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Alameda County
Environmental Health



March 20, 2007
ACEH Fuel Leak Case RO0000117

Mr. James Tracy, Alpine Rental
878 West Hayden Court
Alpine Utah 84004

Barney M. Chan, Hazardous Materials Specialist
Alameda County Health Care Services - Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Subject: **Addendum to Soil and Water Delineation Work Plan**
1532 Peralta Street, Oakland, California

Dear Mr. Chan:

Upon my authorization, Golden Gate Tank Removal, Inc. has prepared the attached addendum for the previously submitted Soil and Water Delineation Work Plan at the above-referenced property. The addendum addresses comments submitted in the Alameda County Health Care Services letter dated February 15, 2007. Should you have any questions, please contact Mr. Brent Wheeler, Project Engineer of GGTR (415) 512-1555 at your convenience.

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

Respectfully Submitted,
Tim Hallen, Golden Gate Tank Removal, Inc.

For **Mr. James Tracy**, Alpine Rental

Distribution: (1) Addressee

Golden Gate Tank Removal, Inc.
3730 Mission Street, San Francisco, California
Ph (415) 512-1555 • Fx (415) 512-0964



**ADDENDUM
TO
SOIL & WATER DELINEATION WORK PLAN**

**Fuel Leak Case RO0000117
1532 Peralta Street, Oakland, California 94607**

Prepared For:

Mr. James Tracy, Alpine Rental
878 West Hayden Court
Alpine Utah 84004

&

Barney M. Chan, Hazardous Materials Specialist
Alameda County Health Care Services - Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Prepared By:

Golden Gate Tank Removal, Inc
3730 Mission Street, San Francisco, CA 94110

GGTR Project No. 8757
March 20, 2007

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1532 Peralta Street, Oakland, California 94607

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Attachments

Figure 1 - Proposed Investigation Activities

Alameda County Environmental Health Letter dated February 15, 2007

ADDENDUM TO SOIL & WATER DELINEATION WORK PLAN



Fuel Leak Case RO0000117
1532 Peralta Street, Oakland, California 94607

1. INTRODUCTION & PURPOSE

On behalf of Mr. James Tracy, Golden Gate Tank Removal, Inc. (GGTR) is pleased to submit this Addendum to the Soil and Water Delineation Work Plan for the commercial property located at 1532 Peralta Street in Oakland, California. Upon receipt of the Soil and Water Delineation Work Plan, the Alameda County Environmental Health (ACEH) in their letter dated February 15, 2007, requested an addendum to address additional investigation of suspect conduits and other issues. The purpose of this addendum is to modify procedures in the submitted work plan and propose additional investigation activities for delineating the lateral extent of soil and water contamination in the vicinity of the site. A copy of the February 15, 2007, ACEH letter is in attached to this addendum for reference.

2. AMENDMENT TO SOIL & WATER DELINEATION WORK PLAN

In accordance with the comments presented in the aforementioned ACEH directive letter; GGTR proposes the following modifications to the scope of work addressing the contamination issues at the site.

3. STORM WATER MAIN INVESTIGATION

A conduit study revealed a storm water main within 16th Street that is a potential preferred pathway for groundwater contamination. The east-west storm water main with an invert depth of approximately 6 feet bsg appears to be the most likely impacted utility by the groundwater plume originating from the site. The goal of the additional investigation is to assess the lateral extent of groundwater contamination, if any, along the 16th Street storm water main alignment.

3.1 Pre-Field Work Activities:

Upon approval of this work plan amendment by the ACEH, GGTR will obtain a drilling permit from the ACEH and a construction permit from the City of Oakland. Also, GGTR will prepare and submit a traffic control plan to the City of Oakland, for the partial or complete

closure of a traffic lane along 16th Street. GGTR will notify all property owners and tenants as well as ACEH personnel of all scheduled work activities at least 72 hours prior to field work. At least 72 hours before commencing field activities, GGTR will visit the site and outline the proposed work areas in white surface paint and subsequently notify Underground Service Alert (USA) to locate and mark any subsurface utilities extending through the designated work areas. GGTR will update the site-specific Health & Safety Plan and conduct a tailgate safety meeting prior to the initiation of fieldwork.

3.2 Field Work

GGTR proposes to drill three shallow Geoprobe borings, CB1-CB3, along the suspect storm water main in 16th Street as shown on the attached Figure 1 – Proposed Investigation Activities. The last groundwater monitoring event in December 2006 did not detect significant contamination in well MW-2 up-gradient of the storm water main. Groundwater in this area of the site has been measured to vary seasonally from about 1.7 to 3.6 feet bsg. The invert of the 12-inch diameter storm water main varies from a depth of 5.07 feet bsg at the curb catch basin to 5.47 feet bsg in the manhole at the intersection of Peralta & 16th Streets. The storm water main then flows eastward to a manhole at the intersection of Center & 16th Streets with an invert depth of 7.77 feet bsg. Within this intersection, the 12-inch main reportedly joins the 27-inch storm water main along Center Street with an invert depth of 8.47 feet bsg. We estimate the invert of the storm water main will decrease from about 6 feet to about 6 ½ feet below surface grade (bsg) in the area of the proposed soil borings. A gas main at a depth of 29-36 inches bsg is also a possible pathway in 16th Street. The last groundwater monitoring event in December 2006 did not detect significant contamination in well MW-2 down-gradient of the gas main. The proposed boring locations were spaced 25 feet apart starting down-gradient of well MW-2. We estimate that the north or down-gradient side of the storm water main has the highest likelihood of encountering potential contamination originating from inside the storm water main and/or adjacent gas main.

3.3 Soil Sampling

GGTR is proposing to drill three borings to a total depth of 6 feet bsg with soil samples at target depths of 3-3½ and 6-6½ feet to allow for possible variations in groundwater table along the storm water main. Lithology will be continuously logged during drilling and soil samples depths will be targeted based on field screening for zones with obvious evidence of petroleum contamination. Soil borings will be drilled by a California-licensed Water Well Drilling Contractor (C-57) using a limited access, truck-mounted, GeoProbe® drill rig equipped with 1.5-2 inch-diameter steel, concentrically-cased percussion drill tubes. While simultaneously casing the borehole with the outer drill tubes, soil samples will be collected in each boring using a 1.5-inch-diameter, butyrate plastic, tube-lined, core sampler (inner tube) driven in 2- to 4-foot increments into relatively undisturbed soil. Representative soil will be collected in general accordance with ASTM sampling procedures. GGTR will classify and log all soil extracted from each borehole using the Unified Soil Classification System and Munsell Soil Color Chart, and monitor and record the organic vapor

concentrations of all soil samples using a Photo Ionization Detector (PID). All borings will be logged under the supervision of a California-registered Civil Engineer/Geologist.

Between each boring location, all down-hole drilling and sampling equipment will be cleaned with non-phosphate Alconox® solution and double rinsed using clean potable water. Equipment wash and rinse water will be transferred to a separate D.O.T-approved storage container. All containers will be sealed and appropriately labeled as non-hazardous waste and securely stored onsite pending future disposal at respective licensed-disposal facilities. Soil samples retained for laboratory analysis will be immediately sealed with Teflon tape and plastic caps, appropriately labeled, and placed in a cooler chilled to approximately 4° Centigrade.

3.4 Grab Groundwater Sampling

Groundwater has been measured to vary seasonally from about 1.7 to 3.6 feet bsg. One grab groundwater sample will be collected from each of three borings following the completion of drilling to a total depth of six feet. If insufficient groundwater is encountered in a boring, the boring may be drilled an additional two feet for grab groundwater sampling purposes. GGTR will collect a grab groundwater sample from the Hydropunch equipment. The grab groundwater sample will be appropriately labeled and transferred to a cooler chilled to approximately 4° Centigrade.

Following groundwater sampling activities, GGTR will direct the driller to backfill each borehole with neat Portland cement up to approximately 0.5 fbg. The borings containing groundwater will be backfilled by pumping Portland cement (6 gallons water per 94-pound bag of Portland cement) through a tremie pipe and grouting upward from the bottom of the boring. Gravity flow of grout through a funnel will not be allowed. Any water discharging the boring during grouting will be contained and the water will be collected with absorbent for placement in 55-gallon drums if sufficient quantity is present. The balance of each borehole will be backfilled with appropriate surface material (i.e., concrete, asphalt, etc.) to restore original site conditions.

4. VERTICAL PROFILE CONTAMINATION CHARACTERIZATION

GGTR proposes to perform vertical profile characterization near the former UST locations. ACEH has requested the location of boring B12 be repositioned approximately 15 feet to the north. GGTR agrees to re-locate boring B12 as shown on the attached Figure 1- Proposed Investigation Activities.

5. CONTINUED SOIL CONTAMINATION CHARACTERIZATION

GGTR will conduct additional exploratory drilling and sampling to delineate the lateral and vertical extent of residual petroleum hydrocarbons in soil. GGTR is modifying the original

scope of work for the drilling and sampling according to comments in the ACEH letter. GGTR has re-numbered the proposed borings to reflect these changes as shown on Figure 1 - Proposed Investigation Activities. One boring B13, now a Geoprobe boring, will recover soil samples from target depths of 3, 6, 10 and 15 feet bsg or zones of obvious contamination for laboratory analysis of petroleum constituents. If significant field screening evidence of petroleum contamination is encountered at 15 feet than additional soil samples at intervals of approximately five feet (soil intervals of obvious contamination will be targeted in the sampling) will be added until the vertical extent of obvious petroleum contamination is determined.

Borings B14 and B15 investigate below the former fuel dispenser island. One boring B16 investigates below the fuel product line location. Soil borings B14, B15 and B16 are shallow hand augured borings as described in the previously submitted work plan. Two additional borings B20 and B21 are now designated as contingency borings dependent on the outcome of other work at the site. Boring B20 would be drilled if product piping and dispenser samples are significantly impacted. Boring B21 would be drilled if the proposed deep vertical profile boring shows evidence of significant impact. The depth of sample recovery would be similar to boring B13 contingent upon evaluation of field sampling data. Field observations and screening results would be used to determine the need for other additional borings without submitting an additional work plan. Justification for adding additional soil borings would be provided to the ACEH for review and comment prior to additional fieldwork.

6. GROUNDWATER MONITORING WELL CONSTRUCTION

In their letter, ACEH approved the installation of three additional groundwater monitoring wells in the locations shown on Figure 1 - Proposed Investigation Activities. As requested, GGTR is proposing to design the construction of these wells according to data obtained from prior vertical contamination characterization in deep Geoprobe boring B12. GGTR will provide ACEH updated diagrams of the proposed well constructions, if modified, prior to the installation of the proposed wells.

7. REVISED LABORATORY SAMPLE ANALYSES

After consultation with the proposed analytical laboratory, Entech Analytical Labs Inc. - State-certified environmental laboratory No. 2346, GGTR is revising the proposed analytical methods. Solid samples will be analyzed using the following methods:

TPH-Purgeable GC: EPA 8015B

TPH-Extractable with SGCU: EPA 3630C / EPA 8015B(M)

VOCs by GC: EPA 8021B

Liquid samples obtained from new monitor wells and grab groundwater samples from

exploratory borings will be analyzed using the following California Department of Health Services approved methods:

TPH-Purgeable: GC/MS

TPH-Extractable with SGCU: EPA 3510C / EPA 3630C / EPA method 8015B(M)

VOCs: EPA 5030C / EPA 8260B for Groundwater and Water – EPA 624 for Wastewater

The laboratory will be instructed to report all “long chained” hydrocarbons detected in the TPH-diesel range to be reported as TPHd. At this time, GGTR is not proposing to further characterize the “long chained” hydrocarbons or perform toxicity testing.


8. SIGNATURE

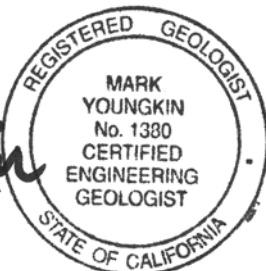
Thank you for your cooperation and prompt review of the submitted work plan. If you have any questions, please call GGTR Project Engineer – Mr. Brent Wheeler at (415) 512-1555.

Sincerely

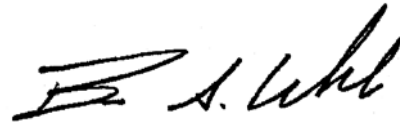
Golden Gate Tank Removal, Inc.



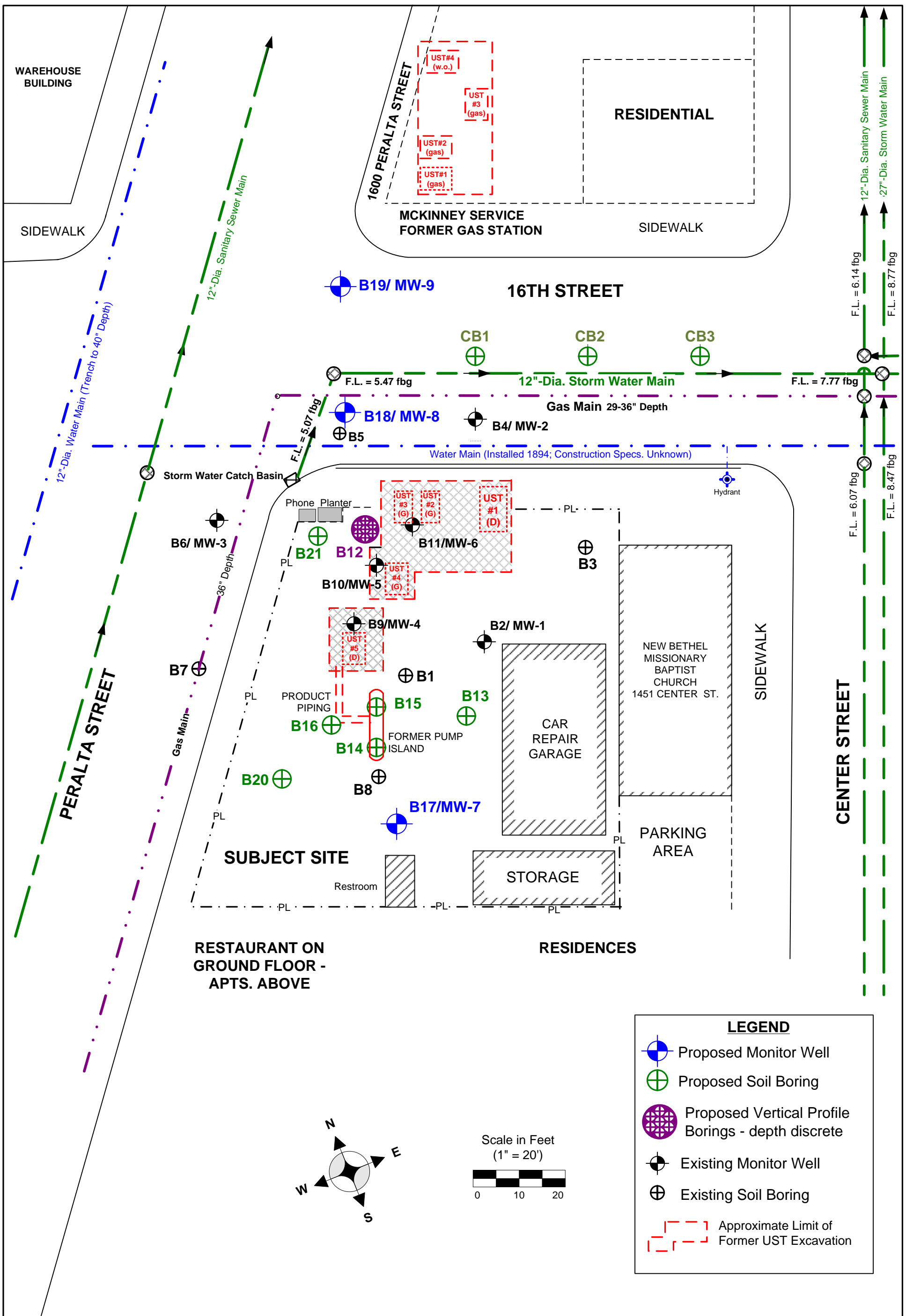

Mark Youngkin



Registered Geologist EG 1380 Expires 04/30/07



Brent A. Wheeler
Project Engineer



GOLDEN GATE TANK REMOVAL, INC.
3730 Mission Street, San Francisco, CA 94110
Ph (415) 512-1555 Fx (415) 512-0964

PROPOSED INVESTIGATION ACTIVITIES
1532 Peralta Street, Oakland, California

ALAMEDA COUNTY
HEALTH CARE SERVICES



AGENCY

DAVID J. KEARS, Agency Director

February 15, 2007

Mr. James Tracy
878 W. Hayden Ct.
Alpine, UT 84004

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

Dear Mr. Tracy:

Subject: Fuel Leak Case RO0000117, 1532 Peralta Street, Oakland, CA 94607

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the subject site including the January 31, 2007 Soil and Water Delineation Work Plan. The work plan responds to the County's 11/29/06 letter. We have the following technical comments we request you address when performing the proposed work.

TECHNICAL COMMENTS

1. Utilities and Preferential Pathway Study- The provided report states that given the shallow depth to groundwater and existence of utilities in the street, the utilities have the potential to act as preferential pathways for contaminant migration. This potential was not addressed in the proposed actions. It appears that the east-west storm water main in 16th St. would be the most likely impacted utility. Please consider investigation along this utility and submit as an addendum to your work plan. We concur that it is unlikely that the wells identified in your survey would be impacted by the fuel release, however, this cannot be confirmed until the full extent of the plume has been determined.
2. Data Gaps and Proposed Actions- Residual contamination above ESLs exist in soil and specific actions were proposed to further delineate this. It appears that the residual contamination identified from soil over-excavation and borings is located near the former dispenser island or adjacent to the former USTs. The estimated area of the highest strength of the petroleum plume mirrors the residual soil impacted area.
 - The former pump island was not removed during the tank removals, therefore, the area underneath the pumps is unknown. The pump island is proposed for removal and two borings from beneath the former pump island and one along the product piping are proposed for sampling. Impacted soil will be removed and disposed if encountered. We concur with this proposed action.
 - Four additional soil borings (B13-B16) are proposed to determine the lateral extent of residual contamination in the saturated soils. Samples from 3' and 6' are proposed for chemical analysis. We concur with boring B16, however, drilling of the other borings should be contingent on the results of other proposed work. Boring B15 would be warranted if the product piping and dispenser samples were significantly impacted, while it appears that B14 is not needed. B13 would be warranted if the proposed deep boring is significantly impacted. Minimally, field observations and screening results should be used to demonstrate the need for the other proposed borings. We also recommend determining the vertical extent of contamination in the proposed borings.

- The vertical profiling of groundwater contamination is proposed for characterization by drilling a deep Geoprobe boring, B12, to 40' bgs. The lithology will be continuously logged and soil samples collected every five feet, at zones of apparent water bearing capacity and obvious areas of contamination. Using this data, additional clustered hydropunch borings and depth discrete water samples collected from the zones of interest. We approve this proposal with the condition that B12 be moved to be located down-gradient of MW-5. See the attached figure for the recommended location.
- Three additional monitoring wells are proposed for further groundwater characterization. One of the wells is located up-gradient and two are down-gradient wells. We approve of their locations, however, their construction should take into account the data from the vertical profiling done in the proposed work. Please provide justification for their construction prior to their installation.
- Investigation for the existence of a waste oil tank is proposed since these tanks are typical of these aged service stations. It would appear that most likely location of a waste oil tank would be where the Sanborn maps indicate grease and oil. We recommend inspection of these areas and detection of magnetic anomalies as necessary.
- Soil and groundwater sample analysis should be analyzed similarly ie constituents and analytical method. Soil samples are proposed for TPHg and TPHd analysis using EPA 8015 and BTEX and MTBE by EPA 8021B. Groundwater samples, however, are proposed for TPHg analysis using TPH-Purgeables/GC/MS and MTBE, TBA and other VOCs by EPA method 8260B. Please propose and justify consistent analytes and analytical methods for soil and groundwater analysis in a work plan addendum. It appears that the analytical methods proposed may be the result of the TPHd analytical results in groundwater samples. The laboratory has not been reporting TPHd in groundwater if it does not resemble the diesel standard, however, they have noted that GC/MS analysis confirms that the compounds detected in the diesel range are not diesel, possible the "long chained" hydrocarbons described in this report. We will conservatively require that any material detected in the diesel range be reported as TPHd. Should you choose to further identify this material, you should also provide toxicity data.

TECHNICAL REPORT REQUEST

Please submit the following technical reports according to the following schedule:

- March 15, 2007- Work Plan Addendum for investigation of storm water utility and justification for soil and groundwater analytical methods
- April 15, 2007- 1st Q 2007 Groundwater Monitoring Report
- July 15, 2007- 2nd Q 2007 Groundwater Monitoring Report
- October 15, 2007- 3rd Q 2007 Groundwater Monitoring Report

ELECTRONIC SUBMITTAL OF REPORTS

Effective **January 31, 2006**, the Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities. Please do not submit reports as attachments to electronic mail.

Submission of reports to the Alameda County ftp site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) Geotracker website. Submission of reports to the Geotracker website does not fulfill the requirement to submit documents to the Alameda County ftp site. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitor wells, and other data to the Geotracker database over the Internet. Beginning July 1, 2005, electronic submittal of a complete copy of all necessary reports was required in Geotracker (in PDF format). Please visit the SWRCB website for more information on these requirements ([http://www.swrcb.ca.gov/ust/cleanup/electronic reporting](http://www.swrcb.ca.gov/ust/cleanup/electronic_reporting)).

In order to facilitate electronic correspondence, we request that you provide up to date electronic mail addresses for all responsible and interested parties. Please provide current electronic mail addresses and notify us of future changes to electronic mail addresses by sending an electronic mail message to me at barney.chan@acgov.org.

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

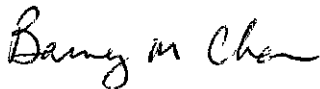
Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

If you have any questions, please call me at (510) 567-6765.

Sincerely,



Barney M. Chan
Hazardous Materials Specialist

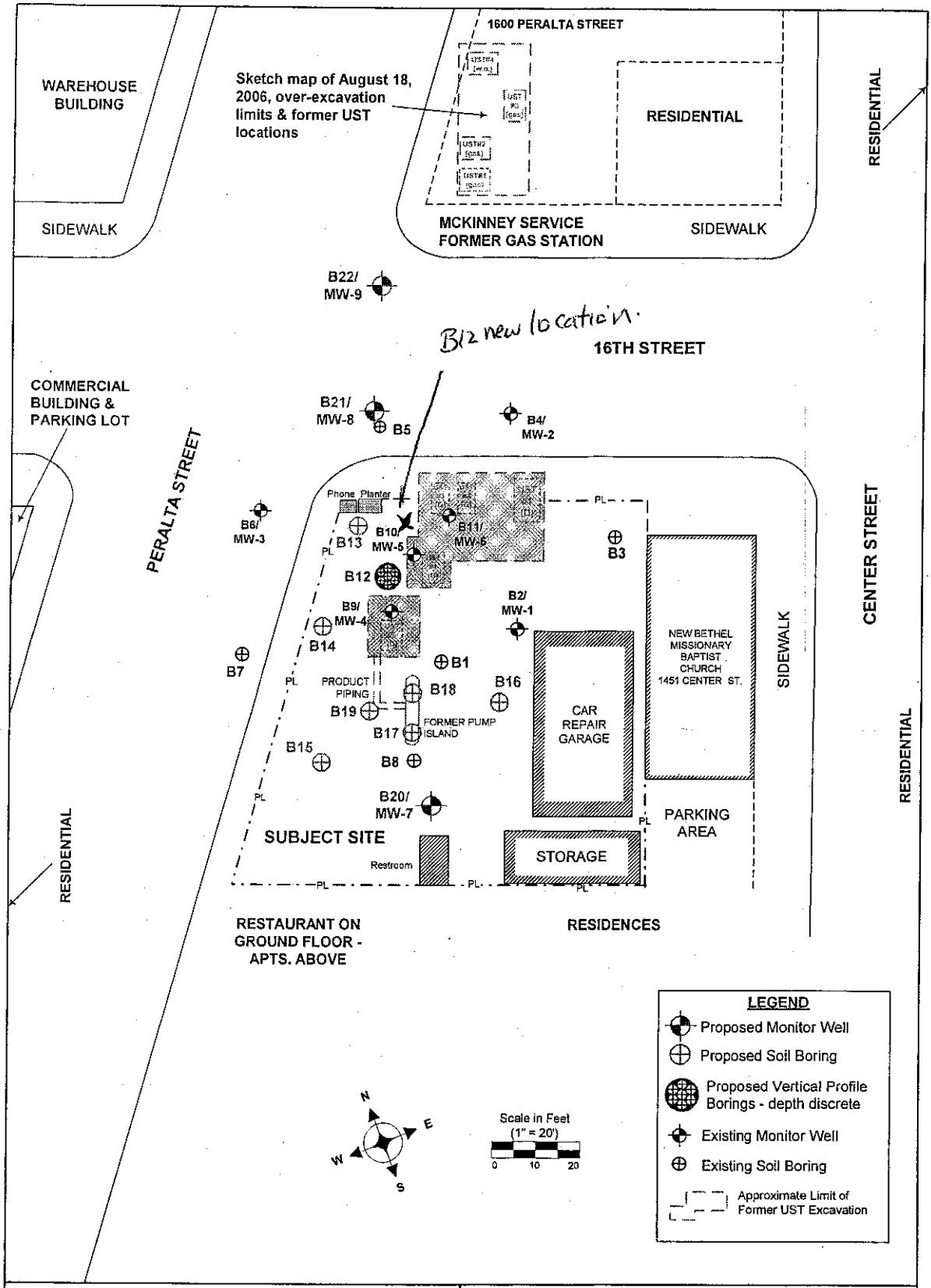
Enclosure: revised Figure 17

cc: files, D. Drogos

Mr. Brent Wheeler, Golden Gate Tank Removal, Inc., 3730 Mission St., San
Francisco, CA, 94110

Mr. Sunil Ramdass, SWRCB, 1001 I St., 17th Floor, Sacramento, CA 95814-2828

2_15_07 1532 Peralta St



GOLDEN GATE TANK REMOVAL, INC.
 3730 Mission Street, San Francisco, CA 94110
 Ph (415) 512-1555 Fx (415) 512-0964

PROPOSED INVESTIGATION ACTIVITIES
 1532 Peralta Street, Oakland, California

GGTR Project No. 8757

fn: 8757_Fig 17_Proposed Work.vsd

Figure By: SM / MY

Figure 17