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Alameda County
Environmental Health

October 29, 2007

Mr. Jerry Wickham, P.G.
Alameda County Health Care Services Agency
Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Subject: Addendum to *Preliminary Site Assessment/Soil, Soil Gas and Groundwater Investigation Work Plan*
Former Regal Station #120, LOP Case No. RO0002875
3875 Telegraph Avenue, Oakland, California

Dear Mr. Wickham:

On behalf of our client Wickland Corporation (Wickland), West Environmental Services & Technology, Inc. (WEST) has prepared responses to the Alameda County Health Care Services Agency, Environmental Health Division (ACEH) technical comments to the *Preliminary Site Assessment/Soil, Soil Gas and Groundwater Investigation Work Plan* for the former Regal Station #120 (Local Oversight Program Case No. RO0002875), located at 3875 Telegraph Avenue in Oakland, California ("the Site"). The responses were prepared to address the September 6, 2007 ACEH technical comments and the comments made by the ACEH during the October 2, 2007 meeting with Wickland and WEST. The responses are interlineated below with the ACEH comments and will be incorporated by addendum to the *Preliminary Site Assessment/Soil, Soil Gas and Groundwater Investigation Work Plan*.

Technical Comments

*Additional Responsible Parties. Your cover letter dated August 14, 2007 requests that ACEH revisit naming additional parties. As we have previously indicated, we will revisit naming additional responsible parties if future investigation activities indicate that unauthorized releases occurred from sources in addition to the service station operated by Wickland Oil Corporation from 1971 until 1984.*

> Acknowledged. As indicated at the October 2, 2007 meeting, the ACEH agreed that the upgradient releases within 39th Street and the former service station on the southern portion of the property are not associated with Wickland's former operations on the northern portion of the Site. If the findings from Wickland's investigation identify contributions from other responsible parties, the ACEH has indicated it will revisit naming those parties.

*Geophysical Survey. As discussed in the Work Plan, three service stations have occupied different portions of the site since the 1930s. Four USTs were removed from the northern portion of the site in 1984. No information on UST removals or locations of the former USTs is available*

*for the other two service stations. We request that you conduct a geophysical survey of the site to identify any USTs that may have been left in place. Please include plans for a geophysical survey in the Revised Work Plan requested below.*

Based on the current Site conditions, it is not feasible to conduct a geophysical survey to locate former USTs on the northern portion of the Site.

With regard to the southern portion of the Site, Wickland did not operate on this portion of the Site. However, as presented in the *Work Plan*, WEST proposes to install two groundwater-monitoring wells on the accessible areas of the southern portion of the Site (Figure 5-1). Based on the discussions, which occurred during the October 2, 2007 meeting, WEST proposes to conduct a survey of the areas near the proposed groundwater monitoring well locations during its underground utility clearance activities. The underground utility locating equipment which includes a metals detector will be used to identify potential subsurface metallic anomalies within the accessible areas on the southern portion of the Site.

*Potential for Vapor Intrusion and Proposed Soil Vapor Sampling Locations. The Work Plan currently proposes soil vapor sampling at four locations outside the existing building. The existing building is constructed above the former UST pit and former fuel islands, which are likely sources of fuel releases. In order to evaluate potential vapor intrusion in the areas most likely to be impacted, we request that you include subslab vapor sampling inside the existing building in the Revised Work Plan requested below. In addition, we request that you propose additional soil vapor sampling to evaluate other suspected sources.*

Based on the observations made during a Site inspection conducted by WEST and Gribi Associates on September 26, 2007 and discussed at the October 2, 2007 meeting, it is not feasible to conduct subslab vapor sampling. However, WEST proposes to collect an additional soil gas sample, W-3, from the area adjacent to the northern portion of the building to evaluate the potential for vapor intrusion. The soil gas sample location, W-3, is presented on revised Figure 5-1 (Attached). Based on the soil gas analytical results, additional sampling may be recommended.

*Soil and Groundwater Sampling in Source Areas. The former UST pit and former fuel islands, most of which are beneath the existing building, are likely source areas. Limited characterization is currently proposed in the area of and downgradient from these likely sources. Please propose additional activities to evaluate the likely source areas or present some rationale and justifications for not conducting soil and groundwater sampling in the likely source areas. Please include this information in the revised Work Plan requested below.*

Due to the presence of the East Bay Surgery Center building, there are limited areas to conduct soil and groundwater sampling in the vicinity of the former USTs and fuel islands on the northern portion of the Site. However, as discussed above, WEST proposes to collect an additional soil gas sample adjacent to the building. In addition, as discussed at the October 2, 2007 meeting, WEST proposes to advance an angle boring, W-3, near the northern edge of the East Bay Surgery Center to collect additional soil and groundwater samples near the former USTs (Table 5-1, attached).

The location of the additional soil gas sample and the angle boring are presented on the revised Figure 5-1 (Attached).

*Sump. Section 3.2 of the Work Plan describes a 36-inch diameter sump that appeared to extend to 25 feet bgs in the area of the former UST excavation. Please present plans to investigate potential contamination originating from the sump in the revised Work Plan requested below. Since the sump apparently extended to a depth of 25 feet bgs, investigation of groundwater quality within the coarse-grained water-bearing layer encountered below 25 feet bgs will be required.*

During the September 26, 2007 Site visit, an inspection of the accessibility of the reported PVC casing installed within the former sump was conducted. Prior to construction of the East Bay Surgery Center, a 4-inch diameter polyvinyl chloride (PVC) vertically oriented 4-inch diameter PVC slotted screen casing was installed within the former sump to a depth of approximately 25-feet below ground surface. The location of the former sump is currently located beneath the East Bay Surgery Center building (Figure 5-1; attached). The vertically oriented slotted screen casing was outfitted with a 4-inch diameter PVC riser which was installed horizontally to allow access to groundwater near the former sump. The top of the horizontal riser was observed near to the northwest corner of the building during the September 26, 2007 Site visit. An inspection of the horizontal riser indicated that it was not fully accessible to ascertain whether groundwater samples could be collected from the area of the former sump. Therefore, samples will not be collected from the former sump.

As discussed above, WEST proposes to advance an angle boring, W-3, to a depth of 25 feet vertically from the ground surface near the northern edge of the East Bay Surgery Center building. Soil and groundwater samples will be collected from the angle boring to generate data for characterizing the subsurface conditions near the former sump and USTs.

*Proposed Boring W-3. The Work Plan proposes the installation of boring W-3 and well MW-1 at closely spaced locations upgradient of the likely source areas. These locations are also adjacent to boring B-6 in which one soil sample and one grab groundwater sample were previously collected. We recognize the value of an upgradient monitoring well; however, we do not see the added value of proposed soil boring W-3 in this upgradient location. Please review this proposal in the Revised Work Plan requested below.*

WEST will relocate boring W-3 near the northern edge of the East Bay Surgery Center and advance as an angle boring, as discussed above, to collect soil and groundwater data near the former USTs and sump (revised Figure 5-1; attached).

*Site Conceptual Model and Cross Section. We found the conceptual site model and cross section shown on Figure 4-1 to be very useful. We appreciate the presentation of the data in a clear and high quality format. The high quality of the accompanying soil and groundwater analytical figures is also appreciated.*

We appreciate you noting the value of the Conceptual Site Model.

*Groundwater Fate and Transport Discussion. We concur that the detection of elevated concentrations of fuel hydrocarbons in the middle distillate range in boring B-4 north of the site in 39th Street may be related to an off-site source. However, we do not concur that the variations in TPH and BTEX concentrations and distribution of BTEX components for samples collected in the southern portion of the site, "can only reasonably be explained as having originated from multiple sources." The aromatic hydrocarbon distribution analysis is unconvincing since the analysis does not consider migration of fuel hydrocarbons as free- phase product across the site. Based on previous site observations and the highly elevated concentrations of fuel hydrocarbons that continue to be detected more than 20 years after the USTs were removed, free-phase product was likely extensive across the site. Further investigation of the source areas would be required to distinguish separate sources.*

Following implementation of the *Work Plan* and evaluation of the Site data, WEST will prepare an updated Conceptual Site Model to assist with: characterization of the source area(s); explaining the vertical and lateral extent of total petroleum hydrocarbons in the subsurface media; and identification of additional areas for investigation, i.e., data gaps, as necessary.

*Geotracker Submittals. A review of the SWRCB Geotracker website indicates that no data or reports have been submitted to Geotracker for your site. Pursuant to CCR Sections 2729 and 2729.1, beginning September 1, 2001, all analytical data, including monitoring well samples, submitted in a report to a regulatory agency as part of the LUFT program, must be transmitted electronically to the SWRCB Geotracker website via the internet. Additionally, beginning January 1, 2002, all permanent monitoring points utilized to collected groundwater samples (i.e. monitoring wells) and submitted in a report to a regulatory agency, must be surveyed (top of casing) to mean sea level and latitude and longitude accurate to within 1- meter accuracy, using NAD 83, and transmitted electronically to the SWRCB Geotracker website. Beginning July 1, 2005, electronic submittal of a complete copy of all reports is required in Geotracker (in PDF format). In order to remain in regulatory compliance, please upload all analytical data (collected on or after September 1, 2001) and a copy, in PDF format, of all reports prepared after July 1, 2005.*

WEST will upload copies of reports prepared on behalf of Wickland to the Geotracker website.

WEST
Environmental Services & Technology

Please call 415/460-6770 if you have any questions or wish to discuss this further.

Sincerely,

Peter M. Krasnoff, P.E.
Principal Engineer

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Attachments

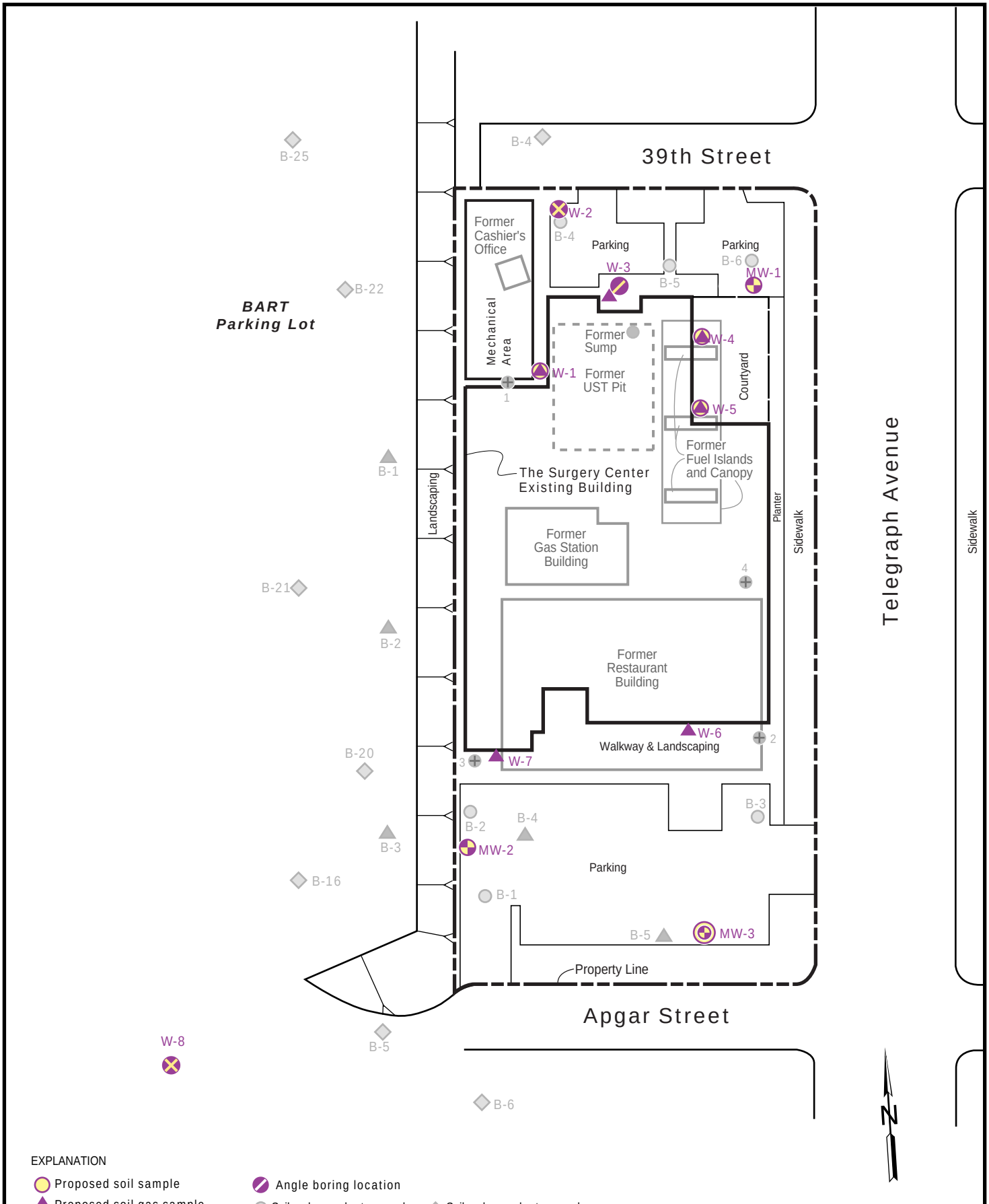
cc: Dan Hall, Wickland
Lori J. Gualco, Attorney-at-law
James Gribi, Grbib Associates
Julie Rose, Randick O'Dea & Tooliatos, LLP

TABLE 5-1
REVISED PROPOSED LABORATORY ANALYSES
3875 Telegraph Avenue
Oakland, California

| Sample ID | Sample Media | Depth | VOCs | TPHd/ TPHg | BTEX/ MTBE | Dry Bulk Density | Organic Carbon | Moisture Content | Hold |
|---|---|---|---|---|---|---|---|---|---|
| | | (ft. bgs) | TO14A/ TO15 | USEPA 8015M | USEPA 8021/8260B | ASTM D2937 | USEPA 9060 | ASTM D 2216 | |
| W-1 | Soil | 5 | -- | X | X | -- | -- | -- | -- |
| | | 10 | -- | X | X | -- | -- | -- | -- |
| | | 15 | -- | -- | -- | -- | -- | -- | X |
| | Soil Gas | 5 | X | -- | -- | -- | -- | -- | -- |
| W-2 | Groundwater | 15-20 | -- | X | X | -- | -- | -- | -- |
| | | 20-25 | -- | X | X | -- | -- | -- | -- |
| W-3 | Soil | 5 | -- | -- | -- | X | X | X | -- |
| | | 10 | -- | X | X | -- | -- | -- | -- |
| | | 15 | -- | X | X | -- | -- | -- | -- |
| | Soil Gas | 5 | X | -- | -- | -- | -- | -- | -- |
| | Groundwater | 15-20 | -- | X | X | -- | -- | -- | -- |
| | | 20-25 | -- | X | X | -- | -- | -- | -- |
| W-4 | Soil | 5 | -- | X | X | -- | -- | -- | -- |
| | | 10 | -- | X | X | -- | -- | -- | -- |
| | | 15 | -- | -- | -- | -- | -- | -- | X |
| | Soil Gas | 5 | X | -- | -- | -- | -- | -- | -- |
| W-5 | Soil | 5 | -- | X | X | -- | -- | -- | -- |
| | | 10 | -- | X | X | -- | -- | -- | -- |
| | | 15 | -- | -- | -- | -- | -- | -- | X |
| | Soil Gas | 5 | X | -- | -- | -- | -- | -- | -- |
| W-6 | Soil Gas | 5 | X | -- | -- | -- | -- | -- | -- |
| W-7 | Soil Gas | 5 | X | -- | -- | -- | -- | -- | -- |
| W-8 | Groundwater | 15-20 | -- | X | X | -- | -- | -- | -- |
| | | 20-25 | -- | X | X | -- | -- | -- | -- |
| MW-1 | Groundwater | tbd | -- | X | X | -- | -- | -- | -- |
| MW-2 | Groundwater | tbd | -- | X | X | -- | -- | -- | -- |
| MW-3 | Groundwater | tbd | -- | X | X | -- | -- | -- | -- |

Notes:

TPHg: Total Petroleum Hydrocarbons as Gasoline
TPHd: Total Petroleum Hydrocarbons as Diesel
VOCs: Volatile organic compounds
BTEX: Benzene, toluene, ethyl benzene, xylenes
bgs: Below Ground Surface




| | | |
|---|---|---|
| Figure 5-1 | PROPOSED SAMPLE LOCATIONS | WEST Environmental Services & Technology |
| October 2007 | 3875 Telegraph Avenue • Oakland, California | |