Weiss Associates Environmental and Geologic Services

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SEE NOTES IN CORRESP. FILE DTD 1/26/95

DRAFT

ALL

COMPREHENSIVE SITE EVALUATION AND PROPOSED FUTURE ACTION PLAN

at

Chevron Service Station 9-2384
15526 Hesperian Boulevard
San Lorenzo, California

prepared for

Chevron U.S.A. Products Company
P.O. Box 5004
San Ramon, California 94583-0804

December 15, 1994

DRAFT

Weiss Associates

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Chevron Service Station 9-2384
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San Lorenzo, California

prepared by

Weiss Associates
5500 Shellmound Street
Emeryville, CA 94608

Alison W. Watts
Senior Staff Geologist

Cynthia N. Okano
Staff Engineer

Weiss Associates work for Chevron U.S.A. Products Company, P.O. Box 5004, San Ramon, California, was conducted under my supervision. To the best of my knowledge, the data contained herein are true and accurate and satisfy the specified scope of work prescribed by the client for this project. The data, findings, recommendations, specifications, or professional opinions were prepared solely for the use of Chevron U.S.A. in accordance with generally accepted professional engineering and geologic practice. We make no other warranty, either expressed or implied, and are not responsible for the interpretation by others of these data.

Eric M. Nichols December 15, 1994
Registered Civil Engineer
No. 42695

DRAFT

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SUMMARY

The Chevron site at 15526 Hesperian Boulevard in San Lorenzo, California is a former Chevron service station and is currently vacant. The station ceased operation in March 1991 and the product dispensers were subsequently removed. In May 1991, R.L. Stevens removed the station's underground storage tanks (USTs) and associated product lines, and over-excavated areas suspected of containing hydrocarbon impacted soil. There are six monitoring wells at the site. Quarterly sampling has been conducted since 1992.

Review of historical monitoring and subsurface site investigation data shows that:

- ***All source areas have been removed from the site***: Soil samples taken after tank and product line excavation indicated that no total petroleum hydrocarbons reported as gasoline (TPH-G) were present in the remaining unsaturated soil. The excavated soil was remediated onsite. Stockpile sampling was performed in accordance with the direction of the Alameda County Health Agency. These soils were used for backfilling and compacting the excavations.

- ***The site has been remediated to the extent feasible:*** All of the accessible hydrocarbon impacted soil was removed and remediated before backfilling and compacting the excavations. The extent of the excavation was limited by the physical boundaries of the property. Additional dissolved phase groundwater cleanup is not practical at this time.

- ***Additional Plume Definition***: Site reconstruction is scheduled to occur at this site in late 1994 or early 1995. The location of a proposed building will require the destruction of monitoring wells MW-2, MW-3 and MW-4. Chevron recommends that wells MW-2 and MW-3 be relocated offsite to provide additional plume definition.

Data collected to date indicate that onsite hydrocarbon concentrations are declining and that the site is a candidate for establishment of a Non-Attainment Area after additional plume delineation. Therefore, Chevron requests that the Alameda County Department of Environmental Health (ACDEH) accept that no additional remediation is necessary, and consider this site a candidate for establishment of a Non-Attainment Area after installation of new wells.

INTRODUCTION

At the request of Chevron U.S.A. (Chevron), Weiss Associates (WA) has prepared this site evaluation of Chevron Service Station 9-2384, located at 15526 Hesperian Boulevard, San Lorenzo, California. The objectives of this evaluation are to: 1) Summarize all investigative and remedial actions performed at the site to date; 2) evaluate whether the site meets the Regional Water Quality Control Board - San Francisco Bay Region (RWQCB) criteria for establishment of a Non-Attainment Area; and 3) outline a recommended future action plan. The site-specific information presented in this evaluation was compiled from the reports listed in the References Section of this report.

SITE HISTORY

SITE SETTING

Former Chevron Service Station No. 9-2384 was initially developed as a Bubble Machine Car Wash and Chevron Service Station (see Appendix A for a site plan) and is currently a vacant lot. The site lies within a mixed commercial and residential area. Gasoline at the site was stored in two 10,000-gallon and one 6,000-gallon single-wall fiberglass underground storage tanks (USTs) located in the northwest corner of the site. The USTs were installed in 1972.

Topographically, the site is situated on the east side of the San Francisco Bay Plain. The right-lateral strike-slip Hayward Fault and the Oakland Hills are located approximately one mile east of the site. The surface elevation at the site is approximately 36 ft above mean sea level. The local land surface slopes gently toward the west. The site is approximately 1,500 ft north of the San Lorenzo Creek, which flows west into the San Francisco Bay.

SITE INVESTIGATIONS

1991 Tank Removal: On March 31, 1991, the site ceased operation and the product dispensers were removed. On May 30, 1991, R.L. Stevens excavated and removed all USTs and associated piping from the site. The tanks were visually observed for structural failure and appeared to be in good condition. No leaks were observed in any of the tanks. Blaine Tech Services Inc. (Blaine) collected samples from 2 ft into the native soils beneath the former product tanks and every 20 linear feet within the product line trenches. The samples were analyzed for TPH-G and benzene, toluene, ethylbenzene, and xylenes (BTEX). – Lead tested for under former leaded gas. tank

TPH-G concentrations ranging from 220 to 2,800 parts per million (ppm) were detected in samples #1 through #6, collected beneath the former tanks. Samples #2 and #3 contained the highest TPH-G concentrations: 2,800 ppm and 2,000 ppm, respectively. These samples also contained the highest benzene concentrations of 21 ppm and 9.3 ppm, respectively. Both of these samples were collected under former Tank C, situated in the northernmost portion of the tank pit. Samples #1 through #6 were all collected from approximately 12 ft below ground surface (bgs). Analyses of samples #7, #9, #11 and #12, collected beneath the former product lines, indicated that no detectable hydrocarbon concentrations were present in the samples. 2,800 ppm TPH-G and no benzene were detected in sample #10, collected in the west portion of the southernmost pump island trench. In addition, organic lead analysis was performed on samples collected from beneath the former leaded gasoline tank (former Tank B). No lead concentrations greater than 0.22 ppm were detected. Tank removal sampling locations and lab analytic results are included in the appendices.

1991 Over-excavation: A soils remediation program was implemented on August 5, 1991, to remove all unsaturated site soils that contained concentrations in excess of 10 ppm TPH-G. Approximately 650 cubic yards of soil were excavated from the vicinity of the former USTs. Soils generated from the excavation were stockpiled and aerated in accordance with the Bay Area Air Quality Management Districts (BAAQMD) Regulation 8, Rule 40. Over-excavation was performed beneath the former product tanks and product lines and extended vertically to a depth of 14 ft bgs within the tank excavation and 12 to 14 ft bgs within the piping trench. Ground water

was encountered within the tank excavation at a depth of approximately 13 ft bgs. No detectable concentrations of TPH-G or BTEX were found in final excavation samples collected from the southern piping trench at a depth of approximately 11 ft bgs (Visit R: samples #1 through #3), or in final excavation samples collected from the sidewalls of the former tank excavation at depths of approximately 4 to 5 ft bgs (Visit F: samples #2, #4 and #6). Samples collected at approximately 11 to 12 ft bgs (Visit F: sample #1, #3, and #5) contained TPH-G concentrations ranging of 1,400, 47 and 1 ppm, respectively. These samples were probably collected from the capillary fringe. Vertical excavation was limited to unsaturated soils and did not extend below the ground water table. After excavation the stockpiled soil was aerated onsite following BAAQMD guidelines. The BAAQMD Air Pollution Prevention Officer was notified prior to aeration.

A discrete sample was collected for every 20 cubic yards of stockpiled soil as prescribed by the Regional Water Quality Control Board (RWQCB) for onsite disposal. This stockpile sampling was performed in accordance with the direction of the Alameda County Health Agency representative, Ms. Pamela Evans. No TPH-G or BTEX were detected in any of the soil samples. These soils were used for backfilling and compacting the excavations. Over-excavation sampling locations and lab analytic results are included in the appendices.

1992 Well Installation: In May 1992, Groundwater Technology, Inc. installed three ground water monitoring wells on the site (MW-1, MW-2 and MW-3). Because monitoring well MW-3 was initially installed in the wrong location, the well was abandoned and replaced with a well to the east of the original location, within 10 feet of the former UST location. Analytical results of soil samples collected during drilling activities detected the highest benzene and TPH-G concentrations in the samples collected from the soil boring for the original monitoring well MW-3; 0.34 ppm benzene and 400 ppm TPH-G. However, this soil sample was collected at a depth of 14 ft bgs, which is near or below the water table. No TPH-G or benzene was detected above the method detection limits (MDLs) in any of the soil samples collected from MW-1, MW-2 and replacement monitoring well MW-3.

Ground water samples collected June 4, 1992 were analyzed for TPH-G and BTEX: 6,700 parts per billion (ppb) TPH-G and 910 ppb benzene were detected in MW-2; 460 ppb TPH-G and

12 ppb benzene in MW-3; and no BTEX or TPH-G above the method detection limits (MDLs) in well MW-1. Depth to ground water was approximately 13 ft bgs with a hydraulic gradient to the west of approximately 0.003 ft/ft. Well locations are illustrated on the Potentiometric Surface Map presented in Appendix A. Lab analytic results for the soil and ground water samples collected from these wells are summarized in Appendix B. Boring logs are presented in Appendix C.

1993 Well Installation: In June 1993, Groundwater Technology drilled three additional soil borings: two onsite (MW-4 and MW-6) and one offsite (MW-5). These borings were converted into ground water monitoring wells to define the upgradient, downgradient and vertical extent, if any, of dissolved gasoline in ground water. Two soil samples collected from each soil boring, at 4 ft and 9 ft bgs, were selected for analyses. No benzene or TPH-G was detected above MDLs in any of the soil samples analyzed.

No BTEX or TPH-G concentrations above the MDLs were detected in ground water samples collected from monitoring wells MW-1 and MW-5 on July 2, 1993. No benzene and 80 ppb TPH-G were detected in the sample collected from MW-4. Samples collected from MW-2 contained 2,100 ppm TPH-G and 45 ppb benzene, and samples collected from MW-3 contained 610 ppb TPH-G and 73 ppb benzene. The highest concentrations of TPH-G and benzene were detected in samples collected in well MW-6: 14,000 ppb TPH-G and 330 ppb benzene. Depth to ground water was approximately 11.4 to 12.1 ft bgs with an inferred westerly ground water flow direction. The hydraulic gradient was approximately 0.008 ft/ft. Well locations are illustrated on the Potentiometric Surface Map presented in Appendix A. Lab analytic results for the soil samples collected from MW-4, MW-5 and MW-6 and ground water samples collected from all six wells are summarized in Appendix B. Boring logs for MW-4, MW-5 and MW-6 are presented in Appendix C.

Five of the six monitoring wells have been sampled quarterly since 1992; monitoring well MW-5 was paved over shortly after installation and was not uncovered until November 1993. TPH-G and benzene concentrations have consistently been very low or non-detectable in site wells MW-1 and MW-4 and offsite well MW-5. TPH-G and benzene concentrations in MW-2 and MW-

3 have been declining for the past year. TPH-G and benzene concentrations detected in monitoring well MW-6 have declined significantly since the well was installed.

Planned Development: The site is scheduled for redevelopment in late 1994 or early 1995. The proposed building location will require the destruction of wells MW-2, MW-3, and MW-4. After discussion with Juliet Shin of the ACDEH, it was agreed that Chevron would abandon MW-4, which has consistently low to non-detectable concentrations of hydrocarbons, and would relocate wells MW-2 and MW-3. After review of recent data Chevron proposes that the relocation be modified as shown in the Future Action Plan presented later in this report.

REMEDIAL ACTIONS

As discussed in detail above, the underground tanks and associated product lines were removed from the site. All of the accessible hydrocarbon-impacted soil was removed and remediated before backfilling and compacting the excavations. The extent of the excavation was restricted to the west by Hesperian Boulevard and to the north by Sycamore Street.

↑ Why no other remedial actions such as gw/soil vapor extraction?

EVALUATION OF NON-ATTAINMENT AREA CRITERIA AND FUTURE ACTION PLAN

DISCUSSION OF CATEGORY I NON-ATTAINMENT AREA CRITERIA

In the following section, each of the criterion specified by the RWQCB for establishment of a Non Attainment Area are considered for the subject site.

Criterion a. The Discharger has demonstrated (e.g. pump tests, ground water monitoring, transport modeling) and will verify (e.g. ground water monitoring) that no significant pollution migration will occur due to hydrogeologic or chemical characteristics.

Plume Stability: The dissolved hydrocarbon plume is defined to the north, east and west of the site as indicated by non-detectable concentrations of BTEX and TPH-G observed in ground water samples collected from monitoring wells MW-1, MW-4 and MW-5. The decreasing concentrations of TPH-G and benzene in downgradient wells MW-2, MW-3 and MW-6 indicate that the onsite plume is being degraded by natural mechanisms, such as sorption, dispersion, volatilization through the unsaturated zone, and/or chemical and biological degradation.

The downgradient extent of the plume, beyond MW-6, is not fully defined; this workplan proposes installation of an additional well to the west of the site in Hesperian Boulevard.

Site Hydrogeology: The materials encountered during drilling consisted of interbedded silty and clayey fine sand, sandy and silty clay, and sandy and clayey silt. Well MW-3 is apparently located within the backfilled former tank pit. In monitoring wells MW-4, MW-5 and MW-6, ground water was encountered in a silty sand at approximately 10 to 12 ft bgs. In MW-5 and MW-6, this silty sand is underlain by clayey sand. Boring logs for all six wells are presented in Appendix C.

Site Hydrology: The depth to water ranged from 10 to 14 ft bgs. The direction of ground water flow is to the west-northwest with a gradient of approximately 0.003 to 0.008 foot per foot. The regional ground water flow direction is to the west towards the San Francisco Bay. Compiled

water level data for MW-1 through MW-6 are presented in the Historical Ground Water Analytical Results and Monitoring Data table included in Appendix B. A typical ground water elevation contour map is presented in Appendix A.

Criterion b. Adequate source removal and/or isolation is undertaken to limit future migration of pollutants to ground water.

Source Removal: No spill has ever been documented at the site and the source for the hydrocarbons detected in ground water has never been determined. The gasoline tanks and product piping removed in March 1991 were inspected and reported to be in good condition, and the hydrocarbon-impacted soil in the vicinity of the former tanks and product lines were excavated during tank removal and remediated prior to backfilling and compacting the excavations. There are no source areas remaining in the soil which require remediation.

Criterion c. Dissolved phase cleanup is not cost-effective due to limited water quality, environmental and human health risks and separate phases have been or are actively being removed.

Excavation: As discussed above, extensive excavation has been performed at this site and there are no source areas remaining in the soil which require remediation.

Ground Water and Soil Vapor Extraction: Ground water extraction and treatment combined with soil vapor extraction and treatment is the most common and most effective technology for controlling and remediating ground water hydrocarbon plumes. Ground water/soil vapor extraction is initially very effective at reducing plume mass and concentrations. However, it has been demonstrated that hydrocarbon mass extracted by the system is balanced by hydrocarbon diffusion and desorption from low permeability materials in the plume.

Air Sparging: Air sparging might theoretically enhance clean-up by encouraging biological degradation of hydrocarbons in both the unsaturated and saturated zones. However, this technique would be hindered by the heterogeneity and low permeability of the soils under the site.

Separate Phase Hydrocarbons: No separate phase hydrocarbons are present at the site.

In summary, the most appropriate and effective remedial technology, excavation, has been successfully performed. Hydrocarbon levels in ground water have been gradually declining for almost a year. No other appropriate alternative or cost effective technologies for further extracting hydrocarbon-impacted groundwater exist for this site.

Criterion d. An acceptable plan is submitted and implemented for containing and managing the remaining human health, water quality and environmental risks, if any, posed by residual soil and ground water pollution.

Our plan for containing and managing the remaining risks posed by residual hydrocarbons at this site includes continued ground water monitoring for hydrocarbons within the plume for a limited period of time and a contingency plan to be implemented if monitoring indicates significant downgradient migration and/or increasing concentrations in the plume. The proposed schedule for continued monitoring is presented in the future action plan below.

FUTURE ACTION PLAN

Well Abandonment/Relocation: As discussed above, the site is scheduled for redevelopment, and it is Chevron's understanding that the proposed building location will require the destruction of wells MW-2, MW-3, and MW-4. After discussion with the ACDEH, it was agreed that Chevron would abandon MW-4, which has consistently contained low to non-detectable concentrations of hydrocarbons, and would relocate wells MW-2 and MW-3. After review of recent data Chevron proposes the following modified well abandonment/relocation plan.

Well ID	Recommended Action	Rationale for Recommended Action
MW-1	Abandon	Well is upgradient, hydrocarbons have only been detected once, and have never been detected at concentrations exceeding the MCLs.
MW-2	Relocate to the southern edge of Sycamore Street, slightly downgradient of the current location.	The hydrocarbon plume appears to extend to the north of the site, beyond MW-2, but does not extend across Sycamore Street to MW-5. Relocating MW-2 to the southern edge of Sycamore Street will assist in defining the northern extent of the plume.

MW-3	Relocate to the west of the site, in Hesperian Blvd.	The previously proposed new location is very close to MW-6, and may not provide significant additional data. Moving the well to the west of the site will assist in defining the downgradient extent of the plume.
MW-4	Abandon	As agreed to by the ACDEH in February, 1994. The well is located cross gradient to the site, and hydrocarbons have not been detected in over a year.
MW-5	Cease monitoring	Hydrocarbons have never been detected in this well, and no additional information is gained from sampling at this time.
MW-6	No change	Well will monitor the onsite plume concentrations

Well installation and abandonment activities will be coordinated with site development activities. A schedule for the proposed work will be forwarded to the ACDEH after the site developer submits a site construction schedule to Chevron. Should site development plans change, we will modify the above plan appropriately.

Ground Water Monitoring Schedule: Currently, all six wells at the site are monitored quarterly for hydrocarbons. To date, quarterly sampling of these wells has been conducted for two and a half years. Chevron proposes abandoning MW-1 and MW-4, relocating wells MW-2 and MW-3 and performing the following:

1) MW-5 will not be sampled unless elevated concentrations in relocated well MW-2 indicate that additional plume migration has occurred.

2) MW-2, MW-3 and MW-6 will be sampled quarterly until new construction at the site begins. It is anticipated that this will occur in late 1994 or early 1995. MW-1 and MW-4 will not be sampled prior to abandonment.

3) Prior to site reconstruction MW-1, MW-2, MW-3 and MW-4 will be properly destroyed. MW-2 and MW-3 will be relocated as described above.

4) Relocated wells MW-2, MW-3 and existing well MW-6 will be sampled quarterly for one year. If the sampling results indicate that the downgradient and northern extent of the plume has been defined, the sampling frequency will be decreased to semi-annually for one year.

5) If, after two years, it is apparent that the plume is contained in the vicinity of the site, monitoring will cease.

This schedule is summarized in Table 1, below.

Table 1. Proposed Monitoring and Sampling Schedule. Chevron Service Station #9-2384

Well ID	Action Prior to Site Reconstruction	Sampling Schedule First Year After Well Relocation 1Q	2Q	3Q	4Q	Sampling Schedule Second Year After Well Relocation 1Q	2Q	3Q	4Q
MW-1	Abandon								
MW-2	Abandon and Relocate	G&S	G&S	G&S	G&S	G&S		G&S	
MW-3	Abandon and Relocate	G&S	G&S	G&S	G&S	G&S		G&S	
MW-4	Abandon								
MW-5	No Change								
MW-6	No Change	G&S	G&S	G&S	G&S	G&S		G&S	

G&S = Gauging and Sampling

Contingency Plan: For each of these sampling points, "baseline" and "trigger" conditions have been defined (Appendix D). Should monitoring indicate that "trigger" concentrations occur in any well for ~~two~~ one consecutive monitoring periods, a Contingency Plan for increased ground water monitoring and evaluating an appropriate course of action will be implemented. Details of the Contingency Plan are presented in Appendix D.

CONCLUSIONS

Data collected at the site demonstrate the following points;

- As much of the hydrocarbon-impacted soil as was technically feasible has been removed from the site.
- All six site wells have been sampled quarterly since 1992. TPH-G and benzene concentrations have been low or non-detectable in MW-1, MW-4 and MW-5. During the past year, TPH-G and benzene concentrations have been decreasing in MW-2 and the two downgradient wells, MW-3 and MW-6.
- The ground water gradient is relatively flat and the subsurface lithology is heterogeneous.
- No other significant source has been identified at the site.
- Wells MW-2 and MW-3 should be relocated to provide additional information on plume location and migration.

After review of the data summarized in this report, and consideration of the proposed NAA criteria, it is apparent that further plume definition is required before this site is a candidate for establishment of a Non-Attainment Area. Chevron proposes, therefore, to relocate MW-2 and MW-3 to the north and west of the site to more fully establish the plume location, and to determine whether significant offsite transport is occurring. After plume delineation, Chevron will request establishment of a Non-Attainment Area.

Chevron requests, therefore, that the ACDEH and the RWQCB accept the future action plan outlined in this report, and consider the site a candidate for establishment of a Non-Attainment Area.

REFERENCES

Alameda County Department of Environmental Health, February 23, 1994. Letter from Juliet Shin of the ACDEH to Mark Miller of Chevron regarding the Relocation of Monitoring Wells in Response to the Proposed Oil Changer's Facility at Former Chevron Service Station #9-2384, Located at 155526 Hesperian Blvd., San Lorenzo, CA.

Blaine Technical Services, October 28, 1991. Tank Removal Report, Chevron Service Station No. 9-2384, 15526 Hesperian Boulevard, San Lorenzo, California.

Blaine Technical Services, December 13, 1991. Follow-Up Work Report, Chevron Service Station No. 9-2384, 15526 Hesperian Boulevard, San Lorenzo, California.

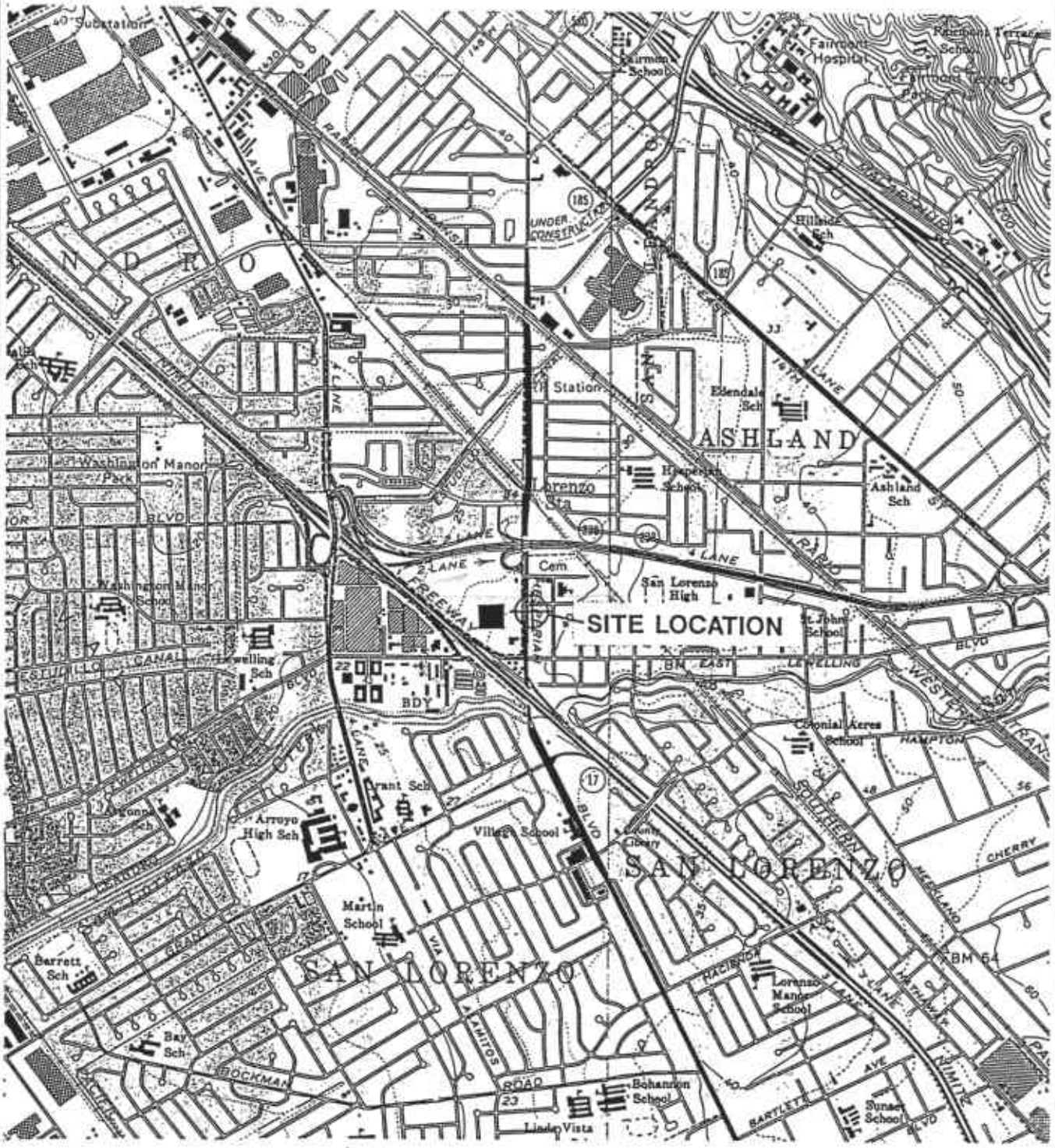
Groundwater Technology Inc., July 16, 1992. Environmental Assessment Report, Chevron Service Station No. 9-2384, 15526 Hesperian Boulevard, San Lorenzo, California.

Groundwater Technology Inc., April 30, 1993. Work Plan for Additional Site Assessment, Chevron Service Station No. 9-2384, 15526 Hesperian Boulevard, San Lorenzo, California.

Groundwater Technology Inc., September 3, 1993. Additional Environmental Assessment Report, Former Chevron Service Station No. 9-2384, 15526 Hesperian Boulevard, San Lorenzo, California.

Groundwater Technology Inc., October 25, 1993. Groundwater Monitoring and Sampling Report, Chevron Service Station No. 9-2384, 15526 Hesperian Boulevard, San Lorenzo, California.

Pacific Environmental Group, Inc., November 4, 1991. Work Plan, Former Chevron U.S.A. Service Station No. 9-2384, 15526 Hesperian Boulevard, San Lorenzo, California (unpublished).



GROUNDWATER TECHNOLOGY

4057 PORT CHICAGO HWY
CONCORD, CA 94520
(510) 671-2387

SCALE: 0 FEET 2000

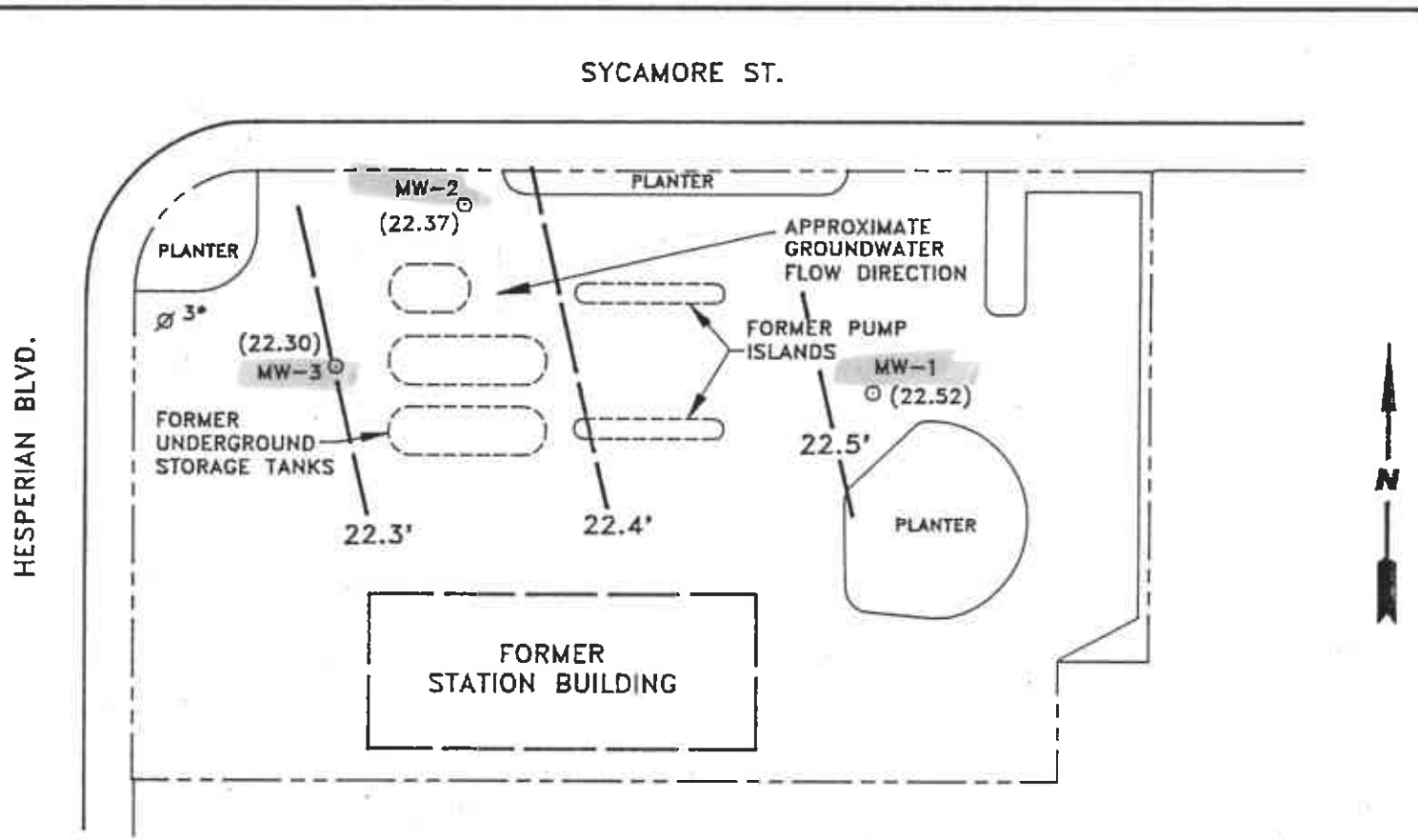
SITE LOCATION MAP

CLIENT: CHEVRON U.S.A. PRODUCTS CO.
SERVICE STATION No. 9-2384

DATE: 5/13/92

LOCATION: 15526 HESPERIAN BLVD.
SAN LORENZO, CALIFORNIA

FIGURE: 1



LEGEND

- ⊙ MONITORING WELL
- Ø3" ABANDONED MONITORING WELL (FORMER LOCATION OF MW-3)
- ( ) POTENTIOMETRIC SURFACE ELEVATION
- —— POTENTIOMETRIC SURFACE CONTOUR

0 FEET 30
SCALE

GROUNDWATER TECHNOLOGY 4057 PORT CHICAGO HWY CONCORD, CA 94520 (510) 671-2387

POTENTIOMETRIC SURFACE MAP (6/4/92)

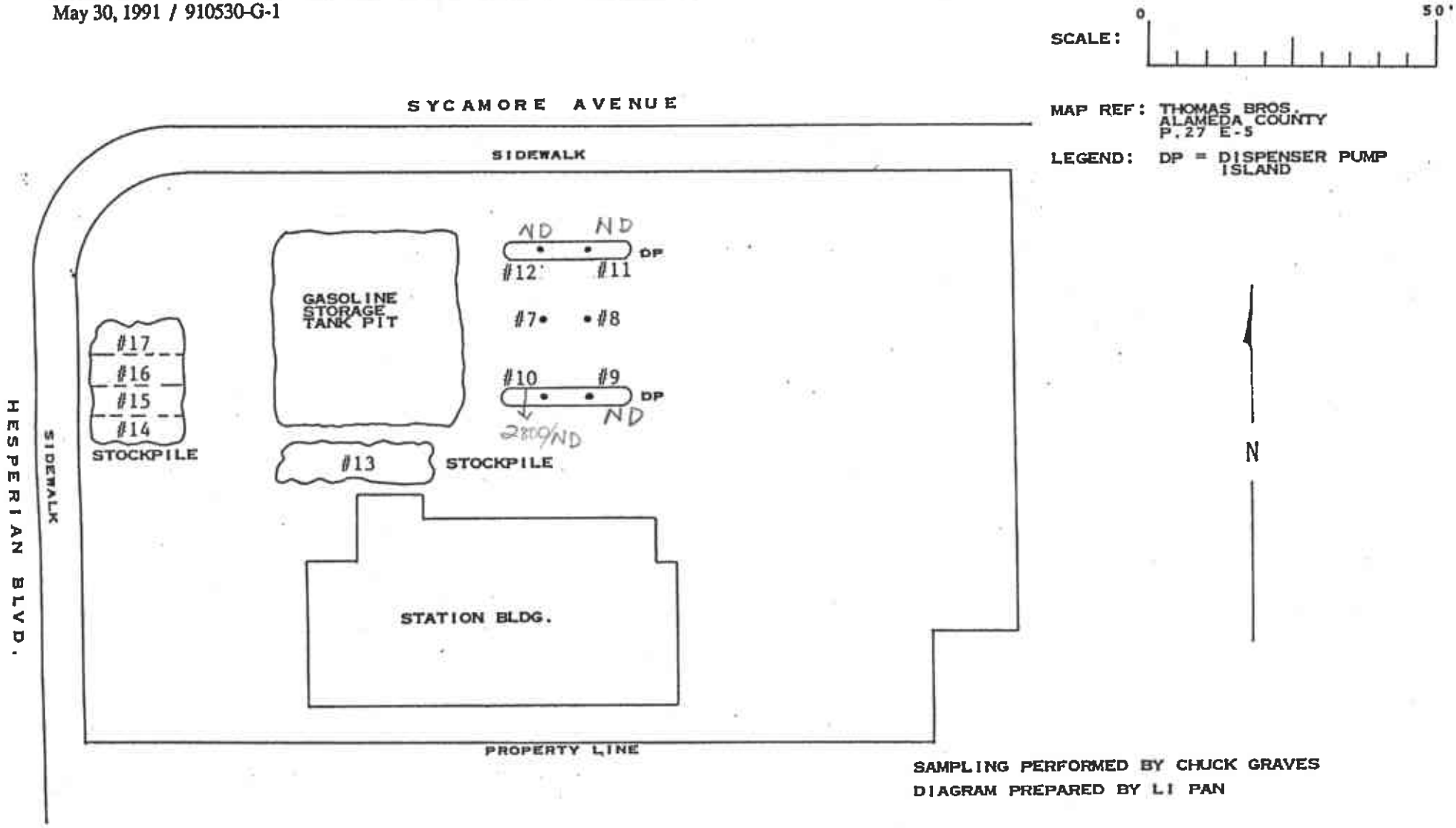
CLIENT:	LOCATION:	REV. NO.:	DATE:
CHEVRON U.S.A. PRODUCTS CO. SERVICE STATION No. 9-2384	15526 HESPERIAN BLVD. SAN LORENZO, CALIFORNIA	0	7/14/92

PM	PE/RG	DESIGNED	DETAILED	ACAD FILE:	PROJECT NO.:	FIGURE:
GAM	DRF	GM	ML	PSM6492/SP692	020202746	3

TANK REMOVAL DIAGRAM

May 30, 1991 / 910530-G-1

DIAGRAM TWO

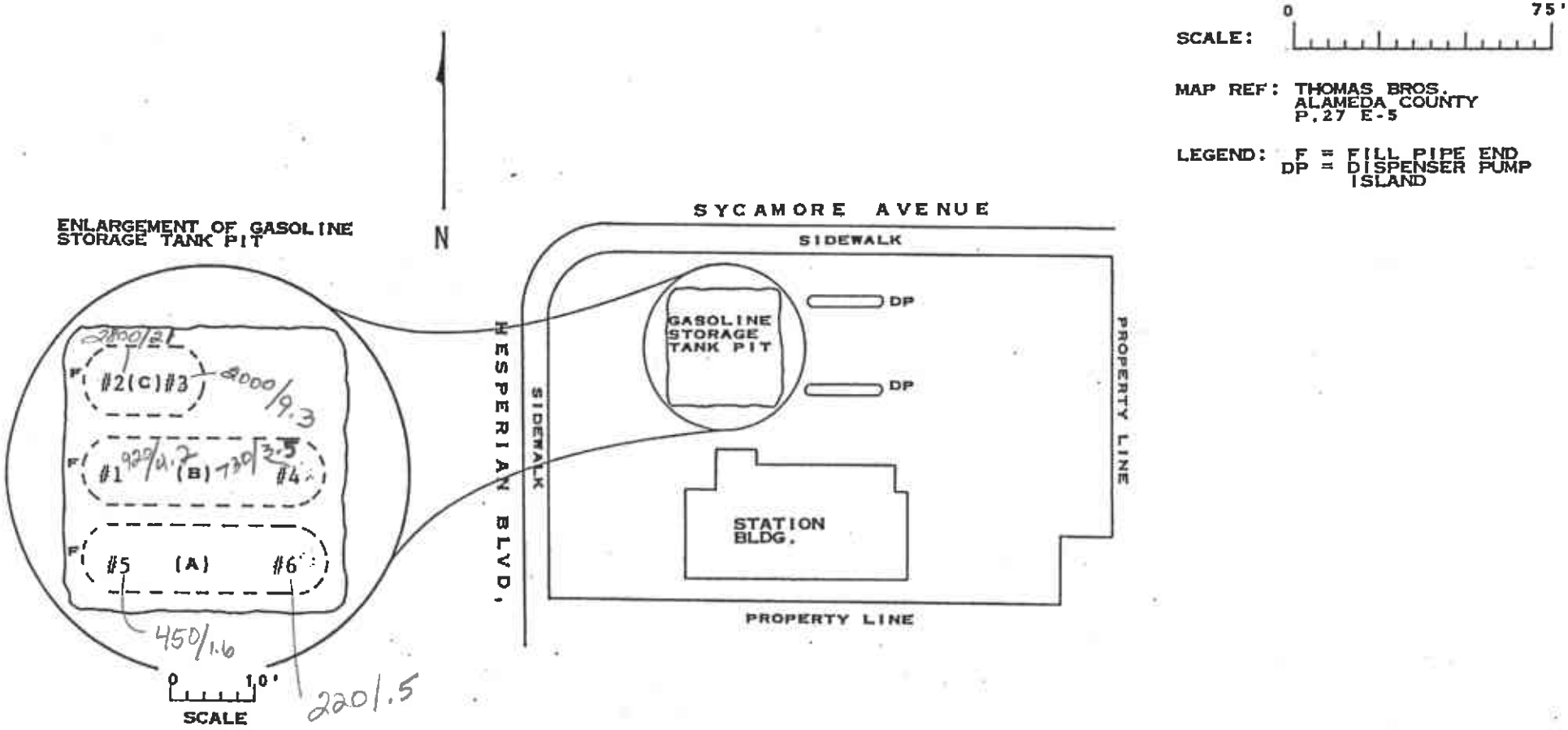


SAMPLING PERFORMED BY CHUCK GRAVES
DIAGRAM PREPARED BY LI PAN

TANK REMOVAL DIAGRAM

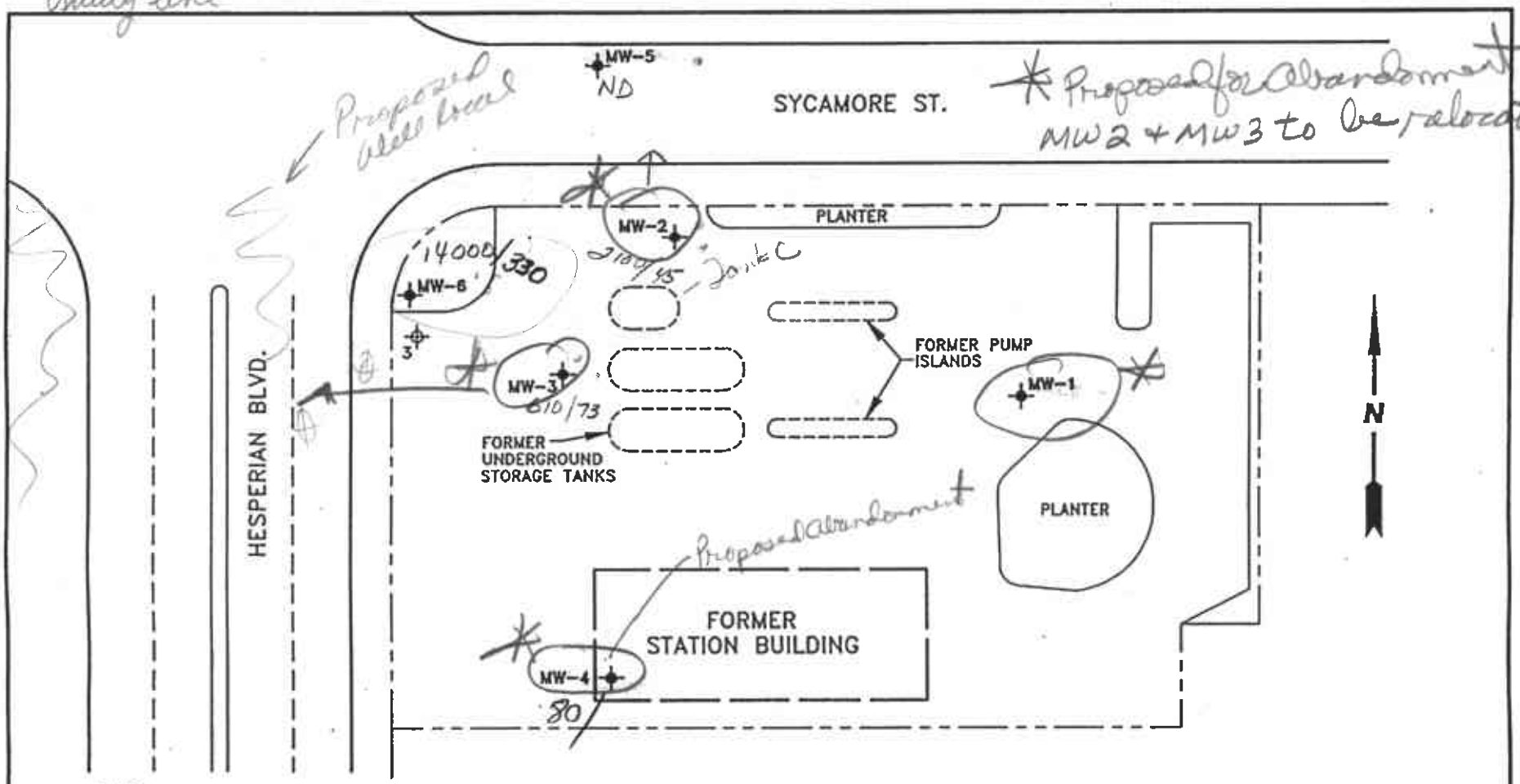
DIAGRAM ONE

May 30, 1991 / 910530-G-1



SAMPLING PERFORMED BY CHUCK GRAVES

DIAGRAM PREPARED BY LI PAN



GROUNDWATER TECHNOLOGY 4057 PORT CHICAGO HWY CONCORD, CA 94520 (510) 671-2387				SITE PLAN			
CLIENT: CHEVRON U.S.A. PRODUCTS CO. SERVICE STATION No. 9-2384				LOCATION: 15526 HESPERIAN BLVD. SAN LORENZO, CALIFORNIA		REV. NO.: 1	DATE: 9/8/93
PM JAW	PE/RG DRK	DESIGNED TW	DETAILED ML	ACAD FILE: SP993	PROJECT NO.: 020204376		FIGURE: 2

COUNTY OF ALAMEDA
OFFICE OF THE COUNTY ADMINISTRATOR

MEMORANDUM

May 4, 1990

TO: Agency/Department Personnel Officers

FROM: Marcie Lee Thomas, Employee Health Services Administrator
Jackye Harbert, Workers' Compensation Manager

SUBJECT: EMPLOYEE RECREATIONAL ACTIVITIES AND COUNTY LIABILITY

The following information and procedures apply to all Alameda County employees who voluntarily participate in off-duty recreational or athletic activities at County work sites. Please share this information with your staff.

According to the California Labor Code Section 3600 (a-8), an employer may not be liable for workers' compensation benefits for injuries which arise out of voluntary participation in off-duty recreational, social, or athletic activities which do not constitute part of the employee's work related duties.

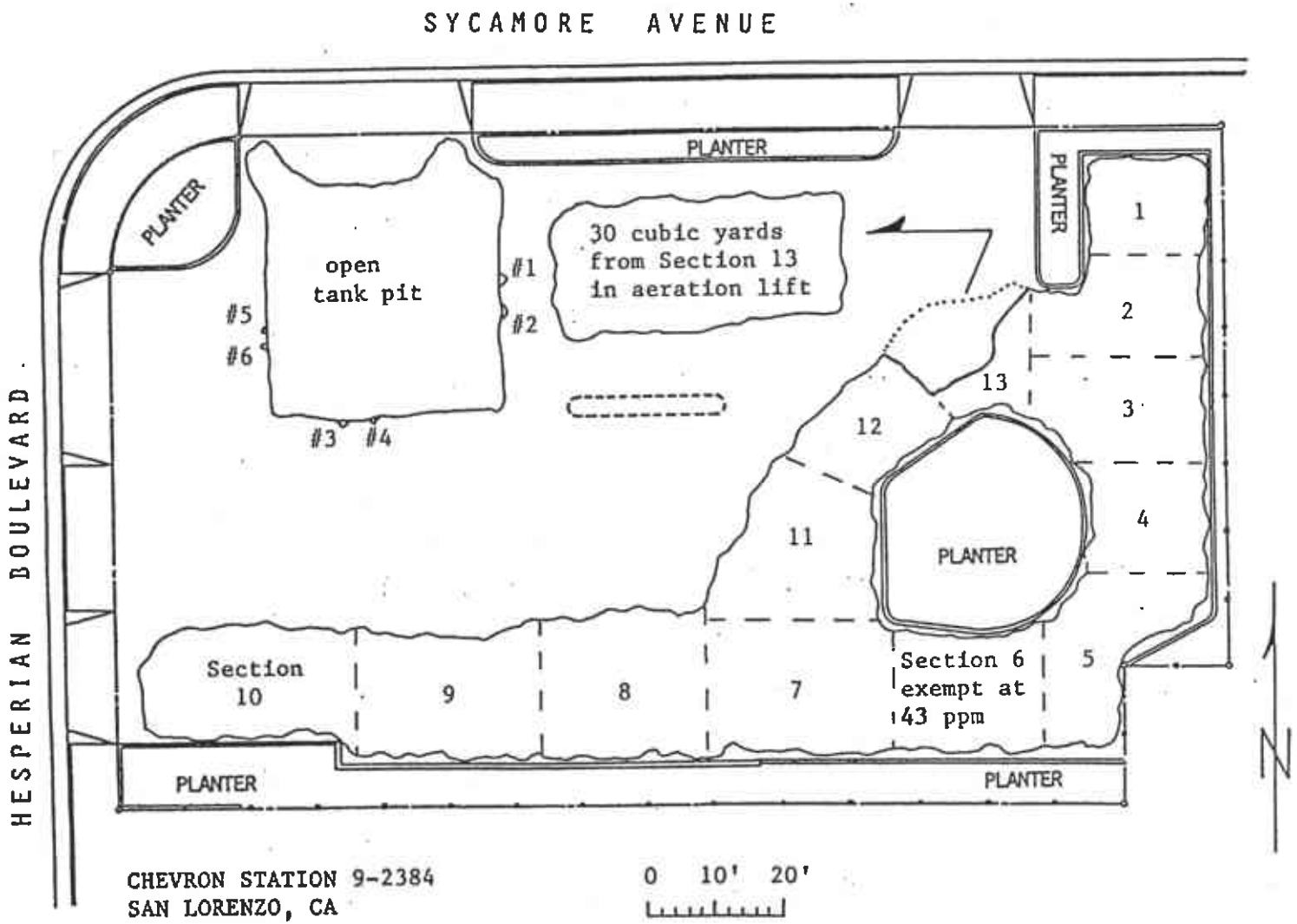
If staff is interested in participating in athletic or recreational activities during their off-duty time, and using County owned facilities or leased facilities, the California State Labor Code provision would apply.

1. Enclosed is an "Employee Notice" sign regarding workers' compensation liability which must be posted in those areas where the recreational or athletic activities take place.

   Post multiple signs in each location where activities take place or, if in leased facilities, post signs on the employees' bulletin boards.

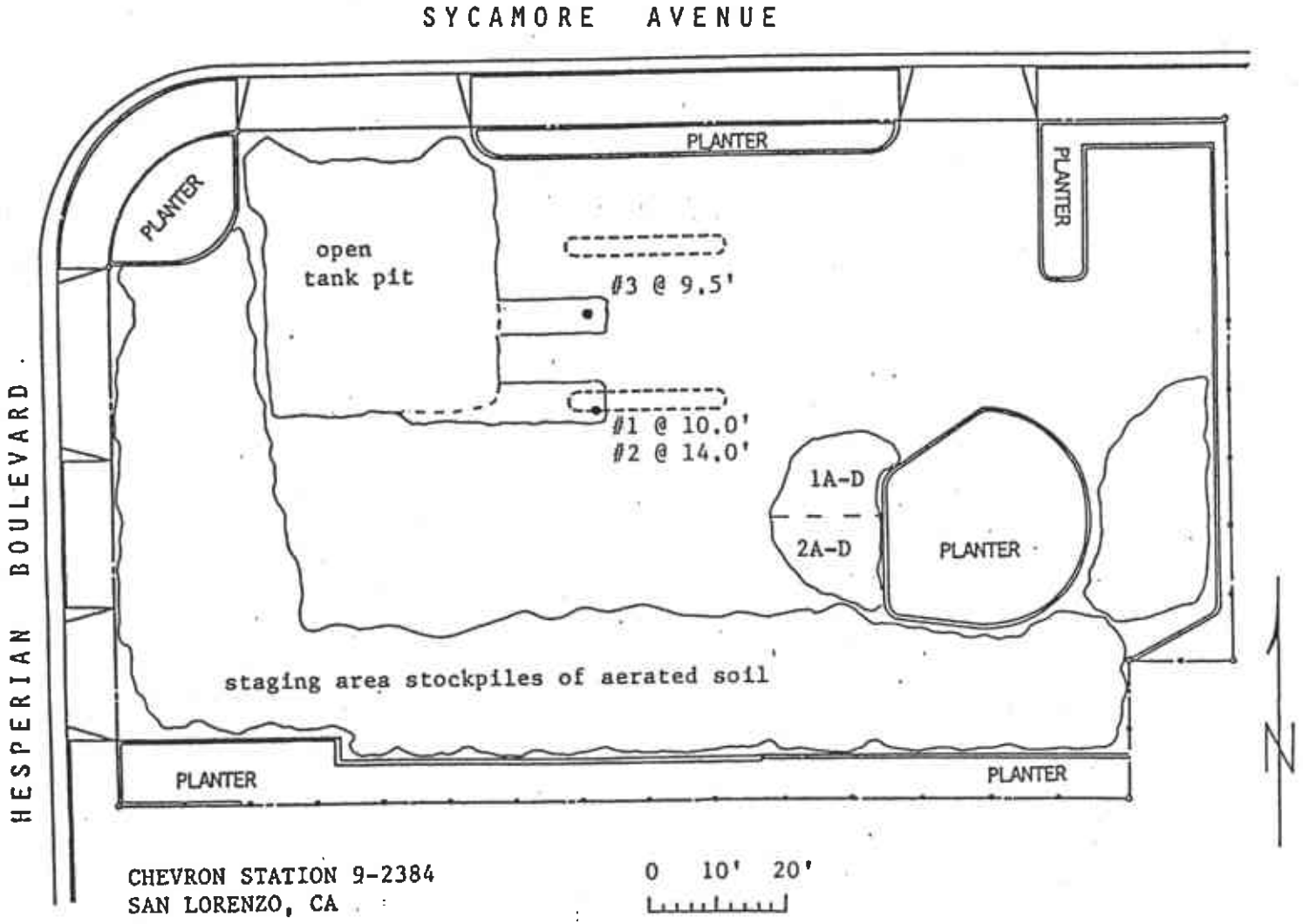
2. Also enclosed is a copy of a "Voluntary recreational/athletic activities' statement" which all employees should sign when participating in organized activities of a recreational or athletic nature. An original should remain in the department, and a copy be given to employees.

   Please copy either of these notices as necessary.


SYCAMORE AVENUE
HESPERIAN BOULEVARD
PLANTER
PLANTER
PLANTER
PLANTER
PLANTER
open
tank pit
#1
#2
#3
#4
#5
#6
30 cubic yards
from Section 13
in aeration lift
1
2
3
4
5
11
12
13
Section
10
9
8
7
Section 6
exempt at
43 ppm
N
CHEVRON STATION 9-2384
SAN LORENZO, CA
0 10' 20'

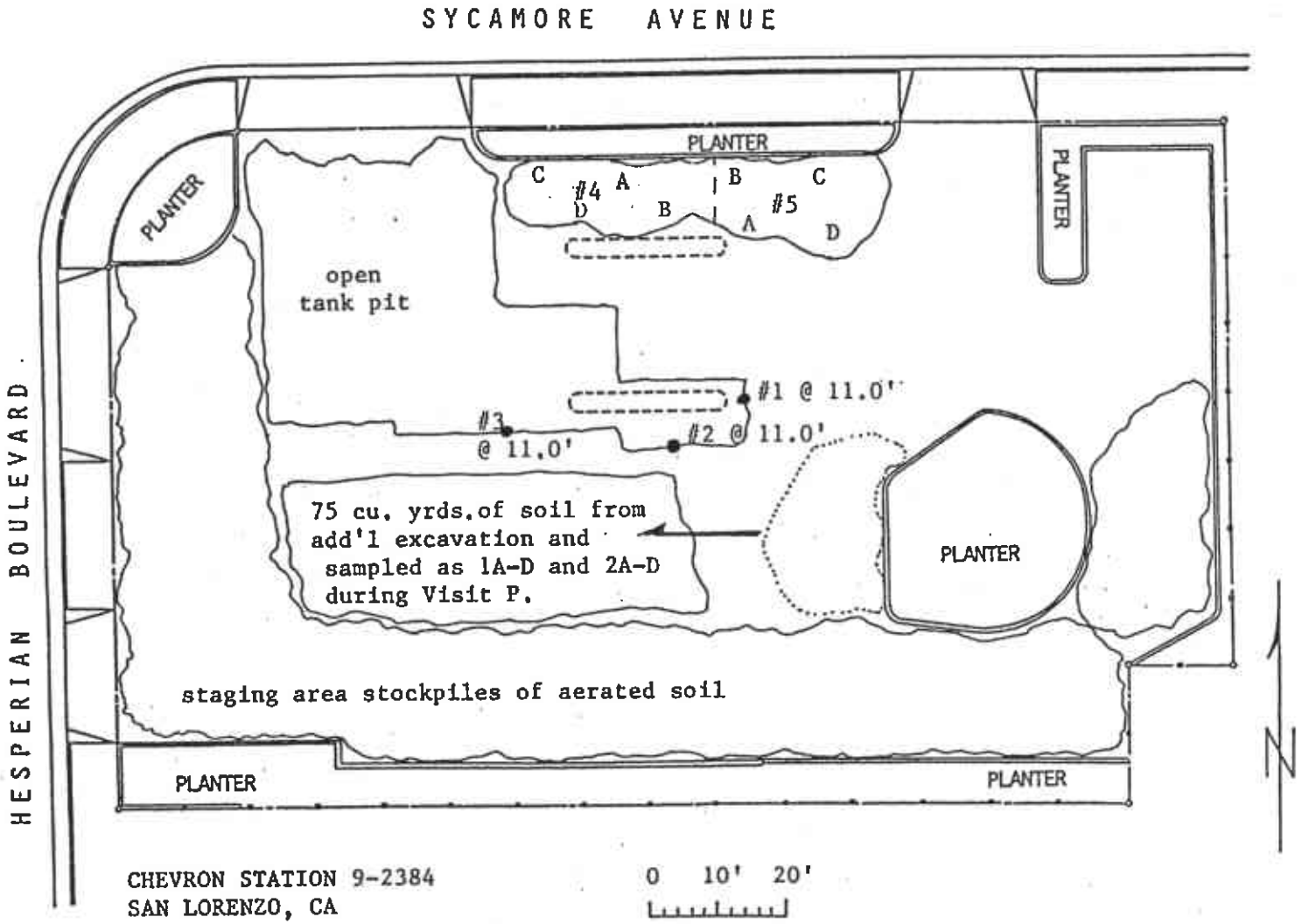
VISIT P (OVEREXCAVATION)

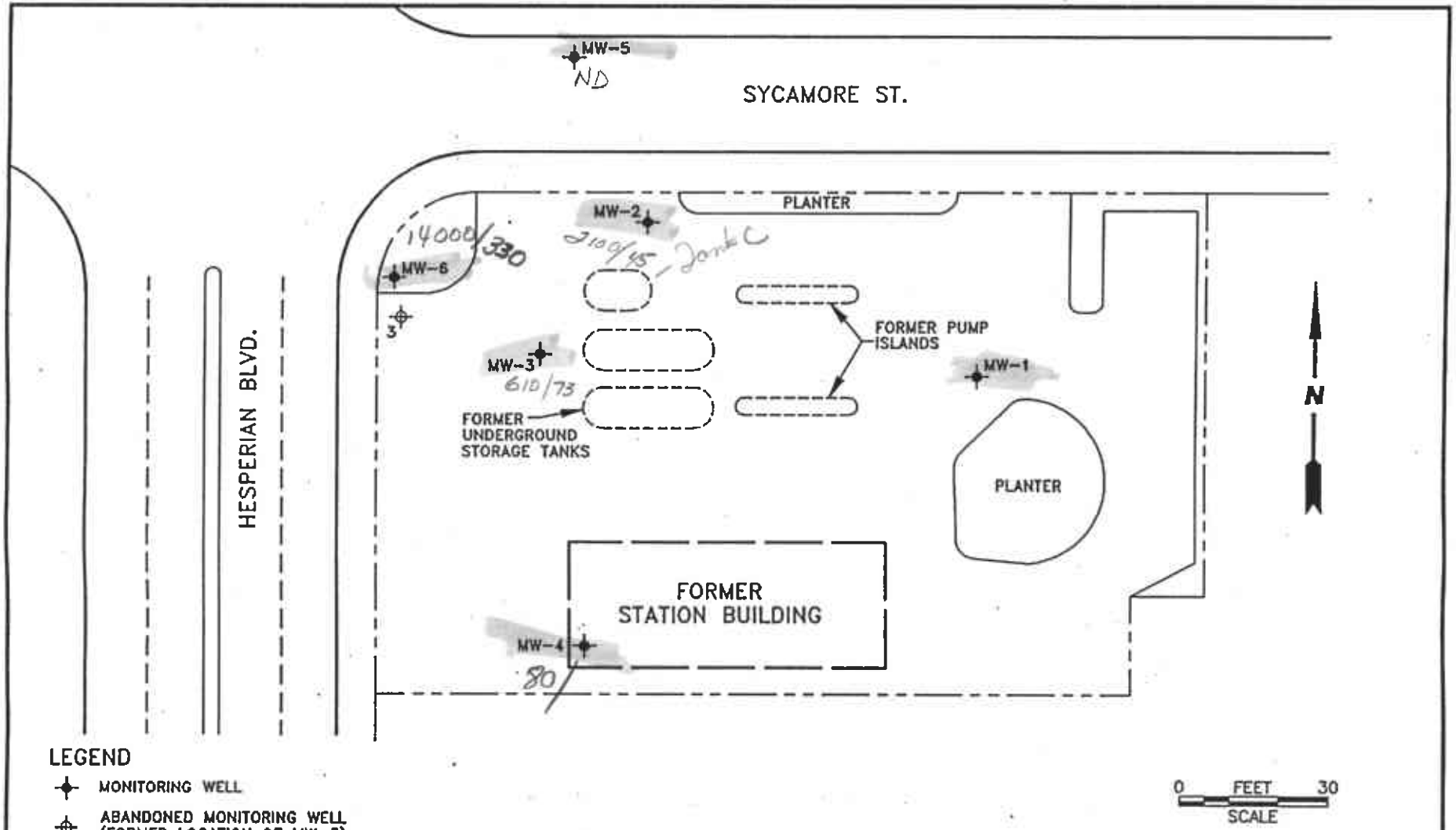
October 16, 1991 / 911016-C-1



VISIT R (COVER EXCAVATION)

November 5, 1991 / 911105-C-1



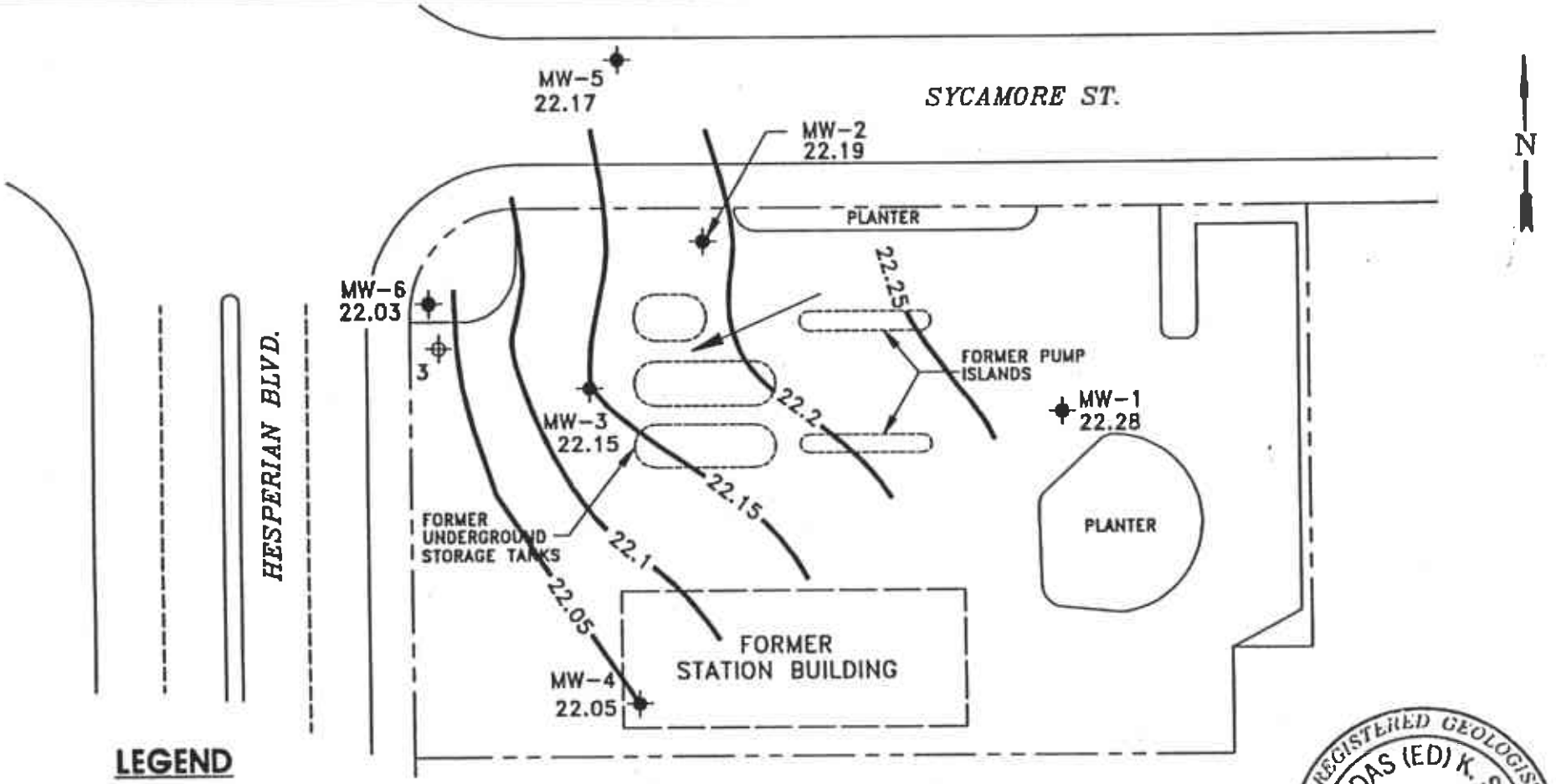


GROUNDWATER TECHNOLOGY
4057 PORT CHICAGO HWY
CONCORD, CA 94520
(510) 671-2387

SITE PLAN

CLIENT:	LOCATION:	REV. NO.:	DATE:
CHEVRON U.S.A. PRODUCTS CO. SERVICE STATION No. 9-2384	15526 HESPERIAN BLVD. SAN LORENZO, CALIFORNIA	1	9/8/93

PM	PE/RG	DESIGNED	DETAILED	ACAD FILE:	PROJECT NO.:	FIGURE:
JAW	DRK	TW	ML	SP993	020204376	2



LEGEND

- PROPERTY LINE
- MONITORING WELL
- ABANDONED MONITORING WELL (FORMER LOCATION OF MW-3)
- X.XX POTENTIOMETRIC SURFACE ELEVATION (FT)
- POTENTIOMETRIC SURFACE CONTOUR
- GROUNDWATER FLOW DIRECTION

NOTE:

1. CONTOURS REPRESENT APPROXIMATE ELEVATIONS ABOVE MEAN SEA LEVEL.

REGISTERED GEOLOGIST
EDVARDAS (ED) K. SIMONIS
No. 4422
STATE OF CALIFORNIA

GROUNDWATER TECHNOLOGY

0 FEET 30
SCALE

CLIENT: CHEVRON U.S.A. PRODUCTS CO.
SERVICE STATION NO. 9-2384

LOCATION: 15526 HESPERIAN BLVD.
SAN LORENZO, CALIFORNIA

POTENTIOMETRIC SURFACE MAP (9/1/94)

FILE:	PROJECT NO.:	DES.:	DET.:	DATE:	PM:	PE/RG:	FIGURE:
4094PSM, (1:30)	02010-4094	SS	SS	9/6/94	KS	ED	1

REV.:

TABLE OF SAMPLING LOCATIONS AND ANALYTICAL RESULTS (TANK REMOVAL)

NOTE: Analytical results are reported in Parts Per Million or Parts Per Billion

I.D. GIVEN THIS SAMPLE AREA	SAMPLE DEPTH IN FT. BELOW GRADE	SAMPLING LOCATION DICTATED BY	TYPE & METHOD FOR THE SAMPLE OBTAINED	SAMPLE MATRIX	DATE SAMPLED	BTS CHAIN OF CUSTODY I.D.	BTS SAMPLE I.D.	NAME OF DOHS HMTL LABORATORY	LABORATORY SAMPLE I.D.	PPM TPH AS GAS	PPM BEN-ZENE	PPM TOL-UENE	PPM ETHYL BEN-ZENE	PPM XY-LENES	PPM ORGANIC LEAD
AF	12.0	STANDARD	INTRFACE	SOIL	05/30/91	910530-G-1	#5	SEQUOIA	105-4189	450	1.6	5.7	8.0	68	--
Aop	12.0	STANDARD	INTRFACE	SOIL	05/30/91	910530-G-1	#6	SEQUOIA	105-4190	220	0.50	2.3	1.8	21	--
BF	12.0	STANDARD	INTRFACE	SOIL	05/30/91	910530-G-1	#1	SEQUOIA	105-4202	920	4.2	8.7	6.9	75	0.22
Bop	12.0	STANDARD	INTRFACE	SOIL	05/30/91	910530-G-1	#4	SEQUOIA	105-4203	730	3.5	12	13	97	ND
CF	12.0	STANDARD	INTRFACE	SOIL	05/30/91	910530-G-1	#2	SEQUOIA	105-4187	2800	21	110	69	400	--
Cop	12.0	STANDARD	INTRFACE	SOIL	05/30/91	910530-G-1	#3	SEQUOIA	105-4188	2000	9.3	22	46	270	--
STOCK	6-12"	RWQCB/ALA	DISCRETE	SOIL	05/30/91	910530-G-1	#13	SEQUOIA	105-4197	29	ND	0.0060	0.023	0.30	--
	6-12"	RWQCB/ALA	DISCRETE	SOIL	05/30/91	910530-G-1	#14	SEQUOIA	105-4198	67	ND	0.11	0.17	2.8	--
	6-12"	RWQCB/ALA	DISCRETE	SOIL	05/30/91	910530-G-1	#15	SEQUOIA	105-4199	ND	ND	ND	ND	ND	--
	6-12"	RWQCB/ALA	DISCRETE	SOIL	05/30/91	910530-G-1	#16	SEQUOIA	105-4200	32	ND	0.18	0.32	4.1	--
	6-12"	RWQCB/ALA	DISCRETE	SOIL	05/30/91	910530-G-1	#17	SEQUOIA	105-4201	ND	ND	ND	ND	0.024	--
	12"	RWQCB/ALA	DISCRETE	SOIL	06/06/91	910606-N-1	#1	SEQUOIA	PLACED ON HOLD						
	12"	RWQCB/ALA	DISCRETE	SOIL	06/06/91	910606-N-1	#2	SEQUOIA	PLACED ON HOLD						
PRODUCT LINES AND DISPENSER PUMPS															
PL	4.0	LIA	INTRFACE	SOIL	05/30/91	910530-G-1	#7	SEQUOIA	105-4191	ND	0.0060	ND	0.0060	0.017	--
	3.5	LIA	INTRFACE	SOIL	05/30/91	910530-G-1	#8	SEQUOIA	105-4192	ND	ND	ND	ND	ND	--
DP	3.5	LIA	INTRFACE	SOIL	05/30/91	910530-G-1	#9	SEQUOIA	105-4193	ND	ND	ND	ND	ND	--
	3.5	LIA	INTRFACE	SOIL	05/30/91	910530-G-1	#10	SEQUOIA	105-4194	2800	ND	150	55	420	--
	3.5	LIA	INTRFACE	SOIL	05/30/91	910530-G-1	#11	SEQUOIA	105-4195	ND	ND	ND	ND	ND	--
	3.5	LIA	INTRFACE	SOIL	05/30/91	910530-G-1	#12	SEQUOIA	105-4196	ND	ND	ND	ND	ND	--

Standard = The location conformed to established (professional or regulatory) definitions for the type of sample being collected. Example: a standard RWQCB interface sample.

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Elective = Elective samples are not taken to comply with regulatory requirements, but to obtain information. Sampling locations may be chosen by the property owner, the contractor, a consultant, etc. The samples may or may not be analyzed.

TABLE OF SAMPLING LOCATIONS AND ANALYTICAL RESULTS (OVEREXCAVATION)

NOTE: Analytical results are reported in Parts Per Million or Parts Per Billion

I.D. GIVEN THIS SAMPLE AREA	SAMPLE DEPTH IN FT. BELOW GRADE	SAMPLING LOCATION DICTATED BY	TYPE & METHOD FOR THE SAMPLE OBTAINED	SAMPLE MATRIX	DATE SAMPLED	BTS CHAIN OF CUSTODY I.D.	BTS SAMPLE I.D.	NAME OF DOHS HMTL LABORATORY	LABORATORY SAMPLE I.D.	PPM TPH AS GAS	PPM BENZENE	PPM TOLUENE	PPM ETHYL BENZENE	PPM XYLENES
TANK PIT SAMPLES														
VISIT C														
#1	8-10.0	ELECTIVE	EXPLOR	SOIL	08/05/91	910805-G-1	#1	SUPERIOR	83641-1	8.0 *	0.54	0.012	0.029	0.016
#2	--	ELECTIVE	CAPILLAR	SOIL	08/05/91	910805-G-1	#2	SUPERIOR	83641-2	150	0.65	0.31	2.5	0.71
#3	--	ELECTIVE	CAPILLAR	SOIL	08/05/91	910805-G-1	#3	SUPERIOR	83641-3	2.0	ND	ND	0.006	0.008
#4	--	ELECTIVE	CAPILLAR	SOIL	08/05/91	910805-G-1	#4	SUPERIOR	83641-4	390	1.0	0.47	5.7	1.7
VISIT F														
#1	12.0	ELECTIVE	CONFIRM	SOIL	08/09/91	910809-G-1	#1	SUPERIOR	83682-1	1400	15	70	31	170
#2	5.0	ELECTIVE	CONFIRM	SOIL	08/09/91	910809-G-1	#2	SUPERIOR	83682-2	ND	ND	ND	ND	ND
#3	12.0	ELECTIVE	CONFIRM	SOIL	08/09/91	910809-G-1	#3	SUPERIOR	83682-3	47	0.071	0.12	0.84	2.7
#4	5.0	ELECTIVE	CONFIRM	SOIL	08/09/91	910809-G-1	#4	SUPERIOR	83682-4	ND	ND	ND	ND	ND
#5	11.0	ELECTIVE	CONFIRM	SOIL	08/09/91	910809-G-1	#5	SUPERIOR	83682-5	1.0 **	0.19	ND	ND	0.020
#6	4.0	ELECTIVE	CONFIRM	SOIL	08/09/91	910809-G-1	#6	SUPERIOR	83682-6	ND	ND	ND	ND	ND
VISIT P														
#1	10.0	ELECTIVE	CONFIRM	SOIL	10/16/91	911016-C-1	#1	SUPERIOR	84137-1	180	0.97	1.3	3.8	6.6
#2	14.0	ELECTIVE	CAPILLAR	SOIL	10/16/91	911016-C-1	#2	SUPERIOR	84137-2	32	0.86	0.092	1.0	2.0
#3	9.5	ELECTIVE	CONFIRM	SOIL	10/16/91	911016-C-1	#3	SUPERIOR	84137-3	2	0.40	0.015	0.034	0.057
VISIT R														
#1	11.0	ELECTIVE	CONFIRM	SOIL	11/05/91	911105-C-1	#1	SUPERIOR	84299-1	ND	ND	ND	ND	ND
#2	11.0	ELECTIVE	CONFIRM	SOIL	11/05/91	911105-C-1	#2	SUPERIOR	84299-2	ND	ND	ND	ND	ND
#3	11.0	ELECTIVE	CONFIRM	SOIL	11/05/91	911105-C-1	#3	SUPERIOR	84299-3	ND	ND	ND	ND	ND
STOCKPILE SAMPLES														
VISIT E														
#1A-D	6-12"	STANDARD	BAAQMD-M	SOIL	08/07/91	910807-G-1	#1A-D	SUPERIOR	83659-1	290	0.34	1.9	2.9	22
#2A-D	6-12"	STANDARD	BAAQMD-M	SOIL	08/07/91	910807-G-1	#2A-D	SUPERIOR	83659-2	240	0.074	0.41	1.8	13
#3A-D	6-12"	STANDARD	BAAQMD-M	SOIL	08/07/91	910807-G-1	#3A-D	SUPERIOR	83659-3	160	0.18	0.38	1.7	9.2
#4A-D	6-12"	STANDARD	BAAQMD-M	SOIL	08/07/91	910807-G-1	#4A-D	SUPERIOR	83659-4	610	ND	1.4	4.6	45
#5A-D	6-12"	STANDARD	BAAQMD-M	SOIL	08/07/91	910807-G-1	#5A-D	SUPERIOR	83659-5	200	ND	0.32	1.3	11
#6A-D	6-12"	STANDARD	BAAQMD-M	SOIL	08/07/91	910807-G-1	#6A-D	SUPERIOR	83659-6	43	0.006	0.13	0.32	2.1
#7A-D	6-12"	STANDARD	BAAQMD-M	SOIL	08/07/91	910807-G-1	#7A-D	SUPERIOR	83659-7	110	0.033	0.29	0.81	6.2
#8A-D	6-12"	STANDARD	BAAQMD-M	SOIL	08/07/91	910807-G-1	#8A-D	SUPERIOR	83659-8	250	0.27	1.4	3.2	18
#9A-D	6-12"	STANDARD	BAAQMD-M	SOIL	08/07/91	910807-G-1	#9A-D	SUPERIOR	83659-9	100	ND	0.50	0.93	6.2
#10A-D	6-12"	STANDARD	BAAQMD-M	SOIL	08/07/91	910807-G-1	#10A-D	SUPERIOR	83659-10	620	1.9	14	11	72
#11A-D	6-12"	STANDARD	BAAQMD-M	SOIL	08/07/91	910807-G-1	#11A-D	SUPERIOR	83659-11	57	ND	0.058	0.15	1.4
#12A-D	6-12"	STANDARD	BAAQMD-M	SOIL	08/07/91	910807-G-1	#12A-D	SUPERIOR	83659-12	610	1.5	12	11	67
#13A-D	6-12"	STANDARD	BAAQMD-M	SOIL	08/07/91	910807-G-1	#13A-D	SUPERIOR	83659-13	1300	2.4	53	28	190

* Does not match typical gasoline pattern, in heavier hydrocarbon range.
** Does not match typical gasoline pattern.

Standard - The location conformed to established (professional or regulatory) definitions for the type of sample being collected. Example: a standard RWQCB interface sample.

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STOCKPILE SAMPLES continued														
VISIT L														
#1A-D	6-12"	ELECTIVE	BAAQMD-M	SOIL	09/11/91	910911-C-1	#1A-D	SUPERIOR	83929-1	ND	ND	ND	ND	0.008
VISIT P														
#1A-D	6-12"	STANDARD	BAAQMD-M	SOIL	10/16/91	911016-C-1	#1A-D	SUPERIOR	84152-1	ND	0.007	ND	0.012	0.063
#2A-D	6-12"	STANDARD	BAAQMD-M	SOIL	10/16/91	911016-C-1	#2A-D	SUPERIOR	84152-2	5.0	0.009	0.014	0.080	0.31
VISIT Q														
#1	6-12"	RWQCB	DISCRETE	SOIL	11/01/91	911101-C-1	#1	SUPERIOR	12524-1	ND	ND	ND	ND	ND
#2	6-12"	RWQCB	DISCRETE	SOIL	11/01/91	911101-C-1	#2	SUPERIOR	12524-2	ND	ND	ND	ND	ND
#3	6-12"	RWQCB	DISCRETE	SOIL	11/01/91	911101-C-1	#3	SUPERIOR	12524-3	ND	ND	ND	ND	ND
#4	6-12"	RWQCB	DISCRETE	SOIL	11/01/91	911101-C-1	#4	SUPERIOR	12524-4	ND	ND	ND	ND	ND
#5	6-12"	RWQCB	DISCRETE	SOIL	11/01/91	911101-C-1	#5	SUPERIOR	12524-5	ND	ND	ND	ND	ND
#6	6-12"	RWQCB	DISCRETE	SOIL	11/01/91	911101-C-1	#6	SUPERIOR	12524-6	ND	ND	ND	ND	ND
#7	6-12"	RWQCB	DISCRETE	SOIL	11/01/91	911101-C-1	#7	SUPERIOR	12524-7	ND	ND	ND	ND	ND
#8	6-12"	RWQCB	DISCRETE	SOIL	11/01/91	911101-C-1	#8	SUPERIOR	12524-8	ND	ND	ND	ND	ND
#9	6-12"	RWQCB	DISCRETE	SOIL	11/01/91	911101-C-1	#9	SUPERIOR	12524-9	ND	ND	ND	ND	ND
#10	6-12"	RWQCB	DISCRETE	SOIL	11/01/91	911101-C-1	#10	SUPERIOR	12524-10	ND	ND	ND	ND	ND
#11	6-12"	RWQCB	DISCRETE	SOIL	11/01/91	911101-C-1	#11	SUPERIOR	12524-11	ND	ND	ND	ND	ND
#12	6-12"	RWQCB	DISCRETE	SOIL	11/01/91	911101-C-1	#12	SUPERIOR	12524-12	ND	ND	ND	ND	ND
#13	6-12"	RWQCB	DISCRETE	SOIL	11/01/91	911101-C-1	#13	SUPERIOR	12524-13	ND	ND	ND	ND	ND
#14	6-12"	RWQCB	DISCRETE	SOIL	11/01/91	911101-C-1	#14	SUPERIOR	12524-14	ND	ND	ND	ND	ND
#15	6-12"	RWQCB	DISCRETE	SOIL	11/01/91	911101-C-1	#15	SUPERIOR	12524-15	1.6	ND	ND	0.013	ND
#16	6-12"	RWQCB	DISCRETE	SOIL	11/01/91	911101-C-1	#16	SUPERIOR	12524-16	ND	ND	ND	ND	ND
#17	6-12"	RWQCB	DISCRETE	SOIL	11/01/91	911101-C-1	#17	SUPERIOR	12524-17	ND	ND	ND	ND	ND
#18	6-12"	RWQCB	DISCRETE	SOIL	11/01/91	911101-C-1	#18	SUPERIOR	12524-18	ND	ND	ND	ND	ND
#19	6-12"	RWQCB	DISCRETE	SOIL	11/01/91	911101-C-1	#19	SUPERIOR	12524-19	ND	ND	ND	ND	ND
#20	6-12"	RWQCB	DISCRETE	SOIL	11/01/91	911101-C-1	#20	SUPERIOR	12524-20	220	0.044	ND	0.047	0.44
#21	6-12"	RWQCB	DISCRETE	SOIL	11/01/91	911101-C-1	#21	SUPERIOR	12524-21	ND	ND	ND	ND	ND
#22	6-12"	RWQCB	DISCRETE	SOIL	11/01/91	911101-C-1	#22	SUPERIOR	12524-22	ND	ND	ND	ND	ND
#23	6-12"	RWQCB	DISCRETE	SOIL	11/01/91	911101-C-1	#23	SUPERIOR	12524-23	ND	ND	ND	ND	ND
#24	6-12"	RWQCB	DISCRETE	SOIL	11/01/91	911101-C-1	#24	SUPERIOR	12524-24	ND	ND	ND	ND	ND
#25	6-12"	RWQCB	DISCRETE	SOIL	11/01/91	911101-C-1	#25	SUPERIOR	12524-25	ND	ND	ND	ND	ND
#26	6-12"	RWQCB	DISCRETE	SOIL	11/01/91	911101-C-1	#26	SUPERIOR	12524-26	ND	ND	ND	ND	ND
#27	6-12"	RWQCB	DISCRETE	SOIL	11/01/91	911101-C-1	#27	SUPERIOR	12524-27	ND	ND	ND	ND	ND
#28	6-12"	RWQCB	DISCRETE	SOIL	11/01/91	911101-C-1	#28	SUPERIOR	12524-28	ND	ND	ND	ND	ND
#29	6-12"	RWQCB	DISCRETE	SOIL	11/01/91	911101-C-1	#29	SUPERIOR	12524-29	ND	ND	ND	ND	ND
#30	6-12"	RWQCB	DISCRETE	SOIL	11/01/91	911101-C-1	#30	SUPERIOR	12524-30-PLACED ON HOLD					
#31	6-12"	RWQCB	DISCRETE	SOIL	11/01/91	911101-C-1	#31	SUPERIOR	12524-31-PLACED ON HOLD					
#32	6-12"	RWQCB	DISCRETE	SOIL	11/01/91	911101-C-1	#32	SUPERIOR	12524-32-PLACED ON HOLD					

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STOCKPILE SAMPLES continued														
VISIT R														
#4A-D	6-12"	STANDARD	BAAQMD-M	SOIL	11/05/91	911105-C-1	#4A-D	SUPERIOR	84299-4	ND	ND	ND	ND	ND
#5A-D	6-12"	STANDARD	BAAQMD-M	SOIL	11/05/91	911105-C-1	#5A-D	SUPERIOR	84299-5	ND	ND	ND	ND	0.006
VISIT S														
#1	6-12"	RWQCB	DISCRETE	SOIL	11/20/91	911120-C-1	#1	SUPERIOR	84430-1	ND	ND	ND	ND	ND
#2	6-12"	RWQCB	DISCRETE	SOIL	11/20/91	911120-C-1	#2	SUPERIOR	84430-2	ND	ND	ND	ND	0.005
#3	6-12"	RWQCB	DISCRETE	SOIL	11/20/91	911120-C-1	#3	SUPERIOR	84430-3	ND	ND	ND	ND	ND
#4	6-12"	RWQCB	DISCRETE	SOIL	11/20/91	911120-C-1	#4	SUPERIOR	84430-4	ND	ND	ND	ND	ND
#5	6-12"	RWQCB	DISCRETE	SOIL	11/20/91	911120-C-1	#5	SUPERIOR	84430-5	ND	ND	ND	ND	ND
#6	6-12"	RWQCB	DISCRETE	SOIL	11/20/91	911120-C-1	#6	SUPERIOR	84430-6	ND	ND	ND	ND	ND
#7	6-12"	RWQCB	DISCRETE	SOIL	11/20/91	911120-C-1	#7	SUPERIOR	84430-7	ND	ND	ND	ND	ND
#8	6-12"	RWQCB	DISCRETE	SOIL	11/20/91	911120-C-1	#8	SUPERIOR	84430-8	ND	ND	ND	ND	ND
#9	6-12"	RWQCB	DISCRETE	SOIL	11/20/91	911120-C-1	#9	SUPERIOR	84430-9	ND	ND	ND	ND	ND
#10	6-12"	RWQCB	DISCRETE	SOIL	11/20/91	911120-C-1	#10	SUPERIOR	84430-10	ND	ND	ND	ND	ND

Standard - The location conformed to established (professional or regulatory) definitions for the type of sample being collected. Example: a standard RWQCB interface sample.

LIA - The local implementing agency inspector chose a sampling location that was different from a standard (pre-defined) location.

Elective - Elective samples are not taken to comply with regulatory requirements, but to obtain information. Sampling locations may be chosen by the property owner, the contractor, a consultant, etc. The samples may or may not be analyzed.

TABLE 2
ANALYTICAL RESULTS FOR SOIL SAMPLES
COLLECTED ON MAY 14, 1992
(Concentration in parts per million)

BORING	SAMPLE ID	SAMPLE DEPTH	BENZENE	TOLUENE	ETHYL-BENZENE	XYLENES	TPH-AS-GASOLINE	TOTAL ORGANIC LEAD
MW-1	MW1B	5.5	<0.005	0.018	<0.005	<0.005	<1	<2
MW-2	MW2A	5.5	<0.005	0.13	<0.005	<0.005	<1	NA
MW-2	MW2B	10.5	0.012	0.008	0.006	<0.005	<1	NA
MW-3	MW3C	14	0.34	1.1	6.2	4.7	400	NA
MW-3*	MW3B	10.5	<0.005	<0.005	<0.005	<0.005	<1	<2

$\overline{\text{TPH}}$ = Total petroleum hydrocarbons
* = Soil sample collected from replacement boring drilled on May 20, 1992.
NA = Not analyzed

TABLE 1
GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA
COLLECTED ON JUNE 4, 1992
(Concentrations in parts per billion)

SAMPLE ID/ ELEV.	BENZENE	TOLUENE	ETHYL-BENZENE	XYLENES	TPH-AS-GASOLINE	DTW (ft)	SPT (ft)	GWE (ft)
MW-1/35.64	<0.5	<0.5	<0.5	<0.5	<50	13.12	0.00	22.52
MW-2/35.85	910	17	210	30	6,700	13.48	0.00	22.37
MW-3/35.42	12	0.8	5.8	14	460	13.12	0.00	22.30
Trip Blank	<0.5	<0.5	<0.5	<0.5	<50	---	---	---

$\overline{\text{TPH}}$ = Total petroleum hydrocarbons
DTW = Depth to groundwater
SPT = Separate-phase hydrocarbon thickness
GWE = Groundwater elevation in feet above mean sea level
--- = Not applicable,not analyzed, not measured

TABLE 1
ANALYTICAL RESULTS OF SOIL SAMPLES
COLLECTED ON JUNE 23, 1993
(Concentrations in parts per billion)

Date	Sample ID	Sample Depth (ft)	Benzene	Toluene	Ethyl-benzene	Xylenes	TPH-G
06/23/93	MW-4	4	<0.005	<0.005	<0.005	<0.015	<1
		9	<0.005	<0.005	<0.005	<0.015	<1
	MW-5	4	<0.005	<0.005	<0.005	<0.015	<1
		9	<0.005	<0.005	<0.005	<0.015	<1
	MW-6	4	<0.005	<0.005	<0.005	<0.015	<1
		9	<0.005	<0.005	<0.005	<0.015	<1

TPH-G = Total petroleum hydrocarbons-as-gasoline

TABLE 1
HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA
Chevron Service Station No. 9-2384
15526 Hesperian Boulevard, San Lorenzo, California

Well ID/ Elevation	Date	TPH-as-Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes	DTW (ft)	SPT (ft)	GWE (ft)
MW-1	06/04/92	<50	<0.5	<0.5	<0.5	<0.5	13.12	0.00	22.52
	07/30/92	---	---	---	---	---	13.82	0.00	21.82
35.64	08/25/92	---	---	---	---	---	14.20	0.00	21.44
	09/23/92	<50	<0.5	<0.5	<0.5	<0.5	14.59	0.00	21.05
	12/29/92	<50	<0.5	<0.5	<0.5	<0.5	14.28	0.00	21.36
	03/19/93	<50	<0.5	<0.5	<0.5	<1.5	10.90	0.00	24.74
35.65	07/02/93	<50	<0.5	<0.5	<0.5	<1.5	11.41	0.00	24.24
	09/22/93	<50	0.9	0.9	<0.5	<1.5	12.77	0.00	22.88
	10/01/93	---	---	---	---	---	12.93	0.00	22.72
	03/10/94	<50	<0.5	<0.5	<0.5	<0.5	12.13	0.00	23.52
	04/12/94	---	---	---	---	---	12.31	0.00	23.34
	06/17/94	<50	<0.5	<0.5	<0.5	<0.5	12.51	0.00	23.14
	09/01/94	<50	<0.5	<0.5	<0.5	<0.5	13.37	0.00	22.28
MW-2	06/04/92	6,700	910	17	210	30	13.48	0.00	22.73
	07/30/92	---	---	---	---	---	14.17	0.00	21.68
35.85	08/25/92	---	---	---	---	---	14.56	0.00	21.29
	09/23/92	1,500	110	1.2	81	<0.5	14.95	0.00	20.90
	12/29/92	1,200	51	1.1	27	<0.5	14.61	0.00	21.24
	03/19/93	750	37	1.0	34	1.6	11.24	0.00	24.61
35.86	07/02/93	2,100	45	1.4	87	4.8	11.76	0.00	24.10
	09/22/93	880	23	2.8	38	<1.5	13.12	0.00	22.74
	10/01/93	---	---	---	---	---	13.30	0.00	22.56
	03/10/94	230	6.9	1.9	12	0.6	12.43	0.00	23.43
	04/12/94	---	---	---	---	---	12.62	0.00	23.24
	06/17/94	330	1.6	<0.5	3.9	2.5	12.84	0.00	23.02
	09/01/94	400	3.0	2.0	6.4	<0.5	13.67	0.00	22.19

TABLE 1
HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA
Chevron Service Station No. 9-2384
15526 Hesperian Boulevard, San Lorenzo, California

Well ID/ Elevation	Date	TPH-as-Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes	DTW (ft)	SPT (ft)	GWE (ft)
MW-3	06/04/92	460	12	0.8	5.8	14	13.12	0.00	22.30
	07/30/92	---	---	---	---	---	13.81	0.00	21.61
35.42	08/25/92	---	---	---	---	---	14.20	0.00	21.22
	09/23/92	1,100	62	1.5	110	4.0	14.58	0.00	20.84
	12/29/92	450	21	0.7	12	3.0	14.22	0.00	21.20
	03/19/93	1,200	67	1.3	96	5.5	10.87	0.00	24.55
35.43	07/02/93	610	73	0.5	42	<1.5	11.37	0.00	24.06
	09/22/93	400	<0.5	0.6	2.7	<1.5	12.71	0.00	22.72
	10/04/93	---	---	---	---	---	12.88	0.00	22.55
	03/10/94	65	1.6	1.3	1.3	1.1	12.08	0.00	23.35
	04/12/94	---	---	---	---	---	12.25	0.00	23.18
	06/17/94	160	9.2	<0.5	2.9	2.7	12.53	0.00	22.90
	09/01/94	190	3.2	1.1	3.1	6.5	13.28	0.00	22.15
MW-4	07/02/93	80	<0.5	0.6	<0.5	<1.5	11.77	0.00	23.96
	09/22/93	---	---	---	---	---	---	---	---
35.73	10/01/93	<50	<0.5	<0.5	<0.5	<0.5	13.12	0.00	22.61
	03/10/94	---	---	---	---	---	---	---	---
	04/12/94	<50	<0.5	<0.5	<0.5	<0.5	12.62	0.00	23.11
	06/17/94	<50	<0.5	<0.5	<0.5	<0.5	12.83	0.00	22.90
	09/01/94	<50	<0.5	<0.5	<0.5	<0.5	13.68	0.00	22.05
**MW-5	07/02/93	<50	<0.5	<0.5	<0.5	<1.5	11.42	0.00	24.08
	09/22/93	---	---	---	---	---	---	---	---
35.50	10/01/93	---	---	---	---	---	---	---	---
	03/10/94	---	---	---	---	---	---	---	---
	04/12/94	<50	<0.5	<0.5	<0.5	<0.5	12.25	0.00	23.25
	06/17/94	<50	<0.5	<0.5	<0.5	<0.5	12.48	0.00	23.02
	09/01/94	<50	<0.5	<0.5	<0.5	<0.5	13.33	0.00	22.17

TABLE 1
HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA
Chevron Service Station No. 9-2384
15526 Hesperian Boulevard, San Lorenzo, California

Well ID/ Elevation	Date	TPH-as-Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes	DTW (ft)	SPT (ft)	GWE (ft)
MW-6	07/02/93	14,000	330	28	980	580	12.07	0.00	23.94
	09/22/93	---	---	---	---	---	---	---	---
36.01	10/01/93	<50	<0.5	<0.5	<0.5	<0.5	12.71	0.00	23.30
	03/10/94	---	---	---	---	---	---	---	---
	04/12/94	3400	32	<0.5	0.7	67	12.90	0.00	23.11
	06/17/94	2,200	16	<0.5	30	17	13.21	0.00	22.80
	09/01/94	4,100	62	3.9	93	53	13.98	0.00	22.03
TBLB	06/04/92	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	09/23/92	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	12/29/92	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	03/19/93	<50	<0.5	<0.5	<0.5	<1.5	---	---	---
	07/02/93	<50	<0.5	<0.5	<0.5	<1.5	---	---	---
	09/22/93	<50	<0.5	<0.5	<0.5	<1.5	---	---	---
	10/01/93	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	03/10/94	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	04/12/94	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	06/17/94	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	09/01/94	<50	<0.5	<0.5	<0.5	<0.5	---	---	---

All elevations are given as feet above mean sea level.
Concentrations shown in parts per billion.

TPH = Total petroleum hydrocarbons
DTW = Depth to water
SPT = Separate-phase hydrocarbon thickness
GWE = Groundwater elevation in feet above mean sea level
--- = Not applicable, not sampled, not measured
** = Well Paved Over

APPENDIX C

BORING LOGS

Drilling Log

GROUNDWATER TECHNOLOGY

Monitoring Well MW-1

Project CHEVRON HESPERIAN Owner CHEVRON U.S.A. INC.
Location 15526 Hesperian Blvd. Project No. 020202746 Date drilled 05/14/92
Surface Elev. _____ Total Hole Depth 25.0 ft. Diameter 8 inches
Top of Casing 35.64 ft. Water Level Initial 14.0 ft. Static 13.2 ft.
Screen: Dia 2 in. Length 15 ft. Type/Size 0.020 in.
Casing: Dia 2 in. Length 10.0 ft. Type Sched. 40 PVC
Filter Pack Material Lapis Lustre No. 2/12 Rig/Core Type Mobile B-53/split spoon
Drilling Company Kvilhaug Drilling Method Hollow stem auger Permit # _____
Driller Mike Crocker Log By Steve Kranvak
Checked By David R. Kleesattel License No. 5136 David Kleesattel

See Site Map For Boring Location

COMMENTS:

Depth (ft.)	Well Completion	PID (ppm)	Sample ID / Blow Count / % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
-2 to 0						Fill material
2 to 4					CL	Brown silty CLAY (soft, moist, no hydrocarbon odor)
4 to 6		0	A 3 4 5			
6 to 8					SM	Brown silty fine SAND (loose, moist, no hydrocarbon odor)
8 to 10						
10 to 12		0	B 5 5 6			Brown silty CLAY (soft, moist, no hydrocarbon odor)
12 to 14					CL	Water level on 06/04/92
14 to 16		0	C 3 5 7			*Encountered water at 14.0 feet below grade on 5/14/92.*
16 to 18						
18 to 20					SM	Brown silty fine SAND (loose, wet, no hydrocarbon odor)
20 to 22		0	D 5 6 7			
22 to 24					CL	Brown silty CLAY (soft, very moist, no hydrocarbon odor)
24 to 26		0	E			End of boring at 25.0 below grade. Installed monitoring well.

Drilling Log

GROUNDWATER TECHNOLOGY

Monitoring Well MW-2

Project CHEVRON 15526 HESPERIAN Owner CHEVRON U.S.A. INC.
Location 15526 HESPERIAN BLVD. Project No. 020202746 Date drilled 05/14/92
Surface Elev. _____ Total Hole Depth 25.0 ft. Diameter 8 inches ft.
Top of Casing 35.85 ft. Water Level Initial 14.0 ft. Static 13.48 ft.
Screen: Dia 2 in. Length 15 ft. Type/Size 0.020 in.
Casing: Dia 2 in. Length 10 ft. Type Sched. 40 PVC
Filter Pack Material Lapis Lustre No. 2/12 Rig/Core Type Mobile B-53/split spoon
Drilling Company Kvilhaug Drilling Method Hollow stem auger Permit # _____
Driller Mike Crocker Log By Steve Kranyak
Checked By David R. Kleesattel License No. 5136 David Kleesattel

See Site Map For Boring Location

COMMENTS:

Depth (ft.)	Well Completion	PID (ppm)	Sample ID / Blow Count / % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
-2						
0						Fill material
2						
4					ML	Brown clayey SILT with some fine sand (soft, moist, no hydrocarbon odor)
6		0	A 4 4 5			
8						
10						
12		7.4	B 3 3 3		CL	Dark gray silty CLAY (soft, moist, hydrocarbon odor) (gray and brown mottling)
14		4.1	C 3 6 8			Water elevation on 06/04/92 *Encountered water at 14.0 feet below grade on 5/14/92.*
16						
18						
20		0	D 7 11 15		ML	Brown clayey SILT with some fine sand (stiff, wet, no hydrocarbon odor)
22						Dark brown silty CLAY (stiff, wet, no hydrocarbon odor)
24		0	E 15 12 17		CL	End of boring at 25.0 below grade. Installed monitoring well.
26						

Drilling Log

GROUNDWATER TECHNOLOGY

Monitoring Well MW-3

Project CHEVRON 15526 HESPERIAN Owner CHEVRON U.S.A. INC.
Location 15526 HESPERIAN BLVD. Project No. 020202746 Date drilled 05/20/92
Surface Elev. ____ Total Hole Depth 25.0 ft. Diameter 8 inches
Top of Casing 35.42 ft. Water Level Initial 13.0 ft. Static ____
Screen: Dia 2 in. Length 15 ft. Type/Size 0.020 in.
Casing: Dia 2 in. Length 10 ft. Type Sched. 40 PVC
Filter Pack Material Lapis Lustre No. 2/12 Rig/Core Type Mobile B-53/split spoon
Drilling Company Kvilhaug Drilling Method Hollow stem auger Permit # ____
Driller Mike Crocker Log By Steve Kranyak
Checked By David R. Kleesattel License No. 5136

See Site Map For Boring Location

COMMENTS:

Depth (ft.)	Well Completion	PID (ppm)	Sample ID / Blow Count / % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
-2						
0						Fill material
2						
4					CL	Dark brown silty CLAY with some gravel (stiff, moist, no hydrocarbon odor, fill)
6		1.4	A 10 15 23			(increased gravel content)
8					GC	Sandy GRAVEL with silt and clay (medium dense, moist, no hydrocarbon odor, fill)
10			B 10 20 13			
12		3.6				*Encountered water at 13.0 feet below grade on 5/20/92.*
14			C 15 25 28		GW	
16						Gravel and crushed rock (fill)
18					SM	Gray silty fine SAND (loose, wet, no hydrocarbon odor)
20			D 6 8 9			
22		0			CL	Brown silty CLAY (medium stiff, wet, no hydrocarbon odor)
24		0	E 7 8 11			End of boring at 25.0 below grade. Installed monitoring well.
26						

Drilling Log

MW3

GROUNDWATER TECHNOLOGY

Project Chevron Hesperian Owner

Location Project Number

Date Drilled 5/14/92 Total Depth of Hole Diameter

Top of Casing Water Level Initial Static

Screen: Dia Length Slot Size

Casing: Dia Length Type

Filter Pack Material Rig/Core Type

Drilling Company Dril/Mon. Method

Driller Log By

Geologist/Engineer License No

See Site Map For Boring Location

NOTES:

Depth (feet)	Well Completion	Sample ID		Graphic Log	Soil Class	Description (Color, Texture, Structure)
0						
2						
4						
6		D	A	4 4 5		Dark brn silty clay (moist, soft, N/o)
8						
10			B	4 6 5		Dark grey silty clay (moist, soft, slight odor)
12		4.5				
14		11.9	C	3 5 9		Dark grey brn silty clay (very moist, soft, odor)
16						greyish silty fine sand (wet, loose, N/o)
18						
20		D	D	3 7 5		Brn silty clay w/ some fine sand (wet, soft, N/o)
22						
24		D	E	5 6 6		
26						

Abandoned

Drilling Log

GROUNDWATER TECHNOLOGY

Monitoring Well **MW4**

Project CHV/15526 Hesparian Blvd. Owner Chevron U.S.A., Inc.
Location San Lorenzo, CA Project No. 020204376 Date drilled 6-23-93
Surface Elev. 36.3 ft. Total Hole Depth 25 ft. Diameter 8 in.
Top of Casing 35.73 ft. Water Level Initial 11 ft. Static (06/28/93) 11.69 ft.
Screen: Dia 2 in. Length 20 ft. Type/Size 0.020 in.
Casing: Dia 2 in. Length 5 ft. Type PVC sch 40
Filter Pack Material #3 sand Rig/Core Type CME-75/Mod. Split Spoon
Drilling Company SES, Inc. Method Hollow Stem Auger Permit # 93323
Driller Morris Peterson Log By Doug Ford/Chip Hurley
Checked By David Kleesattel License No. RG# 5136

See Site Map For Boring Location

COMMENTS:

The well was set at approximately 25 feet below grade. The decon water was stored in 55-gallon drums. The soil was placed on and covered with plastic. The decon water and soil were left on site until they could be properly analyzed for disposal.

Depth to water was approximately 11 feet below grade on 6-23-93.

Depth (ft.)	Well Completion	PID (ppm)	Sample ID / Blow Count / % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
-2						
0					SM	Unpaved grade Silty SAND, gray-brown, about 30% fine sand, about 30% silt, about 20% medium sand, (loose, slightly moist, no hydrocarbon odor)
2						
4		0.3	5 — 5 6 5		SP	SAND, brown, about 90% fine sand, about 10% silt, (subangular, medium dense, moist, no hydrocarbon odor)
6						
8						
10		0.7	10 — 1 2 3			Silty SAND, gray-brown, about 60% fine sand, about 20% silt, about 20% clay, (loose, wet, no hydrocarbon odor)
12						
14		1.4	15 — 2 3 4		SM	
16						
18						
20		0.5	20 — 3 4 6			
22						
24		0.5	25 — 4 6 8		SM	Silty SAND, mottled orange-brown, about 60% fine sand, about 20% silt, about 20% clay, (stiff, saturated, no hydrocarbon odor) End of boring at 25 feet below grade.
26						
28						
30						

Drilling Log

GROUNDWATER TECHNOLOGY

Monitoring Well **MW5**

Project CHV/15526 Hesparian Blvd. Owner Chevron U.S.A., Inc.
Location San Lorenzo, CA Project No. 020204376 Date drilled 6-23-93
Surface Elev. 35.68 ft. Total Hole Depth 25 ft. Diameter 8 in.
Top of Casing 35.50 ft. Water Level Initial 10 ft. Static (06/28/93) 11.34 ft.
Screen: Dia 2 in. Length 20 ft. Type/Size 0.020 in.
Casing: Dia 2 in. Length 5 ft. Type PVC sch 40
Filter Pack Material #3 sand Rig/Core Type CME-75/Mod. Split Spoon
Drilling Company SES, Inc. Method Hollow Stem Auger Permit # 93323
Driller Morris Peterson Log By Doug Ford/Chip Hurley
Checked By David Kleesattel License No. RG# 5136 Dan Kleesattel

See Site Map For Boring Location

COMMENTS:

The well was set at approximately 25 feet below grade. The decon water was stored in 55-gallon drums. The soil was placed on and covered with plastic. The decon water and soil were left on site until they could be properly analyzed for disposal.

Depth to water was approximately 10 feet below grade on 6-23-93.

Depth (ft.)	Well Completion	PID (ppm)	Sample ID / Blow Count / % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
-2						
0						8" of Asphalt
2						Road Base
4		0.5	5 — 1 3 4		SP	SAND, brown, about 90% fine sand, about 10% silt, (loose, moist, no hydrocarbon odor)
6						
8						Silty SAND, dark brown, about 75% fine sand, about 20% silt, about 5% clay, (very loose, wet, no hydrocarbon odor)
10		0.3	10 — 1 1 2		SM ▽	
12						
14						
16		1	15 — 1 1 3		CL	Sandy CLAY, dark gray, about 50% clay, about 30% fine sand, about 20% silt, (very soft, plastic, wet, no hydrocarbon odor)
18					SC	Clayey SAND, gray-brown, about 60% fine sand, about 30% clay, about 10% silt, (very loose, plastic, wet, no hydrocarbon odor)
20		0.8	20 — 1 1 3		SM	Silty SAND (Same as above)
22					SC	Clayey SAND (Same as above)
24		0.8	25 — 4 4 5			End of boring at 25 feet below grade.
26						
28						
30						

Drilling Log

GROUNDWATER TECHNOLOGY

Monitoring Well MW6

Project CHV/15526 Hesparian Blvd. Owner Chevron U.S.A., Inc.
Location San Lorenzo, CA Project No. 020204376 Date drilled 6-23-93
Surface Elev. 36.4 ft. Total Hole Depth 25 ft. Diameter 8 in.
Top of Casing 36.01 ft. Water Level Initial 12 ft. Static (06/28/93) 11.83 ft.
Screen: Dia 2 in. Length 20 ft. Type/Size 0.020 in.
Casing: Dia 2 in. Length 5 ft. Type PVC sch 40
Filter Pack Material #3 sand Rig/Core Type CME-75/Mod. Split Spoon
Drilling Company SES, Inc. Method Hollow Stem Auger Permit # 93323
Driller Morris Peterson Log By Doug Ford/Chip Hurley
Checked By David Kleesattel License No. RG# 5136 David Kleesattel

See Site Map For Boring Location

COMMENTS:

The well was set at approximately 25 feet below grade. The decon water was stored in 55-gallon drums. The soil was placed on and covered with plastic. The decon water and soil were left on site until they could be properly analyzed for disposal.

Depth to water was approximately 12 feet below grade on 6-23-93.

Depth (ft.)	Well Completion	PID (ppm)	Sample ID / Blow Count / % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
-2						
0					SM	Silty SAND, brown, about 40% fine sand, about 20% silt, about 20% fine to coarse gravel, about 20% medium to coarse sand, (loose, slightly moist, no hydrocarbon odor)
2						
4		1	5 — 2 2 2		SP	Silty SAND, brown, about 40% fine sand, about 20% silt, about 20% fine to coarse gravel, about 20% medium to coarse sand, (loose, slightly moist, poorly graded, no hydrocarbon odor)
6						
8						Silty SAND, dark gray-brown, about 50% fine sand, about 30% silt, about 15% clay, about 5% medium to coarse sand, (loose, wet, slight hydrocarbon odor)
10		1	10 — 1 2 2			
12					SM	
14		312	15 — 1 2 2			(saturated, strong hydrocarbon odor)
16						
18						
20		33	20 — 3 3 4		SC	Clayey SAND, dark gray/brown, about 60% fine sand, about 30% clay, about 10% silt, (loose, wet, slight hydrocarbon odor)
					SM	Silty SAND, gray, about 80% fine sand, about 20% silt, (saturated, slight hydrocarbon odor)
22					SC	Clayey SAND, yellow-gray, about 60% fine sand, about 30% clay, about 10% silt, (medium dense, wet, no hydrocarbon odor)
24		6	25 — 3 5 8			End of boring at 25 feet below grade.
26						
28						
30						

APPENDIX D

CONTINGENCY PLAN

APPENDIX D

CONTINGENCY PLAN

This Contingency Plan will ensure that the hydrocarbon plume is monitored and provides adequate warning if compliance with the cleanup goals is not maintained for the site. Hydrocarbon analyses will be performed to ensure that cleanup goals are not exceeded at the downgradient boundary and compliance with cleanup goals is maintained. Well MW-6 will be designated a "Guard Well", and will monitor concentrations within the western boundary of the plume. Relocated wells MW-2 and MW-3 will serve as "boundary wells" and will be used to confirm that the plume is not migrating.

→ Is this a boundary?

which are

If ground water monitoring indicates that certain trigger concentrations occur, this Contingency Plan will be implemented. These trigger concentrations and Contingency Plan responses are summarized in Table D-1. A "baseline" benzene concentration was determined for well MW-6 based on data collected over the last year. A "trigger" concentration was determined to represent a significant concentration increase that may indicate non-compliance with the cleanup goal. Since wells MW-2 and MW-3 will be relocated no baseline or trigger conditions can be set at this time. MW-2 will be relocated slightly to the north of it's current position, and MW-3 will be located downgradient of the site at, or near, the downgradient plume boundary. Baseline and trigger concentrations will be established for these wells after two quarters of monitoring.

How will this be determined?

When a trigger concentration occurs in two consecutive monitoring events, or when concentrations are increasing at a rate such that the trigger concentration might be met or exceeded before the next sampling event, the Contingency Plan will be implemented.

When triggered, this Contingency Plan calls for three responses:

1) The ACDEH will be notified;
2) Ground water monitoring will be performed in all of the site wells the next quarter; and
3) Resume quarterly monitoring of all site wells until an appropriate course of action is determined.

Table D-1. Contingency Plan, Chevron Service Station #9-2384, 15526 Hesperian Boulevard, San Lorenzo, California. All conditions are for benzene unless otherwise noted.

	Monitoring Well	Baseline Concentration (benzene)	Trigger Concentration (benzene)	Response to Trigger Concentration[1]
Boundary Wells	MW-2	To be determined[2]	To be determined[2]	1. Notify ACDEH
	MW-3	To be determined[2]	To be determined[2]	2. Sample all site wells in the next quarter
	MW-5			3. Resume quarterly monitoring of all wells until an appropriate course of action is determined.
Guard Well	MW-6	35 ppb	100 ppb ?	

Notes:

1 Response is implemented when the trigger concentration is met or exceeded for two consecutive sampling events.
2 Baseline and trigger concentrations for MW-2 and MW-3 will be established after the wells are re-located.