

**Environmental Group, Inc.**

**ADR**

**SUBSURFACE INVESTIGATION  
REPORT**

FOR

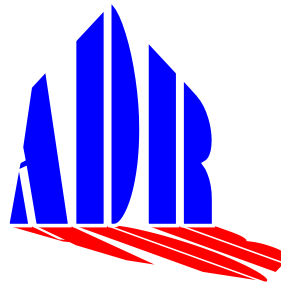
**INDUSTRIAL PROPERTY**  
14830 South Carmenita Road and  
13555 East Excelsior Drive  
Norwalk, California 90650

Project Number: REXF 01-17-161-CA (A)

June 16, 2017

*Prepared For*

Rexford Industrial Realty, L.P.  
11620 Wilshire Boulevard, Suite 1000  
Los Angeles, California 90025



**ADR Environmental Group, Inc.**  
**National Customer Service Center**  
225 30<sup>th</sup> Street, Suite 202  
Sacramento, California 95816  
1-888-62 ADREG [622-3734]  
[www.adreg.com](http://www.adreg.com)

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## TABLE OF CONTENTS

<b>1</b>	<b>EXECUTIVE SUMMARY</b>	<b>1</b>
<b>2</b>	<b>INTRODUCTION</b>	<b>2</b>
<b>3</b>	<b>BACKGROUND</b>	<b>3</b>
<b>3.1</b>	<b>SITE DESCRIPTION</b>	<b>3</b>
<b>3.2</b>	<b>GEOLOGIC AND HYDROGEOLOGIC SETTING</b>	<b>4</b>
<b>4</b>	<b>SCOPE OF WORK</b>	<b>5</b>
<b>5</b>	<b>FIELD WORK AND OBSERVATIONS</b>	<b>6</b>
<b>5.1</b>	<b>SOIL BORING ADVANCEMENT</b>	<b>6</b>
<b>5.2</b>	<b>SOIL VAPOR SAMPLING</b>	<b>6</b>
<b>6</b>	<b>RESULTS OF LABORATORY ANALYSES</b>	<b>7</b>
<b>7</b>	<b>SUMMARY AND CONCLUSIONS</b>	<b>8</b>
<b>8</b>	<b>LIMITATIONS</b>	<b>9</b>
<b>9</b>	<b>SIGNATURE PAGE</b>	<b>10</b>

### FIGURES

### APPENDICES

APPENDIX A  
APPENDIX B

DRILLING AND SAMPLING METHODOLOGY  
LABORATORY ANALYTICAL REPORTS

## 1 EXECUTIVE SUMMARY

ADR Environmental Group, Inc. (ADR) is pleased to present this report describing the results of a subsurface investigation located at 14830 South Carmenita Road and 13555 East Excelsior Drive in Norwalk, California.

As discussed in detail below, laboratory analysis of the soil vapor samples SV-1 and SV-2, collected at 10 feet bgs, and soil vapor samples SV-3 through SV-5, collected at 5 feet bgs, indicated no VOCs, including the leak check compound isobutane, were detected at concentrations above laboratory reporting limits.

As a result of the field investigation documented in this report, including the collection and laboratory analysis of soil vapor samples from locations beneath the subject Property selected to correspond with potentially suspect features, it is ADR's opinion that no additional subsurface assessment at the subject Property is warranted.

Accordingly, ADR concludes that the recognized environmental condition (REC) identified in ADR's May 2017 *Phase I Environmental Site Assessment* has been satisfactorily evaluated and should no longer be considered a REC.

## **2 INTRODUCTION**

ADR Environmental Group, Inc. (ADR) is pleased to present this report describing the results of a subsurface investigation conducted at 14830 South Carmenita Road and 13555 East Excelsior Drive in Norwalk, California (subject Property; Figure 1). The subject Property is occupied by Bridgestone Tire, a tire distribution and refurbishment facility at 14830 South Carmenita Road, and Rabsio RV Storage, a RV/bus/automobile storage facility a clarifier on the west side of 13555 Excelsior Drive building, and a long concrete-lined trench covered with steel plates in the 14830 Carmenita Road building, a subsurface investigation was conducted by ADR to assess the presence or absence of volatile organic compounds (VOCs) in soil vapor in the vicinity of the features. Fieldwork was conducted on June 13, 2017, in accordance with ADR's proposal dated May 31, 2017.

This report includes a summary of site background information, a description of the soil boring advancement, soil vapor sample collection methods, the results of laboratory analyses, and ADR's conclusions and recommendations. The borings were advanced and soil vapor samples collected under the supervision of ADR Environmental Scientist Steve Kerchner. The project was managed under the general direction of California Professional Geologist Larry A. Flora and was coordinated by ADR Project Manager Kevin F. Gallagher.

### 3 BACKGROUND

#### 3.1 Site Description

The subject Property consists of two contiguous irregular-shaped parcels of land totaling approximately 7 acres that are developed with two single-story light industrial buildings. The buildings total approximately 89,880 square feet. The subject Property is occupied by Bridgestone Tire, a tire distribution and refurbishment facility at 14830 South Carmenita Road, and Rabsio RV Storage, a RV/bus/automobile storage facility at 13555 East Excelsior Drive. The remaining portions of the subject Property consist of asphalt- and concrete-paved parking areas and drives, concrete walkways and landscaped areas. Vehicle access onto the subject Property is provided by a shared parking lot with the west adjoining property and one drive off East Excelsior Drive to the south. The subject Property is located in an industrial and commercial area of Norwalk.

#### 3.2 Previous Environmental Investigation

In May 2017, a *Phase I Environmental Site Assessment Report* (ESA) was prepared by ADR for the subject Property (also including the west adjoining property – 14820 S South Carmenita Road). From a review of available historical information, ADR concluded that the subject Property was undeveloped or agricultural land from at least 1928 until at least 1963. In 1970, the present-day easternmost building (13555 East Excelsior Drive) was constructed on the subject Property and by 1972, what appeared to be a smaller structure was located on the south-central portion of the subject Property. The western portion of the subject Property remained as undeveloped land. In 1973, the present-day central building (14830 South Carmenita Road) was constructed on the subject Property. The subject Property was utilized as a trailer manufacturing facility. Several truck trailers were stored on the western portion of the subject Property at that time. By 1983, several storage-type structures were located on the western portion of the subject Property and utilized in conjunction with the trailer manufacturing facility. By 2002, the present-day westernmost building (14820 South Carmenita Road) was constructed on the subject Property. From at least 1928 until 1954, the north and west adjoining properties were structurally undeveloped agricultural land and the south and east adjoining properties were undeveloped fallow land. By 1963, commercial and light industrial development began to the east and south of the subject Property. An increase in commercial and light industrial development continued in the vicinity of the subject Property and by 1983 all present-day buildings had been developed on the adjoining properties.

As a result of ADR's ESA, the following recognized environmental condition at the site was identified:

- In July 2012 a *Limited Subsurface Investigation Report* was prepared by Bureau Veritas North America, Inc. (BV) for the subject Property. The investigation was conducted to investigate the lengthy use, storage and/or generation of hazardous materials, hazardous waste and petroleum products associated with petroleum distillate- or chlorinated hydrocarbon-based solvent parts washers, paint booths, outdoor spray painting, powder coating, a clarifier, concrete floor patches (possible former in-ground drainage and/or hydraulic equipment), a long concrete-lined trench covered with steel plates, and a former fuel UST reportedly removed in 1982 with no apparent investigation. The investigation also addressed the lack of methyl-tert butyl ether (MTBE) analytical data associated with the former onsite 10,000-gasoline UST, the presence of fill of

unknown origin and historical onsite agricultural use; and, the potential for onsite migration of petroleum and/or chlorinated solvents from up-gradient facilities. Concentrations of petroleum constituents or VOCs were not detected in the analyzed soil samples. In addition, organochlorine pesticides were not detected in the four soil samples analyzed for these compounds and the metals detected in the soil samples appear to be representative of background conditions. Benzene was detected in groundwater at concentrations of 66 and 145 micrograms per liter ( $\mu\text{g/L}$ ) in borings BV-10 and BV-11, respectively, and MTBE was detected at a concentration of 9.2  $\mu\text{g/L}$  in BV-1. Only the detected benzene concentrations exceed the groundwater Maximum Contaminant Levels (MCLs). Based on the location of borings BV-1, BV-10 and BV-11 on the up-gradient margins of the subject Property, it appears that the groundwater detections were associated with reported up-gradient releases of petroleum hydrocarbons from adjoining or nearby properties. PCE was detected in three soil vapor samples (BV-3, BV-6 and BV-7) collected from the former paint booth area at 14830 South Carmenita Road (BV-3) and the former auto repair garage area of 13555 East Excelsior Drive (BV-6 and BV-7). The PCE concentrations do not exceed current regulatory guidelines. Toluene was also detected in two soil vapor samples collected from 14830 Carmenita (BV-2 and BV-3), but at concentrations well below the current regulatory guidelines. Based on these findings, BV concluded that the potential vapor intrusion risk for PCE appears to be *de minimis*. Although the origin of the PCE in soil vapor beneath the subject Property is unclear, BV concluded that additional investigation or evaluation did not appear warranted. While ADR generally agrees with the conclusions of the investigation performed by BV, it is ADR's opinion that insufficient investigation was performed at two areas of the subject Property, the clarifier and the long concrete-lined trench covered with steel plates. Clarifiers and trenches can be a source of environmental impact due to cracks in the bodies and/or at piping connections caused by settling or improper installation. As a result, ADR concluded these features represent an environmental concern to the subject Property.

As a result of these findings, ADR recommended additional investigation be performed to determine if the use of the clarifier and trench have environmentally impacted the subject Property.

### **3.3 Geologic and Hydrogeologic Setting**

According to 1969 California Department of Conservation – Geologic Map of California, Los Angeles Sheet, the property is underlain by Quaternary alluvium. The alluvium deposits consist mainly of unconsolidated stream and river channel deposit of silt, sand, and gravel.

According to the July 23, 2012, *Limited Subsurface Investigation Report*, prepared by BV at the subject Property, the depth to groundwater was reported to be approximately 35 feet below ground surface (bgs) in 2012. In addition, according to the State Water Resources Control Board's *Geotracker* website information related to an investigation at 14960 South Carmenita Road, approximately 300 feet southeast of the subject Property, and last measured on April 2015, groundwater flow direction was determined to flow toward the northeast.

#### **4 SCOPE OF WORK**

In accordance with ADR's May 31, 2017 proposal to Rexford Industrial Realty, L.P., ADR conducted a subsurface investigation to assess the presence or absence of VOCs in soil vapor at the subject Property. Fieldwork was conducted in accordance with the drilling and sampling methods described in Appendix A. The completed scope of work for the subsurface investigation included the following:

- Preparation of a site-specific health and safety plan.
- Notifying public and private underground utility services prior to drilling to ensure drilling did not encounter utility lines.
- Advancement of two soil borings to a depth of 10 feet bgs in the vicinity of the clarifier, with collection of soil samples at 5-foot intervals.
- Advancement of three soil borings to a depth of 5 feet bgs in the vicinity of the trench, with collection of soil samples at 5 feet.
- Conversion of the five soil borings to soil vapor wells. Collection of discrete soil vapor samples from the clarifier soil vapor wells at 10 feet bgs, and collection of discrete soil vapor samples from the trench soil vapor wells at 5 feet bgs.
- Abandonment of each boring, after collection of samples, by filling each borehole completely with a neat cement grout and, if appropriate, patching the surface to match the surrounding surface material.
- Soil vapor samples collected from the vapor probes (including one duplicate) were analyzed by a California DHS certified on-site mobile laboratory for VOCs (including the tracer gas isobutane) by EPA method 8260B.
- Preparation of this report summarizing the findings of the investigation.

## 5 FIELD WORK AND OBSERVATIONS

### 5.1 Soil Boring Advancement

On June 13, 2017, ADR supervised the advancement of five soil vapor borings (designated SV-1 through SV-5) as shown in Figure 2. More specifically, soil vapor borings SV-1 and SV-2 were located in the vicinity of the clarifier, and soil vapor borings SV-3 through SV-5 were located in the vicinity of the trench. Soil vapor borings SV-1 through SV-5 were advanced with truck-mounted direct-push drilling equipment or roto-hammer equipment owned and operated by Optimal Technology, a California licensed water well driller from Thousand Oaks, California.

### 5.2 Soil Vapor Sampling

To characterize potential VOCs in soil vapor beneath the subject Property in the vicinity of the clarifier, soil vapor borings SV-1 and SV-2 were constructed as 10-foot vapor wells. To construct the 10-foot vapor wells, the soil vapor probes (attached to steel rods) were hydraulically driven by the roto hammer to a depth of 10 feet bgs. The drill rods are retracted slightly, exposing the probe screen vapor inlet. To seal the boring from outside ambient air, hydrated granular bentonite was placed around the drill rod exposed at the surface of the borehole.

To characterize potential VOCs in soil vapor beneath the subject Property in the vicinity of the trench, soil vapor borings SV-3 through SV-5 were constructed as 5-foot vapor wells. To construct the 5-foot vapor wells, the soil vapor probes (attached to steel rods) were hydraulically driven by the roto hammer to a depth of 5 feet bgs. The drill rods are retracted slightly, exposing the probe screen vapor inlet. To seal the boring from outside ambient air, hydrated granular bentonite was placed around the drill rod exposed at the surface of the borehole.

Soil vapor samples were collected from soil vapor wells SV-1 through SV-5 by Optimal Technology, operating a DHS certified mobile laboratory. Soil vapor samples were collected from each well in accordance with the July 2015 Department of Toxic Substances Control/Los Angeles and San Francisco Regional Water Quality Control Board *Advisory for Active Soil Gas Investigations*. Following the purging, an electric vacuum pump set to draw 0.2 liter per minute of soil vapor was attached to the probe and purged prior to sample collection. Vapor samples were obtained in SGE gas-tight syringes by drawing the sample through a luer-lock connection which connects the sampling probe and vacuum pump. Samples were immediately transferred to Optimal's mobile lab and injected into the lab's gas chromatograph. For quality control assurance purposes, a duplicate sample was collected from vapor boring SV-5 immediately after the original sample was collected. To test for leaks in the system, a tracer gas (isobutane) was applied to the soil vapor borings at each point of connection in which ambient air could enter the sampling system.

Following the soil vapor sampling, the tubing and probes were removed and each soil boring was abandoned by filling completely with neat cement slurry. The surface materials around each boring were patched to match the existing surface cover.



## 6 RESULTS OF LABORATORY ANALYSES

Soil vapor samples collected from vapor wells SV-1 through SV-5 were analyzed by Optimal Technology for VOCs by EPA Method 8260B. The results of the soil vapor analyses are compiled in Table 1. Copies of the certified analytical reports and chain-of-custody forms for the analyses are contained in Appendix B.

**Table 1**  
**Soil Vapor Sample Analytical Results, VOCs**  
 14830 South Carmenita Road and  
 13555 East Excelsior Drive  
 Norwalk, California  
*VOC concentrations in micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ )*

Soil Vapor Well and Sample Number	Sample Depth (feet)	Isobutane	PCE <sup>1</sup>	TCE <sup>2</sup>	1,1-DCE <sup>3</sup>	Remaining VOCs <sup>4</sup>
<b>Clarifier Area</b>						
SV-1	10	<1000 <sup>5</sup>	<100	<100	<800	ND <sup>6</sup>
SV-2	10	<1000	<100	<100	<800	ND
<b>Trench Area</b>						
SV-3	5	<1000	<100	<100	<800	ND
SV-4	5	<1000	<100	<100	<800	ND
SV-5	5	<1000	<100	<100	<800	ND
SV-5 Dup	5	<1000	<100	<100	<800	ND
<b>Regulatory Standard Comparisons</b>						
<b>HERO<sup>7</sup></b>		NSL <sup>8</sup>	<b>2100</b>	NSL	310,000	-
<b>RSL<sup>9</sup></b>		NSL	NA <sup>10</sup>	<b>3000</b>	NA	-

- PCE<sup>1</sup> = Tetrachloroethene
- TCE<sup>2</sup> = Trichloroethene
- 1,1-DCE<sup>3</sup> = 1,1-Dichloroethene
- VOCs<sup>4</sup> = Volatile Organic Compounds
- <1000<sup>5</sup> = Compound not detected at reporting limit.
- ND<sup>6</sup> = Compound not detected; see Appendix B for detection limits
- HERO<sup>7</sup> = Soil Gas screening Levels calculated by dividing DTSC's screening levels for indoor air listed in Table 3 of Note 3 by DTSC's 0.001 default attenuation factor for existing commercial buildings (the default attenuation factor for existing commercial buildings), June 2016
- NSL<sup>8</sup> = No screening level established
- RSLs<sup>9</sup> = Carcinogenic Regional Screening Levels (U.S. EPA Region 9) for direct contact with industrial soil in  $\mu\text{g}/\text{Kg}$ , May 2016.
- NA<sup>10</sup> = Not applicable

As shown in Table 1, laboratory analysis of the soil vapor samples SV-1 and SV-2, collected at 10 feet bgs, and soil vapor samples SV-3 through SV-5, collected at 5 feet bgs, indicated no concentrations of VOCs, including the leak check compound isobutane, were detected above laboratory reporting limits.

For comparison purposes, the last two rows of Table 1 contains DTSC's, Office of Human and Ecological Risk (HERO) Table 3 of HERO Human Health Risk Assessment Note Number 3, June 2016 for commercial/industrial soil with a cancer and/or non-cancer end point and May 2016 soil carcinogenic Regional Screening Levels (RSLs) for industrial land use sites established for VOCs by Region 9-EPA designed to be protective of human health. These concentrations were calculated by dividing DTSC's/EPA's indoor air concentrations screening levels for commercial sites by DTSC's default attenuation factor of 0.001.

## **7 SUMMARY AND CONCLUSIONS**

On June 13, 2017, ADR supervised the advancement of direct push soil vapor borings SV-1 through SV-5 at the locations shown in Figure 2. Regional groundwater, reportedly present at a depth of approximately 35 feet bgs, was not encountered in the soil vapor borings advanced at the site.

Laboratory analysis of the soil vapor samples SV-1 and SV-2, collected at 10 feet bgs, and soil vapor samples SV-3 through SV-5, collected at 5 feet bgs, indicated no concentrations of VOCs, including the leak check compound isobutane, were detected above laboratory reporting limits.

As a result of the field investigation documented in this report, including the collection and laboratory analysis of soil vapor samples from locations beneath the subject Property selected to correspond with potentially suspect features, it is ADR's opinion that no additional subsurface assessment at the subject Property is warranted at this time.

Accordingly, ADR concludes that the recognized environmental condition (REC) identified in ADR's May 2017 *Phase I Environmental Site Assessment* has been satisfactorily evaluated and should no longer be considered a REC.

## **8 LIMITATIONS**

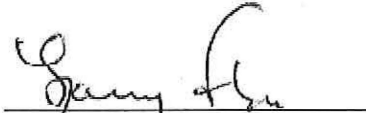
The conclusions presented in this report are professional opinions based solely upon the Scope of Services described in this report. They are intended exclusively for the use of Rexford Industrial Realty, L.P. or agents specified by them. The Scope of Services performed in the execution of this investigation may not be appropriate to satisfy the needs of other users, and any re-use of this document or the findings, conclusions, or recommendations presented herein is at the sole risk of said user. It should be recognized that this study was not intended to be a definitive investigation of potential contamination at the subject Property. Given that the Scope of Services for this investigation was limited, it is possible that currently unrecognized contamination might exist at the site.

Services performed by ADR were conducted in a manner consistent with that of the same care and skill ordinarily exercised by members of the same profession currently practicing in the same locality under the same conditions. It is important to recognize that even the most comprehensive scope of services may fail to detect environmental liabilities on a particular site. Therefore, ADR cannot act as insurers and cannot "certify" that a site is free of environmental contamination. No expressed or implied representation or warranty is included or intended in our reports except that our services were performed, within the limits prescribed by our client, with the customary thoroughness and competence of our profession.

**9 SIGNATURE PAGE**

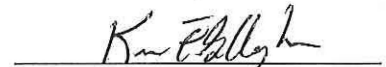
This Report was prepared in accordance with generally accepted environmental practices and procedures, employing the degree of care and skill ordinarily exercised under similar circumstances by reputable environmental professionals practicing in this area, as of the date of this Report.

Report Prepared By:

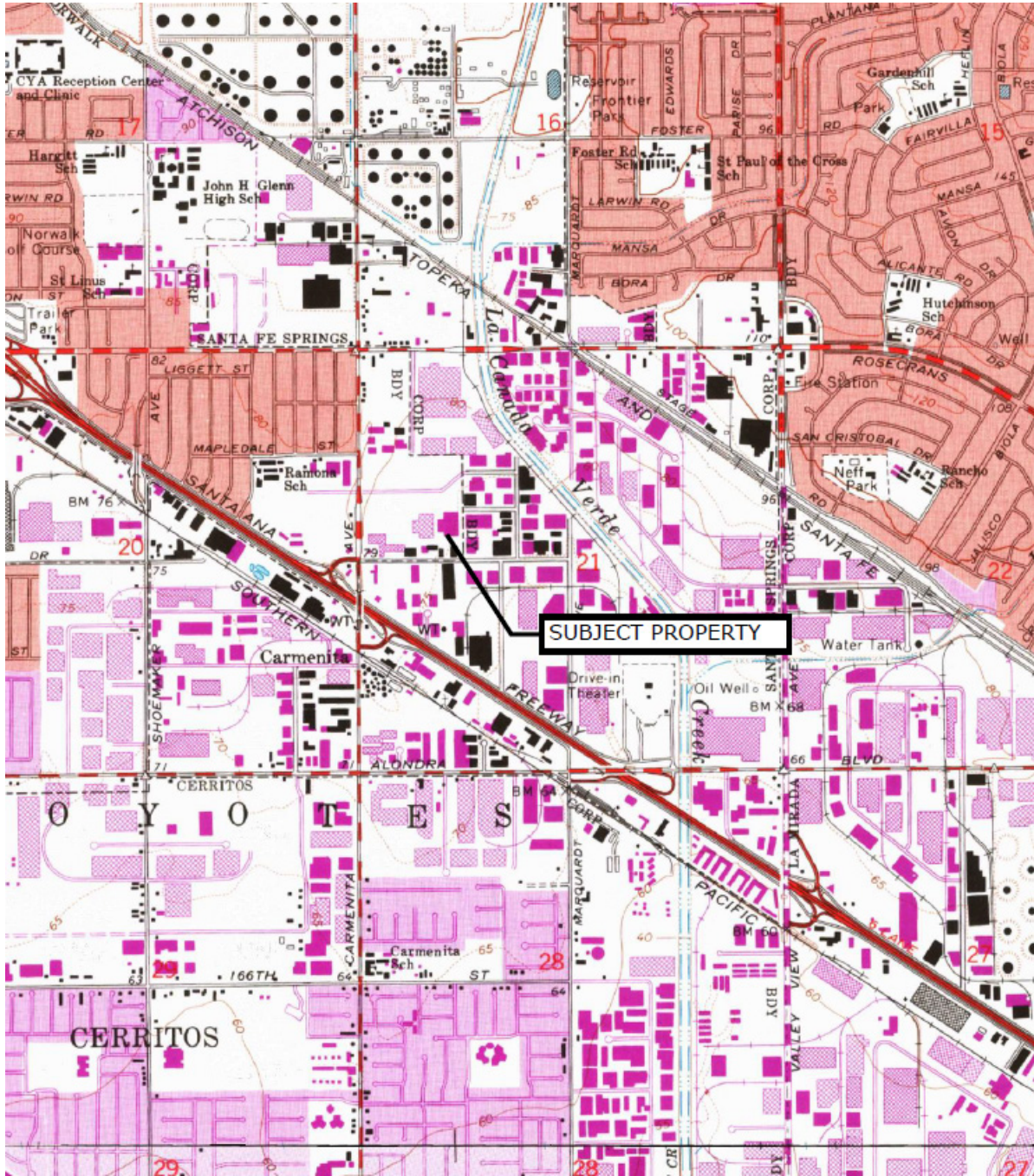
  
\_\_\_\_\_  
Larry A. Flora, P.G. #4759  
Project Geologist



Report Reviewed By:

  
\_\_\_\_\_  
Kevin F. Gallagher  
Environmental Project Manager

# FIGURES



NORTH



Scale: 1 inch = 2,000 feet



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**7.5 Minute Topographic Map  
 Whittier, CA Quadrangle**  
 14830 Carmenita Road and  
 13555 Excelsior Drive  
 Norwalk, California

**Project Number:**

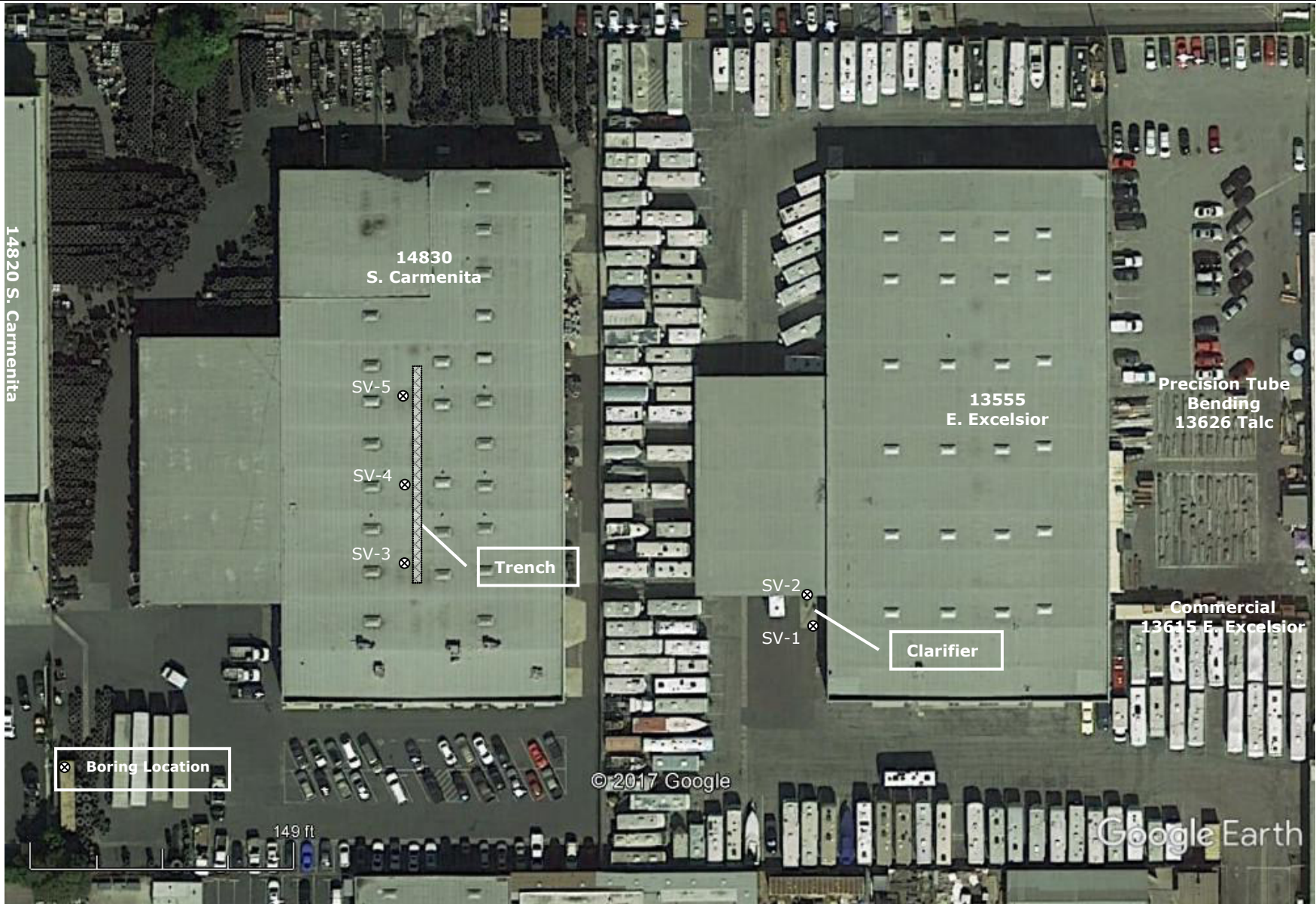
ADR #REXF 01-17-161-CA (A)

**Date:**

June 2017

**Figure:**

**1**



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**Boring Plan**  
 14830 South Carmentita Road and  
 13555 East Excelsior Drive  
 Norwalk, California 90650

↑  
**NORTH**

**Project Number:**

ADR #REXF 01-17-161-CA (A)

**Date:**

June 2017

**Figure:**

**2**

# **APPENDIX A**

## **DRILLING AND SAMPLING METHODOLOGY**



## Drilling and Soil Vapor Sampling Methodology:

This attachment describes procedures followed by ADR Environmental Group, Inc. (ADR), during the advancement of soil borings and the collection of subsurface soil vapor samples. Soil vapor sampling procedures were based on sampling guidance documents from the American Society of Testing and Materials (ASTM), U.S. Environmental Protection Agency (EPA), and California Department of Health Services (DHS). Actual sampling procedures employed were based on field conditions and may differ from those described here.

### A. EXPLORATION BORING/SOIL SAMPLING PROCEDURES

Soil vapor borings and soil vapor sampling was performed under the direction of an ADR California Professional geologist. The soil vapor borings was advanced using drilling techniques appropriate for the project, as specified in the project proposal.

### B. DECONTAMINATION AND DISPOSAL PROCEDURES

All equipment that came into contact with potentially contaminated soil was decontaminated before each use. Decontamination consisted of hot water rinse or trisodium phosphate (TSP) wash and freshwater rinse, as appropriate. Any soil or purge water generated by the field work was stored in 55-gallon drums. The drums were labeled to indicate source of material, site location, property owner, contact phone, and date collected. The drums were located such that they do not constitute a hazard to vehicle or pedestrian traffic.

### C. FIELD MEASUREMENTS

Field data will be collected during various sampling and monitoring activities; this section describes routine procedures to be followed by personnel performing field measurements. The methods presented below were intended to ensure that field measurements are consistent and reproducible when performed by various personnel.

#### C.1 Buried Utility Locations

Prior to commencement of work on site, ADR contacted the appropriate utility companies to have underground utility lines located. ADR also visually surveyed the site to estimate the locations of potentially unmarked underground utilities. All work associated with the borings was preceded by hand augering to a minimum depth of 4 feet below grade to avoid damaging underground utilities.

### D. SAMPLE CUSTODY

This section describes standard operating procedures for sample custody and custody documentation. Sample custody procedures were followed through sample collection, transfer, analysis, and ultimate disposal. The purpose of these procedures is to assure that (1) the integrity of samples is maintained during their collection, transportation, and storage prior to analysis and (2) post-analysis sample material is properly disposed. Sample custody is divided into field procedures and laboratory procedures, as described below.

#### D.1 Field Custody Procedures

Sample quantities, types, and locations were determined before the actual fieldwork commenced. As few personnel as possible handled the samples. The field sampler is personally responsible for the care and custody of the collected samples until they are properly transferred.

##### D.1.1 Field Documentation

Each soil vapor sample was labeled and sealed properly immediately after collection. Sample identification documents were carefully prepared so that identification and chain-of-custody records were maintained and sample disposition controlled. Forms were filled out with waterproof ink. The following sample identification documents were utilized.

Sample labels  
Field notebook or soil boring logs  
Chain-of-custody forms

#### D.1.2 Sample Labels

Preprinted contained the following information:

Date and time of collection  
Place of collection  
ADR project number  
Sample number

#### D.1.3 Chain-of-Custody Record

A chain-of-custody record was filled out for and accompanied every sample and every shipment of samples to the analytical laboratories in order to establish the documentation necessary to trace sample possession from the time of collection. The record contained the following information:

Station of sample number or sample I.D.  
Signature of collector, sampler, or recorder.  
Date and time of collection.  
Place of collection.  
Sample type.  
Signatures of persons involved in the chain of possession.  
Inclusive dates of possession.

The laboratory portion of the form was completed by laboratory personnel and contained the following information:

Name of person receiving the sample.  
Laboratory sample number.  
Date and time of sample receipt.  
Analyses requested.  
Sample condition and temperature.

#### D.2 Corrections to Documentation

Original data recorded in field notebooks, chain-of-custody records, sampling information sheets, and other forms was written in ink. These documents were not be altered, destroyed, or discarded, even if they were illegible or contained inaccuracies that required a replacement document.

If an error was made or found on a document, the individual making the corrections did so by crossing a single line through the error, entering the correct information, and initialing and dating the change. All corrections were initialed and dated.

#### D.3 Sample Storage and Disposal

The analytical laboratory retains the samples and extracts for 60 days after the laboratory issues a written report. Unless notified by the program manager, the laboratory will dispose of unused samples in an appropriate manner consistent with applicable government regulations.

**APPENDIX B  
LABORATORY ANALYSIS REPORTS**



June 14, 2017

Mr. Kevin Gallagher  
ADR Environmental Group, Inc.  
225 30th St., Suite 202  
Sacramento, CA 95816

Dear Mr. Gallagher:

This letter presents the results of the soil vapor investigation conducted by Optimal Technology (Optimal), for ADR Environmental Group, Inc. on June 13, 2017. The study was performed at 13555 E. Excelsior Drive & 14830 S. Carmenita Rd., Norwalk, California.

Optimal was contracted to perform a soil vapor survey at this site to screen for possible chlorinated solvents and aromatic hydrocarbons. The primary objective of this soil vapor investigation was to determine if soil vapor contamination is present in the subsurface soil.

### **Gas Sampling Method**

Gas sampling was performed by hydraulically pushing soil gas probes to a depth of 5.0-10.0 feet below ground surface (bgs). An electric rotary hammer drill was used to drill a 1.0-inch diameter hole through the overlying surface to allow probe placement when required. The same electric hammer drill was used to push probes in areas of resistance during placement.

At each sampling location, an electric vacuum pump set to draw 0.2 liters per minute (L/min) of soil vapor was attached to the probe and purged prior to sample collection. Vapor samples were obtained in SGE gas-tight syringes by drawing the sample through a luer-lock connection which connects the sampling probe and the vacuum pump. Samples were immediately injected into the gas chromatograph/purge and trap after collection. New tubing was used at each sampling point to prevent cross contamination.

All analyses were performed on a laboratory grade Agilent model 6890N gas chromatograph equipped with an Agilent model 5973N Mass Spectra Detector and Tekmar LSC 3100 Purge and Trap. A Restek column using helium as the carrier gas was used to perform all analysis. All results were collected on a personal computer utilizing Agilent's MS and chromatographic data collection and handling system.

## Quality Assurance

### *5-Point Calibration*

The initial five-point calibration consisted of 20, 50, 100, 200 and 500 ul injections of the calibration standard. A calibration factor on each analyte was generated using a best fit line method using the Agilent data system. If the  $r^2$  factor generated from this line was not greater than 0.990, an additional five-point calibration would have been performed. Method reporting limits were calculated to be 4-1000 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) for the individual compounds.

A daily calibration check and end of run calibration check was performed using a pre-mixed standard supplied by Scotty Analyzed Gases. The standard contained common halogenated solvents and aromatic hydrocarbons (see Table 1). The individual compound concentrations in the standards ranged between 0.025 nanograms per microliter ( $\text{ng}/\mu\text{l}$ ) and 0.25  $\text{ng}/\mu\text{l}$ .

**TABLE 1**

Dichlorodifluoromethane	Carbon Tetrachloride	Chloroethane
Trichlorofluoromethane	1,2-Dichloroethane	Benzene
1,1-Dichloroethene	Trichloroethene	Toluene
Methylene Chloride	1,1,2-Trichloroethane	Ethylbenzene
trans-1,2-Dichloroethene	Tetrachloroethene	m-/p-Xylene
1,1-Dichloroethane	Chloroform	o-Xylene
cis-1,2-Dichloroethene	1,1,1,2-Tetrachloroethane	Vinyl Chloride
1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	Freon 113
4-Methyl-2-Pentanone	Cyclohexane	Acetone
Chlorobenzene	2-Butanone	Isobutane

### *Sample Replicates*

A replicate analysis (duplicate) was run to evaluate the reproducibility of the sampling system and instrument. The difference between samples did not vary more than 20%.

### *Equipment Blanks*

Blanks were run at the beginning of each workday and after calibrations. The blanks were collected using an ambient air sample. These blanks checked the septum, syringe, GC column, GC detector and the ambient air. Contamination was not found in any of the blanks analyzed during this investigation. Blank results are given along with the sample results.

### *Tracer Gas Leak Test*

A tracer gas was applied to the soil gas probes at each point of connection in which ambient air could enter the sampling system. These points include the top of the sampling probe where the tubing meets the probe connection and the surface bentonite seals. Isobutane was used as the tracer gas. No Isobutane was found in any of the samples collected.

### *Purge Volume*

The standard purge volume of three volumes was purged in accordance with the July 2015 DTSC/RWQCB Advisory for Active Soil Gas Investigations.

### *Shut-in Test*

A shut-in test was conducted prior to purging or sampling each location to check for leaks in the above-ground sampling system. The system was evaluated to a minimum measured vacuum of 100 inches of water. The vacuum gauge was calibrated and sensitive enough to indicate a water pressure change of at least 0.5 inches.

### **Scope of Work**

To achieve the objective of this investigation a total of 6 vapor samples were collected from 5 locations at the site. Sampling depths, vacuum readings, purge volume and sampling volumes are given on the analytical results page. All the collected vapor samples were analyzed on-site using Optimal's mobile laboratory.

### **Subsurface Conditions**

Subsurface soil conditions at this site offered sampling flows at 0" water vacuum. Depth to groundwater was unknown at the time of the investigation.

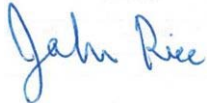
### **Results**

During this vapor investigation, none of the compounds listed in Table 1 above were detected above the listed reporting limits. A complete table of analytical results is included with this report.

### **Disclaimer**

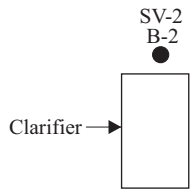
All conclusions presented in this letter are based solely on the information collected by the soil vapor survey conducted by Optimal Technology. Soil vapor testing is only a subsurface screening tool and does not represent actual contaminant concentrations in either the soil and/or groundwater. We enjoyed working with you on this project and look forward to future projects. If you have any questions, please contact me at (877) 764-5427.

Sincerely,



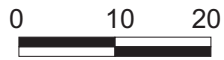
John Rice  
Project Manager





Parking Lot

Building



Approximate Scale

**Legend**

SV-1 - Soil Vapor Sample Number

● - Soil / Soil Vapor Sample Location

B-1 - Soil Sample Number

**Optimal Technology**

1667 Cross Bridge Place  
 Thousand Oaks, CA 91362  
 Toll-free (877) SOIL GAS  
 Tel: (818) 734-6230 \* Fax: (818) 734-6235

**DATE:** June 13, 2017

**COMPANY:**  
 ADR Environmental

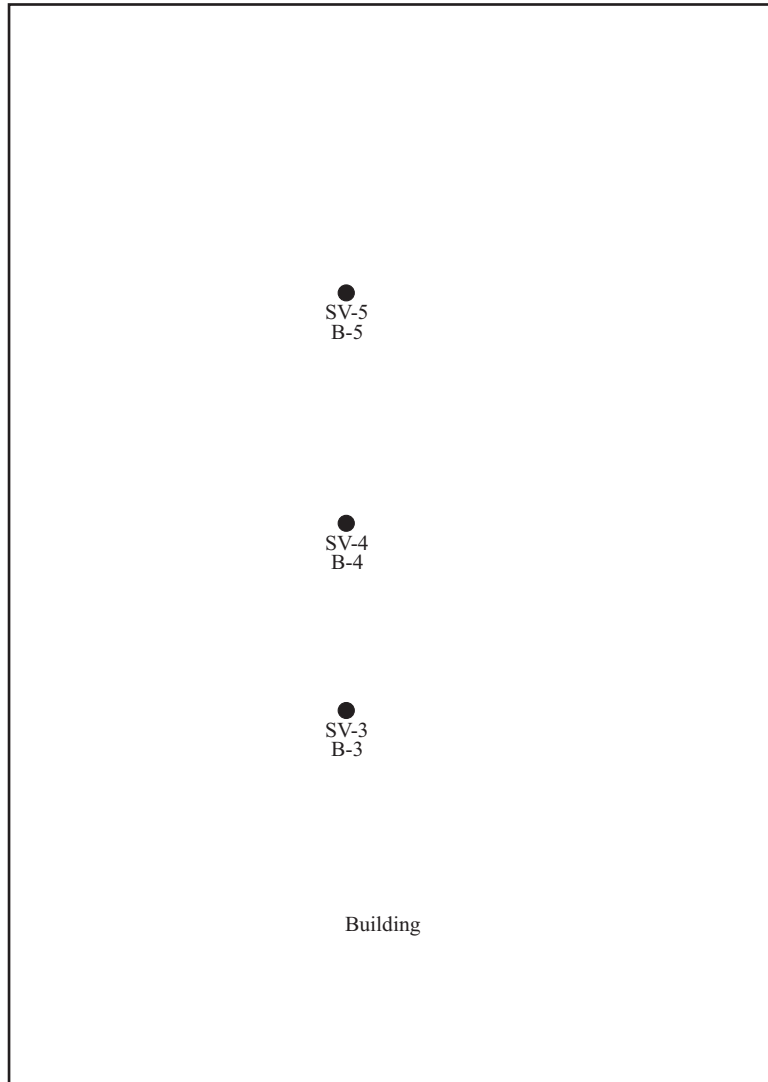
**APPROXIMATE SCALE:** 1" = 20'

**TITLE:** Soil Vapor Sampling Location Map  
 13555 E. Excelsior Drive, Norwalk, CA

**FIGURE**

**1**





Approximate Scale

*Legend*

SV-3 - Soil Vapor Sample Number

● - Soil / Soil Vapor Sample Location

B-3 - Soil Sample Number

<b>Optimal Technology</b> 1667 Cross Bridge Place Thousand Oaks, CA 91362 Toll-free (877) SOIL GAS Tel: (818) 734-6230 * Fax: (818) 734-6235	<b>DATE:</b> June 13, 2017	<b>APPROXIMATE SCALE:</b> 1" = 40'	<b>FIGURE</b>  <span style="font-size: 2em;"><b>2</b></span>
	<b>COMPANY:</b> ADR Environmental	<b>TITLE:</b> Soil Vapor Sampling Location Map 14830 S. Carmenita Rd., Norwalk, CA	