

TYPE OF SERVICES	Supplemental Soil Quality Evaluation
LOCATION	Villages at Jackson Square 16480 Hill Road Morgan Hill, California
CLIENT	David J. Powers & Associates
PROJECT NUMBER	118-121-2
DATE	February 1, 2021

 ENVIRONMENTAL

Type of Services	Supplemental Soil Quality Evaluation
Location	Villages at Jackson Square 16480 Hill Road Morgan Hill, California
Client	David J. Powers & Associates
Client Address	1871 The Alameda, Suite 200 San Jose, California 95126
Project Number	118-121-2
Date	February 1, 2021

DRAFT

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Table of Contents

SECTION 1: INTRODUCTION	1
1.1 SITE DESCRIPTION	1
1.2 PURPOSE	1
1.3 SCOPE OF WORK	1
SECTION 2: BACKGROUND	2
2.1 JUNE 2020 GEOSOLVE DUPLICATE SOIL SAMPLE	2
2.2 PHASE I ENVIRONMENTAL SITE ASSESSMENT	2
2.3 CORNERSTONE SEPTEMBER 2020 SOIL QUALITY EVALUATION	2
SECTION 3: SOIL QUALITY EVALUATION	2
3.1 SOIL SAMPLE COLLECTION AND LABORATORY ANALYSES	2
3.2 SUMMARY OF SOIL ANALYTICAL DATA	3
SECTION 4: CONCLUSIONS AND RECOMMENDATIONS	3
SECTION 5: LIMITATIONS	4
SECTION 6: REFERENCES	4

FIGURE 1 – VICINITY MAP

FIGURE 2 – SITE PLAN

FIGURE 3 – ENLARGED SITE PLAN

TABLE A – ANALYTICAL RESULTS OF SOIL SAMPLES – SEPTEMBER 2020

TABLE B – ANALYTICAL RESULTS OF SOIL SAMPLES – JANUARY 2021

APPENDIX A – LABORATORY ANALYTICAL REPORTS

**Type of Services
Location**

**Supplemental Soil Quality Evaluation
Villages at Jackson Square
16480 Hill Road
Morgan Hill, California**

SECTION 1: INTRODUCTION

This report presents the results of the Supplemental Soil Quality Evaluation performed at the proposed Villages at Jackson Square development located at 16480 Hill Road in Morgan Hill, California (Site) as shown on Figures 1 and 2. This work was performed for David J. Powers & Associates in accordance with our November 20, 2020 Agreement (Agreement).

1.1 SITE DESCRIPTION

The approximately 69.4-acre property is located at 16480 Hill Road in Morgan Hill, California. The property is comprised of agricultural land with remnant structures from a former dairy operation on the western portion of the Site.

Cornerstone Earth Group, Inc. (Cornerstone) understands that a residential housing development is proposed for the Site, along with the construction of appurtenant open space areas and roadways.

1.2 PURPOSE

The purpose of this investigation was to collect additional soil samples to further evaluate the lateral and vertical extent of previously identified impacted soil.

1.3 SCOPE OF WORK

As presented in our Agreement (November 20, 2020), the scope of work performed for this investigation included the following:

- Hand sampling for collection of “step-out” and “step-down” samples from previous sample locations;
- Collection of 32 “step-out” soil samples and eight “step-down” soil samples for laboratory analyses; and
- Preparation of this report, figures, and data tables.

The limitations for this investigation are presented in Section 5.

SECTION 2: BACKGROUND

2.1 JUNE 2020 GEOSOLVE DUPLICATE SOIL SAMPLE

In June 2020, GeoSolve, Inc. collected 16 soil samples from four borings within a “former retention basin.” The results of the investigation are included in the 2020 *Duplicate Soil Sample* report. The samples were analyzed for organochlorine pesticides (OCPs) and arsenic. No OCPs were detected. The detected arsenic concentrations were typical of natural background levels. The sampled locations were noted to have been previously sampled by D.R. Horton. The D.R. Horton report was not provided for review by Cornerstone.

2.2 PHASE I ENVIRONMENTAL SITE ASSESSMENT

Based on the findings of the Phase I Environmental Site Assessment (Cornerstone, 2020), the Site historically has been used for agricultural purposes and operations by Escobar Dairy. Ford Construction and Tamura Iwanaga Landscaping also were identified as prior occupants. Two residences built during the 1950s and 1960s were previously located on-Site; these appear to have been demolished during the mid-2000s.

2.3 CORNERSTONE SEPTEMBER 2020 SOIL QUALITY EVALUATION

On September 17, 2020, Cornerstone performed a preliminary soil quality investigation in conjunction with the Phase I ESA and collected 50 soil samples (SS-1 through SS-50) to evaluate potential impacts from former agricultural and dairy operations and associated site features. The approximate sample locations are shown on Figure 2, and analytical results are presented in Table A. Dieldrin, arsenic, lead and mercury were detected at concentrations exceeding residential DTSC-SLs in eight samples collected in the vicinity of the existing and former structures.

Analyte concentrations exceeding residential screening criteria were not identified in soil samples collected from: 1) the former orchard and row crop areas; 2) the soil stockpile; 3) the current and former stormwater retention basins and irrigation ponds; and 4) within drainage areas such as Tennant Creek. Thus, most of the Site appeared suitable for residential use. At locations where contaminants were detected at concentrations exceeding the residential screening criteria (localized near select structures), we recommended that additional sampling be conducted to further evaluate the extent of the impacted soil.

SECTION 3: SOIL QUALITY EVALUATION

3.1 SOIL SAMPLE COLLECTION AND LABORATORY ANALYSES

On January 8, 2021, Cornerstone collected “step-out” soil samples at distances of approximately 3 to 5 lateral feet and 7 to 10 lateral feet from the previous sample locations SS-9, SS-10, SS-31, SS-32, SS-35, SS-36, SS-40 and SS-50. In addition, “step-down” samples were collected at the eight previous sampling locations to help define the vertical extent of impacted soil. The samples were collected using our standard hand sampling protocols. Soil samples were collected in new (unused), clean, stainless steel liners. Ends of liners were covered with Teflon film, fitted with plastic end caps, taped, and labeled with a unique sample identification number. Samples for laboratory analyses were placed in an ice-chilled cooler and transported to a state-certified laboratory with chain of custody documentation.

Thirty-two step-out samples collected approximately 3 to 5 feet from the original sample location, and eight step-down samples collected from a depth of 1 to 1½ feet were submitted to the laboratory and analyzed for lead, arsenic and mercury (EPA Test Method 6010B/7471A) and OCPs (EPA Test Method 8081).

3.2 SUMMARY OF SOIL ANALYTICAL DATA

The detected concentrations were compared to residential DTSC-SLs¹. The detected concentrations for arsenic were compared to natural background/ambient concentrations (Duverge, 2011)². In addition, results were compared to California Title 22 Total Threshold Limit Concentration (TTLC). The sample locations from this event are presented in Figure 3, and the results are presented in Table B. Chain of custody documentation and laboratory analytical reports are presented in Appendix A. A summary of the analytical results is provided below:

- Arsenic was detected exceeding the published background concentration of 11 milligrams per kilogram (mg/kg) in one sample: step-out sample SS-10-D (37.2 mg/kg), collected approximately 5 feet from the previous sample location SS-10. Arsenic was not detected above the background concentration in sample SS-10-D1 collected approximately 10 feet from the previous sample location SS-10 or in the step-down sample SS-10 [1-1.5] collected from a depth of approximately 1 to 1½ feet.
- Lead was detected in 35 of 36 samples analyzed at concentrations of up to 40.4 mg/kg, which is below the residential DTSC-SL of 80 mg/kg.
- Total DDT was detected at a concentration of 1.8518 mg/kg in one sample: step-out sample SS-35-D, collected approximately 5 feet from the previous sample location SS-35. This concentration exceeds the TTLC value of 1 mg/kg. Total DDT was detected at a concentration below its TTLC in the step-out sample SS-35-D1, collected approximately 10 feet from the previous sample location SS-35. In addition, the DDT, DDD, and DDE concentrations detected did not exceed residential screening levels, and, therefore, are not a significant human health risk.
- All other OCP concentrations detected, including dieldrin, were below their respective residential screening levels.

SECTION 4: CONCLUSIONS AND RECOMMENDATIONS

Soil sampling was performed to evaluate the lateral and vertical extent of soil exceeding residential screening criteria at previous samples SS-9, SS-10, SS-31, SS-32, SS-35, SS-36, SS-40 and SS-50. Based on the analytical results, the extent of impacted soil appears limited in lateral and vertical extent.

The total DDT concentration detected in sample SS-35-D, collected approximately 5 feet northwest from previous sample location SS-35, exceeded the state hazardous waste threshold indicating that soil excavated from this location may require disposal as non-RCRA hazardous waste.

¹ California Department of Toxic Substances Control Screening Level (DTSC-SL); DTSC Human and Ecological Health Risk Office (HERO) *Human Health Risk Assessment (HHRA) Note Number 3: DTSC-Modified Screening Levels*, April 2019.

² Duverge, 2011. Establishing Background Arsenic in Soil of the urbanized San Francisco Bay Region.

Based on the data obtained to date and the planned residential use of the Site, we recommend removal of soil exceeding residential screening criteria, background levels of arsenic, and hazardous waste limits for appropriate off-Site disposal. Verification soil samples should be collected by an Environmental Professional and a report documenting the removal of the soil should be submitted to an appropriate overseeing regulatory agency (e.g., Water Board, California Department of Toxic Substances Control [DTSC] or County Department of Environmental Health [DEH]) for review. Regulatory agency approval should be obtained prior to commencing earthwork activities in the vicinity of the soil removal areas.

SECTION 5: LIMITATIONS

Cornerstone performed this investigation to support David J. Powers & Associates in evaluation of soil quality at the Site. David J. Powers & Associates understands that the extent of soil data obtained is based on the reasonable limits of time and budgetary constraints. In addition, the chemical information presented in this report can change over time and is only valid at the time of this investigation and for the locations sampled.

This report, an instrument of professional service, was prepared for the sole use of David J. Powers & Associates and may not be reproduced or distributed without written authorization from Cornerstone.

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.

SECTION 6: REFERENCES

GeoSolve, Inc., June 29, 2020. Duplicate Soil Sample Analytical Results, Agricultural Parcel – 69.43 Acres, 16480 Hill Road, Morgan Hill, California.

Cornerstone Earth Group, October 20, 2020. Phase I Environmental Site Assessment and Soil Quality Evaluation, Villages at Jackson Square, 16480 Hill Road, Morgan Hill, California.

FIGURES



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Vicinity Map

Villages at Jackson Square
16480 Hill Road
Morgan Hill, CA

Project Number

118-121-1

Figure Number

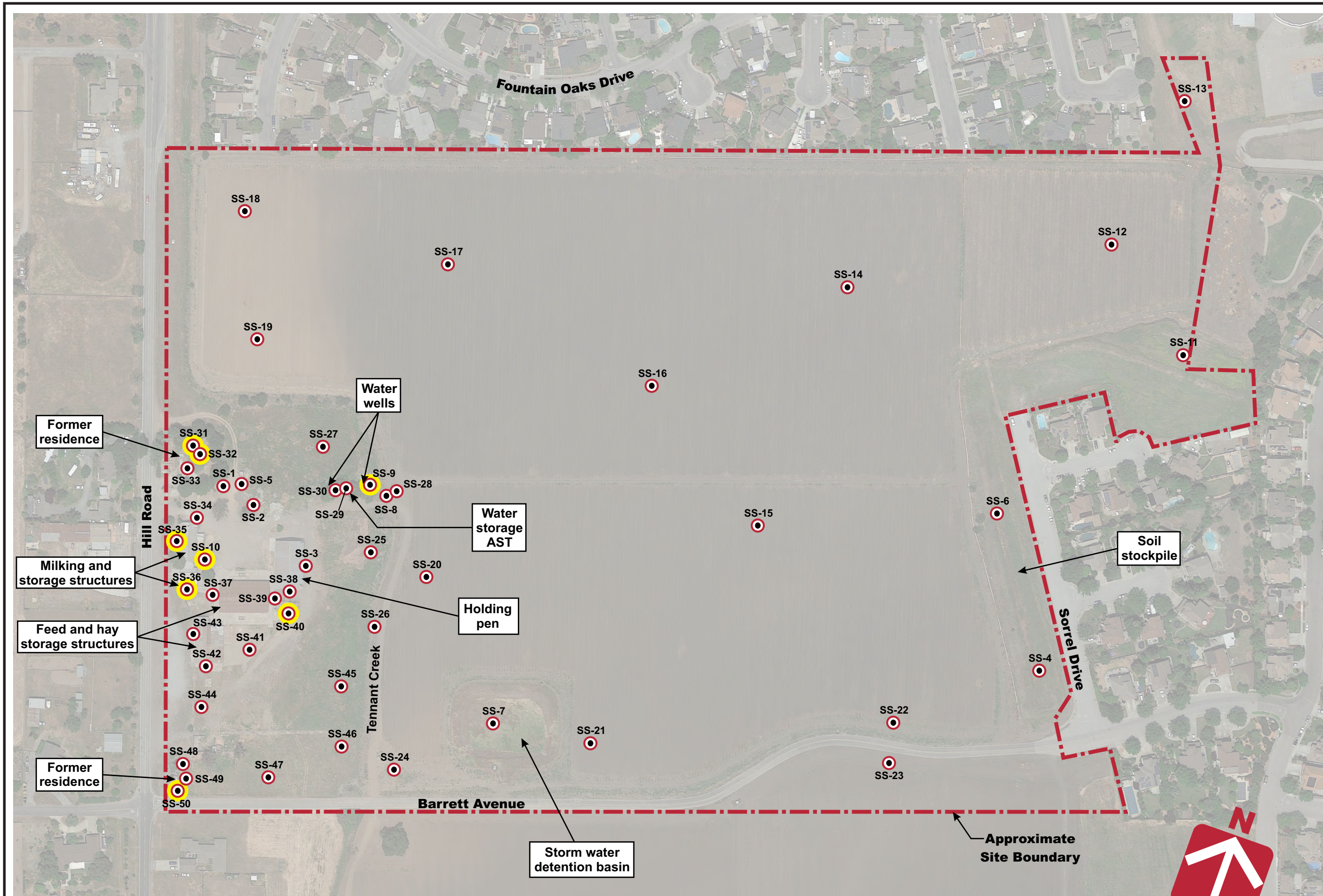
Figure 1

Date

September 2020

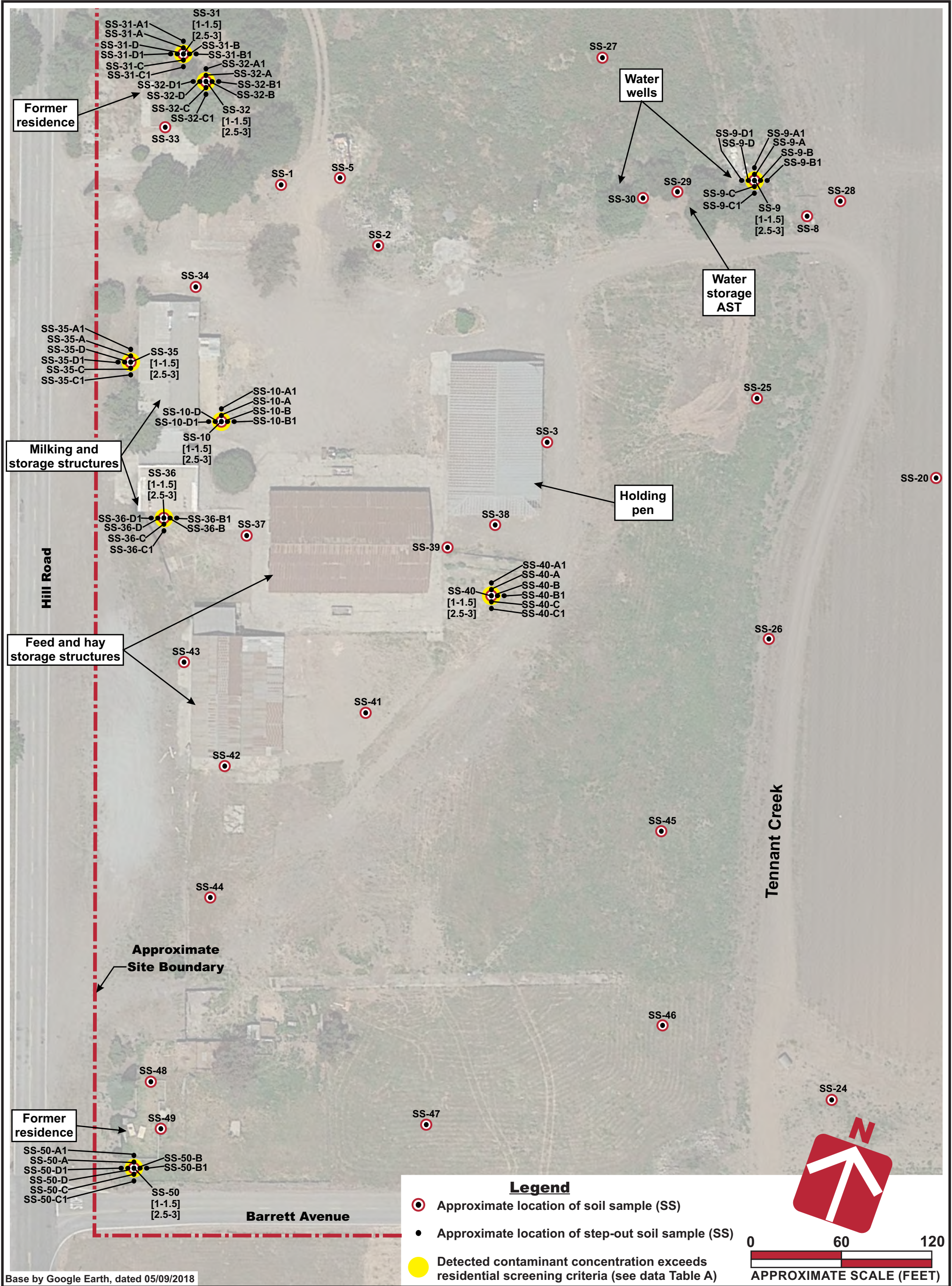
Drawn By

RRN



Site Plan Villages at Jackson Square 16480 Hill Road Morgan Hill, CA	Project Number 118-121-1
	Figure Number Figure 2
Date October 2020	
Drawn By RRN	

CORNERSTONE
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Site Plan

Villages at Jackson Square
16480 Hill Road
Morgan Hill, CA

Project Number

118-121-1

Figure Number

Figure 3

Date

January 2021

Drawn By

RRN

DATA SUMMARY TABLES

Table A. Analytical Results of September 2020 Soil Samples
(Concentrations in mg/kg)

			OCPs											Metals			TPH		
Sample ID	Date	Depth (feet)	4,4'-DDD	4,4'-DDE	4,4'-DDT	DDT Total	alpha-BHC	Dieldrin	Endosulfan sulfate	Heptachlor epoxide	alpha-Chlordane	gamma-Chlordane	Technical Chlordane	Arsenic	Lead	Mercury	TPHd	TPHo	
SS-1	9/17/2020	0-%	0.0012	0.036	0.02	0.0572	<0.001	<0.0002	<0.001	<0.001	<0.001	<0.001	<0.0051	6.8	16	0.087	3.7	36	
SS-2	9/17/2020	0-%	<0.001	0.0015	0.0014	0.0029	<0.001	<0.00021	<0.001	<0.001	0.0012	<0.001	0.0052	3.8	5.7	0.14	44	520	
SS-3	9/17/2020	0-%	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.001	<0.0052	<0.0052	<0.0052	<0.0052	<0.026	5	11	0.1	11	140	
SS-4	9/17/2020	0-%	<0.001	<0.001	<0.001	<0.001	<0.001	<0.00021	<0.001	<0.001	<0.001	<0.001	<0.0052	2.8	4.8	0.044	<5.1	65	
SS-5	9/17/2020	0-%	<0.001	0.002	<0.001	0.002	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.0051	5	12	0.21	<20	160	
SS-6	9/17/2020	0-%	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.00021	<0.0011	<0.0011	<0.0011	<0.0011	<0.0053	3.6	5.9	<0.042	2.1	29	
SS-7	9/17/2020	0-%	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.00024	<0.0012	<0.0012	<0.0012	<0.0012	<0.0059	4	6	0.054	2.6	38	
SS-8	9/17/2020	0-%	<0.0011	0.0043	<0.0011	0.0043	<0.0011	<0.00021	<0.0011	<0.0011	<0.0011	0.0025	0.0023	0.017	6.5	21	0.12	8.7	49
SS-9	9/17/2020	0-%	0.0077	0.012	0.0022	0.0219	<0.0011	<0.00021	<0.0011	<0.0011	0.0078	0.0028	0.022	8.4	26	37	100	440	
SS-10	9/17/2020	0-%	<0.001	0.0016	<0.001	0.0016	<0.001	<0.0002	<0.001	<0.001	<0.001	<0.001	<0.005	46	7.3	0.064	22	250	
SS-11	9/17/2020	0-%	<0.0011	0.0078	0.0012	0.009	<0.0011	<0.00022	<0.0011	<0.0011	<0.0011	<0.0011	0.0066	4.2	6.6	0.055	---	---	
SS-12	9/17/2020	0-%	<0.0011	0.0092	0.0052	0.0144	<0.0011	<0.00021	<0.0011	<0.0011	0.0012	<0.0011	0.011	5.5	8.2	0.069	---	---	
SS-13	9/17/2020	0-%	<0.001	0.014	0.0045	0.0185	<0.001	0.0011	<0.001	<0.001	<0.001	<0.001	<0.0052	4.3	9.6	0.062	---	---	
SS-14	9/17/2020	0-%	<0.0011	0.0038	<0.0011	0.0038	<0.0011	<0.00021	<0.0011	<0.0011	<0.0011	<0.0011	<0.0053	4.7	7.5	<0.041	---	---	
SS-15	9/17/2020	0-%	<0.0011	0.0013	<0.0011	0.0013	<0.0011	<0.00022	<0.0011	<0.0011	<0.0011	0.0012	0.014	4.5	8.1	<0.041	---	---	
SS-16	9/17/2020	0-%	<0.0011	0.0023	<0.0011	0.0023	<0.0011	<0.00021	<0.0011	<0.0011	<0.0011	<0.0011	<0.0053	3.8	7	<0.040	---	---	
SS-17	9/17/2020	0-%	<0.0011	0.005	0.0022	0.0072	<0.0011	<0.00021	<0.0011	<0.0011	<0.0011	<0.0011	<0.0054	4	7.1	<0.047	---	---	
SS-18	9/17/2020	0-%	<0.001	0.0013	<0.001	0.0013	<0.001	<0.0002	<0.001	<0.001	<0.001	<0.001	<0.0051	5.2	8.4	0.038	---	---	
SS-19	9/17/2020	0-%	<0.001	0.004	<0.001	0.004	<0.001	<0.0002	<0.001	<0.001	<0.001	<0.001	<0.0051	4.7	7.9	<0.044	---	---	
SS-20	9/17/2020	0-%	<0.001	0.0012	0.001	0.0022	<0.001	<0.00021	<0.001	<0.001	<0.001	<0.001	<0.0051	0.016	3.7	6.2	<0.044	---	---
SS-21	9/17/2020	0-%	<0.001	<0.001	<0.001	<0.001	<0.001	<0.00021	<0.001	<0.001	<0.001	<0.001	0.0072	4.9	8.3	0.046	---	---	
SS-22	9/17/2020	0-%	<0.001	<0.001	<0.001	<0.001	<0.001	<0.00021	<0.001	<0.001	0.0019	0.0016	0.01	3.9	6.7	<0.044	---	---	
SS-23	9/17/2020	0-%	0.0013	<0.0011	<0.0011	0.0013	<0.0011	0.00093	<0.0011	<0.0011	0.0025	0.0014	0.0099	3.6	6	<0.041	---	---	
SS-24	9/17/2020	0-%	<0.001	<0.001	<0.001	<0.001	<0.001	0.00039	<0.001	<0.001	<0.001	<0.001	<0.0051	4.2	6.9	0.057	---	---	
SS-25	9/17/2020	0-%	<0.0051	0.019	0.0067	0.0257	<0.001	0.0007	<0.001	<0.001	0.0017	0.0013	0.01	5.1	12	0.079	---	---	
SS-26	9/17/2020	0-%	<0.0011	0.002	<0.0011	0.002	<0.0011	0.00041	<0.0011	<0.0011	<0.0011	<0.0011	0.018	5.7	14	0.048	---	---	
SS-27	9/17/2020	0-%	<0.01	0.018	<0.01	0.018	<0.01	0.0028	<0.01	<0.01	<0.01	<0.01	<0.052	6.5	17	0.14	---	---	
SS-28	9/17/2020	0-%	0.0019	0.0069	<0.0011	0.0088	<0.0011	0.0018	<0.0011	<0.0011	<0.0011	0.0018	0.021	5	7.4	0.054	---	---	
SS-29	9/17/2020	0-%	<0.0053	0.0079	0.025	0.0329	<0.0011	0.0054	0.005	<0.0011	0.027	0.023	0.11	4.2	34	1.4	---	---	
SS-30	9/17/2020	0-%	0.015	0.0056	0.0091	0.0297	0.034	<0.0002	<0.001	<0.001	<0.001	<0.001	<0.0051	6.7	38	0.095	---	---	
SS-31	9/17/2020	0-%	<0.0051	0.054	0.0055	0.0595	<0.001	0.15	<0.001	0.0028	0.072	0.017	0.095	5.6	19	0.087	---	---	
SS-32	9/17/2020	0-%	<0.01	0.013	<0.01	0.013	<0.001	0.037	<0.001	0.004	0.043	0.017	0.11	6.8	22	0.09	---	---	
SS-33	9/17/2020	0-%	0.0022	0.015	<0.001	0.0172	<0.001	<0.0002	<0.001	<0.001	<0.001	<0.001	<0.0051	5.6	8.9	<0.041	---	---	
SS-34	9/17/2020	0-%	<0.01	<0.01	<0.01	<0.01	<0.01	<0.002	<0.01	<0.01	<0.01	<0.01	<0.051	4.6	19	0.11	---	---	
SS-35	9/17/2020	0-%	0.082	0.47	0.025	0.577	<0.0011	0.052	<0.0011	<0.0011	0.0018	<0.0011	<0.0055	4.9	23	0.093	---	---	
SS-36	9/17/2020	0-%	<0.01	0.16	<0.01	0.16	<0.01	0.059	0.021	<0.01	<0.01	<0.01	<0.052	4.8	28	0.072	---	---	
SS-37	9/17/2020	0-%	0.0018	0.0055	<0.001	0.0073	<0.001	0.0008	<0.001	<0.001	0.0024	0.0076	0.04	2.7	23	0.054	---	---	
SS-38	9/17/2020	0-%	<0.01	<0.01	<0.01	<0.01	<0.01	<0.002	<0.01	<0.01	<0.01	<0.01	<0.05	4	16	0.064	---	---	
SS-39	9/17/2020	0-%	<0.001	0.0074	0.0065	0.0139	<0.001	<0.0002	<0.001	<0.001	0.0014	0.0018	<0.0051	8.4	71	0.057	---	---	
SS-40	9/17/2020	0-%	0.092	0.12	0.055	0.267	<0.02	<0.0041	<0.02	<0.02	<0.02	<0.02	<0.1	5.5	120	0.13	---	---	
SS-41	9/17/2020	0-%	<0.001	0.014	0.015	0.029	<0.001	0.00036	<0.001	<0.001	<0.001	<0.001	<0.0051	5	16	0.064	---	---	
SS-42	9/17/2020	0-%	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.001	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.025	1.9	5.9	0.059	---	---
SS-43	9/17/2020	0-%	<0.001	0.015	0.0036	0.0186	<0.001	0.0089	<0.001	<0.001	0.001	<0.001	<0.005	4.1	11	0.066	---	---	
SS-44	9/17/2020	0-%	<0.001	0.0048	<0.001	0.0048	<0.001	<0.00021	<0.001	<0.001	<0.001	<0.001	<0.0052	3.1	6.1	0.053	---	---	
SS-45	9/17/2020	0-%	0.21	0.31	0.098	0.618	<0.001	0.0078	<0.001	0.0016	0.28	0.33	0.85	4.9	21	0.053	---	---	
SS-46	9/17/2020	0-%	<0.0011	0.0041	0.0011	0.0052	<0.0011	0.00038	<0.0011	<0.0011	<0.0011	<0.0011	0.018	5.8	9.2	0.064	---	---	
SS-47	9/17/2020	0-%	0.0012	0.022	0.0021	0.0253	<0.0011	0.00022	<0.0011	<0.0011	<0.0011	<0.0011	0.019	5	11	0.065	---	---	
SS-48	9/17/2020	0-%	0.0044	0.035	0.0043	0.0437	<0.0011	0.0015	<0.0011	<0.0011	0.011	0.016	0.043	4.3	18	0.069	---	---	
SS-49	9/17/2020	0-%	<0.001	0.025	<0.001	0.025	<0.001	0.00052	<0.001	<0.001	0.012	0.0091	0.045	4.9	16	0.06	---	---	
SS-50	9/17/2020	0-%	<0.001	0.0083	<0.001	0.0083	<0.001	0.0013	<0.001	0.002	0.022	0.012	0.086	5.2	120	0.064	---	---	
Maximum Detection			0.21	0.47	0.098	0.618	0.034	0.15	0.021	0.004	0.28	0.33	0.85	46	120	37	100	520	
Residential DTSC-SL ¹			2.3	2	1.9	1 ²	0.086 ³	0.034	380	0.07	1.7 ⁴	1.7 ⁴	1.7	11 ⁵	80	1 (13) ⁶	260 ⁷	1,600 ⁷	

- 1 Residential DTSC-Screening Level. DTSC, Human and Ecological Risk Office [Hero] Note 3, June, 2020.
 - 2 Total Threshold Limit Concentration - California Code of Regulations, Title 22.
 - 3 US EPA Regional Screening Level (RSL), May 2020.
 - 4 Residential DTSC-SL for Chlordane
 - 5 Typical background arsenic concentration. Duverge, 2011. *Establishing Background Arsenic in Soil of the Urbanized San Francisco Bay Region*.
 - 6 Residential DTSC-SL for elemental Mercury. The value in parentheses is for inorganic mercury (i.e., mercury salts).
 - 7 Tier 1 Environmental Screening Level (ESL), RWQCB, San Francisco Bay Region, January 2019.
- < Not detected at or above laboratory reporting limit
 --- Not Analyzed

BOLD Concentration exceeds residential screening criteria

Table B. Analytical Results of January 2021 Soil Samples
(Concentrations in mg/kg)

			Metals			OCPs											
Sample ID	Date	Depth (feet)	Arsenic	Lead	Mercury	4,4'-DDD	4,4'-DDE	4,4'-DDT	DDT Total	alpha-Chlordane	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan sulfate	gamma-Chlordane	Methoxychlor	Technical Chlordane
SS-9 [1-1.5]	1/8/2021	1-1½	5.8	12.7	<0.50	<0.0057	<0.0019	<0.0013	<0.0013	<0.0017	<0.0015	<0.0018	<0.0058	<0.0012	<0.0016	<0.002	<0.021
SS-9-A	1/8/2021	0-½	2.43	6.65	<0.50	<0.011	<0.0039	<0.0026	<0.0026	<0.0035	<0.003	<0.0037	<0.012	<0.0023	<0.0033	<0.004	<0.042
SS-9-B	1/8/2021	0-½	3.99	6.7	<0.50	<0.0057	0.00577	<0.0013	0.00577	<0.0017	<0.0015	<0.0018	<0.0058	<0.0012	<0.0016	<0.002	<0.021
SS-9-C	1/8/2021	0-½	3.71	6	<0.50	<0.028	<0.0097	<0.0065	<0.0065	<0.0087	<0.0074	<0.0092	<0.029	<0.0059	<0.0082	<0.01	<0.11
SS-9-D	1/8/2021	0-½	3.5	5.1	<0.50	<0.028	<0.0097	<0.0065	<0.0065	<0.0087	<0.0074	<0.0092	<0.029	<0.0059	<0.0082	<0.01	0.19
SS-10 [1-1.5]	1/8/2021	1-1½	7.05	9.55	<0.50	<0.011	<0.0039	<0.0026	<0.0026	<0.0035	<0.003	<0.0037	<0.012	<0.0023	<0.0033	<0.004	<0.042
SS-10-A	1/8/2021	0-½	8.1	10.1	<0.50	<0.011	0.0162	0.0054	0.0216	<0.0035	<0.003	<0.0037	<0.012	<0.0023	<0.0033	<0.004	<0.042
SS-10-B	1/8/2021	0-½	4.01	22	<0.50	<0.0057	<0.0019	<0.0013	<0.0013	<0.0017	<0.0015	<0.0018	<0.0058	<0.0012	<0.0016	<0.002	<0.021
SS-10-D	1/8/2021	0-½	37.2	9.25	<0.50	<0.028	<0.0097	<0.0065	<0.0065	<0.0087	<0.0074	<0.0092	<0.029	<0.0059	<0.0082	<0.01	<0.11
SS-10-D1	1/8/2021	0-½	6.85	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SS-31 [1-1.5]	1/8/2021	1-1½	4.22	5.7	<0.50	<0.0057	<0.0019	0.00416	0.00416	<0.0017	<0.0015	<0.0018	<0.0058	<0.0012	<0.0016	<0.002	<0.021
SS-31-A	1/8/2021	0-½	4.53	14.1	<0.50	<0.0057	0.0138	0.0109	0.0247	0.00635	0.0187	<0.0018	<0.0058	<0.0012	0.00342	<0.002	0.0702
SS-31-B	1/8/2021	0-½	3.86	7.75	<0.50	<0.0057	0.00516	0.00768	0.01284	0.00214	0.00419	<0.0018	<0.0058	<0.0012	<0.0016	0.023	<0.021
SS-31-C	1/8/2021	0-½	4.49	10.2	<0.50	0.00633	0.00396	0.00716	0.01745	<0.0017	<0.0015	<0.0018	<0.0058	<0.0012	<0.0016	<0.002	<0.021
SS-31-D	1/8/2021	0-½	3.29	15.1	<0.50	<0.0057	0.00842	0.02	0.02842	0.00213	<0.0015	<0.0018	<0.0058	<0.0012	<0.0016	<0.002	0.0241
SS-32 [1-1.5]	1/8/2021	1-1½	4.42	6.05	<0.50	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.02
SS-32-A	1/8/2021	0-½	3.34	10.3	<0.50	<0.0057	0.00668	0.0116	0.01828	<0.0017	0.00181	0.00701	0.0101	0.0192	<0.0016	<0.002	0.0604
SS-32-B	1/8/2021	0-½	3.28	11.9	<0.50	<0.0057	<0.0019	0.0166	0.0166	<0.0017	0.0016	0.195	1.39	1.33	<0.0016	<0.002	<0.021
SS-32-C	1/8/2021	0-½	4.87	12.1	<0.50	<0.0057	<0.0019	0.00674	0.00674	<0.0017	<0.0015	0.24	0.221	0.201	<0.0016	<0.002	<0.021
SS-32-D	1/8/2021	0-½	2.58	<3.0	<0.50	<0.0057	<0.0019	<0.0013	<0.0013	<0.0017	<0.0015	<0.0018	<0.0058	0.00564	<0.0016	<0.002	<0.021
SS-35 [1-1.5]	1/8/2021	1-1½	3.7	6.4	<0.50	<0.002	0.00659	<0.002	0.00659	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.02
SS-35-A	1/8/2021	0-½	1.78	15.5	<0.50	<0.0057	0.441	0.378	0.819	<0.0017	0.0116	<0.0018	<0.0058	<0.0012	<0.0016	<0.002	<0.021
SS-35-C	1/8/2021	0-½	1.62	15.3	<0.50	<0.0057	0.373	0.278	0.651	<0.0017	0.0139	<0.0018	<0.0058	<0.0012	<0.0016	<0.002	<0.021
SS-35-D	1/8/2021	0-½	<1.3	8.7	<0.50	0.0138	0.808	1.03	1.8518	<0.0035	<0.003	<0.0037	<0.012	<0.0023	<0.0033	<0.004	<0.042
SS-35-D1	1/8/2021	0-½	---	---	---	<0.002	0.0335	0.0193	0.0528	---	---	---	---	---	---	---	---
SS-36 [1-1.5]	1/8/2021	1-1½	3.51	26	<0.50	<0.002	0.00242	<0.002	0.00242	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.02
SS-36-B	1/8/2021	0-½	2.94	19.5	<0.50	<0.0057	0.0065	0.002	0.0085	<0.0017	<0.0015	<0.0018	<0.0058	<0.0012	<0.0016	<0.002	<0.021
SS-36-C	1/8/2021	0-½	1.42	16.6	<0.50	<0.028	<0.0097	0.0075	0.0075	<0.0087	0.01	<0.0092	<0.029	<0.0059	<0.0082	<0.01	<0.11
SS-36-D	1/8/2021	0-½	2.98	16	<0.50	<0.0057	0.0088	0.0118	0.0206	<0.0017	0.0101	<0.0018	<0.0058	<0.0012	<0.0016	<0.002	<0.021
SS-40 [1-1.5]	1/8/2021	1-1½	4.26	9.3	<0.50	<0.0057	0.0042	<0.0013	0.0042	<0.0017	<0.0015	<0.0018	<0.0058	<0.0012	<0.0016	<0.002	<0.021
SS-40-A	1/8/2021	0-½	3.88	19.6	<0.50	<0.028	<0.0097	<0.0065	<0.0065	<0.0087	<0.0074	<0.0092	<0.029	<0.0059	<0.0082	<0.01	<0.11
SS-40-B	1/8/2021	0-½	2.28	16.1	<0.50	<0.028	0.0115	<0.0065	0.0115	<0.0087	<0.0074	<0.0092	<0.029	<0.0059	<0.0082	<0.01	<0.11
SS-40-C	1/8/2021	0-½	11.2	26.9	<0.50	<0.011	<0.0039	<0.0026	<0.0026	0.00418	<0.003	<0.0037	<0.012	<0.0023	0.00374	<0.004	0.0694
SS-50 [1-1.5]	1/8/2021	1-1½	3.06	19	<0.50	<0.0057	0.0083	0.0035	0.0118	0.0188	<0.0015	<0.0018	<0.0058	<0.0012	0.0026	<0.002	0.0538
SS-50-A	1/8/2021	0-½	4.1	20.8	<0.50	<0.0057	0.0062	0.0059	0.0121	0.0207	<0.0015	<0.0018	<0.0058	<0.0012	0.0064	<0.002	0.0781
SS-50-B	1/8/2021	0-½	<1.3	36.8	<0.50	<0.0057	0.002	0.0015	0.0035	0.017	<0.0015	<0.0018	<0.0058	<0.0012	0.0032	<0.002	0.0591
SS-50-C	1/8/2021	0-½	2.19	16.8	<0.50	<0.0057	0.0069	0.0026	0.0095	0.0075	<0.0015	<0.0018	<0.0058	<0.0012	0.0018	<0.002	0.0217
SS-50-D	1/8/2021	0-½	1.92	40.4	<0.50	<0.0057	0.0029	0.0015	0.0044	0.0233	<0.0015	<0.0018	<0.0058	<0.0012	0.0037	0.0037	0.0776
Maximum Detection			37.2	40.4	ND	0.0138	0.808	1.03	1.8518	0.0233	0.0187	0.24	1.39	1.33	0.0064	0.023	0.19
Residential DTSC-SL ¹			11 ²	80	1	2.3	2	1.9	1 ³	1.7 ⁴	0.034	NE	NE	380	1.7 ⁴	320	1.7

- 1 Residential DTSC-Screening Level. DTSC, Human and Ecological Risk Office [Hero] Note 3, June, 2020.
- 2 Typical background arsenic concentration. 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 Residential DTSC-SL for Chlordane
- < Not detected at or above laboratory reporting limit
- Not analyzed
- BOLD** Concentration exceeds residential screening criteria

APPENDIX A – LABORATORY ANALYTICAL REPORT