Heilshorn Environmental Engineering

ENVIRONMENTAL SUMMARY AND WELL CLOSURE REQUEST REPORT

for

Beck Roofing Company
21123 Meekland Avenue
Hayward, California

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Submitted To:
Mr. and Mrs. C. Beck
Beck Roofing Company
21123 Meekland Avenue
Hayward, California 94541

Prepared by:
Heilshorn Environmental Engineering
P.O. Box 20546
El Sobrante, CA 94820-0546

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1.0 INTRODUCTION

This report summarizes the environmental investigation work to date in support of a well closure request for four groundwater monitoring wells at Beck Roofing Company (Beck Roofing). The Beck Roofing location is 21123 Meekland Avenue, Hayward, Alameda County, California. Figure 1 is the site location map. This report describes past environmental activities and summarizes the soil and groundwater analytical results.

2.0 SITE BACKGROUND

Beck Roofing is a commercial roofing business. The property at 21123 Meekland Avenue includes equipment and materials storage, shop and office facilities. Site specific information was obtained from the owners, Mr. Charles and Mrs. Mary Beck, or from the existing environmental reports and documents listed in Section 12.0 References.

The Beck Roofing yard formerly contained a 1000 gallon metal underground gasoline tank. This tank was used to refuel roofing trucks. Beck Roofing had the tank tightness tested by R.L. Stevens. R. L. Stevens reported that the tank was tight at the time of the test, January 1990. The tank was removed during May 1991. Several stages of environmental investigation, remediation and monitoring followed, from 1991 until the present. Figure 2 shows the facility layout and location of four groundwater monitoring wells installed during the environmental investigations.

3.0 SITE DESCRIPTION AND GEOLOGY

Beck Roofing is located on the south site of Meekland Avenue (21123 Meekland Avenue). The site is in an unincorporated section of Alameda County, south of San Leandro and north of Hayward's city limits. Area land use is mixed residential, commercial and industrial. The yard contains an office building, warehouse and workshops. Beck Roofing also stores trucks and other equipment within the yard.

L&W Environmental Services (L&W) January 1992 report briefly describes area geology and hydrogeology as follows. The site elevation is approximately 55 feet above sea level, in a geologic province of San Francisco Bay. Site geology is affected by the Bay to the west and the Berkeley Hills to the east. The site is underlain by alluvial and bay sediments with basement rock at depth. "Groundwater in this region is located at relatively shallow depths, in granular aquifers laid down by alluvial action on the nearby Berkeley Hills. Groundwater is often contained in granular deposits layered and confined by various fine grained deposits at depths of about 20 feet below ground surface." (L&W, 1992)

Boring logs for several soil borings provide information regarding surficial geology at the site. The site is typical of regions close to San Francisco Bay with interfingered layers of fine grained and coarse grained materials. Appendix A includes boring logs for the four monitoring wells drilled at Beck Roofing. Figures 3 and 4 are geologic cross sections of the facility based on soil borings drilled during 1991 and 1994. Section 7.3 of this report further describes site lithology.

4.0 UNDERGROUND TANK HISTORY

Beck Roofing installed an underground 1000 gallon steel tank during the 1970's following the gasoline crisis. The tank stored gasoline for refueling company roofing trucks and serviced a single dispensing pump.

The tank was installed with a concrete slab cap over the backfill material. The original tank pit was probably filled with pea gravel available on-site. The tank was located in the driving area of the Beck Roofing yard, next to a previously existing shed. Beck Roofing personnel periodically cover the yard with additional gravel as part of ongoing yard maintenance activities.Gasoline usage was variable depending on number of active jobs and distance to job sites. Beck Roofing provided a rough estimated usage rate of 300 to 400 gallons per month.

Beck Roofing contracted with R.L. Stevens to have the tank tightness tested. The test was performed on January 11, 1990. R.L. Stevens followed the Precision Test Criteria as established by N.F.P.A. Publication 329. The test results stated that the tank tested tight at the time of the test. Appendix B is a copy of the precision test results.

5.0 SITE ENVIRONMENTAL HISTORY— SOILS

Various firms performed subsurface investigations and tank removal between 1991 and 1994. This section summarizes the soil related activities, data and findings.

Beck Roofing contracted with Blaine Tech Services (Blaine) via R.L. Stevens to remove the underground gasoline tank. Blaine removed the tank on May 20, 1991. Field observations reported by Blaine included "two small holes in the bottom of the tank at each end."

Soil samples were collected from soils beneath the tank and soils excavated during tank removal. An estimated 14 cubic yards of soil were excavated and stockpiled during tank removal. Soil sample analyses for soils beneath the tank contained 1,300 and 1,800 ppm of gasoline range petroleum hydrocarbons (TPHg). Stockpiled (excavated) soils contained 11 ppm TPHg. Organic lead and benzene, toluene, ethylbenzene and xylene analytical results for the stockpiled soils were at nondetectable levels.

An August 5, 1991 letter from the Alameda County Department of Environmental Health (DEH) required Beck Roofing to perform soil and groundwater investigations at the former underground tank site. Pursuant to the August 5, 1991, DEH letter, L&W Environmental Services (L&W) drilled and sampled five soil borings during October 1991. Three of these borings were converted to monitoring wells, MW-1, MW-2 and MW-3 on Figure 2. L&W excavated soils to remove contamination from the former tank location, based on the soil boring results. The December 1991 excavation had the approximate dimensions 10' x 13' x 17' deep. Excavated soils were stockpiled on-site for aeration.

L&W excavated additional soils during December 1991. Eight soil samples were collected and analyzed. Six of these eight soil samples contained TPHg at or above the state action level of 1000 ppm. The L&W January 7, 1992 report data shows detectable levels of contaminated soils only at depths greater than 15 feet below ground surface (bgs). Appendix C includes Figures 14, 15, 16 and 17 from the L&W 1992 report. These figures show the extent of TPHg contamination at 15, 20, 25 and 30 foot depths. TPHg above 100 ppm was detected at the 20-foot depth in the area immediately surrounding the excavation only. TPHg levels at greater distances and variable depths were less than 100 ppm. L&W backfilled the excavation with 189 cubic yards of a proprietary fill material resembling concrete.

Anderson Consulting Group (Anderson) drilled four additional soil borings during July 1994. Anderson converted one boring (SB-18) to an additional monitoring well, MW-4; other borings were backfilled. One boring (SB-21) was drilled in the location of the former underground tank. The other three borings were located westerly from the previous borings and wells.

The four soil borings drilled by Anderson were sampled and analyzed for TPHg and benzene, toluene, ethylbenzene and xylene (BTEX). Soil samples from 25.5 to 35.5 foot depths, and grab water samples were analyzed from borings SB-18, SB-19 and SB-20. Soil and water sample results for these three borings were consistently below detection limits (ND). SB-21 samples were analyzed from 28.5 to 29.5 foot depths. These samples each contained TPHg above 100 ppm and detectable levels of BTEX. Constituent concentrations increased with depth over this one foot distance. The highest ppm values measured were: 550, 13, 64, 25, and 120 for TPHg and BTEX respectively. The TPHg levels are above 100 ppm, but are below the 1000 ppm TPHg guideline level often used as a remediation level. Exploratory soil borings were not drilled after July 1994. Appendix D is a copy of the boring and well map from the Anderson Consulting Group report dated September 9, 1994. This figure shows the location of the borings and wells installed to date.

Stockpiled soil from each excavation stage was stored on-site and occasionally turned by Beck Roofing personnel between 1992 and 1997. The estimated total volume of stockpiled soil was approximately 750 cubic yards. Soil contamination generally was not detected at depths less than 15 feet bgs, as stated above. Therefore, much of the excavated soil may be clean overburden from above the contaminated soil layer. The soils were sampled, analyzed and subsequently removed from the site in the fall of 1997. Section 6 below describes the fall 1997 sampling procedures and results.

6.0 FALL 1997 STOCKPILED SOIL SAMPLING

Stockpiled soils were sampled to determine the presence or absence of residual hydrocarbons. The stockpiled soils were excavated during 1991 and 1992. They have been turned occasionally since then. The excavated soils were stored in two stockpiles: One smaller stockpile in the southeast corner of the yard, near the driveway, and a larger stockpile along the southern fence line. Heilshorn Environmental Engineering (HE2) sampled stockpiled soils on September 11, 1997.

6.1 SAMPLING PROCEDURES

Soils were hand sampled using a grid method to determine sample locations. Figure 5 is a sketch showing stockpile locations and approximate soil sample locations. One sample was collected from the smaller stockpile. The larger stockpile was divided into quarter lengths and a sample was collected from each quarter. Adjacent quarters were composited in the lab, resulting in three samples analyzed for TPHg, BTEX and total lead.

The sampling procedure followed standard protocol to the extent possible. HE2 personnel dug a hole into the soil stockpile approximately 1.5 to 2 feet deep. The proposed sample collection method involved pounding a 2 inch diameter, 3 inch long steel ring into the soil at the bottom of the hole, removing the ring and capping the ends. However, the soils samples were dry and coarse grained. They were not retained in the steel ring but, slid out of the ring as it was removed from the soil pile.

The sampling procedure was modified to accommodate field conditions. Soil at the bottom of the hole was dug out, using a clean trowel, and placed into a clean brass ring already capped at one end. Capping consisted of aluminum foil beneath a plastic end cap. The ring was filled and soil tapped into the ring to minimize air gaps. The open end of the ring was capped upon filling.

The samples were sealed, labeled and delivered to the laboratory the same day as collection. The filled rings were sealed with duct tape, labeled, placed into plastic bags and placed into a cooler with ice. Sample labels included; the sampler's name, sampling date, sample identification, project identification, and the analyses requested. The samples were delivered to McCampbell Analytical, Inc., a state certified laboratory (DHS certification number 1644) in Pacheco, California.

6.2 1997 FIELD OBSERVATIONS

The stockpiled soil consisted primarily of silty sand. Soils were dry and contained pebbles, chunks of concrete-like material (possibly the L&W backfill material) and pieces of plastic film. The soil piles had been worked during the previous month per Beck Roofing personnel. The soil pile surface was uneven with visible tire tracks. Some areas had not been disturbed recently, based on observed sparse weed growth.

1994? prepd in 1997

THIS IS SAME Stock Pile BUT AFTER EXCAVATION FOR 3 YRS

6.3 1997 SOIL ANALYTICAL RESULTS

Soil stockpile samples were analyzed for TPHg, BTEX, and total lead. Appendix E includes the analytical reports and chain of custody forms for the September 1997 soil samples. The samples from the large stockpile were composited into two samples for analysis. Composite samples can be used since stockpile mixing no longer permits correlation of stockpile location with excavation location or depth.

The analytical results for the samples indicate that the soils sampled were below detectable levels for TPHg and BTEX. Total lead was measured at concentrations between 12 and 16 ppm. These values are less than ten times the Soluble Threshold Limit Value (STLC) of 5 mg/l, listed in the California Code of Regulations, Title 22 Section 66261.24. Laboratory experience has shown, and many disposal facilities accept, that samples with total lead values less than ten times the STLC will usually pass the STLC test. Therefore, it is assumed that the stockpile soluble lead value is less than the STLC. Table 1 presents the 1997 and 1991 stockpiled soil analytical results. The 1991 results were presented in the Blaine Tech Services, Inc. report dated June 4, 1991.

6.4 SUMMARY OF STOCKPILED SOIL FINDINGS AND ACTIVITIES

The analytical data for the stockpiled soil samples indicate very low or no detectable organic constituents associated with gasoline releases. 1991 data show TPHg at 11 ppm, nondetectable BTEX, and no detectable organic lead in the 1991 sample. Organic lead is the chemical form of lead associated with gasoline (tetraethyl lead). 1997 data showed nondetectable levels of TPHg, BTEX and very low total lead levels (12 - 16 ppm). The total lead concentration is presumed below the STLC (5 mg/L, approximately 5 ppm), which is often the disposal limit allowed by commercial disposal facilities.

Beck Roofing was informed that the soil may be reused or disposed, based on the data generated during the September sampling event. HE2 recommended that Beck roofing should inform soil recipients that the soil originated from a leaking underground fuel tank clean up. The samples represent concentrations at the sample locations only. The reported sample results represent likely constituent concentrations throughout the stockpile. However, there may be pockets of soils with measurable concentrations of TPHg or BTEX that were not sampled during the sampling events. The stockpiled soils were removed from the site during October 1997 and used for fill material.

7.0 SITE ENVIRONMENTAL HISTORY — GROUNDWATER

Four groundwater monitoring wells were installed to determine groundwater quality and the extent of groundwater contamination. These wells have been sampled regularly since installation in 1991 and 1994. The data indicate the presence of TPHg and BTEX compounds at low ppm, low ppb, or nondetectable levels in each well.

7.1 WELL INSTALLATION INFORMATION

The four monitoring wells were installed by L&W Environmental Services during October 1991 (MW-1, MW-2 and MW-3), and Anderson Consultants during August 1994 (MW-4). L&W drilled MW-2 and MW-3 to 38 feet. MW-1 was drilled to 45.5 feet then grouted to 39 feet before installing the well screen. Groundwater was first encountered at 33 feet in MW-2 and MW-3 and at 30.5 feet in MW-1 (L&W, 1992). Anderson Consulting boring logs reported saturated soil at approximately 28 feet in MW-4. The depths listed are presumed feet below ground surface (bgs). Figure 2 shows the four monitoring well locations and Appendix A contains the four well boring logs.

7.2 GROUNDWATER ANALYTICAL DATA

Analytical data are available for monitoring wells MW-1, MW-2, and MW-3 from 1991 and monitoring well MW-4 from 1994. The initial well sampling for MW-1, MW-2 and MW-3 (11/4/91) resulted in nondetectable (ND) levels of TPHg, BTEX, and lead in samples from each well. The results were reported in parts per million (ppm) (L&W, 1/7/92). Analytical results of the initial sampling for MW 4, August 4, 1994, constituents were ND except toluene at 0.5 parts per billion (ppb). MW-1, MW-2 samples collected during the August 4, 1994, sampling event showed ND levels of TPHg and BTEX. MW-3 August 1994 results indicated TPHg and BTEX concentrations of: 4.2 ppm, and 450, ND, 180 and 160 ppb, respectively.

Tables 2-1 through 2-4 summarize the groundwater analytical data for MW-1 through MW-4, respectively. Figures 6 through 9 show the trends in TPHg and BTEX levels over time based on the data in the tables. These data show that groundwater analyses for the four wells resulted in TPHg concentrations at 4.4 ppm or below. Benzene levels were generally 10 ppb or lower. Only MW-3 sample results showed benzene levels at or above the Toxic Characteristic Leaching Procedure (TCLP) level of 500 ppb. These peaks were measured during 1992, 1993 and 1995. April 1996 to February 1997 benzene levels ranged from 1.2 ppb to 36 ppb. The results for toluene, ethylbenzene and total xylenes were consistently below the regulatory limit for drinking water established by the U.S. Environmental Protection Agency (EPA), the Maximum Contaminant Level (MCL). Toluene, ethylbenzene and total xylenes have MCLs of 150, 700 and 1750 micrograms per liter (µg/L) respectively. Micrograms/liter approximate parts per billion.

7.3 SITE LITHOLOGY

Site lithology, as indicated by the boring logs and the geologic cross sections in Figures 3 and 4, shows interbedded silty clay, clay, sand and silty sand. Interbedded fine and coarse grained sediments are typical of east bay areas close to San Francisco Bay. Figure 3 is an east-west cross section roughly through MW-2 in the east to B-2, MW-3 and MW-4 in the west. The data from the included borings suggests that the sediments are coarser grained (sand and silty sand) from about 15 to 20 feet below ground surface (bgs) in the eastern portion of the site. Fine grained sediments (silty clay, clay) predominate the same depths near MW-4. Figure 4 is a north-south

cross section intersecting Figure 3 at MW-4. This cross section shows primarily silty and clayey material with a sand layer of variable thickness. The sand layer ranges from approximately 15 feet thick, beginning at 17 feet bgs in SB-20 (north), to approximately three feet thick, beginning at 15 feet bgs in SB-19 (south).

7.4 AQUIFER CHARACTERISTICS

Aquifer characteristics reflect the groundwater flow direction, gradient, levels and well productivity. The groundwater flows roughly west across this site. Thus, MW-2 is the site up-gradient well. MW-1 is lateral to the former underground tank location. MW-3 and MW-4 are down gradient wells. The groundwater gradient varies from approximately 0.001 to 0.005 feet per foot. Water levels in the wells rose following well installation per the Anderson and Lush Geosciences quarterly monitoring reports. This suggests that the groundwater may be partially confined. The September 1997 water levels prior to purging, were 26.3 to 26.8 feet below ground surface (bgs). Groundwater elevations from 8/94 to the present show groundwater elevations ranging from a high of 21.2 feet bgs in MW-4 (2/5/97) to a low of 30.1 feet bgs in MW-1 and MW-4 (10/25/94). The September 1997 values represent typical values for groundwater levels in the Beck Roofing monitoring wells. Well pump tests were not performed on these wells to determine production rates. However, well purge pumps operating at an estimated 0.5 to 0.75 gallons per minute, did not empty the wells during the fall 1997 monitoring event.

8.0 FALL 1997 GROUNDWATER SAMPLE COLLECTION AND FIELD OBSERVATIONS

The wells were sampled on September 11, 1997. HE2 measured water levels, purged the wells, and collected groundwater samples. Water pH, specific conductivity, and temperature were measured during well purging. Table 3 presents the well sampling field data including: pH, specific conductivity, temperature, depth to groundwater, and volume purged. No free product or sheen were noted in the purged well water. A slight odor was detected from MW-3 only.

8.1 GROUNDWATER SAMPLING PROCEDURES

The wells were purged, then sampled using dedicated polyethylene bailers. Three casing volumes of groundwater were removed from each well prior to sampling. The wells were allowed to recover to at least 80% of the initial water level reading prior to sampling. Groundwater samples were bailed and poured into 40 ml volatile organic analysis (VOA) vials with Teflon septa. The vials were sealed so that no air bubbles were trapped in the vials (zero headspace). Bailed water not collected as a sample was placed in labeled, new, steel drums within the yard. This water will be sampled for TPHg and BTEX. The water in the drums will be disposed as hazardous waste if the analytical values exceed TCLP limits.

Samples were labeled, stored on ice and delivered to the laboratory the same day as collection. Samples were labeled with the project name, sample location, date, sampler's name, and analyses requested. After collection and labeling, the samples were sealed in plastic bags and placed in a cooler with ice. The groundwater samples were analyzed for Total Petroleum Hydrocarbons-gasoline (TPHg), methyl tertbutyl ether (MtBE, a fuel additive) benzene, toluene, ethylbenzene, and total xylenes (BTEX) by EPA Method 8015-modified. Samples were accompanied by a chain of custody form and delivered to a state certified laboratory (McCampbell Analytical, Pacheco) for analysis.

8.2 FALL 1997 GROUNDWATER ANALYTICAL RESULTS

Groundwater samples were analyzed for TPHg, MtBE, and BTEX as stated above. Appendix F includes the analytical reports and chain of custody forms for the September groundwater samples.

The analytical results for the September groundwater data indicate low levels of gasoline related hydrocarbons (TPHg, BTEX) in MW-3 only. MW-1, MW-2 and MW-4 did not contain detectable levels of these compounds. None of the four wells contained detectable levels of MtBE. MW-3 groundwater contained TPHg at 2.7 parts per million (ppm), non detectable MtBE, benzene, toluene, xylenes and ethylbenzene at 160, 0.65, 93, and 26 ppb respectively. Tables 2-1 to 2-4 include the September 1997 groundwater analytical results. The levels detected in MW-3 are below the remediation level of 100 ppm for TPHg, and below the MCLs for toluene, ethylbenzene and xylenes. The benzene level is below the TCLP level of 500 ppb.

9.0 SUMMARY

The analytical data for this site indicate the historical presence of constituents normally associated with a gasoline release to groundwater. Current data indicate that residual petroleum hydrocarbons and BTEX are not longer detectable or detectable at very low levels in the monitoring wells. The toluene, ethylbenzene and total xylene levels are below MCL limits in each of the four wells. Benzene concentrations are above the drinking water standard, maximum contaminant limits (MCL) in MW-3 only, at approximately 25% of the TCLP level. Nondetectable levels of organic constituents in MW-4 suggest that the contaminants are not migrating this far from the former tank location. Constituent migration from MW-3 toward MW-4 may be impeded by fine grained soils, natural biodegradation, or a combination of both.

The site is located in a mixed industrial/residential area near the city of Hayward. Adjacent areas are supplied drinking quality water by the East Bay Municipal Utilities District (EBMUD) or the City of Hayward water district. Therefore, the shallow aquifer (groundwater zone) affected at Beck Roofing may be not used or may be used only for irrigation in this area. The Becks owns the two residences adjacent to the site driveway. Both are supplied by EBMUD and neither has an on-site well. The residences down gradient of the facility are beyond railroad tracks and right of way, and part of a subdivision connected to the municipal water supply.

10.0 CONCLUSIONS AND REQUEST FOR CLOSURE

Beck Roofing is requesting permission to close and destroy the four monitoring wells at the Beck Roofing yard, 21123 Meekland Avenue, Hayward. This request is based on the data and information presented in this report. The analytical data shows that the only one well still shows measurable levels of contaminants, MW-3. These levels are below the MCLs for toluene ethylbenzene and xylenes and well below The TCLP level for benzene. Although the benzene levels have been above the TCLP in MW-3, the down gradient well, MW-4 has not shown a corresponding increase in benzene concentrations. The maximum benzene level measured in MW-4 was 2.1 ppb in January 1996. The 1997 benzene levels in MW-4 have been 1.3 ppb and nondetectable. Based on these data and the distance form MW-4 down gradient to the property line, it is reasonable to assume that the chances of contamination migrating off-site are very small.

Areas immediately adjacent to Beck Roofing include a railroad right of way and tracks west of the yard (down gradient) and two residences on either side of the yard driveway (up gradient). The railroad right of way provides a buffer between the yard and residences beyond. The two

residences adjacent to the driveway are owned and controlled by the Becks. These two buildings and other area residences are supplied drinking water by the Hayward Water District or the East Bay Municipal Utilities District (EBMUD).

Beck Roofing requests permission to close these wells based on the current low level of contamination and the low chance of remaining contaminants migrating off-site. Appendix G is the well closure form provided by Alameda County Health Agency, Division of Environmental Protection.

11.0 LIMITATIONS

The data, conclusions and recommendations presented in this report were developed in accordance with the generally accepted professional practice. The guidelines, data, conclusions and recommendations developed in, and used for, this report follows California Regional Water Quality Control Board guidelines. The analytical results are based on samples collected as limited locations, at limited times. Therefore, Heilshorn Environmental Engineering cannot have full knowledge of the soil or underlying conditions at the site. Conditions at the site may change with time due to human action or acts of nature. Thus, the findings of this report are subject to change should new information arise.

12.0 REFERENCES

1. R.L. Stevens Co., Data Chart for Tank System Tightness Test, January 11, 1990.

2. Alameda County Health Care Services Agency, Department of Environmental Health, Hazardous Materials Program, Letter to Charlie and Mary Beck, August 5, 1991.

3. Blaine Tech Services, Inc. Tank Removal Sampling Report 910520-C-1, To R. L. Stevens Co., Regarding Beck Roofing, June 4, 1991.

4. L&W Environmental Services, Inc., Progress Report Quarter Ending December 31, 1991, Beck Roofing, January 7,1992.

5. Anderson Consulting Group, Report To Beck Roofing Company, Quarterly Status Report And Supplemental Investigation Results, September 9, 1994.

6. Lush Geosciences, Inc., Quarterly Monitoring Report, Beck Roofing, Hayward, California, March 8, 1997.

TABLES

TABLE 1 SOIL STOCKPILE ANALYTICAL RESULTS —DECEMBER 1991 AND SEPTEMBER 1997

Sample ID	TPHg mg/kg	MtBE mg/kg	Benzene mg/kg	Toluene mg/kg	Ethyl-benzene mg/kg	Total Xylenes mg/kg	Total Lead mg/kg
3A-D, '91	11	NA	ND	ND	ND	ND	ND*
SP 1, '97	ND	ND	ND	ND	ND	ND	16
SP 2,3, '97	ND	ND	ND	ND	ND	ND	14
SP 4,5, '97	ND	ND	ND	ND	ND	ND	12
PRG mg/kg	None	330 R 3400 I	1.4 R 3.2 I	1900 R 2800 I	690 R, I	990 R, I	400 R 1000 I

* Organic lead analysis
mg/kg = milligram of compound per kilogram of matrix (soil in this report). Also reported as parts per million.
NA = Not analyzed
ND = Not detected above the reporting limit for that compound.
PRG = Preliminary Remediation Goals, September 1, 1995. PRGs are risk assessment and remediation guidelines developed by U.S. EPA Region IX toxicologists. PRG values are periodically revised as new methodologies and data develop.
R = Residential Goal I = Industrial Goal

TABLE 2-1 GROUNDWATER ANALYTICAL RESULTS for MW-1

Date	TPHg mg/L	MtBE µg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L
11/4/91	ND	NA	ND	ND	ND	ND
12/23/91	ND	NA	ND	ND	ND	ND
2/24/92	0.09	NA	0.4	1	ND	ND
6/16/92	ND	NA	0.5	ND	ND	ND
9/9/92	ND	NA	ND	ND	ND	ND
7/16/93	ND	NA	ND	ND	ND	ND
8/4/94	ND	NA	ND	ND	ND	ND
10/25/94	ND	NA	ND	ND	ND	ND
1/20/95	ND	NA	ND	ND	ND	ND
4/11/95	ND	NA	ND	ND	ND	ND
7/13/95	WELL	INACCES	SIBLE			
10/10/95	ND	NA	ND	ND	ND	ND
1/11/96	ND	NA	ND	ND	ND	1.2
4/23/96	0.53	NA	ND	0.64	ND	0.82
7/30/96	ND	NA	1.3	2.1	0.64	3.0
11/5/96	0.139	NA	2.2	7.3	2.2	23.1
2/7/97	0.081	NA	2.0	3.9	2.3	9.2
9/19/97	ND	ND	ND	ND	ND	ND
MCL, µg/L	None		1 (TCLP = 500)	150	700	1,750

ND = less than laboratory minimum detection limits, 1994-2/97 limits are <0.05 mg/L - TPHg, and <0.3 µg/L - BTEX (<0.5 for xylene on 8/4/94) for tables 2-1 through 2-4.

NA = Not analyzed

mg/L = milligram of compound per liter of liquid matrix (usually water). Roughly equivalent to parts per million.

µg/L = microgram of compound per liter of liquid matrix (usually water). Roughly equivalent to parts per billion.

MCL = Maximum Contaminant Limit for public drinking water supplies, California Code of Regulations (CCR), Title 22 section 64444.

TCLP = Toxicity Characteristic Limit per CCR Title 22 Section 66261.24. TCLP values are used to determine the level of a constituent which renders a waste hazardous under federal and state laws.

TABLE 2-2 GROUNDWATER ANALYTICAL RESULTS for MW-2

Date	TPHg mg/L	MtBE µg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L
11/4/91	ND	NA	ND	ND	ND	ND
12/23/91	ND	NA	ND	ND	ND	ND
2/24/92	0.33	NA	110	2	ND	0.9
6/16/92	ND	NA	7.7	ND	ND	ND
9/9/92	ND	NA	2.8	ND	ND	ND
7/16/93	ND	NA	2.0	ND	ND	ND
8/4/94	ND	NA	ND	ND	ND	ND
10/25/94	ND	NA	ND	ND	ND	ND
1/20/95	ND	NA	1.0	ND	ND	ND
4/11/95	ND	NA	1.2	ND	ND	ND
7/13/95	ND	NA	ND	ND	ND	ND
10/10/95	ND	NA	0.69	ND	ND	52
1/11/96	ND	NA	ND	ND	ND	0.67
4/23/96	0.039	NA	0.29	0.68	ND	0.66
7/30/96	ND	NA	3.4	5.6	1.7	9.3
11/5/96	0.292	NA	9.3	29.3	5.7	57
2/7/97	0.092	NA	2.8	5.0	3.7	9.4
9/19/97	ND	ND	ND	ND	ND	ND
MCL, µg/L	None		1 (TCLP = 500)	150	700	1,750

ND = less than laboratory minimum detection limits, 1994-2/97 limits are <0.05 mg/L - TPHg, and <0.3 µg/L - BTEX (<0.5 for xylene on 8/4/94) for tables 2-1 through 2-4.

NA = Not analyzed

mg/L = milligram of compound per liter of liquid matrix (usually water). Roughly equivalent to parts per million.

µg/L = microgram of compound per liter of liquid matrix (usually water). Roughly equivalent to parts per billion.

MCL = Maximum Contaminant Limit for public drinking water supplies, California Code of Regulations (CCR), Title 22 section 64444.

TCLP = Toxicity Characteristic Limit per CCR Title 22 Section 66261.24. TCLP values are used to determine the level of a constituent which renders a waste hazardous under federal and state laws.

TABLE 2-3 GROUNDWATER ANALYTICAL RESULTS for MW-3

Date	TPHg mg/L	MtBE µg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L
11/4/91	ND	NA	ND	ND	ND	ND
12/23/91	0.15	NA	60	0.5	0.6	9.7
2/24/92	4.36	NA	710	16	69	400
6/16/92	4.9	NA	770	ND	61	240
9/9/92	7.4	NA	1,200	7.7	95	170
7/16/93	7.9	NA	1,500	11	340	840
8/4/94	4.2	NA	450	ND	180	160
10/25/94	ND	NA	ND	ND	ND	ND
1/20/95	4.4	NA	580	2	130	160
4/11/95	1.8	NA	88	1.4	33	27
7/13/95	3.4	NA	500	ND	130	94
10/10/95	4.2	NA	360	2.4	190	96
1/11/96	ND	NA	ND	ND	ND	ND
4/23/96	0.079	NA	1.2	0.33	0.45	0.48
7/30/96	3.8	NA	240	8.2	14	9.1
11/5/96	3.09	NA	242	36	70	116
2/7/97	0.473	NA	36.3	1	10.7	8.9
9/19/97	2.7	ND	160	0.65	93	26
MCL, µg/L	None		1 (TCLP = 500)	150	700	1,750

ND = less than laboratory minimum detection limits, 1994-2/97 limits are <0.05 mg/L - TPHg, and <0.3 µg/L - BTEX (<0.5 for xylene on 8/4/94) for tables 2-1 through 2-4.

NA = Not analyzed

mg/L = milligram of compound per liter of liquid matrix (usually water). Roughly equivalent to parts per million.

µg/L = microgram of compound per liter of liquid matrix (usually water). Roughly equivalent to parts per billion.

MCL = Maximum Contaminant Limit for public drinking water supplies, California Code of Regulations (CCR), Title 22 section 64444.

TCLP = Toxicity Characteristic Limit per CCR Title 22 Section 66261.24. TCLP values are used to determine the level of a constituent which renders a waste hazardous under federal and state laws.

TABLE 2-4 GROUNDWATER ANALYTICAL RESULTS for MW-4

Date	TPHg mg/L	MtBE µg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L
8/4/94	ND	NA	ND	ND	ND	ND
10/25/94	ND	NA	ND	ND	ND	ND
1/20/95	ND	NA	ND	ND	ND	ND
4/11/95	ND	NA	ND	ND	ND	ND
7/13/95	ND	NA	ND	ND	ND	ND
10/10/95	ND	NA	ND	ND	ND	ND
1/11/96	ND	NA	2.1	4	ND	0.79
4/23/96	0.043	NA	0.42	1.1	0.39	0.79
7/30/96	ND	NA	0.97	1.7	0.67	3
11/5/96	0.0901	NA	1.3	2.7	1.8	7.5
2/7/97	0.072	NA	1.3	2.7	1.8	7.5
9/19/97	ND	ND	ND	ND	ND	ND
MCL, µg/L	None		1 (TCLP = 500)	150	700	1,750

ND = less than laboratory minimum detection limits, 1994-2/97 limits are <0.05 mg/L - TPHg, and <0.3 µg/L - BTEX (<0.5 for xylene on 8/4/94) for tables 2-1 through 2-4.

NA = Not analyzed

mg/L = milligram of compound per liter of liquid matrix (usually water). Roughly equivalent to parts per million.

µg/L = microgram of compound per liter of liquid matrix (usually water). Roughly equivalent to parts per billion.

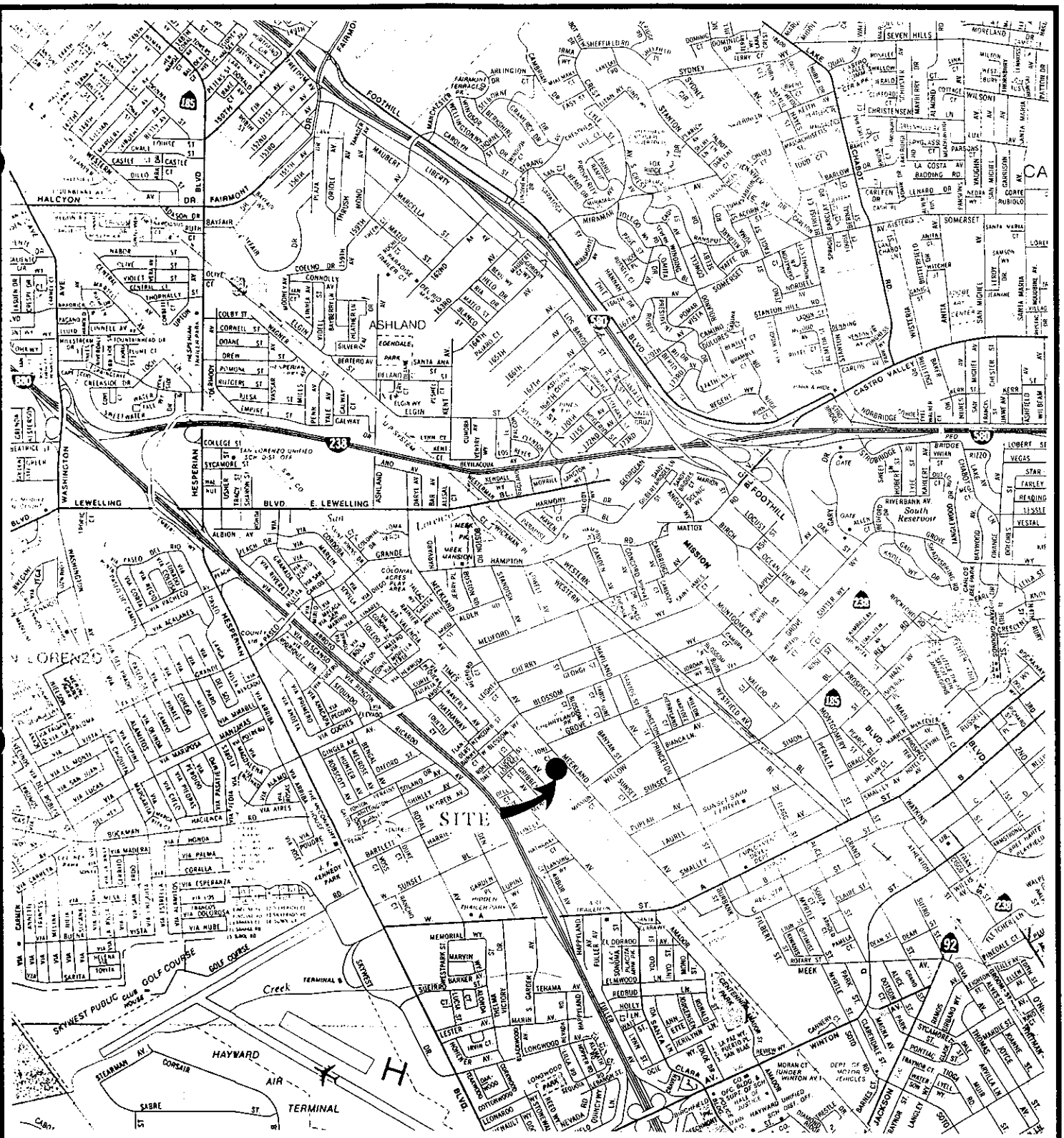
MCL = Maximum Contaminant Limit for public drinking water supplies, California Code of Regulations (CCR), Title 22 section 64444.

TCLP = Toxicity Characteristic Limit per CCR Title 22 Section 66261.24. TCLP values are used to determine the level of a constituent which renders a waste hazardous under federal and state laws.

TABLE 3 SUMMARY OF FALL 1997 FIELD DATA

Well	Well Depth feet, bgs	Initial Depth to Water ft bgs	Volume of Water Purged Gal.	Temperature °F	Conductivity µmhos	pH
MW-1	36.9	26.8	20	69.0	724	6.5
MW-2	37.05	26.5	20	71.5	651	6.7
MW-3	35.1	26.4	20	70.5	721	6.6
MW-4	39.2	26.3	20	72.5	677	6.5

FIGURES



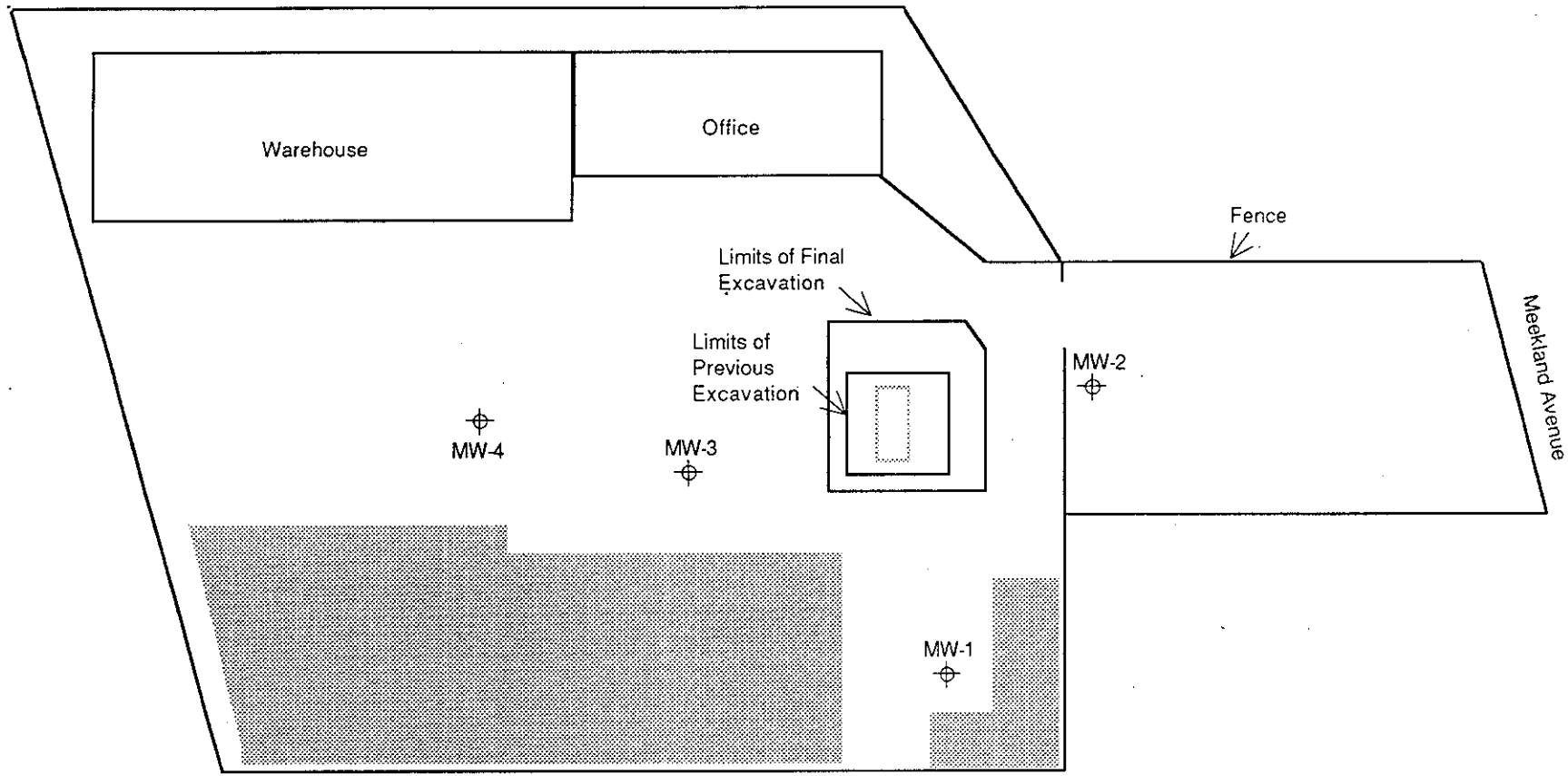
Source: CSAA Map of Hayward, San Leandro, Union City, 3/92

Beck Roofing, Hayward, CA Soil Sampling

FIGURE 1 Site Location

HEILSHORN ENVIRONMENTAL ENGINEERING
P.O. Box 20546, El Sobrante, CA
(510) 222-7968 Fax (510) 222-8573

Rev. 0
Date: 10/6/97



LEGEND

- Former Underground Tank Location
- Monitoring Well
- Former Location and Extent of Soil Stockpile (Approximate 9/97)

NORTH

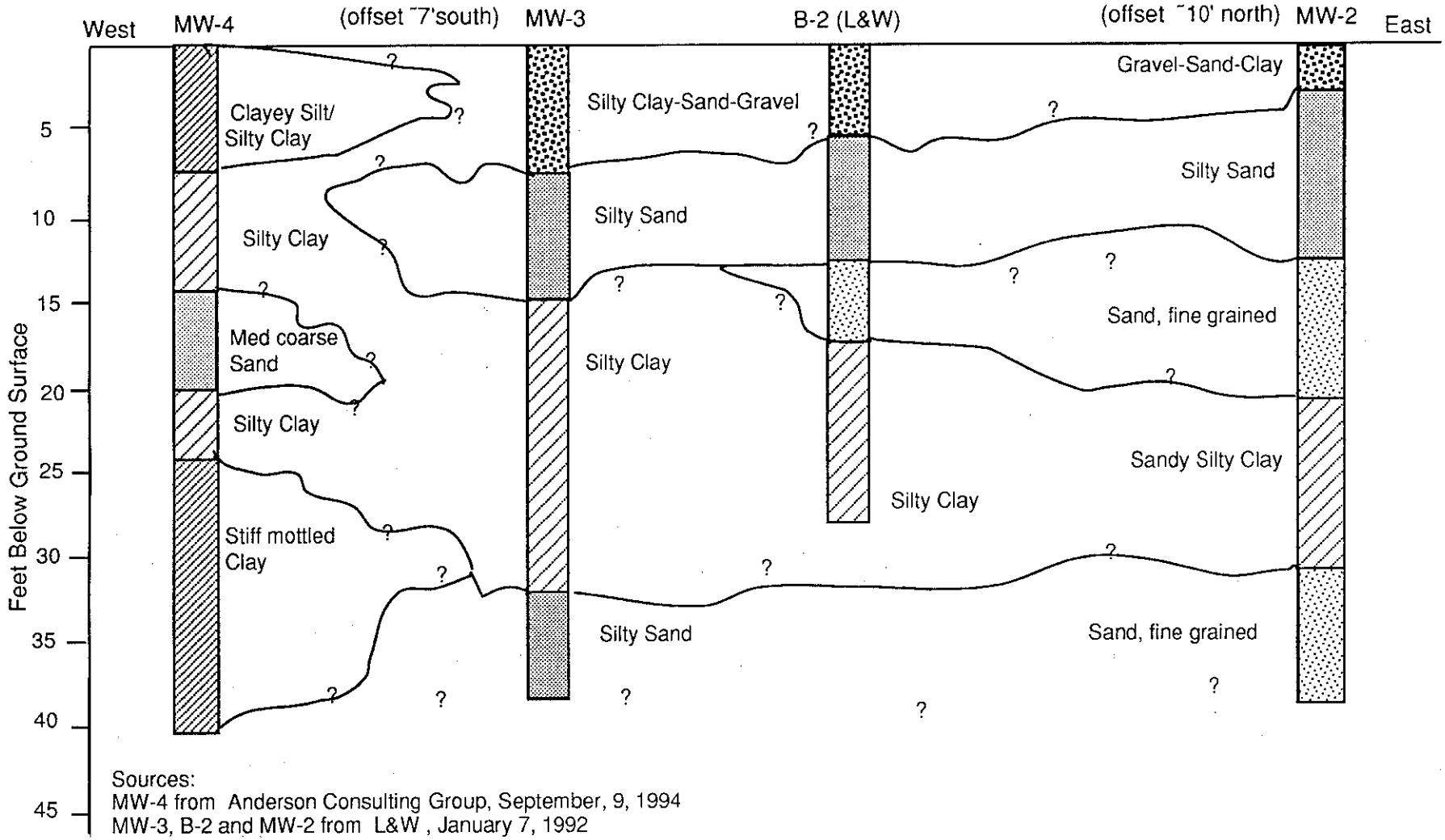
Source: Adapted from Lush Geosciences, Inc., Quarterly Monitoring Report, Figure 2, March 8, 1997

Beck Roofing, Hayward, CA

FIGURE 2 Site Plan

HEILSHORN ENVIRONMENTAL ENGINEERING
P.O. Box 20546, El Sobrante, CA
(510) 222-7968 Fax (510) 222-8573

Rev. 1
Date: 11/14/97



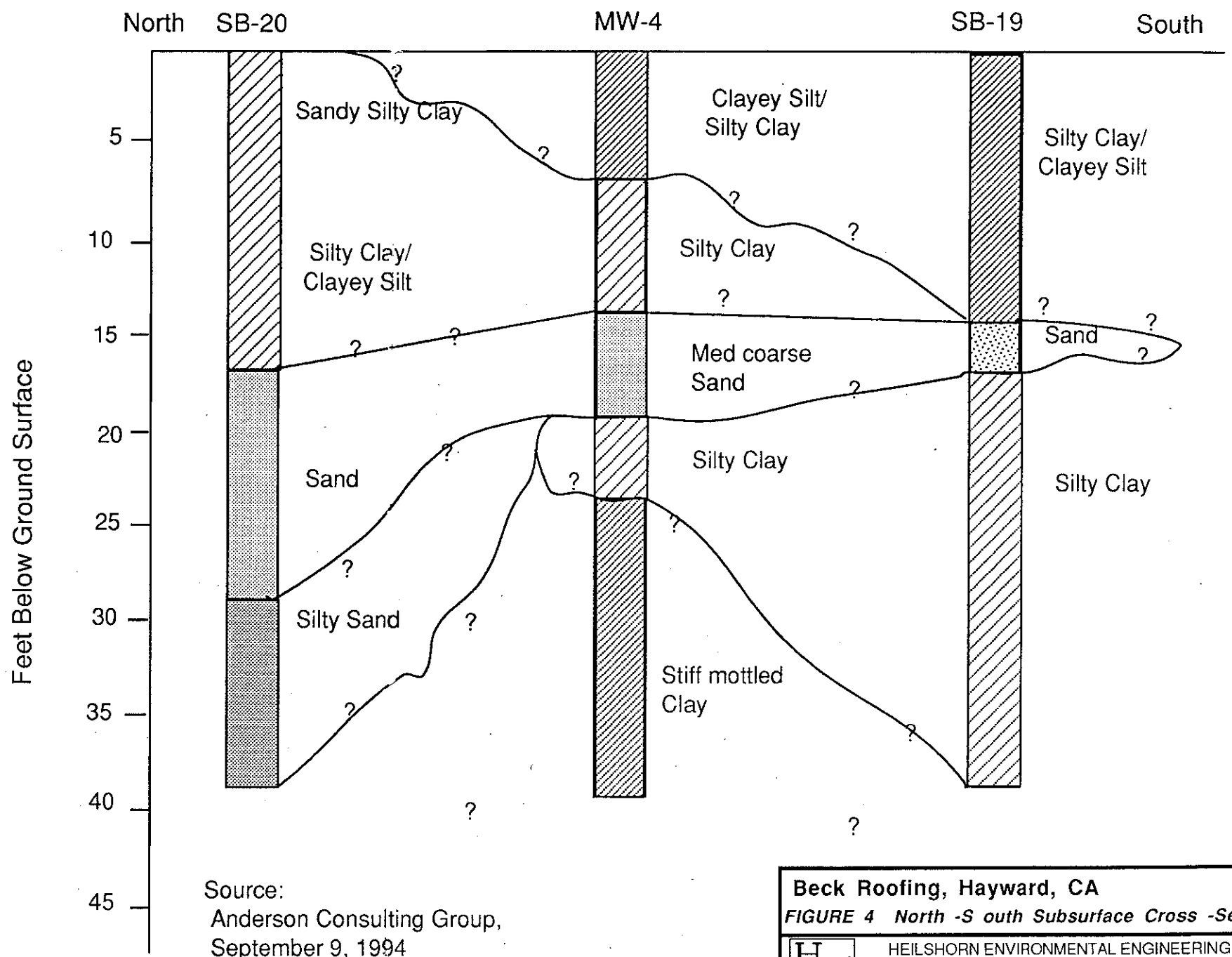
Sources:
MW-4 from Anderson Consulting Group, September, 9, 1994
MW-3, B-2 and MW-2 from L&W , January 7, 1992

Beck Roofing, Hayward, CA

FIGURE 3 East - West Subsurface Cross -Section

HEILSHORN ENVIRONMENTAL ENGINEERING
P.O. Box 20546, El Sobrante, CA
(510) 222-7968 Fax (510) 222-8573

Rev. 0
Date: 11/14/97



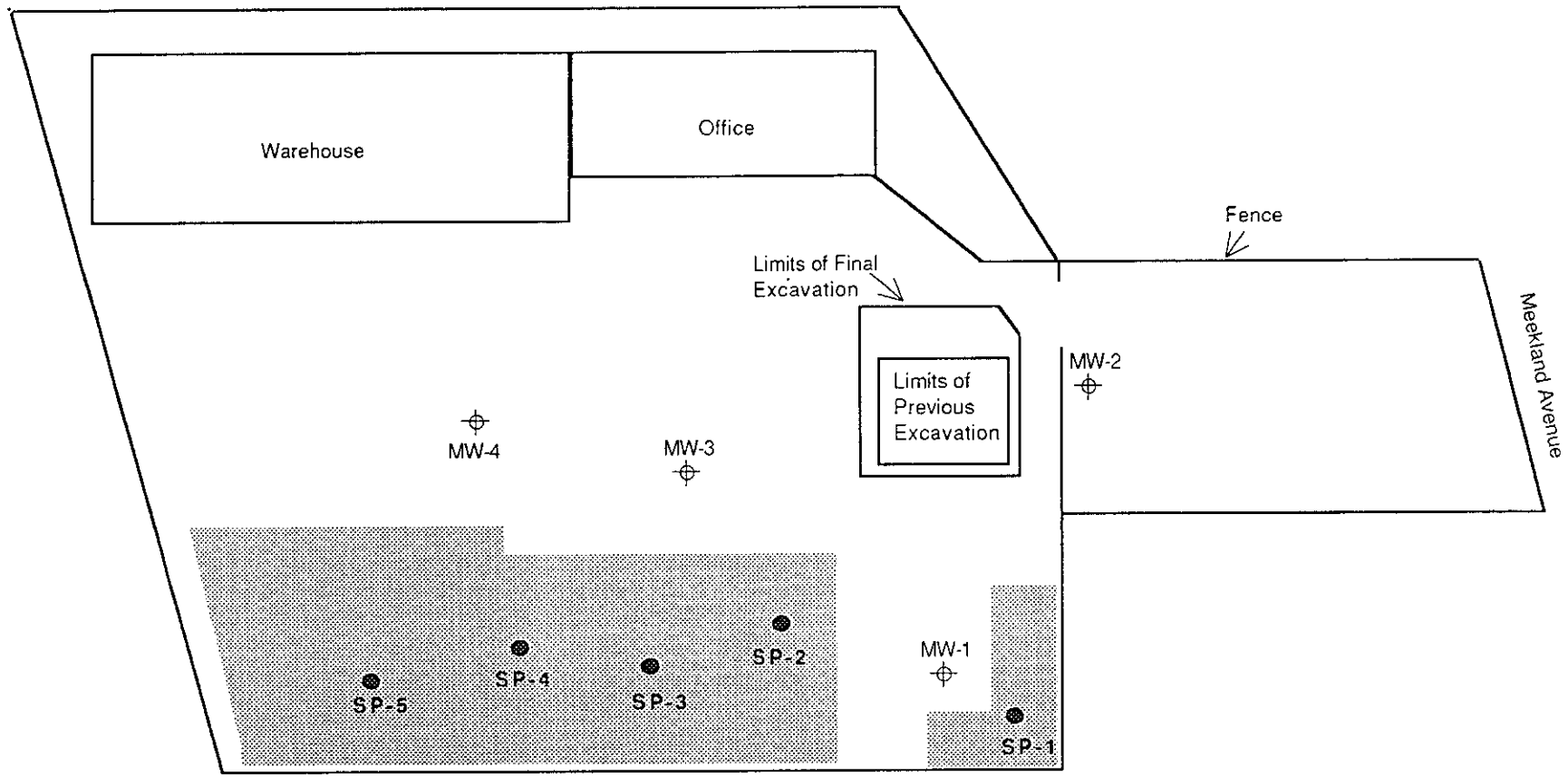
Source:
Anderson Consulting Group,
September 9, 1994

Beck Roofing, Hayward, CA

FIGURE 4 North -S outh Subsurface Cross -Section

HEILSHORN ENVIRONMENTAL ENGINEERING
P.O. Box 20546, El Sobrante, CA
(510) 222-7968 Fax (510) 222-8573

Rev. 0
Date: 11/14/97



LEGEND

- Soil Stockpile Sample Location (Approximate)
- Monitoring Well
- Location and Extent of Soil Stockpile (Approximate)

NORTH

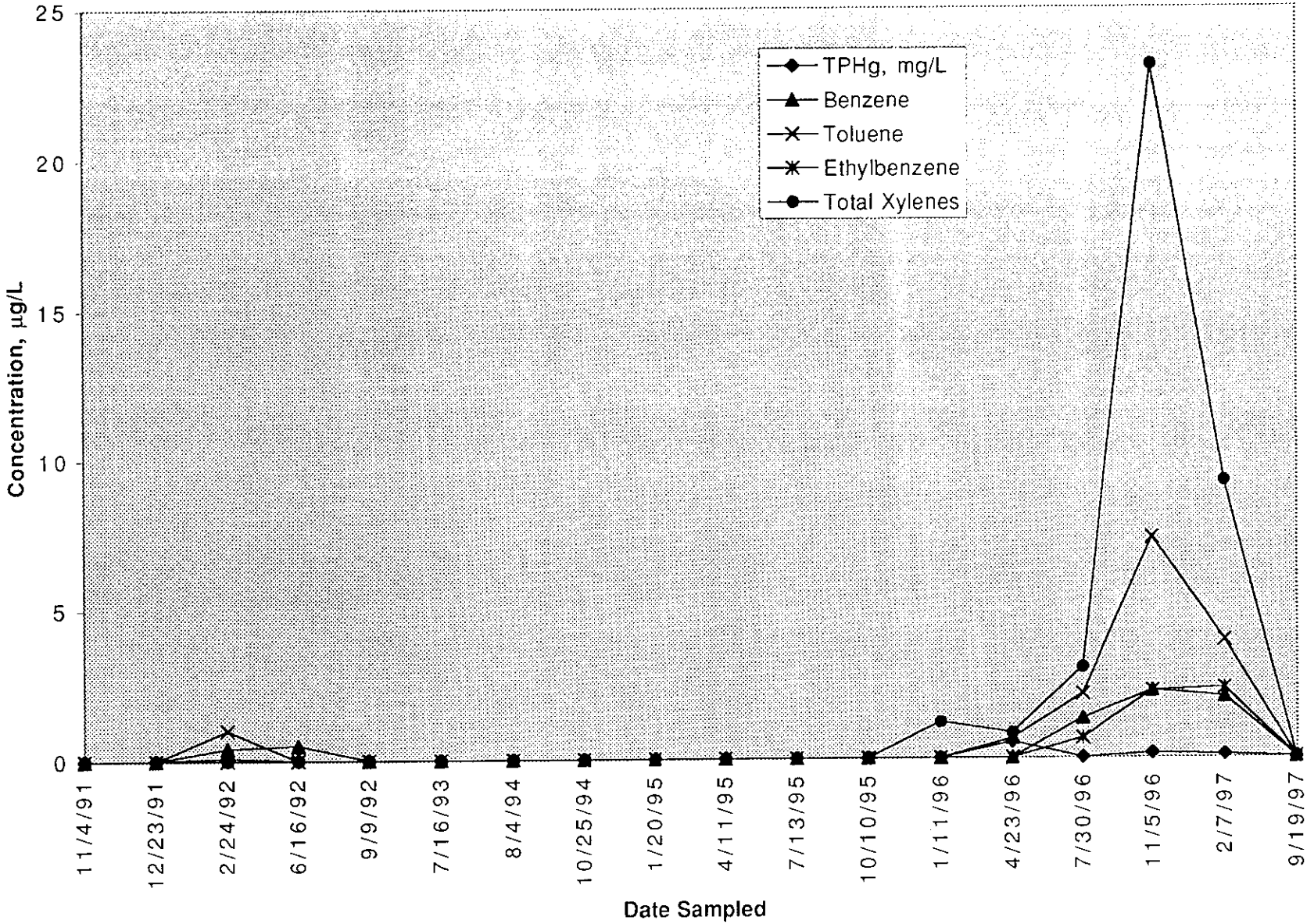
Source: Adapted from Lush Geosciences, Inc., Quarterly Monitoring Report, Figure 2, March 8, 1997

Beck Roofing, Hayward, CA

FIGURE 5 Soil StockPile 1997 Sample Locations

HEILSHORN ENVIRONMENTAL ENGINEERING
P.O. Box 20546, El Sobrante, CA
(510) 222-7968 Fax (510) 222-8573

Rev. 1
Date: 11/14/97

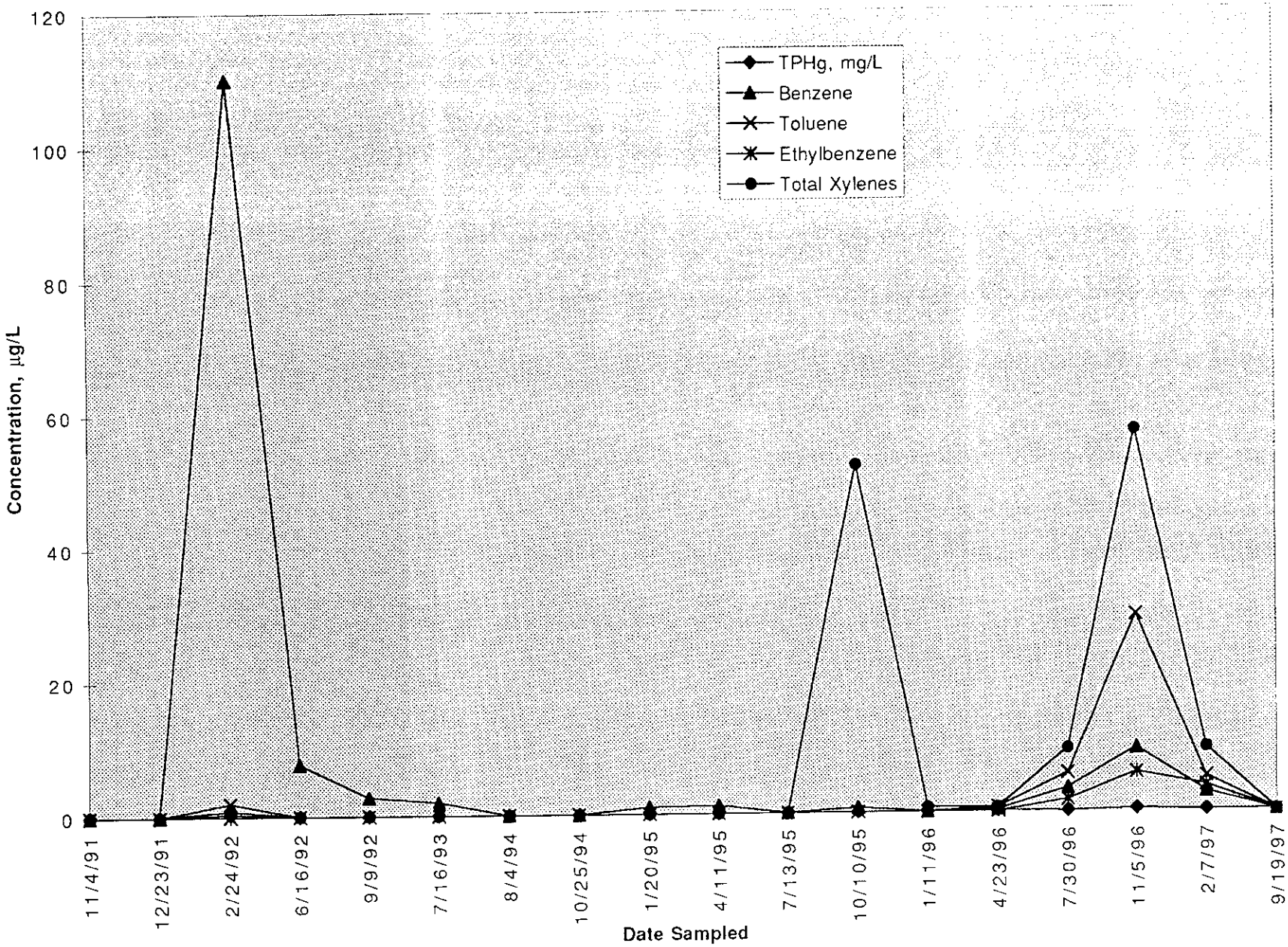


Beck Roofing, Hayward, CA

FIGURE 6 MW-1 Monitoring Well Analytical Data

HEILSHORN ENVIRONMENTAL ENGINEERING
P.O. Box 20546, El Sobrante, CA
(510) 222-7968 Fax (510) 222-8573

Rev. 0
Date: 11/14/97

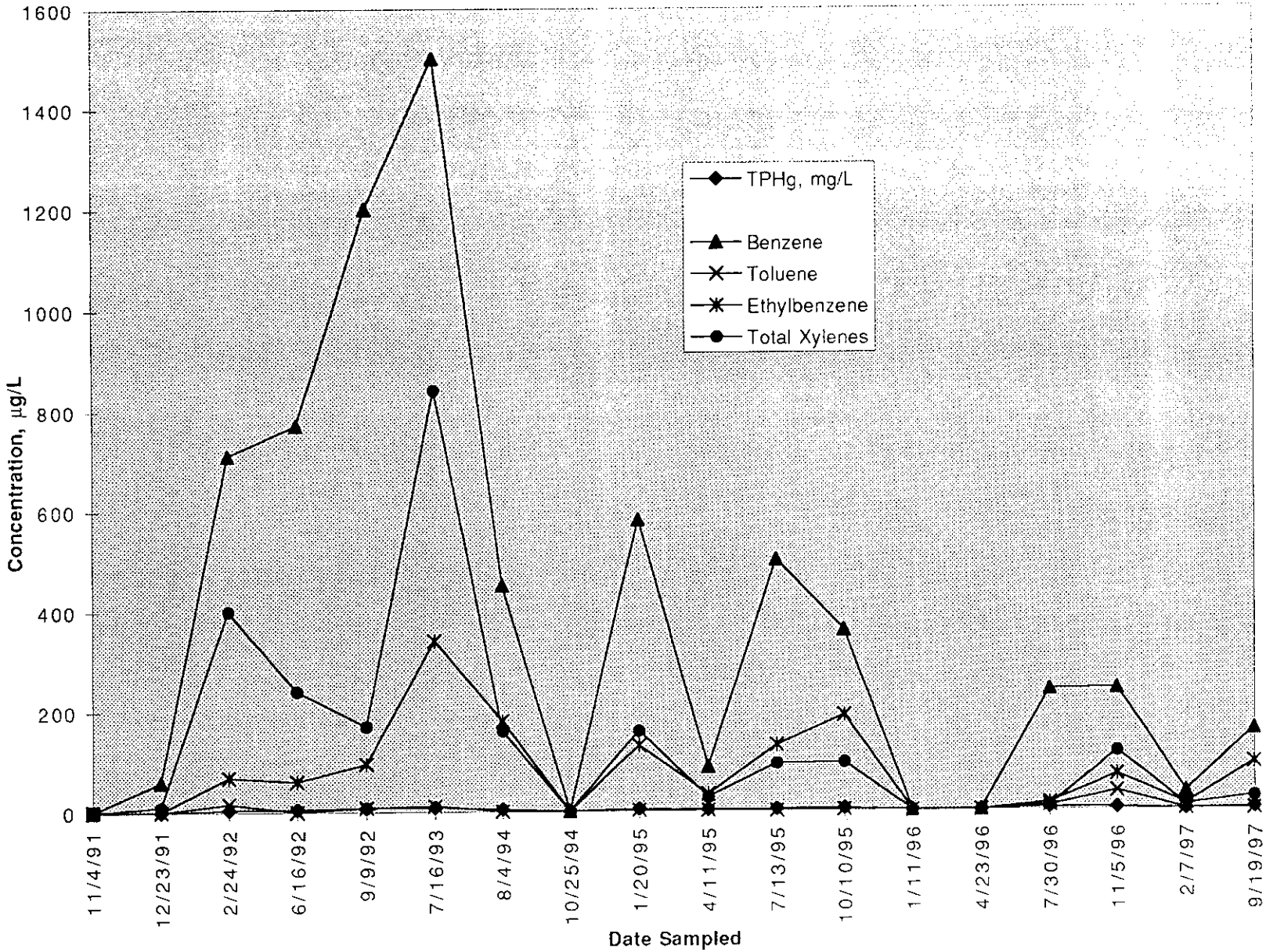


Beck Roofing, Hayward, CA

FIGURE 7 MW-2 Monitoring Well Analytical Data

HEILSHORN ENVIRONMENTAL ENGINEERING
P.O. Box 20546, El Sobrante, CA
(510) 222-7968 Fax (510) 222-8573

Rev. 0
Date: 11/14/97

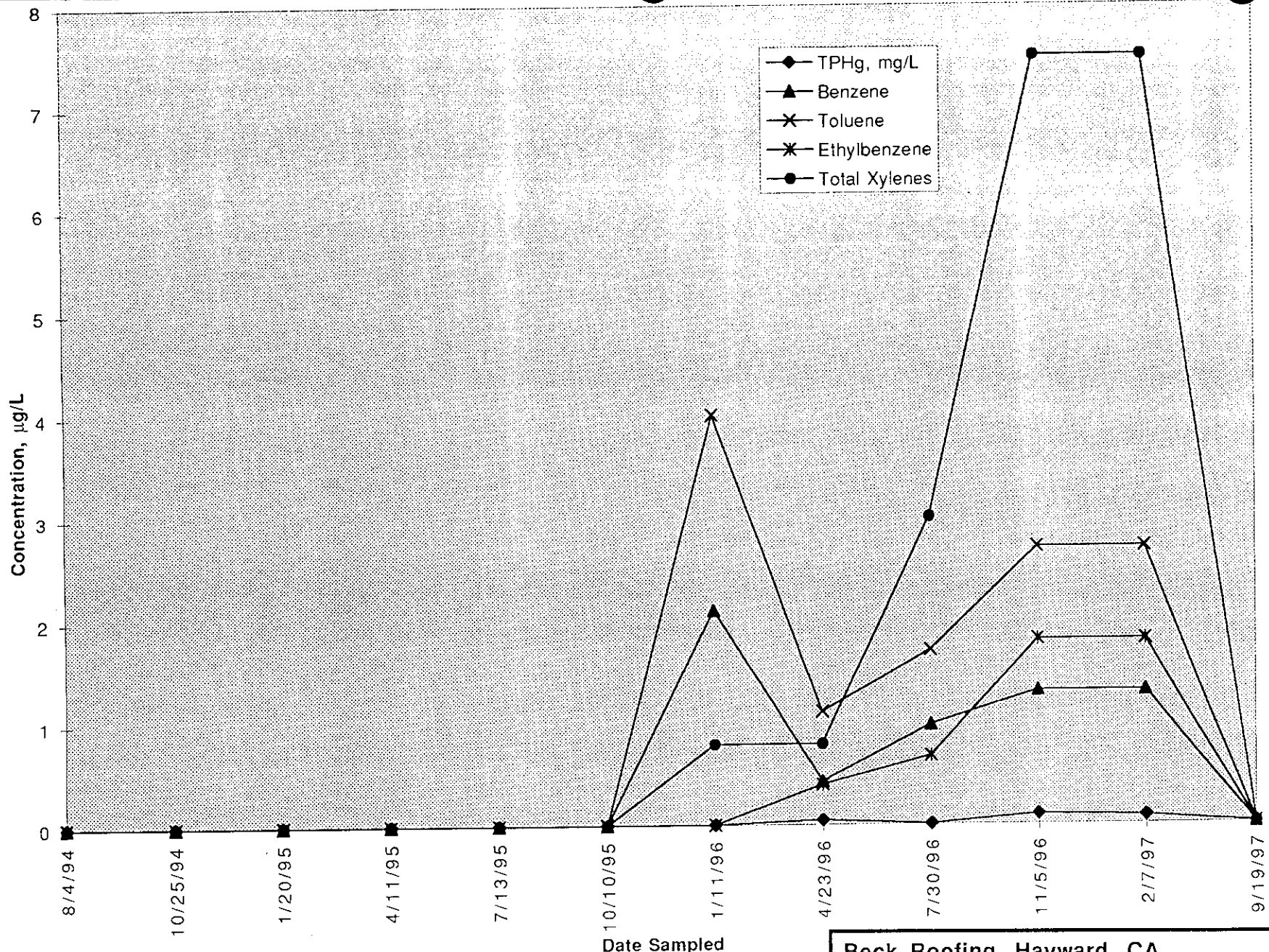


Beck Roofing, Hayward, CA

FIGURE 8 MW-3 Monitoring Well Analytical Data

HEILSHORN ENVIRONMENTAL ENGINEERING
P.O. Box 20546, El Sobrante, CA
(510) 222-7968 Fax (510) 222-8573

Rev. 0
Date: 11/14/97



Beck Roofing, Hayward, CA

FIGURE 9 MW-4 Monitoring Well Analytical Data

HEILSHORN ENVIRONMENTAL ENGINEERING
P.O. Box 20546, El Sobrante, CA
(510) 222-7968 Fax (510) 222-8573

Rev. 0
Date: 11/14/97

APPENDIX A

Boring Logs for Monitoring Wells MW-1, MW-2, MW-3, MW-4

Sample Number	Blows per Foot	Soil Type	Time	Log	Depth in Feet	DESCRIPTION
					0	Brown sandy silty clay, moist, no odor, medium plasticity.
2116-5-MW1	20	CL	911		5	Brown sandy silty clay, very stiff, moist, no odor, low plasticity.
2116-10-MW1	15	SM	917		10	Brown silty sand, fine-grained, medium dense, moist, no odor.
2116-15-MW1	12	SP	925		15	Brown sand with subangular gravel, fine-grained, medium dense, moist, no odor.
2116-20-MW1	5	CL	935			Brown silty clay, medium stiff, moist, no odor, low plasticity.

L & W Environmental Services, Inc.

2111 Jennings Street
San Francisco, California

Log of Boring Number: MW 1
Sheet 1 of 3
Beck Roofing
21123 Meekland Avenue
Hayward, California

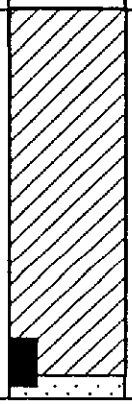
Project Number: 2116

Date: November, 1991

Figure Number: 5

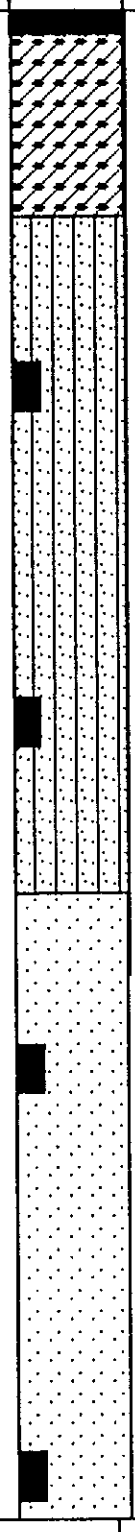
Sample Number	Blows per Foot	Soil Type	Time	Log	Depth in Feet	DESCRIPTION
2116-25-MW1	13	CL	944		25	Same, with medium plasticity.
2116-30-MW1	9	CL/ SP	959		30	Same, but stiff. Brown sand, fine-grained, medium loose, moist, no odor.
2116-35-MW1	9	SP/ CL	1008		35	Brown silty clay, stiff, moist to wet near top of sample, no odor, medium plasticity.
2116-40-MW1	11	CL	1025		40	Same.

L & W Environmental Services, Inc. 2111 Jennings Street San Francisco, California	**Log of Boring Number: MW 1** **Sheet 2 of 3** Beck Roofing 21123 Meekland Avenue Hayward, California	
Project Number: 2116	Date: November, 1991	Figure Number: 5

Sample Number	Blows per Foot	Soil Type	Time	Log	Depth in Feet	DESCRIPTION
		CL				Same.
2116-45-MW1	13	CL/SP	1035		45	Brown sand, fine-grained, medium dense, wet, no odor.

Boring terminated at 45.5 feet.
Groundwater encountered at 30.5 feet.
Boring drilled 10/30/91 with CME 75 rig.
Boring grouted from 45.5 to 39 feet and converted into Monitoring Well 1 on 10/30/91

L & W Environmental Services, Inc. 2111 Jennings Street San Francisco, California	Log of Boring Number: MW 1 Sheet 3 of 3 Beck Roofing 21123 Meekland Avenue Hayward, California	
Project Number: 2116	December, 1991	Figure Number: 5

Sample Number	Blows per Foot	Soil Type	Time	Log	Depth in Feet	DESCRIPTION
		GC			0	3" asphalt cover. Brown gravel-sand-clay mixture, moist, no odor.
2116-5-MW2	18	SM	145		5	Brown silty sand, fine-grained, medium dense, moist, no odor.
2116-10-MW2	10	SM	150		10	Brown silty sand, fine-grained, loose to medium dense, moist, no odor.
2116-15-MW2	12	SP	200		15	Brown sand, fine-grained, medium dense, moist, no odor.
2116-20-MW2	6	SP			20	Same, but loose.

L & W Environmental Services, Inc.

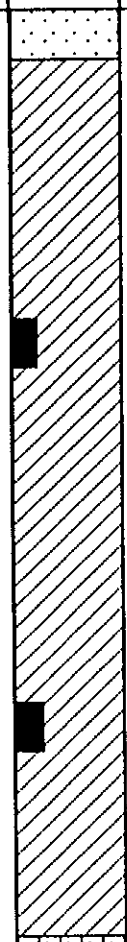
2111 Jennings Street
San Francisco, California

Log of Boring Number: MW 2
Sheet 1 of 2
Beck Roofing
21123 Meekland Avenue
Hayward, California

Project Number: 2116

Date: December, 1991

Figure Number: 6

Sample Number	Blows per Foot	Soil Type	Time	Log	Depth in Feet	DESCRIPTION
2116-25-MW2	19	CL	235		25	Brown sandy silty clay, very stiff, moist, no odor, medium plasticity.
2116-30-MW2	18	CL	245		30	Same.
2116-35-MW2	12	SM	255		35	Brown sand, fine-grained, medium stiff, wet, no odor.

Boring terminated at 38 feet.
Groundwater encountered at 33 feet.
Boring drilled 10/30/91 with CME 75 rig.
Boring converted into Monitoring Well 2 on 10/30/91

L & W Environmental Services, Inc. 2111 Jennings Street San Francisco, California	**Log of Boring Number: MW 2** **Sheet 2 of 2** Beck Roofing 21123 Meekland Avenue Hayward, California	
Project Number: 2116	Date: December, 1991	Figure Number: 6

Sample Number	Blows per Foot	Soil Type	Time	Log	Depth in Feet	DESCRIPTION
					0	Brown silty clay with sand and gravel, moist, no odor.
2116-5-MW3	9	CL	115		5	Brown silty clay, stiff, moist, no odor medium plasticity.
2116-10-MW3	12	SM	125		10	Brown silty sand, fine-grained, medium dense, moist, no odor.
2116-15-MW3	12	SM	135		15	Same.
						Brown silty clay, stiff, moist, slight odor, medium plasticity.
2116-20-MW3	5	CL			20	Brown silty clay, medium stiff, moist, odor, medium plasticity.

L & W Environmental Services, Inc.

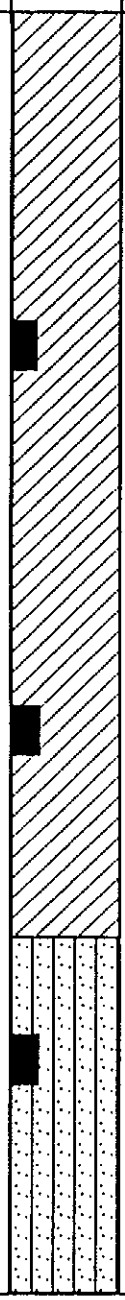
2111 Jennings Street
San Francisco, California

Log of Boring Number: MW 3
Sheet 1 of 2
Beck Roofing
21123 Meekland Avenue
Hayward, California

Project Number: 2116

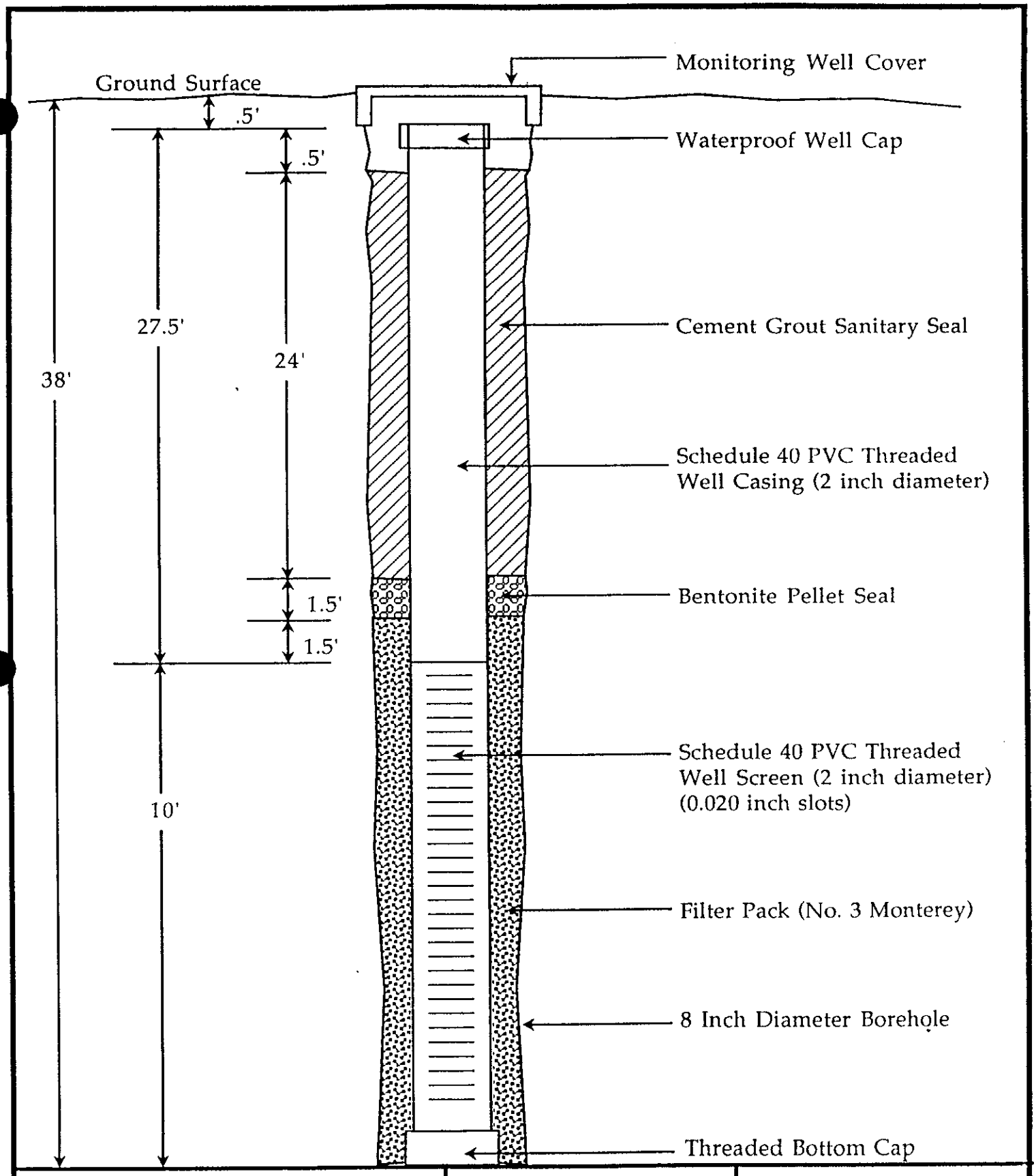
Date: December, 1991

Figure Number: 9

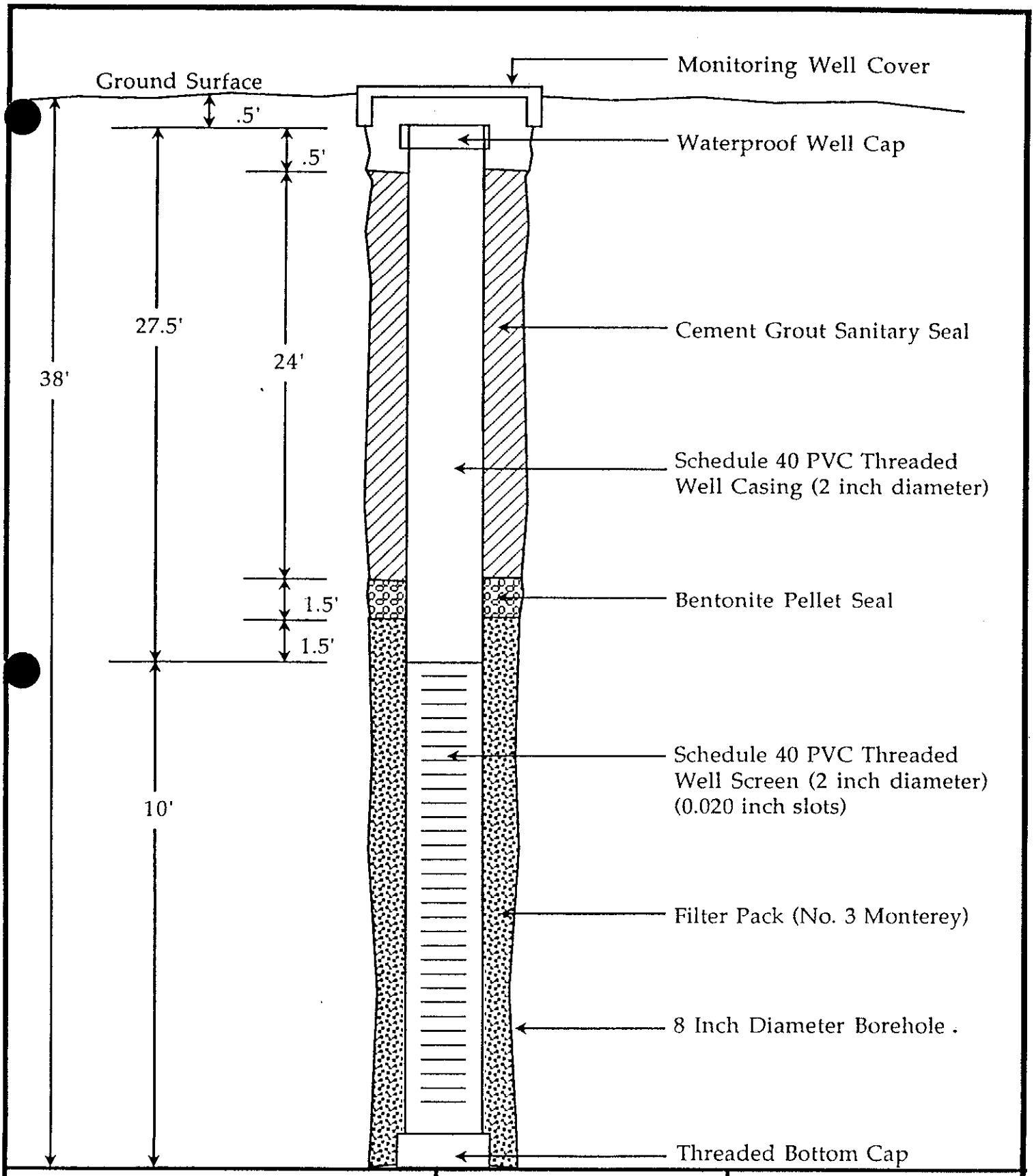
Sample Number	Blows per Foot	Soil Type	Time	Log	Depth in Feet	DESCRIPTION
2116-25-MW3	14	CL	207		25	Same.
2116-30-MW3	13	CL	225		30	Same.
2116-35-MW3	13	SM	230		35	Brown silty sand, fine-grained, medium dense, wet.

Boring terminated at 38 feet.
Groundwater encountered at 33 feet.
Boring drilled 10/31/91 with CME 75 rig.
Boring converted into Monitoring Well 3 on 10/31/91

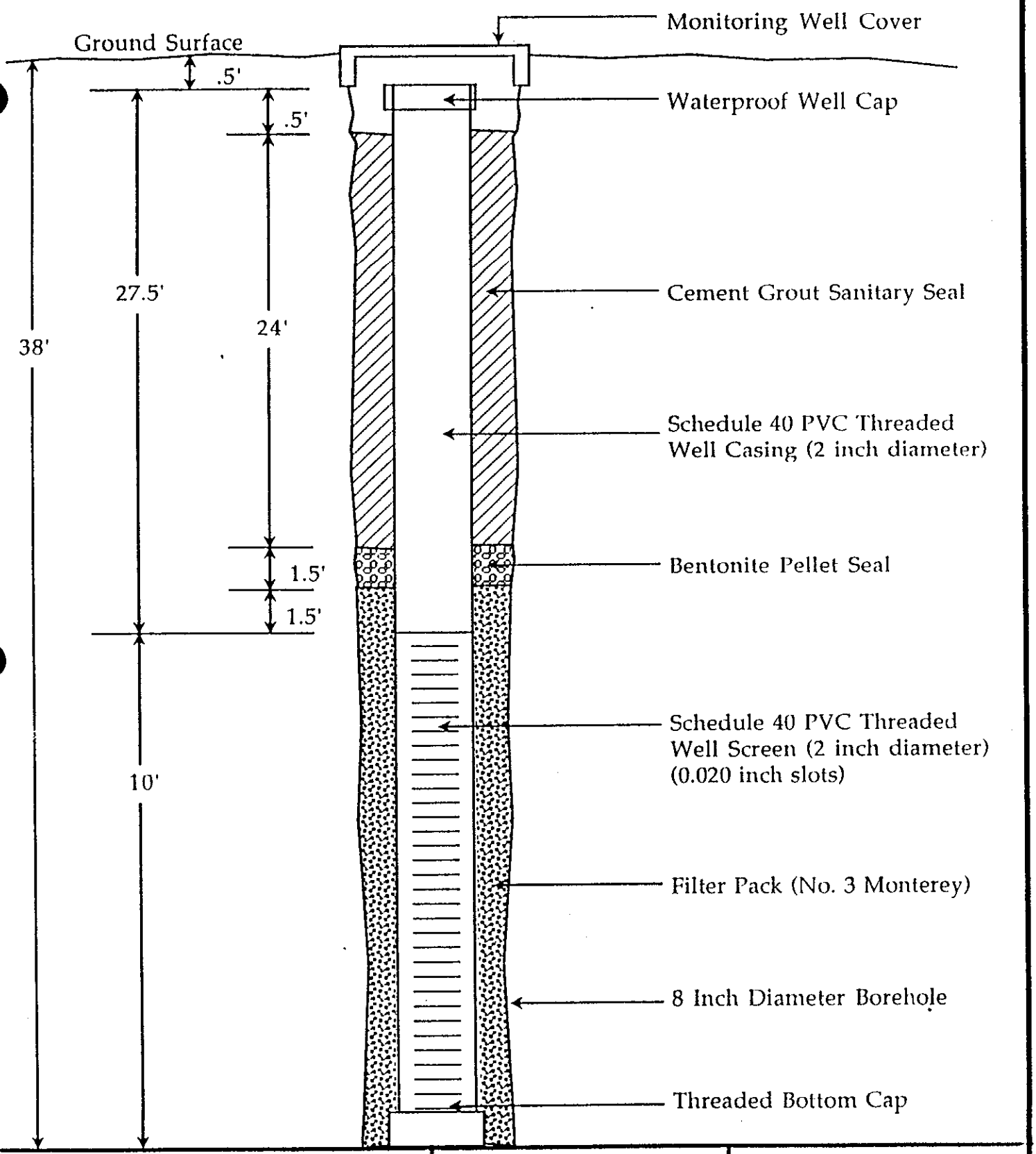
L & W Environmental Services, Inc. 2111 Jennings Street San Francisco, California	**Log of Boring Number: MW 3** **Sheet 2 of 2** Beck Roofing 21123 Meekland Avenue Hayward, California
Project Number: 2116	Date: December, 1991 / Figure Number: 9



L & W Environmental Services, Inc. 2111 Jennings Street San Francisco, California	**Beck Roofing** 21123 Meekland Avenue Hayward, California	**Monitoring Well MW-1** **Installation Detail**
Project Number: 2116	Date: December, 1991	Figure Number: 10



J & W Environmental Services, Inc. 2111 Jennings Street San Francisco, California	**Beck Roofing** 21123 Meekland Avenue Hayward, California	**Monitoring Well MW-2** **Installation Detail**
Project Number: 2116	Date: December, 1991	Figure Number: 11



L & W Environmental Services, Inc. 2111 Jennings Street San Francisco, California	**Beck Roofing** 21123 Meekland Avenue Hayward, California	**Monitoring Well MW-3** **Installation Detail**
Project Number: 2116	Date: December, 1991	Figure Number: 12

LOG OF BORING: SB-18

Project: Beck Roofing

File: 3288-44

Date: 1 August 1994

Elevation: feet

Surface:

Water: None encountered

ELEV / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS & BLOW COUNTS	Sample Number	USCS	Material Description and Remarks	Dry Density (pcf)	Moisture Content (%)	Phi	C (ksf)
0			CL	Dark grey, moist, medium stiff, silty Clay - some fine Sand				
5	11/6	SB18-1						
8			ML-CL	Yellow brown, moist, medium stiff, clayey Silt/silty Clay				
10	9/6	SB18-2						
13			SP	Light brown, moist, loose-medium dense, medium coarse, Sand				
20			ML-CL	Olive-mottled, moist, soft to medium soft, clayey silt/silty Clay				

Site description and comments:

ANDERSON CONSULTING GROUP

Boring: SB-18
Depth: 40.0 ft
Figure:

LOG OF BORING: SB-18 (Continued)

Project: Beck Roofing

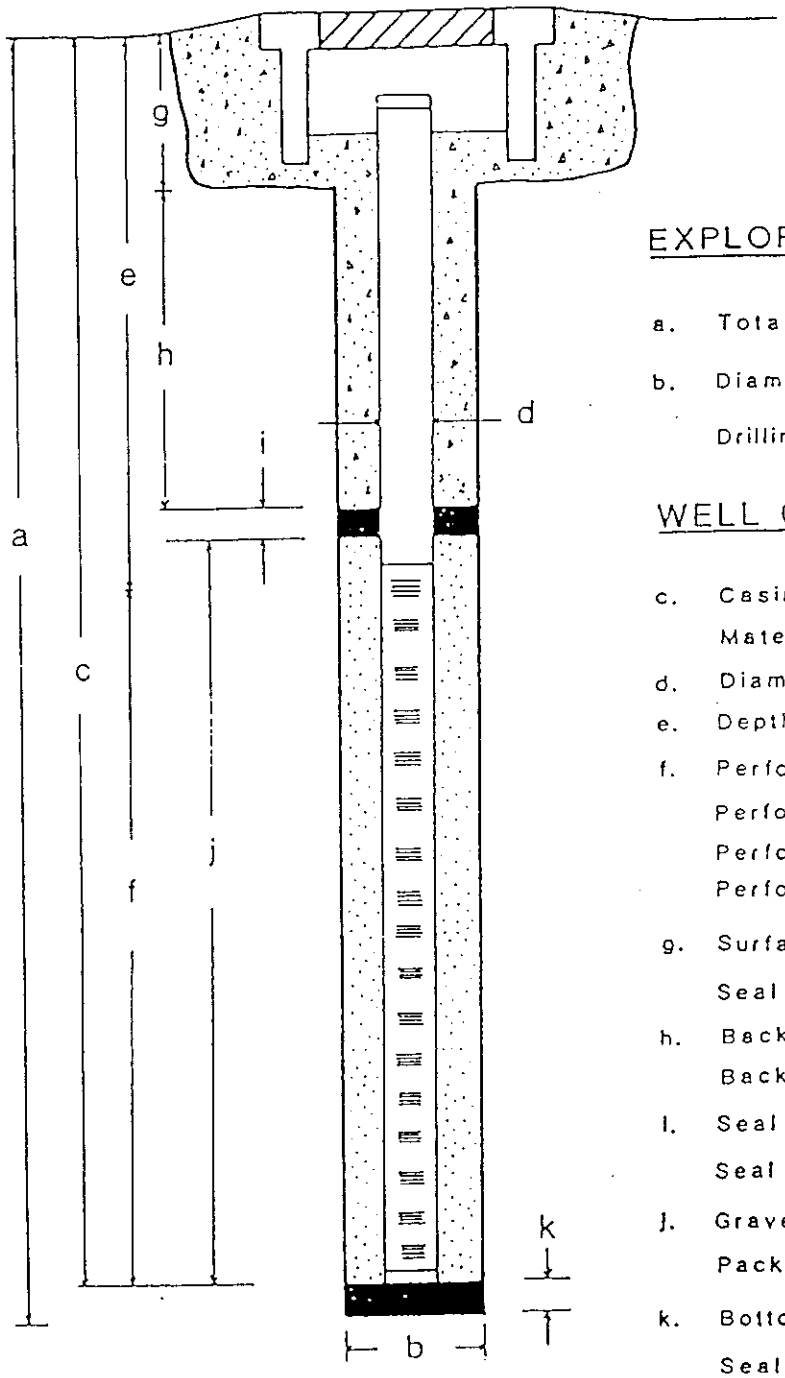
File: 3288-44

ELEV / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS & BLOW COUNTS	Sample Number	USCS	Material Description and Remarks	Dry Density (pcf)	Moisture Content (%)	Phi	C (ksf)
22								
23								
24			CL	Olive, moist, stiff, mottled Clay with trace of silt and rhizomes				
25								
26	10/6	SB18-3						
27								
28				Saturated				
29								
30								
31	9/6	SB18-4						
32								
33								
34								
35								
36	9/6	SB18-5						
37								
38								
39								
40				Boring terminated at 40 feet				

ANDERSON CONSULTING GROUP

Boring: SB-18
Depth: 40.0 ft
Figure:

AS-BUILT MONITORING WELL DETAIL



EXPLORATORY BORING

a. Total depth 40 ft.

b. Diameter 8 in.

Drilling method Hollow Stem Auger

WELL CONSTRUCTION

c. Casing length 40 ft.
Material Schedule 40 PVC

d. Diameter 2 in.

e. Depth to top perforations 30 ft.

f. Perforated length 10 ft.
Perforated interval from 30 to 40 ft.
Perforation type Factory Slot
Perforation size .02 Inch

g. Surface seal (0 to 2 ft.) 2 ft.
Seal material Concrete

h. Backfill (2 to 26 ft.) 24 ft.
Backfill material Neat Cement Grout

I. Seal (26 to 28 ft.) 2 ft.
Seal material Bentonite

J. Gravel pack (28 to 40 ft.) 12 ft.
Pack material #3 Sand

k. Bottom seal ____ ft.
Seal material PVC End Cap

FILE NO. 3288-44
PROJECT Beck Roofing
WELL NO. MW-4
DATE COMPLETED 1 August 1994

ANDERSON CONSULTING GROUP
Roseville (916) 786-8883
Grass Valley (916) 273-SOIL

APPENDIX B

Underground Tank Precision Test Results

Data Chart for Tank System Tightness Test

PLEASE PRINT

1. OWNER Property ☒ Tank(s) ☒

Name	Address	Representative	Telephone
BECK ROOFING	21123 MEEKLAND AVE. Hayward, Cal. 94541		581-6750

2. OPERATOR

Name	Address	Telephone

3. REASON FOR TEST (Explain Fully)

STATE Regulation

4. WHO REQUESTED TEST AND WHEN

Name	Title	Company or Affiliation	Date
Charlie Beck	OWNER	BECK ROOFING	JAN. 1, 1990

Address: _____ Telephone: _____

5. TANK INVOLVED (Use additional lines for manifolded tanks)

Identify by Direction	Capacity	Brand/Supplier	Grade	Approx. Age	Steel/Fiberglass
#1	1,000	Chevron	Regular	U/K	U/K

6. INSTALLATION DATA

Location (North inside driveway, Rear of station, etc.)	Cover (Concrete, Black Top, Earth, etc.)	Fills (Size, Tiefill make, Drop tubes, Remote Fills)	Vents (Size, Manifolded)	Siphones (Which tanks?)	Pumps (Suction, Remote, Make if known)
Rear Corner of Property	Concrete	4"	1½"	NO	Suction

7. UNDERGROUND WATER

Depth to the Water table U/K"

Is the water over the tank? ☐ Yes ☒ No

8. FILL-UP ARRANGEMENTS

Tanks to be filled 800 hr. 1-11-90 Date Arranged by Charlie Beck (Name) _____ (Telephone)

Extra product to "top off" and run tank tester. How and who to provide? Consider NO Lead.

Terminal or other contact for notice or inquiry _____ (Company) _____ (Name) _____ (Telephone)

9. CONTRACTOR, MECHANICS, any other contractor involved

R.L. STEVENS Co.

10. OTHER INFORMATION OR REMARKS

Additional information on any items above. Officials or others to be advised when testing is in progress or completed. Visitors or observers present during test, etc.

11. TEST RESULTS

Tests were made on the above tank systems in accordance with test procedures prescribed for as detailed on attached test charts with results as follows:

Tank Identification	Tight	Leakage Indicated	Date Tested
#1	YES	-.0285	1-11-90

12. SENSOR CERTIFICATION

1-11-90 Date

727 Serial No. of Thermal Sensor

13. This is to certify that these tank systems were tested on the date(s) shown. Those indicated as "Tight" meet the criteria established by the National Fire Protection Association Pamphlet 329.

Technicians

1. DAVID STEVENS Certification # 90-1342

2. _____ Certification # _____

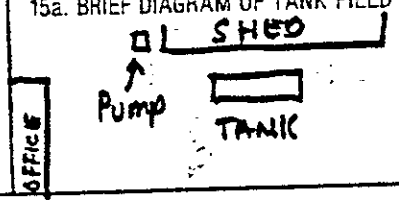
R.L. STEVENS Co. Robert L Stevens
Testing Contractor or Company, By: Signature

22240 MEEKLAND AVE. HAYWARD, Cal. 9454
Address

PN6827

14. Decks Roofing — Name of Supplier: Owner or Dealer
Meekland Ave. — Address No. and Street(s)
Hayward — City
Cal — State
1-11-90 — Date of Test

15. TANK TO TEST
#1 — Identify by position
Regular — Brand and Grade

15a. BRIEF DIAGRAM OF TANK FIELD


16. CAPACITY
Nominal Capacity 1000 Gallons
By most accurate capacity chart available 1000 Gallons
From:
- [x] Suction Chart
- [ ] Tank Manufacturer's Chart
- [ ] Company Engineering Data
- [ ] Charts supplied with
- [ ] Other

17. FILL-UP FOR TEST
Stick Water Bottom before Fill-up 0 in. (to 14")
0 Gallons
46" in. Tank Diameter

Inventory	Gallons	Total Gallons ea. Reading
Arrived	490	
Tanker	520	
	+5	
		1015

Transfer total to line 25a

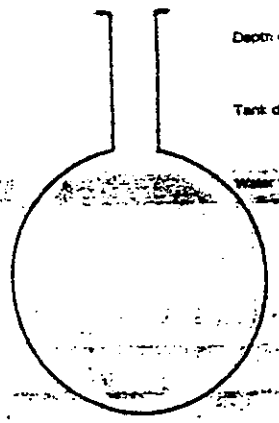
18. SPECIAL CONDITIONS AND PROCEDURES TO TEST THIS TANK
- [ ] Water in tank
- [ ] Line(s) being tested with LVLLT
- [ ] High water table in tank excavation

See manual sections applicable. Check below and record procedure in log (27).

Use maximum allowable test pressure for all tests.
Four pound rule does not apply to doublewalled tanks.

Complete section below:

1. Is four pound rule required? Yes [ ] No [ ]
2. Height to 12" mark from bottom of tank ____ in.
3. Pressure at bottom of tank ____ P.S.I.
4. Pressure at top of tank ____ P.S.I.



Depth of burial 32 in.
Tank dia. 46 in.
Water table 0 in.

NOTES:

The above calculations are to be used for dry soil conditions to establish a positive pressure advantage, or when using the four pound rule to compensate for the presence of subsurface water in the tank area.

Refer to P.A. 30, Sections 2-3.2.4 and 2-7.2 and the tank manufacturer regarding allowable system test pressures.

19. TANK MEASUREMENTS FOR TSTT ASSEMBLY
Bottom of tank to grade* 78 in.
Add 30" for "T" probe assy. 30 in.
Total tubing to assemble — approximate 108 in.

20. EXTENSION HOSE SETTING
Tank top to grade* 32 in.
Extend hose on suction tube 6" or more below tank top 38 in.
*If Fill pipe extends above grade, use top of fill.

22. Thermal-Sensor reading after circulation 11546 digits
57/58 °F Between

23. Digits per °F in range of expected change 317 digits

COEFFICIENT OF EXPANSION (Complete after circulation)
24a. Corrected A.P.I. Gravity
Observed A.P.I. Gravity
Hydrometer employed H
Observed Sample Temperature °F
Corrected A.P.I. Gravity @ 60°F, From Table A
Coefficient of Expansion for Involved Product From Table B
Transfer COE to Line 25b

25. (a) Total quantity in full tank (16 or 17) (b) Coefficient of expansion for involved product 317 (c) Volume change in this tank per °F gallons 0.0021722

21. VAPOR RECOVERY SYSTEM [ ] Stage I [ ] Stage II

24b. COEFFICIENT OF EXPANSION RECIPROCAL METHOD
Type of Product Gasoline
Hydrometer Employed 6 H
Temperature in Tank After Circulation 11546 57.2 °F
Temperature of Sample 59 °F
Difference (+/-) +2 °F
Observed A.P.I. Gravity 59.3
Reciprocal 1474 Page # 63
1015 (Total quantity in full tank (16 or 17)) × 1474 (Reciprocal) = 0.6886024 (Volume change in this tank per °F) Transfer to Line 25c

24c. FOR TESTING WITH WATER see Table C & D
Water Temperature after Circulation °F
Table C
Coefficient of Water Table D
Added Surfactant [ ] Yes [ ] No Transfer COE to Line 25b

27. Sensor Calibration ____ / ____ LOG OF TEST PROCEDURES			30. HYDROSTATIC PRESSURE CONTROL		31. VOLUME MEASUREMENTS (V) RECORD TO .001 GAL.			34. TEMPERATURE COMPENSATION USE FACTOR (a)			38. NET VOLUME CHANGING EACH READING	39. ACCUMULATED CHANGE
28. DATE / TIME (24 hr.)	Record details of setting up and running test. (Use full length of line if needed.)	29. Reading No.	Standpipe Level in Inches: Beginning of Reading	Standpipe Level in Inches: Level to which Restored	32. Product in Graduate: Before Reading	32. Product in Graduate: After Reading	33. Product Replaced (–): Product Recovered (+)	35. Thermal Sensor Reading	36. Change Higher + Lower – (c)	37. Computation (c) × (a) × Expansion + Contraction –	Temperature Adjustment: Volume Minus Expansion (+) or Contraction (–) #33(V) — #37(T)	At Low Level compute Change per Hour (NFPA criteria)
800	Arrived on location											
850	Tanker Arrived											
910	Tanker left.											
	set up Test Equip											
940	Pump primed and Running											
1000	First sensor reading							11546				
1005	Start Hi level Test			42				558				
1020	Cont Hi level Test	1	42⅜	42	.260	.300	+040	602	+44	+.097	–.057	
1035		2	42⅜	42	.300	.340	+040	639	+37	+.081	–.041	
1050		3	42⅜	42	.340	.380	+040	676	+37	+.081	–.041	
1105		4	42⅜	42	.380	.425	+045	706	+30	+.066	–.021	
												N/A
1110	Start rebound Test			12				715				
1125	cont. rebound Test.	1	13⅜	12	.050	.110	+060	755	+40	+.088	–.028	
1130	Start low level Test			12				760				
1135	cont low level Test	1	12⅜	12	.130	.150	+020	770	+10	+.022	–.002	
1140		2	12⅜	12	.150	.170	+020	783	+13	+.029	–.009	–.009
1145		3	12⅝	12	.170	.195	+025	797	+14	+.031	–.006	–.015
1150		4	12⅜	12	.195	.215	+020	805	+8	+.018	+.002	–.013
1155		5	12⅜	12	.215	.235	+020	817	+12	+.026	–.006	–.019
1200		6	12⅜	12	.235	.255	+020	828	+11	+.024	–.004	–.023
1205		7	12⅜	12	.255	.275	+020	838	+10	+.022	–.002	–.025
1210		8	12⅝	12	.275	.300	+025	849	+11	+.024	+.001	–.024
1215		9	12⅜	12	.300	.320	+020	860	+11	+.024	–.004	–.028

1225		11	12¼	12	.345	.365	±.020	882	+9	±.020	±.000	−.032
1230		12	12¼	12	.365	.385	±.020	892	+10	±.022	−.002	−.034
1235		13	12¼	12	.385	.405	±.020	901	+9	±.020	±.000	−.034
1240		14	12¼	12	.405	.425	±.020	911	+10	±.022	−.002	−.036
1245		15	125	12	.425	.450	±.025	925	+14	±.031	−.006	−.042
1250		16	125	12	.450	.475	±.025	936	+11	±.024	±.001	−.041
1255		17	12¼	12	.475	.495	±.020	945	+9	±.020	±.000	−.041
1300		18	12¼	12	.495	.515	±.020	956	+11	±.024	−.004	−.045
1305		19	12¼	12	.515	.535	±.020	966	+10	±.022	−.002	−.047
1310		20	125	12	.535	.560	±.025	977	+11	±.024	±.001	−.046
1315		21	125	12	.560	.585	±.025	988	+11	±.024	±.001	−.045
1320		22	12¼	12	.585	.605	±.020	998	+10	±.022	−.002	−.047
1325		23	12¼	12	.605	.625	±.020	010	+12	±.026	−.006	−.053
1330		24	12¼	12	.625	.645	±.020	020	+10	±.022	−.002	−.055
1335		25	12¼	12	.645	.665	±.020	030	+10	±.022	−.002	−.057
			System Tight at This Time (−.0285)									

P-T Tank Test Data Chart
Additional Info

1. Net Volume Change at Conclusion of Precision Test −.0285 gph

Signature of Tester: Darrell Shaw

Date: 11-90

2. Statement:

☒ Tank and product handling system has been tested tight according to the Precision Test Criteria as established by N.F.P.A. publication 329. This is not intended to indicate permission of a leak.

OR

☐ Tank and product handling system has failed the tank tightness test according to the Precision Test Criteria as established by N.F.P.A. publication 329.

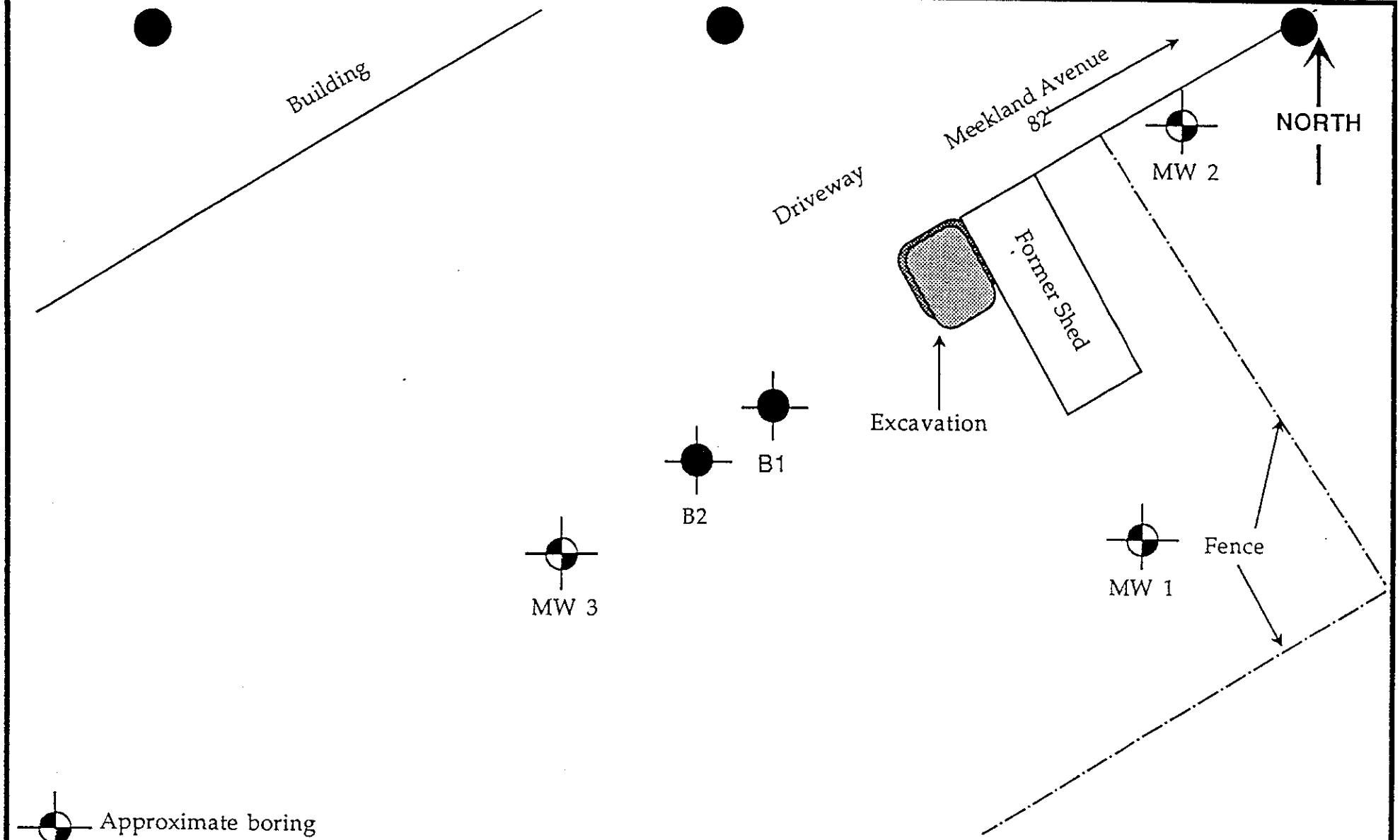
It is the responsibility of the owner and/or operator of this system to immediately advise state and local authorities of any implied hazard and the possibility of any reportable pollution to the environment as a result of the indicated failure of this system. Heath Consultants Incorporated does not assume any responsibility or liability for any loss of product to the environment.

Tank Owner/Operator _____

Date _____

APPENDIX C

Figures 14-17 from L&W Environmental Services, Inc. Report Titled "Progress Report Quarter Ending December 31, 1991", January 7, 1992



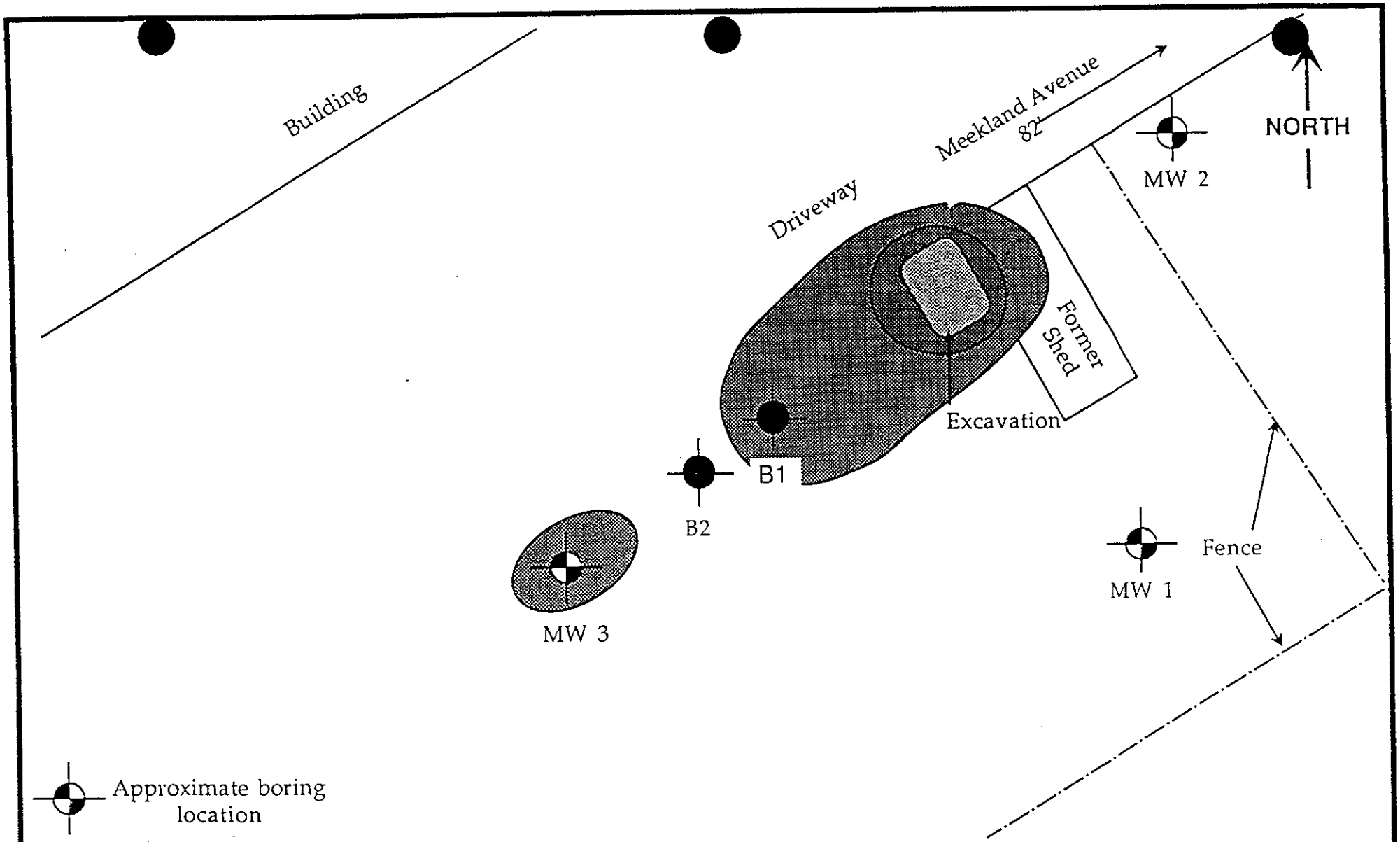
Approximate boring location

Scale 1"=20"

TPH is greater than ND, but less than 100 ppm.

TPH is ND.

L & W Environmental Services, Inc. 2111 Jennings Street San Francisco, California		TPH-G Limits at 15' Depth Beck Roofing Hayward, California	
Project Number: 2116	Drawn by: MJK	Date: December, 1991	Figure Number: 14



Approximate boring location

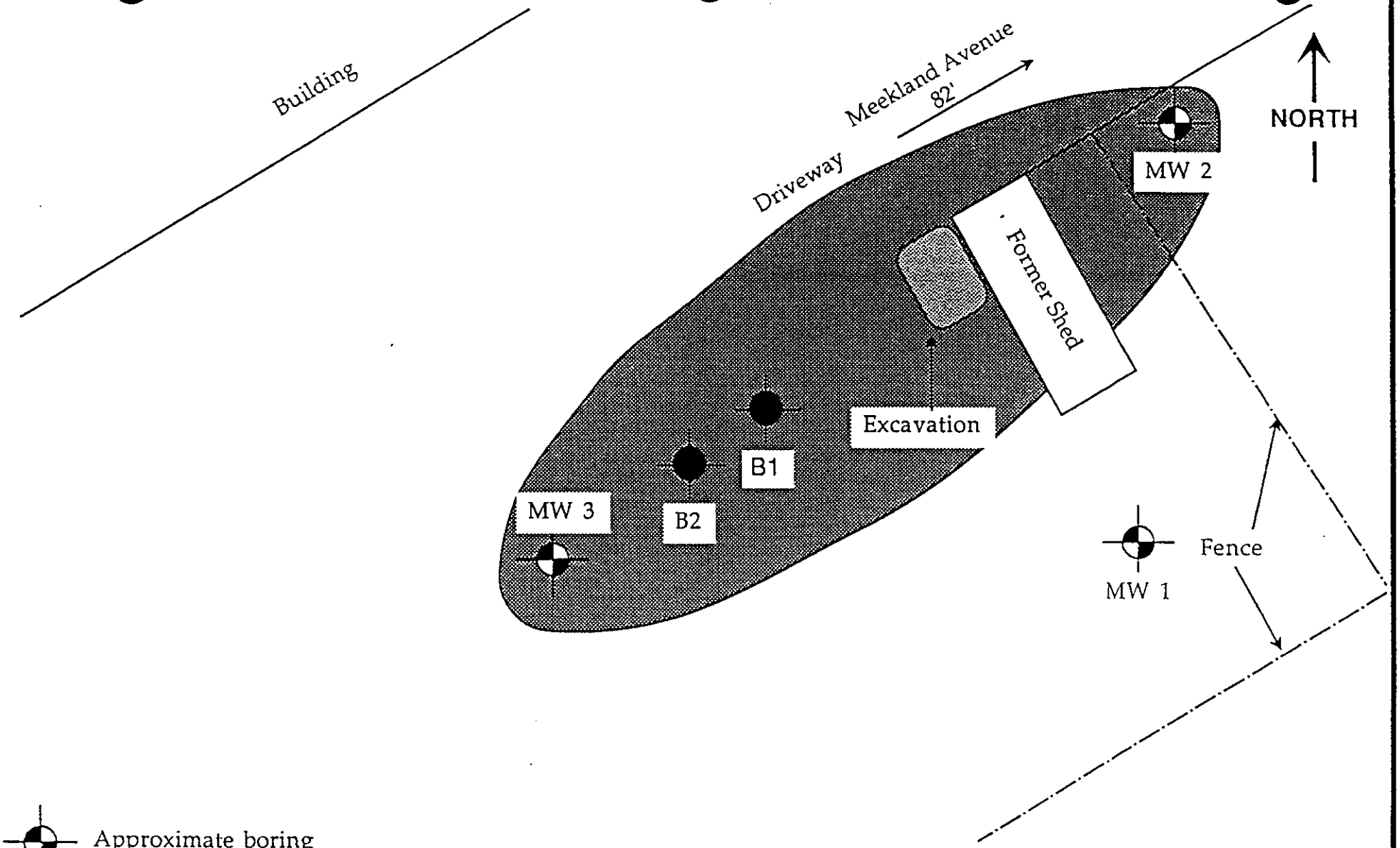
Scale 1"=20"

TPH is greater than 100 ppm.

TPH is greater than ND, but less than 100 ppm.

TPH is ND.

L & W Environmental Services, Inc. 2111 Jennings Street San Francisco, California		TPH-G Limits at 20' Depth Beck Roofing Hayward, California	
Project Number: 2116	Drawn by: MJK	Date: December, 1991	Figure Number: 15



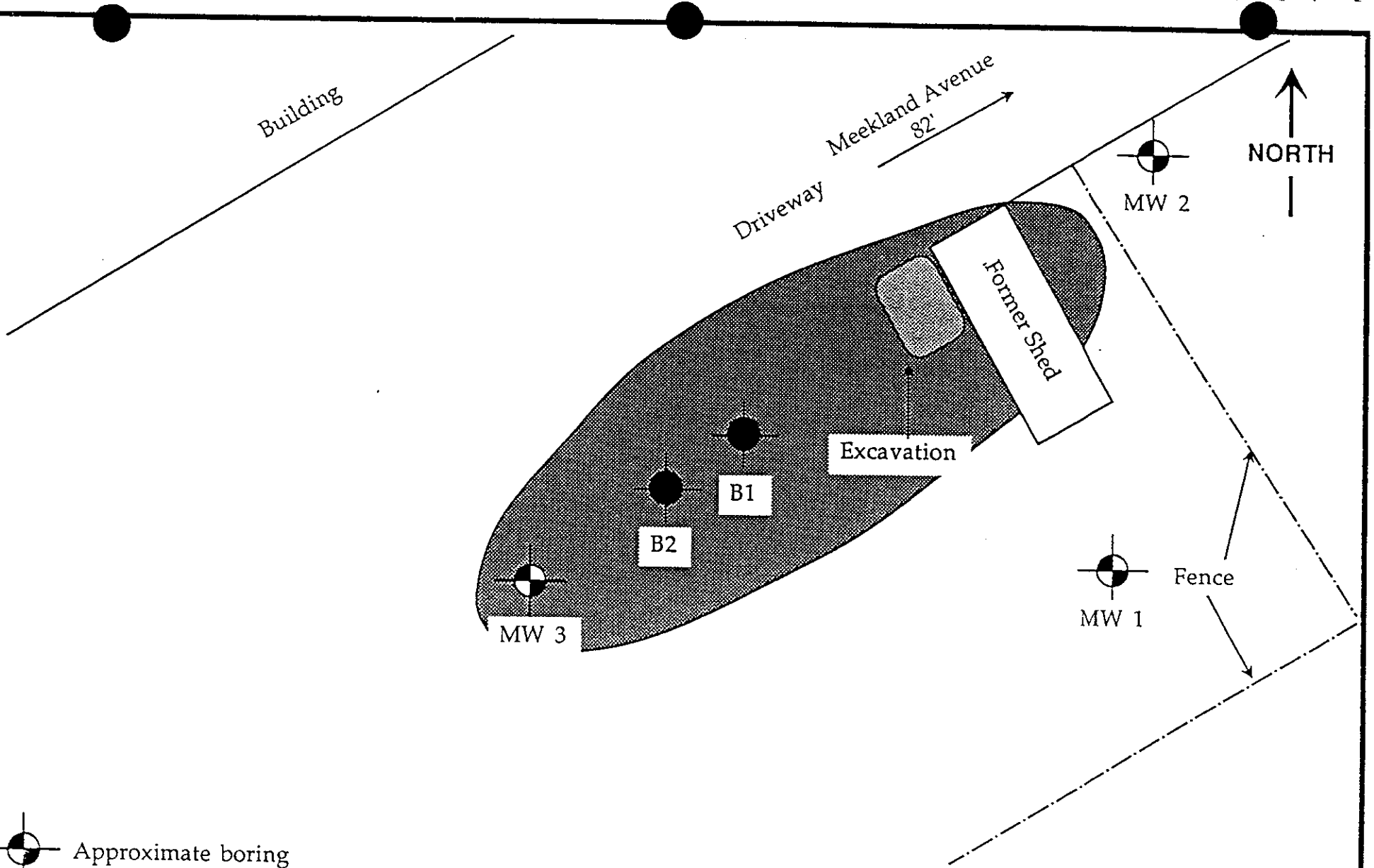
Approximate boring location

Scale 1"=20"

TPH is greater than ND, but less than 100 ppm.

TPH is ND.

L & W Environmental Services, Inc.		TPH-G Limits at 25' Depth	
2111 Jennings Street San Francisco, California		Beck Roofing Hayward, California	
Project Number: 2116	Drawn by: MJK	Date: December, 1991	Figure Number: 16



Approximate boring location

Scale 1"=20"

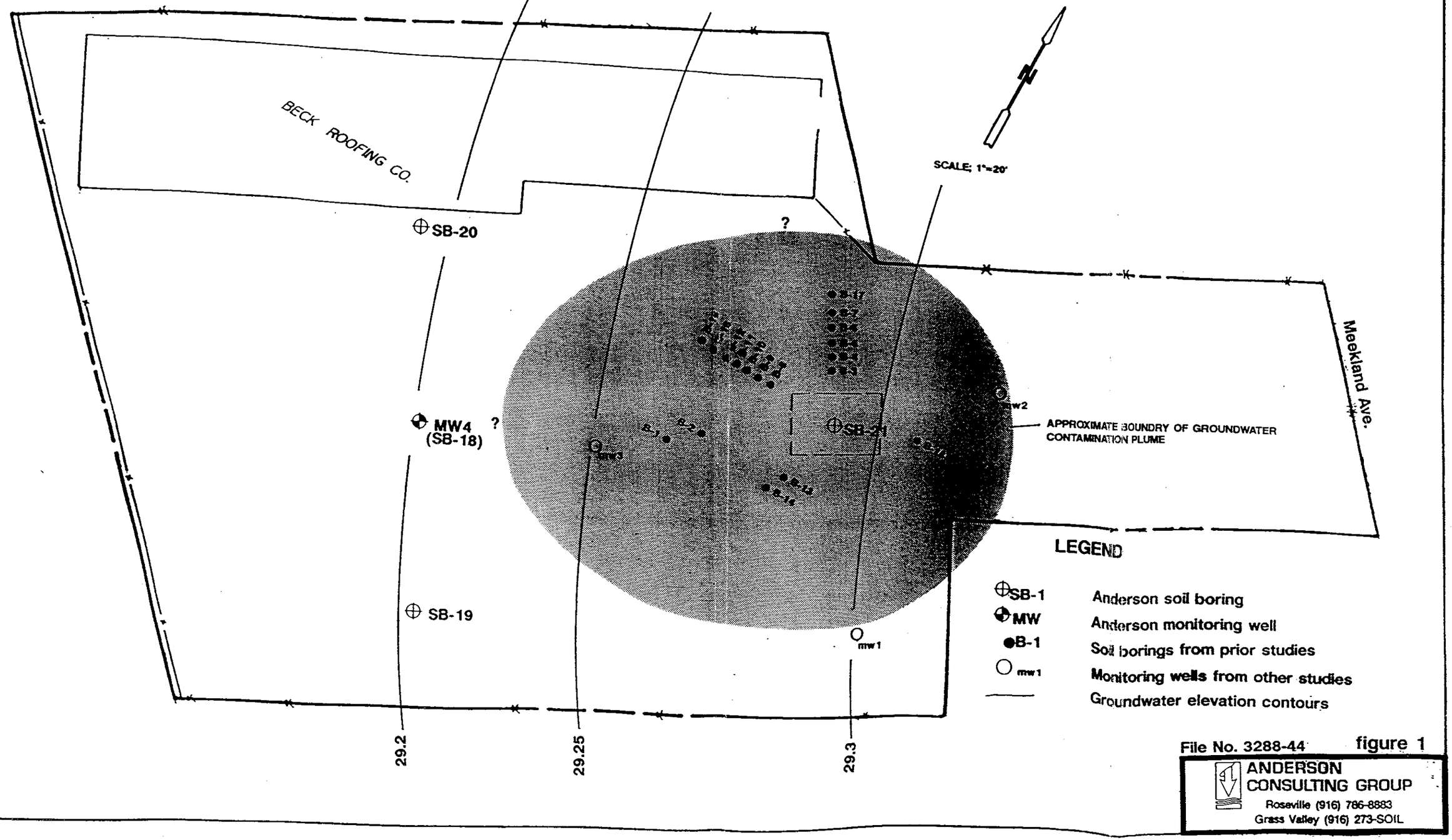
TPH is greater than ND, but less than 100 ppm.

TPH is ND.

L & W Environmental Services, Inc. 2111 Jennings Street San Francisco, California		TPH-G Limits at 30' Depth Beck Roofing Hayward, California	
Project Number: 2116	Drawn by: MJK	Date: December, 1991	Figure Number: 17

APPENDIX D

Soil Boring and Monitoring Well Location Map
from Anderson Consulting Group Report, September 9. 1994



File No. 3288-44 figure 1

ANDERSON
CONSULTING GROUP
Roseville (916) 786-8883
Grass Valley (916) 273-SOIL

APPENDIX E

Fall 1997 Soil Stockpile Laboratory Analysis Sheets And Chain Of Custody Form

McCAMPBELL ANALYTICAL INC.
110 Second Avenue South, #D7, Pacheco, CA 94553
Telephone : 510-798-1620 Fax : 510-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

Heilshorn Environmental Eng.	Client Project ID: Beck Roofing	Date Sampled: 09/11/97
P.O. Box 20546		Date Received: 09/11/97
El Sobrante, CA 94820	Client Contact: Elyse Heilshorn	Date Extracted: 09/11/97
	Client P.O:	Date Analyzed: 09/11/97

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g)"	MTBE	Benzene	Toluene	Ethylben-zene	Xylenes	% Recovery Surrogate
80671	SP1	S	ND	ND	ND	ND	ND	ND	101
80672	SP2,3	S	ND	ND	ND	ND	ND	ND	99
80673	SP4,5	S	ND	ND	ND	ND	ND	ND	101
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	5.0	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/L

" cluttered chromatogram; sample peak coelutes with surrogate peak

"The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.

DHS Certification No. 1644

for Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 Second Avenue South, #D7, Pacheco, CA 94553
Telephone : 510-798-1620 Fax : 510-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

Heilshorn Environmental Eng. P.O. Box 20546 El Sobrante, CA 94820	Client Project ID: Beck Roofing	Date Sampled: 09/11/97
		Date Received: 09/11/97
	Client Contact: Elyse Heilshorn	Date Extracted: 09/11/97
	Client P.O:	Date Analyzed: 09/12/97

Lead*

EPA analytical methods 6010/200.7, 239.2+

Lab ID	Client ID	Matrix	Extraction °	Lead*	% Recovery Surrogate
80671	SP1	S	TTLC	16	100
80672	SP2,3	S	TTLC	14	99
80673	SP4,5	S	TTLC	12	100
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		S	TTLC	3.0 mg/kg	
		W	TTLC	0.005 mg/L	
		---	STLC,TCLP	0.2 mg/L	

* soil and sludge samples are reported in mg/kg, wipe samples in ug/wipe, and water samples and all STLC / SPLP / TCLP extracts in mg/L

+Lead is analysed using EPA methed 6010 (ICP)for soils, sludges, STLC & TCLP extracts and method 239.2 (AA Furnace) for water samples

° EPA extraction methods 1311(TCLP), 3010/3020(water,TTLC), 3040(organic matrices,TTLC), 3050(solids,TTLC); STLC - CA Title 22

- surrogate diluted out of range; N/A means surrogate not applicable to this analysis

reporting limit raised due matrix interference

i) liquid sample that contains greater than ~2 vol. % sediment; this sediment is extracted with the liquid, in accordance with EPA methodologies and can significantly effect reported metal concentrations.

DHS Certification No. 1644

JM for Edward Hamilton, Lab Director

CHROMALAB, INC.

DOHS 1094

2239 Omega Road, #1 • San Ramon, California 94583
510/831-1788 • Facsimile 510/831-8798

Chain of Custody

9417XHE6 DATE _____ PAGE 1 OF 1

PROJ. MGR. Elyse Heilshorn
COMPANY HE²
ADDRESS PO Box 20546
El Sobrante 94820

SAMPLERS (SIGNATURE) (PHONE NO.)
EDHeilshorn 222-7968
Fax 222-8573

ANALYSIS REPORT

SAMPLE ID.	DATE	TIME	MATRIX	PRESERV.	TPH - Gasoline (EPA 5030, 8015)	TPH - Gasoline (5030, 8015) w/BTEX (EPA 602, 8020)	TPH - Diesel (EPA 3510/3550, 8015)	PURGEABLE AROMATICS BTEX (EPA 602, 8020)	PURGEABLE HALOCARBONS (EPA 601, 8010)	VOLATILE ORGANICS (EPA 624, 8240, 524.2)	BASE/NEUTRALS, ACIDS (EPA 625/627, 8270, 525)	TOTAL OIL & GREASE (EPA 5520, B+F, E+F)	PCB (EPA 608, 8080)	PESTICIDES (EPA 608, 8080)	TOTAL RECOVERABLE HYDROCARBONS (EPA 418.1)		METALS: Cd, Cr, Pb, Zn, Ni	CAM METALS (17)	PRIORITY POLLUTANT METALS (13)	TOTAL LEAD	EXTRACTION (TCLP, STLC)				NUMBER OF CONTAINERS
SP1	9/11	9:15	Soil	ice		✓														✓					1
SP2		to				✓														✓					1
SP3		10am				✓																			1
SP4						✓														✓					1
SP5																									1

ICE/® ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
PRESERVATION APPROPRIATE ✓
VOAS | O&G | METALS | OTHER
CONTAINERS ✓

80671
80672
80673

PROJECT INFORMATION

PROJECT NAME: Beck Roofing
PROJECT NUMBER:
P.O. #

SAMPLE RECEIPT

TOTAL NO. OF CONTAINERS	5
HEAD SPACE	
RECD GOOD CONDITION/COLD	
CONFORMS TO RECORD	

TAT: STANDARD 5-DAY | 24 | 48 | 72 | OTHER

SPECIAL INSTRUCTIONS/COMMENTS:
1 Please Composite then Analyze SP2 + SP3, SP4 + SP5
(5) Please return containers

RELINQUISHED BY 1.	RELINQUISHED BY 2.	RELINQUISHED BY 3.
EDHeilshorn 11:40		
(SIGNATURE) (TIME)	(SIGNATURE) (TIME)	(SIGNATURE) (TIME)
EDHeilshorn 9/11/97		
(PRINTED NAME) (DATE)	(PRINTED NAME) (DATE)	(PRINTED NAME) (DATE)
HE²		
(COMPANY)	(COMPANY)	(COMPANY)
RECEIVED BY 1.	**RECEIVED BY 2.**	**RECEIVED BY (LABORATORY) 3.**
Heidi Ricca 11:40		
(SIGNATURE) (TIME)	(SIGNATURE) (TIME)	(SIGNATURE) (TIME)
H. RICCA 9/11/97		
(PRINTED NAME) (DATE)	(PRINTED NAME) (DATE)	(PRINTED NAME) (DATE)
MAI		
(COMPANY)	(COMPANY)	(LAB)

APPENDIX F

Fall 1997 Groundwater Laboratory Analysis Sheets And Chain Of Custody Form

McCAMPBELL ANALYTICAL INC.
110 Second Avenue South, #D7, Pacheco, CA 94553
Telephone : 510-798-1620 Fax : 510-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

Heilshorn Environmental Eng.	Client Project ID: Beck; HE2	Date Sampled: 09/19/97
P.O. Box 20546		Date Received: 09/19/97
El Sobrante, CA 94820	Client Contact: Elyse Heilshorn	Date Extracted: 09/22-09/23/97
	Client P.O:	Date Analyzed: 09/22-09/23/97

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g)^	MTBE	Benzene	Toluene	Ethylben-zene	Xylenes	% Recovery Surrogate
80978	MW-A(1)	W	ND	ND	ND	ND	ND	ND	104
80979	MW-B (2)	W	ND	ND	ND	ND	ND	ND	105
80980	MW-C (3)	W	2700,a	ND<12	160	0.65	93	26	110#
80981	MW-D(4)	W	ND	ND	ND	ND	ND	ND	104
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	5.0	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/L

cluttered chromatogram; sample peak coelutes with surrogate peak

^The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.

DHS Certification No. 1644

Edward Hamilton, Lab Director

9475 hei1.doc

CHROMALAB, INC.

DOHS 1094

2239 Omega Road, #1 • San Ramon, California 94583
510/631-1788 • Facsimile 510/831-8798

Chain of Custody

DATE 9/18/97 PAGE 1 OF 1

PROJ. MGR. Elyse Heilshorn
COMPANY H-E²
ADDRESS P.O. Box
SAMPLERS (SIGNATURE) (PHONE NO.)

ANALYSIS REPORT

SAMPLE ID.	DATE	TIME	MATRIX	PRESERV.	TPH - Gasoline (EPA 5030, 8015)	TPH - Gasoline (5030, 8015) w/BTEX (EPA 602, 8020)	TPH - Diesel (EPA 3510/3550, 8015)	PURGEABLE AROMATICS BTEX (EPA 602, 8020)	PURGEABLE HALOCARBONS (EPA 601, 8010)	VOLATILE ORGANICS (EPA 624, 8240, 524.2)	BASE/NEUTRALS, ACIDS (EPA 625/627, 8270, 525)	TOTAL OIL & GREASE (EPA 5520, B+F, E+F)	PCB (EPA 606, 8080)	PESTICIDES (EPA 608, 8080)	TOTAL RECOVERABLE HYDROCARBONS (EPA 418.1)		METALS: Cd, Cr, Pb, Zn, Ni	CAM METALS (17)	PRIORITY POLLUTANT METALS (13)	TOTAL LEAD	EXTRACTION (TCLP, STLC)				NUMBER OF CONTAINERS
MW-A	9/18/97	11am	water	HCl		✓																			2
MW-B		10		and Ice		✓																			2
MW-C		3:30				✓																			2
MW-D		pm				✓																			2
																		80978							
																		80979							
																		80980							
																		80981							

PROJECT INFORMATION

PROJECT NAME: BEC A
PROJECT NUMBER: HE2
P.O. #

SAMPLE RECEIPT

TOTAL NO. OF CONTAINERS	8
HEAD SPACE	
RECD GOOD CONDITION/COLD	
CONFORMS TO RECORD	

TAT: (STANDARD 5-DAY) | | 24 | 48 | 72 | OTHER

SPECIAL INSTRUCTIONS/COMMENTS:

ICE/t° ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓

PRESERVATION APPROPRIATE CONTAINERS ✓

	VOAS	O&G	METALS	OTHER
PRESERVATION	✓			

RELINQUISHED BY	1.	2.	3.
	E D Heilshorn 5:10		
(SIGNATURE) (TIME)		(SIGNATURE) (TIME)	(SIGNATURE) (TIME)
	Elyse D. Heilshorn 9/19/97		
(PRINTED NAME) (DATE)		(PRINTED NAME) (DATE)	(PRINTED NAME) (DATE)
	Heilshorn Environmental (HE²)		
(COMPANY)		(COMPANY)	(COMPANY)

RECEIVED BY	1.	2.	3.
	Heidi Ricca 5:10		
(SIGNATURE) (TIME)		(SIGNATURE) (TIME)	(SIGNATURE) (TIME)
	H. Ricca 9/19/97		
(PRINTED NAME) (DATE)		(PRINTED NAME) (DATE)	(PRINTED NAME) (DATE)
	MAI		
(COMPANY)		(COMPANY)	(LAB)

APPENDIX G

Alameda County Well Closure Form

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION Date: November 14, 1997

Agency Name: Alameda County-HazMat Address: 1131 Harbor Bay Parkway
City/State/ Zip: Alameda, CA 94502 Phone: (510) 567-6700
Responsible Staff Person: *_____ Title: Senior Hazardous Materials Specialist

* Indicates items requiring information from Alameda County Environmental Health Department

II. CASE INFORMATION

Site Facility Name: Beck Roofing
Site Facility Address: 21123 Meekland Avenue, Hayward, CA 94541

RB LUSTIS Case No. : N/A Local Case No./ LOP Case No. *_____

URF Filing Date: *_____ SWEEPS No.: *_____

Responsible Parties:	Addresses:	Phone Numbers:
Mr. Charles and Mrs. Mary Beck	21123 Meekland Avenue Hayward, CA 94541	(510) 581-6750

Tank No:	Size in gal	Contents:	Closed in-place or removed?:	Date:
1	1000	Gasoline	Removed	5/20/91

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: Tank leaked; two small holes found at the bottom of each end.

Site characterization complete: YES

Date approved by oversight agency: _____

Monitoring wells installed ? YES Number: Four (4)

Proper screened interval ? YES (27.5 to 37.5 feet bgs, MW-1 to MW-3; 30 to 40 ft bgs MW-4)

Highest GW depth below ground surface: 21.20 ft. Lowest depth: 27.88 ft.

Flow direction: West to southwest based on on-site monitoring well data

Most sensitive current use: Residential / Light Industrial

Are drinking water wells affected ? NO Aquifer Name: NA

Is surface water affected ? NO Nearest affected SW name: NA

Off-site beneficial use impacts (address / location): NO

Report (s) on file ? YES

Where is report (s) filed ? Alameda County, 1131 Harbor Bay Parkway, Alameda, CA 94502

III. RELEASE AND SITE CHARACTERIZATION INFORMATION (Continued)
Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Treatment and Disposal of Affected Materials:

Materials	Amount (Include Units)	Action (Treatment / or Disposal w/ Destination)	Date
Tank	One 1000 gallon	Disposed at Erickson, Richmond, CA	5/20/91
Product/water	Product /water removal Removal Report by	not specified in Tank R.L Stevens, dated 9/25/91	
Soil	Est. 750 CY (≈975 tons)	Aerated on-site until tested clean, then removed for fill	10/97

Soil and Water Contaminant Levels:

Contaminant	Soil	(ppm)		Water	(ppb)
	Before [1]	After [2]		Before [3]	After [4]
TPH Diesel	NA	NA		NA	NA
TPH Gasoline	1800	550		ND	2700
TPH Bunker Oil	NA	NA		NA	NA
TPH Kerosene	NA	NA		NA	NA
Benzene	6.4	13		ND	160
Toluene	77	64		ND	0.65
Ethyl Benzene	33	25		ND	93
Xylene	230	120		ND	26
PAH's	NA	NA		NA	NA
Organic Lead	0.66	NA		NA	NA
Total Lead	NA	NA		ND	NA

Notes:
NA Not Analyzed

ND Not Detected - Constituent concentration below laboratory reporting limit.

1 "Before" soil samples collected during tank removal from 7.5 or 8 feet bgs from below northwest and south east ends of the tank, respectively.

III. RELEASE AND SITE CHARACTERIZATION INFORMATION (Continued)

Soil and Water Contaminant Levels Table Notes (Continued):

2 "After" samples collected by Anderson Consulting Group, August 1, 1994. Maximum values were detected in soil boring SB-21 drilled within the former tank pit, at 29.5 feet bgs.

3 "Before" water values from MW-1, MW-2 and MW-3 initial samples collected by L&W Environmental Services, 11/4/91. Results were the same for each well.

4 "After" water values from MW-3 samples collected by Heilshorn Environmental Engineering (HE2), 9/19/97. MW-1, MW-2, and MW-4 contaminant concentrations were ND for each constituent analyzed, for each well.

Comments (Depths of Remediation, etc.)

Please see body of the report for which this form comprises an appendix (HE2, 11/97). September 1997 well constituents area below Toxic Characteristic Leaching Procedure (TCLP) levels for benzene and below drink water standards, Maximum Contaminant Levels (MCL) for toluene, ethyl benzene and xylenes.

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan ? Undetermined

Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan ? Undetermined

Does corrective action protect public health for current land use ? YES
Site management requirements: None

Should corrective action be reviewed if land use changes ? YES

Monitoring wells Decommissioned : No, requesting permission to decommission with this document

Number Decommissioned: None Number Retained: Four (4)

List enforcement actions taken: NA
List enforcement actions rescinded: NA

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: Title: Senior Hazardous Materials Specialist

Signature: Date:

V. LOCAL AGENCY REPRESENTATIVE DATA

Reviewed by :

Name: Title: Hazardous Materials Specialist

Signature: Date:

Name: Thomas Peacock Title: Manager

Signature: Date:

VI. RWQCB NOTIFICATION

Date Submitted to RB: RB Response:

RWQCB Staff Name: Kevin Graves Title: Water Resources Control Engineer

Signature: Date:

VII. ADDITIONAL COMMENTS, DATA, ETC.

The rationale for recommending case closure for the subject site are as follows:

1.0 DATA SUMMARY

The analytical data for this site indicate the historical presence of constituents normally associated with a gasoline release to groundwater. Current data indicate that residual petroleum hydrocarbons and BTEX are not longer detectable or detectable at very low levels in the monitoring wells. The toluene, ethylbenzene and total xylene levels are below MCL limits in each of the four wells. Benzene concentrations are above the drinking water standard, maximum contaminant limits (MCL) in MW-3 only, at approximately 25% of the TCLP level. The nondetectable levels of organic constituents in MW-4 suggests that the contaminants are not migrating this far from the former tank location. Constituent migration from MW-3 towards MW-4 may be impeded by fine grained soils, natural biodegradation, or a combination of both.

The site is located in a mixed industrial/residential area near the city of Hayward. Adjacent areas are supplied drinking quality water by the East Bay Municipal Utilities District (EBMUD) or the City of Hayward water district. Therefore, the shallow aquifer (groundwater zone) affected at Beck Roofing may be not used or may be used only for irrigation in this area. Beck owns the two residences adjacent to the site driveway. Both are supplied by EBMUD and neither has an on-site well. The residences down gradient of the facility are beyond railroad tracks and right of way, and part of a subdivision connected to the municipal water supply.

VII. ADDITIONAL COMMENTS, DATA, ETC. (Continued)

2.0 CONCLUSIONS AND REQUEST FOR CLOSURE

Beck Roofing is requesting permission to close and destroy the four monitoring wells at the Beck Roofing yard, 21123 Meekland Avenue, Hayward. This request is based on the data and information presented in this report. The analytical data shows that the only one well still shows measurable levels of contaminants, MW-3. These levels are below the MCLs for toluene ethylbenzene and xylenes and well below The TCLP level for benzene. Although the benzene levels have been above the TCLP in MW-3, the down gradient well, MW-4 has not shown a corresponding increase in benzene concentrations. The maximum benzene level measured in MW-4 was 2.1 ppb in January 1996. The 1997 benzene levels in MW-4 have been 1.3 ppb and nondetectable. Based on these data and the distance form MW-4 down gradient to the property line, it is reasonable to assume that the chances of contamination migrating off-site are very small.

The areas immediately adjacent to Beck Roofing include a railroad right of way and tracks west of the yard (down gradient) and two residences on either side of the yard driveway (up gradient). The railroad right of way provides a buffer between the yard and residences beyond. The two residences adjacent to the driveway are owned and controlled by the Becks. These two buildings and other area residences are supplied drinking water by either the Hayward Water District or the East Bay Municipal Utilities District (EBMUD).

Beck Roofing requests permission to close these wells based on the current low level of contamination and the low chance of remaining contaminants migrating off-site. This Appendix G is the well closure form provided by Alameda County Health Agency, Division of Environmental Protection.