

**DEPARTMENT OF TRANSPORTATION**

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**RECEIVED****10:38 am, Dec 22, 2011****Alameda County  
Environmental Health**

December 21, 2011

Mr. Keith Nowell, P.G., C.H.G.  
Alameda County Health Care Services  
Environmental Protection Division  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

Reference: Work Plan for Subsurface Investigation  
Former Hegenberger Maintenance Station  
555 Hegenberger Road  
Oakland, California

**TO WHOM IT MAY CONCERN:**

Attached for your review is the Work Plan for Subsurface Investigation for the Former Hegenberger Maintenance Station, 555 Hegenberger Avenue, Oakland, California. This report was prepared for the Alameda County Environmental Health by Stantec Consulting Corporation.

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached proposal or report is true and correct, to the best of my knowledge.

If you have any questions, please do not hesitate to contact me or Stantec Project Manager, Gary Messerotes, at 408.356.6124 extension 252.

Sincerely,

*Ray Boyer*

For Ray Boyer, P.E.  
Office of Environmental Engineering  
Division of Environmental Planning & Engineering  
Caltrans District 04



**Stantec**

**Stantec Consulting Corporation**  
15575 Los Gatos Boulevard Building C  
Los Gatos CA 95032  
Tel: (408) 356-6124  
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December 21, 2011

Mr. Keith Nowell, PG, CHG  
Hazardous Materials Specialist  
Alameda County Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502

**Reference: Work Plan for Subsurface Investigation  
Caltrans Former Hegenberger Maintenance Station  
555 Hegenberger Road, Oakland  
Geotracker ID # T0600101696; ACEH Case #RO0000225**

Dear Mr. Nowell:

Stantec Consulting Corporation (Stantec) is submitting this work plan (Work Plan) for a subsurface investigation on behalf of the California Department of Transportation (Caltrans) for the Former Caltrans Hegenberger Maintenance Station (Site), located at 555 Hegenberger Road, Oakland, California (Figure 1, the Site). This Work Plan is in response to the Alameda County Environmental Health's (ACEH) letter dated July 25, 2011 (included in Appendix A), requesting a work plan be submitted by September 26, 2011. The ACEH approved a December 23, 2011 extension from the submittal of the work plan in an email to Stantec dated September 28, 2011 (included in Appendix A).

The ACEH previously requested that additional subsurface investigations and groundwater monitoring be conducted to further characterize the Site and to delineate the extent of potential impacts in soil and groundwater down gradient of the unauthorized release of petroleum hydrocarbons from the former underground storage tanks (USTs): specifically, total petroleum hydrocarbons as gasoline (TPH-g); benzene, toluene, ethyl benzene, and xylenes (BTEX); methyl-tertiary butyl ether (MTBE); and fuel oxygenates.

#### **PROPOSED SCOPE OF WORK**

Based on results of the previous investigations, Stantec is proposing to conduct the following scope of work:

##### **Task 1 – Prepare Site-Specific Health and Safety Plan**

Stanec will prepare a Site-specific health and safety plan (HASP) in accordance with the Occupational Safety and Health Administration (OSHA) guidelines set forth in *Hazardous Waste Operations and Emergency Response* (29 CFR 1910.120). The HASP describes potential physical and chemical hazards associated with the proposed scope of work, and prescribes mitigating measures and safety procedures. The HASP includes emergency contact information and a driving route to the nearest emergency care facility. The HASP will be reviewed and signed by all

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555 Hegenberger Road, Oakland**

personnel and subcontractors performing work on the Site. A copy will be present on-site at all times and kept in an easily accessed location. Subcontractors will also work under their own HASP, which will be at least as stringent as the project-specific Stantec HASP.

## **Task 2 – Subsurface Investigation**

### ***Task 2.1 - Permitting and Utility Clearance***

Prior to initiating the subsurface investigation activities, Stantec will perform the following:

- Obtain boring permits from the Alameda County Public Works Agency, as required.
- Complete utility clearance work, including notifying Underground Service Alert and scheduling and retaining a utility clearance subcontractor to identify locations of subsurface utilities and/or other obstructions and hazards in the proposed sampling locations.

### ***Task 2.2 – Direct-Push Borings***

Stantec will subcontract with a California-licensed professional drilling company to advance up to 10 borings (B-1 through B-10) utilizing direct-push technology. The borings will be located outward of the existing groundwater monitoring wells in an attempt to assess downgradient petroleum hydrocarbon impacts (Figure 2). The proposed borings will be advanced to approximately 15 feet below ground surface (bgs) or to approximately 5 feet below first encountered groundwater, whichever occurs first. The proposed number of borings and their locations are approximate and may be modified based on subsurface conditions.

The first 5 feet of each borehole will be advanced using a hand auger or air-knife. Boreholes will then be advanced by direct-push technology and a continuous soil core will be collected to the respective target depth. Soil borings will be continuously logged for lithologic description in accordance with the Unified Soil Classification System (USCS) by a Stantec geologist working under the direction of a California Professional Geologist. Soil samples will be monitored for parameters including odor, staining, volatile organic compounds (VOCs) using a photo-ionization detector (PID), color, grain size, and moisture content.

Recovered soil will be examined for evidence of petroleum impact. Soil samples above groundwater exhibiting signs of petroleum impact will be submitted for laboratory analysis. Grab groundwater samples will be obtained via a Hydropunch™ sampler driven into relatively undisturbed saturated sediments; or through the drill rods (the rods will be pulled up approximately 5 feet, exposing the sediments at the target interval); or through temporary polyvinyl chloride (PVC) casing with 5 feet of screen. For borings requiring the use of temporary PVC casing, the drill rods will be removed from the boring and the PVC lowered to the target depth and remain static for a few hours, or overnight, to allow sufficient water to accumulate.

Once sufficient water has accumulated in the temporary PVC casing, groundwater samples will be collected by using a stainless steel bailer, which will be decontaminated using a non-phosphate detergent solution and triple rinsed with tap water between sampling locations, or a new disposable

**Reference: Work Plan for Subsurface Investigation  
Former Caltrans Hegenberger Maintenance Station  
555 Hegenberger Road, Oakland**

Teflon® bailer. Samples will be transferred into laboratory-supplied containers, labeled and stored in an ice filled cooler pending transfer.

Soil and grab groundwater samples will be stored on ice and transported to a California state-certified laboratory, under chain-of-custody protocol. Submitted soil and groundwater grab samples will be analyzed for the following analyses: TPH-g, BTEX, MTBE and other fuel oxygenates by EPA Method 8260B; and total petroleum hydrocarbons as diesel (TPH-d) by EPA Method 8015B with silica gel cleanup.

**Task 2.3 - Borehole Backfilling**

Each borehole will be backfilled through a tremie pipe with cement grout upon completion.

**Task 3 – Reporting**

A final report will be prepared, which will present and validate the collected data, summarize findings, present conclusions, and recommendations for follow up work, if applicable.

**SCHEDULE**

Stantec is prepared to initiate activities associated with this Work Plan within two weeks upon receipt of written approval by the ACEH and authorization by Caltrans.

If you have any questions, please contact Gary Messerotes at (408) 356-6124, ext. 252.

**STANTEC CONSULTING CORPORATION**

  
\_\_\_\_\_  
Gary P. Messerotes, PG  
Senior Project Manager



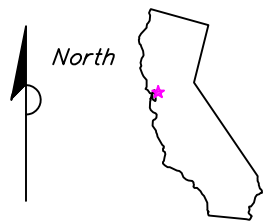
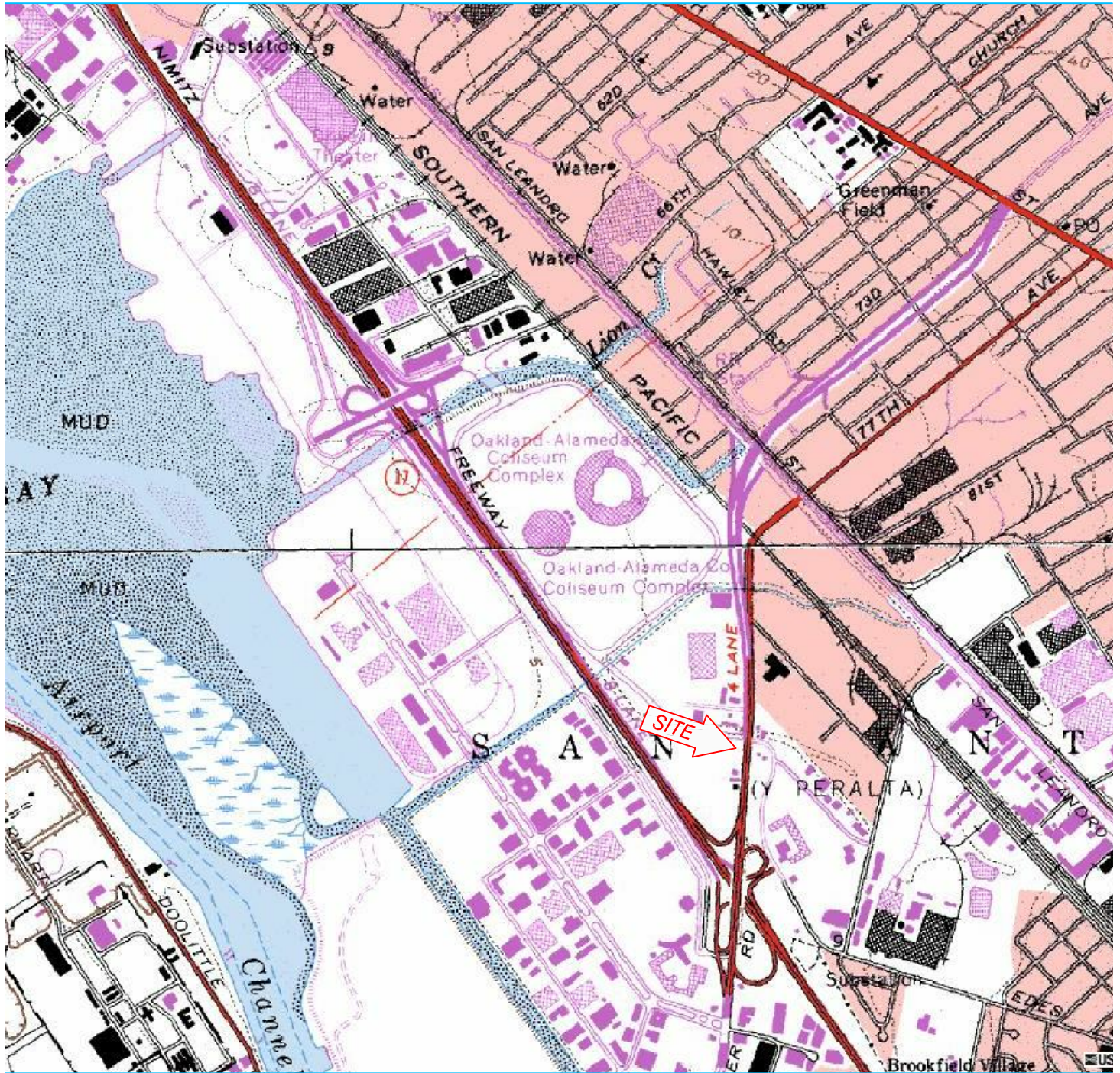
  
\_\_\_\_\_  
Jack C. Hardin, REA  
Managing Principal

Attachments:

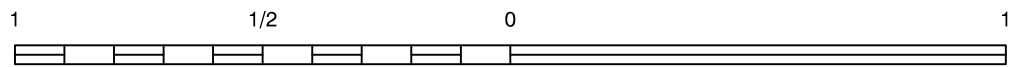
- Figure 1 - Site Location Map
- Figure 2 - Site Plan

Appendix A – Alameda County Environmental Health Correspondence

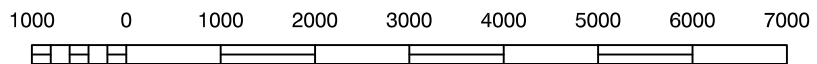
## **FIGURES**



CALIFORNIA



SCALE (MILES)



SCALE (FEET)

REFERENCE: USGS 7.5 MINUTE QUADRANGLE, OAKLAND, CALIFORNIA



**Stantec**

15575 LOS GATOS BOULEVARD BLD-C  
LOS GATOS, CALIFORNIA  
PHONE (408) 356-6124/356-6138 (FAX)

FOR:

FORMER HEGENBERGER  
MAINTENANCE STATION  
555 HEGENBERGER ROAD  
OAKLAND, CALIFORNIA

JOB NUMBER:  
185702413

DRAWN BY:  
MDR

CHECKED BY:  
AF

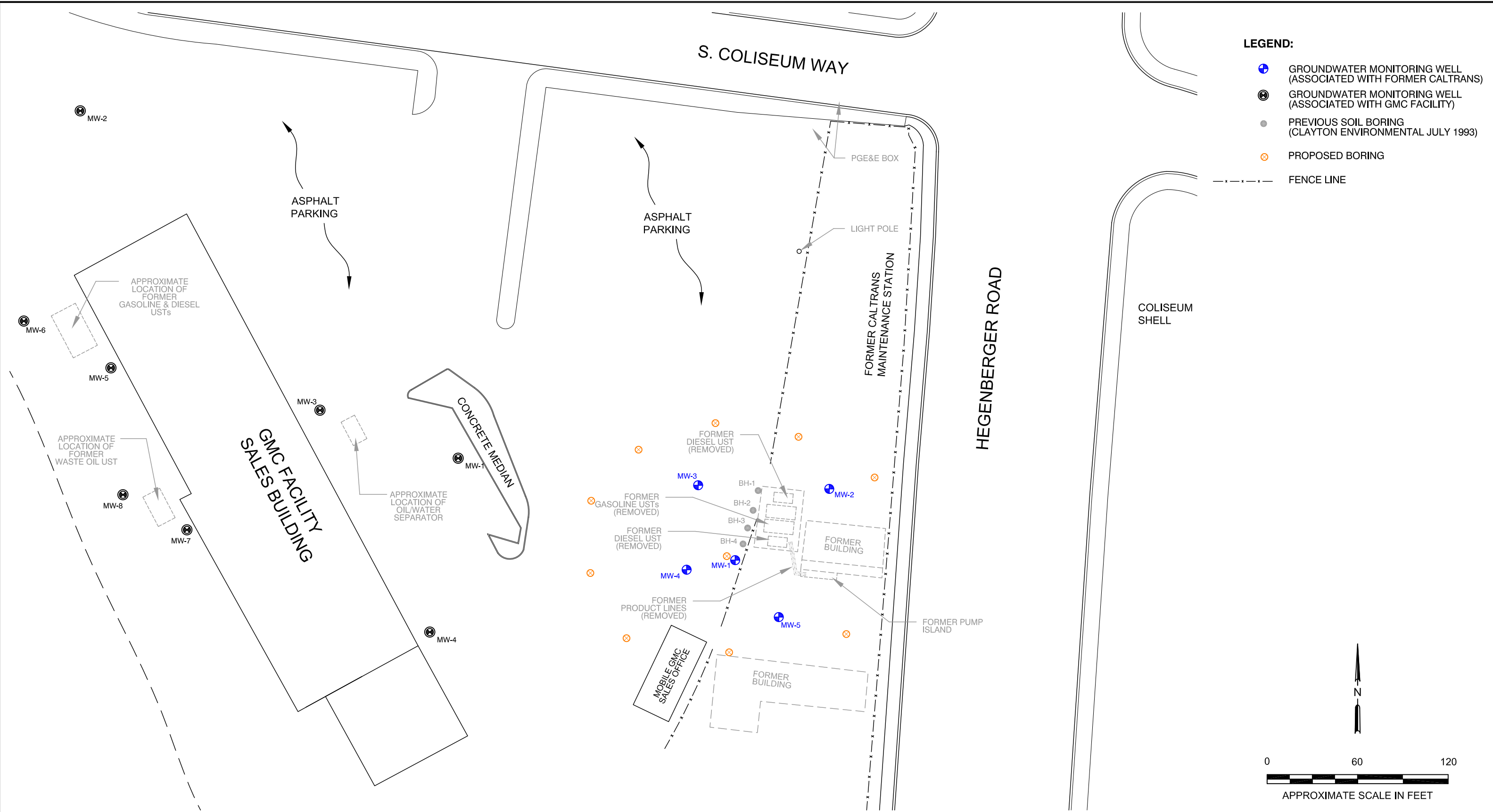
APPROVED BY:  
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FIGURE:


**1**

DATE:  
10/13/11

**SITE LOCATION MAP**



No warranty is made by Stantec Consulting Corp. as to the accuracy, reliability, or completeness of these data. Original Base map information obtained from GeoCo Consulting (June 2006). This information may not meet National Map Accuracy Standards. This product was developed electronically, and may be updated without notification. Any reproduction may result in a loss of scale and/or information.

 <b>Stantec</b> 15575 LOS GATOS BOULEVARD BLD-C LOS GATOS, CALIFORNIA PHONE (408) 356-6124/356-6138 (FAX)	FOR: FORMER HEGENBERGER MAINTENANCE STATION 555 HEGENBERGER ROAD OAKLAND, CALIFORNIA		<b>SITE PLAN</b>		FIGURE: <b>2</b>
	JOB NUMBER: 185702413	DRAWN BY: MDR	CHECKED BY: AF	APPROVED BY:	DATE: 10/13/11

**APPENDIX A**  
Alameda County Environmental Health Correspondence



## Messerotes, Gary

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**From:** Messerotes, Gary  
**Sent:** Wednesday, September 28, 2011 6:44 PM  
**To:** Falk, Alicia  
**Subject:** Fw: Caltrans - 555 Hegenberger Rd., Oakland, CA (Fuel Leak Case No. RO0000225 and Global ID T0600101696)

Fyi  
Gary P. Messerotes

--- sent from my Blackberry

---

**From:** Nowell, Keith, Env. Health <Keith.Nowell@acgov.org>  
**To:** Messerotes, Gary  
**Sent:** Wed Sep 28 17:43:24 2011  
**Subject:** RE: Caltrans - 555 Hegenberger Rd., Oakland, CA (Fuel Leak Case No. RO0000225 and Global ID T0600101696)

Gary,

I verbally approved the request made by Ms Falk this morning regarding the extension to November 15<sup>th</sup> for the third-quarter groundwater monitoring event at the RO225 Caltrans site. I requested the bottom of the wells be tagged to check for sediment accumulation over these past five years of inactivity. She said the wells are to be redeveloped and that 10 well volumes of groundwater would be removed from each of the wells as part of the purging process. I agreed to this.

Ms Falk stated she thought a Preferential Pathway Study had been performed by others and was not found in Geotracker. If it is still the thought the study was performed, another resource would be the Alameda County website. The Regional Board and Alameda County websites do not contain the same documentation. If the Preferential Pathway Study has previously been performed, please review and update the study for any conditions that may have changed since its' completion and submit the updated report concurrent with the third-quarter groundwater monitoring report. If it has been determined the Preferential Pathway Study has not yet been performed I'll approve the request for its' extension to December 23, 2011. Please include potential migration pathways and conduits and determine the probability of the NAPL and/or plume encountering preferential pathways and conduits that could spread contamination. We request that you perform a preferential pathway study that details the potential migration pathways and potential conduits (wells, utilities, pipelines- including laterals, etc.) for vertical and lateral migration that may be present in the vicinity of the site.

Discuss your analysis and interpretation of the results of the preferential pathway study (including the detailed well survey and utility survey requested below) and report your results in the report requested below. The results of your study shall contain all information required by California Code of Regulations, Title 23, Division 3, Chapter 16, §2654(b).

a. Utility Survey -An evaluation of all utility lines and trenches (including sewers, storm drains, pipelines, trench backfill, etc.) within and near the site and plume area(s) is required as part of your study. Please include maps and cross-sections illustrating the location and depth of all utility lines and trenches within and near the site and plume areas(s) as part of your study.

b. Well Survey -The preferential pathway study shall include a detailed well survey of all wells (monitoring and production wells: active, inactive, standby, decommissioned (sealed with concrete), abandoned (improperly decommissioned or lost); and dewatering, drainage, and cathodic protection wells) within a ¼ mile radius of the subject site. As part of your detailed well survey, please perform a background study of the historical land uses of the site and properties in the vicinity of the site. Use the results of your background study to determine the existence of unrecorded/unknown (abandoned) wells, which can act as contaminant migration pathways at or from

your site. Please review and submit copies of historical maps, such as Sanborn maps, aerial photographs, etc., when conducting the background study.

You may submit the Preferential Pathway Study as a separate report or with the Work Plan for Off Site Soil and Groundwater Characterization.

Thank you for your cooperation. Should you have any questions regarding this correspondence for your case, please call me at 510 / 567 – 6764 or send an electronic mail message to [keith.nowell@acgov.org](mailto:keith.nowell@acgov.org)

Keith

Keith Nowell PG, CHG  
Hazardous Materials Specialist  
Alameda County Environmental Health  
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Alameda , CA 94502-6540  
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email: [keith.nowell@acgov.org](mailto:keith.nowell@acgov.org)

PDF copies of case files can be reviewed/downloaded at:

<http://www.acgov.org/aceh/top/ust.htm>

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**From:** Messerotes, Gary [<mailto:Gary.Messerotes@stantec.com>]  
**Sent:** Wednesday, September 28, 2011 1:24 PM  
**To:** Nowell, Keith, Env. Health  
**Cc:** Ray Boyer ([ray\\_boyer@dot.ca.gov](mailto:ray_boyer@dot.ca.gov)); Ramin Behani/D04/Caltrans/CAGov ([ramin\\_behani@dot.ca.gov](mailto:ramin_behani@dot.ca.gov)); Max Raafati/D04/Caltrans/CAGov ([max\\_raafati@dot.ca.gov](mailto:max_raafati@dot.ca.gov)); Bahram Sazegar/D04/Caltrans/CAGov ([bahram\\_sazegar@dot.ca.gov](mailto:bahram_sazegar@dot.ca.gov)); Hardin, Jack; Falk, Alicia  
**Subject:** Caltrans - 555 Hegenberger Rd., Oakland, CA (Fuel Leak Case No. RO0000225 and Global ID T0600101696)  
**Importance:** High

Good Afternoon Keith,

This email is to follow-up a telephone conversation you had this morning with Alicia Falk. Stantec Consulting is the environmental consultant for Caltrans on the former Caltrans Maintenance Station located at 555 Hegenberger Rd., Oakland, CA (Fuel Leak Case No. RO0000225 and Global ID T0600101696). Funding from Caltrans was allocated for the Site last week for reinstating the Semi-Annual Groundwater Monitoring of the five current groundwater monitoring wells on Site.

Stantec recently discovered a "Notice to Comply" letter dated July 25, 2011 on Geotracker requesting, among other things, that the Third Quarter 2011 Groundwater Monitoring Report is due on October 14, 2011. Since we will be conducting the third quarter 2011 groundwater sampling event at the Site tomorrow (September 29<sup>th</sup>), we would like to request an extension for submitting the final report from October 14, 2011 to November 15, 2011. The First Quarter 2012 Groundwater Monitoring Report due date will not need an extension.

In discussion with Caltrans, it appears that the requested Updated Preferential Pathway Study and Work Plan for Off Site Soil and Groundwater Characterization has not been performed. Therefore, Stantec would like an extension on the submittal of the aforementioned report in order to use the results of the third Quarter 2011 groundwater monitoring event as an indicator for areas of the investigation or to address any potential deficiencies in the Site characterization. If acceptable, we would propose submitting this information and Work Plan by December 23, 2011.

Please don't hesitate to contact me if you have any questions.

**Gary P. Messerotes, P.G.**  
Senior Project Manager  
Stantec  
15575 Los Gatos Boulevard Building C  
Los Gatos CA 95032-2569

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**stantec.com**

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