PHASE I AND LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT APNS 181-180-84, 181-180-86, AND 181-180-56 BLUEBIRD CANYON ROAD AND HOLLYBERRY DRIVE VISTA AREA, SAN DIEGO COUNTY, CALIFORNIA 92084

FOR

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W.O. E6814-SC DECEMBER 30, 2014



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December 30, 2014

W.O. E6814-SC

Ms. Margaret Tomlinson and Ms. Holly Marshall c/o bHA Inc.

5115 Avenida Encinas, Suite L Carlsbad, California 92008-4387

Attention: Mr. Rod Bradley

Subject: Phase I and Limited Phase II Environmental Site Assessment,

APNs 181-180-84, 181-180-86, and 181-180-56, Bluebird Canyon Road and

Hollyberry Drive, Vista Area, San Diego County, California 92084

Dear Mr. Bradley:

GeoSoils, Inc. (GSI) is pleased to present the results of our Phase I Environmental Site Assessment (ESA) for the subject property in the Vista area of San Diego County, California. This study was conducted for the purpose of assessing the current potential for the presence, to the extent practical, of hazardous materials/waste and/or petroleum contamination (i.e., recognized environmental conditions [RECs]) at the subject site.

Please note that GSI has performed this Phase I ESA in general conformance with the scope and limitations of ASTM Practice E 1527-13. This practice is intended, by the ASTM Committee E 50, to be a general guideline standard and used on a voluntary basis. Any major exceptions to, or deletions from, this practice are described in the relevant sections of this report.

SUMMARY

Based upon the information obtained during the course of this assessment, GSI presents the following summary of findings and conclusions:

• Based upon our November 25, 2014 field reconnaissance of the property, an interview with a representative of the current property owner, our review of historic land use utilizing readily available reports, historical aerial photographs, and historical topographic maps, it is our understanding that the subject property has historically been used for agricultural purposes since about 1946 until recently. The property consists of three parcels. The westernmost parcel is occupied by a single-family residence. That parcel (APN 181-180-56-00) was not accessible, however, it was observed remotely from the adjacent parcel and roadway. An

unidentified, white, polyethylene tank was observed on the residential parcel. A small vacant house, a shed, and a covered parking area were present in the southern portion of the property, and the remaining parcel was vacant. Based on the age of the onsite buildings, it is likely that lead based paint (LBP) and asbestos containing materials (ACM) are present.

- In general conformance with the scope and limitations of ASTM Practice E 1527-13, Vapor Encroachment Screening (VES) was conducted for the proposed residential development. Based on our VES evaluation, and the absence of an unauthorized releases, or facilities, vapor encroachment does not pose a recognized environmental condition (REC).
- The irregularly-shaped property is flat on the southwestern portion, while the
 eastern portion slopes more steeply to the west. The majority of the subject
 property is covered by small vegetative growth, however, a grove of palm trees is
 present in the northern portion.
- Topographically, elevation onsite ranges from approximately 710 to 820 feet above Mean Sea Level (MSL). The property generally drains to the northwest. No significant environmental concerns were observed on the subject property during the site reconnaissance, with the exception of the palm tree grove as evidence of previous agricultural use.
- The site is bordered to the north and west by residential properties. The site is bordered to the east by greenhouses, a commercial palm-tree grower, and a residence. The site is bordered to the south by a Vista Irrigation District facility, which includes a water tank, and by Buena Creek Road, followed by residential structures.
- Based on our review of the State Water Resources Control Board (SWRCB) Geotracker website, the Geotracker Groundwater Ambient Monitoring and Assessment (GAMA) website, and the California Department Water Resources (DWR) Water Data Library (WDL) website, no groundwater information is readily available for subject site and vicinity. Therefore, depth to groundwater is unknown. GSI estimates that the groundwater gradient is in a northwesterly direction in the immediate vicinity of the subject site, based on topographic map review.
- GSI requested Sanborn Fire Insurance Maps for the site; however, Environmental Data Resources (EDR, 2014b) indicated the site was an "Unmapped Property." A report of this inquiry is provided in Appendix C. Research of government data base records provided by EDR (2014a) indicated no mapped or unmapped risk sites within the specified search radius. City directory listings provided by EDR (2014d) indicated no addresses of potential concern within the specified search radius.

- According to the California Division of Oil, Gas, and Geothermal Resources (DOGGR, 2014) website there are no active or abandoned oil, or gas wells located on the subject site. Thus, oil and gas wells are not considered RECs.
- Due to the previous use of the subject site for agricultural purposes, GSI conducted limited soil sampling to evaluate the property for the presence of organochlorine pesticides and elevated concentrations of lead. Based on soil analytical results, organochlorine pesticides and lead were not detected at concentrations exceeding California Human Health Screening Levels for residential soil (CHHHSL-R) set forth by the California Environmental Protection Agency (CalEPA). Therefore, legally-applied pesticides do not currently represent a REC.
- A diesel fuel above-ground storage tank (AST) was previously present on the southern portion of the property. Three soil samples were collected near the location of the former AST at depths of 0.25', 1', and 34" begs. The shallowest soil sample was analyzed for total petroleum hydrocarbons as gasoline, diesel, and oil-range organics (TPH-GRO, TPH-DRO, and TPH-ORO, respectively). Petroleum hydrocarbons were not detected above laboratory reporting limits in the samples tested.
- Data gaps included the years 1939 to 1945, 1947 to 1952, 1954 to 1962, 1964 to 1973, 1975 to 1984, and 1995 to 2004. However, it is our opinion that additional historic information, if it were to become available, is not likely to significantly change the conclusions and recommendations of this assessment.

CONCLUSIONS SUMMARY

We have performed this Phase I ESA in general conformance with the scope and limitations of ASTM Practice E 1527-13 for County of San Diego Tract No. 5573 proposed for development, in the Vista area of San Diego County, California. Any exceptions to, or deletions from, this practice are described in the section immediately above. With the exception of the potential for LBP and ACM in the older buildings onsite, this assessment has revealed no evidence of recognized environmental conditions in connection with the subject property.

Based upon the information obtained during the course of our recent assessment, pursuant to the limitations set forth in the text of this report, the site is considered acceptable for the proposed residential land use, provided the following mitigation measures discussed in the "Recommendations" section, are properly implemented during planning, design, and construction.

CLOSURE

GSI declares that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in §312.10 of 40 CFR 312 and we have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed all the appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312. Resumes of GSI personnel who worked on this project are included in Appendix F (provided as PDF copy on CD data disc only).

We appreciate the opportunity to be of service to you. If you have any questions pertaining Respectfully submitted solvenifer Morton to this report or any other matter, please do not hesitate to call us at (760) 438-3155.

GeoSoils, Inc.

OF CALIFORNIA

P.G. 8617 Exp. 08-14

Registered Environmental Property Assessor,

Engineering Geologist

NREP 461992, CEG 1340

Jennifer Bauer Morton Project Geologist, PG 8617

JBM/JPF/jh

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Appendix A - References
CD Data Disc Rear of Tex
Appendix B - Site Photographs
Appendix C - Environmental Data Resources (EDR) Radius Map Report
Appendix D - Laboratory Test Results
Appendix E - ASTM Transaction Screen Questionnaire
Appendix F - Resumes

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INTRODUCTION

Purpose and Scope

In accordance with our proposal and the Client's authorization, GeoSoils, Inc. (GSI) has completed this Phase I Environmental Site Assessment (ESA) covering the proposed development at the subject property, the general location of which is illustrated on Figure 1 (Site Location Map). According to the Tentative Subdivision Map, County of San Diego Tract No. 5573, the legal description of the property is described as:

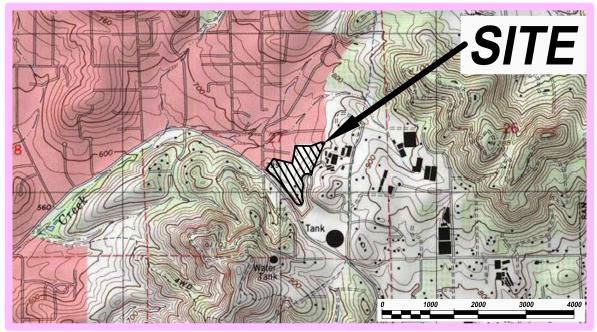
A portion of the NW 1/4 of the SE 1/4 of Section 27, Township 11, South, Range 3 West, San Bernardino Meridian, in the County of San Diego, State of California

This ESA was prepared for the purpose of assessing, to the extent practical, the potential for *recognized environmental conditions* from past or present uses at the subject property. A *recognized environmental condition* is defined by ASTM Standard E 1527-13 as:

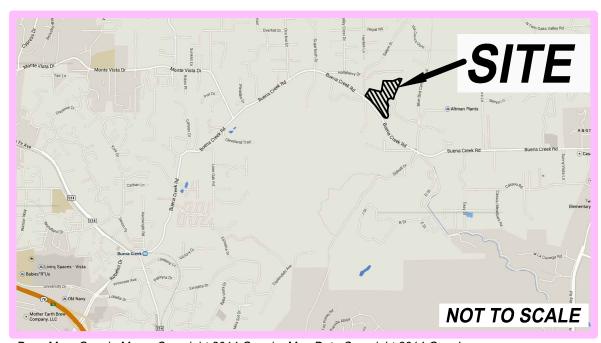
The presence or likely presence, of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; (3) under conditions that pose a material threat of a future release to the environment. De minimis conditions are not recognized environmental conditions.

The scope of work for this assessment included:

- 1. A review of the subject property's geologic, hydraulic, and hydrogeologic setting as well as the readily available on-line data sources (see Appendix A);
- A reconnaissance of the subject property and surrounding areas to visually assess current utilization and for indications of potential surface contamination (Appendix B on the CD data disc);
- 3. A review of government database documents concerning available pertinent environmental information for the subject property and nearby properties, and vapor encroachment screening (Appendix C on the CD data disc);
- 4. A review of inquiries by EDR (2014a) with local and state agencies pertaining to the environmental case history of the subject property (Appendix C on the CD data disc);



Base Map: TOPO!® © 2003 National Geographic, U.S.G.S. San Marcos Quadrangle, California -- San Diego Co., 7.5 Minute, dated 1996, current, 1999.



Base Map: Google Maps, Copyright 2014 Google, Map Data Copyright 2014 Google

This map is copyrighted by Google 2014. It is unlawful to copy or reproduce all or any part thereof, whether for personal use or resale, without permission. All rights reserved.



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Figure 1



- 5. Completion of the ASTM Transaction Screen Questionnaire for the subject site (Appendix E on the CD data disc);
- 6. Collection of soil samples for laboratory analysis; and,
- 7. Preparation of this report which provides the findings of these studies and presents GSI's conclusions and recommendations.

Limitations

This study does not include the following:

- Subsurface or geotechnical evaluation of the subject property;
- Groundwater sampling and analyses, including potable water sources;
- Identification or evaluation of wetlands:
- Identification or evaluation of biological concerns;
- Consideration of possible future contamination of the subject property from adjacent or surrounding facilities or properties, or derailment;
- Asbestos, methane, nitrates, radon gas, mold, lead paint, or electromagnetic evaluations;
- Air quality evaluations;
- Reviewing Chain-of-Title, or Zoning Land Use records;
- Interviews with government officials; and,

Exceptions

The complete holdings of the of the Sanborn Library, LLC have been searched by EDR, and fire insurance maps coverage for the site were not found.

Terms and Conditions

This report is intended for the use of the Client. This report is based upon field conditions observed during our site reconnaissance performed on November 25, 2014. For the protection of the Client and GSI, the contents should not be relied upon by any party other than the aforementioned without the express written consent of GSI and a written agreement from any third party indicating the acceptance of the scope of work and the terms of the contract between the Client, and GSI.

This report does not consider possible future contamination of the subject property from adjacent or surrounding facilities or properties. All judgments concerning adjoining properties apply only to conditions observed during the time of the on-site reconnaissance.

SITE DESCRIPTION AND RECONNAISSANCE OBSERVATIONS

Site Description

Based on our November 25, 2014 field observations, the irregularly-shaped property consists of relatively flat terrain in the western portion, while the eastern portion slopes more steeply to the west, at an inclinations that typically range from ±5:1 to 3:1 (horizontal:vertical [h:v]), and locally steeper. The site is bordered to the north and west by residential properties, to the east by greenhouses, a commercial palm-tree grower, and a residence, and to the south by a Vista Irrigation District facility and by Buena Creek Road, followed by residential structures. Topographically, elevation onsite ranges from approximately 710 to 820 feet above Mean Sea Level (MSL).

Proposed Development

GSI understands that the proposed project consists of 15 single-family residences, with roadways, underground utilities, and several drainage basins/facilities. Sewage disposal is anticipated to be accommodated by tying into the municipal system.

REVIEW OF PREVIOUS SITE ENVIRONMENTAL STUDIES

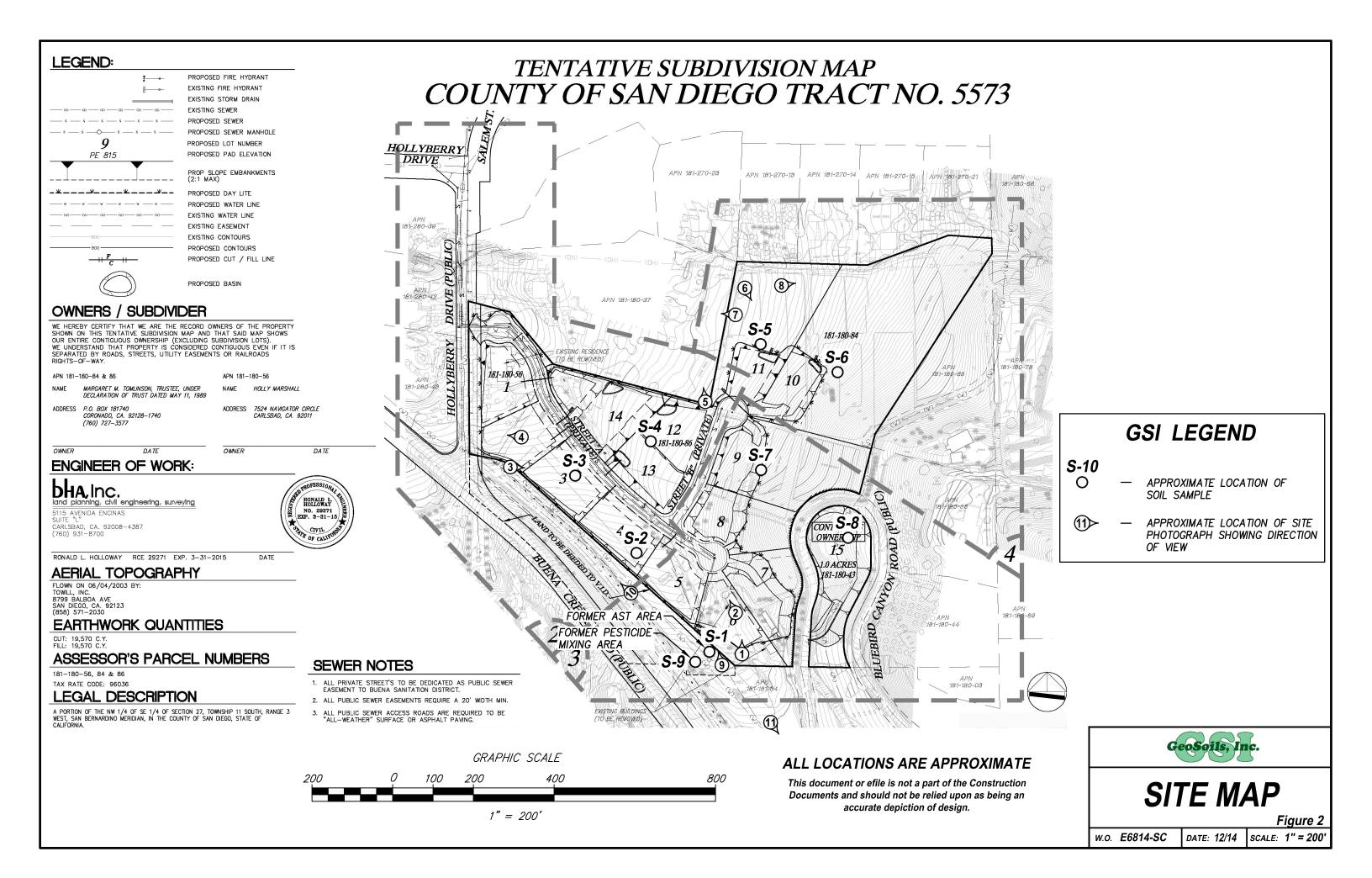
No previous environmental studies were provided to GSI by the Client in preparation of this Environmental Site Assessment for the subject property

RECENT OBSERVATIONAL RECONNAISSANCE

Onsite and Border Zone Reconnaissance

On November 25, 2014, a GSI representative (Ms. Jennifer B. Morton) visited the subject property to assess current site utilization and observe for signs of possible surface contamination, which included walking the site and remote sensing the surrounding properties from the subject site. At the time of the site visit, the subject property was vacant, undeveloped land with small vegetative growth. A palm tree grove was present in the northeastern portion of the property. No significant environmental concerns were observed. Photographs of the subject property are presented in Appendix B on the CD data disc and attached to this report. The photograph locations and viewpoints are described on the individual photo blocks (Appendix B), and are indicated on the Site Map, Figure 2.

There were no limitations to site access. The weather during the site reconnaissance was generally sunny and warm. There were no visibility limitations due to weather conditions.



- Buildings on Property, and General Usage Three small structures were observed during the November 25, 2014 site reconnaissance, and included a small, vacant house, a small shed, and a covered parking area. The buildings were located in the southern portion of the property. A palm tree grove was present in the northeastern portion of the property. The remainder of the property was covered with small vegetative growth.
- **Drum Storage** No drums containing hazardous waste/materials were observed on the subject property. Thus, drum storage is not considered a recognized environmental condition (REC) at this time.
- Storage Tanks No above ground storage tanks (AST)s or evidence of underground storage tanks (USTs) were observed on the subject property. Therefore, storage tanks are not considered an REC at this time. However, according to the property owner's representative, a 1,000-gallon diesel fuel AST was previously located on a concrete slab in the southern portion of the property, near the onsite structures. Soil samples were collected in this area, and the results are discussed herein.
- Hazardous Chemical/Material Use, Storage, and Disposal There was no visible evidence of past chemical storage or disposal areas within the site; however, the aforementioned single-family residence, and shed were not entered.
- Vapor Encroachment Screening In general conformance with the scope and limitations of ASTM Practice E 1527-13, Vapor Encroachment Screening (VES) was conducted for the proposed residential development. The EDR (2014i) vapor encroachment screen was utilized for this evaluation. EDR performs an initial search of all ASTM E 2600-10 standard government record databases and proprietary historical records related to former dry cleaners, gas stations and manufactured gas plants within a 1-mile maximum distance as defined by ASTM E 2600-10 for contaminated sites. Based on our VES evaluation, and the absence of an unauthorized releases, or facilities, vapor encroachment does not pose a REC.
- Potential Sources of Polychlorinated Biphenyls (PCBs) No transformers or other potential PCB-containing equipment were observed at the subject property by GSI. Therefore, PCBs are not considered a REC at this time.
- Electromagnetic Evaluation No electrical transmission/distribution lines were observed on the subject property. Therefore, electrical transmission/distribution lines are not considered a REC at this time. The evaluation of electric and magnetic fields (EMF) onsite is beyond this current scope of work. However, based upon a public information booklet by a southern California power company, the magnetic field from transmission lines get weaker with distance. Magnetic fields are reported

to vary from 1 to 300 milliGauss (mG) at the edge of a right-of-way. For comparison purposes, magnetic fields range from 0.1 mG to 8 mG on microwave ovens or televisions at a distance of 39 inches. Although there is some speculation that EMFs represent a risk to human health, medical and scientific research has yet to determine exposure levels related to health risks. Studies (to date) have been inconclusive as to the possible dangers from EMFs. Additional information is available from Southern California Edison (SCE), the United States Environmental Protection Agency, The National Academy of Sciences and/or the American Medical Association.

- Utility Structures, Roads, Disposal Systems, Water Wells No utility structures or water wells are present on the subject property. Blue Bird Canyon Road, a dirt road, is present on the southwestern side of the subject property. According to the property owner representative, a septic system is present in the southern portion of the property and is associated with the vacant house. The leach field is reportedly located adjacent to the house to the west. The subject property is accessed from the west via Hollyberry Drive.
- Hydraulic Lifts GSI did not observe readily visible evidence of hydraulic lifts on the subject property.
- Use, Storage, and Disposal of Petroleum Products GSI observed seven 5-gallon buckets labeled hydraulic oil stored on concrete in a covered parking area onsite; however, the subject property owner indicated that the buckets contained used oil. Staining was observed on the concrete in the vicinity of the buckets, however, it did not appear that the buckets were leaking. The presence of used oil and stained concrete is an environmental concern, however, based on the small volume and presence of concrete, the used oil does not currently represent a REC.
- Paint Booths GSI did not observe evidence of paint booths on the subject property.
- Battery Storage and Disposal GSI did not observe evidence of battery storage and disposal on the subject property.
- **Sumps** GSI did not observe readily visible evidence of sumps on the subject property.
- Clarifiers GSI did not observe readily visible evidence of clarifiers on the subject property.
- Oil/Water Separators GSI did not observed evidence of oil/water separators on the subject property.

- **Septic Systems** According to the property owner representative, a septic system is present in the southern portion of the subject property. A leach field exists west of the house.
- Floor Drains No evidence of floor drains was observed.
- Oil and Gas Wells According to the California Division of Oil, Gas, and Geothermal Resources (DOGGR, 2014), website there are no active or abandoned oil, or gas wells located on the subject site. Further, there were no indications of any such wells found during our reconnaissance of the property. Thus, oil and gas wells are not considered RECs.
- Waste Pits, Ponds, and Lagoons GSI did not observe readily visible evidence of waste pits, ponds, and lagoons on the subject property.
- **Dry Cleaning Operations** No evidence of dry cleaning operations was observed on the subject property.
- Wastewater Wastewater was not observed being generated, treated, or discharged on the property or onto adjoining properties. Stormwater runoff is likely to be sheet flow to the west. According to the property owner representative, the Vista Irrigation District periodically empties and cleans a water tank located to the east of the subject site. Water is released to a drainage ditch which traverses the southwestern portion of the property from southeast to northwest.
- Environmental Releases and Spills Unusual or significant surface staining (i.e., spills and/or releases) and petroleum odors were not noted on the subject site by GSI during our site reconnaissance. In addition, our review of government database records (EDR, 2014a) indicate no reported releases or spills on the subject site.
- Asbestos Containing Materials and Lead-Based Paint Asbestos containing material (ACM) and lead-based paints (LBP) evaluations are beyond the scope of this current study. However, based on the assumed age of the onsite buildings, it is likely that ACMs and LBP are present.
- Solid Waste Disposal With the exception of scattered trash, no evidence of solid waste disposal was observed. Therefore, solid waste disposal is not considered an REC.
- Solid Waste Landfills No evidence of solid waste landfills was observed on the subject property. Therefore, solid waste landfills are not considered an REC at this time.

- Methane and Nitrates Methane and nitrate evaluations were not a part of our scope of work for this study; however, these contaminants are typically associated with livestock farming, and should not be an REC, based on the historic use of the property ascertained from our review of historical aerial photographs and topographic maps.
- Mold An evaluation of the presence of mold is beyond the scope of this current study.
- Radon A detailed radon survey was not a part of this update ESA; however, the potential for radon gas accumulation is low in southern California. A recent publication by the American Society of Testing and Materials (ASTM) suggests that the Pacific coastal range areas are expected to have a low to moderate radon potential. In addition, a study reported by the Los Angeles Times (Nagda, 1994) and California Environmental Protection Agency (CAL EPA) suggested a very localized geographic radon problem within the state. California school officials found virtually no elevated radon levels in public schools (Nagda, 1994). Because of this, and due to the generally mild climate in southern California and open-air condition of the site, the potential for radon gas accumulation is not considered a significant environmental threat.

In 1990, the State of California (1990) conducted a radon survey in the state. The results of the survey indicate that for the 182 samples obtained in Region 9, which included Los Angeles, Riverside, San Bernardino, Orange, San Diego and Imperial Counties, the arithmetic mean radon levels were 0.6 pCi/l. This average total is below the radon action level of 4 pCi/l.

Border Zone Reconnaissance

During our field reconnaissance, GSI observed, through remote sensing, adjacent properties to evaluate if land uses thereon may contribute to an environmental risk to the subject site. The subject property is bordered to the south by Buena Creek Road. Surrounding properties are generally residential in nature, with the exception of the property to the southeast, which is occupied by a Vista Irrigation Division facility, and includes a municipal water tank. In addition, a property to the east of the northern portion of the site has operated as a commercial nursery, and an additional property to the east appeared to have multiple greenhouses, suggesting agricultural activities on a commercial scale. Activities on adjacent properties do not currently represent a REC, provided they are operating in a lawful manner.

Photographic Record

Representative color photographs of the site were taken during the site reconnaissance. These photographs are presented in Appendix B and on the CD data disc. The photograph locations and viewpoints are described on the individual photo blocks provided (Appendix B).

LOCAL GEOLOGIC AND HYDROGEOLOGIC SETTING

Regional Geology

The site is located in the Peninsular Ranges geomorphic province which is characterized by large Mesozoic-age intrusive rocks, mantled by and/or intruding volcanic, metasedimentary, and sedimentary rocks. Lateral displacement and uplift of the region has occurred along a series of major, northwest-trending faults which are related to the San Andreas transform-fault system. Some of these fault zones have remained active to the present time, including the active San Andreas, San Jacinto, and Elsinore fault zones, located east of the property, and the Newport-Inglewood - Rose Canyon fault situated west of the property (Jennings and Bryant, 2010). Our review indicated that no known active faults are located on the subject property, and the site is not within an Alquist-Priolo Earthquake Fault Zone.

Site Geology

In general, the site is mapped as underlain by Mesozoic-age metamorphosed and unmetamorphosed volcanic and sedimentary rocks (Kennedy and Tan, 2005). However site specific subsuraface exploration indicates the project area is underlain by a veneer of topsoil/colluvium at the surface, and older alluvium (probably of Pleistocene-age) in the lower lying areas, and undivided Mesozoic rocks at higher elevations.

Site Soils

According to the United States Department of Agriculture Web Soil Survey (http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx), onsite soils consist of the Escondido very fine sandy loam (map units – EsC and ESE2), Friant fine sandy loam (map unit – FwF), Huerhuero loam (map unit – HrC), and Wyman loam (map unit – WmC). The attributes of these surficial soils are described in the following table:

SOIL TYPE (MAP UNIT)	OCCURRENCE	DEPTH TO RESTRICTIVE FEATURE	DRAINAGE CLASS	CAPACITY OF THE MOST LIMITING LAYER TO TRANSMIT WATER (Ksat)	AVAILABLE WATER CAPACITY (IN)
Escondido very fine sandy loam (EsC)	Hillslopes with 5 to 9 Percent Slopes	20 - 40 in. to Lithic Bedrock	Well Drained	Moderately High to High (0.57 to 1.98 in/hr)	Very High (about 12.9 in.)
Escondido very fine sandy loam (EsE2)	Hillslopes with 15 to 30 percent slopes, eroded	20 - 40 in. to Lithic Bedrock	Well Drained	Moderately High to High (0.57 to 1.98 in/hr)	High (about 11.3 in.)
Friant fine sandy loam (FwF)	Mountain slopes with 30 to 50 percent slopes	60 to 20 inches to Lithic Bedrock	Well Drained	High (1.98 to 5.98 in/hr)	Very Low (about 2.9 in.)
Huerhuero loam (HRC)	Marine terraces with 2 to 9 percent slopes	More than 80 inches	Moderately Well Drained	Low to Moderately Low (0.00 to 0.06 in/hr)	Moderate (about 6.6 in.)
Wyman Ioam (WmC)	Alluvial fans with 5 to 9 percent slopes	More than 80 inches	Well Drained	Moderately High (0.20 to 0.57 in/hr)	High (about 10.0 in.)

Hydrogeology

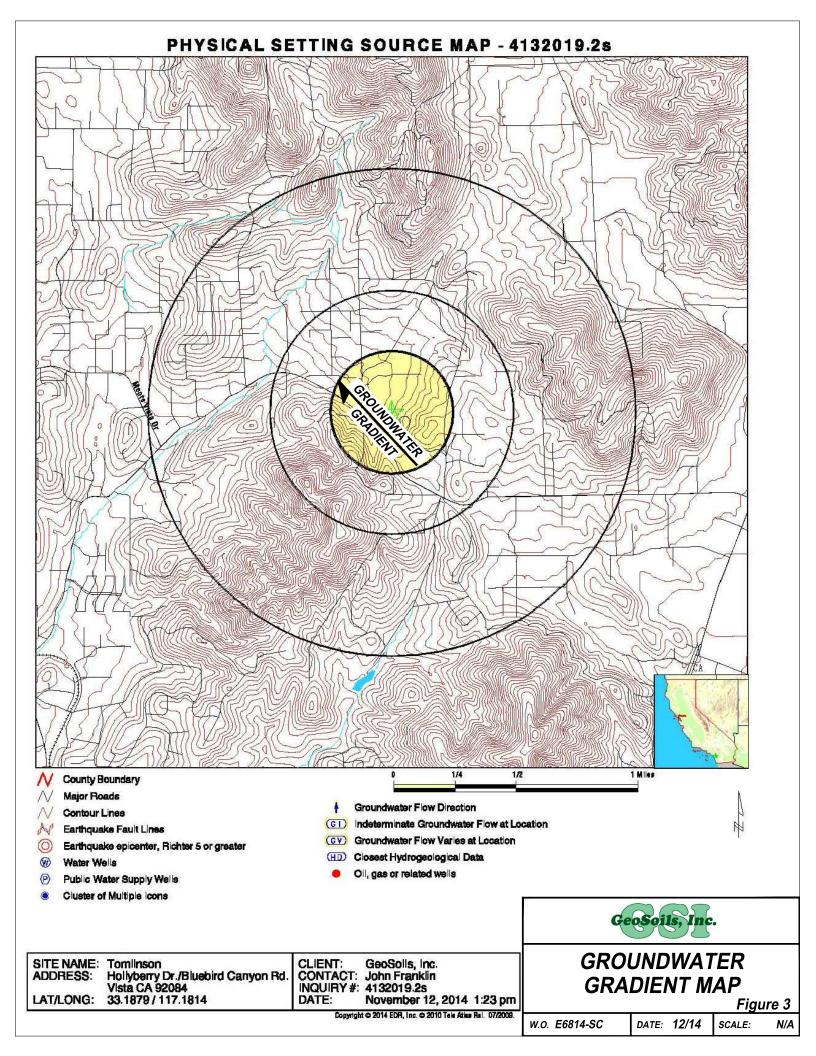
According to the California Regional Water Quality Control Board (CRWQCB, 2008) the site falls within the Buena hydrologic subarea of the Agua Hedionda hydrologic area of the Carlsbad hydrologic unit within the San Diego basin. Beneficial uses of groundwater in this subbasin include municipal and domestic, agricultural, and industrial service process supplies (CRWQCB, 2008). Groundwater in the subbasin is found in residuum and Quaternary age alluvium composed of sand, gravel, clay and silt (DWR, 2004). Based on our review of State Water Resources Control Board Geotracker and Geotracker GAMA websites, as well as the California Department of Water Resources Water Data Library, no groundwater information is available for the site vicinity, but the elevations is likely correlated with Buena Vista Creek. GSI estimates that the down-groundwater gradient is in a northwesterly direction (see Figure 3 - Groundwater Gradient Map).

Flooding/Dam Inundation

Based on our review of the Federal Emergency Management Agency (FEMA) website (https://msc.fema.gov), the site appears to located within Zone X, an area of minimal flood hazard or above the 500-year flood level.

Seismically induced flooding that might be considered a potential hazard to a site normally includes flooding due to tsunami or seiche (i.e., a wave-like oscillation of the surface of water in an enclosed basin that may be initiated by a strong earthquake) or failure of a major reservoir or retention structure upstream of the site. No major dam or retention

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structures are located in the vicinity of the subject property. Based on the above, the potential for seiche or inundation is considered low. Because of the inland location of the site, flooding due to a tsunami is considered negligible at the site.

RESULTS OF SITE HISTORICAL REVIEW

General

As part of this Phase I ESA, GSI reviewed the radius map report, historical aerial photographs, historic topographic maps, city directory listings, property tax maps, environmental lien and Activity Use Limitations (AULs), and a building permit report provided by Environmental Data Resources (EDR) to evaluate potential environmental risks related past activities occurring on the subject site and surrounding properties. The summary of the historical review performed in preparation of this assessment is provided below.

Data gaps included the years 1939 to 1945, 1947 to 1952, 1954 to 1962, 1964 to 1973, 1975 to 1984, and 1995 to 2004. However, it is our opinion that additional historic information, if it were to become available, is not likely to significantly change the conclusions and recommendations of this assessment.

Summary of Historical Aerial Photograph and Historical Map Reviews

Historical Aerial Photograph Review

Historical aerial photographs were reviewed as a part of this assessment for indications of historical land utilization, and for signs of potential hazardous materials/waste and/or petroleum storage, usage, contamination, or disposal areas. Historical photographs were provided by EDR (2014h) and included the years 1938, 1946, 1953, 1963, 1974, 1985, 1989, 1990, 1994, 2005, 2009, 2010, and 2012. A summary of our review is provided in Table 1. The Historical Aerial Photos are included in Appendix C and on the CD data disc.

	TABLE 1 - HISTORIC AERIAL PHOTOGRAPH REVIEW SUMMARY			
DATE	SUMMARY	SCALE		
1938	The subject property is vacant, undeveloped land. A small creek traverses the southwestern portion of the property from southeast to northwest. A dirt road is present along the southwestern boundary and along the east side of the southern portion of the site. The site is bordered to the north by a small creek. Beyond the creek to the north is an orchard. The properties to the west, east and south are undeveloped. A small dam and reservoir are present to the southeast.	1"=500'		

	TABLE 1 - HISTORIC AERIAL PHOTOGRAPH REVIEW SUMMARY	
DATE	SUMMARY	SCALE
1946	The subject site appears to be utilized as an orchard. At least one small structure is present on the west side of the property. Surrounding properties to the north, south, and west appear generally similar to the conditions shown on the 1938 photograph. The properties to the east are occupied by orchards.	1"=500'
1953	The subject and surrounding properties appears generally similar to the conditions shown on the 1946 photograph, however, a small structure appears to be present in the southern portion of the property, and a larger structure is present on the west side of the property.	1"=500'
1963	The subject and adjacent properties appear generally similar to the conditions shown on the 1953 photograph, however, a larger structure with a cylindrical feature appears to be present on the subject property, the property to the northwest appears to be developed with greenhouses, and a house is now present on the property to the east of the northern portion of the site.	1"=500'
1974	The subject site and surrounding properties appear generally similar to the conditions shown in the 1963 aerial photograph, however, only the westernmost side of the subject property appears to be used as an orchard, and the structure on the west side no longer has a cylindrical feature. Most greenhouses appear to have been removed from the property to the west.	1"=500'
1985	The subject site is generally similar to conditions shown in the 1974 photograph, however, six small structures are visible in the southern portion of the property, and the majority of the site appears to be used for agricultural purposes. The properties to the west appear generally similar to the 1974 photograph. The properties to the north have been developed with what appear to be residential structures. The properties to the east appear to be developed with structures and small orchards. The small dam and reservoir are no longer present to the south and have been replaced by the water tank. Properties to the southwest, across Buena Creek Road, appear to be residential and/or agricultural in nature.	1"=500'
1989	The subject site and adjacent properties appear generally similar to the conditions shown in the 1985 aerial photograph, however, an additional long, rectangular building is present in the southern portion of the subject property.	1"=500'
1990	The subject site and adjacent properties appear generally similar to the conditions shown in the 1989 aerial photograph, however, greenhouses appear to be present on the property to the east of the northern portion of the site.	1"=500'
1994	The subject site and adjacent properties appear generally similar to the conditions shown in the 1990 aerial photograph.	1"=500'
2005	The subject site and adjacent properties appear similar to the conditions shown on the 1994 photograph, however, agricultural activity appears to be scattered across the property. A shade-cover appears to be present in the southwestern portion of the property.	1"=500'
2009	The subject site and adjacent properties appear generally similar to the conditions shown on the 2005 aerial photograph. However, fewer areas across the subject site appear to be used for agricultural purposes.	1"=500'

TABLE 1 - HISTORIC AERIAL PHOTOGRAPH REVIEW SUMMARY				
DATE	SUMMARY			
2010	The subject site and surrounding properties appear generally similar to the conditions shown in the 2005 aerial photograph.	1"=500'		
2012	The subject site and surrounding properties appear generally similar to the conditions shown in the 2010 aerial photograph.	1"=500'		

Historical Topographic Maps

In addition to reviewing historical aerial photographs, GSI reviewed historical topographic maps in preparation of this assessment. This included a review of historical topographic maps for the years 1893, 1901, 1904, 1947, 1949, 1968, 1983, and 1996 provided by EDR (2014c). A summary of our review is provided in Table 2. The historical topographic maps are included in Appendix C, and provided on the CD data disc.

	TABLE 2 - HISTORIC TOPOGRAPHIC MAP REVIEW SUMMARY	
DATE	SUMMARY	SCALE
1893	No land use is shown for the subject site or surrounding areas on the 1893 map. The property sits at an elevation of approximately 800 feet above MSL. The property appears to slope to the northwest.	1:62,500
1901	The subject site and surrounding properties appear similar to the 1893 map.	1:62,500
1904	The subject site and surrounding properties appear similar to the 1901 map.	1:250,000
1947	The subject site appears similar to the 1904 map. Roadways are present to the east, west, and southwest. The Pechstein Reservoir is present to the southeast. Orchards are present to the north.	1:50,000
1949	The subject site appears similar to the 1947 map. The orchards are no longer depicted to the north. Several small structures are present on the properties to the west. The reservoir is present to the southeast and is noted to be at an elevation of 825 feet above MSL. Elevations across the subject property range from approximately 730 to 800 feet above MSL.	1:24,000
1968	The subject site appears similar to the 1949 map, however, one small structure is present in the southern portion. Surrounding properties to the north appear similar to the 1949 map. One small structure is present on the property to the east. Several small, square structures are present on the properties to the west, along with a narrow rectangular structure and an a larger, cross-hatched, rectangular structure. The property to the south, across a roadway, has an orchard. The reservoir to the southeast appears similar to the 1949 map, however, one small structure is located adjacent to the west of it.	1:24,000

	TABLE 2 - HISTORIC TOPOGRAPHIC MAP REVIEW SUMMARY				
DATE	SUMMARY	SCALE			
1983	The subject site, as well as properties to the east and southeast, appear similar to the 1968 map. Several small structures are present on the properties to the north. The larger rectangular, cross-hatched structure is no longer present to the west. Several small structures area present to the south and southwest, and the orchard remains to the south.	1:24,000			
1996	The subject site appears similar to the 1983 map, however, an additional structure is depicted in the southern portion. The southwestern portion of the property, as well as properties to the north and west, are shaded red, indicating development. Multiple structures are present on the properties to the east. The properties to the south appear similar to the 1983 map.	1:24,000			

Sanborn Fire Insurance Maps

GSI requested Sanborn Fire Insurance Maps for the site; however, EDR (2014b) indicated the site was an "Unmapped Property." A report of this inquiry is provided in Appendix C on the CD data disc.

City Directory Listings

Historical city directory listings/images, published by Cole Information Services and Haines Criss-Cross Directory were provided by EDR (2014d). These listings were reviewed in preparation of this assessment for past names of businesses or occupants listed for the site and/or adjoining properties. Addresses of potential concern are businesses which may present potential environmental concern such as gas stations, automotive repair shops, and dry cleaners. City directory listings were prepared based on the site boundary area. No listings which would indicate a potential concern for the subject site based on the name of the listing, was included in the EDR (2014d) city directory image report. A report of this inquiry is provided in Appendix C and on the CD data disc.

Chain-of-Title Documents

No chain-of-title search was made by GSI as the client did not furnish or request any documents, and such a search was beyond the scope of this report.

Property Tax Maps

Review of property tax maps aid in evaluating potential environmental conditions on a target property, as well as adjoining properties. It is also intended to assist in evaluating property boundary lines, township and range identifiers, and other characteristics of the property. Property tax maps were provided by EDR (2014e) and reviewed as part of this assessment. No boundary conditions, or other characteristics which would indicate a potential environmental concern for the subject site were noted in the property tax map

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report by EDR (2014e). A copy of the property tax map report is provided in Appendix C on the CD.

Environmental Liens or Activity and Use Limitations (AULs)

Environmental Liens and Activity and Use Limitations (AUL) indicate restrictions on a property, which may represent a recognized environmental condition for the subject site. The subject property consists of one (1) Assessor Parcel Number (APN). A search for Environmental Liens and AULs was conducted by EDR (2014f) as part of this investigation using a single APN. The parcel number used for this report was APN 181-180-86-00. The results from this search indicated that there were no recorded Environmental Liens or AULs listed for the parcel. The trustee's deed provided with this lien search shows the property is vested in Margaret M. Tomlinson, recorded on September 29, 1989. A copy of the lien and AUL search report is provided in Appendix C on the CD.

Building Permits

Building Permit data provides information to identify current and/or former operations and structures/features which may represent a recognized environmental condition for the subject property. A search of building permits, dating back to 2003 was conducted by EDR (2014g) for this investigation. There were no permits found for the subject site and no adjoining property listings which would indicate a potential environmental concern for the subject site based on the type of the listing and proximity to the site. A copy of the building permit report is presented in Appendix C on the CD.

RESULTS OF GOVERNMENT AGENCY DATABASES REVIEW

<u>List of Government Agencies and Databases Reviewed</u>

For this assessment, GSI utilized the electronic database services by EDR (2014a) to complete the environmental records review. The database search was performed to identify properties that may be listed in the referenced agency records. The following is a list of the agency databases reviewed for this report. Search distances are per the ASTM standard E 1528-13.

LIST OF DATABASES SEARCHED							
FEDERAL ASTM STANDARD	STATE AND LOCAL ASTM STANDARD	FEDERAL ASTM Supplemental	STATE AND LOCAL ASTM SUPPLEMENTAL				
NPL	RESPONSE	Delisted NPL	WMUDS/SWAT				
PROPOSED NPL	ENVIROROSTOR	US CDL	SCH				
CERCLIS	SWF/LF	RCRA NonGen/NLR	local HMMD				

LIST OF DATABASES SEARCHED						
FEDERAL ASTM STANDARD	STATE AND LOCAL ASTM STANDARD	FEDERAL ASTM Supplemental	STATE AND LOCAL ASTM SUPPLEMENTAL			
NFRAP	LUST/Indian LUST	TRIS	DEED			
CORRACTS	SLIC	TSCA	CA FID UST			
RCRA-TSDF	Local Listings	FTTS	SWEEPS UST			
RCRA-LQG	UST/Indian UST	SSTS	CHMIRS			
RCRA-SQG	AST	MLTS	ICIS			
RCRA-CESQG	VCP	RADINFO	PRP			
Federal IC/EC	HMIRS	FINDS	WDS			
ERNS		RAATS				
US BROWNFIELDS		HAZNET				
		PADS				

^{*}Details and descriptions of these databases can be found in Appendix C.

The following is a summary of the governmental database records research:

NPL Sites

The National Priorities List (NPL) is a list of contaminated sites that are considered the highest priority for cleanup by the EPA. The search radius for NPL sites is 1 mile. The site is not on the NPL List and the database search did not identify any NPL sites within a 1-mile radius of the subject site.

Proposed NPL Sites

Proposed NPL Sites are site currently under consideration by the EPA for inclusion on the NPL. The search radius for proposed NPL sites is 1 mile. The subject site is not on the NPL List and the database search did not identify any Proposed NPL sites within a 1-mile radius of the subject site.

CERCLIS Sites

The Comprehensive Environmental Response, Compensation, and Liability Act Information System (CERCLIS) list identifies sites which are suspected to have contamination and require additional investigation to assess if they should be considered for inclusion on the NPL. The search radius for CERCLIS sites is ½-mile. The subject site is not included on the CERCLIS List and the governmental database records search did not identify any CERCLIS sites within a ½-mile radius of the subject property.

CERCLIS - NFRAP Sites

CERCLIS - NFRAP sites are properties included on the CERCLIS list but have no Further Response Actions Planned (NFRAP). Sites on the CERCLIS-NFRAP List were removed from the CERCLIS List in February 1995 because, after an initial investigation was performed, no contamination was found, the contamination was quickly removed, or the contamination was not significant enough to warrant NPL status. The search radius for CERCLIS-NFRAP sites is ½-mile. The government database records do not include the subject site on the CERCLIS-NFRAP list. Further, no sites within a ½-mile radius of the subject property were included on the CERCLIS - NFRAP list during our review of governmental database records.

RCRA Non-CORRACTS TSD Facilities

The Resource Conservation and Recovery Act (RCRA) Non-CORRACTS TSD Facilities List tracks facilities which treat, store, or dispose of hazardous waste and are not associated with corrective action activity. The search radius for RCRA Non-CORRACTS TSD Facilities is ½-mile. The governmental database records do not include the subject site nor sites located within a ½-mile radius of the subject property on the RCRA non-CORRACTS TSD Facilities list.

RCRA CORRACTS TSD Facilities

The RCRA CORRACTS TSD Facilities list catalogues facilities that treat, store, or dispose of hazardous waste and have been associated with corrective action activity. The search radius for RCRA CORRACTS TSD Facilities is 1 mile. The governmental database records do not include the subject site nor any properties within a 1-mile radius on the RCRA CORRACTS TSD Facilities list.

RCRA Generators

The RCRA Generator list includes facilities that generate, transport, store, treat, and/or dispose of hazardous waste. The search radius for RCRA Generators is ½-mile. According to the governmental database records, the subject site is not included on the RCRA Generators list, nor are any properties within a 1-mile radius.

Federal ERNS List

The Federal Emergency Response Notification System (ERNS) list tracks information on reported releases of oil and hazardous materials. The search radius for Federal ERNS sites includes the target property, only. The government database records do not include the subject site on the Federal ERNS list.

State- and Tribal-Equivalent NPL

State- and Tribal-Equivalent NPL identifies confirmed release sites where the Department of Toxic Substances Control is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk. The search radius for State- and Tribal-Equivalent NPL sites is 1 mile. Governmental database records do not include the subject property on the State- and Tribal-Equivalent NPL list. In addition, governmental database records do not include any sites with a State- and Tribal-Equivalent NPL status within a 1-mile radius of the subject site.

State and Tribal-Equivalent CERCLIS

The State- and Tribal- Equivalent CERCLIS list identifies sites that have known contamination or sites for which there may be reasons for further investigation such as Federal Superfund (NPL) sites; State Response, including military facilities and state superfund; voluntary cleanup; and school sites. The search radius for State- and Tribal-CERCLIS sites is 1 mile. According to the governmental database records, the subject site is not included on the State- and Tribal-Equivalent CERCLIS list, nor are any properties located within a 1-mile radius.

State- and Tribal-Landfill and/or Solid Waste Disposal Site Listings

State- and Tribal-Landfill and/or Solid Waste Disposal Site Listings include active, closed, and inactive landfills. The search radius for State- and Tribal-Landfill and/or Solid Waste Disposal sites is ½-mile. According to governmental database records, the site is not included on State- and Tribal-Landfill and/or Solid Waste Disposal Sites Listings, nor are any properties located within a ½-mile radius.

State- and Tribal-Leaking Storage Tank Listings

State- and Tribal-Leaking Storage Tank Listings includes inventories of spills, leaks, investigation, and cleanup cost recovery as well as leaking underground storage tanks on Indian land. The search radius for State- and Tribal-Leaking Storage Tank is ½-mile. Governmental database records do not include the subject site on this list, nor any properties within a ½-mile radius.

Spills, Leaks, Investigation and Cleanup Cost Recovery (SLIC) Site Listings

SLIC listings include listings of spills, leaks, and investigations from the California Regional Water Quality Control Board. The search radius for the SLIC database is ½-mile. Governmental database records do not include the subject site on this list, nor any properties within a ½-mile radius.

State- and Tribal-Registered Storage Tank Listings

State and Tribal-Registered Storage Tank listings include a catalogue of registered above ground and underground storage tanks and underground storage tanks on Indian land. The search radius for State- and Tribal-Registered Storage Tanks is ¼-mile. Governmental database records do not include the subject site on this list, nor any properties within a ¼-mile radius.

State- and Tribal- Voluntary Cleanup Site Listings

State and Tribal Voluntary Cleanup Site Listings include inventories of low threat level properties with either confirmed or unconfirmed releases and the project proponents have requested that DTSC oversee investigation and/or cleanup activities, and have agreed to provide for DTSC costs. The search radius for State and Tribal Voluntary Cleanup Sites is ½-mile. Governmental database records do not include the subject site nor sites within a ½-mile radius of the subject site on this list.

State- and Tribal-Brownfield Site Listings

State and Tribal Brownfield Site Listings include a catalogue of real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of hazardous substances, pollutants, or contaminants. The search radius for State and Tribal Brownfield Sites is ½-mile. The governmental database records do not include the subject site nor sites within a ½-mile radius of the subject site on this list.

Statewide Environmental Evaluation and Planning System (SWEEPS) Underground Storage Tank (UST) Listings

SWEEPS UST Listings include inventories of historical active or inactive UST locations from CRWQCB records. The search radius for SWEEPS UST listings are ¼-mile. The governmental database records do not include the subject site, nor any properties within a ¼-mile radius.

Facility Index System (FINDS) Listings

FINDS is a central and common inventory of facilities monitored or regulated by the EPA with cross-references to the program office databases that have additional programmatic information about the facility. Governmental database records do not include the subject site on the FINDS listing.

HAZNET Listings

File:e:\wp12\env\e6800\e6814.ph1&2.esa

The California EPA, DTSC maintains a list of facility and manifest data. Governmental database records do not include the subject site nor any facilities within a 1/4-mile radius of the subject site on the Haznet list.

EDR US Historic Auto Stations

EDR maintains listings for US Historical Auto Stations within a $\frac{1}{4}$ -mile radius of the subject site. The listings do not include the subject site on the US Historical Auto Stations, nor any properties within a $\frac{1}{4}$ -mile radius.

Solid Waste Landfills (SWLF)

According to governmental database records, the site is not included on the Solid Waste Landfill listing, nor are any properties within a ½-mile radius.

REGIONAL ENVIRONMENTAL REGULATORY AGENCY RECORD REVIEW

As part of this investigation, GSI contacted regional environmental regulatory agencies to request available environmental records related to the subject property. The environmental agencies contacted include the San Diego County Department of Environmental Health (DEH), State of California Department of Toxic Substances Control (DTSC), the San Diego Regional Water Quality Control Board (SDRWQCB), and the County of San Diego Department of Agriculture, Weights, and Measures. The completed public records request application forms are included in Appendix D.

San Diego County (DEH)

GSI submitted a request for public records on file with the San Diego DEH. The San Diego DEH has responded that no records are on file for the subject site.

State of California DTSC

GSI reviewed the DTSC Envirostor website for information pertaining to unauthorized releases of hazardous substances or petroleum products. The subject site and surrounding properties are not listed on the DTSC Envirostor website.

GSI further reviewed the DTSC Hazardous Waste Tracking System (HWTS) website for information pertaining to the disposal of hazardous substances. The subject site and surrounding properties are not listed on the DTSC HWTS website.

SDRWQCB

GSI submitted a request for public records on file with the SDRWQCB. The agency has responded that no records are on file for the subject site.

State Water Resources Control Board GeoTracker Website

The GeoTracker website maintains a record of environmental data for regulated facilities in California. The data includes information on leaking underground storage tank (LUST) cleanup sites, land disposal sites, "other" cleanup sites, military sites, waste discharge requirement (WDR) sites, irrigated lands regulatory program, permitted underground storage tank (UST) facilities, monitoring wells, Department of Toxic Substance Control (DTSC) cleanup sites, and DTSC hazardous waste permit sites. No database listings for the subject site were identified.

County of San Diego, Department of Agriculture, Weights, and Measures

GSI submitted a request for public records on file with the County of San Diego Department of Agriculture, Weights, and Measures. The County of San Diego provided records which indicated that RangerPro herbicide was applied to the property located at 3600 Bluebird Canyon Road between January, 2011 through May, 2014. RangerPro is an herbicide similar to Round-Up, containing the active ingredient glyphosate. Glyphosate has a relatively short average half-life of approximately 44 days (California Department of Pesticide Regulation [CDPR], 1998) and is therefore not expected to persist in the environment. Given that the pesticide was legally applied, it does not currently represent an REC.

DISCUSSIONS WITH PERSONS FAMILIAR WITH SITE

In preparation of this Phase I ESA, a transaction screening questionnaire was completed by Ms. Peggy Windrum (current property owner representative) on November 25, 2014, regarding her knowledge of the subject site. A brief summary of the questions is provided below.

- According to the client, she does not have any knowledge that the property, or adjoining properties, were historically or currently utilized for industrial use.
- According to the client, she is not aware or have knowledge of any registered or unregistered underground storage tanks historically or currently located on the property. Ms. Windrum provided information pertaining to the previous location of an above-ground storage tank located in the southern portion of the subject site.
- According to Ms. Windrum, she is not aware or have knowledge of any current or
 past existence of hazardous substances or petroleum products with respect to the
 property or any facility located on the property, although she did indicate Malathion
 may have been legally applied (Malathion degrades rapidly in soil, with reported
 half-lives ranging from hours to approximately 25 days [CDPR, 2006]).

The property owner representative indicated that there had been a 55-gallon drum
of diesel on the property, however, this was not observed. She further noted that
undocumented fill has been brought onto the property, and that the material was
usually generated when pools were constructed on nearby properties.

A copy of the complete transaction screen questionnaire is provided in Appendix E.

LIMITED SOIL EVALUATION

Based on the former agricultural activity at the subject site, GSI performed a limited soil screening evaluation to evaluate if soil had been impacted by residues from the application of organochlorine pesticides. In addition, based on the former presence of an above-ground storage tank (AST), GSI collected soil samples to evaluate the area for the presence of petroleum hydrocarbons and VOCs.

GSI collected a total of 24 soil samples throughout the subject site for the purpose of evaluating the property for residual organochlorine pesticides, and three soil samples for the evaluation of petroleum hydrocarbons related to the former AST. Soil sample locations S-2 through S-8 selected across the property where agricultural activity had taken place, and samples from the former pesticide mixing area were located at S-9. Soil sample S-1 was collected from the former AST location. Samples were collected using a small-diameter hand-auger and placed into clear 4-ounce glass jars.

Three samples were collected at each location. Near-surface samples were collected at a depth of 0.5 feet, with the exception of S-1, which was collected at a depth of 0.25 feet. Remaining samples were collected at depths ranging from one to three feet begs. The collected samples were labeled and placed on ice pending delivery to a California Department of Health Services (DHS) certified laboratory. GSI conformed to quality assurance/quality control procedures (QA/QC) during all soil sampling activities. Chain-of-Custody records were recorded with the laboratory and are included in laboratory reports in Appendix D.

Soil Analytical Results

Analysis for organochlroine pesticides was performed in accordance with EPA method 8081A. Soil samples collected for pesticide evaluation were also analyzed for lead by EPA method 6010. Soil collected from the area of the former fuel AST were analyzed using EPA method 8015B for total petroleum hydrocarbon as gasoline, diesel, and oil range organics (TPH-GRO, TPH-DRO, and TPH-ORO). The following table summarizes concentrations of detected constituents.

Boring	Depth	Constituent	Concentration Detected mg/kg	CHHSL-Res or (EPA Region 9 RSL) mg/kg	Comment
S-2	0.5'	Lead	9.30	150	Below CHHSL
		DDT	0.026	1.6	Below CHHSL
	1.5'	Lead	2.10	150	Below CHHSL
	3'	Lead	2.87	150	Below CHHSL
S-3	0.5'	DDT	0.040	1.6	Below CHHSL
		Lead	7.12	150	Below CHHSL
	1.5'	DDE	0.052	1.6	Below CHHSL
		Lead	1.73	150	Below CHHSL
	3'	Lead	1.81	150	Below CHHSL
	0.5'	DDE	0.030	1.6	Below CHHSL
S-4		DDT	0.016	1.6	Below CHHSL
		Lead	5.43	150	Below CHHSL
	1.5'	Lead	1.83	150	Below CHHSL
	3'	Lead	1.69	150	Below CHHSL
S-5	0.5	Lead	3.80	150	Below CHHSL
	1.5'	Lead	2.95	150	Below CHHSL
	3'	Lead	2.13	150	Below CHHSL
S-6	0.5	Lead	4.20	150	Below CHHSL
	1.5'	Lead	2.38	150	Below CHHSL
S-7	0.5	Lead	5.22	150	Below CHHSL
	1.5'	Lead	2.52	150	Below CHHSL
	3'	Lead	2.13	150	Below CHHSL
S-8	0.5	Lead	2.38	150	Below CHHSL
	1.5'	DDE	0.057	1.6	Below CHHSL
S-9	0.5	Lead	7.51	150	Below CHHSL
	1.5	Lead	2.18	150	Below CHHSL
	3	Lead	2.36	150	Below CHHSL

The laboratory analytical report is provided in Appendix D on the CD data disc.

In order to assess risks to human health the detected analytes were compared to California Human Health Screening Levels for residential development applications (CHHSLs-R). CHHSLs were developed by The California Environmental Protection Agency ([CEPA], 2005) as threshold values with generally accepted exposure factors to estimate

concentrations of contaminants in residential soil that do not represent a cancer risk to humans greater than one-in-one million (i.e., 1 x 10-6). Detected concentrations of DDE, DDT, and lead did not exceed CHHSLs during this soil evaluation.

FINDINGS

Based upon the information obtained during the course of this assessment, GSI presents the following summary of findings and conclusions:

- Based upon our November 25, 2014 field reconnaissance of the property, an interview with a representative of the current property owner, our review of historic land use utilizing readily available reports, historical aerial photographs, and historical topographic maps, it is our understanding that the subject property has historically been used for agricultural purposes. The property consists of three parcels. The westernmost parcel is occupied by a single-family residence. The parcel was not accessible, however, it was observed remotely from the adjacent parcel and roadway. An unidentified, white, polyethylene tank was observed on the residential parcel. A small vacant house, a shed, and a covered parking area were present in the southern portion of the property, and the remaining parcel was vacant.
- In general conformance with the scope and limitations of ASTM Practice E 1527-13, Vapor Encroachment Screening (VES) was conducted for the proposed residential development. Based on our VES evaluation, and the absence of an unauthorized releases, or facilities, vapor encroachment does not pose a recognized environmental condition (REC).
- The irregularly-shaped property is flat on the southwestern portion, while the
 eastern portion slopes more steeply to the west. The majority of the subject
 property is covered by small vegetative growth, however, a grove of palm trees is
 present in the northern portion.
- Topographically, elevation onsite ranges from approximately 710 to 820 feet above MSL. The property generally drains to the northwest. No significant environmental concerns were observed on the subject property during the site reconnaissance, with the exception of the palm tree grove as evidence of previous agricultural use. The aforementioned single-family residence and shed were not entered, however.
- The site is bordered to the north and west by residential properties. The site is bordered to the east by greenhouses, a commercial palm-tree grower, and a residence. The site is bordered to the south by a Vista Irrigation District facility, which includes a water tank, and by Buena Creek Road, followed by residential structures.

- Based on our review of the Geotracker website, the GAMA website, and the DWR WDL website, no groundwater information is readily available for subject site and vicinity. Therefore, depth to groundwater is unknown. GSI estimates that the groundwater gradient is in a northwesterly direction in the immediate vicinity of the subject site, based on topographic map review.
- GSI requested Sanborn Fire Insurance Maps for the site; however, Environmental Data Resources (EDR, 2014b) indicated the site was an "Unmapped Property." A report of this inquiry is provided in Appendix C. Research of government data base records provided by EDR (2014a) indicated no mapped or unmapped risk sites within the specified search radius. City directory listings provided by EDR (2014d) indicated no addresses of potential concern within the specified search radius.
- According to the DOGGR website, (DOGGR, 2014) there are no active or abandoned oil, or gas wells located on the subject site. Thus, oil and gas wells are not considered RECs.
- Data gaps included the years 1939 to 1945, 1947 to 1952, 1954 to 1962, 1964 to 1973, 1975 to 1984, and 1995 to 2004. However, it is our opinion that additional historic information, if it were to become available, is not likely to significantly change the conclusions and recommendations of this assessment.
- Due to the previous use of the subject site for agricultural purposes, GSI conducted limited soil sampling to evaluate the property for the presence of organochlorine pesticides and elevated concentrations of lead. Based on soil analytical results, organochlorine pesticides and lead were not detected at concentrations exceeding CHHHSL-Rs set forth by CalEPA. Therefore, legally-applied pesticides do not currently represent a REC.
- A diesel fuel AST was previously present on the southern portion of the property.
 Three soil samples were collected near the location of the former AST at depths of 0.25', 1', and 34" begs. The shallowest soil sample was analyzed for TPH-GRO, TPH-DRO, and TPH-ORO. Petroleum hydrocarbons were not detected above laboratory reporting limits in the samples tested.

CONCLUSIONS

We have performed this Phase I ESA in general conformance with the scope and limitations of ASTM Practice E 1527-13 of 181-180-84, 181-180-86, and 181-180-56, Vista, San Diego County, California 92078. Any exceptions to, or deletions from, this practice are described in the section immediately above. With the exception of the potential for LBP and ACM in the older buildings onsite, this assessment has revealed no evidence of recognized environmental conditions in connection with the subject property.

 Based upon the information obtained during the course of our recent assessment, pursuant to the limitations set forth in the text of this report and provided our recommendations are implemented, the site is considered acceptable for the proposed residential land use.

RECOMMENDATIONS

- Based upon the age of the subject property buildings, it is likely that ACMs and LBP are present. Prior to demolition, ACM and LBP surveys should be conducted. If ACMs and LBPs are found to be present, special handling and disposal techniques will be necessary under the oversight of a qualified consultant.
- Five-gallon buckets reportedly containing used oil were observed in the covered parking area on the south side of the subject site. Prior to redevelopment activities, all used oil, should be properly disposed of in accordance with local, state, and federal regulations. GSI further recommends inspecting the soil beneath the covered parking structure once the concrete is removed, to evaulate if any oil has reached the subsurface. If hydrocarbon-affected soil is encountered during demolition and/or grading activities, it should be stockpiled, sampled, and disposed of at a licensed disposal facility.
- Should any chemicals or suspect materials be encountered during demolition of the residential structures or shed, they too should be properly disposed of in accordance with local, state, and federal regulations.
- The white, polyethylene tank (likely a container for water), that was observed on the
 residential parcel to the west, should be properly disposed of, also in accordance
 with local, state, and federal regulations.
- Based upon the information collected by GSI during this environmental site assessment, further studies or action, other than the above, are not recommended from an environmental viewpoint, at this time.

LIMITATIONS

GSI has performed the services for this project in accordance with the terms of a contract between GSI and Client and in accordance with current professional standards for investigations of this type. The conclusions presented in this report are based on the information collected during the study, the present understanding of the site conditions, and professional judgment.

Please note, subsurface and hazardous waste/toxic substance conditions may vary from those provided in historical documents reviewed by GSI. The interpretations and recommendations of GSI are based solely on such information and/or information supplied by Client. Findings of this investigation based on data provided by others carries no warranty, express or implied, as a result of the usage of such data.

It is possible that future investigations may reveal additional data or variations of the current data which may require the current conclusions and recommendations to be reevaluated. As a result, GSI makes no warranty, either express or implied, as to its findings, opinions, recommendations, specifications, or professional advice except that they were promulgated after being prepared in accordance with generally accepted standards of care and diligence normally practiced by recognized consulting firms performing services of a similar nature.

The information in this report is relevant to the date of the site work and should not be relied on to represent conditions at any later date. Facts, conditions, and acceptable risk factors change with time, accordingly, this report should be viewed within this context.

APPENDIX A

REFERENCES

APPENDIX A

REFERENCES

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CD DATA DISC

Appendix B - Site Photographs

Appendix C - Environmental Data Resources (EDR) Reports

Appendix D - Laboratory Test Results

Appendix E - ASTM Transaction Screen Questionnaire

Appendix F - Resumes

APPENDIX B SITE PHOTOGRAPHS



1. House and covered parking area on south side of property. View is to the north.



2. Covered parking area on south side of property. Note 5-gallon buckets filled with used oil and stained concrete.



SITE PHOTOGRAPHS

Plate B-1

DATE 12/2014 W.O. <u>E6814-SC</u>



3. Looking east from southwest portion of property.



4. Residential property on west side of subject site. Note unidentified AST.



SITE PHOTOGRAPHS

Plate B-2

DATE 12/2014 W.O. <u>E6814-SC</u>



5. Looking north on west side of property.



6. Looking south from northwest corner of site.



SITE PHOTOGRAPHS

Plate B-3

DATE 12/2014 W.O. <u>E6814-SC</u>



7. Looking west towards adjacent property.



8. Looking east along drainage ditch on north side of site.



SITE PHOTOGRAPHS

Plate B-4

DATE 12/2014

W.O. <u>E6814-SC</u>



9. Former AST and pesticide mixing area. View is to the northwest.



10. Transformer on southwestern property boundary.



SITE PHOTOGRAPHS

Plate B-5

DATE__12/2014____

W.O. <u>E6814-SC</u>



11. Vista Irrigation District property to the southeast.



SITE PHOTOGRAPHS

Plate B-6

DATE 12/2014 W.O. ___

Geotechnical • Geologic • Coastal • Environmental

E6814-SC

APPENDIX C ENVIRONMENTAL DATA RESOURCES (EDR) REPORTS

Tomlinson

Hollyberry Dr./Bluebird Canyon Rd. Vista, CA 92084

Inquiry Number: 4132019.12

November 13, 2014

The EDR Aerial Photo Decade Package



EDR Aerial Photo Decade Package

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

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Date EDR Searched Historical Sources:

Aerial Photography November 13, 2014

Target Property:

Hollyberry Dr./Bluebird Canyon Rd. Vista, CA 92084

<u>Year</u>	<u>Scale</u>	<u>Details</u>	<u>Source</u>
1938	Aerial Photograph. Scale: 1"=500'	Flight Year: 1938	USGS
1946	Aerial Photograph. Scale: 1"=500'	Flight Year: 1946	USGS
1953	Aerial Photograph. Scale: 1"=500'	Flight Year: 1953	USGS
1963	Aerial Photograph. Scale: 1"=500'	Flight Year: 1963	Cartwright
1974	Aerial Photograph. Scale: 1"=500'	Flight Year: 1974	AMI
1985	Aerial Photograph. Scale: 1"=500'	Flight Year: 1985	USGS
1989	Aerial Photograph. Scale: 1"=500'	Flight Year: 1989	USGS
1990	Aerial Photograph. Scale: 1"=500'	Flight Year: 1990	USGS
1994	Aerial Photograph. Scale: 1"=500'	/DOQQ - acquisition dates: 1994	USGS/DOQQ
2005	Aerial Photograph. Scale: 1"=500'	Flight Year: 2005	USDA/NAIP
2009	Aerial Photograph. Scale: 1"=500'	Flight Year: 2009	USDA/NAIP
2010	Aerial Photograph. Scale: 1"=500'	Flight Year: 2010	USDA/NAIP
2012	Aerial Photograph. Scale: 1"=500'	Flight Year: 2012	USDA/NAIP









