



Vapor Intrusion Investigation Report

**New Housing New York Legacy Project
700-730 Brook Avenue
BRONX, NEW YORK
Site # C203043**

May 2019

**Prepared for:
Via Verde Homes, LLC
Via Verde Rental Associates, L.P.
902 Broadway, 13th Floor
New York, New York 10010**

**Prepared by:
CA RICH Consultants, Inc.
17 Dupont Street
Plainview, NY 11803**



April 16, 2019
Revised May 8, 2019

NYS Dept. of Environmental Conservation
Region 2 Office
Division of Environmental Remediation
47-40 21st Street
Long Island City NY 11101

Attn: Mandy Yau,
Project Manager

Re: Vapor Intrusion Investigation
New Housing New York Legacy Project
(AKA Via Verde)
700-730 Brook Avenue
Bronx, NY
Site # C203043

Dear Ms. Yau:

Enclosed, please find the Vapor Intrusion Investigation Report for the above-referenced Site. This report has been revised to incorporate comments received by the New York State Department of Health in their letter dated April 29, 2019 and supersedes our earlier one dated April 16, 2019. If you have any questions pertaining to this report, please feel free to contact the undersigned.

Respectfully Submitted,
CA RICH Consultants, Inc.

A handwritten signature in dark ink, appearing to read "Richard J. Izzo".

Richard J. Izzo, PG, CPG
Vice President

CC:
Michael Wadman
Sara Bogardus

Introduction and Scope of Work

This Vapor Intrusion Investigation Report has been prepared by CA RICH Consultants, Inc. (CA RICH) on behalf of Via Verde Homes, LLC and Via Verde Rental Associates, L.P. (the Owners) for the New Housing New York Legacy Project (AKA Via Verde) property located at 700-730 Brook Avenue in the Bronx, New York (hereinafter referred to as the “Site”).

This Report addresses the investigation activities completed to fully characterize the extent of vapor intrusion in each of the five on-site buildings on the subject Property. This investigation was performed to update vapor-intrusion conditions following successful continual operation and maintenance of a sub-slab depressurization system (SSDS) on the Site for the past eight years. The SSDS was shut down for a period of thirty days prior to performing the sampling discussed below.

Sub-Slab Soil Vapor, Indoor, and Outdoor Air Sampling

To evaluate the potential for a soil vapor intrusion condition at the Site, CA RICH conducted sub-slab soil vapor, indoor air, and outdoor air sampling activities. CA RICH’s sampling activities were conducted pursuant to the Vapor Intrusion Investigation Work Plan approved by the New York State Department of Environmental Conservation (NYSDEC) in their letter dated February 8, 2019.

On March 6, 2019 ten temporary sub-slab soil vapor probes (two in each building) were installed by CA RICH in accordance with the NYSDOH “Guidance for Evaluating Soil Vapor Intrusion in the State of New York” dated October 2006, updated May 2017 (NYSDOH Guidance). The soil vapor probes were installed using hand tools and consist of ¼-inch stainless steel tubing extended just below the concrete slab. The probes did not extend further than two inches into the sub-slab material. The annular space around the stainless steel screen was packed with coarse sand and finished with a clay seal. After installing the sub-slab soil vapor probes, the points were allowed to set overnight.

On March 7, 2019, CA RICH returned to set up Summa canisters for collection of vapor samples. Prior to sampling, three volumes of vapor was purged from the soil vapor probe using a calibrated air sampling pump. The purged sub-slab vapor was collected in a Tedlar bag and released outside to prevent impacts to indoor air quality during sampling. During purging and sampling, the flow rate did not exceed 0.2 liters per minute. In addition, helium was used as a tracer gas during purging to verify that ambient air was not infiltrating the sub-slab sampling assembly.

Additionally, at the same time as the sub-slab vapor sample collection, indoor air samples were collected from locations adjacent to the sub-slab sampling points within each building (a total of ten) along with one outdoor “background” air sample. The outdoor sample was placed in an upwind location. On March 8, 2019, CA RICH returned to the Site to collect the sample canisters and repair holes in the concrete drilled for the vapor points.

Upon completion of sample collection, the canisters were sent to NYSDOH-approved Alpha Analytical of Mansfield, Massachusetts for analysis of Volatile Organic Compounds (VOCs) via EPA method T0-15 with SIM in accordance with NYSDOH’s Guidance for Evaluating Soil Vapor Intrusion in the State of New York. Laboratory results were submitted to an independent Data Validator and a Data Usability Summary Report (DUSR) was prepared.

The results are summarized on Table 1 and a copy of the DUSR/laboratory report is included in Appendix A. The sub-slab soil vapor, indoor and outdoor air sample locations are depicted on Figure 1. A chemical inventory was logged at the Site prior to air sampling. A description of each of the sampling locations, along with a chemical inventory is included on Table 2.

Results

Sub-Slab Soil Vapor, Indoor, and Outdoor Air Quality

The sub-slab soil vapor, indoor air, and outdoor air quality samples were collected at the Site on March 7-8, 2019. The NYSDOH Decision Matrix Tables A, B, and C were utilized to evaluate the sample results. The “decision matrices” have guideline levels for only eight compounds and use the sub-slab soil vapor and indoor air concentrations for comparison to determine the quality of the air and the appropriate action to take when elevated levels are encountered. The laboratory results for all samples are summarized on Table 1. The following summarizes the laboratory results as they compare to NYSDOH Decision Matrices and the appropriate action to be taken:

- **Sub-Slab Soil Vapor and Indoor Air** – Several compounds were detected in sub slab and indoor air samples including dichlorodifluoromethane, ethanol, acetone, trichlorofluoromethane, isopropanol, 2-butanone, ethyl acetate, tetrahydrofuran, benzene, 1,4-dioxane, tetrachloroethene, chlorobenzene, p/m-xylene, o-xylene, 4-ethyltoluene, 1,3,5-trimethylbenzene, 1,2,4-trimethylbenzene, 1,4-dichlorobenzene, and 1,2-dichlorobenzene. Concentrations of these compounds in sub-slab vapor generally ranged from non-detected up to 311 micrograms per cubic meter (ug/m^3) but were mostly detected in the single-digit to tens of ug/m^3 range of magnitude. The highest concentration ($311 \text{ ug}/\text{m}^3$) was detected for toluene in sample SSV-9. Toluene was one of the compounds detected in pre-remediation soil vapor samples collected during the

Remedial Investigation (RI) back in 2009. Other compounds of note detected during the RI and again during this investigation include benzene, m-p and o-xylenes, and tetrachloroethene.

Indoor air concentrations for the detected compounds listed above generally ranged from non-detected to the tens of ug/m^3 range of magnitude. The exception to this is ethanol which was detected at concentrations up to $226 \text{ ug}/\text{m}^3$ in indoor air sample IA-6. The concentration of ethanol in the sub-slab sample from that same location (SV-6) was measured at $55.2 \text{ ug}/\text{m}^3$, suggesting the source of ethanol is inside the building and not soil vapor intrusion. Several cleaning products on a janitor cart were noted in the area of IA-6 during indoor air testing as listed on Table 2. There are currently no soil vapor or indoor air standards for ethanol.

Compounds detected in sub-slab samples and indoor air that have limitation standards in accordance with NYSDOH decision matrices are limited to tetrachloroethene, carbon tetrachloride and methylene chloride. Only methylene chloride was detected at levels in excess of those indicating “no further action” as per the NYSDOH decision matrices. Specifically, Methylene Chloride was detected in sample IA-10 at a concentration of $49.3 \text{ ug}/\text{m}^3$. The NYSDOH matrix level for no further action in indoor air for methylene chloride is $3 \text{ ug}/\text{m}^3$. According to the NYSDOH matrix, the recommended response is to “Take reasonable and practical actions to identify source(s) and reduce exposures”.

It is noted (as shown on Table 2) that sample IA-10 was collected within the Midrise Zone 2 building in a hallway near the booster pump, gas meter and fire pump room, and no stored chemicals or furnace use were observed in that area. In addition, the sub-slab sample from the same location contained methylene chloride at only $4.62 \text{ ug}/\text{m}^3$. The other indoor air sample from the same building (IA-9) collected approximately 60 feet away from IA-10 contained no detectable concentration of methylene chloride.

- **Outdoor Air** – Low levels of various VOCs were detected in the outdoor air sample (OA-1). There are no NYSDOH standards currently established for VOCs in outdoor air. For the purposes of interpreting the results, the outdoor air was used to identify background levels of VOCs in the ambient air. Sample OA-1 contained no detectable concentration of methylene chloride. Ethanol was detected in outdoor air at a concentration of $15.3 \text{ ug}/\text{m}^3$, and carbon tetrachloride was detected in outdoor air at a concentration of $0.409 \text{ ug}/\text{m}^3$.

Conclusion and Recommendation

The Vapor Intrusion Investigation was performed in accordance with NYSDOH Guidance and generally accepted protocols within the environmental consulting industry. At the time of this study, and based upon the limitations inherent to the kind of information that can be generated by the specific data that was acquired, we provide the following conclusion and recommendation for the Site:

- The NYSDOH has developed decision matrices for eight compounds, which are tools used to determine the appropriate action when elevated readings of certain compounds are detected. The sub-slab soil vapor and indoor air sample results when compared to the NYSDOH Decision Matrix indicate only methylene chloride detected in one indoor air sample (IA-10) at a concentration exceeding the “no further action” level. As this level is an order of magnitude above the level detected in the sub-slab sample from the same location, the concentration of methylene chloride does not appear to be a result of vapor intrusion. In addition, analysis of sample IA-9 collected approximately 60 feet away from IA-10 revealed no detectable concentration of methylene chloride. An inventory of chemicals in the area from which IA-10 was taken revealed no obvious sources of methylene chloride. Methylene chloride is also a common laboratory contaminant as further discussed in Section 1.5 of the attached DUSR.

Based upon the results of this Vapor Intrusion investigation, it is recommended that the SSD system at the Site be allowed to remain in passive mode for one year at which time a second round of sampling will be performed to confirm that the system may remain in passive mode permanently.

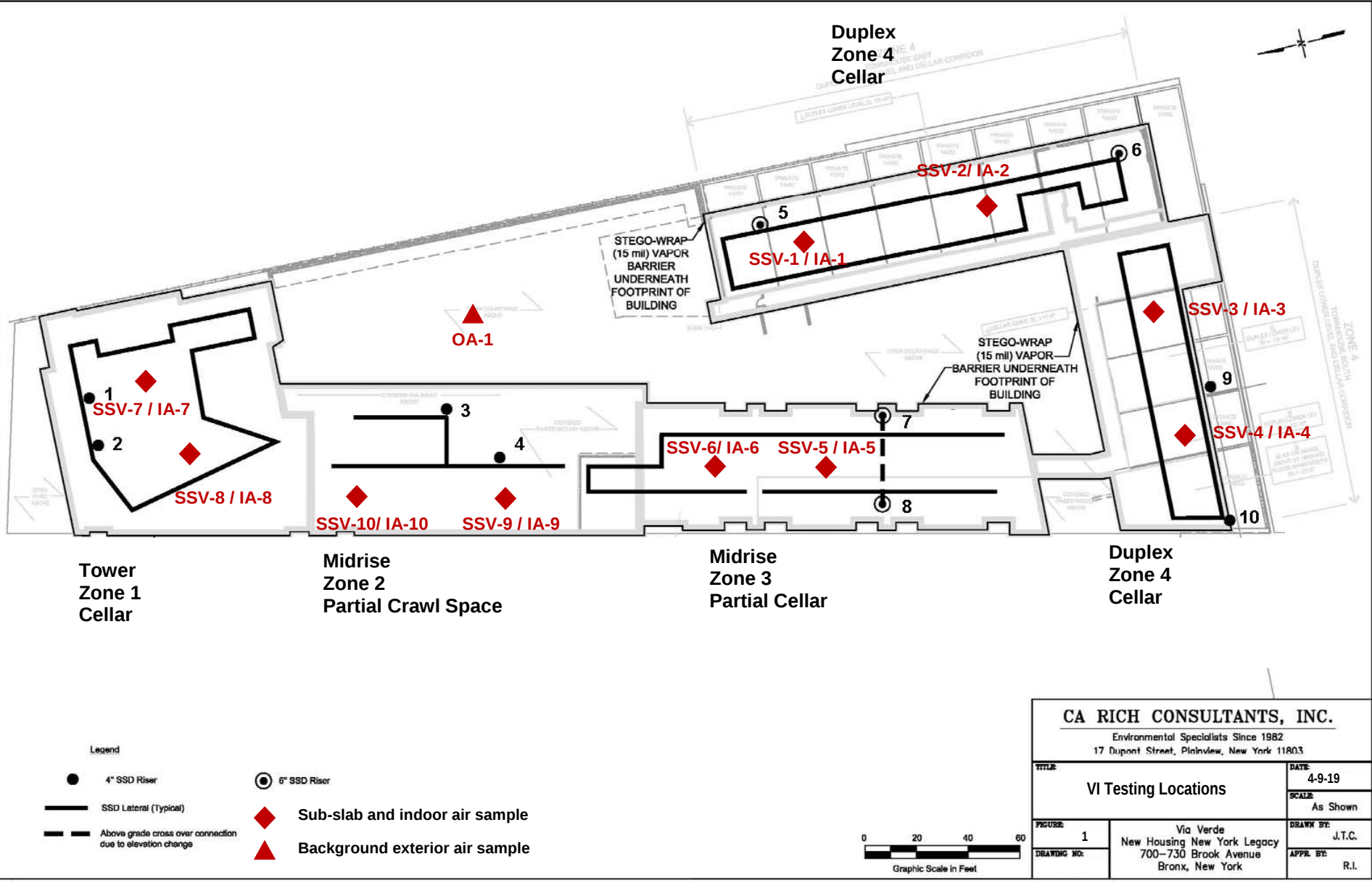


Table 1 Vapor Intrusion Study Via Verde 700-730 Brook Avenue Bronx, New York																									
ANALYTE	SAMPLE ID: COLLECTION DATE: SAMPLE MATRIX:	SSV-1 3/8/2019 SOIL VAPOR	SSV-2 3/8/2019 SOIL VAPOR	SSV-3 3/8/2019 SOIL VAPOR	SSV-4 3/8/2019 SOIL VAPOR	SSV-5 3/8/2019 SOIL VAPOR	SSV-6 3/8/2019 SOIL VAPOR	SSV-7 3/8/2019 SOIL VAPOR	SSV-8 3/8/2019 SOIL VAPOR	SSV-9 3/8/2019 SOIL VAPOR	SSV-10 3/8/2019 SOIL VAPOR	*NYSDOH 2017 Matrices A, B, & C No Further Action For Soil Vapor	IA-1 3/8/2019 INDOOR AIR	IA-2 3/8/2019 INDOOR AIR	IA-3 3/8/2019 INDOOR AIR	IA-4 3/8/2019 INDOOR AIR	IA-5 3/8/2019 INDOOR AIR	IA-6 3/8/2019 INDOOR AIR	IA-7 3/8/2019 INDOOR AIR	IA-8 3/8/2019 INDOOR AIR	IA-9 3/8/2019 INDOOR AIR	IA-10 3/8/2019 INDOOR AIR	*NYSDOH 2017 Matrices A, B, & C No Further Action For Indoor Air	OA-1 3/8/2019 OUTDOOR AIR	
	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	
VOLATILE ORGANICS IN AIR																									
Dichlorodifluoromethane		1.46	1.55	1.73	1.57	1.38	5.19	2.2	2.51	3.5	11.3	NS	1.77	1.61	1.6	1.49	1.65	1.49	1.96	1.59	1.55	1.61	NS	1.26	
Chloromethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	1.02	1.16	1.15	1.15	1.2	1.18	1.12	1.11	1.15	1.07	NS	1.03	
Freon-114		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	
Vinyl chloride ^C		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.2	ND	
1,3-Butadiene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	
Bromomethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	
Chloroethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	
Ethanol		16.9	16.4	21.9	16.7	40.7	55.2	38.4	23.4	27.1	38.3	NS	164	172	192	183	170	226	59.7	63.9	163	156	NS	15.3	
Vinyl bromide		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	
Acetone		6.01	7.06	5.32	6.53	10.7	21.8	12.1	12.5	7.55	14.3	NS	15.6	15.2	13.5	13.5	13	17.4	8.88	16.4	11.3	15.2	NS	3.52	
Trichlorofluoromethane		1.31	1.69	1.91	1.91	2.66	5.02	1.42	2.24	1.35	2.94	NS	1.22	1.13	1.16	1.16	1.14	1.2	1.18	1.16	1.18	1.19	NS	1.15	
Isopropano		15	15.8	12.2	13.2	20.3	23.1	33.4	19.8	22.6	36.6	NS	6.66	6.39	7.37	7.05	9.19	6.83	32.4	23.8	151	118	NS	1.68	
1,1-Dichloroethene ^B		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.2	ND	
Tertiary butyl Alcohol		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	
Methylene chloride ^A		ND	ND	2.22	ND	ND	2.75	ND	ND	ND	4.62	<100	ND	5.32	3.61	10.3	2.85	2.34	ND	ND	ND	ND	49.3	<3	ND
3-Chloropropene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	
Carbon disulfide		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	
Freon-113		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	
trans-1,2-Dichloroethene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	
1,1-Dichloroethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	
Methyl tert butyl ether		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	
2-Butanone		5.01	5.63	3.63	5.02	8.46	10.2	6.75	6.99	4.9	9.11	<6	3.42	3.61	2.77	2.11	2.22	ND	ND	2.39	ND	ND	NS	ND	
cis-1,2-Dichloroethene ^B		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.2	ND	
Ethyl Acetate		16.2	18.5	8.29	18.2	33.3	37.8	24.9	25.3	17.7	32.8	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	
Chloroform		ND	ND	1.03	5.52	4.09	2.93	11.2	2.72	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	
Tetrahydrofuran		9.29	9.44	5.22	9.23	16.9	14.1	14.5	12	8.91	16.1	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	
1,2-Dichloroethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	
n-Hexane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	0.737	1.6	ND	0.832	ND	ND	ND	1.55	ND	ND	NS	ND	
1,1,1-Trichloroethane ^B		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<3	ND	
Benzene		18	18.5	12.2	18.6	32.6	36.7	25.3	23.7	17.9	31.5	NS	0.738	0.885	0.815	0.757	0.802	0.853	0.859	0.984	1	0.837	NS	0.719	
Carbon tetrachloride ^B		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<6	0.465	0.472	0.459	0.465	0.459	0.478	0.478	0.447	0.447	0.434	<0.2	0.409	
Cyclohexane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	
1,2-Dichloropropane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	
Bromodichloromethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	
1,4-Dioxane		ND	ND	ND	ND	0.778	ND	ND	ND	ND	ND	1	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	
Trichloroethene ^B		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.2	ND	
2,2,4-Trimethylpentane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	
Heptane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	1.18	ND	NS	ND	
cis-1,3-Dichloropropene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	
4-Methyl-2-pentanone		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	
trans-1,3-Dichloropropene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	
1,1,2-Trichloroethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	
Toluene		13	8.44	164	8.03	37.7	108	20.5	275	311	271	NS	2.04	1.92	1.38	1.45	1.19	1.42	1.07	4.03	1.22	1.46	NS	ND	
2-Hexanone		ND	ND	ND	ND	ND	ND	ND	ND	ND	1.04	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	
Dibromochloromethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	
1,2-Dibromoethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	
Tetrachloroethene ^B		ND	6.43	ND	2.82	4.7	5.51	ND	9.9	1.8	8	<100	0.231	0.251	0.244	0.231	0.251	0.217	0.231	1.48	0.278	0.325	<3	0.163	
Chlorobenzene		25.7	22.8	35.4	23.6	39.8	43.9	26	29.2	27.5	9.4	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	
Ethylbenzene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	1.12	1.89	ND	NS	ND	
p-Xylene		4.43	3.94	6.25	4.78	7.56	10	6.08	6.56	5.43	12.2	NS	ND	ND	ND	ND	ND	ND	ND	3.23	8.25	ND	NS	ND	
Bromoform		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	
Styrene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	
1,1,2,2-Tetrachloroethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	
o-Xylene		ND	ND	1.02	ND	1.28	1.76	1.05	1.32	1.18	2.17	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	
4-Ethyltoluene		ND	ND	ND	ND	ND	ND	ND	ND	1.02	1.03	1.52	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	
1,3,5-Trimethylbenzene		ND	ND	1.04	ND	1.28	1.62	ND	1.61	1.61	2.36	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	
1,2,4-Trimethylbenzene		1.82	1.74	3.32	1.85	3.64	5.41	2.03	6.29	6.39	8.01	NS	ND	ND</											

Table 2

**Sampling Locations and List of Stored Chemicals
Via Verde Vapor Intrusion Investigation
March 2019**

<u>Sample ID</u>	<u>Location</u>	<u>Stored Chemicals</u>
SSV/IA-1	Duplex Zone 4 (East) Cellar Hallway	Rat trap
SSV/IA-2	Duplex Zone 4 (East) Cellar Hallway	None
SSV/IA 3	Duplex Zone 4 (West) Cellar Telecom	None
SSV/IA-4	Duplex Zone 4 (West) Cellar Hallway	Ice melt (NaCl & MgCl_2), rat trap
SSV/IA-5	Midrise Zone 3 Cellar Telecom Room	None
SSV/IA-6	Midrise Zone 3 Cellar Hallway	Cleaning products (janitor cart), rat trap
SSV/IA-7	Tower Zone 1 Cellar East Storage Rm.	None
SSV/IA-8	Tower Zone 1 Cellar West Storage Rm.	None
SSV/IA-9	Midrise Zone 2 Gnd. Floor Stairwell	Fire extinguisher
SSV/IA-10	Midrise Zone 2 Gnd. Floor Hallway	Latex floor paint, spackle
OA-1	Courtyard	NA



Appendix A
DUSR/Lab Data

DATA USABILITY SUMMARY REPORT (DUSR)

ORGANIC ANALYSIS

**EPA Compendium Method TO-15
LOW LEVEL VOLATILES BY GC/MS
For Soil Vapor/Indoor/Ambient Air Samples
Collected March 08, 2019
From 700-730 Brook Avenue, Bronx, NY
Via Verde
by CA Rich Consultants Inc.**

**SAMPLE DELIVERY GROUP NUMBER: L1909348
Alpha Analytical (ELAP #11148)**

SUBMITTED TO:

**Mr. Rich Izzo
CA Rich Consultants, Inc.
17 Dupont Street
Plainview, NY 11803**

April 19, 2019

PREPARED BY:

**Lori A. Beyer/President
L.A.B. Validation Corp.
14 West Point Drive
East Northport, NY 11731**

Lori A. Beyer

Via Verde; 700-730 Brook Avenue, Bronx, New York; March 2019.
Data Validation Report: Volatile Organics by EPA Method TO15

Table of Contents:

	Introduction
	Data Qualifier Definitions
	Sample Receipt
1.0	Volatile Organics by GC/MS EPA Compendium Method TO-15
1.1	Holding Time
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1.4	Laboratory Control Sample
1.5	Blank Contamination
1.6	GC/MS Instrument Performance Check
1.7	Initial and Continuing Calibrations
1.8	Internal Standards
1.9	Target Compound List Identification
1.10	Tentatively Identified Compounds
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1.12	Overall System Performance

APPENDICES:

- A. Chain of Custody Documents
- B. Case Narrative
- C. Data Summary Form Is with Qualifications

Introduction:

A validation was performed on twenty-one (21) air samples for Volatile Organic analysis collected by CA Rich Consultants, Inc. and submitted to Alpha Analytical for subsequent analysis under chain of custody documentation. This report contains the laboratory and validation results for the field samples itemized below. The samples were collected on March 08, 2019 through March 09, 2019.

The samples were analyzed by Alpha Analytical utilizing EPA Method TO-15 and in accordance with NYSDEC Analytical Services Protocol and submitted under NYSDEC ASP Category B equivalent deliverable requirements for the associated analytical methodology employed. The analytical testing consisted of the TO-15 Compound List.

The data was evaluated in accordance with the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (Publication 9240.1-05), EPA SOP #HW31 (Revision 6-Updated September 2016) and in conjunction with the analytical methodology for which the samples were analyzed, where applicable and relevant.

The data validation report pertains to the following field air samples:

Sample Identification	Laboratory Identification	Sample Matrix (Air Type)	Collection Date
SSV-1	L1909348-01	Soil Vapor	03/08/2019
SSV-2	L1909348-02	Soil Vapor	03/08/2019
SSV-3	L1909348-03	Soil Vapor	03/08/2019
SSV-4	L1909348-04	Soil Vapor	03/08/2019
SSV-5	L1909348-05	Soil Vapor	03/08/2019
SSV-6	L1909348-06	Soil Vapor	03/08/2019
SSV-7	L1909348-07	Soil Vapor	03/08/2019
SSV-8	L1909348-08	Soil Vapor	03/08/2019
SSV-9	L1909348-09	Soil Vapor	03/08/2019
SSV-10	L1909348-010	Soil Vapor	03/08/2019
IA-1	L1909348-011	Indoor Air	03/08/2019
IA-2	L1909348-012	Indoor Air	03/08/2019
IA-3	L1909348-013	Indoor Air	03/08/2019
IA-4	L1909348-014	Indoor Air	03/08/2019
IA-5	L1909348-015	Indoor Air	03/08/2019
IA-6	L1909348-016	Indoor Air	03/08/2019
IA-7	L1909348-017	Indoor Air	03/08/2019
IA-8	L1909348-018	Indoor Air	03/08/2019
IA-9	L1909348-019	Indoor Air	03/08/2019
IA-10	L1909348-20	Indoor Air	03/08/2019
OA-I	L1909348-21	Outdoor Air	03/08/2019

Data Qualifier Definitions:

The following definitions provide brief explanations of the qualifiers assigned to results in the data review process.

- U** - The analyte was analyzed for but was not detected above the reported sample quantitation limit.
- J** - The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
- J+** - The result is an estimated quantity, but the result may be biased high.
- J-** - The result is an estimated quantity, but the result may be biased low.
- NJ** - The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
- UJ** - The analyte was analyzed for but not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
- R** - The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.
- D** - Analyte concentration was obtained from diluted analysis.

Sample Receipt:

The Chain of Custody document from 03/08/19 indicates that the air samples were received on 03/11/19 via laboratory courier. Sample login notes and the chain of custody indicate that at the Validated Time of Sample Receipt (VTSR) at the laboratory SSV-6 was received at elevated pressure (-15.0 in. Hg) which resulted in dilution required by the laboratory. No additional discrepancies were notated and therefore the integrity of the summa canister samples is assumed to be good.

Summa Canisters were leak tested prior to collection of each sample. Initial pressure gauge is recorded on the chain of custody and is required to be approximately 30 psi with zero air. Acceptable canister pressure was observed for these samples. All canisters pass the leak check requirements.

The data summary Form I's included in Appendix C includes all usable (qualified) and unusable (rejected) results for the samples identified above and summarize the detailed narrative section of the report. All data validation qualifications have been reported on the Form I's for ease of review and verification.

NOTE:

L.A.B. Validation Corp. believes it is appropriate to note that the data validation criteria utilized for data evaluation is different than the method requirements utilized by the laboratory. Qualified data does not necessarily mean that the laboratory was non-compliant in the analysis that was performed.

Volatile Organics by EPA Compendium Method TO-15

The following method criteria were reviewed: holding times, surrogate standards, LCS, Blanks, Laboratory Duplicate, Tunes, Calibrations, Internal Standards, Target Component Identification and Quantitation, Reported Quantitation Limits and Overall System Performance. The volatile results are valid and useable as noted on the data summary Form I's in Appendix C and within the following text:

1.1 Holding Time

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the technical holding time is exceeded, the data may not be considered valid. Those analytes detected in the samples whose holding time has been exceeded will be qualified as estimates, "J". The non-detects (sample quantitation limits) are required to be flagged as estimated, "J", or unusable, "R", if the holding times are grossly exceeded.

Air samples pertaining to this SDG were performed within the method and technical required holding times of thirty (30) days from sample collection for analysis. No qualifications were required based upon holding time criteria.

1.2 Surrogate Standards

All samples are spiked with surrogate compounds prior to sample analysis to evaluate overall laboratory performance and efficiency of the analytical technique. If the measure of surrogate concentrations is outside contract specifications, qualifications are required to be applied to associated samples and analytes.

Samples were not spiked with surrogate standards. Method TO15 does not mandate the addition of surrogate standards.

1.3 Matrix Spikes (MS)/ Matrix Spike Duplicates (MSD)/Laboratory Duplicate /Field Duplicate Analysis

The MS/MSD data are generated to determine the long-term precision and accuracy of the analytical method in various matrices.

Matrix Spike/Matrix Spike Duplicate analysis was not performed on samples pertaining to this SDG.

Laboratory duplicate was performed on IA-3. Acceptable precision was observed for detected analytes (<25%).

Field Duplicate analysis was not submitted. Acceptable precision for air samples is 50% when provided. The following criteria are utilized for Field/Lab Duplicate analysis:

Criteria	Detected Compounds	Non-Detected Compounds
The RPD is within the limits of 0 and 25%	No qualification	No qualification
The RPD >25%	J in the parent and duplicate samples	Not applicable
The RPD could not be calculated since the compound was only detected in either the parent or duplicate sample. However, the detected concentration was $\leq 2 \times$ the reporting limit	No qualification	No qualification
The RPD could not be calculated since the compound was only detected in either the parent or duplicate sample. However, the detected concentration was $> 2 \times$ the reporting limit.	J in the parent and duplicate sample	UJ in the parent of duplicate sample

No qualifications to the data were applied based on MS/MSD/Laboratory Duplicate and Field Duplicate analysis.

1.4 Laboratory Control Sample

The LCS data for laboratory control samples (LCS) are generated to provide information on the accuracy of the analytical method and on the laboratory performance.

The following table summarizes the LCS criteria and the data qualification guidelines for all associated field samples.

LCS	NOT QUALIFIED	J	R
% Recovery:			
Detects	70-130%	<70%, >130%	
Non-Detects	$\geq 130\%$	50-69%	<50%
Absolute RT of LCS Compounds:			
LCS Compounds in samples RT: (min)	± 0.33		≥ 0.33

Acceptable LCS was analyzed with this SDG pertaining to this sampling event. Recovery values for all spiked compounds was determined to be >70%-<130% for all analytes except for 1,2,4-Trichlorobenzene (151%)

and Hexachlorobutadiene (144%). This LCS is associated with all indoor air and the outdoor air sample. These target compounds were not detected in corresponding field samples and therefore high recovery does not support any potential loss of detection and/or result bias. Sample results are not impacted.

1.5 Blank Contamination

Quality assurance (QA) blanks; i.e. method, trip and field blanks are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure cross-contamination of samples during shipment. Field blanks measure cross-contamination of samples during field operations. Storage blanks measure cross-contamination during sample storage of the field samples and are not required for TO15 analysis. Canister blanks measure cross-contamination from the sampling media.

The following table was utilized to qualify target analyte results due to method blank contamination. The largest value from all the associated blanks is required to be utilized. The largest value from all the associated blanks is required to be utilized:

Blank Type	Blank Result	Sample Result	Action for Samples
Method, Storage, field, Trip, Instrument	Detects	Not Detected	No qualification required
	<CRQL*	<CRQL*	Report CRQL value with a U
		>= CRQL* and <2x the CRQL**	No qualification required
		<= CRQL*	Report CRQL value with a U
	>CRQL*	>=CRQL* and <= blank concentration	Report blank value for sample concentration with a U
		>= CRQL* and > blank concentration	No qualification required
		<= CRQL*	Report CRQL value with a U
	=CRQL*	>CRQL*	No qualification required
	Gross Contamination**	Detects	Report blank value for sample concentration with a U

*2x the CRQL for methylene chloride, 2-butanone and acetone.

**4x the CRQL for methylene chloride, 2-butanone, and acetone

***Qualifications based on instrument blank results affect only the sample analyzed immediately after the sample that has target compounds that exceed the calibration range or non-target compounds that exceed 100 ug/L.

Below is a summary of the compounds in the sample and the associated qualifications that have been applied:

The table below is utilized to qualify samples with target compound results also present in certification blanks:

Certification Contamination	Sample Result	Action for Sample
>/=detect limit	>5x certification contamination	No qualification required
>/=detect limit	<detect limit	Detection limit "U"
>/=detect limit	>/=detect limit and </= 5x certification contamination level	5x certification contamination "U"
<detect limit	</=detection limit and >/= detection limit	No qualification

Below is a summary of the compounds in the sample and the associated qualifications that have been applied:

A) Method Blank Contamination:

Method and Canister blanks were determined to be free of any contamination.

**Acetone and/or Methylene Chloride was detected in many samples including the Indoor/Outdoor Air samples. 2-Butanone was also detected in the majority of samples. The end user should proceed with caution when making decisions based on Acetone, Methylene Chloride and 2-Butanone detections since these are common solvents utilized in the organic extraction laboratory.*

B) Field Blank Contamination:
Field Blank analysis was not required.

C) Trip Blank Contamination:
Trip Blank analysis was not required.

1.6 GC/MS Instrument Performance Check

Tuning and performance criteria are established to ensure adequate mass resolution, proper identification of compounds and to some degree, sufficient instrument sensitivity. These criteria are not sample specific. Instrument performance is determined using standard materials. Therefore, these criteria should be met in all circumstances. The Tuning standard for volatile organics is Bromofluorobenzene (BFB).

Instrument performance was generated within acceptable limits and frequency (24 hours) for Bromofluorobenzene (BFB) for all analyses conducted for this SDG.

1.7 Initial and Continuing Calibrations

Satisfactory instrument calibration is established to ensure that the instrument can produce acceptable quantitative data. An initial calibration demonstrates that the instrument can give acceptable performance at the beginning of an experimental sequence. The continuing calibration checks document that the instrument is giving satisfactory daily performance.

A) Response Factor GC/MS:

The response factor measures the instrument's response to specific chemical compounds. The response factor for all compounds must be ≥ 0.05 in both initial and continuing calibrations. A value < 0.05 indicates a serious detection and quantitation problem (poor sensitivity). Analytes detected in the sample will be qualified as estimated, "J". All non-detects for that compound in the corresponding samples will be rejected, "R".

The following compounds can be > 0.01 without qualification:

2-Butanone
Carbon Disulfide
Chloroethane
Chloromethane
1,2-Dibromoethane
1,2-Dichloropropane
1,4-Dioxane
1,2-Dibromo-3-chloropropane
Methylene Chloride

All the response factors for the target analytes reported were found to be within acceptable limits (≥ 0.05) [or ≥ 0.01 for the 9 compounds above] and remaining analytes, for the initial and continuing calibrations.

B) Percent Relative Standard Deviation (%RSD) and Percent Difference (%D):

Percent RSD is calculated from the initial calibration and is used to indicate the stability of the specific compound response factor over increasing concentrations. Percent D compares the response factor

of the continuing calibration check to the mean response factor (RRF) from the initial calibration. Percent D is a measure of the instrument's daily performance. Percent RSD must be <30% and %D must be <30%. A value outside of these limits indicates potential detection and quantitation errors. For these reasons, all positive results are flagged as estimated, "J" and non-detects are flagged "UJ". If %RSD and %D grossly exceed QC criteria (>90%), non-detect data may be qualified, "R", unusable. Additionally, in cases where the %RSD is >30% and eliminating either the high or the low point of the curve does not restore the %RSD to less than or equal to 30% then positive results are qualified, "J". In cases where removal of either the low or high point restores the linearity, then only low or high-level results will be qualified, "J" in the portion of the curve where non-linearity exists. Acceptable ICV was analyzed.

Initial Calibrations: The initial calibrations provided and the %RSD was within acceptable limits (30%) and (40%) for poor responders for all requested target compounds. Initial calibration verification standard also met QC requirements.

Continuing Calibrations: The continuing calibrations provided and the %D was within acceptable limits (30%) and (40%) for poor responders for all reported compounds.

1.8 Internal Standards

Internal Standards (IS) performance criteria ensure that the GC/MS sensitivity and response are stable during every experimental run. The internal standard area count must not vary by more than a factor of 2 (-40% to +40%) from the associated continuing calibration standard. The retention time of the internal standard must not vary more than +/- 20 seconds from the associated continuing calibration standard. If the area count is outside the (-40% to +40%) range of the associated standard, all positive results for compounds quantitated using that IS are qualified as estimated, "J", and all non-detects as "UJ", or "R" if there is a severe loss of sensitivity.

If an internal standard retention time varies by more than 20 seconds, professional judgment will be used to determine either partial or total rejection of the data for that sample fraction.

Internal Standard area responses met QC requirements for all analysis pertaining to this data set as compared to the continuing calibration.

1.9 Target Compound List Identification

TCL compounds are identified on the GC/MS by using the analyte's relative retention time (RRT) and by comparison to the ion spectra obtained from known standards. For the results to be a positive hit, the sample peak must be within ± 0.06 RRT units of the standard compound and have an ion spectrum which has a ratio of the primary and secondary m/e intensities within 20% of that in the standard compound.

GC/MS spectra met the qualitative criteria for identification. All retention times were within required specifications.

1.10 Tentatively Identified Compounds (TICs)

TICs were not required for this project. When submitted, the identification must be considered tentative (both quantitative and qualitative) due to the lack of required compound specific response factors. Consequently, all concentrations should be considered estimated, "J" and because of the qualitative uncertainty should be qualified, "N" where an identification has been made.

TICs were not required with this data set.

1.11 Compound Quantification and Reported Detection Limits

GC/MS quantitative analysis are acceptable. Correct internal standards and response factors and air volumes were used to calculate final concentrations.

Sample results have been presented in ug/m³ as well as ppbv on the laboratory reporting forms. Samples were analyzed undiluted at 250mls as notated on the Form I's except for SSV-6 which was analyzed at 187mls due to pressurization of the canister with nitrogen upon receipt. Indoor/Outside Air samples were also analyzed by SIM (Selective Ion Monitoring) for select chlorinated compounds to achieve required NYSDOH action levels.

1.12 Overall System Performance

GC/MS analytical methodology was acceptable for this analysis. The data reported agrees with the raw data provided in the final report. The laboratory provided a complete data package and reported all data using acceptable protocols and laboratory qualifiers as defined in the report package.

Reviewer's Signature Lou A. Beyer Date 04/19/2019

**Appendix A
Chain of Custody**

AIR ANALYSIS

PAGE 1 OF 3

ALPHA Job #: L1909348

Date Rec'd In Lab: 3/12/09

Report Information - Data Deliverables

Project Information
Project Name: Via Verde
Project Location:
Project #:
Project Manager:
ALPHA Quote #:
Turn-Around Time

Client Information
Client: CA PTH Consultants
Address: 17 DuPont St.
Plainville, NY
Phone: 516.576.8841
Fax:
Email: hwan@carichin.com

Chain of Custody
320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Project Information

Client Information

Chain of Custody

Project Name: Via Verde

Client: CA PTH Consultants

Chain of Custody

Project Location:

Address: 17 DuPont St.

Chain of Custody

Project #:

Project Manager:

Chain of Custody

ALPHA Quote #:

Plainville, NY

Chain of Custody

Turn-Around Time

Phone: 516.576.8841

Chain of Custody

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Client: CA PTH Consultants

Chain of Custody

Project Location:

Address: 17 DuPont St.

Chain of Custody

Project #:

Project Manager:

Chain of Custody

ALPHA Quote #:

Plainville, NY

Chain of Custody

Turn-Around Time

Phone: 516.576.8841

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Client: CA PTH Consultants

Chain of Custody

Project Location:

Address: 17 DuPont St.

Chain of Custody

Project #:

Project Manager:

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Plainville, NY

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Client: CA PTH Consultants

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Project Location:

Address: 17 DuPont St.

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Project #:

Project Manager:

Chain of Custody

ALPHA Quote #:

Plainville, NY

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Phone: 516.576.8841

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Project Name: Via Verde

Client: CA PTH Consultants

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Project Location:

Address: 17 DuPont St.

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Plainville, NY

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Client: CA PTH Consultants

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Project Location:

Address: 17 DuPont St.

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Project #:

Project Manager:

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ALPHA Quote #:

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Address: 17 DuPont St.

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Project #:

Project Manager:

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ALPHA Quote #:

Plainville, NY

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Turn-Around Time

Phone: 516.576.8841

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Project Name: Via Verde

Client: CA PTH Consultants

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Project Location:

Address: 17 DuPont St.

Chain of Custody

Project #:

Project Manager:

Chain of Custody

ALPHA Quote #:

Plainville, NY

Chain of Custody

Turn-Around Time

Phone: 516.576.8841

Chain of Custody

Project Name: Via Verde

Client: CA PTH Consultants

Chain of Custody

ANALYSIS

APR TO-15 SIM
Fixed Gases
Subsides & Mercaptans by TO-15
Excluded Non-petroleum HCs

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	ID Can	ID - Row Controller	Sample Comments (i.e. PID)
09348-01	SSV-1	3/8/19	1214	1233	30.54	10.21	SV	TB	6L	1599	01268	X
02	SSV-2	1218	1120	30.80	6.07	SV	SV	TB	6L	759	01275	X
03	SSV-3	1235	1121	70.61	3.83	SV	SV	TB	6L	1661	01119	X
04	SSV-4	1239	1131	67.80	9.04	SV	SV	TB	6L	2560	01246	X
05	SSV-5	1251	1204	30.81	11.50	SV	SV	TB	6L	825	0875	X
06	SSV-6	1256	1139	49.51	0.43	EE	SV	TB	6L	4609	08448	X
07	SSV-7	1308	1227	30.61	7.78	SV	SV	TB	6L	1715	03410	X
08	SSV-8	1312	1318	30.89	12.20	SV	SV	TB	6L	2292	01266	X
09	SSV-9	1325	1235	31.00	8.85	SV	SV	TB	6L	1057	01358	X
10	SSV-10	1328	1300	30.46	10.04	SV	SV	TB	6L	1797	01269	X

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Relinquished By: [Signature]
Date/Time: 3/11/19 12:50
Received By: [Signature]
Date/Time: 3/11/19 2:00

Container Type: [Blank]
Date/Time: 03/12/19 01:00
Received By: [Signature]
Date/Time: 3/12/19 05:50

Form No: 101-02 Rev. (25-Sep-15)
Page 18 of 1403

AIR ANALYSIS

PAGE 2 OF 3

ALPHA ANALYTICAL
CHAIN OF CUSTODY
 320 Forbes Blvd, Mansfield, MA 02048
 TEL: 508-822-9300 FAX: 508-822-3288

Client Information
 Client: Gund
 Address: Gund
 Phone:
 Fax:
 Email:

Project Information
 Project Name:
 Project Location: Gund
 Project #:
 Project Manager:
 ALPHA Quote #:

Turn-Around Time
☒ Standard ☐ RUSH (only confirmed if pre-approved)
 Date Due: Time:

Other Project Specific Requirements/Comments:
 Project-Specific Target Compound List: ☐

Report Information - Data Deliverables
☐ FAX ☐ ADEX
 Criteria Checker:
 (Default based on Regulatory Criteria Indicated)
 Other Formats:
☐ EMAIL (standard pdf report)
☐ Additional Deliverables:

Report Information - Billing Information
 Date Rec'd in Lab: 2/21/19
 ALPHA Job #: U909348

Regulatory Requirements/Report Limits
 State/Fed: Program: Res/Comm:

Report to: (if different than Project Manager)

ANALYSIS
☐ APH Subject Non-pressure HCs
☐ Guides & Mercaptans by TO-15
☐ Fixed Gases
 TO-15 SIM TO-15
 Sample Comments (i.e. PID)

Report to: (if different than Project Manager)

Project Information
 Project Name:
 Project Location: Gund
 Project #:
 Project Manager:
 ALPHA Quote #:

Turn-Around Time
☒ Standard ☐ RUSH (only confirmed if pre-approved)
 Date Due: Time:

Other Project Specific Requirements/Comments:
 Project-Specific Target Compound List: ☐

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION				Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	ID Can	ID - Flow Controller	Sample Comments (i.e. PID)
		End Date	Start Time	End Time	Start Time								
09348-11	IA-1	3/8/19	1215	1117	3058	0.02	0.02	AA	TB	6L	W79	01216	X
12	IA-2		1219	1119	2125	6.70	6.70				557	01214	X
13	IA-3		1230	1122	3090	5.79	5.79				973	01028	X
14	IA-4		1246	1132	2918	8.05	8.05				901	0901	X
15	IA-5		1252	1137	3091	7.84	7.84				1570	01214	X
16	IA-6		1257	1138	3061	7.80	7.80				1712	0023	X
17	IA-7		1309	1228	3086	6.78	6.78				1699	0284	X
18	IA-8		1313	1238	3040	6.62	6.62				2622	0483	X
19	IA-9		1326	1305	3076	9.92	9.92				1531	01006	X
20	IA-10		1329	1234	3077	7.82	7.82				2638	0347	X

***SAMPLE MATRIX CODES**
 AA = Ambient Air (Indoor/Outdoor)
 SV = Soil Vapor/Landfill Gas/SVE
 Other = Please Specify

Relinquished By: Deane 3/1/19 1250
Received By: Deane 3/1/19 1250
 Date/Time: 03/12/19 0550
Deane 03/12/19 0550
Deane 03/12/19 0550

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Client:

Address:

Phone:

Fax:

三

These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List: ☐

Project Information

Project Name:

Project Location:

Project #:

Project Manager:

ALPHA Quote #:

Turn-Around Time

☒ **Standard**

Date Due: _____ **Time:** _____

ANALYSIS

Date Rec'd In Lab:

31819

ALPHA Job #: 1009348

Report Information - Data Deliverables

☐ FAX

ADDEX

Criteria Checker:

(Default based on Regulatory Criteria Indicated)

Other Formats:

EMAIL (standard pdf report)

☐ Additional Deliverables:

Report to: different than Protected Name(s)

All Columns Below Must Be Filled Out

[illegible]

AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type

Retinquished By: L. / Date/Time

Received By:

Date/Time:

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions.
See reverse side.



Sample Delivery Group Summary

Alpha Job Number : L1909348

Received : 11-MAR-2019
Reviewer : Chris Anderson

Account Name : CA RICH CONSULTANTS, INC.

Project Number :

Project Name : VIA VERDE

Delivery Information

Samples Delivered By : Alpha Courier

Chain of Custody : Present

Cooler Information

Cooler	Seal/Seal#	Preservation	Temperature(°C)	Additional Information
N/A	Absent/			

Condition Information

- | | |
|---|-----|
| 1) All samples on COC received? | YES |
| 2) Extra samples received? | NO |
| 3) Are there any sample container discrepancies? | NO |
| 4) Are there any discrepancies between sample labels & COC?
L1909348-02: ssv-2 vs. ssv-1 | YES |
| 5) Are samples in appropriate containers for requested analysis? | YES |
| 6) Are samples properly preserved for requested analysis? | YES |
| 7) Are samples within holding time for requested analysis? | YES |
| 8) All sampling equipment returned? | YES |

Volatile Organics/VPH

- | | |
|--|----|
| 1) Reagent Water Vials Frozen by Client? | NA |
|--|----|

**Appendix B
Case Narrative**

Project Name: VIA VERDE
Project Number: Not Specified

Lab Number: L1909348
Report Date: 03/20/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: VIA VERDE
Project Number: Not Specified

Lab Number: L1909348
Report Date: 03/20/19

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on March 4, 2019. The canister certification results are provided as an addendum.

L1909348-06 : The canister vacuum measured on receipt at the laboratory was > 15 in. Hg. Prior to sample analysis, the canisters were pressurized with UHP Nitrogen in order to facilitate the transfer of sample to the Gas Chromatograph. The addition of Nitrogen resulted in a dilution of the samples. The reporting limits have been elevated accordingly.

Sample Receipt

The canister ID number for the sample designated IA-7 (L1909348-17) is listed on the CoC as 1699 but should be 1669.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: 

Report Date: 03/20/19

Title: Technical Director/Representative

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4118119


**Appendix C
Data Summary
Form I's
With Qualifications**

Results Summary Form 1 Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
Project Name : VIA VERDE
Lab ID : L1909348-01
Client ID : SSV-1
Sample Location :
Sample Matrix : SOIL_VAPOR
Analytical Method : 48,TO-15
Lab File ID : R165224
Sample Amount : 250 ml

Lab Number : L1909348
Project Number :
Date Collected : 03/08/19 11:23
Date Received : 03/11/19
Date Analyzed : 03/19/19 18:52
Dilution Factor : 1
Analyst : EW
Instrument ID : AIRPIANO1
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	0.295	0.200	--	1.46	0.989	--	
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	8.98	5.00	--	16.9	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	2.53	1.00	--	6.01	2.38	--	
75-69-4	Trichlorofluoromethane	0.234	0.200	--	1.31	1.12	--	
67-63-0	Isopropanol	6.10	0.500	--	15.0	1.23	--	
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
78-93-3	2-Butanone	1.70	0.500	--	5.01	1.47	--	
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	4.49	0.500	--	16.2	1.80	--	
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	3.15	0.500	--	9.29	1.47	--	



Results Summary Form 1 Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
Project Name : VIA VERDE
Lab ID : L1909348-01
Client ID : SSV-1
Sample Location :
Sample Matrix : SOIL_VAPOR
Analytical Method : 48,TO-15
Lab File ID : R165224
Sample Amount : 250 ml

Lab Number : L1909348
Project Number :
Date Collected : 03/08/19 11:23
Date Received : 03/11/19
Date Analyzed : 03/19/19 18:52
Dilution Factor : 1
Analyst : EW
Instrument ID : AIRPIANO1
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
71-43-2	Benzene	5.64	0.200	--	18.0	0.639	--	
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	3.45	0.200	--	13.0	0.754	--	
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U
108-90-7	Chlorobenzene	5.58	0.200	--	25.7	0.921	--	
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	1.02	0.400	--	4.43	1.74	--	
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U



Results Summary

Form 1

Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
 Project Name : VIA VERDE
 Lab ID : L1909348-01
 Client ID : SSV-1
 Sample Location :
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R165224
 Sample Amount : 250 ml

Lab Number : L1909348
 Project Number :
 Date Collected : 03/08/19 11:23
 Date Received : 03/11/19
 Date Analyzed : 03/19/19 18:52
 Dilution Factor : 1
 Analyst : EW
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
95-63-6	1,2,4-Trimethylbenzene	0.370	0.200	--	1.82	0.983	--	
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	0.770	0.200	--	4.63	1.20	--	
95-50-1	1,2-Dichlorobenzene	0.476	0.200	--	2.86	1.20	--	
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U



Results Summary Form 1 Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
Project Name : VIA VERDE
Lab ID : L1909348-02
Client ID : SSV-2
Sample Location :
Sample Matrix : SOIL_VAPOR
Analytical Method : 48,TO-15
Lab File ID : R165225
Sample Amount : 250 ml

Lab Number : L1909348
Project Number :
Date Collected : 03/08/19 11:20
Date Received : 03/11/19
Date Analyzed : 03/19/19 19:24
Dilution Factor : 1
Analyst : EW
Instrument ID : AIRPIANO1
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	0.313	0.200	--	1.55	0.989	--	
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	8.68	5.00	--	16.4	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	2.97	1.00	--	7.06	2.38	--	
75-69-4	Trichlorofluoromethane	0.265	0.200	--	1.49	1.12	--	
67-63-0	Isopropanol	6.41	0.500	--	15.8	1.23	--	
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
78-93-3	2-Butanone	1.81	0.500	--	5.34	1.47	--	
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	5.14	0.500	--	18.5	1.80	--	
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	3.20	0.500	--	9.44	1.47	--	



Results Summary Form 1 Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
Project Name : VIA VERDE
Lab ID : L1909348-02
Client ID : SSV-2
Sample Location :
Sample Matrix : SOIL_VAPOR
Analytical Method : 48,TO-15
Lab File ID : R165225
Sample Amount : 250 ml

Lab Number : L1909348
Project Number :
Date Collected : 03/08/19 11:20
Date Received : 03/11/19
Date Analyzed : 03/19/19 19:24
Dilution Factor : 1
Analyst : EW
Instrument ID : AIRPIANO1
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
71-43-2	Benzene	5.80	0.200	--	18.5	0.639	--	
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	2.24	0.200	--	8.44	0.754	--	
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
127-18-4	Tetrachloroethene	0.948	0.200	--	6.43	1.36	--	
108-90-7	Chlorobenzene	4.94	0.200	--	22.8	0.921	--	
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	0.907	0.400	--	3.94	1.74	--	
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U



Results Summary

Form 1

Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
 Project Name : VIA VERDE
 Lab ID : L1909348-02
 Client ID : SSV-2
 Sample Location :
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R165225
 Sample Amount : 250 ml

Lab Number : L1909348
 Project Number :
 Date Collected : 03/08/19 11:20
 Date Received : 03/11/19
 Date Analyzed : 03/19/19 19:24
 Dilution Factor : 1
 Analyst : EW
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
95-63-6	1,2,4-Trimethylbenzene	0.354	0.200	--	1.74	0.983	--	
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	0.685	0.200	--	4.12	1.20	--	
95-50-1	1,2-Dichlorobenzene	0.419	0.200	--	2.52	1.20	--	
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U



Results Summary Form 1 Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
Project Name : VIA VERDE
Lab ID : L1909348-03
Client ID : SSV-3
Sample Location :
Sample Matrix : SOIL_VAPOR
Analytical Method : 48,TO-15
Lab File ID : R165226
Sample Amount : 250 ml

Lab Number : L1909348
Project Number :
Date Collected : 03/08/19 11:21
Date Received : 03/11/19
Date Analyzed : 03/19/19 19:57
Dilution Factor : 1
Analyst : EW
Instrument ID : AIRPIANO1
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	0.349	0.200	--	1.73	0.989	--	
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	11.6	5.00	--	21.9	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	2.24	1.00	--	5.32	2.38	--	
75-69-4	Trichlorofluoromethane	0.300	0.200	--	1.69	1.12	--	
67-63-0	Isopropanol	4.96	0.500	--	12.2	1.23	--	
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	0.638	0.500	--	2.22	1.74	--	
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
78-93-3	2-Butanone	1.23	0.500	--	3.63	1.47	--	
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	2.30	0.500	--	8.29	1.80	--	
67-66-3	Chloroform	0.211	0.200	--	1.03	0.977	--	
109-99-9	Tetrahydrofuran	1.77	0.500	--	5.22	1.47	--	



Results Summary

Form 1

Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
 Project Name : VIA VERDE
 Lab ID : L1909348-03
 Client ID : SSV-3
 Sample Location :
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R165226
 Sample Amount : 250 ml

Lab Number : L1909348
 Project Number :
 Date Collected : 03/08/19 11:21
 Date Received : 03/11/19
 Date Analyzed : 03/19/19 19:57
 Dilution Factor : 1
 Analyst : EW
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
71-43-2	Benzene	3.83	0.200	--	12.2	0.639	--	
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	43.6	0.200	--	164	0.754	--	
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U
108-90-7	Chlorobenzene	7.68	0.200	--	35.4	0.921	--	
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	1.44	0.400	--	6.25	1.74	--	
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U



Results Summary

Form 1

Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
 Project Name : VIA VERDE
 Lab ID : L1909348-03
 Client ID : SSV-3
 Sample Location :
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R165226
 Sample Amount : 250 ml

Lab Number : L1909348
 Project Number :
 Date Collected : 03/08/19 11:21
 Date Received : 03/11/19
 Date Analyzed : 03/19/19 19:57
 Dilution Factor : 1
 Analyst : EW
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	0.235	0.200	--	1.02	0.869	--	
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	0.212	0.200	--	1.04	0.983	--	
95-63-6	1,2,4-Trimethylbenzene	0.676	0.200	--	3.32	0.983	--	
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	1.14	0.200	--	6.85	1.20	--	
95-50-1	1,2-Dichlorobenzene	0.692	0.200	--	4.16	1.20	--	
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U



Results Summary Form 1 Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
Project Name : VIA VERDE
Lab ID : L1909348-04
Client ID : SSV-4
Sample Location :
Sample Matrix : SOIL_VAPOR
Analytical Method : 48,TO-15
Lab File ID : R165227
Sample Amount : 250 ml

Lab Number : L1909348
Project Number :
Date Collected : 03/08/19 11:31
Date Received : 03/11/19
Date Analyzed : 03/19/19 20:29
Dilution Factor : 1
Analyst : EW
Instrument ID : AIRPIANO1
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	0.317	0.200	--	1.57	0.989	--	
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	8.87	5.00	--	16.7	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	2.75	1.00	--	6.53	2.38	--	
75-69-4	Trichlorofluoromethane	0.340	0.200	--	1.91	1.12	--	
67-63-0	Isopropanol	5.35	0.500	--	13.2	1.23	--	
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
78-93-3	2-Butanone	1.87	0.500	--	5.52	1.47	--	
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	5.05	0.500	--	18.2	1.80	--	
67-66-3	Chloroform	1.13	0.200	--	5.52	0.977	--	
109-99-9	Tetrahydrofuran	3.13	0.500	--	9.23	1.47	--	



Results Summary Form 1 Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
Project Name : VIA VERDE
Lab ID : L1909348-04
Client ID : SSV-4
Sample Location :
Sample Matrix : SOIL_VAPOR
Analytical Method : 48,TO-15
Lab File ID : R165227
Sample Amount : 250 ml

Lab Number : L1909348
Project Number :
Date Collected : 03/08/19 11:31
Date Received : 03/11/19
Date Analyzed : 03/19/19 20:29
Dilution Factor : 1
Analyst : EW
Instrument ID : AIRPIANO1
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
71-43-2	Benzene	5.83	0.200	--	18.6	0.639	--	
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	2.13	0.200	--	8.03	0.754	--	
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
127-18-4	Tetrachloroethene	0.416	0.200	--	2.82	1.36	--	
108-90-7	Chlorobenzene	5.13	0.200	--	23.6	0.921	--	
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	1.10	0.400	--	4.78	1.74	--	
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U



Results Summary Form 1 Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
Project Name : VIA VERDE
Lab ID : L1909348-04
Client ID : SSV-4
Sample Location :
Sample Matrix : SOIL_VAPOR
Analytical Method : 48,TO-15
Lab File ID : R165227
Sample Amount : 250 ml

Lab Number : L1909348
Project Number :
Date Collected : 03/08/19 11:31
Date Received : 03/11/19
Date Analyzed : 03/19/19 20:29
Dilution Factor : 1
Analyst : EW
Instrument ID : AIRPIANO1
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
95-63-6	1,2,4-Trimethylbenzene	0.376	0.200	--	1.85	0.983	--	
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	0.627	0.200	--	3.77	1.20	--	
95-50-1	1,2-Dichlorobenzene	0.358	0.200	--	2.15	1.20	--	
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U



Results Summary Form 1 Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
Project Name : VIA VERDE
Lab ID : L1909348-05
Client ID : SSV-5
Sample Location :
Sample Matrix : SOIL_VAPOR
Analytical Method : 48,TO-15
Lab File ID : R165228
Sample Amount : 250 ml

Lab Number : L1909348
Project Number :
Date Collected : 03/08/19 12:04
Date Received : 03/11/19
Date Analyzed : 03/19/19 21:02
Dilution Factor : 1
Analyst : EW
Instrument ID : AIRPIANO1
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	0.280	0.200	--	1.38	0.989	--	
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	21.6	5.00	--	40.7	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	4.51	1.00	--	10.7	2.38	--	
75-69-4	Trichlorofluoromethane	0.474	0.200	--	2.66	1.12	--	
67-63-0	Isopropanol	8.24	0.500	--	20.3	1.23	--	
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
78-93-3	2-Butanone	2.87	0.500	--	8.46	1.47	--	
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	9.24	0.500	--	33.3	1.80	--	
67-66-3	Chloroform	0.837	0.200	--	4.09	0.977	--	
109-99-9	Tetrahydrofuran	5.72	0.500	--	16.9	1.47	--	



Results Summary Form 1 Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
Project Name : VIA VERDE
Lab ID : L1909348-05
Client ID : SSV-5
Sample Location :
Sample Matrix : SOIL_VAPOR
Analytical Method : 48,TO-15
Lab File ID : R165228
Sample Amount : 250 ml

Lab Number : L1909348
Project Number :
Date Collected : 03/08/19 12:04
Date Received : 03/11/19
Date Analyzed : 03/19/19 21:02
Dilution Factor : 1
Analyst : EW
Instrument ID : AIRPIANO1
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
71-43-2	Benzene	10.2	0.200	--	32.6	0.639	--	
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	0.216	0.200	--	0.778	0.721	--	
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	10.0	0.200	--	37.7	0.754	--	
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
127-18-4	Tetrachloroethene	0.693	0.200	--	4.70	1.36	--	
108-90-7	Chlorobenzene	8.65	0.200	--	39.8	0.921	--	
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	1.74	0.400	--	7.56	1.74	--	
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U



Results Summary

Form 1

Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
 Project Name : VIA VERDE
 Lab ID : L1909348-05
 Client ID : SSV-5
 Sample Location :
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R165228
 Sample Amount : 250 ml

Lab Number : L1909348
 Project Number :
 Date Collected : 03/08/19 12:04
 Date Received : 03/11/19
 Date Analyzed : 03/19/19 21:02
 Dilution Factor : 1
 Analyst : EW
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	0.295	0.200	--	1.28	0.869	--	
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	0.261	0.200	--	1.28	0.983	--	
95-63-6	1,2,4-Trimethylbenzene	0.741	0.200	--	3.64	0.983	--	
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	0.869	0.200	--	5.22	1.20	--	
95-50-1	1,2-Dichlorobenzene	0.543	0.200	--	3.26	1.20	--	
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U



Results Summary

Form 1

Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
 Project Name : VIA VERDE
 Lab ID : L1909348-06D
 Client ID : SSV-6
 Sample Location :
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R165239
 Sample Amount : 187 ml

Lab Number : L1909348
 Project Number :
 Date Collected : 03/08/19 11:39
 Date Received : 03/11/19
 Date Analyzed : 03/20/19 09:38
 Dilution Factor : 1.338
 Analyst : EW
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	1.05	0.268	--	5.19	1.33	--	
74-87-3	Chloromethane	ND	0.268	--	ND	0.553	--	U
76-14-2	Freon-114	ND	0.268	--	ND	1.87	--	U
75-01-4	Vinyl chloride	ND	0.268	--	ND	0.685	--	U
106-99-0	1,3-Butadiene	ND	0.268	--	ND	0.593	--	U
74-83-9	Bromomethane	ND	0.268	--	ND	1.04	--	U
75-00-3	Chloroethane	ND	0.268	--	ND	0.707	--	U
64-17-5	Ethanol	29.3	6.69	--	55.2	12.6	--	
593-60-2	Vinyl bromide	ND	0.268	--	ND	1.17	--	U
67-64-1	Acetone	9.16	1.34	--	21.8	3.18	--	
75-69-4	Trichlorofluoromethane	0.894	0.268	--	5.02	1.51	--	
67-63-0	Isopropanol	9.40	0.669	--	23.1	1.64	--	
75-35-4	1,1-Dichloroethene	ND	0.268	--	ND	1.06	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.669	--	ND	2.03	--	U
75-09-2	Methylene chloride	0.793	0.669	--	2.75	2.32	--	
107-05-1	3-Chloropropene	ND	0.268	--	ND	0.839	--	U
75-15-0	Carbon disulfide	ND	0.268	--	ND	0.835	--	U
76-13-1	Freon-113	ND	0.268	--	ND	2.05	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.268	--	ND	1.06	--	U
75-34-3	1,1-Dichloroethane	ND	0.268	--	ND	1.08	--	U
1634-04-4	Methyl tert butyl ether	ND	0.268	--	ND	0.966	--	U
78-93-3	2-Butanone	3.46	0.669	--	10.2	1.97	--	
156-59-2	cis-1,2-Dichloroethene	ND	0.268	--	ND	1.06	--	U
141-78-6	Ethyl Acetate	10.5	0.669	--	37.8	2.41	--	
67-66-3	Chloroform	0.599	0.268	--	2.93	1.31	--	
109-99-9	Tetrahydrofuran	6.46	0.669	--	19.1	1.97	--	



Results Summary Form 1 Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
Project Name : VIA VERDE
Lab ID : L1909348-06D
Client ID : SSV-6
Sample Location :
Sample Matrix : SOIL_VAPOR
Analytical Method : 48, TO-15
Lab File ID : R165239
Sample Amount : 187 ml

Lab Number : L1909348
Project Number :
Date Collected : 03/08/19 11:39
Date Received : 03/11/19
Date Analyzed : 03/20/19 09:38
Dilution Factor : 1.338
Analyst : EW
Instrument ID : AIRPIANO1
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
107-06-2	1,2-Dichloroethane	ND	0.268	--	ND	1.08	--	U
110-54-3	n-Hexane	ND	0.268	--	ND	0.945	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.268	--	ND	1.46	--	U
71-43-2	Benzene	11.5	0.268	--	36.7	0.856	--	
56-23-5	Carbon tetrachloride	ND	0.268	--	ND	1.69	--	U
110-82-7	Cyclohexane	ND	0.268	--	ND	0.922	--	U
78-87-5	1,2-Dichloropropane	ND	0.268	--	ND	1.24	--	U
75-27-4	Bromodichloromethane	ND	0.268	--	ND	1.80	--	U
123-91-1	1,4-Dioxane	ND	0.268	--	ND	0.966	--	U
79-01-6	Trichloroethene	ND	0.268	--	ND	1.44	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.268	--	ND	1.25	--	U
142-82-5	Heptane	ND	0.268	--	ND	1.10	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.268	--	ND	1.22	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.669	--	ND	2.74	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.268	--	ND	1.22	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.268	--	ND	1.46	--	U
108-88-3	Toluene	28.6	0.268	--	108	1.01	--	
591-78-6	2-Hexanone	ND	0.268	--	ND	1.10	--	U
124-48-1	Dibromochloromethane	ND	0.268	--	ND	2.28	--	U
106-93-4	1,2-Dibromoethane	ND	0.268	--	ND	2.06	--	U
127-18-4	Tetrachloroethene	0.812	0.268	--	5.51	1.82	--	
108-90-7	Chlorobenzene	9.53	0.268	--	43.9	1.23	--	
100-41-4	Ethylbenzene	ND	0.268	--	ND	1.16	--	U
179601-23-1	p/m-Xylene	2.31	0.535	--	10.0	2.32	--	
75-25-2	Bromoform	ND	0.268	--	ND	2.77	--	U
100-42-5	Styrene	ND	0.268	--	ND	1.14	--	U



Results Summary

Form 1

Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
 Project Name : VIA VERDE
 Lab ID : L1909348-06D
 Client ID : SSV-6
 Sample Location :
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R165239
 Sample Amount : 187 ml

Lab Number : L1909348
 Project Number :
 Date Collected : 03/08/19 11:39
 Date Received : 03/11/19
 Date Analyzed : 03/20/19 09:38
 Dilution Factor : 1.338
 Analyst : EW
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.268	--	ND	1.84	--	U
95-47-6	o-Xylene	0.405	0.268	--	1.76	1.16	--	
622-96-8	4-Ethyltoluene	ND	0.268	--	ND	1.32	--	U
108-67-8	1,3,5-Trimethylbenzene	0.329	0.268	--	1.62	1.32	--	
95-63-6	1,2,4-Trimethylbenzene	1.10	0.268	--	5.41	1.32	--	
100-44-7	Benzyl chloride	ND	0.268	--	ND	1.39	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.268	--	ND	1.61	--	U
106-46-7	1,4-Dichlorobenzene	0.864	0.268	--	5.19	1.61	--	
95-50-1	1,2-Dichlorobenzene	0.482	0.268	--	2.90	1.61	--	
120-82-1	1,2,4-Trichlorobenzene	ND	0.268	--	ND	1.99	--	U
87-68-3	Hexachlorobutadiene	ND	0.268	--	ND	2.86	--	U



Results Summary Form 1 Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
Project Name : VIA VERDE
Lab ID : L1909348-07
Client ID : SSV-7
Sample Location :
Sample Matrix : SOIL_VAPOR
Analytical Method : 48,TO-15
Lab File ID : R165229
Sample Amount : 250 ml

Lab Number : L1909348
Project Number :
Date Collected : 03/08/19 12:27
Date Received : 03/11/19
Date Analyzed : 03/19/19 21:34
Dilution Factor : 1
Analyst : EW
Instrument ID : AIRPIANO1
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	0.444	0.200	--	2.20	0.989	--	
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	20.9	5.00	--	39.4	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	5.10	1.00	--	12.1	2.38	--	
75-69-4	Trichlorofluoromethane	0.252	0.200	--	1.42	1.12	--	
67-63-0	Isopropanol	13.6	0.500	--	33.4	1.23	--	
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
78-93-3	2-Butanone	2.29	0.500	--	6.75	1.47	--	
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	6.91	0.500	--	24.9	1.80	--	
67-66-3	Chloroform	2.30	0.200	--	11.2	0.977	--	
109-99-9	Tetrahydrofuran	4.93	0.500	--	14.5	1.47	--	



Results Summary Form 1 Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
Project Name : VIA VERDE
Lab ID : L1909348-07
Client ID : SSV-7
Sample Location :
Sample Matrix : SOIL_VAPOR
Analytical Method : 48,TO-15
Lab File ID : R165229
Sample Amount : 250 ml

Lab Number : L1909348
Project Number :
Date Collected : 03/08/19 12:27
Date Received : 03/11/19
Date Analyzed : 03/19/19 21:34
Dilution Factor : 1
Analyst : EW
Instrument ID : AIRPIANO1
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
71-43-2	Benzene	7.92	0.200	--	25.3	0.639	--	
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	5.45	0.200	--	20.5	0.754	--	
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U
108-90-7	Chlorobenzene	5.65	0.200	--	26.0	0.921	--	
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	1.40	0.400	--	6.08	1.74	--	
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U



Results Summary

Form 1

Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
 Project Name : VIA VERDE
 Lab ID : L1909348-07
 Client ID : SSV-7
 Sample Location :
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R165229
 Sample Amount : 250 ml

Lab Number : L1909348
 Project Number :
 Date Collected : 03/08/19 12:27
 Date Received : 03/11/19
 Date Analyzed : 03/19/19 21:34
 Dilution Factor : 1
 Analyst : EW
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	0.241	0.200	--	1.05	0.869	--	
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
95-63-6	1,2,4-Trimethylbenzene	0.412	0.200	--	2.03	0.983	--	
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	0.422	0.200	--	2.54	1.20	--	
95-50-1	1,2-Dichlorobenzene	0.241	0.200	--	1.45	1.20	--	
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U



Results Summary Form 1 Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
Project Name : VIA VERDE
Lab ID : L1909348-08
Client ID : SSV-8
Sample Location :
Sample Matrix : SOIL_VAPOR
Analytical Method : 48,TO-15
Lab File ID : R165230
Sample Amount : 250 ml

Lab Number : L1909348
Project Number :
Date Collected : 03/08/19 13:18
Date Received : 03/11/19
Date Analyzed : 03/19/19 22:06
Dilution Factor : 1
Analyst : EW
Instrument ID : AIRPIANO1
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	0.507	0.200	--	2.51	0.989	--	
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	12.4	5.00	--	23.4	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	5.28	1.00	--	12.5	2.38	--	
75-69-4	Trichlorofluoromethane	0.399	0.200	--	2.24	1.12	--	
67-63-0	Isopropanol	8.07	0.500	--	19.8	1.23	--	
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
78-93-3	2-Butanone	2.37	0.500	--	6.99	1.47	--	
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	7.01	0.500	--	25.3	1.80	--	
67-66-3	Chloroform	0.558	0.200	--	2.72	0.977	--	
109-99-9	Tetrahydrofuran	4.06	0.500	--	12.0	1.47	--	



Results Summary

Form 1

Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
 Project Name : VIA VERDE
 Lab ID : L1909348-08
 Client ID : SSV-8
 Sample Location :
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R165230
 Sample Amount : 250 ml

Lab Number : L1909348
 Project Number :
 Date Collected : 03/08/19 13:18
 Date Received : 03/11/19
 Date Analyzed : 03/19/19 22:06
 Dilution Factor : 1
 Analyst : EW
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
71-43-2	Benzene	7.41	0.200	--	23.7	0.639	--	
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	73.1	0.200	--	275	0.754	--	
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
127-18-4	Tetrachloroethene	1.46	0.200	--	9.90	1.36	--	
108-90-7	Chlorobenzene	6.34	0.200	--	29.2	0.921	--	
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	1.51	0.400	--	6.56	1.74	--	
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U



Results Summary

Form 1

Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
 Project Name : VIA VERDE
 Lab ID : L1909348-08
 Client ID : SSV-8
 Sample Location :
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R165230
 Sample Amount : 250 ml

Lab Number : L1909348
 Project Number :
 Date Collected : 03/08/19 13:18
 Date Received : 03/11/19
 Date Analyzed : 03/19/19 22:06
 Dilution Factor : 1
 Analyst : EW
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	0.303	0.200	--	1.32	0.869	--	
622-96-8	4-Ethyltoluene	0.207	0.200	--	1.02	0.983	--	
108-67-8	1,3,5-Trimethylbenzene	0.328	0.200	--	1.61	0.983	--	
95-63-6	1,2,4-Trimethylbenzene	1.28	0.200	--	6.29	0.983	--	
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	0.699	0.200	--	4.20	1.20	--	
95-50-1	1,2-Dichlorobenzene	0.400	0.200	--	2.40	1.20	--	
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U



Results Summary

Form 1

Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
 Project Name : VIA VERDE
 Lab ID : L1909348-09
 Client ID : SSV-9
 Sample Location :
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R165231
 Sample Amount : 250 ml

Lab Number : L1909348
 Project Number :
 Date Collected : 03/08/19 12:35
 Date Received : 03/11/19
 Date Analyzed : 03/19/19 22:39
 Dilution Factor : 1
 Analyst : EW
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	0.708	0.200	--	3.50	0.989	--	
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	14.4	5.00	--	27.1	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	3.18	1.00	--	7.55	2.38	--	
75-69-4	Trichlorofluoromethane	0.240	0.200	--	1.35	1.12	--	
67-63-0	Isopropanol	9.18	0.500	--	22.6	1.23	--	
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
78-93-3	2-Butanone	1.66	0.500	--	4.90	1.47	--	
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	4.90	0.500	--	17.7	1.80	--	
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	3.02	0.500	--	8.91	1.47	--	



Results Summary Form 1 Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
Project Name : VIA VERDE
Lab ID : L1909348-09
Client ID : SSV-9
Sample Location :
Sample Matrix : SOIL_VAPOR
Analytical Method : 48,TO-15
Lab File ID : R165231
Sample Amount : 250 ml

Lab Number : L1909348
Project Number :
Date Collected : 03/08/19 12:35
Date Received : 03/11/19
Date Analyzed : 03/19/19 22:39
Dilution Factor : 1
Analyst : EW
Instrument ID : AIRPIANO1
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
71-43-2	Benzene	5.59	0.200	--	17.9	0.639	--	
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	82.4	0.200	--	311	0.754	--	
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
127-18-4	Tetrachloroethene	0.266	0.200	--	1.80	1.36	--	
108-90-7	Chlorobenzene	5.98	0.200	--	27.5	0.921	--	
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	1.25	0.400	--	5.43	1.74	--	
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U



Results Summary

Form 1

Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
 Project Name : VIA VERDE
 Lab ID : L1909348-09
 Client ID : SSV-9
 Sample Location :
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R165231
 Sample Amount : 250 ml

Lab Number : L1909348
 Project Number :
 Date Collected : 03/08/19 12:35
 Date Received : 03/11/19
 Date Analyzed : 03/19/19 22:39
 Dilution Factor : 1
 Analyst : EW
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	0.272	0.200	--	1.18	0.869	--	
622-96-8	4-Ethyltoluene	0.210	0.200	--	1.03	0.983	--	
108-67-8	1,3,5-Trimethylbenzene	0.328	0.200	--	1.61	0.983	--	
95-63-6	1,2,4-Trimethylbenzene	1.30	0.200	--	6.39	0.983	--	
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	0.920	0.200	--	5.53	1.20	--	
95-50-1	1,2-Dichlorobenzene	0.501	0.200	--	3.01	1.20	--	
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U



Results Summary Form 1 Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
Project Name : VIA VERDE
Lab ID : L1909348-10
Client ID : SSV-10
Sample Location :
Sample Matrix : SOIL_VAPOR
Analytical Method : 48,TO-15
Lab File ID : R165232
Sample Amount : 250 ml

Lab Number : L1909348
Project Number :
Date Collected : 03/08/19 13:00
Date Received : 03/11/19
Date Analyzed : 03/19/19 23:11
Dilution Factor : 1
Analyst : EW
Instrument ID : AIRPIANO1
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	2.28	0.200	--	11.3	0.989	--	
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	20.3	5.00	--	38.3	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	6.01	1.00	--	14.3	2.38	--	
75-69-4	Trichlorofluoromethane	0.523	0.200	--	2.94	1.12	--	
67-63-0	Isopropanol	14.9	0.500	--	36.6	1.23	--	
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	Tertiary butyl Alcohol	0.794	0.500	--	2.41	1.52	--	
75-09-2	Methylene chloride	1.33	0.500	--	4.62	1.74	--	
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
78-93-3	2-Butanone	3.09	0.500	--	9.11	1.47	--	
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	9.09	0.500	--	32.8	1.80	--	
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	5.45	0.500	--	16.1	1.47	--	



Results Summary

Form 1

Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
 Project Name : VIA VERDE
 Lab ID : L1909348-10
 Client ID : SSV-10
 Sample Location :
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R165232
 Sample Amount : 250 ml

Lab Number : L1909348
 Project Number :
 Date Collected : 03/08/19 13:00
 Date Received : 03/11/19
 Date Analyzed : 03/19/19 23:11
 Dilution Factor : 1
 Analyst : EW
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
71-43-2	Benzene	9.87	0.200	--	31.5	0.639	--	
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	0.278	0.200	--	1.00	0.721	--	
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	71.9	0.200	--	271	0.754	--	
591-78-6	2-Hexanone	0.253	0.200	--	1.04	0.820	--	
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
127-18-4	Tetrachloroethene	1.18	0.200	--	8.00	1.36	--	
108-90-7	Chlorobenzene	11.6	0.200	--	53.4	0.921	--	
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	2.81	0.400	--	12.2	1.74	--	
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U



Results Summary

Form 1

Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
 Project Name : VIA VERDE
 Lab ID : L1909348-10
 Client ID : SSV-10
 Sample Location :
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R165232
 Sample Amount : 250 ml

Lab Number : L1909348
 Project Number :
 Date Collected : 03/08/19 13:00
 Date Received : 03/11/19
 Date Analyzed : 03/19/19 23:11
 Dilution Factor : 1
 Analyst : EW
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	0.500	0.200	--	2.17	0.869	--	
622-96-8	4-Ethyltoluene	0.310	0.200	--	1.52	0.983	--	
108-67-8	1,3,5-Trimethylbenzene	0.480	0.200	--	2.36	0.983	--	
95-63-6	1,2,4-Trimethylbenzene	1.63	0.200	--	8.01	0.983	--	
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	1.24	0.200	--	7.46	1.20	--	
95-50-1	1,2-Dichlorobenzene	0.783	0.200	--	4.71	1.20	--	
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U



Results Summary

Form 1

Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
 Project Name : VIA VERDE
 Lab ID : L1909348-11
 Client ID : IA-1
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R165174
 Sample Amount : 250 ml

Lab Number : L1909348
 Project Number :
 Date Collected : 03/08/19 11:17
 Date Received : 03/11/19
 Date Analyzed : 03/16/19 22:10
 Dilution Factor : 1
 Analyst : TS
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	0.358	0.200	--	1.77	0.989	--	
74-87-3	Chloromethane	0.496	0.200	--	1.02	0.413	--	
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	86.9	5.00	--	164	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	6.57	1.00	--	15.6	2.38	--	
75-69-4	Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	U
67-63-0	Isopropanol	2.71	0.500	--	6.66	1.23	--	
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
78-93-3	2-Butanone	1.21	0.500	--	3.57	1.47	--	
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.500	--	ND	1.47	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	0.209	0.200	--	0.737	0.705	--	
71-43-2	Benzene	0.231	0.200	--	0.738	0.639	--	



Results Summary Form 1 Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
Project Name : VIA VERDE
Lab ID : L1909348-11
Client ID : IA-1
Sample Location :
Sample Matrix : AIR
Analytical Method : 48,TO-15
Lab File ID : R165174
Sample Amount : 250 ml

Lab Number : L1909348
Project Number :
Date Collected : 03/08/19 11:17
Date Received : 03/11/19
Date Analyzed : 03/16/19 22:10
Dilution Factor : 1
Analyst : TS
Instrument ID : AIRPIANO1
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
110-82-7	Cyclohexane	ND	0.200	---	ND	0.688	---	U
78-87-5	1,2-Dichloropropane	ND	0.200	---	ND	0.924	---	U
75-27-4	Bromodichloromethane	ND	0.200	---	ND	1.34	---	U
123-91-1	1,4-Dioxane	ND	0.200	---	ND	0.721	---	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	---	ND	0.934	---	U
142-82-5	Heptane	ND	0.200	---	ND	0.820	---	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	---	ND	0.908	---	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	---	ND	2.05	---	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	---	ND	0.908	---	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	---	ND	1.09	---	U
108-88-3	Toluene	0.541	0.200	---	2.04	0.754	---	
591-78-6	2-Hexanone	ND	0.200	---	ND	0.820	---	U
124-46-1	Dibromochloromethane	ND	0.200	---	ND	1.70	---	U
106-93-4	1,2-Dibromoethane	ND	0.200	---	ND	1.54	---	U
108-90-7	Chlorobenzene	ND	0.200	---	ND	0.921	---	U
100-41-4	Ethylbenzene	ND	0.200	---	ND	0.869	---	U
179601-23-1	p/m-Xylene	ND	0.400	---	ND	1.74	---	U
75-25-2	Bromoform	ND	0.200	---	ND	2.07	---	U
100-42-5	Styrene	ND	0.200	---	ND	0.852	---	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	---	ND	1.37	---	U
95-47-6	o-Xylene	ND	0.200	---	ND	0.869	---	U
622-96-8	4-Ethyltoluene	ND	0.200	---	ND	0.983	---	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	---	ND	0.983	---	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	---	ND	0.983	---	U
100-44-7	Benzyl chloride	ND	0.200	---	ND	1.04	---	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	---	ND	1.20	---	U



Results Summary

Form 1

Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
 Project Name : VIA VERDE
 Lab ID : L1909348-11
 Client ID : IA-1
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R165174
 Sample Amount : 250 ml

Lab Number : L1909348
 Project Number :
 Date Collected : 03/08/19 11:17
 Date Received : 03/11/19
 Date Analyzed : 03/16/19 22:10
 Dilution Factor : 1
 Analyst : TS
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
106-46-7	1,4-Dichlorobenzene	0.249	0.200	--	1.50	1.20	--	
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U



Results Summary

Form 1

Volatile Organics in Air by SIM

Client : CA RICH CONSULTANTS, INC.
 Project Name : VIA VERDE
 Lab ID : L1909348-11
 Client ID : IA-1
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15-SIM
 Lab File ID : R165174
 Sample Amount : 250 ml

Lab Number : L1909348
 Project Number :
 Date Collected : 03/08/19 11:17
 Date Received : 03/11/19
 Date Analyzed : 03/16/19 22:10
 Dilution Factor : 1
 Analyst : TS
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.020	--	ND	0.051	--	U
75-35-4	1,1-Dichloroethene	ND	0.020	--	ND	0.079	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--	U
56-23-5	Carbon tetrachloride	0.074	0.020	--	0.465	0.126	--	
79-01-6	Trichloroethene	ND	0.020	--	ND	0.107	--	U
127-18-4	Tetrachloroethene	0.034	0.020	--	0.231	0.136	--	
540-59-0	1,2-Dichloroethene (total)	ND	0.020	--	ND	0.079	--	U



Results Summary Form 1 Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
Project Name : VIA VERDE
Lab ID : L1909348-12
Client ID : IA-2
Sample Location :
Sample Matrix : AIR
Analytical Method : 48,TO-15
Lab File ID : R165175
Sample Amount : 250 ml

Lab Number : L1909348
Project Number :
Date Collected : 03/08/19 11:19
Date Received : 03/11/19
Date Analyzed : 03/16/19 22:43
Dilution Factor : 1
Analyst : TS
Instrument ID : AIRPIANO1
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	0.325	0.200	--	1.61	0.989	--	
74-87-3	Chloromethane	0.564	0.200	--	1.16	0.413	--	
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	91.4	5.00	--	172	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	6.39	1.00	--	15.2	2.38	--	
75-69-4	Trichlorofluoromethane	0.217	0.200	--	1.22	1.12	--	
67-63-0	Isopropanol	2.60	0.500	--	6.39	1.23	--	
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	1.53	0.500	--	5.32	1.74	--	
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
78-93-3	2-Butanone	1.16	0.500	--	3.42	1.47	--	
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	1.63	0.500	--	4.81	1.47	--	
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	0.455	0.200	--	1.60	0.705	--	
71-43-2	Benzene	0.277	0.200	--	0.885	0.639	--	



Results Summary Form 1 Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
Project Name : VIA VERDE
Lab ID : L1909348-12
Client ID : IA-2
Sample Location :
Sample Matrix : AIR
Analytical Method : 48,TO-15
Lab File ID : R165175
Sample Amount : 250 ml

Lab Number : L1909348
Project Number :
Date Collected : 03/08/19 11:19
Date Received : 03/11/19
Date Analyzed : 03/16/19 22:43
Dilution Factor : 1
Analyst : TS
Instrument ID : AIRPIANO1
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	0.510	0.200	--	1.92	0.754	--	
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U



Results Summary

Form 1

Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
 Project Name : VIA VERDE
 Lab ID : L1909348-12
 Client ID : IA-2
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R165175
 Sample Amount : 250 ml

Lab Number : L1909348
 Project Number :
 Date Collected : 03/08/19 11:19
 Date Received : 03/11/19
 Date Analyzed : 03/16/19 22:43
 Dilution Factor : 1
 Analyst : TS
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U



Results Summary

Form 1

Volatile Organics in Air by SIM

Client : CA RICH CONSULTANTS, INC.
 Project Name : VIA VERDE
 Lab ID : L1909348-12
 Client ID : IA-2
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15-SIM
 Lab File ID : R165175
 Sample Amount : 250 ml

Lab Number : L1909348
 Project Number :
 Date Collected : 03/08/19 11:19
 Date Received : 03/11/19
 Date Analyzed : 03/16/19 22:43
 Dilution Factor : 1
 Analyst : TS
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.020	--	ND	0.051	--	U
75-35-4	1,1-Dichloroethene	ND	0.020	--	ND	0.079	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--	U
56-23-5	Carbon tetrachloride	0.075	0.020	--	0.472	0.126	--	
79-01-6	Trichloroethene	ND	0.020	--	ND	0.107	--	U
127-18-4	Tetrachloroethene	0.037	0.020	--	0.251	0.136	--	
540-59-0	1,2-Dichloroethene (total)	ND	0.020	--	ND	0.079	--	U



Results Summary

Form 1

Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
 Project Name : VIA VERDE
 Lab ID : L1909348-13
 Client ID : IA-3
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R165176
 Sample Amount : 250 ml

Lab Number : L1909348
 Project Number :
 Date Collected : 03/08/19 11:22
 Date Received : 03/11/19
 Date Analyzed : 03/16/19 23:15
 Dilution Factor : 1
 Analyst : TS
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	0.323	0.200	--	1.60	0.989	--	
74-87-3	Chloromethane	0.557	0.200	--	1.15	0.413	--	
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	102	5.00	--	192	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	5.67	1.00	--	13.5	2.38	--	
75-69-4	Trichlorofluoromethane	0.201	0.200	--	1.13	1.12	--	
67-63-0	Isopropanol	3.00	0.500	--	7.37	1.23	--	
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	1.04	0.500	--	3.61	1.74	--	
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
78-93-3	2-Butanone	0.927	0.500	--	2.73	1.47	--	
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.500	--	ND	1.47	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
71-43-2	Benzene	0.255	0.200	--	0.815	0.639	--	



Results Summary Form 1 Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
Project Name : VIA VERDE
Lab ID : L1909348-13
Client ID : IA-3
Sample Location :
Sample Matrix : AIR
Analytical Method : 48, TO-15
Lab File ID : R165176
Sample Amount : 250 ml

Lab Number : L1909348
Project Number :
Date Collected : 03/08/19 11:22
Date Received : 03/11/19
Date Analyzed : 03/16/19 23:15
Dilution Factor : 1
Analyst : TS
Instrument ID : AIRPIANO1
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	0.367	0.200	--	1.38	0.754	--	
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U



Results Summary

Form 1

Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
 Project Name : VIA VERDE
 Lab ID : L1909348-13
 Client ID : IA-3
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R165176
 Sample Amount : 250 ml

Lab Number : L1909348
 Project Number :
 Date Collected : 03/08/19 11:22
 Date Received : 03/11/19
 Date Analyzed : 03/16/19 23:15
 Dilution Factor : 1
 Analyst : TS
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U



Results Summary

Form 1

Volatile Organics in Air by SIM

Client : CA RICH CONSULTANTS, INC.
 Project Name : VIA VERDE
 Lab ID : L1909348-13
 Client ID : IA-3
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15-SIM
 Lab File ID : R165176
 Sample Amount : 250 ml

Lab Number : L1909348
 Project Number :
 Date Collected : 03/08/19 11:22
 Date Received : 03/11/19
 Date Analyzed : 03/16/19 23:15
 Dilution Factor : 1
 Analyst : TS
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.020	--	ND	0.051	--	U
75-35-4	1,1-Dichloroethene	ND	0.020	--	ND	0.079	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--	U
56-23-5	Carbon tetrachloride	0.073	0.020	--	0.459	0.126	--	
79-01-6	Trichloroethene	ND	0.020	--	ND	0.107	--	U
127-18-4	Tetrachloroethene	0.036	0.020	--	0.244	0.136	--	
540-59-0	1,2-Dichloroethene (total)	ND	0.020	--	ND	0.079	--	U



Results Summary Form 1 Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
Project Name : VIA VERDE
Lab ID : L1909348-14
Client ID : IA-4
Sample Location :
Sample Matrix : AIR
Analytical Method : 48,TO-15
Lab File ID : R165178
Sample Amount : 250 ml

Lab Number : L1909348
Project Number :
Date Collected : 03/08/19 11:32
Date Received : 03/11/19
Date Analyzed : 03/17/19 00:20
Dilution Factor : 1
Analyst : TS
Instrument ID : AIRPIANO1
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	0.301	0.200	--	1.49	0.989	--	
74-87-3	Chloromethane	0.556	0.200	--	1.15	0.413	--	
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	97.1	5.00	--	183	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	5.68	1.00	--	13.5	2.38	--	
75-69-4	Trichlorofluoromethane	0.207	0.200	--	1.16	1.12	--	
67-63-0	Isopropanol	2.87	0.500	--	7.05	1.23	--	
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	2.97	0.500	--	10.3	1.74	--	
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
78-93-3	2-Butanone	0.940	0.500	--	2.77	1.47	--	
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.500	--	ND	1.47	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	0.236	0.200	--	0.832	0.705	--	
71-43-2	Benzene	0.237	0.200	--	0.757	0.639	--	



Results Summary Form 1 Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
Project Name : VIA VERDE
Lab ID : L1909348-14
Client ID : IA-4
Sample Location :
Sample Matrix : AIR
Analytical Method : 48,TO-15
Lab File ID : R165178
Sample Amount : 250 ml

Lab Number : L1909348
Project Number :
Date Collected : 03/08/19 11:32
Date Received : 03/11/19
Date Analyzed : 03/17/19 00:20
Dilution Factor : 1
Analyst : TS
Instrument ID : AIRPIANO1
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	0.384	0.200	--	1.45	0.754	--	
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U



Results Summary

Form 1

Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
 Project Name : VIA VERDE
 Lab ID : L1909348-14
 Client ID : IA-4
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R165178
 Sample Amount : 250 ml

Lab Number : L1909348
 Project Number :
 Date Collected : 03/08/19 11:32
 Date Received : 03/11/19
 Date Analyzed : 03/17/19 00:20
 Dilution Factor : 1
 Analyst : TS
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U



Results Summary

Form 1

Volatile Organics in Air by SIM

Client : CA RICH CONSULTANTS, INC.
 Project Name : VIA VERDE
 Lab ID : L1909348-14
 Client ID : IA-4
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15-SIM
 Lab File ID : R165178
 Sample Amount : 250 ml

Lab Number : L1909348
 Project Number :
 Date Collected : 03/08/19 11:32
 Date Received : 03/11/19
 Date Analyzed : 03/17/19 00:20
 Dilution Factor : 1
 Analyst : TS
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.020	--	ND	0.051	--	U
75-35-4	1,1-Dichloroethene	ND	0.020	--	ND	0.079	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--	U
56-23-5	Carbon tetrachloride	0.074	0.020	--	0.465	0.126	--	
79-01-6	Trichloroethene	ND	0.020	--	ND	0.107	--	U
127-18-4	Tetrachloroethene	0.034	0.020	--	0.231	0.136	--	
540-59-0	1,2-Dichloroethene (total)	ND	0.020	--	ND	0.079	--	U



Results Summary

Form 1

Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
 Project Name : VIA VERDE
 Lab ID : L1909348-15
 Client ID : IA-5
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R165179
 Sample Amount : 250 ml

Lab Number : L1909348
 Project Number :
 Date Collected : 03/08/19 11:37
 Date Received : 03/11/19
 Date Analyzed : 03/17/19 00:52
 Dilution Factor : 1
 Analyst : TS
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	0.333	0.200	--	1.65	0.989	--	
74-87-3	Chloromethane	0.583	0.200	--	1.20	0.413	--	
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	90.0	5.00	--	170	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	5.49	1.00	--	13.0	2.38	--	
75-69-4	Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	U
67-63-0	Isopropanol	3.74	0.500	--	9.19	1.23	--	
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	0.819	0.500	--	2.85	1.74	--	
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
78-93-3	2-Butanone	0.715	0.500	--	2.11	1.47	--	
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.500	--	ND	1.47	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
71-43-2	Benzene	0.251	0.200	--	0.802	0.639	--	



Results Summary Form 1 Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
Project Name : VIA VERDE
Lab ID : L1909348-15
Client ID : IA-5
Sample Location :
Sample Matrix : AIR
Analytical Method : 48,TO-15
Lab File ID : R165179
Sample Amount : 250 ml

Lab Number : L1909348
Project Number :
Date Collected : 03/08/19 11:37
Date Received : 03/11/19
Date Analyzed : 03/17/19 00:52
Dilution Factor : 1
Analyst : TS
Instrument ID : AIRPIANO1
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	0.316	0.200	--	1.19	0.754	--	
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U



Results Summary

Form 1

Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
 Project Name : VIA VERDE
 Lab ID : L1909348-15
 Client ID : IA-5
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R165179
 Sample Amount : 250 ml

Lab Number : L1909348
 Project Number :
 Date Collected : 03/08/19 11:37
 Date Received : 03/11/19
 Date Analyzed : 03/17/19 00:52
 Dilution Factor : 1
 Analyst : TS
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U



Results Summary

Form 1

Volatile Organics in Air by SIM

Client : CA RICH CONSULTANTS, INC.
 Project Name : VIA VERDE
 Lab ID : L1909348-15
 Client ID : IA-5
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15-SIM
 Lab File ID : R165179
 Sample Amount : 250 ml

Lab Number : L1909348
 Project Number :
 Date Collected : 03/08/19 11:37
 Date Received : 03/11/19
 Date Analyzed : 03/17/19 00:52
 Dilution Factor : 1
 Analyst : TS
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.020	--	ND	0.051	--	U
75-35-4	1,1-Dichloroethene	ND	0.020	--	ND	0.079	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--	U
56-23-5	Carbon tetrachloride	0.073	0.020	--	0.459	0.126	--	
79-01-6	Trichloroethene	ND	0.020	--	ND	0.107	--	U
127-18-4	Tetrachloroethene	0.037	0.020	--	0.251	0.136	--	
540-59-0	1,2-Dichloroethene (total)	ND	0.020	--	ND	0.079	--	U



Results Summary Form 1 Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
Project Name : VIA VERDE
Lab ID : L1909348-16
Client ID : IA-6
Sample Location :
Sample Matrix : AIR
Analytical Method : 48,TO-15
Lab File ID : R165180
Sample Amount : 250 ml

Lab Number : L1909348
Project Number :
Date Collected : 03/08/19 11:38
Date Received : 03/11/19
Date Analyzed : 03/17/19 01:25
Dilution Factor : 1
Analyst : TS
Instrument ID : AIRPIANO1
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	0.302	0.200	--	1.49	0.989	--	
74-87-3	Chloromethane	0.572	0.200	--	1.18	0.413	--	
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	120	5.00	--	226	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	7.32	1.00	--	17.4	2.38	--	
75-69-4	Trichlorofluoromethane	0.203	0.200	--	1.14	1.12	--	
67-63-0	Isopropanol	2.78	0.500	--	6.83	1.23	--	
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	0.673	0.500	--	2.34	1.74	--	
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
78-93-3	2-Butanone	0.752	0.500	--	2.22	1.47	--	
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.500	--	ND	1.47	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
71-43-2	Benzene	0.267	0.200	--	0.853	0.639	--	



Results Summary Form 1 Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
Project Name : VIA VERDE
Lab ID : L1909348-16
Client ID : IA-6
Sample Location :
Sample Matrix : AIR
Analytical Method : 48,TO-15
Lab File ID : R165180
Sample Amount : 250 ml

Lab Number : L1909348
Project Number :
Date Collected : 03/08/19 11:38
Date Received : 03/11/19
Date Analyzed : 03/17/19 01:25
Dilution Factor : 1
Analyst : TS
Instrument ID : AIRPIANO1
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	0.377	0.200	--	1.42	0.754	--	
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U



Results Summary

Form 1

Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
 Project Name : VIA VERDE
 Lab ID : L1909348-16
 Client ID : IA-6
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R165180
 Sample Amount : 250 ml

Lab Number : L1909348
 Project Number :
 Date Collected : 03/08/19 11:38
 Date Received : 03/11/19
 Date Analyzed : 03/17/19 01:25
 Dilution Factor : 1
 Analyst : TS
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U



Results Summary

Form 1

Volatile Organics in Air by SIM

Client : CA RICH CONSULTANTS, INC.
 Project Name : VIA VERDE
 Lab ID : L1909348-16
 Client ID : IA-6
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15-SIM
 Lab File ID : R165180
 Sample Amount : 250 ml

Lab Number : L1909348
 Project Number :
 Date Collected : 03/08/19 11:38
 Date Received : 03/11/19
 Date Analyzed : 03/17/19 01:25
 Dilution Factor : 1
 Analyst : TS
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.020	--	ND	0.051	--	U
75-35-4	1,1-Dichloroethene	ND	0.020	--	ND	0.079	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--	U
56-23-5	Carbon tetrachloride	0.076	0.020	--	0.478	0.126	--	
79-01-6	Trichloroethene	ND	0.020	--	ND	0.107	--	U
127-18-4	Tetrachloroethene	0.032	0.020	--	0.217	0.136	--	
540-59-0	1,2-Dichloroethene (total)	ND	0.020	--	ND	0.079	--	U



Results Summary

Form 1

Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
 Project Name : VIA VERDE
 Lab ID : L1909348-17
 Client ID : IA-7
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R165181
 Sample Amount : 250 ml

Lab Number : L1909348
 Project Number :
 Date Collected : 03/08/19 12:28
 Date Received : 03/11/19
 Date Analyzed : 03/17/19 01:57
 Dilution Factor : 1
 Analyst : TS
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	0.396	0.200	--	1.96	0.989	--	
74-87-3	Chloromethane	0.544	0.200	--	1.12	0.413	--	
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	31.7	5.00	--	59.7	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	3.74	1.00	--	8.88	2.38	--	
75-69-4	Trichlorofluoromethane	0.213	0.200	--	1.20	1.12	--	
67-63-0	Isopropanol	13.2	0.500	--	32.4	1.23	--	
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
78-93-3	2-Butanone	ND	0.500	--	ND	1.47	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.500	--	ND	1.47	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
71-43-2	Benzene	0.269	0.200	--	0.859	0.639	--	



Results Summary

Form 1

Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
 Project Name : VIA VERDE
 Lab ID : L1909348-17
 Client ID : IA-7
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R165181
 Sample Amount : 250 ml

Lab Number : L1909348
 Project Number :
 Date Collected : 03/08/19 12:28
 Date Received : 03/11/19
 Date Analyzed : 03/17/19 01:57
 Dilution Factor : 1
 Analyst : TS
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	0.285	0.200	--	1.07	0.754	--	
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U



Results Summary

Form 1

Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
 Project Name : VIA VERDE
 Lab ID : L1909348-17
 Client ID : IA-7
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R165181
 Sample Amount : 250 ml

Lab Number : L1909348
 Project Number :
 Date Collected : 03/08/19 12:28
 Date Received : 03/11/19
 Date Analyzed : 03/17/19 01:57
 Dilution Factor : 1
 Analyst : TS
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U



Results Summary

Form 1

Volatile Organics in Air by SIM

Client : CA RICH CONSULTANTS, INC.
 Project Name : VIA VERDE
 Lab ID : L1909348-17
 Client ID : IA-7
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15-SIM
 Lab File ID : R165181
 Sample Amount : 250 ml

Lab Number : L1909348
 Project Number :
 Date Collected : 03/08/19 12:28
 Date Received : 03/11/19
 Date Analyzed : 03/17/19 01:57
 Dilution Factor : 1
 Analyst : TS
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.020	--	ND	0.051	--	U
75-35-4	1,1-Dichloroethene	ND	0.020	--	ND	0.079	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--	U
56-23-5	Carbon tetrachloride	0.076	0.020	--	0.478	0.126	--	
79-01-6	Trichloroethene	ND	0.020	--	ND	0.107	--	U
127-18-4	Tetrachloroethene	0.034	0.020	--	0.231	0.136	--	
540-59-0	1,2-Dichloroethene (total)	ND	0.020	--	ND	0.079	--	U



Results Summary

Form 1

Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
 Project Name : VIA VERDE
 Lab ID : L1909348-18
 Client ID : IA-8
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R165182
 Sample Amount : 250 ml

Lab Number : L1909348
 Project Number :
 Date Collected : 03/08/19 12:38
 Date Received : 03/11/19
 Date Analyzed : 03/17/19 02:30
 Dilution Factor : 1
 Analyst : TS
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	0.321	0.200	--	1.59	0.989	--	
74-87-3	Chloromethane	0.536	0.200	--	1.11	0.413	--	
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	33.9	5.00	--	63.9	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	6.89	1.00	--	16.4	2.38	--	
75-69-4	Trichlorofluoromethane	0.210	0.200	--	1.18	1.12	--	
67-63-0	Isopropanol	9.68	0.500	--	23.8	1.23	--	
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
78-93-3	2-Butanone	0.812	0.500	--	2.39	1.47	--	
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.500	--	ND	1.47	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	0.441	0.200	--	1.55	0.705	--	
71-43-2	Benzene	0.308	0.200	--	0.984	0.639	--	



Results Summary Form 1 Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
Project Name : VIA VERDE
Lab ID : L1909348-18
Client ID : IA-8
Sample Location :
Sample Matrix : AIR
Analytical Method : 48,TO-15
Lab File ID : R165182
Sample Amount : 250 ml

Lab Number : L1909348
Project Number :
Date Collected : 03/08/19 12:38
Date Received : 03/11/19
Date Analyzed : 03/17/19 02:30
Dilution Factor : 1
Analyst : TS
Instrument ID : AIRPIANO1
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
142-82-5	Heptane	0.288	0.200	--	1.18	0.820	--	
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	1.07	0.200	--	4.03	0.754	--	
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	0.257	0.200	--	1.12	0.869	--	
179601-23-1	p/m-Xylene	0.744	0.400	--	3.23	1.74	--	
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U



Results Summary

Form 1

Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
 Project Name : VIA VERDE
 Lab ID : L1909348-18
 Client ID : IA-8
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R165182
 Sample Amount : 250 ml

Lab Number : L1909348
 Project Number :
 Date Collected : 03/08/19 12:38
 Date Received : 03/11/19
 Date Analyzed : 03/17/19 02:30
 Dilution Factor : 1
 Analyst : TS
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U



Results Summary

Form 1

Volatile Organics in Air by SIM

Client : CA RICH CONSULTANTS, INC.
 Project Name : VIA VERDE
 Lab ID : L1909348-18
 Client ID : IA-8
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15-SIM
 Lab File ID : R165182
 Sample Amount : 250 ml

Lab Number : L1909348
 Project Number :
 Date Collected : 03/08/19 12:38
 Date Received : 03/11/19
 Date Analyzed : 03/17/19 02:30
 Dilution Factor : 1
 Analyst : TS
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.020	--	ND	0.051	--	U
75-35-4	1,1-Dichloroethene	ND	0.020	--	ND	0.079	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--	U
56-23-5	Carbon tetrachloride	0.071	0.020	--	0.447	0.126	--	
79-01-6	Trichloroethene	ND	0.020	--	ND	0.107	--	U
127-18-4	Tetrachloroethene	0.218	0.020	--	1.48	0.136	--	
540-59-0	1,2-Dichloroethene (total)	ND	0.020	--	ND	0.079	--	U



Results Summary Form 1 Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
Project Name : VIA VERDE
Lab ID : L1909348-19
Client ID : IA-9
Sample Location :
Sample Matrix : AIR
Analytical Method : 48,TO-15
Lab File ID : R165183
Sample Amount : 250 ml

Lab Number : L1909348
Project Number :
Date Collected : 03/08/19 13:05
Date Received : 03/11/19
Date Analyzed : 03/17/19 03:02
Dilution Factor : 1
Analyst : TS
Instrument ID : AIRPIANO1
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	0.313	0.200	--	1.55	0.989	--	
74-87-3	Chloromethane	0.556	0.200	--	1.15	0.413	--	
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	86.4	5.00	--	163	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	4.74	1.00	--	11.3	2.38	--	
75-69-4	Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	U
67-63-0	Isopropanol	61.4	0.500	--	151	1.23	--	
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
78-93-3	2-Butanone	ND	0.500	--	ND	1.47	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.500	--	ND	1.47	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
71-43-2	Benzene	0.314	0.200	--	1.00	0.639	--	



Results Summary Form 1 Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
Project Name : VIA VERDE
Lab ID : L1909348-19
Client ID : IA-9
Sample Location :
Sample Matrix : AIR
Analytical Method : 48,TO-15
Lab File ID : R165183
Sample Amount : 250 ml

Lab Number : L1909348
Project Number :
Date Collected : 03/08/19 13:05
Date Received : 03/11/19
Date Analyzed : 03/17/19 03:02
Dilution Factor : 1
Analyst : TS
Instrument ID : AIRPIANO1
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	0.323	0.200	--	1.22	0.754	--	
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	0.436	0.200	--	1.89	0.869	--	
179601-23-1	p/m-Xylene	1.90	0.400	--	8.25	1.74	--	
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	0.692	0.200	--	3.01	0.869	--	
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U



Results Summary

Form 1

Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
 Project Name : VIA VERDE
 Lab ID : L1909348-19
 Client ID : IA-9
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R165183
 Sample Amount : 250 ml

Lab Number : L1909348
 Project Number :
 Date Collected : 03/08/19 13:05
 Date Received : 03/11/19
 Date Analyzed : 03/17/19 03:02
 Dilution Factor : 1
 Analyst : TS
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U



Results Summary
Form 1
Volatile Organics in Air by SIM

Client : CA RICH CONSULTANTS, INC.
 Project Name : VIA VERDE
 Lab ID : L1909348-19
 Client ID : IA-9
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15-SIM
 Lab File ID : R165183
 Sample Amount : 250 ml

Lab Number : L1909348
 Project Number :
 Date Collected : 03/08/19 13:05
 Date Received : 03/11/19
 Date Analyzed : 03/17/19 03:02
 Dilution Factor : 1
 Analyst : TS
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.020	--	ND	0.051	--	U
75-35-4	1,1-Dichloroethene	ND	0.020	--	ND	0.079	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--	U
56-23-5	Carbon tetrachloride	0.071	0.020	--	0.447	0.126	--	
79-01-6	Trichloroethene	ND	0.020	--	ND	0.107	--	U
127-18-4	Tetrachloroethene	0.041	0.020	--	0.278	0.136	--	
540-59-0	1,2-Dichloroethene (total)	ND	0.020	--	ND	0.079	--	U



Results Summary Form 1 Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
Project Name : VIA VERDE
Lab ID : L1909348-20
Client ID : IA-10
Sample Location :
Sample Matrix : AIR
Analytical Method : 48,TO-15
Lab File ID : R165184
Sample Amount : 250 ml

Lab Number : L1909348
Project Number :
Date Collected : 03/08/19 12:34
Date Received : 03/11/19
Date Analyzed : 03/17/19 03:34
Dilution Factor : 1
Analyst : TS
Instrument ID : AIRPIANO1
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	0.326	0.200	--	1.61	0.989	--	
74-87-3	Chloromethane	0.518	0.200	--	1.07	0.413	--	
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	83.0	5.00	--	156	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	6.39	1.00	--	15.2	2.38	--	
75-69-4	Trichlorofluoromethane	0.212	0.200	--	1.19	1.12	--	
67-63-0	Isopropanol	47.9	0.500	--	118	1.23	--	
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	14.2	0.500	--	49.3	1.74	--	
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
78-93-3	2-Butanone	ND	0.500	--	ND	1.47	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.500	--	ND	1.47	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
71-43-2	Benzene	0.262	0.200	--	0.837	0.639	--	



Results Summary Form 1 Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
Project Name : VIA VERDE
Lab ID : L1909348-20
Client ID : IA-10
Sample Location :
Sample Matrix : AIR
Analytical Method : 48,TO-15
Lab File ID : R165184
Sample Amount : 250 ml

Lab Number : L1909348
Project Number :
Date Collected : 03/08/19 12:34
Date Received : 03/11/19
Date Analyzed : 03/17/19 03:34
Dilution Factor : 1
Analyst : TS
Instrument ID : AIRPIANO1
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	0.388	0.200	--	1.46	0.754	--	
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U



Results Summary

Form 1

Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
 Project Name : VIA VERDE
 Lab ID : L1909348-20
 Client ID : IA-10
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R165184
 Sample Amount : 250 ml

Lab Number : L1909348
 Project Number :
 Date Collected : 03/08/19 12:34
 Date Received : 03/11/19
 Date Analyzed : 03/17/19 03:34
 Dilution Factor : 1
 Analyst : TS
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U



Results Summary

Form 1

Volatile Organics in Air by SIM

Client : CA RICH CONSULTANTS, INC.
Project Name : VIA VERDE
Lab ID : L1909348-20
Client ID : IA-10
Sample Location :
Sample Matrix : AIR
Analytical Method : 48,TO-15-SIM
Lab File ID : R165184
Sample Amount : 250 ml

Lab Number : L1909348
Project Number :
Date Collected : 03/08/19 12:34
Date Received : 03/11/19
Date Analyzed : 03/17/19 03:34
Dilution Factor : 1
Analyst : TS
Instrument ID : AIRPIANO1
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.020	--	ND	0.051	--	U
75-35-4	1,1-Dichloroethene	ND	0.020	--	ND	0.079	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--	U
56-23-5	Carbon tetrachloride	0.069	0.020	--	0.434	0.126	--	
79-01-6	Trichloroethene	ND	0.020	--	ND	0.107	--	U
127-18-4	Tetrachloroethene	0.048	0.020	--	0.325	0.136	--	
540-59-0	1,2-Dichloroethene (total)	ND	0.020	--	ND	0.079	--	U



Results Summary

Form 1

Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
 Project Name : VIA VERDE
 Lab ID : L1909348-21
 Client ID : OA-1
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R165185
 Sample Amount : 250 ml

Lab Number : L1909348
 Project Number :
 Date Collected : 03/08/19 12:23
 Date Received : 03/11/19
 Date Analyzed : 03/17/19 09:49
 Dilution Factor : 1
 Analyst : TS
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	0.255	0.200	--	1.26	0.989	--	
74-87-3	Chloromethane	0.500	0.200	--	1.03	0.413	--	
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	8.14	5.00	--	15.3	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	1.48	1.00	--	3.52	2.38	--	
75-69-4	Trichlorofluoromethane	0.204	0.200	--	1.15	1.12	--	
67-63-0	Isopropanol	0.685	0.500	--	1.68	1.23	--	
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
78-93-3	2-Butanone	ND	0.500	--	ND	1.47	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.500	--	ND	1.47	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
71-43-2	Benzene	0.225	0.200	--	0.719	0.639	--	



Results Summary

Form 1

Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
 Project Name : VIA VERDE
 Lab ID : L1909348-21
 Client ID : OA-1
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R165185
 Sample Amount : 250 ml

Lab Number : L1909348
 Project Number :
 Date Collected : 03/08/19 12:23
 Date Received : 03/11/19
 Date Analyzed : 03/17/19 09:49
 Dilution Factor : 1
 Analyst : TS
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	ND	0.200	--	ND	0.754	--	U
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U



Results Summary

Form 1

Volatile Organics in Air

Client : CA RICH CONSULTANTS, INC.
 Project Name : VIA VERDE
 Lab ID : L1909348-21
 Client ID : OA-1
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R165185
 Sample Amount : 250 ml

Lab Number : L1909348
 Project Number :
 Date Collected : 03/08/19 12:23
 Date Received : 03/11/19
 Date Analyzed : 03/17/19 09:49
 Dilution Factor : 1
 Analyst : TS
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U



Results Summary

Form 1

Volatile Organics in Air by SIM

Client : CA RICH CONSULTANTS, INC.
 Project Name : VIA VERDE
 Lab ID : L1909348-21
 Client ID : OA-1
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15-SIM
 Lab File ID : R165185
 Sample Amount : 250 ml

Lab Number : L1909348
 Project Number :
 Date Collected : 03/08/19 12:23
 Date Received : 03/11/19
 Date Analyzed : 03/17/19 09:49
 Dilution Factor : 1
 Analyst : TS
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.020	--	ND	0.051	--	U
75-35-4	1,1-Dichloroethene	ND	0.020	--	ND	0.079	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--	U
56-23-5	Carbon tetrachloride	0.065	0.020	--	0.409	0.126	--	
79-01-6	Trichloroethene	ND	0.020	--	ND	0.107	--	U
127-18-4	Tetrachloroethene	0.024	0.020	--	0.163	0.136	--	
540-59-0	1,2-Dichloroethene (total)	ND	0.020	--	ND	0.079	--	U

