



Moller Investment Group, Inc.

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1:48 pm, May 13, 2010

Alameda County
Environmental Health

April 27, 2010

Mr. Jerry Wickham
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: Revisions to Corrective Action Plan
Former USA Service Station No. 57
10700 MacArthur Boulevard
Oakland, California

Dear Mr. Wickham:

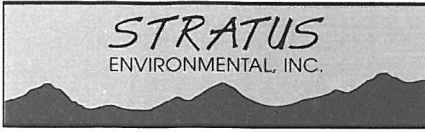
On behalf of Moller Investment Group, Inc. (MIGI) Stratus Environmental, Inc. (Stratus) has recently prepared a report entitled *Revisions to Corrective Action Plan*. The report was prepared in regards to Alameda County Fuel-Leak Case No. RO0000232, for former USA Station No. 57, located at 10700 MacArthur Boulevard, Oakland, California.

I have reviewed a copy of this report, sent to me by representatives of Stratus, and "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".

If you have any questions, please contact me at (805) 299-8214.

Sincerely,

Charles Miller
Environmental Manager
Moller Investment Group, Inc.



3330 Cameron Park Drive, Ste 550
Cameron Park, California 95682
(530) 676-6004 ~ Fax: (530) 676-6005

May 12, 2010
Project No. 2007-0057-01

Mr. Jerry Wickham
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: Revisions to Corrective Action Plan
Former USA Service Station No. 57
10700 MacArthur Boulevard
Oakland, California

Dear Mr. Wickham:

Stratus Environmental, Inc. (Stratus), on behalf of Moller Investment Group, Inc. (MIGI), has prepared this addendum report for former USA Service Station No. 57 (the site), located at 10700 MacArthur Boulevard, Oakland, California (see Figure 1). On February 25, 2010, Stratus prepared and submitted a *Corrective Action Plan* (CAP) for the subject property. The CAP recommended completing excavation and disposal of petroleum hydrocarbon impacted soil, and associated activities, in order to remove contaminant mass from the subsurface and reduce concentrations of petroleum hydrocarbons in shallow soil gas near the location of former USA Station 57. After reviewing the CAP, Alameda County Health Care Services Agency (ACHCSA), in a letter dated March 30, 2010, conditionally approved the concept of soil excavation and disposal. However, ACHCSA personnel requested that a revised CAP be submitted which incorporates various technical comments, as outlined in their letter.

This addendum report responds to the technical comments as requested by ACHCSA, and provides specific changes to the scope of work with appropriate explanations. Figures intended to provide clarifications/information that is pertinent to the scope of work changes are also included in this document. This addendum report is intended to be used in conjunction with the previously submitted CAP.

Revisions to CAP

The following section of this report presents technical comments prepared by ACHCSA personnel from the March 30, 2010 letter (shown in italicized text), and Stratus' responses to the technical questions, including changes to the scope of work intended to meet ACHCSA's requirements for implementation of corrective action at the site.

Decommissioning of Groundwater Monitoring Wells. *The CAP proposes the destruction of six groundwater monitoring/remediation wells: AS-1, AS-2, EX-1, EX-2, EX-4, and S-2. The proposed destruction of the six groundwater monitoring wells is acceptable. Well destruction permits are to be obtained from the Alameda County Public Works Agency. Given the long history of groundwater monitoring data available for the site and in order to facilitate expansion of the excavation as necessary, you may consider decommissioning all groundwater monitoring wells at the site. Please review and modify the Revised CAP as appropriate.*

Currently, there are 13 groundwater monitoring/remediation wells at the subject property (MW-1 through MW-5, MW-7, MW-8, EX-1 through EX-4, AS-1, and AS-2). Figure 2 illustrates the location of each of these 13 wells. Prior to initiating the excavation project, Stratus will retain the services of a licensed well contractor to destroy each of the 13 wells at the site. Each well will be destroyed following the procedure proposed in the CAP, pending concurrence with Alameda County Public Works Agency (ACPWA) at the time that the well destruction permits are obtained.

Expansion of Excavation. *Expansion of the proposed area of excavation is required to address areas where residual hydrocarbons potentially pose a threat of vapor intrusion for future structures. Based on previous sampling results and known conditions, we request that the area of excavation be expanded to the east to include the area of soil vapor sampling locations SV-13 and SV-14 as shown on the attached figure entitled "Expanded Excavation". We also request that the proposed excavation be expanded to the west outside the previous extent of extent of excavation to include the area of SV-7. The need for further expansion of the excavation is to be based upon observations during excavation and the results of confirmation soil sampling. The excavations are to be extended as necessary in any areas where visual inspection or field screening indicates contamination remains in place or the analytical results from confirmation soil samples exceed the proposed screening level of 180 milligrams per kilogram of total petroleum hydrocarbons as gasoline (TPHG). As proposed in the CAP, sidewall confirmation soil samples are to be collected every 15 linear feet. Confirmation soil samples from the base of the excavation are to be collected in a grid pattern with a spacing of approximately 20 feet. Additional confirmation soil samples to those proposed in the CAP may be required if requested during field inspection by ACEH.*

A soil gas survey was performed at the site in October 2009. The work included collection of 19 soil gas samples from approximately 4 feet below ground surface (bgs) and 20 soil gas samples from approximately 9 feet bgs. The locations of the soil gas samples, and TPHG and benzene analytical results for the 4 and 9 foot depth samples, are presented on Figures 3 and 4, respectively.

Figures 3 and 4 also include revisions to the area proposed for excavation during the corrective action work. The proposed excavation area illustrated on Figures 3 and 4 was designed to match the "Expanded Excavation" figure included in ACHCSA's March 30, 2010 letter. Given these changes, Stratus has calculated that the 2,287 cubic yard soil excavation proposed in the CAP will expand to a size of approximately 3,333 cubic yards. The exact dimensions of the excavation, however, will be determined at the time of field work, and be based on conditions encountered during work. As stated in the CAP, dated February 25, 2010, Stratus will use the TPHG environmental screening level (ESL) of 180 milligrams per kilogram (mg/Kg), for soil samples collected from the sidewalls/base of the excavation, to assess the limits of the excavation.

Area of Soil Vapor Sampling Location SV-19. TPHG and benzene were detected in the soil vapor sample collected at a depth of 4 feet bgs from location SV-19A at concentrations of 27,000 and 360 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$), respectively. TPHG and benzene were detected in the soil vapor sample collected at a depth of 9 feet bgs from location SV-19B at concentrations of 30,000 and 27 $\mu\text{g}/\text{m}^3$, respectively. Soil vapor sampling location SV-19 is approximately 32 feet south of the former tank pit. The concentrations of TPHG and benzene detected in soil vapor from sampling location SV-17, which is less than 5 feet south of the former tank pit, were significantly less than the concentrations detected in SV-19. The cause or source of the elevated concentrations of petroleum hydrocarbons in soil vapor at SV-19 is not clear. During excavation, we request that you include one or more exploratory trenches extending from the proposed excavation to the area of SV-19 to assess whether significant contamination extends from the former tank pit south to the area of SV-19. Soil in the exploratory trench is to be screened during excavation and the excavation expanded as necessary to remove the contamination. Sidewall samples are to be collected on both sides of the trench every 15 linear feet and bottom samples collected every 20 feet during trench excavation. Please include plans in the Revised CAP requested below to conduct the trenching, screening, and confirmation soil sampling.

Stratus proposes to advance a northwest-southeast oriented trench extending from the southeastern sidewall of the main excavation towards the location of sampling location SV-19A/B. The approximate location of the proposed trench is included on Figures 3 and 4. The trench will extend to a depth of approximately 13 feet bgs to allow for sidewall sampling (every 15 linear feet) and base-of-trench sampling (every 20 feet). Samples from the exploratory trench will be analyzed onsite for contaminants (as specified in the CAP) by an onsite mobile laboratory.

If concentrations of TPHG in the samples collected from the exploratory trench are above the 180 mg/Kg ESL for TPHG, the trench will be expanded in order to enable removal of additional contaminant mass. Stratus will seek concurrence with ACHCSA personnel

prior to deciding whether or not to expand this exploratory trench, and where to establish the lateral limits of the trench expansion, if the trench expansion is completed.


If you have any questions or comments concerning this report, please contact Scott Bittinger at (530) 676-2062 or Gowri Kowtha at (530) 676-6001.

Sincerely,

STRATUS ENVIRONMENTAL, INC.



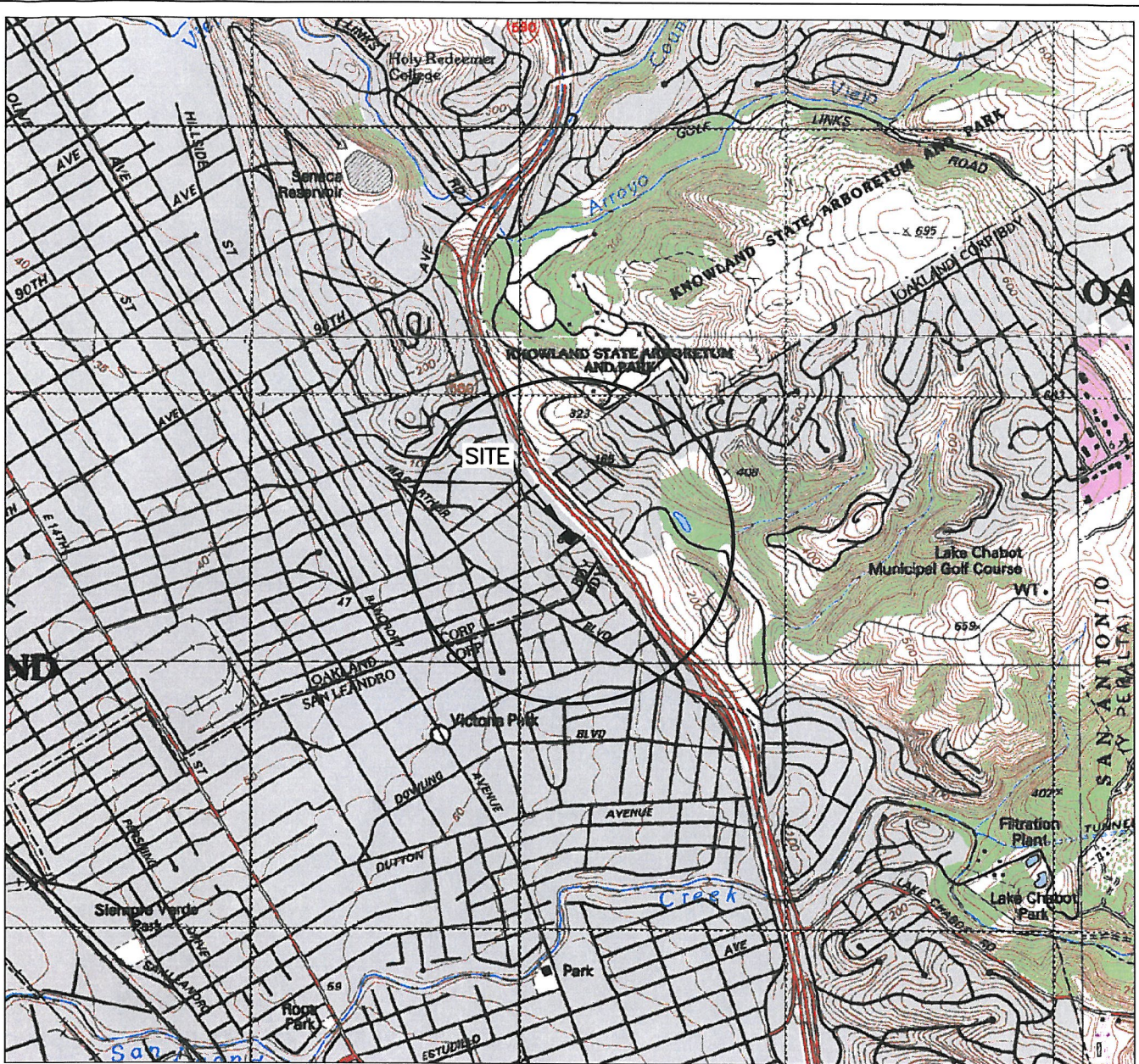
Scott G. Bittinger, P.E.
Project Manager



Gowri S. Kowtha, P.E.
Principal Engineer

Attachments: Figure 1 Site Location Map
Figure 2 Site Plan
Figure 3 Approximate Location of Proposed Excavation and
TPHG and Benzene in Soil Gas Concentrations, 4 ft bgs
Figure 4 Approximate Location of Proposed Excavation and
TPHG and Benzene in Soil Gas Concentrations, 9 ft bgs

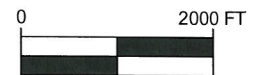
cc: Mr. Charles Miller, USA Gasoline Corporation
Mr. Ken Phares, Jay-Phares Corporation
Mr. Peter McIntyre, AEI Consultants



GENERAL NOTES:
 BASE MAP FROM U.S.G.S.
 OAKLAND, CA
 7.5 MINUTE TOPOGRAPHIC
 PHOTOREVISED 1980



QUADRANGLE LOCATION



SCALE 1:24,000

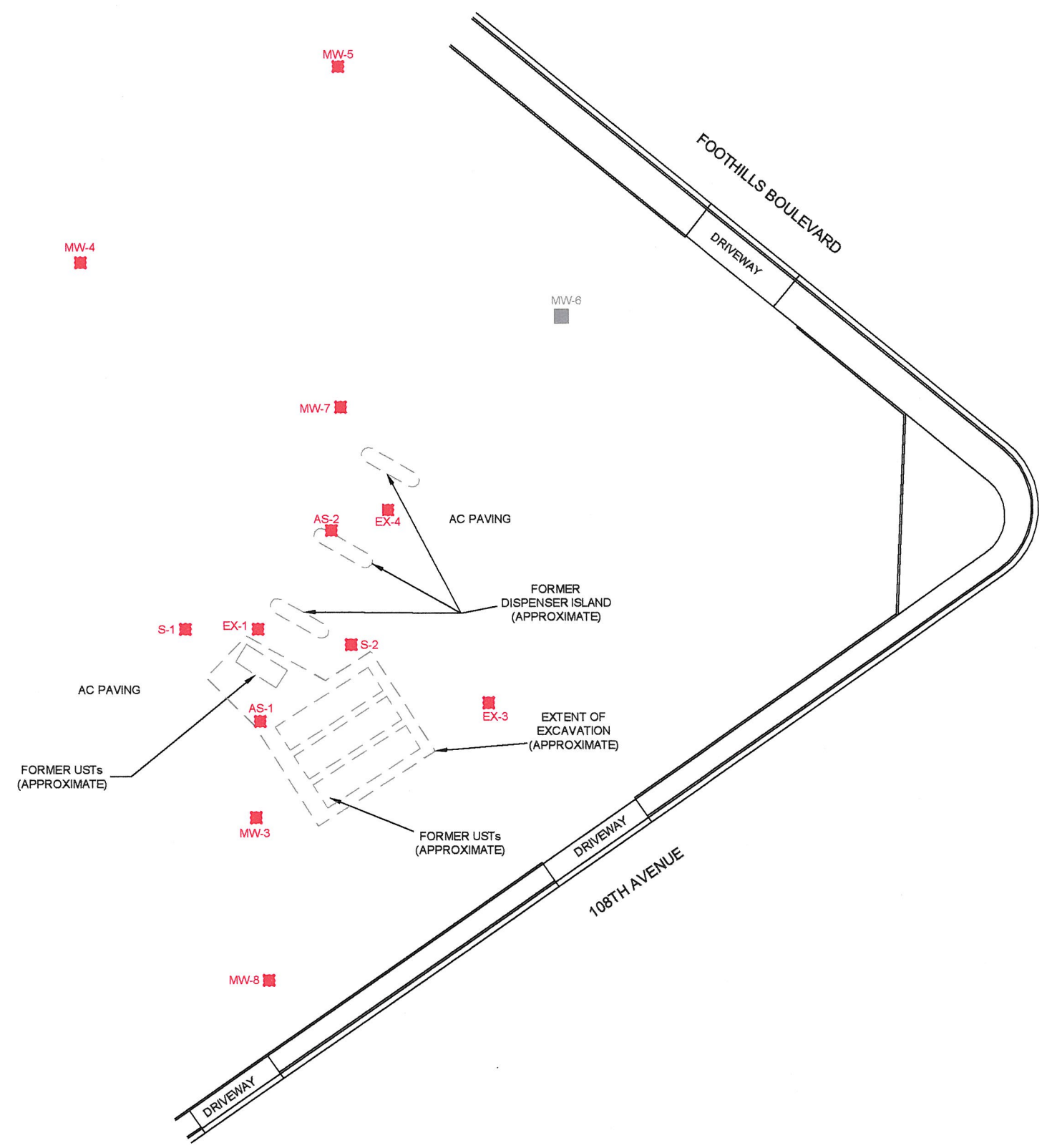
STRATUS
 ENVIRONMENTAL, INC.

FORMER USA SERVICE STATION NO. 57
 10700 MACARTHUR BOULEVARD
 OAKLAND, CALIFORNIA
 SITE LOCATION MAP

FIGURE
1
 PROJECT NO.
 2007-0057-01

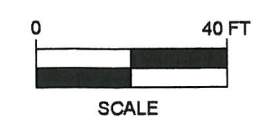


LEGEND
■ MW-3 LOCATION OF WELL PROPOSED FOR DESTRUCTION
■ MW-6 ABANDONED MONITORING WELL LOCATION



USA 57 Proposed Siteplan
REV April 6, 2010
JMP
USA 57/CAP

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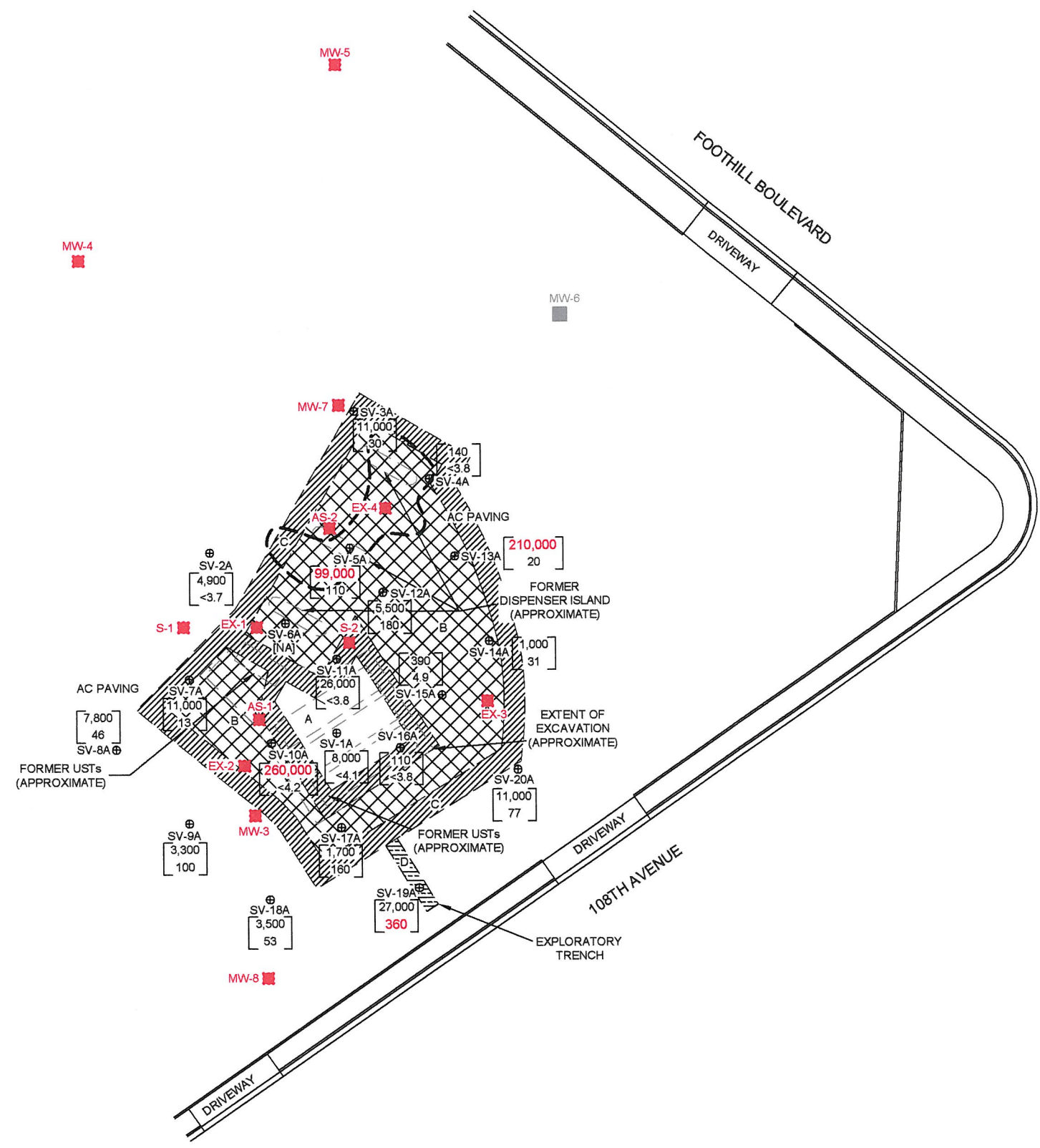


FORMER USA SERVICE STATION NO. 57
10700 MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA

SITE PLAN

FIGURE
2
PROJECT NO.
2007-0057-01

USA57/CAP JMP REV January 21, 2010 USA 57 NSoil Plan



- LEGEND**
- EX-1 LOCATION OF WELL PROPOSED FOR DESTRUCTION
 - MW-6 ABANDONED MONITORING WELL LOCATION
 - ⊕ SV-1A SOIL GAS SAMPLING BORING LOCATION
 - PROPOSED EXCAVATION AREA (ABOUT 13' DEPTH)
 - PROPOSED EXCAVATION AREA BENCH (ABOUT 7' DEPTH)
 - 8,000 TOTAL PETROLEUM HYDROCARBONS AS GASOLINE (TPHG) IN $\mu\text{g}/\text{m}^3$
 - <4.1 BENZENE CONCENTRATION IN $\mu\text{g}/\text{m}^3$
 - [210,000] TPHG CONCENTRATIONS ABOVE COMMERCIAL ESL FOR TPHG (29,000 $\mu\text{g}/\text{m}^3$)
 - [360] BENZENE CONCENTRATIONS ABOVE COMMERCIAL ESL FOR BENZENE (280 $\mu\text{g}/\text{m}^3$)
 - OUTER LIMITS OF TPHG IN SOIL (0-7' bgs)

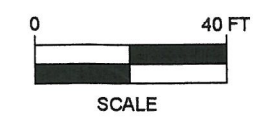
[NA] = INSUFFICIENT AIR FLOW THROUGH SUBSURFACE STRATA TO ENABLE COLLECTION OF SAMPLE

NOTE: SOIL GAS COLLECTED ON OCTOBER 12, 21, & 22, 2009
CONCENTRATIONS REPORTED IN MICROGRAMS PER CUBIC METER ($\mu\text{g}/\text{m}^3$)

AREA OF A: 746.77 FT²
 AREA OF B: 5,135.02 FT²
 AREA OF C: 3,151.74 FT²
 AREA OF D: 90.28 FT²

NOTE: ACTUAL DIMENSIONS OF EXCAVATION WILL BE DETERMINED AT THE TIME OF FIELD WORK, AND BASED ON SOIL ANALYTICAL CONCENTRATIONS DETECTED IN SOIL SAMPLES.

STRATUS
ENVIRONMENTAL, INC.



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 OAKLAND, CALIFORNIA

APPROXIMATE LOCATION OF PROPOSED
 EXCAVATION AND TPHG AND BENZENE IN
 SOIL GAS CONCENTRATIONS, 4ft bgs

FIGURE
3
 PROJECT NO.
 2007-0057-01

