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Alameda County  
Environmental Health

November 4, 2009



**ENVIRONMENTAL ENGINEERING, INC.**  
6620 Owens Drive, Suite A • Pleasanton, CA 94588  
TEL (925)734-6400 • FAX (925)734-6401  
www.somaenv.com

Mr. Jerry Wickham  
Alameda County Department of  
Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

Subject: Fuel Leak Case No. RO0002585, Wente Winery  
Site Located at 5565 Tesla Road, Livermore, California

Dear Mr. Wickham:

SOMA's "Report of Groundwater Monitoring Well Decommissioning" for the subject site has been uploaded to the State's GeoTracker database and Alameda County's FTP site for your review.

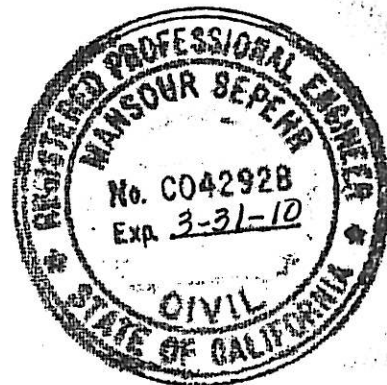
Thank you for your time in reviewing our report. Please do not hesitate to call me at (925) 734-6400, if you have any questions or comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Mansour Sepehr", written over a horizontal line.

Mansour Sepehr, Ph.D., PE  
Principal Hydrogeologist

cc: Mr. Aris Krimetz w/report enclosure



**Report of  
Groundwater Monitoring Well  
Decommissioning  
at  
WENTE WINERY  
5565 Tesla Road  
Livermore, California**

**November 4, 2009**

**Project 2842**

**Prepared for  
Mr. Aris Krimetz  
5565 Tesla Road  
Livermore, CA 94550**

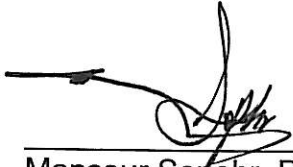


**ENVIRONMENTAL ENGINEERING, INC.**

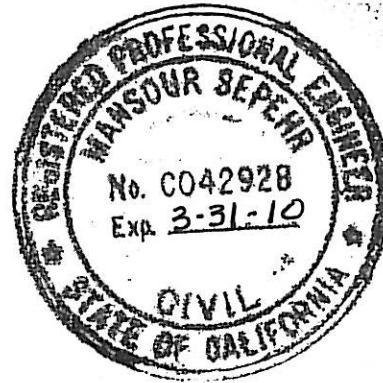
6620 Owens Drive Suite A Pleasanton CA 94588 Ph: 925.734.6400 F: 925.734-6401 [www.somaenv.com](http://www.somaenv.com)

## CERTIFICATION

SOMA Environmental Engineering, Inc. has prepared this report on behalf of Wente Brothers, owners of the property located at 5565 Tesla Road, Livermore, California, to document SOMA's decommissioning of groundwater monitoring wells and related activities. The work was performed in response to requirements contained in Alameda County Health Care Services – Environmental Health Services correspondence dated June 24, 2009, which granted case closure pending completion of well decommissioning and other specified tasks.



Mansour Sepéhr, PhD, PE  
Principal Hydrogeologist



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## **1. INTRODUCTION**

SOMA Environmental Engineering, Inc. (SOMA) has prepared this report on behalf of the property owner, Wente Vineyards, for the property located at 5565 Tesla Road, Livermore, California (Fuel Leak Case No. RO0002585). This report was prepared in response to correspondence of Alameda County Health Care Services – Environmental Health Services (ACHCS-EHS) dated June 24, 2009 granting Remedial Action Completion.

The property is located south of the City of Livermore, in an area of small commercial (wineries) and rural residential properties. No land use changes are planned or expected in the near future. A winery production facility and tasting room currently occupy the property. Figure 1 shows site location and vicinity. Figure 2 shows site features including buildings, borings, and groundwater monitoring wells.

A summary of previous environmental assessment and remediation background is included in Appendix A.

## **2. SCOPE OF WORK**

All existing groundwater monitoring wells were decommissioned in compliance with California Well Standards and Zone 7 Water Agency specifications per ACHCS-EHS directives. Wastes generated during the decommissioning process and previous investigations were properly disposed of and the site was cleared of all items related to present and historical environmental investigations.

The following tasks were performed to implement the scope of work:

- Task 1: Acquire Permits, Prepare Site Health and Safety Plan
- Task 2: Decommission Existing Monitoring Wells
- Task 3: Dispose of All Wastes Stored On-site
- Task 4: Prepare Report

## **3. PERMIT ACQUISITION, HEALTH AND SAFETY PLAN**

Before initiating field activities, SOMA obtained a drilling permit from the Zone 7 Water Agency (Appendix B). On September 16 and 27, ACHCS-EHS and the Zone 7 Water Agency were given required 72-hour notice in advance of drilling and a well grouting inspection was scheduled. The permit is included in Appendix B.

SOMA prepared a site-specific health and safety plan (HASP) before conducting field activities. The HASP is a requirement of the Occupational Safety and Health Administration (OSHA), "Hazardous Waste Operation and Emergency Response" guidelines (29 CFR 1910.120) and the California Occupational Safety and Health Administration (Cal/OSHA) "Hazardous Waste Operation and Emergency Response" guidelines (CCR Title 8, section 5192). It is designed to address safety provisions during field activities and protect the field crew from physical and chemical hazards resulting from drilling and sampling. It establishes personnel responsibilities, general safe work practices, field procedures, personal protective equipment standards, decontamination procedures, and emergency action plans. Field staff and contractors reviewed and signed the HASP prior to beginning field operations.

On September 28, 2009, prior to well decommissioning activities, SOMA's field crew marked well locations using chalk-based white paint. Underground Service Alert (USA) clearance verifying that drilling areas were clear of underground utilities was obtained on September 28, 2009 (Ticket 301872).

#### **4. WELL DECOMMISSIONING**

On October 2, 2009, SOMA's field geologist oversaw decommissioning of MW-1, MW-2, MW-3, MWS-1 and MWS-2 by Gregg Drilling & Testing, Inc. (Gregg) in accordance with Zone 7 Water Agency requirements.

Pressure grouting was utilized to decommission all wells. Type I/II cement grout was tremmed into each well, followed by application of 25-psi pressure maintained for five minutes. The Zone 7 Water Agency permit requires casings to be cut 2 feet below original ground surface. However, due to equipment difficulties, the casings were not cut. The Zone 7 inspector was apprised of the problem and approved completion of the work. Once each well was pressure grouted, the well box was removed and the location was completed to grade with a neat cement and bentonite mixture. The top of each location was finished with concrete to match existing grade. Photographs taken during well decommissioning are included in Appendix C.

#### **5. DISPOSAL OF ALL WASTES STORED ON-SITE**

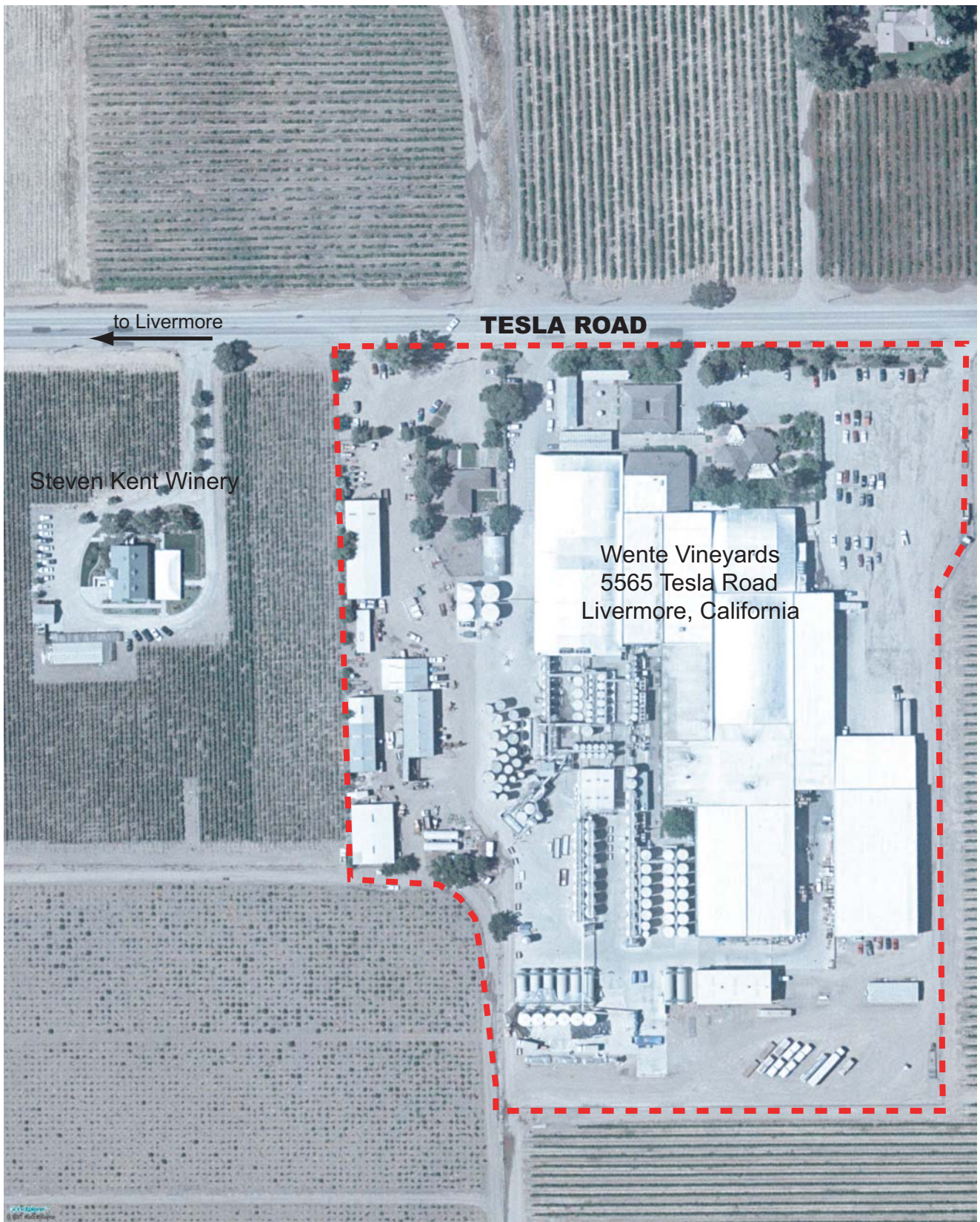
All soil and well construction material generated during well decommissioning was removed from the site by Gregg at the completion of field activities. This represented the last equipment or waste stored on-site by SOMA.

## **6. CONCLUSIONS**

In accordance with ACHCS-EHS conditions for approving case closure, all existing groundwater monitoring wells were decommissioned in accordance with California Well Standards and requirements of the Zone 7 Water Agency. All wastes generated during the decommissioning process and previous environmental investigations and other activities were removed from the site and properly disposed of.

# FIGURES



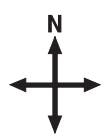


to Livermore  
←

**TESLA ROAD**

Steven Kent Winery

Wente Vineyards  
5565 Tesla Road  
Livermore, California



approximate scale in feet



Figure 1: Site vicinity map.

- ✕ MONITORING WELL DECOMMISSIONED (10-2-09)
- ▲ MONITORING WELL (March 2008)
- ▲ MONITORING WELL (May 2005)
- ▲ PRIVATE WATER WELL
- ✦ TEMPORARY WELL BOREHOLE (June 24, 2005)
- ⊕ CPT BOREHOLE (October 2005)
- HSA CALIBRATION BOREHOLE
- ⦿ SOIL BORING (April 2003 By Clayton)
- ⦿ ANGLD SOIL BORING (April 2003 By Clayton)

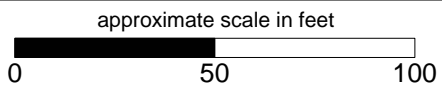
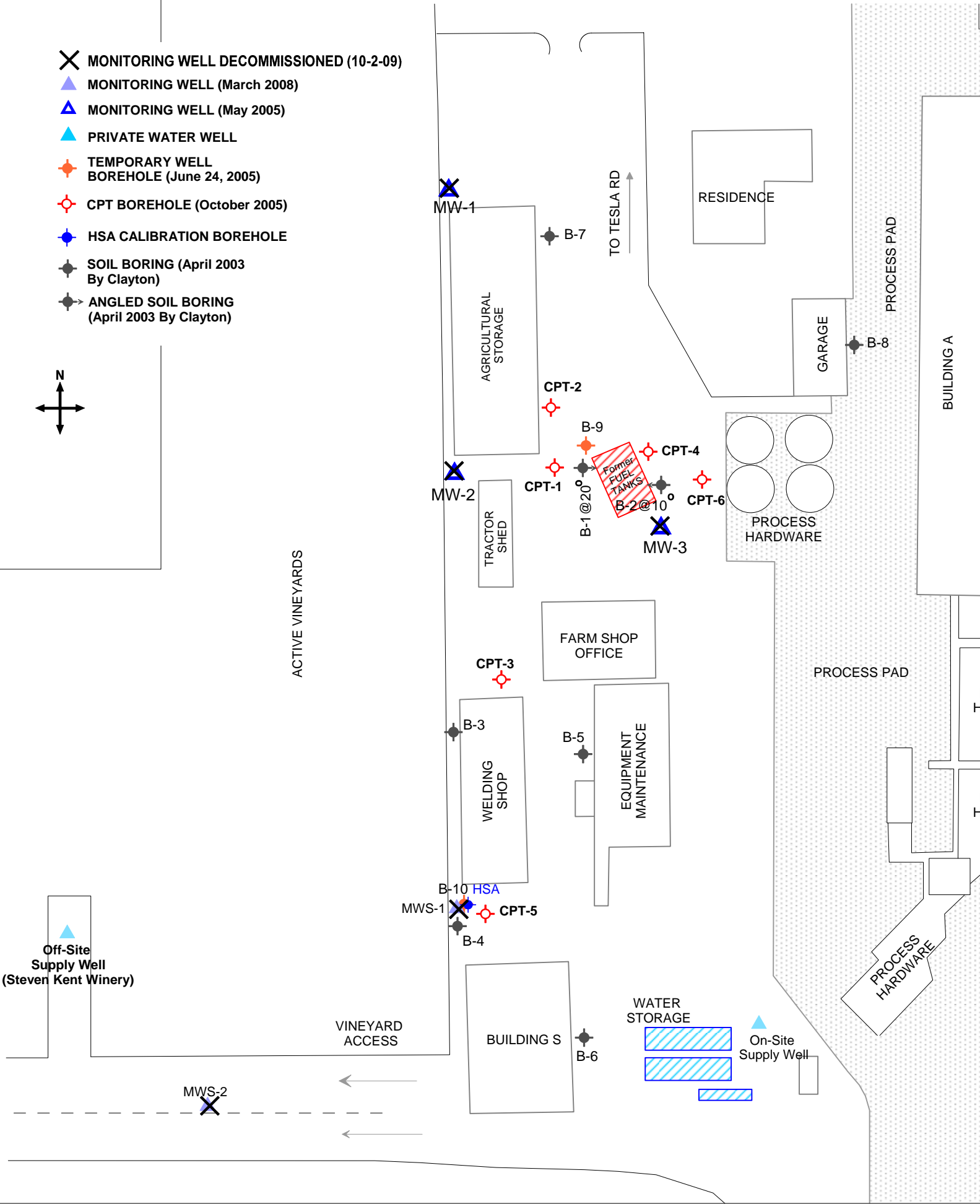
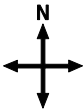


Figure 2: Map showing locations of decommissioned monitoring wells.

# **APPENDIX A**

## **Environmental Assessment and Remediation History**

In 1987, two fuel underground storage tanks (USTs) were removed from the site. However, no records of the UST removal are available, and as a result there is no information regarding condition of the USTs, the date of their removal, or evidence of possible leakage.

In 1990, the Alameda County Department of Health (ACDEH) issued a notice of violation (NOV) for discharging waste sludge into an open ditch adjacent to a steam-cleaning bay located at the south end of the steel storage and welding shed. The NOV required sampling of the ditch area and around a stained drum, along with remediation of the contaminated areas.

On November 28, 1990 the ACDEH, Hazardous Material Division, inspected the site. During this inspection, several areas of stained soil around the maintenance shop were documented, where spillage had occurred. Per ACDEH correspondence dated December 11, 1990, contamination was particularly evident around a group of unlabeled 55-gallon drums behind the shop. Another area of noticeable contamination was identified in the area of an unlined runoff ditch adjacent to the steam-cleaning pad, where waste from steam cleaning vehicles and equipment was drained.

Following inspection by ACDEH, Wente Winery ceased all steam-cleaning operations. These operations did not resume until an appropriate wastewater handling system, with closed loop operations, was installed. All necessary measures were implemented to prevent any future accidental spills. All hazardous wastes are now stored separately, in suitable buildings, and/or provided with acceptable secondary containment, in approved enclosed containers with appropriate labeling.

In November 2002, in accordance with Comerica Bank guidelines, the Clayton Group (Clayton) performed an ASTM D standard Phase I investigation to identify recognized environmental concerns (RECs). The Phase I study revealed the existence of the former USTs, the former waste discharge area, and a number of agricultural storage areas. This study indicated that agricultural chemicals were previously stored in Building S and in a detached garage. Clayton concluded that the identified areas constituted RECs and recommended sampling these areas for relevant constituents of concern.

In 2003, Clayton performed a subsurface investigation to implement recommendations of the Phase I report. Soil samples were analyzed for pesticides, herbicides, petroleum hydrocarbons, volatile organic compounds (VOCs), and heavy metals. In the area of the steam-cleaning bay, located south/southwest of the former UST pit, no total petroleum hydrocarbons (TPHs) or VOCs were detected in the soil. However, some metals were detected in the shallow soil, 0.5 to 1 foot below ground surface (bgs), at levels below or slightly above the Environmental Screening Levels (ESLs) set forth by the California Regional Water Quality Control Board (CRWQCB). Petroleum hydrocarbons in

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Report of Groundwater Monitoring Well Decommissioning



the gasoline and motor oil ranges were detected in groundwater at concentrations slightly above Risk Based Screening Levels (RBSLs).

In 2004, Wenté retained SOMA to review Clayton's report. SOMA subsequently submitted a workplan that included a vicinity well survey, a regional hydrogeologic study, and an additional site characterization. The site characterization included sampling and evaluating water quality of the on-site water supply well, installing monitoring wells, and additional lithologic characterization to better define the shallow/perched water-bearing zone.

On June 24, 2005, SOMA oversaw drilling by Woodward of two confirmatory boreholes (B-9 and B-10). The purpose of this investigation was to confirm the presence of petroleum hydrocarbons in soil and groundwater next to the former USTs and to evaluate current soil and groundwater conditions in close proximity to the steam-cleaning area. Though laboratory analysis results for groundwater samples collected near the steam-cleaning bay showed presence of some dissolved phase metal concentrations, the levels were not elevated in comparison to ESLs (groundwater in a current or potential source of drinking water). Laboratory analysis showed no detection of TPH as gasoline (TPH-g), as diesel (TPH-d), and as motor oil (TPH-mo), or of organochlorine pesticides in groundwater samples. Results of this investigation are presented in SOMA's report entitled "Phase I: Soil and Groundwater Investigation, Wenté Winery, 5565 Tesla Road, Livermore, California," dated July 25, 2005.

To further characterize the site, on October 26 and 27, 2005, under SOMA's oversight, Gregg Drilling and Testing, Inc. (Gregg) conducted cone penetrometer test (CPT) drilling. Results of this site investigation revealed the presence of three water-bearing zones (WBZs) (Upper, Intermediate and Lower WBZs) separated by two confining layers. Negligible amounts of petroleum hydrocarbons were detected in the area of the steam-cleaning bay, in the Upper WBZ. Investigation results are presented in SOMA's report entitled "Additional Site Investigation to Evaluate the Extent of Groundwater Contamination, Wenté Winery, 5565 Tesla Road, Livermore, California," dated December 6, 2005.

To further evaluate the extent of groundwater contamination in the area of the former steam-cleaning operations, on October 5, 2006, under SOMA's oversight, Fisch Drilling advanced boreholes and collected two depth-discrete groundwater samples. To further evaluate the extent of soil contamination, on October 9 and 10, 2006, under SOMA's oversight, Vironex advanced 11 shallow soil boreholes (HA-1 through HA-11) using a hand auger and soil core sampler. Results of this site investigation revealed elevated levels of TPH-d, TPH-mo, and some metals in the shallow soil around the north, west, and south perimeter of the steam-cleaning areas. Results are presented in SOMA's report entitled "Additional Site Investigation in the Area of Steam Cleaning Operations, Wenté Winery, 5565 Tesla Road, Livermore, California," dated November 15, 2006. Upon reviewing SOMA's report, ACEHS requested that an additional investigation be conducted

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Report of Groundwater Monitoring Well Decommissioning

beneath the concrete pad and in the area north of the welding shop to completely delineate soil contamination. On February 6, 2007, under SOMA's oversight, Vironex advanced seven shallow soil boreholes (HA-12 through HA-18), using a hand auger and soil core sampler in the area beneath the concrete pad. No soil contamination was observed beneath the concrete pad during the aforementioned site investigation. Results are presented in SOMA's report entitled "Additional Site Investigation and Work Plan for Shallow Soil Excavation and Sampling, Wente Winery, 5565 Tesla Road, Livermore, California," dated March 2, 2007.

To address soil contamination in the area of former steam-cleaning operations, from September 2007 to December 2007 SOMA performed remedial action activity consisting of soil excavation, confirmation soil sampling, soil disposal at appropriate facility and site restoration with imported clean fill. Results of above remedial actions are presented in SOMA's report entitled "Remedial Soil Excavation, Wente Winery, 5565 Tesla Road, Livermore, California," dated November 1, 2007 and correspondence titled "Addendum to Remedial Soil Excavation," dated December 26, 2007.

In March 2008, SOMA installed two groundwater monitoring wells (MWS-1 and MWS-2) within the Upper WBZ due to elevated levels of zinc in the groundwater. In July 2008, SOMA recommended No Further Action Status be adopted for this site.

# **APPENDIX B**

## Drilling Permit



# ZONE 7 WATER AGENCY

100 NORTH CANYONS PARKWAY, LIVERMORE, CALIFORNIA 94551 VOICE (925) 454-5000 FAX (925) 245-9306  
E-MAIL [whong@zone7water.com](mailto:whong@zone7water.com)

## DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT 5565 Tesla Road  
Livermore, CA 94550

Coordinates Source \_\_\_\_\_ ft. Accuracy \_\_\_\_\_ ft.  
LAT: \_\_\_\_\_ ft. LONG: \_\_\_\_\_ ft.  
APN \_\_\_\_\_

CLIENT  
Name Aris Krmetz  
Address 5565 Tesla Rd Phone \_\_\_\_\_  
City Livermore, CA Zip 94550

APPLICANT  
Name SDMA Environmental Engineering  
Email e.fisker@sdmaenv.com Fax 925-734-6400  
Address 6620 Owens Dr. Suite A Phone 925-734-6400  
City Pleasanton Zip 94588

TYPE OF PROJECT:  
Well Construction \_\_\_\_\_ Geotechnical Investigation \_\_\_\_\_  
Well Destruction  Contamination Investigation \_\_\_\_\_  
Cathodic Protection \_\_\_\_\_ Other \_\_\_\_\_

PROPOSED WELL USE:  
Domestic \_\_\_\_\_ Irrigation \_\_\_\_\_  
Municipal \_\_\_\_\_ Remediation \_\_\_\_\_  
Industrial \_\_\_\_\_ Groundwater Monitoring \_\_\_\_\_  
Dewatering \_\_\_\_\_ Other \_\_\_\_\_

DRILLING METHOD:  
Mud Rotary \_\_\_\_\_ Air Rotary \_\_\_\_\_ Hollow Stem Auger \_\_\_\_\_  
Cable Tool \_\_\_\_\_ Direct Push \_\_\_\_\_ Other pressure grout

DRILLING COMPANY Gregg Drilling & Testing

DRILLER'S LICENSE NO. 485165

WELL SPECIFICATIONS:  
Drill Hole Diameter 8 in. Maximum \_\_\_\_\_  
Casing Diameter 2 in. Depth 35 ft.  
Surface Seal Depth 2 ft. Number 5

SOIL BORINGS:  
Number of Borings \_\_\_\_\_ Maximum \_\_\_\_\_  
Hole Diameter \_\_\_\_\_ in. Depth \_\_\_\_\_ ft.

ESTIMATED STARTING DATE 8/10/09 10/02/09  
ESTIMATED COMPLETION DATE 8/10/09 10/02/09

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Eva Fisker Date July 17, 2009

PERMIT NUMBER 29066  
WELL NUMBER 3S/2E-23C3 to 23C7 (MW-1 to MW-3,  
APN 99A-2340-004-01 MWS-1 & MWS-2)

PERMIT CONDITIONS  
(Circled Permit Requirements Apply)

- A. GENERAL
  1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to your proposed starting date.
  2. Submit to Zone 7 within 60 days after completion of permitted work the original **Department of Water Resources Water Well Drillers Report (DWR Form 188), signed by the driller.**
  3. Permit is void if project not begun within 90 days of approval date.
- B. WATER SUPPLY WELLS
  1. Minimum surface seal diameter is four inches greater than the well casing diameter.
  2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.
  3. Grout placed by tremie.
  4. An access port at least 0.5 inches in diameter is required on the wellhead for water level measurements.
  5. A sample port is required on the discharge pipe near the wellhead.
- C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
  1. Minimum surface seal diameter is four inches greater than the well or piezometer casing diameter.
  2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.
  3. Grout placed by tremie.
- D. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.
- E. CATHODIC. Fill hole above anode zone with concrete placed by tremie.
- F. WELL DESTRUCTION. See attached.
- G. SPECIAL CONDITIONS. Submit to Zone 7 within 60 days after completion of permitted work the well installation report **including all soil and water laboratory analysis results.**

Approved Wyman Hong Date 9/16/09  
Wyman Hong

ATTACH SITE PLAN OR SKETCH



September 18, 2009

**Zone 7**  
**Water Resources Engineering**  
**Groundwater Protection Ordinance**

Wente Winery  
Livermore

Wells 3S/2E-23C3 (MW-1), 3S/2E-23C4 (MW-2), 3S/2E-23C5 (MW-3), 3S/2E-23C6 (MWS-1) & 3S/2E-23C7 (MWS-2)  
Permit 29066

Preliminary Destruction Requirements:

1. Remove from the well any pump, appurtenances, debris, or other materials.
2. Sound the well as deeply as practicable and record for your report.
3. Fill casing with neat cement or cement grout sealing material to two feet below the finished grade and pressurize to 25 psi and maintain for 10 minutes, forcing the sealing material through the existing perforations and into the surrounding formation.
4. Release the pressure and refill the empty portion of the casing with grouting material allowing it to spill over the top of the casing to form a cap.
5. Cut and remove any casing(s) to two feet below the finished grade or original ground, whichever is the lower elevation. → not removed - ok per inspector
6. After seal has set, backfill the remaining hole with compacted material.

# **APPENDIX C**

## Site Photographs



**Plate 1. View of MW-1 during pressure grouting**



**Plate 2. View of MW-1 after pressure grouting**





**Plate 3. View of MW-3 during pressure grouting**



**Plate 4. View of MW-3 after pressure grouting**





**Plate 5. View of MW-3 after well decommissioning**



**Plate 6. View of well box removal from MW-2**





**Plate 7. View of MW-2 during pressure grouting**



**Plate 8. View of MW-2 after pressure grouting**





**Plate 9. View of MW-2 after decommissioning**



**Plate 10. View of MWS-1 during pressure grouting**





**Plate 11. View of MWS-1 after pressure grouting**



**Plate 12. View of MWS-1 after decommissioning**





**Plate 13. View of MWS-2 during pressure grouting**



**Plate 14. View of MWS-2 after pressure grouting**





**Plate 15. View of MWS-2 after decommissioning**