

Project No. 2014-08

March 14, 2014

Mr. Roche Garcia  
Glenrock Builders, Inc.  
1000 Old Quarry Road  
San Jose, California 95123

Subject: Former Sunsweet Dryers Facility – 2.38 Acres  
90 East 3<sup>rd</sup> Street, 55 East 4<sup>th</sup> Street, 91 East 4<sup>th</sup> Street, and 17250 Depot Street  
Morgan Hill, California 95037  
**PHASE II ENVIRONMENTAL SITE ASSESSMENT**

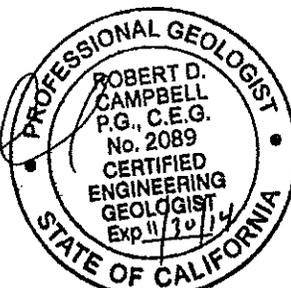
Reference: 1) Phase I Environmental Site Assessment  
Former Sunsweet Dryers Facility, 90 East 3<sup>rd</sup> Street, 55 East 4<sup>th</sup> Street, 91  
East 4<sup>th</sup> Street, and 17250 Depot Street, Morgan Hill, CA  
*By GeoSolve, Inc.*  
*Dated February 6, 2014*

Dear Mr. Garcia:

At your request, *GeoSolve, Inc.* has conducted a Phase II Environmental Site Assessment (ESA) for the above referenced site based on the recommendations of the Phase I ESA (Reference 1) conducted on the site. The following is a copy of the report, which presents the results of our Phase II ESA assessment. Should you have any questions relating to the contents of this report or require any additional information, please contact our office at your convenience.

Sincerely,

*GeoSolve, Inc.*



Robert D. Campbell, M.S., P.G., C.E.G., Q.S.D.  
Principal Engineering Geologist

Copies: 1 to Glenrock Builders

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## PHASE II ENVIRONMENTAL SITE ASSESSMENT

### INTRODUCTION

At your request, *GeoSolve, Inc.* has prepared this report, which summarizes the findings and results of the Phase II ESA to evaluate the property for the presence of petroleum hydrocarbons, volatile organic compounds (VOCs), pesticides, polychlorinated biphenyls (PCBs), and CAM 17 metals associated with historic use as a former Sunsweet dryer facility located at 90 East 3<sup>rd</sup> Street, 55 East 4<sup>th</sup> Street, 91 East 4<sup>th</sup> Street, and 17250 Depot Street in Morgan Hill, California.

Based on historical review conducted during the Phase I ESA (Reference 1) at the site, the property was formerly utilized as a Sunsweet dryer facility. Reference 1 revealed three (3) Recognized Environmental Conditions (RECs) in connection with the property; namely: 1) potential presence of PCBs, metal and organochloride pesticide residues within the surficial soil associated with past fruit processing and drying procedures; 2) possible presence of metals, petroleum-hydrocarbons and chlorinated-hydrocarbon residues within the subsurface soil and groundwater beneath the site; and 3) possible presence of ACMs and/or LBP on and within the structures at the site. The purpose of conducting this Phase II ESA was to evaluate the lateral and vertical extents of potential organochloride pesticides, metals, and PCBs within the surficial soil, and metals, petroleum- and chlorinated-hydrocarbons within the subsurface soil and groundwater beneath the subject site.

### SITE DISCRIPTION AND BACKGROUND

#### General

The subject property is situated within the greater San Francisco Bay Region within the southern Santa Clara Valley. The site is comprised of four properties at 90 East 3<sup>rd</sup> Street, 55 East 4<sup>th</sup> Street, 91 East 4<sup>th</sup> Street, and 17250 Depot Street in Morgan Hill, California. The properties have Santa Clara County APNs 726-13-043, 726-13-033, 726-13-043, and 726-13-044, which totals approximately 2.38-acres. The property is occupied by three structures and one attached open garage. The largest building is situated on 90 East 3<sup>rd</sup> Street, which has an address of 100 East 3<sup>rd</sup> Street at the site. This larger concrete tilt-up building was formerly used by Sunsweet as a fruit dryer and smaller concrete tilt up building is situated on 91 East 4<sup>th</sup> Street. A smaller office building is situated on 17250 Depot Street. Vacant parcel is situated on 55 East 4<sup>th</sup> Street.



The location of the site is shown on Figure 1, Site Vicinity Map and the layout of the property is shown on Figure 2, and Site Plan.

The local topography is relatively flat at approximately 330 feet above mean sea level (msl), which gradually slopes to the northeast. Little Llagas Creek is situated approximately 2,000 feet south of the site and flows east-northeast. Drainage of the property appears to be to the southeast along topography.

### **Local Geology and Hydrogeology**

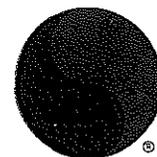
The materials underlying the site are mapped as Late Pleistocene alluvium (Qpa) by Helley and Lajoie (1979), which consist of weakly consolidated, slightly weathered, poorly sorted, irregular interbedded clay, silt, sand and gravel units. The Late Pleistocene alluvium contains local accumulations of fresh water gastropods and pelecypods and continental vertebrate fauna, including camel, bison, horse, sloth, and mammoth fossils. The Late Pleistocene alluvium has a maximum thickness of 150 feet and ranges in age from 35,000 to 70,000 years old, which was deposited from flowing water in stream channels, on stream terraces, and on alluvial fans.

The active traces of the Calaveras Fault and San Andreas Fault the is situated approximately 4.8-miles northeast and 9.6-miles southwest of the subject site, and are considered active according to the Alquist-Priolo Earthquake Fault Zones Act (1997), and are strike-slip faults with right-lateral motion ([http://gmw.consrv.ca.gov/shmp/download/quad/MOUNT\\_MADONNA/maps/MT\\_MDNA.PDF](http://gmw.consrv.ca.gov/shmp/download/quad/MOUNT_MADONNA/maps/MT_MDNA.PDF)) and ([http://gmw.consrv.ca.gov/shmp/download/quad/MORGAN\\_HILL/maps/MORGANHILL.PDF](http://gmw.consrv.ca.gov/shmp/download/quad/MORGAN_HILL/maps/MORGANHILL.PDF)).

Depth to groundwater, according to the Santa Clara Valley Water District (SCVWD), ranges from 60 feet to 65 feet bgs based on data from groundwater well 09S03E22P005 in the Llagas Sub-basin and flows toward the southeast, along local topography (<http://www.heynoah.com/Services/GroundwaterMonitoring.aspx>). Localized depth to groundwater may be less than 60 feet bgs beneath the subject site.

## **PHASE II ENVIRONMENTAL SITE ASSESSMENT**

*GeoSolve, Inc.* subcontracted with Penecore Drilling, Inc., a State-licensed drilling contractor (C57- 906899) of Woodland, California, which utilized a track-mounted, direct-push GeoProbe® 6610DT drilling rig to perform drilling activities at the site. In addition, a site-specific health and safety plan was prepared for field operations, which detailed the location of the nearest



hospital, provided safety procedures for drilling projects and proposed the appropriate personal protective equipment (PPE) for the project.

### **Soil Sampling and Laboratory Analysis**

A *GeoSolve, Inc.* field geologist visited the subject site on February 18 and 19, 2014 and supervised Penecore Drilling, Inc. advance eight randomly located borings (B-1 through B-8) throughout the property, using a stainless-steel dual-tube sampling system with acetate liners. Borings B-1 through B-8 were advanced to approximately 23 feet to 30 feet bgs. The location of borings B-1 through B-8 are shown on Figure 2. Each boring was logged by a *GeoSolve, Inc.* field geologist in accordance to the Unified Soil Classification System (USCS) and soil samples were hand-sawed at various depths ranging from 1-foot, 5-feet, 10-feet, 20-feet and up to 25-feet bgs within borings B-1 through B-8 for laboratory analysis. The ends of each soil sample was covered with Teflon tape, capped, labeled, and placed within a pre-chilled ice chest for temporary storage. The soil samples were delivered under chain-of-custody documentation to McCampbell Analytical, Inc., a State-certified hazardous waste testing laboratory (Certification No. 1644) in Pittsburg, California, for analysis. After sampling activities, each boring was backfilled with neat cement to grade.

On February 25, 2014, A *GeoSolve, Inc.* field geologist observed Exploration Geoservices, Inc., a State-licensed drilling contractor (C57-288484) of San Jose, California, to drill one hollow-stem boring to 45 feet bgs in the immediate vicinity of boring B-7. The boring was drilled to 44 feet bgs in order to determine the depth of groundwater; however, groundwater was not encountered and the boring was backfilled with neat cement to grade.

Soil samples B1-1, B2-1, B3-1, B4-1, B5-1, B6-1, B7-3, and B8-1 were analyzed for arsenic, organochloride pesticides and PCBs using Environmental Protection Agency (EPA) Methods SW3550B/SW8081A/8082. Soil samples B1-10, B1-20, B2-10, B2-20, B3-5, B3-14, B4-20, B5-5, B5-15, B6-5, B6-15, B7-10, B7-25, B8-5, and B8-23 were analyzed for pH, total petroleum hydrocarbons reported as gasoline (TPHg), benzene, toluene, ethyl benzene, total xylenes (BTEX), total extractable petroleum hydrocarbons reported as diesel, motor-oil and hydraulic oil (TEPHd, TEPHmo and TEPHho) using silica gel cleanup, volatile organic compounds (VOCs), and CAM 17 metals using EPA Methods SW9045D, SW5030B/SW8021/8015m, SW3550B/3630C/SW8015m, SW5030BZ/SW8260B, and SW3050B/SW6020.



### **Drilling Observations**

The subsurface materials encountered within borings B-1 through B-8 consisted of reddish brown to yellowish red silty clay to sandy clay beneath 6-inches of concrete (in borings B-1 through B-6), which was underlain by dusky red sandy gravel with clay at depths ranging from 11 feet to 15 feet bgs. The gravel contained rounded chert clasts up to 2.5-inches in diameter within a clay matrix. Carbonized root fibers were encountered in borings B-4 and B-8. Due to the gravel, drilling was terminated at depths ranging from 23 feet to 30 feet bgs. Various depths of fill were also encountered with borings B-3 (15 feet of fill), B-4 (7 feet of fill), B-6 (11 feet of fill), B-7 (5 feet of fill), and B-8 (1 foot of fill). Fill was determined based on chaotic mottling of color and the presence of metal and brick fragments within the continuously cored soil samples.

No soil staining and/or odors were noted in the soil samples collected from any boring at the site; however, minor petroleum odors and olive staining were noted and observed in the sample collected from boring B-4 at 1 foot bgs (B4-1). In addition, groundwater was not encountered in any boring advanced at the site. Copies of the boring logs are attached to this report in Appendix A, Boring Logs.

### **Laboratory Analytical Results**

Laboratory analytical results of the soil samples collected from borings B-1 through B-8 indicated no detectable concentrations of organochloride pesticides or PCBs (less than 0.001 milligrams per kilogram [mg/Kg] to less than 0.05 mg/Kg), no detectable concentrations of VOCs (less than 0.10 mg/Kg), TPHg or BTEX (less than 1 mg/Kg and less than 0.005 mg/Kg). TEPHd, TEPHmo and TEPHho concentrations ranged from not detected (less than 1 mg/Kg to less than 5 mg/Kg) to 21 mg/Kg. Metals cadmium, selenium, silver or thallium were not detected in all soil samples (less than 0.25 mg/Kg to less than 0.5 mg/Kg) and pH was detected at values ranging from 6.54 to 7.36.

The other CAM 17 metal concentrations were detected in the soil samples were detected below Environmental Screen Levels (ESLs) according to the Regional Water Quality Control Board – San Francisco Bay Region (RWQCB – Table B, February 2013), except arsenic. Arsenic was detected in all soil samples analyzed at concentrations ranging from 4.6 mg/Kg to 11 mg/Kg, respectively, as shown on Table A.



**Table A – Arsenic Concentrations in Soil**

<b>Sample ID</b>	<b>Depth (feet)</b>	<b>Arsenic (mg/Kg)</b>
B1-1	1	<b>8.3</b>
B1-10	10	<b>11</b>
B1-20	20	<b>8</b>
B2-1	1	<b>5.1</b>
B2-10	10	<b>8.9</b>
B2-20	20	<b>5.9</b>
B3-1	1	<b>7.4</b>
B3-5	5	<b>11</b>
B3-14	14	<b>4.8</b>
B4-1	1	<b>5.5</b>
B4-20	20	<b>11</b>
B5-1	1	<b>4.6</b>
B5-5	5	<b>9.7</b>
B5-15	15	<b>6.4</b>
B6-1	1	<b>11</b>
B6-5	5	<b>8.2</b>
B6-15	15	<b>7.6</b>
B7-3	3	<b>5.6</b>
B7-10	10	<b>11</b>
B7-25	25	<b>7</b>
B8-1	1	<b>6.5</b>
B8-5	5	<b>9</b>
B8-23	23	<b>8</b>

A summary of the laboratory analytical results of the soil samples is shown on Table 1, Laboratory Analytical Results of Soil Samples and the McCampbell Analytical Laboratory Report and Chain-of-Custody Document are attached to Appendix B.

## DISCUSSION

No significant impacts from the former Sunsweet Dryers facility were observed and/or detected beneath the subject site. Very low concentrations of TEPHd, TEPHmo, and TEPHho were detected in subsurface samples at a maximum concentration of 21 mg/Kg, which is significantly below the ESL of 500 mg/Kg for residential development. No detectable concentrations of organochloride pesticides, PCBs, VOCs or TPHg and BTEX were reported from all the soil samples. Most metals were either not detected or detected below ESLs with the exception of arsenic. The ESL of arsenic



for residential development is 0.39 mg/Kg and all soil samples analyzed from the subject site indicated arsenic concentrations exceeding the arsenic ESL.

Arsenic was detected above the ESLs of 0.39 mg/Kg in all soil samples analyzed; however, these concentrations exhibit background concentrations for the southern Santa Clara Valley (Scott, 1991). In addition, current standard of care methodology through the California Environmental Protection Agency (Cal EPA) and its divisions Department of Toxic Substances Control (DTSC) and the RWQCB utilize background arsenic concentrations to establish permissible levels. Averages calculated by Scott (1991) are shown on the table below.

**Average Arsenic Concentrations in Northern Santa Clara County, CA (Scott, 1991)**

Metal	Average Concentration (mg/Kg)	Concentration Range (mg/Kg)
Arsenic	2.86	0.2 – 5.5

*Potential Natural Arsenic Sources and Background Concentrations*

Arsenic occurs in more than 200 minerals and is present mainly in the heavy-mineral fraction of soil as arsenate ( $As^{+5}$ ) or the oxidized form of arsenic. Arsenic is naturally found in the arsenic-ore mineral arsenopyrite ( $FeAsS$ ) and abundant concentrations of arsenic have been detected in the minerals pyrite (up to 77,000 mg/Kg), marcasite (up to 126,000 mg/Kg), ferric oxyhydroxide and hematite (up to 77,000 mg/Kg) as trace elements (Campbell, 2006). Conversely, the lowest levels of arsenic are found in granitic sandy soils (Chang and et. al., 2004). Higher arsenic levels are associated with alluvial soils, rich in organic matter and soils derived from shales and hydrothermally and metamorphically altered bedrock, ancient hot-spring deposits (Campbell, 2006).

*Arsenic Background Concentrations*

The RWQCB – San Francisco Bay Region states on pages 3-4 and 3-5 of Appendix 1 in *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater – Volume 2: Background Documentation for the Development of Environmental Screening Levels* (2005) the following:

“Ambient background concentrations of arsenic in the Bay area soils typically exceed risk-based screening levels for direct-exposure concerns. For example, the risk-based screening level for arsenic in residential soils is 0.39 mg/Kg. The



Lawrence Berkeley National Laboratory report Background Distribution of Metals in the Soil at LBNL (LBNL, 2002) presents a range of mean concentrations of arsenic in soil samples from the property of 0.3 mg/Kg to 42 mg/Kg; however, with an arithmetic mean of 5.5 mg/Kg. Soils tested at this site span a range of geologic environments. Based on an informal review of environmental reports submitted to the RWOCB, a range of 5 mg/Kg to 20 mg/Kg is typical for much of the Bay area. Concentrations of arsenic in soil will tend to be higher in soils associated with silicic volcanic rocks and hydrothermally altered rocks."

Therefore, although arsenic was detected above the ESL of 0.39 mg/Kg, all detectable concentrations of arsenic detected at the subject site represent background concentrations.

## CONCLUSIONS

Based on the laboratory analytical results obtained from the Phase II ESA, *GeoSolve, Inc.* concludes the following:

- No detectable concentrations of organochloride pesticides, PCBs, VOCs, TPHg, BTEX, cadmium, selenium, silver, or thallium were detected in all soil samples analyzed from the site. No detectable to very low concentrations of TEPHd, TEPHmo, or TEPHho were detected in soil samples from the subject site up to 21 mg/Kg, which is significantly less than the residential ESLs for TEPHd of 100 mg/Kg and TEPHmo and TEPHho of 500 mg/Kg.
- Arsenic was detected in all soil samples at concentrations ranging from 4.6 mg/Kg to 11 mg/Kg, which exceeded the residential ESL of 0.39 mg/Kg. However, these concentrations were determined to represent background concentrations.
- Groundwater was not encountered beneath the site and was not evaluated during this Phase II ESA. However, no impacts to groundwater are anticipated since no chemicals of concern were detected in the subsurface soil and the depth to groundwater is greater than 44 feet bgs.



## RECOMMENDATIONS

Based on conclusions presented in this Phase II ESA, *GeoSolve, Inc.* recommends the following:

- Demolition permits are required for proper demolition of the structures, which will require a LBP and ACM survey by a California Certified Asbestos Consultant (CAC) and Certified Lead Consultant (CLC).

In addition, the following recommendations should be considered if any future development of the property is planned, as summarized in Reference 1:

- The hazardous wastes and/or hazardous substances observed in containers within the well house and garage must be properly disposed at a County of Santa Clara Department of Environmental Health hazardous waste collection depot or equivalent accepting disposal facility. The property owner is the sole legal responsible party for hazardous waste disposal operations on their property.
- During grading activities of the property, soil technicians and operators must be aware of any basements, buried foundations, or reservoir discovered on the property. If any one of these conditions is encountered, then the Soil Engineer must be notified and the specific condition appropriately remedied in accordance with local, county and state requirements.
- During any grading activities of the property, soil technicians and operators must be aware of any unknown USTs, buried debris, or other potential adverse environmental condition which may be discovered on the property. If any one of these conditions is encountered, then the Soil Engineer must be notified and the specific condition appropriately remedied in accordance with the local, county, and state and RWQCB requirements.

## LIMITATIONS

This report has been prepared for the specific application to this project in a manner consistent with the level of care and skill normally exercised by members of the environmental science profession currently practicing under similar conditions in this area. This report contains information reported to *GeoSolve, Inc.*, by other sources, accordingly, errors or omissions may be present that *GeoSolve, Inc.* cannot be responsible for. Surface and subsurface conditions may vary away from the sampling locations at the site.



Our Phase II Environmental Site Assessment provides an evaluation of environmental conditions on the property and environmental conditions will vary between sampling points. Furthermore, our Phase II Environmental Site Assessment is only an assessment of environmental conditions on the subject property. No guarantee or warranty is made as to actual onsite environmental conditions. It is impossible to know all actual site conditions without testing all soil on site.

## REFERENCES

Campbell, R.D., March 2006. *Evaluation of Arsenic Levels and Speciation in Groundwater within Pleasanton, California, California State University East, Bay M.S. Geology Thesis*, 165 pp.

Chang, Andrew C., Page, Albert L. and Krage, Natalie J., November 2004. *Role of Fertilizer and Micronutrient Applications on Arsenic, Cadmium and Lead Accumulation in California Cropland Soils*, University of California at Riverside, Department of Environmental Sciences submitted to California Department of Food and Agriculture, 124 pages.

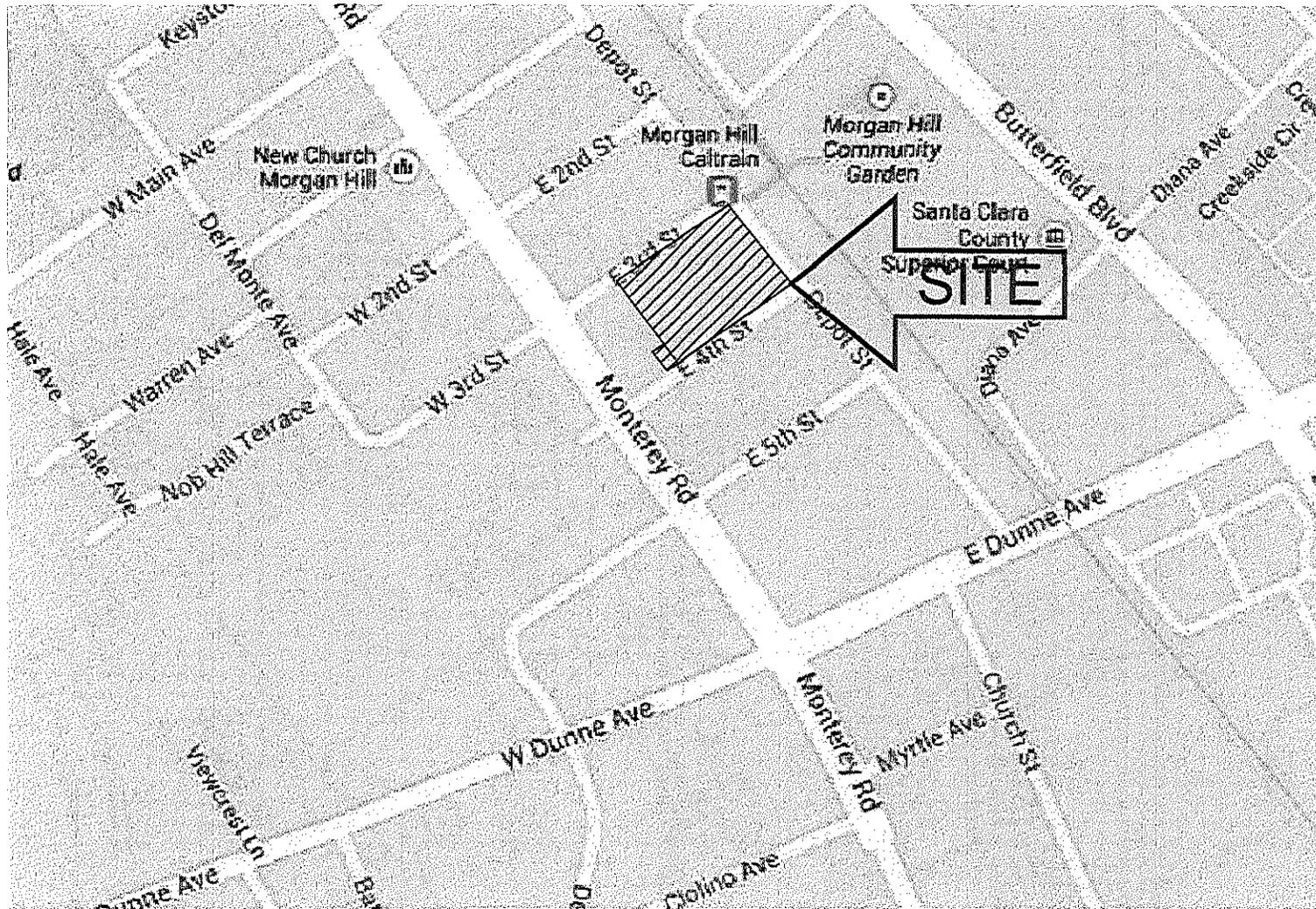
GeoSolve, Inc., February 8, 2014. *Phase I Environmental Site Assessment at 90 East 3<sup>rd</sup> Street, 55 East 4<sup>th</sup> Street, 91 East 4<sup>th</sup> Street, 17250 Depot Street, Morgan Hill, California*. Project No. 2014-08.

Helley, E.J. and Lajoie, K.R., 1979, *Flatland Deposits of the San Francisco Bay Region, California - their geology and engineering properties, and their importance to comprehensive planning*. USGS Geological Professional Paper 943.

Scott, Christina Marie, December 1991. *Background Metal Concentrations in Soils in Northern Santa Clara County, California, M.S. Thesis at the University of San Francisco Environmental Management Program, Lockheed Missiles and Space Company, Sunnyvale, California*, 7 pages.

Regional Water Quality Control Board – San Francisco Bay Region, February 2013. *Environmental Screening Levels (ESLs) for Shallow Soil (less than 3 meters) and Non-Potable Groundwater – Table B*.





Reference: Google Maps, 2014



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**VICINITY MAP**

Figure No.

GLENROCK BUILDERS  
 PHASE II - ENVIRONMENTAL SITE ASSESSMENT  
 MORGAN HILL, CALIFORNIA

Project No.	2014-08	Drawn by:	GC
Scale:	NTS	Date:	03/2014

**1**



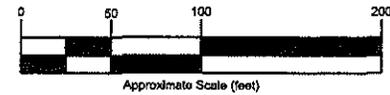
**LEGEND**



Property Line



Boring Locations



Reference: Google Earth, 2014



Visit us at [www.geosolve-inc.com](http://www.geosolve-inc.com)

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**SITE PLAN**

Figure No.

GLENROCK BUILDERS  
 PHASE II - ENVIRONMENTAL SITE ASSESSMENT  
 MORGAN HILL, CALIFORNIA

Project No.

2014-08

Drawn by:

GC

Scale:

AS SHOWN

Date:

03/2014

**2**