EMERY SERVICE CENTER, INC.
1400 Powell Street
Emeryville, CA 94608
(510) 653-2251

September 28, 2016

Mr. Mark Detterman
Alameda County Department of Environmental Health
1131 Harbor Parkway, Suite 250
Alameda, CA 94502

SUBJECT: INDOOR AIR SAMPLE COLLECTION REPORT CERTIFICATION
County Case # RO 3182
Emeryville Chevron
1400 Powell Street
Emeryville, California

Dear Mr. Detterman:

You will find enclosed one copy of the following document prepared by P&D Environmental, Inc. for the subject site

- Indoor Air Sample Collection Report dated September 28, 2016 (document 0719.R2).

I declare under penalty of perjury that the contents and conclusions in the document are true and correct to the best of my knowledge.

Should you have any questions, please do not hesitate to contact me at (510) 653-2251.

Sincerely,

Emery Service Center, Inc.

Najmeddin Ravan
President

Enclosure

0719.L4

P&D ENVIRONMENTAL, INC.

55 Santa Clara Ave, Suite 240
Oakland, CA 94610
(510) 658-6916

September 28, 2016
Report 0719.R2

Mr. Najmeddin Ravan
Emery Service Center, Inc.
Dba Emeryville Chevron
1400 Powell Street
Emeryville, California 94608

SUBJECT: INDOOR AIR SAMPLE COLLECTION REPORT
County Case # RO 3182
Emeryville Chevron
1400 Powell Street
Emeryville, California

Dear Mr. Ravan:

P&D Environmental, Inc. (P&D) has prepared this report documenting the collection of one indoor air sample designated as IA1 at the subject site with the Heating Ventilation and Air Conditioning (HVAC) system on during a 24-hour period beginning on September 12, 2016 and ending on September 13, 2016. The sample collection was performed following discussions with Ms. Dilan Roe and Mr. Mark Detterman of the Alameda County Department of Environmental Health (ACDEH) during a meeting at the ACDEH offices on September 9, 2016, and in accordance with methods set forth in P&D's Vapor Intrusion Investigation Report dated March 11, 2016 (document 0719.R1). No ambient air sample or duplicate air sample were collected during the indoor air sampling event.

A Site Location Map is attached as Figure 1 and a Site Aerial Photograph Detail showing the indoor air sample collection location is attached as Figure 2. All work was performed under the direct supervision of a California professional geologist.

BACKGROUND

The site is presently operated as a gasoline station. Fuel release county case number RO 67 was closed by the ACDEH on May 30, 2014. Section IV of the case closure required that a change to any land use other than a fueling station required notification to the ACDEH for further evaluation based on potential vapor intrusion to indoor air considerations. In 2015 a burrito shop was constructed at the site with the eastern portion of the burrito shop constructed immediately adjacent to a former waste oil UST pit (see Figure 2). The ACDEH subsequently requested that the current property owner enter into a Voluntary Remedial Action Agreement for the ACDEH to evaluate potential vapor intrusion associated with the new burrito shop as ACDEH case number RO 3182.

The western portion of the building located at the subject site to the east of the gasoline station convenience store is presently occupied by a dry cleaner pick up and drop off facility, and the eastern portion of the building located at the subject site to the east of the gasoline station convenience store is presently vacant.

The adjacent property located to the north of the subject site was historically operated as a fuel bulk plant. The shallowest historical depth to water at the subject site in the vicinity of the new burrito shop has been identified as less than 5 feet below the ground surface.

P&D previously installed Vapor Pins on February 8, 2015 and collected sub-slab soil gas samples on February 17, 2016. P&D also collected indoor air samples with the HVAC system off on February 11, 2016 and a second time after the HVAC system had been operating for a minimum of 36 hours on February 17, 2016. A discussion of the sample collection activities and results are provided in P&D's Vapor Intrusion Investigation Report dated March 11, 2016 (document 0719.R1). The February 2016 Indoor Air sample results are summarized in Table 1 attached with this report.

FIELD ACTIVITIES

Prior to performing field activities, access to the sampling space was scheduled with the tenant and notification of the sample collection dates was provided to the ACDEH. In addition, chemical cleaners stored in the burrito shop were temporarily re-located to an adjacent storeroom prior to the beginning of air sample collection for the duration of the sampling event.

Indoor Air and Ambient Air Sample Collection

Beginning on September 12, 2016 at approximately 09:00 a.m., and ending on September 13, 2016 at approximately 09:10 a.m. one indoor air sample was collected at location IA1 inside the building with the HVAC system turned on. The air sample was collected during a 24-hour period using a SIM-certified 6-liter Summa canister equipped with a SIM-certified 24-hour mass flow controller. The inlet to the Summa canister was located between 4 and 6 feet above the ground surface using a 4-foot long stainless steel SIM-certified cane connected to the flow controller.

After approximately 24 hours, the valve to the Summa canister was closed with a minimum remaining vacuum of 2 inches of mercury, and the Summa canister was stored in a box and promptly shipped to the laboratory for extraction and analysis. Chain of custody procedures were observed for all sample handling.

The sample collection location is shown in Figure 2 and measurements of Summa canister initial and final vacuums and sample collection start and end times were recorded on an Air Sampling Data Sheet that is attached with this report as Appendix A.

WEATHER

No precipitation occurred during the 11 days preceding the September 12 and 13, 2016 indoor air sample collection event or following the air sample collection event. Weather data, including precipitation and barometric pressure for September 1, 2016 through September 27, 2016, are provided in Appendix B.

The weather station is located at on the north side of Powell Street west of Doyle Street in Emeryville at an elevation of 26 feet above sea level, approximately 600 feet to the east-northeast of the subject site. The subject site is located at an elevation of approximately 20 feet above sea level. An internet link to the weather station information is provided in Appendix B.

LABORATORY ANALYSIS

The indoor air sample was analyzed at Eurofins Air Toxics, Inc. in Folsom, California (Air Toxics) for Total Petroleum Hydrocarbons as Gasoline (TPH-G), benzene, toluene, ethylbenzene, and xylenes (BTEX), naphthalene, fuel oxygenates including methyl-tert-butyl ether (MTBE), and Halogenated Volatile Organic Compounds (HVOCs) including Tetrachloroethene (PCE), Trichloroethene (TCE), cis-1,2-Dichloroethene (cis-1,2-DCE), trans-1,2-Dichloroethene (trans-1,2-DCE), and vinyl chloride using EPA Method TO-15.

The indoor air sample laboratory analytical results are summarized in Table 1 and copies of the laboratory analytical reports and chain of custody documentation are attached with this report as Appendix C.

DISCUSSION AND RECOMMENDATIONS

Review of Table 1 shows that benzene was detected in sample IA1 collected on September 13, 2016 at a concentration exceeding the corresponding February 2016 SFRWQCB Table IA-1 Indoor Air Direct Exposure Human Health Risk Levels (ESL) for commercial land use. The detected concentration of 0.75 micrograms per cubic meter ($\mu g/m^3$) was lower than the benzene concentrations detected in February 2016 which ranged from 2.0 to 2.4 $\mu g/m^3$ in indoor air samples IA1 through IA3 and 1.5 to 2.2 $\mu g/m^3$ in ambient air samples (see Table 1). Table 1 also shows that detected concentrations of TPH-G, toluene, ethylbenzene, and total xylenes in the September 13, 2016 sample were lower than the detected concentrations in the February 2016 indoor air samples collected at location IA1, that naphthalene was detected at a concentration consistent with naphthalene concentrations detected in the February 2016 air samples, and that no HVOCs were detected in the September 13, 2016 air sample.

Based on the detected chemicals and concentrations in the February 2016 air samples, the associated inhalation calculated risk and hazard associated with the February 2016 air sample results, the lower TPH-G and BTEX concentrations and the absence of detected HVOCs during the September 2016 sampling event, inhalation risk and hazard associated with vapor intrusion do not appear to be a concern at the subject site. Based on the

sample results P&D recommends that no further investigation be performed and that the case be closed.

DISTRIBUTION

A copy of this report should be uploaded to the Alameda County Environmental Health Department ftp website with a letter on company letterhead identifying the contact information for the responsible party. In addition, a copy of this report should also be uploaded to the GeoTracker website.

LIMITATIONS

This report was prepared solely for the use of Emery Service Center, Inc. The content and conclusions provided by P&D in this assessment are based on information collected during our investigation, which may include, but not be limited to, visual site inspections; interviews with site owner, regulatory agencies and other pertinent individuals; review of available public documents; subsurface exploration and our professional judgment based on said information at the time of preparation of this document. Any subsurface sample results and observations presented herein are considered to be representative of the area of investigation; however, geological conditions may vary between boreholes and may not necessarily apply to the general site as a whole. If future subsurface or other conditions are revealed which vary from these findings, the newly revealed conditions must be evaluated and may invalidate the findings of this report.

This report is issued with the understanding that it is the responsibility of the owner, or his representative, to ensure that the information contained herein is brought to the attention of the appropriate regulatory agencies, where required by law. Additionally, it is the sole responsibility of the owner to properly dispose of any hazardous materials or hazardous wastes left onsite, in accordance with existing laws and regulations.

This report has been prepared in accordance with generally accepted practices using standards of care and diligence normally practiced by recognized consulting firms performing services of a similar nature. P&D is not responsible for the accuracy or completeness of information provided by other individuals or entities which is used in this report. This report presents our professional judgment based upon data and findings identified in this report and interpretation of such data based upon our experience and background, and no warranty, either express or implied, is made. The conclusions presented are based upon the current regulatory climate and may require revision if future regulatory changes occur.

Should you have any questions, please do not hesitate to contact us at (510) 658-6916.

Sincerely,

P&D Environmental, Inc.

Paul H. King

PROFESSIONAL GEOLOGIST
PAUL H. KING
No. 5901
STATE OF CALIFORNIA

Paul H. King
Professional Geologist #5901
Expires: 12/31/17

Attachments:

Table 1 - Summary of Indoor and Ambient Air Sample Analytical results

Figure 1 - Site Location Map
Figure 2 - Site Aerial Photograph Detail Showing Proposed Sample Collection Locations

Appendix A - Air Sampling Data Sheets
Appendix B - Weather Information
Appendix C - Laboratory Analytical Reports and Chain of Custody Documentation

PHK/ sjc
0719.R2

TABLE

Table 1
Summary of Indoor and Ambient Air Sample Analytical Results

Compound	Sample ID	IA1 2/11/2016	IA1-DUP 2/11/2016	IA1 2/17/2016	IA1-DUP 2/17/2016	IA1 9/13/2016	IA2 2/11/2016	IA2 2/17/2016	IA3 2/11/2016	IA3 2/17/2016	AA1 2/11/2016	AA1 2/17/2016	ESL[1]
TPH-G		180	180	260	250	76	200	230	220	240	180	140	2,500
MTBE		ND<0.58	ND<0.53	ND<0.60	ND<0.62	ND<0.57	ND<0.96	ND<0.63	ND<0.57	ND<0.64	ND<0.59	ND<0.58	47
Benzene		**2.1**	**2.0**	**2.3**	**2.4**	**0.75**	**2.1**	**2.2**	**2.1**	**2.4**	**2.2**	**1.5**	0.42
Toluene		7.5	6.2	23	9.5	2.6	8.8	8.5	7.1	9.4	7.6	4.2	1,300
Ethylbenzene		1.3	1.3	2.0	1.8	0.50	1.3	1.6	1.3	1.6	1.4	0.69	4.9
m,p-Xylene		4.6	4.3	6.1	5.9	1.6	4.3	5.4	4.5	5.4	4.5	2.2	440
o-Xylene		1.7	1.6	2.2	2.0	0.57	1.6	1.9	1.8	1.9	1.6	0.83	combined
Naphthalene		0.26, a	0.20, a	0.35, a	0.29, a	0.25, a	0.21, a	0.35, a	**0.40, a**	0.35, a	0.26, a	0.20, a	0.36
PCE		ND<0.22	ND<0.20	1.2	ND<0.23	ND<0.21	ND<0.36	ND<0.24	ND<0.21	ND<0.24	ND<0.22	ND<0.22	2.1
TCE		0.45	0.40	0.52	ND<0.18	ND<0.17	0.37	ND<0.19	0.37	ND<0.19	0.52	ND<0.17	3.0
cis-1,2-DCE		ND<0.13	ND<0.12	ND<0.13	ND<0.14	ND<0.12	ND<0.21	ND<0.14	ND<0.12	ND<0.14	ND<0.13	ND<0.13	35
trans-1,2-DCE		ND<0.18	ND<0.16	ND<0.66	ND<0.68	ND<0.62	ND<1.0	ND<0.69	ND<0.62	ND<0.71	ND<0.65	ND<0.64	260
Vinyl Chloride		ND<0.041	ND<0.037	ND<0.042	ND<0.044	ND<0.040	ND<0.068	ND<0.045	ND<0.040	ND<0.046	ND<0.042	ND<0.041	0.16

Notes:

TPH-G = Total Petroleum Hydrocarbons as Gasoline.
MTBE = Methyl-tert-Butyl Ether
PCE = Tetrachloroethene
TCE = Trichloroethene
cis-1,2-DCE = cis-1,2-Dichloroethene
trans-1,2-DCE = transs-1,2-Dichloroethene
ND = Not Detected.
a = Laboratory Note: Estimated Value.
ESL[1] = Environmental Screening Level, by San Francisco Bay – Regional Water Quality Control Board, Updated February 2016 (Revision 3), from Table IA-1 – Indoor Air Direct Exposure Human Health Risk Screening Levels for Commercial/Industrial Land Use.
Results in bold exceed their respective ESL[1] values.
Results and ESLs in micrograms per cubic meter (ug/m^3), unless otherwise noted.

FIGURES

Figure 1
Site Location Map
Emeryville Chevron
1400 Powell Street
Emeryville, California

Base Map From:
U.S. Geological Survey
Oakland West, California
7.5-Minute Quadrangle
Photorevised 1980

P&D Environmental, Inc.
55 Santa Clara Ave., Suite 240
Oakland, CA 94610

0 1,000 2,000
Approxinate Scale In Feet

N

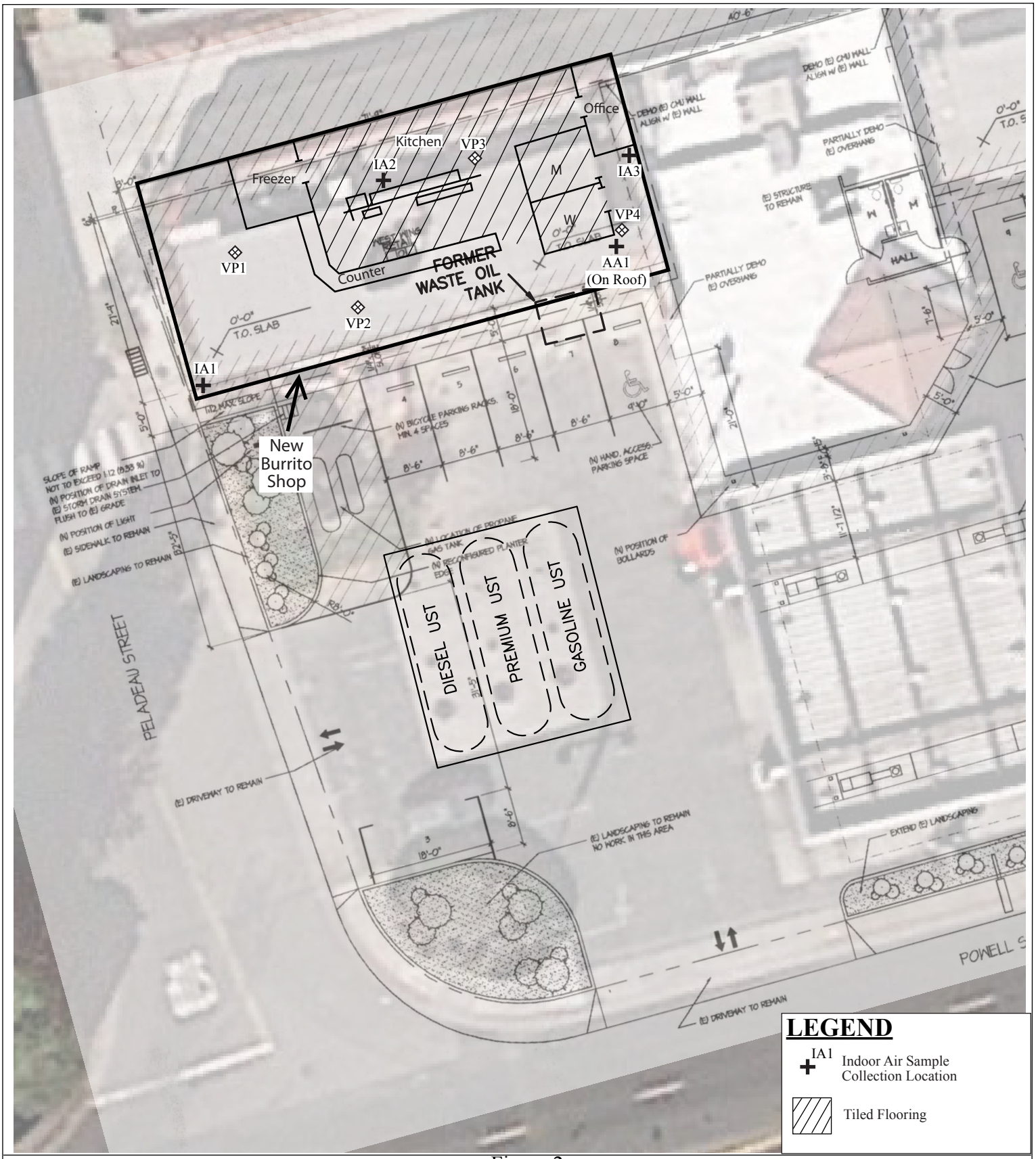

Figure 2
Site Aerial Photograph Detail Showing Sample Collection Location
Emeryville Chevron
1400 Powell Street
Emeryville, California

Base Map from: Delta Consultants, dated August 4, 2009, Kava Massih Architects, Sheet No. A1.1, Proposed Site Plan/Elevation, undated, and Google Earth, Image Dated October 30, 2015	P&D Environmental, Inc. 55 Santa Clara Ave., Suite 240 Oakland, CA 94610	0 10 20 Approximate Scale in Feet N

APPENDIX A

Air Sampling Data Sheet

AIR SAMPLING DATA SHEET

Address: 1400 POWELL ST

Job #: 0719

Date: 9/12/16

Sampler Name: JHM

Sample Location Designation	Canister #	Start pump flow rate (cc/min) and time	End pump flow rate (cc/min) and time	DATE INITIAL 9/12/16 Sample Canister Initial Vacuum Check (In. Hg) and time	DATE BEGIN 9/12/16 Begin sample collection vacuum (In. Hg) and time	End sample collection vacuum (In. Hg) and time	NOTES
IA1	6L0526	flow	flow	vac -30	vac -30	vac -4	
		time	time	time 0820	time 0859	time 0908	
		flow	flow	vac	vac	vac	
		time	time	time	time	time	
		flow	flow	vac	vac	vac	
		time	time	time	time	time	
		flow	flow	vac	vac	vac	
		time	time	time	time	time	
		flow	flow	vac	vac	vac	
		time	time	time	time	time	
		flow	flow	vac	vac	vac	
		time	time	time	time	time	
		flow	flow	vac	vac	vac	
		time	time	time	time	time	
		flow	flow	vac	vac	vac	
		time	time	time	time	time	
		flow	flow	vac	vac	vac	
		time	time	time	time	time	
		flow	flow	vac	vac	vac	
		time	time	time	time	time	
		flow	flow	vac	vac	vac	
		time	time	time	time	time	
		flow	flow	vac	vac	vac	
		time	time	time	time	time	
		flow	flow	vac	vac	vac	
		time	time	time	time	time	

NOTES

APPENDIX B

Weather Information

https://www.wunderground.com/personal-weather-station/dashboard?ID=KCAEMERY4#history/s20160901/e20160927/mcustom

About This Weather Station

Weather Station ID: KCAEMERY4

Station Name: Emeryville

Latitude / Longitude: N 37 ° 50 ' 24 ", W 122 ° 17 ' 16 "

Elevation: 26

City: Emeryville

State: CA

Hardware: Netatmo Weather Station

Software: http://meteoware.com

Weather History Table
September 1, 2016 - September 27, 2016

2016	Temperature			Dew Point			Humidity			Speed			Pressure			Precip. Accum.
Sep	High	Avg	Low	High	Avg	Low	High	Avg	Low	High	Avg	Gust	High	Avg	Low	Sum
1	69.4 °F	64.6 °F	59.7 °F	55.8 °F	54.4 °F	53.1 °F	84 %	78 %	65 %	0 mph	0 mph	0 mph	29.86 in	29.82 in	29.78 in	0 in
2	78.6 °F	68.7 °F	58.8 °F	58.5 °F	54.3 °F	51.6 °F	83 %	68 %	50 %	0 mph	0 mph	0 mph	29.8 in	29.75 in	29.7 in	0 in
3	68.7 °F	63.3 °F	57.9 °F	54 °F	52 °F	50.5 °F	82 %	74 %	63 %	0 mph	0 mph	0 mph	29.74 in	29.7 in	29.66 in	0 in
4	76.3 °F	66.6 °F	56.8 °F	54.9 °F	51.6 °F	49.6 °F	82 %	68 %	49 %	0 mph	0 mph	0 mph	29.73 in	29.69 in	29.66 in	0 in
5	79.5 °F	67.9 °F	56.3 °F	58.5 °F	53 °F	48.2 °F	81 %	66 %	50 %	0 mph	0 mph	0 mph	29.73 in	29.7 in	29.67 in	0 in
6	83.8 °F	70.5 °F	57.2 °F	60.1 °F	54.2 °F	47.5 °F	79 %	63 %	44 %	0 mph	0 mph	0 mph	29.75 in	29.72 in	29.69 in	0 in
7	88.9 °F	74.8 °F	60.8 °F	62.6 °F	57 °F	52.5 °F	81 %	59 %	36 %	0 mph	0 mph	0 mph	30.02 in	29.86 in	29.7 in	0 in
8	75.2 °F	67.8 °F	60.4 °F	58.8 °F	54.7 °F	52.3 °F	83 %	74 %	57 %	0 mph	0 mph	0 mph	30.12 in	30.08 in	30.03 in	0 in
9	74.1 °F	66.3 °F	58.6 °F	56.8 °F	53.7 °F	52 °F	83 %	73 %	58 %	0 mph	0 mph	0 mph	30.06 in	30.03 in	30 in	0 in
10	75 °F	67 °F	59 °F	57.4 °F	53.4 °F	51.4 °F	82 %	75 %	57 %	0 mph	0 mph	0 mph	30.09 in	30.06 in	30.03 in	0 in
11	71.6 °F	65.4 °F	59.2 °F	55.9 °F	52.6 °F	51.4 °F	81 %	76 %	61 %	0 mph	0 mph	0 mph	30.11 in	30.04 in	29.97 in	0 in
12	61.3 °F	59 °F	56.8 °F	52 °F	50.1 °F	48.2 °F	82 %	79 %	71 %	0 mph	0 mph	0 mph	29.96 in	29.9 in	29.84 in	0 in
13	77 °F	67.2 °F	57.4 °F	56.3 °F	50.7 °F	46.4 °F	73 %	65 %	46 %	0 mph	0 mph	0 mph	30.02 in	29.92 in	29.83 in	0 in
14	81.7 °F	69.9 °F	58.1 °F	58.5 °F	53.2 °F	49.3 °F	78 %	68 %	46 %	0 mph	0 mph	0 mph	30.13 in	30.08 in	30.03 in	0 in
15	74.8 °F	66.9 °F	59 °F	56.8 °F	53.5 °F	50.4 °F	81 %	71 %	57 %	0 mph	0 mph	0 mph	30.09 in	30.05 in	30 in	0 in
16	77.4 °F	67.3 °F	57.2 °F	57.4 °F	52.7 °F	49.5 °F	82 %	70 %	53 %	0 mph	0 mph	0 mph	30.02 in	29.98 in	29.94 in	0 in
17	80.2 °F	69.1 °F	58.1 °F	59.7 °F	54.1 °F	50.7 °F	82 %	69 %	51 %	0 mph	0 mph	0 mph	30.05 in	30 in	29.96 in	0 in
18	89.8 °F	74.1 °F	58.3 °F	63.1 °F	57 °F	51.3 °F	84 %	63 %	39 %	0 mph	0 mph	0 mph	30 in	29.94 in	29.89 in	0 in
19	85.8 °F	74.8 °F	63.7 °F	63.3 °F	58.3 °F	53.6 °F	81 %	64 %	44 %	0 mph	0 mph	0 mph	29.98 in	29.93 in	29.89 in	0 in
20	79 °F	69.7 °F	60.4 °F	58.8 °F	54.8 °F	50.9 °F	82 %	66 %	51 %	0 mph	0 mph	0 mph	30.01 in	29.96 in	29.91 in	0 in
21	74.5 °F	66.8 °F	59 °F	55 °F	51.4 °F	47.7 °F	78 %	65 %	51 %	0 mph	0 mph	0 mph	29.98 in	29.95 in	29.92 in	0 in
22	76.1 °F	66.1 °F	57.9 °F	55 °F	50.1 °F	46.6 °F	72 %	61 %	45 %	0 mph	0 mph	0 mph	30.08 in	30.02 in	29.96 in	0 in
23	79.7 °F	67.8 °F	56.8 °F	56.8 °F	51.7 °F	46.8 °F	80 %	61 %	40 %	0 mph	0 mph	0 mph	30.16 in	30.12 in	30.08 in	0 in
24	86 °F	71.3 °F	61.2 °F	61.9 °F	55.9 °F	51.8 °F	78 %	63 %	43 %	0 mph	0 mph	0 mph	30.14 in	30.09 in	30.05 in	0 in
25	95.2 °F	75.8 °F	60.4 °F	62.4 °F	55.8 °F	50.2 °F	80 %	54 %	23 %	0 mph	0 mph	0 mph	30.06 in	30.01 in	29.97 in	0 in
26	95.5 °F	79.4 °F	64.9 °F	63.1 °F	54.7 °F	46.6 °F	61 %	43 %	26 %	0 mph	0 mph	0 mph	30.01 in	29.89 in	29.77 in	0 in
27	85.1 °F	72.8 °F	63.7 °F	60.3 °F	54.5 °F	48.2 °F	74 %	56 %	43 %	0 mph	0 mph	0 mph	29.8 in	29.74 in	29.68 in	0 in

APPENDIX C

Laboratory Analytical Reports and Chain of Custody Documentation

eurofins | Air Toxics

9/16/2016
Mr. Paul King
P & D Environmental
55 Santa Clara
Suite 240
Oakland CA 94610

Project Name: Emeryville Chevron 1400 Powell St.
Project #: 0719
Workorder #: 1609308

Dear Mr. Paul King

The following report includes the data for the above referenced project for sample(s) received on 9/13/2016 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 Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free 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

eurofins | Air Toxics

WORK ORDER #: 1609308

Work Order Summary

CLIENT:	Mr. Paul King P & D Environmental 55 Santa Clara Suite 240 Oakland, CA 94610	**BILL TO:**	Mr. Paul King P & D Environmental 55 Santa Clara Suite 240 Oakland, CA 94610
PHONE:	510-658-6916	**P.O. #**	
FAX:	510-834-0772	**PROJECT #**	0719 Emeryville Chevron 1400 Powell St.
DATE RECEIVED:	09/13/2016	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	09/16/2016		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	IA1	Modified TO-15	4.3 "Hg	5.1 psi
01B	IA1	Modified TO-15	4.3 "Hg	5.1 psi
02A	Lab Blank	Modified TO-15	NA	NA
02B	Lab Blank	Modified TO-15	NA	NA
03A	CCV	Modified TO-15	NA	NA
03B	CCV	Modified TO-15	NA	NA
04A	LCS	Modified TO-15	NA	NA
04AA	LCSD	Modified TO-15	NA	NA
04B	LCS	Modified TO-15	NA	NA
04BB	LCSD	Modified TO-15	NA	NA

CERTIFIED BY: Heidi Mayo DATE: 09/16/16

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-15 Full Scan/SIM
P & D Environmental
Workorder# 1609308

One 6 Liter Summa Canister (SIM Certified) sample was received on September 13, 2016. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the Full Scan and SIM acquisition modes. The method involves concentrating up to 1.0 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

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.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	***TO-15***	***ATL Modifications***
ICAL %RSD acceptance criteria	</=30% RSD with 2 compounds allowed out to < 40% RSD	For Full Scan: 30% RSD with 4 compounds allowed out to < 40% RSD For SIM: Project specific; default criteria is </=30% RSD with 10% of compounds allowed out to < 40% RSD
Daily Calibration	+- 30% Difference	For Full Scan: </= 30% Difference with four allowed out up to </=40%.; flag and narrate outliers For SIM: Project specific; default criteria is </= 30% Difference with 10% of compounds allowed out up to </=40%.; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

The results for sample IA1 were acquired from two separate data files originating from the same analytical run. The two data files have the same base file name and are differentiated with a "sim" extension on the SIM data file.

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.

As per project specific client request, the laboratory has reported estimated values for target compounds Benzene and Naphthalene that are below the Reporting Limit but greater than the Method Detection Limit. The canister used for this project has been certified to the Reporting Limit for the target analytes included in this workorder. Concentrations that are below the level at which the canister was certified may be false positives.

Definition of Data Qualifying Flags

Nine 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.

CN - See case narrative explanation

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

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
Emeryville Chevron 1400 Powell St.

Client ID:	IA1		
Lab ID:	1609308-01A	**Date/Time Analyzed:**	9/15/16 04:09 PM
Date/Time Collecte	9/13/16 09:08 AM	**Dilution Factor:**	1.57
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msdv.i / v091510

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethyl-tert-butyl ether	637-92-3	0.26	D	13	Not Detected
Isopropyl ether	108-20-3	0.11	D	13	Not Detected
tert-Amyl methyl ether	994-05-8	0.50	D	13	Not Detected
tert-Butyl alcohol	75-65-0	0.20	D	9.5	Not Detected
TPH ref. to Gasoline (MW=100)	9999-9999-038	NA	D	64	76

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	95
4-Bromofluorobenzene	460-00-4	70-130	96
Toluene-d8	2037-26-5	70-130	95

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
Emeryville Chevron 1400 Powell St.

Client ID:	IA1		
Lab ID:	1609308-01B	**Date/Time Analyzed:**	9/15/16 04:09 PM
Date/Time Collecte	9/13/16 09:08 AM	**Dilution Factor:**	1.57
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msdv.i / v091510sim

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.013	0.043	0.17	Not Detected
1,1-Dichloroethane	75-34-3	0.0045	0.032	0.13	Not Detected
1,1-Dichloroethene	75-35-4	0.017	0.031	0.062	Not Detected
Benzene	71-43-2	0.0037	0.025	0.25	0.75
cis-1,2-Dichloroethene	156-59-2	0.0086	0.031	0.12	Not Detected
Ethyl Benzene	100-41-4	0.0052	0.034	0.14	0.50
m,p-Xylene	108-38-3	0.0095	0.034	0.27	1.6
Methyl tert-butyl ether	1634-04-4	0.0083	0.028	0.57	Not Detected
Naphthalene	91-20-3	0.018	0.041	0.41	0.25 J
o-Xylene	95-47-6	0.014	0.034	0.14	0.57
Tetrachloroethene	127-18-4	0.014	0.053	0.21	Not Detected
Toluene	108-88-3	0.0056	0.030	0.12	2.6
trans-1,2-Dichloroethene	156-60-5	0.018	0.031	0.62	Not Detected
Trichloroethene	79-01-6	0.0097	0.042	0.17	Not Detected
Vinyl Chloride	75-01-4	0.0092	0.020	0.040	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	98
4-Bromofluorobenzene	460-00-4	70-130	95
Toluene-d8	2037-26-5	70-130	98

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
Emeryville Chevron 1400 Powell St.

Client ID:	Lab Blank		
Lab ID:	1609308-02A	**Date/Time Analyzed:**	9/15/16 03:19 PM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msdv.i / v091509

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethyl-tert-butyl ether	637-92-3	0.16	D	8.4	Not Detected
Isopropyl ether	108-20-3	0.069	D	8.4	Not Detected
tert-Amyl methyl ether	994-05-8	0.32	D	8.4	Not Detected
tert-Butyl alcohol	75-65-0	0.13	D	6.1	Not Detected
TPH ref. to Gasoline (MW=100)	9999-9999-038	NA	D	41	Not Detected

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	95
4-Bromofluorobenzene	460-00-4	70-130	99
Toluene-d8	2037-26-5	70-130	99

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
Emeryville Chevron 1400 Powell St.

Client ID:	Lab Blank		
Lab ID:	1609308-02B	**Date/Time Analyzed:**	9/15/16 03:19 PM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msdv.i / v091509simc

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.0082	0.027	0.11	Not Detected
1,1-Dichloroethane	75-34-3	0.0029	0.020	0.081	Not Detected
1,1-Dichloroethene	75-35-4	0.011	0.020	0.040	Not Detected
Benzene	71-43-2	0.0024	0.016	0.16	0.022 J
cis-1,2-Dichloroethene	156-59-2	0.0055	0.020	0.079	Not Detected
Ethyl Benzene	100-41-4	0.0033	0.022	0.087	Not Detected
m,p-Xylene	108-38-3	0.0061	0.022	0.17	Not Detected
Methyl tert-butyl ether	1634-04-4	0.0053	0.018	0.36	Not Detected
Naphthalene	91-20-3	0.012	0.026	0.26	0.061 J
o-Xylene	95-47-6	0.0087	0.022	0.087	Not Detected
Tetrachloroethene	127-18-4	0.0088	0.034	0.14	Not Detected
Toluene	108-88-3	0.0036	0.019	0.075	Not Detected
trans-1,2-Dichloroethene	156-60-5	0.012	0.020	0.40	Not Detected
Trichloroethene	79-01-6	0.0062	0.027	0.11	Not Detected
Vinyl Chloride	75-01-4	0.0058	0.013	0.026	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	100
4-Bromofluorobenzene	460-00-4	70-130	94
Toluene-d8	2037-26-5	70-130	98

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
Emeryville Chevron 1400 Powell St.

Client ID:	CCV		
Lab ID:	1609308-03A	**Date/Time Analyzed:**	9/15/16 09:55 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msdv.i / v091502

Compound	CAS#	%Recovery
Ethyl-tert-butyl ether	637-92-3	109
Isopropyl ether	108-20-3	107
tert-Amyl methyl ether	994-05-8	103
tert-Butyl alcohol	75-65-0	105
TPH ref. to Gasoline (MW=100)	9999-9999-038	100

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	100
4-Bromofluorobenzene	460-00-4	70-130	95
Toluene-d8	2037-26-5	70-130	107

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
Emeryville Chevron 1400 Powell St.

Client ID:	CCV		
Lab ID:	1609308-03B	**Date/Time Analyzed:**	9/15/16 09:55 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msdv.i / v091502sim

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	93
1,1-Dichloroethane	75-34-3	95
1,1-Dichloroethene	75-35-4	89
Benzene	71-43-2	85
cis-1,2-Dichloroethene	156-59-2	95
Ethyl Benzene	100-41-4	102
m,p-Xylene	108-38-3	97
Methyl tert-butyl ether	1634-04-4	104
Naphthalene	91-20-3	77
o-Xylene	95-47-6	98
Tetrachloroethene	127-18-4	83
Toluene	108-88-3	96
trans-1,2-Dichloroethene	156-60-5	95
Trichloroethene	79-01-6	88
Vinyl Chloride	75-01-4	93

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	98
4-Bromofluorobenzene	460-00-4	70-130	98
Toluene-d8	2037-26-5	70-130	102

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
Emeryville Chevron 1400 Powell St.

Client ID:	LCS		
Lab ID:	1609308-04A	**Date/Time Analyzed:**	9/15/16 10:37 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msdv.i / v091503

Compound	CAS#	%Recovery
Ethyl-tert-butyl ether	637-92-3	Not Spiked
Isopropyl ether	108-20-3	Not Spiked
tert-Amyl methyl ether	994-05-8	Not Spiked
tert-Butyl alcohol	75-65-0	Not Spiked
TPH ref. to Gasoline (MW=100)	9999-9999-038	Not Spiked

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	96
4-Bromofluorobenzene	460-00-4	70-130	102
Toluene-d8	2037-26-5	70-130	103

* % Recovery is calculated using unrounded analytical results.

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
Emeryville Chevron 1400 Powell St.

Client ID:	LCSD		
Lab ID:	1609308-04AA	**Date/Time Analyzed:**	9/15/16 11:12 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msdv.i / v091504

Compound	CAS#	%Recovery
Ethyl-tert-butyl ether	637-92-3	Not Spiked
Isopropyl ether	108-20-3	Not Spiked
tert-Amyl methyl ether	994-05-8	Not Spiked
tert-Butyl alcohol	75-65-0	Not Spiked
TPH ref. to Gasoline (MW=100)	9999-9999-038	Not Spiked

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	104
4-Bromofluorobenzene	460-00-4	70-130	99
Toluene-d8	2037-26-5	70-130	102

* % Recovery is calculated using unrounded analytical results.

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
Emeryville Chevron 1400 Powell St.

Client ID:	LCS		
Lab ID:	1609308-04B	**Date/Time Analyzed:**	9/15/16 10:37 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msdv.i / v091503sim

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	88
1,1-Dichloroethane	75-34-3	90
1,1-Dichloroethene	75-35-4	84
Benzene	71-43-2	82
cis-1,2-Dichloroethene	156-59-2	86
Ethyl Benzene	100-41-4	96
m,p-Xylene	108-38-3	92
Methyl tert-butyl ether	1634-04-4	96
Naphthalene	91-20-3	104
o-Xylene	95-47-6	95
Tetrachloroethene	127-18-4	81
Toluene	108-88-3	92
trans-1,2-Dichloroethene	156-60-5	90
Trichloroethene	79-01-6	84
Vinyl Chloride	75-01-4	90

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	97
4-Bromofluorobenzene	460-00-4	70-130	96
Toluene-d8	2037-26-5	70-130	103

* % Recovery is calculated using unrounded analytical results.

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
Emeryville Chevron 1400 Powell St.

Client ID:	LCSD		
Lab ID:	1609308-04BB	**Date/Time Analyzed:**	9/15/16 11:12 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msdv.i / v091504sim

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	90
1,1-Dichloroethane	75-34-3	92
1,1-Dichloroethene	75-35-4	92
Benzene	71-43-2	82
cis-1,2-Dichloroethene	156-59-2	89
Ethyl Benzene	100-41-4	96
m,p-Xylene	108-38-3	90
Methyl tert-butyl ether	1634-04-4	99
Naphthalene	91-20-3	117
o-Xylene	95-47-6	92
Tetrachloroethene	127-18-4	80
Toluene	108-88-3	90
trans-1,2-Dichloroethene	156-60-5	94
Trichloroethene	79-01-6	84
Vinyl Chloride	75-01-4	90

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	100
4-Bromofluorobenzene	460-00-4	70-130	96
Toluene-d8	2037-26-5	70-130	101

* % Recovery is calculated using unrounded analytical results.

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

P&D ENVIRONMENTAL, INC.
55 Santa Clara Ave., Suite 240
Oakland, CA 94610
(510) 658-6916

PROJECT NUMBER: 0719

PROJECT NAME: EMERYVILLE CHEVRON
1400 POWELL ST
EMERYVILLE, CA

SAMPLED BY: (PRINTED & SIGNATURE)
JAY H. MILLER

	SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION (INITIAL VAC / FINAL VAC / SUMMA #)	NUMBER OF CONTAINERS	ANALYSIS(ES): TO-15 INCLUDING TPHG, BTEX AND NAPHTHALENE	PRESERVATIVE	REMARKS
01A	JA1	9/12/16	0859	AIR	-30 / 6L0526	1	X	NONE	3-DAY TAT
		9/13/16	0908	"	-4				

RELINQUISHED BY: (SIGNATURE)	DATE 9-13-16	TIME 1419	RECEIVED BY: (SIGNATURE)	Total No. of Samples (This Shipment): 1 Total No. of Containers (This Shipment): 1	LABORATORY: EUROFIN AIR TOXICS LTD
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	LABORATORY CONTACT: KELLY BUETTNER	LABORATORY PHONE NUMBER: (916) 605-3378
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)	SAMPLE ANALYSIS REQUEST SHEET ATTACHED: ( ) YES (X) NO	

Results and billing to:
P&D Environmental, Inc.
lab@pdenviro.com

REMARKS: FLOW CONTROLLER - 24HR (SIM CERTIFIED)
3-DAY TAT REQUESTED

1609308