

Phase I Environmental Site Assessment

MACE RANCH INNOVATION CENTER

Mace Boulevard & County Road 32A

Davis, California

WKA No. 10344.01

January 6, 2015



Prepared for:

Mr. Troy Estacio

Buzz Oates Group of Companies

8615 Elder Creek Road

Sacramento, California 95828

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Wallace-Kuhl & Associates (WKA), on behalf of the Buzz Oates Group of Companies, prepared this Phase I Environmental Site Assessment for the Mace Ranch Innovation Center located at Mace Boulevard and County Road 32A in Davis, California. We declare that, to the best of our professional knowledge and belief, the report preparer and reviewer meet the definition of *Environmental Professional* as defined in §312.10 of 40 CFR 312 and 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 inquiries in general conformance with the standards and practices set forth in 40 CFR Part 312. Resumes of the key staff who prepared this report are included in Appendix A.

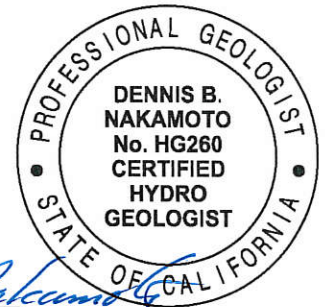
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EXECUTIVE SUMMARY

The purpose of this Phase I Environmental Site Assessment (ESA) was to assess the Mace Ranch Innovation Center (herein referred to as Site) for evidence of Recognized Environmental Conditions (RECs) resulting from current and/or former Site activities. The Site is located on the northeast corner of Mace Boulevard and County Road 32A, Davis, California (Figures 1, 2, 3, and 4) and is comprised of three contiguous parcels totaling 212.2 acres of vacant land identified by Yolo County Assessor's Parcel Numbers (APNs) 033-630-009, 033-650-009, and 033-650-026 (Figure 3). APN 033-650-026 was recently created by a 70-acre parcel being split into two sections and the former APN for the larger parcel was 033-290-058. APN 033-650-009 was previously identified as APN 033-290-059. The following presents a list of observations and findings identified during the preparation of this report:

- The historical land use research dating back to the early 1900s revealed that the Site has been used for growing crops since at least 1957. A former canal was formerly located on the central portion of APN 033-630-009 from at least 1957 to at least 1992 and was filled with soil from the excavation of the detention basin on the northeastern portion of the property and land leveling was completed in 1993. A storm water canal has transected the central portion of the Site from east to west since at least 1993. A detention basin has been present on the northeastern corner of APN 033-630-009 since at least 1993.
- According to a Preliminary Title Report prepared by Placer Title Company, no environmental liens are associated with the Site.
- Given the documentation reviewed concerning the neighboring agency listed facilities, none of the facilities reviewed is likely to have a negative impact on the Site.
- Based on the completion of the vapor encroachment condition (VEC) screening matrix, WKA concludes a VEC can be ruled out because a VEC does not or is not likely to exist.

WKA has performed this ESA in conformance with the scope and limitations of ASTM Standard Practice E 1527-13 for the Mace Ranch Innovation Center.

This assessment has revealed no RECs in connection with the Site except the following:

- On-site concerns were noted from the potential presence of persistent pesticide residues from their application during historical agricultural activities. However, a WKA



Surface Soil Investigation Report describes no pesticide residues in soil samples at concentrations above their reporting limits and concluded that no further study of the Site is warranted.



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1.0 INTRODUCTION

1.1 Purpose

The purpose of this Phase I Environmental Site Assessment (ESA) was to evaluate the Mace Ranch Innovation Center (herein referred to as Site) for evidence of potential Recognized Environmental Conditions (RECs) resulting from current and/or former site activities as defined by the American Society of Testing and Materials (ASTM) Standard E 1527-13 (ASTM, 2013).

According to the ASTM, “this practice 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 [Comprehensive Environmental Response, Compensation and Liability Act] liability (hereinafter, the “*landowner liability protections*,” or “*LLPs*”): that is, the practice that constitutes “*all appropriate inquiry* into the previous ownership and uses of the *property* consistent with good commercial or customary practice” as defined at 42 U.S.C. §9601(35)(B).”

This ESA has been performed in general conformance with the ASTM Standard E 1527-13 and the scope and limitations defined in Wallace-Kuhl & Associates (WKA) proposal, 3PR14181, dated August 1, 2014.

1.2 Scope of Services

WKA has completed this ESA for the Site shown on Figures 1 through 3. Mr. Troy Estacio with the Buzz Oates Group of Companies authorized WKA to proceed with this assessment on November 5, 2014, through a signed WKA Environmental Services Agreement.

The scope of this assessment included the following:

- Conduct a site reconnaissance for visual evidence of surface contamination and potential sources of subsurface contamination;
- Conduct a visual inspection of the adjoining properties for evidence of RECs
- Conduct interviews with the following, as available:
 - Key site manager,



- Major occupants,
- Past and present owners, operators,
- Government and/or agency personnel, and,
- Inquiries conducted at abandoned sites may include interviews with owners or occupants of neighboring or nearby properties;
- Conduct a records review, which included the following:
 - Physical setting documents to determine regional geology, general soil information, and local and regional groundwater conditions,
 - Historical information, including but not limited to, Sanborn maps, topographic maps, aerial photographs, ownership records, building department records, local street directories, zoning and land use records, and prior assessments, as available,
 - Environmental records, including federal, state, tribal, and county regulatory agency lists that will help identify RECs on the Site and the adjoining properties, and,
 - Based on the outcome of the database search, review of specific regulatory agency files for identified contaminated facilities in order to evaluate whether the listed facilities are hazardous materials threats to the Site;
- Conduct a preliminary screen for vapor encroachment conditions on the Site per ASTM E2600-10;
- Review of the completed *ASTM E 1527-13 User Questionnaire (Questionnaire)* regarding Recorded Environmental Liens, activity and use limitations (AULs), relationship of the purchase price to the fair market value of the Site, and any specialized knowledge of the Site;
- Review of environmental liens and AULs reports, as provided; and
- Prepare a final report of the results of the ESA.

1.3 Special Terms and Conditions

No special terms or conditions to the WKA Professional Services Agreement or the WKA scope of services were requested or performed during the preparation of this report. The Buzz Oates Group of Companies did not authorize WKA to conduct a search for environmental liens and AULs.



1.4 User Provided Information

WKA provided The Buzz Oates Group of Companies a copy of the User Questionnaire and the Helpful Documents checklist. The documents were completed by Ms. Peggy Grillo, Project Manager, and returned to WKA. Discussion regarding her responses is provided in the following section. A copy of the completed questionnaire is included in Appendix B.

In summary, Ms. Grillo was not aware of any records of environmental liens or AULs currently recorded against the Site. Ms. Grillo stated she does not possess specialized knowledge or experience related to the Site. Ms. Grillo stated that she is not aware of any obvious indicators that point to the presence or likely presence of contamination at the Site.

Ms. Grillo was aware of existing "Helpful Documents" as defined in Section 10.8.1 of the ASTM Standard as noted on the "Helpful Documents Checklist" included in Appendix B. This report is a Phase I ESA, dated October 22, 2003, for the Mace 100 Property, which covered APN 033-630-009, prepared by Ramcon Engineering & Environmental Contracting, Inc. Ms. Grillo provided a copy of the report to WKA, with discussion regarding the report presented in Section 4.2.10.



2.0 SITE DESCRIPTION

2.1 Site and Vicinity General Characteristics

The Site is located on the northeast corner of Mace Boulevard and County Road 32A in Davis, California (Figures 1 and 2). The Site is comprised of Yolo County Assessor's Parcel Numbers (APNs) 033-630-009, 033-650-009, and 033-650-026, totaling approximately 212.2 acres of vacant land (Figure 3). Surrounding land use consisted of a gas station, a church, vacant land, and agricultural land.

2.2 Site Reconnaissance

A visual site reconnaissance was conducted by WKA on December 1, 2014. Figures 5a through 5c provide color photographs of the Site taken during the site reconnaissance.

On the day of field reconnaissance the Site fallow, agricultural land. The majority of the Site was bare ground; however, remnants of a row crop were noted on APN 033-650-026. An inactive well was observed on APN 033-650-026 adjacent to County Road 104. An irrigation well with a diesel powered engine on a trailer were observed on the western boundary of APN 033-650-009. No evidence of spills or discharges was observed in the vicinity of the trailer. A dirt road was located along the southern boundary of APN 033-650-009. A canal is located along the northern boundary of APN 033-630-009. A detention basin is located on the northeastern portion of APN 033-630-009. A fenced area with a control station for the canal and detention basin is located to the northeast of the detention basin. An irrigation well and diesel powered engine on a trailer were observed on the southwestern corner of APN 033-630-009. No evidence of spills or discharges was observed in the vicinity of the trailer. WKA observed rectangular ground markings next to the wells located on APNs 033-630-009 and 033-650-009 indicating that an item had recently been removed from the Site.

2.2.1 Municipal Infrastructure and Utilities

Pacific Gas and Electric (PG&E) provides natural gas and electricity to the Site vicinity. The City of Davis will provide water and sanitary sewer service after the development of the Site. Each parcel that comprises the Site has an irrigation well.

2.3 Adjoining Properties

The Site is bounded to the north and east by agricultural land. County Road 32A followed by a water tank and Interstate 80 is located to the south of the Site. Mace Boulevard followed by an



Arco gasoline station, University Covenant Church, and vacant land are located to the west of the Site. The Frontier Fertilizer facility, which is listed on the National Priorities List (Superfund) database was located 0.42 miles west-southwest of the Site. For additional information regarding the Frontier Fertilizer facility please see Section 4.3.1.



3.0 INTERVIEWS

Interviews with various persons familiar with the site vicinity, including representatives of public agencies, were conducted for the purpose of identifying past and present uses, which may have contributed to RECs on the Site. Results of those interviews are discussed in the following sections.

3.1 Owner or Key Site Manager

WKA interviewed Ms. Barbara Bruner, owner of APN 033-650-009, and reviewed her questionnaire responses regarding the history of the parcel. Mr. Bruner stated that she has owned the property for approximately 30 years. She said that the property has been used for growing crops including tomatoes, corn, melons, and alfalfa. Ms. Bruner stated that the property has been leased to farmers during her ownership, with the most recent lessee being Mr. Dan Beeman. According to Ms. Bruner, an electrically powered, irrigation well is located on the western portion of the Site along Mace Boulevard. She stated that, to the best of her knowledge, no underground or aboveground storage tanks have been located on the property. She is not aware of a particular area that was used for the mixing of pesticides or other chemicals. Ms. Bruner is not aware of any environmental liens that have been recorded for her property.

WKA provided the City of Davis, owner of APN 033-650-026, a questionnaire regarding the history of the City of Davis' parcel. Mr. Mitch Sears, City of Davis, responded to the questionnaire and returned it to WKA. According to Mr. Sears, the City of Davis acquired the property from the First State Bank of Northwest Arkansas in September 2011. He stated that the property has not been developed, but has been used for agricultural row crop production. Mr. Sears is not aware of any fill dirt that has been imported to the property from an unknown origin or contaminated site. Mr. Sears is not aware of any aboveground or underground storage tanks, or septic systems located at the property. He stated that there is an irrigation well on the property. Mr. Sears is not aware of any environmental liens that have been recorded for the property. Mr. Sears stated that a Phase I ESA was prepared for a 390-acre property, which included APN 033-650-026 (See Section 4.2.10).

WKA provided Mr. Dan Ramos, owner of APN 033-630-009, a questionnaire regarding the history of his property. According to Mr. Ramos, he acquired the property from Mr. Brian Mitsagucci in 1981. He stated that the property has been farmed for more than 100 years. He stated that an irrigation well is located on the Site and the temporary water detention improvements are located on the northwestern portion. Mr. Ramos provided information stating the detention basin was constructed to temporarily store stormwater from the Mace Ranch area prior to the construction of a larger stormwater drainage channel to the east of the Site. The



canal located on the northern portion of his property has been used as part of the stormwater drainage system for the Mace Ranch area. The fenced area to the northeast of the detention basin was supposed to be a pump station as part of the temporary stormwater drainage system; however, the pump was never installed because the stormwater drainage channel was completed sooner than expected. Mr. Ramos is not aware of any fill dirt that has been imported to the property. Mr. Ramos is not aware of any environmental liens associated with the property. Mr. Ramos stated that a system to supply nutrients to crops was previously connected to the irrigation system on his property and Ms. Bruner's property, but that it was recently removed.

WKA interviewed Mr. Gary Albertson, Project Management Applications, regarding the former canal on the central portion of APN 033-630-009. Mr. Albertson stated that soil from the excavation of the detention basin was placed within the canal area and the backfill was leveled with surrounding grade.

3.2 Occupants (Multi-family or Major)

The Site is not occupied.

3.3 Past and Present Owners, Operators, and/or Occupants

No information regarding past owners was received by WKA during completion of this report.

3.4 State and/or Local Government Officials

WKA contacted the Yolo County Environmental Health Department (YCEHD) regarding files for facilities in the vicinity of the Site. A representative from the YCEHD responded that all files are available on their SIRE website. Information reviewed at the YCEHD SIRE website is provided in Section 4.3.

3.5 Abandoned Properties

As referenced in 40 CFR Part 312, in the case of inquiries conducted at "abandoned properties," as defined in §312.23(d), "where there is evidence of potential unauthorized uses of the Site or evidence of uncontrolled access to the Site, the environmental professional's inquiry must include interviewing one or more (as necessary) owners or occupants of neighboring or nearby properties from which it appears possible to have observed uses of, or releases at, such abandoned properties..." No evidence of potential unauthorized uses, or evidence of uncontrolled access to the Site was observed. The Site is not considered an abandoned property and therefore, WKA did not interview owners or occupants of neighboring properties.



4.0 RECORDS REVIEW

The purpose of the records review is to obtain and review information concerning the current and historical use of the Site and adjoining properties that would help identify the presence of RECs in connection with the Site. The records review included review and discussion of the following, as available:

- Physical Setting Source(s);
- Historical Use Information; and,
- Environmental Record Sources.

4.1 Physical Setting Source(s)

The Site is depicted on the 1992 United States Geological Survey (USGS) 7.5 Minute topographic map of the *Davis, California Quadrangle* as undeveloped land. The Site is located within Sections 6 and 7, Township 8 North, Range 3 East, Mount Diablo Base and Meridian, at an elevation of approximately +28 feet relative to mean sea level (msl).

4.1.1 Regional and Local Geology

The Site is located on the Great Valley geomorphic province of California, a large, elongate, northwest-trending structural trough, generally constrained to the west by the Coast Ranges and to the east by the foothills of the Sierra Nevada Range (Norris and Webb, 1990). The Great Valley consists of two valleys lying end-to-end, with the Sacramento Valley to the north and the San Joaquin Valley to the south.

The Sacramento and San Joaquin Valleys have been filled to their present elevations with thick sequences of sediment derived from both marine and continental sources. The sedimentary deposits range in thickness from relatively thin deposits along the eastern valley edge to more than 25,000 feet in the south central portion of the Great Valley (Norris and Webb, 1990). The sedimentary geologic formations of the Great Valley province vary in age from Jurassic to Quaternary, with the older deposits being primarily marine in origin. Younger sediments are continentally derived and were typically deposited in lacustrine, fluvial, and alluvial environments with their main source being the Sierra Nevada Range.

The 1981 USGS *Geologic Map of the Sacramento Quadrangle, California*, shows the Site to be underlain by the Basin Deposits consisting of unconsolidated silt and clay, originally deposited as overbank flood deposits, in topographic lows of the floodplain.



4.1.2 Soil Survey

The United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) has created a web-based service for accessing soil information. According to the NRCS Web Soil Survey (WSS) the majority of the near-surface soils on the Site consist of Sycamore complex, drained; Capay silty clay; Willows clay; and, Willows clay, alkali, drained (USDA, 2014). A copy of the soil report is included on the attached CD.

4.1.3 Regional and Local Groundwater

The Site is located within the California Department of Water Resources (DWR) defined Sacramento Valley Groundwater Basin of the Sacramento River Hydrologic Region. WKA searched data on the DWR website and found no currently monitored groundwater wells within one-half mile of the Site (DWR, 2014).

WKA also searched the Regional Water Quality Control Board's (RWQCB) GeoTracker website for quarterly groundwater monitoring reports completed for facilities in the immediate vicinity of the Site. A cluster of groundwater monitoring wells are located at the Frontier Fertilizer facility located 0.42 miles west of the Site (RWQCB, 2014). According to the public records available, groundwater elevation at the facility ranges from 2 to 8 feet below ground surface (bgs), with groundwater flow to the north. The GeoTracker public information is further discussed in Section 4.3.

4.2 Historical Use Information

WKA reviewed historical information to develop a history of the previous uses of the Site and surrounding area, in order to evaluate the Site and adjoining properties for evidence of RECs. Standard historical sources reviewed during the preparation of this report included the following, as available:

- Sanborn® Maps;
- Topographic Maps;
- Oil and Gas Well Maps;
- Aerial Photographs;
- Ownership Records;
- Building Department Records;
- Local Street Directories;
- Zoning and Land Use Records;
- Other Historical Sources; and,
- Prior Assessments.



Discussion of these historical sources is provided in the following sections.

4.2.1 Sanborn® Maps

Sanborn® Maps with coverage of the Site were obtained through Environmental Data Resources, Inc. (EDR®). EDR® is a national commercial provider of environmental database information. Sanborn® Maps are detailed drawings of site development, and were typically used by fire insurance companies to determine site fire insurability. According to EDR®, Sanborn® Map coverage of the Site is not available (EDR®, 2014a).

4.2.2 Topographic Maps

Historical USGS topographic maps with coverage of the Site and outlying land areas were reviewed. Topographic maps with coverage of the Site dated 1907, 1915, 1952, 1954, 1968, 1975, 1981, and 1992 were available for review (EDR®, 2014b). Copies of the topographic maps compiled by EDR® with coverage of the Site are included on the CD attached to the back cover of this report. Table 1 notes the changes in the vicinity of the Site.

Table 1		
Year	Scale	Observations
1907	1:62,500	The Site and vicinity are located to the east of Davis (noted as Davisville on the topographic map). The Southern Pacific Railroad line is noted to the south of the Site.
1915	1:31,680	Site: Vacant land. North: Vacant land. East: Vacant land. South: Vacant land. West: Vacant land.
1952	1:24,000	Site: A canal is noted on the south-central portion of the Site. North: No significant changes noted. East: No significant changes noted. South: A four-lane road is noted in the location of existing Interstate 80. West: Mace Boulevard is noted.
1954	1: 62,500	No significant changes are noted for the Site or the vicinity.



Table 1		
Year	Scale	Observations
1968	1:24,000	Site: No significant changes noted. North: No significant changes noted. East: No significant changes noted. South: County Road 32A is noted. West: Mace Boulevard is noted.
1975	1:24,000	No significant changes are noted for the Site or the vicinity.
1981	1:24,000	No significant changes are noted for the Site or the vicinity.
1992	1:24,000	Site: A well is noted on the southwestern portion of the Site. North: No significant changes noted. East: No significant changes noted. South: No significant changes noted. West: No significant changes noted.

4.2.3 Oil and Gas Well Maps

Review of California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) website showed that the Site is not located in a designated natural gas field. Twenty-four DOGGR wells are located on or within at least one-mile of the Site (DOGGR, 2014). One well, indentified as Bruhn 1, API 11320162, was located on the southeastern portion of the Site. According to information on the DOGGR website, drilling on the well commenced on September 14, 1972, and the well was abandoned on May 2, 1974.

4.2.4 Aerial Photographs

Historical aerial photographs of the Site and general vicinity were compiled by EDR[®]. Photographs covering the years 1957, 1968, 1974, 1984, 1993, 1998, 2005, 2006, 2009, 2010, and 2012 were available for review (EDR[®], 2014c). Table 2 notes the changes on the property and in the vicinity.



Table 2

Year	Scale	Observations
1957	1" = 500'	Site: Ground markings indicating agricultural activities are visible. A canal is visible on the southwestern portion of the Site. North: Ground markings indicating agricultural activities are visible. East: Ground markings indicating agricultural activities and a farm complex consisting of several structures are visible. South: County Road 32A followed by Interstate 80 is visible. West: Ground markings indicating agricultural activities are visible.
1968	1" = 500'	Site: No significant changes noted. North: No significant changes noted. East: No significant changes noted. South: A freeway off-ramp has been added to Interstate 80. West: Mace Boulevard is visible.
1974	1" = 500'	No significant changes are noted for the Site or the vicinity.
1984	1" = 500'	Site: No significant changes noted. North: No significant changes noted. East: The farm complex operations appear to be reduced. South: A structure is visible to the north of the freeway off-ramp. West: No significant changes noted.
1993	1" = 500'	Site: The canal is no longer visible and the detention basin on the east-central portion of the Site is visible. North: No significant changes noted. East: No significant changes noted. South: No significant changes noted. West: A new road is visible.
1998	1" = 500'	Site: No significant changes noted. North: No significant changes noted. East: No significant changes noted. South: A new freeway off-ramp has been constructed. West: A commercial structure is visible.
2005	1" = 500'	Site: No significant changes noted. North: No significant changes noted. East: No significant changes noted. South: A new structure and parking lot are visible. West: The existing gasoline station and church are visible.
2006	1" = 500'	No significant changes are noted for the Site or the vicinity.



Table 2		
Year	Scale	Observations
2009	1" = 500'	Site: No significant changes noted. North: No significant changes noted. East: The structures have been removed from the farm complex. South: No significant changes noted. West: No significant changes noted.
2010	1" = 500'	Site: No significant changes noted. North: No significant changes noted. East: No significant changes noted. South: A water tank is visible. West: No significant changes noted.
2012	1" = 500'	No significant changes are noted for the Site or the vicinity.

4.2.5 Ownership Records

Ownership information was obtained through ParcelQuest[®], an on-line distributor of "Assessor-Direct property information throughout the State of California." The ownership entity for the APN 033-630-009 is listed as "Ramos Fam Trust et al", for APN 033-650-009 as "Bruner Barbara M Tr et al", and for APN 033-650-026 as "Davis City of" (ParcelQuest[®], 2014).

4.2.6 Building Department Records

WKA reviewed permits on the Yolo County Building Inspection Services eTRAKiT website. Three permits were available for APN 033-630-009. One permit was issued for the excavation of the drainage canal and detention basin. One permit was issued for grading 60,000 cubic yards of soil. The third permit was issued for an electrical service. One permit was issued for an electrical service for APN 033-290-058. No permits were available for APNs 033-650-009 or 033-650-026.

4.2.7 Local Street Directories

Local street directories with coverage of the Site and adjoining properties were obtained from EDR[®] (EDR[®], 2014d). These documents contain business listings based on street number identifiers. APNs 033-650-009 and -026 do not currently have address and no historical addresses are known for the parcels; therefore, they would not have been listed in city directories. APN 033-630-009 is addressed as 26295 Mace Boulevard, which was listed as Davis Fruit Market in 1999 and Ikeda's Market in 2003 and 2013; however, these stores were



located on the southern adjoining property and not the Site. A copy of the EDR[®] City Directory (EDR[®], 2014d) is provided on the CD attached to the back cover of this report.

4.2.8 Zoning and Land Use Records

The Site is zoned for agriculture (ParcelQuest, 2014).

4.2.9 Other Historical Sources

Review of additional historical sources was not warranted in order for the Environmental Professional to make a determination as to evidence of potential RECs on the Site.

4.2.10 Prior Assessments

WKA was provided a copy of a Phase I ESA, dated October 22, 2003, for the Mace 100 Property, which included APN 033-630-009, prepared by Ramcon Engineering & Environmental Contracting, Inc. (Ramcon). According to the Ramcon ESA, the property had been used as farmed land from at least 1937 to 2003. Ramcon reported that a canal was located on the Site prior to 1993 and that it was filled soil from the excavation of the detention basin located on the northeastern portion of the property and was leveled with surrounding grade in 1993. Ramcon reported the presence of an unused well on the southwestern portion of the property. According to Ramcon, the pump equipment had been disconnected from the overhead electrical lines. Ramcon concluded that no evidence of recognized environmental conditions were revealed during their investigation.

WKA was provided a copy of Phase I ESA, dated November 22, 2010, for a 390-acre property, which included APN 033-650-026, prepared by Geocon Consultants, Inc. (Geocon). This summary is for information Geocon provided that is pertinent to the 25-acres owned by the City of Davis that is part of the Site. Geocon reported that the 390-acre property was being used for agricultural purposes in 2010. According to Geocon, the 390-acre property had previously been used for agricultural purposes. Geocon concluded that no recognized environmental conditions were revealed during their investigation; however, Geocon noted that if the land use of the 390-acre property were to change to residential, park, and/or school facilities, soil sampling for pesticides, herbicides, and metals would be necessary to evaluate the potential presence of historically applied agricultural chemicals. Geocon also recommended that if the irrigation well will no longer be used that they be abandoned in accordance with local regulations.

WKA prepared a Surface Soil Investigation Report, dated December 31, 2014, for the Site. WKA proposed collecting surface soil samples using the Department of Toxic Substances



Control Interim Guidance for Sampling Agricultural Properties (Third Revision), dated August 7, 2008 (DTSC Guidance) for analysis of organochlorine pesticides (OCPs), arsenic, and lead. The DTSC guidance called for 200 soil sample locations being distributed over the 212-acre Site. At the request of the Client, the sampling was reduced to ten percent of the recommended sampling locations for the agricultural fields in order to gain an initial understanding of chemicals present in soil. Surface soil samples were also collected from the detention basin and adjacent canal. Laboratory analytical results of the surface soil samples indicated that no OCPs were detected above their reporting limits. The maximum concentration of arsenic detected at the Site was below DTSC's threshold of 12 mg/kg for a sensitive land use. WKA calculated that the excess cancer risk associated with the maximum concentration of arsenic at the Site may cause an estimated 19 excess cases of cancer in a population of 1,000,000. The laboratory analyses revealed soil samples from agricultural use areas, the detention basin, and canal contained total lead concentrations that are below the thresholds for human exposure under a commercial exposure scenario (320 mg/kg). WKA concluded that the soil at the Site, overall, poses no significant risk to human health unless the future land use were to become residential. WKA recommended that their report be submitted to DTSC with a request to concur that the data from this *Surface Soil Investigation Report* is sufficient for a Preliminary Endangerment Assessment Equivalent study.

4.3 Environmental Record Sources

4.3.1 Regulatory Agency Databases

EDR[®] was contacted to provide a summary of facilities listed on regulatory agency databases (EDR[®], 2014e). Table 3 summarizes the researched ASTM required *Standard Environmental Record Sources*, as well as several *Additional Environmental Record Sources*, as defined in Sections 8.2.1 and 8.2.2 of the ASTM Standard. For additional reference, the Executive Summary of the EDR[®] report is included in Appendix C. A copy of the entire EDR[®] report is included on the CD attached to the back cover of this report.

Table 3			
	<i>EDR Listed Database</i>	<i>ASTM E 1527-13 Search Distance</i>	No. of Facilities Listed (within Search Radius)
Federal			
Federal NPL Site List	<i>NPL</i>	1-mile	1
Federal Delisted NPL Site List	<i>Delisted NPL</i>	1/2-mile	0
Federal CERCLIS List	<i>CERCLIS</i>	1/2-mile	0
Federal CERCLIS NFRAP Site List	<i>CERCLIS NFRAP</i>	1/2-mile	0



Table 3			
	<i>EDR Listed Database</i>	<i>ASTM E 1527-13 Search Distance</i>	No. of Facilities Listed (within Search Radius)
Federal RCRA CORRACTS Facilities List	<i>CORRACTS</i>	1-mile	0
Federal RCRA Generators List:			
Small Quantity and Large Quantity Generators	<i>RCRA SQG</i>	Site & adjoining	0
	<i>RCRA LQG</i>		0
Landfills and Solid Waste Management Units	<i>RCRA TSDF</i>	1/2-mile	0
Federal Institutional Control / Engineering Control Registries	<i>US ENG Controls</i>	Site only	0
	<i>US INST Controls</i>		0
Federal ERNS List	<i>ERNS</i>	Site only	0
State			
State-equivalent NPL (Hist. Cal-Sites)	<i>Hist. Cal-Sites</i>	1-mile	1
State-equivalent CERCLIS	<i>RESPONSE</i>	1/2-mile	0
State Landfill and/or Solid Waste Disposal Site	<i>SWF/LF (SWIS)</i>	1/2-mile	0
	<i>WMUDS/SWAT</i>		0
State Leaking Underground Storage Tanks	<i>LUST- Reg 5 Geotracker</i>	1/2-mile	3
Tribal Leaking Underground Storage Tanks	<i>Indian LUST</i>	1/2-mile	0
State Registered Underground Storage Tanks	<i>UST</i>	Site & adjoining	0
Tribal Registered Underground Storage Tanks	<i>Indian UST</i>	Site & adjoining	0
State Registered Aboveground Storage Tanks	<i>AST</i>	Site & adjoining	0
State Institutional Control Registries	<i>DEED</i>	Site only	0
State Voluntary Cleanup Sites	<i>VCP</i>	1/2-mile	0
Additional Environmental Record Sources			
Hazardous Waste & Substances Sites List	<i>CORTESE</i>	1/2-mile	0
DTSC EnviroStor (includes Cal-Sites)	<i>EnviroStor</i>	1-mile	4
SLIC	<i>SLIC - Reg 5</i>	1/2-mile	0
Cleaner Facilities	<i>Drycleaners</i>	1/4-mile	0
HAZNET	<i>HAZNET</i>	1/4-mile	0

Review of the EDR[®] report indicates the Site is not listed on any of the EDR[®] databases. Regulatory information reviewed concerning the nearest facility in each cardinal direction identified within its respective ASTM search distance is detailed below.

The Target Property facility, Intersection of Second Street and Faraday Avenue, is located 0.33 miles west-southwest of the Site. The facility is listed on the Department of Toxic Substances Control's (DTSC) EnviroStor database. According to information on the DTSC EnviroStor database, three monitoring wells associated with the Frontier Fertilizer facility (See discussion below) were located at the facility. The monitoring wells were abandoned prior to the



development of the property with a Target store. Based on the information reviewed, this facility is not suspected of negatively impacting the Site at this time.

The Frontier Fertilizer facility, County Road 32A is located 0.42 miles west-southwest of the Site. The facility is listed on the National Priority List, the DTSC EnviroStor database, and the Historical CORTESE databases. According to a Supplemental Soil Gas and Shallow Groundwater Characterization Work Plan, dated March 2009, prepared for the facility, a 4-acre portion was used to store, mix, and distribute pesticides for local agricultural use. The work plan notes that contaminated soil exists at the facility and contaminated groundwater exists within the facility boundary and extends to the north. The direction of groundwater flow at the facility is reported to be to the northeast. Based on the information reviewed during this investigation, this facility is not suspected of negatively impacting the site at this time.

The Mace Ranch Park facility, Mace Boulevard and County Road 32A, was located 0.45 miles west of the Site. The facility is listed on the DTSC EnviroStor database. According to information on the DTSC EnviroStor website, the facility is located immediately north of the Frontier Fertilizer facility. A Covenant to Restrict the Use of the Property was signed by DTSC and Mace Ranch Park on March 20, 1992, which prohibits all wells, except aquifer monitoring wells from being drilled on the property and it required that information regarding the Frontier Fertilizer facility be disclosed to all buyers. Based on the information reviewed, this facility is not suspected of negatively impacting the Site at this time.

The A.E. Harter, Inc. facility, 5100 Chiles Road, is located 0.2 miles south-southwest of the Site. The facility is listed on the Regional Water Quality Control Board's (RWQCB) Leaking Underground Storage Tank (LUST) database. According to a RWQCB letter, dated April 19, 2002, the facility received a no further action status. Based on the information reviewed, this facility is not suspected of negatively impacting the Site at this time.

The Holt facility, 5200 Chiles Road, is located 0.1 miles south of the Site. The facility is listed on the Regional Water Quality Control Board's (RWQCB) Leaking Underground Storage Tank (LUST) database. According to a RWQCB letter, dated March 19, 1996, the facility received a no further action status. Based on the information reviewed, this facility is not suspected of negatively impacting the Site at this time



4.3.2 Preliminary Screen for Vapor Encroachment Conditions

WKA conducted a preliminary screening for vapor encroachment conditions (VEC) beneath the Site using the Tier 1 vapor encroachment screening evaluation¹. The Tier I screening included performing a *Search Distance Test* to identify if there are any known or suspect contaminated properties surrounding or upgradient of the Site within specific search radii, and a *Chemicals of Concern (COC) Test* (for those known or suspect contaminated properties identified within the *Search Distance Test*) to evaluate whether or not COC are likely to be present. The Vapor Encroachment Screening Matrix is included in Appendix D.

Based on the completion of the VEC-screening matrix, a VEC can be ruled out because a VEC does not or is not likely to exist.

4.3.3 Environmental Lien Search

The Buzz Oates Group of Companies did not authorize WKA to conduct a search for environmental liens and AULs; however, they did provide a Preliminary Title Report, dated August 13, 2014, prepared by Placer Title Company. Mr. Eric Seastrom, Placer Title Company, stated that no environmental liens were noted during the preparation of the Preliminary Title Report

¹ The Preliminary Screen for Vapor Encroachment Conditions was based on the guidelines presented in the ASTM E 2600-10 Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions.



5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Data Gaps

The time intervals between the Standard Historical Sources (i.e., topographic maps, aerial photographs, other historical sources) exceeded the ASTM minimum five-year period. However, the use of the Site appears unchanged within the time gaps, and therefore, research of the Site use during the time gaps is not required by the ASTM Standard (Refer to *Section 8.3.2.1 – Intervals* of the ASTM E 1527-13 standard).

It is the opinion of WKA that no significant data gaps were identified during the preparation of this report that affects the ability of the Environmental Professional to identify RECs on the Site.

5.2 Conclusions

- The historical land use research dating back to the early 1900s revealed that the Site has been used for growing crops since at least 1957. A former canal was located on the central portion of APN 033-630-009 from at least 1957 to at least 1992 and was filled and graded in 1993. A canal has transected the central portion of the Site from east to west since at least 1993. A detention basin has been present on the northeastern corner of APN 033-630-009 since at least 1993.
- Three irrigation wells are located along the western property boundary. Two of the irrigation wells are connected to portable diesel powered engines. The third well appeared to be inactive.
- According to a Preliminary Title Report prepared by Placer Title Company, no environmental liens are associated with the Site.
- Given the documentation reviewed concerning the neighboring agency listed facilities, none of the facilities reviewed is likely to have a negative impact on the Site.
- Based on the completion of the vapor encroachment condition (VEC) screening matrix, WKA concludes a VEC can be ruled out because a VEC does not or is not likely to exist.

We have performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E 1527-13 for the Mace Ranch Innovation Center. Any exceptions to, or deletions from, this practice are described in Section 5.4 of this report. This assessment has revealed no evidence of RECs in connection with the Site except the following:

- On-site concerns were noted from the potential presence of persistent pesticide residues from their application during historical agricultural activities. However, a WKA



Surface Soil Investigation Report describes no pesticide residues in soil samples at concentrations above their reporting limits and concluded that no further study of the Site is warranted.

The Surface Soil Investigation Report is submitted under separate title. Also, a full copy of the ESA report, in a .pdf format, is included on the attached CD.

5.3 Recommendations

Based on the conclusions presented and the documentation contained herein, WKA makes the following recommendations:

- If the irrigation wells will no longer be used they should be abandoned in accordance with local, state, and federal regulations.
- If any debris is encountered within the former canal on APN 033-630-009 during construction activities, WKA should be called to evaluate potential impacts to the Site.

5.4 Exceptions and/or Deletions

No exceptions or deletions from the ASTM E 1527-13 standard were made during the performance of this ESA.

5.5 Additional Services

Non-scope considerations, such as assessment for naturally occurring asbestos (NOA), wetlands evaluation, indoor air quality, laboratory testing of the soils and groundwater beneath the Site for environmental contaminants (such as agricultural-related pesticides, termiticides, polychlorinated biphenyls [PCBs], or arsenic and lead), and assessments for asbestos containing materials and lead-based paint were not included or requested as part of this ESA. Additionally, this ESA included conducting a Tier 1 vapor encroachment screening in accordance with the *ASTM E 2600-10 Vapor Encroachment Screening on Property Involved in Real Estate Transactions*.



6.0 LIMITATIONS

The statements and conclusions in this report are based upon the scope of work described above and on observations made only on the date of the field reconnaissance, December 1, 2014. Work was performed using a degree of skill consistent with that of competent environmental consulting firms performing similar work in the area. Information regarding the Site that is *publicly available* and *practically reviewable*, as described in the ASTM standard, was obtained. Additional research or receipt of information regarding the Site that was not disclosed or available to WKA during this assessment may result in revision of the conclusions. The conclusions in this report should be reevaluated if site conditions change. No recommendation is made as to the suitability of the Site for any purpose. The results of this assessment do not preclude the possibility that materials currently or in the future defined as hazardous are present on the Site, nor do the results of this work guarantee the potability of groundwater beneath the Site. This report is applicable only to the investigated Site and should not be used for any other property. No warranty is expressed or implied.

This report is viable for one year from the publication date of the report provided the following components are updated within 180 days of the date of purchase or (for transactions not involving an acquisition) the date of the intended transaction:

- Interviews with current owners/occupants and/or in order to identify changes in Site conditions or uses since the publication date of this report
- Searches for recorded environmental cleanup liens
- Visual inspection of the Site and of adjoining properties with emphasis on changes in conditions or uses since the publication date of this report
- A current review of federal, state, tribal and county databases
- The declaration by the environmental professional responsible for the assessment.

Environmental Site Assessments completed more than one year prior to the date of purchase must be reviewed and updated in order for the *Environmental Site Assessment* to be considered valid per Section 4.6 (*Continued Viability of Environmental Site Assessment*), and Sections 4.7 and 8.4 (*Prior Assessment Usage*) of the ASTM E 1527-13 Standard.



7.0 REFERENCES

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- Department of Toxic Substances Control (DTSC), EnviroStor, <https://www.envirostor.dtsc.ca.gov/public/> (November 2014).
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 - 2014b. *The EDR Historical Topographic Map Report, Davis Innovation Park, Mace Boulevard/County Road 32A, Davis, California, Inquiry Number 4128312.4*, Milford, Connecticut, (November 7, 2011).
 - 2014c. *The EDR Aerial Photo Decade Package Report Davis Innovation Park, Mace Boulevard/County Road 32A, Davis, California, Inquiry Number 4128312.5*, Milford, Connecticut, (November 10, 2011).
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Wagner, D.L., et al, State of California Department of Mines and Geology, 1981, *Geologic Map of the Sacramento Valley and Sierra Foothills, California* [map]. 1:250,000, Regional Geologic Map Series, Map No. 1A (Geology). Capitol Heights, MD: William Heintz Map Corporation.



Phase I Environmental Site Assessment

MACE RANCH INNOVATION CENTER

WKA No. 10344.01

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Phase I Environmental Site Assessment

MACE RANCH INNOVATION CENTER

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- 5b Color Photographs
- 5c Color Photographs

APPENDICES

- A Resumes
- B ASTM E 1527-13 User Questionnaire and Helpful Documents Checklist
- C EDR® Radius Map Report Executive Summary
- D Preliminary Screen for Vapor Encroachment Conditions Matrix

Attached CD contains: EDR® Reports: (Radius Map Report, Aerial Photographic Decade Package, Historical Topographic Maps, Sanborn Map Search), and Phase I ESA, Mace Ranch Innovation Center (WKA No. 10344.01 dated January 6, 2015).



FIGURES



APPENDIX A
RESUMES



APPENDIX B
ASTM E 1527-13 User Questionnaire
and Helpful Documents Checklist



APPENDIX C
EDR® Radius Map Report Executive Summary



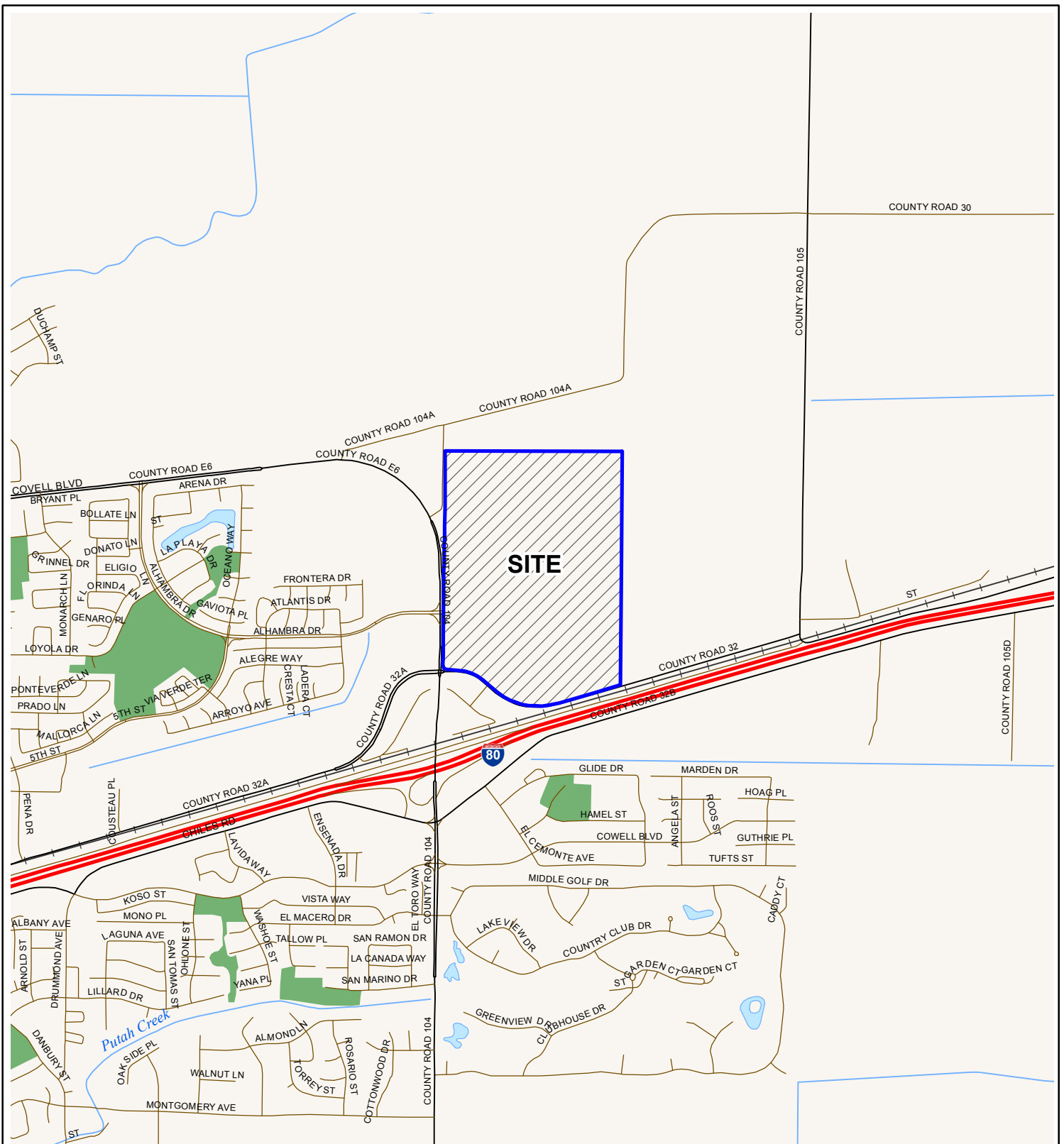
APPENDIX D

Preliminary Screen for Vapor Encroachment Conditions Matrix

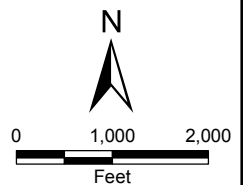


FIGURES



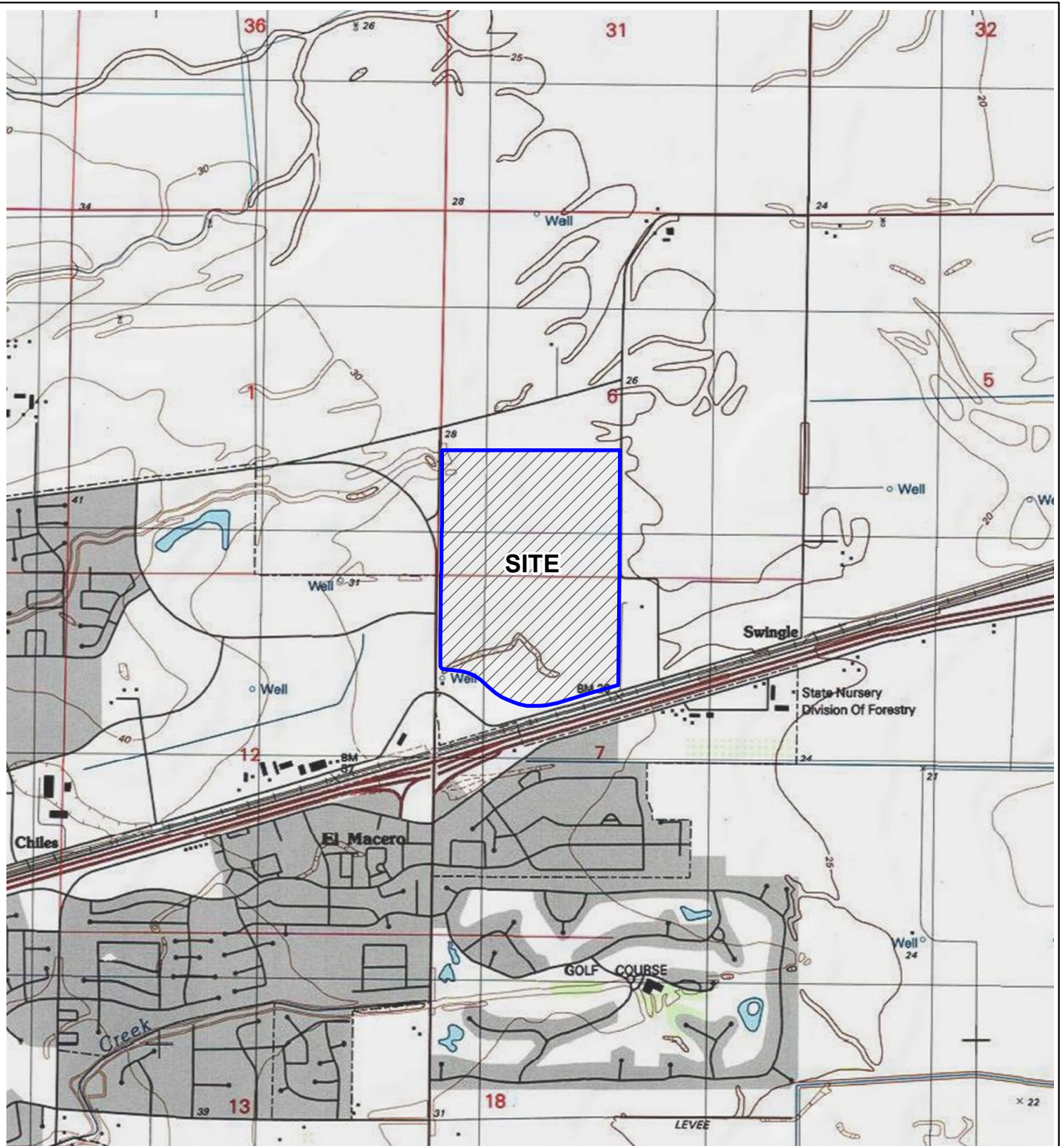


Street data courtesy of ESRI, 2010.
 Hydrography courtesy of the U.S. Geological Survey
 acquired from the GIS Data Depot, December, 2007.
 Projection: NAD 83, California State Plane, Zone II

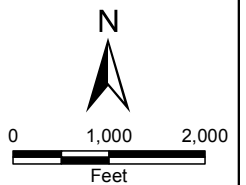


VICINITY MAP
MACE RANCH INNOVATION CENTER
 Davis, California

FIGURE 1	
DRAWN BY	TJC
CHECKED BY	NMM
PROJECT MGR	DBN
DATE	11/14
WKA NO. 10344.01	

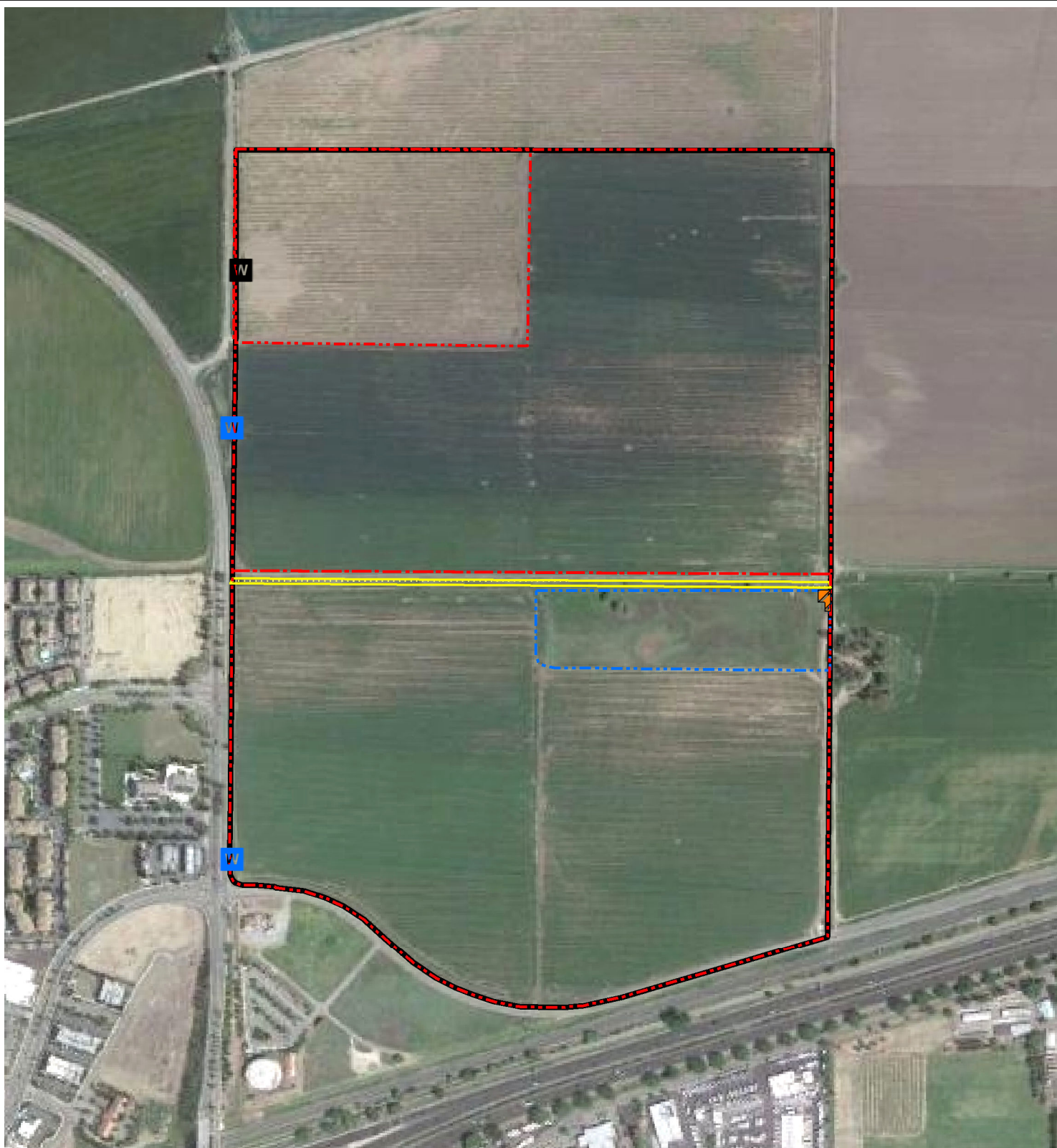


Adapted from U.S. Geological Survey 7.5 minute topographic map of the Davis quadrangle, California, 1981.
 Projection: NAD 83, California State Plane, Zone II



TOPOGRAPHIC MAP
MACE RANCH INNOVATION CENTER
 Davis, California

FIGURE 2	
DRAWN BY	TJC
CHECKED BY	NMM
PROJECT MGR	DBN
DATE	11/14
WKA NO. 10344.01	



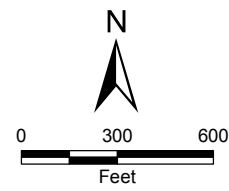
Aerial from Google Imagery 4/14
 Projection: NAD 83, California State Plane, Zone II

Legend

- Parcels
- Detention Basin
- Canal
- Fenced Area
- Site boundary

Wells:

- Active with diesel powered pump
- Inactive



AERIAL SITE MAP
MACE RANCH INNOVATION CENTER
 Davis, California

FIGURE 4	
DRAWN BY	KLP
CHECKED BY	NMM
PROJECT MGR	DBN
DATE	12/14
WKA NO. 10344.01	



Looking southeast at the general view of APN 033-650-009.



Looking northeast at the general view of APN 033-650-026.



Looking at the inactive well located on APN 033-650-026.



Looking at the inactive well located on APN 033-650-026.



COLOR PHOTOGRAPHS
MACE RANCH INNOVATION CENTER
 Davis, California

FIGURE 5a	
DRAWN BY	NMM
CHECKED BY	DBN
PROJECT MGR	DBN
DATE	12/14
WKA NO. 10344.01	



Looking north at the irrigation well and diesel powered engine located on the western portion of APN 033-650-009.



Looking east at the canal located on the northern boundary of APN 033-630-009.



Looking southwest at the detention basin located on the northeastern portion of APN 033-630-009.



Looking southeast at the detention basin located on the northeastern portion of APN 033-630-009.



COLOR PHOTOGRAPHS
MACE RANCH INNOVATION CENTER
 Davis, California

FIGURE 5b	
DRAWN BY	NMM
CHECKED BY	DBN
PROJECT MGR	DBN
DATE	12/14
WKA NO. 10344.01	



Looking north at the fenced area to the northeast of the detention basin.



Looking at the an inactive control system associated with the detention basin.



Looking northwest at the irrigation well and portable diesel powered engine on the southwestern corner of APN 033-630-009.



Looking northwest at the irrigation well and portable diesel powered engine on the southwestern corner of APN 033-630-009.



COLOR PHOTOGRAPHS
MACE RANCH INNOVATION CENTER
 Davis, California

FIGURE 5c	
DRAWN BY	NMM
CHECKED BY	DBN
PROJECT MGR	DBN
DATE	12/14
WKA NO. 10344.01	

APPENDIX A
RESUMES



NANCY M. MALARET

PROJECT ENVIRONMENTAL SCIENTIST

Ms. Malaret has been employed in the environmental field since 2003. She graduated from University of California, Davis with a degree in Hydrologic Science.

Ms. Malaret worked for the Florida Department of Health for four years. She assisted with the coordination of sampling potable water wells throughout the state of Florida. Ms. Malaret used GIS mapping techniques to identify private potable wells located near commercial and industrial facilities that may have contaminated the groundwater. She coordinated the sampling of the wells and the analysis of water samples collected. She worked with the Florida Department of Environmental Protection to place filters on the private wells with contaminated water. Ms. Malaret also worked with the Health Assessment Team at the Florida Department of Health. She conducted human health risk assessments based on groundwater and soil data collected during contamination assessments of industrial facilities. Ms. Malaret used the Agency for Toxic Substances and Disease Registry's Public Health Assessment Guidelines to evaluate resident's risk of illness from exposure to contaminated groundwater and surface soils. Ms. Malaret used Risk Assistant software to determine dose estimates and compared the results with toxicological studies. Ms. Malaret's human health risk assessments focused on sites with Volatile Organic Compounds, Semi-volatile Organic Compounds, and metals contamination.

Ms. Malaret has six years of experience in due diligence. Her Phase I Environmental Site Assessment experience includes wooded, rural, and urban properties. Her investigations have involved multiple parcel sites with extensive history, large-scale residential subdivisions, office buildings, gasoline stations, dry cleaners, and heavy equipment manufacturing and repair facilities. Ms. Malaret has conducted multiple corridor assessments along roadways being prepared for expansion or improvements. She also conducted a Hazardous, Toxic, and Radioactive Waste Assessment for the United States Army Corps of Engineers on a 20-mile stretch of the St. Johns River in Jacksonville, Florida. Ms. Malaret conducted soil and groundwater sampling associated with Phase II Environmental Site Assessments. Ms. Malaret coordinated long-term groundwater sampling events for sites with residual petroleum contamination.

Ms. Malaret has worked with communities impacted by contamination, local, state, and federal government agencies, banks and developers.

Moody Property, Vacaville, CA: Ms. Malaret managed the Phase I Environmental Site Assessment of a 38.5-acre property of undeveloped land located in Vacaville to support the redevelopment of the property into a residential development.

Mercantile Property, Rancho Cordova, CA: Ms. Malaret managed the Phase I Environmental Site Assessment of a 4.1-acre property developed with a commercial building. Evaluation of regulatory facilities within the site vicinity included the former Aerojet Facility.

Woodmere Property, Folsom, CA: Ms. Malaret managed the Phase I Environmental Site Assessment of a 2.5-acre property developed with an office building. Historical research of the property included evaluating former mining operations at the site.

HIGHER EDUCATION:

University of California, Davis
Bachelor of Science, Hydrologic Science (1999)

DENNIS B. NAKAMOTO

SENIOR HYDROGEOLOGIST

Mr. Nakamoto has 33 years of experience in the fields of environmental consulting, groundwater studies, site characterization, remediation construction oversight, and regulatory compliance. As Senior Hydrogeologist, Mr. Nakamoto manages projects and mentors professionals regarding studies of anthropogenic and naturally occurring constituents including: petroleum hydrocarbons, metals (e.g. arsenic and lead from pesticide application and aerially deposited lead), chlorinated hydrocarbons, pesticides and herbicides, and naturally occurring asbestos in soil and groundwater. His projects include studies of soil, soil vapor, and groundwater contaminants with focus on human health risk assessment and identification of environmental risk assessment, groundwater resource and supply with focus on well design, well rehabilitation and aquifer characterization. Mr. Nakamoto is experienced in the interpretation of downhole geophysical data from surveys including, electric logs, gamma and natural gamma logs, neutron logs, and acoustic logs. He is experienced in the groundwater well drilling methods and the application of well construction methods, including some applications from the petroleum industry. He has groundwater extraction well designs have successfully addressed issues such as excessive sand production, selective screen intervals to exclude undesirable groundwater quality and corrosive aquifer conditions.

SELECTED PROJECT EXPERIENCE

Risk Based Cleanup, Future Sacred Heart Elementary School, Sacramento, California: Mr. Nakamoto worked on behalf of Catholic Health Care West, Sacramento Diocese and the Sacred Heart Parish to establish appropriate soil remediation goals for lead, chlordane, and dieldrin in soil at the future Sacred Heart Elementary School site. He represented Sacred Heart Parish in negotiations with Catholic Health Care West to identify appropriate site characterization and mitigation efforts. He represented Sacred Heart Parish in meetings with the California Department of Toxic Substances Control to establish statistically derived risk-based values to determine site-specific cleanup levels for the chemicals present in soil. Mr. Nakamoto also represented the project during City of Sacramento Council meetings and Community Relations Building meetings. He provided technical oversight, on behalf of Sacred Heart Parish and Catholic Health Care West, of site remediation activities, including disposal of RCRA hazardous wastes.

Brownfield Development, Prospective Purchaser Agreement, Sacramento, California: Mr. Nakamoto served as the lead environmental consultant that successfully negotiated a 2006 Prospective Purchasers Agreement (PPA) between the Central Valley Regional Water Quality Control Board (CVRWQCB) and Signature Properties for a residential development proposed within the area of large-scale groundwater contamination. Negotiations with the PPA required focused consensus building and close coordination with CVRWQCB staff and counsel.

Preliminary Endangerment Assessment, Rancho Cordova, California: Mr. Nakamoto assisted a Land Developer in successfully securing

DTSC approval of a Preliminary Endangerment Assessment (PEA) on land proposed for residential development in Rancho Cordova, California. His detailed analyses of data demonstrated that variability of metal concentrations in selected soil samples were not representative of the actual metal concentrations in site soil. This demonstration allowed DTSC to concur that soil within the property did not pose a threat to the residential development.

Naturally Occurring and Anthropogenic Metals and Pesticides, Various Locations: Mr. Nakamoto has extensive experience in studies of metals and pesticides in soil and groundwater. He is highly experienced in establishing sample collection density to characterize a property. He evaluates chemical concentrations using statistical reduction of data, which DTSC accepts for determining whether chemical concentrations across the entire site pose a threat to the proposed future land use.

7th Street Extension, Sacramento, CA: Performed Environmental Oversight Authority monitoring for the \$25 million project connecting downtown Sacramento to the Richards Boulevard (North Sacramento area) by extending 7th Street across the former Sacramento Locomotive Works Yard, a former Superfund property. One element of this project was the below grade crossing at the Union Pacific Railroad track line. Excavation at this location revealed the presence of material suspected to be foundry slag. Laboratory analysis of carefully selected samples showed the material was not foundry slag. Other issues resolved during this project included handling and discharge of groundwater from dewatering activities and

DENNIS B. NAKAMOTO

participation in the community relations team activities.

Federal Courthouse Building, Sacramento, CA: Served as EOA for this project, which was the first development of the former Sacramento Locomotive Works Yard Superfund Site. Closely coordinated with the City of Sacramento, DTSC, Union Pacific Railroad Company, and the Project managers, General Services Administration. During this project, several areas of concern were studied that included:

- ◆ Leaking Underground Storage Tanks
- ◆ Features deemed of Archeological interest
- ◆ Presence of Stoddard's solvent in soil
- ◆ Presence of oil containing total and soluble metal concentrations exceeding California thresholds for hazardous wastes

Fire Station Number 5 Replacement, City of Sacramento, CA: The initial project involved preparation and implementation of a work plan for characterizing an historic landfill previously identified as lying beneath a portion of the station property. Construction of the new Fire Station building required that a portion of the historic landfill be excavated. Soil sample analyses revealed total and soluble lead concentrations in soil at some locations exceeded hazardous thresholds established by either California or Federal standards.

Preliminary Endangerment Assessments – Various Locations (CA):

Adelane High School Parking Lot, Roseville: Former residential property where weathering of paint surfaces had resulted in the presence of lead containing paint chip in soil. Laboratory analysis of soil samples confirmed the vertical and lateral distribution of lead containing paint chips in soil. Excavation activities allowed for removal of the impacted soil for appropriate disposal.

HIGHER EDUCATION:

University of California, Davis, California
B.S. Geology (1977)

Eureka School Assessment, Granite Bay – PEA performed to address the potential presence of pesticide residues in soil historically operated as an olive orchard. Close coordination with DTSC, regarding planning the sample collection plan, allowed for DTSC determination that the property posed no threat to the proposed use as a school facility.

Thermalito Union School District, Oroville – The initial Environmental Site Assessment (ESA) activities revealed the proposed school site was historically supported agricultural and automotive repair facility activities. Based on presenting initial ESA findings, DTSC approved expanding the ESA scope to include analyzing soil samples for pesticide residues and metals in surface soil. Completing the sampling and analysis activities concurrent with the ESA resulted in the District saving considerable time and expense.

Railroad Transportation Facilities, Various Locations (CA, NV): Conducted studies of soil and groundwater contamination at various railroad facilities operated by the Southern Pacific Transportation Company and the Union Pacific Railroad Company. These sites were located throughout California and Nevada. Studies regarding compliance with the Toxic Pits Cleanup Act (TPCA), as well as studies of railroad contamination, resulted in properties being designated Superfund properties. Contaminants at these properties included:

- ◆ Bunker Oil and its related carcinogenic compounds related to storage tank operations
- ◆ Metal contamination related to metal works and refinishing activities
- ◆ Soil pH and contaminated related to lead acid battery maintenance activities
- ◆ Chlorinated solvents related to industrial cleaning activities
- ◆ Asbestos related to locomotive rehabilitation activities

PROFESSIONAL REGISTRATIONS:

California
Professional Geologist No. 3863
Certified Engineering Geologist No. 1353
Certified Hydrogeologist No. 260
Oregon
Professional Geologist and an Engineering Geologist No. E 1535
Wyoming
Professional Geologist No. PG 2157

APPENDIX B
ASTM E 1527-13 User Questionnaire
and Helpful Documents Checklist



**E 1527-13 USER QUESTIONNAIRE
MACE RANCH INNOVATION CENTER**

In order to qualify for one of the *Landowner Liability Protections (LLPs)* offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the "*Brownfields Amendments*"), the *user*² must provide the following information (if available) to the *environmental professional*. Failure to provide this information could result in a determination that "*all appropriate inquiry*" is not complete.

(1.) Have you performed a search for environmental cleanup liens and AULs, as described under *User Obligations* in the attached proposal, for the *property*?

unknown

(2.) Are you aware of any environmental cleanup liens against the *property* that are filed or recorded under federal, tribal, state or local law?

unknown

(3.) Are you aware of any AULs, such as *engineering controls*, land use restrictions or *institutional controls* that are in place at the site and/or have been filed or recorded in a registry under federal, tribal, state or local law?

unknown

(4.) As the *user* of the report, do you have any specialized knowledge or experience related to the *property* or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?

unknown

(5.) Does the purchase price being paid for this *property* reasonably reflect the fair market value of the *property*? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present on the *property*?

unknown

(6.) Are you aware of commonly known or reasonably ascertainable information about the *property* that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example, as user,

(a.) Do you know the past uses of the *property*?

If so, what were they?

unknown

(b.) What, if any, specific chemicals are present or once were present at the *property*?

unknown

² User, as defined in the ASTM Standard is "the party seeking to use Practice E 1527 to complete an environmental site assessment of the property. A user may include, without limitation, a potential purchaser of property, a potential tenant of property, an owner of property, a lender, or a property manager. The user has specific obligations for completing a successful application of this practice as outline in Section 6 [of the ASTM Standard]."



E 1527-13 USER QUESTIONNAIRE (cont.)
MACE RANCH INNOVATION CENTER

Questions 6 continued:

(c.) What, if any, spills or other chemical releases have taken place at the property?

unknown

(d.) What, if any, environmental cleanups have taken place at the property?

unknown

(7.) As the user of this ESA, based on your knowledge and experience related to the property are there any obvious indicators that point to the presence or likely presence of contamination at the property?

unknown

COMPLETION:

I have completed this User Questionnaire to the best of my knowledge and provided all information to the environmental professional as of the following date:

Completed by: *Peggy Grillo*

Date: *Nov. 7, 2014*

Title: *Project Manager*

Signature: *Peggy*

Phone Number: *916/379-3834*

Relationship to the Site (i.e., owner, lender, property manager): *project manager*



**HELPFUL DOCUMENTS
MACE RANCH INNOVATION CENTER**

Are you aware of any of the below-listed reports, as they relate specifically to the property?

___ Yes ___ No (if yes, please check all that apply):

unknown

unknown

unknown

- Environmental Site Assessment reports (Phase I ESA, Asbestos sampling reports, etc.)
- Environmental Compliance Audit reports
- Geotechnical Reports
- Environmental permits (for example, solid waste disposal permits, hazardous waste disposal permits, wastewater permits, NPDES permits, underground injection permits)
- Registrations for underground or above ground storage tanks
- Registrations for underground injection systems
- Material Safety Data Sheets
- Community Right-to-Know plan
- Safety Plan
- Reports regarding Hydrogeologic conditions on the property or surrounding area
- Notices or other correspondence from any government agency relating to past or current violations of environmental laws with respect to the property or relating to environmental liens encumbering the property
- Hazardous waste generator notices, or reports
- Environmental Impact Reports (draft and/or final) - *Phase I & geotech are being done for a new EIR*
- Risk assessments
- Recorded AULs

If any of the above listed documents are available, will copies be provided to WKA for review?

Yes ___ No *Phase I, geotech report*

Completed by *Peggy Gulla*

Date: *Nov. 5, 2014*

Title: *Project Manager*

Signature: *[Signature]*



APPENDIX C
EDR[®] Radius Map Report Executive Summary

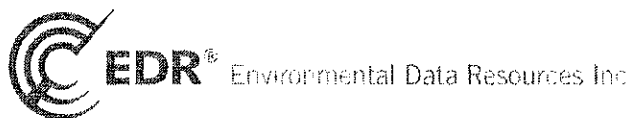


Davis Innovation Park

Mace Boulevard/County Road 32A
Davis, CA 95618

Inquiry Number: 4128312.2s
November 07, 2014

The EDR Radius Map Report is a Fee-For-Service Report.



Environmental Data Resources
10000 S. 10th Street
Suite 100
Tucson, AZ 85743
Phone: 520-885-0000
Fax: 520-885-0001

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

MACE BOULEVARD/COUNTY ROAD 32A
DAVIS, CA 95618

COORDINATES

Latitude (North): 38 5590000 - 38° 33' 32.40"
Longitude (West): 121.6892000 - 121° 41' 21.12"
Universal Transverse Mercator: Zone 10
UTM X (Meters): 614210.8
UTM Y (Meters): 4268447.5
Elevation: 30 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 38121-E6 DAVIS, CA
Most Recent Revision: 1992

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from: 20120628, 20120522
Source: USDA

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

Proposed NPL..... Proposed National Priority List Sites

EXECUTIVE SUMMARY

NPL LIENS..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL..... National Priority List Deletions

Federal CERCLIS list

CERCLIS..... Comprehensive Environmental Response, Compensation, and Liability Information System
FEDERAL FACILITY..... Federal Facility Site Information listing

Federal CERCLIS NFRAP site List

CERC-NFRAP..... CERCLIS No Further Remedial Action Planned

Federal RCRA CORRACTS facilities list

CORRACTS..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG..... RCRA - Large Quantity Generators
RCRA-SQG..... RCRA - Small Quantity Generators
RCRA-CESQG..... RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

US ENG CONTROLS..... Engineering Controls Sites List
US INST CONTROL..... Sites with Institutional Controls
LUCIS..... Land Use Control Information System

Federal ERNS list

ERNS..... Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE..... State Response Sites

State and tribal landfill and/or solid waste disposal site lists

SWF/LF..... Solid Waste Information System

State and tribal leaking storage tank lists

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

AST..... Aboveground Petroleum Storage Tank Facilities
INDIAN UST..... Underground Storage Tanks on Indian Land

EXECUTIVE SUMMARY

FEMA UST..... Underground Storage Tank Listing

State and tribal voluntary cleanup sites

INDIAN VCP..... Voluntary Cleanup Priority Listing
VCP..... Voluntary Cleanup Program Properties

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

ODI..... Open Dump Inventory
DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations
SWRCY..... Recycler Database
HAULERS..... Registered Waste Tire Haulers Listing
INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands
WMUDS/SWAT..... Waste Management Unit Database

Local Lists of Hazardous waste / Contaminated Sites

US CDL..... Clandestine Drug Labs
SCH..... School Property Evaluation Program
Toxic Pits..... Toxic Pits Cleanup Act Sites
CDL..... Clandestine Drug Labs
US HIST CDL..... National Clandestine Laboratory Register

Local Lists of Registered Storage Tanks

CA FID UST..... Facility Inventory Database
HIST UST..... Hazardous Substance Storage Container Database
SWEEPS UST..... SWEEPS UST Listing

Local Land Records

LIENS 2..... CERCLA Lien Information
LIENS..... Environmental Liens Listing
DEED..... Deed Restriction Listing

Records of Emergency Release Reports

HMIRS..... Hazardous Materials Information Reporting System
CHMIRS..... California Hazardous Material Incident Report System
LDS..... Land Disposal Sites Listing
MCS..... Military Cleanup Sites Listing

Other Ascertainable Records

RCRA NonGen / NLR..... RCRA - Non Generators / No Longer Regulated
DOT OPS..... Incident and Accident Data
DOD..... Department of Defense Sites

EXECUTIVE SUMMARY

FUDS.....	Formerly Used Defense Sites
CONSENT.....	Superfund (CERCLA) Consent Decrees
UMTRA.....	Uranium Mill Tailings Sites
US MINES.....	Mines Master Index File
TRIS.....	Toxic Chemical Release Inventory System
TSCA.....	Toxic Substances Control Act
FTTS.....	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
HIST FTTS.....	FIFRA/TSCA Tracking System Administrative Case Listing
SSTS.....	Section 7 Tracking Systems
ICIS.....	Integrated Compliance Information System
PADS.....	PCB Activity Database System
MLTS.....	Material Licensing Tracking System
RADINFO.....	Radiation Information Database
FINDS.....	Facility Index System/Facility Registry System
RAATS.....	RCRA Administrative Action Tracking System
RMP.....	Risk Management Plans
CA BOND EXP. PLAN.....	Bond Expenditure Plan
UIC.....	UIC Listing
NPDES.....	NPDES Permits Listing
Cortese.....	"Cortese" Hazardous Waste & Substances Sites List
CUPA Listings.....	CUPA Resources List
Notify 65.....	Proposition 65 Records
DRYCLEANERS.....	Cleaner Facilities
WIP.....	Well Investigation Program Case List
ENF.....	Enforcement Action Listing
HAZNET.....	Facility and Manifest Data
EMI.....	Emissions Inventory Data
INDIAN RESERV.....	Indian Reservations
SCRD DRYCLEANERS.....	State Coalition for Remediation of Drycleaners Listing
MWMP.....	Medical Waste Management Program Listing
US AIRS.....	Aerometric Information Retrieval System Facility Subsystem
LEAD SMELTERS.....	Lead Smelter Sites
COAL ASH DOE.....	Steam-Electric Plant Operation Data
2020 COR ACTION.....	2020 Corrective Action Program List
PRP.....	Potentially Responsible Parties
WDS.....	Waste Discharge System
Financial Assurance.....	Financial Assurance Information Listing
HWP.....	EnviroStor Permitted Facilities Listing
HWT.....	Registered Hazardous Waste Transporter Database
PROC.....	Certified Processors Database
US FIN ASSUR.....	Financial Assurance Information
EPA WATCH LIST.....	EPA WATCH LIST
PCB TRANSFORMER.....	PCB Transformer Registration Database
COAL ASH EPA.....	Coal Combustion Residues Surface Impoundments List

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP.....	EDR Proprietary Manufactured Gas Plants
EDR US Hist Auto Stat.....	EDR Exclusive Historic Gas Stations
EDR US Hist Cleaners.....	EDR Exclusive Historic Dry Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF.....	Recovered Government Archive Solid Waste Facilities List
-------------	--

EXECUTIVE SUMMARY

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in *bold italics* are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: Also known as Superfund, the National Priority List database is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund program. The source of this database is the U.S. EPA.

A review of the NPL list, as provided by EDR, and dated 10/25/2013 has revealed that there is 1 NPL site within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>FRONTIER FERTILIZER</i>	<i>COUNTY ROAD 32A</i>	<i>WSW 1/2 - 1 (0.678 mi.)</i>	<i>0</i>	<i>8</i>

State- and tribal - equivalent CERCLIS

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 08/05/2014 has revealed that there are 4 ENVIROSTOR sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>TARGET PROPERTY</i> Status: No Further Action	<i>INTERSECTION OF SECOND</i>	<i>WSW 1/2 - 1 (0.699 mi.)</i>	<i>17</i>	<i>39</i>
<i>FRONTIER FERTILIZER</i> Status: Active	<i>SECOND STREET/BTWN PENAWSW</i>	<i>1/2 - 1 (0.919 mi.)</i>	<i>18</i>	<i>43</i>
<i>JR HIGH SCHOOL/SIGNATURE SITE</i> Status: No Further Action	<i>MACE BOULEVARD/COVELL</i>	<i>BNW 1/2 - 1 (0.986 mi.)</i>	<i>19</i>	<i>65</i>
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>MACE RANCH PARK</i> Status: Haz Waste Disp Land Use (not BZP / HWP)	<i>MACE BLVD AND COUNTY ROSW</i>	<i>1/4 - 1/2 (0.317 mi.)</i>	<i>1</i>	<i>23</i>

EXECUTIVE SUMMARY

State and tribal leaking storage tank lists

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the State Water Resources Control Board Leaking Underground Storage Tank Information System.

A review of the LUST list, as provided by EDR, and dated 09/15/2014 has revealed that there are 5 LUST sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
A E HARTER INC	5100 CHILES RD	SSE 1/4 - 1/2 (0.358 mi.)	A8	26
A E HARTER INC Status: Completed - Case Closed	5100 CHILES	SSE 1/4 - 1/2 (0.358 mi.)	A10	28
HANLEES FORD Status: Completed - Case Closed	5080 CHILES RD	S 1/4 - 1/2 (0.359 mi.)	B13	32
HOLT FACILITY Status: Completed - Case Closed	5200 CHILES RD	SSE 1/4 - 1/2 (0.407 mi.)	C14	37
HOLT FACILITY	5200 CHILES RD	SSE 1/4 - 1/2 (0.407 mi.)	C15	38

SLIC: SLIC Region comes from the California Regional Water Quality Control Board.

A review of the SLIC list, as provided by EDR, and dated 09/15/2014 has revealed that there are 2 SLIC sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
VAN WERT MOTORS, INC.**	5100 CHILES RD	SSE 1/4 - 1/2 (0.358 mi.)	A9	28
A E HARTER INC Facility Status: Completed - Case Closed	5100 CHILES	SSE 1/4 - 1/2 (0.358 mi.)	A10	28

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, and dated 09/17/2014 has revealed that there are 3 UST sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
SUNMART INC	333 MACE BLVD	WSW 1/4 - 1/2 (0.336 mi.)	2	24
A E HARTER INC	5100 CHILES RD	SSE 1/4 - 1/2 (0.358 mi.)	A8	26
HOLT FACILITY	5200 CHILES RD	SSE 1/4 - 1/2 (0.407 mi.)	C15	38

EXECUTIVE SUMMARY

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Hazardous waste / Contaminated Sites

HIST Cal-Sites: Formerly known as ASPIS, this database contains both known and potential hazardous substance sites. The source is the California Department of Toxic Substance Control. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

A review of the HIST Cal-Sites list, as provided by EDR, and dated 08/08/2005 has revealed that there is 1 HIST Cal-Sites site within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
FRONTIER FERTILIZER	SECOND STREET/BTWN PENAWSW 1/2 - 1 (0.919 mi.)		18	43

Other Ascertainable Records

ROD: Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid the cleanup.

A review of the ROD list, as provided by EDR, and dated 11/25/2013 has revealed that there is 1 ROD site within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
FRONTIER FERTILIZER	COUNTY ROAD 32A	WSW 1/2 - 1 (0.678 mi.)	0	8

HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LIS], and the Department of Toxic Substances Control [CAL SITES]. This listing is no longer updated by the state agency.

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there are 4 HIST CORTESE sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
A E HARTER INC	5100 CHILES	SSE 1/4 - 1/2 (0.358 mi.)	A10	28
HANLEES FORD	5080 CHILES RD	S 1/4 - 1/2 (0.359 mi.)	B13	32
HOLT FACILITY	5200 CHILES RD	SSE 1/4 - 1/2 (0.407 mi.)	C14	37
FRONTIER FERTILIZER	2ND STREET/BTWN PENA &	WSW 1/4 - 1/2 (0.441 mi.)	16	39

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LUST: The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

A review of the RGA LUST list, as provided by EDR, has revealed that there are 7 RGA LUST sites

EXECUTIVE SUMMARY

within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
HOLT FACILITY	5200 CHILES ROAD	SSE 1/4 - 1/2 (0.348 mi.)	A3	25
HOLT FACILITY	5200 CHILES RD	SSE 1/4 - 1/2 (0.348 mi.)	A4	25
A E HARTER INC	5100 CHILES ROAD	S 1/4 - 1/2 (0.354 mi.)	B5	26
A E HARTER INC (CLOSED-CO)	5100 CHILES RD	S 1/4 - 1/2 (0.354 mi.)	B6	26
A E HARTER INC	5100 CHILES RD	S 1/4 - 1/2 (0.354 mi.)	B7	26
FREEWAY FORD MERCURY	5080 CHILES RD	S 1/4 - 1/2 (0.359 mi.)	B11	31
FREEWAY FORD MERCURY	5080 CHILES ROAD	S 1/4 - 1/2 (0.359 mi.)	B12	32

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 16 records.

<u>Site Name</u>	<u>Database(s)</u>
CONTECH CONST PROD INC	RGA LUST
DAVIS RESEARCH STN(DOW CHEM)	RGA LUST
DAVIS RESEARCH STN(DOW CHEM)	RGA LUST
DAVIS RESEARCH STN(DOW CHEM)	RGA LUST
DAVIS RESEARCH STN(DOW CHEM)	RGA LUST
OLD DAVIS ROAD	NPDES
UC DAVIS	NPDES
FMC RESEARCH FARM	CERC-NFRAP
CLEAN WORLD ANAEROBIC DIGESTER UC	SWF/LF
EL MACERO MAINT. SHOP.	HIST UST
HARRIS MORAN SEED COMPANY	HAZNET
PACIFIC GAS & ELECTRIC CO SWINGLE	HAZNET
SWINGLE JUNCTION	RCRA-SQG
DAVIS FIBER HUB	FINDS
MCCLELLAN AIR FORCE BASE, DAVIS TR	SLIC
UC DAVIS MAIN STP	WDS

OVERVIEW MAP - 4128312.2S

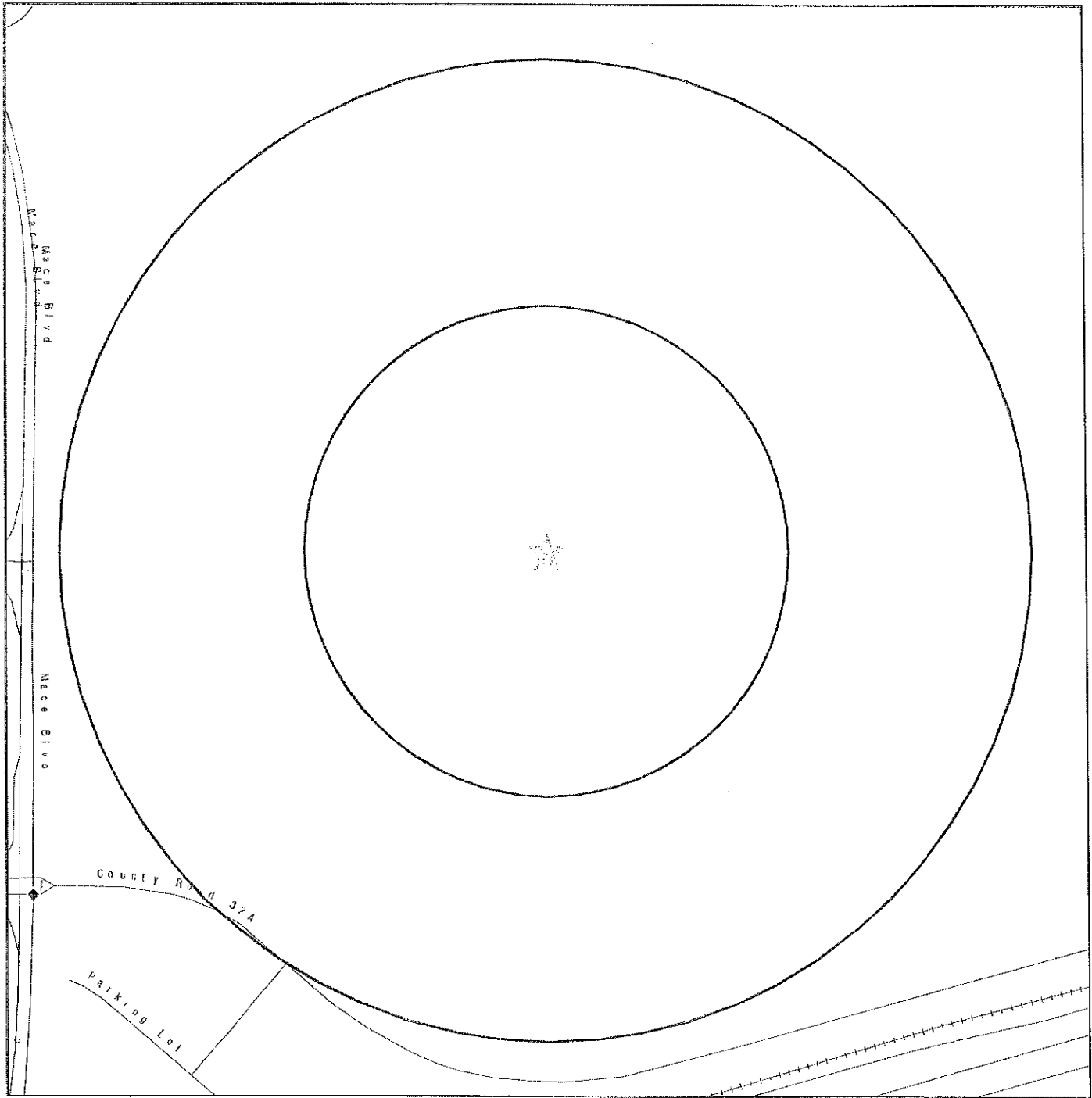


- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ▲ Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- ▨ Indian Reservations BIA
- - - Oil & Gas pipelines from USGS
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- ▨ Areas of Concern

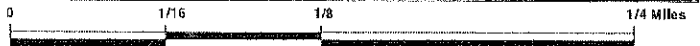
This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

<p>SITE NAME: Davis Innovation Park ADDRESS: Mace Boulevard/County Road 32A Davis CA 95618 LAT/LONG: 38.559 / 121.6892</p>	<p>CLIENT: Wallace - Kuhl & Associates CONTACT: Nancy Malaret INQUIRY #: 4128312.2s DATE: November 07, 2014 11:10 am</p>
--	---

DETAIL MAP - 4128312.2S



- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ▲ Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- ▨ Indian Reservations BIA
- ▨ Oil & Gas pipelines from USGS
- ▨ 100-year flood zone
- ▨ 500-year flood zone
- ▨ Areas of Concern



This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Davis Innovation Park
 ADDRESS: Mace Boulevard/County Road 32A
 Davis CA 95618
 LAT/LONG: 38.559 / 121.6892

CLIENT: Wallace - Kuhl & Associates
 CONTACT: Nancy Malaret
 INQUIRY #: 4128312.2s
 DATE: November 07, 2014 11:10 am

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
<u>STANDARD ENVIRONMENTAL RECORDS</u>								
<i>Federal NPL site list</i>								
NPL	1.000		0	0	0	1	NR	1
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	TP		NR	NR	NR	NR	NR	0
<i>Federal Delisted NPL site list</i>								
Delisted NPL	1.000		0	0	0	0	NR	0
<i>Federal CERCLIS list</i>								
CERCLIS	0.500		0	0	0	NR	NR	0
FEDERAL FACILITY	1.000		0	0	0	0	NR	0
<i>Federal CERCLIS NFRAP site List</i>								
CERC-NFRAP	0.250		0	0	NR	NR	NR	0
<i>Federal RCRA CORRACTS facilities list</i>								
CORRACTS	1.000		0	0	0	0	NR	0
<i>Federal RCRA non-CORRACTS TSD facilities list</i>								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
<i>Federal RCRA generators list</i>								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
<i>Federal institutional controls / engineering controls registries</i>								
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
LUCIS	0.500		0	0	0	NR	NR	0
<i>Federal ERNS list</i>								
ERNS	TP		NR	NR	NR	NR	NR	0
<i>State- and tribal - equivalent NPL</i>								
RESPONSE	1.000		0	0	0	0	NR	0
<i>State- and tribal - equivalent CERCLIS</i>								
ENVIROSTOR	1.000		0	0	1	3	NR	4
<i>State and tribal landfill and/or solid waste disposal site lists</i>								
SWF/LF	0.500		0	0	0	NR	NR	0
<i>State and tribal leaking storage tank lists</i>								
LUST	0.500		0	0	5	NR	NR	5

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
SLIC	0.500		0	0	2	NR	NR	2
INDIAN LUST	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
UST	0.500		0	0	3	NR	NR	3
AST	TP		NR	NR	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
FEMA UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
ODI	TP		NR	NR	NR	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	TP		NR	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US CDL	TP		NR	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	1	NR	1
SCH	0.250		0	0	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
CDL	TP		NR	NR	NR	NR	NR	0
US HIST CDL	TP		NR	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
CA FID UST	0.250		0	0	NR	NR	NR	0
HIST UST	0.250		0	0	NR	NR	NR	0
SWEEPS UST	0.250		0	0	NR	NR	NR	0
Local Land Records								
LIENS 2	TP		NR	NR	NR	NR	NR	0
LIENS	TP		NR	NR	NR	NR	NR	0
DEED	TP		NR	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
CHMIRS	TP		NR	NR	NR	NR	NR	0
LDS	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
MCS	TP		NR	NR	NR	NR	NR	0
<i>Other Ascertainable Records</i>								
RCRA NonGen / NLR	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
DOD	1.000		0	0	0	0	NR	0
FUDS	1.000		0	0	0	0	NR	0
CONSENT	1.000		0	0	0	0	NR	0
ROD	1.000		0	0	0	1	NR	1
UMTRA	0.500		0	0	0	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
UIC	TP		NR	NR	NR	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
Cortese	0.500		0	0	0	NR	NR	0
HIST CORTESE	0.500		0	0	4	NR	NR	4
CUPA Listings	0.250		0	0	NR	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
ENF	TP		NR	NR	NR	NR	NR	0
HAZNET	0.250		0	0	NR	NR	NR	0
EMI	TP		NR	NR	NR	NR	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
WDS	TP		NR	NR	NR	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
HWP	1.000		0	0	0	0	NR	0
HWT	0.250		0	0	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

<u>Database</u>	<u>Search Distance (Miles)</u>	<u>Target Property</u>	<u>< 1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>> 1</u>	<u>Total Plotted</u>
COAL ASH EPA	0.500		0	0	0	NR	NR	0
<u>EDR HIGH RISK HISTORICAL RECORDS</u>								
<i>EDR Exclusive Records</i>								
EDR MGP	1.000		0	0	0	0	NR	0
EDR US Hist Auto Stat	0.250		0	0	NR	NR	NR	0
EDR US Hist Cleaners	0.250		0	0	NR	NR	NR	0
<u>EDR RECOVERED GOVERNMENT ARCHIVES</u>								
<i>Exclusive Recovered Govt. Archives</i>								
RGA LUST	0.500		0	0	7	NR	NR	7
RGA LF	0.500		0	0	0	NR	NR	0

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

APPENDIX D

Preliminary Screen for Vapor Encroachment Conditions Matrix



Screen for Vapor Encroachment Conditions Matrix
MACE RANCH INNOVATION CENTER
WKA No. 10344.01

Phase I ESA Screen for Vapor Encroachment Conditions (VEC) matrix includes a (1) **Search Radius Test**, (2) **Chemicals of Concern Test (COC)**, and (3) a **Critical Distance Test**^[1].

(1) Search Radius Test: Are there any known or suspect contaminated sites in the primary area of concern within the corresponding search radii? (if yes, see attached Table A).

Yes **No** If No, then screening for a VEC is complete and no VEC *currently* exists, go to #4. If Yes, then:

(2) Chemicals of Concern^[2] **Test:** Are COC likely to be present within the area of concern for those known or suspect contaminated sites identified based on the Search Distance Test?

Yes No If No, then screening for a VEC is complete and no VEC *currently* exists, go to #4. If Yes, then:

If Yes, check all COC that apply on attached Table B.

(3) Critical Distance Test: A plume test to determine whether or not COC in the contaminated plume(s) may be within the critical distance.

(3a) Is information related to the contaminated(s) plume available (i.e. isoconcentration maps, site drawings, etc.)?
Yes No

(3b) If **No**, then screening for a VEC is complete and no VEC *currently* exists, go to #4. If **Yes**, then:

(3c) Is the site less than 100 feet to the nearest edge of a contaminated [non-petroleum hydrocarbon] plume(s)?
Yes No

(3d) Is the site less than 30 feet to the nearest edge of a dissolved petroleum hydrocarbon plume(s)?
Yes No

If the distance from the nearest edge of a contaminated plume to the nearest existing or planned structure on the site is less than 100 feet for non-petroleum hydrocarbon COC, or less than 30 feet for dissolved petroleum hydrocarbons, then it is presumed that a VEC *currently* exists beneath the site. If the distance from the nearest edge of the contaminated plume is greater than or equal to 100 feet for non-petroleum hydrocarbons, or 30 feet for dissolved petroleum hydrocarbon chemicals of concern, then it is presumed unlikely that a VEC *currently* exists beneath the site.

(4) Is it likely that a VEC *currently* exists beneath the site?

Yes **No** If Yes, then recommend performing a full scope VEC assessment according to ASTM E 2600-10.

[1] Based on guidance presented in the ASTM E 2600-10 Standard.

[2] Chemical(s) of concern (COC): See attached table for typical chemicals of concern (as presented in Appendix X6.1 of the ASTM E 2600-10 Standard).