichloroethene	108
Acetone	97
2-Propanol	100
Carbon Disulfide	118
3-Chloropropene	129
Methylene Chloride	102
Methyl tert-butyl ether	110
trans-1,2-Dichloroethene	118
Hexane	103
1,1-Dichloroethane	97
2-Butanone (Methyl Ethyl Ketone)	100
cis-1,2-Dichloroethene	106
Tetrahydrofuran	98
Chloroform	98
1,1,1-Trichloroethane	101
Cyclohexane	115
Carbon Tetrachloride	99
2,2,4-Trimethylpentane	106
Benzene	102
1,2-Dichloroethane	94
Heptane	111
Trichloroethene	100
1,2-Dichloropropane	114
1,4-Dioxane	123
Bromodichloromethane	106
cis-1,3-Dichloropropene	105
4-Methyl-2-pentanone	115
Toluene	100
trans-1,3-Dichloropropene	107
1,1,2-Trichloroethane	102
Tetrachloroethene	99
2-Hexanone	105



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1302474-07AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p030606	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/6/13 11:25 AM

Compound	%Recovery
Dibromochloromethane	103
1,2-Dibromoethane (EDB)	104
Chlorobenzene	98
Ethyl Benzene	108
m,p-Xylene	113
o-Xylene	113
Styrene	120
Bromoform	102
Cumene	115
1,1,2,2-Tetrachloroethane	104
Propylbenzene	108
4-Ethyltoluene	110
1,3,5-Trimethylbenzene	116
1,2,4-Trimethylbenzene	114
1,3-Dichlorobenzene	105
1,4-Dichlorobenzene	104
alpha-Chlorotoluene	110
1,2-Dichlorobenzene	108
1,2,4-Trichlorobenzene	106
Hexachlorobutadiene	102
Naphthalene	62
TPH ref. to Gasoline (MW=100)	Not Spiked
1,1-Difluoroethane	Not Spiked

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	94	70-130
4-Bromofluorobenzene	104	70-130

April 23, 2013

Subject: Jordan Ranch Property – Former Leaking Underground Storage Tank  
Dublin, California

**PERJURY STATEMENT**

“I declare, that to the best of my knowledge at the present time, the information and/or recommendations contained in the attached document are true and correct.”

Submitted by Responsible Party:



ROBERT RADANOVICH  
BJP-ROF Jordan Ranch, LLC  
5000 Hopyard Road, #170  
Pleasanton, CA 94588