SOIL GAS INVESTIGATION 801 Brannan Street San Francisco, California

Equity Residential Two N. Riverside Plaza, Suite 400 Chicago, Illinois 60606-2609

> 18 November 2013 Project No. 731609101





18 November 2013 Project No. 731609101

Nikki Brenner **Equity Residential** Two N. Riverside Plaza, Suite 400 Chicago, Illinois 60606-2609

Subject: Soil Gas Investigation

> 801 Brannan Street San Francisco, California

Dear Ms. Brenner:

Treadwell & Rollo, a Langan Company, is pleased to present this report for the soil gas investigation conducted at 801 Brannan Street in San Francisco, California. We understand that the proposed development at the Site will consist of a 6-story residential structure with commercial spaces, residential units, and parking garages on the ground floor, as well as publically accessible open space. There are no basements planned, so the proposed excavation will primarily consist of what is needed for elevator pits, pile caps, and/or utilities.

In performing this soil gas investigation, we have endeavored to observe that degree of care and skill generally exercised by other consultants undertaking similar studies at the same time, under similar circumstances and conditions, and in the same geographical area. We appreciate the opportunity to assist you with this project. If you have any questions or need any information clarified, please contact us.

Sincerely yours, Treadwell & Rollo, A Langan Company

Veronica M. Tiglao, P.E. Senior Project Engineer

Jeffrey F. Ludlow, P.G.

Principal

Attachments

cc: Elyse D. Heilshorn, P.E. - City and County of San Francisco, Department of Public Health

731615201.01 VT

NO. 6369



TABLE OF CONTENTS

1.0	INTRODUCTION	1
2.1	BACKGROUND	
3.0	SCOPE OF WORK	2
4.0	FIELD INVESTIGATION	3
5.0	SAMPLE SELECTION AND ANALYTICAL TESTING	4
6.0	LABORATORY TEST RESULTS AND EVALUATION 6.1 Soil Gas Results 6.2 Background Air and QA/QC	4 4
7.0	CONCLUSIONS AND RECOMMENDATIONS	5
8.0	LIMITATIONS	6
TABLES	5	
FIGURE	ES CONTRACTOR OF THE PROPERTY	
APPENI	DICES	



LIST OF TABLES

Table 1 Soil Gas and Air Analytical Results

LIST OF FIGURES

Figure 1 Site Location Map

Figure 2 Site Plan

LIST OF APPENDICES

Appendix A Analytical Laboratory Reports

Appendix B Selected Figures and Tables by Others



SOIL GAS INVESTIGATION 801 Brannan Street San Francisco, California

1.0 INTRODUCTION

This report, prepared for Equity Residential, presents the results of the soil gas investigation conducted at 801 Brannan Street in San Francisco, California (Site). The Site is located on the south side of Brannan Street, between 7th Street and 8th Street (Figure 1). Based on information provided by Equity Residential¹, we understand that the proposed development will cover the entire Site footprint and will mainly consist of a 6-story residential structure with commercial spaces, residential units, and parking garages on the ground floor, as well as publically accessible open space. There are no basements planned, so the proposed excavation will primarily consist of what is needed for elevator pits, pile caps, and/or utilities. The maximum anticipated excavation from existing Site conditions is about 5 feet below ground surface (bgs). We assume that construction dewatering will not be necessary as part of Site development.

The Site is currently occupied by a large structure formerly in use as an exhibition hall and an associated asphalt-paved parking lot (see Figure 2). Freight platforms are located on either side of the building. The former exhibition hall and freight platforms are approximately 3 feet above grade. The approximately 5.21-acre Site is rectangular in shape, with plan dimensions of approximately 300 feet by 725 feet.

Per a recently passed City and County of San Francisco Ordinance (Ordinance No. 155-13, approved 25 July 2013, and effective as of 24 August 2013), the Site is located in an area that is subject to the requirements of the San Francisco Public Health Code Article 22A (Maher Ordinance) and is therefore subject to oversight by the San Francisco Department of Public Health (SFDPH).

Project plans and preliminary drawings by david baker + partners, dated 31 May 2012.



2.0 BACKGROUND

Based on information obtained during our document review²:

- Previous occupants at the Site have included Pacific Woodenware and Cooperage and several small buildings (1887); a drayage company, box factory, bottle yard, and hay and unspecified warehouse (1899); Western Pacific Railroad Freight Depot and multiple railroad spurs (1913 to 1980); and Concourse Exhibition Center (1980s to 2000s).
- Previous investigations encountered fill to depths of up to 11 feet bgs. Laboratory analysis
 of soil samples indicate that most of the fill at the Site would be considered a California
 hazardous waste for off-site disposal based on total and soluble lead concentrations.
- Additionally, up to 29,000 milligrams per kilogram (mg/kg) Total Recoverable Petroleum
 Hydrocarbons (TRPH), 280 mg/kg total petroleum hydrocarbons as motor oil (TPHmo), and
 740 mg/kg total petroleum hydrocarbons as diesel (TPHd) were detected in soil. Minor
 concentrations of the volatile organic compounds (VOCs) benzene, toluene, ethylbenzene,
 and xylene (BTEX) were also detected, at concentrations ranging from 0.0055 mg/kg to
 0.16 mg/kg.
- Groundwater has been encountered between about 9 to 12 feet bgs. Laboratory analysis
 of groundwater samples collected at the Site detected up to 12 milligrams per liter (mg/L)
 TRPH, 1.9 mg/L TPHmo, and 1 mg/L TPHd.

3.0 SCOPE OF WORK

The purpose of this soil gas investigation was to collect soil gas samples for chemical analysis according to the requirements of Article 22A, and to assess the potential for soil gas impacts resulting from past and/or present Site activities and nearby off-site operations. Our work included drilling five soil borings to approximately 5 feet bgs for soil gas sampling, chemical testing of selected samples, and evaluating the results.

Documents reviewed include a *Phase I Environmental Site Assessment and Limited Phase II Site Investigation Report* by Stellar Environmental Solutions, Inc, dated 28 October 2011, and a *Draft Environmental Review* letter by DLA Piper, dated 8 November 2011.



4.0 FIELD INVESTIGATION

Prior to field work, a drilling permit was obtained from the SFDPH for the borings. Additionally, Underground Services Alert was contacted, and utility clearances were conducted at the boring locations by Precision Locating LLC of Brentwood, California.

On 17 June 2013, TEG of Northern California (TEG), of Rancho Cordova, California advanced five boreholes to depths of approximately 5 to 8 feet bgs, at the locations shown on Figure 2. The locations of the boreholes were based on proposed building footprints, to provide roughly equal lateral coverage as well as target future occupied spaces as shown on the current development plans³.

Soil gas samples (TR-SG-1 through TR-SG-5 and Dup-1) were collected at each borehole using 1-inch stainless steel rods. A length of 1/8-inch diameter nyla flow tubing was connected to a 1.5-inch long, 3/8-inch diameter, nylon soil gas screen. The assembly was placed into the boring through a steel rod. Monterey, kiln-dried sand with 30% porosity was installed in the borehole annulus from the bottom to approximately 1/2 foot above and below the screened implant. A 1-foot thick seal of dry bentonite chips was placed above the sand filter pack. A 3-foot thick seal of hydrated bentonite was placed on top of the dry bentonite to create a seal around the tubing to prevent ambient air intrusion into the soil gas probe.

Soil gas probes were allowed to equilibrate for at least two hours following the installation before purging and sampling. Samples were collected in 1 liter (L) Summa canisters with an initial vacuum of 30 inches of mercury (inches Hg). The sampling manifold used consisted of 1/8-inch stainless steel or Teflon tubing, a valve for connecting a luer lock syringe for purging, a flow regulator, and two vacuum pressure gauges. A shut-in test and a leak test were conducted utilizing a shroud and helium as a leak-check tracer gas to confirm the sample train integrity. Three purge volumes were purged from the sample train via a 60 milliliter (mL) luer lock syringe. The first and last 50 mL of gas purged was analyzed with the portable helium detector to confirm there were no ambient air leaks into the sampling train. Once the shut-in test and leak test were completed and sample train established to be intact, samples were collected into the Summa canisters at a flow rate of approximately 200 milliliters per minute (mL/min). Samples collected at the on-site building (TR-SG-1 and TR-SG-2) were collected at about 8 feet below the concrete slab, translating to about 5 feet bgs. Remaining samples (TR-SG-3 through TR-SG-5) were also collected at about 5 feet bgs. As a quality control/quality assurance (QA/QC) measure, duplicate sample Dup-1 was collected at sample location TR-SG-1.

,

Project plans and preliminary drawings by david baker + partners, dated 31 May 2012.



A background air sample, Ambient-1, was also collected as part of the soil gas investigation. The background air sample was collected into a 6-liter Summa canister at a flow rate of approximately 12.5 mL/min.

Upon completion of the soil gas sampling, the temporary soil gas probes were appropriately decommissioned and all boreholes were backfilled to the ground surface with neat cement grout using the tremie method under the supervision of a SFDPH grout inspector.

The soil gas and air samples were collected in general accordance with procedures established by the California Department of Toxic Substances Control (DTSC). The soil gas and air samples were sent under chain-of-custody control to CalScience Environmental Laboratories, Inc. (CalScience), a California-certified analytical laboratory based in Garden Grove, California, for chemical analysis.

5.0 SAMPLE SELECTION AND ANALYTICAL TESTING

The objective of the soil gas sampling was to collect additional chemical data to evaluate the impact to soil gas at concentrations that would cause an unacceptable vapor intrusion human health risk at the Site. The soil gas samples were analyzed as follows:

- Total petroleum hydrocarbons as gasoline (TPHg) by Environmental Protection Agency (EPA)
 Method TO-3;
- VOCs by EPA Method TO-15; and
- Methane and helium by American Society for Testing and Materials (ASTM) Method D-1946.

6.0 LABORATORY TEST RESULTS AND EVALUATION

Soil gas analytical results are summarized in Table 1. Copies of the laboratory analytical reports are presented in Appendix A. The analytical results are discussed in the following section.

6.1 Soil Gas Results

Several VOCs, including acetone, benzene, 2-butanone, carbon disulfide, carbon tetrachloride, chloroform, 1,1-dichloroethane, ethylbenzene, methyl-tert-butyl-ether, o-xylene, p/m-xylene, tetrachloroethene, toluene, trichlorofluoromethane, and/or 1,1,1-trichloroethane, were detected at all 5 soil gas samples, at concentrations ranging from 3.2 micrograms per cubic meter (µg/m³) to 160 µg/m³.



TPHg and other VOCs were not detected above their respective laboratory reporting limits. Of the detections above the reporting limits, none exceeded their respective residential Environmental Screening Levels⁴ (ESLs) or California Human Health Screening Levels⁵ (CHHSLs) in any of the samples.

Methane was detected in 2 of 5 soil gas samples, at concentrations of 0.732 percent by volume (%v) at TR-SG-2 and 12.3%v at TR-SG-1 (13%v methane was detected at the duplicate sample collected at TR-SG-1). Though no action level for methane has been formally established for the expanded Maher zone areas, the elevated methane concentration at TR-SG-1 exceeds the 1.25%v criterion previously established for Mission Bay, which is currently used as a guideline by SFDPH.

6.2 Background Air and QA/QC

Compounds detected in the background air sample included low concentrations of several VOCs, including acetone, benzene, carbon tetrachloride, chloromethane, dichlorodifluoromethane, ethylbenzene, methylene chloride, and tetrachloroethene, at concentrations ranging from $0.2 \mu g/m3$ to $7.3 \mu g/m3$. Methane and other VOCs were not detected above their respective laboratory reporting limits.

Helium was used as a tracer gas around the probe rods during sampling as a QA/QC measure to confirm the sample integrity. Helium was not detected in any of the soil gas samples or the background air sample.

A duplicate sample was collected at location TR-SG-1 during sampling as a QA/QC measure to identify possible field variations. Analytical results of sample TR-SG-1 and duplicate Dup-1 were generally similar.

7.0 CONCLUSIONS AND RECOMMENDATIONS

Laboratory analytical results indicate that an elevated methane condition exists in soil gas at a localized area of the Site (TR-SG-1; see Figure 2). The elevated methane concentration may be attributable to the degradation of TPHs previously detected in soil and groundwater (see Appendix B for selected figures and tables from previous reports) and/or naturally occurring methane from the degradation of the organic-

⁴ ESL values cited are from Summary Table E, Indoor Air and Soil Gas (Vapor Intrusion Concerns), from the 2013 Tier 1 ESLs, by the California Regional Water Quality Control Board, San Francisco Bay Region, dated May 2013.

⁵ CHHSL values cited from *Use of California Human Health Screening Levels (CHHSLs) in Evaluation of Contaminated Properties, Table 2, California Human Health Screening Levels for Indoor Air and Soil Gas*, by the California EPA, dated January 2005.



rich soils (the Site is within the former Upper Mission Creek drainage area which was filled in the late 1800s).

Results of the previous investigations⁶ indicate that the Site is underlain by up to 11 feet of fill, most of which would be considered California hazardous waste for off-site disposal based on total and soluble lead concentrations. As a California Unified Program Agency (CUPA) for hazardous materials oversight in San Francisco, and as required under Article 22A, the SFDPH would provide regulatory oversight during Site development. As such, the SFDPH would require a Soil Management Plan (SMP) and Health and Safety (H&S) Plan be prepared and followed during construction. The H&S Plan should be prepared and followed by the project contractors to outline and implement proper construction worker health and safety and monitoring procedures, including methane monitoring, during the development tasks. The SFDPH may require a methane mitigation system be constructed as part of the building development to mitigate intrusion of methane gas into the future Site structure. The system design would require review and approval by the SFDPH prior to construction. Installation of this system, if needed, and soil excavation tasks should be periodically observed during construction to confirm that the mitigation system was properly installed and that the soil was handled according to requirements of the SMP. Upon construction completion, an environmental regulatory closure report and an Operations & Maintenance (O&M) plan for the methane mitigation system should be prepared and submitted to the SFDPH for approval.

8.0 LIMITATIONS

Descriptions of specific field activities and historical events are based on our observations and on information provided by others. The opinions and information presented in this report apply to Site conditions and the information that was available at the time the work was performed and do not apply to changes of which we are not aware or have not had the opportunity to evaluate. Treadwell & Rollo makes no guarantees or warranties with respect to the accuracy or completeness of this information.

Phase I Environmental Site Assessment and Limited Phase II Site Investigation Report by Stellar Environmental Solutions, Inc, dated 28 October 2011.



TABLES

Table 1 Soil Gas and Ambient Air Analytical Results 801 Brannan Street San Francisco, California

				TPH											VOCs												Tracer Gas
Sample ID	Purge Volumes	Sample Depth (feet below ground surface)	Date Sampled	TPHg	Acetone	Benzene	2-Butanone	Carbon Disulfide	Carbon Tetra- chloride	Chloroform	Chloro- methane	Dichloro- difluoro- methane	1,1- Dichloro- ethane	_	Methyl-tert- butyl-ether	_	o- Xylene	p/m- Xylene	Tetrachloro ethene	Toluene	Trichloro- fluoro- methane	1,1,1- Trichloro- ethane	1,1,2- Trichloro- 1,2,2- Trifluoro- ethane	1,2,4- Trimethyl- benzene	All Other VOCs	Methane	Helium
										•	•	•		μg/m³			•			•			•			(%v)	
TR-SG-1*	3	5.0	06/17/13	<7,000	63	<1.7	8.1	<6.6	<3.3	<2.6	<1.1	<2.6	160	<2.3	<7.6	<18	<2.3	< 9.1	<3.6	<2.0	<6.0	58	<12	<7.8	ND	12.3	< 0.01
Dup-1 *	3	5.0	06/17/13	<7,000	100	<1.8	9.1	< 6.9	<3.5	<2.7	<1.1	<2.7	160	<2.4	<8.0	<19	<2.4	< 9.6	<3.8	<2.1	<6.2	60	<13	<8.2	ND	13.0	< 0.01
TR-SG-2*	3	5.0	06/17/13	<7,000	130	8.3	39	<6.2	<3.1	<2.4	<1.0	<2.5	<2.0	3.2	130	<17	6.3	11	<3.4	17	< 5.6	<2.7	<11	<7.4	ND	0.732	< 0.01
TR-SG-3	3	5.0	06/17/13	<7,000	110	30	23	<7.2	6.9	<2.8	<1.2	<2.9	<2.3	6.9	<8.4	<20	9.1	21	5.2	40	6.8	210	<13	<8.6	ND	<0.5	< 0.01
TR-SG-4	3	5.0	06/17/13	<7,000	26	4.8	<5.8	<8.2	<4.1	7.8	<1.4	<3.2	<2.7	<2.8	< 9.4	<23	3.8	<11	< 4.4	10	<7.4	35	<15	< 9.7	ND	< 0.5	< 0.01
TR-SG-5	3	5.0	06/17/13	<7,000	55	7.6	13	13	<3.5	<2.7	<1.1	<2.7	<2.2	5.1	<8.0	<19	9.5	20	<3.8	17	<6.2	18	<13	<8.2	ND	<0.5	< 0.01
Ambient-1	3	5.0	06/17/13	<7,000	7.3	0.41	<1.5	<1.6	0.62	< 0.12	1.2	2.6	< 0.10	0.2	< 0.09	0.53	0.23	0.65	< 0.17	1.3	1.5	0.56	0.64	0.2	ND	< 0.5	< 0.01
						•					•						•								•	•	
ESL - Residential	Land Use		•	150,000	16,000,000	42	2,600,000	NE	29	230	47,000	NE	760	490	4,700	NE	52,000	52,000	210	160,000	NE	2,600,000	NE	NE	NE	NE	NE
HHSL - Residenti	al Land Use			NE	NE	36.2	NE	NE	25.1	NE	NE	NE	NE	NE	4,000	NE	315,000	317,000	180	135,000	NE	991,000	NE	NE	NE	NE	NE

<u>Notes:</u>

* Sample collected at on-site building, which is about 3 feet above grade. Sample collected at about 8 feet below concrete slab, translating to about 5 feet below ground surface.

μg/m³ - micrograms per cubic meter

%v - percent volume

TPH - Total Petroleum Hydrocarbons

TPHg - Total Petroleum Hydrocarbons as Gasoline

VOCs - Volatile Organic Compounds

< - Analyte was not detected at or above the laboratory reporting limit

ND - Not detected at or above the laboratory reporting limit

NE - Not established

Environmental Screening Levels (ESL) values cited are from Summary Table E, Indoor Air and Soil Gas (Vapor Intrusion Concerns), from the 2013 Tier 1 ESLs, by the California Regional Water Quality Control Board, San Francisco Bay Region, dated May 2013.

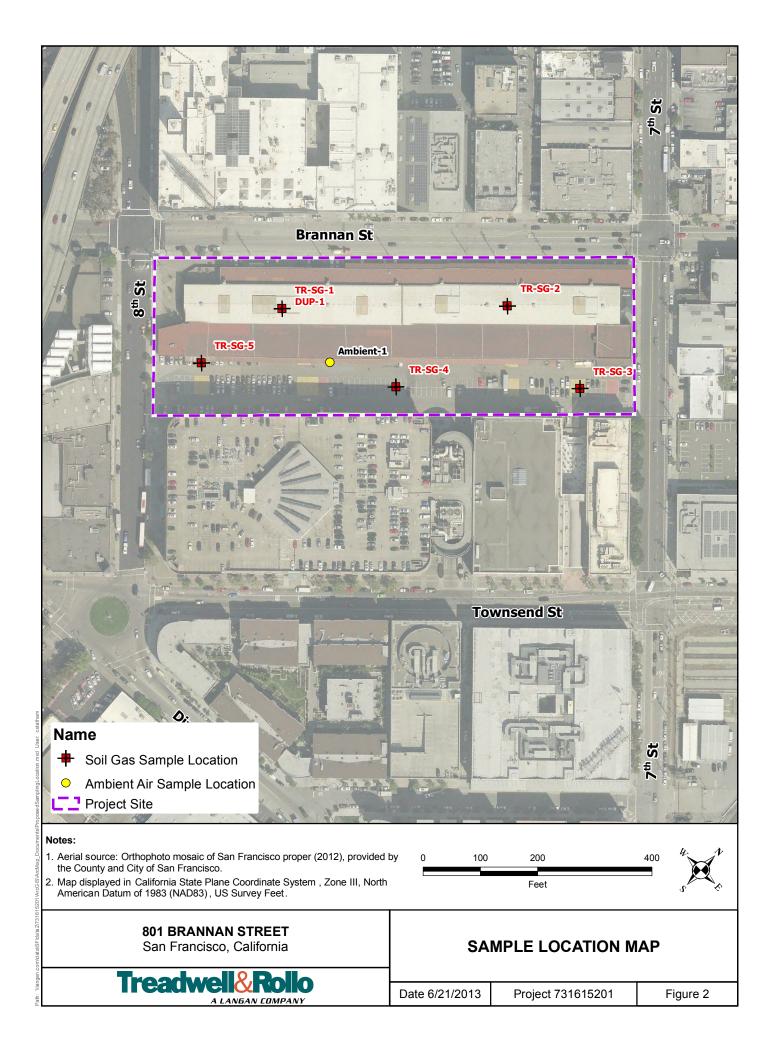
California Human Health Screening Levels (CHHSL) values cited are from Summary Table 2, California Human Health Screening Levels (CHHSLs) in Evaluation of Contaminated Properties, by the California Environmental Protection Agency, dated January 2005.



FIGURES



A LANGAN COMPANY





APPENDIX A ANALYTICAL LABORATORY REPORTS



Supplemental Report 1

Additional requested analyses have been added to the original report.



CALSCIENCE

WORK ORDER NUMBER: 13-06-1141

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Treadwell & Rollo - A Langan Company

Client Project Name: 801 Brannan / 731615201

Attention: Veronica Tiglao

555 Montgomery St., Suite 1300 San Francisco, CA 94111-2554

1. Buy

Approved for release on 06/28/2013 by: Kristin Beckley

Project Manager



Email your PM >

ResultLink >

Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



Contents

Client Project Name: 801 Brannan / 731615201

Work Order Number: 13-06-1141

1	Work Order Narrative	3
2	Sample Summary	4
3	Detections Summary	5
4	Client Sample Data. 4.1 ASTM D-1946 Fixed Gases (Air). 4.2 ASTM D-1946 (M) Fixed Gases (H2 and/or He) (Air). 4.3 EPA TO-15 Full List (Air). 4.4 EPA TO-15 SIM (Air). 4.5 EPA TO-3 (M) TPH Gasoline (Air).	7 7 8 9 23 27
5	Quality Control Sample Data	28 28 29
6	Summa Canister Vacuum Summary	36
7	Glossary of Terms and Qualifiers	37
8	Chain of Custody/Sample Receipt Form	38



Work Order Narrative

Work Order: 13-06-1141 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 06/18/13. They were assigned to Work Order 13-06-1141.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with an immediate holding time (HT </= 15 minutes --40CFR-136.3 Table II footnote 4), is considered a "field" test and reported samples results are not flagged unless the analysis is performed beyond 24 hours of the time of collection.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.





Sample Summary

Client: Treadwell & Rollo - A Langan Company

555 Montgomery St., Suite 1300

San Francisco, CA 94111-2554

Work Order: Project Name:

PO Number:

Date Received:

13-06-1141

801 Brannan / 731615201

06/18/13

Attn: Veronica Tiglao

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
TR-SG-1	13-06-1141-1	06/17/13 12:31	1	Air
Dup-1	13-06-1141-2	06/17/13 12:31	1	Air
TR-SG-2	13-06-1141-3	06/17/13 13:11	1	Air
TR-SG-3	13-06-1141-4	06/17/13 14:21	1	Air
TR-SG-4	13-06-1141-5	06/17/13 15:06	1	Air
TR-SG-5	13-06-1141-6	06/17/13 15:31	1	Air
Ambient-1	13-06-1141-7	06/17/13 15:45	1	Air



Detections Summary

Client: Treadwell & Rollo - A Langan Company

555 Montgomery St., Suite 1300

San Francisco, CA 94111-2554

Work Order: 13-06-1141

Project Name: 801 Brannan / 731615201

Received: 06/18/13

Attn: Veronica Tiglao Page 1 of 2

Client SampleID						
<u>Analyte</u>	Result	Qualifiers	<u>RL</u>	<u>Units</u>	<u>Method</u>	Extraction
TR-SG-1 (13-06-1141-1)						
Methane	12.3		0.500	%v	ASTM D-1946	N/A
Acetone	63		5.0	ug/m3	EPA TO-15	N/A
2-Butanone	8.1		4.7	ug/m3	EPA TO-15	N/A
1,1-Dichloroethane	160		2.1	ug/m3	EPA TO-15	N/A
1,1,1-Trichloroethane	58		2.9	ug/m3	EPA TO-15	N/A
Dup-1 (13-06-1141-2)	00		2.0	ug/mo	217/10/10	14// (
Methane	13.0		0.500	%v	ASTM D-1946	N/A
Acetone	100		5.3	ug/m3	EPA TO-15	N/A
2-Butanone	9.1		4.9	ug/m3	EPA TO-15	N/A
1.1-Dichloroethane	160		2.2	ug/m3	EPA TO-15	N/A
1,1,1-Trichloroethane	60		3.0	ug/m3	EPA TO-15	N/A
TR-SG-2 (13-06-1141-3)	00		5.0	ug/III3	LI A 10-13	IN/A
Methane	0.732		0.500	%v	ASTM D-1946	N/A
Acetone	130		4.8	ug/m3	EPA TO-15	N/A
Benzene	8.3		1.6	ug/m3	EPA TO-15	N/A
2-Butanone	39		4.4	ug/m3	EPA TO-15	N/A
Ethylbenzene	3.2		2.2	ug/m3	EPA TO-15	N/A
Methyl-t-Butyl Ether (MTBE)	130		7.2	ug/m3	EPA TO-15	N/A
o-Xylene	6.3		2.2	ug/m3	EPA TO-15	N/A
p/m-Xylene	11		8.7	ug/m3	EPA TO-15	N/A
Toluene	17		1.9	ug/m3	EPA TO-15	N/A
TR-SG-3 (13-06-1141-4)	.,		1.0	ug/mo	217/10/10	14// (
Acetone	110		5.5	ug/m3	EPA TO-15	N/A
Benzene	30		1.9	ug/m3	EPA TO-15	N/A
2-Butanone	23		5.1	ug/m3	EPA TO-15	N/A
Carbon Tetrachloride	6.9		3.6	ug/m3	EPA TO-15	N/A
Ethylbenzene	6.9		2.5	ug/m3	EPA TO-15	N/A
o-Xylene	9.1		2.5	ug/m3	EPA TO-15	N/A
p/m-Xylene	21		10	ug/m3	EPA TO-15	N/A
Tetrachloroethene	5.2		3.9	ug/m3	EPA TO-15	N/A
Toluene	40		2.2	ug/m3	EPA TO-15	N/A
Trichlorofluoromethane	6.8		6.5	ug/m3	EPA TO-15	N/A
	6.8 210		3.2	ug/m3 ug/m3	EPA TO-15 EPA TO-15	N/A N/A
1,1,1-Trichloroethane	∠1 0		ა.∠	ug/III3	EFA 10-13	IN/A

^{*} MDL is shown





Detections Summary

Client: Treadwell & Rollo - A Langan Company

555 Montgomery St., Suite 1300

San Francisco, CA 94111-2554

Work Order: 13-06-1141

Project Name: 801 Brannan / 731615201

Received: 06/18/13

Attn: Veronica Tiglao Page 2 of 2

Client SampleID						
<u>Analyte</u>	Result	Qualifiers	<u>RL</u>	<u>Units</u>	<u>Method</u>	Extraction
TD SC 4 (42.06.4444.5)						
TR-SG-4 (13-06-1141-5)	26		6.2		EPA TO-15	N/A
Acetone				ug/m3		
Benzene	4.8		2.1	ug/m3	EPA TO-15	N/A N/A
Chloroform	7.8		3.2	ug/m3	EPA TO-15	
o-Xylene	3.8		2.8	ug/m3	EPA TO-15	N/A
Toluene	10		2.5	ug/m3	EPA TO-15	N/A
1,1,1-Trichloroethane	35		3.6	ug/m3	EPA TO-15	N/A
TR-SG-5 (13-06-1141-6)						
Acetone	55		5.3	ug/m3	EPA TO-15	N/A
Benzene	7.6		1.8	ug/m3	EPA TO-15	N/A
2-Butanone	13		4.9	ug/m3	EPA TO-15	N/A
Carbon Disulfide	13		6.9	ug/m3	EPA TO-15	N/A
Ethylbenzene	5.1		2.4	ug/m3	EPA TO-15	N/A
o-Xylene	9.5		2.4	ug/m3	EPA TO-15	N/A
p/m-Xylene	20		9.6	ug/m3	EPA TO-15	N/A
Toluene	17		2.1	ug/m3	EPA TO-15	N/A
1,1,1-Trichloroethane	18		3.0	ug/m3	EPA TO-15	N/A
Ambient-1 (13-06-1141-7)						
1,1,1-Trichloroethane	0.56		0.14	ug/m3	EPA TO-15 SIM	N/A
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.64		0.19	ug/m3	EPA TO-15 SIM	N/A
1,2,4-Trimethylbenzene	0.20		0.12	ug/m3	EPA TO-15 SIM	N/A
Acetone	7.3		1.2	ug/m3	EPA TO-15 SIM	N/A
Benzene	0.41		0.080	ug/m3	EPA TO-15 SIM	N/A
Carbon Tetrachloride	0.62		0.063	ug/m3	EPA TO-15 SIM	N/A
Chloromethane	1.2		0.052	ug/m3	EPA TO-15 SIM	N/A
Dichlorodifluoromethane	2.6		0.12	ug/m3	EPA TO-15 SIM	N/A
Ethylbenzene	0.20		0.11	ug/m3	EPA TO-15 SIM	N/A
Methylene Chloride	0.53		0.087	ug/m3	EPA TO-15 SIM	N/A
Toluene	1.3		0.094	ug/m3	EPA TO-15 SIM	N/A
Trichlorofluoromethane	1.5		0.14	ug/m3	EPA TO-15 SIM	N/A
o-Xylene	0.23		0.11	ug/m3	EPA TO-15 SIM	N/A
p/m-Xylene	0.65		0.11	ug/m3	EPA TO-15 SIM	N/A
Prin Aylono	5.00		5.11	ug/1110	2.7.10 10 01101	14/1

Subcontracted analyses, if any, are not included in this summary.

^{*} MDL is shown



Treadwell & Rollo - A Langan Company 555 Montgomery St., Suite 1300 San Francisco, CA 94111-2554 Date Received: Work Order: Preparation: 06/18/13 13-06-1141 N/A

Method: ASTM D-1946 Units: %v

Project: 801 Brannan / 731615201

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TR-SG-1	13-06-1141-1-A	06/17/13 12:31	Air	GC 65	N/A	06/18/13 13:13	130618L01
<u>Parameter</u>		Result		<u>RL</u>	<u>DF</u>	Qua	alifiers
Methane		12.3		0.500	1		
Dup-1	13-06-1141-2-A	06/17/13 12:31	Air	GC 65	N/A	06/18/13 13:32	130618L01
<u>Parameter</u>		Result		RL	<u>DF</u>	Qua	alifiers
Methane		13.0		0.500	1		
TR-SG-2	13-06-1141-3-A	06/17/13 13:11	Air	GC 65	N/A	06/18/13 13:52	130618L01
Parameter Parameter		Result		RL	<u>DF</u>	Qua	alifiers
Methane		0.732		0.500	1		
TR-SG-3	13-06-1141-4-A	06/17/13 14:21	Air	GC 65	N/A	06/18/13 14:09	130618L01
<u>Parameter</u>		Result		RL	DF	Qua	alifiers
Methane		ND		0.500	1		
TR-SG-4	13-06-1141-5-A	06/17/13 15:06	Air	GC 65	N/A	06/18/13 14:28	130618L01
<u>Parameter</u>		Result		<u>RL</u>	<u>DF</u>	Qua	alifiers
Methane		ND		0.500	1		
TR-SG-5	13-06-1141-6-A	06/17/13 15:31	Air	GC 65	N/A	06/18/13 14:48	130618L01
<u>Parameter</u>		Result		RL	DF	Qua	alifiers
Methane		ND		0.500	1		
Ambient-1	13-06-1141-7-A	06/17/13 15:45	Air	GC 65	N/A	06/18/13 15:09	130618L01
<u>Parameter</u>	·	Result		<u>RL</u>	<u>DF</u>	Qua	alifiers
Methane		ND		0.500	1		
Method Blank	099-03-002-1839	N/A	Air	GC 65	N/A	06/18/13 11:38	130618L01
<u>Parameter</u>		Result		<u>RL</u>	<u>DF</u>	Qua	alifiers
Methane		ND		0.500	1		

RL: Reporting Limit.

DF: Dilution Factor.



Treadwell & Rollo - A Langan Company 555 Montgomery St., Suite 1300 San Francisco, CA 94111-2554

Date Received: Work Order:

06/18/13 13-06-1141

Preparation:

N/A

Method:

ASTM D-1946 (M)

Units:

Project: 801 Brannan / 731615201

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TR-SG-1	13-06-1141-1-A	06/17/13 12:31	Air	GC 55	N/A	06/18/13 13:15	130618L01
<u>Parameter</u>		Result		<u>RL</u>	<u>DF</u>	Qua	alifiers
Helium		ND		0.0100	1		
Dup-1	13-06-1141-2-A	06/17/13 12:31	Air	GC 55	N/A	06/18/13 13:39	130618L01
Parameter Parameter		Result		RL	<u>DF</u>	Qua	alifiers
Helium		ND		0.0100	1		
TR-SG-2	13-06-1141-3-A	06/17/13 13:11	Air	GC 55	N/A	06/18/13 14:02	130618L01
Parameter		Result	-	RL	<u>DF</u>	Qua	alifiers
Helium		ND		0.0100	1		
TR-SG-3	13-06-1141-4-A	06/17/13 14:21	Air	GC 55	N/A	06/18/13 14:27	130618L01
<u>Parameter</u>		Result		RL	<u>DF</u>	Qua	alifiers
Helium		ND		0.0100	1		
TR-SG-4	13-06-1141-5-A	06/17/13 15:06	Air	GC 55	N/A	06/18/13 14:49	130618L01
Parameter Parameter		Result		RL	<u>DF</u>	Qua	alifiers
Helium		ND		0.0100	1		
TR-SG-5	13-06-1141-6-A	06/17/13 15:31	Air	GC 55	N/A	06/18/13 15:12	130618L01
<u>Parameter</u>		Result		RL	DF	Qua	alifiers
Helium		ND		0.0100	1		
Ambient-1	13-06-1141-7-A	06/17/13 15:45	Air	GC 55	N/A	06/18/13 15:44	130618L01
Parameter Parameter		Result		<u>RL</u>	<u>DF</u>	Qua	alifiers
Helium		ND		0.0100	1		
Method Blank	099-12-872-460	N/A	Air	GC 55	N/A	06/18/13 10:08	130618L01
Parameter		Result		RL	<u>DF</u>	Qua	alifiers
Helium		ND		0.0100	1		

RL: Reporting Limit.

DF: Dilution Factor.



Treadwell & Rollo - A Langan Company 555 Montgomery St., Suite 1300 San Francisco, CA 94111-2554 Date Received: Work Order: Preparation: 06/18/13 13-06-1141 N/A

Method: Units: EPA TO-15 ug/m3

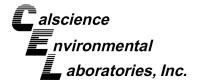
Project: 801 Brannan / 731615201

Page 1 of 14

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TR-SG-1	13-06-1141-1-A	06/17/13 12:31	Air	GC/MS KKK	N/A	06/20/13 22:50	130620L01
<u>Parameter</u>		Result	RL		<u>DF</u>	Qua	<u>lifiers</u>
Acetone		63	5.0	1	1.06		
Benzene		ND	1.7	•	1.06		
Benzyl Chloride		ND	8.2		1.06		
Bromodichloromethane		ND	3.6	;	1.06		
Bromoform		ND	5.5	i	1.06		
Bromomethane		ND	2.1		1.06		
2-Butanone		8.1	4.7		1.06		
Carbon Disulfide		ND	6.6	i	1.06		
Carbon Tetrachloride		ND	3.3	1	1.06		
Chlorobenzene		ND	2.4		1.06		
Chloroethane		ND	1.4		1.06		
Chloroform		ND	2.6	i	1.06		
Chloromethane		ND	1.1		1.06		
Dibromochloromethane		ND	4.5	i	1.06		
Dichlorodifluoromethane		ND	2.6	i	1.06		
1,1-Dichloroethane		160	2.1		1.06		
1,1-Dichloroethene		ND	2.1		1.06		
1,2-Dibromoethane		ND	4.1		1.06		
Dichlorotetrafluoroethane		ND	15		1.06		
1,2-Dichlorobenzene		ND	3.2		1.06		
1,2-Dichloroethane		ND	2.1		1.06		
1,2-Dichloropropane		ND	2.4		1.06		
1,3-Dichlorobenzene		ND	3.2	!	1.06		
1,4-Dichlorobenzene		ND	3.2		1.06		
c-1,3-Dichloropropene		ND	2.4		1.06		
c-1,2-Dichloroethene		ND	2.1		1.06		
t-1,2-Dichloroethene		ND	2.1		1.06		
t-1,3-Dichloropropene		ND	4.8		1.06		
Ethylbenzene		ND	2.3		1.06		
4-Ethyltoluene		ND	2.6		1.06		
Hexachloro-1,3-Butadiene		ND	17		1.06		
2-Hexanone		ND	6.5	i	1.06		
Methyl-t-Butyl Ether (MTBE)		ND	7.6		1.06		
Methylene Chloride		ND	18		1.06		
4-Methyl-2-Pentanone		ND	6.5	i	1.06		

RL: Reporting Limit.

DF: Dilution Factor.



Treadwell & Rollo - A Langan Company	Date Received:	06/18/13
555 Montgomery St., Suite 1300	Work Order:	13-06-1141
San Francisco, CA 94111-2554	Preparation:	N/A
	Method:	EPA TO-15
	Units:	ug/m3
Project: 801 Brannan / 731615201		Page 2 of 14

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	Qualifiers
o-Xylene	ND	2.3	1.06	
p/m-Xylene	ND	9.2	1.06	
Styrene	ND	6.8	1.06	
Tetrachloroethene	ND	3.6	1.06	
Toluene	ND	2.0	1.06	
Trichloroethene	ND	2.8	1.06	
Trichlorofluoromethane	ND	6.0	1.06	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	12	1.06	
1,1,1-Trichloroethane	58	2.9	1.06	
1,1,2-Trichloroethane	ND	2.9	1.06	
1,3,5-Trimethylbenzene	ND	2.6	1.06	
1,1,2,2-Tetrachloroethane	ND	7.3	1.06	
1,2,4-Trimethylbenzene	ND	7.8	1.06	
1,2,4-Trichlorobenzene	ND	16	1.06	
Vinyl Acetate	ND	7.5	1.06	
Vinyl Chloride	ND	1.4	1.06	
Surrogate	<u>Rec. (%)</u>	Control Limits	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	102	68-134		
1,2-Dichloroethane-d4	105	67-133		
Toluene-d8	100	70-130		





Treadwell & Rollo - A Langan Company 555 Montgomery St., Suite 1300 San Francisco, CA 94111-2554 Date Received: Work Order: Preparation: Method:

13-06-1141 N/A EPA TO-15

06/18/13

Units: ug/m3 Page 3 of 14

Project: 801 Brannan / 731615201

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Dup-1	13-06-1141-2-A	06/17/13 12:31	Air	GC/MS KKK	N/A	06/20/13 21:54	130620L01
Parameter		Result	<u>RL</u>		<u>DF</u>	Qua	lifiers
Acetone		100	5.3		1.11		
Benzene		ND	1.8		1.11		
Benzyl Chloride		ND	8.6		1.11		
Bromodichloromethane		ND	3.7		1.11		
Bromoform		ND	5.7		1.11		
Bromomethane		ND	2.2		1.11		
2-Butanone		9.1	4.9		1.11		
Carbon Disulfide		ND	6.9		1.11		
Carbon Tetrachloride		ND	3.5		1.11		
Chlorobenzene		ND	2.6		1.11		
Chloroethane		ND	1.5		1.11		
Chloroform		ND	2.7		1.11		
Chloromethane		ND	1.1		1.11		
Dibromochloromethane		ND	4.7		1.11		
Dichlorodifluoromethane		ND	2.7		1.11		
1,1-Dichloroethane		160	2.2		1.11		
1,1-Dichloroethene		ND	2.2		1.11		
1,2-Dibromoethane		ND	4.3		1.11		
Dichlorotetrafluoroethane		ND	16		1.11		
1,2-Dichlorobenzene		ND	3.3		1.11		
1,2-Dichloroethane		ND	2.2		1.11		
1,2-Dichloropropane		ND	2.6		1.11		
1,3-Dichlorobenzene		ND	3.3		1.11		
1,4-Dichlorobenzene		ND	3.3		1.11		
c-1,3-Dichloropropene		ND	2.5		1.11		
c-1,2-Dichloroethene		ND	2.2		1.11		
t-1,2-Dichloroethene		ND	2.2		1.11		
t-1,3-Dichloropropene		ND	5.0		1.11		
Ethylbenzene		ND	2.4		1.11		
4-Ethyltoluene		ND	2.7		1.11		
Hexachloro-1,3-Butadiene		ND	18		1.11		
2-Hexanone		ND	6.8		1.11		
Methyl-t-Butyl Ether (MTBE)		ND	8.0		1.11		
Methylene Chloride		ND	19		1.11		
4-Methyl-2-Pentanone		ND	6.8		1.11		

RL: Reporting Limit. DF: Dilution Factor.





Treadwell & Rollo - A Langan Company	Date Received:	06/18/13
555 Montgomery St., Suite 1300	Work Order:	13-06-1141
San Francisco, CA 94111-2554	Preparation:	N/A
	Method:	EPA TO-15
	Units:	ug/m3
Project: 801 Brannan / 731615201		Page 4 of 14

1 10j00t: 001 Brainian 7 70 10 10201				
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	Qualifiers
o-Xylene	ND	2.4	1.11	
p/m-Xylene	ND	9.6	1.11	
Styrene	ND	7.1	1.11	
Tetrachloroethene	ND	3.8	1.11	
Toluene	ND	2.1	1.11	
Trichloroethene	ND	3.0	1.11	
Trichlorofluoromethane	ND	6.2	1.11	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	13	1.11	
1,1,1-Trichloroethane	60	3.0	1.11	
1,1,2-Trichloroethane	ND	3.0	1.11	
1,3,5-Trimethylbenzene	ND	2.7	1.11	
1,1,2,2-Tetrachloroethane	ND	7.6	1.11	
1,2,4-Trimethylbenzene	ND	8.2	1.11	
1,2,4-Trichlorobenzene	ND	16	1.11	
Vinyl Acetate	ND	7.8	1.11	
Vinyl Chloride	ND	1.4	1.11	
Surrogate	<u>Rec. (%)</u>	Control Limits	Qualifiers	
1,4-Bromofluorobenzene	106	68-134		
1,2-Dichloroethane-d4	102	67-133		
Toluene-d8	97	70-130		





Treadwell & Rollo - A Langan Company 555 Montgomery St., Suite 1300 San Francisco, CA 94111-2554 Date Received: Work Order: Preparation: Method:

13-06-1141 N/A EPA TO-15

Page 5 of 14

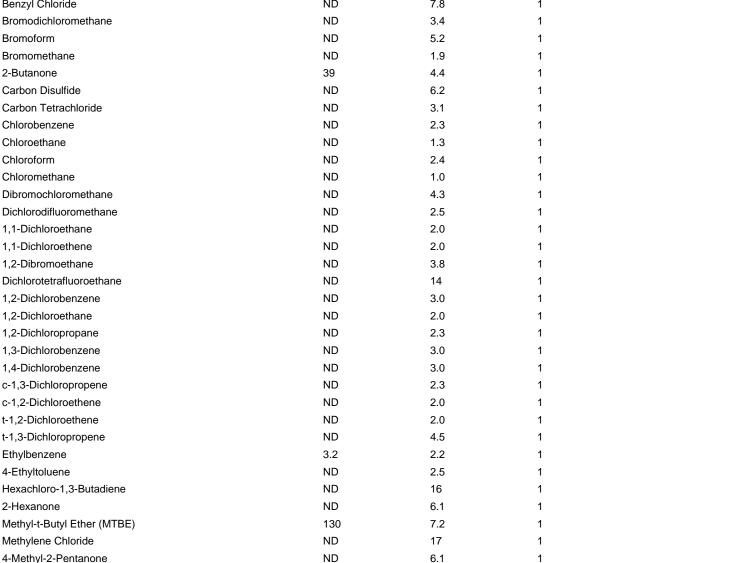
06/18/13

ug/m3

Units:

Project: 801 Brannan / 731615201

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TR-SG-2	13-06-1141-3-A	06/17/13 13:11	Air	GC/MS KKK	N/A	06/20/13 21:00	130620L01
Parameter		Result	<u>R</u>	<u>L</u>	<u>DF</u>	Qua	<u>lifiers</u>
Acetone		130	4.	.8	1		
Benzene		8.3	1.	.6	1		
Benzyl Chloride		ND	7.	.8	1		
Bromodichloromethane		ND	3.	.4	1		
Dun (ND	-	0			





Treadwell & Rollo - A Langan Company	Date Received:	06/18/13
555 Montgomery St., Suite 1300	Work Order:	13-06-1141
San Francisco, CA 94111-2554	Preparation:	N/A
	Method:	EPA TO-15
	Units:	ug/m3
Project: 801 Brannan / 731615201		Page 6 of 14

<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	Qualifiers
o-Xylene	6.3	2.2	1	
p/m-Xylene	11	8.7	1	
Styrene	ND	6.4	1	
Tetrachloroethene	ND	3.4	1	
Toluene	17	1.9	1	
Trichloroethene	ND	2.7	1	
Trichlorofluoromethane	ND	5.6	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1	
1,1,1-Trichloroethane	ND	2.7	1	
1,1,2-Trichloroethane	ND	2.7	1	
1,3,5-Trimethylbenzene	ND	2.5	1	
1,1,2,2-Tetrachloroethane	ND	6.9	1	
1,2,4-Trimethylbenzene	ND	7.4	1	
1,2,4-Trichlorobenzene	ND	15	1	
Vinyl Acetate	ND	7.0	1	
Vinyl Chloride	ND	1.3	1	
<u>Surrogate</u>	<u>Rec. (%)</u>	Control Limits	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	104	68-134		
1,2-Dichloroethane-d4	103	67-133		
Toluene-d8	100	70-130		





Treadwell & Rollo - A Langan Company 555 Montgomery St., Suite 1300 San Francisco, CA 94111-2554 Date Received: Work Order: Preparation: Method: 06/18/13 13-06-1141 N/A

Page 7 of 14

Method: EPA TO-15 Units: ug/m3

Project: 801 Brannan / 731615201

1,2-Dichloroethane

1,2-Dichloropropane

1,3-Dichlorobenzene

1,4-Dichlorobenzene

c-1,3-Dichloropropene

c-1,2-Dichloroethene

t-1,2-Dichloroethene

Ethylbenzene

4-Ethyltoluene

2-Hexanone

Methylene Chloride

4-Methyl-2-Pentanone

t-1,3-Dichloropropene

Hexachloro-1,3-Butadiene

Methyl-t-Butyl Ether (MTBE)

Lab Sample Number Date/Time Analyzed Date Prepared QC Batch ID Client Sample Number Date/Time Matrix Instrument Collected 06/20/13 20:06 06/17/13 14:21 TR-SG-3 GC/MS KKK N/A 13-06-1141-4-A Air 130620L01 **Parameter** Result <u>RL</u> <u>DF</u> Qualifiers 110 5.5 1.16 Acetone 1.16 Benzene 30 1.9 ND Benzyl Chloride 9.0 1.16 Bromodichloromethane ND 3.9 1.16 ND 6.0 Bromoform 1.16 **Bromomethane** ND 2.3 1.16 2-Butanone 23 5.1 1.16 Carbon Disulfide ND 7.2 1.16 Carbon Tetrachloride 6.9 3.6 1.16 Chlorobenzene ND 2.7 1.16 Chloroethane ND 1.5 1.16 Chloroform ND 2.8 1.16 Chloromethane ND 1.2 1.16 ND 4.9 Dibromochloromethane 1.16 Dichlorodifluoromethane ND 2.9 1.16 ND 2.3 1,1-Dichloroethane 1.16 1,1-Dichloroethene ND 2.3 1.16 1,2-Dibromoethane ND 4.5 1.16 Dichlorotetrafluoroethane ND 16 1.16 1,2-Dichlorobenzene ND 3.5 1.16

ND

ND

ND

ND

ND

ND

ND

ND

6.9

ND

ND

ND

ND

ND

ND

2.3

2.7

3.5

3.5

2.6

2.3

2.3

5.3

2.5

2.9

19

7.1

8.4

20

7.1

1.16

1.16

1.16

1.16

1.16

1.16

1.16

1.16

1.16

1.16

1.16

1.16

1.16

1.16

1.16









Treadwell & Rollo - A Langan Company	Date Received:	06/18/13
555 Montgomery St., Suite 1300	Work Order:	13-06-1141
San Francisco, CA 94111-2554	Preparation:	N/A
	Method:	EPA TO-15
	Units:	ug/m3
Project: 801 Brannan / 731615201		Page 8 of 14

<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
o-Xylene	9.1	2.5	1.16	
p/m-Xylene	21	10	1.16	
Styrene	ND	7.4	1.16	
Tetrachloroethene	5.2	3.9	1.16	
Toluene	40	2.2	1.16	
Trichloroethene	ND	3.1	1.16	
Trichlorofluoromethane	6.8	6.5	1.16	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	13	1.16	
1,1,1-Trichloroethane	210	3.2	1.16	
1,1,2-Trichloroethane	ND	3.2	1.16	
1,3,5-Trimethylbenzene	ND	2.9	1.16	
1,1,2,2-Tetrachloroethane	ND	8.0	1.16	
1,2,4-Trimethylbenzene	ND	8.6	1.16	
1,2,4-Trichlorobenzene	ND	17	1.16	
Vinyl Acetate	ND	8.2	1.16	
Vinyl Chloride	ND	1.5	1.16	
Surrogate	<u>Rec. (%)</u>	Control Limits	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	102	68-134		
1,2-Dichloroethane-d4	104	67-133		
Toluene-d8	100	70-130		





Treadwell & Rollo - A Langan Company 555 Montgomery St., Suite 1300 San Francisco, CA 94111-2554 Date Received: Work Order: Preparation: Method:

13-06-1141 N/A EPA TO-15

06/18/13

Units:

ug/m3 Page 9 of 14

Project: 801 Brannan / 731615201

Lab Sample Number Date/Time Collected Date/Time Analyzed Client Sample Number Date Prepared QC Batch ID Matrix Instrument 06/20/13 19:10 06/17/13 15:06 TR-SG-4 GC/MS KKK N/A 13-06-1141-5-A Air 130620L01 **Parameter** Result <u>RL</u> <u>DF</u> Qualifiers 26 6.2 1.31 Acetone Benzene 4.8 2.1 1.31 ND Benzyl Chloride 10 1.31 Bromodichloromethane ND 4.4 1.31 ND 6.8 1.31 Bromoform **Bromomethane** ND 2.5 1.31 2-Butanone ND 5.8 1.31 Carbon Disulfide ND 8.2 1.31 Carbon Tetrachloride ND 4.1 1.31 Chlorobenzene ND 3.0 1.31 Chloroethane ND 1.7 1.31 Chloroform 7.8 3.2 1.31 Chloromethane ND 1.4 1.31 Dibromochloromethane ND 1.31 5.6 Dichlorodifluoromethane ND 3.2 1.31 ND 2.7 1,1-Dichloroethane 1.31 1,1-Dichloroethene ND 2.6 1.31 1,2-Dibromoethane ND 5.0 1.31 Dichlorotetrafluoroethane ND 18 1.31 1,2-Dichlorobenzene ND 3.9 1.31 1,2-Dichloroethane ND 2.7 1.31 1,2-Dichloropropane ND 3.0 1.31 1,3-Dichlorobenzene ND 3.9 1.31 1,4-Dichlorobenzene ND 3.9 1.31 c-1,3-Dichloropropene ND 3.0 1.31 c-1,2-Dichloroethene ND 2.6 1.31 t-1,2-Dichloroethene ND 2.6 1.31 t-1,3-Dichloropropene ND 5.9 1.31 ND 2.8 Ethylbenzene 1.31 4-Ethyltoluene ND 3.2 1.31 Hexachloro-1,3-Butadiene ND 21 1.31 ND 8.0 1.31 2-Hexanone

RL: Reporting Limit.

Methyl-t-Butyl Ether (MTBE)

Methylene Chloride

4-Methyl-2-Pentanone

DF: Dilution Factor.

MDL: Method Detection Limit.

9.4

23

8.0

1.31

1.31

1.31

ND

ND

ND





Treadwell & Rollo - A Langan Company	Date Received:	06/18/13
555 Montgomery St., Suite 1300	Work Order:	13-06-1141
San Francisco, CA 94111-2554	Preparation:	N/A
	Method:	EPA TO-15
	Units:	ug/m3
Project: 801 Brannan / 731615201		Page 10 of 14

•				3
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
o-Xylene	3.8	2.8	1.31	
p/m-Xylene	ND	11	1.31	
Styrene	ND	8.4	1.31	
Tetrachloroethene	ND	4.4	1.31	
Toluene	10	2.5	1.31	
Trichloroethene	ND	3.5	1.31	
Trichlorofluoromethane	ND	7.4	1.31	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	15	1.31	
1,1,1-Trichloroethane	35	3.6	1.31	
1,1,2-Trichloroethane	ND	3.6	1.31	
1,3,5-Trimethylbenzene	ND	3.2	1.31	
1,1,2,2-Tetrachloroethane	ND	9.0	1.31	
1,2,4-Trimethylbenzene	ND	9.7	1.31	
1,2,4-Trichlorobenzene	ND	19	1.31	
Vinyl Acetate	ND	9.2	1.31	
Vinyl Chloride	ND	1.7	1.31	
Surrogate	<u>Rec. (%)</u>	Control Limits	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	103	68-134		
1,2-Dichloroethane-d4	100	67-133		
Toluene-d8	101	70-130		





Treadwell & Rollo - A Langan Company 555 Montgomery St., Suite 1300 San Francisco, CA 94111-2554 Date Received: Work Order: Preparation: Method: 06/18/13 13-06-1141 N/A

Units:

EPA TO-15 ug/m3

Project: 801 Brannan / 731615201

Page 11 of 14

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TR-SG-5	13-06-1141-6-A	06/17/13 15:31	Air	GC/MS KKK	N/A	06/20/13 18:13	130620L01
<u>Parameter</u>		Result	RI	=	<u>DF</u>	Qua	<u>llifiers</u>
Acetone		55	5.3	3	1.11		
Benzene		7.6	1.8	3	1.11		
Benzyl Chloride		ND	8.0	3	1.11		
Bromodichloromethane		ND	3.	7	1.11		
Bromoform		ND	5.	7	1.11		
Bromomethane		ND	2.2	2	1.11		
2-Butanone		13	4.9	9	1.11		
Carbon Disulfide		13	6.9	9	1.11		
Carbon Tetrachloride		ND	3.	5	1.11		
Chlorobenzene		ND	2.0	3	1.11		
Chloroethane		ND	1.	5	1.11		
Chloroform		ND	2.	7	1.11		
Chloromethane		ND	1.	1	1.11		
Dibromochloromethane		ND	4.	7	1.11		
Dichlorodifluoromethane		ND	2.	7	1.11		
1,1-Dichloroethane		ND	2.2	2	1.11		
1,1-Dichloroethene		ND	2.2	2	1.11		
1,2-Dibromoethane		ND	4.3	3	1.11		
Dichlorotetrafluoroethane		ND	16	;	1.11		
1,2-Dichlorobenzene		ND	3.3	3	1.11		
1,2-Dichloroethane		ND	2.5	2	1.11		
1,2-Dichloropropane		ND	2.0	6	1.11		
1,3-Dichlorobenzene		ND	3.3	3	1.11		
1,4-Dichlorobenzene		ND	3.3	3	1.11		
c-1,3-Dichloropropene		ND	2.		1.11		
c-1,2-Dichloroethene		ND	2.5	2	1.11		
t-1,2-Dichloroethene		ND	2.5	2	1.11		
t-1,3-Dichloropropene		ND	5.0)	1.11		
Ethylbenzene		5.1	2.4	4	1.11		
4-Ethyltoluene		ND	2.	7	1.11		
Hexachloro-1,3-Butadiene		ND	18		1.11		
2-Hexanone		ND	6.8		1.11		
Methyl-t-Butyl Ether (MTBE)		ND	8.0		1.11		
Methylene Chloride		ND	19		1.11		
4-Methyl-2-Pentanone		ND	6.8		1.11		

RL: Reporting Limit.

DF: Dilution Factor.





Treadwell & Rollo - A Langan Company	Date Received:	06/18/13
555 Montgomery St., Suite 1300	Work Order:	13-06-1141
San Francisco, CA 94111-2554	Preparation:	N/A
	Method:	EPA TO-15
	Units:	ug/m3
Project: 801 Brannan / 731615201		Page 12 of 14

Troject: Get Brannan Teterozet				1 age 12 of 11
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	Qualifiers
o-Xylene	9.5	2.4	1.11	
p/m-Xylene	20	9.6	1.11	
Styrene	ND	7.1	1.11	
Tetrachloroethene	ND	3.8	1.11	
Toluene	17	2.1	1.11	
Trichloroethene	ND	3.0	1.11	
Trichlorofluoromethane	ND	6.2	1.11	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	13	1.11	
1,1,1-Trichloroethane	18	3.0	1.11	
1,1,2-Trichloroethane	ND	3.0	1.11	
1,3,5-Trimethylbenzene	ND	2.7	1.11	
1,1,2,2-Tetrachloroethane	ND	7.6	1.11	
1,2,4-Trimethylbenzene	ND	8.2	1.11	
1,2,4-Trichlorobenzene	ND	16	1.11	
Vinyl Acetate	ND	7.8	1.11	
Vinyl Chloride	ND	1.4	1.11	
Surrogate	<u>Rec. (%)</u>	Control Limits	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	104	68-134		
1,2-Dichloroethane-d4	101	67-133		
Toluene-d8	96	70-130		





Treadwell & Rollo - A Langan Company 555 Montgomery St., Suite 1300 San Francisco, CA 94111-2554 Date Received: Work Order: Preparation: Method:

13-06-1141 N/A EPA TO-15

Units:

ug/m3

06/18/13

Project: 801 Brannan / 731615201

Page 13 of 14

Method Blank 095-01-021-11588 N/A Air GC/MSK KK N/A 08/20/13 130620L01 Parameter Result BL DE Qualifiers Acetone ND 4.8 1 Herename Benzyl Chloride ND 1.6 1 1 Bromodichloromethane ND 3.4 1 1 Bromodichloromethane ND 3.4 1 1 Bromodichloromethane ND 4.4 1 1 Bromodichloromethane ND 4.4 1 1 Carbon Disulfide ND 4.4 1 1 Carbon Disulfide ND 3.1 1 1 Carbon Disulfide ND 2.3 1 1 Chlorodomezane ND 2.3 1 1 Chloromethane ND 1.3 1 1 Chloromethane ND 2.5 1 1 Dichloromethane ND 3.8	Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Actone ND 4.8 1 Benzene ND 1.6 1 Benzyl Chloride ND 7.8 1 Bromodichloromethane ND 3.4 1 Bromodichloromethane ND 5.2 1 Bromomethane ND 1.9 1 2-Butanone ND 4.4 1 Carbon Tetrachloride ND 6.2 1 Carbon Tetrachloride ND 3.1 1 Chlorobenzene ND 2.3 1 Chlorobethane ND 2.3 1 Chlorofemthane ND 2.3 1 Chloromethane ND 2.4 1 Chloromethane ND 2.0 1 Chloromethane ND 2.0 1 1,1-Dichloromethane ND 2.0 1 1,1-Dichloromethane ND 3.0 1 1,2-Dichloromethane ND 3.0 1 1,2-Dichlor	Method Blank	095-01-021-11588	N/A	Air	GC/MS KKK	N/A	06/20/13 17:17	130620L01
Benzene ND 1.6 1 Benzyl Chloride ND 7.8 1 Bromodichromethane ND 3.4 1 Bromodichromethane ND 5.2 1 Bromodichromethane ND 1.9 1 2-Butanone ND 1.9 1 Carbon Disulfide ND 6.2 1 Carbon Tetrachloride ND 3.1 1 Chlorobenzene ND 2.3 1 Chlorobenzene ND 1.3 1 Chlorobenzene ND 2.4 1 Chloroberform ND 2.4 1 Chloroberform ND 4.3 1 Dichoroberformethane ND 4.3 1 Dichoroberformethane ND 2.0 1 1,-Dichloroberthane ND 2.0 1 1,-Dichloroberthane ND 2.0 1 1,-Dichloroberthane ND 2.0 1	<u>Parameter</u>		Result	RL		<u>DF</u>	Qua	alifiers
Benzyl Chloride ND 7.8 1 Bromodchloromethane ND 3.4 1 Bromoform ND 5.2 1 Bromomethane ND 1.9 1 2-Butanone ND 4.4 1 Carbon Disulfide ND 3.1 1 Carbon Tetrachloride ND 3.1 1 Carbon Tetrachloride ND 3.3 1 Chlorobenzene ND 2.3 1 Chlorobethane ND 1.3 1 Chloromethane ND 2.4 1 Chloromethane ND 4.3 1 Dichlorodifluoromethane ND 2.0 1 1,1-Dichloroethane ND 2.0 1 1,2-Dichloroethane ND 3.8 1 1,2-Dichloroethane ND 3.0 1 1,2-Dichloroethane ND 2.0 1 1,2-Dichloroepane ND 3.0 1	Acetone		ND	4.8	1	1		
Bromodichloromethane ND 3.4 1 Bromoform ND 5.2 1 Bromomethane ND 1.9 1 2-Butanone ND 4.4 1 Carbon Disulfide ND 6.2 1 Carbon Tetrachloride ND 3.1 1 Chloroethane ND 2.3 1 Chloroethane ND 2.3 1 Chloroethane ND 2.4 1 Chloroethane ND 2.4 1 Dibromochloromethane ND 4.3 1 Dichlorodiffuoromethane ND 2.5 1 1,1-Dichloroethane ND 2.0 1 1,2-Dichloroethane ND 3.8 1 Dichloroethane ND 3.0 1 1,2-Dichloroethane ND 2.0 1 1,2-Dichloroethane ND 2.3 1 1,2-Dichloroethane ND 2.3 1	Benzene		ND	1.6	i	1		
Bromoform ND 5.2 1 Bromomethane ND 1,9 1 2-Butanone ND 4.4 1 Carbon Disulfide ND 6.2 1 Carbon Tetrachloride ND 3.1 1 Chlorobenzene ND 2.3 1 Chloroform ND 1.3 1 Chloroform ND 2.4 1 Chloromethane ND 1.0 1 Dibromochloromethane ND 4.3 1 Dichlorodifluoromethane ND 2.5 1 1,1-Dichloroethane ND 2.0 1 1,2-Dichloroethane ND 3.8 1 Dichlorotetraffuroethane ND 3.0 1 1,2-Dichloroethane ND 2.0 1 1,2-Dichloroethane ND 3.0 1 1,2-Dichloroethane ND 3.0 1 1,3-Dichloroethane ND 3.0 1	Benzyl Chloride		ND	7.8	1	1		
Bromomethane ND 1.9 1 2-Butanone ND 4.4 1 Carbon Disulfide ND 6.2 1 Carbon Tetrachloride ND 3.1 1 Chlorobenzene ND 2.3 1 Chlorothane ND 1.3 1 Chlorothane ND 1.0 1 Chloromethane ND 1.0 1 Dibromochloromethane ND 4.3 1 Dichlorodifluoromethane ND 2.5 1 1,1-Dichloroethane ND 2.0 1 1,2-Dichloroethane ND 2.0 1 1,2-Dichloroethane ND 3.8 1 1,2-Dichloroethane ND 2.0 1 1,2-Dichloroethane ND 2.0 1 1,2-Dichloroethane ND 2.0 1 1,2-Dichloroethane ND 2.0 1 1,4-Dichloroethane ND 2.0 1 <	Bromodichloromethane		ND	3.4		1		
2-Butanone ND 4.4 1 Carbon Disulfide ND 6.2 1 Carbon Tetrachloride ND 3.1 1 Chloroethane ND 2.3 1 Chloroethane ND 1.3 1 Chloroform ND 2.4 1 Chloroethane ND 4.3 1 Dibromochloromethane ND 4.3 1 Dichlorodiffluoromethane ND 4.3 1 Dichlorodiffluoromethane ND 2.5 1 1,1-Dichloroethane ND 2.0 1 1,2-Dichloroethane ND 3.8 1 1,2-Dichloroethane ND 3.0 1 1,2-Dichloroptopane ND 2.3 1 1,2-Dichloroptopane ND 2.3 1 1,3-Dichloroptopane ND 3.0 1 4,4-Dichloroptopane ND 2.3 1 4,1-Dichloroptopane ND 2.3 1	Bromoform		ND	5.2		1		
Carbon Disulfide ND 6.2 1 Carbon Tetrachloride ND 3.1 1 Chlorobenzene ND 2.3 1 Chlorothane ND 1.3 1 Chlorofm ND 2.4 1 Chloromethane ND 4.0 1 Dibromochloromethane ND 4.3 1 Dichlorodiffluoromethane ND 2.5 1 1,1-Dichloroethane ND 2.0 1 1,1-Dichloroethane ND 3.8 1 Dichlorotetrafluoroethane ND 3.8 1 1,2-Dichlorobenzene ND 3.0 1 1,2-Dichloroethane ND 3.0 1 1,2-Dichloroptopane ND 2.3 1 1,2-Dichloroptopane ND 3.0 1 1,3-Dichloroptopane ND 3.0 1 -1,4-Dichloroethene ND 2.0 1 -1,2-Dichloroethene ND 2.0 <	Bromomethane		ND	1.9	1	1		
Carbon Tetrachloride ND 3.1 1 Chlorobenzene ND 2.3 1 Chlorobethane ND 1.3 1 Chloroform ND 2.4 1 Chloromethane ND 1.0 1 Dibromochloromethane ND 4.3 1 Dichlorodifluoromethane ND 2.5 1 1,1-Dichloroethane ND 2.0 1 1,1-Dichloroethane ND 2.0 1 1,2-Dichloroethane ND 3.8 1 Dichlorotetrafluoroethane ND 3.0 1 1,2-Dichloroethane ND 3.0 1 1,2-Dichloroethane ND 2.0 1 1,2-Dichloroethane ND 2.3 1 1,2-Dichloroethane ND 3.0 1 1,2-Dichloroethane ND 3.0 1 1,2-Dichloroethane ND 3.0 1 1,2-Dichloroethane ND 2.3 <t< td=""><td>2-Butanone</td><td></td><td>ND</td><td>4.4</td><td></td><td>1</td><td></td><td></td></t<>	2-Butanone		ND	4.4		1		
Chlorobenzene ND 2.3 1 Chloroethane ND 1.3 1 Chloroform ND 2.4 1 Chloromethane ND 2.4 1 Dibromochloromethane ND 4.3 1 Dichlorodifluoromethane ND 4.3 1 Dichlorotethane ND 2.5 1 1,1-Dichloroethane ND 2.0 1 1,1-Dichloroethane ND 2.0 1 1,2-Dibromoethane ND 3.0 1 1,2-Dichloroethane ND 1.4 1 1,2-Dichloroethane ND 2.0 1 1,2-Dichloroethane ND 2.0 1 1,2-Dichloroethane ND 2.3 1 1,2-Dichloroethane ND 3.0 1 1,3-Dichloropapene ND 3.0 1 1,4-Dichloroethane ND 2.0 1 1-1,2-Dichloroethane ND 2.0 1	Carbon Disulfide		ND	6.2		1		
Chloroethane ND 1.3 1 Chloroform ND 2.4 1 Chloromethane ND 1.0 1 Dibromochloromethane ND 4.3 1 Dichlorodifluoromethane ND 2.5 1 1,1-Dichloroethane ND 2.0 1 1,1-Dichloroethane ND 2.0 1 1,2-Dichloroethane ND 3.8 1 Dichloroethane ND 14 1 1,2-Dichloroethane ND 2.0 1 1,3-Dichloropropene ND 2.3 1 c-1,3-Dichloropropene ND 2.0 1 <td>Carbon Tetrachloride</td> <td></td> <td>ND</td> <td>3.1</td> <td></td> <td>1</td> <td></td> <td></td>	Carbon Tetrachloride		ND	3.1		1		
Chloroform ND 2.4 1 Chloromethane ND 1.0 1 Dibromochloromethane ND 4.3 1 Dichlorodifluoromethane ND 2.5 1 1,1-Dichloroethane ND 2.0 1 1,1-Dichloroethane ND 2.0 1 1,2-Dichloroethane ND 3.8 1 Dichloroethane ND 3.8 1 1,2-Dichloroethane ND 3.0 1 1,2-Dichloroethane ND 3.0 1 1,2-Dichloroptopane ND 2.3 1 1,3-Dichloroptopane ND 3.0 1 1,4-Dichloroptopene ND 3.0 1 1,3-Dichloropropene ND 2.3 1 -1,2-Dichloroptopene ND 2.0 1 -1,2-Dichloroptopene ND 2.0 1 -1,1,2-Dichloroptopene ND 2.5 1 -1,1,2-Dichloroptopene ND 2.5 <td>Chlorobenzene</td> <td></td> <td>ND</td> <td>2.3</td> <td>i e</td> <td>1</td> <td></td> <td></td>	Chlorobenzene		ND	2.3	i e	1		
Chloromethane ND 1.0 1 Dibromochloromethane ND 4.3 1 Dichlorodifluoromethane ND 2.5 1 1,1-Dichloroethane ND 2.0 1 1,1-Dichloroethane ND 2.0 1 1,2-Dibromoethane ND 3.8 1 Dichlorotetrafluoroethane ND 14 1 1,2-Dichlorobenzene ND 3.0 1 1,2-Dichloropropane ND 2.3 1 1,3-Dichlorobenzene ND 3.0 1 1,4-Dichlorobenzene ND 3.0 1 -1,3-Dichloropropene ND 2.3 1 -1,3-Dichloropropene ND 2.3 1 -1,2-Dichloroethene ND 2.0 1 +1,2-Dichloropropene ND 2.0 1 +1,2-Dichloropropene ND 4.5 1 +1,2-Dichloropropene ND 2.5 1 +1,2-Dichloropropene ND	Chloroethane		ND	1.3		1		
Dibromochloromethane ND 4.3 1 Dichlorodifluoromethane ND 2.5 1 1,1-Dichloroethane ND 2.0 1 1,1-Dichloroethane ND 2.0 1 1,2-Diibromoethane ND 3.8 1 Dichlorotetrafluoroethane ND 14 1 1,2-Dichloroethane ND 3.0 1 1,2-Dichloroptane ND 2.3 1 1,2-Dichloroptopane ND 3.0 1 1,3-Dichlorobenzene ND 3.0 1 1,4-Dichloroptopane ND 3.0 1 c-1,2-Dichloroptopene ND 2.3 1 c-1,2-Dichloroptopene ND 2.0 1 t-1,2-Dichloroptopene ND 2.0 1 t-1,2-Dichloroptopene ND 4.5 1 t-t,3-Dichloroptopene ND 4.5 1 t-thylbenzene ND 2.2 1 t-thylbenzene ND	Chloroform		ND	2.4		1		
Dichlorodifluoromethane ND 2.5 1 1,1-Dichloroethane ND 2.0 1 1,1-Dichloroethane ND 2.0 1 1,2-Dibromoethane ND 3.8 1 Dichloroethane ND 14 1 1,2-Dichloroethane ND 3.0 1 1,2-Dichloroptanae ND 2.0 1 1,3-Dichloroptopanae ND 3.0 1 1,4-Dichlorobenzene ND 3.0 1 4-Dichloroptopanae ND 3.0 1 4-Dichloroptopanae ND 3.0 1 4-Dichloroptopanae ND 3.0 1 4-Dichloroptopanae ND 2.3 1 6-1,3-Dichloroptopene ND 2.0 1 6-1,2-Dichloroethene ND 2.0 1 6-1,3-Dichloroptopene ND 4.5 1 6-1,3-Dichloroptopene ND 4.5 1 6-1,3-Dichloroptopanae ND	Chloromethane		ND	1.0	1	1		
1,1-Dichloroethane ND 2.0 1 1,1-Dichloroethane ND 2.0 1 1,2-Dibromoethane ND 3.8 1 Dichlorotetrafluoroethane ND 14 1 1,2-Dichlorobenzene ND 3.0 1 1,2-Dichloroethane ND 2.0 1 1,2-Dichloropropane ND 2.3 1 1,3-Dichlorobenzene ND 3.0 1 1,4-Dichlorobenzene ND 3.0 1 -1,3-Dichloropropene ND 2.3 1 -1,3-Dichloropropene ND 2.0 1 -1,2-Dichloroethene ND 2.0 1 +1,3-Dichloropropene ND 4.5 1 Ethylbenzene ND 4.5 1 +2-Bityltoluene ND 2.2 1 4-Ethyltoluene ND 2.5 1 Hexachloro-1,3-Butadiene ND 6.1 1 2-Hexanone ND 7.2 1 Methyl-t-Butyl Ether (MTBE) ND 7.2 1	Dibromochloromethane		ND	4.3		1		
1,1-Dichloroethane ND 2.0 1 1,1-Dichloroethane ND 3.8 1 1,2-Dibromoethane ND 14 1 1,2-Dichloroethane ND 3.0 1 1,2-Dichloroethane ND 3.0 1 1,2-Dichloropropane ND 2.0 1 1,2-Dichloropropane ND 2.3 1 1,3-Dichlorobenzene ND 3.0 1 1,4-Dichlorobenzene ND 3.0 1 1,4-Dichloropropene ND 3.0 1 -1,3-Dichloropropene ND 2.3 1 -1,2-Dichloroethene ND 2.0 1 +1,2-Dichloropropene ND 2.0 1 +1,3-Dichloropropene ND 4.5 1 Ethylbenzene ND 2.2 1 4-Ethyltoluene ND 2.5 1 Hexachloro-1,3-Butadiene ND 6.1 1 2-Hexanone ND 6.1 1 Methyl-t-Butyl Ether (MTBE) ND 7.2 1	Dichlorodifluoromethane		ND	2.5	;	1		
1,2-Dibromoethane ND 3.8 1 Dichlorotetrafluoroethane ND 14 1 1,2-Dichlorobenzene ND 3.0 1 1,2-Dichloropthane ND 2.0 1 1,2-Dichloroppane ND 2.3 1 1,3-Dichlorobenzene ND 3.0 1 4-Pichloropenzene ND 3.0 1 c-1,3-Dichloropropene ND 2.3 1 c-1,2-Dichloroethene ND 2.0 1 t-1,2-Dichloroethene ND 2.0 1 t-1,3-Dichloropropene ND 4.5 1 Ethylbenzene ND 4.5 1 Ethylbenzene ND 2.2 1 4-Ethyltoluene ND 2.5 1 Hexachloro-1,3-Butadiene ND 16 1 2-Hexanone ND 6.1 1 Methyl-t-Butyl Ether (MTBE) ND 7.2 1 Methylene Chloride ND 17 1	1,1-Dichloroethane		ND			1		
1,2-Dibromoethane ND 3.8 1 Dichlorotetrafluoroethane ND 14 1 1,2-Dichlorobenzene ND 3.0 1 1,2-Dichloropthane ND 2.0 1 1,2-Dichloropropane ND 2.3 1 1,3-Dichlorobenzene ND 3.0 1 c-1,3-Dichloropropene ND 3.0 1 c-1,3-Dichloropropene ND 2.3 1 c-1,2-Dichloroethene ND 2.0 1 t-1,2-Dichloroethene ND 2.0 1 t-1,3-Dichloropropene ND 4.5 1 Ethylbenzene ND 4.5 1 Ethylbenzene ND 2.2 1 4-Ethyltoluene ND 2.5 1 Hexachloro-1,3-Butadiene ND 16 1 2-Hexanone ND 6.1 1 Methyl-t-Butyl Ether (MTBE) ND 7.2 1 Methylene Chloride ND 17 1	1,1-Dichloroethene		ND	2.0	1	1		
1,2-Dichlorobenzene ND 3.0 1 1,2-Dichloroethane ND 2.0 1 1,2-Dichloropropane ND 2.3 1 1,3-Dichlorobenzene ND 3.0 1 1,4-Dichlorobenzene ND 3.0 1 c-1,3-Dichloropropene ND 2.3 1 c-1,2-Dichloroethene ND 2.0 1 t-1,2-Dichloropropene ND 2.0 1 t-1,3-Dichloropropene ND 4.5 1 Ethylbenzene ND 4.5 1 4-Ethyltoluene ND 2.2 1 4-Ethyltoluene ND 16 1 2-Hexanone ND 6.1 1 Methyl-t-Butyl Ether (MTBE) ND 7.2 1 Methylene Chloride ND 17 1			ND	3.8		1		
1,2-Dichloroethane ND 2.0 1 1,2-Dichloropropane ND 2.3 1 1,3-Dichlorobenzene ND 3.0 1 1,4-Dichlorobenzene ND 3.0 1 c-1,3-Dichloropropene ND 2.3 1 c-1,2-Dichloroethene ND 2.0 1 t-1,2-Dichloropropene ND 4.5 1 Ethylbenzene ND 4.5 1 4-Ethyltoluene ND 2.2 1 4-Ethyltoluene ND 2.5 1 Hexachloro-1,3-Butadiene ND 16 1 2-Hexanone ND 6.1 1 Methyl-t-Butyl Ether (MTBE) ND 7.2 1 Methylene Chloride ND 17 1	Dichlorotetrafluoroethane		ND	14		1		
1,2-Dichloroethane ND 2.0 1 1,2-Dichloropropane ND 2.3 1 1,3-Dichlorobenzene ND 3.0 1 1,4-Dichlorobenzene ND 3.0 1 c-1,3-Dichloropropene ND 2.3 1 c-1,2-Dichloroethene ND 2.0 1 t-1,2-Dichloropropene ND 4.5 1 Ethylbenzene ND 4.5 1 4-Ethyltoluene ND 2.2 1 4-Ethyltoluene ND 2.5 1 Hexachloro-1,3-Butadiene ND 16 1 2-Hexanone ND 6.1 1 Methyl-t-Butyl Ether (MTBE) ND 7.2 1 Methylene Chloride ND 17 1	1,2-Dichlorobenzene		ND	3.0)	1		
1,2-Dichloropropane ND 2.3 1 1,3-Dichlorobenzene ND 3.0 1 1,4-Dichlorobenzene ND 3.0 1 c-1,3-Dichloropropene ND 2.3 1 c-1,2-Dichloroethene ND 2.0 1 t-1,2-Dichloropropene ND 4.5 1 Ethylbenzene ND 4.5 1 4-Ethyltoluene ND 2.2 1 4-Ethyltoluene ND 2.5 1 Hexachloro-1,3-Butadiene ND 16 1 2-Hexanone ND 6.1 1 Methyl-t-Butyl Ether (MTBE) ND 7.2 1 Methylene Chloride ND 17 1	1,2-Dichloroethane					1		
1,4-Dichlorobenzene ND 3.0 1 c-1,3-Dichloropropene ND 2.3 1 c-1,2-Dichloroethene ND 2.0 1 t-1,2-Dichloropropene ND 2.0 1 t-1,3-Dichloropropene ND 4.5 1 Ethylbenzene ND 2.2 1 4-Ethyltoluene ND 2.5 1 Hexachloro-1,3-Butadiene ND 16 1 2-Hexanone ND 6.1 1 Methyl-t-Butyl Ether (MTBE) ND 7.2 1 Methylene Chloride ND 17 1			ND	2.3		1		
1,4-Dichlorobenzene ND 3.0 1 c-1,3-Dichloropropene ND 2.3 1 c-1,2-Dichloroethene ND 2.0 1 t-1,2-Dichloropropene ND 2.0 1 t-1,3-Dichloropropene ND 4.5 1 Ethylbenzene ND 2.2 1 4-Ethyltoluene ND 2.5 1 Hexachloro-1,3-Butadiene ND 16 1 2-Hexanone ND 6.1 1 Methyl-t-Butyl Ether (MTBE) ND 7.2 1 Methylene Chloride ND 17 1	1,3-Dichlorobenzene		ND	3.0)	1		
c-1,2-Dichloroethene ND 2.0 1 t-1,2-Dichloroethene ND 2.0 1 t-1,3-Dichloropropene ND 4.5 1 Ethylbenzene ND 2.2 1 4-Ethyltoluene ND 2.5 1 Hexachloro-1,3-Butadiene ND 16 1 2-Hexanone ND 6.1 1 Methyl-t-Butyl Ether (MTBE) ND 7.2 1 Methylene Chloride ND 17 1			ND			1		
c-1,2-Dichloroethene ND 2.0 1 t-1,2-Dichloroethene ND 2.0 1 t-1,3-Dichloropropene ND 4.5 1 Ethylbenzene ND 2.2 1 4-Ethyltoluene ND 2.5 1 Hexachloro-1,3-Butadiene ND 16 1 2-Hexanone ND 6.1 1 Methyl-t-Butyl Ether (MTBE) ND 7.2 1 Methylene Chloride ND 17 1	c-1,3-Dichloropropene		ND	2.3		1		
t-1,3-Dichloropropene ND 4.5 1 Ethylbenzene ND 2.2 1 4-Ethyltoluene ND 2.5 1 Hexachloro-1,3-Butadiene ND 16 1 2-Hexanone ND 6.1 1 Methyl-t-Butyl Ether (MTBE) ND 7.2 1 Methylene Chloride ND 17 1	c-1,2-Dichloroethene		ND			1		
t-1,3-Dichloropropene ND 4.5 1 Ethylbenzene ND 2.2 1 4-Ethyltoluene ND 2.5 1 Hexachloro-1,3-Butadiene ND 16 1 2-Hexanone ND 6.1 1 Methyl-t-Butyl Ether (MTBE) ND 7.2 1 Methylene Chloride ND 17 1	t-1,2-Dichloroethene		ND	2.0)	1		
Ethylbenzene ND 2.2 1 4-Ethyltoluene ND 2.5 1 Hexachloro-1,3-Butadiene ND 16 1 2-Hexanone ND 6.1 1 Methyl-t-Butyl Ether (MTBE) ND 7.2 1 Methylene Chloride ND 17 1						1		
4-Ethyltoluene ND 2.5 1 Hexachloro-1,3-Butadiene ND 16 1 2-Hexanone ND 6.1 1 Methyl-t-Butyl Ether (MTBE) ND 7.2 1 Methylene Chloride ND 17 1	Ethylbenzene		ND	2.2		1		
Hexachloro-1,3-Butadiene ND 16 1 2-Hexanone ND 6.1 1 Methyl-t-Butyl Ether (MTBE) ND 7.2 1 Methylene Chloride ND 17 1	·					1		
2-Hexanone ND 6.1 1 Methyl-t-Butyl Ether (MTBE) ND 7.2 1 Methylene Chloride ND 17 1	•					1		
Methylene Chloride ND 17 1						1		
Methylene Chloride ND 17 1	Methyl-t-Butyl Ether (MTBE)		ND	7.2		1		
·						1		
						1		

RL: Reporting Limit.

DF: Dilution Factor.

MDL: Method Detection Limit.





Treadwell & Rollo - A Langan Company	Date Received:	06/18/13
555 Montgomery St., Suite 1300	Work Order:	13-06-1141
San Francisco, CA 94111-2554	Preparation:	N/A
	Method:	EPA TO-15
	Units:	ug/m3
Decises 004 Deceses / 704045004		D 44 -(44

		_	/ = 0 / 0 / = 0 0 /	
Project.	201	Brannan	/ 731615201	

Project: 801 Brannan / 731615201				Page 14 of 14
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
o-Xylene	ND	2.2	1	
p/m-Xylene	ND	8.7	1	
Styrene	ND	6.4	1	
Tetrachloroethene	ND	3.4	1	
Toluene	ND	1.9	1	
Trichloroethene	ND	2.7	1	
Trichlorofluoromethane	ND	5.6	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1	
1,1,1-Trichloroethane	ND	2.7	1	
1,1,2-Trichloroethane	ND	2.7	1	
1,3,5-Trimethylbenzene	ND	2.5	1	
1,1,2,2-Tetrachloroethane	ND	6.9	1	
1,2,4-Trimethylbenzene	ND	7.4	1	
1,2,4-Trichlorobenzene	ND	15	1	
Vinyl Acetate	ND	7.0	1	
Vinyl Chloride	ND	1.3	1	
<u>Surrogate</u>	Rec. (%)	Control Limits	<u>Qualifiers</u>	
1,4-Bromofluorobenzene	102	68-134		
1,2-Dichloroethane-d4	98	67-133		
Toluene-d8	99	70-130		

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.





Treadwell & Rollo - A Langan Company 555 Montgomery St., Suite 1300 San Francisco, CA 94111-2554 Date Received: Work Order: Preparation:

13-06-1141 N/A

06/18/13

Method:

EPA TO-15 SIM

Units:

ug/m3 Page 1 of 4

Project: 801 Brannan / 731615201

Lab Sample Number Date Prepared Date/Time QC Batch ID Client Sample Number Date/Time Matrix Instrument Collected Analyzed 06/20/13 20:57 06/17/13 15:45 GC/MS KK **Ambient-1** 13-06-1141-7-A Air N/A 130620L01 **Parameter** Result <u>RL</u> <u>DF</u> Qualifiers 1,1,1-Trichloroethane 0.56 0.14 1 ND 1,1,2,2-Tetrachloroethane 0.17 1 1,1,2-Trichloro-1,2,2-Trifluoroethane 0.64 0.19 1,1,2-Trichloroethane ND 0.14 ND 1,1-Dichloroethane 0.10 1,1-Dichloroethene ND 0.099 1,2,4-Trimethylbenzene 0.20 0.12 1,2-Dichloroethane ND 0.10 1,3,5-Trimethylbenzene ND 0.12 2-Butanone ND 1.5 4-Ethyltoluene ND 0.12 Acetone 7.3 1.2 Benzene 0.41 0.080 Bromodichloromethane ND 0.17 Carbon Disulfide ND 1.6 Carbon Tetrachloride 0.063 0.62 Chlorobenzene ND 0.12 ND Chloroethane 0.066 Chloroform ND 0.12 Chloromethane 1.2 0.052 Dibromochloromethane ND 0.21 Dichlorodifluoromethane 2.6 0.12 Ethylbenzene 0.20 0.11 Hexachloro-1,3-Butadiene ND 0.27 Methyl-t-Butyl Ether (MTBE) ND 0.090 Methylene Chloride 0.53 0.087 Tetrachloroethene ND 0.17 Toluene 1.3 0.094

RL: Reporting Limit.

Trichloroethene

Vinyl Chloride

o-Xylene

p/m-Xylene

Trichlorofluoromethane

c-1,2-Dichloroethene

t-1,2-Dichloroethene

DF: Dilution Factor.

MDL: Method Detection Limit.

0.13

0.14

0.026

0.099

0.11

0.11

0.099

ND

1.5

ND

ND

0.23

0.65

ND





Treadwell & Rollo - A Langan Company	Date Received:	06/18/13
555 Montgomery St., Suite 1300	Work Order:	13-06-1141
San Francisco, CA 94111-2554	Preparation:	N/A
	Method:	EPA TO-15 SIM
	Units:	ug/m3
Project: 801 Brannan / 731615201		Page 2 of 4

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,2-Dichloroethane-d4	101	37-163	
1,4-Bromofluorobenzene	85	45-153	
Toluene-d8	102	73-121	







Treadwell & Rollo - A Langan Company 555 Montgomery St., Suite 1300 San Francisco, CA 94111-2554 Date Received: Work Order: Preparation:

Method:

Units:

06/18/13 13-06-1141 N/A

EPA TO-15 SIM

ug/m3

Project: 801 Brannan / 731615201

Page 3 of 4

Method Blank 099-15-214-34 NA Air GCMS KK NA 0622013 (20:00) Parameter Result RL DF Qualifiers 1,1,1-Trichloroethane ND 0.14 1 1,1,2-Trichloroethane ND 0.19 1 1,1,2-Trichloroethane ND 0.19 1 1,1-Dichloroethane ND 0.10 1 1,1-Dichloroethane ND 0.099 1 1,1-Dichloroethane ND 0.099 1 1,2-Trimethylbenzene ND 0.10 1 1,2-Trimethylbenzene ND 0.12 1 1,2-Trimethylbenzene ND 0.12 1 2-Butanone ND 0.12 1 4-Ethyltoluene ND 0.12 1 4-Ethyltoluene ND 0.12 1 4-Ethyltoluene ND 0.16 1 Benzene ND 0.12 1 Bromodichloromethane ND 0.16	Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
1,1,1-Trichloroethane ND 0.14 1 1,1,2-Trichloroethane ND 0.19 1 1,1,2-Trichloroethane ND 0.14 1 1,1-Dichloroethane ND 0.10 1 1,1-Dichloroethane ND 0.099 1 1,2-Dichloroethane ND 0.12 1 1,3-5-Trimethylbarzene ND 0.12 1 2-Butanone ND 0.12 1 4-Ethylouene ND 0.12 1 4-Etytoluene ND 0.12 1 Berzene ND 0.12 1 Browneichloromethane ND 0.17 1 Carbon Disulfide ND 0.12 1 Chloroform ND 0.052 <	Method Blank	099-15-214-34	N/A	Air	GC/MS KK	N/A	06/20/13 20:00	130620L01
1.1.2.2-Tetrachloroethane ND 0.17 1 1.1.2-Trichloroethane ND 0.14 1 1.1.2-Trichloroethane ND 0.10 1 1.1-Dichloroethane ND 0.099 1 1.1-Dichloroethane ND 0.099 1 1.2-Ghibroethane ND 0.12 1 1.3-5-Trimethylbenzene ND 0.12 1 2-Butanone ND 0.12 1 4-Ethyltoluene ND 0.12 1 4-Ethyltoluene ND 0.12 1 4-Ethyltoluene ND 0.12 1 8-etone ND 0.12 1 8-etone ND 0.12 1 8-etone ND 0.080 1 8-romodichloromethane ND 0.16 1 Carbon Disulfide ND 0.12 1 Chloroethane ND 0.066 1 Chloroethane ND 0.12 1	<u>Parameter</u>		Result		<u>RL</u>	<u>DF</u>	Qua	<u>llifiers</u>
1.1,2-Trichloro-1,2,2-Trifluoroethane ND 0.14 1 1.1,2-Trichloroethane ND 0.14 1 1.1-Dichloroethane ND 0.099 1 1.1-Dichloroethene ND 0.099 1 1.2-Trimethylbenzene ND 0.12 1 1,2-Dichloroethane ND 0.10 1 1,3-Frimethylbenzene ND 0.12 1 2-Butanone ND 0.12 1 4-Ethyltoluene ND 0.17 1 6-totnorethane ND 0.17 1 6-totnorethane ND 0.066 1 7-toloromethane ND 0.052	1,1,1-Trichloroethane		ND		0.14	1		
1,1,2-Trichloroethane ND 0.14 1 1,1-Dichloroethane ND 0.09 1 1,2-Dichloroethane ND 0.099 1 1,2-Dichloroethane ND 0.12 1 1,2-Dichloroethane ND 0.10 1 1,3-5-Trimethylbenzene ND 0.12 1 2-Butanone ND 1.5 1 4-Ethyltoluene ND 0.12 1 Acetone ND 1.2 1 Benzene ND 0.12 1 Bromodichloromethane ND 0.17 1 Carbon Tetrachloride ND 0.17 1 Carbon Tetrachloride ND 0.12 1 Chloroethane ND 0.12 1 Chloroethane ND 0.12 1 Chloroethane ND 0.12 1 Dichlorodifluoromethane ND 0.22 1 Dibromochloromethane ND 0.21 1	1,1,2,2-Tetrachloroethane		ND		0.17	1		
1,1-Dichloroethane ND 0.10 1 1,1-Dichloroethane ND 0.099 1 1,2-Dichloroethane ND 0.12 1 1,2-Dichloroethane ND 0.10 1 1,3,5-Trimethylbenzene ND 0.12 1 2-Bulanone ND 1.5 1 4-Ethyltoluene ND 0.12 1 Acetone ND 1.2 1 Benzane ND 0.080 1 Bromodichloromethane ND 0.17 1 Garbon Disulfide ND 1.6 1 Carbon Disulfide ND 0.063 1 Chloroethane ND 0.063 1 Chloroethane ND 0.12 1 El	1,1,2-Trichloro-1,2,2-Trifluoroethane		ND		0.19	1		
1,1-Dichloroethene ND 0.099 1 1,2,4-Trimethylbenzene ND 0.12 1 1,2-Dichloroethane ND 0.10 1 1,3-5-Trimethylbenzene ND 0.12 1 2-Butanone ND 1.5 1 4-Ethyltoluene ND 0.12 1 Acetone ND 0.12 1 Benzene ND 0.080 1 Benzene ND 0.17 1 Carbon Disulfide ND 0.17 1 Carbon Tetrachloride ND 0.063 1 Chloroethane ND 0.12 1 Chloroform ND 0.12 1 Chloroethane ND 0.066 1 Chloroethane ND 0.12 1 Dibromochloromethane ND 0.12 1 Dibromochloromethane ND 0.12 1 Dibromochloromethane ND 0.11 1	1,1,2-Trichloroethane		ND		0.14	1		
1,2,4-Trimethylbenzene ND 0.10 1 1,2-Dichloroethane ND 0.10 1 1,3,5-Trimethylbenzene ND 0.12 1 2-Butanone ND 1.5 1 4-Ethyltoluene ND 0.12 1 Acetone ND 0.12 1 Benzene ND 0.080 1 Bromodichloromethane ND 0.17 1 Carbon Disulfide ND 0.16 1 Carbon Tetrachloride ND 0.063 1 Chloroform Tetrachloride ND 0.063 1 Chlorofenae ND 0.066 1 Chloroform ND 0.066 1 Chloromethane ND 0.052 1 Dibromochloromethane ND 0.12 1 Dichorodifluoromethane ND 0.11 1 Hexachloro-1,3-Butadiene ND 0.09 1 Methyl-Beruly Ether (MTBE) ND 0.090 <td>1,1-Dichloroethane</td> <td></td> <td>ND</td> <td></td> <td>0.10</td> <td>1</td> <td></td> <td></td>	1,1-Dichloroethane		ND		0.10	1		
1,2-Dichloroethane ND 0.10 1 1,3,5-Trimethylbenzene ND 0.12 1 2-Butanone ND 1.5 1 4-Ethyltoluene ND 0.12 1 Acetone ND 1.2 1 Benzene ND 0.080 1 Bromodichloromethane ND 0.17 1 Carbon Disulfide ND 0.063 1 Carbon Tetrachloride ND 0.063 1 Chloroethane ND 0.063 1 Chloroethane ND 0.066 1 Chloromethane ND 0.052 1 Dibromochloromethane ND 0.012 1 Dibromochloromethane ND 0.12 1 Ethylbenzene ND 0.12 1 Ethylbenzene ND 0.11 1 Hetwachloro-1,3-Butadiene ND 0.07 1 Methyl-Eutyl Ether (MTBE) ND 0.09 1	1,1-Dichloroethene		ND		0.099	1		
1,3,5-Trimethylbenzene ND 0.12 1 2-Butanone ND 1.5 1 4-Ethylboluene ND 0.12 1 Acetone ND 0.02 1 Benzene ND 0.080 1 Bromodichloromethane ND 0.17 1 Carbon Disulfide ND 0.16 1 Carbon Tetrachloride ND 0.063 1 Chlorobenzene ND 0.063 1 Chlorothane ND 0.066 1 Chlorothane ND 0.052 1 Chloromethane ND 0.052 1 Dibromochloromethane ND 0.21 1 Dichlorodifluoromethane ND 0.11 1 Hexachloro-1,3-Butadiene ND 0.11 1 Methyl-Ebulyl Ether (MTBE) ND 0.090 1 Methylene Chloride ND 0.087 1 Totlachorothene ND 0.094 <td< td=""><td>1,2,4-Trimethylbenzene</td><td></td><td>ND</td><td></td><td>0.12</td><td>1</td><td></td><td></td></td<>	1,2,4-Trimethylbenzene		ND		0.12	1		
2-Butanone ND 1.5 1 4-Ethyltoluene ND 0.12 1 Acetone ND 1.2 1 Benzene ND 0.080 1 Bromodichloromethane ND 0.17 1 Carbon Disulfide ND 1.6 1 Carbon Tetrachloride ND 0.063 1 Chlorobenzene ND 0.083 1 Chlorotethane ND 0.063 1 Chlorotethane ND 0.062 1 Chlorotethane ND 0.052 1 Chloromethane ND 0.052 1 Dibromochloromethane ND 0.12 1 Dichlorodiffuoromethane ND 0.12 1 Hexachloro-1,3-Butadiene ND 0.11 1 Methyl-Eurly Ether (MTBE) ND 0.090 1 Methyl-ene Chloride ND 0.087 1 Tetrachloroethene ND 0.094 1 </td <td>1,2-Dichloroethane</td> <td></td> <td>ND</td> <td></td> <td>0.10</td> <td>1</td> <td></td> <td></td>	1,2-Dichloroethane		ND		0.10	1		
4-Ethyltoluene ND 0.12 1 Acetone ND 1.2 1 Benzene ND 0.080 1 Bromodichloromethane ND 0.17 1 Carbon Disulfide ND 0.063 1 Carbon Tetrachloride ND 0.063 1 Chlorobenzene ND 0.12 1 Chloroform ND 0.066 1 Chloroformethane ND 0.12 1 Chloromethane ND 0.12 1 Dibromochloromethane ND 0.12 1 Dichlorodifluoromethane ND 0.12 1 Ethylbenzene ND 0.11 1 Hexaplicatione ND 0.27 1 Methyl-Buryl Ether (MTBE) ND 0.087 1 Tetrachloroethene ND 0.17 1 Tolluene ND 0.13 1 Trichloroethene ND 0.14 1 <t< td=""><td>1,3,5-Trimethylbenzene</td><td></td><td>ND</td><td></td><td>0.12</td><td>1</td><td></td><td></td></t<>	1,3,5-Trimethylbenzene		ND		0.12	1		
Acetone ND 1.2 1 Benzene ND 0.080 1 Bromodichloromethane ND 0.17 1 Carbon Disulfide ND 1.6 1 Carbon Disulfide ND 0.063 1 Chlorobenzene ND 0.12 1 Chlorobenzene ND 0.066 1 Chloroform ND 0.052 1 Chloromethane ND 0.052 1 Dibromochloromethane ND 0.052 1 Dibromochloromethane ND 0.12 1 Ethylbenzene ND 0.12 1 Hexachloro-1,3-Butadiene ND 0.27 1 Methyl-r-Butyl Ether (MTBE) ND 0.090 1 Methylene Chloride ND 0.087 1 Tetrachloroethene ND 0.17 1 Trichloroethene ND 0.13 1 Trichlorofuoromethane ND 0.14 1<	2-Butanone		ND		1.5	1		
Acetone ND 1.2 1 Benzene ND 0.080 1 Bromodichloromethane ND 0.17 1 Carbon Disulfide ND 1.6 1 Carbon Disulfide ND 0.063 1 Chlorobenzene ND 0.12 1 Chlorobenzene ND 0.066 1 Chloroform ND 0.052 1 Chloromethane ND 0.052 1 Dibromochloromethane ND 0.052 1 Dibromochloromethane ND 0.12 1 Ethylbenzene ND 0.12 1 Hexachloro-1,3-Butadiene ND 0.27 1 Methyl-r-Butyl Ether (MTBE) ND 0.090 1 Methylene Chloride ND 0.087 1 Tetrachloroethene ND 0.17 1 Trichloroethene ND 0.13 1 Trichlorofuoromethane ND 0.14 1<	4-Ethyltoluene		ND		0.12	1		
Benzene ND 0.080 1 Bromodichloromethane ND 0.17 1 Carbon Disulfide ND 1.6 1 Carbon Tetrachloride ND 0.063 1 Chlorobenzene ND 0.066 1 Chlorosthane ND 0.066 1 Chloroform ND 0.12 1 Chloromethane ND 0.052 1 Dibriomochloromethane ND 0.12 1 Dichlorodifluoromethane ND 0.12 1 Ethylbenzene ND 0.12 1 Ethylbenzene ND 0.11 1 Hexachloro-1,3-Butadiene ND 0.27 1 Methyl-se Uffer (MTBE) ND 0.090 1 Methyl-se Chloride ND 0.097 1 Tetrachloroethene ND 0.17 1 Tolloroethene ND 0.13 1 Trichlorofluoromethane ND 0.14			ND		1.2	1		
Bromodichloromethane ND 0.17 1 Carbon Disulfide ND 1.6 1 Carbon Tetrachloride ND 0.063 1 Chlorobenzene ND 0.12 1 Chloroethane ND 0.066 1 Chloroform ND 0.12 1 Chloromethane ND 0.052 1 Dibromochloromethane ND 0.21 1 Dichlorodifluoromethane ND 0.12 1 Ethylbenzene ND 0.11 1 Hexachloro-1,3-Butadiene ND 0.27 1 Methyl-t-Butyl Ether (MTBE) ND 0.090 1 Methylene Chloride ND 0.087 1 Tetrachloroethene ND 0.17 1 Toluene ND 0.094 1 Trichlorofluoromethane ND 0.14 1 Vinyl Chloride ND 0.026 1 c-1,2-Dichloroethene ND 0.099	Benzene		ND			1		
Carbon Disulfide ND 1.6 1 Carbon Tetrachloride ND 0.063 1 Chlorobenzene ND 0.12 1 Chloroethane ND 0.066 1 Chloroform ND 0.12 1 Chloromethane ND 0.052 1 Dibromochloromethane ND 0.21 1 Dichlorodifluoromethane ND 0.12 1 Ethylbenzene ND 0.12 1 Hexachloro-1,3-Butadiene ND 0.27 1 Methyl-t-Butyl Ether (MTBE) ND 0.090 1 Methylene Chloride ND 0.087 1 Tetrachloroethene ND 0.17 1 Toluene ND 0.094 1 Trichloroethene ND 0.14 1 Trichlorofluoromethane ND 0.14 1 Vinyl Chloride ND 0.026 1 c-1,2-Dichloroethene ND 0.099	Bromodichloromethane		ND		0.17	1		
Chlorobenzene ND 0.12 1 Chloroethane ND 0.066 1 Chloroform ND 0.12 1 Chloromethane ND 0.052 1 Dibromochloromethane ND 0.21 1 Dichlorodifluoromethane ND 0.12 1 Ethylbenzene ND 0.11 1 Hexachloro-1,3-Butadiene ND 0.27 1 Methyl-t-Butyl Ether (MTBE) ND 0.090 1 Methylene Chloride ND 0.087 1 Tetrachloroethene ND 0.17 1 Tolluene ND 0.13 1 Trichlorofluoromethane ND 0.13 1 Vinyl Chloride ND 0.14 1 Vinyl Chloride ND 0.026 1 c-1,2-Dichloroethene ND 0.099 1 o-Xylene ND 0.11 1 p/m-Xylene ND 0.11 1	Carbon Disulfide					1		
Chloroethane ND 0.066 1 Chloroform ND 0.12 1 Chloromethane ND 0.052 1 Dibromochloromethane ND 0.21 1 Dichlorodifluoromethane ND 0.12 1 Ethylbenzene ND 0.11 1 Hexachloro-1,3-Butadiene ND 0.27 1 Methyl-t-Butyl Ether (MTBE) ND 0.090 1 Methylene Chloride ND 0.087 1 Tetrachloroethene ND 0.17 1 Toluene ND 0.094 1 Trichloroethene ND 0.13 1 Trichlorofluoromethane ND 0.14 1 Vinyl Chloride ND 0.026 1 c-1,2-Dichloroethene ND 0.099 1 o-Xylene ND 0.11 1 p/m-Xylene ND 0.11 1	Carbon Tetrachloride		ND		0.063	1		
Chloroethane ND 0.066 1 Chloroform ND 0.12 1 Chloromethane ND 0.052 1 Dibromochloromethane ND 0.21 1 Dichlorodifluoromethane ND 0.12 1 Ethylbenzene ND 0.11 1 Hexachloro-1,3-Butadiene ND 0.27 1 Methyl-t-Butyl Ether (MTBE) ND 0.090 1 Methylene Chloride ND 0.087 1 Tetrachloroethene ND 0.17 1 Toluene ND 0.094 1 Trichloroethene ND 0.13 1 Trichlorofluoromethane ND 0.14 1 Vinyl Chloride ND 0.026 1 c-1,2-Dichloroethene ND 0.099 1 o-Xylene ND 0.11 1 p/m-Xylene ND 0.11 1	Chlorobenzene		ND		0.12	1		
Chloromethane ND 0.052 1 Dibromochloromethane ND 0.21 1 Dichlorodifluoromethane ND 0.12 1 Ethylbenzene ND 0.11 1 Hexachloro-1,3-Butadiene ND 0.27 1 Methyl-t-Butyl Ether (MTBE) ND 0.090 1 Methylene Chloride ND 0.087 1 Tetrachloroethene ND 0.17 1 Toluene ND 0.13 1 Trichloroethene ND 0.14 1 Vinyl Chloride ND 0.026 1 c-1,2-Dichloroethene ND 0.099 1 o-Xylene ND 0.11 1 p/m-Xylene ND 0.11 1	Chloroethane				0.066	1		
Chloromethane ND 0.052 1 Dibromochloromethane ND 0.21 1 Dichlorodifluoromethane ND 0.12 1 Ethylbenzene ND 0.11 1 Hexachloro-1,3-Butadiene ND 0.27 1 Methyl-t-Butyl Ether (MTBE) ND 0.090 1 Methylene Chloride ND 0.087 1 Tetrachloroethene ND 0.17 1 Toluene ND 0.13 1 Trichloroethene ND 0.14 1 Vinyl Chloride ND 0.026 1 c-1,2-Dichloroethene ND 0.099 1 o-Xylene ND 0.11 1 p/m-Xylene ND 0.11 1	Chloroform		ND		0.12	1		
Dibromochloromethane ND 0.21 1 Dichlorodifluoromethane ND 0.12 1 Ethylbenzene ND 0.11 1 Hexachloro-1,3-Butadiene ND 0.27 1 Methyl-t-Butyl Ether (MTBE) ND 0.090 1 Methylene Chloride ND 0.087 1 Tetrachloroethene ND 0.17 1 Toluene ND 0.094 1 Trichlorofluoromethane ND 0.13 1 Trichloride ND 0.14 1 Vinyl Chloride ND 0.026 1 c-1,2-Dichloroethene ND 0.099 1 o-Xylene ND 0.11 1 p/m-Xylene ND 0.11 1	Chloromethane				0.052	1		
Dichlorodifluoromethane ND 0.12 1 Ethylbenzene ND 0.11 1 Hexachloro-1,3-Butadiene ND 0.27 1 Methyl-t-Butyl Ether (MTBE) ND 0.090 1 Methylene Chloride ND 0.087 1 Tetrachloroethene ND 0.17 1 Toluene ND 0.094 1 Trichloroethene ND 0.13 1 Trichlorofluoromethane ND 0.14 1 Vinyl Chloride ND 0.026 1 c-1,2-Dichloroethene ND 0.099 1 o-Xylene ND 0.11 1 p/m-Xylene ND 0.11 1	Dibromochloromethane					1		
Hexachloro-1,3-Butadiene ND 0.27 1 Methyl-t-Butyl Ether (MTBE) ND 0.090 1 Methylene Chloride ND 0.087 1 Tetrachloroethene ND 0.17 1 Toluene ND 0.094 1 Trichloroethene ND 0.13 1 Trichlorofluoromethane ND 0.14 1 Vinyl Chloride ND 0.026 1 c-1,2-Dichloroethene ND 0.099 1 o-Xylene ND 0.11 1 p/m-Xylene ND 0.11 1						1		
Hexachloro-1,3-Butadiene ND 0.27 1 Methyl-t-Butyl Ether (MTBE) ND 0.090 1 Methylene Chloride ND 0.087 1 Tetrachloroethene ND 0.17 1 Toluene ND 0.094 1 Trichloroethene ND 0.13 1 Trichlorofluoromethane ND 0.14 1 Vinyl Chloride ND 0.026 1 c-1,2-Dichloroethene ND 0.099 1 o-Xylene ND 0.11 1 p/m-Xylene ND 0.11 1	Ethylbenzene		ND		0.11	1		
Methyl-t-Butyl Ether (MTBE) ND 0.090 1 Methylene Chloride ND 0.087 1 Tetrachloroethene ND 0.17 1 Toluene ND 0.094 1 Trichloroethene ND 0.13 1 Trichlorofluoromethane ND 0.14 1 Vinyl Chloride ND 0.026 1 c-1,2-Dichloroethene ND 0.099 1 o-Xylene ND 0.11 1 p/m-Xylene ND 0.11 1						1		
Methylene Chloride ND 0.087 1 Tetrachloroethene ND 0.17 1 Toluene ND 0.094 1 Trichloroethene ND 0.13 1 Trichlorofluoromethane ND 0.14 1 Vinyl Chloride ND 0.026 1 c-1,2-Dichloroethene ND 0.099 1 o-Xylene ND 0.11 1 p/m-Xylene ND 0.11 1						1		
Tetrachloroethene ND 0.17 1 Toluene ND 0.094 1 Trichloroethene ND 0.13 1 Trichlorofluoromethane ND 0.14 1 Vinyl Chloride ND 0.026 1 c-1,2-Dichloroethene ND 0.099 1 o-Xylene ND 0.11 1 p/m-Xylene ND 0.11 1	· · · · ·		ND			1		
Toluene ND 0.094 1 Trichloroethene ND 0.13 1 Trichlorofluoromethane ND 0.14 1 Vinyl Chloride ND 0.026 1 c-1,2-Dichloroethene ND 0.099 1 o-Xylene ND 0.11 1 p/m-Xylene ND 0.11 1	•		ND			1		
Trichlorofluoromethane ND 0.14 1 Vinyl Chloride ND 0.026 1 c-1,2-Dichloroethene ND 0.099 1 o-Xylene ND 0.11 1 p/m-Xylene ND 0.11 1								
Trichlorofluoromethane ND 0.14 1 Vinyl Chloride ND 0.026 1 c-1,2-Dichloroethene ND 0.099 1 o-Xylene ND 0.11 1 p/m-Xylene ND 0.11 1	Trichloroethene					1		
Vinyl Chloride ND 0.026 1 c-1,2-Dichloroethene ND 0.099 1 o-Xylene ND 0.11 1 p/m-Xylene ND 0.11 1								
c-1,2-Dichloroethene ND 0.099 1 o-Xylene ND 0.11 1 p/m-Xylene ND 0.11 1								
o-Xylene ND 0.11 1 p/m-Xylene ND 0.11 1								
p/m-Xylene ND 0.11 1								
	t-1,2-Dichloroethene		ND			1		

RL: Reporting Limit.

DF: Dilution Factor.

MDL: Method Detection Limit.





Treadwell & Rollo - A Langan Company	Date Received:	06/18/13	
555 Montgomery St., Suite 1300	Work Order:	13-06-1141	
San Francisco, CA 94111-2554	Preparation:	N/A	
	Method:	EPA TO-15 SIM	
	Units:	ug/m3	
Project: 801 Brannan / 731615201		Page 4 of 4	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,2-Dichloroethane-d4	107	37-163	
1,4-Bromofluorobenzene	86	45-153	
Toluene-d8	105	73-121	





Treadwell & Rollo - A Langan Company 555 Montgomery St., Suite 1300 San Francisco, CA 94111-2554 Date Received: Work Order: Preparation: Method:

13-06-1141 N/A EPA TO-3M

06/18/13

Units:

ppm (v/v) Page 1 of 1

Project: 801 Brannan / 731615201

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TR-SG-1	13-06-1141-1-A	06/17/13 12:31	Air	GC 13	N/A	06/18/13 15:58	130618L01
<u>Parameter</u>		<u>Result</u>	<u> </u>	<u>RL</u>	<u>DF</u>	<u>Qu</u>	<u>alifiers</u>
TPH as Gasoline		ND	1	1.5	1		
Dup-1	13-06-1141-2-A	06/17/13 12:31	Air	GC 13	N/A	06/18/13 15:42	130618L01
<u>Parameter</u>		Result	<u> </u>	<u> </u>	DF	Qu	alifiers
TPH as Gasoline		ND	1	1.5	1		
TR-SG-2	13-06-1141-3-A	06/17/13 13:11	Air	GC 13	N/A	06/18/13 15:27	130618L01
<u>Parameter</u>		Result	<u> </u>	<u> </u>	<u>DF</u>	Qu	alifiers
TPH as Gasoline		ND	1	1.5	1		
TR-SG-3	13-06-1141-4-A	06/17/13 14:21	Air	GC 13	N/A	06/18/13 15:09	130618L01
<u>Parameter</u>		Result	<u>[</u>	<u> </u>	DF	Qu	<u>alifiers</u>
TPH as Gasoline		ND	1	1.5	1		
TR-SG-4	13-06-1141-5-A	06/17/13 15:06	Air	GC 13	N/A	06/18/13 14:57	130618L01
<u>Parameter</u>		Result	<u>_</u>	RL.	DF	Qu	alifiers
TPH as Gasoline		ND	1	1.5	1		
TR-SG-5	13-06-1141-6-A	06/17/13 15:31	Air	GC 13	N/A	06/18/13 14:47	130618L01
<u>Parameter</u>		Result	<u>[</u>	<u> </u>	DF	Qu	alifiers
TPH as Gasoline		ND	1	1.5	1		
Ambient-1	13-06-1141-7-A	06/17/13 15:45	Air	GC 13	N/A	06/18/13 14:25	130618L01
<u>Parameter</u>		Result	<u> </u>	<u> </u>	<u>DF</u>	Qu	alifiers
TPH as Gasoline		ND	1	1.5	1		
Method Blank	098-01-005-4769	N/A	Air	GC 13	N/A	06/18/13 09:00	130618L01
<u>Parameter</u>		Result	<u> </u>	<u> </u>	<u>DF</u>	Qu	alifiers
TPH as Gasoline		ND	,	1.5	1		

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.





Quality Control - Sample Duplicate

Treadwell & Rollo - A Langan Company 555 Montgomery St., Suite 1300 San Francisco, CA 94111-2554 Date Received: Work Order: Preparation: Method: 06/18/13 13-06-1141 N/A

EPA TO-3M Page 1 of 1

Project: 801 Brannan / 731615201

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
13-06-1117-2	Air	GC 13	N/A	06/18/13 10:41	130618D01
Parameter	Sample Cond	c. DUP Conc.	RPD	RPD CL	Qualifiers
TPH as Gasoline	10750	10510	2	0-20	





Treadwell & Rollo - A Langan Company 555 Montgomery St., Suite 1300 San Francisco, CA 94111-2554

Project: 801 Brannan / 731615201

Date Received: Work Order: Preparation: Method: 06/18/13 13-06-1141 N/A

ASTM D-1946

Page 1 of 7

Quality Control Sample ID	uality Control Sample ID Matrix		Instrument Date Prepared		ared Date	ed Date Analyzed		atch Number	
099-03-002-1839		Air		GC 65	N/A	06/18/	13 10:45	130618L01	
Parameter	<u>Spike</u> Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Methane	4.510	4.385	97	4.394	97	80-120	0	0-30	

RPD: Relative Percent Difference. CL: Control Limits





Treadwell & Rollo - A Langan Company 555 Montgomery St., Suite 1300 San Francisco, CA 94111-2554 Date Received: Work Order: Preparation: Method:

13-06-1141 N/A

06/18/13

ASTM D-1946 (M)

Project: 801 Brannan / 731615201

Page 2 of 7

Quality Control Sample ID		Matrix	Ir	nstrument	Date Prepa	ared Date	Analyzed	LCS/LCSD Ba	atch Number
099-12-872-460		Air	G	C 55	N/A	06/18/	13 09:17	130618L01	
<u>Parameter</u>	<u>Spike</u> Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Helium	1.000	0.8479	85	0.8499	85	80-120	0	0-30	





Treadwell & Rollo - A Langan Company 555 Montgomery St., Suite 1300 San Francisco, CA 94111-2554 Date Received: Work Order: Preparation:

Method:

06/18/13 13-06-1141 N/A EPA TO-15

Project: 801 Brannan / 731615201

Page 3 of 7

Quality Control Sample ID			atrix	Instrume		Date Prepared	Date An		LCS/LCSD Bat	cn Number
095-01-021-11588		Ai		GC/MS		N/A	06/20/13	3 14:34	130620L01	
<u>Parameter</u>	<u>Spike</u> <u>Added</u>	<u>LCS</u> Conc.	<u>LCS</u> <u>%Rec.</u>	LCSD Conc.	LCSE %Red	%Rec. CL	ME CL	<u>RPD</u>	RPD CL	Qualifiers
Acetone	59.39	49.49	83	48.59	82	67-133	56-144	2	0-30	
Benzene	79.87	77.43	97	76.51	96	70-130	60-140	1	0-30	
Benzyl Chloride	129.4	134.3	104	131.8	102	38-158	18-178	2	0-30	
Bromodichloromethane	167.5	164.2	98	163.6	98	70-130	60-140	0	0-30	
Bromoform	258.4	262.7	102	257.8	100	63-147	49-161	2	0-30	
Bromomethane	97.08	89.84	93	88.72	91	70-139	58-150	1	0-30	
2-Butanone	73.73	69.08	94	68.13	92	66-132	55-143	1	0-30	
Carbon Disulfide	77.85	74.87	96	74.17	95	68-146	55-159	1	0-30	
Carbon Tetrachloride	157.3	153.9	98	152.8	97	70-136	59-147	1	0-30	
Chlorobenzene	115.1	112.1	97	111.1	97	70-130	60-140	1	0-30	
Chloroethane	65.96	64.05	97	62.80	95	65-149	51-163	2	0-30	
Chloroform	122.1	117.2	96	115.0	94	70-130	60-140	2	0-30	
Chloromethane	51.63	46.62	90	45.61	88	69-141	57-153	2	0-30	
Dibromochloromethane	213.0	211.4	99	209.3	98	70-138	59-149	1	0-30	
Dichlorodifluoromethane	123.6	111.9	91	109.8	89	67-139	55-151	2	0-30	
1,1-Dichloroethane	101.2	97.04	96	96.12	95	70-130	60-140	1	0-30	
1,1-Dichloroethene	99.12	95.42	96	94.05	95	70-135	59-146	1	0-30	
1,2-Dibromoethane	192.1	191.2	100	187.9	98	70-133	60-144	2	0-30	
Dichlorotetrafluoroethane	174.8	160.2	92	156.7	90	51-135	37-149	2	0-30	
1,2-Dichlorobenzene	150.3	149.9	100	147.1	98	48-138	33-153	2	0-30	
1,2-Dichloroethane	101.2	98.18	97	96.50	95	70-132	60-142	2	0-30	
1,2-Dichloropropane	115.5	112.6	97	111.5	97	70-130	60-140	1	0-30	
1,3-Dichlorobenzene	150.3	150.0	100	147.7	98	56-134	43-147	2	0-30	
1,4-Dichlorobenzene	150.3	149.6	100	146.8	98	52-136	38-150	2	0-30	
c-1,3-Dichloropropene	113.5	113.1	100	112.1	99	70-130	60-140	1	0-30	
c-1,2-Dichloroethene	99.12	97.64	99	96.61	97	70-130	60-140	1	0-30	
t-1,2-Dichloroethene	99.12	97.61	98	96.79	98	70-130	60-140	1	0-30	
t-1,3-Dichloropropene	113.5	115.7	102	114.0	100	70-147	57-160	1	0-30	
Ethylbenzene	108.6	106.6	98	105.1	97	70-130	60-140	1	0-30	
4-Ethyltoluene	122.9	122.2	99	120.5	98	68-130	58-140	1	0-30	
Hexachloro-1,3-Butadiene	266.6	303.5	114	321.7	121	44-146	27-163	6	0-30	
2-Hexanone	102.4	99.42	97	98.13	96	70-136	59-147	1	0-30	
Methyl-t-Butyl Ether (MTBE)	90.13	87.29	97	85.94	95	68-130	58-140	2	0-30	
Methylene Chloride	86.84	78.65	91	78.32	90	69-130	59-140	0	0-30	
4-Methyl-2-Pentanone	102.4	98.40	96	97.46	95	70-130	60-140	1	0-30	
o-Xylene	108.6	106.9	99	105.4	97	69-130	59-140	1	0-30	
p/m-Xylene	217.1	216.6	100	214.0	99	70-132	60-142	1	0-30	

RPD: Relative Percent Difference. CL: Control Limits





Treadwell & Rollo - A Langan Company 555 Montgomery St., Suite 1300 San Francisco, CA 94111-2554 Date Received: Work Order: Preparation: 06/18/13 13-06-1141 N/A

Method:

EPA TO-15 Page 4 of 7

Proiect: 801	Brannan /	/ 731615201
--------------	-----------	-------------

<u>Parameter</u>	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	<u>RPD</u>	RPD CL	<u>Qualifiers</u>
Styrene	106.5	104.6	98	103.2	97	65-131	54-142	1	0-30	
Tetrachloroethene	169.6	165.4	98	164.0	97	70-130	60-140	1	0-30	
Toluene	94.21	90.89	96	90.29	96	70-130	60-140	1	0-30	
Trichloroethene	134.3	131.6	98	130.4	97	70-130	60-140	1	0-30	
Trichlorofluoromethane	140.5	151.9	108	124.5	89	63-141	50-154	20	0-30	
1,1,2-Trichloro-1,2,2- Trifluoroethane	191.6	182.3	95	178.9	93	70-136	59-147	2	0-30	
1,1,1-Trichloroethane	136.4	134.1	98	132.0	97	70-130	60-140	2	0-30	
1,1,2-Trichloroethane	136.4	133.7	98	132.3	97	70-130	60-140	1	0-30	
1,3,5-Trimethylbenzene	122.9	121.5	99	120.5	98	62-130	51-141	1	0-30	
1,1,2,2-Tetrachloroethane	171.6	168.9	98	166.3	97	63-130	52-141	2	0-30	
1,2,4-Trimethylbenzene	122.9	122.0	99	119.3	97	60-132	48-144	2	0-30	
1,2,4-Trichlorobenzene	185.5	220.1	119	220.8	119	31-151	11-171	0	0-30	
Vinyl Acetate	88.03	83.65	95	82.37	94	58-130	46-142	2	0-30	
Vinyl Chloride	63.91	60.06	94	59.24	93	70-134	59-145	1	0-30	

Total number of LCS compounds: 51 Total number of ME compounds: 0

Total number of ME compounds allowed: 3

LCS ME CL validation result: Pass





Method:

Treadwell & Rollo - A Langan Company 555 Montgomery St., Suite 1300 San Francisco, CA 94111-2554 Date Received:
Work Order:
Preparation:

Project: 801 Brannan / 731615201

Page 5 of 7

06/18/13

N/A

13-06-1141

EPA TO-15 SIM

Parameter	Quality Control Sample ID		Ma	atrix	Instrume	ent D	ate Prepared	Date An	alyzed	LCS/LCSD Bat	ch Number
Name	099-15-214-34		Aiı	r	GC/MS	KK N	I/A	06/20/13	3 16:27	130620L01	
1,1,2,2-Tetrachloroethane 3,433 3,745 109 3,733 109 50-150 33-167 0 0-30 1,1,2-Tichichoro-1,2,2- 3,832 3,608 94 3,746 98 50-150 33-167 4 0-30 1,1,2-Tichichoroethane 2,728 2,793 102 2,742 101 27-171 3-195 2 0-38 1,1,1-Dichioroethane 1,992 1,991 94 1,912 94 50-150 33-167 1 0-30 1,1-Dichioroethane 1,982 1,731 87 1,705 86 50-150 33-167 7 0-30 1,2-Dichioroethane 2,458 2,581 105 2,781 113 50-150 33-167 7 0-30 1,2-Dichioroethane 2,458 2,430 99 2,638 107 50-150 33-167 8 0-30 1,2-Dichioroethane 2,458 2,430 99 2,608 106 50-150 33-167 8 0-30 1,2-Dichioroethane 1,597 1,570 98 1,504 94	<u>Parameter</u>	<u>Spike</u> <u>Added</u>	LCS Conc.	LCS %Rec.		LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	<u>Qualifiers</u>
1,12-Trichloro-1,2,2-Trichloro-ethane 3.832 3.608 94 3.746 98 50-150 33-167 4 0-30 1,1,2-Trichloro-ethane 2.728 2.793 102 2.742 101 27-171 3-195 2 0-38 1,1-Dichloro-ethane 1.902 1.731 87 1.705 86 50-150 33-167 1 0-30 1,2-Dichloro-ethane 2.458 2.581 105 2.781 113 50-150 33-167 7 0-30 1,2-Dichloro-ethane 2.458 2.581 105 2.781 113 50-150 33-167 7 0-30 1,2-Dichloro-ethane 2.024 1.789 88 1.842 91 2.8166 5-189 3 0-40 1,3-5-Trimethylbenzene 2.458 2.490 99 2.639 107 50-150 33-167 6 0-30 Benzene 1.597 1.570 98 1.504 94 2.7153 6-174 4 0-30 </td <td>1,1,1-Trichloroethane</td> <td>2.728</td> <td>2.714</td> <td>100</td> <td>2.731</td> <td>100</td> <td>50-150</td> <td>33-167</td> <td>1</td> <td>0-30</td> <td></td>	1,1,1-Trichloroethane	2.728	2.714	100	2.731	100	50-150	33-167	1	0-30	
Triflucroethane 1,1-Circhicoroethane 2,724 101 27-171 3-195 2 0-38 1,1-Dichicorethane 2,024 1,901 94 1,912 94 50-150 33-167 1 0-30 1,1-Dichicorethane 1,982 1,731 87 1,705 86 50-150 33-167 1 0-30 1,2-Dichicorethane 2,458 2,581 105 2,781 113 50-150 33-167 7 0-30 1,2-Dichicorethane 2,024 1,789 88 1,842 91 28-166 5-189 3 0-40 1,3-5-Trimethylbenzene 2,458 2,460 99 2,639 107 50-150 33-167 8 0-30 0-3	1,1,2,2-Tetrachloroethane	3.433	3.745	109	3.733	109	50-150	33-167	0	0-30	
1,1-Dichloroethane 2,024 1,901 94 1,912 94 50-150 33-167 1 0-30 1,1-Dichloroethane 1,982 1,731 87 1,705 86 50-150 33-167 7 0-30 1,2-Dichloroethane 2,458 2,581 105 2,781 113 50-150 33-167 7 0-30 1,2-Dichloroethane 2,024 1,789 88 1,842 91 2,8166 5-189 3 0-40 1,3,5-Trimethylbenzene 2,458 2,430 99 2,639 107 50-150 33-167 8 0-30 4-Ethyltoluene 2,458 2,460 100 2,608 106 50-150 33-167 6 0-30 Benzene 1,597 1,570 98 1,504 94 27-153 6-174 4 0-30 Carbon Tetrachloride 3,146 2,999 95 3,023 96 7-187 0-217 1 0-30 Chloroethane 1,319 1,202 91 1,256 95 50-150 33-167 <td>1,1,2-Trichloro-1,2,2- Trifluoroethane</td> <td>3.832</td> <td>3.608</td> <td>94</td> <td>3.746</td> <td>98</td> <td>50-150</td> <td>33-167</td> <td>4</td> <td>0-30</td> <td></td>	1,1,2-Trichloro-1,2,2- Trifluoroethane	3.832	3.608	94	3.746	98	50-150	33-167	4	0-30	
1,1-Dichloroethene 1,982 1,731 87 1,705 86 50-150 33-167 1 0-30 1,2,4-Trimethylbenzene 2,458 2,581 105 2,781 113 50-150 33-167 7 0-30 1,2-Dichloroethane 2,024 1,789 88 1,842 91 28-166 5-189 3 0-40 1,3,5-Trimethylbenzene 2,458 2,430 99 2,639 107 50-150 33-167 8 0-30 4-Ethyltoluene 2,458 2,460 100 2,608 106 50-150 33-167 6 0-30 Benzene 1,597 1,570 98 1,504 94 27-153 6-174 4 0-34 Bromodichloromethane 3,350 3,318 99 3,221 99 50-150 33-167 0 0-30 Carbon Tetrachloride 3,146 2,999 95 3,023 96 7-187 0-217 1 0-30 Chloroethane 1,319 1,202 91 1,256 95 50-150 33-1	1,1,2-Trichloroethane	2.728	2.793	102	2.742	101	27-171	3-195	2	0-38	
1,2,4-Trimethylbenzene 2.458 2.581 105 2.781 113 50-150 33-167 7 0-30 1,2-Dichloroethane 2.024 1.789 88 1.842 91 28-166 5-189 3 0-40 1,3,5-Trimethylbenzene 2.458 2.460 100 2.608 106 50-150 33-167 8 0-30 4-Ethyltoluene 2.458 2.460 100 2.608 106 50-150 33-167 6 0-30 Benzene 1.597 1.570 98 1.504 94 27-153 6-174 4 0-34 Bromodichloromethane 3.350 3.318 99 3.321 99 50-150 33-167 0 0-30 Carbon Tetrachloride 3.146 2.999 95 3.023 96 7-187 0-217 1 0-31 Chloroethane 1.319 1.202 91 1.256 95 50-150 33-167 4 0-30 Chloro	1,1-Dichloroethane	2.024	1.901	94	1.912	94	50-150	33-167	1	0-30	
1,2-Dichloroethane 2.024 1.789 88 1.842 91 28-166 5-189 3 0-40 1,3,5-Trimethylbenzene 2.458 2.430 99 2.639 107 50-150 33-167 8 0-30 4-Ethylboluene 2.458 2.460 100 2.608 106 50-150 33-167 6 0-30 Benzene 1.597 1.570 98 1.504 94 27-153 6-174 4 0-34 Bromodichloromethane 3.350 3.318 99 3.321 99 50-150 33-167 0 0-30 Carbon Tetrachloride 3.146 2.999 95 3.023 96 7-187 0-217 1 0-30 Chlorobenzene 2.302 2.304 100 2.326 101 50-150 33-167 4 0-30 Chloroform 2.441 2.198 90 2.236 92 50-150 33-167 4 0-30 Chloromethane 4.259 4.489 105 4.449 104 50-150 33-167	1,1-Dichloroethene	1.982	1.731	87	1.705	86	50-150	33-167	1	0-30	
1,3,5-Trimethylbenzene 2,458 2,430 99 2,639 107 50-150 33-167 8 0-30 4-Ethyltoluene 2,458 2,460 100 2,608 106 50-150 33-167 6 0-30 Benzene 1,597 1,570 98 1,504 94 27-153 6-174 4 0-34 Bromodichloromethane 3,350 3,318 99 3,321 99 50-150 33-167 0 0-30 Carbon Tetrachloride 3,146 2,999 95 3,023 96 7-187 0-217 1 0-31 Chlorobenzene 2,302 2,304 100 2,326 101 50-150 33-167 1 0-30 Chloroform 2,441 2,198 90 2,236 92 50-150 33-167 2 0-30 Chloroform 2,441 2,198 90 2,236 92 50-150 33-167 4 0-30 Dibromochloromethane 1,033 0,9768 95 1,016 98 50-150 33-167 <	1,2,4-Trimethylbenzene	2.458	2.581	105	2.781	113	50-150	33-167	7	0-30	
4-Ethyltoluene 2,458 2,460 100 2,608 106 50-150 33-167 6 0-30 Benzene 1,597 1,570 98 1,504 94 27-153 6-174 4 0-34 Bromodichloromethane 3,350 3,318 99 3,221 99 50-150 33-167 0 0-30 Carbon Tetrachloride 3,146 2,999 95 3,023 96 7-187 0-217 1 0-30 Chlorobenzene 2,302 2,304 100 2,326 101 50-150 33-167 1 0-30 Chlorothane 1,319 1,202 91 1,256 95 50-150 33-167 4 0-30 Chloromethane 1,033 0,9768 95 1,016 98 50-150 33-167 4 0-30 Dibrlorochloromethane 4,259 4,489 105 4,449 104 50-150 33-167 1 0-30 Ethylbenzene	1,2-Dichloroethane	2.024	1.789	88	1.842	91	28-166	5-189	3	0-40	
Benzene 1.597 1.570 98 1.504 94 27-153 6-174 4 0-34 Bromodichloromethane 3.350 3.318 99 3.321 99 50-150 33-167 0 0-30 Carbon Tetrachloride 3.146 2.999 95 3.023 96 7-187 0-217 1 0-31 Chlorobenzene 2.302 2.304 100 2.326 101 50-150 33-167 1 0-30 Chlorofethane 1.319 1.202 91 1.256 95 50-150 33-167 4 0-30 Chloroform 2.441 2.198 90 2.236 92 50-150 33-167 2 0-30 Chloromethane 1.033 0.9768 95 1.016 98 50-150 33-167 4 0-30 Dichorodifluoromethane 4.259 4.489 105 4.449 100 50-150 33-167 1 0-30 Ethylbenzene	1,3,5-Trimethylbenzene	2.458	2.430	99	2.639	107	50-150	33-167	8	0-30	
Bromodichloromethane 3.350 3.318 99 3.321 99 50-150 33-167 0 0-30 Carbon Tetrachloride 3.146 2.999 95 3.023 96 7-187 0-217 1 0-31 Chlorobenzene 2.302 2.304 100 2.326 101 50-150 33-167 1 0-30 Chlorofetmane 1.319 1.202 91 1.256 95 50-150 33-167 4 0-30 Chlorofetrm 2.441 2.198 90 2.236 92 50-150 33-167 2 0-30 Chloromethane 1.033 0.9768 95 1.016 98 50-150 33-167 4 0-30 Dichlorodifluoromethane 4.259 4.489 105 4.449 104 50-150 33-167 1 0-30 Ethylbenzene 2.171 2.177 100 2.139 99 27-153 6-174 2 0-46 Hexachloro-1,3-	4-Ethyltoluene	2.458	2.460	100	2.608	106	50-150	33-167	6	0-30	
Carbon Tetrachloride 3.146 2.999 95 3.023 96 7-187 0-217 1 0-31 Chlorobenzene 2.302 2.304 100 2.326 101 50-150 33-167 1 0-30 Chloroethane 1.319 1.202 91 1.256 95 50-150 33-167 4 0-30 Chloroform 2.441 2.198 90 2.236 92 50-150 33-167 2 0-30 Chloromethane 1.033 0.9768 95 1.016 98 50-150 33-167 4 0-30 Dibriomochloromethane 4.259 4.489 105 4.449 104 50-150 33-167 1 0-30 Ethylbenzene 2.171 2.177 100 2.139 99 27-153 6-174 2 0-46 Hexachloro-1,3-Butadiene 5.333 5.314 100 5.539 104 50-150 33-167 4 0-30 Methyl-t-Buty	Benzene	1.597	1.570	98	1.504	94	27-153	6-174	4	0-34	
Chlorobenzene 2.302 2.304 100 2.326 101 50-150 33-167 1 0-30 Chloroethane 1.319 1.202 91 1.256 95 50-150 33-167 4 0-30 Chloroform 2.441 2.198 90 2.236 92 50-150 33-167 2 0-30 Chloromethane 1.033 0.9768 95 1.016 98 50-150 33-167 4 0-30 Dibromochloromethane 4.259 4.489 105 4.449 104 50-150 33-167 1 0-30 Dichlorodifluoromethane 2.473 2.441 99 2.460 100 50-150 33-167 1 0-30 Ethylbenzene 2.171 2.177 100 2.139 99 27-153 6-174 2 0-46 Hexachloro-1,3-Butadiene 5.333 5.314 100 5.539 104 50-150 33-167 4 0-30 Methyl-t-Butyl Ether (MTBE) 1.803 1.548 86 1.467 81 50-150	Bromodichloromethane	3.350	3.318	99	3.321	99	50-150	33-167	0	0-30	
Chloroethane 1.319 1.202 91 1.256 95 50-150 33-167 4 0-30 Chloroform 2.441 2.198 90 2.236 92 50-150 33-167 2 0-30 Chloromethane 1.033 0.9768 95 1.016 98 50-150 33-167 4 0-30 Dibromochloromethane 4.259 4.489 105 4.449 104 50-150 33-167 1 0-30 Dichlorodifluoromethane 2.473 2.441 99 2.460 100 50-150 33-167 1 0-30 Dichlorodifluoromethane 2.171 2.177 100 2.139 99 27-153 6-174 2 0-46 Hexachloro-1,3-Butadiene 5.333 5.314 100 5.539 104 50-150 33-167 4 0-30 Methyl-t-Butyl Ether (MTBE) 1.803 1.548 86 1.467 81 50-150 33-167 5 0-30 Methylene Chloride 1.737 1.485 85 1.536 88 50-150 33-167 5 0-30 Methylene Chloride 1.737 1.485 85 1.536 88 50-150 33-167 3 0-30 Tetrachloroethene 3.391 3.504 103 3.544 105 34-154 14-174 1 0-33 Toluene 1.884 1.842 98 1.826 97 28-154 7-175 1 0-42 Trichloroethene 2.687 2.463 92 2.419 90 43-139 27-155 2 0-31 Trichlorofluoromethane 2.809 2.805 100 3.070 109 50-150 33-167 9 0-30 Vinyl Chloride 1.278 1.059 83 1.034 81 44-140 28-156 2 0-33 c-1,2-Dichloroethene 1.982 1.765 89 1.738 88 35-165 13-187 2 0-35 c-Xylene 2.171 2.167 100 2.291 106 22-160 0-183 6 0-48 p/m-Xylene 4.342 4.464 103 4.602 106 21-165 0-189 3 0-51	Carbon Tetrachloride	3.146	2.999	95	3.023	96	7-187	0-217	1	0-31	
Chloroform 2.441 2.198 90 2.236 92 50-150 33-167 2 0-30 Chloromethane 1.033 0.9768 95 1.016 98 50-150 33-167 4 0-30 Dibromochloromethane 4.259 4.489 105 4.449 104 50-150 33-167 1 0-30 Dichlorodifluoromethane 2.473 2.441 99 2.460 100 50-150 33-167 1 0-30 Ethylbenzene 2.171 2.177 100 2.139 99 27-153 6-174 2 0-46 Hexachloro-1,3-Butadiene 5.333 5.314 100 5.539 104 50-150 33-167 4 0-30 Methyl-t-Butyl Ether (MTBE) 1.803 1.548 86 1.467 81 50-150 33-167 5 0-30 Methylene Chloride 1.737 1.485 85 1.536 88 50-150 33-167 3 0-30	Chlorobenzene	2.302	2.304	100	2.326	101	50-150	33-167	1	0-30	
Chloromethane 1.033 0.9768 95 1.016 98 50-150 33-167 4 0-30 Dibromochloromethane 4.259 4.489 105 4.449 104 50-150 33-167 1 0-30 Dichlorodifluoromethane 2.473 2.441 99 2.460 100 50-150 33-167 1 0-30 Ethylbenzene 2.171 2.177 100 2.139 99 27-153 6-174 2 0-46 Hexachloro-1,3-Butadiene 5.333 5.314 100 5.539 104 50-150 33-167 4 0-30 Methyl-t-Butyl Ether (MTBE) 1.803 1.548 86 1.467 81 50-150 33-167 5 0-30 Methylene Chloride 1.737 1.485 85 1.536 88 50-150 33-167 3 0-30 Tetrachloroethene 3.391 3.504 103 3.544 105 34-154 14-174 1 0-33	Chloroethane	1.319	1.202	91	1.256	95	50-150	33-167	4	0-30	
Dibromochloromethane 4.259 4.489 105 4.449 104 50-150 33-167 1 0-30 Dichlorodifluoromethane 2.473 2.441 99 2.460 100 50-150 33-167 1 0-30 Ethylbenzene 2.171 2.177 100 2.139 99 27-153 6-174 2 0-46 Hexachloro-1,3-Butadiene 5.333 5.314 100 5.539 104 50-150 33-167 4 0-30 Methyl-t-Butyl Ether (MTBE) 1.803 1.548 86 1.467 81 50-150 33-167 5 0-30 Methylene Chloride 1.737 1.485 85 1.536 88 50-150 33-167 3 0-30 Tetrachloroethene 3.391 3.504 103 3.544 105 34-154 14-174 1 0-33 Toluene 1.884 1.842 98 1.826 97 28-154 7-175 1 0-42 Trichloroethene 2.687 2.463 92 2.419 90 43-139 27-155 2 0-31 Trichlorofluoromethane 2.809 2.805 100 3.070 109 50-150 33-167 9 0-30 Vinyl Chloride 1.278 1.059 83 1.034 81 44-140 28-156 2 0-33 c-1,2-Dichloroethene 1.982 1.765 89 1.738 88 35-165 13-187 2 0-35 o-Xylene 2.171 2.167 100 2.291 106 22-160 0-183 6 0-48 p/m-Xylene 4.342 4.464 103 4.602 106 21-165 0-189 3 0-51	Chloroform	2.441	2.198	90	2.236	92	50-150	33-167	2	0-30	
Dichlorodifluoromethane 2.473 2.441 99 2.460 100 50-150 33-167 1 0-30 Ethylbenzene 2.171 2.177 100 2.139 99 27-153 6-174 2 0-46 Hexachloro-1,3-Butadiene 5.333 5.314 100 5.539 104 50-150 33-167 4 0-30 Methyl-t-Butyl Ether (MTBE) 1.803 1.548 86 1.467 81 50-150 33-167 5 0-30 Methylene Chloride 1.737 1.485 85 1.536 88 50-150 33-167 3 0-30 Tetrachloroethene 3.391 3.504 103 3.544 105 34-154 14-174 1 0-33 Toluene 1.884 1.842 98 1.826 97 28-154 7-175 1 0-42 Trichloroethene 2.687 2.463 92 2.419 90 43-139 27-155 2 0-31 Trichlorofluoromethane 2.809 2.805 100 3.070 109 50-150 <td>Chloromethane</td> <td>1.033</td> <td>0.9768</td> <td>95</td> <td>1.016</td> <td>98</td> <td>50-150</td> <td>33-167</td> <td>4</td> <td>0-30</td> <td></td>	Chloromethane	1.033	0.9768	95	1.016	98	50-150	33-167	4	0-30	
Ethylbenzene 2.171 2.177 100 2.139 99 27-153 6-174 2 0-46 Hexachloro-1,3-Butadiene 5.333 5.314 100 5.539 104 50-150 33-167 4 0-30 Methyl-t-Butyl Ether (MTBE) 1.803 1.548 86 1.467 81 50-150 33-167 5 0-30 Methylene Chloride 1.737 1.485 85 1.536 88 50-150 33-167 3 0-30 Tetrachloroethene 3.391 3.504 103 3.544 105 34-154 14-174 1 0-33 Toluene 1.884 1.842 98 1.826 97 28-154 7-175 1 0-42 Trichloroethene 2.687 2.463 92 2.419 90 43-139 27-155 2 0-31 Trichlorofluoromethane 2.809 2.805 100 3.070 109 50-150 33-167 9 0-30 Vinyl Chloride 1.278 1.059 83 1.738 88 35-165 <	Dibromochloromethane	4.259	4.489	105	4.449	104	50-150	33-167	1	0-30	
Hexachloro-1,3-Butadiene 5.333 5.314 100 5.539 104 50-150 33-167 4 0-30 Methyl-t-Butyl Ether (MTBE) 1.803 1.548 86 1.467 81 50-150 33-167 5 0-30 Methylene Chloride 1.737 1.485 85 1.536 88 50-150 33-167 3 0-30 Tetrachloroethene 3.391 3.504 103 3.544 105 34-154 14-174 1 0-33 Toluene 1.884 1.842 98 1.826 97 28-154 7-175 1 0-42 Trichloroethene 2.687 2.463 92 2.419 90 43-139 27-155 2 0-31 Trichlorofluoromethane 2.809 2.805 100 3.070 109 50-150 33-167 9 0-30 Vinyl Chloride 1.278 1.059 83 1.034 81 44-140 28-156 2 0-33 c-1,2-Dichloroethene 1.982 1.765 89 1.738 88 35-165	Dichlorodifluoromethane	2.473	2.441	99	2.460	100	50-150	33-167	1	0-30	
Methyl-t-Butyl Ether (MTBE) 1.803 1.548 86 1.467 81 50-150 33-167 5 0-30 Methylene Chloride 1.737 1.485 85 1.536 88 50-150 33-167 3 0-30 Tetrachloroethene 3.391 3.504 103 3.544 105 34-154 14-174 1 0-33 Toluene 1.884 1.842 98 1.826 97 28-154 7-175 1 0-42 Trichloroethene 2.687 2.463 92 2.419 90 43-139 27-155 2 0-31 Trichlorofluoromethane 2.809 2.805 100 3.070 109 50-150 33-167 9 0-30 Vinyl Chloride 1.278 1.059 83 1.034 81 44-140 28-156 2 0-33 c-1,2-Dichloroethene 1.982 1.765 89 1.738 88 35-165 13-187 2 0-35 o-Xylene 2.171 2.167 100 2.291 106 22-160 0-183	Ethylbenzene	2.171	2.177	100	2.139	99	27-153	6-174	2	0-46	
Methylene Chloride 1.737 1.485 85 1.536 88 50-150 33-167 3 0-30 Tetrachloroethene 3.391 3.504 103 3.544 105 34-154 14-174 1 0-33 Toluene 1.884 1.842 98 1.826 97 28-154 7-175 1 0-42 Trichloroethene 2.687 2.463 92 2.419 90 43-139 27-155 2 0-31 Trichlorofluoromethane 2.809 2.805 100 3.070 109 50-150 33-167 9 0-30 Vinyl Chloride 1.278 1.059 83 1.034 81 44-140 28-156 2 0-33 c-1,2-Dichloroethene 1.982 1.765 89 1.738 88 35-165 13-187 2 0-35 o-Xylene 2.171 2.167 100 2.291 106 22-160 0-183 6 0-48 p/m-Xylene 4.342 4.464 103 4.602 106 21-165 0-189	Hexachloro-1,3-Butadiene	5.333	5.314	100	5.539	104	50-150	33-167	4	0-30	
Tetrachloroethene 3.391 3.504 103 3.544 105 34-154 14-174 1 0-33 Toluene 1.884 1.842 98 1.826 97 28-154 7-175 1 0-42 Trichloroethene 2.687 2.463 92 2.419 90 43-139 27-155 2 0-31 Trichlorofluoromethane 2.809 2.805 100 3.070 109 50-150 33-167 9 0-30 Vinyl Chloride 1.278 1.059 83 1.034 81 44-140 28-156 2 0-33 c-1,2-Dichloroethene 1.982 1.765 89 1.738 88 35-165 13-187 2 0-35 o-Xylene 2.171 2.167 100 2.291 106 22-160 0-183 6 0-48 p/m-Xylene 4.342 4.464 103 4.602 106 21-165 0-189 3 0-51	Methyl-t-Butyl Ether (MTBE)	1.803	1.548	86	1.467	81	50-150	33-167	5	0-30	
Toluene 1.884 1.842 98 1.826 97 28-154 7-175 1 0-42 Trichloroethene 2.687 2.463 92 2.419 90 43-139 27-155 2 0-31 Trichlorofluoromethane 2.809 2.805 100 3.070 109 50-150 33-167 9 0-30 Vinyl Chloride 1.278 1.059 83 1.034 81 44-140 28-156 2 0-33 c-1,2-Dichloroethene 1.982 1.765 89 1.738 88 35-165 13-187 2 0-35 o-Xylene 2.171 2.167 100 2.291 106 22-160 0-183 6 0-48 p/m-Xylene 4.342 4.464 103 4.602 106 21-165 0-189 3 0-51	Methylene Chloride	1.737	1.485	85	1.536	88	50-150	33-167	3	0-30	
Trichloroethene 2.687 2.463 92 2.419 90 43-139 27-155 2 0-31 Trichlorofluoromethane 2.809 2.805 100 3.070 109 50-150 33-167 9 0-30 Vinyl Chloride 1.278 1.059 83 1.034 81 44-140 28-156 2 0-33 c-1,2-Dichloroethene 1.982 1.765 89 1.738 88 35-165 13-187 2 0-35 o-Xylene 2.171 2.167 100 2.291 106 22-160 0-183 6 0-48 p/m-Xylene 4.342 4.464 103 4.602 106 21-165 0-189 3 0-51	Tetrachloroethene	3.391	3.504	103	3.544	105	34-154	14-174	1	0-33	
Trichlorofluoromethane 2.809 2.805 100 3.070 109 50-150 33-167 9 0-30 Vinyl Chloride 1.278 1.059 83 1.034 81 44-140 28-156 2 0-33 c-1,2-Dichloroethene 1.982 1.765 89 1.738 88 35-165 13-187 2 0-35 o-Xylene 2.171 2.167 100 2.291 106 22-160 0-183 6 0-48 p/m-Xylene 4.342 4.464 103 4.602 106 21-165 0-189 3 0-51	Toluene	1.884	1.842	98	1.826	97	28-154	7-175	1	0-42	
Vinyl Chloride 1.278 1.059 83 1.034 81 44-140 28-156 2 0-33 c-1,2-Dichloroethene 1.982 1.765 89 1.738 88 35-165 13-187 2 0-35 o-Xylene 2.171 2.167 100 2.291 106 22-160 0-183 6 0-48 p/m-Xylene 4.342 4.464 103 4.602 106 21-165 0-189 3 0-51	Trichloroethene	2.687	2.463	92	2.419	90	43-139	27-155	2	0-31	
c-1,2-Dichloroethene 1.982 1.765 89 1.738 88 35-165 13-187 2 0-35 o-Xylene 2.171 2.167 100 2.291 106 22-160 0-183 6 0-48 p/m-Xylene 4.342 4.464 103 4.602 106 21-165 0-189 3 0-51	Trichlorofluoromethane	2.809	2.805	100	3.070	109	50-150	33-167	9	0-30	
o-Xylene 2.171 2.167 100 2.291 106 22-160 0-183 6 0-48 p/m-Xylene 4.342 4.464 103 4.602 106 21-165 0-189 3 0-51	Vinyl Chloride	1.278	1.059	83	1.034	81	44-140	28-156	2	0-33	
p/m-Xylene 4.342 4.464 103 4.602 106 21-165 0-189 3 0-51	c-1,2-Dichloroethene	1.982	1.765	89	1.738	88	35-165	13-187	2	0-35	
	o-Xylene	2.171	2.167	100	2.291	106	22-160	0-183	6	0-48	
t-1,2-Dichloroethene 1.982 1.802 91 1.778 90 50-150 33-167 1 0-30	p/m-Xylene	4.342	4.464	103	4.602	106	21-165	0-189	3	0-51	
	t-1,2-Dichloroethene	1.982	1.802	91	1.778	90	50-150	33-167	1	0-30	

Total number of LCS compounds: 32

Total number of ME compounds: 0

Total number of ME compounds allowed: 2





Treadwell & Rollo - A Langan Company	Date Received:	06/18/13
555 Montgomery St., Suite 1300	Work Order:	13-06-1141
San Francisco, CA 94111-2554	Preparation:	N/A
	Method:	EPA TO-15 SIM
Project: 801 Brannan / 731615201		Page 6 of 7

LCS ME CL validation result: Pass







Quality Control - LCS

Treadwell & Rollo - A Langan Company 555 Montgomery St., Suite 1300 San Francisco, CA 94111-2554 Date Received: Work Order: Preparation: Method:

13-06-1141 N/A

EPA TO-3M

06/18/13

Page 7 of 7

Project: 801 Brannan / 731615201

Quality Control Sample ID	Matrix	Instrument	Date Ana	alyzed	LCS Batch Number
098-01-005-4769	Air	GC 13	06/18/13	08:48	130618L01
Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec.	CL Qualifiers
TPH as Gasoline	200.0	192.4	96	80-120)

RPD: Relative Percent Difference. CL: Control Limits



Summa Canister Vacuum Summary

Work Order: 13-06-1141				Page 1 of 1
Sample Name	Vacuum Out	Vacuum In	Equipment	Description
TR-SG-1	-29.80 in Hg	-5.00 in Hg	SLC058	Summa Canister 1L
Dup-1	-29.80 in Hg	-5.00 in Hg	LC693	Summa Canister 1L
TR-SG-2	-29.80 in Hg	-5.00 in Hg	LC274	Summa Canister 1L
TR-SG-3	-29.80 in Hg	-5.00 in Hg	LC607	Summa Canister 1L
TR-SG-4	-29.80 in Hg	-5.00 in Hg	SLC090	Summa Canister 1L
TR-SG-5	-29.80 in Hg	-5.00 in Hg	LC465	Summa Canister 1L
Ambient-1	-29.80 in Hg	-5.00 in Hg	D213	Summa Canister 6L



Glossary of Terms and Qualifiers

Work Order: 13-06-1141 Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
В	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.

X % Recovery and/or RPD out-of-range.

SG

Z Analyte presence was not confirmed by second column or GC/MS analysis.

The sample extract was subjected to Silica Gel treatment prior to analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

For any analysis identified as a "field" test with a holding time (HT) </= 15 minutes where the sample is received outside of HT, Calscience will adhere to its internal HT of 24 hours. In cases where sample analysis does not meet Calscience's internal HT, results will be appropriately qualified.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

also	cience
En	vironmental
L	aboratories, Inc.

7440 LINCOLN WAY GARDEN GROVE, CA 92841-1427 TEL: (714) 895-5494 FAX: (714) 894-7501

AIR	CHAIN	OF	CUSTODY	RECORD
	061	12	12012	

DATE:	06	11.71.	2015		
PAGE:		1	OF	1	

LABORATORY CLIENT: TReadwell 1	CLIENT PRO	CLIENT PROJECT NAME / NUMBER: 801 Braman 731615201 P.O.NO.:							ACCIONA A CIA PETER CONTROL CO					
ADDRESS: 555 Montgomery	St, Snite	1300	PROJECT AD	DDRESS: 80	1 Bras	inan S	,t			CONTACT OR	QUOTE	NO.	***************************************	
CITY: San Francis co	STATE: CA	ZIP: 94111	city: Sa		anci'si		STATE: C	A ZIP: GL	nu			~~~	-	
	MAIL: Vtiglao@		PROJECT CO			ICA	TIGL	AO		3-OF	ì-1	141		
TURNAROUND TIME: SAME DAY 24 HR 48 HR 72		SAMPLER(S)	: (NAME / SIGN	IATURE) N	lukta	Patil		***************************************			UESTE	dissilatina (material)	YSES	
SAME DAY 24 HR 48 HR 72 HR 5 DAYS 10 DAYS CIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY) EDD														
CDECIAL INICTOLICATIONIC														
LAB	janes janes		mpling Equipm		Start S	ampling Inforr		Stop Sa	mpling Infor		س	TPH9	Herina	
USE	FIELD ID /	(I) Indoor SV) Soil Vap. Canister (A) Ambient ID#	Canister Size 6L or 1L	Flow Controller ID#	Date	Time (24 hr clock)	Canister Pressure ("Hg)	Date	Time (24 hr clock)	Canister Pressure ("Hg)	VOC	TPH9	; = 2	
1 TR-567-1 We	st side y Blodg	SV LCZY	1	SGM220	6 17	12,30	- <i>3</i> o''	6/17	1231	-5"	×	XY	×	
2 Dup-1 -	-i(SV LC693	14	56M138	6/17	1220	~3o"	6/17	1231	-5"	メ	* >	X	
3 TR-SG-2 Eas	stade of Bldg	SV SLEOSÍ	115	6M209	6/17	1306	-30"	6/17	1311	-5"	メ	XX	(X	
4 TR-SG-3 Fast	it side of Parking	SV LC607	165	SGM115	6/17	1416	~30°	6/17	1421	-5"	×	XX	X	
5 TR-SG-4 Cent	bre of Pankinghoff	SV SLCO90		GMPOF	6/17	1501	~3 <i>v</i> ′	6/17/	506	<u>-5'</u>	メ	XX	< x	
6 TR-SG-5 Wes 7 Ambient-1	st side of Parking	SV LC465		GM221	6117	1525	-35'		1531	-5"	X	XY	X	
7 Ambient-1 .	, ,	A D213	6L 1	FC38	6/17	0805	-30''	6 17	545	-5"	×	x 7	X	
														-
[현실] [현실]													_	
														-
10. W. 10. W	.,												_	-
Report														-
														+
														-
No. 2015														- D
Relinquished by: (Signature) Mulda Par	Li.		Received by:	(Signature)	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	de-friedrich der deutsche der der der der der der der der der de	Managari www.wishinianianianiani		Date:	nitratesta esta esta esta esta esta esta est	Tim	e:	***************************************	Page 3
Relinquished by: (Signature)	1 U		Received by: (Signature) Date:							Time: Of				
Relinquished by: (Signature)			Received by:	(Signature)	-iu/	p. he	· · · · · · · · · · · · · · · · · · ·		Date: 6 18	113	Tim	e: /o	: 45	f 40

< WebShip > > > > > 800-322-5555 www.gso.com

Ship From:

MUKTA PATIL

LANGAN ENGINEERING & ENVIRONMENTAL SVCS 555 MONTGOMERY ST 1300

SAN FRANCISCO, CA 94111

Ship To: SAMPLES CALSCIENCE 7440 LINCOLN WAY GARDEN GROVE, CA 92841

COD: \$0.00

Reference: 731615201

Delivery Instructions:

Signature Type: OK TO LEAVE

Tracking #: 522065176

GARDEN GROVE

D92841A



Print Date: 06/17/13 16:30 PM

PDS

Package 1 of 1

Send Label To Printer

Print All

Edit Shipment

Finish

LABEL INSTRUCTIONS:

Do not copy or reprint this label for additional shipments - each package must have a unique barcode.

STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.

STEP 2 - Fold this page in half.

STEP 3 - Securely attach this label to your package, do not cover the barcode.

STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

ADDITIONAL OPTIONS:

Send Label Via Email

Create Return Label

TERMS AND CONDITIONS:

By giving us your shipment to deliver, you agree to all the service terms and conditions described in this section. Our liability for loss or damage to any package is limited to your actual damages or \$100 whichever is less, unless you pay for and declare a higher authorized value. If you declare a higher value and pay the additional charge, our liability will be the lesser of your declared value or the actual value of your loss or damage. In any event, we will not be liable for any damage, whether direct, incidental, special or consequential, in excess of the declared value of a shipment whether or not we had knowledge that such damage might be incurred including but not limited to loss of income or profit. We will not be liable for your acts or omissions, including but not limited to improper or insufficient packaging, securing, marking or addressing. Also, we will not be liable if you or the recipient violates any of the terms of our agreement. We will not be liable for loss, damage or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, act of public enemies, war, strikes, or civil commotion. The highest declared value for our GSO Priority Letter or GSO Priority Package is \$500. For other shipments the highest declared value is \$10,000 unless your package contains items of "extraordinary value", in which case the highest declared value we allow is \$500. Items of "extraordinary value" include, but or not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.



Calscience
Invironmental
Laboratories, Inc.

SAMPLE RECEIPT FORM

Box <u>/</u> of <u>/</u>

CLIENT: TREADWELL & POLLO	DATE: _	06/18/	13
TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen	n except se	diment/tissue)	a suspense of the suspense of the
TemperatureoC - 0.2°C (CF) =oC	☐ Blank	☐ Sample	
☐ Sample(s) outside temperature criteria (PM/APM contacted by:).			
☐ Sample(s) outside temperature criteria but received on ice/chilled on same d	ay of sampli	ng.	
\square Received at ambient temperature, placed on ice for transport by Co	urier.		**
Ambient Temperature: ⊿ Air □ Filter		Initial:	PS
CUSTODY SEALS INTACT:			- 0
Box □ □ No (Not Intact) □ Not Present	□ N/A	Initial: Ú	<u> </u>
□ Sample □ □ No (Not Intact) ☑ Not Present		Initial: 👔	<u> </u>
			Maritana Marit Pontado
l .	Yes	*	N/A
Chain-Of-Custody (COC) document(s) received with samples			
COC document(s) received complete			
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC			
Sample container label(s) consistent with COC	- April		
Sample container(s) intact and good condition			
Proper containers and sufficient volume for analyses requested			
Analyses received within holding time			
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours	. 🗆		1
Proper preservation noted on COC or sample container			
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	. 🗆		
Tedlar bag(s) free of condensation CONTAINER TYPE:	. 🗆		
Solid: □4ozCGJ □8ozCGJ □16ozCGJ □Sleeve() □EnCores	s [®] □Terra(Cores [®] □	
Water: □VOA □VOAh □VOAna₂ □125AGB □125AGBh □125AGBp	□1AGB []1AGB na₂ □1	AGB s
□500AGB □500AGJ □500AGJs □250AGB □250CGB □250CGBs	□1PB]1PB na □50	0PB
□250PB □250PBn 및125PB □125PB znna □100PJ □100PJ na ₂ □	□		
Air: □Tedlar [®] ☑Canister Other: □ Trip Blank Lot#:	Labeled/	Checked by:	2/5
Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E:	Envelope R	leviewed by: $\stackrel{\smile}{_}$	YU
Preservative: h: HCL n: HNO3 na2:Na2S2O3 na: NaOH p: H3PO4 s: H2SO4 u: Ultra-pure znna: ZnAc2+N	aOH f: Filtered	Scanned by:	V



APPENDIX B

SELECTED FIGURES AND TABLES BY OTHERS

(from *Phase I Environmental Site Assessment and Limited Phase II Site Investigation Report* by Stellar Environmental Solutions, Inc, dated 28 October 2011)



2011-34-03

San Francisco, CA

Figure 6

GEOSCIENCE & ENGINEERING CONSULTING

Table 2
Summary of Soil Sample Analytical Results – Metals (10/19/11)
801 Brannan Street, San Francisco, California

Metal	B1 COMP-A	B1 COMP-B	B2 COMP	B3 COMP-A	B3 COMP-B	B4 COMP	B5 COMP-A	B5 COMP-B	ESL	Hazardous Waste Criteria (TTLC)	Hazardous Criterion (STLC) (mg/L)	Potentially Hazardous Criterion (10xSTLC)
Antimony	11	3.0	4.3	1.2	0.78	2.4	< 0.5	0.68	40	500	15	150
Arsenic	8.9	9.9	21	5.2	6.1	9.2	3.8	4.1	1.6	500	5.0	50
Barium	220	120	100	260	110	220	230	98	1,500	10,000	100	1,000
Beryllium	< 0.5	<0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.61	8.0	100	0.75	7.5
Cadmium	0.51	< 0.25	1.0	0.76	< 0.25	0.30	< 0.25	< 0.25	7.4	500	1.0	10
Chromium (total)	790	57	65	730	66	73	45	53	2500	2,500	5.0	50
Cobalt	30	6.4	20	20	11	5.8	23	11	80	8,000	80	800
Copper	540	84	130	460	150	90	17	31	230	2,500	25	250
Lead	370	880	520	420	180	970	78	120	750	1,000	5.0	50
Mercury	0.47	0.26	0.43	0.34	0.38	0.23	0.12	0.38	10	20	0.2	2.0
Molybdenum	1.5	0.92	0.57	0.98	1.6	0.56	< 0.5	2.6	40	3,500	350	3,500
Nickel	800	35	77	400	58	32	26	53	150	2,000	20	200
Selenium	< 0.5	<0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	10	100	1.0	10
Silver	0.67	< 0.5	1.2	< 0.5	0.70	0.82	1.2	< 0.5	40	500	5.0	50
Thallium	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	16	700	7.0	70
Vanadium	48	46	44	34	50	49	33	63	200	2,400	24	240
Zinc	560	590	710	540	190	140	47	60	600	5,000	250	2,500

Notes:

ESL = Water Board Environmental Screening Level (for shallow soil, commercial land use, groundwater is not a potential drinking water source, coarse lithology STLC = Soluble Threshold Limit Concentration by WET (Waste Extraction Test); TTLC = Total Threshold Limit Concentration mg/L = milligrams per liter

All concentrations are expressed in milligrams per kilogram (mg/kg) unless otherwise noted. Concentrationss in **bold** face equal or exceed their respective regulatory criterion of 10 x STLC that could be potentially hazardous. Concentrations that do not exceed the 10 x STLC but exceed the advisory ESL are in *italics*.

Table 3 Summary of Soil Sample Results – WET & TCLP Analyses for Lead (10/19/11) 801 Brannan Street, San Francisco, California

Metal (Method)	B1 COMP-A	B1 COMP-B	B2 COMP	B3 COMP-A	В3 СОМР-В	B4 COMP	B5 COMP-A	B5 COMP-B	Hazardous Criterion (STLC)	Hazardous Waste Criterion (TCLP)
Lead (TTLC)	370	880	520	420	180	970	78	120	NA	NA
Lead (STLC)	19	34	26	17	18	8.5	4.4	51	5	NA
Lead (TCLP)	0.29	0.66	< 0.1	1.8	0.51	4.5	< 0.1	< 0.1	NA	5

Notes:

STLC = Soluble Theshold Limit Concentration TCLP= Toxicity Characteristic Leachate Procedure TTLC = Total Threshold Limit Concentration

WET = Waste Estraction Test

NA = Criteria not applicable to method stated

All COMP sample concentrations are expressed in milligrams per kilogram (mg/kg); the STLC (WET) and TCLP samples are expressed in milligrams per liter (mg/L). Concentrations in **bold** face equal or exceed the regulatory "Hazardous/Hazardouis Waste" criterion for lead of 5 mg/L STLC/TCLP.

Table 4
Summary of Soil Sample Analytical Results Lead –
Hydrocarbons and BTEX (10/19/11)
801 Brannan Street, San Francisco, California

Sample Name	TVHg	MBTEX	TEHd	TEHmo
B1 COMP-A	4.5	0.017 Toluene 0.012 Ethylbenzene 0.090 Xylenes	150	740
B1 COMP-B	<1.0	<0.005	170	190
B2 COMP	3.5	0.017 Benzene 0.080 Toluene 0.013 Ethylbenzene 0.16 Xylenes	280	490
B3 COMP-A	2.0	0.0055 Ethylbenzene 0.096 Xylenes	63	350
ВЗ СОМР-В	<1.0	0.017 Xylenes	78	280
B4 COMP	<1.0	0.011 Toluene 0.034 Xylenes	51	320
B5 COMP-A	<1.0	0.010 Xylenes	13	48
B5 COMP-B	<1.0	0.014 Toluene 0.017 Xylenes	34	120
ESL	83	Various but NA	83	370

Notes:

TEHd = total extractable hydrocarbons as diesel
TEHmo = total extractable hydrocarbons as motor oil
TVHg = total volatile hydrocarbons as gasoline

NA = not applicable

ESL = Water Board Environmental Screening Level (for residential)

All concentrations are expressed in milligrams per kilogram (mg/kg). Bold designates exceedance of an ESL.

TABLE 1 SOIL ANALYTICAL RESULTS 801 BRANNAN STREET SAN FRANCISCO, CALIFORNIA

Sample ID	Sample	Sample	TRPH	8270C	8010	8260B	Cadmium	Chromium	Lead	Nickel	Zinc	
	Date	Depth	m	g/kg	ug/kg				ng/kg		1 23446	
EB-4-2.0	6/29/00	2.0'	230		ND		ND	45	13	43	35	
EB-4-5.0	6/29/00	5.0'	110			ND			3,600			
EB-4-4.0	6/29/00	4.0'	70				,		1,600		† 	
EB-4-6.0	6/29/00	6.0'	100		ND		ND	66	120	110	200	
EB-5-1.0	6/29/00	1.0'	20						220			
EB-5-3.0	6/29/00	3.0'	40					-	4,500			
EB-5-4.0	6/29/00	4.0'	26,000				ND	43	57	39	53	
EB-5-8.0	6/29/00	8.0'	ND						21			
EB-5-9.0	6/29/00	9.0'	50		ND				32			
EB-5-12.0	6/29/00	12.0'	ND	ND					ND			
EB-5-20.0	6/29/00	20.0'	ND		ND		ND	25	ND	17	22	
EB-6-1.0	6/29/00	1.0'	170				ND	21	190	16	110	
EB-6-3.0	6/29/00	3.0'	11,000	ND					ND			
EB-6-8.0	6/29/00	8.0'	60						110			
EB-6-12.0	6/29/00	12.0'	130				ND	32	1,400	23	91	
EB-6-16.0	6/29/00	16.0'	70						110			
EB-6-20.0	6/29/00	20.0'	140						100			
EB-7-1.5	6/29/00	1.5'	60						47			
EB-7-4.0	6/29/00	4.0'	30		ND				26			
EB-7-6.0	6/29/00	6.0'	14			ND	ND	59	21	40	40	
EB-7-8.0	6/29/00	8.0'	14		ND				800			
EB-7-16.0	6/29/00	16.0'	ND						28			
EB-7-20.0	6/29/00.	20.0'	ND						19			
EB-9-3.0	6/29/00	3.0'	300				0.56	35	190	65	260	
EB-9-4.0	6/29/00	4.0'	1,000			'			140			
EB-9-5.0	6/29/00	5.0'	60						360			
EB-9-6.0	6/29/00	6.0'	30						190			
EB-9-7.5	6/29/00	7.5'	50		ND				17			
EB-10-1.0	6/29/00	1.0'	29,000						9.4			
EB-10-3.0	6/29/00	3.0'	170						370			
EB-10-4.0	6/29/00	4.0'	50		ND		ND	24	3,000	20	3700	
EB-10-7.0	6/29/00	7.0'	110						250			
EB-10-8.0	6/29/00	8.0'	370	ND					260			
EB-10-12.0	6/29/00	12.0'	14			ND	ND	28	4,400	60	730	
EB-10-20.0	6/29/00	20.0'	160						720			
B-1-2.5	7/5/00	2.5'	46						290			
B-1-5.0	7/5/00	5.0'	48						380			
B-1-15.5	7/5/00	15.5'	ND						ND			
B-2-5.0	6/29/00	5.0'	70						87			
B-2-7.5	6/29/00	7.5'	20						180			
B-2-10.0	6/29/00	10.0'	11						29			
B-3-2.5	6/29/00	2.5'	110						2,300			
B-3-5.0	6/29/00	5.0'	40						98			
B-3-7.5	6/29/00	7.5'	30						280			
B-3-10.0	6/29/00	10.0'	12]			16,000			

TRPH = Total Recoverable Petroleum Hydrocarbons-EPA Method SM5520

8010 = Halogenated Organic Compounds - EPA Method 8010

8270C = Poly Aromatic Hydrocarbons - EPA Method 8270C

8260B = Volatile Organic Compounds - EPA Method 8260B

mg/kg = milligrams per kilogram

ug/kg = micrograms per liter

BOLD indicates detected at or above the laboratory reporting limit

ND = Not detected at or above the laboratory reporting limit

-- = Not Analyzed or Not Applicable

TABLE 2 GROUNDWATER ANALYTICAL RESULTS 801 BRANNAN STREET, SAN FRANCISCO, CALIFORNIA

Sample ID	Sample		TPH(mo)	TPH(d)	TPH(g)	8270C	8010		Cadmium		Lead		Zinc
	Date	mg/L			ug						mø/I		
EB-6	6/29/00	12	1,900	1,000	ND	ND	ND						
EB-10	6/29/00	3	610	210	ND			ND	ND	ND	ND	ND	0.55

Notes:

mg/L = milligrams per liter

ug/L = micrograms per liter

TRPH = Total Recoverable Petroleum Hydrocarbons - EPA Method SM5520

TPH(mo) = Total Petroleum Hydrocarbons as Motor Oil, EPA Method 8015

TPH(d) = Total Petroleum Hydrocarbons as Diesel Range (C10-C23), EPA Method 8015M

TPH(g) = Total Petroleum Hydrocarbons as Gasoline, EPA Method 8015M

8270C = I Semi-Volatile Organic Compounds - EPA Method 8260C

8010 = Halogenated Organic Compounds - EPA Method 8010

8260B = Volatile Organic Compounds - EPA Method 8260B

ND = Not detected at or above the laboratory reporting limit

-- = Not Analyzed or Not Applicable