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On-Site Source Identification Investigation

Jasco Chemical Corporation

Mountain View, California

Prepared for:

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July 1987

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Project JCO-104H

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Wahler Associates

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July 6, 1987
Project JCO-104H

Mr. James L. Jaffe
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Bank of America Center
San Francisco, California 94104

Dear James,

Enclosed is a copy of our technical report describing the results of the on-site Source Identification Investigation conducted at the Jasco Chemical Corporation facility in Mountain View, California. Please call if you have any questions or comments regarding the topics discussed herein.

Sincerely,

WAHLER ASSOCIATES

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Project Manager

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ON-SITE SOURCE IDENTIFICATION INVESTIGATION
JASCO CHEMICAL CORPORATION
MOUNTAIN VIEW, CALIFORNIA

A. INTRODUCTION

1. Purpose

This on-site source identification investigation was conducted in response to a letter dated January 26, 1987 from Mr. Steve Morse, Division Chief, South Bay Division, California Regional Water Quality Control Board (CRWQCB), submitted to Mr. Dan Thomas, General Manager of Jasco Chemical Corporation (Jasco). The objectives of this investigation were (1) to develop a better understanding of vadose zone stratigraphy beneath the Jasco site; (2) to determine the lateral and vertical variations in the concentrations of chemicals within the soil column at on-site areas suspected of being potential source areas; (3) to determine if other parties in the vicinity of Jasco may be partially responsible for the chemicals found in the soil and ground water at and in the vicinity of the Jasco site. This report presents the soil boring construction and soil sampling techniques, the chemical analysis program, the stratigraphic information recovered from the soil borings, the chemical analysis results, and interpretations of these data.

This report is organized into five sections: (A) An introductory section, (B) soil boring construction, soil sampling, and chemical analysis program, (C) presentation and interpretation of the stratigraphic and chemical analysis results, (D) a discussion of the chemical analysis results, and (E) a conclusions section.

2. Background Information

Jasco Chemical Corporation is located at 1710 Villa Street in Mountain View, California (Figure 1). The 2.05 acre Jasco site is bordered on the north by

the Southern Pacific Railroad, main line right-of-way (Figure 2). To the east of the facility is Villa Mariposa, an apartment complex. Before construction of Villa Mariposa, Jasco was bordered on the east by Pacific Press, a printing facility, and Peninsula Tube Bending. Single and multi-family dwellings located along Higdon Avenue border the Jasco site to the west and south. Villa Street is located south of the Jasco site.

During construction of monitoring well V-4, located at the northern boundary of the Jasco site, two vadose zone soil samples were analyzed for purgeable halocarbons according to EPA Method 601. Soil sample S-4, 14.0 to 15.5 feet, taken from a sandy gravel layer, contained methylene chloride at a concentration of 0.880 ppm and 1,1,1-trichloroethane (1,1,1-TCA) at a concentration of 0.057 ppm. Soil sample S-5, 10.0 to 21.5 feet, taken from a sandy clay layer, contained methylene chloride at a concentration of 3.5 ppm, 1,1,1-TCA at 0.34 ppm, and 1,1-dichloroethane (1,1-DCA) at 0.35 ppm.

Previous to Wahler Associates' involvement in the Jasco project, Questa Engineering conducted soil sampling at and in the vicinity of the underground tank storage area (Figure 4). Reports containing the results of the Questa investigation have been submitted to the CRWQCB and are contained within the site inspection report submitted to the CRWQCB on June 29, 1987.

3. Scope of Work Performed

As part of the source identification investigation, eight vadose zone soil borings were advanced to a depth of 21.5 feet below surface. The boring locations are shown on Figure 4. During the drilling of each boring, soil samples were obtained at 1, 3, 5, 10, 15, and 20 feet using a California modified sampler equipped with 2.0-inch inside diameter brass liners. All soil samples were screened with a Foxboro organic vapor analyzer (OVA) before submittal to the laboratory for analysis. The OVA data are summarized in Table 1. Selected soil samples were submitted to Sequoia Laboratories of Redwood City, California for chemical analysis. The chemical testing program was designed to include those chemicals that are at

present, or were in the past stored at the Jasco facility. The testing program included EPA Method 8240 (volatile organics) or EPA Method 8010 (purgeables), EPA Method 8040 (phenols), total hydrocarbons as kerosene, total hydrocarbons as lacquer thinner, total hydrocarbons as paint thinner, and a scan for acetone, methanol, ethanol, and isopropanol. The chemical testing program is summarized in Table 2. The results of the chemical analyses are summarized in Table 3. A more complete discussion of the boring construction and soil sampling techniques, the pre-screening of the soil samples, and the chemical analysis program and results will be presented below.

B. SOIL BORING CONSTRUCTION, SOIL SAMPLING, AND CHEMICAL ANALYSIS PROGRAM

1. Boring Construction and Soil Sampling

Soil borings B-1, B-2, B-3, and B-4 were drilled using a truck-mounted CME-75 drill rig equipped with a 6-inch solid-stem auger. Soil borings B-5, B-6, B-7, and B-8, were drilled using a truck-mounted CME-45 drill rig equipped with a 6-inch solid-stem flight auger. The CME-45, which can be operated without extending the drill rig tower was used due to the proximity of B-5, B-6, B-7, and B-8 to power lines. Soil samples, 1.5-feet in length (three 6" liners), were taken at 1.0, 3.0, 5.0, 10.0, 15.0, and 20.0 feet using a California modified sampler equipped with 2.0-inch inside diameter brass liners. The brass liners were handled according to the Drilling, Sealing, Sampling and Safety Protocol presented in Appendix D. A 140-pound hammer falling 30 inches was used to drive the sampler during the drilling of Borings B-1 through B-4. The hydraulic system of the CME-45 was used to push the sampler during the drilling of borings B-5 through B-8. Soil samples were inspected in the field to determine the stratigraphy. The soil borings were logged by a Wahler Associates' geologist, under the supervision of a certified engineering geologist.

The depth interval at which the soil samples were taken and the stratigraphy encountered are summarized in the boring logs presented in Appendix A.

After completion of each of the borings, a cement grout containing 2-5 percent bentonite was used to seal each of the borings from the bottom of each boring to the ground surface.

Soil boring B-1 was drilled at the location of soil/gas sampling probe B-1, near the center of the grass covered area south of the drum storage area (Figure 4). Boring B-2 was sited 2.5 feet south of the west drain of the drum storage area (Figure 4). Boring B-3 was drilled 2.5 feet south of the east drain of the drum storage area (Figure 4). Borings B-2 and B-3 could not be drilled closer to the drains due to the proximity of the barbed wire fence which encircles the drum storage area. Boring B-4 was advanced 2 feet east of the westernmost dry well (Figure 4). Borings B-5 and B-6 were drilled 26 and 39 feet, respectively, southwest of the production area, in the soil area between the concrete pad covering the underground storage tank area, and the perimeter barbed wire fence (Figure 4). Boring B-7 was drilled 2 feet east of the easternmost dry well. Boring B-8 was drilled two feet north of the subsurface drainage pipe outlet at the northeastern corner of the site (Figure 4). The subsurface drainage pipe discharges into a depression in the ground surface that extends northward from the Jasco site parallel to the Southern Pacific Railroad. Boring B-8 was drilled within this depression.

After recovery of each soil sample, one of the three brass liners was immediately sealed and placed in a chilled cooler for delivery to the laboratory. The second soil sub-sample was used to determine the soil characteristics. The third sub-sample was screened for organic vapor concentration using a Foxboro Model 128 organic vapor analyzer (OVA). After extrusion from the brass liner, the soil sub-sample was placed in a one-quart mason jar. If the sub-sample was composed of clay, it was broken into smaller pieces to increase the surface area. Next, a piece of aluminum foil was placed over the top of the jar. Finally, the sealing ring of the mason jar was screwed into place over the tin foil to ensure that none of the soil vapor escaped from the headspace above the soil sample. Before screening with the OVA, each of the soil samples was placed in the sun for

10 to 15 minutes to enhance volitization of the organic compounds. After the 10 to 15 minute waiting period, a sample of the headspace gas was drawn into the OVA by carefully inserting the OVA intake probe through the aluminum foil. The organic vapor concentration value was read off the OVA analog readout dial. The results of the OVA pre-screening procedures are given in Table 1.

After collection, the soil samples were delivered to Sequoia Laboratories of Redwood City, California. The chain-of-custody records are enclosed in Appendix C. When the samples were submitted, agreement had not been reached as to the scope of the chemical testing program. After the testing program was finalized at the meeting on June 16, 1987 between members of the Jasco project team and the CRWQCB staff, a revised analysis request form was submitted to Sequoia Laboratories (Appendix C). The scope of the chemical testing program is summarized in Table 2. The chemical analysis results are summarized in Table 3 and given in Appendix B.

C. RESULTS

1. Stratigraphic Interpretation

The stratigraphy encountered during the drilling of soil borings B-1 through B-8 is contained in Appendix A and summarized in Figures 5 through 8. The vadose zone stratigraphy at the Jasco site consists of two low permeability units separated by a high permeability gravelly sand unit. The upper low permeability consists of a dark brown sandy clay. The base of the upper low permeability unit ranges from 9 feet to 15.2 feet below surface. Soil borings B-4 and B-6 contain 0.5 to 0.8 feet of sand fill overlying dark brown sandy clay. In soil boring B-2, 1.2 feet of clayey sand overlies the upper low permeability unit. Underlying the topmost unit is a gravelly to clayey sand unit ranging in thickness from 1.5 to 9 feet. The bottom of this unit, referred to as the vadose high permeability unit, ranges in depth from 16.5 to 20.5 feet. The vadose high permeability unit is underlain by a lower permeability unit that ranges in composition from sandy clay to a gravelly clayey sand containing 20 percent fines (boring B-5). Each of the soil borings was terminated at 21.5 feet.

2. Results of Chemical Analyses

The results of the chemical testing program are summarized in Table 3 and contained in Appendix B. Figures 5 through 8 display the vertical variation in chemical concentrations of each boring. The overall trend, exhibited by seven of the eight borings, is one of relatively low concentrations of methylene chloride (MCL) and in two borings, 1,1,1-trichloroethane (1,1,1-TCA) being found mainly in near-surface (1, 3, and 5 feet) samples. Only six of the 14 occurrences of chemicals found in borings B-1 through B-7 occurred below 10 feet (i.e., at 10, 15, or 20 feet). The maximum concentration of chemicals found in any one sample in borings B-1 through B-7, was 2.96 ppm. The minimum concentration of chemicals found in any sample which contained chemicals was 0.1 ppm. The mean concentration of those samples which contained chemicals, was 1.013 ppm, with a standard of 0.753 ppm.

The eighth boring, B-8, showed higher concentrations of chemicals than observed at borings B-1 through B-7. When interpreting the concentration statistics from boring B-8, note that the number of compounds, and the total concentration of chemicals detected in any one sample, is influenced by the extent of testing performed on a particular sample. For example, a portion of a sample that was analyzed for volatile organics using only EPA Method 8010 may have a total concentration value lower than the value for another portion of the same sample tested for a broad range of chemicals. Boring B-8, samples R-3 and R-5, were tested for volatile organic using EPA Method 8010 (Table 2). Samples R-2, R-4, and R-6 were tested for a broad range of chemicals (Table 2). In boring B-8, sample R-2, the total concentration of chemicals was 17,780.5 ppm, 11,000 ppm of which was paint thinner. Relatively high concentrations of paint thinner were also found in samples R-4 (10 feet) and R-6 (20 feet) (Table 3). The total concentration of chemicals in samples R-3 through R-6 were: 3.941 ppm (EPA Method 8010 only), 2,711.14 ppm, 11.488 ppm (EPA Method 8010 only), and 54.470 ppm.

Figures 9 through 14 display the lateral variation in the concentration of chemicals observed at each depth interval. The lack of topographic

variation at the Jasco site allows the direct comparison of the same depth interval in different borings. At 1.0-foot below surface, 4 of the 6 samples contained relatively low concentrations of methylene chloride (Table 3, Figure 9). Boring B-3 also contained 1,1,1-TCA at 0.56 ppm. Boring B-5 did not contain concentrations of chemicals in detectable quantities. The 1-foot sample from borings B-1 and B-8 were not analyzed.

Four of the eight samples taken at 3.0 feet were analyzed for chemicals (Table 3, Figure 10). Two of the four samples analyzed, B-2 and B-7, did not contain detectable concentrations of chemicals, B-1 contained MCL at 0.41 ppm and 1,1,1-TCA at 0.28 ppm. Boring B-8 contained five chemicals that have never been stored or used by Jasco: carbon tetrachloride, chloroform, ethyl benzene, tetrachloroethene (PCE), and trichloroethene (TCE). The 3-foot sample from B-8 also contains 1,1-dichloroethene (1,1-DCE), and trans 1,2-dichloroethene (Trans 1,2,-DCE), which are degradation products of TCE. The data from B-8 suggest that an off-site source of chemicals, unrelated to activities at Jasco, may exist in the vicinity of Jasco. Past activities at adjacent sites to the east of Jasco may have contributed to the chemicals found at Boring B-8.

Five of the eight 5-foot samples were analyzed as part of the source identification investigation (Table 3, Figure 11). Samples from B-1, B-2, and B-3 were not analyzed. Of the five samples analyzed, three contained concentrations of chemicals. B-5 and B-6 contained methylene chloride (MCL) at 0.77 ppm and 0.99 ppm. The 5-foot sample from B-8, analyzed for purgeables using EPA Method 8010, contained MCL at 2.4 ppm, 1,1,1-TCA at 1.5 ppm, 1,1-DCA at 0.034 ppm and PCE at 0.067 ppm. The samples from B-4 and B-7 did not contain detectable quantities of chemicals.

Of the eight 10-foot samples, only B-1 was not tested for chemicals (Table 3, Figure 12). Five of the seven samples tested, B-2, B-3, B-5, B-6, and B-7 did not contain detectable quantities of chemicals. B-4 contained MCL at 0.19 ppm. B-8 contained relatively high concentrations of acetone (15 ppm), MCL (71 ppm), paint thinner (2,600 ppm), and 1,1,1-TCA (22 ppm),

as well as concentrations of 1,1-DCA (0.98 ppm), isopropanol (1 ppm), PCE (0.31 ppm), and TCE (0.85 ppm). As stated above, PCE and TCE have never been stored or used at Jasco. The PCE and TCE, found only at B-8, may be from a source other than Jasco.

Three of the eight 15-foot samples were not analyzed for chemicals, B-1, B-2, and B-3. Of the five samples that were tested, three, B-4, B-5, and B-7 did not contain detectable concentrations of chemicals. B-6 contained MCL at a concentration of 0.76 ppm. B-8, analyzed for purgeables using EPA Method 8010, contained 1,1-DCA at 0.2 ppm, MCL at 8.9 ppm, 1,1,1-TCA at 2.3 ppm, and TCE at 0.088 ppm.

All eight of the 20-foot samples were analyzed for chemical content. Three of the eight samples did not contain detectable concentrations of chemicals, B-1, B-5, and B-7. B-2 contained MCL at 1 ppm and 1,1,1-TCA at 0.11 ppm. B-3 contained concentrations of MCL and 1,1,1-TCA at 0.35 ppm and 0.15 ppm. The 20-foot samples from B-4 and B-6 both contained relatively low concentrations of MCL, 0.1 and 1.6 ppm. The sample from B-8 contained the following chemicals: acetone - 13 ppm, 1,1,-DCA - 0.76 ppm, isopropanol 2.5 ppm, MCL - 18 ppm, paint thinner 20 ppm, and 1,1,1-TCA - 0.21 ppm. All of the chemicals found at 20 feet, with the exception of 1,1-DCA which is a degradation product of 1,1,1-TCA, were or are stored at the Jasco facility.

D. DISCUSSION

The chemical analysis results obtained from the eight on-site soil boring may be summarized as follows. Soil boring B-8 was drilled two feet north of the subsurface drainage pipe outlet at the northeastern corner of the site. The subsurface drainage pipe, which originates east of the Jasco site, discharges into a depression in the ground surface that extends westward from the Jasco site parallel to the Southern Pacific Railroad. Boring B-8 was drilled within this depression. Concentrations of a broad range of chemicals were found in boring B-8. The chemicals identified included five that have never been stored or used by Jasco: carbon tetrachloride,

chloroform, ethyl benzene, PCE, and TCE. The results from B-8 indicate that an additional source in the vicinity of Jasco, unrelated to Jasco, may be partially responsible for the chemicals found at B-8. The potential source appears to be located east of the Jasco facility, adjacent to the subsurface drainage pipe.

Low concentrations of two chemicals, MCL and 1,1,1-TCA were found at the seven additional borings drilled at the Jasco site. Boring B-1, drilled in the grass covered area south of the drum storage area, contained a low concentration of MCL at the three-foot depth. No chemicals were found to occur at 20 feet, the other depth interval that was analyzed. The chemical data from B-1 indicates that the MCL is confined to the near-surface at the grass covered area south of the drum storage area.

Low concentrations of MCL and 1,1-TCA were found at 1-foot and 20 feet in borings B-2 and B-3, advanced at the west and east drains of the drum storage area. The data from B-2 and B-3, indicate that minor releases of MCL and 1,1,1-TCA probably occurred on two separate occasions.

Borings B-4 and B-7 were drilled adjacent to the west and east dry wells. The chemical data from adjacent to the west dry well (B-4) indicate that at least three small releases of MCL probably occurred at different times in the vicinity of the west dry well. MCL was found at the 1-foot depth adjacent to the east dry well. The chemical data indicates that MCL is confined to the near-surface in the vicinity of the east dry well.

Two borings, B-5 and B-6, were drilled in the dirt covered area just west of the methylene chloride underground storage tank between the concrete pad and the fence at the western boundary of the Jasco site. Low concentrations of MCL were found at the 5-foot depth of B-5 and the 1, 5, 15, and 20-foot depths of B-6. The data from B-5 and B-6 indicate that small releases of MCL probably occurred in the past adjacent to the MCL tank, possibly during the filling of the tank.

The highest levels of chemicals were found in boring B-8, drilled in the "drainage depression" at the northeastern boundary of the Jasco site. The chemical data for B-8 indicate that non-Jasco sources are partially responsible for chemicals found in the soil at B-8. Other than at boring B-8, the concentrations of chemicals found at the additional seven borings are minor.

E. CONCLUSIONS

1. The vadose zone stratigraphy at the Jasco site consists of three units: a low permeability unit, consisting predominantly of sandy clay, which extends from the surface to 9.0 to 15.2 feet; a high permeability unit composed predominantly of gravelly sand, ranging in thickness from 1.5 to 9.0 feet. A second low permeability unit extends from the bottom of the overlying high permeability unit to the depth at which the borings were terminated, 21.5 feet. The lower boundary of the third unit was not encountered in any of the eight borings.

2. Concentrations of chemicals were found in soil samples taken from each of the eight borings drilled as part of the source identification investigation.

3. Seven of the eight borings, B-1 through B-7, contained low concentrations of methylene chloride (MCL), or MCL and 1,1,1-TCA. Both MCL and 1,1,1-TCA are currently stored and used by Jasco at their Mountain View facility.

4. The eighth boring, B-8, contained high concentrations of chemicals from near-surface down to a depth of 20 feet.

5. Five of the chemicals found to occur in the soil column at B-8 have never been used or stored by Jasco: carbon tetrachloride, chloroform, ethyl benzene, PCE, and TCE. The three-foot sample from B-8 also contained 1,1-DCE, and trans 1,2-DCE, degradation products of TCE. TCE was never stored or used by Jasco.

6. The subsurface drainage pipe which extends along the northern boundary of the site originates off-site, at a location east of the Jasco facility. The chemicals found in the soil at B-8 that have never been used or stored by Jasco may have been transported to the location of B-8 through the subsurface drainage pipe from off-site sources unrelated to activities at Jasco. This hypothesis is supported by chemical data from on-site borings B-1 through B-7 (Table 3) which do not contain concentrations of the "non Jasco" chemicals found at B-8, only relatively low concentrations of two chemicals, methylene chloride and 1,1,1-TCA.

7. The drainage ditch, at and in the vicinity of soil boring B-8 is the most likely source area for the chemicals detected in the ground water, both on-site and in the vicinity of Jasco.

8. The data from soil borings B-2, B-3, B-4, and B-6 indicate that low concentrations of chemicals exist in the soil at 20 feet adjacent to the western and eastern drains of the drum storage area, the western dry well and the are of exposed soil adjacent to the underground storage tanks.

9. The chemical analysis results from borings B-7 and B-1 indicate that chemicals in the soil adjacent to the eastern dry well and the grass covered area south of the drum storage area are confined to the near-surface, and likely do not pose a threat to the ground water.

TABLE 1

RESULTS OF OVA SOIL SAMPLE SCREENING

Boring No.	Sample No.	Sample Depth (ft)	Total Organics (ppm)
B-1	R-1	1.0	0.0
	R-2	3.0	0.6
	R-3	5.0	0.0
	R-4	10.0	0.0
	R-5	15.0	0.7
	R-6	20.0	0.5
B-2	R-1	1.0	180
	R-2	3.0	12.0
	R-3	5.0	1.4
	R-4	10.0	1.0
	R-5	15.0	2.8
	R-6	20.0	9.0
B-3	R-1	1.0	2.2
	R-2	3.0	0.3
	R-3	5.0	0.4
	R-4	10.0	0.6
	R-5	15.0	0.8
	R-6	20.0	1.0
B-4	R-1	1.0	12.0
	R-2	3.0	10.0
	R-3	5.0	9.5
	R-4	10.0	10.8
	R-5	15.0	26.0
	R-6	20.0	26.0
B-5	R-1	1.0	890
	R-2	3.0	> 1000
	R-3	5.0	> 1000
	R-4	10.0	> 1000
	R-5	15.0	13.0
	R-6	20.0	37.0
B-6	R-1	1.0	115
	R-2	3.0	3.8
	R-3	5.0	66.0
	R-4	10.0	840
	R-5	15.0	165
	R-6	20.0	580
B-7	R-1	1.0	> 1000
	R-2	3.0	> 1000
	R-3	5.0	> 1000
	R-4	10.0	62.0
	R-5	15.0	3.2
	R-6	20.0	12.0

TABLE 1 (Continued)

RESULTS OF OVA SOIL SAMPLE SCREENING

Boring No.	Sample No.	Sample Depth (ft)	Total Organics (ppm)
B-8	R-1	1.0	>1000
	R-2	3.0	>1000
	R-3	5.0	>1000
	R-4	10.0	>1000
	R-5	15.0	>1000
	R-6	20.0	>1000

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TABLE 2

CHEMICAL ANALYSES PERFORMED - SOURCE IDENTIFICATION INVESTIGATION

Boring No.	Sample No.	None	EPA 8010	EPA 8240	EPA 8040	THC AS LT	THC AS PT	THC AS K	ALC/ACET.
B-1	R-1	X							
	R-2		X						
	R-3	X							
	R-4	X							
	R-5	X							
	R-6		X						
B-2	R-1		X		X	X	X	X	X
	R-2		X						
	R-3	X							
	R-4		X						
	R-5	X							
	R-6		X		X	X	X	X	X
B-3	R-1		X		X	X	X	X	X
	R-2	X							
	R-3	X							
	R-4		X						
	R-5	X							
	R-6		X		X	X	X	X	X
B-4	R-1		X		X	X	X	X	X
	R-2	X							
	R-3		X						
	R-4		X						
	R-5		X						
	R-6		X		X	X	X	X	X
B-5	R-1		X						
	R-2	X							
	R-3		X		X	X	X	X	X
	R-4			X	X	X	X	X	X
	R-5		X						
	R-6		X		X	X	X	X	X

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TABLE 2(Continued)

CHEMICAL ANALYSES PERFORMED - SOURCE IDENTIFICATION INVESTIGATION

Boring No.	Sample No.	None	EPA 8010	EPA 8240	EPA 8040	THC AS LT	THC AS PT	THC AS K	ALC/ACET.
B-6	R-1		X						
	R-2	X							
	R-3		X		X	X	X	X	X
	R-4			X	X	X	X	X	X
	R-5		X						
	R-6		X		X	X	X	X	X
B-7	R-1		X						
	R-2		X						
	R-3			X	X	X	X	X	X
	R-4		X		X	X	X	X	X
	R-5		X						
	R-6		X		X	X	X	X	X
B-8	R-1	X							
	R-2			X	X	X	X	X	X
	R-3		X						
	R-4		X		X	X	X	X	X
	R-5		X						
	R-6		X		X	X	X	X	X

THC - Total Hydrocarbons
LT - Lacquer Thinner
PT - Paint Thinner
K - Kerosene
ALC - Alcohols
ACET - Acetone

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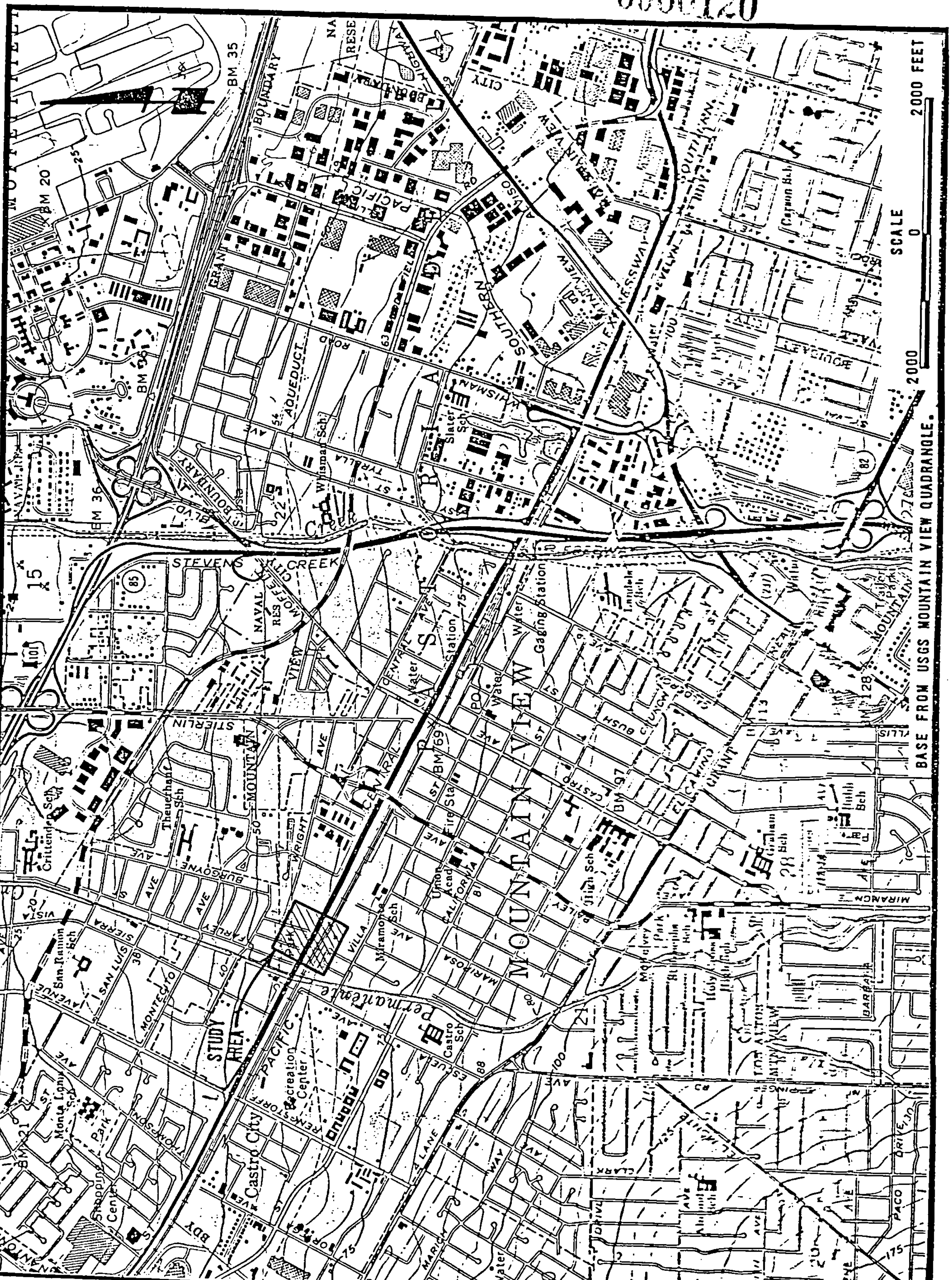
TABLE 3
CHEMICAL ANALYSIS RESULTS
SOURCE IDENFICIATION SOIL SAMPLES (ppm)

Borehole Sample	ACET	CARBTET	CHLOROF	1,1,-DCA	1,2-DCA	1,1-DCE	1,2,-DCE	ETHYL-BENZ	ISPROP	MCL	PAITHIN	PCE	1,1,1-TCA	TCE	TOLUE
B-1,R-2	NA	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	NA	NA	0.41	NA	ND(0.05)	0.28	ND(0.05)	NA
B-1,R-6	NA	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	NA	NA	ND(0.05)	NA	ND(0.05)	ND(0.05)	ND(0.05)	NA
B-2,R-1	ND(1)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	NA	ND(1)	1.1	ND(1)	ND(0.05)	ND(0.05)	ND(0.05)	NA
B-2,R-2	NA	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	NA	NA	ND(0.05)	NA	ND(0.05)	ND(0.05)	ND(0.05)	NA
B-2,R-4	NA	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	NA	NA	ND(0.05)	NA	ND(0.05)	ND(0.05)	ND(0.05)	NA
B-2,R-6	ND(1)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	NA	ND(1)	1.0	ND(1)	ND(0.05)	0.11	ND(0.05)	NA
B-3,R-1	ND(1)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	NA	ND(1)	2.4	ND(1)	ND(0.05)	0.56	ND(0.05)	NA
B-3,R-4	NA	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	NA	NA	ND(0.05)	NA	ND(0.05)	ND(0.05)	ND(0.05)	NA
B-3,R-6	ND(1)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	NA	ND(1)	0.35	ND(1)	ND(0.05)	0.15	ND(0.05)	NA
B-4,R-1	ND(1)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	NA	ND(1)	1.1	ND(1)	ND(0.05)	ND(0.05)	ND(0.05)	NA
B-4,R-3	NA	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	NA	NA	ND(0.05)	NA	ND(0.05)	ND(0.05)	ND(0.05)	NA
B-4,R-4	NA	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	NA	NA	0.19	NA	ND(0.05)	ND(0.05)	ND(0.05)	NA
B-4,R-5	NA	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	NA	NA	ND(0.05)	NA	ND(0.05)	ND(0.05)	ND(0.05)	NA
B-4,R-6	ND(1)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	NA	ND(1)	0.1	ND(1)	ND(0.05)	ND(0.05)	ND(0.05)	NA
B-5,R-1	NA	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	NA	NA	ND(0.05)	NA	ND(0.05)	ND(0.05)	ND(0.05)	NA
B-5,R-1	NA	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	NA	NA	ND(0.05)	NA	ND(0.05)	ND(0.05)	ND(0.05)	NA
B-5,R-3	ND(1)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	NA	ND(1)	0.77	ND(1)	ND(0.05)	ND(0.05)	ND(0.05)	NA
B-5,R-4	ND(1)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	NA	ND(1)	ND(0.05)	ND(1)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)
B-5,R-5	NA	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	NA	NA	ND(0.05)	NA	ND(0.05)	ND(0.05)	ND(0.05)	NA
B-5,R-6	ND(1)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	NA	ND(1)	ND(0.05)	ND(1)	ND(0.05)	ND(0.05)	ND(0.05)	NA
B-6,R-1	NA	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	NA	NA	2.1	NA	ND(0.05)	ND(0.05)	ND(0.05)	NA
B-6,R-3	ND(1)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	NA	ND(1)	0.99	ND(1)	ND(0.05)	ND(0.05)	ND(0.05)	NA
B-6,R-4	ND(1)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	NA	ND(1)	ND(0.05)	ND(1)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)
B-6,R-5	NA	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	NA	ND(1)	0.72	NA	ND(0.05)	ND(0.05)	ND(0.05)	NA
B-6,R-6	ND(1)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	NA	NA	1.6	ND(1)	ND(0.05)	ND(0.05)	ND(0.05)	NA
B-7,R-1	NA	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	NA	ND(1)	0.25	NA	ND(0.05)	ND(0.05)	ND(0.05)	NA
B-7,R-2	NA	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	NA	NA	ND(0.05)	NA	ND(0.05)	ND(0.05)	ND(0.05)	NA
B-7,R-3	ND(1)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	NA	NA	ND(0.05)	ND(1)	ND(0.05)	ND(0.05)	ND(0.05)	NA
B-7,R-4	ND(1)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	NA	ND(1)	ND(0.05)	ND(1)	ND(0.05)	ND(0.05)	ND(0.05)	NA
B-7,R-5	NA	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	NA	NA	ND(0.05)	NA	ND(0.05)	ND(0.05)	ND(0.05)	NA
B-7,R-6	ND(1)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)	NA	ND(1)	ND(0.05)	ND(1)	ND(0.05)	ND(0.05)	ND(0.05)	NA
B-8,R-2	270	680	2.3	27	3.9	13	4.8	170	3.5	3,400	11,000	16	ND(2)	490	1,700
B-8,R-3	NA	ND(0.05)	ND(0.05)	0.034	ND(0.05)	ND(0.05)	ND(0.05)	NA	NA	2.4	NA	0.0067	1.5	ND(0.05)	NA
B-8,R-4	15	ND(0.05)	ND(0.05)	0.98	ND(0.05)	ND(0.05)	ND(0.05)	NA	1.0	71	2,600	0.310	22	0.85	NA
B-8,R-5	NA	ND(0.05)	ND(0.05)	0.20	ND(0.05)	ND(0.05)	ND(0.05)	NA	NA	8.9	NA	ND(0.05)	2.3	0.088	NA
B-8,R-6	13	ND(0.05)	ND(0.05)	0.76	ND(0.05)	ND(0.05)	ND(0.05)	NA	2.5	18	20	ND(0.05)	0.21	ND(0.05)	NA

ACET - Acetone
CALBTET - Carbon tetrachloride
CHLOROF - Chloroform
Ethylbenz - Ethyl Benzene
ISOPROP - Isopropanol
MCL - Methylene Chloride
Paithin - Paint Thinner
Tolue - Toluene
NA - Not analyzed
ND(0.05) - Not detected at detection limit of 0.05 ppm
ND(1) - Not detected at detection limit of 1 ppm
ND(2) - Not detected at detection limit of 2 ppm

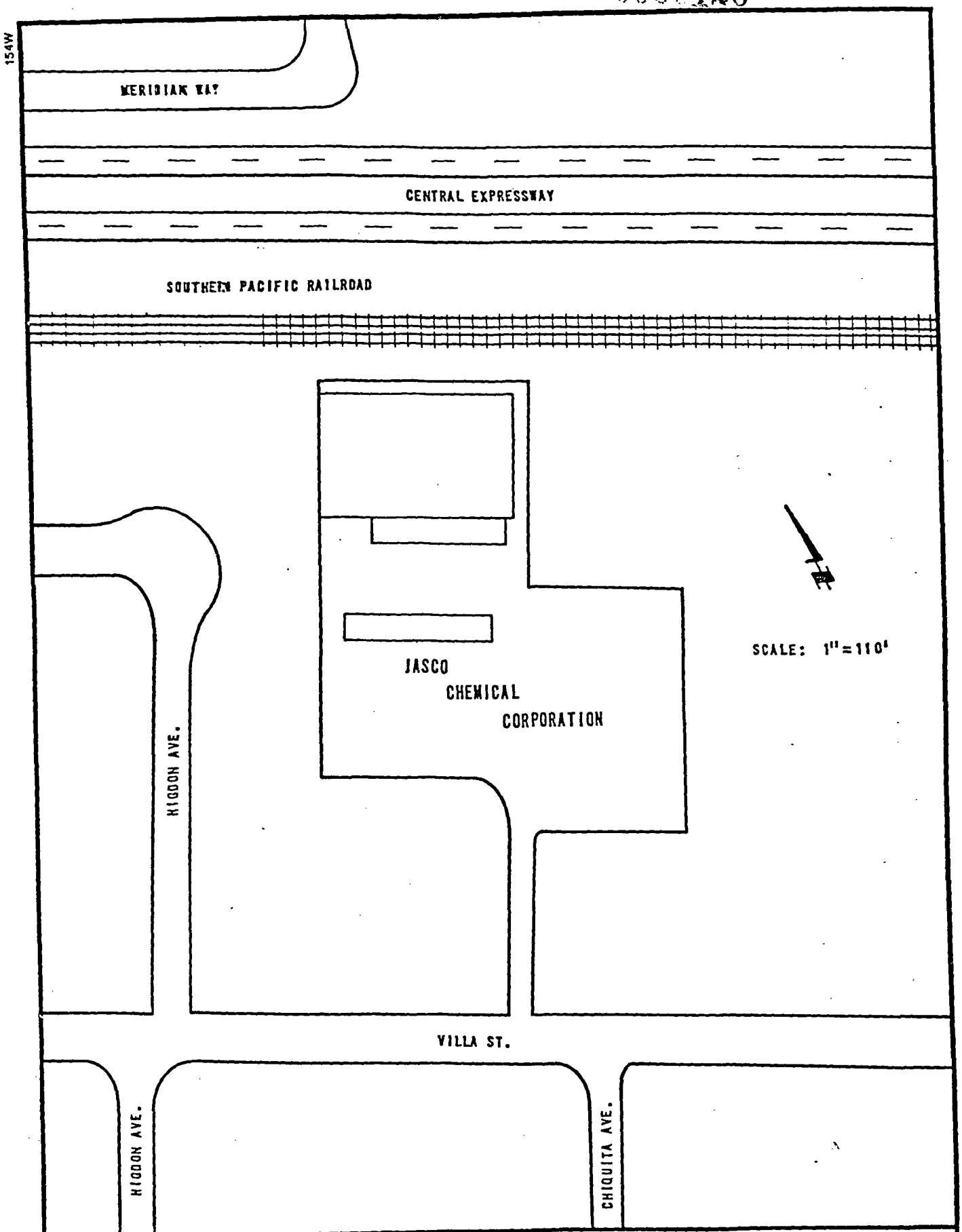
00001120

0000120



Wahler Associates	JASCO CHEMICAL CORPORATION SOURCE IDENTIFICATION REPORT	LOCATION OF STUDY AREA (AREA SHOWN IN FIGURE 2)		
	PALO ALTO • CALIFORNIA	PROJECT NO. JCO-104H	DATE JULY 1987	FIGURE NO.

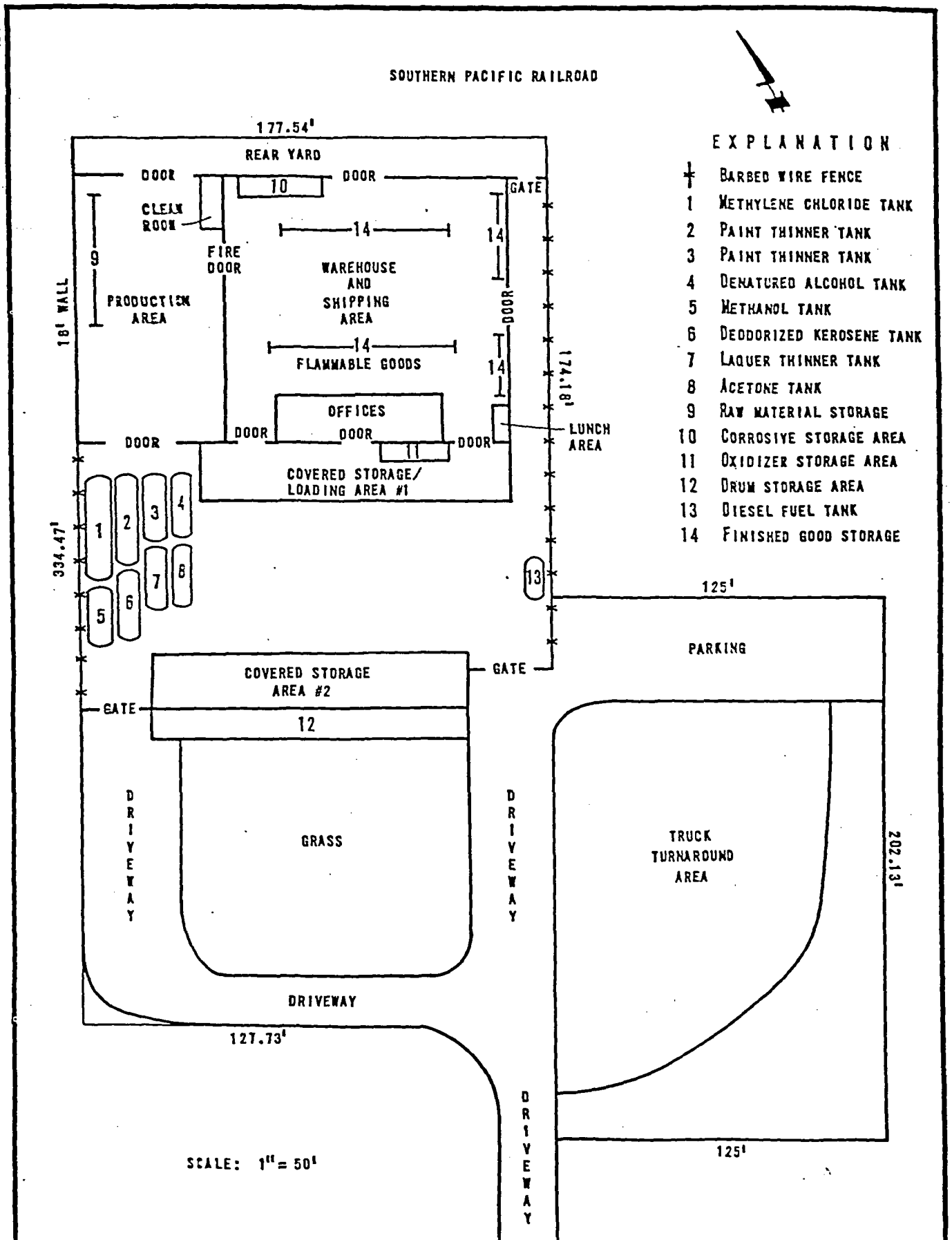
0000120



Wahler Associates	JASCO CHEMICAL CORPORATION SOURCE IDENTIFICATION REPORT	LOCATION OF JASCO CHEMICAL CORPORATION MOUNTAIN VIEW, CALIF.		
		PROJECT NO.	DATE	FIGURE NO.
	PALO ALTO • CALIFORNIA	JCO-104H	JULY 1987	2

·OZALID

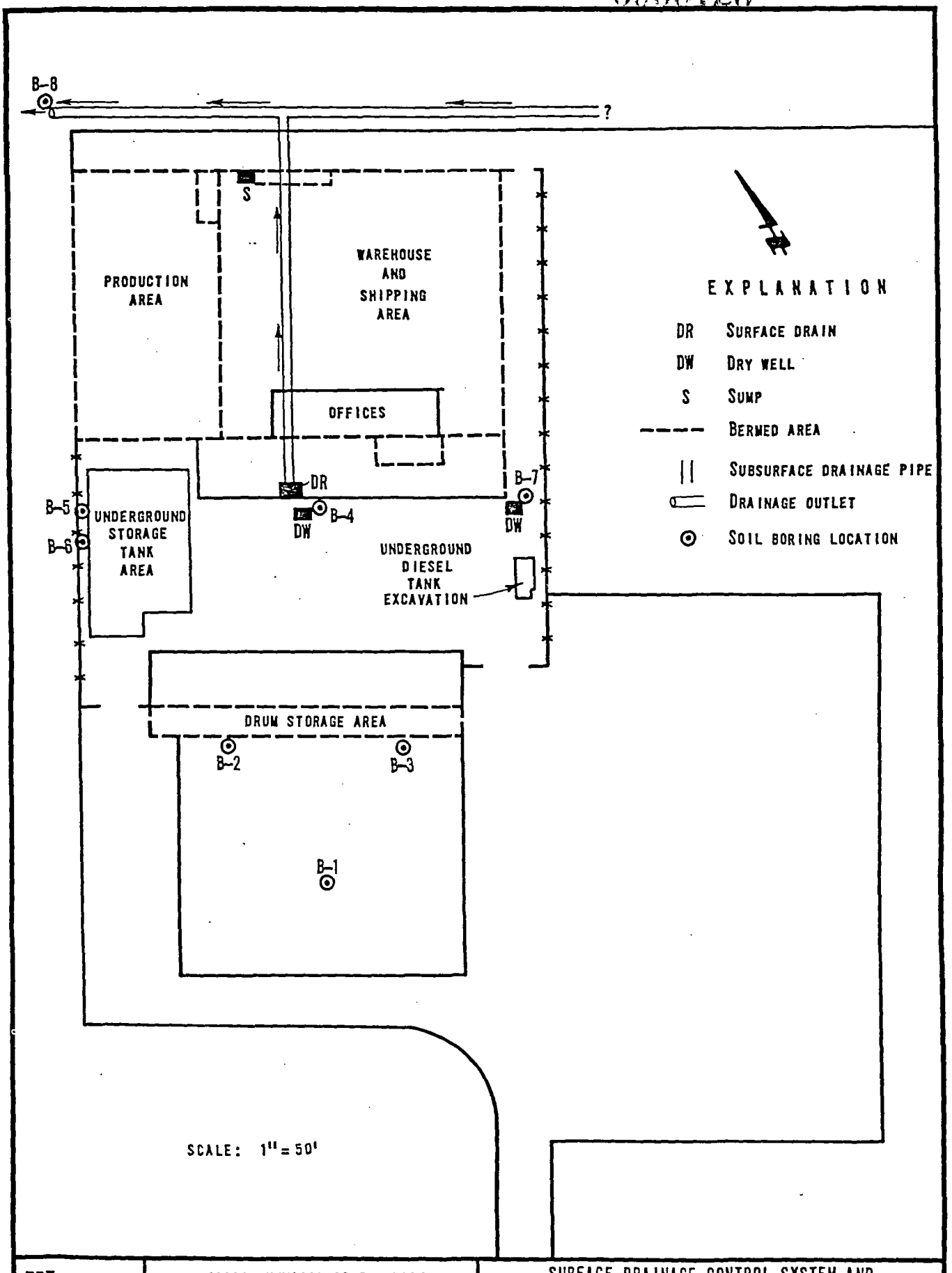
154W



Wahler Associates	JASCO CHEMICAL CORPORATION SOURCE IDENTIFICATION REPORT	SITE CONFIGURATION		
		PROJECT NO.	DATE	FIGURE NO.
	PALO ALTO • CALIFORNIA	JCO-104H	JULY 1987	3

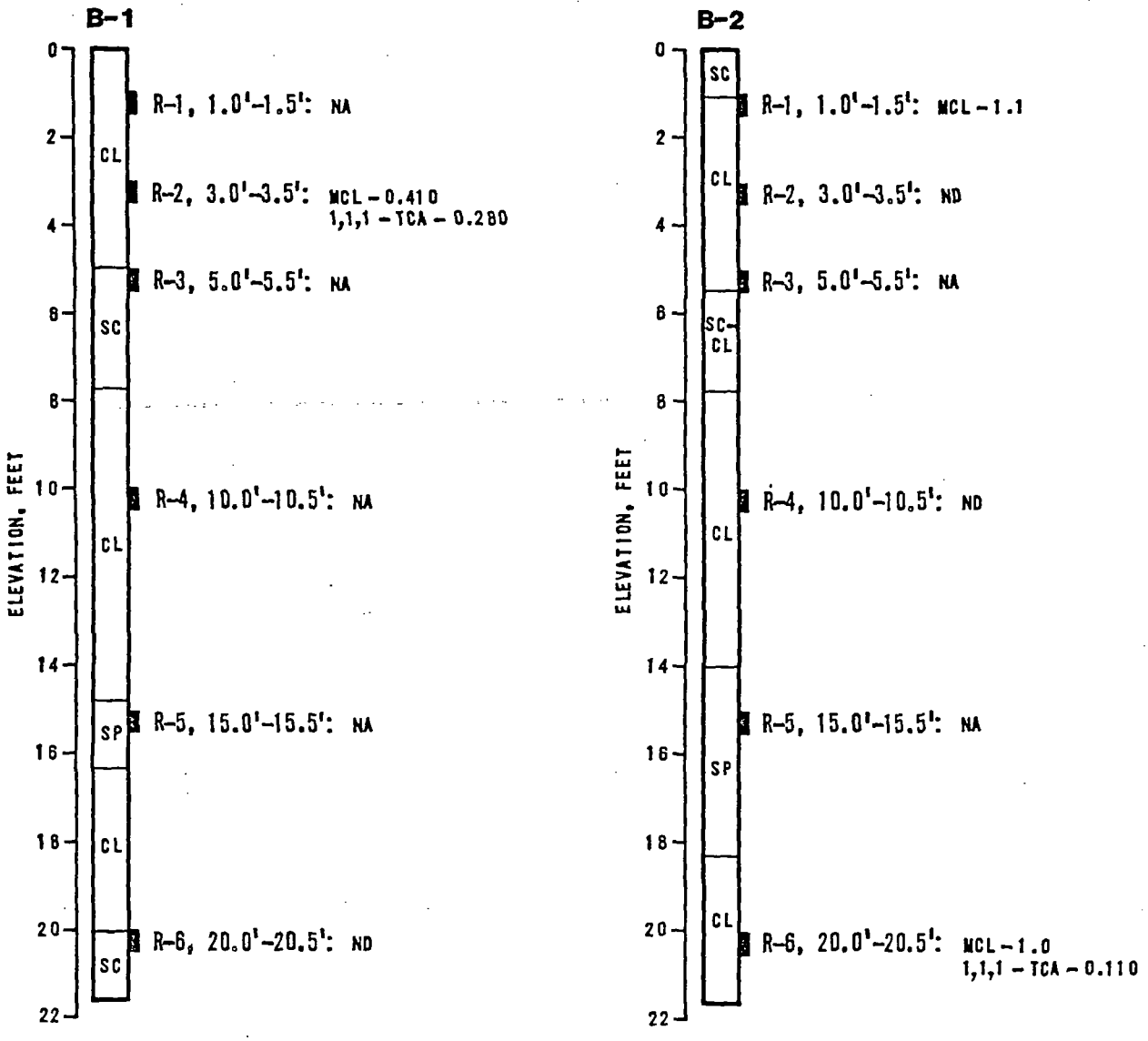
OZALID

154W



Wahler Associates	JASCO CHEMICAL CORPORATION SOURCE IDENTIFICATION REPORT	SURFACE DRAINAGE CONTROL SYSTEM AND LOCATION OF SOIL BORINGS		
		PROJECT NO.	DATE	FIGURE NO.
	PALO ALTO • CALIFORNIA	JCO-104H	JULY 1987	4

OZALID

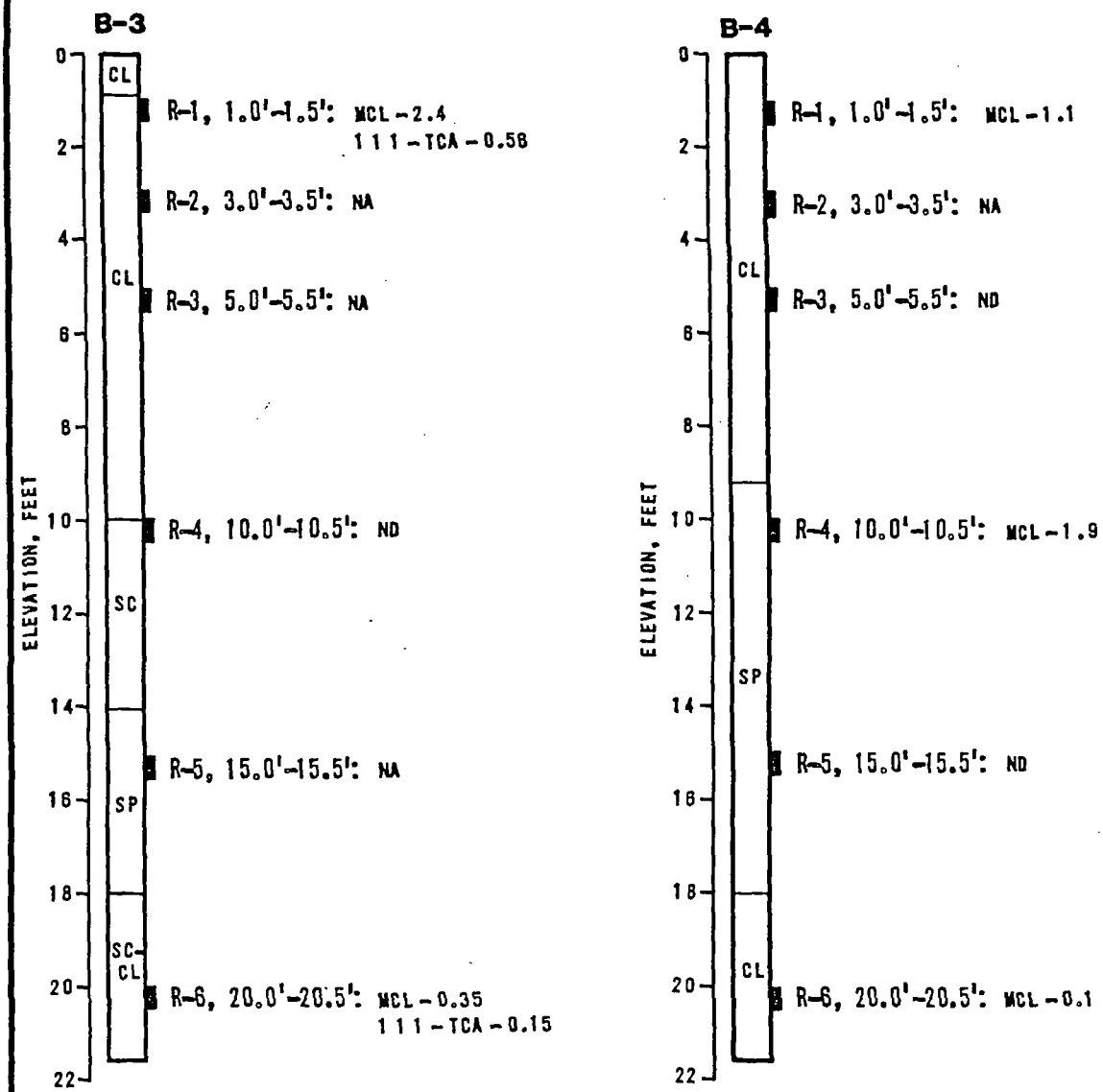


EXPLANATION

NA	NOT ANALYZED
ND	NO CHEMICALS DETECTED
MCL	METHYLENE CHLORIDE

NOTE: CONCENTRATION IN ppm

Wahler Associates	JASCO CHEMICAL CORPORATION SOURCE IDENTIFICATION REPORT	VERTICAL EXTENT OF CHEMICALS IN SOIL BORINGS B-1 AND B-2		
		PROJECT NO.	DATE	FIGURE NO.
	PALO ALTO • CALIFORNIA	JCO-104H	JULY 1987	5



EXPLANATION

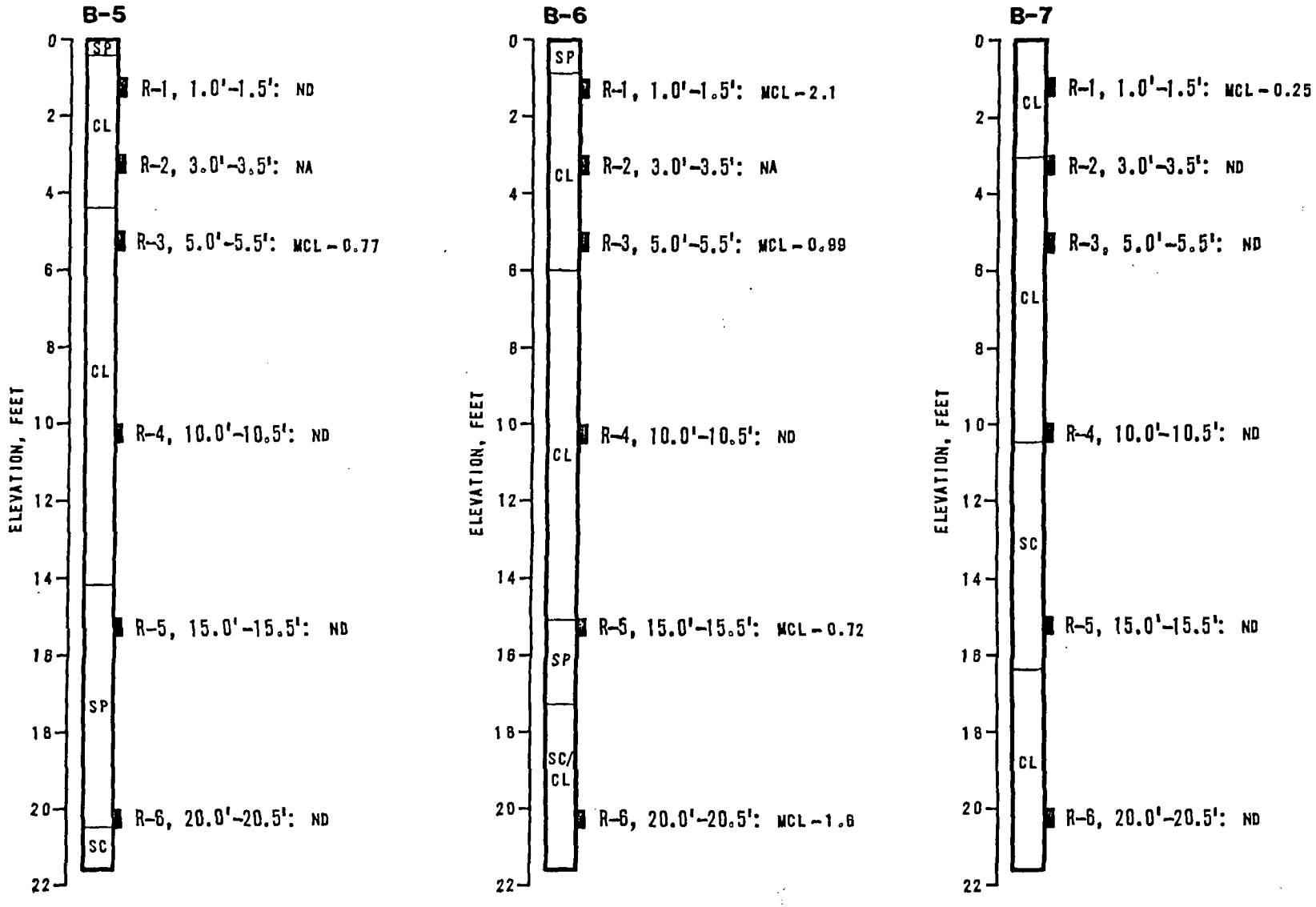
NA NOT ANALYZED

ND NO CHEMICALS DETECTED

MCL METHYLENE CHLORIDE

NOTE: CONCENTRATION IN ppm

Wahler Associates	JASCO CHEMICAL CORPORATION SOURCE IDENTIFICATION REPORT	VERTICAL EXTENT OF CHEMICALS IN SOIL BORINGS B-3 AND B-4		
		PROJECT NO.	DATE	FIGURE NO.
	PALO ALTO • CALIFORNIA	JCO-104H	JULY 1987	6



EXPLANATION

NA NOT ANALYZED
ND NO CHEMICALS DETECTED
MCL METHYLENE CHLORIDE

NOTE: CONCENTRATION IN ppm

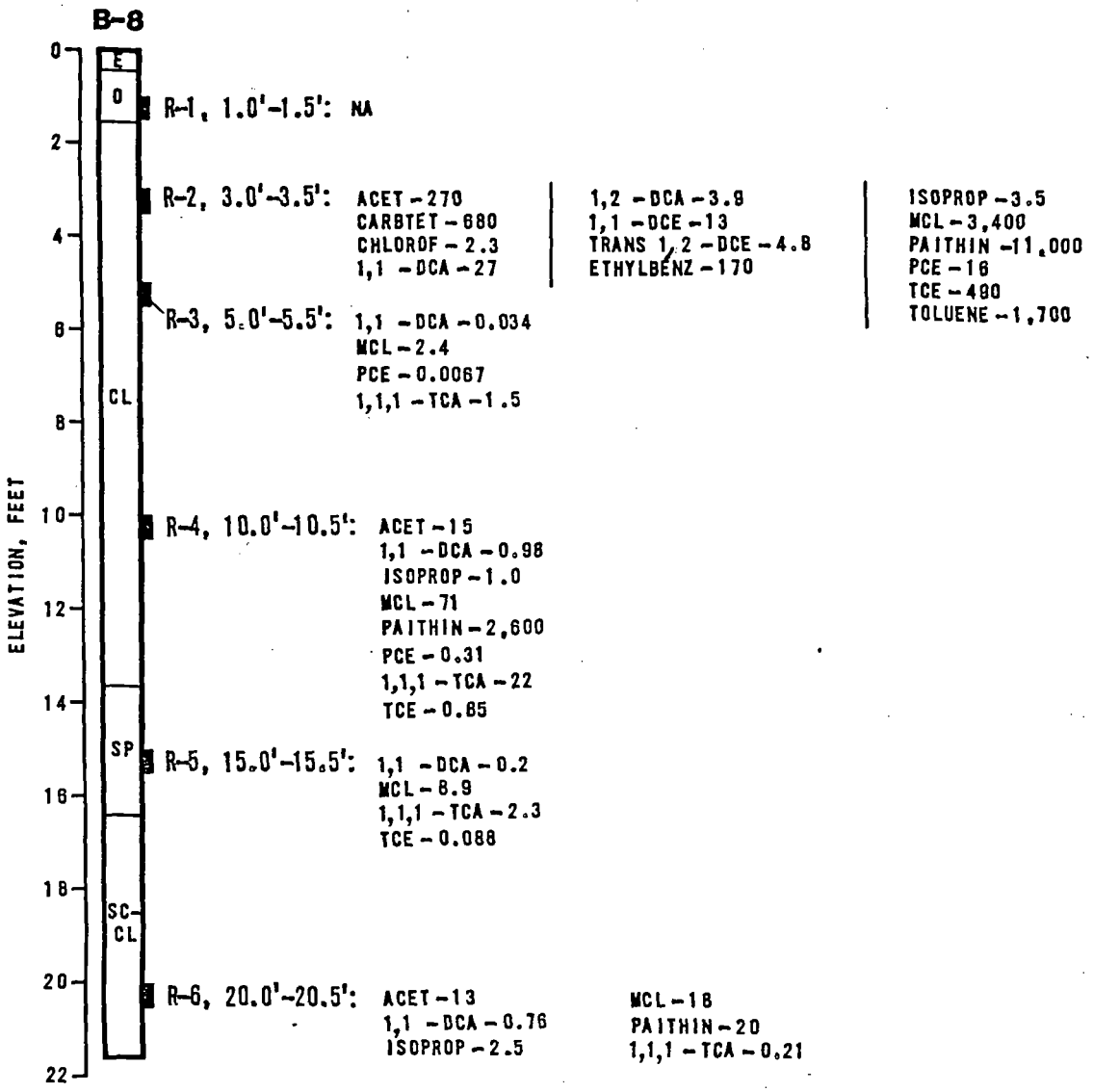
Wahler Associates

JASCO CHEMICAL CORPORATION
SOURCE IDENTIFICATION REPORT
PALO ALTO • CALIFORNIA

VERTICAL EXTENT OF CHEMICALS IN SOIL BORINGS B-5, B-6 AND B-7

PROJECT NO.	DATE	FIGURE NO.
JCO-104H	JULY 1987	7

0000120

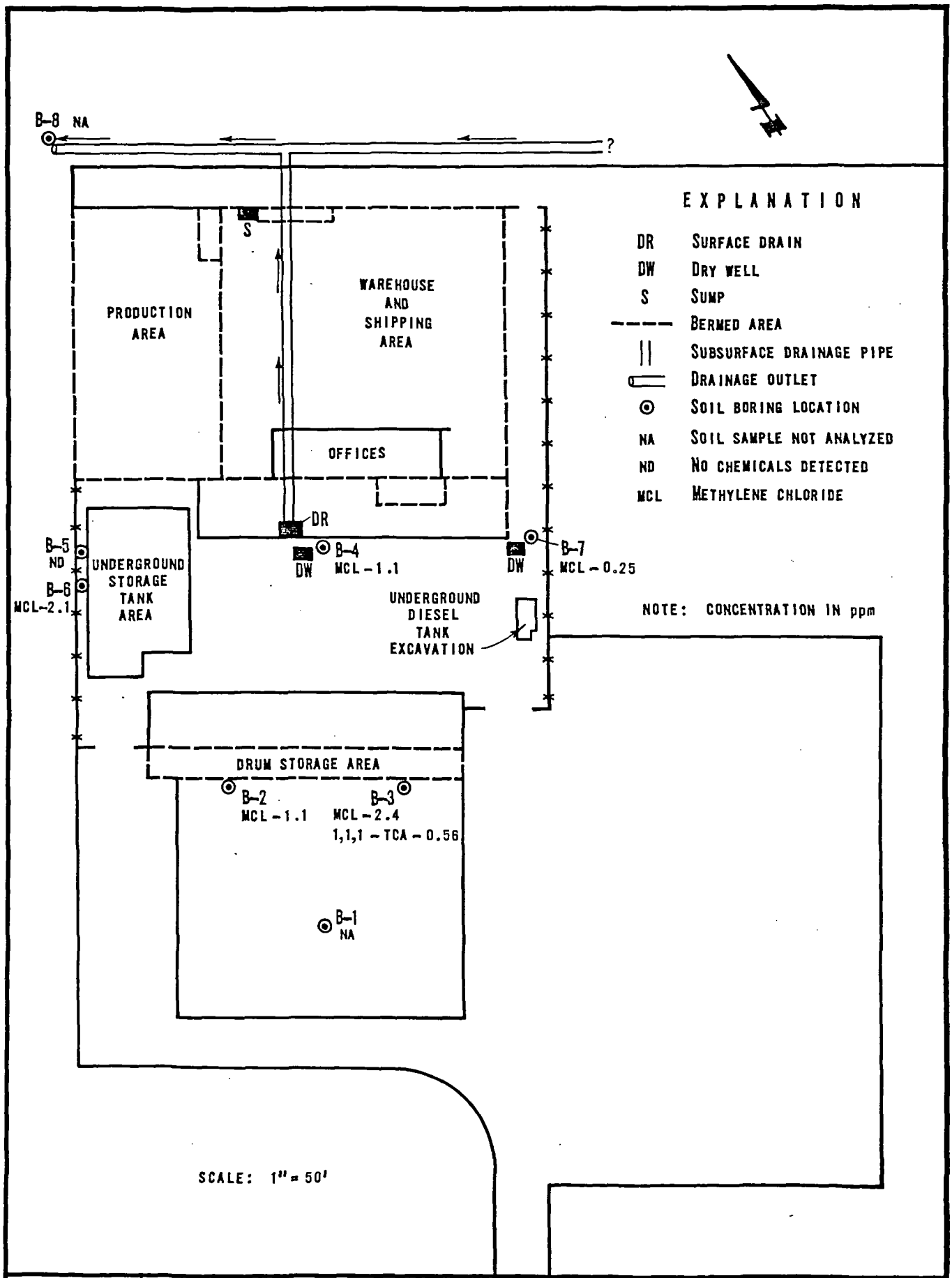


EXPLANATION

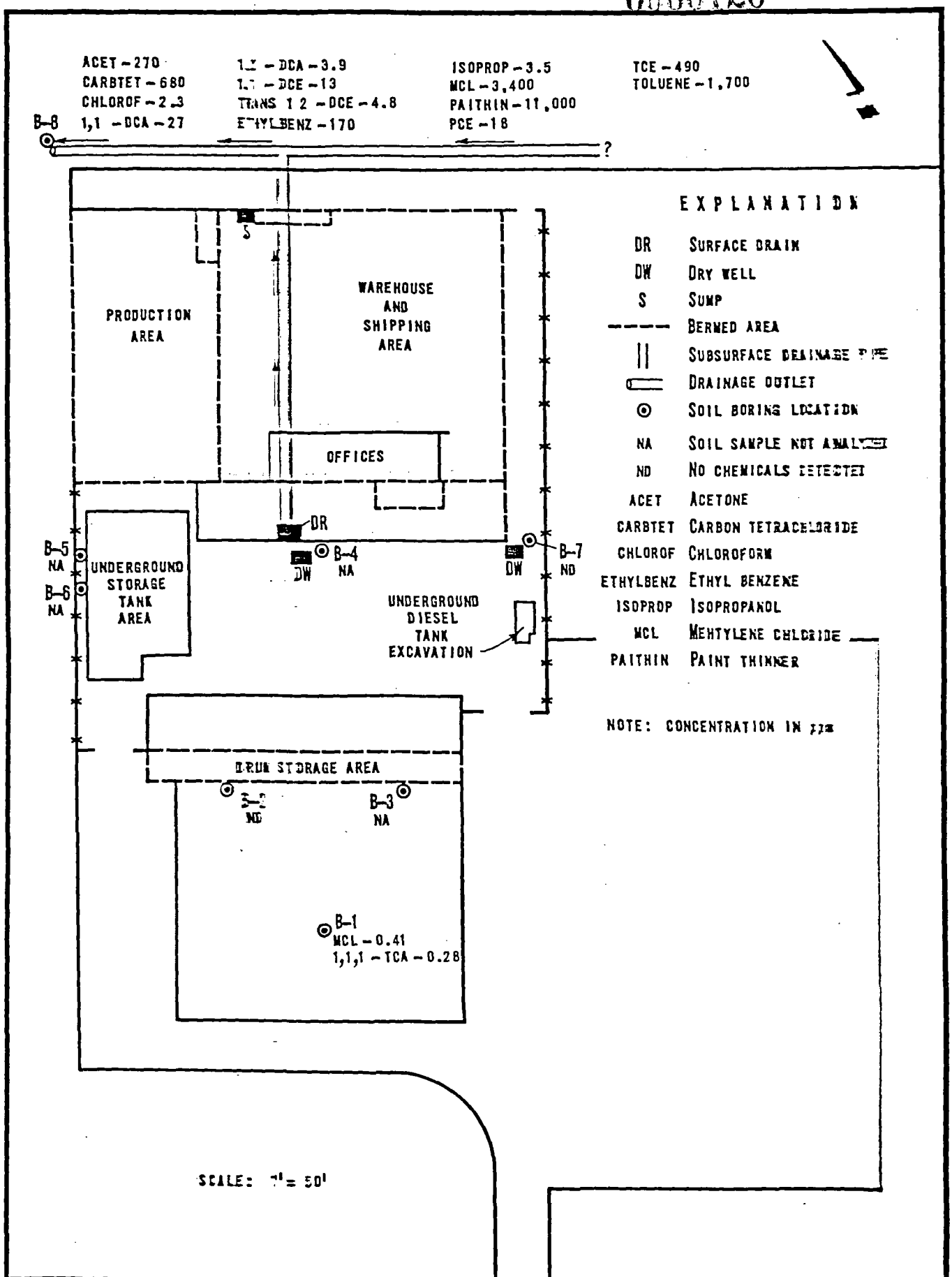
E	EXCAVATION
O	ORGANIC RESIDUE
NA	NOT ANALYZED
ACET	ACETONE
CARBTET	CARBON TETRACHLORIDE
CHLOROF	CHLOROFORM
ETHYLBENZ	ETHYL BENZENE
ISOPROP	ISOPROPANOL
MCL	METHYLENE CHLORIDE
PAITHIN	PAINT THINNER

NOTE: CONCENTRATION IN ppm

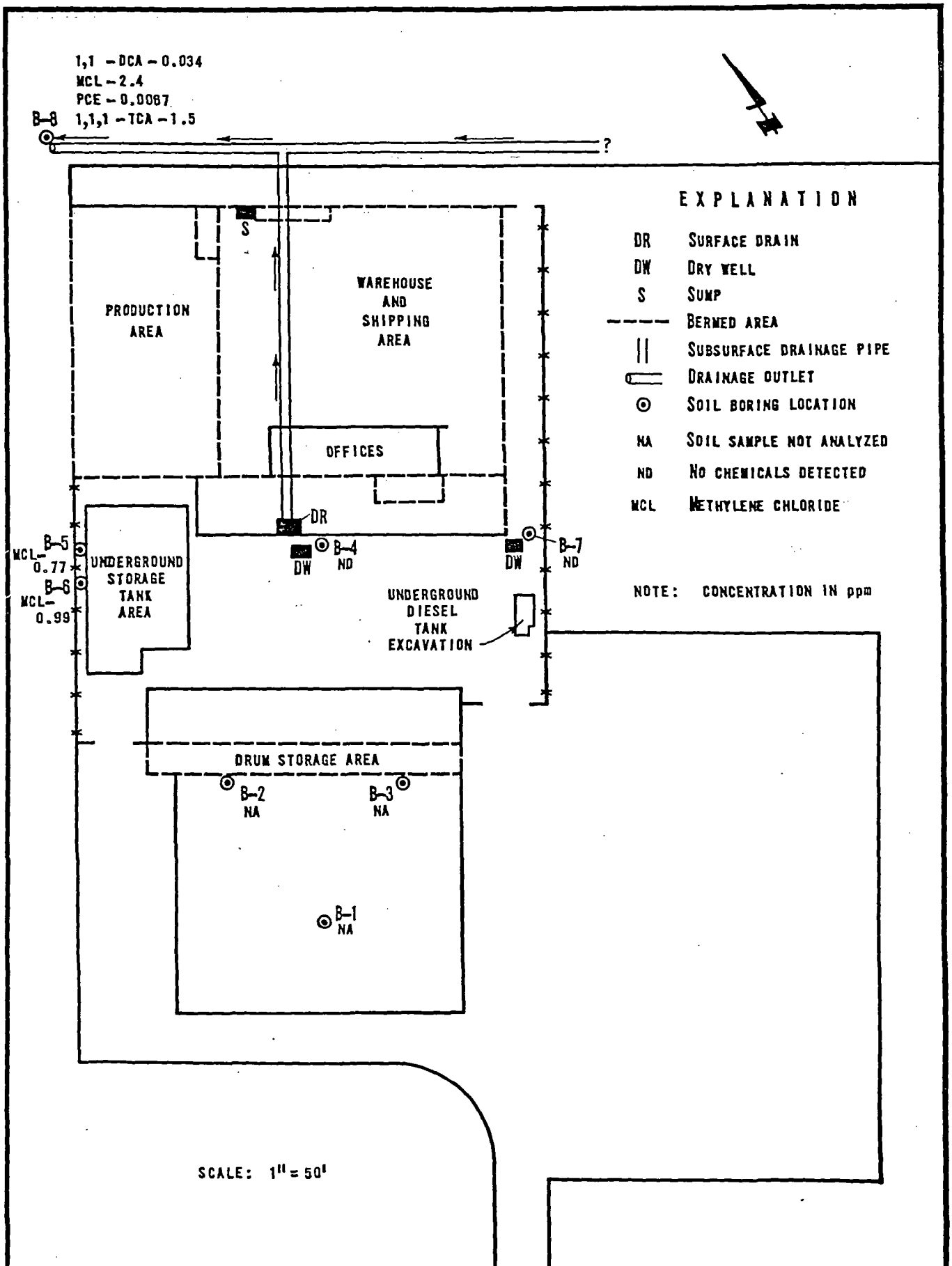
Wahler Associates	JASCO CHEMICAL CORPORATION SOURCE IDENTIFICATION REPORT	VERTICAL EXTENT OF CHEMICALS IN SOIL BORING B-8		
		PROJECT NO.	DATE	FIGURE NO.
	PALO ALTO • CALIFORNIA	JCO-104H	JULY 1987	8



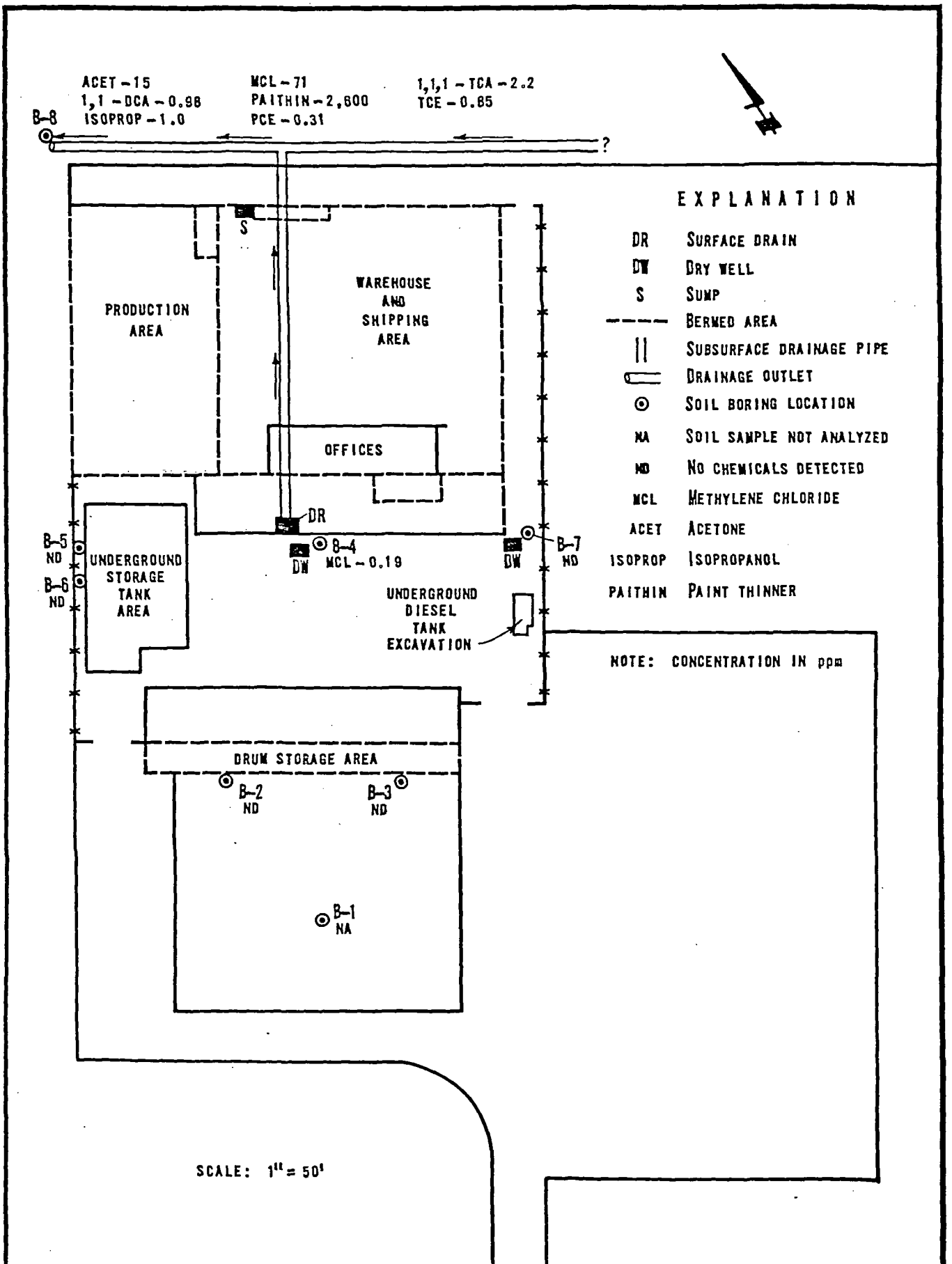
Wahler Associates	JASCO CHEMICAL CORPORATION SOURCE IDENTIFICATION REPORT	LATERAL EXTENT OF CHEMICALS: 1 FOOT BELOW SURFACE		
		PROJECT NO.	DATE	FIGURE NO.
	PALO ALTO • CALIFORNIA	JCO-104H	JULY 1987	9



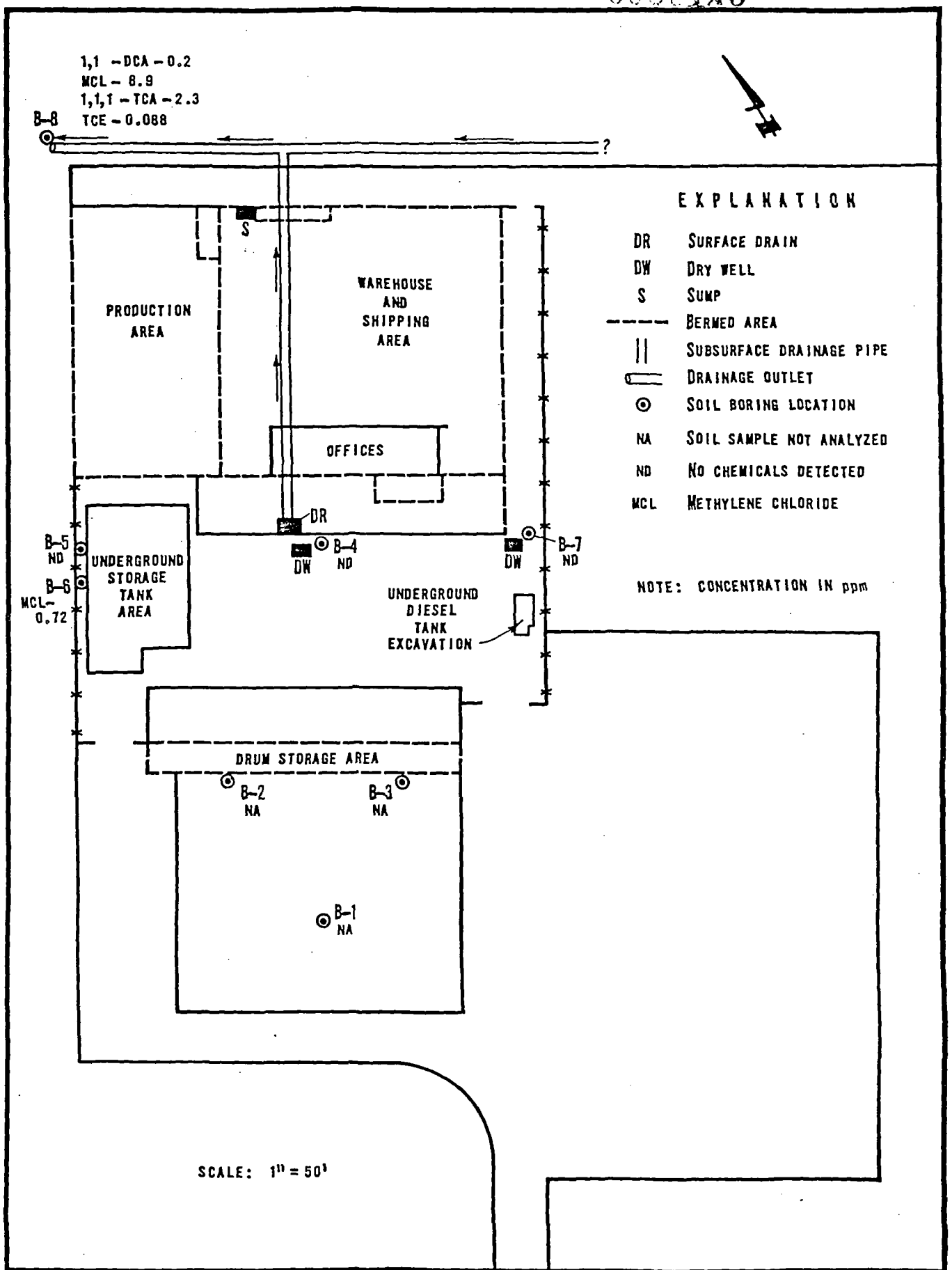
Wahler Associates	JASCO CHEMICAL CORPORATION SOURCE IDENTIFICATION REPORT PALO ALTO • CALIFORNIA	LATERAL EXTENT OF CHEMICALS: 3 FEET BELOW SURFACE		
		PROJECT NO.	DATE	FIGURE NO.
		JCO-104H	JULY 1987	10



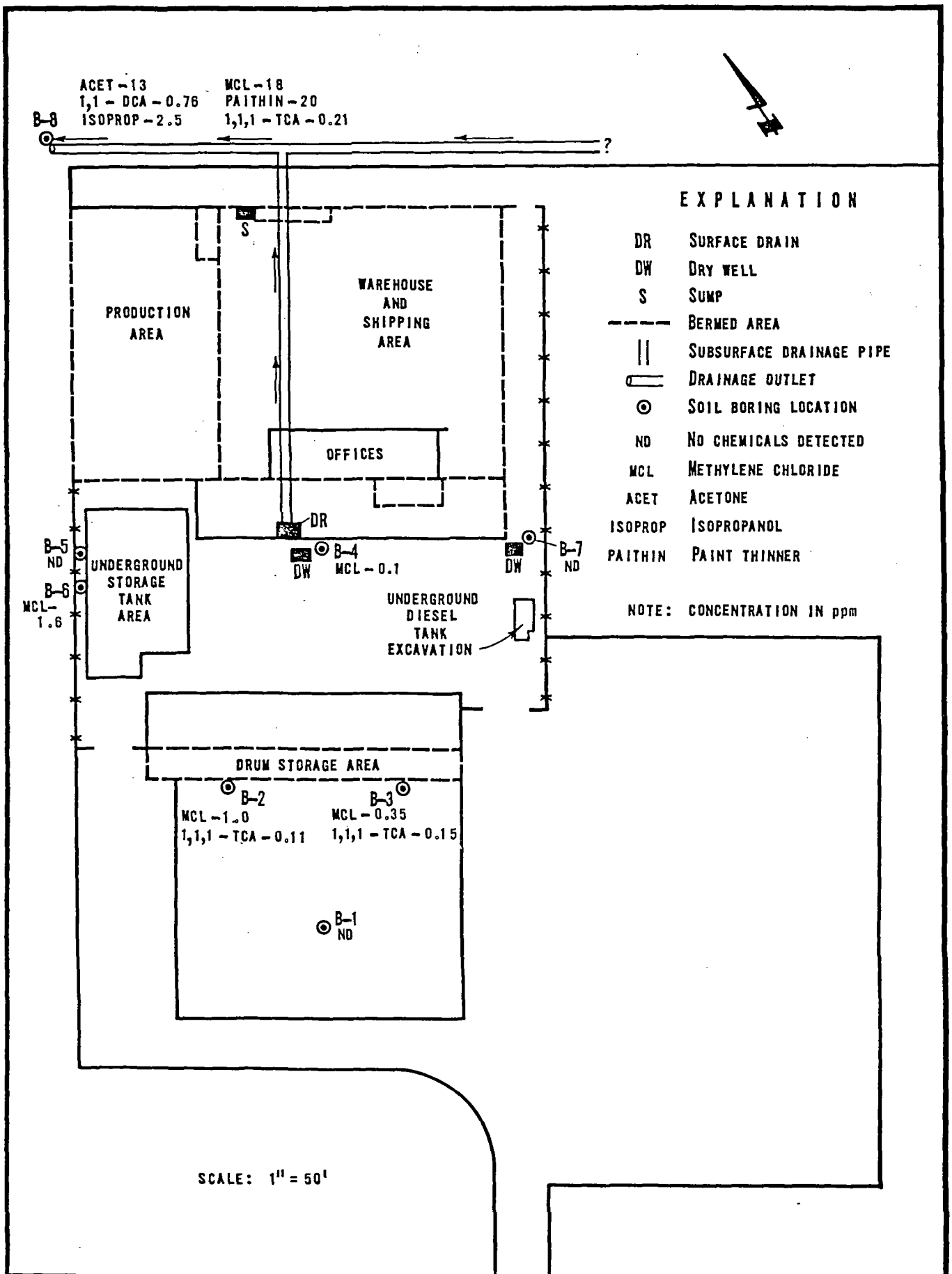
Wahler Associates	JASCO CHEMICAL CORPORATION SOURCE IDENTIFICATION REPORT	LATERAL EXTENT OF CHEMICALS: 5 FEET BELOW SURFACE		
		PROJECT NO.	DATE	FIGURE NO.
	PALO ALTO • CALIFORNIA	JCO-104H	JULY 1987	11



Wahler Associates	JASCO CHEMICAL CORPORATION SOURCE IDENTIFICATION REPORT PALO ALTO • CALIFORNIA	LATERAL EXTENT OF CHEMICALS: 10 FEET BELOW SURFACE		
		PROJECT NO.	DATE	FIGURE NO.
		JCO-104H	JULY 1987	12



Wahler Associates	JASCO CHEMICAL CORPORATION SOURCE IDENTIFICATION REPORT	LATERAL EXTENT OF CHEMICALS: 15 FEET BELOW SURFACE		
		PROJECT NO.	DATE	FIGURE NO.
	PALO ALTO • CALIFORNIA	JCO-104H	JULY 1987	13



Wahler Associates	JASCO CHEMICAL CORPORATION SOURCE IDENTIFICATION REPORT	LATERAL EXTENT OF CHEMICALS: 20 FEET BELOW SURFACE		
		PROJECT NO.	DATE	FIGURE NO.
	PALO ALTO • CALIFORNIA	JCO-104H	JULY 1987	14

APPENDIX A

0000120

Ernest Solomon
CEG # 350 7/2/87

BORING LOCATION JASCO CHEMICAL CORPORATION			GROUND EL.
DEPTH/ELEV. WATER NOT ENCOUNTERED	DRILL CONTRACTOR HEW DRILLING		TOTAL DEPTH 21.5'
DRILL RIG CME-75	BORING DIA. 6"	DATE DRILLED 6-9-87	LOGGED BY RGB

SOIL CLASS.	DESCRIPTION	DEPTH	SAMPLE NO.	PR / RQD	REC.	MODE	REMARKS
	ALLUVIUM	0					
CL	0.0-5.0: SANDY CLAY; dark brown 80% clay, 20% sand, dry, moderate plasticity, very stiff.					AD	DRILL with 6" Auger
		2	R-1	7 7 10	1.5 / 1.5	DR	2.5-2.5" California modified sampler (CMS) driven by 140# Hammer falling 30"
	5.0 caliche Mottling					AD	3.0-4.5 CMS
		4	R-2	7 15 20	1.5 / 1.5	DR	
SC	5.0-7.5 CLAYEY SAND: LIGHT brown, 60% medium sand, 40% clay, dry to slightly damp, low to moderate plasticity; very stiff.					AD	5.0-6.5 CMS
		6	R-3	7 10 14	1.5 / 1.5	DR	
CL	7.5-15.0 - CLAY: mottled yellow-brown/greenish brown; 95-98% clay 2-5% fine sand, very stiff, moist; high plasticity.	8				AD	
		10	R-4	8 12 17	1.5 / 1.5	DR	10.0-11.5 CMS
		12				AD	
		14					
SP	15.0-15.5 - GRAVELLY SAND: yellow brown; 80% medium sand, 20% gravel (subangular) medium size; dry to slightly damp.						15.0-16.5 CMS
		16	R-5	27 20 7	1.5 / 1.5	HA	
CL	15.5-20.2 - SANDY CLAY: yellow brown, 70% clay, 30% fine sand; moderate plasticity; damp;	18				AD	
		20					

Wahler Associates	JASCO CHEMICAL CORPORATION	EXPLORATION BORING LOG		BORING NO.
		PROJECT NO. JCO-104A	SHEET NO. 1 OF 2	B-1

BORING LOCATION			GROUND EL.
DEPTH/ELEV. WATER	DRILL CONTRACTOR		TOTAL DEPTH
DRILL RIG	BORING DIA.	DATE DRILLED	LOGGED BY

SOIL CLASS.	DESCRIPTION	DEPTH	SAMPLE NO.	PR / RQD	REC.	MODE	REMARKS
	ALLUVIUM	20					20.0-21.5 CMS
SC	16.5-20.2 - Sandy Clay (Cont.) 20.2-21.5 CLAYEY SAND: Light brown; 80% fine sand, 20% clay; Low plasticity; moist; dense.		R-6	7 16 24	1.5 / 1.5	DR	21.5 Terminate hole - Boring backfilled with cement grout
	21.5' Total Depth	22					
		24					
		26					
		28					
		30					
		32					
		34					
		36					
		38					
		40					

DATA ON THIS LOG ARE AN APPROXIMATION OF THE GEOLOGIC AND SUBSURFACE CONDITIONS BECAUSE THE INFORMATION WAS OBTAINED FROM INDIRECT, DISCONTINUOUS, AND POSSIBLY DISTURBED SAMPLING NECESSITATED BY USE OF SMALL-DIAMETER HOLES. ROTARY AND WASH BORING HOLES HAVE FURTHER COMPLICATIONS IN THIS REGARD BECAUSE OF THE NEED TO USE DRILLING FLUID AND/OR CASING IN ADVANCING HOLES.

THIS LOG INDICATES CONDITIONS IN THIS HOLE ONLY ON THE DATE INDICATED AND MAY NOT REPRESENT CONDITIONS AT OTHER LOCATIONS AND ON OTHER DATES. ANY WATER LEVELS SHOWN ARE SUBJECT TO VARIATION.

THIS HOLE WAS LOGGED IN SUCH A WAY AS TO PROVIDE DATA PRIMARILY FOR DESIGN PURPOSES AND NOT NECESSARILY FOR THE PURPOSES OF SPECIFIC CONTRACTORS.

THE STRATIFICATION LINES OR DEPTH INTERVALS REPRESENT THE APPROXIMATE BOUNDARIES BETWEEN MATERIAL TYPES, AND THE TRANSITIONS MAY BE GRADUAL.

SOIL CLASSIFICATIONS SHOWN ON LOGS ARE FIELD CLASSIFICATIONS BASED ON THE UNIFIED SOILS CLASSIFICATION SYSTEM.

Wahler Associates	JASCO CHEMICAL CORPORATION	EXPLORATION BORING LOG	BORING NO.
		PROJECT NO. JCO-104H / SHEET NO. 2 OF 2	B-1

0000220 Ernest Solomon CEG #350 7/2/87

BORING LOCATION JASCO CHEMICAL CORPORATION			GROUND EL.
DEPTH/ELEV. WATER NOT ENCOUNTERED	DRILL CONTRACTOR HEW DRILLING		TOTAL DEPTH 21.5'
DRILL RIG CME-75	BORING DIA. 6"	DATE DRILLED 6-9-87	LOGGED BY RGB

SOIL CLASS.	DESCRIPTION	DEPTH	SAMPLE NO.	PR / RQD	REC.	MODE	REMARKS
		0					Drill with 6" Auger
SC	ALLUVIUM 0.0-1.2- CLAYEY SAND: dark brown 65% Medium Sand, 35% Clay; Low to moderate plasticity; earthy odor, medium dense					AD	
CL	1.2-5.4- SANDY CLAY; dark brown 90% clay, <10% fine sand; moderate plasticity; twig fragments, some iron staining; very stiff!	2	R-1	5 8 17	1.5/1.5	DR	1.0-2.5 2.5" California Modified Sampler (CMS) driven by 140lb hammer falling 30"
						AD	3.0-4.5 CMS
		4	R-2	4 8 16	1.5/1.5	DR	
						AD	5.0-6.5 CMS
SC-CL	5.4-7.5- CLAYEY SAND-SANDY CLAY: light brown; 50% sand, fine, 50% fines, Low plasticity; medium dense; damp, slight odor	6	R-3	7 12 14	1.5/1.5	DR	
CL	7.5-14.0- SANDY CLAY; light brown; 70% clay; 25% sand, 5% gravel; no odor; moderate plasticity; Hard.	8				AD	
		10	R-4	9 13 20	1.5/1.5	DR	10.0-11.5 CMS
		12				AD	
SP	14.0-18.5 GRAVELLY SAND: light brown; [illegible] sand; 20% gravel, dry, very dense.	14					
		16	R-5	22 27 27	1.5/1.5	DR	15.0-16.5 CMS
		18				AD	
CL	18.5-21.5- SANDY CLAY; light brown; 85% clay, 15% fine sand; moderate plasticity; damp, hard.	20					

Wahler Associates	JASCO CHEMICAL CORPORATION	EXPLORATION BORING LOG PROJECT NO. JCO-104H SHEET NO. 1 OF 2	BORING NO. B-2

0000120

BORING LOCATION			GROUND EL.
DEPTH/ELEV. WATER	DRILL CONTRACTOR		TOTAL DEPTH
DRILL RIG	BORING DIA.	DATE DRILLED	LOGGED BY

SOIL CLASS.	DESCRIPTION	DEPTH	SAMPLE NO.	PR / RQD	REC.	MODE	REMARKS
CL	ALLUVIUM 18.5-21.5 - Sandy Clay (Cont.)	20	R-6	7 13 23	1.5 / 1.5	DR	20.0-21.5 CMS 21.5 Terminate hole. Boring backfilled with cement grout
	21.5 - Total Depth	22					
		24					
		26					
		28					
		30					
		32					
		34					
		36					
		38					
		40					

DATA ON THIS LOG ARE AN APPROXIMATION OF THE GEOLOGIC AND SUBSURFACE CONDITIONS BECAUSE THE INFORMATION WAS OBTAINED FROM INDIRECT, DISCONTINUOUS, AND POSSIBLY DISTURBED SAMPLING NECESSITATED BY USE OF SMALL-DIAMETER HOLES. ROTARY AND WASH BORING HOLES HAVE FURTHER COMPLICATIONS IN THIS REGARD BECAUSE OF THE NEED TO USE DRILLING FLUID AND/OR CASING IN ADVANCING HOLES.

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SOIL CLASSIFICATIONS SHOWN ON LOGS ARE FIELD CLASSIFICATIONS BASED ON THE UNIFIED SOILS CLASSIFICATION SYSTEM.

Wahler Associates	JASCO CHEMICAL CORPORATION	EXPLORATION BORING LOG		BORING NO.
		PROJECT NO. JCO-10414	SHEET NO. 2 OF 2	B-2

0000120

Ernest Solomon
CEG #350 7/2/87

BORING LOCATION JASCO CHEMICAL CORPORATION			GROUND EL.
DEPTH/ELEV. WATER NOT ENCOUNTERED	DRILL CONTRACTOR HEW DRILLING		TOTAL DEPTH 21.5'
DRILL RIG CME-75	BORING DIA. 6"	DATE DRILLED 6-[illegible]-87	LOGGED BY RGB

SOIL CLASS.	DESCRIPTION	DEPTH	SAMPLE NO.	PR / RQD	REC.	CODE	REMARKS
							DRILL WITH 6" AUGER
CL	ALLUVIUM 0.0-0.8-SANDY CLAY: Light brown; 60% clay; 40% medium sand; Low to moderate plasticity; dry; very stiff 0.8-10.0-SANDY CLAY: dark brown 90% clay; 10% fine sand; moderate plasticity; moist; organic odor; rootlets present; very stiff 3.5-color change to mottled yellow brown/medium brown; caliche veinlets 5.4-increase in sand content to 35-40%	0				AD	
			R-1	3 8 12	1.5/1.5	DR	1.0-2.5 - 2.5" California Modified Sampler driven by 140lb hammer falling 30"
		2				AD	
			R-2	7 13 19	1.5/1.5	DR	3.0-4.5 CMS
CL		4				AD	
			R-3	7 7 12	1.5/1.5	DR	5.0-6.5 CMS
		6					
		8				AD	
SC	10.0-14.0: CLAYEY SAND: Light brown; 75% medium sand, 25% clay; Low to moderate plasticity; damp; dense	10	R-4	7 10 12	1.5/1.5	DR	10.0-11.5 CMS
		12				AD	
SP	14.0-18.0 GRAVELLY SAND: yellow brown; 75% sand, 20% gravel <5% clay; dry; dense	14					
		16	R-5	19 25 13	1.5/1.5	DR	15.0-16.5 CMS
SC-CL	18.0-21.5-SANDY CLAY-CLAYEY SAND: Light brown; 50% medium sand, 50% clay; moderate plasticity; moist; very stiff.	18				AD	
		20					

Wahler Associates	JASCO CHEMICAL CORPORATION	EXPLORATION BORING LOG		BORING NO. B-3
		PROJECT NO. JCO-1041A	SHEET NO. 1 OF 2	

0000120

BORING LOCATION			GROUND EL.
DEPTH/ELEV. WATER	DRILL CONTRACTOR		TOTAL DEPTH
DRILL RIG	BORING DIA.	DATE DRILLED	LOGGED BY

SOIL CLASS.	DESCRIPTION	DEPTH	SAMPLE NO.	PR / RQD	REC.	MODE	REMARKS
	ALLUVIUM	20					20.0-21.5 CMS
CL	18.0-21.5 - SANDY CLAY (CONT.)		R-6	6 9 19	1.5/1.5	DR	21.5 Terminate hole.
	21.5 Total Depth	22					boring backfilled with cement grout
		24					
		26					
		28					
		30					
		32					
		34					
		36					
		38					
		40					

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Wahler Associates	JASCO CHEMICAL CORPORATION	EXPLORATION BORING LOG	BORING NO.
		PROJECT NO. JCO-104H / SHEET NO. 2 OF 2	B-3

0000120 Ernest Solomon CEG #350 7/2/87

BORING LOCATION JASCO CHEMICAL CORPORATION			GROUND EL.
DEPTH/ELEV. WATER NOT ENCOUNTERED	DRILL CONTRACTOR HEW DRILLING		TOTAL DEPTH 21.5'
DRILL RIG CME-75	BORING DIA. 6"	DATE DRILLED 6-9-87	LOGGED BY RGB

SOIL CLASS.	DESCRIPTION	DEPTH	SAMPLE NO.	PR / RQD	REC.	MODE	REMARKS
							DRILL WITH 6" AUGER
CL	ALLUVIUM 0.0-9.0 - SANDY CLAY: dark brown; 80% clay, 20% sand; moderate plasticity; dry; Hard.	0				AD	
		2	R-1	7 12 21	1.5 / 1.5	DR	1.0-2.5 2.5" California Modified Sampler (CMS) driven by 140 lb hammer falling 30"
						AD	3.0-4.5 CMS
		4	R-2	6 9 15	1.5 / 1.5	DR	
	5.0- decrease in sand content to 5-10%					AD	5.0-6.5 CMS
		6	R-3	8 9 17	1.5 / 1.5	DR	
		8				AD	
SP	9.0-18.0- GRAVELY SAND: Light brown; 80% sand, 20% gravel. gravel clasts up to 1" long; dry; dense.	10	R-4	10 16 22	1.5 / 1.5	DR	10.0-11.5 CMS
		12				AD	
		14					
		16	R-5	18 15 10	1.5 / 1.5	DR	15.0-16.5 CMS
CL	18.0-21.5 - SANDY CLAY: Medium brown; 80% clay; 20% fine sand, moderate plasticity; damp; very stiff.	18				AD	
		20					

Wahler Associates	JASCO CHEMICAL CORPORATION	EXPLORATION BORING LOG		BORING NO. B-4
		PROJECT NO. JCO-104H	SHEET NO. 1 OF 2	

0000120

BORING LOCATION			GROUND EL.
DEPTH/ELEV. WATER	DRILL CONTRACTOR		TOTAL DEPTH
DRILL RIG	BORING DIA.	DATE DRILLED	LOGGED BY

SOIL CLASS.	DESCRIPTION	DEPTH	SAMPLE NO.	PR / RQD	REC.	MODE	REMARKS
	ALLUVIUM	20					20.0-21.5 CMS
CL	(8.0-21.5 - SANDY CLAY (CONT.)		R-6	9 12 19	1.5/1.5	DR	21.5 Terminate hole.
	21.5 - TOTAL DEPTH	22					Boring back filled with cement grout
		24					
		26					
		28					
		30					
		32					
		34					
		36					
		38					
		40					

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Wahler Associates	JASCO CHEMICAL CORPORATION	EXPLORATION BORING LOG	BORING NO.
		PROJECT NO. JCO-1041F / SHEET NO. 2 OF 2	B-4

0000120

Ernest Solomon
CEG # 350 7/2/87

BORING LOCATION JASCO CHEMICAL CORPORATION			GROUND EL.
DEPTH/ELEV. WATER NOT ENCOUNTERED	DRILL CONTRACTOR HEW DRILLING		TOTAL DEPTH 21.5'
DRILL RIG CME-45	BORING DIA. 6"	DATE DRILLED 6-10-87	LOGGED BY RGB

SOIL CLASS.	DESCRIPTION	DEPTH	SAMPLE NO.	PR / RQD	REC.	MODE	REMARKS
	FILL						DRILL WITH 6" AUGER
SP	0.0-0.5 - SAND: light brown, medium, dry, loose.	0				AD	
	ALLUVIUM						1.0-2.5 2.5" California Modified Sampler (CMS)
CH	0.5-4.5 - CLAY: dark brown, 95% clay, <5% sand, moderate to high plasticity, damp, stiff.	2	R-1		1.5/1.5	P	
						AD	3.0-4.5 CMS
		4	R-2		1.5/1.5	P	
	4.5-14.0 - SANDY CLAY: blue green 70% clay, 30% fine sand, moderate plasticity, strong chemical odor, damp, firm					AD	5.0-6.5 CMS
		6	R-3		1.5/1.5	P	
CL		8				AD	
	10.5 - color change to mottled blue-green/brown; caliche veinlets	10	R-4		1.5/1.5	P	10.0-11.5 CMS
		12				AD	
	14.0-20.5 - GRAVELLY SAND: Medium brown, 80% sand, 20% gravel, <5% clay; loose, dry, odor present	14					15.0-16.5 CMS
SP1		16	R-5		1.5/1.5	P	
		18				AD	
		20					

Wahler Associates	JASCO CHEMICAL CORPORATION	EXPLORATION BORING LOG		BORING NO.
		PROJECT NO. 300-104H	SHEET NO. 1 OF 2	B-5

BORING LOCATION			GROUND EL.
DEPTH/ELEV. WATER	DRILL CONTRACTOR		TOTAL DEPTH
DRILL RIG	BORING DIA.	DATE DRILLED	LOGGED BY

SOIL CLASS.	DESCRIPTION	DEPTH	SAMPLE NO.	PR / RQD	REC.	MODE	REMARKS
SP	14.0-20.5 ALLUVIUM GRAVELLY SAND (CONT)	20					20.0-21.5 CMS
SC	20.5-21.5 - Gravely clayey Sand medium brown; 60% sand, 20% Gravel, 20% clay;		R-6		1.5/1.5	P	21.5 Terminate hole, boring backfilled with cement grout
	21.5 - TOTAL DEPTH	22					
		24					
		26					
		28					
		30					
		32					
		34					
		36					
		38					
		40					

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Wahler Associates	JASCO CHEMICAL CORPORATION	EXPLORATION BORING LOG	BORING NO.
		PROJECT NO. JCO-1104H / SHEET NO. 2 OF 2	B-5

Ernest Salomon
CEG # 350 7/2/87

BORING LOCATION JASCO CHEMICAL CORPORATION			GROUND EL.
DEPTH/ELEV. WATER NOT ENCOUNTERED	DRILL CONTRACTOR HEW DRILLING		TOTAL DEPTH 21.5'
DRILL RIG CME-45	BORING DIA. 6"	DATE DRILLED 6-10-87	LOGGED BY RGB

SOIL CLASS.	DESCRIPTION	DEPTH	SAMPLE NO.	PR / RQD	REC.	MODE	REMARKS
SP	0.0-0.8 FILL 0.0-0.8 - SAND - Light brown, medium, dry, loose	0				AD	DRILL WITH 5" AUGER
CH	ALLUVIUM 0.8-5.8 - SANDY CLAY: dark brown 95% clay, <5% sand; moderate plasticity; damp; stiff. 3.0 - Color change to medium brown	2	R-1		1.5/1.5	P	1.0-2.5 2.5" California Modified Sampler (CMS)
						AD	3.0-4.5 CMS
		4	R-2		1.5/1.5	P	
						AD	5.0-6.5 CMS
CL	5.8-15.2 - SANDY CLAY: medium brown; 60% clay; 40% sand, fine; moderate plasticity; moist; firm; slight odor	6	R-3		1.5/1.5	P	
		8				AD	
	10.5 - decrease in sand content to 25%	10	R-4		1.5/1.5	P	10.0-11.5 CMS
		12				AD	
		14					15.0-16.5 CMS
SP	15.2-17.0 - GRAVELY SAND: medium brown; 85% sand, 15% gravel, dry, loose.	16	R-5		1.5/1.5	P	
SC-CL	17.0-21.5 CLAYEY SAND - SANDY CLAY: Med. brown; 50% fine sand; 50% clay; soft, moderate to low plasticity	18				AD	
		20					

Wahler Associates	JASCO CHEMICAL CORPORATION	EXPLORATION BORING LOG PROJECT NO. JCO-1041H SHEET NO. 1 OF 2	BORING NO. B-6

BORING LOCATION			GROUND EL.
DEPTH/ELEV. WATER	DRILL CONTRACTOR		TOTAL DEPTH
DRILL RIG	BORING DIA.	DATE DRILLED	LOGGED BY

SOIL CLASS.	DESCRIPTION	DEPTH	SAMPLE NO.	PR / RQD	REC.	MODE	REMARKS
CL	ALLUVIUM 17.0-21.5 Clayey Sand (Cont.)	20	B-6		1.5/1.5	P	20.0-21.5 CMS 21.5 Terminate hole. boring back filled with Cement grout
	21.5 TOTAL DEPTH	22					
		24					
		26					
		28					
		30					
		32					
		34					
		36					
		38					
		40					

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Wahler Associates	JASCO CHEMICAL CORPORATION	EXPLORATION BORING LOG	BORING NO. B-6
		PROJECT NO. JCO-104H / SHEET NO. 2 OF 2	

Ernest Solomon
CEG #350 7/2/87

BORING LOCATION JASCO CHEMICAL CORPORATION			GROUND EL.
DEPTH/ELEV. WATER NOT ENCOUNTERED	DRILL CONTRACTOR HEW DRILLING		TOTAL DEPTH 21.5'
DRILL RIG CME-45	BORING DIA. 6"	DATE DRILLED 6-10-87	LOGGED BY RGB

SOIL CLASS.	DESCRIPTION	DEPTH	SAMPLE NO.	PR / RQD	REC.	MODE	REMARKS
	[illegible]	0				AD	DRILL WITH 6" AUGER
CL	0.0-10.5 - SANDY CLAY: dark brown, 80% clay, 20% fine sand; low to moderate plasticity, damp, stiff.	2	R-1		1.5/1.5	P	1.0-2.5 2.5" California Modified Sampler (CMS)
						AD	3.0-4.5 CMS
CL	3.2-10.5 - Sandy Clay: Mottled olive-green/medium brown; 70% clay, 30% fine sand; low to moderate plasticity, damp, stiff	4	R-2		1.5/1.5	P	
						AD	5.0-6.5 CMS
	5.5 - Color change to medium brown, sand content decreases to 10%.	6	R-3		1.5/1.5	P	
		8				AD	
		10					10.0-11.5 CMS
SC	5.5-6.8 - GRAVELLY CLAYEY SAND: mottled medium brown/yellow brown, 65% medium sand, 20% gravel, 0-15% fines; damp; loose		R-4		1.5/1.5	P	
		12				AD	
		14					15.0-16.5 CMS
		16	R-5		0.7/1.5	P	
CL	6.8-2[illegible].5 - SANDY CLAY: light brown; 30-40% fines; 30-40% fine and medium sand; soft to firm; moderate plasticity	18				AD	
		20					

Wahler Associates	JASCO CHEMICAL CORPORATION	EXPLORATION BORING LOG	BORING NO. B-7
		PROJECT NO. JCO-10411	SHEET NO. 1 OF 2

BORING LOCATION			GROUND EL.
DEPTH/ELEV. WATER	DRILL CONTRACTOR		TOTAL DEPTH
DRILL RIG	BORING DIA.	DATE DRILLED	LOGGED BY

SOIL CLASS.	DESCRIPTION	DEPTH	SAMPLE NO.	PR / RQD	REC.	MODE	REMARKS
	ALLUVIUM 16.8-21.5 - SANDY CLAY (Cont.)	20					20-21.5 CMS
CL			R-6		1.5 / 1.5	P	21.5 Terminate hole boring backfilled with cement grout
	21.5 - TOTAL DEPTH	22					
		24					
		26					
		28					
		30					
		32					
		34					
		36					
		38					
		40					

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Wahler Associates	JASCO CHEMICAL CORPORATION	EXPLORATION BORING LOG	BORING NO.
		PROJECT NO. JCO-104H / SHEET NO. 2 OF 2	B-7

Ernest Solomon
CEG # 350 7/2/87

BORING LOCATION JASCO CHEMICAL CORPORATION			GROUND EL.
DEPTH/ELEV. WATER NOT ENCOUNTERED	DRILL CONTRACTOR HEW DRILLING		TOTAL DEPTH 21.5'
DRILL RIG CME-45	BORING DIA. 6"	DATE DRILLED 6-10-87	LOGGED BY RGB

SOIL CLASS.	DESCRIPTION	DEPTH	SAMPLE NO.	PR / RQD	REC.	MODE	REMARKS
							DRILL WITH 6" AUGER
EX	0.0-0.5: EXCAVATION	0				AD	
OR	0.5-1.5: ORGANIC RESIDUE: white, crystalline; gelatinous highly odorous, soft ALLUVIUM						1.0-2.5 2.5" California Modified Sampler (CMS)
CL	1.5-13.5- SANDY CLAY: dark brown; 60% clay, 40% sand; Low to Moderate plasticity; extremely odorous with organic vapors;	2	R-1		0.6/1.5	P	
						AD	3.0-4.5 CMS
		4	R-2		1.5/1.5	P	
						AD	5.0-6.5 CMS
		6	R-3		1.5/1.5	P	
		8				AD	
	10.0- Moderate plasticity; extremely odorous; caliche veinlets.	10	R-4		1.5/1.5	P	10.0-11.5 CMS
		12				AD	
SP1	13.5-16.5- GRAVELY SAND: greenish black to blue green; 70% medium sand; 30% gravel; moist; loose, highly odorous.	14					
		16	R-5		1.5/1.5	P	15.0-16.5 CMS
CL-SC	16.5-21.5- SANDY CLAY-CLAYEY SAND: greenish black 50% clay; 50% fine sand. Low to Moderate plasticity; odorous	18				AD	
		20					

Wahler Associates	JASCO CHEMICAL CORPORATION	EXPLORATION BORING LOG	BORING NO.
		PROJECT NO. JC0104H / SHEET NO. 1 OF 2	B-8

BORING LOCATION			GROUND EL.
DEPTH/ELEV. WATER	DRILL CONTRACTOR		TOTAL DEPTH
DRILL RIG	BORING DIA.	DATE DRILLED	LOGGED BY

SOIL CLASS.	DESCRIPTION	DEPTH	SAMPLE NO.	PR / RQD	REC.	MODE	REMARKS
CL/SC	16.5-21.5 ALLUVIUM Sandy Clay/Clayey Sand (cont.)	20	R-6		1.5/1.5	P	20.0-21.5 CMS 21.5 Terminate hole. boring backfilled with cement grout
	21.5 - TOTAL DEPTH	22					
		24					
		26					
		28					
		30					
		32					
		34					
		36					
		38					
		40					

DATA ON THIS LOG ARE AN APPROXIMATION OF THE GEOLOGIC AND SUBSURFACE CONDITIONS BECAUSE THE INFORMATION WAS OBTAINED FROM INDIRECT, DISCONTINUOUS, AND POSSIBLY DISTURBED SAMPLING NECESSITATED BY USE OF SMALL-DIAMETER HOLES. ROTARY AND WASH BORING HOLES HAVE FURTHER COMPLICATIONS IN THIS REGARD BECAUSE OF THE NEED TO USE DRILLING FLUID AND/OR CASING IN ADVANCING HOLES.

THIS LOG INDICATES CONDITIONS IN THIS HOLE ONLY ON THE DATE INDICATED AND MAY NOT REPRESENT CONDITIONS AT OTHER LOCATIONS AND ON OTHER DATES. ANY WATER LEVELS SHOWN ARE SUBJECT TO VARIATION.

THIS HOLE WAS LOGGED IN SUCH A WAY AS TO PROVIDE DATA PRIMARILY FOR DESIGN PURPOSES AND NOT NECESSARILY FOR THE PURPOSES OF SPECIFIC CONTRACTORS.

THE STRATIFICATION LINES OR DEPTH INTERVALS REPRESENT THE APPROXIMATE BOUNDARIES BETWEEN MATERIAL TYPES, AND THE TRANSITIONS MAY BE GRADUAL.

SOIL CLASSIFICATIONS SHOWN ON LOGS ARE FIELD CLASSIFICATIONS BASED ON THE UNIFIED SOILS CLASSIFICATION SYSTEM.

Wahler Associates	JASCO CHEMICAL CORPORATION	EXPLORATION BORING LOG		BORING NO.
		PROJECT NO. JCO-100 +	SHEET NO. 2 OF 2	B-8

APPENDIX B

SEQUOIA Analytical Laboratory
2549 Middlefield Road
Redwood City, CA 94063 • (415) 364-9222

Wahler Associates
1023 Corporation Way
Palo Alto, CA 94303
Attn: Bob Breynaert

Date Sampled: 06/10/87
Date Received: 06/10/87
Date Extracted: 06/23/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061433	Soil, #B-1, R-2

PRIORITY POLLUTANTS

VOLATILE ORGANIC COMPOUNDS
results in ppb

Acrolein		-	trans-1,2-Dichloroethene	<	50
Acrylonitrile		-	1,2-Dichloropropane	<	50
Benzene		-	1,3-Dichloropropene	<	50
Bromomethane	<	50	Ethylbenzene		-
Bromodichloromethane	<	50	Methylene chloride		410
Bromoform	<	50	1,1,2,2-Tetrachloroethane	<	50
Carbon tetrachloride	<	50	Tetrachloroethene	<	50
Chlorobenzene		-	1,1,1-Trichloroethane		280
Chloroethane	<	50	1,1,2-Trichloroethane	<	50
2-Chloroethylvinyl ether	<	50	Trichloroethene	<	50
Chloroform	<	50	Toluene		-
Chloromethane	<	50	Vinyl chloride	<	50
Dibromochloromethane	<	50	1,2-Dichlorobenzene	<	50
1,1-Dichloroethane	<	50	1,3-Dichlorobenzene	<	50
1,2-Dichloroethane	<	50	1,4-Dichlorobenzene	<	50
1,1-Dichloroethene	<	50			

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SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director

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NOTE: Method 8010 of the EPA was used for this analysis.

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Date Sampled: 06/10/87
Date Received: 06/10/87
Date Extracted: 06/23/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061434	Soil, #B-1, R-6

PRIORITY POLLUTANTS

VOLATILE ORGANIC COMPOUNDS

results in ppb

Acrolein		-	trans-1,2-Dichloroethene	<	50
Acrylonitrile		-	1,2-Dichloropropane	<	50
Benzene		-	1,3-Dichloropropene	<	50
Bromomethane	<	50	Ethylbenzene		-
Bromodichloromethane	<	50	Methylene chloride	<	50
Bromoform	<	50	1,1,2,2-Tetrachloroethane	<	50
Carbon tetrachloride	<	50	Tetrachloroethene	<	50
Chlorobenzene		-	1,1,1-Trichloroethane	<	50
Chloroethane	<	50	1,1,2-Trichloroethane	<	50
2-Chloroethylvinyl ether	<	50	Trichloroethene	<	50
Chloroform	<	50	Toluene		-
Chloromethane	<	50	Vinyl chloride	<	50
Dibromochloromethane	<	50	1,2-Dichlorobenzene	<	50
1,1-Dichloroethane	<	50	1,3-Dichlorobenzene	<	50
1,2-Dichloroethane	<	50	1,4-Dichlorobenzene	<	50
1,1-Dichloroethene	<	50			

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director

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Date Sampled: 06/10/87
Date Received: 06/10/87
Date Extracted: 06/23/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061435	Soil, #B-2, R-1

PRIORITY POLLUTANTS

VOLATILE ORGANIC COMPOUNDS
results in ppb

Acrolein		-	trans-1,2-Dichloroethene	<	50
Acrylonitrile		-	1,2-Dichloropropane	<	50
Benzene		-	1,3-Dichloropropene	<	50
Bromomethane	<	50	Ethylbenzene		-
Bromodichloromethane	<	50	Methylene chloride		1,100
Bromoform	<	50	1,1,2,2-Tetrachloroethane	<	50
Carbon tetrachloride	<	50	Tetrachloroethene	<	50
Chlorobenzene		-	1,1,1-Trichloroethane	<	50
Chloroethane	<	50	1,1,2-Trichloroethane	<	50
2-Chloroethylvinyl ether	<	50	Trichloroethene	<	50
Chloroform	<	50	Toluene		-
Chloromethane	<	50	Vinyl chloride	<	50
Dibromochloromethane	<	50	1,2-Dichlorobenzene	<	50
1,1-Dichloroethane	<	50	1,3-Dichlorobenzene	<	50
1,2-Dichloroethane	<	50	1,4-Dichlorobenzene	<	50
1,1-Dichloroethene	<	50			

1100

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Arthur G. Burton
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Date Sampled: 06/10/87
Date Received: 06/10/87
Date Extracted: 06/19/87
Date Reported: 06/26/87
Project No. JC0-104H

Sample Number	Sample Description
7061435	Soil, #B-2, R-1

PRIORITY POLLUTANTS

ACID EXTRACT ORGANICS
results in ppb

4-Chloro-3-methylphenol	< 100
2-Chlorophenol	< 100
2,4-Dichlorophenol	< 100
2,4-Dimethylphenol	< 100
2,4-Dinitrophenol	< 100
2-Methyl-4,6-dinitrophenol	< 100
2-Nitrophenol	< 100
4-Nitrophenol	< 100
Pentachlorophenol	< 100
Phenol	< 100
2,4,6-Trichlorophenol	< 100

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NOTE: Method 8040 of the EPA was used for this analysis.

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Attn: Bob Breynaert

Date Sampled: 06/10/87
Date Received: 06/10/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061435	Soil, #B-2, R-1

ANALYSIS

	Detection Limit ppm	Sample Results ppm
Acetone	1.0	< 1.0
Methanol	1.0	< 1.0
Ethanol	1.0	< 1.0
Isopropyl Alcohol	1.0	< 1.0

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Date Sampled: 06/10/87
Date Received: 06/10/87
Date Extracted: 06/23/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061436	Soil, #B-2, R-2

PRIORITY POLLUTANTS

VOLATILE ORGANIC COMPOUNDS

results in ppb

Acrolein	-		trans-1,2-Dichloroethene	<	50
Acrylonitrile	-		1,2-Dichloropropane	<	50
Benzene	-		1,3-Dichloropropene	<	50
Bromomethane	<	50	Ethylbenzene	-	
Bromodichloromethane	<	50	Methylene chloride	<	50
Bromoform	<	50	1,1,2,2-Tetrachloroethane	<	50
Carbon tetrachloride	<	50	Tetrachloroethene	<	50
Chlorobenzene	-		1,1,1-Trichloroethane	<	50
Chloroethane	<	50	1,1,2-Trichloroethane	<	50
2-Chloroethylvinyl ether	<	50	Trichloroethene	<	50
Chloroform	<	50	Toluene	-	
Chloromethane	<	50	Vinyl chloride	<	50
Dibromochloromethane	<	50	1,2-Dichlorobenzene	<	50
1,1-Dichloroethane	<	50	1,3-Dichlorobenzene	<	50
1,2-Dichloroethane	<	50	1,4-Dichlorobenzene	<	50
1,1-Dichloroethene	<	50			

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Arthur G. Burton
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NOTE: Method 8010 of the EPA was used for this analysis.

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Date Sampled: 06/10/87
Date Received: 06/10/87
Date Extracted: 06/23/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061437	Soil, #B-2, R-4

PRIORITY POLLUTANTS

VOLATILE ORGANIC COMPOUNDS

results in ppb

Acrolein	-		trans-1,2-Dichloroethene	<	50
Acrylonitrile	-		1,2-Dichloropropane	<	50
Benzene	-		1,3-Dichloropropene	<	50
Bromomethane	<	50	Ethylbenzene	-	
Bromodichloromethane	<	50	Methylene chloride	<	50
Bromoform	<	50	1,1,2,2-Tetrachloroethane	<	50
Carbon tetrachloride	<	50	Tetrachloroethene	<	50
Chlorobenzene	-		1,1,1-Trichloroethane	<	50
Chloroethane	<	50	1,1,2-Trichloroethane	<	50
2-Chloroethylvinyl ether	<	50	Trichloroethene	<	50
Chloroform	<	50	Toluene	-	
Chloromethane	<	50	Vinyl chloride	<	50
Dibromochloromethane	<	50	1,2-Dichlorobenzene	<	50
1,1-Dichloroethane	<	50	1,3-Dichlorobenzene	<	50
1,2-Dichloroethane	<	50	1,4-Dichlorobenzene	<	50
1,1-Dichloroethene	<	50			

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NOTE: Method 8010 of the EPA was used for this analysis.

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Date Sampled: 06/10/87
Date Received: 06/10/87
Date Extracted: 06/23/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061438	Soil, #B-2, R-6

PRIORITY POLLUTANTS

VOLATILE ORGANIC COMPOUNDS

results in ppb

Acrolein		-	trans-1,2-Dichloroethene	<	50
Acrylonitrile		-	1,2-Dichloropropane	<	50
Benzene		-	1,3-Dichloropropene	<	50
Bromomethane	<	50	Ethylbenzene		-
Bromodichloromethane	<	50	Methylene chloride		1,000
Bromoform	<	50	1,1,2,2-Tetrachloroethane	<	50
Carbon tetrachloride	<	50	Tetrachloroethene	<	50
Chlorobenzene		-	1,1,1-Trichloroethane		110
Chloroethane	<	50	1,1,2-Trichloroethane	<	50
2-Chloroethylvinyl ether	<	50	Trichloroethene	<	50
Chloroform	<	50	Toluene		-
Chloromethane	<	50	Vinyl chloride	<	50
Dibromochloromethane	<	50	1,2-Dichlorobenzene	<	50
1,1-Dichloroethane	<	50	1,3-Dichlorobenzene	<	50
1,2-Dichloroethane	<	50	1,4-Dichlorobenzene	<	50
1,1-Dichloroethene	<	50			

1000

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Arthur G. Burton
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Date Sampled: 06/10/87
Date Received: 06/10/87
Date Extracted: 06/19/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061438	Soil, #B-2, R-6

PRIORITY POLLUTANTS

ACID EXTRACT ORGANICS
results in ppb

4-Chloro-3-methylphenol	< 100
2-Chlorophenol	< 100
2,4-Dichlorophenol	< 100
2,4-Dimethylphenol	< 100
2,4-Dinitrophenol	< 100
2-Methyl-4,6-dinitrophenol	< 100
2-Nitrophenol	< 100
4-Nitrophenol	< 100
Pentachlorophenol	< 100
Phenol	< 100
2,4,6-Trichlorophenol	< 100

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
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NOTE: Method 8040 of the EPA was used for this analysis.

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Attn: Bob Breynaert

Date Sampled: 06/10/87
Date Received: 06/10/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061438	Soil, #B-2, R-6

ANALYSIS

	Detection Limit ppm	Sample Results ppm
Acetone	1.0	< 1.0
Methanol	1.0	< 1.0
Ethanol	1.0	< 1.0
Isopropyl	1.0	< 1.0

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Date Sampled: 06/10/87
Date Received: 06/10/87
Date Extracted: 06/23/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061439	Soil, #B-3, R-1

PRIORITY POLLUTANTS

VOLATILE ORGANIC COMPOUNDS
results in ppb

Acrolein	-		trans-1,2-Dichloroethene	<	5
Acrylonitrile	-		1,2-Dichloropropane	<	5
Benzene	-		1,3-Dichloropropene	<	5
Bromomethane	<	50	Ethylbenzene		-
Bromodichloromethane	<	50	Methylene chloride		2,40
Bromoform	<	50	1,1,2,2-Tetrachloroethane	<	5
Carbon tetrachloride	<	50	Tetrachloroethene	<	5
Chlorobenzene	-		1,1,1-Trichloroethane		56
Chloroethane	<	50	1,1,2-Trichloroethane	<	5
2-Chloroethylvinyl ether	<	50	Trichloroethene	<	5
Chloroform	<	50	Toluene		
Chloromethane	<	50	Vinyl chloride	<	5
Dibromochloromethane	<	50	1,2-Dichlorobenzene	<	5
1,1-Dichloroethane	<	50	1,3-Dichlorobenzene	<	5
1,2-Dichloroethane	<	50	1,4-Dichlorobenzene	<	5
1,1-Dichloroethene	<	50			

SEQUOIA ANALYTICAL LABORATORY

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Date Sampled: 06/10/87
Date Received: 06/10/87
Date Extracted: 06/19/87
Date Reported: 06/26/87
Project No. JCO-104E

Sample Number	Sample Description
7061439	Soil, #B-3, R-1

PRIORITY POLLUTANTS

ACID EXTRACT ORGANICS

results in ppb

4-Chloro-3-methylphenol	< 100
2-Chlorophenol	< 100
2,4-Dichlorophenol	< 100
2,4-Dimethylphenol	< 100
2,4-Dinitrophenol	< 100
2-Methyl-4,6-dinitrophenol	< 100
2-Nitrophenol	< 100
4-Nitrophenol	< 100
Pentachlorophenol	< 100
Phenol	< 100
2,4,6-Trichlorophenol	< 100

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
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Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061439	Soil, #B-3, R-1

ANALYSIS

	Detection Limit ppm	Sample Results ppm
Acetone	1.0	< 1.0
Methanol	1.0	< 1.0
Ethanol	1.0	< 1.0
Isopropyl Alcohol	1.0	< 1.0

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Date Received: 06/10/87
Date Extracted: 06/23/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061440	Soil, #B-3, R-4

PRIORITY POLLUTANTS

VOLATILE ORGANIC COMPOUNDS
results in ppb

Acrolein	-		trans-1,2-Dichloroethene	<	50
Acrylonitrile	-		1,2-Dichloropropane	<	50
Benzene	-		1,3-Dichloropropene	<	50
Bromomethane	<	50	Ethylbenzene		-
Bromodichloromethane	<	50	Methylene chloride	<	50
Bromoform	<	50	1,1,2,2-Tetrachloroethane	<	50
Carbon tetrachloride	<	50	Tetrachloroethene	<	50
Chlorobenzene	-		1,1,1-Trichloroethane	<	50
Chloroethane	<	50	1,1,2-Trichloroethane	<	50
2-Chloroethylvinyl ether	<	50	Trichloroethene	<	50
Chloroform	<	50	Toluene		-
Chloromethane	<	50	Vinyl chloride	<	50
Dibromochloromethane	<	50	1,2-Dichlorobenzene	<	50
1,1-Dichloroethane	<	50	1,3-Dichlorobenzene	<	50
1,2-Dichloroethane	<	50	1,4-Dichlorobenzene	<	50
1,1-Dichloroethene	<	50			

SEQUOIA ANALYTICAL LABORATORY

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Date Sampled: 06/10/87
Date Received: 06/10/87
Date Extracted: 06/23/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061441	Soil, #B-3, R-6

PRIORITY POLLUTANTS

VOLATILE ORGANIC COMPOUNDS

results in ppb

Acrolein		-	trans-1,2-Dichloroethene	<	50
Acrylonitrile		-	1,2-Dichloropropane	<	50
Benzene		-	1,3-Dichloropropene	<	50
Bromomethane	<	50	Ethylbenzene		-
Bromodichloromethane	<	50	Methylene chloride		350
Bromoform	<	50	1,1,2,2-Tetrachloroethane	<	50
Carbon tetrachloride	<	50	Tetrachloroethene	<	50
Chlorobenzene		-	1,1,1-Trichloroethane		150
Chloroethane	<	50	1,1,2-Trichloroethane	<	50
2-Chloroethylvinyl ether	<	50	Trichloroethene	<	50
Chloroform	<	50	Toluene		-
Chloromethane	<	50	Vinyl chloride	<	50
Dibromochloromethane	<	50	1,2-Dichlorobenzene	<	50
1,1-Dichloroethane	<	50	1,3-Dichlorobenzene	<	50
1,2-Dichloroethane	<	50	1,4-Dichlorobenzene	<	50
1,1-Dichloroethene	<	50			

350

SEQUOIA ANALYTICAL LABORATORY

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NOTE: Method 8010 of the EPA was used for this analysis.

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Date Sampled: 06/10/87
Date Received: 06/10/87
Date Extracted: 06/19/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061441	Soil, #B-3, R-6

PRIORITY POLLUTANTS

ACID EXTRACT ORGANICS
results in ppb

4-Chloro-3-methylphenol	< 100
2-Chlorophenol	< 100
2,4-Dichlorophenol	< 100
2,4-Dimethylphenol	< 100
2,4-Dinitrophenol	< 100
2-Methyl-4,6-dinitrophenol	< 100
2-Nitrophenol	< 100
4-Nitrophenol	< 100
Pentachlorophenol	< 100
Phenol	< 100
2,4,6-Trichlorophenol	< 100

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
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NOTE: Method 8040 of the EPA was used for this analysis.

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Date Received: 06/10/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061441	Soil, #B-3, R-6

ANALYSIS

	Detection Limit ppm	Sample Results ppm
Acetone	1.0	< 1.0
Methanol	1.0	< 1.0
Ethanol	1.0	< 1.0
Isopropyl Alcohol	1.0	< 1.0

SEQUOIA ANALYTICAL LABORATORY

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Attn: Bob Breynaert

Date Sampled: 06/10/87
Date Received: 06/10/87
Date Extracted: 06/23/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061442	Soil, #B-4, R-1

PRIORITY POLLUTANTS

VOLATILE ORGANIC COMPOUNDS

results in ppb

Acrolein		-	trans-1,2-Dichloroethene	<	50
Acrylonitrile		-	1,2-Dichloropropane	<	50
Benzene		-	1,3-Dichloropropene	<	50
Bromomethane	<	50	Ethylbenzene		-
Bromodichloromethane	<	50	Methylene chloride		1,100
Bromoform	<	50	1,1,2,2-Tetrachloroethane	<	50
Carbon tetrachloride	<	50	Tetrachloroethene	<	50
Chlorobenzene		-	1,1,1-Trichloroethane	<	50
Chloroethane	<	50	1,1,2-Trichloroethane	<	50
2-Chloroethylvinyl ether	<	50	Trichloroethene	<	50
Chloroform	<	50	Toluene		-
Chloromethane	<	50	Vinyl chloride	<	50
Dibromochloromethane	<	50	1,2-Dichlorobenzene	<	50
1,1-Dichloroethane	<	50	1,3-Dichlorobenzene	<	50
1,2-Dichloroethane	<	50	1,4-Dichlorobenzene	<	50
1,1-Dichloroethene	<	50			

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SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director

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NOTE: Method 8010 of the EPA was used for this analysis.

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2549 Middlefield Road
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Attn: Bob Breynaert

Date Sampled: 06/10/87
Date Received: 06/10/87
Date Extracted: 06/19/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061442	Soil, #B-4, R-1

PRIORITY POLLUTANTS

ACID EXTRACT ORGANICS
results in ppb

4-Chloro-3-methylphenol	< 100
2-Chlorophenol	< 100
2,4-Dichlorophenol	< 100
2,4-Dimethylphenol	< 100
2,4-Dinitrophenol	< 100
2-Methyl-4,6-dinitrophenol	< 100
2-Nitrophenol	< 100
4-Nitrophenol	< 100
Pentachlorophenol	< 100
Phenol	< 100
2,4,6-Trichlorophenol	< 100

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Arthur G. Burton
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NOTE: Method 8040 of the EPA was used for this analysis.

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Attn: Bob Breynaert

Date Sampled: 06/10/87
Date Received: 06/10/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061442	Soil, #B-4, R-1

ANALYSIS

	Detection Limit ppm	Sample Results ppm
Acetone	1.0	< 1.0
Methanol	1.0	< 1.0
Ethanol	1.0	< 1.0
Isopropyl Alcohol	1.0	< 1.0

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Date Sampled: 06.10.8[illegible]
Date Received: 06.10.8[illegible]
Date Extracted: 06.23.8[illegible]
Date Reported: 06.26.8[illegible]
Project No. JCO-104E

Sample Number	Sample Description
7061443	Soil, #B-4, R-3

PRIORITY POLLUTANTS

VOLATILE ORGANIC COMPOUNDS

results in ppb

Acrolein		-	trans-1,2-Dichloroethene	<	50
Acrylonitrile		-	1,2-Dichloropropane	<	50
Benzene		-	1,3-Dichloropropene	<	50
Bromomethane	<	50	Ethylbenzene		-
Bromodichloromethane	<	50	Methylene chloride	<	50
Bromoform	<	50	1,1,2,2-Tetrachloroethane	<	50
Carbon tetrachloride	<	50	Tetrachloroethene	<	50
Chlorobenzene		-	1,1,1-Trichloroethane	<	50
Chloroethane	<	50	1,1,2-Trichloroethane	<	50
2-Chloroethylvinyl ether	<	50	Trichloroethene	<	50
Chloroform	<	50	Toluene		-
Chloromethane	<	50	Vinyl chloride	<	50
Dibromochloromethane	<	50	1,2-Dichlorobenzene	<	50
1,1-Dichloroethane	<	50	1,3-Dichlorobenzene	<	50
1,2-Dichloroethane	<	50	1,4-Dichlorobenzene	<	50
1,1-Dichloroethene	<	50			

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NOTE: Method 8010 of the EPA was used for this analysis.

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Date Sampled: 06/10/87
Date Received: 06/10/87
Date Extracted: 06/23/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061444	Soil, #B-4, R-4

PRIORITY POLLUTANTS

VOLATILE ORGANIC COMPOUNDS
results in ppb

Acrolein		-	trans-1,2-Dichloroethene	<	50
Acrylonitrile		-	1,2-Dichloropropane	<	50
Benzene		-	1,3-Dichloropropene	<	50
Bromomethane	<	50	Ethylbenzene		-
Bromodichloromethane	<	50	Methylene chloride		190
Bromoform	<	50	1,1,2,2-Tetrachloroethane	<	50
Carbon tetrachloride	<	50	Tetrachloroethene	<	50
Chlorobenzene		-	1,1,1-Trichloroethane	<	50
Chloroethane	<	50	1,1,2-Trichloroethane	<	50
2-Chloroethylvinyl ether	<	50	Trichloroethene	<	50
Chloroform	<	50	Toluene		-
Chloromethane	<	50	Vinyl chloride	<	50
Dibromochloromethane	<	50	1,2-Dichlorobenzene	<	50
1,1-Dichloroethane	<	50	1,3-Dichlorobenzene	<	50
1,2-Dichloroethane	<	50	1,4-Dichlorobenzene	<	50
1,1-Dichloroethene	<	50			

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NOTE: Method 8010 of the EPA was used for this analysis.

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Date Sampled: 06/10/87
Date Received: 06/10/87
Date Extracted: 06/23/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7C61445	Soil, #B-4, R-5

PRIORITY POLLUTANTS

VOLATILE ORGANIC COMPOUNDS

results in ppb

Acrolein	-		trans-1,2-Dichloroethene	<	50
Acrylonitrile	-		1,2-Dichloropropane	<	50
Benzene	-		1,3-Dichloropropene	<	50
Bromomethane	<	50	Ethylbenzene		-
Bromodichloromethane	<	50	Methylene chloride	<	50
Bromoform	<	50	1,1,2,2-Tetrachloroethane	<	50
Carbon tetrachloride	<	50	Tetrachloroethene	<	50
Chlorobenzene	-		1,1,1-Trichloroethane	<	50
Chloroethane	<	50	1,1,2-Trichloroethane	<	50
2-Chloroethylvinyl ether	<	50	Trichloroethene	<	50
Chloroform	<	50	Toluene		-
Chloromethane	<	50	Vinyl chloride	<	50
Dibromochloromethane	<	50	1,2-Dichlorobenzene	<	50
1,1-Dichloroethane	<	50	1,3-Dichlorobenzene	<	50
1,2-Dichloroethane	<	50	1,4-Dichlorobenzene	<	50
1,1-Dichloroethene	<	50			

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NOTE: Method 8010 of the EPA was used for this analysis.

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Date Sampled: 06/10/87
Date Received: 06/10/87
Date Extracted: 06/23/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061446	Soil, #B-4, R-6

PRIORITY POLLUTANTS

VOLATILE ORGANIC COMPOUNDS
results in ppb

Acrolein		-	trans-1,2-Dichloroethene	<	50
Acrylonitrile		-	1,2-Dichloropropane	<	50
Benzene		-	1,3-Dichloropropene	<	50
Bromomethane	<	50	Ethylbenzene		-
Bromodichloromethane	<	50	Methylene chloride	<	50
Bromoform	<	50	1,1,2,2-Tetrachloroethane	<	50
Carbon tetrachloride	<	50	Tetrachloroethene	<	50
Chlorobenzene		-	1,1,1-Trichloroethane		100
Chloroethane	<	50	1,1,2-Trichloroethane	<	50
2-Chloroethylvinyl ether	<	50	Trichloroethene	<	50
Chloroform	<	50	Toluene		-
Chloromethane	<	50	Vinyl chloride	<	50
Dibromochloromethane	<	50	1,2-Dichlorobenzene	<	50
1,1-Dichloroethane	<	50	1,3-Dichlorobenzene	<	50
1,2-Dichloroethane	<	50	1,4-Dichlorobenzene	<	50
1,1-Dichloroethene	<	50			

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NOTE: Method 8010 of the EPA was used for this analysis.

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Date Received: 06/10/87
Date Extracted: 06/19/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061446	Soil, #B-4, R-6

PRIORITY POLLUTANTS

ACID EXTRACT ORGANICS
results in ppb

4-Chloro-3-methylphenol	< 100
2-Chlorophenol	< 100
2,4-Dichlorophenol	< 100
2,4-Dimethylphenol	< 100
2,4-Dinitrophenol	< 100
2-Methyl-4,6-dinitrophenol	< 100
2-Nitrophenol	< 100
4-Nitrophenol	< 100
Pentachlorophenol	< 100
Phenol	< 100
2,4,6-Trichlorophenol	< 100

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NOTE: Method 3040 of the EPA was used for this analysis.

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Date Sampled: 06/10/87
Date Received: 06/10/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061446	Soil, #B-4, R-6

ANALYSIS

	Detection Limit ppm	Sample Results ppm
Acetone	1.0	< 1.0
Methanol	1.0	< 1.0
Ethanol	1.0	< 1.0
Isopropyl Alcohol	1.0	< 1.0

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Date Received: 06/10/87
Date Extracted: 06/23/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061447	Soil, #B-5, R-1

PRIORITY POLLUTANTS

VOLATILE ORGANIC COMPOUNDS

results in ppb

Acrolein		-	trans-1,2-Dichloroethene	<	50
Acrylonitrile		-	1,2-Dichloropropane	<	50
Benzene		-	1,3-Dichloropropene	<	50
Bromomethane	<	50	Ethylbenzene		-
Bromodichloromethane	<	50	Methylene chloride	<	50
Bromoform	<	50	1,1,2,2-Tetrachloroethane	<	50
Carbon tetrachloride	<	50	Tetrachloroethene	<	50
Chlorobenzene		-	1,1,1-Trichloroethane	<	50
Chloroethane	<	50	1,1,2-Trichloroethane	<	50
2-Chloroethylvinyl ether	<	50	Trichloroethene	<	50
Chloroform	<	50	Toluene		-
Chloromethane	<	50	Vinyl chloride	<	50
Dibromochloromethane	<	50	1,2-Dichlorobenzene	<	50
1,1-Dichloroethane	<	50	1,3-Dichlorobenzene	<	50
1,2-Dichloroethane	<	50	1,4-Dichlorobenzene	<	50
1,1-Dichloroethene	<	50			

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NOTE: Method 8010 of the EPA was used for this analysis.

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Date Sampled: 06/10/87
Date Received: 06/10/87
Date Extracted: 06/23/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061448	Soil, #B-5, R-3

PRIORITY POLLUTANTS

VOLATILE ORGANIC COMPOUNDS

results in ppb

Acrolein		-	trans-1,2-Dichloroethene	<	50
Acrylonitrile		-	1,2-Dichloropropane	<	50
Benzene		-	1,3-Dichloropropene	<	50
Bromomethane	<	50	Ethylbenzene		-
Bromodichloromethane	<	50	Methylene chloride		770
Bromoform	<	50	1,1,2,2-Tetrachloroethane	<	50
Carbon tetrachloride	<	50	Tetrachloroethene	<	50
Chlorobenzene		-	1,1,1-Trichloroethane	<	50
Chloroethane	<	50	1,1,2-Trichloroethane	<	50
2-Chloroethylvinyl ether	<	50	Trichloroethene	<	50
Chloroform	<	50	Toluene		-
Chloromethane	<	50	Vinyl chloride	<	50
Dibromochloromethane	<	50	1,2-Dichlorobenzene	<	50
1,1-Dichloroethane	<	50	1,3-Dichlorobenzene	<	50
1,2-Dichloroethane	<	50	1,4-Dichlorobenzene	<	50
1,1-Dichloroethene	<	50			

SEQUOIA ANALYTICAL LABORATORY

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NOTE: Method 8010 of the EPA was used for this analysis.

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Date Sampled: 06/10/87
Date Received: 06/10/87
Date Extracted: 06/19/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061448	Soil, #B-5, R-3

PRIORITY POLLUTANTS

ACID EXTRACT ORGANICS
results in ppb

4-Chloro-3-methylphenol	< 100
2-Chlorophenol	< 100
2,4-Dichlorophenol	< 100
2,4-Dimethylphenol	< 100
2,4-Dinitrophenol	< 100
2-Methyl-4,6-dinitrophenol	< 100
2-Nitrophenol	< 100
4-Nitrophenol	< 100
Pentachlorophenol	< 100
Phenol	< 100
2,4,6-Trichlorophenol	< 100

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Arthur G. Burton
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NOTE: Method 8040 of the EPA was used for this analysis.

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Date Sampled: 06/10/87
Date Received: 06/10/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061448	Soil, #B-5, R-3

ANALYSIS

	Detection Limit ppm	Sample Results ppm
Acetone	1.0	< 1.0
Methanol	1.0	< 1.0
Ethanol	1.0	< 1.0
Isopropyl Alcohol	1.0	< 1.0

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Date Sampled: 06/10/87
Date Received: 06/10/87
Date Extracted: 06/19/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061464	Soil, #B-5, R-4

PRIORITY POLLUTANTS

VOLATILE ORGANIC COMPOUNDS

results in ppb

Acrolein	< 10,000	trans-1,2-Dichloroethene	< 50
Acrylonitrile	< 10,000	1,2-Dichloropropane	< 50
Benzene	< 50	1,3-Dichloropropene	< 50
Bromomethane	< 50	Ethylbenzene	< 50
Bromodichloromethane	< 50	Methylene chloride	< 50
Bromoform	< 50	1,1,2,2-Tetrachloroethane	< 50
Carbon tetrachloride	< 50	Tetrachloroethene	< 50
Chlorobenzene	< 50	1,1,1-Trichloroethane	< 50
Chloroethane	< 50	1,1,2-Trichloroethane	< 50
2-Chloroethylvinyl ether	< 50	Trichloroethene	< 50
Chloroform	< 50	Toluene	< 50
Chloromethane	< 50	Vinyl chloride	< 50
Dibromochloromethane	< 50	1,2-Dichlorobenzene	< 50
1,1-Dichloroethane	< 50	1,3-Dichlorobenzene	< 50
1,2-Dichloroethane	< 50	1,4-Dichlorobenzene	< 50
1,1-Dichloroethene	< 50		

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NOTE: Method 8240 of the EPA was used for this analysis.

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Date Received: 06/10/87
Date Extracted: 06/19/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061464	Soil, B-5, R-4

PRIORITY POLLUTANTS

ACID EXTRACT ORGANICS
results in ppb

4-Chloro-3-methylphenol	< 100
2-Chlorophenol	< 100
2,4-Dichlorophenol	< 100
2,4-Dimethylphenol	< 100
2,4-Dinitrophenol	< 100
2-Methyl-4,6-dinitrophenol	< 100
2-Nitrophenol	< 100
4-Nitrophenol	< 100
Pentachlorophenol	< 100
Phenol	< 100
2,4,6-Trichlorophenol	< 100

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Arthur G. Burton
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NOTE: Method 8040 of the EPA was used for this analysis.

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Date Sampled: 06/10/87
Date Received: 06/10/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061464	Soil, #B-5, R-4

ANALYSIS	Detection Limit ppm	Sample Results ppm
Acetone	1.0	< 1.0
Methanol	1.0	< 1.0
Ethanol	1.0	< 1.0
Isopropyl Alcohol	1.0	< 1.0

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Date Received: 06/[illegible]/87
Date Extracted: 06/[illegible]/87
Date Reported: 06/[illegible]/87
Project No. JCO-104[illegible]

Sample Number	Sample Description
7061449	Soil, #B-5, R-5

PRIORITY POLLUTANTS

VOLATILE ORGANIC COMPOUNDS

results in ppb

Acrolein		-	trans-1,2-Dichloroethene	<	50
Acrylonitrile		-	1,2-Dichloropropane	<	50
Benzene		-	1,3-Dichloropropene	<	50
Bromomethane	<	50	Ethylbenzene		-
Bromodichloromethane	<	50	Methylene chloride	<	50
Bromoform	<	50	1,1,2,2-Tetrachloroethane	<	50
Carbon tetrachloride	<	50	Tetrachloroethene	<	50
Chlorobenzene		-	1,1,1-Trichloroethane	<	50
Chloroethane	<	50	1,1,2-Trichloroethane	<	50
2-Chloroethylvinyl ether	<	50	Trichloroethene	<	50
Chloroform	<	50	Toluene		-
Chloromethane	<	50	Vinyl chloride	<	50
Dibromochloromethane	<	50	1,2-Dichlorobenzene	<	50
1,1-Dichloroethane	<	50	1,3-Dichlorobenzene	<	50
1,2-Dichloroethane	<	50	1,4-Dichlorobenzene	<	50
1,1-Dichloroethene	<	50			

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NOTE: Method 8010 of the EPA was used for this analysis.

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Date Sampled: 06/10/87
Date Received: 06/10/87
Date Extracted: 06/23/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061450	Soil, #B-5, R-6

PRIORITY POLLUTANTS

VOLATILE ORGANIC COMPOUNDS

results in ppb

Acrolein		-	trans-1,2-Dichloroethene	<	50
Acrylonitrile		-	1,2-Dichloropropane	<	50
Benzene		-	1,3-Dichloropropene	<	50
Bromomethane	<	50	Ethylbenzene		-
Bromodichloromethane	<	50	Methylene chloride	<	50
Bromoform	<	50	1,1,2,2-Tetrachloroethane	<	50
Carbon tetrachloride	<	50	Tetrachloroethene	<	50
Chlorobenzene		-	1,1,1-Trichloroethane	<	50
Chloroethane	<	50	1,1,2-Trichloroethane	<	50
2-Chloroethylvinyl ether	<	50	Trichloroethene	<	50
Chloroform	<	50	Toluene		-
Chloromethane	<	50	Vinyl chloride	<	50
Dibromochloromethane	<	50	1,2-Dichlorobenzene	<	50
1,1-Dichloroethane	<	50	1,3-Dichlorobenzene	<	50
1,2-Dichloroethane	<	50	1,4-Dichlorobenzene	<	50
1,1-Dichloroethene	<	50			

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NOTE: Method 8010 of the EPA was used for this analysis.

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Date Sampled: 06/10/87
Date Received: 06/10/87
Date Extracted: 06/19/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061450	Soil, #B-5, R-6

PRIORITY POLLUTANTS

ACID EXTRACT ORGANICS
results in ppb

4-Chloro-3-methylphenol	< 100
2-Chlorophenol	< 100
2,4-Dichlorophenol	< 100
2,4-Dimethylphenol	< 100
2,4-Dinitrophenol	< 100
2-Methyl-4,6-dinitrophenol	< 100
2-Nitrophenol	< 100
4-Nitrophenol	< 100
Pentachlorophenol	< 100
Phenol	< 100
2,4,6-Trichlorophenol	< 100

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director

NOTE: Method 8040 of the EPA was used for this analysis.

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Attn: Bob Breynaert

Date Sampled: 06/10/87
Date Received: 06/10/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061450	Soil, #B-5, R-6

ANALYSIS

	Detection Limit ppm	Sample Results ppm
Acetone	1.0	< 1.0
Methanol	1.0	< 1.0
Ethanol	1.0	< 1.0
Isopropyl Alcohol	1.0	< 1.0

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Arthur G. Burton
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Date Sampled: 06/10/87
Date Received: 06/10/87
Date Extracted: 06/23/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061451	Soil, #B-6, R-1

PRIORITY POLLUTANTS

VOLATILE ORGANIC COMPOUNDS

results in ppb

Acrolein		-	trans-1,2-Dichloroethene	<	50
Acrylonitrile		-	1,2-Dichloropropane	<	50
Benzene		-	1,3-Dichloropropene	<	50
Bromomethane	<	50	Ethylbenzene		-
Bromodichloromethane	<	50	Methylene chloride		2,100
Bromoform	<	50	1,1,2,2-Tetrachloroethane	<	50
Carbon tetrachloride	<	50	Tetrachloroethene	<	50
Chlorobenzene		-	1,1,1-Trichloroethane	<	50
Chloroethane	<	50	1,1,2-Trichloroethane	<	50
2-Chloroethylvinyl ether	<	50	Trichloroethene	<	50
Chloroform	<	50	Toluene		-
Chloromethane	<	50	Vinyl chloride	<	50
Dibromochloromethane	<	50	1,2-Dichlorobenzene	<	50
1,1-Dichloroethane	<	50	1,3-Dichlorobenzene	<	50
1,2-Dichloroethane	<	50	1,4-Dichlorobenzene	<	50
1,1-Dichloroethene	<	50			

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SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director

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NOTE: Method 8010 of the EPA was used for this analysis.

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Date Received: 06/10/87
Date Extracted: 06/23/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061452	Soil, #B-6, R-3

PRIORITY POLLUTANTS

VOLATILE ORGANIC COMPOUNDS
results in ppb

Acrolein		-	trans-1,2-Dichloroethene	<	50
Acrylonitrile		-	1,2-Dichloropropane	<	50
Benzene		-	1,3-Dichloropropene	<	50
Bromomethane	<	50	Ethylbenzene		-
Bromodichloromethane	<	50	Methylene chloride		990
Bromoform	<	50	1,1,2,2-Tetrachloroethane	<	50
Carbon tetrachloride	<	50	Tetrachloroethene	<	50
Chlorobenzene		-	1,1,1-Trichloroethane	<	50
Chloroethane	<	50	1,1,2-Trichloroethane	<	50
2-Chloroethylvinyl ether	<	50	Trichloroethene	<	50
Chloroform	<	50	Toluene		-
Chloromethane	<	50	Vinyl chloride	<	50
Dibromochloromethane	<	50	1,2-Dichlorobenzene	<	50
1,1-Dichloroethane	<	50	1,3-Dichlorobenzene	<	50
1,2-Dichloroethane	<	50	1,4-Dichlorobenzene	<	50
1,1-Dichloroethene	<	50			

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Date Received: 06/10/87
Date Extracted: 06/19/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061452	Soil, B-6, R-3

PRIORITY POLLUTANTS

ACID EXTRACT ORGANICS
results in ppb

4-Chloro-3-methylphenol	< 100
2-Chlorophenol	< 100
2,4-Dichlorophenol	< 100
2,4-Dimethylphenol	< 100
2,4-Dinitrophenol	< 100
2-Methyl-4,6-dinitrophenol	< 100
2-Nitrophenol	< 100
4-Nitrophenol	< 100
Pentachlorophenol	< 100
Phenol	< 100
2,4,6-Trichlorophenol	< 100

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Arthur G. Burton
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Date Received: 06/10/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061452	Soil, #B-6, R-3

ANALYSIS

	Detection Limit ppm	Sample Results ppm
Acetone	1.0	< 1.0
Methanol	1.0	< 1.0
Ethanol	1.0	< 1.0
Isopropyl Alcohol	1.0	< 1.0

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Date Received: 06/10/87
Date Extracted: 06/19/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061465	Soil, #B-6, R-4

PRIORITY POLLUTANTS

VOLATILE ORGANIC COMPOUNDS

results in ppb

Acrolein	< 10,000	trans-1,2-Dichloroethene	< 50
Acrylonitrile	< 10,000	1,2-Dichloropropane	< 50
Benzene	< 50	1,3-Dichloropropene	< 50
Bromomethane	< 50	Ethylbenzene	< 50
Bromodichloromethane	< 50	Methylene chloride	< 50
Bromoform	< 50	1,1,2,2-Tetrachloroethane	< 50
Carbon tetrachloride	< 50	Tetrachloroethene	< 50
Chlorobenzene	< 50	1,1,1-Trichloroethane	< 50
Chloroethane	< 50	1,1,2-Trichloroethane	< 50
2-Chloroethylvinyl ether	< 50	Trichloroethene	< 50
Chloroform	< 50	Toluene	< 50
Chloromethane	< 50	Vinyl chloride	< 50
Dibromochloromethane	< 50	1,2-Dichlorobenzene	< 50
1,1-Dichloroethane	< 50	1,3-Dichlorobenzene	< 50
1,2-Dichloroethane	< 50	1,4-Dichlorobenzene	< 50
1,1-Dichloroethane	< 50		

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Arthur G. Burton
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NOTE: Method 8240 of the EPA was used for this analysis.

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Date Received: 06/10/87
Date Extracted: 06/19/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061465	Soil, #B-6, R-4

PRIORITY POLLUTANTS

ACID EXTRACT ORGANICS
results in ppb

4-Chloro-3-methylphenol	< 100
2-Chlorophenol	< 100
2,4-Dichlorophenol	< 100
2,4-Dimethylphenol	< 100
2,4-Dinitrophenol	< 100
2-Methyl-4,6-dinitrophenol	< 100
2-Nitrophenol	< 100
4-Nitrophenol	< 100
Pentachlorophenol	< 100
Phenol	< 100
2,4,6-Trichlorophenol	< 100

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
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NOTE: Method 8040 of the EPA was used for this analysis.

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Date Received: 06/10/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061465	Soil, #B-6, R-4

ANALYSIS

	Detection Limit ppm	Sample Results ppm
Acetone	1.0	< 1.0
Methanol	1.0	< 1.0
Ethanol	1.0	< 1.0
Isopropyl Alcohol	1.0	< 1.0

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Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061453	Soil, #B-6, R-5

PRIORITY POLLUTANTS

VOLATILE ORGANIC COMPOUNDS

results in ppb

Acrolein	-		trans-1,2-Dichloroethene	<	50
Acrylonitrile	-		1,2-Dichloropropane	<	50
Benzene	-		1,3-Dichloropropene	<	50
Bromomethane	<	50	Ethylbenzene		-
Bromodichloromethane	<	50	Methylene chloride		720
Bromoform	<	50	1,1,2,2-Tetrachloroethane	<	50
Carbon tetrachloride	<	50	Tetrachloroethene	<	50
Chlorobenzene	-		1,1,1-Trichloroethane	<	50
Chloroethane	<	50	1,1,2-Trichloroethane	<	50
2-Chloroethylvinyl ether	<	50	Trichloroethene	<	50
Chloroform	<	50	Toluene		-
Chloromethane	<	50	Vinyl chloride	<	50
Dibromochloromethane	<	50	1,2-Dichlorobenzene	<	50
1,1-Dichloroethane	<	50	1,3-Dichlorobenzene	<	50
1,2-Dichloroethane	<	50	1,4-Dichlorobenzene	<	50
1,1-Dichloroethene	<	50			

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Arthur G. Burton
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NOTE: Method 8010 of the EPA was used for this analysis.

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Date Sampled: 06/10/87
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Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061454	Soil, #B-6, R-6

PRIORITY POLLUTANTS

VOLATILE ORGANIC COMPOUNDS

results in ppb

Acrolein		-	trans-1,2-Dichloroethene	<	50
Acrylonitrile		-	1,2-Dichloropropane	<	50
Benzene		-	1,3-Dichloropropene	<	50
Bromomethane	<	50	Ethylbenzene		-
Bromodichloromethane	<	50	Methylene chloride		1,600
Bromoform	<	50	1,1,2,2-Tetrachloroethane	<	50
Carbon tetrachloride	<	50	Tetrachloroethene	<	50
Chlorobenzene		-	1,1,1-Trichloroethane	<	50
Chloroethane	<	50	1,1,2-Trichloroethane	<	50
2-Chloroethylvinyl ether	<	50	Trichloroethene	<	50
Chloroform	<	50	Toluene		-
Chloromethane	<	50	Vinyl chloride	<	50
Dibromochloromethane	<	50	1,2-Dichlorobenzene	<	50
1,1-Dichloroethane	<	50	1,3-Dichlorobenzene	<	50
1,2-Dichloroethane	<	50	1,4-Dichlorobenzene	<	50
1,1-Dichloroethene	<	50			

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NOTE: Method 8010 of the EPA was used for this analysis.

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Project No. JCO-104H

Sample Number	Sample Description
7061454	Soil, B-6, R-6

PRIORITY POLLUTANTS

ACID EXTRACT ORGANICS
results in ppb

4-Chloro-3-methylphenol	< 100
2-Chlorophenol	< 100
2,4-Dichlorophenol	< 100
2,4-Dimethylphenol	< 100
2,4-Dinitrophenol	< 100
2-Methyl-4,6-dinitrophenol	< 100
2-Nitrophenol	< 100
4-Nitrophenol	< 100
Pentachlorophenol	< 100
Phenol	< 100
2,4,6-Trichlorophenol	< 100

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Arthur G. Burton
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NOTE: Method 8040 of the EPA was used for this analysis.

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Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061454	Soil, #B-6, R-6

ANALYSIS

	Detection Limit ppm	Sample Results ppm
Acetone	1.0	< 1.0
Methanol	1.0	< 1.0
Ethanol	1.0	< 1.0
Isopropyl Alcohol	1.0	< 1.0

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Date Received: 06/10/87
Date Extracted: 06/23/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061455	Soil, #B-7, R-1

PRIORITY POLLUTANTS

VOLATILE ORGANIC COMPOUNDS

results in ppb

Acrolein		-	trans-1,2-Dichloroethene	<	50
Acrylonitrile		-	1,2-Dichloropropane	<	50
Benzene		-	1,3-Dichloropropene	<	50
Bromomethane	<	50	Ethylbenzene		-
Bromodichloromethane	<	50	Methylene chloride		250
Bromoform	<	50	1,1,2,2-Tetrachloroethane	<	50
Carbon tetrachloride	<	50	Tetrachloroethene	<	50
Chlorobenzene		-	1,1,1-Trichloroethane		56
Chloroethane	<	50	1,1,2-Trichloroethane	<	50
2-Chloroethylvinyl ether	<	50	Trichloroethene	<	50
Chloroform	<	50	Toluene		-
Chloromethane	<	50	Vinyl chloride	<	50
Dibromochloromethane	<	50	1,2-Dichlorobenzene	<	50
1,1-Dichloroethane	<	50	1,3-Dichlorobenzene	<	50
1,2-Dichloroethane	<	50	1,4-Dichlorobenzene	<	50
1,1-Dichloroethene	<	50			

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Arthur G. Burton
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NOTE: Method 8010 of the EPA was used for this analysis.

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Date Received: 06/10/87
Date Extracted: 06/23/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061456	Soil, #B-7, R-2

PRIORITY POLLUTANTS

VOLATILE ORGANIC COMPOUNDS
results in ppb

Acrolein		-	trans-1,2-Dichloroethene	<	50
Acrylonitrile		-	1,2-Dichloropropane	<	50
Benzene		-	1,3-Dichloropropene	<	50
Bromomethane	<	50	Ethylbenzene		-
Bromodichloromethane	<	50	Methylene chloride	<	50
Bromoform	<	50	1,1,2,2-Tetrachloroethane	<	50
Carbon tetrachloride	<	50	Tetrachloroethene	<	50
Chlorobenzene		-	1,1,1-Trichloroethane	<	50
Chloroethane	<	50	1,1,2-Trichloroethane	<	50
2-Chloroethylvinyl ether	<	50	Trichloroethene	<	50
Chloroform	<	50	Toluene		-
Chloromethane	<	50	Vinyl chloride	<	50
Dibromochloromethane	<	50	1,2-Dichlorobenzene	<	50
1,1-Dichloroethane	<	50	1,3-Dichlorobenzene	<	50
1,2-Dichloroethane	<	50	1,4-Dichlorobenzene	<	50
1,1-Dichloroethene	<	50			

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NOTE: Method 8010 of the EPA was used for this analysis.

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Date Received: 06/10/87
Date Extracted: 06/23/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061466	Soil, #B-7, R-3

PRIORITY POLLUTANTS

VOLATILE ORGANIC COMPOUNDS

results in ppb

Acrolein	< 10,000	trans-1,2-Dichloroethene	< 50
Acrylonitrile	< 10,000	1,2-Dichloropropane	< 50
Benzene	< 50	1,3-Dichloropropene	< 50
Bromomethane	< 50	Ethylbenzene	< 50
Bromodichloromethane	< 50	Methylene chloride	< 50
Bromoform	< 50	1,1,2,2-Tetrachloroethane	< 50
Carbon tetrachloride	< 50	Tetrachloroethene	< 50
Chlorobenzene	< 50	1,1,1-Trichloroethane	< 50
Chloroethane	< 50	1,1,2-Trichloroethane	< 50
2-Chloroethylvinyl ether	< 50	Trichloroethene	< 50
Chloroform	< 50	Toluene	< 50
Chloromethane	< 50	Vinyl chloride	< 50
Dibromochloromethane	< 50	1,2-Dichlorobenzene	< 50
1,1-Dichloroethane	< 50	1,3-Dichlorobenzene	< 50
1,2-Dichloroethane	< 50	1,4-Dichlorobenzene	< 50
1,1-Dichloroethene	< 50		

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NOTE: Method 8240 of the EPA was used for this analysis.

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Date Extracted: 06/19/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061466	Soil, #B-7, R-3

PRIORITY POLLUTANTS

ACID EXTRACT ORGANICS
results in ppb

4-Chloro-3-methylphenol	< 100
2-Chlorophenol	< 100
2,4-Dichlorophenol	< 100
2,4-Dimethylphenol	< 100
2,4-Dinitrophenol	< 100
2-Methyl-4,6-dinitrophenol	< 100
2-Nitrophenol	< 100
4-Nitrophenol	< 100
Pentachlorophenol	< 100
Phenol	< 100
2,4,6-Trichlorophenol	< 100

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
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NOTE: Method 8040 of the EPA was used for this analysis.

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Date Received: 06/10/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061466	Soil, #B-7, R-3

ANALYSIS

	Detection Limit ppm	Sample Results ppm
Acetone	1.0	< 1.0
Methanol	1.0	< 1.0
Ethanol	1.0	< 1.0
Isopropyl Alcohol	1.0	< 1.0

SEQUOIA ANALYTICAL LABORATORY

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Date Sampled: 06/10/87
Date Received: 06/10/87
Date Extracted: 06/23/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061457	Soil, #B-7, R-4

PRIORITY POLLUTANTS

VOLATILE ORGANIC COMPOUNDS

results in ppb

Acrolein		-	trans-1,2-Dichloroethene	<	50
Acrylonitrile		-	1,2-Dichloropropane	<	50
Benzene		-	1,3-Dichloropropene	<	50
Bromomethane	<	50	Ethylbenzene		-
Bromodichloromethane	<	50	Methylene chloride	<	50
Bromoform	<	50	1,1,2,2-Tetrachloroethane	<	50
Carbon tetrachloride	<	50	Tetrachloroethene	<	50
Chlorobenzene		-	1,1,1-Trichloroethane	<	50
Chloroethane	<	50	1,1,2-Trichloroethane	<	50
2-Chloroethylvinyl ether	<	50	Trichloroethene	<	50
Chloroform	<	50	Toluene		-
Chloromethane	<	50	Vinyl chloride	<	50
Dibromochloromethane	<	50	1,2-Dichlorobenzene	<	50
1,1-Dichloroethane	<	50	1,3-Dichlorobenzene	<	50
1,2-Dichloroethane	<	50	1,4-Dichlorobenzene	<	50
1,1-Dichloroethene	<	50			

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NOTE: Method 8010 of the EPA was used for this analysis.

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Date Received: 06/10/87
Date Extracted: 06/19/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061457	Soil, #B-7, R-4

PRIORITY POLLUTANTS

ACID EXTRACT ORGANICS
results in ppb

4-Chloro-3-methylphenol	< 100
2-Chlorophenol	< 100
2,4-Dichlorophenol	< 100
2,4-Dimethylphenol	< 100
2,4-Dinitrophenol	< 100
2-Methyl-4,6-dinitrophenol	< 100
2-Nitrophenol	< 100
4-Nitrophenol	< 100
Pentachlorophenol	< 100
Phenol	< 100
2,4,6-Trichlorophenol	< 100

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NOTE: Method 8040 of the EPA was used for this analysis.

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Attn: Bob Breynaert

Date Sampled: 06/10/87
Date Received: 06/10/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061457	Soil, #B-7, R-4

ANALYSIS

	Detection Limit ppm	Sample Results ppm
Acetone	1.0	< 1.0
Methanol	1.0	< 1.0
Ethanol	1.0	< 1.0
Isopropyl Alcohol	1.0	< 1.0

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Date Sampled: 06/[illegible] 87
Date Received: 06/[illegible] 87
Date Extracted: 06/[illegible] 87
Date Reported: 06/[illegible] 87
Project No. JCO-1[illegible]

Sample Number	Sample Description
7061458	Soil, #B-7, R-5

PRIORITY POLLUTANTS

VOLATILE ORGANIC COMPOUNDS

results in ppb

Acrolein		-	trans-1,2-Dichloroethene	<	[illegible]
Acrylonitrile		-	1,2-Dichloropropane	<	
Benzene		-	1,3-Dichloropropene	<	
Bromomethane	<	50	Ethylbenzene		
Bromodichloromethane	<	50	Methylene chloride	<	
Bromoform	<	50	1,1,2,2-Tetrachloroethane	<	
Carbon tetrachloride	<	50	Tetrachloroethene	<	
Chlorobenzene		-	1,1,1-Trichloroethane	<	
Chloroethane	<	50	1,1,2-Trichloroethane	<	
2-Chloroethylvinyl ether	<	50	Trichloroethene	<	
Chloroform	<	50	Toluene		
Chloromethane	<	50	Vinyl chloride	<	
Dibromochloromethane	<	50	1,2-Dichlorobenzene	<	
1,1-Dichloroethane	<	50	1,3-Dichlorobenzene	<	
1,2-Dichloroethane	<	50	1,4-Dichlorobenzene	<	
1,1-Dichloroethene	<	50			

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Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061459	Soil, #B-7, R-6

PRIORITY POLLUTANTS

VOLATILE ORGANIC COMPOUNDS

results in ppb

Acrolein		-	trans-1,2-Dichloroethene	<	50
Acrylonitrile		-	1,2-Dichloropropane	<	50
Benzene		-	1,3-Dichloropropene	<	50
Bromomethane	<	50	Ethylbenzene		-
Bromodichloromethane	<	50	Methylene chloride	<	50
Bromoform	<	50	1,1,2,2-Tetrachloroethane	<	50
Carbon tetrachloride	<	50	Tetrachloroethene	<	50
Chlorobenzene		-	1,1,1-Trichloroethane	<	50
Chloroethane	<	50	1,1,2-Trichloroethane	<	50
2-Chloroethylvinyl ether	<	50	Trichloroethene	<	50
Chloroform	<	50	Toluene		-
Chloromethane	<	50	Vinyl chloride	<	50
Dibromochloromethane	<	50	1,2-Dichlorobenzene	<	50
1,1-Dichloroethane	<	50	1,3-Dichlorobenzene	<	50
1,2-Dichloroethane	<	50	1,4-Dichlorobenzene	<	50
1,1-Dichloroethene	<	50			

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Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061459	Soil, #B-7, R-6

PRIORITY POLLUTANTS

ACID EXTRACT ORGANICS
results in ppb

4-Chloro-3-methylphenol	< 100
2-Chlorophenol	< 100
2,4-Dichlorophenol	< 100
2,4-Dimethylphenol	< 100
2,4-Dinitrophenol	< 100
2-Methyl-4,6-dinitrophenol	< 100
2-Nitrophenol	< 100
4-Nitrophenol	< 100
Pentachlorophenol	< 100
Phenol	< 100
2,4,6-Trichlorophenol	< 100

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Date Received: 06/10/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061459	Soil, #B-7, R-6

ANALYSIS

	Detection Limit ppm	Sample Results ppm
Acetone	1.0	< 1.0
Methanol	1.0	< 1.0
Ethanol	1.0	< 1.0
Isopropyl Alcohol	1.0	< 1.0

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Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061467	Soil, #B-8, R-2

PRIORITY POLLUTANTS

VOLATILE ORGANIC COMPOUNDS

results in ppm

Acrolein	< 10	trans-1,2-Dichloroethene	4
Acrylonitrile	< 10	1,2-Dichloropropane	< 2
Benzene	< 2	1,3-Dichloropropene	< 2
Bromomethane	< 2	Ethylbenzene	170
Bromodichloromethane	< 2	Methylene chloride	3,400
Bromoform	< 2	1,1,2,2-Tetrachloroethane	< 2
Carbon tetrachloride	680	Tetrachloroethene	16
Chlorobenzene	< 2	1,1,1-Trichloroethane	< 2
Chloroethane	< 2	1,1,2-Trichloroethane	< 2
2-Chloroethylvinyl ether	< 2	Trichloroethene	490
Chloroform	2.3	Toluene	1,700
Chloromethane	< 2	Vinyl chloride	< 2
Dibromochloromethane	< 2	1,2-Dichlorobenzene	< 2
1,1-Dichloroethane	27	1,3-Dichlorobenzene	< 2
1,2-Dichloroethane	3.9	1,4-Dichlorobenzene	< 2
1,1-Dichloroethene	13		

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NOTE: Method 8240 of the EPA was used for this analysis.

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Date Received: 06/10/87
Date Extracted: 06/19/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061467	Soil, #B-8, R-2

PRIORITY POLLUTANTS

ACID EXTRACT ORGANICS
results in ppb

4-Chloro-3-methylphenol	< 100
2-Chlorophenol	< 100
2,4-Dichlorophenol	< 100
2,4-Dimethylphenol	< 100
2,4-Dinitrophenol	< 100
2-Methyl-4,6-dinitrophenol	< 100
2-Nitrophenol	< 100
4-Nitrophenol	< 100
Pentachlorophenol	< 100
Phenol	< 100
2,4,6-Trichlorophenol	< 100

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Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061467	Soil, #B-8, R-2

ANALYSIS

	Detection Limit ppm	Sample Results ppm
Acetone	1.0	270
Methanol	1.0	< 1.0
Ethanol	1.0	< 1.0
Isopropyl Alcohol	1.0	3.5

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Project No. JCO-104H

Sample Number	Sample Description
7061460	Soil, #B-8, R-3

PRIORITY POLLUTANTS

VOLATILE ORGANIC COMPOUNDS

results in ppm

Acrolein		-	trans-1,2-Dichloroethene	<	50
Acrylonitrile		-	1,2-Dichloropropane	<	50
Benzene		-	1,3-Dichloropropene	<	50
Bromomethane	<	50	Ethylbenzene		-
Bromodichloromethane	<	50	Methylene chloride		2,400
Bromoform	<	50	1,1,2,2-Tetrachloroethane	<	50
Carbon tetrachloride	<	50	Tetrachloroethene		6.
Chlorobenzene		-	1,1,1-Trichloroethane		1,500
Chloroethane	<	50	1,1,2-Trichloroethane	<	50
2-Chloroethylvinyl ether	<	50	Trichloroethene	<	50
Chloroform	<	50	Toluene		-
Chloromethane	<	50	Vinyl chloride	<	50
Dibromochloromethane	<	50	1,2-Dichlorobenzene	<	50
1,1-Dichloroethane		34	1,3-Dichlorobenzene	<	50
1,2-Dichloroethane	<	50	1,4-Dichlorobenzene	<	50
1,1-Dichloroethene	<	50			

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Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061461	Soil, #B-8, R-4

PRIORITY POLLUTANTS

VOLATILE ORGANIC COMPOUNDS

results in ppb

Acrolein	-
Acrylonitrile	-
Benzene	-
Bromomethane	< 250
Bromodichloromethane	< 250
Bromoform	< 250
Carbon tetrachloride	< 250
Chlorobenzene	-
Chloroethane	< 250
2-Chloroethylvinyl ether	< 250
Chloroform	< 250
Chloromethane	< 250
Dibromochloromethane	< 250
1,1-Dichloroethane	980
1,2-Dichloroethane	< 250
1,1-Dichloroethene	< 250
trans-1,2-Dichloroethene	< 25
1,2-Dichloropropane	< 25
1,3-Dichloropropene	< 25
Ethylbenzene	-
Methylene chloride	71,00
1,1,2,2-Tetrachloroethane	< 25
Tetrachloroethene	31
1,1,1-Trichloroethane	22,00
1,1,2-Trichloroethane	< 25
Trichloroethene	85
Toluene	-
Vinyl chloride	< 25
1,2-Dichlorobenzene	< 25
1,3-Dichlorobenzene	< 25
1,4-Dichlorobenzene	< 25

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Project No. JCO-104H

Sample Number	Sample Description
7061461	Soil, #B-8, R-4

PRIORITY POLLUTANTS

ACID EXTRACT ORGANICS
results in ppb

4-Chloro-3-methylphenol	< 100
2-Chlorophenol	< 100
2,4-Dichlorophenol	< 100
2,4-Dimethylphenol	< 100
2,4-Dinitrophenol	< 100
2-Methyl-4,6-dinitrophenol	< 100
2-Nitrophenol	< 100
4-Nitrophenol	< 100
Pentachlorophenol	< 100
Phenol	< 100
2,4,6-Trichlorophenol	< 100

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Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061461	Soil, #B-8, R-4

ANALYSIS

	Detection Limit ppm	Sample Results ppm
Acetone	1.0	15
Methanol	1.0	< 1.0
Ethanol	1.0	< 1.0
Isopropyl Alcohol	1.0	< 1.0

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Date Sampled: 06/10/87
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Date Extracted: 06/23/87
Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061462	Soil, #B-8, R-5

PRIORITY POLLUTANTS

VOLATILE ORGANIC COMPOUNDS

results in ppb

Acrolein		-	trans-1,2-Dichloroethene	<	50
Acrylonitrile		-	1,2-Dichloropropane	<	50
Benzene		-	1,3-Dichloropropene	<	50
Bromomethane	<	50	Ethylbenzene		-
Bromodichloromethane	<	50	Methylene chloride		8,900
Bromoform	<	50	1,1,2,2-Tetrachloroethane	<	50
Carbon tetrachloride	<	50	Tetrachloroethene	<	50
Chlorobenzene		-	1,1,1-Trichloroethane		2,300
Chloroethane	<	50	1,1,2-Trichloroethane	<	50
2-Chloroethylvinyl ether	<	50	Trichloroethene		88
Chloroform	<	50	Toluene		-
Chloromethane	<	50	Vinyl chloride	<	50
Dibromochloromethane	<	50	1,2-Dichlorobenzene	<	50
1,1-Dichloroethane		200	1,3-Dichlorobenzene	<	50
1,2-Dichloroethane	<	50	1,4-Dichlorobenzene	<	50
1,1-Dichloroethene	<	50			

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Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061463	Soil, #B-8, R-6

PRIORITY POLLUTANTS

VOLATILE ORGANIC COMPOUNDS

results in ppb

Acrolein		-	trans-1,2-Dichloroethene	<	50
Acrylonitrile		-	1,2-Dichloropropane	<	50
Benzene		-	1,3-Dichloropropene	<	50
Bromomethane	<	50	Ethylbenzene		-
Bromodichloromethane	<	50	Methylene chloride		18,000
Bromoform	<	50	1,1,2,2-Tetrachloroethane	<	50
Carbon tetrachloride	<	50	Tetrachloroethene	<	50
Chlorobenzene		-	1,1,1-Trichloroethane		210
Chloroethane	<	50	1,1,2-Trichloroethane	<	50
2-Chloroethylvinyl ether	<	50	Trichloroethene	<	50
Chloroform	<	50	Toluene		-
Chloromethane	<	50	Vinyl chloride	<	50
Dibromochloromethane	<	50	1,2-Dichlorobenzene	<	50
1,1-Dichloroethane		760	1,3-Dichlorobenzene	<	50
1,2-Dichloroethane	<	50	1,4-Dichlorobenzene	<	50
1,1-Dichloroethene	<	50			

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Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description
7061463	Soil, #B-8, R-6

PRIORITY POLLUTANTS

ACID EXTRACT ORGANICS
results in ppb

4-Chloro-3-methylphenol	< 100
2-Chlorophenol	< 100
2,4-Dichlorophenol	< 100
2,4-Dimethylphenol	< 100
2,4-Dinitrophenol	< 100
2-Methyl-4,6-dinitrophenol	< 100
2-Nitrophenol	< 100
4-Nitrophenol	< 100
Pentachlorophenol	< 100
Phenol	< 100
2,4,6-Trichlorophenol	< 100

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Project No. JCO-104H

Sample Number	Sample Description
7061463	Soil, #B-8, R-6

ANALYSIS

	Detection Limit ppm	Sample Results ppm
Acetone	1.0	13
Methanol	1.0	< 1.0
Ethanol	1.0	< 1.0
Isopropyl Alcohol	1.0	2.5

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Date Sampled: 06/10/87
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Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description	Detection Limit	Total Hydrocarbons as Paint Thinner
	Soil	ppm	ppm
7061435	B-2, R-1	1.0	< 1.0
7061438	B-2, R-6	1.0	< 1.0
7061439	B-3, R-1	1.0	< 1.0
7061441	B-3, R-6	1.0	< 1.0
7061442	B-4, R-1	1.0	< 1.0
7061446	B-4, R-6	1.0	< 1.0
7061448	B-5, R-3	1.0	< 1.0
7061450	B-5, R-6	1.0	< 1.0
7061452	B-6, R-3	1.0	< 1.0
7061454	B-6, R-6	1.0	< 1.0
7061457	B-7, R-4	1.0	< 1.0
7061461	B-8, R-4	1.0	2,600
7061463	B-8, R-6	1.0	20
7061464	B-5, R-4	1.0	< 1.0
7061465	B-6, R-4	1.0	< 1.0
7061466	B-7, R-3	1.0	< 1.0
7061467	B-8, R-2	1.0	11,000
7061459	B-7, R-6	1.0	< 1.0

NOTE: Analysis was performed using EPA methods 3550 and 8015.

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Project No. JCO-104H

Sample Number	Sample Description	Detection Limit ppm	Total Hydrocarbons as Laquer Thinner ppm
	Soil		
7061435	B-2, R-1	1.0	< 1.0
7061438	B-2, R-6	1.0	< 1.0
7061439	B-3, R-1	1.0	< 1.0
7061441	B-3, R-6	1.0	< 1.0
7061442	B-4, R-1	1.0	< 1.0
7061446	B-4, R-6	1.0	< 1.0
7061448	B-5, R-3	1.0	< 1.0
7061450	B-5, R-6	1.0	< 1.0
7061452	B-6, R-3	1.0	< 1.0
7061454	B-6, R-6	1.0	< 1.0
7061457	B-7, R-4	1.0	< 1.0
7061461	B-8, R-4	1.0	< 1.0
7061463	B-8, R-6	1.0	< 1.0
7061464	B-5, R-4	1.0	< 1.0
7061465	B-6, R-4	1.0	< 1.0
7061466	B-7, R-3	1.0	< 1.0
7061467	B-8, R-2	1.0	< 1.0
7061459	B-8, R-6	1.0	< 1.0

NOTE: Analysis was performed using EPA methods 3550 and 8015.

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Date Reported: 06/26/87
Project No. JCO-104H

Sample Number	Sample Description	Detection Limit	Total Hydrocarbons as Kerosene
	Soil	ppm	ppm
7061435	B-2, R-1	1.0	< 1.0
7061438	B-2, R-6	1.0	< 1.0
7061439	B-3, R-1	1.0	< 1.0
7061441	B-3, R-6	1.0	< 1.0
7061442	B-4, R-1	1.0	< 1.0
7061446	B-4, R-6	1.0	< 1.0
7061448	B-5, R-3	1.0	< 1.0
7061450	B-5, R-6	1.0	< 1.0
7061452	B-6, R-3	1.0	< 1.0
7061453	B-6, R-6	1.0	< 1.0
7061457	B-7, R-4	1.0	< 1.0
7061461	B-8, R-4	1.0	< 1.0
7061463	B-8, R-6	1.0	< 1.0
7061464	B-5, R-4	1.0	< 1.0
7061465	B-6, R-4	1.0	< 1.0
7061466	B-7, R-3	1.0	< 1.0
7061467	B-8, R-2	1.0	< 1.0
7061459	B-7, R-6	1.0	< 1.0

NOTE: Analysis was performed using EPA methods 3550 and 8015.

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director

mpr

APPENDIX C

0000120

Wahler Associates

SUBMITTED AS SUCH ON 6-10-87 - CHANGED ON 6-13-87.

WA Project Number: JCO-10

Page 1 of 2

Field Sample Chain of Custody Record

Source of Sample(s) MTN View

Collector B. Breynaert

Address

Affiliation Wahler Assoc.

Address 1023 Corporation Wa
Palo Alto CA, 9404

Phone ( )

Report to (1) Bob Breynaert

Phone 415-968-6250

Sample Information

Lab No.	Field No.	Date	Time	Type (2)	Depth	Remarks (Suspected Contaminants, Field Conditions, etc.)
		/ /				See Attached
		/ /				Analysis Request
		/ /				form
		/ /				
		/ /				
		/ /				
		/ /				
		/ /				

Chain of Possession

	Relinquished by (Signature and affiliation)	Date	Time	Received by (3) (Signature and affiliation)	Date	Ti
1.	[signature]	6/10/87	645pm	[signature]	6/10/87	6:4
2.		/ /			/ /	
3.		/ /			/ /	

(1) There is a separate Request for Analysis form that should be filled out by the colle and given to the Laboratory when samples are delivered.
(2) e.g. water, sludge, soil, etc.
(3) If any samples are not intact at time of transfer, please describe on the back of th form.

Wahler Associates
1023 Corporation Way, P.O. Box 10023, Palo Alto, California 94303
(415) 968-6250 • TELEX 348-427

ANALYSIS REQUEST FORM

SEQUOIA Date Sample Shipped 6-10-87

WAHLER ASSOCIATES will indicate a contact person and phone number which the Lab staff can use to obtain or verify the appropriate analytical requirements.

Your Sample I.D.	Matrix	Container	Analysis Requested
B-1: R-1, R-2, R-3, R-4, R-5, R-6	SOIL	Brass Tube	1 EPA-8010 + MEK + Xylen
B-2: R-2, R-3, R-4, R-5, R-6	SOIL	"	2 EPA 8040 (phenols
B-3: R-1, R-2, R-3, R-4, R-5, R-6	SOIL	"	3 Total Hydrocarbons as Lacquer Thinne
B-4: R-2, R-3, R-4, R-5, R-6	SOIL	"	4 Total Hydrocarbons as Paint Thinn
B-5: R-1, R-2, R-3, R-4, R-5, R-6	SOIL	"	5 Total Hydrocarbons as Kerose
B-6: R-1, R-2, R-3, R-4, R-5, R-6	SOIL	"	6 Alcohols / Acetone Scan
B-7: R-1, R-2, R-3, R-4, R-5, R-6	SOIL	"	
B-8: R-2, R-3, R-4, R-5, R-6	SOIL	"	
B2, B-4, B-8: R-1	SOIL	"	1 EPA 8240 + MEK + Xylen
			2 EPA 8040 (phenols)
			3 Total Hydrocarbons as Lacq Thin
			4 Total Hydrocarbons as Paint Thi
			5 Total Hydrocarbon as Kero
			6 Alcohols / Acetone

Comments Scott has samples of Kerosene, Lacquer Thinner, Paint Thinner
DO NOT ANALYZE SAMPLES UNTIL JUNE 17, 1987
2 Week Turnaround - Results by JUNE 24, 1987

Contact Person Bob Breynaert (415) 968 6250
Name Telephone

Lab Project Manager (if known) Scott Cocgnar

JCO-104H 0000120

Wahler Associates
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ANALYSIS REQUEST FORM

SEQUOIA Date Sample Shipped Changed on 6-16-87 original Sent 6-10-87

WAHLER ASSOCIATES will indicate a contact person and phone number which the Lab staff can use to obtain or verify the appropriate analytical requirements.

Your Sample I.D.	Matrix	Container	Analysis Requested
B-1, R-1	SOIL	1 Brass Tube	NO ANALYSES
B-1, R-2	"	"	EPA-8010
B-1, R-3	"	"	NO ANALYSES
B-1, R-4	"	"	NO ANALYSES
B-1, R-5	"	"	NO ANALYSES
B-1, R-6	"	"	EPA-8010
B-2, R-1	"	"	EPA, 8010, EPA 8040
"	"	"	Total Hydrocarbons as Lacquer Thinner
" "	"	"	Total Hydrocarbons as Paint Thinner
" "	"	"	Total Hydrocarbons as Kerosene
" "	"	"	alcohols / Acetone
B-2, R-2	"	"	EPA-8010
B-2, R-3	"	"	NO ANALYSES
B-2, R-4	"	"	EPA-8010
B-2, R-5	"	"	NO ANALYSES

Comments Turnaround as requested on original Chain of Custody

Contact Person Bob Breynaert (415) 968-6250
Name Telephone

Lab Project Manager (if known) Scott Cocanar

JCO 104H

0000120

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ANALYSIS REQUEST FORM

Date Sample Shipped _____

WAHLER ASSOCIATES will indicate a contact person and phone number which the Lab staff can use to obtain or verify the appropriate analytical requirements.

Your Sample I.D.	Matrix	Container	Analysis Requested
B-2, R-6	SOIL	1 Brass Tube	EPA-8010, EPA-8040
" "	"	"	Total Hydrocarbons as Paint Thinner
" "	"	"	Total Hydrocarbons as Lacquer Thinner
" "	"	"	Total Hydrocarbons as Kero
" "	"	"	Alcohols / Acetone
B-3, R-1	"	"	EPA-8010, EPA-8040
" "	"	"	TOT. Hydrocarb. as Paint Thinner
" "	"	"	TOT. Hydrocarbons as Lacquer Thinner
" "	"	"	TOT. Hydrocarbons Kerosene
" "	"	"	Alcohols / Acetone
B-3, R-2	"	"	NO ANALYSES
B-3, R-3	"	"	NO ANALYSES
B-3, R-4	"	"	EPA-8010
B-3, R-5	"	"	NO ANALYSES
	"	"	

Comments _____

Contact Person _____ Name ( ) _____ Telephone

Lab Project Manager (if known) SCOTT

JCO-1041H 0000120

Wahler Associates
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(415) 968-6250 • TELEX 348-427

ANALYSIS REQUEST FORM

_____ Date Sample Shipped _____

WAHLER ASSOCIATES will indicate a contact person and phone number which the Lab staff can use to obtain or verify the appropriat analytical requirements.

Your Sample I.D.	Matrix	Container	Analysis Requested
B-3, R-6	SOIL	1 Brass Tube	EPA-8010, EPA-8040
" "	"	"	TOT. Hydrocarb as Lacquer Thinner
" "	"	"	TOT. Hydrocarbas Paint Thinner
" "	"	"	TOT. Hydrocarbas Kerosene
" "	"	"	Alcohols/Acetone.
B-4, R-1	"	"	EPA-8010, EPA-8040
" "	"	"	TOT Hydrocarb as Lacquer Thinner
" "	"	"	TOT. Hydrocarbas Paint Thinner
" "	"	"	TOT Hydrocarbas Kerosene
" "	"	"	Alcohols/Acetone
B-4, R-2	"	"	NO ANALYSES
B-4, R-3	"	"	EPA-8010
B-4, R-4	"	"	EPA-8010
B-4, R-5	"	"	EPA-8010
	"	"	

Comments _____

Contact Person _____ ( ) _____
Name Telephone

Lab Project Manager (if known) SCOTT

0000120

JCO-104H

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ANALYSIS REQUEST FORM

_____ Date Sample Shipped _____

WAHLER ASSOCIATES will indicate a contact person and phone number which the Lab staff can use to obtain or verify the appropriat analytical requirements.

Your Sample I.D.	Matrix	Container	Analysis Requested
B-4, R-6	SOIL	1 Brass Tube	EPA-8010, EPA-8040
" "	"	"	TOT. Hydrocarb as Paint Thinner
" "	"	"	TOT. Hydrocarb. as Laquer Thinner
" "	"	"	TOT. Hydrocarb as Kerosene
" "	"	"	Alcohols/Acetone
B-5, R-1	"	"	EPA-8010
B-5, R-2	"	"	NO ANALYSES
B-5, R-3	"	"	EPA-8010, EPA-8040
" "	"	"	TOT Hydrocarb as Laquer Thinner
" "	"	"	TOT Hydrocarb as Paint Thinner
" "	"	"	TOT. Hydrocarb as Kerosene
" "	"	"	Alcohols/Acetone
B-5, R-4	"	"	EPA-8240, EPA-8040
" "	"	"	TOT Hydrocarb as Paint Thinner
" "	"	"	TOT. Hydrocarb as Laquer Thinner
" "	"	"	TOT. Hydrocarb as Kerosene
" "	"	"	Alcohols/Acetone

Comments _____

Contact Person _____ ( ) _____
Name Telephone

Lab Project Manager (if known) SCOTT

JCO-1044

Wahler Associates
1023 Corporation Way, P.O. Box 10023, Palo Alto, California 94303
(415) 968-6250 • TELEX 348-427

ANALYSIS REQUEST FORM

_____ Date Sample Shipped _____

WAHLER ASSOCIATES will indicate a contact person and phone number which the Lab staff can use to obtain or verify the appropriat analytical requirements.

Your Sample I.D.	Matrix	Container	Analysis Requested
B-5, R-5	SOIL	1 Brass Tube	EPA-8010
B-5, R-6	"	"	EPA-8010, EPA-8040
" "	"	"	TOT. Hydrocarb as Paint Thinner
" "	"	"	TOT Hydrocarb as Lacquer Thinner
" "	"	"	TOT. Hydrocarb as Kerosene
" "	"	"	Alcohols / Acetone
B-6, R-1	"	"	EPA-8010
B-6, R-2	"	"	NO ANALYSES
B-6, R-3	"	"	EPA-8010, EPA-8040
" "	"	"	TOT Hydrocarb as Paint Thinner
" "	"	"	TOT. Hydrocarb as Lacquer Thinner
" "	"	"	TOT Hydrocarb as Kerosene
" "	"	"	Alcohols / Acetone
B-6, R-4	"	"	EPA-8240, EPA-8040
" "	"	"	TOT. Hydrocarb as Paint Thinner

Comments _____

Contact Person _____ Name ( ) _____ Telephone

Lab Project Manager (if known) SCOTT

JCO-1041

0000120

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ANALYSIS REQUEST FORM

_____ Date Sample Shipped _____

WAHLER ASSOCIATES will indicate a contact person and phone number which the Lab staff can use to obtain or verify the appropriat analytical requirements.

Your Sample I.D.	Matrix	Container	Analysis Requested
B-6, R-4 (continued)	SOIL	1 Brass Tube	TOT Hydrocarb. as Lacquer Thinner
" "	"	"	TOT Hydrocarbs Kerosene
" "	"	"	Alcohols / Acetone
B-6, R-5	"	"	EPA-8010
B-6, R-6	"	"	EPA-8010, EPA-8040
" "	"	"	TOT Hydrocarb. as Paint Thinner
" "	"	"	TOT Hydrocarbs as Lacquer Thinner
" "	"	"	TOT Hydrocarbs as Kerosene
" "	"	"	Alcohols / Acetone
B-7, R-1	"	"	EPA-8010
B-7, R-2	"	"	~~EPA-8010~~ NONE
B-7, R-3	"	"	EPA-8240, EPA-8040
~~[illegible]~~	"	"	~~[illegible]~~
" "	"	"	TOT. Hydrocarb as Paint Thinner
" "	"	"	TOT Hydrocarbs as Lacquer Thinner
" "	"	"	TOT. Hydrocarbs as Kerosene
" "	"	"	Alcohols / Acetone

Comments _____

Contact Person _____ ( ) _____
Name Telephone

Lab Project Manager (if known) SCOTT

Wahler Associates
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(415) 968-6250 • TELEX 348-427

ANALYSIS REQUEST FORM

_____ Date Sample Shipped _____

WAHLER ASSOCIATES will indicate a contact person an phone number which the Lab staff can use to obtain or verify the appropria analytical requirements.

Your Sample I.D.	Matrix	Container	Analysis Requested
B7, R-4	SOIL	1 Brass tube	EPA-8010, EPA-8040
" "			TOT. Hydrocarbons Paint Thinner
" "			TOT. Hydrocarbons Lacquer Thinner
" "			TOT Hydrocarbons Kerosene
" "			Alcohols / Acetone

Comments _____

Contact Person _____ ( ) _____
Name Telephone

Lab Project Manager (if known) _____

JCO-1041F

0000120

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(415) 968-6250 • TELEX 348-427

ANALYSIS REQUEST FORM

_____ Date Sample Shipped _____

WAHLER ASSOCIATES will indicate a contact person and phone number which the Lab staff can use to obtain or verify the appropriat analytical requirements.

Your Sample I.D.	Matrix	Container	Analysis Requested
B-7, R-5	Soil	1 Brass Tube	EPA-8010
B-7, R-6	"	"	EPA-8010 [illegible]
B-8, R-1	"	"	NO ANALYSIS
B-8, R-2	"	"	EPA-8240, EPA-8040
" "	"	"	TOT Hydrocarbons [illegible]
" "	"	"	TOT Hydrocarbons [illegible]
" "	"	"	TOT Hydrocarbons [illegible]
" "	"	"	Alcohols/Acetone
B-8, R-3	"	"	EPA-8010
B-8, R-4	"	"	EPA-8010, EPA-8040
" "	"	"	TOT Hydrocarbons [illegible]
" "	"	"	TOT Hydrocarbons [illegible]
" "	"	"	TOT Hydrocarbons [illegible]
" "	"	"	Alcohols/Acetone
B-8, R-5	"	"	EPA-8010

Comments _____

Contact Person _____ ( ) _____
Name Telephone

Lab Project Manager (if known) SCOTT

JCO-1041H

0000120

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(415) 968-6250 • TELEX 348-427

ANALYSIS REQUEST FORM

Date Sample Shipped _____

WAHLER ASSOCIATES will indicate a contact person and phone number which the Lab staff can use to obtain or verify the appropriat analytical requirements.

Your Sample I.D.	Matrix	Container	Analysis Requested
B-8, R-6	SOIL	1 Brass Tube	EPA-8010, EPA-8040
" "			TOT Hydro as Paint Thinner
" "			TOT Hydro as Lacquer Thinner
" "			TOT. Hydro. as Kerosene
" "			Alcohols / Acetone.

Comments _____

Contact Person _____ ( ) _____
Name Telephone

Lab Project Manager (if known) Scott

APPENDIX D

DRILLING, SEALING, SAMPLING, AND SAFETY PROTOCOL

DRILLING

1. Wahler Associates will obtain all necessary permits for the installation of the proposed ground water monitoring wells.

2. Borings will be drilled using appropriate methods after consideration of site geologic and geotechnical conditions and accepted practice.

3. All augers, drilling rods and tools used during drilling will be thoroughly steam-cleaned. The augers, drilling rods and tools will be stored before use in a clean area.

4. A method blank of the cleaned rods and/or augers will be taken prior to use to detect contamination from any previous drilling site.

5. All borings will be advanced according to guidelines provided by the agency under which the drilling operations are being conducted.

6. The subsurface stratigraphy and aquifer geometry will be determined using cuttings from the drilling operations and by sampling undisturbed soils using a California Modified or other appropriate sampler. Logs will be maintained of all borings with details of materials encountered.

7. Depths of all borings will be determined in the field. Ground water or vadose monitoring wells will be constructed in each boring, as appropriate.

SEALING

8. Bentonite or neat cement seals will be tremied to the bottom of all holes which have penetrated clay layers, to protect the integrity of all lower aquifers.

9. All aquifers encountered will be properly isolated using bentonite or neat cement seals.

10. At no time will slotting or sand packs extend through 5-foot thick or thicker clay layers to connect adjacent aquifers unless previously agreed to by local and State agencies.

11. All wells will be sealed at the surface with at least 5 feet of neat cement. A protective locking device will be installed at the surface over the well casing.

12. All surface seals will be inspected by the appropriate agencies as needed.

13. All well casings will be protected against surface infiltration.

SAMPLING - General

14. Any materials supplied by the client will reduce the cost of our work. These may include tap water, 55-gallon sealed drums, and DI-water. Arrangements will be made before the start of the project.

15. Chemical sampling procedures and sample storage will be conducted under the direction of our consulting laboratory or a consulting analytical chemist.

16. All equipment used during the sampling process will be thoroughly steam-cleaned prior to its use.

17. All samples will be stored in an ice chest and packed in blue ice or ice.

18. All samples will be delivered to the consulting laboratory as soon as possible after collection.

19. All sample containers will be opened only by the consulting laboratory which performs the chemical testing.

SOIL SAMPLES

20. Soil samples will be attempted at 5-foot intervals or more frequently as determined in the field.

21. Sample container cleaning blanks may be taken of the steam cleaned brass liners for quality control purposes at the rate of one per boring.

22. All soil sampling equipment will be disassembled and thoroughly steam-cleaned prior to each usage.

23. The ends of all soil sample liners will be covered with aluminum foil and an air-tight cap which will then be wrapped with aluminized tape and properly labeled. All soil samples will be immediately stored in an ice chest and packed with ice or blue ice.

24. All excess soils will be placed in a 55-gallon drum for proper disposal.

25. The center of each soil liner will be extracted at the consulting laboratory for appropriate analysis.

WATER SAMPLES

26. At least 3 to 5 well bore volumes will be purged from each well using a bladder or centrifugal pump prior to sampling for volatile organic compounds. During evacuation, pH, conductivity and temperature will be monitored and recorded. All samples will be retrieved with a steam-cleaned teflon bailer. Cleaning blanks of the teflon bailer will be taken between each well to be sampled if the client so desires.

27. Samples will not be taken until the pH, conductivity and temperature measurements have stabilized during well purging.

28. All sampling equipment, including gloves and tape measures will be properly decontaminated between each well.

29. All samples will be placed in the appropriate cleaned containers provided by the project laboratory. The type of container necessary is contingent upon the analysis needed.

SAMPLE RECORDS AND CUSTODY

30. Records will be maintained for all samples collected by Wahler Associates.

31. A positive chain of custody record will be maintained by Wahler Associates for future reference.

32. All records will be maintained under strict confidence by Wahler Associates and will be released only by written authorization of the client.

SAFETY PROTOCOL

GENERAL

33. Wahler Associates will provide safety equipment needed at the project in accordance with chemical types disclosed by the client.

34. At no time will Wahler Associates take responsibility for unusual safety equipment needed for unknown hazardous materials encountered at the site.

35. All clients shall be responsible for disclosure of all hazardous materials encountered in normal work by Wahler Associates at their project site.

36. Wahler Associates drilling personnel will follow our drilling safety procedures if the odor of gas, diesel, or solvents are detected while drilling near all storage facilities.

37. Wahler Associates will provide a "Gastechtor" gas detector, which measures the percentage of explosive gases versus the percentage oxygen in the hollow-stem augers used for drilling, when drilling near flammable hazardous materials.

38. Wahler Associates will provide nitrogen to purge the hollow-stem augers of explosive vapors and oxygen. During purging, hazardous vapors will be periodically monitored by the "Gastechtor".

39. At no time will metal objects such as hammers or sampling devices be lowered into the hollow-stem augers before they are purged of explosive vapors, if detected.

40. All drilling cuttings will be stored properly for safe disposal.

41. The local fire department and client will be notified immediately if explosive vapors are detected.

42. No smoking shall be allowed within 100 feet of detected flammable vapors.

PUMPING TEST

43. Horizontal and vertical control shall be established by a licensed surveyor for the pumping well and all observation wells prior to the commencement of the pumping, to provide a reliable basis for ground water level measurements and pumping test calculations.

44. The response of all wells utilized for the pumping test will be tested by injecting a known volume of organic free water into each well or by using a slug of known volume, and measuring the subsequent decline of water level. This will ensure that they function suitably as observation wells for the purposes of the test.

45. The depths of the static water levels will be measured in each well utilized prior to commencement of the test, and at intervals deemed appropriate for the site to be tested. All data, including barometric pressure, will be recorded on aquifer test forms, and graphs of drawdown or recovery vs. time will be maintained (on log-log paper) in the field for each observation well. Water levels will be measured in the other wells, as necessary, several times during the test.

46. After pumping has been shut off, a period of recovery will be monitored in the wells, with the amount of time to be determined in the field.

47. The pumping well must be equipped with reliable power, pump, and discharge-control equipment. The pumping rate must be constant. Output from electrically driven equipment normally requires measurement and continuous monitoring. Interruption of pump operation for any reason during the test may invalidate a portion or all of the pumping test results. We recommend that the pump be installed, tested to ensure proper operation, and calibrated a few days before commencement of the pumping test.

48. During the last few hours of the drawdown portion of the test our personnel may visit the site only to take measurements, and the pumping apparatus may be left unattended by us between measurements during that period. We will provide personnel to monitor the pump operation during these periods, as necessary.

49. The pumping for this test is expected to remove a significant quantity of water from the ground. This discharged water must be conducted away from the pumping well and all other wells in the vicinity so that it cannot return to the aquifer during the test.

50. As the appropriate pump to use during this test can vary, recommendations and arrangements for the pump to be used will be made separately prior to the test.