

Appendix F-2

Phase II Environmental Site Assessment

Type of Services	Soil Quality Evaluation
Location	550 Piercy Road San Jose, California 95138
Client	HINES
Client Address	101 California Street, Suite 1000 San Francisco, California 94111
Project Number	1076-4-3
Date	December 8, 2021

DRAFT

Prepared by

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Type of Services	Soil Quality Evaluation
Location	550 Piercy Road San Jose, California 95138

SECTION 1: INTRODUCTION

This report presents the Soil Quality Evaluation performed at 550 Piercy Road in San Jose, California (Site) as shown on Figures 1, 2, and 3. This work was performed for Hines in accordance with our September 15, Agreement (Agreement). An additional subsurface investigation was conducted in accordance with our November 18, Agreement (Agreement) to better evaluate the potential for serpentinite rock containing natural occurring asbestos (NOA).

Cornerstone Earth Group, Inc. (Cornerstone) understands that Hines intends to develop the property for commercial redevelopment. This soil quality evaluation was performed on the Phase II of the development.

This report is organized as follows:

- Section 2 – Background information;
- Section 3 – Subsurface investigation;
- Section 4 – Summary of analytical data;
- Section 5 – Conclusions and recommendations;
- Section 6 – Limitations; and
- Section 7 – References.

1.1 SITE DESCRIPTION

The approximately 29-acre Site is located at 550 Piercy Road in San Jose. The property currently consists of undeveloped land. The Site is located in what appears to be a mix of residential and commercial properties and undeveloped land. The adjoining property uses include a residential property with horse stables located across from Piercy Road to the northeast, DBI Beverage Distributors to the northwest, and undeveloped land to the southeast and southwest.

1.2 PURPOSE

The purpose of this Soil Quality Investigation was to evaluate potential impacts to soil quality associated with the former agricultural use and to determine the potential presence of NOA that could be associated with serpentine bedrock.

1.3 SCOPE OF WORK

As presented in our Agreement (September 15), the scope of work performed for this investigation included the following:

- Hand sampling 15 locations to depths of up to approximately 1 ½ to 2 feet at randomly selected areas of the Site at an interval of approximately one sample location per every 2 acres
- Collection of 23 samples for laboratory analyses, including 7 selected soil samples to be analyzed for asbestos
- Preparation of the report, figures, and data tables.

As presented in our Agreement (November 18), the scope of work performed for the additional subsurface investigation to better evaluate the potential for NOA included the following:

- Drilling and logging of 6 exploratory borings to depths ranging from about 15 to 45 feet below current ground surface
- Collection of 15 soil samples from the exploratory borings for laboratory analyses; and
- Preparation of the report, figures, and data tables

The limitations for these investigations are presented in Section 6.

SECTION 2: BACKGROUND

Based on information obtained from the previously prepared Phase I Environmental Site Assessment (ESA) (Cornerstone, 2021), the Site appears to have been used from at least 1939 to 1982 for agricultural purposes (orchards and/or row crops). Subsequently, the Site was used as a ranch for horse boarding with associated stables, barns, sheds, and corrals. The Site currently consists of undeveloped land.

The Phase I ESA (Cornerstone, 2021) identified the presence of organochlorine pesticide (OCP) DDE from the historical agricultural operations as a Recognized¹ Environmental Condition (REC). No Controlled² or Historical³ Recognized Environmental Conditions were identified. Additionally, the Phase I ESA found that the Site was located within an area of mapped ultramafic rock outcrops where NOA may occur. While the potential presence of NOA does not appear to meet the definition of RECs per ASTM E 1527-12, Cornerstone considered this item to be a potential environmental concern in the Phase I ESA.

¹ The presence or likely presence of hazardous substances or petroleum products on the Site: 1) due to significant release to the environment; 2) under conditions indicative of a significant release to the environment; or 3) under conditions that pose a material threat of a future significant release to the environment.

² A Recognized Environmental Condition that has been addressed to the satisfaction of the applicable regulatory agency with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls or restrictions.

³ A past Recognized Environmental Condition has been addressed to the satisfaction of the applicable regulatory agency or meeting of unrestricted use criteria established by the applicable regulatory agency without subjecting the Site to required controls or restrictions.

The November 5, 2021 Preliminary Geotechnical Investigation and Geologic Hazards Evaluation Draft (Preliminary Investigation Draft) (Cornerstone, 2021) identified the potential presence of NOA as a concern. This concern was due to the serpentine mapped north of Piercy Road. The Preliminary Investigation Draft recommended that the presence of NOA and associated concerns be further evaluated during the design level geotechnical investigation.

SECTION 3: SUBSURFACE INVESTIGATION

3.1 EXPLORATORY BORINGS

On September 23, 2021, our field staff under oversight of a California Professional Engineer, collected soil samples from 15 locations (SS-1 through SS-15) using our standard hang sampling techniques. As shown on Figure 3, the samples were collected from the Site at an interval of approximately one sample location per every 2 acres. Soil samples were collected at two discrete depth intervals: the upper ½ foot of soil and approximately 1½ to 2 feet below ground surface.

Additionally, on November 20, 2021, Cornerstone's staff geotechnical engineer directed a subsurface investigation and sampled five exploratory borings (SP-1 through SP-4 and SP-6) to depths ranging from approximately 5 to 45 feet using a track drilling rig with a 6½-inch hollow stem auger. The boring locations were selected across the northern portion of the Site to further evaluate the potential presence of NOA due to serpentine mapped north of Piercy Road. Fifteen soil samples were collected from varying depths for analyses for NOA, as described below. Deeply weathered serpentinite was observed at a depth of approximately 9 feet in boring SP-4. In addition, claystone (Santa Clara Formation) was observed in boring SP-1 at a depth of approximately 9 feet, and contained gravel-sized clasts of serpentinite. Additional subsurface material description will be provided in Cornerstone's design level geotechnical investigation report.

3.2 SOIL SAMPLE COLLECTION AND LABORATORY ANALYSES

The soil samples from the September 23, 2021 sampling event were collected in new (unused), clean stainless-steel liners, ends covered with Teflon film, and capped. The samples were given a unique identifier that included the sampled depth range. All samples were placed in an ice-chilled cooler and transported to the project laboratory under chain of custody control. The soil samples were analyzed for OCPs (EPA Test Method 8081), and pesticide related metals (arsenic, lead, and mercury) (EPA Test Method 6010/700). Soil samples collected from 1½ to 2 feet below the ground surface were placed on hold for analysis. To evaluate the vertical extent of DDT detected at location SS-9, the sample collected at a depth of approximately 1½ to 2 feet additionally was analyzed for OCPs.

Additional soil samples were collected from the upper approximately 2 feet at seven of the selected sampling locations for asbestos analysis. The soil samples were collected in Zip-Lock bags. The samples were given a unique identifier that included the sampled depth range. All samples were transported to the project laboratory under chain of custody control. The soil samples were analyzed for asbestos (CARB 435; 400-point count).

Soil samples collected on November 20, 2021 were collected using a hollow stem auger drill rig. The samples were given a unique identifier that included the sampled depth range. All samples were transported to the project laboratory under chain of custody control. The soil samples were analyzed for asbestos (CARB 435; 400-point count).

SECTION 4: SUMMARY OF ANALYTICAL DATA

4.1 ENVIRONMENTAL SCREENING CRITERIA

The analytical results are summarized in the attached Table 1. The detected concentrations were compared to commercial direct exposure Environmental Screening Levels (ESLs⁴) and Tier 1 ESLs⁴. The detected concentrations for arsenic were compared to natural background concentrations (Duverge, 2011; Bradford, 1996)⁵. The detected concentrations of total DDT were compared to the Total Threshold Limit Concentration (TTLC)⁶ values for determining a California (non-RCRA) hazardous waste. Additionally, the asbestos concentrations were compared to the Asbestos Toxic Control Measure (ATCM) Regulatory Threshold Screening Levels⁷. Laboratory analytical data reports along with chain-of-custody documentation are presented in Appendix A.

4.2 STATISTICAL EVALUATION OF DATA

To assist in evaluating the reported data, the 95 percent upper confidence limit (UCL) was calculated for total DDT using the USEPA ProUCL Version 5 statistical software (USEPA, 2013). Because of the uncertainty associated with estimating the true average concentration at a site, the 95 percent UCL of the arithmetic mean can be used for this variable. The 95 percent UCL provides reasonable confidence that the true site average concentration will not be underestimated. The 95 percent UCL of a mean is defined as a value that, when calculated repeatedly for randomly drawn subsets of site data, equals or exceeds the true mean 95 percent of the time. The 95 percent UCL of the mean provides a conservative estimate of the average (or mean) concentration. A chemical contaminant is not considered to be present at a level of concern if the calculated 95 percent UCL is less than its respective regulatory threshold concentration (USEPA, 2007).

The calculated UCL concentration for total DDT is discussed below in Section 4.3. ProUCL input and output data sheets are included in Appendix C.

4.3 SUMMARY OF SOIL ANALYTICAL DATA

The key findings from the September 2021 sampling event are described below:

- Arsenic was below the published background concentration of 11 milligrams per kilogram (mg/kg) (Duverge).
- Lead and mercury concentrations were below both their respective commercial Direct Exposure ESLs and Tier 1 ESLs.
- DDD concentrations were less than the commercial direct exposure ESL, however, the sample collected from location SS-9 at a depth of approximately the upper ½ foot exceeds the Tier 1 ESL (2.7 mg/kg).

⁴ Environmental Screening Level (ESL), RWQCB, San Francisco Bay Region - January 2019.

⁵ Duverge, 2011. Establishing Background Arsenic in Soil of the Urbanized San Francisco Bay Region:

Bradford, et.al. March 1996. Background Concentrations of Trace and Major Elements in California Soils

⁶ Total Threshold Limit Concentration - California Code of Regulations, Title 22.

⁷ California Air Resources Board (CARB) - Asbestos Toxic Control Measure (ATCM) Regulatory Threshold Screening Level (SL).

- DDE concentrations were less than the commercial direct exposure ESL, however, 11 of 15 soil samples collected from the approximately upper ½ foot exceed the Tier 1 ESL (0.33 mg/kg).
- DDT concentrations were less than the commercial direct exposure ESL, however, the detected concentrations exceed the Tier 1 ESL (0.0011 mg/kg).
- Sample SS-6 collected from the approximately upper ½ foot detected a concentration of chlordane that exceeds the Tier 1 ESL (0.0085 mg/kg) but is less than the commercial direct exposure ESL (2.2 mg/kg).
- Total DDT slightly exceeded the TTLC of 1.0 mg/kg in sample SS-9 (0 to ½ feet) (1.1 mg/kg detected), however, the total DDT concentration in sample SS-9 (1½ to 2 feet) was less than 1.0 mg/kg. The 95 percent UCL of the sample mean of the total DDT detected in all the samples, calculated using EPA's ProUCL software (Version 5.1), was calculated at 0.85 mg/kg. The concentrations of total DDT detected do not appear to be a concern for on-Site use of the soil.
- Asbestos was not detected in the samples analyzed exceeding the reporting limit (0.25%).

The key findings from the November 2021 sampling event are described below:

- Asbestos was not detected exceeding 0.25% in all samples analyzed, however, trace chrysotile asbestos was observed in the sample collected from a depth of approximately 19 to 20 feet from boring SP-1.

SECTION 5: CONCLUSIONS AND RECOMMENDATIONS

Based on laboratory analyses of soil samples collected from Site, the soil does not appear significantly impacted by historical agricultural use. Note that cost for off-Site disposal of excess soil, if any, could be increased due to the exceedances of Tier 1 ESLs for OCPs and metals in several of the samples.

Based on 17 CCR 93105, Section 93105 of the California Air Resources Board (CARB) Final Regulation Order for "Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surfacing", an asbestos dust mitigation plan (ADMP) is required for sites that have NOA, serpentine or ultramafic rock. If the area to be disturbed exceeds 1 acre, the ADMP is required to be submitted to and approved by the Air Pollution Control Officer (APCO) of the local district (Bay Area Air Quality Management District [BAAQMD]). Air monitoring is also required for projects with disturbed areas greater than 1 acre.

The purpose of an ADMP is to provide dust mitigation practices to be implemented during planned construction activities. The ADMP additionally describes air and meteorological monitoring during earthwork activities that may disturb NOA-containing soil and/or serpentine bedrock. We recommend preparation and submittal of an ADMP to BAAQMD for their review.

SECTION 6: LIMITATIONS

This report, an instrument of professional service, was prepared for the sole use of Hines and may not be reproduced or distributed without written authorization from Cornerstone. The chemical data presented in this report may change over time and are only valid for this time and location. Hines understands that Cornerstone reviewed and relied on information prepared by others and cannot be responsible for their accuracy. Cornerstone makes no warranty, expressed or implied, except that our services have been performed in accordance with the environmental principles generally accepted at this time and location.

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SECTION 7: REFERENCES

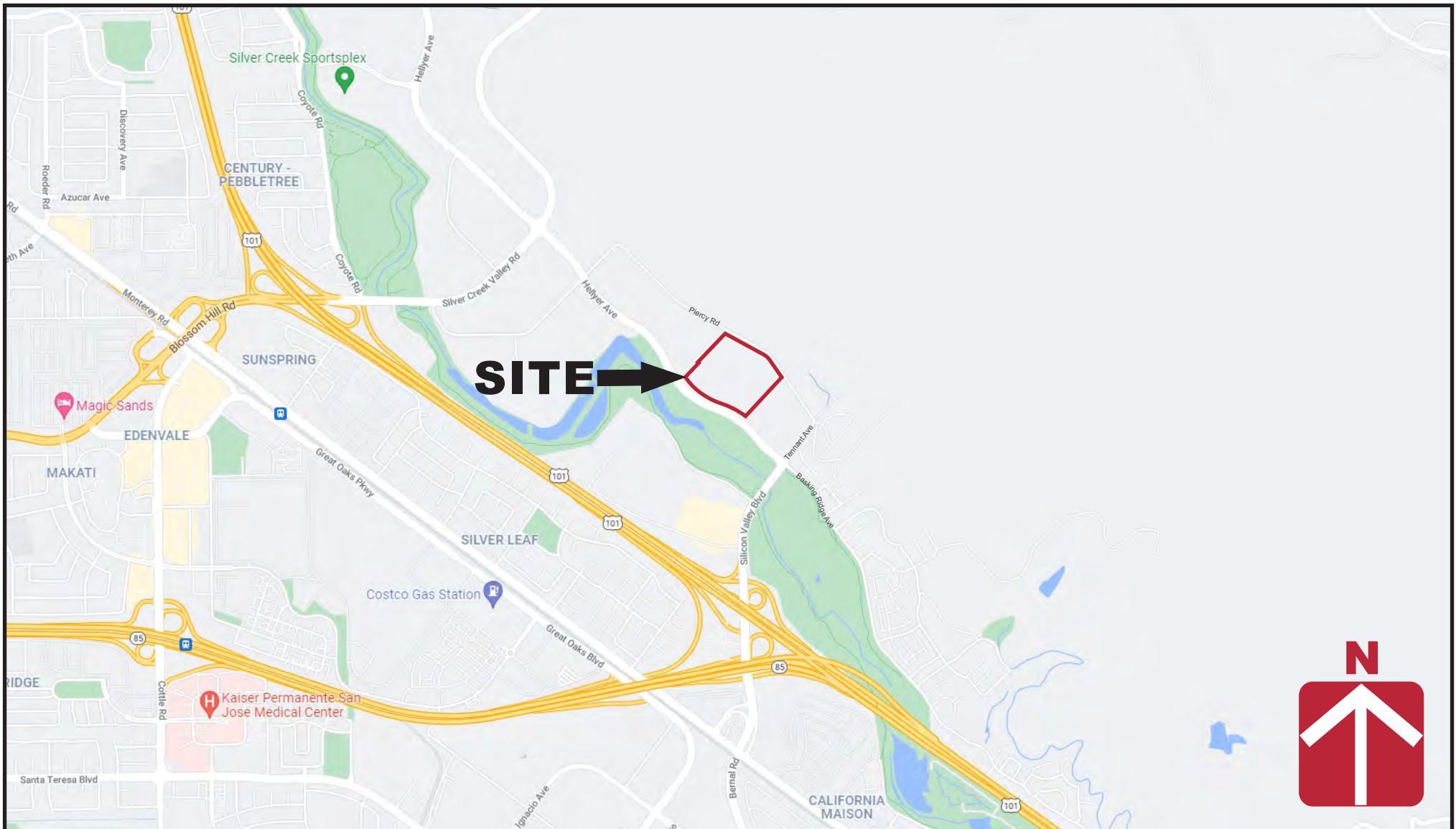
California Code of Regulations, Title 17, Section 93105 *Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surfacing.*


Cornerstone Earth Group. October 27, 2021. *Phase I Environmental Site Assessment, Piercy Road Industrial, 550 Piercy Road, San Jose, California.*

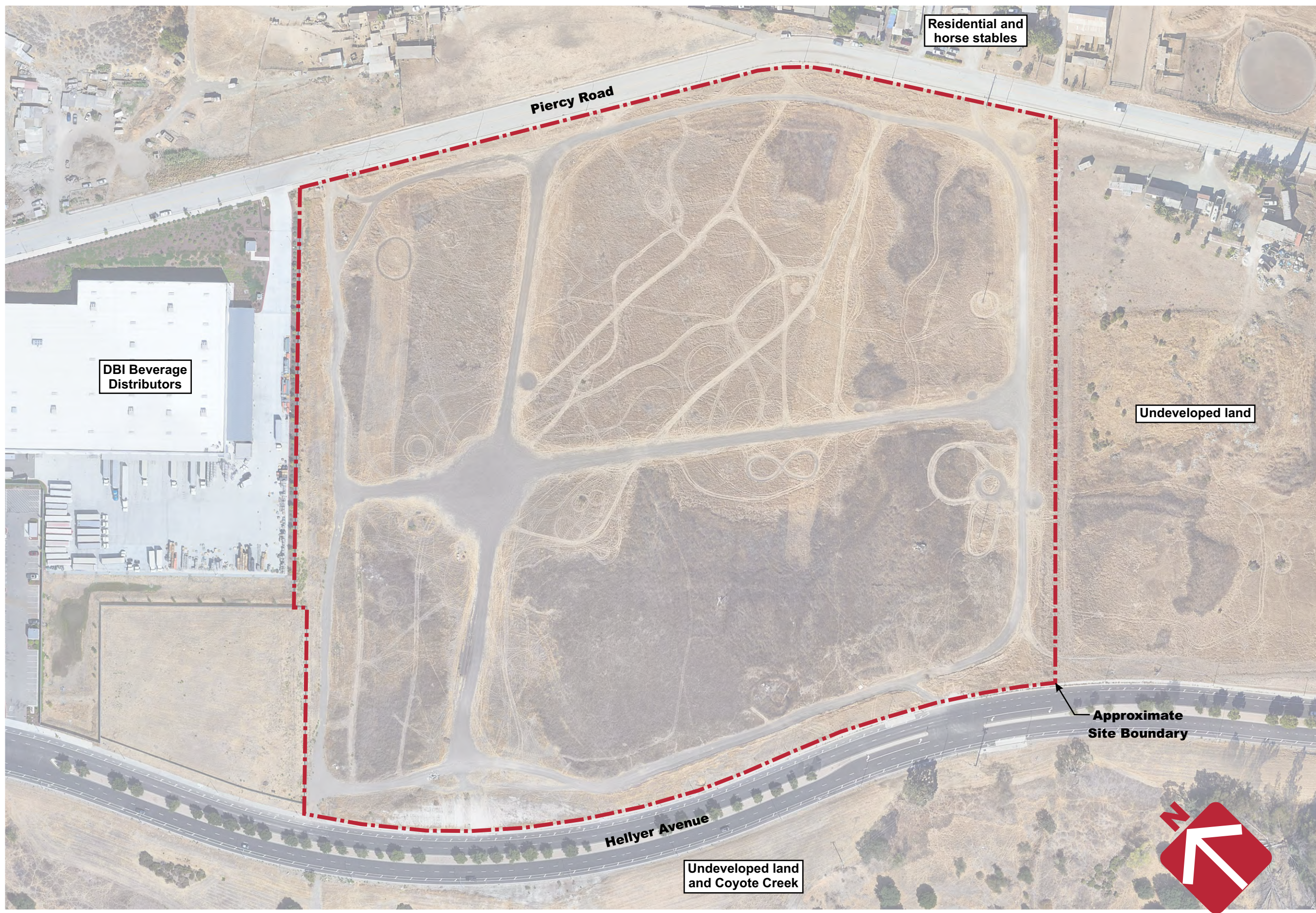
Cornerstone Earth Group. November 5, 2021 - DRAFT. *Preliminary Geotechnical Investigation and Geologic Hazards Evaluation, Piercy Road Industrial, 550 Piercy Road, San Jose, California.*

USEPA, 2016. *ProUCL Version 5.1.00 Technical Guide, Statistical Software for Environmental Applications for Data Sets with and without Nondetect Observations, US Environmental Protection Agency, Office of Research and Development, Washington, DC 20460, dated May 2016.*

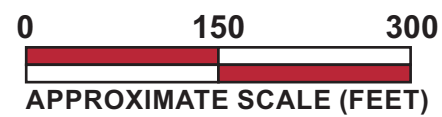
FIGURES



	Vicinity Map		Project Number
	550 Piercy Road San Jose, CA		1076-4-3
			Figure Number
		Date	September 2021
		Drawn By	RRN
		Figure 1	



Base by Google Earth, dated 08/15/2020

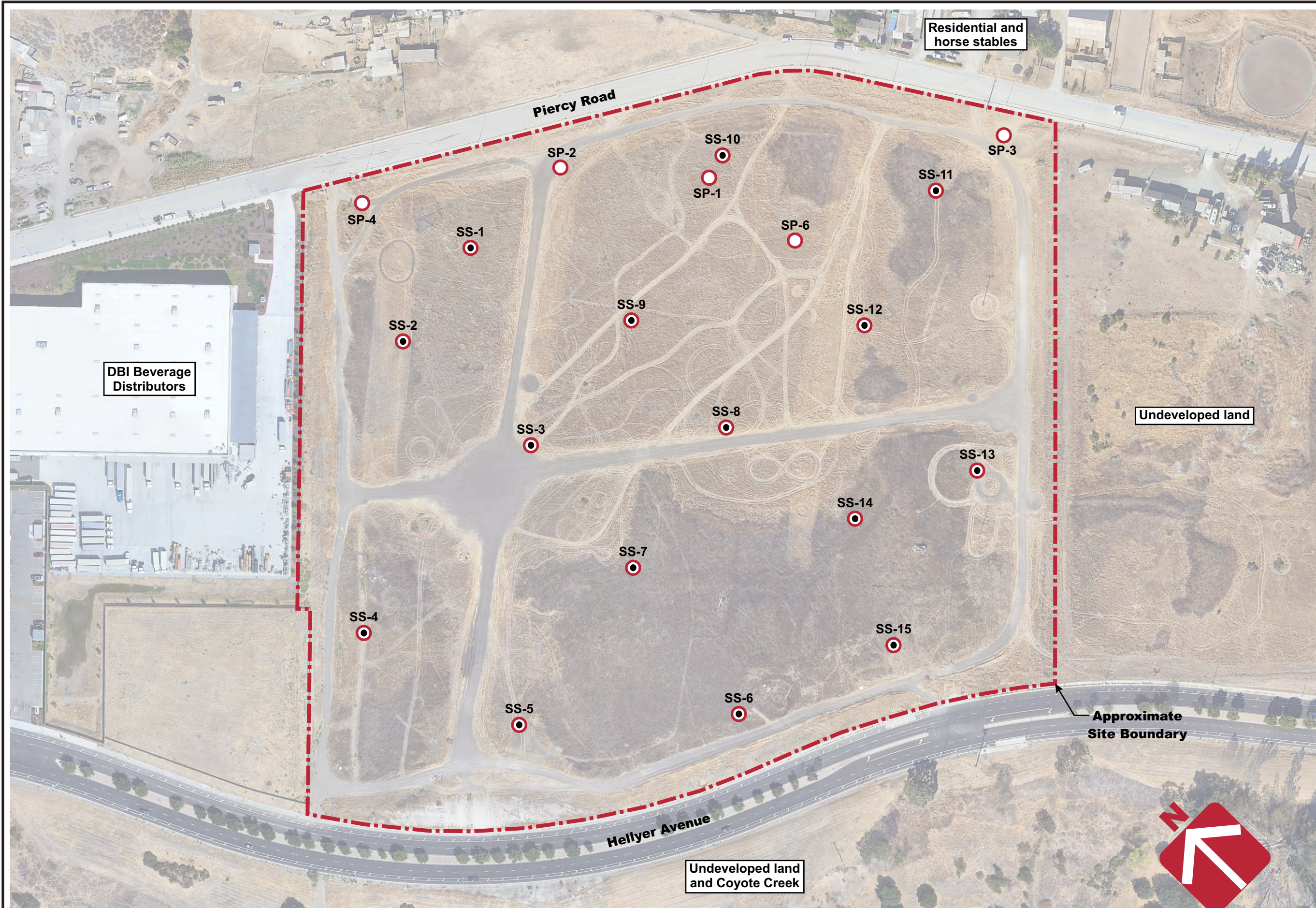


Project Number	1076-4-3
Figure Number	Figure 2
Date	September 2021
Drawn By	RRN

Site Plan

**550 Piercy Road
San Jose, CA**





Project Number
1076-4-3

Figure Number
Figure 3

Date
December 2021

Drawn By
RRN

Site Plan with Sample Locations

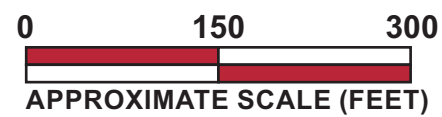
550 Piercy Road
San Jose, CA

Base by Google Earth, dated 08/15/2020

Legend

○ Approximate location of soil sample (SP) collected for asbestos (Cornerstone, 11/20/2021)

● Approximate location of soil sample (SS) (Cornerstone, 09/23/2021)



DATA SUMMARY TABLES

Table 1. Analytical Results of Selected Soil Samples - Metals, Pesticides, and Asbestos
(Concentrations in mg/kg, unless noted otherwise)

Boring ID	Sample ID	Date	Depth (feet)	Organochlorine Pesticides (OCPs)							Metals			Asbestos (weight %)
				4,4'-DDD	4,4'-DDE	4,4'-DDT	DDT Total	alpha-Chlordane	Chlordane	gamma-Chlordane	Arsenic	Lead	Mercury	
SS-1	SS-1(0-0.5)	9/23/2021	0-½	0.00384 J	0.498	0.0426	0.54444	<0.00057	<0.007	<0.00054	5.07	19.7	<0.55	---
SS-2	SS-2(0-0.5)	9/23/2021	0-½	0.00558 J	0.741	0.0624	0.80898	<0.00056	<0.0068	<0.00052	6.42	21.2	<0.54	---
	SS-2(1.5-2)	9/23/2021	1 ½-2	---	---	---	---	---	---	---	---	---	---	<0.25
SS-3	SS-3(0-0.5)	9/23/2021	0-½	0.00604 J	0.816	0.0861	0.908	<0.00056	<0.0068	<0.00052	6.53	23.2	<0.54	---
SS-4	SS-4(0-0.5)	9/23/2021	0-½	<0.0065	0.0678	0.00454 J	0.07234	<0.002	<0.024	<0.0019	4.26	9.78	<0.58	<0.25
SS-5	SS-5(0-0.5)	9/23/2021	0-½	0.0023 J	0.0551	0.0226	0.08	<0.00055	<0.0067	<0.00052	2.23	12	<0.53	---
SS-5	SS-5(1-1.5)	9/23/2021	1-1 ½	---	---	---	---	---	---	---	---	---	---	<0.25
SS-6	SS-6(0-0.5)	9/23/2021	0-½	<0.0019	0.0408	0.0105	0.0513	0.00155 J	0.0145 J	0.00131 J	4.54	12.2	<0.56	---
SS-7	SS-7(0-0.5)	9/23/2021	0-½	0.00337 J	0.535	0.0259	0.56427	<0.00056	<0.0068	<0.00052	5.46	17.3	<0.54	---
	SS-7(0.5-1)	9/23/2021	½-1	---	---	---	---	---	---	---	---	---	---	<0.25
SS-8	SS-8(0-0.5)	9/23/2021	0-½	0.0046 J	0.745	0.0781	0.8277	<0.00055	<0.0067	<0.00052	7.42	29.9	<0.53	---
SS-9	SS-9(0-0.5)	9/23/2021	0-½	0.00959	0.999	0.092	1.10059	<0.00056	<0.0068	<0.00053	6.48	25.5	<0.54	---
	SS-9(1.5-2)	9/23/2021	1 ½-2	<0.0064	0.0373	<0.0015	0.0373	<0.0020	<0.024	<0.0018	5.19	14.5	<0.56	---
SS-10	SS-10(0-0.5)	9/23/2021	0-½	0.00295 J	0.385	0.0335	0.42145	<0.00058	<0.0071	<0.00055	5.19	14.5	<0.56	---
SS-11	SS-11(0-0.5)	9/23/2021	0-½	<0.0018	0.955	0.0315	0.9865	<0.00055	<0.0067	<0.00052	5.17	21.8	<0.53	---
	SS-11(1.5-2)	9/23/2021	1 ½-2	---	---	---	---	---	---	---	---	---	---	<0.25
SS-12	SS-12(0-0.5)	9/23/2021	0-½	<0.0019	0.0652	0.00404 J	0.06924	<0.00058	<0.0071	<0.00055	4	8.85	0.63	<0.25
SS-13	SS-13(0-0.5)	9/23/2021	0-½	<0.006	0.821	0.0302	0.8512	<0.0018	<0.022	<0.0017	4.52	19.6	<0.53	---
SS-14	SS-14(0-0.5)	9/23/2021	0-½	0.00504 J	0.436	0.0476	0.48864	<0.00057	<0.0069	<0.00053	4.83	14.8	0.59	---
SS-15	SS-15(0-0.5)	9/23/2021	0-½	0.00436 J	0.0815	0.0139	0.09976	<0.00057	<0.007	<0.00054	5.12	13.9	<0.55	<0.25
SP-1	SP-1 (6-7)	11/20/2021	6-7	---	---	---	---	---	---	---	---	---	---	<0.25
	SP-1 (19-20)	11/20/2021	19-20	---	---	---	---	---	---	---	---	---	---	<0.25*
	SP-1 (29-30)	11/20/2021	(29-30)	---	---	---	---	---	---	---	---	---	---	<0.25
SP-2	SP-2 (9-10)	11/20/2021	9-10	---	---	---	---	---	---	---	---	---	---	<0.25
	SP-2 (19-20)	11/20/2021	19-20	---	---	---	---	---	---	---	---	---	---	<0.25
SP-3	SP-2 (24-25)	11/20/2021	24-25	---	---	---	---	---	---	---	---	---	---	<0.25
	SP-3 (9-10)	11/20/2021	9-10	---	---	---	---	---	---	---	---	---	---	<0.25
	SP-3 (19-20)	11/20/2021	19-20	---	---	---	---	---	---	---	---	---	---	<0.25
SP-4	SP-3 (28-29)	11/20/2021	28-29	---	---	---	---	---	---	---	---	---	---	<0.25
	SP-3 (44-45)	11/20/2021	44-45	---	---	---	---	---	---	---	---	---	---	<0.25
	SP-4 (5-6)	11/20/2021	5-6	---	---	---	---	---	---	---	---	---	---	<0.25
SP-4	SP-4 (10-11)	11/20/2021	10-11	---	---	---	---	---	---	---	---	---	---	<0.25
	SP-4 (15-16)	11/20/2021	15-16	---	---	---	---	---	---	---	---	---	---	<0.25
SP-6	SP-6 (9-10)	11/20/2021	9-10	---	---	---	---	---	---	---	---	---	---	<0.25
	SP-6 (29-30)	11/20/2021	29-30	---	---	---	---	---	---	---	---	---	---	<0.25
Maximum Detection				0.00959	0.999	0.092	1.10059	0.00155	0.0145	0.00131	7.42	29.9	0.63	<0.25
Environmental Screening Criteria				2.7	0.33	0.0011	NE	NE	0.0085	NE	11	32	13	0.25
				ESL ¹ Tier 1	ESL ¹ Tier 1	ESL ¹ Tier 1	ESL ¹ Tier 1	ESL ¹ Tier 1	ESL ¹ Tier 1	ESL ¹ Tier 1	ESL ¹ Tier 1	Duverge, ² 2011 (99th)	ESL ¹ Tier 1	ESL ¹ Tier 1
Screening Criteria Basis				12	8.3	35	1	NE	2.2	NE	---	320	190	---
				ESL ¹ Direct Exposure (Commercial)	ESL ¹ Direct Exposure (Commercial)	ESL ¹ Direct Exposure (Commercial)	TTL ³	ESL ¹ Direct Exposure (Commercial)	ESL ¹ Direct Exposure (Commercial)	ESL ¹ Direct Exposure (Commercial)	---	ESL ¹ Direct Exposure (Commercial)	ESL ¹ Direct Exposure (Commercial)	---

1 Environmental Screening Level (ESL), RWQCB, San Francisco Bay Region - January 2019.
2 Duverge, 2011. Establishing Background Arsenic in Soil of the Urbanized San Francisco Bay Region.
3 Total Threshold Limit Concentration - California Code of Regulations, Title 22.
4 California Air Resources Board (CARB) - Asbestos Toxic Control Measure (ATCM) Regulatory Threshold Screening Level (SL).
< Not detected at or above laboratory reporting limit shown
NE Not Established
* Trace Chrysotile Asbestos observed
--- Not analyzed and/or other Environmental Screening Criteria not shown.
BOLD Concentration exceeds selected Environmental Screening Criteria (TTL or commercial ESL)
Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather than the quantitative.

APPENDIX A –BORING LOGS

APPENDIX B – LABORATORY ANALYTICAL REPORTS

APPENDIX C – USEPA PPROUCL STATISTICAL RESULTS