CONVERSE CONSULTANTS

Phase II Environmental Site Assessment Report

23591 El Toro Road and 24551 Raymond Way
Lake Forest, California

Converse Project No. 19-42-162-02
August 6, 2019
Revised April 21, 2020

Prepared For:

National Community Renaissance of California
9421 Haven Avenue
Rancho Cucamonga, California 91730

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Converse Consultants
Geotechnical Engineering, Environmental & Groundwater Science, Inspection & Testing Services

August 6, 2019
Revised April 21, 2020

National Community Renaissance of California
9421 Haven Avenue
Rancho Cucamonga, California 91730

Attention: Ms. Lorna Contreras
lcontreras@nationalcore.org

Subject: **PHASE II ENVIRONMENTAL SITE ASSESSMENT REPORT**
23591 El Toro Road and 24551 Raymond Way
Lake Forest, California
Converse Project No. 19-42-162-02

Ms. Contreras:

Converse Consultants (Converse) is pleased to submit the attached report that summarizes the activities and the results of a *Phase II Environmental Site Assessment (Phase II ESA)* that was conducted at the referenced property.

We appreciate the opportunity to be of service. Should you have any questions or comments regarding this report, please contact Michael Van Fleet or Norman Eke at (626) 930-1267 or (626) 930-1260, respectively.

CONVERSE CONSULTANTS

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Table of Contents

FIGURES

TABLES

APPENDICES

1.0 Introduction

This report presents the results of the Converse Phase II Environmental Site Assessment (ESA) performed at 23591 El Toro Road and 24551 Raymond Way in the City of Lake Forest, Orange County, California, referred to as the Site in this report. Converse was retained by National Community Renaissance of California (National CORE) to conduct this Phase II ESA.

Converse performed a Phase I ESA at the Site and summarized the findings in a Phase I ESA dated July 5, 2019, revised April 21, 2020. The assessment revealed no evidence of recognized environmental conditions (RECs) in connection with the Site except for the following:

- The ongoing open site investigation of tetrachloroethylene (PCE) contaminated soil, soil-vapor, and groundwater on the southern/southwestern adjoining property (24601 Raymond Way).

Based on the findings of that Phase I ESA, Converse recommended further assessment to evaluate if the unauthorized release of PCE on the southern/southwestern adjoining property has impacted the Site.

2.0 Background

2.1 Site Description and Features

Details in the following sections regarding the Site and surrounding areas were obtained from the Converse Phase I ESA dated April 21, 2020.

2.1.1 Current Uses of the Site

The Site is owned by Kircher Family Partners, and is developed with two (2) commercial office buildings.

2.1.2 Location and Legal Description

The Site is located at 23591 El Toro Road and 24551 Raymond Way, Lake Forest, California. The Site is located north of the intersection of El Toro Road and Raymond Way. The Site is located approximately 0.56-miles northeast of Interstate 5 (San Diego Freeway). The Site consists of one (1) parcel of land and is approximately 3.76-acres in area. The Orange County Assessor's Parcel Number (APN) for the Site is 617-441-02. The location of the Site is indicated on **Figure 1**.

2.1.3 Site and Vicinity General Characteristics

The Site consists of one (1) single L-shaped parcel (APN 617-441-02) totaling 3.76 acres. The Site is generally level with asphalt-paved parking and is developed with two (2) two-story commercial office buildings. The Site fronts onto El Toro Road to the southeast, and Raymond Way to the northwest, with the proposed development project fronting onto Raymond Way. Properties in the general area are used for commercial and residential purposes.

2.2 Physical Setting

2.2.1 Topography

The Site is located approximately 400 feet above mean sea level with surface topography sloping towards the north/northeast (United States Geological Survey [USGS] Topographic Map, Lake Forest, CA).

2.2.2 Geology

The Site is underlain by unconsolidated and semi-consolidated alluvium, lake, playa, and terrace deposits (Division of Mines and Geology, geologic Map of California, 2010).

2.2.3 Hydrogeology

According to data obtained from the State Water Resources Control Board's Geotracker database, results of groundwater monitoring on the southwestern/western adjoining property indicate that groundwater levels in March of 2019 were measured to be between 19 and 26 feet beneath ground surface (bgs). Groundwater flow direction was measured to be to the northeast.

2.3 Site History and Land Use

From as early as 1931 to 1974, the majority of the Site was undeveloped land. During that time period, a strip of land located along the southeastern property boundary was developed for agricultural use. The Site was developed with the two (2) existing commercial office buildings and associated parking lots in 1977.

2.4 Adjacent Property Land Use

North:	Residential
Northeast:	Residential
Northwest:	Raymond Way followed by residential.
South:	Commercial shopping center (24601 Raymond Way).
Southeast:	El Toro Road followed by commercial shopping center (23512-23532 El Toro Road).
Southwest:	Commercial shopping center (24601 Raymond Way).
East:	El Toro Road followed by commercial shopping center (23512-23532 El Toro Road).
West:	Raymond Way followed by US Post Office (24552 Raymond Way).

2.5 Summary of Previous Assessment Reports

Converse performed a Phase I ESA at the Site and summarized the results in a Phase I ESA Report dated April 21, 2020. The assessment revealed no evidence of RECs in connection with the Site except for the following:

- The ongoing open site investigation of PCE contaminated soil, soil-vapor, and groundwater on the southern/southwestern adjoining property (24601 Raymond Way).

Based on the findings of Phase I ESA, Converse recommended further assessment to evaluate if the unauthorized release of PCE on the southern/southwestern adjoining property has impacted the Site.

3.0 Work Performed and Rationale

3.1 Scope of Assessment

A conceptual model was developed based on data obtained from the prior assessment reports.

3.1.1 Target Analytes

Information gathered from the Phase I ESA completed by Converse indicated presence of elevated concentrations of PCE in soil, soil-vapor, and groundwater at locations approximately 20 to 25 feet from the boundary of the Site.

3.1.2 Target Analytes First Entered the Environment

The target analytes would have first entered the environment by surface spills, equipment leaks or releases to the surface soil.

3.1.3 Environmental Media and Locations Most Likely to Have the Highest Concentrations of Target Analytes

The environmental media most likely to have the highest concentrations of the target analytes are soil and soil vapor.

This *Phase II ESA* consisted of the following primary elements:

- Evaluate the potential for volatile organic compounds (VOCs) in the shallow subsurface soil vapor and indoor air due to known contamination originating from the adjoining property related to historic uses of that property.
- Identify if potential target analytes are present at concentrations greater than threshold criteria.

3.2 Soil Vapor Sample Collection

Five (5) borings were advanced to 15 feet bgs, and two (2) additional borings were advanced to 5 feet bgs. All borings were completed using direct push technology. Four (4) of the 15-foot borings were located in the courtyard (SV1) and around the perimeter (SV2, SV3, and SV4) of the Site building located at 23591 El Toro Road. One (1) 15-foot boring (SV5) was located around the perimeter of the Site building located at 24551 Raymond Way. The two (2) 5-foot borings (SV6 and SV7) were

installed in the parking area between the two onsite buildings. Sample locations are indicated on **Figure 2**.

Soil vapor probes were installed in each of the borings at depths of 5 and/or 15 feet bgs (12 probes total). Soil vapor sampling was conducted in general accordance with CalEPA Active Soil Gas Advisory dated July 2015. Soil vapor samples were collected no sooner than 2 hours after the probes were installed to allow subsurface conditions to equilibrate. Vapor samples were collected in glass syringes and analyzed in an onsite mobile laboratory.

3.3 Indoor/Outdoor Air Sample Collection

Indoor Air Samples were collected from four (4) locations in ground-floor units of the Site buildings (3 at 23591 El Toro Road (IA-1, IA-2, and IA-3), and 1 at 24551 Raymond Way (IA-4)). Samples of the outdoor air were also collected from the courtyard area of each of the two (2) Site buildings (OA-1 and OA-2) to evaluate background concentrations. Sample locations are indicated on **Figure 2**. All indoor/outdoor ambient air samples were collected in 6-liter summa canisters over an approximate 24-hour period.

3.4 Field Quality Assurance/Quality Control

The following are some of the quality assurance and quality control measures that were taken to evaluate the quality of the data generated:

- Standard EPA sample handling protocol including chain-of-custody control were followed.
- New dedicated sampling equipment (Teflon tubing) were used for the collection of samples.

3.5 Chemical Analytical Methods

The soil vapor samples were analyzed onsite for VOCs in accordance with EPA Method 8260B by A&R Laboratories, Inc. (A&L) using a mobile laboratory. A&L is certified by the State of California Department Health Services for the analyses conducted.

The indoor/outdoor air samples were submitted under chain of custody documentation to Pace Analytical in Mount Juliet, Tennessee for analysis for VOCs in accordance with EPA Method TO-15. The laboratory is certified by the State of California Department Health Services for the analyses conducted.

4.0 Presentation and Evaluation of Results

4.1 Subsurface Conditions

Groundwater was not encountered in any of the borings completed to a maximum depth of 15 feet bgs during this assessment.

4.2 Analytical Results

A summary of the results is provided below. Soil vapor and indoor/outdoor air sample results are summarized on **Tables 1 and 2**, respectively. Copies of the laboratory analytical reports are included in **Appendix A.**

Indoor air screening levels presented in the department of Toxic Substances Control (DTSC) Human Health Risk Assessment (HHRA) Notes #3 and #5, and/or EPA Regional Screening Levels (RSLs) were used for the evaluation of reported concentrations. Screening levels for the compounds reported in the soil vapors were calculated using an attenuation factor of 500 (DTSC Vapor Intrusion Guidance, October 2011) applied to Indoor Air screening levels.

4.2.1 Soil Vapor Samples

Benzene, Toluene, Ethylbenzene, and m,p-Xylenes (BTEX) were the only analytes detected in soil vapor samples. These analytes were detected in both of the shallow borings SV6-5' and SV7-5' completed within the parking lot. No VOCs were reported in any of the soil vapor samples collected from locations adjacent to the onsite structures.

With the exception of benzene, all reported concentrations of BTEX were less than their respective screening level. Benzene was reported in samples SV6-5 and SV7-5 at concentrations of 160 and 150 micrograms per cubic meter (ug/m^3), respectively. These concentrations are greater than the screening level for residential land use of 48.5 ug/m^3, but are less than the screening level for commercial land use of 210 ug/m^3.

4.2.2 Indoor/Outdoor Air Samples

The following seven (7) VOCs were reported in one or more of the four (4) indoor/outdoor air samples and two (2) outdoor air sample: Chloromethane, Ethanol, Trichlorofluoromethane (Freon 11), Dichlorodifluoromethane (Freon 12), methylene chloride, toluene, and styrene.

The maximum concentrations of all reported compounds in indoor and outdoor air samples are significantly less than their respective screening

levels for residential and commercial land use. It is noted that no screening levels are published for ethanol.

4.3 Data Quality Assurance/Quality Control

4.3.1 Hold Times

All soil vapor and indoor/outdoor air samples were transported to the laboratories under chain-of-custody documentation and were analyzed within appropriate hold times.

4.3.2 Laboratory Quality Assurance

The laboratories provided data to estimate precision, accuracy, and bias. The laboratory reports indicated that the method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives for soil and soil vapor.

4.3.3 Practical Quantitation Limits

Practical quantitation limits (PQL) and method detection limits (MDL) for soil vapor and indoor/outdoor air samples were provided by the laboratories and are included on the reports in **Appendix A**.

5.0 Interpretation and Conclusions

5.1 RECs and Potential Release Area(s)

Converse performed a Phase I ESA at the Site and summarized the findings in a Phase I ESA dated April 21, 2020. The assessment revealed no evidence of recognized environmental conditions (RECs) in connection with the Site except for the following:

- The ongoing open site investigation of PCE contaminated soil, soil-vapor, and groundwater on the southern/southwestern adjoining property (24601 Raymond Way).

5.2 Conceptual Model Validation/Adequacy of Investigations

It is our opinion that the field and analytical data validated the conceptual model, and the investigation adequately evaluated the identified objectives of this *Phase II ESA Report*.

5.3 Absence, Presence, Degree, Extent of Target Analytes

Based upon the results of the *Phase II ESA*, there appear to be no significant impacts to the Site with regard to VOCs originating from the adjoining property related to historic uses of that property.

PCE, a compound associated with historic dry cleaning operations, and known to be present on the adjoining property from historic releases, was not detected in any of the soil vapor or ambient air samples collected from the Site.

Several of the VOCs detected in indoor air samples are commonly associated with refrigerants. These compounds are not of concern at the concentrations reported.

BTEX, which were reported in soil vapor samples from borings SV6 and SV7, located within the parking lot, are likely related to the asphalt cover of the lot, or from minor fuel leaks from cars parked in the lot. Benzene does not pose a vapor intrusion risk to the Site in its current configuration since the detections of it were limited to the parking lot where there are not currently any occupied structures. Benzene was not detected in any of the samples around current structures.

It is our opinion that these reported benzene detections will also not pose a significant vapor intrusion risk to potential future redevelopment of the Site based on the following:

- The screening levels used in this report were calculated based on current development of the Site. The screening level for benzene would change from 48.5 to 97 ug/m^3 if we assume future redevelopment of the Site, which would bring the reported concentrations (150 and 160 ug/m^3) much closer to the revised screening level of 97 ug/m^3. An exceedance of a screening level is not an automatic indicator that there is an unacceptable risk, instead, it may simply indicate that the condition requires further evaluation.
- Further evaluation of exceedances may include looking at the potential effects of redevelopment. If there is a plan to redevelop the site and place structures in the area of the current parking lot, it is presumed that redevelopment activities (over excavation and recompacting) will result in at least a minor reduction in concentrations, likely to below the current screening level. Also, the potential sources of the benzene will be removed (asphalt and/or vehicles), preventing future impacts.

5.4 Other Concerns

5.4.1 Significant Assumptions

No significant assumptions were made during this assessment.

5.4.2 Limitations and Exceptions

No limitations or exceptions were encountered during the course of this *Phase II ESA*.

5.4.3 Special Terms and Conditions

No special terms or conditions need to be noted in this *Phase II ESA* report.

5.5 Conclusions/Objectives Met

Converse has performed a *Phase II ESA* at 23591 El Toro Road and 24551 Raymond Way, Lake Forest, California in conformance with the scope and limitations of ASTM, E1903-11 and the following objectives:

- Evaluate the potential for volatile organic compounds (VOCs) in the shallow subsurface soil vapor and indoor air due to known contamination originating from the adjoining property related to historic uses of that property.

- Identify if potential target analytes are present at concentrations greater than threshold criteria.

Converse presents the following finds from this assessment:

- The maximum concentrations of all reported VOCs in the indoor and outdoor air samples were less than their respective screening levels for residential and commercial land use.
- No VOCs were reported in any of the soil vapor samples collected from locations adjacent to the onsite structures (SV1 through SV5).
- Concentrations of BTEX were reported in both of the soil vapor samples from borings located in the parking lot (SV6 and SV7). With the exception of benzene, all reported BTEX concentrations were less than their respective screening level. The benzene concentrations of 160 and 150 ug/m^3 are greater than the screening level for residential land use of 48.5 ug/m^3, but are less than the screening level for commercial land use of 210 ug/m^3.

Based on these findings Converse concludes the following:

- The Site does not appear to be impacted from known PCE contamination originating from the adjoining property.
- Several of the VOCs detected in indoor and outdoor air samples are commonly associated with refrigerants. All reported VOC concentrations in the indoor air samples are less than their respective screening levels for residential land use.
- There are no environmental concern related to the potential use of current Site building for residential purposes.
- The maximum reported concentrations of BTEX in soil vapor samples are relatively typical of conditions beneath an asphalt paved parking lot, and are not considered to be a significant concern. The concentrations are less than the commercial screening level, which is acceptable for the current, and reported planned continued future, use as a parking lot. If the proposed development plans change and the areas where borings SV6 and SV7 were located are intended to be developed for use as something other than parking lots, it is expected that concentrations would be reduced by activities such as grading, over excavation, and recompaction. Additionally, it is noted that the potential health risk to future Site occupants posed by the current concentrations is well within discretionary risk management levels.
- It is our opinion that the objectives of the Phase II ESA were met, and no additional assessment is necessary to assess the objectives of the Phase II ESA.

6.0 6.0 Recommendations

It is our opinion that no additional assessment is necessary to address the objectives of the Phase II ESA

7.0 Reliance

This report is for the sole benefit and exclusive use of National CORE accordance with the terms and conditions under which these services have been provided. The preparation of this report has been in accordance with generally accepted environmental practices. No other warranty, either express or implied, is made. This report should not be regarded as a guarantee that no further contamination beyond that which could be detected within the scope of this assessment is present at the Site.

This report should not be regarded as a guarantee that no further contamination, beyond that which could be detected within the scope of this assessment, is present at the Site. Converse makes no warranties or guarantees as to the accuracy or completeness of information provided or compiled by others. It is possible that information exists beyond the scope of this assessment. It is not possible to absolutely confirm that no hazardous materials and/or substances exist at the Site. If none are identified as part of a limited scope of work, such a conclusion should not be construed as a guaranteed absence of such materials, but merely the results of the evaluation of the Site at the time of the assessment. Also, events may occur after the Site visit, which may result in contamination of the Site. Additional information, which was not found or available to Converse at the time of report preparation, may result in a modification of the conclusions and recommendations presented.

Any reliance on this report by Third Parties shall be at the Third Party's sole risk. Should National CORE wish to identify any additional relying parties not previously identified, a completed Application of Authorization to Use (see following page) must be submitted to Converse Consultants.

Converse Consultants

Geotechnical Engineering, Environmental & Groundwater Science, Inspection & Testing Services

Application for Authorization to Use

TO: Converse Consultants
3172 Pullman Street, Suite 108
Costa Mesa, California 92626

Project Title & Date: _____

Project Address: _____

FROM: (Please identify name & address of person/entity applying for permission to use the referenced report.)

_____

_____

_____

Applicant _____ hereby applies for permission to use the referenced report in order to:

_____

_____

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Applicant wishes or needs to use the referenced report because:

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_____

_____

Applicant also understands and agrees that the referenced document is a copyrighted document and shall remain the sole property of Converse Consultants. Unauthorized use or copying of the report is strictly prohibited without the express written permission of Converse Consultants. *Applicant* understands and agrees that Converse Consultants may withhold such permission at its sole discretion, or grant such permission upon agreement to Terms and Conditions, such as the payment of a re-use fee, amongst others.

Applicant Signature: _____

Applicant Name (print): _____

Title: _____

Date: _____

8.0 References and Sources of Information

California State Department of Toxic Substances Control (DTSC) and California Regional Water Quality Control Board (RWQCB), Los Angeles Region, Advisory-Active Soil Gas Investigations, July 2015.

Converse Consultants, Phase I Environmental Site Assessment Report, 23591 El Toro Road and 24551 Raymond Way, Lake Forest, California, July 5, 2019, revised April 21, 2020.

DTSC, Final Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (Vapor Intrusion Guidance), October 2011.

DTSC, Human Health Risk Assessment (HHRA) Note Number 3, DTSC Modified Screening, April 2019.

DTSC, Human Health Risk Assessment (HHRA) Note Number 5, Health-based Indoor Air Screening Criteria for Trichloroethylene (TCE), August 2014.

USEPA, Regional Screening Levels, May 2019.

Figures

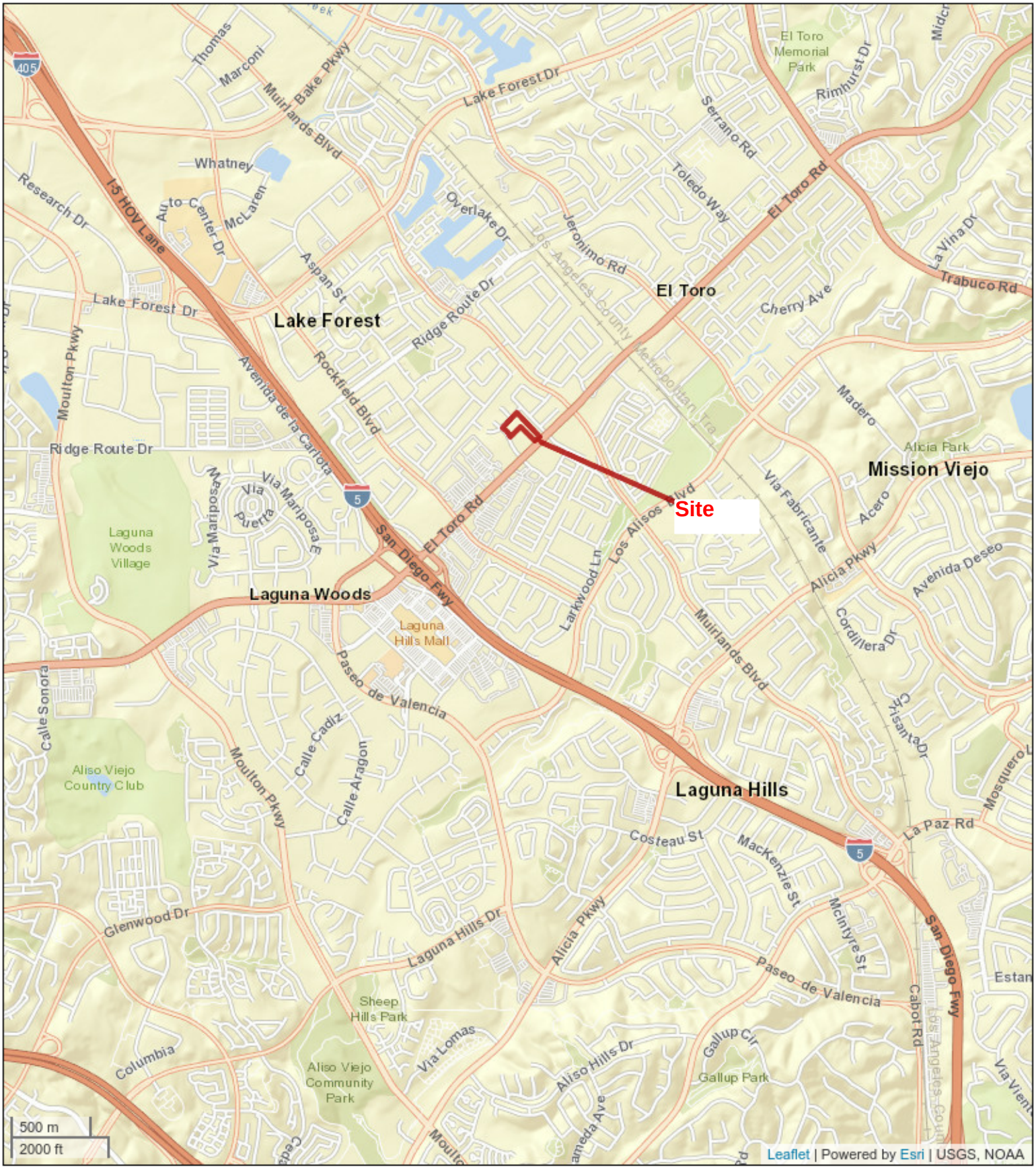


Figure 1 - Property Location Map

National Core

23591 El Toro Road and 24551 Raymond Way

Lake Forest, California

Samples Locations

23591 El Toro Road and 24551 Raymond Way
Lake Forest, California

Project No:
19-42-162-02

Converse Consultants

FIGURE 2

Tables

Table 1
Soil Vapor Sample Analytical Results
2391 El Toro Road and 24551 Raymond Way
Lake Fiorest, California

Sample	Sample Date	Benzene (ug/m^3)	Ethylbenzene (ug/m^3)	Toluene (ug/m^3)	m,p-Xylenes (ug/m^3)	All Other VOCs
SV1-5'	7/19/2019	<0.0250	<0.050	<0.050	<0.10	ND
SV1-15'	7/19/2019	<0.0250	<0.050	<0.050	<0.10	ND
SV2-5'	7/19/2019	<0.0250	<0.050	<0.050	<0.10	ND
SV2-15'	7/19/2019	<0.0250	<0.050	<0.050	<0.10	ND
SV3-5'	7/19/2019	<0.0250	<0.050	<0.050	<0.10	ND
SV3-15'	7/19/2019	<0.0250	<0.050	<0.050	<0.10	ND
SV4-5'	7/19/2019	<0.0250	<0.050	<0.050	<0.10	ND
SV4-15'	7/19/2019	<0.0250	<0.050	<0.050	<0.10	ND
SV5-5'	7/19/2019	<0.0250	<0.050	<0.050	<0.10	ND
SV5-15'	7/19/2019	<0.0250	<0.050	<0.050	<0.10	ND
SV6-5'	7/19/2019	**160**	**60**	**80**	**120**	ND
SV7-5'	7/19/2019	**150**	**60**	**70**	**100**	ND
Maximum Concentration ug/m^3		**160**	**60.00**	**80.00**	**120**	--
Indoor Air Screening Level ug/m^3	Residential	0.097	1,000	310	100	
	Commercial / Industrial	0.42	4,400	1,300	440	--
Attenuation Factor (existing residential construction)		500	500	500	500	--
Soil Vapor Screening Level ug/m^3	Residential	**48.5**	**500,000**	**155,000**	**50,000**	--
	Commercial / Industrial	**210**	**2,200,000**	**650,000**	**220,000**	--

Screening levels for indoor air based on DTSC Human Health Risk Assessment (HHRA) Note 3, Table 3, or RSLs.

ug/m^3 micrograms per cubic meter
ND Not detected
RSL EPA Regional Screeing Level
VOCs Volatile Organic Compounds

Table 2
Indoor and Outdoor Air Analytical Results
23591 El Toro Road and 24551 Raymond WAY
Lakeforest, California

Sample	IA-1	IA-2	IA-3	IA-4	OA-1	OA-2	Maximum Concentration (ug/m^3)	Indoor Air Screening Level (ug/m^3)	
Sample Date	07/18/2019	07/18/2019	07/18/2019	07/18/2019	07/18/2019	07/18/2019		Residential	Commercial / Industrial
CHLOROMETHANE	**1.54**	**1.58**	**1.28**	**1.56**	**0.983**	**1.03**	**1.58**	94	390
ETHANOL	**618**	**313**	**326**	**617**	**10.2**	**17.1**	**618**	--	--
TRICHLOROFLUOROMETHANE (FREON 11)	**1.53**	**1.54**	**1.41**	**1.41**	**1.54**	**1.51**	**1.54**	1,300	5,300
DICHLORODIFLUOROMETHANE (FREON 12)	**2.86**	**2.37**	**2.70**	**2.74**	**1.68**	**1.76**	**2.86**	100	4,400
METHYLENE CHLORIDE	<0.983	**1.18**	<0.694	<0.694	**6.71**	<0.694	**6.71**	420	1,800
STYRENE	<0.851	<0.851	**2.95**	<0.851	<0.851	<0.851	**2.95**	940	3,900
TOLUENE	**1.30**	**1.74**	**1.84**	**1.41**	**1.53**	<0.753	**1.84**	310	1300
ALL OTHER VOCs	ND	ND	ND	ND	ND	ND	--	--	--

Indoor air screening levels presented in DTSC Human Health Risk Assessment (HHRA) Notes #3 and #5, and/or EPA Regional Screening Levels (RSLs) were used

ug/m^3 micrograms per cubic meter

ND Not detected

Appendix A

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

July 24, 2019

Converse Consultants - Monrovia, CA

Sample Delivery Group:	L1120715
Samples Received:	07/20/2019
Project Number:	
Description:	

Report To: Michael Van Fleet
717 S. Myrtle Avenue
Monrovia, CA 91016

Entire Report Reviewed By:

Brian Ford
Project Manager

TABLE OF CONTENTS

IA-1 L1120715-01 Air

Collected by	Collected date/time	Received date/time
	07/18/19 11:20	07/20/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1315376	1	07/23/19 01:11	07/23/19 01:11	CAW	Mt. Juliet, TN

IA-2 L1120715-02 Air

Collected by	Collected date/time	Received date/time
	07/18/19 11:10	07/20/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1315376	1	07/23/19 01:52	07/23/19 01:52	CAW	Mt. Juliet, TN

IA-4 L1120715-03 Air

Collected by	Collected date/time	Received date/time
	07/18/19 11:25	07/20/19 08:45

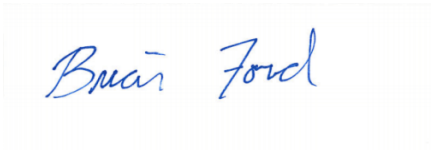
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1315376	1	07/23/19 02:31	07/23/19 02:31	CAW	Mt. Juliet, TN

OA-2 L1120715-04 Air

Collected by	Collected date/time	Received date/time
	07/18/19 11:30	07/20/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1315381	1	07/22/19 18:58	07/22/19 18:58	MBF	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Brian Ford
Project Manager

Volatile Organic Compounds (MS) by Method TO-15

Client ID	Lab Sample ID	Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
					ppbv	ug/m3	ppbv	ug/m3			
IA-1	L1120715-01	Chloromethane	74-87-3	50.50	0.200	0.413	0.744	1.54		1	WG1315376
IA-1	L1120715-01	Ethanol	64-17-5	46.10	0.630	1.19	328	618	E	1	WG1315376
IA-1	L1120715-01	Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.273	1.53		1	WG1315376
IA-1	L1120715-01	Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.579	2.86		1	WG1315376
IA-1	L1120715-01	Toluene	108-88-3	92.10	0.200	0.753	0.346	1.30		1	WG1315376
IA-2	L1120715-02	Chloromethane	74-87-3	50.50	0.200	0.413	0.764	1.58		1	WG1315376
IA-2	L1120715-02	Ethanol	64-17-5	46.10	0.630	1.19	166	313	E	1	WG1315376
IA-2	L1120715-02	Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.274	1.54		1	WG1315376
IA-2	L1120715-02	Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.479	2.37		1	WG1315376
IA-2	L1120715-02	Methylene Chloride	75-09-2	84.90	0.200	0.694	0.339	1.18	B	1	WG1315376
IA-2	L1120715-02	Toluene	108-88-3	92.10	0.200	0.753	0.462	1.74		1	WG1315376
IA-4	L1120715-03	Chloromethane	74-87-3	50.50	0.200	0.413	0.756	1.56		1	WG1315376
IA-4	L1120715-03	Ethanol	64-17-5	46.10	0.630	1.19	327	617	E	1	WG1315376
IA-4	L1120715-03	Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.251	1.41		1	WG1315376
IA-4	L1120715-03	Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.554	2.74		1	WG1315376
IA-4	L1120715-03	Toluene	108-88-3	92.10	0.200	0.753	0.374	1.41		1	WG1315376
OA-2	L1120715-04	Chloromethane	74-87-3	50.50	0.200	0.413	0.501	1.03		1	WG1315381
OA-2	L1120715-04	Ethanol	64-17-5	46.10	0.630	1.19	9.09	17.1		1	WG1315381
OA-2	L1120715-04	Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.269	1.51		1	WG1315381
OA-2	L1120715-04	Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.355	1.76		1	WG1315381
OA-2	L1120715-04	TPH (GC/MS) Low Fraction	8006-61-9	101	50.0	207	73.5	304		1	WG1315381

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG1315376
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1315376
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1315376
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1315376
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1315376
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1315376
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1315376
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1315376
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1315376
Chloromethane	74-87-3	50.50	0.200	0.413	0.744	1.54		1	WG1315376
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1315376
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1315376
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1315376
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1315376
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1315376
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1315376
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1315376
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1315376
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1315376
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1315376
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1315376
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1315376
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1315376
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1315376
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1315376
Ethanol	64-17-5	46.10	0.630	1.19	328	618	E	1	WG1315376
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	WG1315376
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.273	1.53		1	WG1315376
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.579	2.86		1	WG1315376
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1315376
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1315376
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1315376
n-Hexane	110-54-3	86.20	0.200	0.705	ND	ND		1	WG1315376
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1315376
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1315376
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1315376
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG1315376
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1315376
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1315376
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1315376
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1315376
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1315376
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1315376
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1315376
Toluene	108-88-3	92.10	0.200	0.753	0.346	1.30		1	WG1315376
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1315376
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1315376
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1315376
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1315376
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	WG1315376
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG1315376
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1315376
m&p-Xylene	1330-20-7	106	0.400	1.73	ND	ND		1	WG1315376
o-Xylene	95-47-6	106	0.200	0.867	ND	ND		1	WG1315376
TPH (GC/MS) Low Fraction	8006-61-9	101	50.0	207	ND	ND		1	WG1315376
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*103*				WG1315376

1 Cp
2 Tc
3 Ss
4 Cn
5 Ds
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG1315376
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1315376
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1315376
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1315376
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1315376
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1315376
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1315376
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1315376
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1315376
Chloromethane	74-87-3	50.50	0.200	0.413	0.764	1.58		1	WG1315376
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1315376
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1315376
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1315376
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1315376
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1315376
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1315376
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1315376
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1315376
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1315376
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1315376
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1315376
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1315376
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1315376
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1315376
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1315376
Ethanol	64-17-5	46.10	0.630	1.19	166	313	E	1	WG1315376
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	WG1315376
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.274	1.54		1	WG1315376
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.479	2.37		1	WG1315376
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1315376
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1315376
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1315376
n-Hexane	110-54-3	86.20	0.200	0.705	ND	ND		1	WG1315376
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1315376
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.339	1.18	B	1	WG1315376
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1315376
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG1315376
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1315376
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1315376
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1315376
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1315376
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1315376
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1315376
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1315376
Toluene	108-88-3	92.10	0.200	0.753	0.462	1.74		1	WG1315376
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1315376
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1315376
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1315376
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1315376
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	WG1315376
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG1315376
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1315376
m&p-Xylene	1330-20-7	106	0.400	1.73	ND	ND		1	WG1315376
o-Xylene	95-47-6	106	0.200	0.867	ND	ND		1	WG1315376
TPH (GC/MS) Low Fraction	8006-61-9	101	50.0	207	ND	ND		1	WG1315376
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*101*				WG1315376

1 Cp
2 Tc
3 Ss
4 Cn
5 Ds
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG1315376
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1315376
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1315376
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1315376
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1315376
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1315376
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1315376
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1315376
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1315376
Chloromethane	74-87-3	50.50	0.200	0.413	0.756	1.56		1	WG1315376
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1315376
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1315376
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1315376
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1315376
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1315376
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1315376
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1315376
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1315376
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1315376
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1315376
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1315376
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1315376
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1315376
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1315376
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1315376
Ethanol	64-17-5	46.10	0.630	1.19	327	617	E	1	WG1315376
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	WG1315376
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.251	1.41		1	WG1315376
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.554	2.74		1	WG1315376
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1315376
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1315376
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1315376
n-Hexane	110-54-3	86.20	0.200	0.705	ND	ND		1	WG1315376
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1315376
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1315376
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1315376
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG1315376
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1315376
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1315376
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1315376
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1315376
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1315376
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1315376
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1315376
Toluene	108-88-3	92.10	0.200	0.753	0.374	1.41		1	WG1315376
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1315376
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1315376
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1315376
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1315376
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	WG1315376
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG1315376
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1315376
m&p-Xylene	1330-20-7	106	0.400	1.73	ND	ND		1	WG1315376
o-Xylene	95-47-6	106	0.200	0.867	ND	ND		1	WG1315376
TPH (GC/MS) Low Fraction	8006-61-9	101	50.0	207	ND	ND		1	WG1315376
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*104*				WG1315376

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG1315381
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1315381
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1315381
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1315381
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1315381
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1315381
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1315381
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1315381
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1315381
Chloromethane	74-87-3	50.50	0.200	0.413	0.501	1.03		1	WG1315381
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1315381
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1315381
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1315381
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1315381
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1315381
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1315381
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1315381
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1315381
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1315381
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1315381
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1315381
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1315381
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1315381
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1315381
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1315381
Ethanol	64-17-5	46.10	0.630	1.19	9.09	17.1		1	WG1315381
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	WG1315381
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.269	1.51		1	WG1315381
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.355	1.76		1	WG1315381
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1315381
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1315381
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1315381
n-Hexane	110-54-3	86.20	0.200	0.705	ND	ND		1	WG1315381
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1315381
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1315381
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1315381
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG1315381
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1315381
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1315381
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1315381
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1315381
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1315381
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1315381
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1315381
Toluene	108-88-3	92.10	0.200	0.753	ND	ND		1	WG1315381
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1315381
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1315381
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1315381
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1315381
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	WG1315381
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG1315381
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1315381
m&p-Xylene	1330-20-7	106	0.400	1.73	ND	ND		1	WG1315381
o-Xylene	95-47-6	106	0.200	0.867	ND	ND		1	WG1315381
TPH (GC/MS) Low Fraction	8006-61-9	101	50.0	207	73.5	304		1	WG1315381
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*86.1*				WG1315381

1 Cp
2 Tc
3 Ss
4 Cn
5 Ds
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

Method Blank (MB)

(MB) R3433222-3 07/22/19 10:02

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Benzene	U		0.0460	0.200
Benzyl Chloride	U		0.0598	0.200
Bromodichloromethane	U		0.0436	0.200
Bromoform	U		0.0786	0.600
Bromomethane	U		0.0609	0.200
Carbon tetrachloride	U		0.0585	0.200
Chlorobenzene	U		0.0601	0.200
Chloroethane	U		0.0489	0.200
Chloroform	U		0.0574	0.200
Chloromethane	U		0.0544	0.200
2-Chlorotoluene	U		0.0605	0.200
Dibromochloromethane	U		0.0494	0.200
1,2-Dibromoethane	U		0.0185	0.200
1,2-Dichlorobenzene	U		0.0603	0.200
1,3-Dichlorobenzene	U		0.0597	0.200
1,4-Dichlorobenzene	U		0.0557	0.200
1,2-Dichloroethane	U		0.0616	0.200
1,1-Dichloroethane	U		0.0514	0.200
1,1-Dichloroethene	U		0.0490	0.200
cis-1,2-Dichloroethene	U		0.0389	0.200
trans-1,2-Dichloroethene	U		0.0464	0.200
1,2-Dichloropropane	U		0.0599	0.200
cis-1,3-Dichloropropene	U		0.0588	0.200
trans-1,3-Dichloropropene	U		0.0435	0.200
1,4-Dioxane	U		0.0554	0.200
Ethylbenzene	U		0.0506	0.200
Trichlorofluoromethane	U		0.0673	0.200
Dichlorodifluoromethane	U		0.0601	0.200
1,1,2-Trichlorotrifluoroethane	U		0.0687	0.200
1,2-Dichlorotetrafluoroethane	U		0.0458	0.200
Hexachloro-1,3-butadiene	U		0.0656	0.630
n-Hexane	U		0.0457	0.200
Isopropylbenzene	U		0.0563	0.200
Methylene Chloride	0.0660	J	0.0465	0.200
Methyl Butyl Ketone	U		0.0682	1.25
2-Butanone (MEK)	U		0.0493	1.25
4-Methyl-2-pentanone (MIBK)	U		0.0650	1.25
MTBE	U		0.0505	0.200
Naphthalene	U		0.154	0.630
Styrene	U		0.0465	0.200

Method Blank (MB)

(MB) R3433222-3 07/22/19 10:02

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
1,1,2,2-Tetrachloroethane	U		0.0576	0.200
Tetrachloroethylene	U		0.0497	0.200
Tetrahydrofuran	U		0.0508	0.200
Toluene	U		0.0499	0.200
1,2,4-Trichlorobenzene	U		0.148	0.630
1,1,1-Trichloroethane	U		0.0665	0.200
1,1,2-Trichloroethane	U		0.0287	0.200
Trichloroethylene	U		0.0545	0.200
1,2,4-Trimethylbenzene	U		0.0483	0.200
1,3,5-Trimethylbenzene	U		0.0631	0.200
Vinyl chloride	U		0.0457	0.200
m&p-Xylene	U		0.0946	0.400
o-Xylene	U		0.0633	0.200
Ethanol	U		0.0832	0.630
TPH (GC/MS) Low Fraction	12.0	J	6.91	50.0
(S) 1,4-Bromofluorobenzene	*98.0*			*60.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3433222-1 07/22/19 08:46 • (LCSD) R3433222-2 07/22/19 09:23

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethanol	3.75	3.31	3.66	88.4	97.5	55.0-148			9.84	25
Dichlorodifluoromethane	3.75	4.02	4.02	107	107	64.0-139			0.00311	25
1,2-Dichlorotetrafluoroethane	3.75	3.91	4.00	104	107	70.0-130			2.10	25
Chloromethane	3.75	4.09	4.08	109	109	70.0-130			0.332	25
Vinyl chloride	3.75	3.96	4.10	106	109	70.0-130			3.50	25
Bromomethane	3.75	3.78	4.10	101	109	70.0-130			8.13	25
Chloroethane	3.75	3.88	4.21	103	112	70.0-130			8.17	25
Trichlorofluoromethane	3.75	3.71	4.14	99.0	110	70.0-130			10.9	25
1,1,2-Trichlorotrifluoroethane	3.75	3.92	3.95	105	105	70.0-130			0.592	25
1,1-Dichloroethene	3.75	3.90	3.98	104	106	70.0-130			2.09	25
1,1-Dichloroethane	3.75	4.01	4.02	107	107	70.0-130			0.0357	25
Methylene Chloride	3.75	3.77	3.82	100	102	70.0-130			1.36	25
MTBE	3.75	3.87	3.97	103	106	70.0-130			2.41	25
trans-1,2-Dichloroethene	3.75	3.96	3.96	106	106	70.0-130			0.0354	25
n-Hexane	3.75	4.07	4.17	108	111	70.0-130			2.56	25
Methyl Ethyl Ketone	3.75	3.94	4.05	105	108	70.0-130			2.79	25
cis-1,2-Dichloroethene	3.75	4.00	3.94	107	105	70.0-130			1.39	25

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3433222-1 07/22/19 08:46 • (LCSD) R3433222-2 07/22/19 09:23

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Chloroform	3.75	3.97	4.02	106	107	70.0-130			1.31	25
1,1,1-Trichloroethane	3.75	3.95	4.06	105	108	70.0-130			2.62	25
Carbon tetrachloride	3.75	3.98	3.97	106	106	70.0-130			0.291	25
Benzene	3.75	4.05	4.13	108	110	70.0-130			2.03	25
1,2-Dichloroethane	3.75	4.01	4.03	107	107	70.0-130			0.330	25
Trichloroethylene	3.75	4.00	4.12	107	110	70.0-130			2.78	25
1,2-Dichloropropane	3.75	4.14	4.24	110	113	70.0-130			2.44	25
1,4-Dioxane	3.75	4.00	4.20	107	112	70.0-140			4.78	25
Bromodichloromethane	3.75	4.00	4.06	107	108	70.0-130			1.57	25
cis-1,3-Dichloropropene	3.75	4.08	4.20	109	112	70.0-130			2.76	25
4-Methyl-2-pentanone (MIBK)	3.75	4.04	4.22	108	113	70.0-139			4.33	25
Toluene	3.75	4.16	4.29	111	115	70.0-130			3.19	25
trans-1,3-Dichloropropene	3.75	4.04	4.27	108	114	70.0-130			5.38	25
1,1,2-Trichloroethane	3.75	4.00	4.14	107	111	70.0-130			3.58	25
Tetrachloroethylene	3.75	4.08	4.19	109	112	70.0-130			2.72	25
Methyl Butyl Ketone	3.75	4.24	4.47	113	119	70.0-149			5.24	25
Dibromochloromethane	3.75	4.15	4.22	111	113	70.0-130			1.70	25
1,2-Dibromoethane	3.75	4.11	4.25	110	113	70.0-130			3.51	25
Chlorobenzene	3.75	4.14	4.29	111	114	70.0-130			3.50	25
Ethylbenzene	3.75	4.06	4.23	108	113	70.0-130			4.15	25
m&p-Xylene	7.50	8.19	8.59	109	115	70.0-130			4.81	25
o-Xylene	3.75	4.11	4.24	110	113	70.0-130			3.12	25
Styrene	3.75	4.22	4.34	112	116	70.0-130			2.83	25
Bromoform	3.75	4.18	4.30	112	115	70.0-130			2.74	25
1,1,2,2-Tetrachloroethane	3.75	4.05	4.29	108	114	70.0-130			5.75	25
1,3,5-Trimethylbenzene	3.75	4.05	4.30	108	115	70.0-130			5.93	25
1,2,4-Trimethylbenzene	3.75	4.12	4.32	110	115	70.0-130			4.70	25
1,3-Dichlorobenzene	3.75	4.17	4.38	111	117	70.0-130			4.89	25
1,4-Dichlorobenzene	3.75	4.24	4.46	113	119	70.0-130			5.04	25
Benzyl Chloride	3.75	4.30	4.58	115	122	70.0-152			6.18	25
1,2-Dichlorobenzene	3.75	4.15	4.42	111	118	70.0-130			6.26	25
1,2,4-Trichlorobenzene	3.75	4.03	4.26	107	114	70.0-160			5.71	25
Hexachloro-1,3-butadiene	3.75	4.07	4.21	108	112	70.0-151			3.43	25
Naphthalene	3.75	4.11	4.27	110	114	70.0-159			3.69	25
TPH (GC/MS) Low Fraction	203	209	216	103	107	70.0-130			3.39	25
2-Chlorotoluene	3.75	4.12	4.37	110	116	70.0-130			5.93	25
Tetrahydrofuran	3.75	3.87	3.98	103	106	70.0-137			2.66	25
Isopropylbenzene	3.75	4.04	4.27	108	114	70.0-130			5.57	25
(S) 1,4-Bromofluorobenzene				*99.6*	*103*	*60.0-140*				

1 Cp
2 Tc
3 Ss
4 Cn
5 Ds
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

Method Blank (MB)

(MB) R3433178-2 07/22/19 10:35

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Benzene	U		0.0460	0.200
Benzyl Chloride	U		0.0598	0.200
Bromodichloromethane	U		0.0436	0.200
Bromoform	U		0.0786	0.600
Bromomethane	U		0.0609	0.200
Carbon tetrachloride	U		0.0585	0.200
Chlorobenzene	U		0.0601	0.200
Chloroethane	U		0.0489	0.200
Chloroform	U		0.0574	0.200
Chloromethane	U		0.0544	0.200
2-Chlorotoluene	U		0.0605	0.200
Dibromochloromethane	U		0.0494	0.200
1,2-Dibromoethane	U		0.0185	0.200
1,2-Dichlorobenzene	U		0.0603	0.200
1,3-Dichlorobenzene	U		0.0597	0.200
1,4-Dichlorobenzene	U		0.0557	0.200
1,2-Dichloroethane	U		0.0616	0.200
1,1-Dichloroethane	U		0.0514	0.200
1,1-Dichloroethene	U		0.0490	0.200
cis-1,2-Dichloroethene	U		0.0389	0.200
trans-1,2-Dichloroethene	U		0.0464	0.200
1,2-Dichloropropane	U		0.0599	0.200
cis-1,3-Dichloropropene	U		0.0588	0.200
trans-1,3-Dichloropropene	U		0.0435	0.200
1,4-Dioxane	U		0.0554	0.200
Ethylbenzene	U		0.0506	0.200
Trichlorofluoromethane	U		0.0673	0.200
Dichlorodifluoromethane	U		0.0601	0.200
1,1,2-Trichlorotrifluoroethane	U		0.0687	0.200
1,2-Dichlorotetrafluoroethane	U		0.0458	0.200
Hexachloro-1,3-butadiene	U		0.0656	0.630
n-Hexane	U		0.0457	0.200
Isopropylbenzene	U		0.0563	0.200
Methylene Chloride	U		0.0465	0.200
Methyl Butyl Ketone	U		0.0682	1.25
2-Butanone (MEK)	U		0.0493	1.25
4-Methyl-2-pentanone (MIBK)	U		0.0650	1.25
MTBE	U		0.0505	0.200
Naphthalene	U		0.154	0.630
Styrene	U		0.0465	0.200

Method Blank (MB)

(MB) R3433178-2 07/22/19 10:35

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
1,1,2,2-Tetrachloroethane	U		0.0576	0.200
Tetrachloroethylene	U		0.0497	0.200
Tetrahydrofuran	U		0.0508	0.200
Toluene	U		0.0499	0.200
1,2,4-Trichlorobenzene	U		0.148	0.630
1,1,1-Trichloroethane	U		0.0665	0.200
1,1,2-Trichloroethane	U		0.0287	0.200
Trichloroethylene	U		0.0545	0.200
1,2,4-Trimethylbenzene	U		0.0483	0.200
1,3,5-Trimethylbenzene	U		0.0631	0.200
Vinyl chloride	U		0.0457	0.200
m&p-Xylene	U		0.0946	0.400
o-Xylene	U		0.0633	0.200
Ethanol	U		0.0832	0.630
TPH (GC/MS) Low Fraction	U		6.91	50.0
(S) 1,4-Bromofluorobenzene	*86.9*			*60.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3433178-1 07/22/19 09:49 • (LCSD) R3433178-3 07/22/19 11:22

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethanol	3.75	3.67	3.66	97.8	97.6	55.0-148			0.149	25
Dichlorodifluoromethane	3.75	3.45	3.33	92.0	88.7	64.0-139			3.68	25
1,2-Dichlorotetrafluoroethane	3.75	3.85	3.83	103	102	70.0-130			0.472	25
Chloromethane	3.75	3.87	3.89	103	104	70.0-130			0.695	25
Vinyl chloride	3.75	4.16	4.09	111	109	70.0-130			1.76	25
Bromomethane	3.75	4.39	4.45	117	119	70.0-130			1.46	25
Chloroethane	3.75	4.25	4.32	113	115	70.0-130			1.61	25
Trichlorofluoromethane	3.75	3.78	3.83	101	102	70.0-130			1.18	25
1,1,2-Trichlorotrifluoroethane	3.75	3.82	3.81	102	102	70.0-130			0.195	25
1,1-Dichloroethene	3.75	3.75	3.71	99.9	99.0	70.0-130			0.901	25
1,1-Dichloroethane	3.75	3.76	3.74	100	99.6	70.0-130			0.635	25
Methylene Chloride	3.75	3.74	3.73	99.7	99.4	70.0-130			0.283	25
MTBE	3.75	3.69	3.67	98.3	97.8	70.0-130			0.452	25
trans-1,2-Dichloroethene	3.75	3.72	3.71	99.1	98.8	70.0-130			0.271	25
n-Hexane	3.75	3.74	3.71	99.8	98.8	70.0-130			0.956	25
Methyl Ethyl Ketone	3.75	3.80	3.77	101	101	70.0-130			0.703	25
cis-1,2-Dichloroethene	3.75	3.78	3.75	101	100	70.0-130			0.741	25

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3433178-1 07/22/19 09:49 • (LCSD) R3433178-3 07/22/19 11:22

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Chloroform	3.75	3.81	3.80	102	101	70.0-130			0.427	25
1,1,1-Trichloroethane	3.75	3.87	3.87	103	103	70.0-130			0.0875	25
Carbon tetrachloride	3.75	3.89	3.89	104	104	70.0-130			0.0889	25
Benzene	3.75	3.78	3.77	101	100	70.0-130			0.454	25
1,2-Dichloroethane	3.75	3.92	3.89	105	104	70.0-130			0.829	25
Trichloroethylene	3.75	3.88	3.88	103	104	70.0-130			0.0548	25
1,2-Dichloropropane	3.75	3.84	3.85	102	103	70.0-130			0.310	25
1,4-Dioxane	3.75	3.84	3.84	102	102	70.0-140			0.0707	25
Bromodichloromethane	3.75	3.89	3.87	104	103	70.0-130			0.636	25
cis-1,3-Dichloropropene	3.75	3.82	3.77	102	101	70.0-130			1.40	25
4-Methyl-2-pentanone (MIBK)	3.75	4.10	4.09	109	109	70.0-139			0.327	25
Toluene	3.75	3.92	3.92	105	104	70.0-130			0.168	25
trans-1,3-Dichloropropene	3.75	3.89	3.86	104	103	70.0-130			0.872	25
1,1,2-Trichloroethane	3.75	3.92	3.95	105	105	70.0-130			0.677	25
Tetrachloroethylene	3.75	4.20	4.23	112	113	70.0-130			0.752	25
Methyl Butyl Ketone	3.75	4.36	4.31	116	115	70.0-149			1.20	25
Dibromochloromethane	3.75	4.34	4.39	116	117	70.0-130			1.01	25
1,2-Dibromoethane	3.75	4.39	4.41	117	118	70.0-130			0.617	25
Chlorobenzene	3.75	4.44	4.49	118	120	70.0-130			1.11	25
Ethylbenzene	3.75	3.90	3.88	104	104	70.0-130			0.328	25
m&p-Xylene	7.50	7.60	7.59	101	101	70.0-130			0.152	25
o-Xylene	3.75	3.84	3.81	102	102	70.0-130			0.853	25
Styrene	3.75	3.92	3.91	104	104	70.0-130			0.174	25
Bromoform	3.75	4.03	4.04	108	108	70.0-130			0.215	25
1,1,2,2-Tetrachloroethane	3.75	3.92	3.90	105	104	70.0-130			0.585	25
1,3,5-Trimethylbenzene	3.75	3.98	3.95	106	105	70.0-130			0.883	25
1,2,4-Trimethylbenzene	3.75	3.94	3.91	105	104	70.0-130			0.658	25
1,3-Dichlorobenzene	3.75	4.08	4.07	109	108	70.0-130			0.399	25
1,4-Dichlorobenzene	3.75	4.23	4.22	113	113	70.0-130			0.148	25
Benzyl Chloride	3.75	4.09	4.08	109	109	70.0-152			0.276	25
1,2-Dichlorobenzene	3.75	4.01	4.02	107	107	70.0-130			0.0918	25
1,2,4-Trichlorobenzene	3.75	4.20	3.74	112	99.7	70.0-160			11.5	25
Hexachloro-1,3-butadiene	3.75	4.04	3.52	108	93.9	70.0-151			13.8	25
Naphthalene	3.75	3.93	3.51	105	93.6	70.0-159			11.2	25
TPH (GC/MS) Low Fraction	203	200	195	99.0	96.3	70.0-130			2.74	25
2-Chlorotoluene	3.75	3.95	3.92	105	104	70.0-130			0.968	25
Tetrahydrofuran	3.75	3.94	3.93	105	105	70.0-137			0.150	25
Isopropylbenzene	3.75	3.88	3.87	103	103	70.0-130			0.0876	25
(S) 1,4-Bromofluorobenzene				*91.3*	*90.6*	*60.0-140*				

1 Cp
2 Tc
3 Ss
4 Cn
5 Ds
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

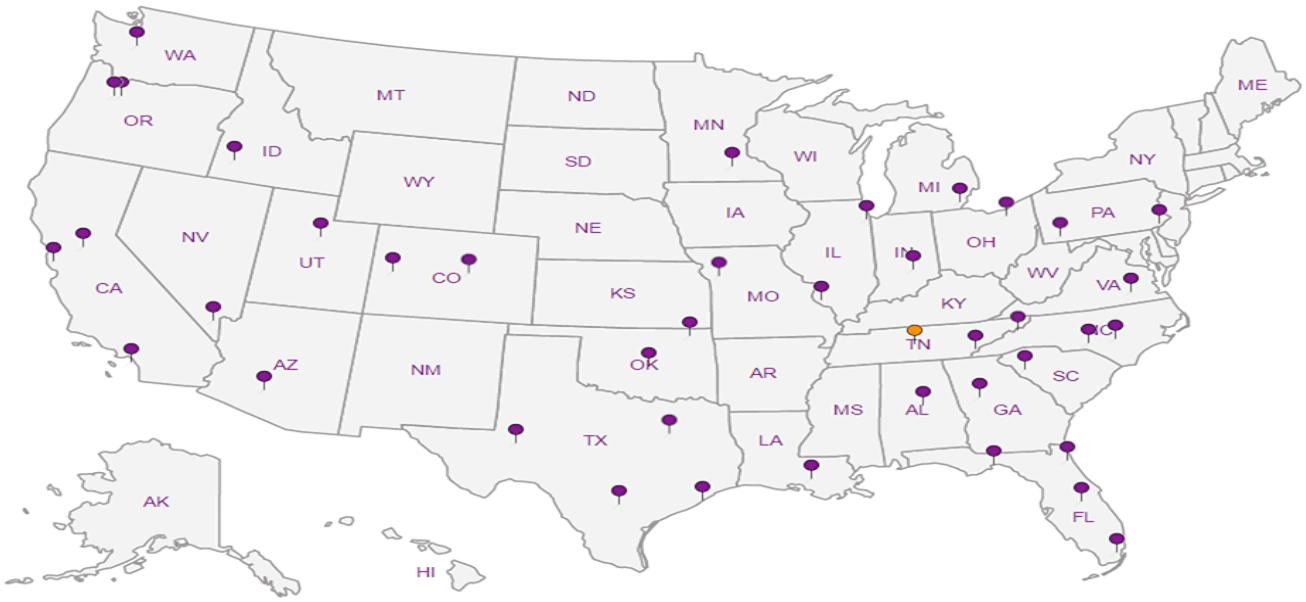
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Converse Consultants - Monrovia, CA

717 S. Myrtle Avenue
Monrovia, CA 91016

Billing Information:
Accounts Payable- Michael Van Fleet
717 S. Myrtle Avenue
Monrovia, CA 91016

Report to: Michael Van Fleet

Email To: mvanfleet@converseconsultants.com

Project Description:

City/State Collected:

Phone: 626-930-1267
Fax:

Client Project #

Lab Project # CONCONMCA-LAKEFOREST

Collected by (print):

Site/Facility ID #

P.O. #

Collected by (signature):
Immediately Packed on Ice N____ Y____

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Pres Chk

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	TO-15 Summa									Remarks	Sample # (lab only)
IA-1	G	Air	~~7/18/14~~	7/18/14	1120	1	✓									CA-15 9854	-01
IA-2	G	Air		7/18/14	1110	1	✓									9741	02
IA-4	G	Air		7/18/14	1125	1	✓									8841	03
~~IA~~ OA-2	G	Air		7/18/14	1130	1	✓									8778	04
		Air															
		Air															
		Air															
		Air															
		Air															
		Air															

Chain of Custody Page 1 of 2

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 1120715

Table #

Acctnum: CONCONMCA

Template: T152932

Prelogin: P719380

TSR: 110 - Brian Ford

PB: BF 7/12/14

Shipped Via: FedEX Saver

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking # 4794 8846 1853

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
	7/19/14	10:00		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:
				Amb 4
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:
				7/20/14 0845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

July 24, 2019

Converse Consultants - Monrovia, CA

Sample Delivery Group:	L1120740
Samples Received:	07/20/2019
Project Number:	1942-162-00(02)
Description:	

Report To: Michael Van Fleet
717 S. Myrtle Avenue
Monrovia, CA 91016

Entire Report Reviewed By: Brian Ford

Brian Ford
Project Manager

TABLE OF CONTENTS

OA-1 L1120740-01 Air

Collected by: Brian Kelly
Collected date/time: 07/18/19 11:40
Received date/time: 07/20/19 08:45

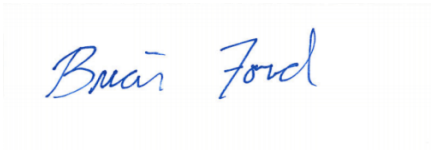
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1315381	1	07/22/19 23:47	07/22/19 23:47	MBF	Mt. Juliet, TN

IA-3 L1120740-02 Air

Collected by: Brian Kelly
Collected date/time: 07/18/19 11:15
Received date/time: 07/20/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1315816	1	07/23/19 14:51	07/23/19 14:51	AMC	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Brian Ford
Project Manager

Volatile Organic Compounds (MS) by Method TO-15

Client ID	Lab Sample ID	Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
					ppbv	ug/m3	ppbv	ug/m3			
OA-1	L1120740-01	Chloromethane	74-87-3	50.50	0.200	0.413	0.476	0.983		1	WG1315381
OA-1	L1120740-01	Ethanol	64-17-5	46.10	0.630	1.19	5.42	10.2		1	WG1315381
OA-1	L1120740-01	Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.274	1.54		1	WG1315381
OA-1	L1120740-01	Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.339	1.68		1	WG1315381
OA-1	L1120740-01	Methylene Chloride	75-09-2	84.90	0.200	0.694	1.93	6.71		1	WG1315381
OA-1	L1120740-01	Toluene	108-88-3	92.10	0.200	0.753	0.407	1.53		1	WG1315381
IA-3	L1120740-02	Chloromethane	74-87-3	50.50	0.200	0.413	0.619	1.28		1	WG1315816
IA-3	L1120740-02	Ethanol	64-17-5	46.10	0.630	1.19	173	326	E	1	WG1315816
IA-3	L1120740-02	Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.251	1.41		1	WG1315816
IA-3	L1120740-02	Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.546	2.70		1	WG1315816
IA-3	L1120740-02	Styrene	100-42-5	104	0.200	0.851	0.692	2.95		1	WG1315816
IA-3	L1120740-02	Toluene	108-88-3	92.10	0.200	0.753	0.489	1.84		1	WG1315816

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG1315381
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1315381
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1315381
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1315381
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1315381
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1315381
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1315381
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1315381
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1315381
Chloromethane	74-87-3	50.50	0.200	0.413	0.476	0.983		1	WG1315381
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1315381
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1315381
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1315381
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1315381
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1315381
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1315381
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1315381
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1315381
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1315381
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1315381
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1315381
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1315381
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1315381
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1315381
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1315381
Ethanol	64-17-5	46.10	0.630	1.19	5.42	10.2		1	WG1315381
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	WG1315381
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.274	1.54		1	WG1315381
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.339	1.68		1	WG1315381
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1315381
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1315381
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1315381
n-Hexane	110-54-3	86.20	0.200	0.705	ND	ND		1	WG1315381
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1315381
Methylene Chloride	75-09-2	84.90	0.200	0.694	1.93	6.71		1	WG1315381
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1315381
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG1315381
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1315381
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1315381
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1315381
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1315381
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1315381
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1315381
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1315381
Toluene	108-88-3	92.10	0.200	0.753	0.407	1.53		1	WG1315381
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1315381
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1315381
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1315381
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1315381
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	WG1315381
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG1315381
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1315381
m&p-Xylene	1330-20-7	106	0.400	1.73	ND	ND		1	WG1315381
o-Xylene	95-47-6	106	0.200	0.867	ND	ND		1	WG1315381
TPH (GC/MS) Low Fraction	8006-61-9	101	50.0	207	ND	ND		1	WG1315381
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*88.2*				WG1315381

1 Cp
2 Tc
3 Ss
4 Cn
5 Ds
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG1315816
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1315816
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1315816
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1315816
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1315816
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1315816
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1315816
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1315816
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1315816
Chloromethane	74-87-3	50.50	0.200	0.413	0.619	1.28		1	WG1315816
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1315816
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1315816
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1315816
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1315816
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1315816
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1315816
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1315816
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1315816
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1315816
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1315816
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1315816
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1315816
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1315816
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1315816
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1315816
Ethanol	64-17-5	46.10	0.630	1.19	173	326	E	1	WG1315816
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	WG1315816
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.251	1.41		1	WG1315816
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.546	2.70		1	WG1315816
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1315816
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1315816
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1315816
n-Hexane	110-54-3	86.20	0.200	0.705	ND	ND		1	WG1315816
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1315816
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1315816
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1315816
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG1315816
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1315816
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1315816
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1315816
Styrene	100-42-5	104	0.200	0.851	0.692	2.95		1	WG1315816
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1315816
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1315816
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1315816
Toluene	108-88-3	92.10	0.200	0.753	0.489	1.84		1	WG1315816
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1315816
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1315816
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1315816
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1315816
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	WG1315816
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG1315816
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1315816
m&p-Xylene	1330-20-7	106	0.400	1.73	ND	ND		1	WG1315816
o-Xylene	95-47-6	106	0.200	0.867	ND	ND		1	WG1315816
TPH (GC/MS) Low Fraction	8006-61-9	101	50.0	207	ND	ND		1	WG1315816
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*95.6*				WG1315816

1 Cp
2 Tc
3 Ss
4 Cn
5 Ds
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

Method Blank (MB)

(MB) R3433178-2 07/22/19 10:35

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Benzene	U		0.0460	0.200
Benzyl Chloride	U		0.0598	0.200
Bromodichloromethane	U		0.0436	0.200
Bromoform	U		0.0786	0.600
Bromomethane	U		0.0609	0.200
Carbon tetrachloride	U		0.0585	0.200
Chlorobenzene	U		0.0601	0.200
Chloroethane	U		0.0489	0.200
Chloroform	U		0.0574	0.200
Chloromethane	U		0.0544	0.200
2-Chlorotoluene	U		0.0605	0.200
Dibromochloromethane	U		0.0494	0.200
1,2-Dibromoethane	U		0.0185	0.200
1,2-Dichlorobenzene	U		0.0603	0.200
1,3-Dichlorobenzene	U		0.0597	0.200
1,4-Dichlorobenzene	U		0.0557	0.200
1,2-Dichloroethane	U		0.0616	0.200
1,1-Dichloroethane	U		0.0514	0.200
1,1-Dichloroethene	U		0.0490	0.200
cis-1,2-Dichloroethene	U		0.0389	0.200
trans-1,2-Dichloroethene	U		0.0464	0.200
1,2-Dichloropropane	U		0.0599	0.200
cis-1,3-Dichloropropene	U		0.0588	0.200
trans-1,3-Dichloropropene	U		0.0435	0.200
1,4-Dioxane	U		0.0554	0.200
Ethylbenzene	U		0.0506	0.200
Trichlorofluoromethane	U		0.0673	0.200
Dichlorodifluoromethane	U		0.0601	0.200
1,1,2-Trichlorotrifluoroethane	U		0.0687	0.200
1,2-Dichlorotetrafluoroethane	U		0.0458	0.200
Hexachloro-1,3-butadiene	U		0.0656	0.630
n-Hexane	U		0.0457	0.200
Isopropylbenzene	U		0.0563	0.200
Methylene Chloride	U		0.0465	0.200
Methyl Butyl Ketone	U		0.0682	1.25
2-Butanone (MEK)	U		0.0493	1.25
4-Methyl-2-pentanone (MIBK)	U		0.0650	1.25
MTBE	U		0.0505	0.200
Naphthalene	U		0.154	0.630
Styrene	U		0.0465	0.200

Method Blank (MB)

(MB) R3433178-2 07/22/19 10:35

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
1,1,2,2-Tetrachloroethane	U		0.0576	0.200
Tetrachloroethylene	U		0.0497	0.200
Tetrahydrofuran	U		0.0508	0.200
Toluene	U		0.0499	0.200
1,2,4-Trichlorobenzene	U		0.148	0.630
1,1,1-Trichloroethane	U		0.0665	0.200
1,1,2-Trichloroethane	U		0.0287	0.200
Trichloroethylene	U		0.0545	0.200
1,2,4-Trimethylbenzene	U		0.0483	0.200
1,3,5-Trimethylbenzene	U		0.0631	0.200
Vinyl chloride	U		0.0457	0.200
m&p-Xylene	U		0.0946	0.400
o-Xylene	U		0.0633	0.200
Ethanol	U		0.0832	0.630
TPH (GC/MS) Low Fraction	U		6.91	50.0
(S) 1,4-Bromofluorobenzene	*86.9*			*60.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3433178-1 07/22/19 09:49 • (LCSD) R3433178-3 07/22/19 11:22

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethanol	3.75	3.67	3.66	97.8	97.6	55.0-148			0.149	25
Dichlorodifluoromethane	3.75	3.45	3.33	92.0	88.7	64.0-139			3.68	25
1,2-Dichlorotetrafluoroethane	3.75	3.85	3.83	103	102	70.0-130			0.472	25
Chloromethane	3.75	3.87	3.89	103	104	70.0-130			0.695	25
Vinyl chloride	3.75	4.16	4.09	111	109	70.0-130			1.76	25
Bromomethane	3.75	4.39	4.45	117	119	70.0-130			1.46	25
Chloroethane	3.75	4.25	4.32	113	115	70.0-130			1.61	25
Trichlorofluoromethane	3.75	3.78	3.83	101	102	70.0-130			1.18	25
1,1,2-Trichlorotrifluoroethane	3.75	3.82	3.81	102	102	70.0-130			0.195	25
1,1-Dichloroethene	3.75	3.75	3.71	99.9	99.0	70.0-130			0.901	25
1,1-Dichloroethane	3.75	3.76	3.74	100	99.6	70.0-130			0.635	25
Methylene Chloride	3.75	3.74	3.73	99.7	99.4	70.0-130			0.283	25
MTBE	3.75	3.69	3.67	98.3	97.8	70.0-130			0.452	25
trans-1,2-Dichloroethene	3.75	3.72	3.71	99.1	98.8	70.0-130			0.271	25
n-Hexane	3.75	3.74	3.71	99.8	98.8	70.0-130			0.956	25
Methyl Ethyl Ketone	3.75	3.80	3.77	101	101	70.0-130			0.703	25
cis-1,2-Dichloroethene	3.75	3.78	3.75	101	100	70.0-130			0.741	25

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3433178-1 07/22/19 09:49 • (LCSD) R3433178-3 07/22/19 11:22

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Chloroform	3.75	3.81	3.80	102	101	70.0-130			0.427	25
1,1,1-Trichloroethane	3.75	3.87	3.87	103	103	70.0-130			0.0875	25
Carbon tetrachloride	3.75	3.89	3.89	104	104	70.0-130			0.0889	25
Benzene	3.75	3.78	3.77	101	100	70.0-130			0.454	25
1,2-Dichloroethane	3.75	3.92	3.89	105	104	70.0-130			0.829	25
Trichloroethylene	3.75	3.88	3.88	103	104	70.0-130			0.0548	25
1,2-Dichloropropane	3.75	3.84	3.85	102	103	70.0-130			0.310	25
1,4-Dioxane	3.75	3.84	3.84	102	102	70.0-140			0.0707	25
Bromodichloromethane	3.75	3.89	3.87	104	103	70.0-130			0.636	25
cis-1,3-Dichloropropene	3.75	3.82	3.77	102	101	70.0-130			1.40	25
4-Methyl-2-pentanone (MIBK)	3.75	4.10	4.09	109	109	70.0-139			0.327	25
Toluene	3.75	3.92	3.92	105	104	70.0-130			0.168	25
trans-1,3-Dichloropropene	3.75	3.89	3.86	104	103	70.0-130			0.872	25
1,1,2-Trichloroethane	3.75	3.92	3.95	105	105	70.0-130			0.677	25
Tetrachloroethylene	3.75	4.20	4.23	112	113	70.0-130			0.752	25
Methyl Butyl Ketone	3.75	4.36	4.31	116	115	70.0-149			1.20	25
Dibromochloromethane	3.75	4.34	4.39	116	117	70.0-130			1.01	25
1,2-Dibromoethane	3.75	4.39	4.41	117	118	70.0-130			0.617	25
Chlorobenzene	3.75	4.44	4.49	118	120	70.0-130			1.11	25
Ethylbenzene	3.75	3.90	3.88	104	104	70.0-130			0.328	25
m&p-Xylene	7.50	7.60	7.59	101	101	70.0-130			0.152	25
o-Xylene	3.75	3.84	3.81	102	102	70.0-130			0.853	25
Styrene	3.75	3.92	3.91	104	104	70.0-130			0.174	25
Bromoform	3.75	4.03	4.04	108	108	70.0-130			0.215	25
1,1,2,2-Tetrachloroethane	3.75	3.92	3.90	105	104	70.0-130			0.585	25
1,3,5-Trimethylbenzene	3.75	3.98	3.95	106	105	70.0-130			0.883	25
1,2,4-Trimethylbenzene	3.75	3.94	3.91	105	104	70.0-130			0.658	25
1,3-Dichlorobenzene	3.75	4.08	4.07	109	108	70.0-130			0.399	25
1,4-Dichlorobenzene	3.75	4.23	4.22	113	113	70.0-130			0.148	25
Benzyl Chloride	3.75	4.09	4.08	109	109	70.0-152			0.276	25
1,2-Dichlorobenzene	3.75	4.01	4.02	107	107	70.0-130			0.0918	25
1,2,4-Trichlorobenzene	3.75	4.20	3.74	112	99.7	70.0-160			11.5	25
Hexachloro-1,3-butadiene	3.75	4.04	3.52	108	93.9	70.0-151			13.8	25
Naphthalene	3.75	3.93	3.51	105	93.6	70.0-159			11.2	25
TPH (GC/MS) Low Fraction	203	200	195	99.0	96.3	70.0-130			2.74	25
2-Chlorotoluene	3.75	3.95	3.92	105	104	70.0-130			0.968	25
Tetrahydrofuran	3.75	3.94	3.93	105	105	70.0-137			0.150	25
Isopropylbenzene	3.75	3.88	3.87	103	103	70.0-130			0.0876	25
(S) 1,4-Bromofluorobenzene				*91.3*	*90.6*	*60.0-140*				

Method Blank (MB)

(MB) R3433600-3 07/23/19 09:51

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Benzene	U		0.0460	0.200
Benzyl Chloride	0.127	J	0.0598	0.200
Bromodichloromethane	U		0.0436	0.200
Bromoform	U		0.0786	0.600
Bromomethane	U		0.0609	0.200
Carbon tetrachloride	U		0.0585	0.200
Chlorobenzene	U		0.0601	0.200
Chloroethane	U		0.0489	0.200
Chloroform	U		0.0574	0.200
Chloromethane	U		0.0544	0.200
2-Chlorotoluene	U		0.0605	0.200
Dibromochloromethane	U		0.0494	0.200
1,2-Dibromoethane	U		0.0185	0.200
1,2-Dichlorobenzene	0.0829	J	0.0603	0.200
1,3-Dichlorobenzene	0.122	J	0.0597	0.200
1,4-Dichlorobenzene	0.159	J	0.0557	0.200
1,2-Dichloroethane	U		0.0616	0.200
1,1-Dichloroethane	U		0.0514	0.200
1,1-Dichloroethene	U		0.0490	0.200
cis-1,2-Dichloroethene	U		0.0389	0.200
trans-1,2-Dichloroethene	U		0.0464	0.200
1,2-Dichloropropane	U		0.0599	0.200
cis-1,3-Dichloropropene	U		0.0588	0.200
trans-1,3-Dichloropropene	U		0.0435	0.200
1,4-Dioxane	U		0.0554	0.200
Ethylbenzene	U		0.0506	0.200
Trichlorofluoromethane	U		0.0673	0.200
Dichlorodifluoromethane	U		0.0601	0.200
1,1,2-Trichlorotrifluoroethane	U		0.0687	0.200
1,2-Dichlorotetrafluoroethane	U		0.0458	0.200
Hexachloro-1,3-butadiene	U		0.0656	0.630
Isopropylbenzene	U		0.0563	0.200
n-Hexane	U		0.0457	0.200
Methylene Chloride	0.0661	J	0.0465	0.200
Methyl Butyl Ketone	0.0814	J	0.0682	1.25
2-Butanone (MEK)	U		0.0493	1.25
4-Methyl-2-pentanone (MIBK)	U		0.0650	1.25
MTBE	U		0.0505	0.200
Naphthalene	U		0.154	0.630
Styrene	U		0.0465	0.200

Method Blank (MB)

(MB) R3433600-3 07/23/19 09:51

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
1,1,2,2-Tetrachloroethane	U		0.0576	0.200
Tetrachloroethylene	U		0.0497	0.200
Tetrahydrofuran	U		0.0508	0.200
1,2,4-Trichlorobenzene	0.217	J	0.148	0.630
Toluene	U		0.0499	0.200
1,1,1-Trichloroethane	U		0.0665	0.200
1,1,2-Trichloroethane	U		0.0287	0.200
Trichloroethylene	U		0.0545	0.200
1,2,4-Trimethylbenzene	U		0.0483	0.200
1,3,5-Trimethylbenzene	U		0.0631	0.200
Vinyl chloride	U		0.0457	0.200
m&p-Xylene	U		0.0946	0.400
o-Xylene	U		0.0633	0.200
Ethanol	0.343	J	0.0832	0.630
TPH (GC/MS) Low Fraction	24.9	J	6.91	50.0
(S) 1,4-Bromofluorobenzene	*95.6*			*60.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3433600-1 07/23/19 08:22 • (LCSD) R3433600-2 07/23/19 09:05

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethanol	3.75	4.08	4.06	109	108	55.0-148			0.540	25
Dichlorodifluoromethane	3.75	4.33	4.41	116	118	64.0-139			1.82	25
1,2-Dichlorotetrafluoroethane	3.75	4.35	4.44	116	118	70.0-130			2.20	25
Chloromethane	3.75	4.39	4.50	117	120	70.0-130			2.55	25
Vinyl chloride	3.75	4.36	4.41	116	118	70.0-130			1.11	25
Bromomethane	3.75	4.34	4.49	116	120	70.0-130			3.46	25
Chloroethane	3.75	4.28	4.44	114	118	70.0-130			3.54	25
Trichlorofluoromethane	3.75	4.37	4.40	117	117	70.0-130			0.661	25
1,1,2-Trichlorotrifluoroethane	3.75	4.35	4.48	116	119	70.0-130			3.03	25
1,1-Dichloroethene	3.75	4.28	4.37	114	117	70.0-130			2.10	25
MTBE	3.75	4.27	4.36	114	116	70.0-130			2.10	25
1,1-Dichloroethane	3.75	4.31	4.41	115	118	70.0-130			2.32	25
n-Hexane	3.75	4.36	4.43	116	118	70.0-130			1.65	25
Methylene Chloride	3.75	4.05	4.23	108	113	70.0-130			4.27	25
trans-1,2-Dichloroethene	3.75	4.31	4.42	115	118	70.0-130			2.57	25
Methyl Ethyl Ketone	3.75	4.45	4.46	119	119	70.0-130			0.0443	25
Benzene	3.75	4.35	4.47	116	119	70.0-130			2.67	25

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3433600-1 07/23/19 08:22 • (LCSD) R3433600-2 07/23/19 09:05

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
cis-1,2-Dichloroethene	3.75	4.34	4.42	116	118	70.0-130			1.80	25
Chloroform	3.75	4.36	4.41	116	118	70.0-130			1.16	25
1,1,1-Trichloroethane	3.75	4.38	4.48	117	119	70.0-130			2.13	25
Carbon tetrachloride	3.75	4.30	4.42	115	118	70.0-130			2.61	25
1,2-Dichloroethane	3.75	4.35	4.42	116	118	70.0-130			1.54	25
Toluene	3.75	4.29	4.37	114	117	70.0-130			2.05	25
Trichloroethylene	3.75	4.61	4.62	123	123	70.0-130			0.290	25
1,2-Dichloropropane	3.75	4.44	4.48	118	120	70.0-130			1.03	25
1,4-Dioxane	3.75	4.31	4.40	115	117	70.0-140			2.02	25
Bromodichloromethane	3.75	4.41	4.46	118	119	70.0-130			1.10	25
cis-1,3-Dichloropropene	3.75	4.37	4.41	116	118	70.0-130			0.977	25
4-Methyl-2-pentanone (MIBK)	3.75	4.47	4.43	119	118	70.0-139			0.733	25
trans-1,3-Dichloropropene	3.75	4.32	4.36	115	116	70.0-130			0.870	25
1,1,2-Trichloroethane	3.75	4.49	4.50	120	120	70.0-130			0.156	25
Ethylbenzene	3.75	4.39	4.43	117	118	70.0-130			0.855	25
m&p-Xylene	7.50	8.86	8.86	118	118	70.0-130			0.104	25
Tetrachloroethylene	3.75	4.27	4.34	114	116	70.0-130			1.54	25
Methyl Butyl Ketone	3.75	4.49	4.52	120	120	70.0-149			0.608	25
o-Xylene	3.75	4.36	4.38	116	117	70.0-130			0.360	25
Dibromochloromethane	3.75	4.41	4.44	118	118	70.0-130			0.604	25
1,2-Dibromoethane	3.75	4.45	4.50	119	120	70.0-130			1.19	25
Chlorobenzene	3.75	4.42	4.48	118	119	70.0-130			1.23	25
Styrene	3.75	4.50	4.49	120	120	70.0-130			0.0843	25
Bromoform	3.75	4.47	4.50	119	120	70.0-130			0.660	25
1,1,2,2-Tetrachloroethane	3.75	4.18	4.17	111	111	70.0-130			0.248	25
1,3,5-Trimethylbenzene	3.75	4.34	4.40	116	117	70.0-130			1.28	25
1,2,4-Trimethylbenzene	3.75	4.35	4.37	116	117	70.0-130			0.465	25
1,3-Dichlorobenzene	3.75	4.46	4.48	119	119	70.0-130			0.360	25
TPH (GC/MS) Low Fraction	203	235	232	116	115	70.0-130			1.33	25
1,4-Dichlorobenzene	3.75	4.54	4.63	121	124	70.0-130			1.97	25
Benzyl Chloride	3.75	4.63	4.66	124	124	70.0-152			0.546	25
1,2-Dichlorobenzene	3.75	4.39	4.40	117	117	70.0-130			0.222	25
1,2,4-Trichlorobenzene	3.75	5.05	5.10	135	136	70.0-160			0.980	25
Hexachloro-1,3-butadiene	3.75	4.61	4.57	123	122	70.0-151			0.782	25
Naphthalene	3.75	4.95	4.96	132	132	70.0-159			0.238	25
2-Chlorotoluene	3.75	4.35	4.38	116	117	70.0-130			0.802	25
Tetrahydrofuran	3.75	4.34	4.35	116	116	70.0-137			0.273	25
Isopropylbenzene	3.75	4.39	4.37	117	117	70.0-130			0.554	25
(S) 1,4-Bromofluorobenzene				*100*	*98.3*	*60.0-140*				

1 Cp
2 Tc
3 Ss
4 Cn
5 Ds
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

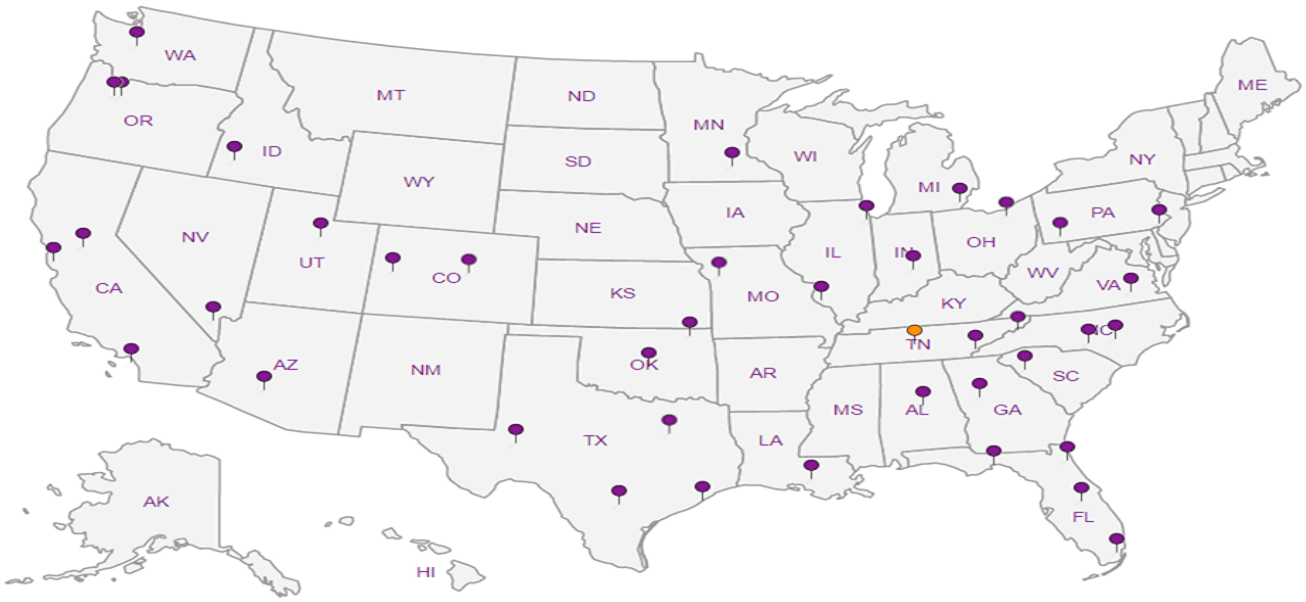
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Converse Consultants - Monrovia, CA

717 S. Myrtle Avenue
Monrovia, CA 91016

Billing Information:
Accounts Payable- Michael Van Fleet
717 S. Myrtle Avenue
Monrovia, CA 91016

Report to: Michael Van Fleet

Email To: mvanfleet@converseconsultants.com

Project Description:

City/State Collected:

Phone: 626-930-1267
Fax: 714 444 9660

Client Project # 1942-162-00(02)

Lab Project # CONCONMCA-LAKEFOREST

Collected by (print): Brian Kelly

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ___

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Pres Chk

Analysis / Container / Preservative

TO-15 Summa

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Remarks	Sample # (lab only)
~~AO~~ OA-1	G	Air		7/18/19	1140		5850	01
IA-3	G	Air		7/18/19	1115		6984	
9833 (Con ID)	→	→	→	→	→		unused	
6947 (Con ID)	→	→	→	→	→		unused	

Chain of Custody Page ___ of ___

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 112674
M085

Acctnum: CONCONMCA
Template: T152932
Prelogin: P719380
TSR: 110 - Brian Ford
PB: BF 7/16/19
Shipped Via: FedEX Saver

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking # 4794 8846 1842

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
	07/19/19	10:00		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:
				Amb 2
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:
				7/20/19 0845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

A & R Laboratories, Inc.

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	2790
	2122

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CASE NARRATIVE

Authorized Signature Name / Title (print)	Ken Zheng, President
Signature / Date	Ken Zheng, President 07/24/2019 14:34:40
Laboratory Job No. (Certificate of Analysis No.)	1907-00157
Project Name / No.	23591 El Toro Rd., Lake Forest, CA 92630
Dates Sampled (from/to)	07/19/19 To 07/19/19
Dates Received (from/to)	07/19/19 To 07/19/19
Dates Reported (from/to)	07/24/19 To 7/24/2019
Chains of Custody Received	Yes

Comments:

Subcontracting

Organic Analyses

No analyses sub-contracted

Sample Condition(s)

All samples intact

Positive Results (Organic Compounds)

Sample	Analyte	Result	Qual	Units	RL	Sample	Analyte	Result	Qual	Units	RL
SV7-5'	Benzene	**0.15**		µg/L	0.025	SV7-5'	Ethylbenzene	**0.060**		µg/L	0.050
SV7-5'	Toluene	**0.070**		µg/L	0.050	SV7-5'	m,p-Xylenes	**0.10**		µg/L	0.10
SV6-5'	Benzene	**0.16**		µg/L	0.025	SV6-5'	Ethylbenzene	**0.060**		µg/L	0.050
SV6-5'	Toluene	**0.080**		µg/L	0.050	SV6-5'	m,p-Xylenes	**0.12**		µg/L	0.10

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CERTIFICATE OF ANALYSIS

1907-00157

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	07/24/19
Date Received	07/19/19
Invoice No.	86321
Cust #	1567
Permit Number	
Customer P.O.	

Project: 23591 El Toro Rd., Lake Forest, CA 92630

Sample: 001 **SV1-15'** Date & Time Sampled: 07/19/19 @ 10:30
Sample Matrix: **Soil Vapor**
Purge Volume Sampled: **3**

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
[VOCs by GCMS]										
Acetone	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	10:40	AL
t-Amyl Methyl Ether (TAME)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
Benzene	<0.0180		µg/L	EPA 8260B	0.5	0.0180	0.025	07/19/19	10:40	AL
Bromobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
Bromochloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
Bromodichloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
Bromoform	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
Bromomethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
t-Butanol (TBA)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	10:40	AL
2-Butanone (MEK)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	10:40	AL
n-Butylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
sec-Butylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
tert-Butylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
Carbon Disulfide	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	10:40	AL
Carbon Tetrachloride	<0.0125		µg/L	EPA 8260B	0.5	0.0125	0.025	07/19/19	10:40	AL
Chlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
Chloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
Chloroform	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
Chloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
2-Chlorotoluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
4-Chlorotoluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
Dibromochloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
1,2-Dibromoethane (EDB)	<0.0100		µg/L	EPA 8260B	0.5	0.0100	0.050	07/19/19	10:40	AL
1,2-Dibromo-3-Chloropropane	<0.0100		µg/L	EPA 8260B	0.5	0.0100	0.050	07/19/19	10:40	AL
Dibromomethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
1,2-Dichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
1,3-Dichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
1,4-Dichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
Dichlorodifluoromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
1,1-Dichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL

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CERTIFICATE OF ANALYSIS

1907-00157

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	07/24/19
Date Received	07/19/19
Invoice No.	86321
Cust #	1567
Permit Number	
Customer P.O.	

Project: 23591 El Toro Rd., Lake Forest, CA 92630

Sample: 001 **SV1-15'** Date & Time Sampled: 07/19/19 @ 10:30
Sample Matrix: **Soil Vapor**
Purge Volume Sampled: **3**
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
1,2-Dichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
1,1-Dichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
cis-1,2-Dichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
trans-1,2-Dichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
1,2-Dichloropropane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
1,3-Dichloropropane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
2,2-Dichloropropane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
1,1-Dichloropropene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
cis-1,3-Dichloropropene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
trans-1,3-Dichloropropene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
Diisopropyl Ether (DiPE)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
Ethylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
Ethyl-t-Butyl Ether (EtBE)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
Hexachlorobutadiene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
2-Hexanone	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	10:40	AL
Isopropylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
4-Isopropyltoluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
Methylene Chloride	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.05	07/19/19	10:40	AL
4-Methyl-2-Pentanone (MIBK)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	10:40	AL
Methyl-t-butyl Ether (MtBE)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
Naphthalene	<0.0160		µg/L	EPA 8260B	0.5	0.0160	0.025	07/19/19	10:40	AL
n-Propylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
Styrene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
1,1,1,2-Tetrachloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
1,1,2,2-Tetrachloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
Tetrachloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
Toluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
1,2,3-Trichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
1,2,4-Trichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
1,1,1-Trichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL

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CERTIFICATE OF ANALYSIS

1907-00157

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	07/24/19
Date Received	07/19/19
Invoice No.	86321
Cust #	1567
Permit Number	
Customer P.O.	

Project: 23591 El Toro Rd., Lake Forest, CA 92630

Sample: 001 **SV1-15'** Date & Time Sampled: 07/19/19 @ 10:30
Sample Matrix: **Soil Vapor**
Purge Volume Sampled: **3**
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
1,1,2-Trichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
Trichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
1,2,3-Trichloropropane	<0.0100		µg/L	EPA 8260B	0.5	0.0100	0.050	07/19/19	10:40	AL
Trichlorofluoromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
Trichlorotrifluoroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
1,2,4-Trimethylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
1,3,5-Trimethylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
Vinyl Chloride	<0.0040		µg/L	EPA 8260B	0.5	0.0040	0.025	07/19/19	10:40	AL
m,p-Xylenes	<0.0500		µg/L	EPA 8260B	0.5	0.0500	0.10	07/19/19	10:40	AL
o-Xylene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	10:40	AL
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	10:40	AL
[VOC Surrogates]										
Dibromofluoromethane	96		%REC	EPA 8260B			70-130	07/19/19	10:40	AL
Toluene-D8	105		%REC	EPA 8260B			70-130	07/19/19	10:40	AL
Bromofluorobenzene	98		%REC	EPA 8260B			70-130	07/19/19	10:40	AL

Sample: 002 **SV1-5'** Date & Time Sampled: 07/19/19 @ 10:50
Sample Matrix: **Soil Vapor**
Purge Volume Sampled: **3**

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
[VOCs by GCMS]										
Acetone	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	11:03	AL
t-Amyl Methyl Ether (TAME)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
Benzene	<0.0180		µg/L	EPA 8260B	0.5	0.0180	0.025	07/19/19	11:03	AL
Bromobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
Bromochloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
Bromodichloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
Bromoform	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
Bromomethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
t-Butanol (TBA)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	11:03	AL

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CERTIFICATE OF ANALYSIS

1907-00157

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	07/24/19
Date Received	07/19/19
Invoice No.	86321
Cust #	1567
Permit Number	
Customer P.O.	

Project: 23591 El Toro Rd., Lake Forest, CA 92630

Sample: 002 **SV1-5'** Date & Time Sampled: 07/19/19 @ 10:50
Sample Matrix: **Soil Vapor**
Purge Volume Sampled: **3**
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
2-Butanone (MEK)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	11:03	AL
n-Butylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
sec-Butylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
tert-Butylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
Carbon Disulfide	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	11:03	AL
Carbon Tetrachloride	<0.0125		µg/L	EPA 8260B	0.5	0.0125	0.025	07/19/19	11:03	AL
Chlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
Chloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
Chloroform	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
Chloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
2-Chlorotoluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
4-Chlorotoluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
Dibromochloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
1,2-Dibromoethane (EDB)	<0.0100		µg/L	EPA 8260B	0.5	0.0100	0.050	07/19/19	11:03	AL
1,2-Dibromo-3-Chloropropane	<0.0100		µg/L	EPA 8260B	0.5	0.0100	0.050	07/19/19	11:03	AL
Dibromomethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
1,2-Dichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
1,3-Dichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
1,4-Dichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
Dichlorodifluoromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
1,1-Dichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
1,2-Dichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
1,1-Dichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
cis-1,2-Dichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
trans-1,2-Dichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
1,2-Dichloropropane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
1,3-Dichloropropane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
2,2-Dichloropropane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
1,1-Dichloropropene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
cis-1,3-Dichloropropene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL

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CERTIFICATE OF ANALYSIS

1907-00157

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	07/24/19
Date Received	07/19/19
Invoice No.	86321
Cust #	1567
Permit Number	
Customer P.O.	

Project: 23591 El Toro Rd., Lake Forest, CA 92630

Sample: 002 **SV1-5'** Date & Time Sampled: 07/19/19 @ 10:50
Sample Matrix: **Soil Vapor**
Purge Volume Sampled: **3**
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
trans-1,3-Dichloropropene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
Diisopropyl Ether (DiPE)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
Ethylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
Ethyl-t-Butyl Ether (EtBE)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
Hexachlorobutadiene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
2-Hexanone	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	11:03	AL
Isopropylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
4-Isopropyltoluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
Methylene Chloride	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.05	07/19/19	11:03	AL
4-Methyl-2-Pentanone (MIBK)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	11:03	AL
Methyl-t-butyl Ether (MtBE)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
Naphthalene	<0.0160		µg/L	EPA 8260B	0.5	0.0160	0.025	07/19/19	11:03	AL
n-Propylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
Styrene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
1,1,1,2-Tetrachloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
1,1,2,2-Tetrachloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
Tetrachloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
Toluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
1,2,3-Trichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
1,2,4-Trichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
1,1,1-Trichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
1,1,2-Trichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
Trichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
1,2,3-Trichloropropane	<0.0100		µg/L	EPA 8260B	0.5	0.0100	0.050	07/19/19	11:03	AL
Trichlorofluoromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
Trichlorotrifluoroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
1,2,4-Trimethylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
1,3,5-Trimethylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
Vinyl Chloride	<0.0040		µg/L	EPA 8260B	0.5	0.0040	0.025	07/19/19	11:03	AL
m,p-Xylenes	<0.0500		µg/L	EPA 8260B	0.5	0.0500	0.10	07/19/19	11:03	AL

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CERTIFICATE OF ANALYSIS

1907-00157

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	07/24/19
Date Received	07/19/19
Invoice No.	86321
Cust #	1567
Permit Number	
Customer P.O.	

Project: 23591 El Toro Rd., Lake Forest, CA 92630

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 002 **SV1-5'**							Date & Time Sampled:	07/19/19	@	10:50
Sample Matrix: **Soil Vapor**										
Purge Volume Sampled: **3**										
.....continued										
o-Xylene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:03	AL
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	11:03	AL
[VOC Surrogates]										
Dibromofluoromethane	98		%REC	EPA 8260B			70-130	07/19/19	11:03	AL
Toluene-D8	104		%REC	EPA 8260B			70-130	07/19/19	11:03	AL
Bromofluorobenzene	100		%REC	EPA 8260B			70-130	07/19/19	11:03	AL
Sample: 003 **SV3-15'**							Date & Time Sampled:	07/19/19	@	11:09
Sample Matrix: **Soil Vapor**										
Purge Volume Sampled: **3**										
[VOCs by GCMS]										
Acetone	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	11:25	AL
t-Amyl Methyl Ether (TAME)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
Benzene	<0.0180		µg/L	EPA 8260B	0.5	0.0180	0.025	07/19/19	11:25	AL
Bromobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
Bromochloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
Bromodichloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
Bromoform	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
Bromomethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
t-Butanol (TBA)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	11:25	AL
2-Butanone (MEK)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	11:25	AL
n-Butylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
sec-Butylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
tert-Butylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
Carbon Disulfide	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	11:25	AL
Carbon Tetrachloride	<0.0125		µg/L	EPA 8260B	0.5	0.0125	0.025	07/19/19	11:25	AL
Chlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
Chloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
Chloroform	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL

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INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	07/24/19
Date Received	07/19/19
Invoice No.	86321
Cust #	1567
Permit Number	
Customer P.O.	

Project: 23591 El Toro Rd., Lake Forest, CA 92630

Sample: 003 **SV3-15'** Date & Time Sampled: 07/19/19 @ 11:09
Sample Matrix: **Soil Vapor**
Purge Volume Sampled: **3**
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Chloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
2-Chlorotoluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
4-Chlorotoluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
Dibromochloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
1,2-Dibromoethane (EDB)	<0.0100		µg/L	EPA 8260B	0.5	0.0100	0.050	07/19/19	11:25	AL
1,2-Dibromo-3-Chloropropane	<0.0100		µg/L	EPA 8260B	0.5	0.0100	0.050	07/19/19	11:25	AL
Dibromomethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
1,2-Dichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
1,3-Dichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
1,4-Dichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
Dichlorodifluoromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
1,1-Dichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
1,2-Dichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
1,1-Dichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
cis-1,2-Dichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
trans-1,2-Dichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
1,2-Dichloropropane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
1,3-Dichloropropane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
2,2-Dichloropropane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
1,1-Dichloropropene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
cis-1,3-Dichloropropene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
trans-1,3-Dichloropropene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
Diisopropyl Ether (DiPE)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
Ethylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
Ethyl-t-Butyl Ether (EtBE)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
Hexachlorobutadiene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
2-Hexanone	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	11:25	AL
Isopropylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
4-Isopropyltoluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
Methylene Chloride	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.05	07/19/19	11:25	AL

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CERTIFICATE OF ANALYSIS

1907-00157

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	07/24/19
Date Received	07/19/19
Invoice No.	86321
Cust #	1567
Permit Number	
Customer P.O.	

Project: 23591 El Toro Rd., Lake Forest, CA 92630

Sample: 003 **SV3-15'** Date & Time Sampled: 07/19/19 @ 11:09
Sample Matrix: **Soil Vapor**
Purge Volume Sampled: **3**
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
4-Methyl-2-Pentanone (MIBK)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	11:25	AL
Methyl-t-butyl Ether (MtBE)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
Naphthalene	<0.0160		µg/L	EPA 8260B	0.5	0.0160	0.025	07/19/19	11:25	AL
n-Propylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
Styrene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
1,1,1,2-Tetrachloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
1,1,2,2-Tetrachloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
Tetrachloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
Toluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
1,2,3-Trichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
1,2,4-Trichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
1,1,1-Trichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
1,1,2-Trichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
Trichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
1,2,3-Trichloropropane	<0.0100		µg/L	EPA 8260B	0.5	0.0100	0.050	07/19/19	11:25	AL
Trichlorofluoromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
Trichlorotrifluoroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
1,2,4-Trimethylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
1,3,5-Trimethylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
Vinyl Chloride	<0.0040		µg/L	EPA 8260B	0.5	0.0040	0.025	07/19/19	11:25	AL
m,p-Xylenes	<0.0500		µg/L	EPA 8260B	0.5	0.0500	0.10	07/19/19	11:25	AL
o-Xylene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:25	AL
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	11:25	AL
[VOC Surrogates]										
Dibromofluoromethane	100		%REC	EPA 8260B			70-130	07/19/19	11:25	AL
Toluene-D8	105		%REC	EPA 8260B			70-130	07/19/19	11:25	AL
Bromofluorobenzene	101		%REC	EPA 8260B			70-130	07/19/19	11:25	AL

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CERTIFICATE OF ANALYSIS

1907-00157

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	07/24/19
Date Received	07/19/19
Invoice No.	86321
Cust #	1567
Permit Number	
Customer P.O.	

Project: 23591 El Toro Rd., Lake Forest, CA 92630

Sample: 004 **SV3-5'** Date & Time Sampled: 07/19/19 @ 11:31
Sample Matrix: **Soil Vapor**
Purge Volume Sampled: **3**

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
[VOCs by GCMS]										
Acetone	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	11:48	AL
t-Amyl Methyl Ether (TAME)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
Benzene	<0.0180		µg/L	EPA 8260B	0.5	0.0180	0.025	07/19/19	11:48	AL
Bromobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
Bromochloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
Bromodichloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
Bromoform	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
Bromomethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
t-Butanol (TBA)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	11:48	AL
2-Butanone (MEK)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	11:48	AL
n-Butylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
sec-Butylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
tert-Butylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
Carbon Disulfide	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	11:48	AL
Carbon Tetrachloride	<0.0125		µg/L	EPA 8260B	0.5	0.0125	0.025	07/19/19	11:48	AL
Chlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
Chloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
Chloroform	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
Chloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
2-Chlorotoluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
4-Chlorotoluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
Dibromochloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
1,2-Dibromoethane (EDB)	<0.0100		µg/L	EPA 8260B	0.5	0.0100	0.050	07/19/19	11:48	AL
1,2-Dibromo-3-Chloropropane	<0.0100		µg/L	EPA 8260B	0.5	0.0100	0.050	07/19/19	11:48	AL
Dibromomethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
1,2-Dichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
1,3-Dichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
1,4-Dichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
Dichlorodifluoromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
1,1-Dichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL

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CERTIFICATE OF ANALYSIS

1907-00157

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	07/24/19
Date Received	07/19/19
Invoice No.	86321
Cust #	1567
Permit Number	
Customer P.O.	

Project: 23591 El Toro Rd., Lake Forest, CA 92630

Sample: 004 **SV3-5'** Date & Time Sampled: 07/19/19 @ 11:31
Sample Matrix: **Soil Vapor**
Purge Volume Sampled: **3**
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
1,2-Dichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
1,1-Dichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
cis-1,2-Dichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
trans-1,2-Dichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
1,2-Dichloropropane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
1,3-Dichloropropane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
2,2-Dichloropropane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
1,1-Dichloropropene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
cis-1,3-Dichloropropene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
trans-1,3-Dichloropropene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
Diisopropyl Ether (DiPE)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
Ethylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
Ethyl-t-Butyl Ether (EtBE)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
Hexachlorobutadiene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
2-Hexanone	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	11:48	AL
Isopropylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
4-Isopropyltoluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
Methylene Chloride	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.05	07/19/19	11:48	AL
4-Methyl-2-Pentanone (MIBK)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	11:48	AL
Methyl-t-butyl Ether (MtBE)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
Naphthalene	<0.0160		µg/L	EPA 8260B	0.5	0.0160	0.025	07/19/19	11:48	AL
n-Propylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
Styrene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
1,1,1,2-Tetrachloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
1,1,2,2-Tetrachloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
Tetrachloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
Toluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
1,2,3-Trichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
1,2,4-Trichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
1,1,1-Trichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL

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CERTIFICATE OF ANALYSIS

1907-00157

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	07/24/19
Date Received	07/19/19
Invoice No.	86321
Cust #	1567
Permit Number	
Customer P.O.	

Project: 23591 El Toro Rd., Lake Forest, CA 92630

Sample: 004 **SV3-5'** Date & Time Sampled: 07/19/19 @ 11:31
Sample Matrix: **Soil Vapor**
Purge Volume Sampled: **3**
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
1,1,2-Trichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
Trichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
1,2,3-Trichloropropane	<0.0100		µg/L	EPA 8260B	0.5	0.0100	0.050	07/19/19	11:48	AL
Trichlorofluoromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
Trichlorotrifluoroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
1,2,4-Trimethylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
1,3,5-Trimethylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
Vinyl Chloride	<0.0040		µg/L	EPA 8260B	0.5	0.0040	0.025	07/19/19	11:48	AL
m,p-Xylenes	<0.0500		µg/L	EPA 8260B	0.5	0.0500	0.10	07/19/19	11:48	AL
o-Xylene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	11:48	AL
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	11:48	AL
[VOC Surrogates]										
Dibromofluoromethane	106		%REC	EPA 8260B			70-130	07/19/19	11:48	AL
Toluene-D8	105		%REC	EPA 8260B			70-130	07/19/19	11:48	AL
Bromofluorobenzene	101		%REC	EPA 8260B			70-130	07/19/19	11:48	AL

Sample: 005 **SV2-15'** Date & Time Sampled: 07/19/19 @ 11:54
Sample Matrix: **Soil Vapor**
Purge Volume Sampled: **3**

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
[VOCs by GCMS]										
Acetone	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	12:11	AL
t-Amyl Methyl Ether (TAME)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
Benzene	<0.0180		µg/L	EPA 8260B	0.5	0.0180	0.025	07/19/19	12:11	AL
Bromobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
Bromochloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
Bromodichloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
Bromoform	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
Bromomethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
t-Butanol (TBA)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	12:11	AL

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CERTIFICATE OF ANALYSIS

1907-00157

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	07/24/19
Date Received	07/19/19
Invoice No.	86321
Cust #	1567
Permit Number	
Customer P.O.	

Project: 23591 El Toro Rd., Lake Forest, CA 92630

Sample: 005 **SV2-15'** Date & Time Sampled: 07/19/19 @ 11:54
Sample Matrix: **Soil Vapor**
Purge Volume Sampled: **3**
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
2-Butanone (MEK)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	12:11	AL
n-Butylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
sec-Butylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
tert-Butylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
Carbon Disulfide	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	12:11	AL
Carbon Tetrachloride	<0.0125		µg/L	EPA 8260B	0.5	0.0125	0.025	07/19/19	12:11	AL
Chlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
Chloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
Chloroform	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
Chloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
2-Chlorotoluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
4-Chlorotoluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
Dibromochloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
1,2-Dibromoethane (EDB)	<0.0100		µg/L	EPA 8260B	0.5	0.0100	0.050	07/19/19	12:11	AL
1,2-Dibromo-3-Chloropropane	<0.0100		µg/L	EPA 8260B	0.5	0.0100	0.050	07/19/19	12:11	AL
Dibromomethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
1,2-Dichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
1,3-Dichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
1,4-Dichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
Dichlorodifluoromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
1,1-Dichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
1,2-Dichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
1,1-Dichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
cis-1,2-Dichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
trans-1,2-Dichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
1,2-Dichloropropane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
1,3-Dichloropropane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
2,2-Dichloropropane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
1,1-Dichloropropene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
cis-1,3-Dichloropropene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL

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CERTIFICATE OF ANALYSIS

1907-00157

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	07/24/19
Date Received	07/19/19
Invoice No.	86321
Cust #	1567
Permit Number	
Customer P.O.	

Project: 23591 El Toro Rd., Lake Forest, CA 92630

Sample: 005 **SV2-15'** Date & Time Sampled: 07/19/19 @ 11:54
Sample Matrix: **Soil Vapor**
Purge Volume Sampled: **3**
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
trans-1,3-Dichloropropene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
Diisopropyl Ether (DiPE)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
Ethylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
Ethyl-t-Butyl Ether (EtBE)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
Hexachlorobutadiene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
2-Hexanone	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	12:11	AL
Isopropylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
4-Isopropyltoluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
Methylene Chloride	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.05	07/19/19	12:11	AL
4-Methyl-2-Pentanone (MIBK)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	12:11	AL
Methyl-t-butyl Ether (MtBE)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
Naphthalene	<0.0160		µg/L	EPA 8260B	0.5	0.0160	0.025	07/19/19	12:11	AL
n-Propylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
Styrene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
1,1,1,2-Tetrachloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
1,1,2,2-Tetrachloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
Tetrachloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
Toluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
1,2,3-Trichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
1,2,4-Trichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
1,1,1-Trichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
1,1,2-Trichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
Trichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
1,2,3-Trichloropropane	<0.0100		µg/L	EPA 8260B	0.5	0.0100	0.050	07/19/19	12:11	AL
Trichlorofluoromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
Trichlorotrifluoroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
1,2,4-Trimethylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
1,3,5-Trimethylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
Vinyl Chloride	<0.0040		µg/L	EPA 8260B	0.5	0.0040	0.025	07/19/19	12:11	AL
m,p-Xylenes	<0.0500		µg/L	EPA 8260B	0.5	0.0500	0.10	07/19/19	12:11	AL

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INTERPHASE
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6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	07/24/19
Date Received	07/19/19
Invoice No.	86321
Cust #	1567
Permit Number	
Customer P.O.	

Project: 23591 El Toro Rd., Lake Forest, CA 92630

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 005 **SV2-15'**							Date & Time Sampled:	07/19/19	@	11:54
Sample Matrix: **Soil Vapor**										
Purge Volume Sampled: **3**										
.....continued										
o-Xylene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:11	AL
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	12:11	AL
[VOC Surrogates]										
Dibromofluoromethane	102		%REC	EPA 8260B			70-130	07/19/19	12:11	AL
Toluene-D8	105		%REC	EPA 8260B			70-130	07/19/19	12:11	AL
Bromofluorobenzene	99		%REC	EPA 8260B			70-130	07/19/19	12:11	AL
Sample: 006 **SV2-5'**							Date & Time Sampled:	07/19/19	@	12:17
Sample Matrix: **Soil Vapor**										
Purge Volume Sampled: **3**										
[VOCs by GCMS]										
Acetone	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	12:34	AL
t-Amyl Methyl Ether (TAME)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
Benzene	<0.0180		µg/L	EPA 8260B	0.5	0.0180	0.025	07/19/19	12:34	AL
Bromobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
Bromochloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
Bromodichloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
Bromoform	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
Bromomethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
t-Butanol (TBA)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	12:34	AL
2-Butanone (MEK)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	12:34	AL
n-Butylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
sec-Butylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
tert-Butylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
Carbon Disulfide	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	12:34	AL
Carbon Tetrachloride	<0.0125		µg/L	EPA 8260B	0.5	0.0125	0.025	07/19/19	12:34	AL
Chlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
Chloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
Chloroform	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL

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CERTIFICATE OF ANALYSIS

1907-00157

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	07/24/19
Date Received	07/19/19
Invoice No.	86321
Cust #	1567
Permit Number	
Customer P.O.	

Project: 23591 El Toro Rd., Lake Forest, CA 92630

Sample: 006 **SV2-5'** Date & Time Sampled: 07/19/19 @ 12:17
Sample Matrix: **Soil Vapor**
Purge Volume Sampled: **3**
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Chloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
2-Chlorotoluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
4-Chlorotoluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
Dibromochloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
1,2-Dibromoethane (EDB)	<0.0100		µg/L	EPA 8260B	0.5	0.0100	0.050	07/19/19	12:34	AL
1,2-Dibromo-3-Chloropropane	<0.0100		µg/L	EPA 8260B	0.5	0.0100	0.050	07/19/19	12:34	AL
Dibromomethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
1,2-Dichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
1,3-Dichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
1,4-Dichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
Dichlorodifluoromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
1,1-Dichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
1,2-Dichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
1,1-Dichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
cis-1,2-Dichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
trans-1,2-Dichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
1,2-Dichloropropane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
1,3-Dichloropropane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
2,2-Dichloropropane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
1,1-Dichloropropene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
cis-1,3-Dichloropropene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
trans-1,3-Dichloropropene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
Diisopropyl Ether (DiPE)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
Ethylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
Ethyl-t-Butyl Ether (EtBE)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
Hexachlorobutadiene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
2-Hexanone	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	12:34	AL
Isopropylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
4-Isopropyltoluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
Methylene Chloride	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.05	07/19/19	12:34	AL

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6200 PEACHTREE STREET
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Date Reported	07/24/19
Date Received	07/19/19
Invoice No.	86321
Cust #	1567
Permit Number	
Customer P.O.	

Project: 23591 El Toro Rd., Lake Forest, CA 92630

Sample: 006 **SV2-5'** Date & Time Sampled: 07/19/19 @ 12:17
Sample Matrix: **Soil Vapor**
Purge Volume Sampled: **3**
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
4-Methyl-2-Pentanone (MIBK)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	12:34	AL
Methyl-t-butyl Ether (MtBE)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
Naphthalene	<0.0160		µg/L	EPA 8260B	0.5	0.0160	0.025	07/19/19	12:34	AL
n-Propylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
Styrene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
1,1,1,2-Tetrachloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
1,1,2,2-Tetrachloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
Tetrachloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
Toluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
1,2,3-Trichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
1,2,4-Trichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
1,1,1-Trichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
1,1,2-Trichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
Trichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
1,2,3-Trichloropropane	<0.0100		µg/L	EPA 8260B	0.5	0.0100	0.050	07/19/19	12:34	AL
Trichlorofluoromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
Trichlorotrifluoroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
1,2,4-Trimethylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
1,3,5-Trimethylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
Vinyl Chloride	<0.0040		µg/L	EPA 8260B	0.5	0.0040	0.025	07/19/19	12:34	AL
m,p-Xylenes	<0.0500		µg/L	EPA 8260B	0.5	0.0500	0.10	07/19/19	12:34	AL
o-Xylene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:34	AL
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	12:34	AL
[VOC Surrogates]										
Dibromofluoromethane	104		%REC	EPA 8260B			70-130	07/19/19	12:34	AL
Toluene-D8	105		%REC	EPA 8260B			70-130	07/19/19	12:34	AL
Bromofluorobenzene	99		%REC	EPA 8260B			70-130	07/19/19	12:34	AL

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CERTIFICATE OF ANALYSIS

1907-00157

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	07/24/19
Date Received	07/19/19
Invoice No.	86321
Cust #	1567
Permit Number	
Customer P.O.	

Project: 23591 El Toro Rd., Lake Forest, CA 92630

Sample: 007 **SV2-5' DUP** Date & Time Sampled: 07/19/19 @ 12:40
Sample Matrix: **Soil Vapor**
Purge Volume Sampled: **3**

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
[VOCs by GCMS]										
Acetone	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	12:57	AL
t-Amyl Methyl Ether (TAME)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
Benzene	<0.0180		µg/L	EPA 8260B	0.5	0.0180	0.025	07/19/19	12:57	AL
Bromobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
Bromochloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
Bromodichloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
Bromoform	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
Bromomethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
t-Butanol (TBA)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	12:57	AL
2-Butanone (MEK)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	12:57	AL
n-Butylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
sec-Butylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
tert-Butylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
Carbon Disulfide	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	12:57	AL
Carbon Tetrachloride	<0.0125		µg/L	EPA 8260B	0.5	0.0125	0.025	07/19/19	12:57	AL
Chlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
Chloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
Chloroform	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
Chloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
2-Chlorotoluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
4-Chlorotoluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
Dibromochloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
1,2-Dibromoethane (EDB)	<0.0100		µg/L	EPA 8260B	0.5	0.0100	0.050	07/19/19	12:57	AL
1,2-Dibromo-3-Chloropropane	<0.0100		µg/L	EPA 8260B	0.5	0.0100	0.050	07/19/19	12:57	AL
Dibromomethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
1,2-Dichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
1,3-Dichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
1,4-Dichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
Dichlorodifluoromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
1,1-Dichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL

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CERTIFICATE OF ANALYSIS

1907-00157

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	07/24/19
Date Received	07/19/19
Invoice No.	86321
Cust #	1567
Permit Number	
Customer P.O.	

Project: 23591 El Toro Rd., Lake Forest, CA 92630

Sample: 007 **SV2-5' DUP** Date & Time Sampled: 07/19/19 @ 12:40
Sample Matrix: **Soil Vapor**
Purge Volume Sampled: **3**
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
1,2-Dichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
1,1-Dichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
cis-1,2-Dichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
trans-1,2-Dichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
1,2-Dichloropropane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
1,3-Dichloropropane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
2,2-Dichloropropane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
1,1-Dichloropropene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
cis-1,3-Dichloropropene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
trans-1,3-Dichloropropene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
Diisopropyl Ether (DiPE)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
Ethylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
Ethyl-t-Butyl Ether (EtBE)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
Hexachlorobutadiene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
2-Hexanone	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	12:57	AL
Isopropylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
4-Isopropyltoluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
Methylene Chloride	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.05	07/19/19	12:57	AL
4-Methyl-2-Pentanone (MIBK)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	12:57	AL
Methyl-t-butyl Ether (MtBE)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
Naphthalene	<0.0160		µg/L	EPA 8260B	0.5	0.0160	0.025	07/19/19	12:57	AL
n-Propylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
Styrene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
1,1,1,2-Tetrachloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
1,1,2,2-Tetrachloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
Tetrachloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
Toluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
1,2,3-Trichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
1,2,4-Trichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
1,1,1-Trichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL

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CERTIFICATE OF ANALYSIS

1907-00157

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	07/24/19
Date Received	07/19/19
Invoice No.	86321
Cust #	1567
Permit Number	
Customer P.O.	

Project: 23591 El Toro Rd., Lake Forest, CA 92630

Sample: 007 **SV2-5' DUP** Date & Time Sampled: 07/19/19 @ 12:40
Sample Matrix: **Soil Vapor**
Purge Volume Sampled: **3**
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
1,1,2-Trichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
Trichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
1,2,3-Trichloropropane	<0.0100		µg/L	EPA 8260B	0.5	0.0100	0.050	07/19/19	12:57	AL
Trichlorofluoromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
Trichlorotrifluoroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
1,2,4-Trimethylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
1,3,5-Trimethylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
Vinyl Chloride	<0.0040		µg/L	EPA 8260B	0.5	0.0040	0.025	07/19/19	12:57	AL
m,p-Xylenes	<0.0500		µg/L	EPA 8260B	0.5	0.0500	0.10	07/19/19	12:57	AL
o-Xylene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	12:57	AL
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	12:57	AL
[VOC Surrogates]										
Dibromofluoromethane	104		%REC	EPA 8260B			70-130	07/19/19	12:57	AL
Toluene-D8	107		%REC	EPA 8260B			70-130	07/19/19	12:57	AL
Bromofluorobenzene	99		%REC	EPA 8260B			70-130	07/19/19	12:57	AL

Sample: 008 **SV4-15'** Date & Time Sampled: 07/19/19 @ 13:03
Sample Matrix: **Soil Vapor**
Purge Volume Sampled: **3**

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
[VOCs by GCMS]										
Acetone	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	1:21	AL
t-Amyl Methyl Ether (TAME)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
Benzene	<0.0180		µg/L	EPA 8260B	0.5	0.0180	0.025	07/19/19	1:21	AL
Bromobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
Bromochloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
Bromodichloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
Bromoform	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
Bromomethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
t-Butanol (TBA)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	1:21	AL

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CERTIFICATE OF ANALYSIS

1907-00157

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	07/24/19
Date Received	07/19/19
Invoice No.	86321
Cust #	1567
Permit Number	
Customer P.O.	

Project: 23591 El Toro Rd., Lake Forest, CA 92630

Sample: 008 **SV4-15'** Date & Time Sampled: 07/19/19 @ 13:03
Sample Matrix: **Soil Vapor**
Purge Volume Sampled: **3**
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
2-Butanone (MEK)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	1:21	AL
n-Butylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
sec-Butylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
tert-Butylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
Carbon Disulfide	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	1:21	AL
Carbon Tetrachloride	<0.0125		µg/L	EPA 8260B	0.5	0.0125	0.025	07/19/19	1:21	AL
Chlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
Chloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
Chloroform	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
Chloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
2-Chlorotoluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
4-Chlorotoluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
Dibromochloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
1,2-Dibromoethane (EDB)	<0.0100		µg/L	EPA 8260B	0.5	0.0100	0.050	07/19/19	1:21	AL
1,2-Dibromo-3-Chloropropane	<0.0100		µg/L	EPA 8260B	0.5	0.0100	0.050	07/19/19	1:21	AL
Dibromomethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
1,2-Dichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
1,3-Dichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
1,4-Dichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
Dichlorodifluoromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
1,1-Dichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
1,2-Dichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
1,1-Dichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
cis-1,2-Dichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
trans-1,2-Dichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
1,2-Dichloropropane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
1,3-Dichloropropane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
2,2-Dichloropropane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
1,1-Dichloropropene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
cis-1,3-Dichloropropene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL

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CERTIFICATE OF ANALYSIS

1907-00157

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	07/24/19
Date Received	07/19/19
Invoice No.	86321
Cust #	1567
Permit Number	
Customer P.O.	

Project: 23591 El Toro Rd., Lake Forest, CA 92630

Sample: 008 **SV4-15'** Date & Time Sampled: 07/19/19 @ 13:03
Sample Matrix: **Soil Vapor**
Purge Volume Sampled: **3**
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
trans-1,3-Dichloropropene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
Diisopropyl Ether (DiPE)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
Ethylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
Ethyl-t-Butyl Ether (EtBE)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
Hexachlorobutadiene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
2-Hexanone	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	1:21	AL
Isopropylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
4-Isopropyltoluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
Methylene Chloride	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.05	07/19/19	1:21	AL
4-Methyl-2-Pentanone (MIBK)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	1:21	AL
Methyl-t-butyl Ether (MtBE)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
Naphthalene	<0.0160		µg/L	EPA 8260B	0.5	0.0160	0.025	07/19/19	1:21	AL
n-Propylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
Styrene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
1,1,1,2-Tetrachloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
1,1,2,2-Tetrachloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
Tetrachloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
Toluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
1,2,3-Trichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
1,2,4-Trichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
1,1,1-Trichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
1,1,2-Trichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
Trichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
1,2,3-Trichloropropane	<0.0100		µg/L	EPA 8260B	0.5	0.0100	0.050	07/19/19	1:21	AL
Trichlorofluoromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
Trichlorotrifluoroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
1,2,4-Trimethylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
1,3,5-Trimethylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
Vinyl Chloride	<0.0040		µg/L	EPA 8260B	0.5	0.0040	0.025	07/19/19	1:21	AL
m,p-Xylenes	<0.0500		µg/L	EPA 8260B	0.5	0.0500	0.10	07/19/19	1:21	AL

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CERTIFICATE OF ANALYSIS

1907-00157

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	07/24/19
Date Received	07/19/19
Invoice No.	86321
Cust #	1567
Permit Number	
Customer P.O.	

Project: 23591 El Toro Rd., Lake Forest, CA 92630

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 008 **SV4-15'**							Date & Time Sampled:	07/19/19	@	13:03
Sample Matrix: **Soil Vapor**										
Purge Volume Sampled: **3**										
.....continued										
o-Xylene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:21	AL
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	1:21	AL
[VOC Surrogates]										
Dibromofluoromethane	99		%REC	EPA 8260B			70-130	07/19/19	1:21	AL
Toluene-D8	106		%REC	EPA 8260B			70-130	07/19/19	1:21	AL
Bromofluorobenzene	99		%REC	EPA 8260B			70-130	07/19/19	1:21	AL
Sample: 009 **SV4-5'**							Date & Time Sampled:	07/19/19	@	13:27
Sample Matrix: **Soil Vapor**										
Purge Volume Sampled: **3**										
[VOCs by GCMS]										
Acetone	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	1:44	AL
t-Amyl Methyl Ether (TAME)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
Benzene	<0.0180		µg/L	EPA 8260B	0.5	0.0180	0.025	07/19/19	1:44	AL
Bromobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
Bromochloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
Bromodichloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
Bromoform	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
Bromomethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
t-Butanol (TBA)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	1:44	AL
2-Butanone (MEK)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	1:44	AL
n-Butylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
sec-Butylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
tert-Butylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
Carbon Disulfide	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	1:44	AL
Carbon Tetrachloride	<0.0125		µg/L	EPA 8260B	0.5	0.0125	0.025	07/19/19	1:44	AL
Chlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
Chloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
Chloroform	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL

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CERTIFICATE OF ANALYSIS

1907-00157

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	07/24/19
Date Received	07/19/19
Invoice No.	86321
Cust #	1567
Permit Number	
Customer P.O.	

Project: 23591 El Toro Rd., Lake Forest, CA 92630

Sample: 009 **SV4-5'** Date & Time Sampled: 07/19/19 @ 13:27
Sample Matrix: **Soil Vapor**
Purge Volume Sampled: **3**
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Chloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
2-Chlorotoluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
4-Chlorotoluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
Dibromochloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
1,2-Dibromoethane (EDB)	<0.0100		µg/L	EPA 8260B	0.5	0.0100	0.050	07/19/19	1:44	AL
1,2-Dibromo-3-Chloropropane	<0.0100		µg/L	EPA 8260B	0.5	0.0100	0.050	07/19/19	1:44	AL
Dibromomethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
1,2-Dichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
1,3-Dichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
1,4-Dichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
Dichlorodifluoromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
1,1-Dichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
1,2-Dichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
1,1-Dichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
cis-1,2-Dichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
trans-1,2-Dichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
1,2-Dichloropropane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
1,3-Dichloropropane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
2,2-Dichloropropane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
1,1-Dichloropropene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
cis-1,3-Dichloropropene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
trans-1,3-Dichloropropene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
Diisopropyl Ether (DiPE)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
Ethylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
Ethyl-t-Butyl Ether (EtBE)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
Hexachlorobutadiene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
2-Hexanone	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	1:44	AL
Isopropylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
4-Isopropyltoluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
Methylene Chloride	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.05	07/19/19	1:44	AL

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CERTIFICATE OF ANALYSIS

1907-00157

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	07/24/19
Date Received	07/19/19
Invoice No.	86321
Cust #	1567
Permit Number	
Customer P.O.	

Project: 23591 El Toro Rd., Lake Forest, CA 92630

Sample: 009 **SV4-5'** Date & Time Sampled: 07/19/19 @ 13:27
Sample Matrix: **Soil Vapor**
Purge Volume Sampled: **3**
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
4-Methyl-2-Pentanone (MIBK)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	1:44	AL
Methyl-t-butyl Ether (MtBE)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
Naphthalene	<0.0160		µg/L	EPA 8260B	0.5	0.0160	0.025	07/19/19	1:44	AL
n-Propylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
Styrene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
1,1,1,2-Tetrachloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
1,1,2,2-Tetrachloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
Tetrachloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
Toluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
1,2,3-Trichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
1,2,4-Trichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
1,1,1-Trichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
1,1,2-Trichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
Trichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
1,2,3-Trichloropropane	<0.0100		µg/L	EPA 8260B	0.5	0.0100	0.050	07/19/19	1:44	AL
Trichlorofluoromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
Trichlorotrifluoroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
1,2,4-Trimethylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
1,3,5-Trimethylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
Vinyl Chloride	<0.0040		µg/L	EPA 8260B	0.5	0.0040	0.025	07/19/19	1:44	AL
m,p-Xylenes	<0.0500		µg/L	EPA 8260B	0.5	0.0500	0.10	07/19/19	1:44	AL
o-Xylene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	1:44	AL
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	1:44	AL
[VOC Surrogates]										
Dibromofluoromethane	105		%REC	EPA 8260B			70-130	07/19/19	1:44	AL
Toluene-D8	109		%REC	EPA 8260B			70-130	07/19/19	1:44	AL
Bromofluorobenzene	100		%REC	EPA 8260B			70-130	07/19/19	1:44	AL

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CERTIFICATE OF ANALYSIS

1907-00157

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	07/24/19
Date Received	07/19/19
Invoice No.	86321
Cust #	1567
Permit Number	
Customer P.O.	

Project: 23591 El Toro Rd., Lake Forest, CA 92630

Sample: 010 **SV7-5'** Date & Time Sampled: 07/19/19 @ 13:52
Sample Matrix: **Soil Vapor**
Purge Volume Sampled: **3**

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
[VOCs by GCMS]										
Acetone	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	2:08	AL
t-Amyl Methyl Ether (TAME)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
Benzene	**0.15**		µg/L	EPA 8260B	0.5	0.0180	0.025	07/19/19	2:08	AL
Bromobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
Bromochloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
Bromodichloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
Bromoform	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
Bromomethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
t-Butanol (TBA)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	2:08	AL
2-Butanone (MEK)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	2:08	AL
n-Butylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
sec-Butylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
tert-Butylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
Carbon Disulfide	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	2:08	AL
Carbon Tetrachloride	<0.0125		µg/L	EPA 8260B	0.5	0.0125	0.025	07/19/19	2:08	AL
Chlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
Chloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
Chloroform	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
Chloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
2-Chlorotoluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
4-Chlorotoluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
Dibromochloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
1,2-Dibromoethane (EDB)	<0.0100		µg/L	EPA 8260B	0.5	0.0100	0.050	07/19/19	2:08	AL
1,2-Dibromo-3-Chloropropane	<0.0100		µg/L	EPA 8260B	0.5	0.0100	0.050	07/19/19	2:08	AL
Dibromomethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
1,2-Dichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
1,3-Dichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
1,4-Dichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
Dichlorodifluoromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
1,1-Dichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL

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CERTIFICATE OF ANALYSIS

1907-00157

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	07/24/19
Date Received	07/19/19
Invoice No.	86321
Cust #	1567
Permit Number	
Customer P.O.	

Project: 23591 El Toro Rd., Lake Forest, CA 92630

Sample: 010 **SV7-5'** Date & Time Sampled: 07/19/19 @ 13:52
Sample Matrix: **Soil Vapor**
Purge Volume Sampled: **3**
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
1,2-Dichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
1,1-Dichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
cis-1,2-Dichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
trans-1,2-Dichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
1,2-Dichloropropane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
1,3-Dichloropropane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
2,2-Dichloropropane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
1,1-Dichloropropene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
cis-1,3-Dichloropropene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
trans-1,3-Dichloropropene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
Diisopropyl Ether (DiPE)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
Ethylbenzene	**0.060**		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
Ethyl-t-Butyl Ether (EtBE)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
Hexachlorobutadiene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
2-Hexanone	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	2:08	AL
Isopropylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
4-Isopropyltoluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
Methylene Chloride	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.05	07/19/19	2:08	AL
4-Methyl-2-Pentanone (MIBK)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	2:08	AL
Methyl-t-butyl Ether (MtBE)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
Naphthalene	<0.0160		µg/L	EPA 8260B	0.5	0.0160	0.025	07/19/19	2:08	AL
n-Propylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
Styrene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
1,1,1,2-Tetrachloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
1,1,2,2-Tetrachloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
Tetrachloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
Toluene	**0.070**		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
1,2,3-Trichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
1,2,4-Trichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
1,1,1-Trichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL

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CERTIFICATE OF ANALYSIS

1907-00157

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	07/24/19
Date Received	07/19/19
Invoice No.	86321
Cust #	1567
Permit Number	
Customer P.O.	

Project: 23591 El Toro Rd., Lake Forest, CA 92630

Sample: 010 **SV7-5'** Date & Time Sampled: 07/19/19 @ 13:52
Sample Matrix: **Soil Vapor**
Purge Volume Sampled: **3**
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
1,1,2-Trichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
Trichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
1,2,3-Trichloropropane	<0.0100		µg/L	EPA 8260B	0.5	0.0100	0.050	07/19/19	2:08	AL
Trichlorofluoromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
Trichlorotrifluoroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
1,2,4-Trimethylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
1,3,5-Trimethylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
Vinyl Chloride	<0.0040		µg/L	EPA 8260B	0.5	0.0040	0.025	07/19/19	2:08	AL
m,p-Xylenes	**0.10**		µg/L	EPA 8260B	0.5	0.0500	0.10	07/19/19	2:08	AL
o-Xylene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:08	AL
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	2:08	AL
[VOC Surrogates]										
Dibromofluoromethane	112		%REC	EPA 8260B			70-130	07/19/19	2:08	AL
Toluene-D8	107		%REC	EPA 8260B			70-130	07/19/19	2:08	AL
Bromofluorobenzene	99		%REC	EPA 8260B			70-130	07/19/19	2:08	AL

Sample: 011 **SV6-5'** Date & Time Sampled: 07/19/19 @ 14:14
Sample Matrix: **Soil Vapor**
Purge Volume Sampled: **3**

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
[VOCs by GCMS]										
Acetone	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	2:31	AL
t-Amyl Methyl Ether (TAME)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
Benzene	**0.16**		µg/L	EPA 8260B	0.5	0.0180	0.025	07/19/19	2:31	AL
Bromobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
Bromochloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
Bromodichloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
Bromoform	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
Bromomethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
t-Butanol (TBA)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	2:31	AL

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CERTIFICATE OF ANALYSIS

1907-00157

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	07/24/19
Date Received	07/19/19
Invoice No.	86321
Cust #	1567
Permit Number	
Customer P.O.	

Project: 23591 El Toro Rd., Lake Forest, CA 92630

Sample: 011 **SV6-5'** Date & Time Sampled: 07/19/19 @ 14:14
Sample Matrix: **Soil Vapor**
Purge Volume Sampled: **3**
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
2-Butanone (MEK)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	2:31	AL
n-Butylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
sec-Butylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
tert-Butylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
Carbon Disulfide	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	2:31	AL
Carbon Tetrachloride	<0.0125		µg/L	EPA 8260B	0.5	0.0125	0.025	07/19/19	2:31	AL
Chlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
Chloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
Chloroform	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
Chloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
2-Chlorotoluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
4-Chlorotoluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
Dibromochloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
1,2-Dibromoethane (EDB)	<0.0100		µg/L	EPA 8260B	0.5	0.0100	0.050	07/19/19	2:31	AL
1,2-Dibromo-3-Chloropropane	<0.0100		µg/L	EPA 8260B	0.5	0.0100	0.050	07/19/19	2:31	AL
Dibromomethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
1,2-Dichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
1,3-Dichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
1,4-Dichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
Dichlorodifluoromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
1,1-Dichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
1,2-Dichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
1,1-Dichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
cis-1,2-Dichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
trans-1,2-Dichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
1,2-Dichloropropane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
1,3-Dichloropropane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
2,2-Dichloropropane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
1,1-Dichloropropene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
cis-1,3-Dichloropropene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL

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CERTIFICATE OF ANALYSIS

1907-00157

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	07/24/19
Date Received	07/19/19
Invoice No.	86321
Cust #	1567
Permit Number	
Customer P.O.	

Project: 23591 El Toro Rd., Lake Forest, CA 92630

Sample: 011 **SV6-5'** Date & Time Sampled: 07/19/19 @ 14:14
Sample Matrix: **Soil Vapor**
Purge Volume Sampled: **3**
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
trans-1,3-Dichloropropene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
Diisopropyl Ether (DiPE)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
Ethylbenzene	**0.060**		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
Ethyl-t-Butyl Ether (EtBE)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
Hexachlorobutadiene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
2-Hexanone	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	2:31	AL
Isopropylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
4-Isopropyltoluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
Methylene Chloride	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.05	07/19/19	2:31	AL
4-Methyl-2-Pentanone (MIBK)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	2:31	AL
Methyl-t-butyl Ether (MtBE)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
Naphthalene	<0.0160		µg/L	EPA 8260B	0.5	0.0160	0.025	07/19/19	2:31	AL
n-Propylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
Styrene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
1,1,1,2-Tetrachloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
1,1,2,2-Tetrachloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
Tetrachloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
Toluene	**0.080**		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
1,2,3-Trichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
1,2,4-Trichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
1,1,1-Trichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
1,1,2-Trichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
Trichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
1,2,3-Trichloropropane	<0.0100		µg/L	EPA 8260B	0.5	0.0100	0.050	07/19/19	2:31	AL
Trichlorofluoromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
Trichlorotrifluoroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
1,2,4-Trimethylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
1,3,5-Trimethylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
Vinyl Chloride	<0.0040		µg/L	EPA 8260B	0.5	0.0040	0.025	07/19/19	2:31	AL
m,p-Xylenes	**0.12**		µg/L	EPA 8260B	0.5	0.0500	0.10	07/19/19	2:31	AL

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CERTIFICATE OF ANALYSIS

1907-00157

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	07/24/19
Date Received	07/19/19
Invoice No.	86321
Cust #	1567
Permit Number	
Customer P.O.	

Project: 23591 El Toro Rd., Lake Forest, CA 92630

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 011 **SV6-5'**							Date & Time Sampled:	07/19/19	@	14:14
Sample Matrix: **Soil Vapor**										
Purge Volume Sampled: **3**										
.....continued										
o-Xylene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:31	AL
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	2:31	AL
[VOC Surrogates]										
Dibromofluoromethane	102		%REC	EPA 8260B			70-130	07/19/19	2:31	AL
Toluene-D8	105		%REC	EPA 8260B			70-130	07/19/19	2:31	AL
Bromofluorobenzene	100		%REC	EPA 8260B			70-130	07/19/19	2:31	AL
Sample: 012 **SV5-15'**							Date & Time Sampled:	07/19/19	@	14:38
Sample Matrix: **Soil Vapor**										
Purge Volume Sampled: **3**										
[VOCs by GCMS]										
Acetone	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	2:54	AL
t-Amyl Methyl Ether (TAME)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
Benzene	<0.0180		µg/L	EPA 8260B	0.5	0.0180	0.025	07/19/19	2:54	AL
Bromobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
Bromochloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
Bromodichloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
Bromoform	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
Bromomethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
t-Butanol (TBA)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	2:54	AL
2-Butanone (MEK)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	2:54	AL
n-Butylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
sec-Butylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
tert-Butylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
Carbon Disulfide	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	2:54	AL
Carbon Tetrachloride	<0.0125		µg/L	EPA 8260B	0.5	0.0125	0.025	07/19/19	2:54	AL
Chlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
Chloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
Chloroform	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL

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CERTIFICATE OF ANALYSIS

1907-00157

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	07/24/19
Date Received	07/19/19
Invoice No.	86321
Cust #	1567
Permit Number	
Customer P.O.	

Project: 23591 El Toro Rd., Lake Forest, CA 92630

Sample: 012 **SV5-15'** Date & Time Sampled: 07/19/19 @ 14:38
Sample Matrix: **Soil Vapor**
Purge Volume Sampled: **3**
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Chloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
2-Chlorotoluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
4-Chlorotoluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
Dibromochloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
1,2-Dibromoethane (EDB)	<0.0100		µg/L	EPA 8260B	0.5	0.0100	0.050	07/19/19	2:54	AL
1,2-Dibromo-3-Chloropropane	<0.0100		µg/L	EPA 8260B	0.5	0.0100	0.050	07/19/19	2:54	AL
Dibromomethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
1,2-Dichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
1,3-Dichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
1,4-Dichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
Dichlorodifluoromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
1,1-Dichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
1,2-Dichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
1,1-Dichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
cis-1,2-Dichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
trans-1,2-Dichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
1,2-Dichloropropane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
1,3-Dichloropropane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
2,2-Dichloropropane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
1,1-Dichloropropene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
cis-1,3-Dichloropropene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
trans-1,3-Dichloropropene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
Diisopropyl Ether (DiPE)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
Ethylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
Ethyl-t-Butyl Ether (EtBE)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
Hexachlorobutadiene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
2-Hexanone	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	2:54	AL
Isopropylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
4-Isopropyltoluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
Methylene Chloride	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.05	07/19/19	2:54	AL

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CERTIFICATE OF ANALYSIS

1907-00157

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	07/24/19
Date Received	07/19/19
Invoice No.	86321
Cust #	1567
Permit Number	
Customer P.O.	

Project: 23591 El Toro Rd., Lake Forest, CA 92630

Sample: 012 **SV5-15'** Date & Time Sampled: 07/19/19 @ 14:38
Sample Matrix: **Soil Vapor**
Purge Volume Sampled: **3**
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
4-Methyl-2-Pentanone (MIBK)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	2:54	AL
Methyl-t-butyl Ether (MtBE)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
Naphthalene	<0.0160		µg/L	EPA 8260B	0.5	0.0160	0.025	07/19/19	2:54	AL
n-Propylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
Styrene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
1,1,1,2-Tetrachloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
1,1,2,2-Tetrachloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
Tetrachloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
Toluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
1,2,3-Trichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
1,2,4-Trichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
1,1,1-Trichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
1,1,2-Trichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
Trichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
1,2,3-Trichloropropane	<0.0100		µg/L	EPA 8260B	0.5	0.0100	0.050	07/19/19	2:54	AL
Trichlorofluoromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
Trichlorotrifluoroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
1,2,4-Trimethylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
1,3,5-Trimethylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
Vinyl Chloride	<0.0040		µg/L	EPA 8260B	0.5	0.0040	0.025	07/19/19	2:54	AL
m,p-Xylenes	<0.0500		µg/L	EPA 8260B	0.5	0.0500	0.10	07/19/19	2:54	AL
o-Xylene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	2:54	AL
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	2:54	AL
[VOC Surrogates]										
Dibromofluoromethane	108		%REC	EPA 8260B			70-130	07/19/19	2:54	AL
Toluene-D8	106		%REC	EPA 8260B			70-130	07/19/19	2:54	AL
Bromofluorobenzene	101		%REC	EPA 8260B			70-130	07/19/19	2:54	AL

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CERTIFICATE OF ANALYSIS

1907-00157

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	07/24/19
Date Received	07/19/19
Invoice No.	86321
Cust #	1567
Permit Number	
Customer P.O.	

Project: 23591 El Toro Rd., Lake Forest, CA 92630

Sample: 013 **SV5-5'** Date & Time Sampled: 07/19/19 @ 15:01
Sample Matrix: **Soil Vapor**
Purge Volume Sampled: **3**

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
[VOCs by GCMS]										
Acetone	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	3:16	AL
t-Amyl Methyl Ether (TAME)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
Benzene	<0.0180		µg/L	EPA 8260B	0.5	0.0180	0.025	07/19/19	3:16	AL
Bromobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
Bromochloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
Bromodichloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
Bromoform	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
Bromomethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
t-Butanol (TBA)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	3:16	AL
2-Butanone (MEK)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	3:16	AL
n-Butylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
sec-Butylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
tert-Butylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
Carbon Disulfide	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	3:16	AL
Carbon Tetrachloride	<0.0125		µg/L	EPA 8260B	0.5	0.0125	0.025	07/19/19	3:16	AL
Chlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
Chloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
Chloroform	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
Chloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
2-Chlorotoluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
4-Chlorotoluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
Dibromochloromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
1,2-Dibromoethane (EDB)	<0.0100		µg/L	EPA 8260B	0.5	0.0100	0.050	07/19/19	3:16	AL
1,2-Dibromo-3-Chloropropane	<0.0100		µg/L	EPA 8260B	0.5	0.0100	0.050	07/19/19	3:16	AL
Dibromomethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
1,2-Dichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
1,3-Dichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
1,4-Dichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
Dichlorodifluoromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
1,1-Dichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL

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INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	07/24/19
Date Received	07/19/19
Invoice No.	86321
Cust #	1567
Permit Number	
Customer P.O.	

Project: 23591 El Toro Rd., Lake Forest, CA 92630

Sample: 013 **SV5-5'** Date & Time Sampled: 07/19/19 @ 15:01
Sample Matrix: **Soil Vapor**
Purge Volume Sampled: **3**
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
1,2-Dichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
1,1-Dichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
cis-1,2-Dichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
trans-1,2-Dichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
1,2-Dichloropropane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
1,3-Dichloropropane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
2,2-Dichloropropane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
1,1-Dichloropropene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
cis-1,3-Dichloropropene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
trans-1,3-Dichloropropene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
Diisopropyl Ether (DiPE)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
Ethylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
Ethyl-t-Butyl Ether (EtBE)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
Hexachlorobutadiene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
2-Hexanone	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	3:16	AL
Isopropylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
4-Isopropyltoluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
Methylene Chloride	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.05	07/19/19	3:16	AL
4-Methyl-2-Pentanone (MIBK)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	3:16	AL
Methyl-t-butyl Ether (MtBE)	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
Naphthalene	<0.0160		µg/L	EPA 8260B	0.5	0.0160	0.025	07/19/19	3:16	AL
n-Propylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
Styrene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
1,1,1,2-Tetrachloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
1,1,2,2-Tetrachloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
Tetrachloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
Toluene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
1,2,3-Trichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
1,2,4-Trichlorobenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
1,1,1-Trichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL

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FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
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CERTIFICATE OF ANALYSIS

1907-00157

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported	07/24/19
Date Received	07/19/19
Invoice No.	86321
Cust #	1567
Permit Number	
Customer P.O.	

Project: 23591 El Toro Rd., Lake Forest, CA 92630

Sample: 013 **SV5-5'** Date & Time Sampled: 07/19/19 @ 15:01
Sample Matrix: **Soil Vapor**
Purge Volume Sampled: **3**
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
1,1,2-Trichloroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
Trichloroethene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
1,2,3-Trichloropropane	<0.0100		µg/L	EPA 8260B	0.5	0.0100	0.050	07/19/19	3:16	AL
Trichlorofluoromethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
Trichlorotrifluoroethane	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
1,2,4-Trimethylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
1,3,5-Trimethylbenzene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
Vinyl Chloride	<0.0040		µg/L	EPA 8260B	0.5	0.0040	0.025	07/19/19	3:16	AL
m,p-Xylenes	<0.0500		µg/L	EPA 8260B	0.5	0.0500	0.10	07/19/19	3:16	AL
o-Xylene	<0.0250		µg/L	EPA 8260B	0.5	0.0250	0.050	07/19/19	3:16	AL
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.2500		µg/L	EPA 8260B	0.5	0.2500	0.50	07/19/19	3:16	AL
[VOC Surrogates]										
Dibromofluoromethane	107		%REC	EPA 8260B			70-130	07/19/19	3:16	AL
Toluene-D8	106		%REC	EPA 8260B			70-130	07/19/19	3:16	AL
Bromofluorobenzene	99		%REC	EPA 8260B			70-130	07/19/19	3:16	AL

Respectfully Submitted: Ken Zheng

Ken Zheng - President

QUALIFIERS

B = Detected in the associated Method Blank at a concentration above the routine RL.
B1 = BOD dilution water is over specifications . The reported result may be biased high.
D = Surrogate recoveries are not calculated due to sample dilution.
E = Estimated value; Value exceeds calibration level of instrument.
H = Analyte was prepared and/or analyzed outside of the analytical method holding time
I = Matrix Interference.
J = Analyte concentration detected between RL and MDL.
Q = One or more quality control criteria did not meet specifications. See Comments for further explanation.
S = Customer provided specification limit exceeded.

ABBREVIATIONS

DF = Dilution Factor
RL = Reporting Limit, Adjusted by DF
MDL = Method Detection Limit, Adjusted by DF
Qual = Qualifier
Tech = Technician

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As regulatory limits change frequently, A & R Laboratories advises the recipient of this report to confirm such limits with the appropriate federal, state, or local authorities before acting in reliance on the regulatory limits provided.

For any feedback concerning our services, please contact Jenny Jiang, Project Manager at 951.779.0310. You may also contact Ken Zheng, President at office@arlaboratories.com.

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QUALITY CONTROL DATA REPORT

INTERPHASE
LOS ANGELES, CA 90040

1907-00157

Date Reported	**07/24/2019**
Date Received	**07/19/2019**
Date Sampled	**07/19/2019**
Invoice No.	**86321**
Customer #	**1567**
Customer P.O.	

Project: 23591 El Toro Rd., Lake Forest, CA 92630

Method # EPA 8260B
QC Reference # 83308 **Date Analyzed:** 7/19/2019 **Technician:** AL
Samples 001 002 003 004 005 006 007 008 009 010 011 012 013

Results

	LCS %REC	BLKSRR% REC
1,1-Dichloroethene	85	
Benzene	101	
Bromofluorobenzene		100
Chlorobenzene	103	
Dibromofluoromethan		104
Toluene	111	
Toluene-D8		105
Trichloroethene	108	

Control Ranges

LCS %REC	BLKSRR%REC
70 - 130	
70 - 130	
	50 - 150
70 - 130	
	50 - 150
70 - 130	
	50 - 150
70 - 130	

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QUALITY CONTROL DATA REPORT

1907-00157

INTERPHASE

Date Reported 07/24/2019
Date Received 07/19/2019
Date Sampled 07/19/2019

Project: 23591 El Toro Rd., Lake Forest, CA 92630

Method blank results

Ref	Test Name	Result	Qualif	Units	MDL	Ref	Test Name	Result	Qualif	Units	MDL
83308	Acetone	<0.2500		µg/L	0.2500		Isopropylbenzene	<0.0250		µg/L	0.0250
	t-Amyl Methyl Ether (TAME)	<0.0250		µg/L	0.0250		4-Isopropyltoluene	<0.0250		µg/L	0.0250
	Benzene	<0.0180		µg/L	0.0180		Methylene Chloride	<0.0250		µg/L	0.0250
	Bromobenzene	<0.0250		µg/L	0.0250		4-Methyl-2-Pentanone (MIBK)	<0.2500		µg/L	0.2500
	Bromochloromethane	<0.0250		µg/L	0.0250		Methyl-t-butyl Ether (MtBE)	<0.0250		µg/L	0.0250
	Bromodichloromethane	<0.0250		µg/L	0.0250		Naphthalene	<0.0160		µg/L	0.0160
	Bromoform	<0.0250		µg/L	0.0250		n-Propylbenzene	<0.0250		µg/L	0.0250
	Bromomethane	<0.0250		µg/L	0.0250		Styrene	<0.0250		µg/L	0.0250
	t-Butanol (TBA)	<0.2500		µg/L	0.2500		1,1,1,2-Tetrachloroethane	<0.0250		µg/L	0.0250
	2-Butanone (MEK)	<0.2500		µg/L	0.2500		1,1,2,2-Tetrachloroethane	<0.0250		µg/L	0.0250
	n-Butylbenzene	<0.0250		µg/L	0.0250		Tetrachloroethene	<0.0250		µg/L	0.0250
	sec-Butylbenzene	<0.0250		µg/L	0.0250		Toluene	<0.0250		µg/L	0.0250
	tert-Butylbenzene	<0.0250		µg/L	0.0250		1,2,3-Trichlorobenzene	<0.0250		µg/L	0.0250
	Carbon Disulfide	<0.2500		µg/L	0.2500		1,2,4-Trichlorobenzene	<0.0250		µg/L	0.0250
	Carbon Tetrachloride	<0.0125		µg/L	0.0125		1,1,1-Trichloroethane	<0.0250		µg/L	0.0250
	Chlorobenzene	<0.0250		µg/L	0.0250		1,1,2-Trichloroethane	<0.0250		µg/L	0.0250
	Chloroethane	<0.0250		µg/L	0.0250		Trichloroethene	<0.0250		µg/L	0.0250
	Chloroform	<0.0250		µg/L	0.0250		1,2,3-Trichloropropane	<0.0100		µg/L	0.0100
	Chloromethane	<0.0250		µg/L	0.0250		Trichlorofluoromethane	<0.0250		µg/L	0.0250
	2-Chlorotoluene	<0.0250		µg/L	0.0250		Trichlorotrifluoroethane	<0.0250		µg/L	0.0250
	4-Chlorotoluene	<0.0250		µg/L	0.0250		1,2,4-Trimethylbenzene	<0.0250		µg/L	0.0250
	Dibromochloromethane	<0.0250		µg/L	0.0250		1,3,5-Trimethylbenzene	<0.0250		µg/L	0.0250
	1,2-Dibromoethane (EDB)	<0.0100		µg/L	0.0100		Vinyl Chloride	<0.0040		µg/L	0.0040
	1,2-Dibromo-3-Chloropropane	<0.0100		µg/L	0.0100		m,p-Xylenes	<0.0500		µg/L	0.0500
	Dibromomethane	<0.0250		µg/L	0.0250		o-Xylene	<0.0250		µg/L	0.0250
	1,2-Dichlorobenzene	<0.0250		µg/L	0.0250		Isopropanol (IPA)	<0.2500		µg/L	0.2500
	1,3-Dichlorobenzene	<0.0250		µg/L	0.0250						
	1,4-Dichlorobenzene	<0.0250		µg/L	0.0250						
	Dichlorodifluoromethane	<0.0250		µg/L	0.0250						
	1,1-Dichloroethane	<0.0250		µg/L	0.0250						
	1,2-Dichloroethane	<0.0250		µg/L	0.0250						
	1,1-Dichloroethene	<0.0250		µg/L	0.0250						
	cis-1,2-Dichloroethene	<0.0250		µg/L	0.0250						
	trans-1,2-Dichloroethene	<0.0250		µg/L	0.0250						
	1,2-Dichloropropane	<0.0250		µg/L	0.0250						
	1,3-Dichloropropane	<0.0250		µg/L	0.0250						
	2,2-Dichloropropane	<0.0250		µg/L	0.0250						
	1,1-Dichloropropene	<0.0250		µg/L	0.0250						
	cis-1,3-Dichloropropene	<0.0250		µg/L	0.0250						
	trans-1,3-Dichloropropene	<0.0250		µg/L	0.0250						
	Diisopropyl Ether (DiPE)	<0.0250		µg/L	0.0250						
	Ethylbenzene	<0.0250		µg/L	0.0250						
	Ethyl-t-Butyl Ether (EtBE)	<0.0250		µg/L	0.0250						
	Hexachlorobutadiene	<0.0250		µg/L	0.0250						
	2-Hexanone	<0.2500		µg/L	0.2500						

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QUALITY CONTROL DATA REPORT

1907-00157

INTERPHASE

Date Reported	**07/24/2019**
Date Received	**07/19/2019**
Date Sampled	**07/19/2019**

Project: 23591 El Toro Rd., Lake Forest, CA 92630

Respectfully Submitted: Ken Zheng

Ken Zheng - President

For any feedback concerning our services, please contact Jenny Jiang, Project Manager at 951.779.0310. You may also contact Ken Zheng, President at office@arlaboratories.com.

ARL

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E-mail: office@arlaboratories.com

CHAIN OF CUSTODY

A & R Work Order #: 1907-157

Client Name: InterPhase
E-mail: OFFICE@INTERPHASEENVIRONMENTAL.COM
Address: 6200 PEACHTREE ST., LOS ANGELES, CA 90040
Report Attention: Gilbert Mendoza
Phone # (323) 301-0076 Fax: #
Sampled By: Ashlee Lynch
Project No./ Name:
Project Site: 23541 El Toro Rd Lake Forest, CA 92630

☐ Chilled ☒ Intact ☐ Seal

Turn Around Time Requested: ☐ Rush 8 12 24 48 Hours ☐ Normal — Mobile

Lab # (Lab use)	Client Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserve	No., type* & size of container	EPA8260B (VOCs & Oxygenates)	EPA8260B(BTEX & Oxygenates)	LUFT / 8015 (Gasoline)	LUFT / 8015 (Diesel)	EPA8081A (Organochlorine Pesticides)	EPA 8082 (PCBs)	EPA 8015M (Carbon Chain C4-C40)	EPA 6010B/7000 (CAM 17 Metals)	Micro: Plate Cnt., Coliform, E-Coli	Remarks
1	SV1 - 15'	7/19/19	10:30	Air	NA	250mL Glass Bottle	X									
2	SV1 - 5'		10:50				X									
3	SV3-15'		11:09				X									
4	SV3-5'		11:31				X									
5	SV2-15'		11:54				X									
6	SV2-5'		12:17				X									
7	SV2-5' DUP		12:40				X									
8	SV4-15'		13:03				X									
9	SV4-5'		13:27				X									
10	SV7-5'		13:52				X									
11	SV6-5'		14:14				X									
12	SV5-15'		14:38				X									
13	SV5-5'		15:01				X									

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
	Converse	7/19/19	15:36		A&R	7/19/19	15:35
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Note: Samples are discarded 30 days after results are reported unless other arrangements are made.

Matrix Code: DW=Drinking Water; GW=Ground Water; WW=Waste Water; SD=Solid Waste; SL=Sludge; SS=Soil/Sediment; AR=Air; PP=Pure Product

Preservative Code: IC=Ice; HC=HCl; HN=HNO_3; SH=NaOH; ST=$Na_2S_2O_3$; HS=H_2SO_4

*Sample Container Types: T=Tedlar Air Bag; G=Glass Container; ST= Steel Tube; B= Brass Tube; P=Plastic Bottle; V=VOA Vial; E= EnCore