COUNCIL AGENDA: 6/16/20
FILE: 20-654
ITEM: 8.1

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM: Jacky Morales-Ferrand

SUBJECT: **ACQUISITION OF 71 VISTA MONTANA DRIVE**

DATE: June 15, 2020

Approved

Date 6/16/2020

SUPPLEMENTAL

REASON FOR SUPPLEMENTAL

The purpose of this supplemental memo to provide the environmental reports prepared for the 71 Vista Montana property, agendized on the June 16, 2020 City Council meeting.

ANALYSIS

A Phase I Environmental Site Assessment was completed by the Environmental Services Department on May 12, 2020 (**Attachment A**). The report provides a summary of environmental conditions associated with the property.

Additionally, soil samples were taken at the site and a cost analysis was prepared to determine the cost of remediating and mitigating the soil contamination found to ensure the property is safe for the proposed residential development (**Attachment B**). The cost estimate established a range of costs from $850,000 to $4,910,000 based on three different preliminary architectural designs for the proposed residential development. The main reason for the difference in the remediation costs is due to one design having underground parking. This would require excavation and lead to significantly higher off-site disposal costs.

/s/
JACKY MORALES-FERRAND
Director, Housing Department

For questions, please contact Kevin Ice, Senior Manager, Real Estate at (415) 992-1302.

ATTACHMENTS

Attachment A: Phase I Environmental Site Assessment
Attachment B: Preliminary Cost Estimate for Managing Environmentally Impacted Soil

Attachment A

Phase I Environmental Site Assessment

71 Vista Montana
APN 097-52-027
San José, California

Prepared for:
The City of San José
200 East Santa Clara Street
City of San José, California, 95113

May 12, 2020

Prepared by:
The Environmental Services Department
City of San José

May 12, 2020
Phase I Environmental Site Assessment

71 Vista Montana
APN 097-52-027
San José, California

EXECUTIVE SUMMARY

The Environmental Services Department (ESD) has performed a Phase I Environmental Site Assessment (ESA) in conformance with the scope and limitations of ASTM Standard Practice E1527-13 for the property located at 71 Vista Montana (Site) in north San José. The Site consists of one parcel (APN 097-52-027). The Site is bounded by Renaissance Drive to the east, Vista Montana to the south, Vista Montana Neighborhood Park and Orchard Street to the west and residences north. The surrounding area is urban and developed with residential properties and commercial and industrial businesses. Regional, location, site, and assessor parcel maps of the project site can be seen in Figures 1-4. It is understood that this property is owned by a private firm, San Jose Vista Montana, L.P. and that the City of San José Housing Department is interested in purchasing the property for an affordable housing project.

The purpose of this Phase I ESA is to determine if there are any recognized environmental conditions (RECs) indicating that presence or likely presence of any hazardous substances or petroleum products in, on or at the property due to a release to the environment, under conditions indicative of a release to the environment or under conditions that pose a material threat of a future release to the environment.

SITE HISTORY

Historically, the Site was an orchard from at least 1939 to around 1973. The property was vacant between 1973 until the present building was constructed in 1985. The building was first occupied by Orbit Technologies in 1985 followed by a series of high-tech semiconductor firms including Paradigm Technology, Supertex and Microchip Technologies. In 2015 the Facility was closed and the property has been vacant since.

SITE RECONNAISSANCE

A site visit of the 4.21-acre project site was completed on May 7, 2020. The Site was not occupied at the time of the visit. Evidence of the former semiconductor operations were observed during the visit, including a former lab area in the northern portion of the building that contained numerous underground trenches that lead to an outdoor area that formerly contained a wastewater treatment system to neutralize the waste prior to discharge to the sanitary sewer. Infrastructure such as concrete vaults, secondary containment areas, aboveground storage tanks and air handling ducts, are still in existence.

No hazardous materials are wastes were observed, or evidence of significant spills or releases that may have impacted the subsurface.

FINDINGS, OPINIONS AND CONCLUSIONS

Based on the results of the site reconnaissance, our review of available local, state, and federal environmental records, and the limited soil investigation, City of San Jose – Municipal Environmental Compliance Department has developed the following findings, opinions and conclusions:

Recognized Environmental Conditions (RECs)

Based on our review of available local, state, and federal environmental records, personal interviews conducted with knowledgeable parties, and a site reconnaissance, this assessment has revealed the following recognized environmental condition in connection with the Site.

Elevated levels of arsenic lead and pesticides have been found in the soil beneath the property in several environmental investigations in the past 20 years, likely from historic agricultural uses. Arsenic is the primary contaminant and is present above regulatory environmental cleanup levels for residential uses in a majority of the subsurface 4 or 5 feet below ground surface. Pesticides and lead have also been found in some areas of the property above residential environmental screening levels.

Controlled Recognized Environmental Conditions CRECs

This assessment has revealed no evidence of Controlled RECs (CRECs) in connection with the Site.

Historical Recognized Environmental Conditions HRECs

This assessment has revealed no evidence of Historical RECs (HRECs) in connection with the Site.

***De Minimis* Conditions and Other Environmental Concerns**

This assessment has no revealed no de minimis conditions and other environmental concerns in connection with the Site.

OPINIONS AND CONCLUSIONS

Due to the elevated levels of arsenic, lead and pesticides in the shallow soil, remedial measures will need to be completed to redevelop the property into the proposed residential development to make safe for future occupants. The remedial measures include excavating the contaminated soil for off-site disposal, capping the contaminated soil beneath hardscape or 2 feet of clean soil in non-paved areas or a combination of removal and capping. Contaminated soil will need to be removed from utility lines and replaced with clean imported soil.

The remediation must be performed under regulatory approval and oversight from the Department of Toxic Substances Control (DTSC). An environmental consultant will be required to manage the remediation effort and provide services such as soil testing, dust monitoring, regulatory coordination and reporting. Upon completion of the remedial efforts the Site will have a deed restriction restricting any future site redevelopment or excavation unless there is a DTSC pre-approved Site Management Plan. The Site will be subject to routine inspections to ensure the protective cap is in-place and require annual reporting and DTSC permit fees.

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1 INTRODUCTION

1.1 PURPOSE

At the request of the City of San José (City) Housing Department and the Department of Real Estate, the Environmental Services Department (ESD) has performed a Phase I Environmental Site Assessment (ESA) for the Site, located at 71 Vista Montana (Figure 1-4). The City Housing Department is interested in acquiring the property to develop an affordable housing project. The purpose of this Phase I is to determine if there are any environmental liabilities or concerns that exist on the subject site.

This report was prepared using the standard practice presented in the document titled "STANDARD PRACTICE FOR ENVIRONMENTAL SITE ASSESSMENTS: PHASE I ENVIRONMENTAL SITE ASSESSMENT PROCESS" (The American Society for Testing of Materials ASTM, E1527-13) and in general accordance with the federal EPA "All Appropriate Inquiries" (AAI) final rule in 40 CFR Part 312, effective November 1, 2006. This Phase I ESA is "intended to permit a user to satisfy one of the requirements to qualify for the innocent landowner, contiguous property owner, or bona fide prospective purchaser limitations on CERCLA liability…" as defined in CERCLA Section 101(14) (§ 312.1 (c)) and conduct "an evaluation of business environmental risk associated with the parcel of commercial real estate…"

Under EPA and ASTM Standard Practice E1527-13, the purpose of conducting this Phase I ESA is to conduct an inquiry designed to identify whether a recognized environmental condition exists on the subject property. This practice is intended for voluntary use by persons that wish to assess the environmental condition of a property taking into account commonly known or reasonable ascertainable information.

As defined by ASTM Standard Practice E1527-13 standards, "the term recognized environmental condition (REC) means 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; or (3) under conditions that pose a material threat of a future release to the environment." The term is not intended to include de minimis conditions that generally do not present a threat to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be de minimis are not recognized environmental conditions (ASTM E1527-13, 3.2.22, page 4).

As defined by ASTM Standard Practice E1527-13 standards, a controlled recognized environmental condition (CREC) is "a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls."

As defined by ASTM Standard Practice E1527-13 standards, a historical recognized environmental condition (HREC) is "a past release or any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls."

1.2 SCOPE OF WORK

The scope of the Phase I ESA includes research to the extent feasible of readily available records and information relevant to the environmental conditions of the property, past uses of the property, physical features on the property, a site reconnaissance, documentation of conditions on the property, interviews with persons knowledgeable of the property, and a statement of findings, opinions and conclusions.

The contents of this report and work conducted are summarized below:

Introduction: Identifies the property and the purpose of the Phase I ESA, scope of services, standard practice, significant assumptions, limitations, exceptions, special terms and conditions, and any additional services.

Site Description: Describes the sites location and condition at the time of this report.

User Provided Information: Describes provided information such as title records, environmental liens or activity and use limitations, specialized knowledge, commonly known or reasonably ascertainable information, valuation reduction for environmental issues, owner, property manager and occupant information, and special contractual conditions between user and environmental professional.

Physical Setting: Describes the sites local and regional geology and hydrogeology.

Site History: Evaluates the past uses of the site and adjacent properties based on a review of historical aerial photographs, Sanborn Fire Insurance Maps, City directories, historical topographic maps, and any other available records.

Records Review: Various records and databases are reviewed as available from federal, state, and local regulatory agencies regarding hazardous substance release, use, storage, or disposal activities at the site or within the ASTM specified search distance. Information provided by the client or owner, and physical site characteristics such as topography, soils, and groundwater conditions are reviewed.

Site Reconnaissance: Describes the observations made during the inspection of the site, such as the general site setting, interior and exterior observations, property uses and conditions, methods utilized, and limiting conditions.

***Interviews*:** Summarizes telephone, email and in-person interviews conducted with past and present owners, and occupants. Additional interviews may be conducted with adjoining property representatives, state and local government officials, or persons with historical knowledge regarding the site.

Evaluation: Discusses the findings, opinions, and conclusions of the Phase I ESA, as well as data gaps, data failures, deletions, environmental professional statement and signatures.

1.3 SIGNIFICANT ASSUMPTIONS

The information obtained and utilized in completing this report has been derived in part from the City of San José employees or agents and third-party sources, such as, property occupants and/or representatives, government agencies and regulatory agency databases. This information is assumed to be reasonably accurate and complete, but no effort is conducted to validate the accuracy and completeness. It should be noted that this information is subject to professional interpretation, which leads to conclusions which may differ, based on opinions specific to individuals.

1.4 SPECIAL TERMS AND CONDITIONS

ESD was authorized to perform this Phase I ESA by the City of San José Housing Department and Department of Real Estate (Real Estate). Information regarding the property was provided by Housing and Real Estate.

2 SITE DESCRIPTION

2.1 LOCATION AND LEGAL DESCRIPTION

Property information is summarized in the following table. A Site location map and parcel map is provided as Figure 3 and 4.

PARAMETER	DESCRIPTION
Reported Address	71 Vista Montana, San José, CA 95134
Parcel Number	APN 097-52-027
Location	71 Vista Montana
Legal Description	Not provided
Size	4.21 acres
Zoning	Industrial Park IP
Proposed Use	Housing

2.2 SITE SETTING

The Site consists of one 4.21-acre parcel with a 65,000 square foot one-story office building located in north San Jose. The area around the building consists of a paved parking lot and landscaped areas. The site is located to the northwest of Vista Montana and to the southwest of Renaissance Drive. Single-family homes, a park and large apartment complexes border the site the north, east and west with commercial buildings to the south and southeast.

2.3 SITE VICINITY SETTING

The Site vicinity is in North San Jose, an area which has undergone significant redevelopment and densification in the past 10 years. Open space and smaller residential developments and office complexes have been replaced with large residential apartment complexes, and multi-story commercial/industrial parks. Several parks and a large retail shopping complex are located nearby. The San Jose-Santa Clara Regional Wastewater Treatment Facility and San Francisco Bay is about 2 miles northeast of the subject site.

3 USER PROVIDED INFORMATION

3.1 TITLE RECORDS

A review of the current Title Report was not reviewed for this Phase I ESA.

3.2 ENVIRONMENTAL LIENS OR ACTIVITY AND USE LIMITATIONS

A review of environmental lien or activity and use limitations were not reviewed for this Phase I ESA.

3.3 SPECIALIZED KNOWLEDGE

The San José Housing Department and Department of Real Estate have no specialized knowledge of the site.

3.4 COMMONLY KNOWN OR REASONABLY ASCERTAINABLE INFORMATION

This investigation included the review of all commonly known or reasonably ascertainable information sources from the state, federal, and local agencies, property owner, and tenants.

3.5 VALUATION REDUCTION FOR ENVIRONMENTAL ISSUES

Environmental Services is not aware of any environmental issues that would qualify as a valuation reduction for environmental issues at this time.

3.6 OWNER, PROPERTY MANAGER, AND OCCUPANT INFORMATION

According to information provided the owner is San Jose Vista Montana, L.P. The site is currently vacant with no property manager or occupant.

3.7 SPECIAL CONTRACTUAL CONDITIONS

The report was prepared for the City of San José, which is the only entity that may rely on this Phase I Environmental Site Assessment. The Environmental Professional that prepared the report is an employee of the City of San José.

4 PHYSICAL SETTING

Information about the physical setting and regional geology and hydrology is presented in the following two tables.

PHYSICAL PARAMETER	GENERAL INFORMATION
Regional Geology	The Santa Clara Valley is a northwest-trending alluvial basin, bounded by the Santa Cruz Mountains to the west, the Diablo Range to the east, and San Francisco Bay to the north. The elongate valley lies between active Hayward and San Andreas faults that are a part of the California Coast Range Province. Consolidated sedimentary and metamorphic rocks, ranging from Jurassic to Pliocene age are exposed at the ground surface throughout the adjacent mountain areas. Semi-consolidated, Plioceneto Pleistocene-age sediments (conglomerate, sandstone, siltstone, and claystone) of the Santa Clara Formation occur along both flanks of the valley and in the valley trough beneath an accumulation of unconsolidated Pleisocene- through Holocene-age sediments. The consolidated deposits include stream-derived alluvium, alluvial fan deposits, and Bay deposits. Regional soil type is Clay loam. Based on the *City Monitored Site Naturally Occurring Asbestos Areas Map*, the site is not located within a naturally occurring asbestos (NOA) area. The Site is situated at an elevation of approximately 10 feet above mean sea level and is relatively flat and slopes regionally to the northwest.
Regional Hydrology	The Site lies within the Santa Clara Groundwater Sub-basin made up of two aquifers. Regionally, groundwater flow is estimated to generally flow to the northwest, towards the San Francisco Bay. Groundwater in the regions deep aquifer begins between 95-250 feet below ground surface (bgs). Based on results of previous investigations on the subject property, the Site groundwater levels range at depths from 10 to 15 bgs and groundwater flow is to the northwest.

5 SITE HISTORY

The history of the Site was researched to identify obvious past land uses using available aerial photographs, Sanborn Fire Insurance Maps, historical topographic maps, and city directories provided by Environmental Database Resources, Inc. (EDR) in an environmental database resource package. The following table summarizes the availability of historical information reviewed during this assessment.

PARAMETER	YEARS REVIEWED
Aerial Photographs	1939, 1948, 1950, 1956, 1963, 1968, 1974, 1979, 1982, 1993, 1998, 2006, 2009, 2012, 2016
Sanborn Fire Insurance Maps	Not Recorded
Historical Topographic Maps	1889, 1897, 1899, 1953, 1961, 1968, 1973, 1980, 2012
City Directories	1922-2017
Previous Assessment(s)/ Records	Soil Testing Results by Golder dated May 2020 Phase I Environmental Site Assessment by SLR dated September 2019. Phase I Environmental Site Assessment (Microchip Technologies) by EORM dated November 2014. Phase II Environmental Site Assessment (Supertex) 2011 Golder Associates. Facility Closure Report for Supertex, 2015.

5.1 AERIAL PHOTOGRAPHS

Historical aerial photographs of the site and surrounding vicinity were reviewed for the years referenced above and further discussed herein. Precise observations are limited, due to the extended scale of the aerials. The historical photos series are included in the EDR Aerial Photo Decade Package provided in Appendix A.

YEAR	DESCRIPTION
1939	The Site and surrounding area are orchards. The Guadalupe River appears to the west of the site and N 1st Street is visible to the east.
1948	What appears to be newly planted trees are present on Site, and an unpaved road appears in the eastern portion of the site. The surrounding properties appear similar to the 1939 photo.
1950	The orchard appears to be absent from the eastern half of the Site and the road is no longer present. About half of the surrounding properties no longer have orchards.
1956	The Site and surrounding area appear similar to the 1948 photo. The road is no longer present on site.

1963	The Site and surrounding area appear similar to the 1956 photo.
1968	The Site appears similar to the 1963 photo. Orchards are still present in the surrounding area, Guadalupe River has been channelized and highway 237 to the north has been improved (widened).
1974	The Site is undeveloped land with no orchards no longer appear on site or in most of the surrounding area. Development of the residential area to the north of the site is underway.
1979	The site appears similar to the 1974 photo. In the surrounding area there is an increase in residential development to the north and south of the Site and some commercial/industrial development to the west.
1982	The Site and surrounding area appear similar to the 1979 photo. In the surrounding area there is slightly more residential development to the north.
1993	There is a large building covering the majority of the property located onsite. In the surrounding area there is more residential and commercial/industrial development to the west and south and all roads N. First Street and Vista Montana) are in the orientation they are currently today.
1998	The Site appears similar to the 1993 photo. The surrounding area is fully developed with a few open fields. There are multiple large commercial industrial buildings mostly to the south and east and more residential development to the north and west.
2006	The Site and surrounding area appear similar to the 1998 photo.
2009	The Site and surrounding area appear similar to the 2006 photo. There is further commercial development to the east of the property in the surrounding area.
2012	The Site and surrounding properties appear like the 2009 photograph.
2016	The Site and surrounding properties appear like the 2012 photograph. Vista Montana Park is visible in the area.

In summary, the aerial photographs show the site has an agricultural history from at least the late 1930s to late 1960s. Between at least 1974 up to the early 1980s the site was undeveloped, and by 1993 the current structure on site was built.

5.2 SANBORN FIRE INSURANCE MAPS

There were no Sanborn Maps available for the Site. The EDR Certified Sanborn Map Report is provided in Appendix B.

5.3 CITY DIRECTORIES

City directories for the Site were listed the property as being owned by Paradigm Technology Inc from 1991 to 1996 and Supertex Inc in 2009 and 2014. The majority of the adjoining properties are listed as residences (apartment complexes) or high-tech business. The high-tech businesses include Novellus Systems, Vitesse Semiconductor, Webex and Akashic in the 1990s thru 2000s. The listings are included in the EDR-City Directory Abstract provided in Appendix C.

5.4 HISTORICAL TOPOGRAPHIC MAPS

Historical topographic maps for the property were reviewed for the years referenced above. The Site as shown as agricultural in 1961, 1968 and 1973. No other information was provided that was not already present in the aerial photographs. The map series is included in The EDR Historical Topographic Map Report provided in Appendix D.

5.5 PREVIOUS ASSESSMENTS

Several Phase I Environmental Site Assessment and Phase II Investigations of the Site were provided and reviewed. The 2014 Phase I and 2011 Phase II are provided in Appendix E. Summaries are below.

<u>2011 Phase II Environmental Site Assessment</u>

Golder Associates Inc. (Golder) conducted a Phase II ESA for the property for LBA Realty (LBA) to assess the groundwater conditions at the site. At the time of this assessment the property was occupied by Supertex. Facility operation equipment located in an enclosure on the northwest side of the property consisted of chillers, chemical and waste storage, aboveground storage tanks, and an acid waste neutralization system. Supertex was the only tenant in the building during this time and used the building for research and development, semiconductor production, and office space.

Golder completed a Phase I ESA for the site and discovered that the site was listed on the Department of Toxic Substances Control (DTSC) online database for voluntary cleanup of pesticides in soil. A previous tenant installed ten 1-inch diameter groundwater monitoring wells in 1988 as part of a baseline groundwater survey. These wells were sampled twice once in January and once in February of 1999. Low levels of chloroform methylene chloride, and tetrachloroethene were detected in three of the ten wells. Low levels of metals antimony, arsenic, chromium, mercury, and nickel were detected in nine of the ten wells.

In December 2010, Golder collected groundwater samples from six of the ten wells (MW1- to MW-3, MW-6, MW-7 and MW-9). The results of the well sounding showed that the total depth of all the wells on site ranged from 9.72 feet below ground surface (bgs) to 12.65 ft bgs. Groundwater samples collected from the wells were submitted and tested for Volatile Organic Compounds, Arsenic, and Organochlorine Pesticides. Results from the testing showed that no constituents of concern were detected above the laboratory reporting limits in any of the wells sampled.

<u>2014 Phase I Environmental Site Assessment</u>

This assessment was prepared for Microchip Technologies by Environmental, Health, Safety, and Sustainability Consulting (EORM) in November 2014. Microchip Technologies purchased the property from Supertex, a submicron wafer fabrication facility, on December 18, 2013. During EORMs site visit the southeast portion of the property was leased by Aerohive, who used the space for testing switches, routers, and access points for computer operations. No chemicals or processes involving chemicals were discovered during the visit in the leased portion of the site.

Historically the Site was used as an orchard. It was reported that soil on site could potentially be impacted by pesticides used in the normal course of normal farming operations during that time, specifically arsenic, DDT, DDE, DDD, and Dieldrin. The present building was constructed in 1985 and was first occupied by Orbit Technologies in that same year, followed by Paradigm Technology Incorporated until 2008, after which the site was purchased by Microchip Technologies. It was also indicated that two previous integrated circuit manufacturing companies operated at the facility prior to 1999.

Overall, EORM reported that there were no recognized environmental conditions (RECs) associated with the property.

2015 Supertex Facility Closure Report

Supertex was a mixed signal semiconductor manufacturer. Since 1976 they have developed technologies that utilized Complementary Metal Oxide Semiconductors and Double Diffused Metal Oxide Semiconductors. While Supertex was a tenant at 71 Vista Montana they used the space for various operations relating to the manufacturing of semiconductors including; A Wafer Manufacturing Cleaning Room, an interior non process area that included offices, process support equipment located on the northernmost portion of the property including various tanks, liquid pumps, a cooling tower, and other hazardous waste storage facilities. The facility also has a neutralization pretreatment system and integral fluoride precipitation unit.

A large variety of chemicals were used in the semiconductor manufacturing process including bases, acids, solvents, photoresists and developers compressed gases and toxic gases. Chemicals were stored in a variety of places and included an outside equipment pad with three storage bunkers for chemicals that included an acid bunker, base bunker, and flammable bunker. Waste solvent material was collected in a 700-gallon steel tank below grade within secondary containment. There was also anacid waste neutralization system with two 3,000-gallon vertical plastic tanks.

There were two historical spills noted at the facility. One was an electrical transformer that leaked several gallons of oil in 2007. Another one-gallon sulfuric acid container leaked from a defective seam.

The facility closure report indicated that the Supertex Closure followed all applicable guidelines and regulations and noted no incidents of additional spills or improper disposal of any materials or equipment.

2019 Phase I Environmental Site Assessment

This assessment was prepared for SLR for Charities Housing dated September 2019. During SLR's site visit the property was vacant and they observed the former wastewater treatment area and chemical storage areas. They did not observe any evidence of past hazardous materials releases or spills. They

noted the agricultural site history and that past occupants of the building stored had a wastewater treatment system and stored/used hazardous materials. SLR reviewed numerous previous reports and assessments of the property.

SLR documented two recognized environmental conditions (RECs) associated with the property, the potential for pesticides and insecticides in the soil from past agricultural operations and the potential lead and arsenic from lead based paint and construction activities. SLR recommended sampling and testing the soil for these constituents.

2020 Golder Soil Investigation

Previous soil testing of the Site consisted of sampling at depth greater than 2.5 feet below ground surface (bgs). To supplement these results, Golder was retained by the City to test the shallow soil to determine the concentrations of arsenic and pesticide. Golder drilled 10 borings at the Site and collected soil samples at depths of 1-2, 2-4 and 4-6 feet bgs. The results showed arsenic at levels above the regulatory cleanup levels for arsenic in 7 out of 10 locations. The pesticide dieldrin exceeded residential environmental screening levels in 2 sample locations.

6 RECORDS REVIEW

6.1 ENVIRONMENTAL RECORD SOURCES

A review of environmental regulatory databases maintained by various federal, state, and local agencies was conducted by reviewing the environmental database resource report created by Environmental Database Resources, Inc. (EDR) specializing in environmental risk information services and data. The report is titled EDR Radius Map™ Report with GeoCheck® (radius report) and consists of data and information from the federal, state, and/or local agencies of known or suspected contaminated facilities, known generators or handlers of hazardous waste, known waste treatment, storage, and disposal facilities, and permitted underground storage tank sites. The radius report is provided in Appendix F.

6.2 RECORDS REVIEW FINDINGS

The radius report identifies facilities up to 1-mile search radii of the site at distances specified by ASTM standards for regulatory lists. Professional judgment was used factoring in the type of listing, distance, and location with respect to the expected southwesterly groundwater gradient to evaluate potential off-site sources of contamination. Listings identified within ¼-mile of the site were closely evaluated for any existing environmental concerns to the site. The databases identified the following listings within 1-mile of the site.

ENVIRONMETNAL DATABASE	TOTAL LISTINGS
NPL	1
CERCLIS	0
CORRACTS	0
RCRA-LQG	0
RCRA-SQG	5
US ENG CONTROLS	0
US INST CONTROLS	0
RESPONSE	1
ENVIROSTOR	25
SWF/LF	0
LUST	4
BROWNFIELDS	0
SLIC	7
HIST LUST	2
AST	1
VCP	2
WMUD/SWAT	0
HIST Cal-Sites	1
HIST UST	0
SWEEPS UST	2
DEED	1
RCRA NonGen/NLR	5
ROD	1
CORTESE	0
HIST CORTESE	2
NPDES	1
HAZMAT	22

CUPA Listings	19
HAZNET	2
PRP	0
HWP	0
EDR US Hist Auto Stat	0
EDR Hist Cleaner	0

The property was identified under nine site listings. Most of the listings are for past hazardous materials storage and use related to Supertex. The listings are related to wastewater treatment, hazardous materials storage and off-site waste disposal. The listings are not indicative of a major spill or release that may have significantly impacted the property.

The most noteworthy listing for the Site is a record of a request to the Department of Toxic Substances Control (DTSC) for agency oversight in February 2017 to remediate residual pesticide contamination Sobrato Development Companies (Sobrato) submitted a Voluntary Cleanup Application to the DTSC to oversee further investigation and cleanup of the site. Sobrato did not enter into the VCA or proceed with further investigation and cleanup and apparently dropped the regulatory oversight request. A January 2007 Phase I ESA indicated that there were conceptual plans for high density residential development of the site. During soil sampling, DDT, DDD, DDE, arsenic, and lead were detected in the soil above residential screening levels of the time and were attributed to the former agricultural use of the site. The building were Supertex operated remains on site and the site has not been redeveloped.

Of the nearby sites identified in the EDR report, six were identified within 1/8 mile; 40 between 1/8-1/4 mile; 20 between 1/4-1/2 mile; and 12 between ½-1 mile of the site. Most of the regulatory listings are related to hazardous materials storage/use in the office buildings located south and east of the site off West Tasman Drive and North 1st Street. Some of the nearby listed sites are located in the expected down groundwater gradient direction from the site. Based upon distance, groundwater flow direction, and type of listing, there are no nearby regulatory listings that appear to be a potential concern for groundwater contamination to migrate beneath the Site.

One adjacent regulatory listed site is noteworthy due the detection of arsenic and pesticides at similar concentrations that have been found at 71 Vista Montana. The site is listed at 4045 N. First Street and consists of several large apartment complexes to east of west of the Site along Vista Montana and two nearby parks. The primary contaminant at these properties is arsenic, pesticides and lead. The properties were remediated under DTSC oversight by a combination of soil removal for off-site disposal and capping contaminated soils beneath hardscape and two feet of clean soil. The properties have deed restriction and ongoing requirements to inspect the properties to ensure the cap is still in-place and effective in eliminating any potential exposure to residences of the apartments and park users.

In summary, the site was listed in the EDR file report for agricultural pesticide contamination of the soil. A review of the surrounding database listings on the EDR Radius Map Report (Appendix F) did not show any listings that pose a significant environmental risk to the Site. The adjacent property at 4045 N. First Street has similar levels of arsenic, lead and pesticide contamination that has been found at 1 Vista Montana.

7 OTHER RECORDS REVIEWED-AGENCIES CONTACTED

Regulatory agencies were utilized and contacted as indicated by the checklist below for reasonably ascertainable documentation regarding environmental conditions or history on the site and adjoining properties. The information provided by the state and federal agency databases listed below are usually included as part of the EDR Radius Map™ Report with GeoCheck® that was summarized above. However, because multiple sources of information are managed by different agencies, all reasonably ascertainable information is reviewed.

INQUIRED	AGENCY	DATABASE
X	California Department of Toxic Substances Control (DTSC)	Envirostar http://www.envirostor.dtsc.ca.gov/public/
X	Regional Water Quality Control Board-San Francisco (SFRWQCB)	Geotracker http://geotracker.waterboards.ca.gov/
X	Santa Clara County Department of Environmental Health (SCCDEH)	Local Oversight Program Public Record Document http://lustop.sccgov.org/
X	City of San José Planning and Building Division	Permits System
X	San José Fire Department (SJFD)	Permits System

The DTSC, SFRWQCB and SCCDEH regulatory databases revealed no additional sites of concern that were not reviewed from the EDR radius report and discussed in Section 6.

A review of on-line records from the City of San José Planning and Building Department revealed no documents relating to the property that revealed any evidence of potential environmental concerns.

It is important to note that the City of San José's electronic database for property records does not always function properly and some documents were not able to be retrieved. The potential for this information to present new data affecting the findings of this Phase I ESA is considered low.

8 SITE RECONNAISSANCE

8.1 METHODOLOGY AND LIMITING CONDITIONS

An inspection of the Site was conducted on May 7, 2020 by Environmental Services Department staff. Photographs of the site are included as Appendix G.

8.2 OBSERVATIONS

A field inspection of the 4.21-acre project site was completed on May 7, 2020 Geoff Blair and Jessica Donald of the City's Environmental Services Department. The weather on this day was sunny. At the time of inspection, the property was developed with a commercial/industrial office and laboratory that was vacant. The northern portion of the building was a former lab for a high-tech semiconductor firm. Numerous trenches were observed in the building apparently for wastewater to be sent to the outdoor wastewater treatment system. The southern portion of the building appears to be strictly office use. A wastewater treatment collection and treatment system was located along the northern side of the building. The land was a relatively flat with paved parking lots and landscaping. The vegetation was well maintained. There were no signs of any significant illegal dumping. Below is a checklist of general observation.

GENERAL OBSERVATIONS	REMARKS	OBSERVED	NOT OBSERVED
Current Use	Unoccupied office/laboratory	x	
Current Use likely to indicate REC's			x
Past use likely to indicate REC's			x
Structures	Large office building and laboratory (65,000 sq ft) a wastewater treatment system associated with semiconductor manufacturing.	x	
Roads	Vista Montana and Renissance Drive border the Site to the south and northeast	x	
Topography of site and surrounding area	Flat, paved with curb and gutter sidewalks	x	
Above ground storage tank	Holding tank for acid neutralization of wastewater from former manufacturing processes. Currently not in use and closed with the County.	x	
Asbestos and Lead			x
Below grade vaults	Vaults for wastewater treatment	x	
Burned or buried debris			x

Chemical storage	Former chemical storage areas, no chemicals seen on site.	**x**	
Chemical Mixing areas	Former laboratory, abandoned wastewater treatment facility	**x**	
Discolored soil or water			**x**
Ditches, streams			**x**
Drains and piping (e.g. floor drains/trenches, bay drains, sand traps, grease traps	Trenches inside laboratory area, large pits associated with abandoned wastewater treatment facility	**x**	
Drums			**x**
Electrical or hydraulic equipment/potential PCB transformer			**x**
Fill Dirt from unknown sources			**x**
Fill dirt from a known source			**x**
Hazardous chemical and petroleum products in connection with known use			**x**
Non-hazardous containers with contents			**x**
Hazardous Waste storage			**x**
Heating and cooling system and fuel source			**x**
Industrial waste treatment equipment	Industrial wastewater treatment facility on the northwestern side of the building.	**x**	
Loading and unloading areas	Loading dock located in the south western portion of the site.	**x**	
Odors			**x**
Pits, Ponds, Lagoons	Concrete line pits associated with industrial wastewater treatment facility, currently filled with rainwater runoff	**x**	
Pools of liquids	Rainwater runoff pooling in abandoned industrial wastewater treatment facility	**x**	
Process wastewater			**x**
Sanitary sewer system		**x**	
Septic system (e.g. tank and leach fields)			**x**

Soil piles			**x**
Solid waste			**x**
Unauthorized dumping			**x**
Stained pavement or concrete			**x**
Stains or corrosion (interior, non-water)			**x**
Storm drains/catch basins	In parking lot	**x**	
Stressed vegetation			**x**
Sumps and clarifiers			**x**
Surface water			**x**
Underground storage tanks including heating oil tanks			**x**
Unidentified substance containers			**x**
Waste water discharge			**x**
Water supplies (potable and process)			**x**
Wells (irrigation, monitoring, or domestic)	Groundwater monitoring wells in parking lot	**x**	
Wells (dry)			**x**
Wells (oil and gas)			**x**

9 INTERVIEWS

9.1 INTERVIEW WITH OWNER

An Environmental Site Assessment Questionnaire was provided to the realtors for the property. The questionnaire was not filled out and returned to the City.

9.2 INTERVIEWS WITH LOCAL GOVERNMENT OFFICIALS

No other government agency representatives were contacted regarding the history of the property. Information from appropriate government agencies was accessed via the internet.

10 EVALUATION

10.1 FINDINGS

Recognized Environmental Conditions (REC's) are defined by the ASTM Standard Practice E1527-13 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; or (3) under conditions that pose a material threat of a future release to the environment.

This investigation revealed one recognized environmental condition associated with the subject property due to soil testing results that show arsenic and pesticides in the shallow soil above acceptable regulatory screening levels for residential uses.

Controlled Recognized Environmental Conditions (CREC's) are defined by the ASTM Standard Practice E1527-13 as a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls.

This investigation did not reveal any controlled recognized environmental conditions associated with the subject property.

Historic Recognized Environmental Conditions (HREC's) are defined by the ASTM Standard Practice E1527-13 as a past release or any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls.

This investigation did not reveal any historical recognized environmental conditions associated with the subject property.

De Minimis Condition Per the ASTM Standard, a *de minimis* condition is defined as "*a condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.*" This can include areas of minor staining or spills below reportable quantities. *De minimis* conditions are not RECs or CRECs, and generally don't pose risks that need to be addressed in purchase agreements involving only real property.

This investigation did not reveal any de minimis conditions associated with the subject property.

10.2 OPINIONS

This assessment of the property located at 71 Vista Montana showed one Recognized Environmental Condition (REC) - the shallow soil at the Site has been contaminated by past agricultural uses and contains arsenic and pesticides above acceptable levels for residential uses. The contamination will need to be remediated during redevelopment to make the Site safe for future residents.

10.3 CONCLUSIONS

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Standard Practice E15727-13 for the property located at 71 Vista Montana (APN 097-52-027). Any exceptions to, or deletions from, this practice will be described in the scope of work and/or limitations of this report. This assessment has revealed that the soil beneath the site has been impacted with arsenic, lead and pesticides from past agricultural use. The Site will be required to be remediated by either removing the contaminated soil for off-site disposal or capping the soil beneath hardscape or 2 feet of clean soil to ensure the future residences are not exposed to contamination. The remediation plan must be approved and receive oversight from the Department of Toxic Substances Control (DTSC)

The remediation must be performed under supervision of an environmental consultant to provide services such as soil testing, dust monitoring, regulatory coordination and reporting. The Site will have a deed restriction restricting any future site redevelopment or excavation unless there is a DTSC pre-approved Site Management Plan. The Site will be subject to routine inspections to ensure the protective cap is in-place and annual reporting and DTSC permit fees.

10.4 DATA GAPS

ASTM Standard Practice E1527-13 requires the environmental professional to comment on significant data gaps that affect the ability to identify recognized environmental conditions. A data gap is a lack of or inability to obtain information required by this practice despite good faith efforts by the environmental professional to gather such information. A data gap by itself is not inherently significant; it only becomes significant if it raises reasonable concerns. One data gap was identified during this assessment – the pump station area was not accessible during the site inspection. This area was reviewed in aerial photographs and a previous Phase I Environmental Site Assessment. Based upon this supplemental research, this data gap is not expected to impact the findings of this Phase I ESA.

10.5 DATA FAILURE

ASTM Standard Practice E1527-13 requires the environmental professional to comment on significant data failures that affect the ability to identify recognized environmental conditions. A data failure is occurrs when all of the standard historical sources that are reasonably ascertainable and likely to be useful have been reviewed and yet the objectives have not been met, despite good faith efforts by the environmental professional to gather such information. A data failure is not uncommon in trying to identify the use of the property at five-year intervals back to the first use of 1940 (whichever is first). A data failure is one type of data gap. A data failure by itself is not inherently significant; it only becomes significant if it raises reasonable concerns. No significant data failures were identified during this Phase I ESA.

10.6 LIMITATIONS

The scope of work was limited to observation of the property at the time of the site visit, readily available information, and persons available during the time of interviews. The extent of information obtained is based on the reasonable limits of time and budgetary constraints. This Phase I ESA cannot wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with the property. This assessment is intended to reduce, but not eliminate, uncertainty regarding the potential for recognized environmental conditions. ESD makes no warranty, expressed or implied, except that our services have been performed in accordance with the environmental principles generally accepted at this time and location.

Site conditions and activities could change at any time after the completion of this report, therefore, observations, findings and opinions can be presumed valid for 180 days prior to the date of acquisition of the property (date on which a person acquires title to the property) or for transactions not involving an acquisition, the date of the intended transaction (per Section 4.6 of the ASTM Standard).

The scope of this Phase I ESA does not incorporate ASTM standard non-scope considerations such as wetlands, regulatory compliance, asbestos containing materials, lead paint, cultural and historical resources, industrial hygiene, ecological resources, endangered species, high voltage lines and electromagnetic radiation, natural gas pipelines, or indoor air quality.

10.7 SIGNATURE OF ENVIRONMENTAL PROFESSIONAL

We declare 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. 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 the all appropriate inquires in conformance with the standards and practices set forth in 40 CFR Part 312.

Prepared by:

Geoff Blair

Geoff Blair

Associate Engineer
City of San José Environmental Services

Jessica Donald

Jessica Donald

Environmental Services Specialist
City of San José Environmental Services

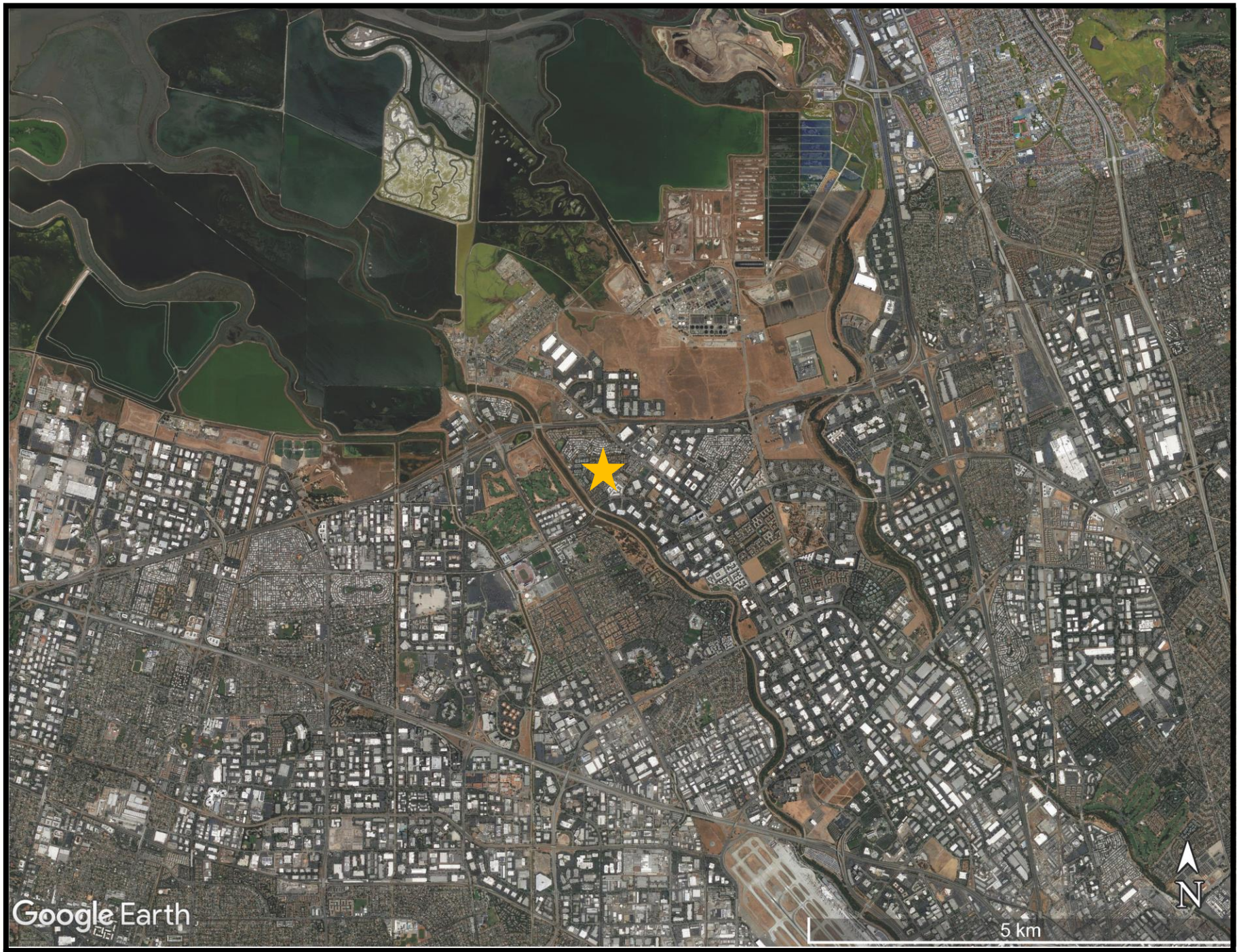
Figures:

Figure 1 – Regional Map
Figure 2 – Location Map
Figure 3 – Site Map
Figure 4 – Assessor Parcel Map

Appendices:

Appendix A – EDR – Aerial Photo Report
Appendix B – EDR – Sanborn Map Report
Appendix C – EDR – City Directory Abstract
Appendix D – EDR – Historical Topographic Map Report
Appendix E – EDR – Radius Map Report
Appendix F – Previous Reports
Appendix G – Photographic Log

Figures



CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Fig. 1 Regional Map
71 Vista Montana
San Jose, California

Legend

Site Location

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Fig. 2 Location Map
71 Vista Montana
San Jose, California

Legend

Site Boundary

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Fig. 3 Site Map
71 Vista Montana
San Jose, California

Legend
Site Location

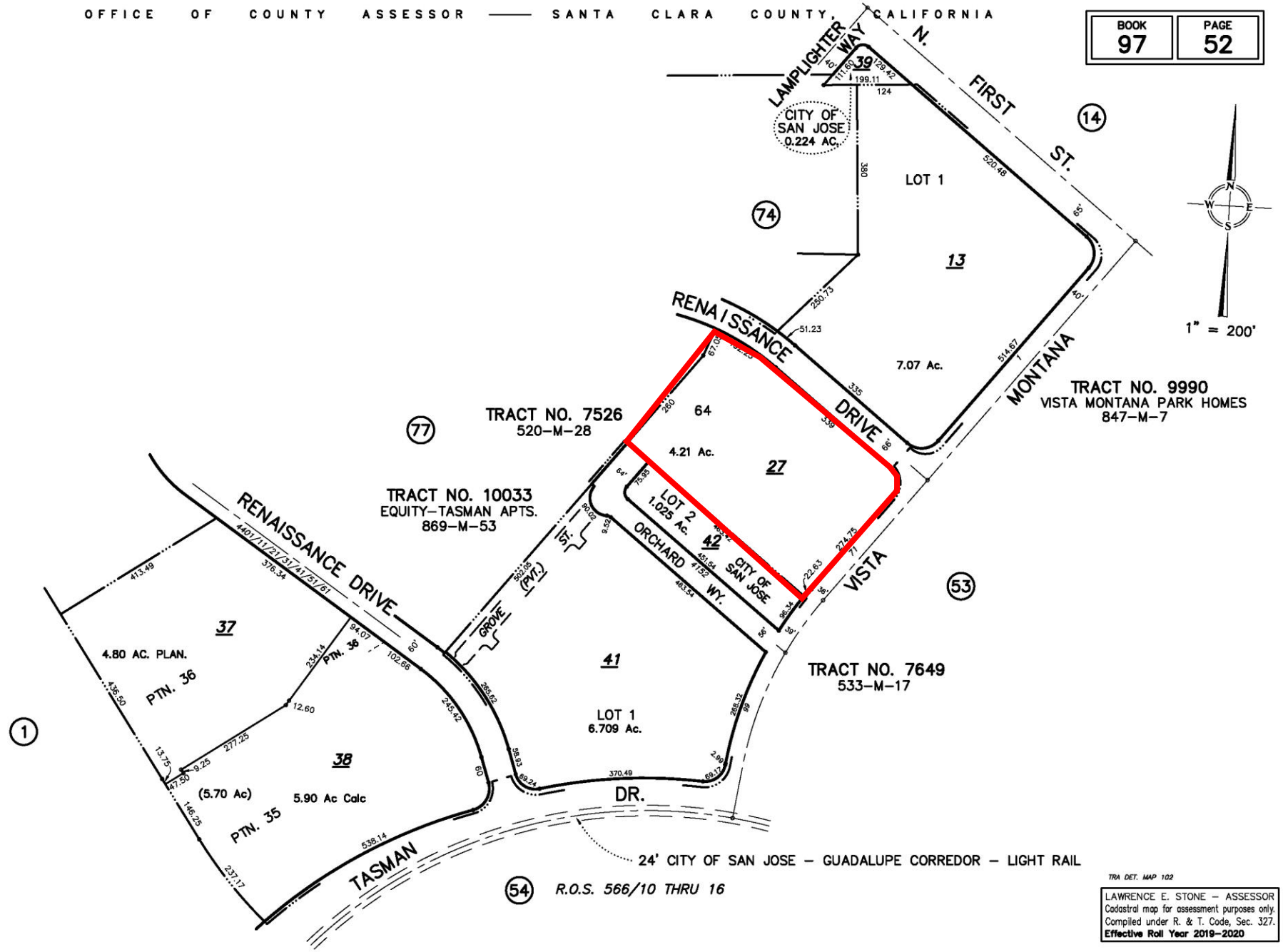


Fig. 4 Assessor Parcel Map

71 Vista Montana

San Jose, California

GOLDER

TECHNICAL MEMORANDUM

DATE June 10, 2020 **Project No.** 20144018

TO Geoffrey Blair
City of San Jose

CC

FROM Mark Naugle, Kris Johnson **EMAIL mnaugle@golder.com, kjohnson@golder.com**

71 VISTA MONTANA PRELIMINARY COST ESTIMATE FOR MANAGING ENVIRONMENTALLY IMPACTED SOIL DURING DEVELOPMENT

Golder Associates (Golder) has prepared this technical memorandum for the City of San Jose (City) to provide an estimate of costs for management of metals and pesticide-impacted soils during development of the property located at 71 Vista Montana Drive in San Jose, California. Golder has prepared the cost estimate consistent with the proposal to the City dated April 22, 2020.

1.0 BACKGROUND

The property at 71 Vista Montana comprises 4.1 acres and is currently developed with a 65,000 square foot single story building. The City of San Jose is evaluating three architectural plan proposals for multi-family dwellings at the property which the City provided to Golder:

- David Baker Architects (DBA), Preliminary Design Studies, September 13, 2019
- Mithun, Charities Housing, September 6, 2019
- WRNS Studio, Project for Charities Housing, September 15, 2019

In addition to the three development proposals, Golder's cost estimate has been based on a Phase 1 Environmental Site Assessment prepared for Microchip Technologies 71 Vista Montana Drive, San Jose, California (EORM, November 2014) that the City provided to Golder (Phase 1 report). According to the Phase 1 report, the property was used for agricultural purposes for several decades before development. The Phase 1 report includes soil sample results from two previous investigations: Phase 1 ESA conducted by PES Environmental, Inc. (PES, March 2007) and Shallow Soil and Ground Water Well Test Results by Terratech (January 21, 1999). The EORM Phase 1 only includes data tables and figures from the PES report but includes the letter report from Terratech. The figures and tables from these two reports are included in Appendix A.

As shown in Appendix A, PES installed 12 soil borings around all sides of the building in February 2007. The data table indicates soil samples from these borings were analyzed for organochlorine pesticides including 4,4'-DDE, 4,4'-DDD, 4,4'-DDT, and Dieldrin and metals including arsenic and lead. According to the Terratech letter report, Terratech installed eight borings at the rear of the building in and around a hazardous material storage area in January 1999. Terratech collected samples between 4 and 6 feet below ground surface and analyzed these samples for metals including antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium, and zinc.

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Golder compared the analytical results from the EORM Phase 1 to the following screening levels, except for arsenic, which was compared to an assumed background concentration of 20 milligrams per kilogram per the Vista Montana RAW (see Section 2.0).

- Screening Levels for Residential Soil (SLs) from the California Department of Toxic Substances Control (DTSC), Human and Ecological Risk Office (HERO), *Note Number 3, DTSC-modified Screening Levels (DTSC-SLs)*, Release Date: April 2019
- United States Environmental Protection Agency, Region 9, Regional Screening Levels (RSLs), November 2019

The screening levels for the constituents listed in Appendix A are summarized in Appendix B. The PES data shows shallow soils (mostly collected from 2.5 to 3 feet below ground surface) exceed screening levels for dieldrin, arsenic, and lead. The Terratech data shows soils, between 4 and 6 feet below ground surface, exceed the assumed background concentration of 20 mg/kg for arsenic (see Section 2 below); however, these data were collected from a small area at the northwest end of the building. For this cost estimate, Golder has assumed that the surface soil in the planned landscape areas of the architectural plan proposals (or subterranean garage for the Mithun design) exceeds residential development screening levels for pesticides and metals.

2.0 ADJACENT DEVELOPMENT

Adjacent properties with similar historical land use and similar pesticide and metals concentrations in soil including 4145 N. First Street, 55 Vista Montana, 81 Vista Montana, 305 W. Tasman Drive, and 4041 N. First Street have been developed into multiple family dwellings like the plans for 71 Vista Montana. The development was completed consistent with a *Removal Action Workplan* dated May 9, 2008 (Vista Montana RAW) and the *Explanation of Significant Differences* (ESD) dated September 25, 2013, both prepared by TRC. Golder has adopted certain aspects of this approved RAW to prepare this estimated cost including the following:

- Areas developed with buildings or paved surfaces are considered capped and suitable for the planned land use
- Areas covered with 2 feet of clean fill are considered capped and suitable for the planned land use
- Utility trench excavations will be backfilled with clean imported soil to reduce exposure during utility repairs or maintenance
- The background concentration for arsenic in soil and therefore the screening level for arsenic at the property is 20 milligrams per kilogram (mg/kg)

Parcel B1 at 81 Vista Montana and Parcel B2 at 305 Tasman Drive were developed consistent with the Vista Montana RAW. The removal actions are documented in the *Removal Action completion Report, Parcel B1/B2 (Tasman Parcels) B1/B2 Residential Development, Orchard Way, and B1/B2 Park 99 Vista Montana and 4152 Orchard Way San Jose, California*, TRC, June 2017 (B1/B2 Completion Report). Grading and capping of soil began in September 2013 and was completed in December 2016. The Parcel B1/B2 development included an approximately 6.56-acre residential area, a 0.79-acre public street (Orchard Way), and a one-acre park along the northeastern boundary. This park is adjacent to the southwest boundary of the property at 71 Vista Montana. Select information from the B1/B2 completion report was used to estimate soil management costs at 71 Vista Montana as described below.

3.0 METAL AND PESTICIDE IMPACTED SOIL VOLUMES

For the cost estimate, Golder assumed that soil beneath any landscaped area would need to be excavated to a depth of 2 feet and capped with 2 feet of clean, imported fill. This excavated soil would then need to be disposed offsite. It may be possible, depending on the grading plans developed for the property, that some of the soil could be relocated and capped under buildings or hardscapes or that a 2-foot cap could be added to the existing ground surface without the need for excavation. Currently, there are no grading plans to accompany the development proposals so Golder has assumed these soils would need to be disposed offsite.

The DBA and WRNS Studio designs include landscaped areas and the Mithun design includes a subterranean parking garage. The Mithun design includes landscaped areas, but these areas are above the parking garage. Golder reviewed the three architectural plan proposals provided by the City and estimated soil excavation quantities for each of these three development scenarios. For the Mithun design, Golder assumed the largest garage footprint option in the proposal and a soil removal depth of 7 feet. The garage is shown to be 5 feet below grade in the plan and Golder added 2 feet to this depth to allow for subgrade and paving. Golder also included an alternative for the Mithun design where only the top four feet of this excavation would require offsite disposal and the remaining 3 feet of the excavation would be reused onsite. As shown in Appendix A, the PES Environmental data indicates most of the pesticide and metals concentrations that exceed residential screening levels occurred at depths between 2.5 and 3 feet. Quantities were estimated using a combination of Google Earth and takeoffs from the architectural plan proposals.

Consistent with the Vista Montana RAW, Golder assumed that soil excavated for utilities would need to be disposed offsite and replaced with clean, imported fill. To calculate the volume of soil associated with the utilities, Golder used the utility trench lengths and depths from the B1/B2 Completion Report. The lengths were scaled based on size of the 71 Vista Montana property compared to the B1/B2 residential development. Utility trenches are assumed to be three feet in width. Utility depths are assumed to be an average of the depth range as provided in the B1/B2 Completion Report.

During the development of the B1/B2 parcels approximately 47,523 cubic yards (CY) of soil was disposed of as non-hazardous waste, and 1,469 CY was disposed as California hazardous waste, also known as Class I waste, which equates to approximately 3 percent Class I waste. Assessment data available for the 71 Vista Montana property also indicates the potential for excavated soil to be California hazardous waste. In California, waste constituent concentrations are compared to the Total Threshold Limit Concentrations (TTLCs) and the Soluble Threshold Limit Concentration (STLCs) found in California Code of Regulations, Title 22, Section 66261.24 (Title 22). According to Title 22, the method to assess STLC is the Waste Extraction Test (WET). The WET procedure involves mixing, at a ratio of 10 to 1, an acidic liquid with a portion of the sample to be tested. Therefore, if the sample contains a total concentration of 10 times the STLC, the sample could potentially exceed the STLC. The STLC for arsenic, chromium, and lead is 5 milligrams per liter, therefore, any sample exceeding 50 milligrams per kilogram (mg/kg) arsenic, chromium, or lead has the potential to exceed the STLC for that constituent. As shown in the PES data table in Appendix A, samples exceed 50 mg/kg for arsenic and lead and in the Terratech data table, samples exceed 50 mg/kg for arsenic and chromium. As a conservative measure, Golder has assumed that 5 percent of the soil would be disposed as California hazardous waste.

Golder has assumed that most of the soil will be considered Designated Waste or Class II waste. As defined in the California Water Code Section 13173 (b), designated waste is *nonhazardous waste that consists of, or contains, pollutants that, under ambient environmental conditions at a waste management unit, could be*

released in concentrations exceeding applicable water quality objectives or that could reasonably be expected to affect beneficial uses of the waters of the state as contained in the appropriate state water quality control plan.

4.0 COST ESTIMATE

The cost estimate details are included in Appendix C for each of the development proposals (Tables C-1 through C-4). The soil volumes and estimated costs are summarized in the following table:

Development Plan	Soil Volume for Offsite Disposal (Cubic Yards)		Estimated Soil Management Costs
	Class II	Class I	
DBA	4,600	200	$880,000
WRNS Studio	3,900	200	$770,000
Mithun	36,400	1,900	$4,830,000
Mithun Option 1	22,100	1,200	$3,110,000

Hauling and disposal estimates are detailed in Table C-5 in Appendix C. Golder assumed 5% of the soil excavated under the three development proposals would be Class I (California hazardous waste) consistent with the adjacent parcels (B1/B2 Completion Report). In addition, consistent with the B1/B2 Completion Report, Golder assumed that none of the excavated soil will exceed the Federal hazardous waste criteria.

Golder's cost estimate includes Environmental Tasks as detailed in Table C-6 in Appendix C. These tasks will include preparing a removal action workplan that will be submitted to the DTSC for approval. The DTSC will require the developer of the property to enter into a voluntary cleanup agreement with the DTSC which allows DTSC to recover costs associated with remedial oversight. Golder has not included these potential oversight costs in the cost estimate. Other environmental tasks in the estimate include characterizing soil for disposal, providing oversight during excavation and handling of metals and pesticide-impacted soils, and dust monitoring. In order to estimate oversight and dust monitoring costs Golder estimated a length of time for the earthmoving contractor to excavate the soil. The assumed production rate was 360 cubic yards per day.

Assumptions used by Golder in addition to those described above include the following:

- Disposal of non-hazardous soil (Class II) at Ox Mountain Landfill in Half Moon Bay; 1 hour travel each way and 0.5 hours onsite assumed
- Disposal of hazardous soil (Class I) at Kettleman Hills Hazardous Waste Facility in Kettleman City, California; 3.5 hours travel each way and 1 hour onsite assumed
- Mobilization/ demobilization costs estimated at 5 percent of the contractor costs (excavation, soil spreading, hauling, and disposal)
- 5 percent of the excavated soil will be Class I, California hazardous waste because of metals exceeding the STLC limit
- Environmental tasks assumed to be the same for both Mithun alternatives

- Soil density assumed to be 1.6 tons per cubic yard

5.0 CLOSING

Golder's professional services have been performed, findings obtained, and recommendations prepared in accordance with standard professional principles and practices in the field of environmental consulting. This representation is in lieu of all other representations, either expressed or implied. Golder has prepared this technical memorandum for the sole use by the City of San Jose. No third party is entitled to rely upon the contents of this technical memorandum without written authorization from Golder to do so, and Golder will not be responsible for independent conclusions, opinions, or recommendations made by others based on the findings presented in this technical memorandum.

Mark Naugle
Associate and Practice Leader

Kris Johnson
Associate and Practice Leader

https://golderassociates.sharepoint.com/sites/127423/project files/5 technical work/cost estimate/tech memo/final/71 vista montana cost est tech memo.docx

APPENDIX A

EORM Phase 1 Data Tables and Figures

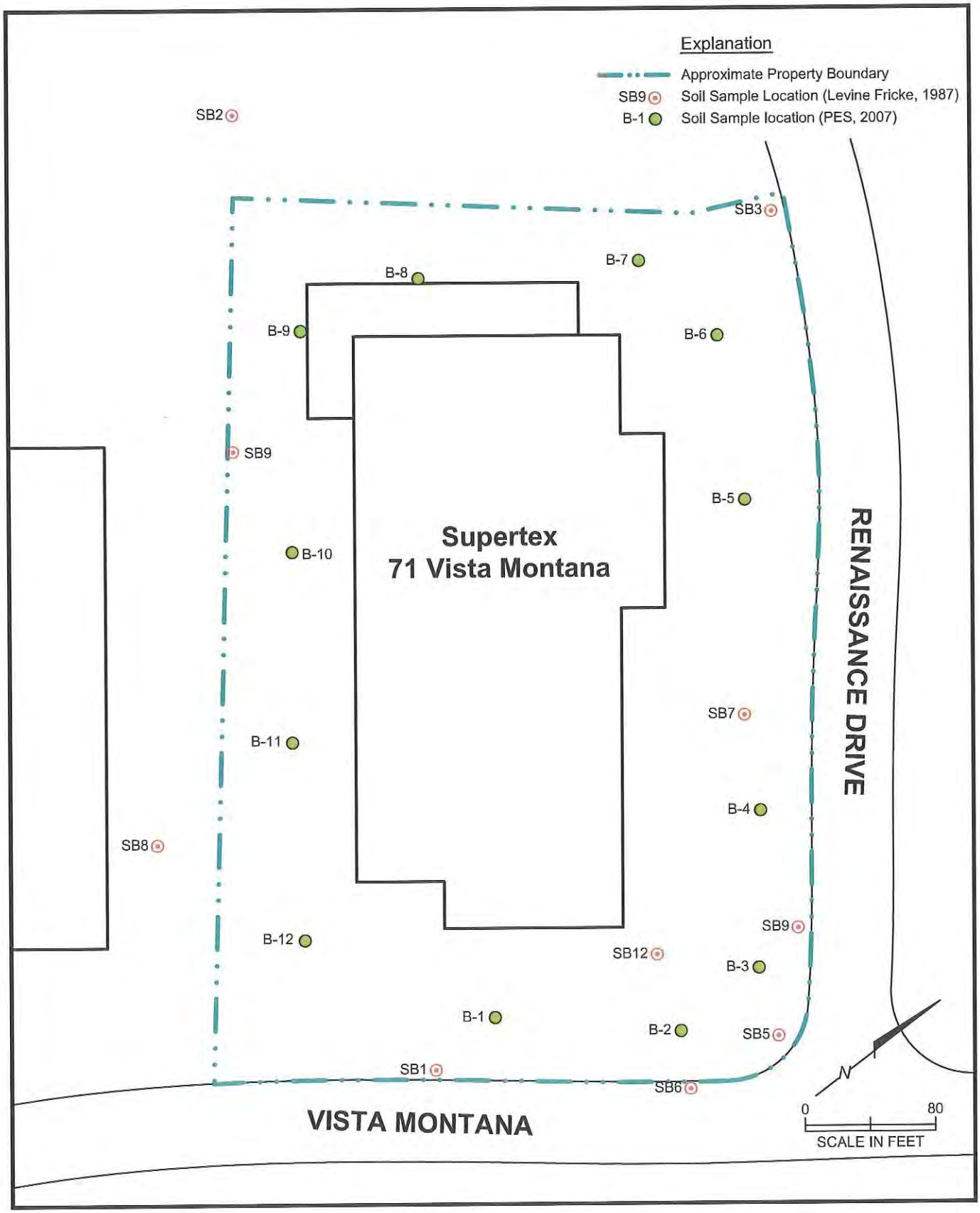
Table 1
Summary of Analytical Results for Soil Samples
71 Vista Montana
San Jose, California

Sample Location	Sample ID	Sample Date	Depth feet bgs	Organochlorine Pesticides				Inorganics	
				4,4'-DDE (µg/kg)	4,4'-DDD (µg/kg)	4,4'-DDT (µg/kg)	Dieldrin (µg/kg)	Arsenic (mg/kg)	Lead (mg/kg)
B-1	1-2.5-3.0	2/23/07	3.0	**650**	**340**	ND (33)	ND (33)	24	90
	1-5.0-5.5	2/23/07	5.5	ND (3.3)	ND (3.3)	ND (3.3)	ND (3.3)	8.6	8.4
	1-7.5-8.0	2/23/07	8.0	ND (16)	ND (16)	ND (16)	ND (16)	6.4	10
B-2	2-2.5-3.0	2/23/07	3.0	**58**	**25**	ND (3.3)	ND (3.3)	41	19
	2-5.0-5.5	2/23/07	5.5	ND (3.3)	ND (3.3)	ND (3.3)	ND (3.3)	5.1	8.4
	2-7.5-8.0	2/23/07	8.0	ND (16)	ND (16)	ND (16)	ND (16)	5.9	7.7
B-3	3-2.5-3.0	2/23/07	3.0	**12**	ND (3.3)	ND (3.3)	ND (3.3)	11	17
	3-5.0-5.5	2/23/07	5.5	ND (3.3)	ND (3.3)	ND (3.3)	ND (3.3)	5.8	8.4
	3-7.5-8.0	2/23/07	8.0	ND (3.3)	ND (3.3)	ND (3.3)	ND (3.3)	6.5	6.5
B-4	4-2.5-3.0	2/23/07	3.0	**18**	ND (3.3)	ND (3.3)	ND (3.3)	20	17
	4-5.0-5.5	2/23/07	5.5	ND (3.3)	ND (3.3)	ND (3.3)	ND (3.3)	6.4	8.4
	4-7.5-8.0	2/23/07	8.0	ND (3.3)	ND (3.3)	ND (3.3)	ND (3.3)	7.4	7.6
B-5	5-2.5-3.0	2/23/07	3.0	**1,400**	**540**	**100**	**460**	44	180
	5-5.0-5.5	2/23/07	5.5	ND (33)	ND (33)	ND (33)	ND (33)	7	16
	5-7.5-8.0	2/23/07	8.0	ND (3.3)	ND (3.3)	ND (3.3)	ND (3.3)	4.6	8.9
B-6	6-2.5-3.0	2/23/07	3.0	**11**	**6.3**	ND (3.3)	ND (3.3)	57	81
	6-5.0-5.5	2/23/07	5.5	ND (3.3)	ND (3.3)	ND (3.3)	ND (3.3)	6.7	8.4
	6-7.5-8.0	2/23/07	8.0	ND (3.3)	ND (3.3)	ND (3.3)	ND (3.3)	4.5	30
B-7	7-2.5-3.0	2/23/07	3.0	**4.4**	ND (3.3)	ND (3.3)	ND (3.3)	6.9	13
	7-5.0-5.5	2/23/07	5.5	ND (3.3)	ND (3.3)	ND (3.3)	ND (3.3)	6.9	10
	7-7.5-8.0	2/23/07	8.0	ND (3.3)	ND (3.3)	ND (3.3)	ND (3.3)	2.9	6.6
B-8	8-2.5-3.0	2/23/07	3.0	**170**	**100**	ND (33)	**59**	15	24
	8-5.0-5.5	2/23/07	5.5	ND (3.3)	ND (3.3)	ND (3.3)	ND (3.3)	6.6	9.6
	8-7.5-8.0	2/23/07	8.0	ND (3.3)	ND (3.3)	ND (3.3)	ND (3.3)	5.4	6.6
B-9	9-2.5-3.0	2/23/07	3.0	**58**	**26**	**3.3**	**3.6**	15	17
	9-5.0-5.5	2/23/07	5.5	ND (16)	ND (16)	ND (16)	ND (16)	8.2	25
	9-7.5-8.0	2/23/07	8.0	ND (3.3)	ND (3.3)	ND (3.3)	ND (3.3)	6.9	13
B-10	10-2.5-3.0	2/23/07	3.0	**210**	**55**	**43**	ND (9.8)	18	36
	10-5.0-5.5	2/23/07	5.5	ND (3.3)	ND (3.3)	ND (3.3)	ND (3.3)	7.4	13
	10-7.5-8.0	2/23/07	8.0	ND (3.3)	ND (3.3)	ND (3.3)	ND (3.3)	6.8	10

Table 1
Summary of Analytical Results for Soil Samples
71 Vista Montana
San Jose, California

Sample Location	Sample ID	Sample Date	Depth feet bgs	Organochlorine Pesticides				Inorganics	
				4,4'-DDE (µg/kg)	4,4'-DDD (µg/kg)	4,4'-DDT (µg/kg)	Dieldrin (µg/kg)	Arsenic (mg/kg)	Lead (mg/kg)
B-11	11-2.5-3.0	2/23/07	3.0	**480**	**200**	**240**	**210**	25	46
	11-5.0-5.5	2/23/07	5.5	**390**	**150**	**170**	**140**	22	45
	11-7.5-8.0	2/23/07	8.0	ND (3.3)	ND (3.3)	ND (3.3)	ND (3.3)	7.5	6.4
B-12	12-2.5-3.0	2/23/07	3.0	**660**	**600**	**42**	**280**	35	120
	12-5.0-5.5	2/23/07	5.5	**56**	**54**	ND (3.3)	**20**	20	13
	12-7.5-8.0	2/23/07	8.0	ND (3.3)	ND (3.3)	ND (3.3)	ND (3.3)	8.5	22
California Human Health Screening Level (CHHSL) for Residential Land Use [1]				**1,600**	**2,300**	**1,600**	**35**	**20**	**150**

Notes:
feet bgs = feet below ground surface
mg/kg = milligrams per kilogram
µg/kg = micrograms per kilogram
ND () = Not detected at or above indicated laboratory reporting limit.
1 - California Environmental Protection Agency, January 2005. Use of California Human Health Screening Levels (CHHSLs) in Evaulation of Contaminated Properties



PES Environmental, Inc.
Engineering & Environmental Services

Site Plan and Sample Locations
71 Vista Montana
San Jose, California

PLATE
2

126.060.01.002	126-06001002_SSI_1-3	DRAFT	3/07
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE

TABLE 1

SUMMARY OF RECENT RESULTS
PRIORITY POLLUTANT METALS IN SHALLOW SOIL

71 VISTA MONTANA
SAN JOSE, CALIFORNIA

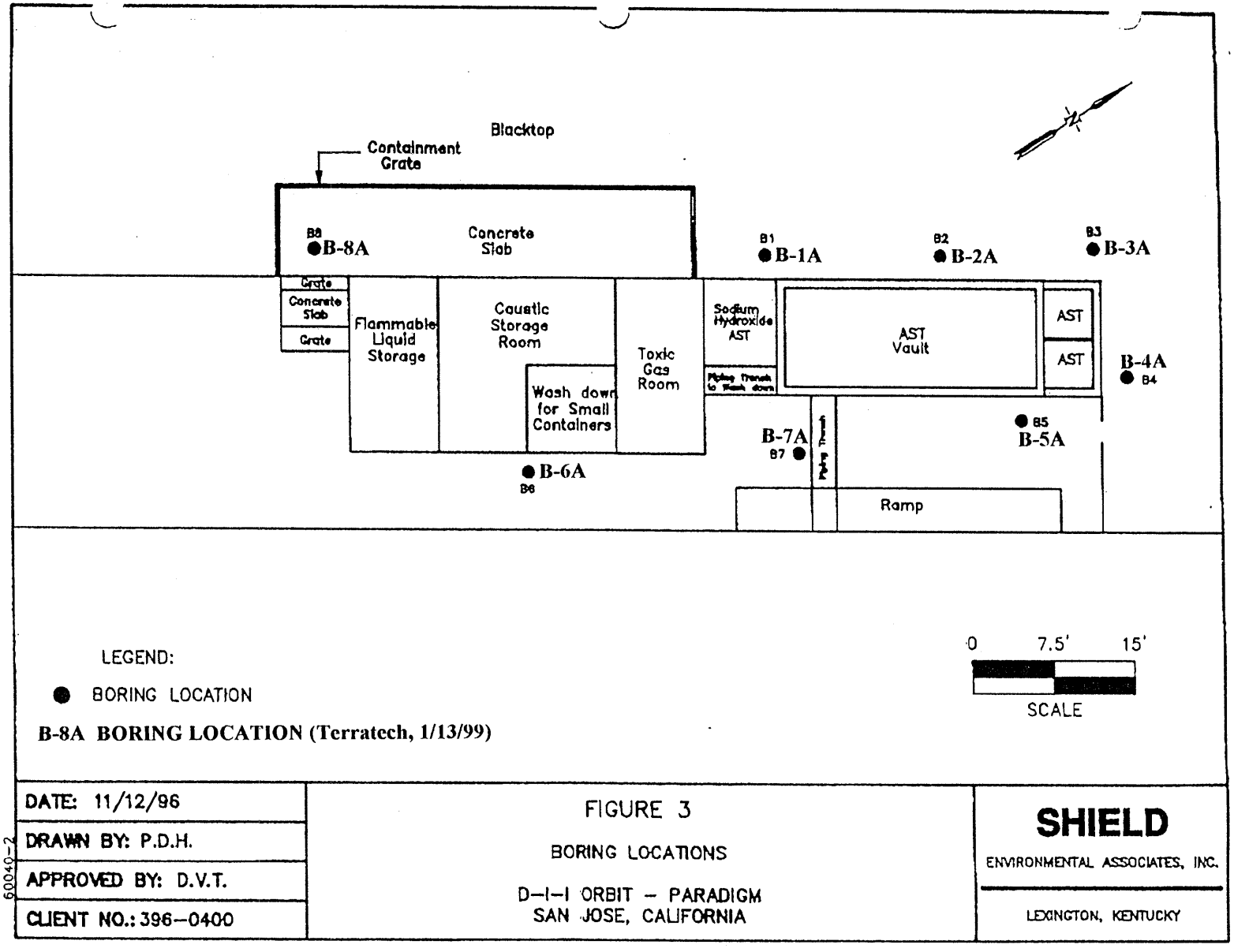
(concentration presented in parts per million-mg/kg; TTLC)

METAL	DATE	B-1A	B-2A	B-3A	B-4A	B-5A	B-6A	B-7A	B-8A
Antimony (Sb)	1/13/99	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic (As)	1/13/99	52	47	51	63	61	69	47	59
Beryllium (Be)	1/13/99	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium (Cd)	1/13/99	ND	ND	ND	ND	ND	ND	ND	ND
Chromium (Cr)	1/13/99	47	45	43	54	52	56	44	49
Copper (Cu)	1/13/99	24	22	22	28	27	28	22	24
Lead (Pb)	1/13/99	5.1	ND	ND	ND	5.2	ND	ND	ND
Mercury (Hg)	1/13/99	ND	ND	ND	ND	ND	ND	ND	ND
Nickel (Ni)	1/13/99	62	54	58	71	67	69	50	61
Selenium (Se)	1/13/99	ND	ND	ND	ND	ND	ND	ND	ND
Silver (Ag)	1/13/99	ND	ND	ND	ND	ND	ND	ND	ND
Thallium (Th)	1/13/99	ND	ND	ND	ND	ND	ND	ND	ND
Zinc (Zn)	1/13/99	57	52	54	65	62	66	51	56

Notes:

ND - Not detected above various laboratory practical quantitation limits (see attached lab report for specific limits).

TTLC - Total Threshold Limit Concentration



DATE: 11/12/96	FIGURE 3	SHIELD
DRAWN BY: P.D.H.	BORING LOCATIONS	ENVIRONMENTAL ASSOCIATES, INC.
APPROVED BY: D.V.T.	D-I-I ORBIT – PARADIGM	
CLIENT NO.: 396-0400	SAN JOSE, CALIFORNIA	LEXINGTON, KENTUCKY

60040-2

JANUARY 1999

TERRATECH

71 VISTA MONTANA
SAN JOSE, CALIFORNIA

BORING LOCATIONS

FIGURE 1

PROJECT 108165

APPENDIX B

Summary of Environmental Screening Levels

Table B-1: Environmental Screening Levels

Constituent	Screening Level	Note
antimony	31	RSL
arsenic	0.11	DTSC-SL
beryllium	16	RSL
cadmium	71	RSL
chromium	--	
copper	--	
lead	80	DTSC-SL
mercury	1.0	DTSC-SL
nickel	820	DTSC-SL
selenium	390	RSL
silver	390	RSL
thallium	--	
zinc	23,000	RSL
4,4'-DDE	1.9	RSL
4,4'-DDD	2.0	RSL
4,4'-DDT	1.9	RSL
dieldrin	0.034	RSL

Table Notes: All screening levels in milligrams per kilogram

RSL Regional Screening Level, USEPA Region 9, November 2019

DTSC-SL Screening Levels for Residential Soil (SLs) from the California Department of Toxic Substances Control (DTSC), Human and Ecological Risk Office (HERO), Note Number 3, DTSC-modified Screening Levels (DTSC-SLs), Release Date: April 2019

APPENDIX C

Cost Estimate Details

Table C-1: Soil Cost Estimate

Item description	Units	Unit Cost	Quantity	Extended Cost	Notes
Mob./Demob.	ls	$ 161,000	1	$ 161,000	~5% of contractor total cost
Excavation	cy	$ 6.8	38,300	$ 260,440	Source: RSMeans and Rental Rate Blue Book
Soil loading	cy	$ 2.0	38,300	$ 76,600	Source: RSMeans and Rental Rate Blue Book
Class II material hauling and disposal	cy	$ 70.0	36,400	$ 2,548,000	Source: Golder project experience
Class I material hauling and disposal	cy	$ 179	1,900	$ 340,480	Source: Golder project experience
Environmental tasks	ls	$ 319,000	1	$ 319,000	Source: Golder project experience
Subtotal				$ 3,706,000	
Contingency		30%		$ 1,112,000	
Total Estimated Cost				**$ 4,820,000**	

Table C-2: Hauling and Disposal Detail

Class II Soil Off-Haul		
Hauling unit cost:	$ 110.00	per hour
Drive time (Site to Ox Mountain LF)	2.5	hr
-1 hour one-way		
-site time 0.5 hr		
-total time 2.5 hr		
Tipping fee per 20 tons ($30/ton)	$ 600.00	
Cost of hauling + disposal (20 tons each)	$ 875.00	
CY per 20 ton load (1.6 tons/cy)	12.5	cy
Price per cy:	$ 70.00	

Class I Soil Off-Haul		
Hauling unit cost:	$ 110.00	per hour
Drive time (Site to Kettleman)	8	hr
-3.5 hour one-way		
-site time 1 hr		
-total time 8 hr		
Tipping fee per 20 tons ($68/ton)	$ 1,360.00	
Cost of hauling + disposal (20 tons each)	$ 2,240.00	
CY per 20 ton load (1.6 tons/cy)	12.5	cy
Price per cy:	$ 179.20	

Table C-3: Environmental Tasks Detail

Area/ Item	Unit	Rate	Quantity/ Ext Cost
Total excavation volume	CY	--	38,300
Production Rate (CY/day)	CY/day	--	360
Days to excavate	days	--	106
Removal Action Workplan	LS	$20,000	$20,000
Removal Action Completion Report	LS	$20,000	$20,000
Characterization for disposal	500 CY	$450	$34,470
Oversight during excvation of contaminated soil	day	$1,500	$159,583
Dust monitoring labor	day	$500	$53,194
Equipment, 3 @ 100 each	day	$300	$31,917
TOTAL			$319,000