HVN ENVIRONMENTAL SERVICE CO., INC
ENVIRONMENTAL ENGINEERS/CONTRACTORS

PHASE II LIMITED SUBSURFACE INVESTIGATION FOR SE CORNER OF CEDAR AVE AND CASMALIA ST. RIALTO, CA 92376

Prepared for:
JS Consultants
21909 Eire Lane
Lake Forest, C 92630

September 28, 2021

Kenneth K. Hekimian, Ph.D., RCE
California Registered Civil Engineer No.29257
Principal in Charge
Kenneth@hvnenvironmental.com

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Project Number 2285S
September 28, 2021

JS Consultants
21909 Eire Lane
Lake Forest, C 92630
Attn: Sam Ghaly

Subject: **PHASE II LIMITED SUBSURFACE INVESTIGATION FOR SOUTHEAST CORNER OF CEDAR AVE AND CASMALIA ST. RIALTO, CA 92376**

1 INTRODUCTION

The subject commercial property is at the southeast corner of Casmalia and Cedar Avenue, along the north side of the 210 Freeway, within the northern portion of City of Rialto. Topography within the limits of this property and surrounding areas is fairly flat. The property is trapezoidal shaped parcel ~3.74 acres gross lot area with dimensions varying from 270 to 310 feet along the south-north and 560 feet along the east-west direction. Currently, the site is vacant of any structures, covered with dirt, weeds and shrubs. Evidence of scattered stockpiles of debris Was observed within the eastern proportion of the lot.

Based on the project site plan, prepared by Kinetic Design, and the Geotechnical Investigation Report, prepared by ZS Engineering on June 28, 2021, the site will be developed for an industrial building for food processing for Adesa Foods. The building will have a total floor area~45,000 sq. ft. Outside the building, site improvements will include driveways, parking lots around the building, truck loading dock at the west side of the building, landscaping along the north, east and west side of the property.

On June 19, 2021, ZS Engineering conducted a Subsurface Geotechnical Investigation which consisted of a total of five (5) borings to depths of 25 ft bgs. These samples were tested for field moisture, density, expansion potential, excavatability, shear strength parameters and corrosion potentials. No environmental sampling was performed at that time. Therefore, HVN was contacted to perform a Phase II Limited Subsurface Investigation to determine the environmental profile of the property to complement the Geotechincal Investigation.

2 SCOPE OF SERVICES

The current investigation included the following scope of services:

1. Prepared a Site-Specific Health and Safety Plan (HASP), which was available at the job site during all field activities and held a "tail-gate" safety meeting prior to starting.
2. Provided advance notification, as required, prior to the start of work. HVN marked the borehole locations and contacted DigAlert at least 48 hours prior to the start of work to mark buried utilities emanating from the street.
3. Contracted with a licensed driller (Choice Drilling) to advance four (4) borings and collect soil and soil vapor samples. Due to the scope of the work, the drilling method of choice was the Geoprobe Model 6625 CPT rubber-tracked direct-push machine.
4. Collected soil samples at 5-foot intervals to a maximum depth of 20 -25 feet bgs at four (4) locations for purposes of this assessment. Soil samples were collected and logged on the Chain of Custody for Chemtek Laboratory by HVN's Geologist on site. Installed soil vapor probes and obtained samples from each boring at 5 ft and 15 ft bgs.
5. Submitted seventeen (17) soil and six (6) soil vapor samples to Chemtek Laboratory for VOC analysis by EPA Method 8260C. Also performed were Gasoline Range Organics (GRO) analyses for each 5 and 10 ft bgs sampled.
6. Analyzed results, prepared and issued a final report with findings and conclusions to client, stamped by a Registered Civil Engineer.

3 FIELD PROCEDURES

3.1 Utility Clearance

HVN delineated the work area with white spray and notified Underground Services Alert (DigAlert) to clear public utility as required by law at least 48 hours prior to drilling activities. The notification was placed September 16, 2021 and ticket number B212590631 was issued.

3.2 Health and Safety Plan

Prior to commencing field activities, HVN prepared a Site Specific Health and Safety Plan (HASP),(Reference 3) which was discussed with, and signed by, all on-site personnel involved in the drilling and sampling activities.

3.3 Drilling Equipment

HVN retained a California-licensed drilling contractor, Choice Drilling (C-57, #90335), to provide and operate the drilling equipment. Prior to implementation, the drilling methodology was selected based on a review of site access constraints. The rubber-tired, direct-push Geoprobe 6625 was used to advance the borings at the site. Prior to transporting the drill rig and support equipment to the site, all drilling related equipment (i.e. the rig, drill rods, and other down-hole equipment) were steam-cleaned, washed with a phosphate-free detergent, and pressure-rinsed with clean water. The drill rig and down-hole tools were cleaned after use at each successive boring location.

3.4 Boring Locations

Shown in Figure 3, HVN advanced four (4) borings for soil sampling in order to provide a reasonable representation of subsurface soil within the property. Borings HB#1, 2, 4, 5 advanced

the borings in the locations selected by HVN close to those locations by ZS Engineering to provide compatible data.

3.5 Sampling Depths

All four (4) soil borings were drilled to 20 - 25 ft bgs, with soil samples taken at 5 ft intervals. All samples were dry and no groundwater was encountered in any sample at any depth.

3.6 Soil Sampling Methodology

The sampler was placed inside the auger and driven to a depth of 18 inches past the bit of the auger. The operators, Sam Miller and Jorge Savavia of Choice Drilling, used a rubber-tracked direct-push Geoprobe Model 6625CPT to advance the borings and collect soil samples at 5 ft intervals to the total depth of 20 ft bgs of each boring under the supervision of Dr. Hekimian.

Soil samples were preserved in the acetate sleeve as required by the local regulatory agency (e.g., EPA Method 5035). Sleeves were removed from the sample barrel, and the lowermost sample sleeve was immediately sealed with Teflon™ tape, capped and labeled.. Samples were placed in a cooler chilled to 4˚Celsius and transported the same day to Chemtek Labs in Santa Fe Springs, CA, a state-certified laboratory, under chain-of-custody (COC) protocol.

3.7 Soil Gas Probe Construction

After collecting the soil samples, temporary soil vapor probes were attempted to be installed in all four (4) borings at approximate depths of 5 and 15 ft bgs. The soil vapor probe construction materials were warranted as new materials, free of solvents, oils, or any foreign matter. Soil vapor probe depths were not modified due to favorable lithology and lack of any positive organic vapor meter readings during field screens. A 1.5" PVC probe tip was connected to the Nylaflow® tubing and installed within 1.5 feet of sand pack with 1 foot of dry granular bentonite atop the sand pack. The tubings were capped at ground surface and kept under a traffic cone—to prevent unauthorized access—until the soil vapor probes were sampled. After sampling, all probes were removed.

3.8 Soil Gas Sampling Methodology

Soil gas samples were collected in general accordance with the July 2015 Department of Toxic Substances Control (DTSC) and Los Angeles Regional Water Quality Control Board (LARWQCB) "Advisory – Active Soil Gas Investigation". The samples were taken in Tedlar® bags by means of the Xitech Model 1060H, High Vacuum Bag Sampler. A shut-in test and leak test were conducted prior to sampling at each location to confirm that no leaks were present in the aboveground sampling train and no ambient air was present in the soil gas samples. In addition, recovery of all surrogate compounds included with each analysis was within acceptable limits, indicating that the sampling containers and analysis equipment did not leak. At the completion of sampling, all probes were removed from the subsurface and the boreholes were backfilled with hydrated bentonite chips and capped with concrete patch to match existing ground cover. No derived wastes were generated during this investigation.

4 LABORATORY RESULTS

4.1 Analysis of Soil Samples

Table 1: Summary of Laboratory Results for Soil Samples

Sample I.D.	Location	EPA Test Method	Results (VOCs in µg/kg or ppb)
HB1-5	Boring HB-1 @5 ft bgs (X= 230, Y= 40)	8260B 8015B	All VOC's = ND All GRO VOC's = ND <0.20
HB1-10	Same as above @ 10ft bgs	8260B 8015B	All VOCs = ND All GRO VOC's = ND<0.20
HB1-15	Same as above @ 15 ft bgs	8260B	All VOC's = ND
HB1-20	Same as above @ 20 ft bgs	8260B	All VOC's = ND
HB1 - 25	Same as above @ 25 ft bgs	8260B	All VOC's = ND
HB2-5	Boring B2 @ 5 ft bgs (X=410, Y=40)	8260B 8015B	All VOC's = ND All GRO VOC's = ND<0.20
HB2-10	Same as above @ 10 ft bgs	8260B 8015B	All VOC's = ND All GRO VOC's = ND<0.20
HB2-15	Same as above @ 15 ft bgs	8260B	All VOC's = ND
HB2-20	Same as above @ 20 ft bgs	8260B	All VOC's = ND
HB4-5	Boring HB3 @ 5ft bgs (X=320, Y=90)	8260B 8015B	All VOC's = ND All GRO VOCs =ND<0.20
HB4-10	Same as above @ 10 ft bgs	8260B 8015B	All VOC's = ND All GRO VOCs =ND<0.20
HB4-15	Same as above @ 15 ft bgs	8260B	All VOC's = ND
HB4-20	Same as above @ 20 ft bgs	8260B	All VOC's = ND
HB5 - 5	Boring HB5 @ 5 ft bgs (X=410, Y=40)	8260B	All VOC's = ND All GRO VOC's = ND<0.20
HB5 - 10	Same as above @ 10 ft bgs	8260B	All VOC's = ND All GRO VOCs = ND<0.20
HB5- 15	Same as above @ 15 ft bgs	8260B	All VOC's = ND
HB5 - 20	Same as above @ 20 ft bgs	8260B	All VOC's = ND

ND – Non detect

Table 2: Summary of Laboratory Results for Soil Vapor Samples

Sample I.D.	Location	EPA Test Method	Results (in µg/L or ppb)
HB1-SV1-5	Boring HB1 @ 5 ft bgs (X=230, Y=40)	8260B	All VOCs = ND
HB1-SV1-15	Boring B1 @ 15 ft bgs	8260B	All VOCs =ND
HB2-SV2-5	Boring B2 @ 5ft bgs (X=410, Y= 40)	8260B	All VOCs =ND
HB2-SV2-15	Boring B2 @ 15 ft bgs	8260B	All VOCs =ND
HB4-SV4-5	Boring B4 @ 5 ft bgs (X=320, Y=90)	8260B	All VOCs = ND
HB4-SV4-15	Boring B4 @15 ft bgs	8260B	All VOCs = ND
HB5-SV5-5	Boring B5 @ 5 ft bgs (X=410, Y=40)	8260B	All VOCs = ND

HB5-SV5-15	Boring B5 @ 15 ft bgs	8260B	All VOCs	= ND

5 FINDINGS

Subsurface soils, as encountered in the frilling locations, consist of fill soils to depths varying from about 18 inches to 2 ft, which are followed by native alluvial souls up to the explored depth of 25 ft below grade surface (bgs). Groundwater was not encountered up to the maximum depts. Of 25 ft bgs and is not considered a constraint for the development of this vacant, underdeveloped site Soil samples tested for gasoline (GRO) and Volatile Organic Compounds (VOCs) showed non-detect (ND) for all samples tested. Similarly, soil vapor samples tested for VOCs showed HD for all samples tested.

6 CONCLUSIONS AND RECOMMENDATIONS

Based on HVN's field activities and lab results, HVN concludes that no pockets of contamination were found within the proposed footprint of the planned development. Moreover, HVN recommends no additional subsurface investigation at this time.

7. LIMITATIONS

This Report presents a summary of work completed by HVN and its subcontractors. The completed work includes observations of site conditions encountered and the analytical results provided by an independent third-party laboratory of samples collected during the course of the project. The number and location of samples were selected to provide the required information. However, it cannot be assumed that the limited available data are representative of subsurface conditions in areas not sampled.

All conclusions and/or recommendations are based on the observations, laboratory analyses, and the governing regulations. Conclusions and/or recommendations beyond those stated and reported herein should not be inferred from this document. HVN warrants that the environmental consulting services contained herein were accomplished in accordance with generally accepted practices in the environmental engineering, geology and hydrogeology fields that existed at the time and location of work. No other warranties are implied or expressed.

All reports, both verbal and written, as they pertain to the property located at this site are the Sole use and benefit of JS Consultants. This is not a Geotechnical Investigation. This is an environmental investigation designed to identify and quantify any contaminants in the subsurface soil. This report may not be relied upon by any other person or entity without the written consent of HVN Environmental Service Co., Inc.

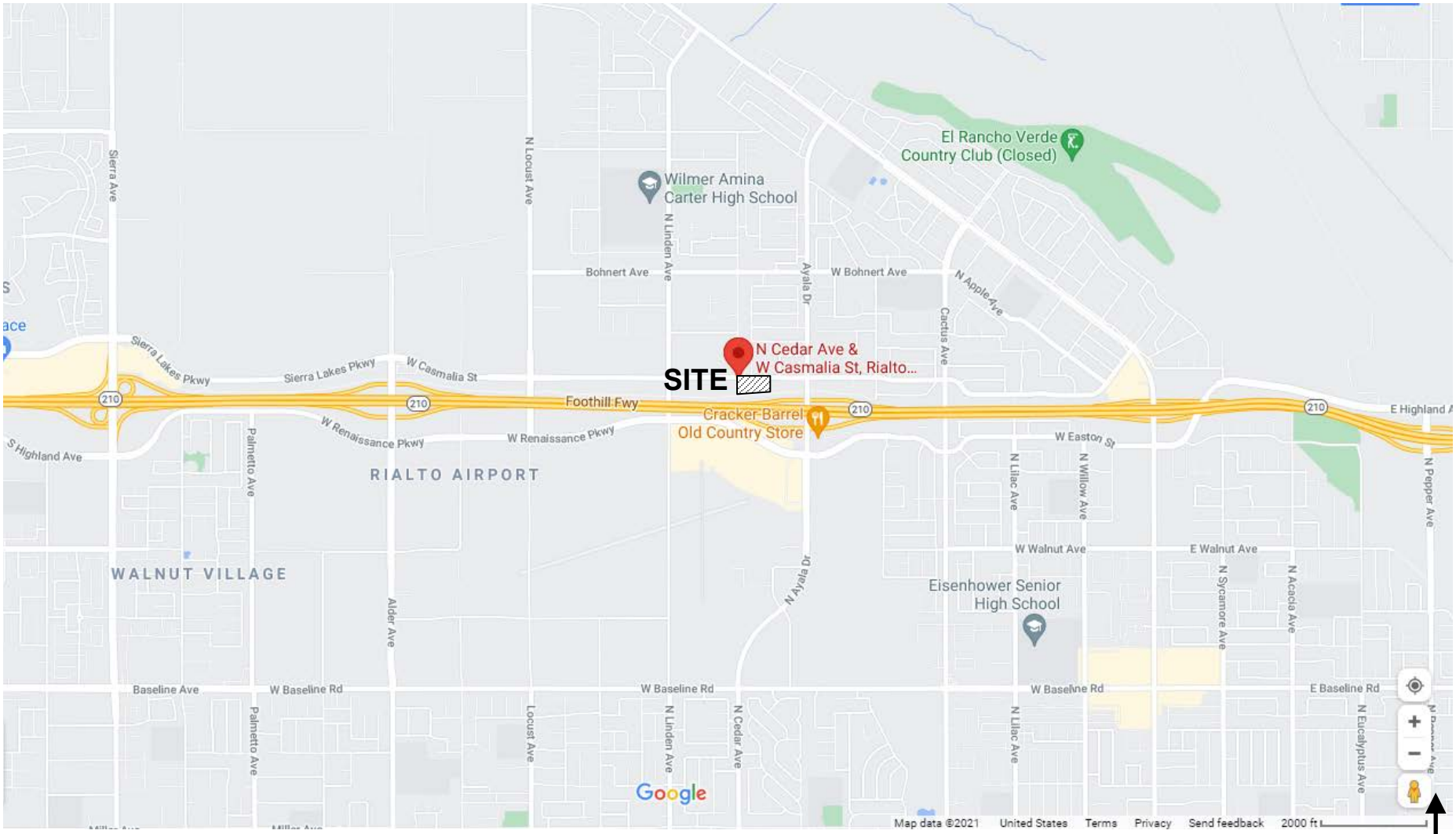
8 REFERENCES

1) Geotechnical Investigation Report: ZS Engineering *(June 28, 2021)*
2) Advisory – Active Soil Gas Investigation: DTSC *(July 2015)*
3) Health and Safety Plan for Limited Phase II Investigation; HVN *(September 21, 2021)*

FIGURES

FIGURE 1

Site Vicinity Map

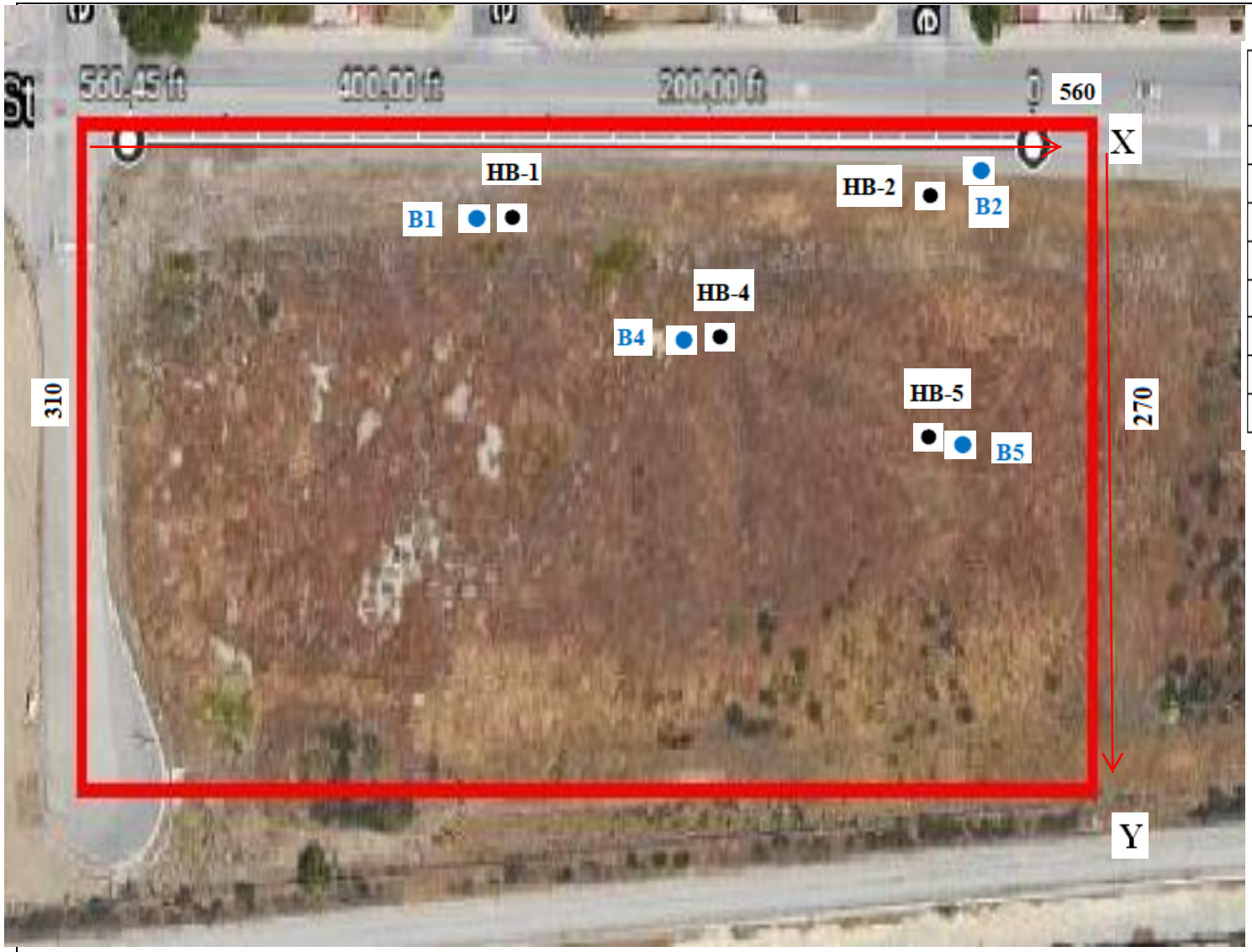


Source: Image from Google Map

	Figure 1 – Site Location Map **New Industrial Building at a Vacant Lot** **SE Corner of Casmalia street & Cedar Avenue, CA 92377**	**ZS Engineering** **#210603**

FIGURE 2

Soil Boring Locations Map



	X (ft)	Y (ft)
HB-1	230.0	40.0
B-1	227.50	40.5
HB-2	410.0	40.0
B-2	413.1	34.2
HB-4	320.0	90.0
B-4	318.5	90.0
HB-5	410.0	130.0
B-5	413.1	131.4

HB- 6/21/2021

B- 9/21/2021

HVN ENVIRONMENTAL SERVICE CO., INC.

ENVIRONMENTAL ENGINEERS/CONTRACTORS

4025 Spencer St. #203, Torrance, CA 90503
Office 310-370-9656 info@hvnenvironmental.com

September 21, 2021

FIGURE 2

N. CEDAR AND W. CASMALIA ST. RIALTO

SITE MAP SHOWING BORING LOCATIONS

APPENDICES

APPENDIX A

Chemtek Laboratory Results

Chain of Custody

CHEMTEK Environmental Laboratories Inc.
13554 Larwin Circle, Santa Fe Springs, CA 90670
Tel. (562) 926-9848 FAX (562) 926-8324 Email: ChemtekLabs@hotmail.com
CA Dept of Health Accredited. (ELAP No. 1435) & Mobile Lab (ELAP No. 2629) (LACSD No. 10167)

CHAIN OF CUSTODY RECORD

Job No.: 109041

Page: 1 of 2

CUSTOMER INFORMATION

COMPANY NAME: HVN ENVIRONMENTAL SVC. CO., INC.
PROJECT CONTACT: KEN HEKIMIAN Email:
ADDRESS: 4025 SPENCER ST. #203; TORRANCE, CA
PHONE: 310-370-9656 FAX:

PROJECT INFORMATION

PROJECT NAME: SE Corner Casmalia + Cedar P.O. No.
SITE ADDRESS: Rialto, CA 92377
SAMPLED BY: KHEKIMIAN ☐ EDF Turn Around Time NORM ☑ 24 hr ☐ 48 hr ☐ Other ☐

ANALYSIS REQUIRED

	SAMPLE ID	DATE SAMPLED	TIME SAMPLED	TYPE *	pH/Time	Container	Size	Pres	NO. OF CONT	8015 TPH G or GRO	8015 TPH D or DRO	CARBON CHAIN	VOCs (8260 B) FULL	OXYGENATES (8260 B) SHORT	COD / TSS / BOD / TDS	pH, Conductivity, Turbidity	Sulfide, Cyanide, O&G	CAM 17 Metals					
1	HB1-5	9/21/21	11:00	A	Tedlar	Bag		none	1				X										
2	HB1-15	↓	11:15	A	↓			↓	1				X										
3	HB2-5	↓	11:30	A	↓			↓	1				X										
4	HB4-5	↓	12	A	↓			↓	1				X										
5	HB5-5	↓	11:36	A	↓			↓	1				X										
6	HB5-15	↓	11:40	A	↓			↓	1				X										
7																							
8																							
9																							
10																							
11																							
12																							
13																							
14																							
15																							
16	HB5-20	9/21/21		So		Acetate		[illegible]	1				X										

	SIGNATURE	PRINT NAME	COMPANY NAME	DATE	TIME
RELINQUISHED BY:	Kenneth K. Hekimian	KENNETH K. HEKIMIAN	HVN ENVIRONMENTAL SVC CO.	9/21/21	115pm
RECEIVED BY:	Kenneth K. Hekimian	KENNETH K. HEKIMIAN	HVN ENVIRONMENTAL	9/21/21	115pm
RELINQUISHED BY:	Kenneth K. Hekimian	KENNETH K. HEKIMIAN	HVN ENVIRONMENTAL	9/21/21	2pm
RECEIVED FOR LABORATORY BY:	[illegible]	Martin	Chemtek	9/21/21	2pm

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

Distribution : WHITE with report / YELLOW to CHEMTEK / PINK to courier

*Container: P - Plastic, G - Glass, M - Metal

CHEMTEK Environmental Laboratories Inc.
13554 Larwin Circle, Santa Fe Springs, CA 90670
Tel. (562) 926-9848 FAX (562) 926-8324 Email: ChemtekLabs@hotmail.com
CA Dept of Health Accredited. (ELAP No. 1435) & Mobile Lab (ELAP No. 2629) (LACSD No. 10167)

CHAIN OF CUSTODY RECORD

Job No.: 109041

CUSTOMER INFORMATION

COMPANY NAME: HVN ENVIRONMENTAL
PROJECT CONTACT: KEN HEKIMIAN Email: 310-370-9656
ADDRESS: 4025 SPENCER ST., #203; TORRANCE, CA 90503
PHONE: FAX:

PROJECT INFORMATION

PROJECT NAME: SE CORNER CASMALIA & CEDAR, RIALTO, CA 92377 P.O. No.:
SITE ADDRESS: "
SAMPLED BY: KEN HEKIMIAN ☐ EDF
Turn Around Time: NORM ☑ 24 hr ☐ 48 hr ☐ Other ☐

ANALYSIS REQUIRED

	SAMPLE ID	DATE SAMPLED	TIME SAMPLED	TYPE *	pH/Time	Container	Size	Pres	NO. OF CONT	8015 TPH G or GRO	8015 TPH D or DRO	CARBON CHAIN	VOCs (8260 B) FULL	OXYGENATES (8260 B) SHORT	COD / TSS / BOD / TDS	pH, Conductivity, Turbidity	Sulfide, Cyanide, O&G	CAM 17 Metals					
1	HB1-5	9/21/21		SO		acetate			1	X			X										
2	HB1-10			SO					1	X			X										
3	HB1-15			SO					1				X										
4	HB1-20			SO					1				X										
5	HB1-25		9:45	SO					1				X										
6	HB2-5			SO					1	X			X										
7	HB2-10			SO					1	X			X										
8	HB2-15		10:20	SO					1				X										
9	HB2-20		10:50	SO					1				X										
10	HB4-5									X			X										
11	HB4-10									X			X										
12	HB4-15												X										
13	HB4-20												X										
14	HB5-5									X			X										
15	HB5-10									X			X										
16	HB5-15												X										

	SIGNATURE	PRINT NAME	COMPANY NAME	DATE	TIME
RELINQUISHED BY:	Kenneth K. Hekimian	KENNETH K. HEKIMIAN	HVN ENVIRONMENTAL SVC, CO., INC.	9/21/21	115p
RECEIVED BY:	Kenneth K. Hekimian	KENNETH K. HEKIMIAN	HVN ENVIRONMENTAL SVC, CO., INC.	9/21/21	115p
RELINQUISHED BY:	Kenneth K. Hekimian	KENNETH K. HEKIMIAN	HVN ENVIRONMENTAL SVC, CO., INC.	9/21/21	2pm
RECEIVED FOR LABORATORY BY:	[signature]	Martal	Chemtek	9/21/21	2pm

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

Distribution : WHITE with report / YELLOW to CHEMTEK / PINK to courier

*Container: P - Plastic, G - Glass, M - Metal

CHEMTEK
environmental laboratories
ELAP: 1435
LACSD: 10167
13554 Larwin Cir., Santa Fe Springs, CA 90670
T 562.926.9848
F 562.926.8324

Certificate of Analysis

Client: HVN ENVIRONMENTAL
4025 Spencer St
Torrance, CA

Attention:

Project No.
Project Site: SE Corner Casmalia Cedar
Rialto, CA 92377

Job No: 109041
Report Date: 09/27/21
Date Received: 09/21/21
Number of Samples: 23
Sample Matrix: Soil, Vapor

This is the Certificate of Analysis for the following samples:

SAMPLE IDENTIFICATION	DATE OF SAMPLE	LABORATORY IDENTIFICATION
HB1-5	09/21/21	109041-01A
HB1-15	09/21/21	109041-02A
HB2-5	09/21/21	109041-03A
HB4-5	09/21/21	109041-04A
HB5-5	09/21/21	109041-05A
HB5-15	09/21/21	109041-06A
HB1-5	09/21/21	109041-07A
HB1-10	09/21/21	109041-08A
HB1-15	09/21/21	109041-09A
HB1-20	09/21/21	109041-10A
HB1-25	09/21/21	109041-11A
HB2-5	09/21/21	109041-12A
HB2-10	09/21/21	109041-13A
HB2-15	09/21/21	109041-14A
HB2-20	09/21/21	109041-15A
HB4-5	09/21/21	109041-16A
HB4-10	09/21/21	109041-17A
HB4-15	09/21/21	109041-18A
HB4-20	09/21/21	109041-19A
HB5-5	09/21/21	109041-20A
HB5-10	09/21/21	109041-21A
HB5-15	09/21/21	109041-22A
HB5-20	09/21/21	109041-23A

Reviewed and Approved:

For **Michael C.C. Lu**
Laboratory Director

CHEMTEK
environmental laboratories
13554 Larwin Cir., Santa Fe Springs, CA 90670
T 562.926.9848
F 562.926.8324

Certificate of Analysis

Client: HVN ENVIRONMENTAL
4025 Spencer St
Torrance, CA
Sample Matrix: Vapor

EPA Method 8260B
Project Site: SE Corner Casmalia Cedar
Rialto, CA 92377
Units: ppb or µg/L

Job No: 109041
Report Date: 09/27/21
Date of Sample: 09/21/21
Date Received: 09/21/21

Client Sample ID:	HB1-5	HB1-15	HB2-5	HB4-5	HB5-5	HB5-15	Detection
Dilution Factor:	1	1	1	1	1	1	Limit
	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	(ppb)
Benzene	ND	ND	ND	ND	ND	ND	1
Bromobenzene	ND	ND	ND	ND	ND	ND	1
Bromochloromethane	ND	ND	ND	ND	ND	ND	1
Bromoform	ND	ND	ND	ND	ND	ND	1
Bromomethane	ND	ND	ND	ND	ND	ND	1
n-Butylbenzene	ND	ND	ND	ND	ND	ND	1
sec-Butylbenzene	ND	ND	ND	ND	ND	ND	1
tert-Butylbenzene	ND	ND	ND	ND	ND	ND	1
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND	1
Chlorobenzene	ND	ND	ND	ND	ND	ND	1
Chloroethane	ND	ND	ND	ND	ND	ND	1
Chloroform	ND	ND	ND	ND	ND	ND	1
Chloromethane	ND	ND	ND	ND	ND	ND	1
2-Chlorotoluene	ND	ND	ND	ND	ND	ND	1
4-Chlorotoluene	ND	ND	ND	ND	ND	ND	1
2-Chloroethyl vinyl ether	ND	ND	ND	ND	ND	ND	2
Dibromochloromethane	ND	ND	ND	ND	ND	ND	1
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	ND	1
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	ND	1
Dibromomethane	ND	ND	ND	ND	ND	ND	1
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	1
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	1
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	1
Dichlorodifluoromethane	ND	ND	ND	ND	ND	ND	1
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	1
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	1
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	1
cis-1,2 Dichloroethene	ND	ND	ND	ND	ND	ND	1
Trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	1
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	1
1,3-Dichloropropane	ND	ND	ND	ND	ND	ND	1
2,2-Dichloropropane	ND	ND	ND	ND	ND	ND	1
1,1-Dichloropropene	ND	ND	ND	ND	ND	ND	1
Cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	1
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	1
Ethylbenzene	ND	ND	ND	ND	ND	ND	1
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND	1
Isopropylbenzene	ND	ND	ND	ND	ND	ND	1
4-Isopropyltoluene	ND	ND	ND	ND	ND	ND	1
Methylene Chloride	ND	ND	ND	ND	ND	ND	20
Naphthalene	ND	ND	ND	ND	ND	ND	1
n-propylbenzene	ND	ND	ND	ND	ND	ND	1
Styrene	ND	ND	ND	ND	ND	ND	1
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	1
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	1
Tetrachloroethene(PCE)	ND	ND	ND	ND	ND	ND	0.5
Toluene	ND	ND	ND	ND	ND	ND	1
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	ND	1
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	1
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	1
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	1
Trichloroethene(TCE)	ND	ND	ND	ND	ND	ND	0.5
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	1
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	ND	1
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	ND	1
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	ND	1
Vinyl Chloride	ND	ND	ND	ND	ND	ND	1
Total Xylenes	ND	ND	ND	ND	ND	ND	2
Ethanol	ND	ND	ND	ND	ND	ND	250
MTBE	ND	ND	ND	ND	ND	ND	1
ETBE	ND	ND	ND	ND	ND	ND	1
DIPE	ND	ND	ND	ND	ND	ND	1
TAME	ND	ND	ND	ND	ND	ND	1
TBA	ND	ND	ND	ND	ND	ND	50
MEK	ND	ND	ND	ND	ND	ND	10
MIBK	ND	ND	ND	ND	ND	ND	10
2-Hexanone	ND	ND	ND	ND	ND	ND	10
Analysis Date:	9/21/21	9/21/21	9/21/21	9/21/21	9/21/21	9/21/21	

ND: Not Detected Below (DF x Detection Limit) **DF: Dilution Factor**

CHEMTEK
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Certificate of Analysis

Client: HVN ENVIRONMENTAL
4025 Spencer St
Torrance, CA
Sample Matrix: soil

EPA Method 8260B
Project Site: SE Corner Casmalia Cedar
Rialto, CA 92377
Units: ppb or µg/kg

Job No: 109041
Report Date: 09/27/21
Date of Sample: 09/21/21
Date Received: 09/21/21

Client Sample ID:	HB1-5	HB1-10	HB1-15	HB1-20	HB1-25	HB2-5	HB2-10	HB2-15	HB2-20	HB4-5	Detection
Dilution Factor:	1	1	1	1	1	1	1	1	1	1	Limit
	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	(ppb)
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Bromobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Bromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
n-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
sec-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
tert-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
2-Chlorotoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
4-Chlorotoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
2-Chloroethyl vinyl ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Dibromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Dichlorodifluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
cis-1,2 Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,3-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
2,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,1-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Isopropylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
4-Isopropyltoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Methylene Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	20
Naphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
n-propylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Styrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Tetrachloroethene(PCE)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Trichloroethene(TCE)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Total Xylenes	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2
Ethanol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	250
MTBE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
ETBE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
DIPE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
TAME	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
TBA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	50
MEK	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10
MIBK	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10
2-Hexanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10
Analysis Date:	9/21/21	9/21/21	9/21/21	9/21/21	9/21/21	9/21/21	9/21/21	9/21/21	9/21/21	9/21/21	

ND: Not Detected Below (DF x Detection Limit) **DF: Dilution Factor**

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Certificate of Analysis

Client: HVN ENVIRONMENTAL
4025 Spencer St
Torrance, CA
Sample Matrix: soil

EPA Method 8260B
Project Site: SE Corner Casmalia Cedar
Rialto, CA 92377
Units: ppb or µg/kg

Job No: 109041
Report Date: 09/27/21
Date of Sample: 09/21/21
Date Received: 09/21/21

Client Sample ID:	HB4-10	HB4-15	HB4-20	HB5-5	HB5-10	HB5-15	HB5-20	Detection
Dilution Factor:	1	1	1	1	1	1	1	Limit
	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	(ppb)
Benzene	ND	ND	ND	ND	ND	ND	ND	1
Bromobenzene	ND	ND	ND	ND	ND	ND	ND	1
Bromochloromethane	ND	ND	ND	ND	ND	ND	ND	1
Bromoform	ND	ND	ND	ND	ND	ND	ND	1
Bromomethane	ND	ND	ND	ND	ND	ND	ND	1
n-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	1
sec-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	1
tert-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	1
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND	ND	1
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	1
Chloroethane	ND	ND	ND	ND	ND	ND	ND	1
Chloroform	ND	ND	ND	ND	ND	ND	ND	1
Chloromethane	ND	ND	ND	ND	ND	ND	ND	1
2-Chlorotoluene	ND	ND	ND	ND	ND	ND	ND	1
4-Chlorotoluene	ND	ND	ND	ND	ND	ND	ND	1
2-Chloroethyl vinyl ether	ND	ND	ND	ND	ND	ND	ND	2
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	1
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	ND	ND	1
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	ND	ND	1
Dibromomethane	ND	ND	ND	ND	ND	ND	ND	1
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	1
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	1
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	1
Dichlorodifluoromethane	ND	ND	ND	ND	ND	ND	ND	1
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	1
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	1
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	1
cis-1,2 Dichloroethene	ND	ND	ND	ND	ND	ND	ND	1
Trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	1
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	1
1,3-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	1
2,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	1
1,1-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	1
Cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	1
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	1
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	1
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND	ND	1
Isopropylbenzene	ND	ND	ND	ND	ND	ND	ND	1
4-Isopropyltoluene	ND	ND	ND	ND	ND	ND	ND	1
Methylene Chloride	ND	ND	ND	ND	ND	ND	ND	20
Naphthalene	ND	ND	ND	ND	ND	ND	ND	1
n-propylbenzene	ND	ND	ND	ND	ND	ND	ND	1
Styrene	ND	ND	ND	ND	ND	ND	ND	1
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	1
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	1
Tetrachloroethene(PCE)	ND	ND	ND	ND	ND	ND	ND	1
Toluene	ND	ND	ND	ND	ND	ND	ND	1
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	1
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	1
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	1
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	1
Trichloroethene(TCE)	ND	ND	ND	ND	ND	ND	ND	1
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	ND	1
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	ND	ND	1
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	1
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	1
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	1
Total Xylenes	ND	ND	ND	ND	ND	ND	ND	2
Ethanol	ND	ND	ND	ND	ND	ND	ND	250
MTBE	ND	ND	ND	ND	ND	ND	ND	1
ETBE	ND	ND	ND	ND	ND	ND	ND	1
DIPE	ND	ND	ND	ND	ND	ND	ND	1
TAME	ND	ND	ND	ND	ND	ND	ND	1
TBA	ND	ND	ND	ND	ND	ND	ND	50
MEK	ND	ND	ND	ND	ND	ND	ND	10
MIBK	ND	ND	ND	ND	ND	ND	ND	10
2-Hexanone	ND	ND	ND	ND	ND	ND	ND	10
Analysis Date:	9/21/21	9/21/21	9/21/21	9/21/21	9/22/21	9/22/21	9/22/21	

ND: Not Detected Below (DF x Detection Limit) **DF: Dilution Factor**

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Certificate of Analysis

Client: HVN ENVIRONMENTAL
Project Site: SE Corner Casmalia Cedar
Rialto, CA 92377

EPA Method: 8260B
units: mg/kg

Job No: 109041
Report Date: 09/27/21
Date of Sample: 09/21/21
Date Received: 09/21/21
Sample Matrix: Soil, Vapor

Sample ID	UNITS	Gas range (C4-C12)	DF	DLR
HB1-5	MG/KG	ND	1	0.20
HB1-15	MG/KG	ND	1	0.20
HB2-5	MG/KG	ND	1	0.20
HB2-15	MG/KG	ND	1	0.20
HB4-5	MG/KG	ND	1	0.20
HB4-15	MG/KG	ND	1	0.20
HB5-5	MG/KG	ND	1	0.20
HB5-15	MG/KG	ND	1	0.20
Method Blank	MG/KG	ND	1	0.20
Sample Date:		09/21/21		
Analysis Date:		09/21/21		

ND : Not detected at or above DLR

DLR: Detection Limit for Reporting Purposes

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QC Analysis Date: 09/21/21
QC Lab ID: 109041-8A
Units: ppb
Job No: 109041

QUALITY CONTROL DATA

EPA METHOD: 8260B(VOC's)

ANALYTE	BLANK RESULT	SPIKE CONC.	MS % REC	MSD % REC	% RPD	% RPD ACCEPT LIMITS	% REC ACCEPT LIMITS
1,1-Dichloroethene	ND	25	101.9	99.4	2.5%	30	70-130
Benzene	ND	25	89.4	89.6	0.2%	30	70-130
Trichloroethylene	ND	25	83.3	82.4	1.1%	30	70-130
Toluene	ND	25	104.7	108.7	3.7%	30	70-130
Chlorobenzene	ND	25	98.2	102.2	4.0%	30	70-130

QC Analysis Date: 09/21/21
QC Lab ID: 109041-7A
Units: ppm

QUALITY CONTROL DATA

EPA METHOD: 8260B(TPH Gas Range Organics)

ANALYTE	BLANK RESULT	SPIKE CONC.	MS % REC	MSD % REC	% RPD	% RPD ACCEPT LIMITS	% REC ACCEPT LIMITS
GRO (TPH)	ND	0.5	100.4	105.4	4.9%	30	70-130

APPENDIX B

Boring Logs

ZS Engineering Report

June 28, 2021

ZS Engineering

113 Tomato Springs, Irvine, CA 92618

(949) 331-3232 | info@zs-engineering.com

Date of Drilling: 6/19/21 Method of Drilling: B-61 Drilling Rig w/ 7" Dia. Hollow Stem Augers

Logged by: ZA Ground Elev.: ~1,468 ft. Location: See Fig. 2, Site Plan & Exploration Map

New Industrial Building at a Vacant Lot
SE of Casmalia Street & Cedar Avenue, Rialto, CA

Bore Hole No. **B-1**

Depth (ft)	Sample No.	Blows/ft.	Ring Sample	SPT Sample	Bulk Sample	Moisture Content (%)	Dry Density (pcf)	Soil Descriptions	Soil Tests
2	R-1	27/	⊘		⊗	1.8	119.6	**Fill (Af):** 0 - 2': Surface covered w/ weeds. Lt. gray silty, sandy Gravel (GM), f-c Sand, gravel up to 2", damp.	
	B-1	50(4")						**Alluvium (Qa):** 2' - 5': Lt. grayish brown silty, sandy Gravel (GM), f-c sand, gravel 1" to 3", few cobbles (up to 6"), damp to slightly moist.	
5	R-2	50(3")	⊘		⊗	3.4	122.3	@ 5': Lt. gray silty, sandy Gravel (GM), f-c sand, gravel up to 2", few cobbles (up to 5"), slightly moist.	Direct Shear
10	R-3	17/ 50(3")	⊘			2.0	122.7	10' - 20': Lt. whitish to lt. yellowish gray silty, sandy Gravel (GM), f-c sand, less amount of silts, gravel 3/4" to 2.5", few cobbles (4" to 8"), damp to slightly moist.	
15	S-1	21/ 50(5")		⊗					
20	S-2	32/ 50(3")		⊗				20' - 25': Lt. grayish brown, sandy Gravel (GP-GM), few silts, f-c sand, gravel 1" to 3", few cobbles (4" to 8"), damp to slightly moist.	
25	S-3	50(4")		⊗					

- Depth of drilling 25 feet below the existing grade.
- Groundwater was not encountered.
- After logging & sampling, drilled hole was backfilled w/ soil cuttings on 6/19/21.

ZS ENGINEERING #210603 | **LOG OF BORE HOLE B-1**

ZS Engineering

113 Tomato Springs, Irvine, CA 92618

(949) 331-3232 | info@zs-engineering.com

Date of Drilling: 6/19/21 Method of Drilling: B-61 Drilling Rig w/ 7" Dia. Hollow Stem Augers

Logged by: ZA Ground Elev.: ~1,467 ft. Location: See Fig. 2, Site Plan & Exploration Map

Depth (ft)	Sample No.	Blows/ft.	Ring Sample	SPT Sample	Bulk Sample	Moisture Content (%)	Dry Density (pcf)	New Industrial Building at a Vacant Lot SE of Casmalia Street & Cedar Avenue, Rialto, CA Bore Hole No. **B-2** Soil Descriptions	Soil Tests
2	R-1	26/			X	2.3	118.2	**Fill (Af):** 0 - 1.5': Surface covered w/ weeds, shrubs. Lt. Lt. gray silty, sandy Gravel (GM), gravel up to 2.5", damp.	
	B-1	50(5")			X			**Alluvium (Qa):** 1.5' - 10': Lt. gray to lt. grayish brown silty, sandy Gravel (GM), gravel 3/4" to 2.5", few to	
5	R-2	50(5")	/		X	4.1	124.5	some cobbles (up to 6"), damp to slightly moist.	
10	R-3	42/ 50(4")	/			2.2	127.3	10' - 15': Lt. whitish to lt. yellowish gray sandy Gravel w/ few silts (GP-GM), f-c sand, gravel 3/4" to 2.5", few to some cobbles (4" to 8"), damp to slightly moist.	
15	S-1	50(3")		X					

- Depth of drilling 15 feet below the existing grade.
- Groundwater was not encountered.
- After logging & sampling, drilled hole was backfilled w/ soil cuttings on 6/19/21.

ZS ENGINEERING #210603 | **LOG OF BORE HOLE B-2**

ZS Engineering

113 Tomato Springs, Irvine, CA 92618

(949) 331-3232 | info@zs-engineering.com

Date of Drilling: 6/19/21 Method of Drilling: B-61 Drilling Rig w/ 7" Dia. Hollow Stem Augers

Logged by: ZA Ground Elev.: ~1,468 ft. Location: See Fig. 2, Site Plan & Exploration Map

Depth (ft)	Sample No.	Blows/ft.	Ring Sample	SPT Sample	Bulk Sample	Moisture Content (%)	Dry Density (pcf)	New Industrial Building at a Vacant Lot SE of Casmalia Street & Cedar Avenue, Rialto, CA Bore Hole No. **B-3** Soil Descriptions	Soil Tests
2	R-1	28/	◢		X	1.2	121.1	**Fill (Af):** 0 - 2': Surface covered w/ weeds, shrubs. Lt. gray silty, sandy Gravel (GM), f-c Sand, gravel 1" to 3", damp.	
	B-1	50(3")						**Alluvium (Qa):** 2' - 8': Lt. gray to lt. grayish brown silty, sandy, Gravel (GM), f-c sand, gravel 1" to 3", few to	
5	R-2	42/	◢		X	2.6	125.7	some cobbles (4" to 8"), damp to slightly moist.	
		50(5")							
								8' - 15': Lt. whitish to lt. yellowish gray silty, sandy Gravel (GM), f-c sand, less amount of silts, gravel 3/4" to 3",	
10	R-3	50(4")	◢			2.5	124.4	some cobbles (4" to 8"), damp to slightly moist.	
								- Gradually moer gravelly, cobbly w/ depth.	
15									
								- Depth of drilling 15 feet below the existing grade. - Groundwater was not encountered. - After logging & sampling, drilled hole was backfilled w/ soil cuttings on 6/19/21.	

ZS ENGINEERING #210603 | **LOG OF BORE HOLE B-3**

ZS Engineering

113 Tomato Springs, Irvine, CA 92618

(949) 331-3232 | info@zs-engineering.com

Date of Drilling: 6/19/21 Method of Drilling: B-61 Drilling Rig w/ 7" Dia. Hollow Stem Augers

Logged by: ZA Ground Elev.: ~1,500 ft. Location: See Fig. 2, Site Plan & Exploration Map

New Industrial Building at a Vacant Lot
SE of Casmalia Street & Cedar Avenue, Rialto, CA

Bore Hole No. **B-4**

Depth (ft)	Sample No.	Blows/ft.	Ring Sample	SPT Sample	Bulk Sample	Moisture Content (%)	Dry Density (pcf)	Soil Descriptions	Soil Tests
2	R-1 B-1	48	⊘		X	1.9	116.5	**Fill (Af):** 0 - 1.5': Surface covered w/ shrubs. Lt. gray silty, sandy Gravel (GM), f-c Sand, gravel up to 2.5", damp. **Alluvium (Qa):** 1.5' - 10': Lt. gray to lt. grayish brown silty, sandy Gravel (GM), f-c sand, gravel 1.5" to 3", few cobbles (up to 8"), damp to slightly moist.	Expansion Index, Sulfate, Chloride
5	R-2	41/ 50(4")	⊘		X	2.4	120.4		
10	R-3	50(2")	⊘			3.2	125.6	10' - 20': Lt. whitish to lt. yellowish gray silty, sandy Gravel (GM), f-c sand, less amount of silts, gravel 3/4" to 2.5", few cobbles (4" to 8"), damp to slightly moist.	
15	S-1	35/ 50(5")		⊠				- Gradually more gravelly, cobbly w/ depth.	
20	S-2	50(4")		⊠				20' - 25': Lt. yellowish gray sandy Gravel (GP-GM) w/ few silts, f-c sand, gravel up to 3", few cobbles (4" to 8"), damp to slightly moist.	
25	S-3	32/ 50(5")		⊠					
								- Depth of drilling 25 feet below the existing grade. - Groundwater was not encountered. - After logging & sampling, drilled hole was backfilled w/ soil cuttings on 6/19/21.	

ZS ENGINEERING #210603 **LOG OF BORE HOLE B-4**

ZS Engineering

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Date of Drilling: 6/19/21 Method of Drilling: B-61 Drilling Rig w/ 7" Dia. Hollow Stem Augers

Logged by: ZA Ground Elev.: ~1,500 ft. Location: See Fig. 2, Site Plan & Exploration Map

Depth (ft)	Sample No.	Blows/ft.	Ring Sample	SPT Sample	Bulk Sample	Moisture Content (%)	Dry Density (pcf)	New Industrial Building at a Vacant Lot SE of Casmalia Street & Cedar Avenue, Rialto, CA Bore Hole No. **B-5** Soil Descriptions	Soil Tests
2	R-1 B-1	27/ 50(4")				2.2	121.3	**Fill (Af):** 0 - 2': Surface covered w/ shrubs. Lt. gray silty, sandy Gravel (GM), f-c Sand, gravel 1" to 3", damp. **Alluvium (Qa):** 2' - 10': Lt. gray to lt. grayish brown silty, sandy, Gravel (GM), f-c sand, gravel 1" to 3", few to some cobbles (up to 6"), damp to slightly moist.	
5	R-2	50(5")				4.1	122.7		
10	R-3	37/ 50(3")				2.0	126.3	10' - 15': Lt. whitish to lt. yellowish gray silty, sandy Gravel (GM) to sandy Gravel w/ few silts (GP-GM), f-c sand, gravel 3/4" to 3", some cobbles (4" to 8"), damp to slightly moist.	
15	S-1	50(3")							

- Depth of drilling 15 feet below the existing grade.
- Groundwater was not encountered.
- After logging & sampling, drilled hole was backfilled w/ soil cuttings on 6/19/21.

APPENDIX C

Photo Journal

Photo Journal-September 21, 2021

Figure 1: HB -1 looking south

Figure 2: Electrical Utility locator day lighting

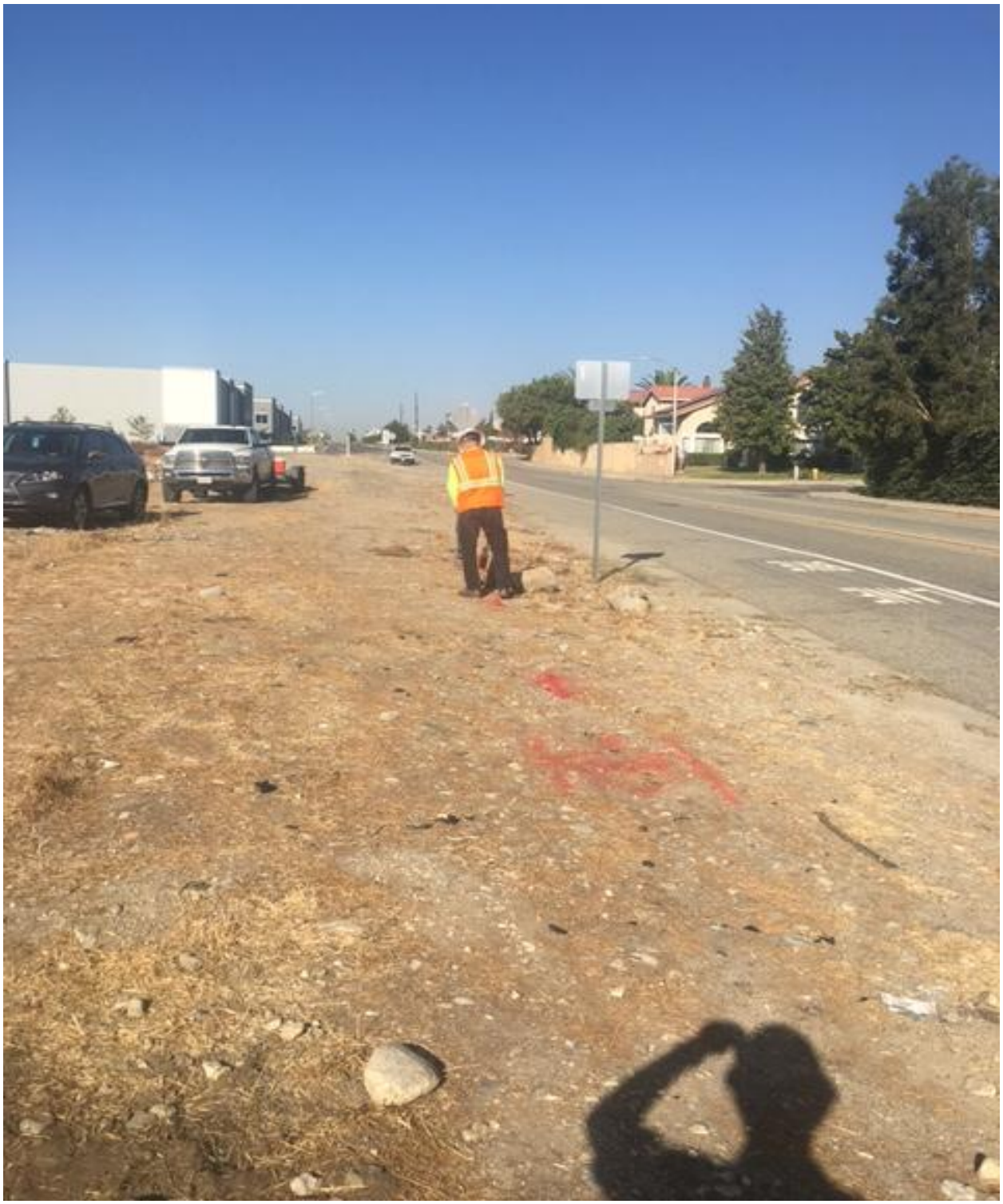

Figure 3: HB-4 Installing soil vapor probes

Figure 4: SV Probes at 5 and 15 ft bgs