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April 14, 1992

safety-kleen®

Mr. Bill Brown
City of Albuquerque
Environmental Health Department
Albuquerque/Bernalillo County Government Center
1 Civic Plaza NW
Albuquerque, NM 87102

Report on Shelf

Re: Results of additional Assessment Activities, Safety-Kleen Corp. Service Center (2720 Girard NE), Albuquerque, New Mexico

Dear Mr. Brown:

Safety-Kleen Corp. (S-K) has completed additional subsurface assessment activities in the vicinity of the old underground storage tanks (UST) and return/fill station at the service center in Albuquerque, New Mexico. The additional soil boring, sampling and field screening program was completed in general accordance with our letter dated January 14, 1992. Results of the additional assessment activities are summarized in the attachment report (2 copies).

The old USTs and return/fill station were removed from service in March, 1992. S-K is in the process of revising a RCRA partial facility closure plan for submittal to the New Mexico Environmental Department (NMED). S-K will be submitting the closure plan in accordance with a letter from Mr. Edward Horst (RCRA Program Manager) dated February 24, 1992 on May 8, 1992. The old USTs and return/fill station will be closed following NMED review and approval of the partial facility closure plan.

If you have any questions or need additional information, please feel free to contact me at (310) 831-3903.

Sincerely,
Safety-Kleen Corp.

Anne Lunt JB
Anne Lunt
Senior Project Manager - Remediation

JB:ahd/502

Enclosure not Found

Enclosures

cc: Dr. Herb Grover
Mark Kaufman
Ralph Ondatje
Gary Long
TriHydro Corporation

RECEIVED APR 1992 HAZARDOUS WASTE PROGRAM

777 BIG TIMBER ROAD ELGIN, ILLINOIS 60123 PHONE 708/697-8460 FAX 708/697-4295

PROJECT: 502

RESULTS OF ADDITIONAL ASSESSMENT ACTIVITIES SAFETY-KLEEN CORP SERVICE CENTER ALBUQUERQUE, NEW MEXICO

April 14, 1992

Submitted to:

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CHAPTER I

INTRODUCTION

Safety-Kleen Corp. (S-K) operates a branch service center at 2720 Girard NE, Albuquerque, New Mexico. On September 23, 1991, S-K reported a release from the product (mineral spirits) underground storage tank system (USTs) feedline to the State of New Mexico. A preliminary extent of impact characterization study was performed at the site on October 17, 1991. This preliminary investigation included the collection and analysis of soil samples at five borehole locations with depths ranging from 8 to 75 feet below ground surface. The extent of degradation was not defined during the preliminary investigation due to auger refusal and site access constraints.

Initial results of the preliminary investigation were provided to the City of Albuquerque in a letter from S-K dated November 7, 1991. The City of Albuquerque responded on November 22, 1991 indicating that due to the degree of impacts encountered during the preliminary investigation and because vertical extent was not defined, additional assessment work was required in the vicinity of the spill. In addition, the City of Albuquerque denied S-K's request to defer the additional assessment activities until after the USTs have been removed.

Scope of Work

In a letter dated December 24, 1991, S-K responded to the City of Albuquerque concerns and requested a meeting to evaluate site conditions. On January 3, 1992, S-K met with City of Albuquerque personnel to review site accessibility, drilling conditions and scope of the additional assessment activities. Accessible drilling locations are limited at the site due to numerous overhead power lines, aboveground and belowground structures (i.e., piping, tanks, foundations, etc.). In addition, the subsurface conditions (i.e., gravels and cobbles) present technical constraints for conventional environmental drilling and soil sampling to depths necessary to define the extent of degradation.

Pursuant to a letter dated January 14, 1992, S-K committed to perform additional assessment activities to the extent practicable. In January and February 1992, S-K conducted an additional site assessment at the Albuquerque facility. The objectives of this investigation were to:

1. Assess the results of the preliminary site investigation (October 1991);

2. Determine the vertical extent of degradation as close to the return/fill station and spill site as possible.

3. Evaluate whether there is any potential threat to ground water (if possible); and

4. Determine the lateral extent of degradation in the subsurface to the extent practicable.

Facility Description

The facility occupies a lot approximately 260 feet wide and 500 feet long. S-K is bordered on the north by an autobody shop and on the south by a concrete construction facility. A concrete-lined arroyo forms the eastern boundary. A number of small lots occupied by another construction company, a packaging and design company, and a New Mexico Power Company substation are located across the street from the S-K facility, on the western side of Girard NE.

S-K operates the facility as a service center for the distribution of mineral spirits and other parts cleaning solvents and storage of spent mineral spirits and waste solvents. During the January-February assessment, the Albuquerque service center consisted of the following structures (see Figure I-1):

1. A 2,500-square foot warehouse with offices and a drummed storage containment area;

2. Another 4800-square foot warehouse and office building;

3. Two 10,000-gallon USTs, one for product mineral spirits and one for spent mineral spirits; and

4. A return/fill station for loading product mineral spirits and unloading spent mineral spirits.

Since the January-February assessment, S-K has installed new USTs, a return/fill station and flammable storage station to the east of units being investigated during January-February activities. The new units became operational March 1992, at which time the old return/fill station and associated USTs were removed from operation.

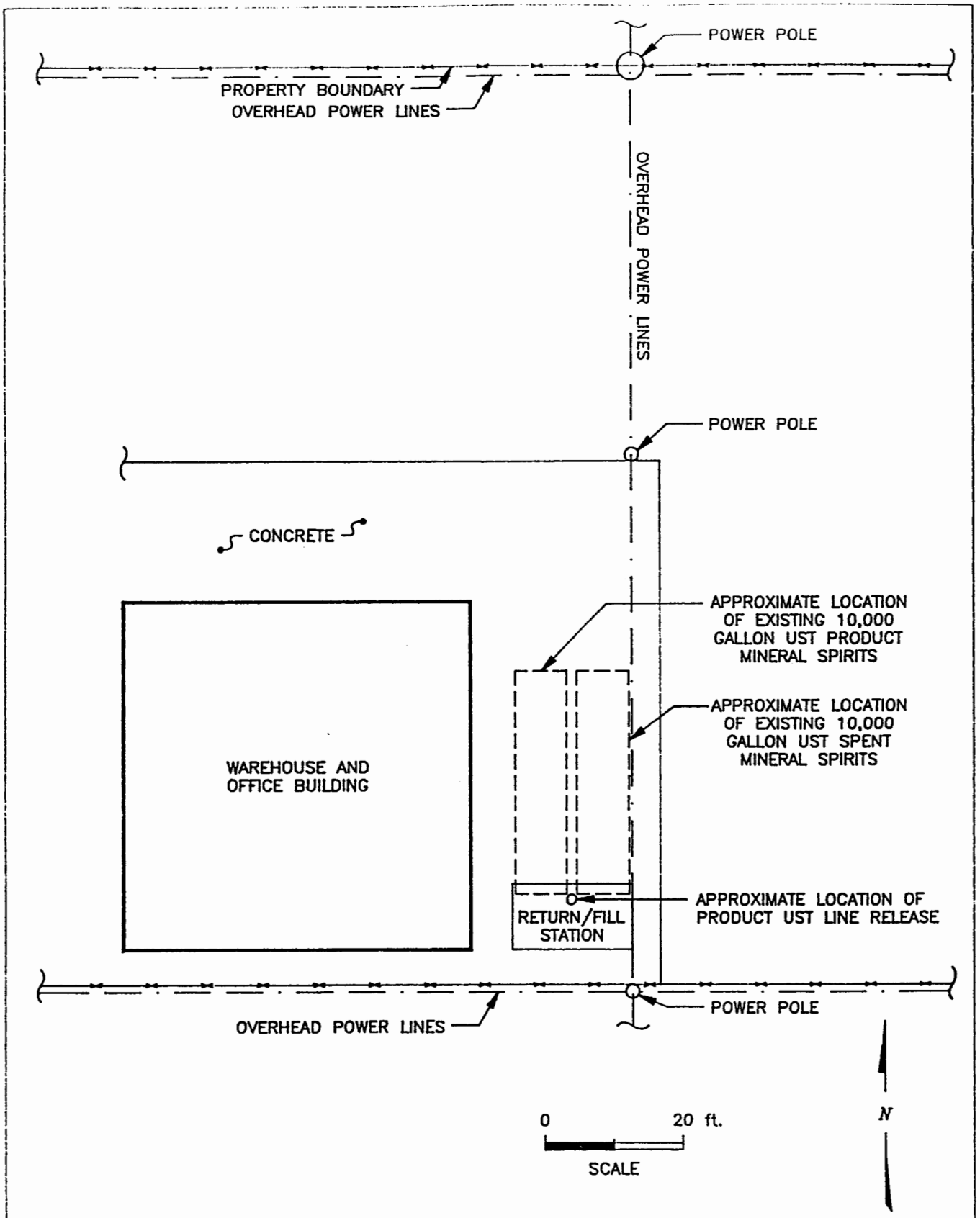

FIGURE I-1 :SAFETY-KLEEN CORP. SERVICE CENTER, ALBUQUERQUE, NEW MEXICO

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The old return/fill station and associated USTs will be closed according to applicable New Mexico Regulations.

Geology and Hydrogeology

The S-K facility lies at an elevation of approximately 5,110 feet above mean sea level. Lithology of the area is sand and gravel basin fill, composed primarily of decomposed granites from the Sandia Mountains to the east. A detailed discussion of the site geology (based on site-specific borehole logs) is presented in Chapter II.

Information pertaining to ground water depth and flow direction in the immediate area was obtained from Mr. Kelly Summers, a hydrologist with the City of Albuquerque Public Works Department. Mr. Summers indicated that ground water is a minimum of 200 feet, and more likely 250 feet below ground surface in the vicinity of the S-K facility. The nearest City Water Well, Santa Barbara #1 (SB-1), is located approximately a quarter of a mile to the east of the site (see Figure I-2).

City records indicate that Well SB-1 operates seasonally at pumping rates of 3,200 to 3,400 gallons per minute (gpm). Without the influence of the City Well, ground water would typically flow west, toward the Rio Grande River. However, during operation, City Well SB-1 has the potential to reverse the ground-water gradient underlying the site.

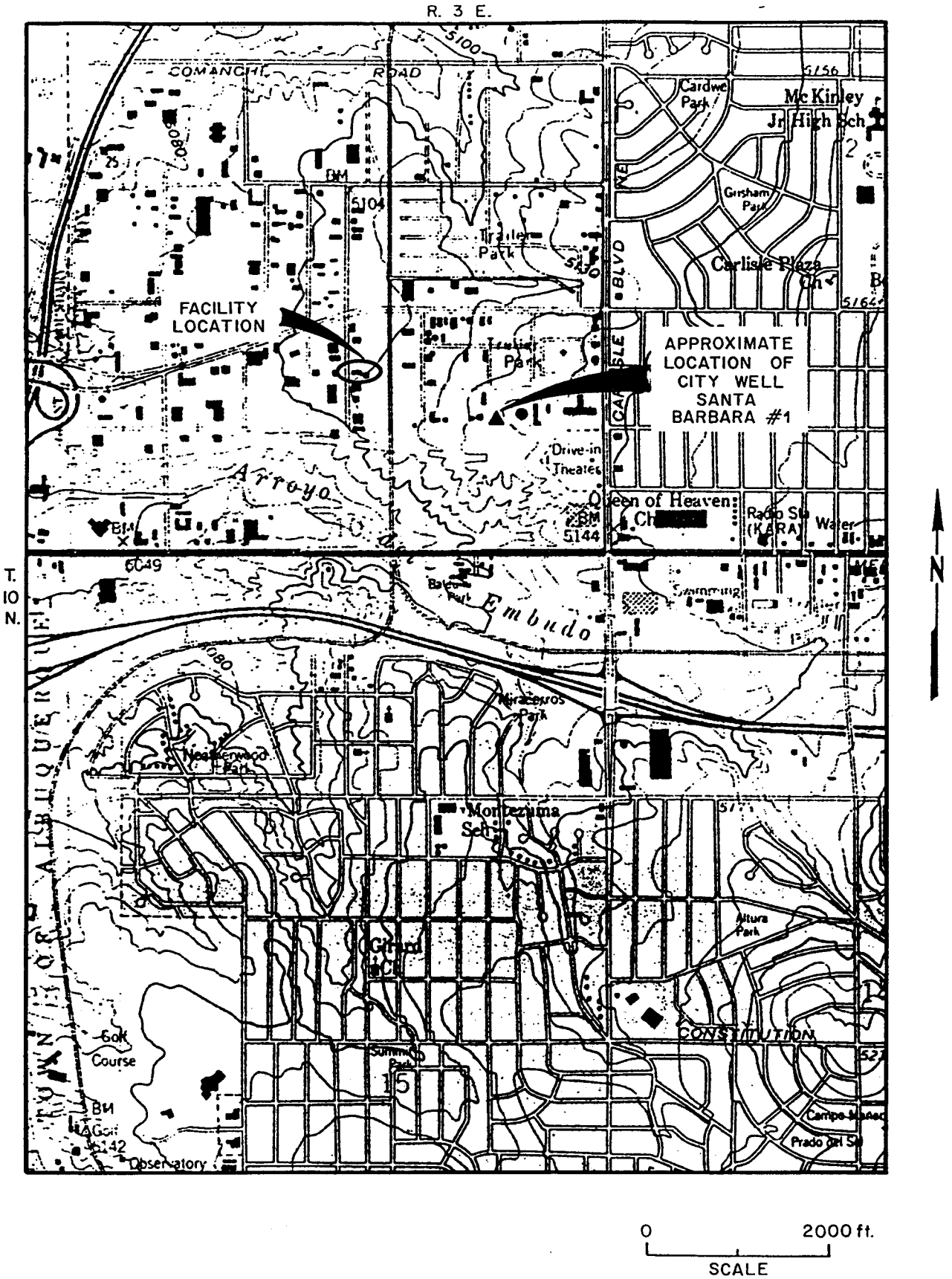

FIGURE I-2 :LOCATION OF NEAREST CITY WATER WELL, SANTA BARBARA #1, TO SAFETY-KLEEN ALBUQUERQUE FACILITY

CHAPTER II

ADDITIONAL ASSESSMENT FIELD ACTIVITIES

The preliminary soil sampling program (October 1991) was performed with a hand auger and Central Mine Equipment Model 55 (CME-55) hollow-stem auger drilling rig at the locations shown on Figure II-1. Soil quality was evaluated as close to operating USTs and return/fill station as possible; however, the CME-55 drilling rig encountered auger refusal at a depth of approximately 75 feet below ground surface. The field screening and laboratory results from the October 1991 investigation indicated degradation extended to a depth of at least 60 feet below ground surface at borehole SB-2.

Physical constraints and lithology severely limit potential soil sampling locations and conventional drilling techniques at the Albuquerque service center. Subsequently, Safety-Kleen Corp. (S-K) performed a feasibility evaluation of site conditions and available drilling equipment to accomplish the objectives of the additional assessment activities. The results of the feasibility evaluation (Reference letter dated December 24, 1991) indicated that a CME-75 was the largest available drilling rig which could safely access the site to both assess the October 1991 investigation results and potentially determine the extent of degradation.

Additional Soil Boring/Sampling Procedures

S-K coordinated with the City of Albuquerque and implemented the additional soil sampling and analysis program on January 29, 1992. Soil samples were collected from the borehole locations shown on Figure II-2 for logging, field screening and laboratory analysis. The additional soil sampling and analysis activities were performed in general accordance with the USEPA Technical Enforcement Guidance Document, SW-846 and applicable State of New Mexico regulations.

Boring/Sampling Procedures

All boreholes were drilled by Western Technologies, Inc. (Albuquerque, New Mexico) with a CME-75 hollow stem auger drilling rig, under the supervision of an experienced field geologist. Soil samples were collected at five foot

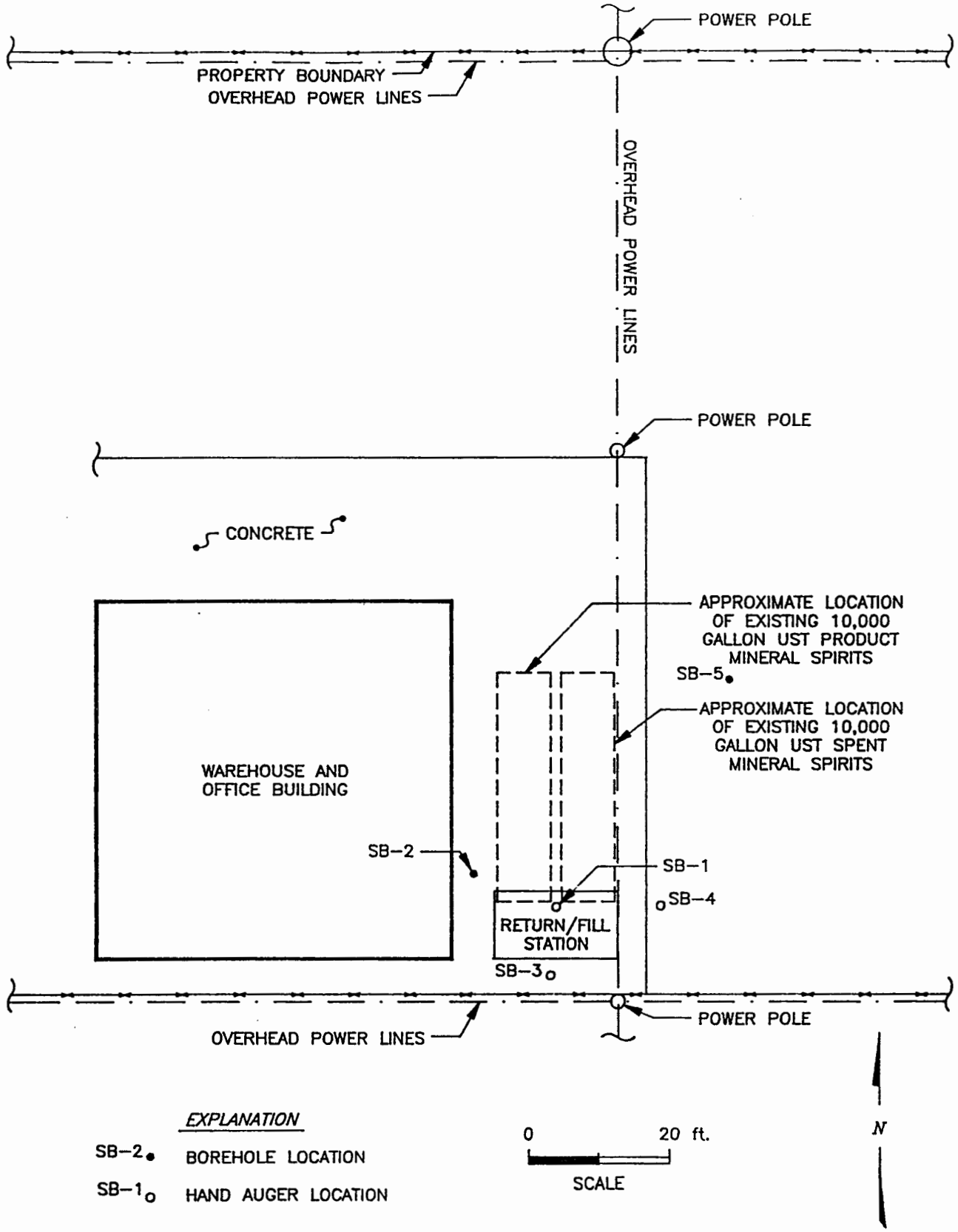

FIGURE II-1 :PRELIMINARY INVESTIGATION SOIL SAMPLING LOCATIONS, SAFETY-KLEEN CORP. SERVICE CENTER, ALBUQUERQUE, NEW MEXICO (October 1991)

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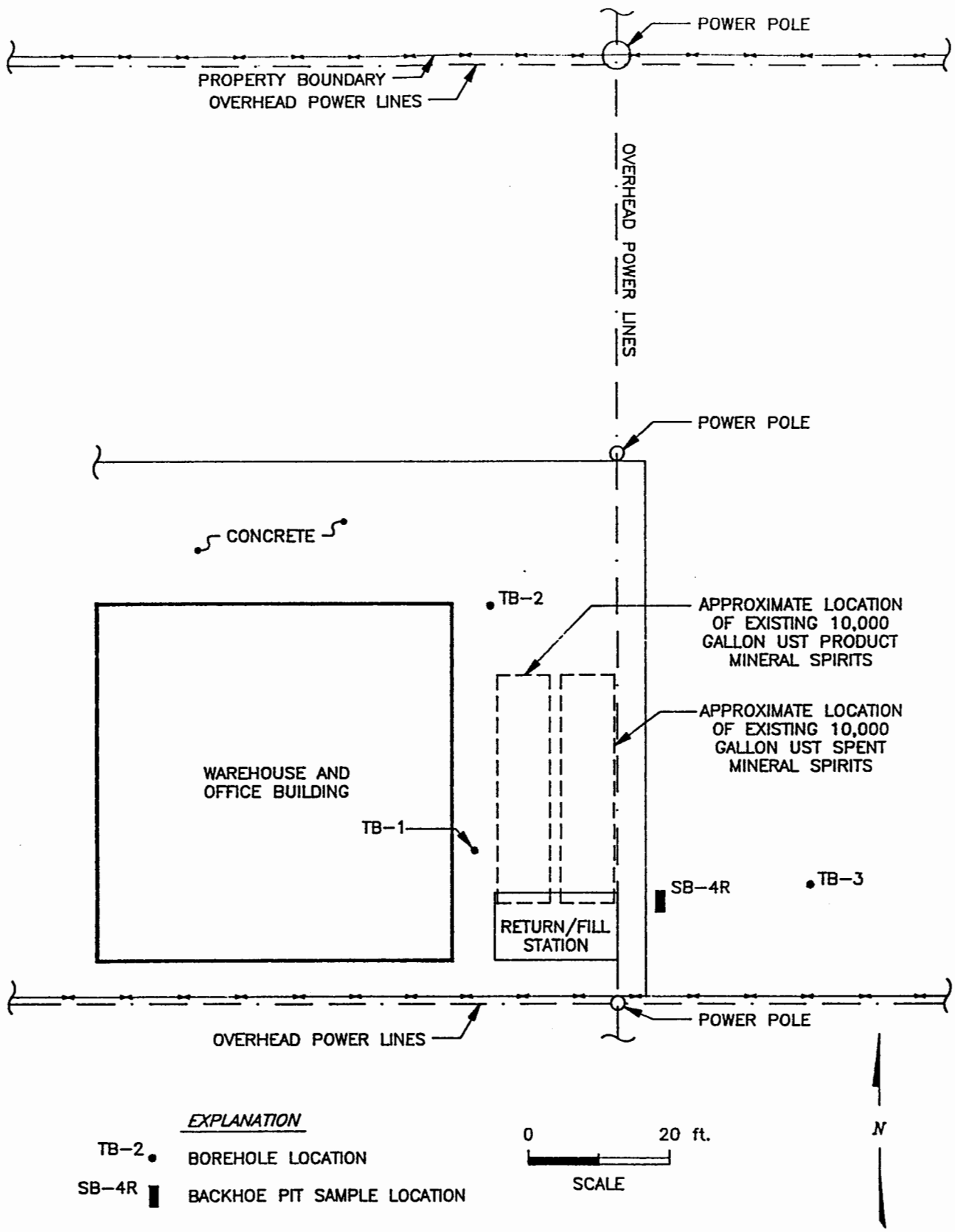

FIGURE II-2 :ADDITIONAL ASSESSMENT SOIL SAMPLING LOCATIONS, SAFETY-KLEEN CORP. SERVICE CENTER, ALBUQUERQUE, NEW MEXICO (January-February 1992)

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intervals from ground surface to the total depth of each boring. A split spoon sampler, equipped with clean brass rings, was utilized to collect undisturbed soil samples for logging, field screening, and laboratory analysis.

Sample Locations

As previously mentioned, physical constraints limited drilling rig accessibility and potential soil boring locations at this site. Borehole sampling locations were selected as best possible based on the results of the initial site assessment performed in October 1991, specific concerns of the City of Albuquerque, and anticipation of future required site assessment activities. The sample locations and intervals were selected to identify, characterize, and, if possible, define both the horizontal and vertical extent of degradation underlying the site.

S-K constructed one borehole (TB-1) immediately adjacent to the deepest borehole installed during the initial site assessment (SB-2). Borehole TB-1 was installed as close to the return/fill station as possible, approximately 10 feet from the reported pipeline release. Borehole TB-2 was installed directly north of the existing USTs, and TB-3 was constructed to the east of the return/fill station (see Figure II-2).

Physical Soil Characteristics

Auger and sampler refusal were encountered in all three boreholes at a depth of approximately 80 to 85 feet below ground surface. An experienced field geologist logged each borehole for physical characteristics. The soil samples were described according to lithology, texture, and color. The completed log-of-borehole forms are presented in Appendix A.

Based on the borehole logs, the site is underlain by a fine to medium-grained sand and silty sand, grading into coarser-grained sands, gravels, and cobbles. Several cobble layers were encountered between 20 and 30 feet and between 55 and 85 feet (total depth of deepest borehole) below ground surface. These cobbles, up to 6 inches in diameter, were set in a coarse silica sand matrix. The cobbles were predominantly composed of quartz with feldspars, mafics, and other minerals typically associated with granitic rock.

Field Screening

A Thermo-Environmental Instruments Model 510 photo-ionization detector (PID) was used to monitor total organic vapor (TOV) in the headspace of the borehole samples. A Thermo-Environmental Instruments Model 210 field gas chromatograph (GC) was also used to analyze the headspace of samples from selected depth intervals to characterize the soil vapor and aid in determining the vertical extent of degradation.

Field Instruments Calibration

The PID was calibrated daily and as necessary during the project to a factory prepared standard of isobutylene (100 ppm). A Hewlett Packard Model 3396B programmable integrator was used to record the field GC results. The field GC results were compared to standard chromatograms of S-K mineral spirits, perchloroetheylene, immersion cleaner and other representative organic compounds.

Sample Preparation and Handling

Total organic vapor concentrations were measured in the field according to procedures outlined in the New Mexico State Underground Storage Tank Regulations, Part XII, Appendix C. Each split-spoon sampler collected from the boreholes contained three brass rings. The top ring from each sampler was discarded because the contents may be composed primarily of borehole slough.

The bottom ring in the split-spoon sampler was immediately sealed with teflon paper and tight-fitting plastic caps, labelled and placed on ice in an opaque cooler. One-half the contents of the middle ring was extruded into a clean glass mason jar (1.0 liter/32 ounce) and sealed with clean aluminum foil for field screening with the PID. The other half of the middle brass ring contents was extruded into a clean zip-lock plastic bag and sealed for field GC analyses.

The containerized samples were gradually warmed to approximately 60 to 80°F (ambient room temperature) before field screening. Aromatic hydrocarbon concentrations were allowed to equilibrate in the headspace of the approximately one-half full containers for at least five minutes. The sample containers were also shaken vigorously during this time for at least one minute to ensure the headspace vapors had reached equilibrium.

Field Instrument Measurements/Analysis

The aluminum foil seal over the glass jars was immediately pierced with the probe of the PID following sample field screening preparation. The highest PID measurement was recorded as the field screening reading for each of the soil samples. In addition, an aliquot of headspace vapor from selected plastic bag samples was extracted with a gas-tight syringe for field GC analysis. The field screening results, including field GC analyses, are presented in Chapter III.

Management of Cuttings and Decontamination Water

Soils brought to the ground surface during drilling were containerized in 55-gallon DOT drums. The drums of cuttings were sealed, labeled and temporarily stored onsite. S-K intends to utilize the laboratory analytical results to properly manage and dispose of the soil cuttings. Based on experience, S-K does not expect the soil cuttings to exhibit the characteristic of hazardous waste.

All downhole drilling and sampling equipment was decontaminated by steam cleaning prior to use at each borehole location/interval. The wash/rinse water generated during decontamination was also containerized in drums. S-K managed the wash/rinse water through the waste processing system at the facility.

Borehole Abandonment

After soil sampling was completed, all of the boreholes were sealed and appropriately abandoned in accordance with the New Mexico regulations. The boreholes were filled from total depth to ground surface with a bentonite grout. Boreholes penetrating a paved surface were capped with concrete to match existing grade.

Additional Assessment Laboratory Analysis

Based on field screening, ten undisturbed soil samples were submitted to GTEL Environmental Laboratories, Inc. (Concord, CA) for analysis. The soil samples were collected in clean brass rings and sealed with teflon sheeting and tight-fitting plastic caps. Each brass ring was labelled and packed on ice in an opaque cooler. A chain-

of-custody/sample-analysis-request form accompanied the samples to the laboratory. These forms are provided in Appendix B.

Sample Selection for Laboratory Analysis

The most degraded soil sample based on field screening and a soil sample from the deepest interval at which field screening indicated an absence of degradation were submitted to the laboratory for analysis. Additional samples were also submitted from each borehole as necessary to confirm, characterize and determine the absence/presence of degradation. A sufficient number of samples were submitted to a qualified laboratory to accomplish the objectives of this additional assessment.

Sampling Analysis Schedule

The sampling and analysis schedule for the soil boring program is presented in Table II-1. All analyses were performed in accordance with EPA SW-846 methods or modified methods (i.e., hydrocarbon characterization screen). The results of the soil sample analyses are discussed in Chapter III. The laboratory data sheets are presented in Appendix B.

Table II-1. Soil Sampling and Analysis Schedule, Safety-Kleen Corp. Branch Service Center, Albuquerque, New Mexico (January - February 1992).

Sample Type	Borehole Location	Depth Interval (ft-bgs)	Constituents/Parameters	Analytical Method
Extent	TB-1	16.0-16.5 21.0-21.5 71.0-71.5	Volatile Organic Constituents Hydrocarbon Characteristic Screen Total Cadmium, Chromium, and Lead	8240 mod 8015 6010
	TB-2	15.5-16.0 81.0-81.5		
	TB-3	15.5-16.0 81.0-81.5		
	SB-4R	5.0		
Characterization	TB-1	50.0-51.5 61.0-61.5	Volatile Organic Constituents Hydrocarbon Characterization Screen Total Cadmium, Chromium, and Lead	8240 mod 8015 6010

ft-bgs = Sample interval in feet below ground surface

Analytical methods based on USEPA SW-846

CHAPTER III

ADDITIONAL ASSESSMENT RESULTS

Soil quality was evaluated at three borehole locations and one shallow excavation shown on Figure III-1. All boreholes were advanced to at least 80 feet below ground surface. The boreholes were sampled every five feet using a split-spoon sampling device. A backhoe excavation was also completed at the approximate location of the preliminary shallow soil boring SB-4 and a sample (SB-4R) was collected at depth of approximately five feet below ground surface. Each sample was field screened for headspace total organic vapor (TOV) concentrations to profile the entire borehole and aid in the selection of samples for field gas chromatograph (GC) analysis and laboratory analyses.

Field Screening Results

Each borehole sample was field screened according to the procedures described in Chapter II. Soil samples which exhibited an elevated headspace TOV concentration were also analyzed with a field GC. In addition, field GC analysis of headspace vapors was performed on the majority of the soil samples which were collected near total depth of the boreholes. Field GC analysis of the samples headspace vapors was conducted to characterize/differentiate TOV, as well as check the PID field screening data.

PID Field Screening Results

Headspace TOV measurements greater than 10 ppm were encountered in soil samples from borehole TB-1 at depths between 15 and 61.5 feet below ground surface. The highest TOV headspace concentration (1080 ppm) was measured in the borehole sample TB-1 (50-51.5 feet); however, the levels attenuated with depth to 2.9 ppm in the borehole sample TB-1 (70-71.5 feet). All of the headspace TOV readings measured in samples from boreholes TB-2 and TB-3 were less than 10 ppm.

The TOV readings measured in the borehole soil samples are presented in Table III-1. Sections 1205 and 1209 of the New Mexico Underground Storage Tank Regulations indicate the extent of degradation shall be identified and soil quality remediated to a total aromatic hydrocarbon values (i.e., TOV) of less than 100 ppm when measured with

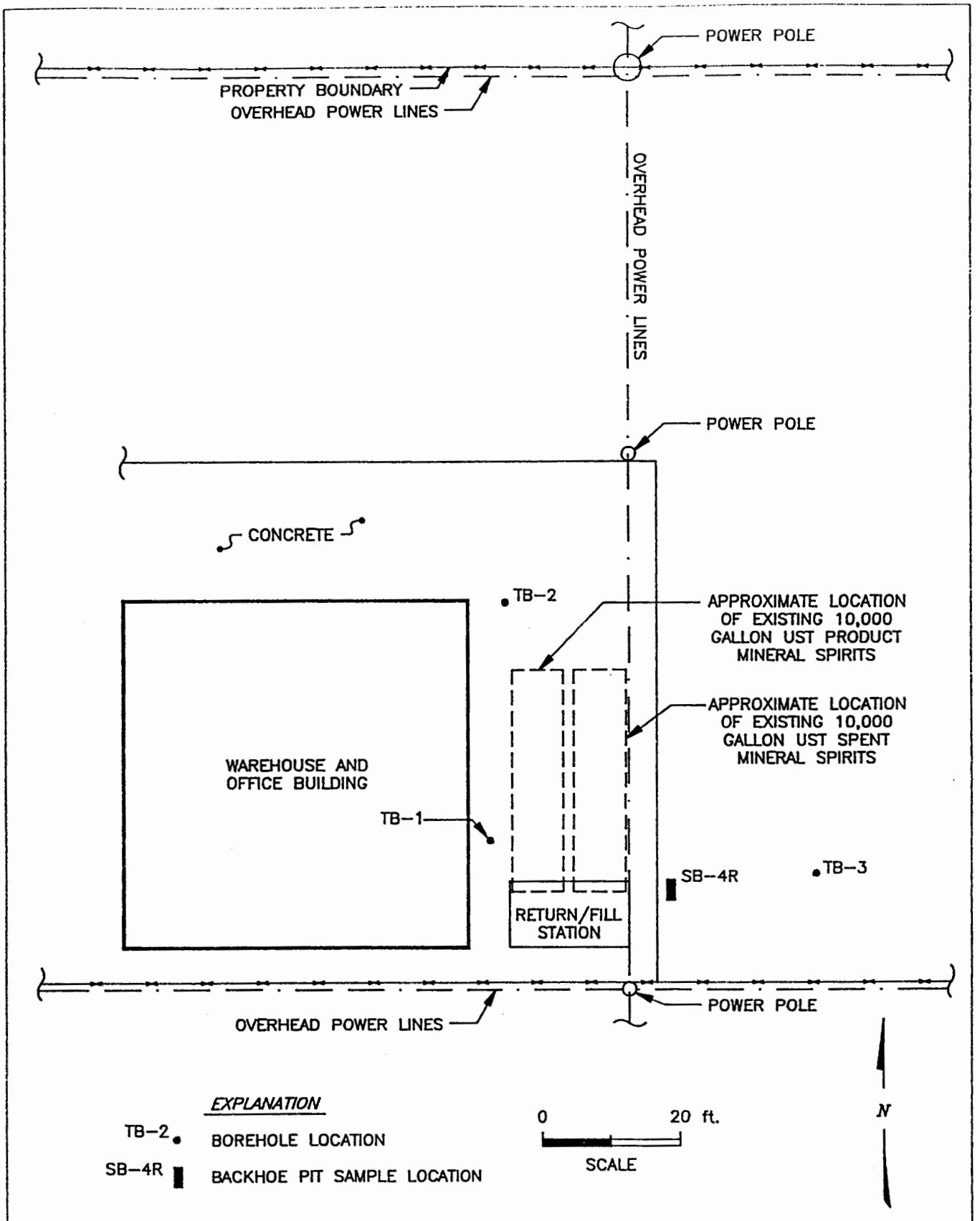

FIGURE III-1 :ADDITIONAL ASSESSMENT SOIL SAMPLING LOCATIONS, SAFETY-KLEEN CORP. SERVICE CENTER, ALBUQUERQUE, NEW MEXICO (January-February 1992)

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Table III-1. Field Screening Results, Additional Assessment Activities, Safety-Kleen Corp. Branch Service Center, Albuquerque, New Mexico (January - February 1992).

Borehole/ Date	Interval Depth (ft-bgs)	Field Screening PID (ppm-TOV)	Field GC Sample Analyzed	Laboratory Sample Submitted
TB-1				
1/29/92	0.5-2.0	1.0	No	No
	5.0-6.5	0.0	No	No
	10.0-11.5	0.0	No	No
	15.0-16.5	18	No	Yes
	20.0-21.5	53	No	Yes
	25.0-26.5	8.3	No	No
	30.0-31.5	7.5	No	No
	35.0-36.5	32	No	No
	40.0-41.5	79	No	No
	45.0-46.5	940	Yes	No
	50.0-51.5	1,080	Yes	Yes
	55.5-57.0	730	Yes	No
	60.0-61.5	75	No	Yes
	66.0-67.5	61	No	No
1/30/92	70.0-71.5	2.9	Yes	Yes
	75.0-76.5	4.4	Yes	No
	80.0-81.0	2.2	Yes	No
TB-2				
1/31/92	0.5-2.0	0.3	No	No
	5.0-6.5	0.3	No	No
	10.0-11.5	0.7	No	No
	15.0-16.5	0.3	No	Yes
	20.0-21.5	0.0	No	No
	25.0-26.5	0.0	No	No
	30.0-31.5	0.0	No	No
	35.0-36.5	0.0	No	No
	40.0-41.5	0.0	No	No
	45.0-46.5	0.0	No	No
	50.0-51.5	0.7	Yes	No
	55.5-56.5	--	No	No
	60.0-61.5	5.0	Yes	No
	65.0-66.5	--	No	No
	70.0-71.5	2.6	Yes	No
	75.0-76.5	0.0	Yes	No
2/1/92	80.0-81.5	9.8	Yes	Yes
TB-3				
2/2/92	0.5-2.0	0.4	No	No
	5.0-6.5	0.4	No	No
	10.0-11.5	0.9	No	No
	15.0-16.5	0.9	No	Yes
	20.0-21.5	0.4	No	No
	25.0-26.5	0.4	No	No
	30.0-31.5	0.4	No	No
	35.0-36.5	0.4	No	No
	40.0-41.5	0.7	No	No
	45.0-46.5	0.4	No	No
	50.0-51.5	0.2	No	No
	55.0-56.5	0.4	No	No
	60.0-61.5	1.1	No	No
	65.0-66.5	0.7	No	No
	70.0-71.5	0.9	Yes	No
	75.0-76.5	0.4	Yes	No
	80.0-81.5	0.2	No	Yes
SB-4R				
1/29/92	5.0	0.4	No	Yes

ft-bgs - Sample depth interval in feet below ground surface.
ppm TOV - Parts per million total organic vapor relative to 100 ppm isobutylene standard calibration gas.

an appropriate field instrument and degraded soils are 50 feet or less above the seasonal high static ground-water level. As shown in Table III-1, the only soil samples which exceeded this criteria were collected from borehole TB-1 between 45 and 60 feet below ground surface.

Field GC Results

A total of thirteen samples were selected for field GC analysis. The chromatograms from TB-1 headspace samples with elevated TOV concentrations were similar in shape and retention times to the chromatograms produced using a S-K mineral spirits standard. The chromatograms produced from the headspace samples taken to confirm vertical extent in TB-1, TB-2, and TB-3 did not exhibit any peaks of significance. The samples analyzed by field GC and the respective TOV concentrations are summarized on Table III-1. The chromatograms generated by the analyses of vapors from the standards, blanks, and samples are found in Appendix C.

Laboratory Analytical Results

Ten undisturbed soil samples were submitted to GTEL Environmental Laboratories, Inc. (Concord, California) on February 3, 1992. The samples were analyzed for a hydrocarbon characterization screen, volatile organic compounds, cadmium, chromium and lead (Table II-1). The analytical data are summarized on Table III-2. The laboratory data sheets and chain-of-custody forms are presented in Appendix B.

Hydrocarbon Characterization Screen

The 10 soil samples were screened for seven common hydrocarbon products (i.e., gasoline, mineral spirits, kerosene, jet fuel, diesel, Fuel Oil No. 6, and lubricating oil) using a gas chromatography/flame ionization detection analysis (modified 8015). An analytical detection limit of 10 mg/kg was reported for gasoline through Fuel Oil No. 6 and 100 mg/kg for lubricating oil. Hydrocarbon products were not identified above the detection limit in the 10 soil samples.

S-K requested that the laboratory review the quality assurance/quality control records and re-analyze samples TB-1 (50.0-51.5 feet) and TB-1 (61.0-61.5 feet) since the analytical results were inconsistent with the field screen-

Table III-2. Laboratory Results, Additional Assessment Activities, Safety-Kleen Corp. Branch Service Center, Albuquerque, New Mexico (January - February 1992).

Borehole/ Date	Depth (ft-bgs)	Hydrocarbon Characterization Screen (mg/kg)	Volatile Organic Compounds (mg/kg)		Total Metals (mg/kg) Cadmium	Chromium	Lead
TB-1							
1-29-92	16.0-16.5	All ND	All ND		ND(1)	2	ND(5)
	21.0-21.5	All ND	All ND		ND(1)	4	ND(5)
	50.0-51.5	All ND	All ND		1	14	ND(5)
	61.0-61.5	All ND	Toluene	0.006	ND(1)	10	ND(5)
			Ethylbenzene	0.007			
			All Others	ND			
1/30/92	71.0-71.5	All ND	Toluene	0.016	ND(1)	6	ND(5)
			Total xylene	0.023			
			All Others	ND			
TB-2							
1/31/92	15.5-16.0	All ND	All ND		ND(1)	8	ND(5)
2/1/92	81.0-81.5	All ND	Total xylene	0.0076	ND(1)	11	ND(5)
			All Others	ND			
TB-3							
2/2/92	15.5-16.0	All ND	Toluene	0.0057	ND(1)	2	ND(5)
			All Others	ND			
2/3/92	81.0-81.5	All ND	All ND		ND(1)	14	ND(5)
SB-4R							
1/29/92	5.0	All ND	All ND		ND(1)	16	ND(5)

Notes:

ft-bgs = Sample depth interval in feet below ground surface.
ND = Constituent not detected above analytical detection limits in parentheses hydrocarbon characterization screen included analysis for seven common hydrocarbon products.
Hydrocarbon Characterization Screen Modified Method 8015 (GC/FID)
Volatile Organic Compounds Method 8240
Total Metals Method 6010

ing data. The review of laboratory records provided no indication of data entry or analytical errors. In addition, the re-analysis results indicated that hydrocarbon products were non-detectable in these two TB-1 soil samples (50.0-51.5 feet and 61.0-61.5 feet).

Volatile Organic Compounds

The 10 soil samples were analyzed for 39 volatile organic compounds (VOCs) using USEPA method 8240. Toluene, ethylbenzene, and/or total xylenes were detected at low levels in samples TB-1 (61.0-61.5 feet), TB-1 (71.0-71.5 feet), TB-2 (81.0-81.5 feet) and TB-3 (15.5-16.0 feet). The total accumulative VOC concentrations (i.e., toluene concentration plus ethylbenzene concentration) detected in the four soil samples ranged from 0.0057 mg/kg in TB-3 (15.5 to 16.0 feet) to 0.039 mg/kg in TB-1 (71.0-71.5 feet).

Inorganic Constituents

The 10 soil samples were also analyzed for total cadmium, chromium and lead (USEPA Method 6010) since these metals are common contaminants of S-K spent mineral spirits. The concentration of cadmium ranged from non-detectable (1.0 mg/kg) in all samples (except one) to a level at the analytical detection limit of 1.0 mg/kg in sample TB-1 (50.0-51.5 feet). Lead was not detected above an analytical reporting level of 5 mg/kg in any of the soil samples.

Total chromium was detected in all 10 of the soil samples. The concentration of chromium detected in the samples ranged from 2 mg/kg in TB-1 (16.0-16.5 feet) to 16 mg/kg in SB-4R (5 feet). These chromium concentrations are well within naturally occurring levels (5 to 500 mg/kg) for New Mexico as reported in the "Chemical Analysis of Soils and Other Surficial Materials of the Conterminous United States" (USGS Open File Report 81-197).

Summary of Additional Assessment Results

Safety-Kleen Corp. (S-K) performed additional subsurface assessment activities in the vicinity of the old USTs and return/fill station. Samples were collected from three boreholes and a shallow excavation to evaluate soil quality using field screening methods and laboratory analysis. The January-February 1992 investigation was conducted to assess

the October 1991 assessment results, evaluate the extent of subsurface impacts, and determine whether soil quality degradation extends to ground water.

Borehole TB-1 was constructed as close to the return/fill station and spill site as possible and immediately adjacent to preliminary boring SB-2. Field screening of soil samples collected from TB-1 resulted in the same trend as the preliminary assessment; however, the data indicates that soil quality degradation attenuates to near background conditions at a depth of approximately 70 feet below ground surface. Based on the laboratory data, low levels of only toluene (0.016 mg/kg) and xylenes (0.023 mg/kg) were present in the deepest soil sample (71.0-71.5 feet) from borehole TB-1.

Boreholes TB-2 and TB-3 were constructed immediately north of the USTs and east of the return/fill station, respectively to evaluate the lateral extent of soil quality degradation. Field screening of all soil samples collected from these boreholes resulted in TOV concentrations less than 10 ppm. A low level of xylene (0.0076 mg/kg) was detected in the deepest soil sample from borehole TB-2 and all organic constituents were non-detectable in the deepest soil sample from TB-3. Based on the field and laboratory data, soil quality impacts are not extensive to the north and east of the USTs and return/fill station. Access to the south and west was not available during the January-February 1992 investigation.

Subsurface conditions and feasible drilling methods prevented collection of soil samples from depths greater than 81.5 feet below ground surface at the site. However, information provided by the City of Albuquerque Public Works Department indicated that the depth to ground water is at least 200 feet below ground surface in the vicinity of the facility. The field and laboratory data generated during the additional assessment activities do not indicate that soil quality degradation extends to the ground-water table (at the locations investigated) underlying the S-K facility.

APPENDIX A

BOREHOLE LOGS

SAFETY-KLEEN CORP. FACILITY
PARTIAL SITE ASSESSMENT
ALBUQUERQUE, NEW MEXICO

LOG-OF-BOREHOLE

PROJECT: Safety-Kleen/Albuquerque Partial Site Assessment JOB# 502

LOC. OR COORDINATES: 3' North of SB-2 MEASURING POINT ELEV.: GROUND ELEV.: TOTAL DEPTH: 85.0' BOREHOLE DIA.: 8" CASING DIA.: N/A	DATE: 1/29/92 DRILLER: Western Technologies Rod Hammer Bill Whaley RIG: CME-75 BIT(S): 7 3/4" HSA FLUID: N/A	BOREHOLE: TB-1 PAGE: 1 OF: 1 LOGGED BY: L. Barnes

DEPTH (FEET)	MATERIAL	BLOW COUNT/ 6 INCHES	DESCRIPTION AND COMMENTS
0.5-2.0	Clay	3-4-5	Reddish-brown clay, silt, and sand, mica flakes and small granite pebbles throughout, granular sand near bottom, some large pebbles up to 1 cm diameter.
3.5-4.0	Silty sand	4	Geotech Sample - as above except no clay.
5.0-6.5	Silty sand	1-3-5	Reddish brown sand, fine-grained particles, mica prevalent, dry, loose, mafic materials, subrounded.
9.5-10.0	Silty sand	7	Geotech Sample - as above finer grained material, some minor clay.
10.0-11.5	Silty sand	2-4-4	As above - red-brown silt and sand, minor clay, slightly moist, balls up, quartz crystals and pebbles.
15.0-16.5	Sand	3-7-8	Fill - well sorted, well rounded silica sand, medium grained.
20.0-21.5	Cobbles,	6-12-12	Sand and cobbles, several cm in length, cobbles sand are subrounded and granitic/quartz.
25.0-26.5	Cobbles, sand	7-10-8	As above, fewer large cobbles.
30.0-31.5	Silty sand	4-10-9	Fine grained, red/brown, silt. Still some small gravels (<0.5 cm), minor clay mafics and quartz chips, subrounded.
35.0-36.5	Sand	7-14-15	Very fine grained, reddish brown, but coarse grains and cobbles throughout, coarse grains are angular, less clay, arkosic, granite.
40.0-41.5	Sand	17-22-24	As above, increase in cementation, coarse-grained cobbles (<0.5 cm) subrounded.
45.0-46.5	Silty sand	6-12-22	Very fine-grained sand/silt, color is brown to mottled brown, some clay.
50.0-51.5	Silty sand	24-64-12	As above, light brown color, flakey and drier than before, some larger cobbles several cm in length.
55.0-56.5	Silty sand, cobbles	13-100+ 6 inches	Lost initial sample. Use basket and go back. Sample from 55.5 to 57.0. Brown fine silty sand with cobbles 10 cm in diameter at 55'.
60.0-61.5	Silty sand, cobbles	34-68-75	As above, cobbles are predominant, coarser grained matrix sand.
65.0-66.5	Silty sand, cobbles	13-65-56	No sample - switch to 2' split spoon - no brass rings - small sample light tan/brown silty sand with cobbles.
70.0-71.5	Sand, cobbles	17-60-60	Tan sand with cobbles. Matrix grains subrounded, poorly sorted. Cobbles as before
75.0-76.5	Sand, cobbles	30-100+ 6 inches	As above - cobbles up to 20 cm in diameter, coarse, smaller grain becoming more angular.
80.0-81.5	Sand, cobbles	44-100	As above. Drill to 85.'

LOG-OF-BOREHOLE

PROJECT: Safety-Kleen/Albuquerque Partial Site Assessment JOB# 502

LOC. OR COORDINATES: 3' North of SB-2 MEASURING POINT ELEV.: GROUND ELEV.: TOTAL DEPTH: 85.0' BOREHOLE DIA.: 8" CASING DIA.: N/A	DATE: 1/29/92 DRILLER: Western Technologies Rod Hammer Bill Whaley RIG: CME-75 BIT(S): 7 3/4" HSA FLUID: N/A	BOREHOLE: TB-1 PAGE: 1 OF: 1 LOGGED BY: L. Barnes

DEPTH (FEET)	MATERIAL	BLOW COUNT/ 6 INCHES	DESCRIPTION AND COMMENTS
85.0	Sand, cobbles	---	As above. Unable to obtain sample.

LOG-OF-BOREHOLE

PROJECT: Safety-Kleen/Albuquerque Partial Site Assessment JOB# 502

LOC. OR COORDINATES: 7' North of Tanks MEASURING POINT ELEV.: GROUND ELEV.: TOTAL DEPTH: 81.5' BOREHOLE DIA.: 10 1/4" CASING DIA.: N/A	DATE: 1/31/92 DRILLER: Western Technologies Rod Hammer Bill Whaley RIG: CME-75 BIT(S): 10 1/4" HSA FLUID: N/A	BOREHOLE: TB-2 PAGE: 1 OF: 1 LOGGED BY: L. Barnes

DEPTH (FEET)	MATERIAL	BLOW COUNT/ 6 INCHES	DESCRIPTION AND COMMENTS
0.5-2.0	Silty clay	6-5-6	Red-brown clay, tight, small rock fragments throughout.
5.0-6.5	Silty sand	2-3-5	Red-brown silty sand, sand is medium grained, subangular, granitic rock and quartz crystal fragments. Slightly moist.
10.0-11.5	Silty sand	2-4-7	Red-brown silty sand, less silt than before.
15.0-16.5	Silty sand	9-18-24	As above, minor clay, tank bedding silica sand - well rounded, sorted.
20.0-21.5	Sand	8-9-9	Tank bedding silica sand.
25.0-26.5	Sand gravel	9-18-21	Sand and gravel, quartz grains and granitic rocks, subrounded. Gravel is <1 cm in diameter.
30.0-31.5	Sand gravel	5-9-12	Brown-red sand with some minor gravel, sand is medium grained and subrounded, grain size increases with depth.
35.0-36.5	Sand	5-20-28	Brown sand, minor silt, gravel as before.
40.0-41.5	Sand	20-30-45	Red brown sand, partially cemented, gravel and silt throughout, increased silt particles from before.
45.0-46.5	Silty sand	11-30-45	Light tan silty sand - fine grained, loose and dry. Occasional gravels.
50.0-51.5	Silty sand	18-89+ 6 inches	As above, increasing gravel content.
55.0-56.5	Sand cobbles	65,42,38	Tan sand with gravels and cobbles up to 30 cm in diameter, some silt.
60.0-61.5	Sand cobbles	18-50-52	As above, sand is not as loose - some cementation finer-grained sand, minor silt.
65.0-66.5	Sand cobbles	47-100+ 6 inches	As above.
70.0-71.5	Sand cobbles	50-150+ 9 inches	As above.
75.0-76.5	Sand cobbles	75-100+ 8 inches	As above - color change to gray/tan.
80.0-81.5	Sand cobbles	80-100+ 8 inches	As above.

LOG-OF-BOREHOLE

PROJECT: Safety-Kleen/Albuquerque Partial Site Assessment JOB# 502

LOC. OR COORDINATES: 25' East of Spill Site MEASURING POINT ELEV.: GROUND ELEV.: TOTAL DEPTH: 81.5' BOREHOLE DIA.: 10 1/4" CASING DIA.: N/A	DATE: 2/2/92 DRILLER: Western Technologies Rod Hammer Bill Whaley RIG: CME-75 BIT(S): 10 1/4" HSA FLUID: N/A	BOREHOLE: TB-3 PAGE: 1 OF: 1 LOGGED BY: L. Barnes

DEPTH (FEET)	MATERIAL	BLOW COUNT/ 6 INCHES	DESCRIPTION AND COMMENTS
0.5-2.0	Silty sand, clay	4-4-8	Red-brown silty sand, minor clay, medium-sized grains, sparse gravel, moist, subangular.
5.0-6.5	Silty sand	1-7-8	Red-brown silty sand, less clay, some fragments of granitic gravels, slightly moist, grains are medium size, subangular.
10.0-10.5	Silty sand	3-6-6	As above, increasing clay content.
15.0-16.5	Sand	5-10-17	Silica sand, well sorted, well rounded, resembles tank bedding material, medium grained.
20.0-21.5	Sand	10-15-9	Coarse-grained silica sand with granitic material, some gravel (<1 cm diameter) angular, mafics.
25.0-26.5	Sand gravel	11-20-12	As above, gravel content increases, size increases (1-3 cm).
30.0-31.5	Sand gravel	14-14-14	As above.
35.0-36.5	Sand	12-17-24	Brown, fine-grained sand, minor gravels, and coarser-grained sand, subangular.
40.0-41.5	Silty sand	22-54-57	Brown fine-grained silty sand, dry, gravels up to 2 cm.
45.0-46.5	Silty sand	20-30-30	As above, formation is tight and dry.
50.0-51.5	Silty sand cobbles	25-77-68	Brown silty sand, cobbles (5-10 cm) sand is medium grained.
55.0-56.5	Sand cobbles	30-56-88	Gray-brown coarse sand gravels and cobbles (granitic, mafic). Subangular.
60.0-61.5	Sand cobbles	18-25-24	As above.
65.0-66.5	Sand cobbles	45-69-96	As above, large cobbles of quartz crystalline rock, cobbles are angular.
70.0-71.5	Sand cobbles	50-100+ 6 inches	As above, abundant feldspars.
75.0-76.5	Sand cobbles	97-100+ 6 inches	Coarse-grained sand, gravel, and cobbles, predominantly quartz cobbles, angular.
80.0-81.5	Sand cobbles	86-91+ 6 inches	As above, auger refusal at 81.5'.

APPENDIX B

LABORATORY DATA SHEETS AND CHAIN-OF-CUSTODY FORMS

SAFETY-KLEEN CORP. FACILITY
PARTIAL SITE ASSESSMENT
ALBUQUERQUE, NEW MEXICO

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 from inside California
(800) 423-7143 from outside California

Client Number: TRI02SFK01
Consultant Project Number: 502
Project ID: Not Given
Work Order Number: C2-02-237

March 2, 1992

Jack Bedessem
TriHydro Corporation
920 E. Sheridan Street
Laramie, WY 82070-3939

Enclosed please find the analytical results for samples received by GTEL Environmental Laboratories, Inc. on 02/07/92.

A formal Quality Control/Quality Assurance (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria, unless otherwise stated in the footnotes.

GTEL is certified by the California State Department of Health Services to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

If you have any questions concerning this analysis or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

Rose Condit /EPP
Emma P. Popek
Laboratory Director

Client Number: TRI02SFK01
Consultant Project Number: 502
Project ID: Not Given
Work Order Number: C2-02-237

Table 1

ANALYTICAL RESULTS

Hydrocarbons in Soil

Method: GC-FID[a]

GTEL Sample Number		01	02	03	04
Client Identification		TB-1 16.0-16	TB-1 21.0-21	TB-2 15.5-16	SB-4R
Date Sampled		01/29/92	01/29/92	01/31/92	01/29/92
Date Extracted		02/12/92	02/12/92	02/12/92	02/12/92
Date Analyzed		02/14/92	02/14/92	02/14/92	02/14/92
Analyte	Quantitation Limit, mg/Kg	Concentration, mg/Kg			
Gasoline	10	<10	<10	<10	<10
Mineral spirits	10	<10	<10	<10	<10
Kerosine	10	<10	<10	<10	<10
Jet fuel	10	<10	<10	<10	<10
Diesel	10	<10	<10	<10	<10
Fuel oil #6	10	<10	<10	<10	<10
Lubricating oil	100	<100	<100	<100	<100
Quantitation Limit Multiplier		1	1	1	1
Percent solids		87	94	89	90

a. Results reported on a wet weight basis.

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 from inside California
(800) 423-7143 from outside California

Client Number: TRI02SFK01
Consultant Project Number: 502
Project ID: Not Given
Work Order Number: C2-02-239

February 24, 1992

Jack Bedessem/Eric Brandjord
TriHydro Corporation
920 E. Sheridan Street
Laramie, WY 82070-3939

Enclosed please find the analytical results for samples received by GTEL Environmental Laboratories, Inc. on 02/07/92.

A formal Quality Control/Quality Assurance (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria, unless otherwise stated in the footnotes.

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If you have any questions concerning this analysis or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

Emma P. Popek/RM

Emma P. Popek
Laboratory Director

Table 1

ANALYTICAL RESULTS

Volatile Organics in Soil

EPA Method 8240[a]

GTEL Sample Number		01	02	03	04
Client Identification		TB-1 16.0-16.5	TB-1 21.0-21.5	TB-2 15.5-16.0	SB-4R
Date Sampled		01/29/92	01/29/92	01/31/92	01/29/92
Date Extracted		02/13/92	02/13/92	02/13/92	02/13/92
Date Analyzed		02/13/92	02/13/92	02/13/92	02/13/92
Analyte	Quantitation Limit, ug/Kg	Concentration, ug/Kg			
Chloromethane	10	<10	<10	<10	<10
Bromomethane	10	<10	<10	<10	<10
Vinyl chloride	10	<10	<10	<10	<10
Chloroethane	10	<10	<10	<10	<10
Methylene chloride	5	<5	<5	<5	<5
Acetone	100	<100	<100	<100	<100
Carbon disulfide	5	<5	<5	<5	<5
1,1-Dichloroethene	5	<5	<5	<5	<5
1,1-Dichloroethane	5	<5	<5	<5	<5
1,2-Dichloroethene, total	5	<5	<5	<5	<5
Chloroform	5	<5	<5	<5	<5
1,2-Dichloroethane	5	<5	<5	<5	<5
2-Butanone	100	<100	<100	<100	<100
1,1,1-Trichloroethane	5	<5	<5	<5	<5
Carbon tetrachloride	5	<5	<5	<5	<5
Vinyl acetate	50	<50	<50	<50	<50
Bromodichloromethane	5	<5	<5	<5	<5
1,2-Dichloropropane	5	<5	<5	<5	<5
cis-1,3-Dichloropropene	5	<5	<5	<5	<5
Trichloroethene	5	<5	<5	<5	<5
Dibromochloromethane	5	<5	<5	<5	<5

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986 (method modified for additional compounds). Results reported on a dry weight basis.

Table 1 (Continued)

ANALYTICAL RESULTS

Volatile Organics in Soil

EPA Method 8240[a]

GTEL Sample Number		01	02	03	04
Client Identification		TB-1 16.0-16	TB-1 21.0-21	TB-2 15.5-16	SB-4R
Date Sampled		01/29/92	01/29/92	01/31/92	01/29/92
Date Extracted		02/13/92	02/13/92	02/13/92	02/13/92
Date Analyzed		02/13/92	02/13/92	02/13/92	02/13/92
Analyte	Quantitation Limit, ug/Kg	Concentration, ug/Kg			
1,1,2-Trichloroethane	5	<5	<5	<5	<5
Benzene	5	<5	<5	<5	<5
trans-1,3-Dichloropropene	5	<5	<5	<5	<5
2-Chloroethylvinyl ether	10	<10	<10	<10	<10
Bromoform	5	<5	<5	<5	<5
4-Methyl-2-pentanone	50	<50	<50	<50	<50
2-Hexanone	50	<50	<50	<50	<50
Tetrachloroethene	5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	5	<5	<5	<5	<5
Toluene	5	<5	<5	<5	<5
Chlorobenzene	5	<5	<5	<5	<5
Ethylbenzene	5	<5	<5	<5	<5
Styrene	5	<5	<5	<5	<5
1,2-Dichlorobenzene	5	<5	<5	<5	<5
1,3-Dichlorobenzene	5	<5	<5	<5	<5
1,4-Dichlorobenzene	5	<5	<5	<5	<5
Xylene, total	5	<5	<5	<5	<5
Trichlorofluoromethane	5	<5	<5	<5	<5
Quantitation Limit Multiplier		1	1	1	1
Percent solids		87	94	89	90

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986 (method modified for additional compounds). Results reported on a dry weight basis.

GTEL
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LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 from inside California
(800) 423-7143 from outside California

Client Number: TRI02SFK01
Consultant Project Number: 502
Project ID: Not Given
Work Order Number: C2-02-240

February 21, 1992

Jack Bedessem/Eric Brandjord
TriHydro Corporation
920 E. Sheridan Street
Laramie, WY 82070-3939

Enclosed please find the analytical results for samples received by GTEL Environmental Laboratories, Inc. on 02/07/92.

A formal Quality Control/Quality Assurance (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria, unless otherwise stated in the footnotes.

GTEL is certified by the California State Department of Health Services to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

If you have any questions concerning this analysis or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

Emma P. Popek/MGM

Emma P. Popek
Laboratory Director

Client Number: TRI02SFK01
Consultant Project Number: 502
Project ID: Not Given
Work Order Number: C2-02-240

ANALYTICAL RESULTS

Matrix: Soil

				Sample Number	01	02	03	04
				Sample Identification	TB-1 16.0-16.5	TB-1 21.0-21.5	TB-2 15.5.-16.0	SB-4R
				Date Sampled	01/29/92	01/29/92	01/31/92	01/29/92
Test Description	Units	Detection Limit	Method	Date Analyzed	Test Result			
Cadmium	mg/Kg	1	EPA 6010	02/12/92	<1	<1	<1	<1
Chromium	mg/Kg	1	EPA 6010	02/12/92	2	4	8	16
Lead	mg/Kg	5	EPA 6010	02/12/92	<5	<5	<5	<5
Percent solids					87	77	86	90

C202237

CHAIN-OF-CUSTODY RECORD

Project No.:	Today's Date:	Date Results Reqeusted:
502	2-3-92	10 day TAT

Sampler's Name:	Phone No.:	Fax No.:
Same	307-745-7474	307-745-7729

Company Name and Address:
TriHydro Corporation
920 Sheridan
Laramie, WY 82070

Company Contact: Same

Analyses Requested

Collector's Sample No.	Sample Matrix	Date Sampled/ Time Sampled	No. of Containers	Mod 8015 for Minerals	Spirits-GC/FID		8240 - VOCs		Total Cd, Cr, + Pb-6010													
X TB-1 16.0-16.5	01	1-29		✓			✓		✓													
X TB-1 21.0-21.5	02	1-29		✓			✓		✓													
TB-1 26.0-26.5		1-29		✓			✓		✓													
X TB-2 15.5-16.0	03	1-31		✓			✓		✓													
TB-2 20.5-21.0		1-31		✓			✓		✓													
TB-2 25.5-26.0		1-31		✓			✓		✓													
X SB-4R	04	1-29		✓			✓		✓													

K-1

Remarks: Hold all of these samples for analyses. Approval for analyses will be given by telephone and fax.

Samples were placed in opaque coolers on ice immediately after sampling

M.N. 2/13/92

Relinquished by:	Affiliation:	Date/Time:	Received by:	Affiliation:	Date/Time:
E. Brandford	THC	2-3-92 @ 1600			
Relinquished by:	Affiliation:	Date/Time:	Received by:	Affiliation:	Date/Time:
Relinquished by:	Affiliation:	Date/Time:	Received by:	Affiliation:	Date/Time:
		2/4 2:15	[illegible]		

Were samples received in good condition? Remarks: 2-7-92 5:55 [illegible]

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 from inside California
(800) 423-7143 from outside California

Client Number: TRI02SFK01
Consultant Project Number: 502
Project ID: Not Given
Work Order Number: C2-02-184

February 20, 1992

Jack Bedessem/Eric Brandjord
TriHydro Corporation
920 E. Sheridan Street
Laramie, WY 82070-3939

Enclosed please find the analytical results for samples received by GTEL Environmental Laboratories, Inc. on 02/04/92.

A formal Quality Control/Quality Assurance (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria, unless otherwise stated in the footnotes.

GTEL is certified by the California State Department of Health Services to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

If you have any questions concerning this analysis or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

Emma P. Popek/pc

Emma P. Popek
Laboratory Director

Client Number: TRI02SFK01
Consultant Project Number: 502
Project ID: Not Given
Work Order Number: C2-02-184

Table 1

ANALYTICAL RESULTS

Hydrocarbons in Soil

Method: GC-FID[a]

GTEL Sample Number		01	02	03	04
Client Identification		TB 1 50.0 - 51.5	TB 1 61.0 - 61.5	TB 1 71.0 - 71.5	TB 2 81.0 - 81.5
Date Sampled		01/29/92	01/29/92	01/30/92	02/01/92
Date Extracted		02/11/92	02/11/92	02/11/92	02/11/92
Date Analyzed		02/14/92	02/14/92	02/14/92	02/14/92
Analyte	Quantitation Limit, mg/Kg	Concentration, mg/Kg			
Gasoline	10	<10	<10	<10	<10
Mineral spirits	10	<10	<10	<10	<10
Kerosine	10	<10	<10	<10	<10
Jet fuel	10	<10	<10	<10	<10
Diesel	10	<10	<10	<10	<10
Fuel oil #6	10	<10	<10	<10	<10
Lubricating oil	100	<100	<100	<100	<100
Quantitation Limit Multiplier		1	1	1	1
Percent solids		85	90	73	90

a. Results reported on a wet weight basis.

Table 1 (Continued)

ANALYTICAL RESULTS

Hydrocarbons in Soil

Method: GC-FID[a]

GTEL Sample Number		05	06		
Client Identification		TB 3 15.5 - 16.0	TB 3 81.0 - 81.5		
Date Sampled		02/02/92	02/03/92		
Date Extracted		02/11/92	02/11/92		
Date Analyzed		02/14/92	02/14/92		
Analyte	Quantitation Limit, mg/Kg	Concentration, mg/Kg			
Gasoline	10	<10	<10		
Mineral spirits	10	<10	<10		
Kerosine	10	<10	<10		
Jet fuel	10	<10	<10		
Diesel	10	<10	<10		
Fuel oil #6	10	<10	<10		
Lubricating oil	100	<100	<100		
Quantitation Limit Multiplier		1	1		
Percent solids		84	83		

a. Results reported on a wet weight basis.

GTEL
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Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 from inside California
(800) 423-7143 from outside California

Client Number: TRI02SFK01
Consultant Project Number: 502
Project ID: Not Given
Work Order Number: C2-02-185

February 13, 1992

Jack Bedessem/Eric Brandjord
TriHydro Corporation
920 E. Sheridan Street
Laramie, WY 82070-3939

Enclosed please find the analytical results for samples received by GTEL Environmental Laboratories, Inc. on 02/04/92.

A formal Quality Control/Quality Assurance (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria, unless otherwise stated in the footnotes.

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If you have any questions concerning this analysis or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,

GTEL Environmental Laboratories, Inc.

Emma P. Popek

Emma P. Popek
Laboratory Director

Table 1

ANALYTICAL RESULTS

Volatile Organics in Soil

EPA Method 8240[a]

GTEL Sample Number		01	02	03	04
Client Identification		TB 1 50.0-51.5	TB 1 61.0-61.5	TB 1 71.0-71.5	TB 2 81.0-81.5
Date Sampled		01/29/92	01/29/92	01/30/92	02/01/92
Date Extracted		02/11/92	02/11/92	02/11/92	02/11/92
Date Analyzed		02/11/92	02/11/92	02/11/92	02/11/92
Analyte	Quantitation Limit, ug/Kg	Concentration, ug/Kg			
Chloromethane	10	<10	<10	<10	<10
Bromomethane	10	<10	<10	<10	<10
Vinyl chloride	10	<10	<10	<10	<10
Chloroethane	10	<10	<10	<10	<10
Methylene chloride	5	<5	<5	<5	<5
Acetone	100	<100	<100	<100	<100
Carbon disulfide	5	<5	<5	<5	<5
1,1-Dichloroethene	5	<5	<5	<5	<5
1,1-Dichloroethane	5	<5	<5	<5	<5
1,2-Dichloroethene, total	5	<5	<5	<5	<5
Chloroform	5	<5	<5	<5	<5
1,2-Dichloroethane	5	<5	<5	<5	<5
2-Butanone	100	<100	<100	<100	<100
1,1,1-Trichloroethane	5	<5	<5	<5	<5
Carbon tetrachloride	5	<5	<5	<5	<5
Vinyl acetate	50	<50	<50	<50	<50
Bromodichloromethane	5	<5	<5	<5	<5
1,2-Dichloropropane	5	<5	<5	<5	<5
cis-1,3-Dichloropropene	5	<5	<5	<5	<5
Trichloroethene	5	<5	<5	<5	<5
Dibromochloromethane	5	<5	<5	<5	<5

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986 (method modified for additional compounds). Results reported on a dry weight basis.

Table 1 (Continued)

ANALYTICAL RESULTS

Volatile Organics in Soil

EPA Method 8240[a]

GTEL Sample Number		01	02	03	04
Client Identification		TB 1 50.0-51.5	TB 1 61.0-61.5	TB 1 71.0-71.5	TB 2 81.0-81.5
Date Sampled		01/29/92	01/29/92	01/30/92	02/01/92
Date Extracted		02/11/92	02/11/92	02/11/92	02/11/92
Date Analyzed		02/11/92	02/11/92	02/11/92	02/11/92
Analyte	Quantitation Limit, ug/Kg	Concentration, ug/Kg			
1,1,2-Trichloroethane	5	<5	<5	<5	<5
Benzene	5	<5	<5	<5	<5
trans-1,3-Dichloropropene	5	<5	<5	<5	<5
2-Chloroethylvinyl ether	10	<10	<10	<10	<10
Bromoform	5	<5	<5	<5	<5
4-Methyl-2-pentanone	50	<50	<50	<50	<50
2-Hexanone	50	<50	<50	<50	<50
Tetrachloroethene	5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	5	<5	<5	<5	<5
Toluene	5	<5	6	16	<5
Chlorobenzene	5	<5	<5	<5	<5
Ethylbenzene	5	<5	7	<5	<5
Styrene	5	<5	<5	<5	<5
1,2-Dichlorobenzene	5	<5	<5	<5	<5
1,3-Dichlorobenzene	5	<5	<5	<5	<5
1,4-Dichlorobenzene	5	<5	<5	<5	<5
Xylene, total	5	<5	<5	23	7.6
Trichlorofluoromethane	5	<5	<5	<5	<5
Quantitation Limit Multiplier		1	1	1	1
Percent solids		97	98	99	98

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986 (method modified for additional compounds). Results reported on a dry weight basis.

Table 1 (Continued)

ANALYTICAL RESULTS

Volatile Organics in Soil

EPA Method 8240[a]

GTEL Sample Number		05	06		
Client Identification		TB 3 15.5-16.0	TB 3 81.0-81.5		
Date Sampled		02/02/92	02/03/92		
Date Extracted		02/11/92	02/11/92		
Date Analyzed		02/11/92	02/11/92		
Analyte	Quantitation Limit, ug/Kg	Concentration, ug/Kg			
Chloromethane	10	<10	<10		
Bromomethane	10	<10	<10		
Vinyl chloride	10	<10	<10		
Chloroethane	10	<10	<10		
Methylene chloride	5	<5	<5		
Acetone	100	<100	<100		
Carbon disulfide	5	<5	<5		
1,1-Dichloroethene	5	<5	<5		
1,1-Dichloroethane	5	<5	<5		
1,2-Dichloroethene, total	5	<5	<5		
Chloroform	5	<5	<5		
1,2-Dichloroethane	5	<5	<5		
2-Butanone	100	<100	<100		
1,1,1-Trichloroethane	5	<5	<5		
Carbon tetrachloride	5	<5	<5		
Vinyl acetate	50	<50	<50		
Bromodichloromethane	5	<5	<5		
1,2-Dichloropropane	5	<5	<5		
cis-1,3-Dichloropropene	5	<5	<5		
Trichloroethene	5	<5	<5		
Dibromochloromethane	5	<5	<5		

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986 (method modified for additional compounds). Results reported on a dry weight basis.

Table 1 (Continued)

ANALYTICAL RESULTS

Volatile Organics in Soil

EPA Method 8240[a]

GTEL Sample Number		05	06		
Client Identification		TB 3 15.5-16.0	TB 3 81.0-81.5		
Date Sampled		02/02/92	02/03/92		
Date Extracted		02/11/92	02/11/92		
Date Analyzed		02/11/92	02/11/92		
Analyte	Quantitation Limit, ug/Kg	Concentration, ug/Kg			
1,1,2-Trichloroethane	5	<5	<5		
Benzene	5	<5	<5		
trans-1,3-Dichloropropene	5	<5	<5		
2-Chloroethylvinyl ether	10	<10	<10		
Bromoform	5	<5	<5		
4-Methyl-2-pentanone	50	<50	<50		
2-Hexanone	50	<50	<50		
Tetrachloroethene	5	<5	<5		
1,1,2,2-Tetrachloroethane	5	<5	<5		
Toluene	5	5.7	<5		
Chlorobenzene	5	<5	<5		
Ethylbenzene	5	<5	<5		
Styrene	5	<5	<5		
1,2-Dichlorobenzene	5	<5	<5		
1,3-Dichlorobenzene	5	<5	<5		
1,4-Dichlorobenzene	5	<5	<5		
Xylene, total	5	<5	<5		
Trichlorofluoromethane	5	<5	<5		
Quantitation Limit Multiplier		1	1		
Percent solids		88	87		

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986 (method modified for additional compounds). Results reported on a dry weight basis.

GTEL
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LABORATORIES, INC.

Northwest Region
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Concord, CA 94520
(415) 685-7852
(800) 544-3422 from inside California
(800) 423-7143 from outside California

Client Number: TRI02SFK01
Consultant Project Number: 502
Project ID: Not Given
Work Order Number: C2-02-186

February 19, 1992

Jack Bedessem/Eric Brandiord
TriHydro Corporation
920 E. Sheridan Street
Laramie, WA 82070-3939

Enclosed please find the analytical results for samples received by GTEL Environmental Laboratories, Inc. on 02/04/92.

A formal Quality Control/Quality Assurance (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria, unless otherwise stated in the footnotes.

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If you have any questions concerning this analysis or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

Emma P. Popek

Emma P. Popek
Laboratory Director

Client Number: TRI02SFK01
Consultant Project Number: 502
Project ID: Not Given
Work Order Number: C2-02-186

ANALYTICAL RESULTS

Matrix: Soil

				Sample Number	01	02	03	04
				Sample Identification	TB 1 50.0-51.5	TB 1 61.0-61.5	TB 1 71.0-71.5	TB 2 81.0-81.5
				Date Sampled	01/29/92	01/29/92	01/30/92	02/01/92
Test Description	Units	Detection Limit	Method	Date Analyzed	Test Result*			
Cadmium	mg/Kg	1	EPA 6010	02/12/92/	1	<1	<1	<1
Chromium	mg/Kg	1	EPA 6010	02/12/92	14	10	6	11
Lead	mg/Kg	5	EPA 6010	02/12/92	<5	<5	<5	<5
Percent solids					97	98	99	98

* Results reported on a wet weight basis.

Client Number: TRI02SFK01
Consultant Project Number: 502
Project ID: Not Given
Work Order Number: C2-02-186

ANALYTICAL RESULTS

Matrix: Soil

				Sample Number	05	06		
				Sample Identification	TB 3 15.5-16.0	TB 3 81.0-81.5		
				Date Sampled	02/02/92	02/03/92		
Test Description	Units	Detection Limit	Method	Date Analyzed	Test Result*			
Cadmium	mg/Kg	1	EPA 6010	02/12/92	<1	<1		
Chromium	mg/Kg	1	EPA 6010	02/12/92	2	14		
Lead	mg/Kg	5	EPA 6010	02/12/92	<5	<5		
Percent solids					88	87		

* Results reported on a wet weight basis.

C202185

K-1

CHAIN-OF-CUSTODY RECORD

Project No.:	Today's Date:	Date Results Reqeusted:
502	2/3/92	10 day TAT

Sampler's Name:	Phone No.:	Fax No.:
ERIC BRANDJORD LINDA BARNES	307-745-7474	307-745-7729

Company Name and Address:	Company Contact:
TriHydro Corporation 920 Sheridan Laramie, WY 82070	ERIC BRANDJORD/ JACK BEADESSEM

Analyses Requested

Collector's Sample No.	Sample Matrix	Date Sampled/ Time Sampled	No. of Containers	Modified 8015 for Mineral Spirits - GC/FID			8240 (VOC'S)		Total Cadmium, Chromium and Lead - (6010)			TCLP- VOC 8240	SVOC'S - (8270)	Metals - (6010)									
TB-1 50.0-51.5	SOIL 01	1-29-92	1	✓			✓		✓														
TB-1 61.0-61.5	SOIL 02	1-29-92	1	✓			✓		✓														
TB-1 71.0-71.5	SOIL 03	1-30-92	1	✓			✓		✓														
TB-2 81.0-81.5	SOIL 04	2-1-92	1	✓			✓		✓														
TB-3 15.5-16.0	SOIL 05	2-2-92	1	✓			✓		✓														
TB-3 81.0-81.5	SOIL 06	2-3-92	1	✓			✓		✓														
DS-1	SOIL	2-3-92	1										✓										

Remarks: Samples were placed in opaque coolers on ice immediately after sampling
Please return cooler to above address

RM 2/12/92

Relinquished by:	Affiliation:	Date/Time:	Received by:	Affiliation:	Date/Time:
E Brandjord	THC	2-3-92 @ 1600			
Relinquished by:	Affiliation:	Date/Time:	Received by:	Affiliation:	Date/Time:
Relinquished by:	Affiliation:	Date/Time:	Received by:	Affiliation:	Date/Time:
		2/4 2:15	[illegible]		

Remarks:

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 from inside California
(800) 423-7143 from outside California

Client Number: TRI02SFK01
Consultant Project Number: 502
Project ID: Not Given
Work Order Number: C2-02-187

February 18, 1992

Jack Bedessem/Eric Brandjord
TriHydro Corporation
920 E. Sheridan Street
Laramie, WY 82070-3939

Enclosed please find the analytical results for samples received by GTEL Environmental Laboratories, Inc. on 02/04/92.

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Sincerely,
GTEL Environmental Laboratories, Inc.

Emma P. Popek

Emma P. Popek
Laboratory Director

Client Number: TRI02SFK01
Consultant Project Number: 502
Project ID: Not Given
Work Order Number: C2-02-187

Table 1

ANALYTICAL RESULTS

Volatile Organics in TCLP Leachate[a]

EPA Method 8240[b]

GTEL Sample Number		01			
Client Identification		DS-1			
Date Sampled		02/03/92			
Date Leached		02/13/92			
Date Analyzed		02/14/92			
Analyte	Quantitation Limit, mg/L	Concentration, mg/L			
Benzene	0.05	<0.05			
Carbon tetrachloride	0.05	<0.05			
Chlorobenzene	0.05	<0.05			
Chloroform	0.05	<0.05			
1,2-Dichloroethane	0.05	<0.05			
1,1-Dichloroethylene	0.05	<0.05			
Methyl ethyl ketone	1	<1			
Tetrachloroethylene	0.05	0.06			
Trichloroethylene	0.05	<0.05			
Vinyl chloride	0.1	<0.1			
Quantitation Limit Multiplier		1			

a. Federal Register, March 29, 1990, 40 CFR, Part 261, Appendix II - Method 1311. These data are corrected for analytical bias as required by Method 1311 by applying a correction determined by matrix spike recovery.

b. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA, November 1986.

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(800) 544-3422 from inside California
(800) 423-7143 from outside Callfornia

Client Number: TRI02SFK01
Consultant Project Number: 502
Project ID: Not Given
Work Order Number: C2-02-188

February 20, 1992

Jack Bedessem/Eric Brandjord
TriHydro Corporation
920 E. Sheridan Street
Laramie, WY 82070-3939

Enclosed please find the analytical results for samples received by GTEL Environmental Laboratories, Inc. on 02/04/92.

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GTEL is certified by the California State Department of Health Services to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

If you have any questions concerning this analysis or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

Emma P. Popek /R.M.

Emma P. Popek
Laboratory Director

Client Number: TRI02SFK01
Consultant Project Number: 502
Project ID: Not Given
Work Order Number: C2-02-188

Table 1

ANALYTICAL RESULTS

Semi-Volatile Organics in TCLP Leachate[a]

EPA Method 8270[b]

TEL Sample Number		01			
Client Identification		DS - 1			
Date Sampled		02/03/92			
Date Leached		02/13/92			
Date Extracted		02/18/92			
Date Analyzed		02/18/92			
Analyte	Quantitation Limit, mg/L	Concentration, mg/L			
o-Cresol	0.033	<0.033			
m-Cresol + p-Cresol	0.033	<0.033			
1,4-Dichlorobenzene	0.033	<0.033			
2,4-Dinitrotoluene	0.033	<0.033			
Hexachloro-1,3-butadiene	0.033	<0.033			
Hexachlorobenzene	0.033	<0.033			
Hexachloroethane	0.033	<0.033			
Nitrobenzene	0.033	<0.033			
Pentachlorophenol	0.17	<0.17			
Pyridine	0.033	<0.033			
2,4,5-Trichlorophenol	0.033	<0.033			
2,4,6-Trichlorophenol	0.033	<0.033			
Quantitation Limit Multiplier		1			

a. Federal Register, March 29, 1990, 40 CFR, Part 261, Appendix II - Method 1311. These data are corrected for analytical bias as required by Method 1311 by applying a correction determined by matrix spike recovery.

b. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA, November 1986. Aqueous leachates are extracted by Method 3510.

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LABORATORIES, INC.

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(800) 423-7143 from outside California

Client Number: TRI02SFK01
Consultant Project Number: 502
Project ID: Not Given
Work Order Number: C2-02-189

February 18, 1992

Jack Bedessem/Eric Brandjord
TriHydro Corporation
920 E. Sheridan Street
Laramie, WY 82070-3939

Enclosed please find the analytical results report prepared by GTEL for samples received on 02/04/92.

GTEL is certified by the California State Department of Health Services to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

A formal quality control/quality assurance program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project was performed in strict adherence to our QA/QC program to ensure sample integrity and to meet quality control criteria.

If you have any questions concerning this analysis or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

Emma P. Popek

Emma P. Popek
Laboratory Director

Client Number: TRI02SFK01
Consultant Project Number: 502
Project ID: Not Given
Work Order Number: C2-02-189

Table 1

ANALYTICAL RESULTS

Metals in TCLP Leachate[a]

GTEL Sample Number			01			
Client Identification			DS-1			
Date Sampled			02/03/92			
Date Leached			02/13/92			
Date Analyzed (Method 6010)			02/13/92			
Date Analyzed (Method 7470)			02/13/92			
Analyte	Method[b]	Quantitation Limit, mg/L	Leachate Concentration, mg/L			
Arsenic	EPA 6010	0.1	<0.1			
Barium	EPA 6010	1	1.2			
Cadmium	EPA 6010	0.1	<0.1			
Chromium, total	EPA 6010	0.1	<0.1			
Lead	EPA 6010	0.15	<0.15			
Mercury	EPA 7470	0.002	<0.002			
Selenium	EPA 6010	0.5	<0.5			
Silver	EPA 6010	0.25	<0.25			
Quantitation Limit Multiplier			1			

a. Federal Register, June 29, 1990, 40 CFR, Part 261, Appendix II - Method 1311. These data are corrected for analytical bias as required by Method 1311 by applying a correction determined by matrix spike recovery.

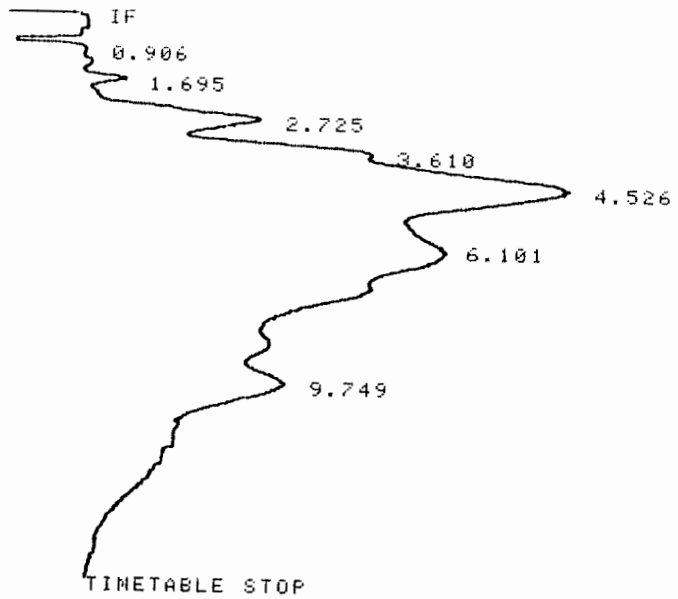
b. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Digestion by Method 3005 except for: Method 7470 for mercury.

APPENDIX C

FIELD GC CHROMATOGRAMS

SAFETY-KLEEN CORP. FACILITY
PARTIAL SITE ASSESSMENT
ALBUQUERQUE, NEW MEXICO

+HN
RUN # 3 JAN 29, 1992 22:23:35
START



Closing signal file M:SIGNAL .BNA

RUN# 3 JAN 29, 1992 22:23:35

SIGNAL FILE: M:SIGNAL.BNA
AREA%

RT	AREA	TYPE	WIDTH	AREA%
.906	106241	PV	.299	3.58137
1.695	140391	VV	.360	4.73257
2.725	508295	VV	.704	17.13457
3.610	446704	VV	.455	15.05834
4.526	1084362	VV	.705	36.55371
6.101	510486	VV	.563	17.20842
9.749	170010	BP	.777	5.73102

TOTAL AREA=2966490
MUL FACTOR=1.0000E+00

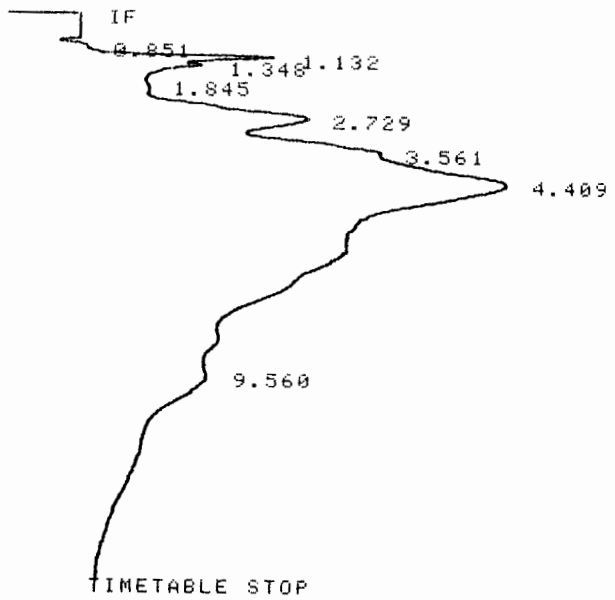
Site S-K Albuquerque
Project No. 502
Date 1-29-92
Analyst EJB
Location Map: 1.0 ml Mineral Spirits Standard Vapor 100°C

Instrument TEI-210
Column 6' 5% SP1200/1.75% Bentone 34
Carrier Gas UHP N_2
Col. Flow Rate (ml/min) 18
Chart Speed (cm/min) 0.5
Chart Input (mV) 1000

RUN PARAMETERS
ZERO = 0
ATT 2^ = 3
CHT SP = 0.5
AR REJ = 0
THRSH = 3
PK WD = 0.04

TIMETABLE EVENTS
0.000 INTG # = 11
0.000 INTG # = 13
15.000 STOP

```
*  ATT 2^ 5  @
*AN
RUN #     4      JAN 29, 1992  22:43:28
START
```




```
Closing signal file M:SIGNAL  .BNA

RUN#      4            JAN 29, 1992  22:43:28

SIGNAL FILE: M:SIGNAL.BNA
AREA%
```

RT	AREA	TYPE	WIDTH	AREA%
.851	37109	BV	.128	.82241
1.132	458976	VV	.177	10.17180
1.348	323928	VV	.228	7.17888
1.845	38337	VV	.159	.84962
2.729	881307	PV	.523	19.53148
3.561	633586	VV	.316	14.04150
4.409	1937740	VV	.641	42.94411
9.560	201255	VV	.643	4.46020

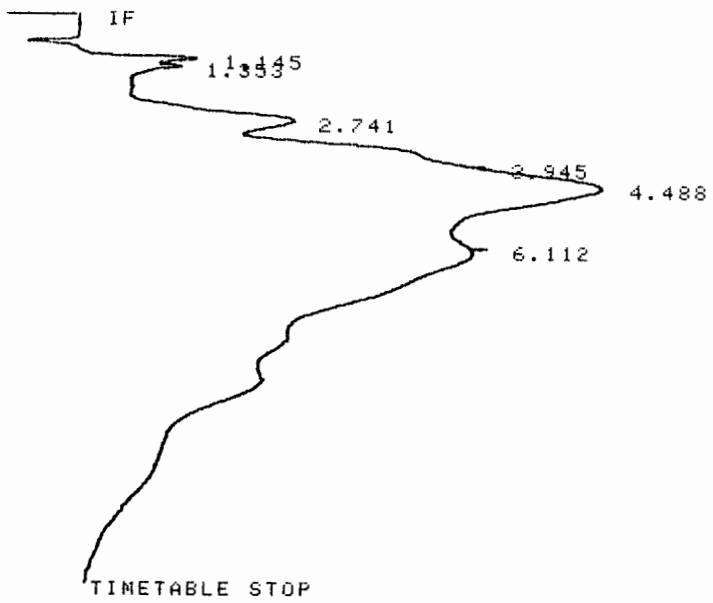
```
TOTAL AREA=4512237
MUL FACTOR=1.0000E+00
```

Site S-K Albuquerque
Project No. 502
Date 1-29-92
Analyst EJB
Location
Map: 1.0 ml TB-1 45.5-46.0 Vapor 100°C

Instrument IEI-210
Column 6' 5% SP:200/1.75% Bentone 34
Carrier Gas UHP N_2
Gas Flow Rate (ml/min) 18
Chart Speed (cm/min) 0.5
Chart Input (mV) 1000

```
RUN PARAMETERS
ZERO    =  0
ATT 2^  =  5
CHT SP  =  0.5
AR REJ  =  0
THRSH   =  3
PK WD   =  0.04

TIMETABLE EVENTS
   0.000 INTG # =  11
   0.000 INTG # =  13
  15.000 STOP
```

```
*  ATT 2^ 4  @
*AN
RUN #     5      JAN 29, 1992  23:01:32
START
```




```
Closing signal file M:SIGNAL  .BNA

RUN#      5            JAN 29, 1992  23:01:32

SIGNAL FILE: M:SIGNAL.BNA
AREA%
```

RT	AREA	TYPE	WIDTH	AREA%
1.145	217392	PV	.249	6.27758
1.353	134372	VV	.218	3.88023
2.741	369888	PV	.486	10.68117
3.945	746976	VV	.544	21.57026
4.488	1939041	VV	1.034	55.99325
6.112	55322	VV	.339	1.59752

```
TOTAL AREA=3462990
MUL FACTOR=1.0000E+00
```

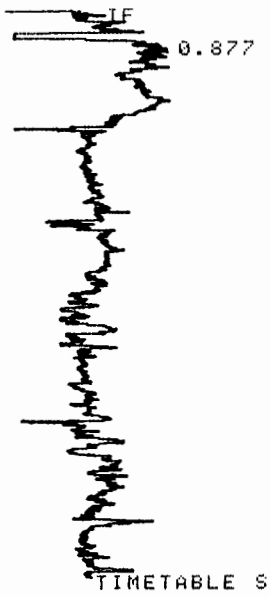
Site: SK Albuquerque
Project No.: 502
Date: 1-29-92
Analyst: EJB
Location Map: 1.0 ml TB-1 50.5-51.0 Vapor 100°C

Instrument: TEI-210
Column: 6'5% SP1200/1.75% Bentone 34
Carrier Gas: UHP N_2
Flow Rate (ml/min): 18
Chart Speed (cm/min): 0.5
Chart Input (mV): 1000

```
RUN PARAMETERS
ZERO    =  0
ATT 2^  =  4
CHT SP  =  0.5
AR REJ  =  0
THRSH   =  3
PK WD   =  0.04

TIMETABLE EVENTS
   0.000 INTG # =  11
   0.000 INTG # =  13
  15.000 STOP
```

* RUN # 8 JAN 30, 1992 08:53:31

START



Closing signal file M:SIGNAL .BNC

RUN# 8 JAN 30, 1992 08:53:31

SIGNAL FILE: M:SIGNAL.BNC

AREA%

RT	AREA	TYPE	WIDTH	AREA%
.877	56384	PV	.208	100.00000

TOTAL AREA= 56384

MUL FACTOR=1.0000E+00

Site S-K Albuquerque

Project No. 502

Date 1-30-92

Analyst EJB

Location Map: 1.0 ml Syringe Blank Vapor 100°C

Instrument TEI-210

Column 6'5% SP1200/1.75% Bentone 34

Carrier Gas UHP N_2

Gas Flow Rate (ml/min) 18

Chart Speed (cm/min) 0.5

Chart Input (mV) 1000

RUN PARAMETERS

ZERO = 0

ATT 2^ = 0

CHT SP = 0.5

AR REJ = 0

THRSH = 3

PK WD = 0.04

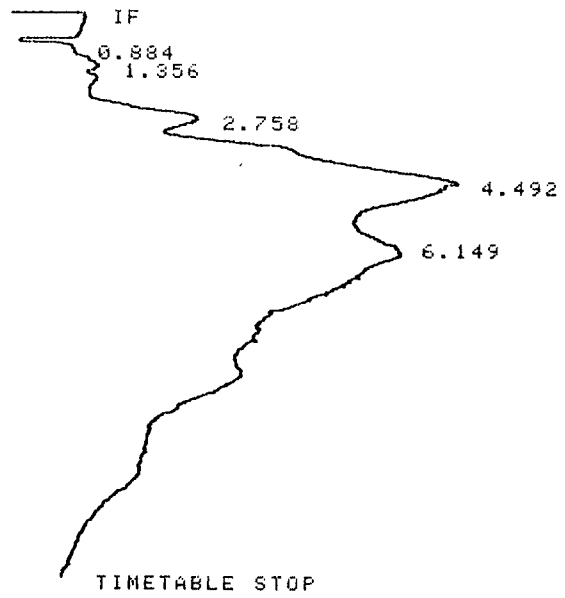
TIMETABLE EVENTS

0.000 INTG # = 11

0.000 INTG # = 13

15.000 STOP

```
*  ATT 2^ 3  @
*AN
RUN #     6      JAN 29, 1992  23:20:05
START
```




```
Closing signal file M:SIGNAL  .BNA

RUN#      6            JAN 29, 1992  23:20:05

SIGNAL FILE: M:SIGNAL.BNA
AREA%
```

RT	AREA	TYPE	WIDTH	AREA%
.884	21966	PB	.265	2.58159
1.356	18628	BV	.294	2.18928
2.758	96397	PP	.452	11.32920
4.492	687054	PV	1.161	80.74704
6.149	26827	PV	.219	3.15288

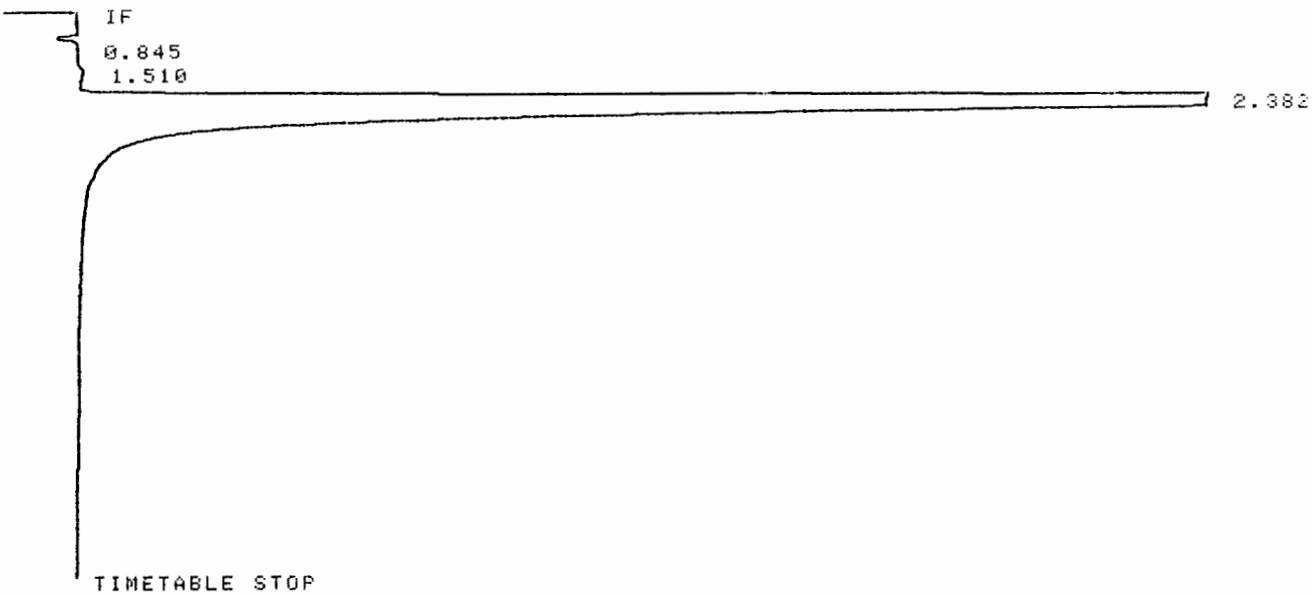
```
TOTAL AREA= 850872
MUL FACTOR=1.0000E+00
```

Site S-K Albuquerque
Project No. 502
Date 1-29-92
Analyst EJB
Location Map: 1.0 ml TB-1 56.0-56.5 Vapor 100°C

Instrument TEI-210
Column 6'5% SP1200/1.75% Bentone 34
Carrier Gas UHP N_2
Gas Flow Rate (ml/min) 18
Chart Speed (cm/min) 0.5
Chart Input (mV) 1000

```
RUN PARAMETERS
ZERO    =  0
ATT 2^  =  3
CHT SP  =  0.5
AR REJ  =  0
THRSH   =  3
PK WD   =  0.04

TIMETABLE EVENTS
   0.000 INTG # =  11
   0.000 INTG # =  13
  15.000 STOP


*DATE
JAN 30, 1992  08:09:20

*  PLOT
```

```
*  ATT 2^ 5  @
*AN
RUN #    10      JAN 30, 1992  09:28:53
START
```




```
Closing signal file M:SIGNAL  .BNA

RUN#     10            JAN 30, 1992  09:28:53

SIGNAL FILE: M:SIGNAL.BNA
AREA%
```

RT	AREA	TYPE	WIDTH	AREA%
.845	56926	PV	.220	.45117
1.510	47444	VV	.314	.37602
2.382	12513008	PB	.432	99.17283

```
TOTAL AREA=1.2617E+07
MUL FACTOR=1.0000E+00
```

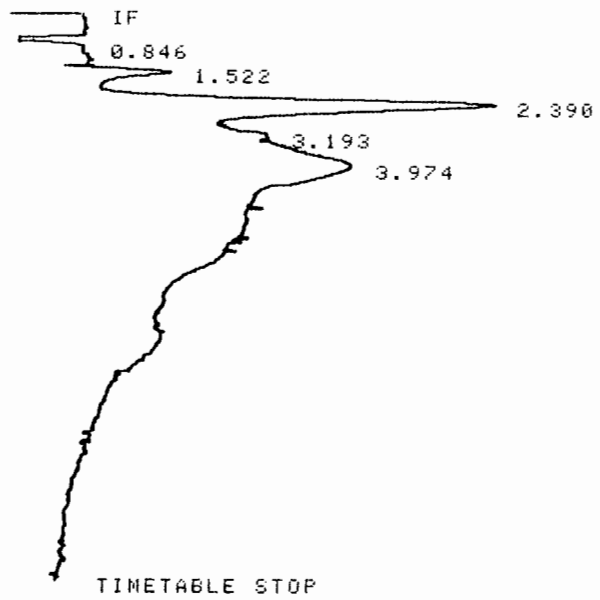
```
RUN PARAMETERS
ZERO    =  0
ATT 2^  =  5
CHT SP  =  0.5
AR REJ  =  0
THRSH   =  3
PK WD   =  0.04

TIMETABLE EVENTS
   0.000 INTG # =  11
   0.000 INTG # =  13
  15.000 STOP
```

Site S-K Albuquerque
Project No. 502
Date 1-30-92
Analyst EJB
Location Map: 1.0 mL Perchloroethylene Std, Vapor 100°C

Instrument TEI-210
Column 6'5% SP1200/1.75% Bentone 34
Carrier Gas UHP N_2
Gas Flow Rate (ml/min) 18
Chart Speed (cm/min) 0.5
Chart Input (mV) 1000

* RUN # 12 JAN 30, 1992 10:11:57

START



Closing signal file M:SIGNAL .BNC

RUN# 12 JAN 30, 1992 10:11:57

SIGNAL FILE: M:SIGNAL.BNC

AREA%

RT	AREA	TYPE	WIDTH	AREA%
.846	35511	PV	.202	5.24859
1.522	28492	BP	.206	4.21116
2.390	271356	PV	.431	40.10688
3.193	54065	VV	.287	7.99090
3.974	287158	VV	1.047	42.44246

TOTAL AREA= 676582

MUL FACTOR=1.0000E+00

Site SK Albuquerque

Project No. 502

Date 1-30-92

Analyst EJB

Location Map: 1.0 ml Perchloroethylene and Mineral Spirits Vapor 100°C

Instrument IEI-210

Column 6'5% SP1200/1.75% Bentone 34

Carrier UHP N_2

Flow rate (cc/min) 18

Chart speed (cm/min) 0.5

Chart input (mV) 1000

RUN PARAMETERS

ZERO = 0

ATT 2^ = 2

CHT SP = 0.5

AR REJ = 0

THRSH = 3

PK WD = 0.04

TIMETABLE EVENTS

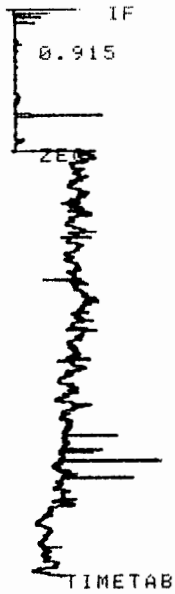
0.000 INTG # = 11

0.000 INTG # = 13

15.000 STOP

* RUN # 14 JAN 30, 1992 10:42:51

START



Closing signal file M:SIGNAL .BNC

RUN# 14 JAN 30, 1992 10:42:51

SIGNAL FILE: M:SIGNAL.BNC

AREA%

RT	AREA	TYPE	WIDTH	AREA%
.915	73349	PV	.455	100.00000

TOTAL AREA= 73349

MUL FACTOR=1.0000E+00

RUN PARAMETERS

ZERO = 0

ATT 2^ = 0

CHT SP = 0.5

AR REJ = 0

THRSH = 3

PK WD = 0.04

TIMETABLE EVENTS

0.000 INTG # = 11

0.000 INTG # = 13

15.000 STOP

Site S-K Albuquerque

Project No. 502

Date 1-30-92

Analyst ETB

Location 1.0 ml Syringe Blank Vapor 100°C

Map:

Instrument TEI-210

Column 6' 5% SP1200/1.75% Bentone 34

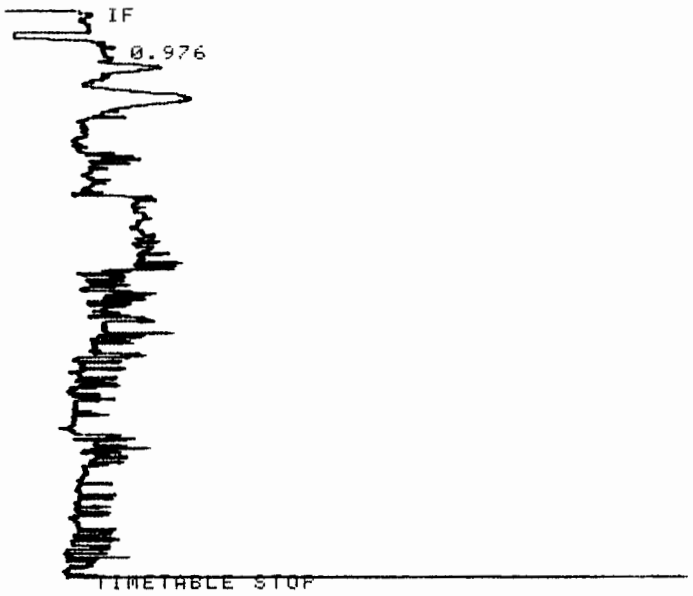
Carrier Gas UHP N_2

Gas Flow Rate (ml/min) 18

Chart Speed (cm/min) 0.5

Chart Input (mV) 1000

```
*  RUN #    15      JAN 30, 1992  11:01:46
START
```




```
Closing signal file M:SIGNAL  .BNC

RUN#     15            JAN 30, 1992  11:01:46

SIGNAL FILE: M:SIGNAL.BNC
AREA%
       RT       AREA TYPE  WIDTH       AREA%
     .976      47597   BV   .399   100.00000

TOTAL AREA=  47597
MUL FACTOR=1.0000E+00
```

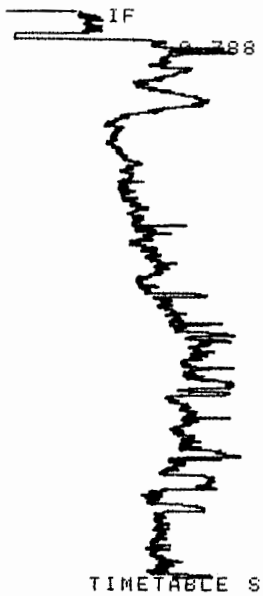
Site S-K Albuquerque
Project No. 502
Date 1-30-92
Analyst EJB
Location Map: 1.0 ml TB-1 70.5-71.0 Vapor 100°C

Instrument: TEI-210
Column: 6' 5% SP1200/1.75% Bentone 34
Carrier Gas: UHP N_2
Gas Flow Rate (ml/min) 18
Chart Speed (cm/min) 0.5
Chart Input (mV) 1000

```
RUN PARAMETERS
ZERO    =  0
ATT 2^  =  0
CHT SP  =  0.5
AR REJ  =  0
THRSH   =  3
PK WD   =  0.04

TIMETABLE EVENTS
   0.000 INTG # =  11
   0.000 INTG # =  13
  15.000 STOP
```

* PLOT

```
*  RUN #     9      JAN 30, 1992  09:09:42
START
```



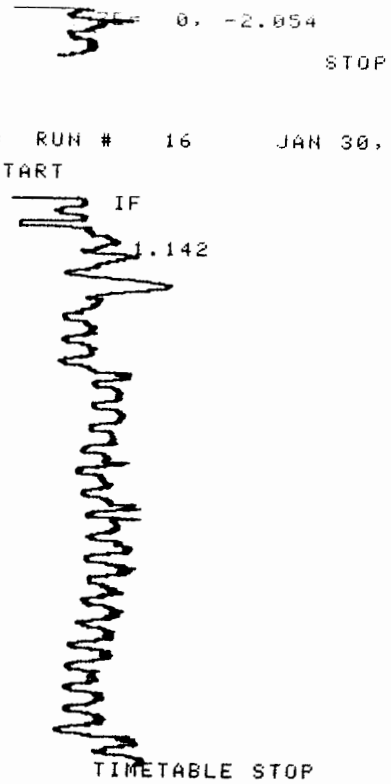

```
TIMETABLE STOP

Closing signal file M:SIGNAL  .BNC

RUN#      9            JAN 30, 1992  09:09:42

SIGNAL FILE: M:SIGNAL.BNC
AREA%
      RT       AREA TYPE  WIDTH      AREA%
    .788      21992   PB   .195  100.00000

TOTAL AREA=  21992
MUL FACTOR=1.0000E+00
```

```
RUN PARAMETERS
ZERO    =  0
ATT 2^  =  0
CHT SP  =  0.5
AR REJ  =  0
THRSH   =  3
PK WD   =  0.04

TIMETABLE EVENTS
   0.000 INTG # =  11
   0.000 INTG # =  13
  15.000 STOP
```

Site S-K Albuquerque
Project No. 502
Date 1-30-92
Analyst EJB
Location
Map:

1.0 ml TB-1
80.0-80.5
Vapor 100°C

Instrument TEI-210
Column 6' 5% SP1200/1.75% Bentone 34
Carrier Gas UHP N_2
Gas Flow Rate (ml/min) 18
Chart Speed (cm/min) 0.5
Chart Input (mV) 1000



Closing signal file M:SIGNAL .BNC

RUN# 16 JAN 30, 1992 15:39:09

SIGNAL FILE: M:SIGNAL.BNC
AREA%

RT	AREA	TYPE	WIDTH	AREA%
1.142	75835	PV	.651	100.00000

TOTAL AREA= 75835
MUL FACTOR=1.0000E+00

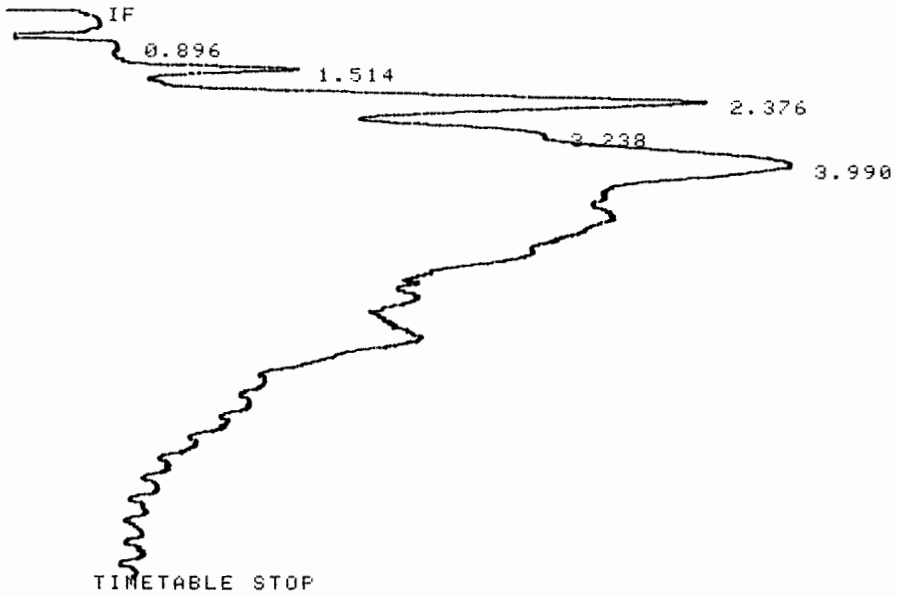
Site S-K Albuquerque
Project No. 502
Date 1-30-92
Analyst EJB
Location
Map: 1.0 ml TB-1 76.0-76.5 Vapor 100°C

Instrument TEI-210
Column 6' 5% SP1200/1.75% Bentone 34
Carrier Gas UHP N_2
Gas Flow Rate (ml/min) 18
Chart Speed (cm/min) 0.5
Chart Input (mV) 1000

RUN PARAMETERS
ZERO = 0
ATT 2^ = 0
CHT SP = 0.5
AR REJ = 0
THRSH = 3
PK WD = 0.04

TIMETABLE EVENTS
0.000 INTG # = 11
0.000 INTG # = 13
15.000 STOP

*AN
RUN # 17 JAN 30, 1992 15:58:50
START



Closing signal file M:SIGNAL .BNA

RUN# 17 JAN 30, 1992 15:58:50

SIGNAL FILE: M:SIGNAL.BNA
AREA%

RT	AREA	TYPE	WIDTH	AREA%
.896	24967	PV	.313	4.62273
1.514	26148	BP	.187	4.84140
2.376	173110	PV	.433	32.05195
3.238	57192	VV	.365	10.58930
3.990	258675	VV	.941	47.89462

TOTAL AREA= 540092
MUL FACTOR=1.0000E+00

Site S-K Albuquerque
Project No. 502
Date 1-30-92
Analyst EJB
Location: 1.0 ml Mineral Spirits Vapor
Map: 100°C

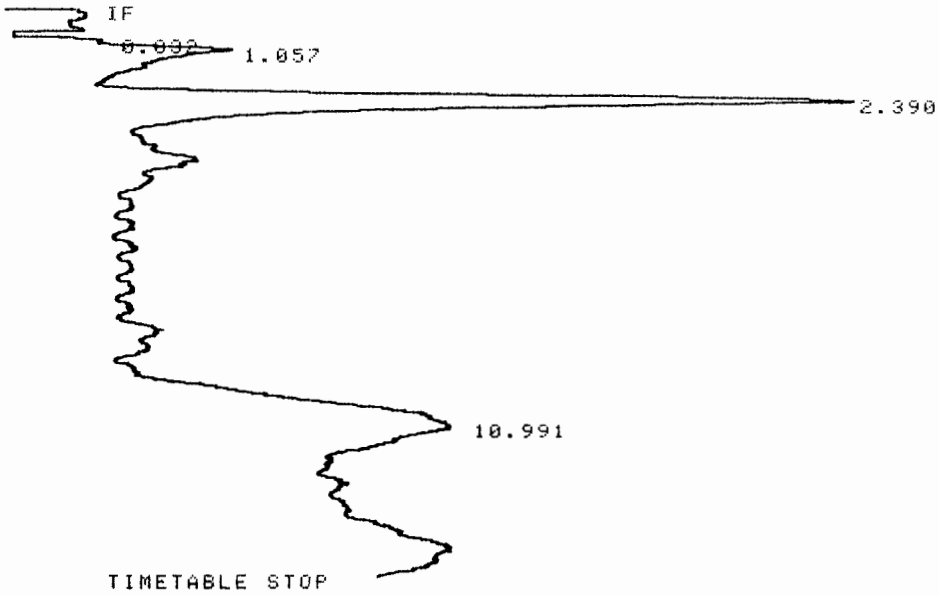
Instrument IEI-210
Column 6' 5% SP1200/1.75% Bentone 34
Carrier Gas UHP N_2
Flow Rate (ml/min) 18
Chart Speed (cm/min) 0.5
Chart Input (mV) 1000

RUN PARAMETERS
ZERO = 0
ATT 2^ = 1
CHT SP = 0.5
AR REJ = 0
THRSH = 3
PK WD = 0.04

TIMETABLE EVENTS
0.000 INTG # = 11
0.000 INTG # = 13
15.000 STOP

* RUN # 18 JAN 30, 1992 16:19:52

START



Closing signal file M:SIGNAL .BNC

RUN# 18 JAN 30, 1992 16:19:52

SIGNAL FILE: M:SIGNAL.BNC

AREA%

RT	AREA	TYPE	WIDTH	AREA%
.832	21950	PV	.148	3.64432
1.057	94751	VV	.415	15.73132
2.390	254160	BP	.403	42.19768
10.991	231447	PV	1.266	38.42669

TOTAL AREA= 602308

MUL FACTOR=1.0000E+00

RUN PARAMETERS

ZERO = 0

ATT 2^ = 1

CHT SP = 0.5

AR REJ = 0

THRSH = 3

PK WD = 0.04

TIMETABLE EVENTS

0.000 INTG # = 11

0.000 INTG # = 13

15.000 STOP

Site S-K Albuquerque

Project No. 502

Date 1-30-92

Analyst EJB

Location Map: 1.0 mL S-K Immersion Cleaner Vapor 100°C

Instrument IEI-210

Column 6' 5% SP1200/1.75 Bentone 34

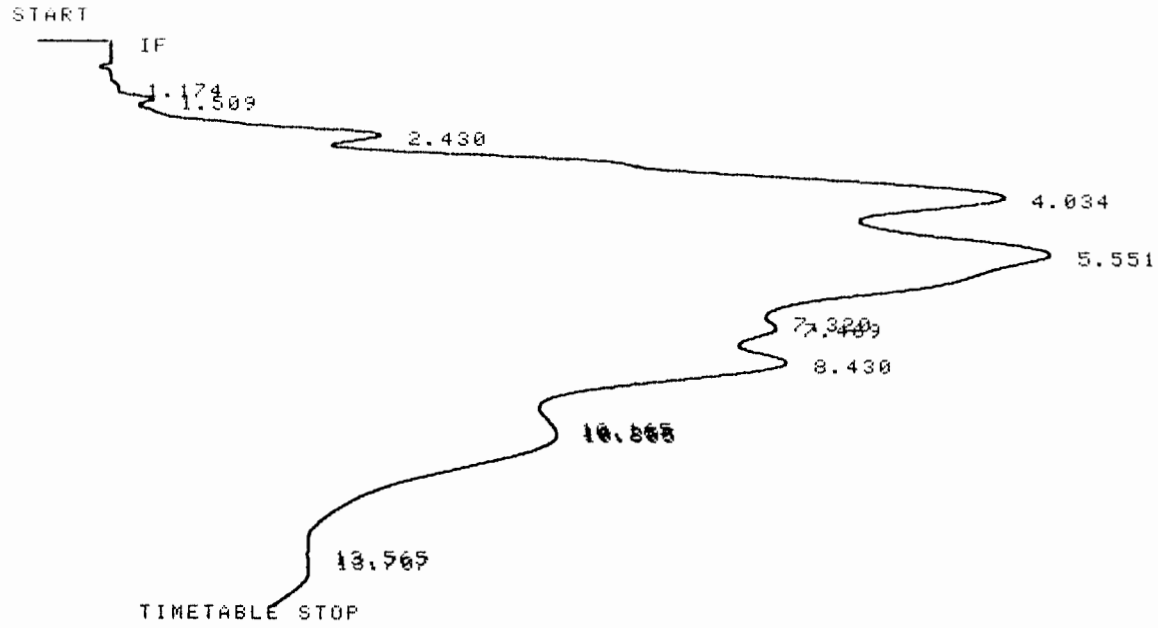
Carrier Gas UHP N_2

Carrier Flow Rate (ml/min) 18

Chart Speed (cm/min) 0.5

Chart Input (mV) 1000

RUN # 23 JAN 31, 1992 21:04:28



Closing signal file M:SIGNAL .BNA

RUN# 23 JAN 31, 1992 21:04:28

SIGNAL FILE: M:SIGNAL.BNA

AREA%

RT	AREA	TYPE	WIDTH	AREA%
1.174	80217	PP	.570	.09130
1.509	128525	PV	.176	.14629
2.430	2969024	VV	.509	3.37936
4.034	29327904	VV	1.400	33.38115
5.551	41372960	VV	2.028	47.09088
7.320	621874	VV	.059	.70782
7.469	1823683	VV	.172	2.07572
8.430	10631440	VV	1.090	12.10075
10.165	683474	VV	.525	.77793
10.250	109736	VV	.087	.12490
10.305	80800	VV	.066	.09197
13.565	8906	VV	.089	.01014
13.707	19176	VV	.113	.02183

TOTAL AREA=8.7858E+07
MUL FACTOR=1.0000E+00

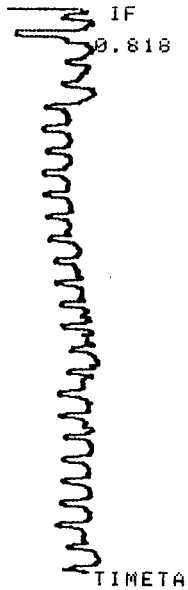
RUN PARAMETERS
ZERO = 0
ATT 2^ = 6
CHT SP = 0.5
AR REJ = 0
THRSH = 2
PK WD = 0.04

TIMETABLE EVENTS
0.000 INTG # = 11
0.000 INTG # = 13
15.000 STOP

Site S-K Albuquerque
Project No. 502
Date 1-31-92
Analyst EJB
Location Map: 1.0 ml Mineral Spirits Vapor 100°C

Instrument TEI-210
Column 6'5%SP1200/1.75%Bentone34
Carrier Gas UHP N_2
Gas Flow Rate (ml/min) 18
Chart Speed (cm/min) 0.5
Chart Input (mV) 1000

```
*  RUN #    19      JAN 31, 1992  18:25:15
START
```




```
Closing signal file M:SIGNAL  .BNC

RUN#     19            JAN 31, 1992  18:25:15

SIGNAL FILE: M:SIGNAL.BNC
AREA%
      RT       AREA TYPE  WIDTH       AREA%
    .818      18602   BV   .208   100.00000

TOTAL AREA=  18602
MUL FACTOR=1.0000E+00
```

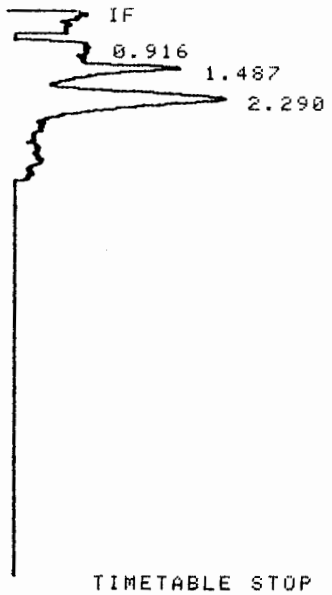
Site S-K Albuquerque
Project No. 502
Date 1-31-92
Analyst EJB
Location Map: 1.0 ml Syringe Blank Vapor 100°C

Instrument IEI-210
Column 6' 5% SP1200/1.75 Bentone 34
Carrier UHP N_2
Column Temperature 18
Chart Speed (cm/min) 0.5
Chart Input (mV) 1000

```
RUN PARAMETERS
ZERO    =  0
ATT 2^  =  0
CHT SP  =  0.5
AR REJ  =  0
THRSH   =  1
PK WD   =  0.04

TIMETABLE EVENTS
   0.000 INTG # =  11
   0.000 INTG # =  13
  15.000 STOP
```

* RUN # 25 JAN 31, 1992 22:03:15

START



TIMETABLE STOP

Closing signal file M:SIGNAL .BNC

RUN# 25 JAN 31, 1992 22:03:15

SIGNAL FILE: M:SIGNAL.BNC

AREA%

RT	AREA	TYPE	WIDTH	AREA%
.916	42419	PV	.347	49.23797
1.487	10214	BP	.221	11.85593
2.290	33518	PP	.425	38.90611

TOTAL AREA= 86151

MUL FACTOR=1.0000E+00

Site S-K Albuquerque

Project No. 502

Date 1-31-92

Analyst EJB

Location Map: 1.0 ml TB-2 51.0-51.5 Vapor 100°C

Instrument IEI-210

Column 6' 5% SP1200/1.75% Bentone 34

Carrier Gas UHP N_2

Gas Flow Rate (ml/min) 18

Chart Speed (cm/min) 0.5

Chart Input (mV) 1000

RUN PARAMETERS

ZERO = 0

ATT 2^ = 0

CHT SP = 0.5

AR REJ = 0

THRSH = 2

PK WD = 0.04

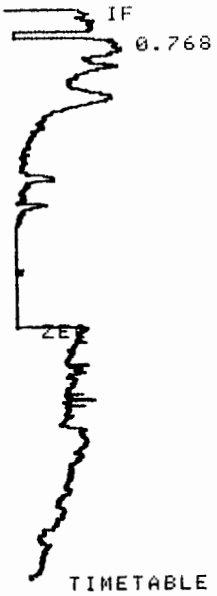
TIMETABLE EVENTS

0.000 INTG # = 11

0.000 INTG # = 13

15.000 STOP

```
*  RUN #    26      JAN 31, 1992  22:18:55
START
```




```
Closing signal file M:SIGNAL  .BNC

RUN#    26          JAN 31, 1992  22:18:55

SIGNAL FILE: M:SIGNAL.BNC
AREA%
      RT       AREA TYPE  WIDTH      AREA%
    .768      22421   PV   .136  100.00000

TOTAL AREA=  22421
MUL FACTOR=1.0000E+00
```

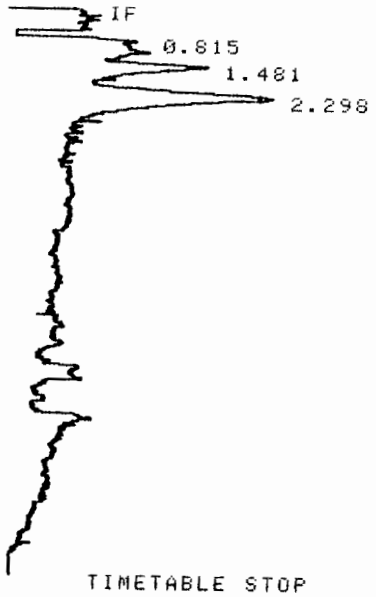
```
RUN PARAMETERS
ZERO    =  0
ATT 2^  =  0
CHT SP  =  0.5
AR REJ  =  0
THRSH   =  2
PK WD   =  0.04

TIMETABLE EVENTS
   0.000 INTG # =  11
   0.000 INTG # =  13
  15.000 STOP
```

Site S-K Albuquerque
Project No. 502
Date 1-31-92
Analyst EJB
Location Map: 1.0 mL TB-2 61.0-61.5 Vapor 100°C

Instrument TEI-210
Column 6' 5% SP1200/1.75 Bentone 34
Carrier Gas UHP N_2
Gas Flow Rate (ml/min) 18
Chart Speed (cm/min) 0.5
Chart Input (mV) 1000

* RUN # 27 JAN 31, 1992 22:37:01

START



TIMETABLE STOP

Closing signal file M:SIGNAL .BNC

RUN# 27 JAN 31, 1992 22:37:01

SIGNAL FILE: M:SIGNAL.BNC

AREA%

RT	AREA	TYPE	WIDTH	AREA%
.815	39091	PV	.189	18.71224
1.481	81103	VV	.442	38.82272
2.298	88712	VV	.619	42.46502

TOTAL AREA= 208906

MUL FACTOR=1.0000E+00

Site S-K Albuquerque

Project No. 502

Date 1-31-92

Analyst EJB

Location Map: 1.0 mL TB-2 71.0-71.5 Vapor 100°C

Instrument TEI-210

Column 6'5% SP1200/1.75 Bentone 34

Carrier Gas UHP N2

Carrier Flow Rate (ml/min) 18

Chart Speed (cm/min) 0.5

Chart Input (mV) 1000

RUN PARAMETERS

ZERO = 0

ATT 2^ = 0

CHT SP = 0.5

AR REJ = 0

THRSH = 2

PK WD = 0.04

TIMETABLE EVENTS

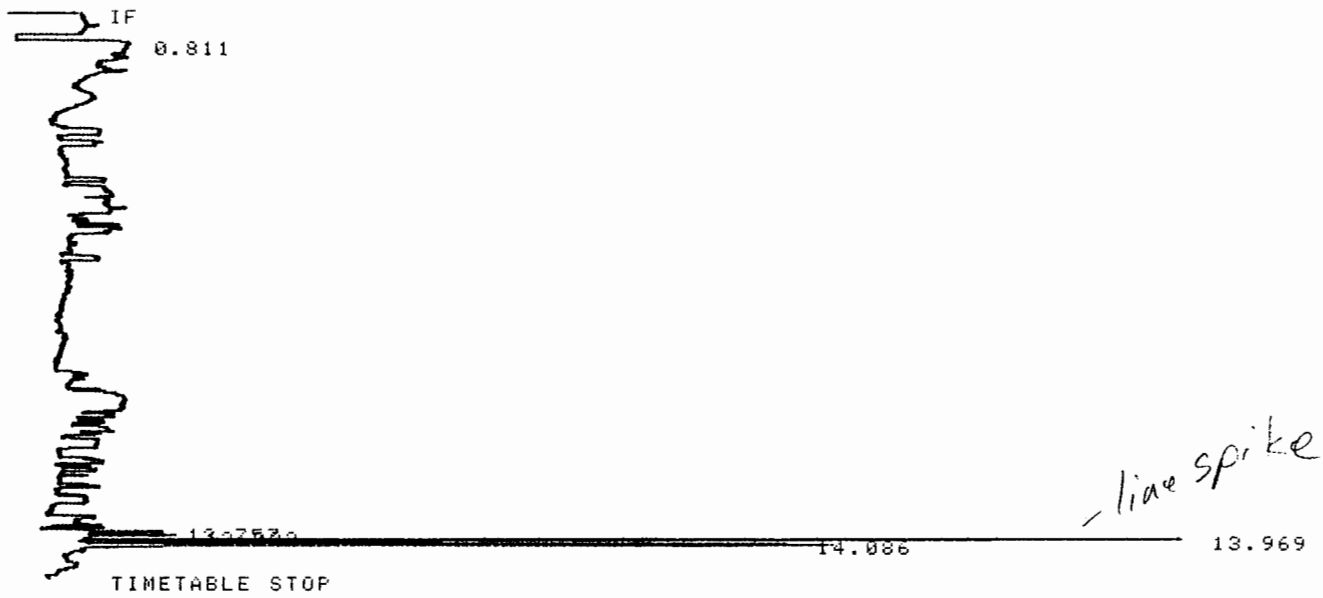
0.000 INTG # = 11

0.000 INTG # = 13

15.000 STOP

* RUN # 28 JAN 31, 1992 22:52:53

START



Closing signal file M:SIGNAL .BNC

RUN# 28 JAN 31, 1992 22:52:53

SIGNAL FILE: M:SIGNAL.BNC

AREA%

RT	AREA	TYPE	WIDTH	AREA%
.811	20266	PV	.214	38.95885
13.757	1646	BB	.042	3.16423
13.833	712	BB	.018	1.36873
13.969	10313	PB	.022	19.82545
14.086	19082	PB	.063	36.68275

TOTAL AREA= 52019

MUL FACTOR=1.0000E+00

Site S-K Albuquerque

Project No. 502

Date 1-31-92

Analyst EJB

Location 1.0 ml vapor TB-2 76.0-76.5

Map: 100°C

Instrument TEI-210

Column 6' 5% SP1200/1.75% Bentone 34

Carrier Gas UHP N_2

Flow Rate (ml/min) 18

Chart Speed (cm/min) 0.5

Chart Input (mV) 1000

RUN PARAMETERS

ZERO = 0

ATT 2^ = 0

CHT SP = 0.5

AR REJ = 0

THRSH = 2

PK WD = 0.04

TIMETABLE EVENTS

0.000 INTG # = 11

0.000 INTG # = 13

15.000 STOP

```
*  RUN #    29      JAN 31, 1992  23:08:37
START
```

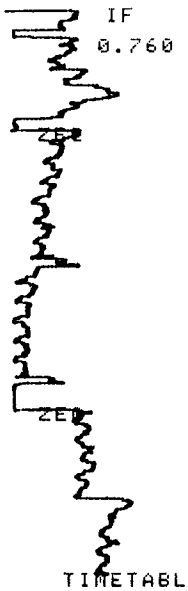
```
Closing signal file M:SIGNAL  .BNC

RUN#     29            JAN 31, 1992  23:08:37

SIGNAL FILE: M:SIGNAL.BNC
AREA%
      RT       AREA TYPE  WIDTH       AREA%
    .777      11955   PB   .145   100.00000

TOTAL AREA=  11955
MUL FACTOR=1.0000E+00
```

```
RUN PARAMETERS
ZERO    =  0
ATT 2^  =  0
CHT SP  =  0.5
AR REJ  =  0
THRSH   =  2
PK WD   =  0.04

TIMETABLE EVENTS
   0.000 INTG # =  11
   0.000 INTG # =  13
  15.000 STOP
```

Site S-K Albuquerque
Project No. 502
Date 1-31-92
Analyst EJB
Location Map: 1.0 ml vapor Syringe Blank 100°C

Instrument TEI-210
Column 6' 5% SP1200/1.75% Bentone 34
Carrier Gas UHP N_2
Gas Flow Rate (ml/min) 18
Chart Speed (cm/min) 0.5
Chart Input (mV) 1000

```
*  RUN #    30      FEB  1, 1992  08:24:12
START
```




```
     TIMETABLE STOP

Closing signal file M:SIGNAL  .BNC

RUN#    30          FEB  1, 1992  08:24:12

SIGNAL FILE: M:SIGNAL.BNC
AREA%
      RT       AREA TYPE  WIDTH      AREA%
    .760      32074   PV   .238  100.00000

TOTAL AREA=  32074
MUL FACTOR=1.0000E+00
```

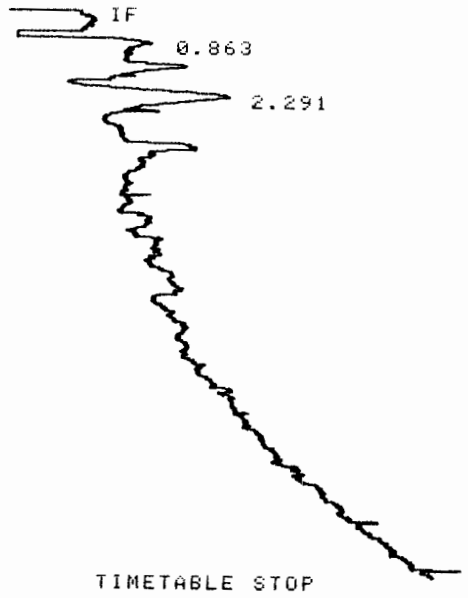
Site S-K Albuquerque
Project No. 502
Date 2-1-92
Analyst EJB
Location Map: 1.0 ml Vapor Syringe Blank 100°C

Instrument TEI-210
Column 6' 5% SP1200/1.75 Bentone 34
Carrier Gas VHP N2
Flow Rate (ml/min) 18
Chart Speed (cm/min) 0.5
Chart Input (mV) 1000

```
RUN PARAMETERS
ZERO    =  0
ATT 2^  =  0
CHT SP  =  0.5
AR REJ  =  0
THRSH   =  2
PK WD   =  0.04

TIMETABLE EVENTS
   0.000 INTG # =  11
   0.000 INTG # =  13
  15.000 STOP
```

* RUN # 31 FEB 1, 1992 08:40:01

START



Closing signal file M:SIGNAL .BNC

RUN# 31 FEB 1, 1992 08:40:01

SIGNAL FILE: M:SIGNAL.BNC

AREA%

RT	AREA	TYPE	WIDTH	AREA%
.863	38685	PB	.349	61.64840
2.291	24066	BV	.391	38.35158

TOTAL AREA= 62751

MUL FACTOR=1.0000E+00

RUN PARAMETERS

ZERO = 0

ATT 2^ = 0

CHT SP = 0.5

AR REJ = 0

THRSH = 2

PK WD = 0.04

TIMETABLE EVENTS

0.000 INTG # = 11

0.000 INTG # = 13

15.000 STOP

Site S-K Albuquerque

Project No. 502

Date 2-1-92

Analyst EJB

Location Map: 1.0ml TB-2 vapor 81.0-81.5 100°C

Instrument TEI-210

Column 6' 5% SP1200/1.75% Bentone 34

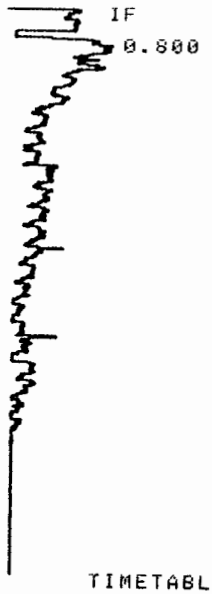
Carrier Gas UHP N_2

Gas Flow Rate (ml/min) 18

Chart Speed (cm/min) 0.5

Chart Input (mV) 1000

```
*  RUN #    38      FEB  3, 1992  10:37:31
START
```




```
        TIMETABLE STOP

Closing signal file M:SIGNAL  .BNC

RUN#     38            FEB  3, 1992  10:37:31

SIGNAL FILE: M:SIGNAL.BNC
AREA%
      RT       AREA TYPE  WIDTH       AREA%
    .800      21254   BV   .150   100.00000

TOTAL AREA=  21254
MUL FACTOR=1.0000E+00
```

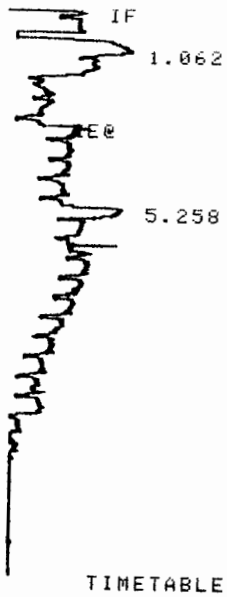
Site S-K Albuquerque
Project No. 502
Date 2-3-92
Analyst EJB
Location Map: 1.0 ml vapor TB-3 71.0-71.5 100°C

Instrument IEI-210
Column 6' 5% SP1200/1.75 Bentone 34
Carrier Gas UHP N_2
Gas Flow Rate (ml/min) 18
Chart Speed (cm/min) 0.5
Chart Input (mV) 1000

```
RUN PARAMETERS
ZERO    =  0
ATT 2^  =  0
CHT SP  =  0.5
AR REJ  =  0
THRSH   =  2
PK WD   =  0.04

TIMETABLE EVENTS
   0.000 INTG # =  11
   0.000 INTG # =  13
  15.000 STOP
```

* RUN # 37 FEB 3, 1992 09:10:17

START



TIMETABLE STOP

Closing signal file M:SIGNAL .BNC

RUN# 37 FEB 3, 1992 09:10:17

SIGNAL FILE: M:SIGNAL.BNC

AREA%

RT	AREA	TYPE	WIDTH	AREA%
1.062	71294	PV	.642	88.29635
5.258	9450	BP	.293	11.70366

TOTAL AREA= 80744

MUL FACTOR=1.0000E+00

Site S-K Albuquerque

Project No. 502

Date 2-3-92

Analyst EJB

Location Map: 1.0ml vapor TB-3 75.5-76.0 100°C

Instrument TEI-210

Column 6' 5% SP1200/1.75% Bentone 34

[illegible] UHP N_2

[illegible] (ml/min) 18

Chart Speed (cm/min) 0.5

Chart Input (mV) 100

RUN PARAMETERS

ZERO = 0

ATT 2^ = 0

CHT SP = 0.5

AR REJ = 0

THRSH = 2

PK WD = 0.04

TIMETABLE EVENTS

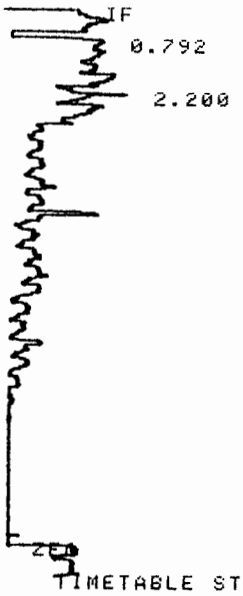
0.000 INTG # = 11

0.000 INTG # = 13

15.000 STOP

* RUN # 39 FEB 3, 1992 11:13:29

START



Closing signal file M:SIGNAL .BNC

RUN# 39 FEB 3, 1992 11:13:29

SIGNAL FILE: M:SIGNAL.BNC

AREA%

RT	AREA	TYPE	WIDTH	AREA%
.792	28373	PB	.231	94.84858
2.200	1541	PB	.066	5.15143

TOTAL AREA= 29914

MUL FACTOR=1.0000E+00

RUN PARAMETERS

ZERO = 0

ATT 2^ = 0

CHT SP = 0.5

AR REJ = 0

THRSH = 2

PK WD = 0.04

TIMETABLE EVENTS

0.000 INTG # = 11

0.000 INTG # = 13

15.000 STOP

Site S-K Albuquerque

Project No. 502

Date 2-3-92

Analyst EJB

Location 1.0 ml vapor TB-3 65.0-66.5

Map: 100°C

Instrument TEI-210

Column 6' 5% SP1200/1.75% Bentone 34

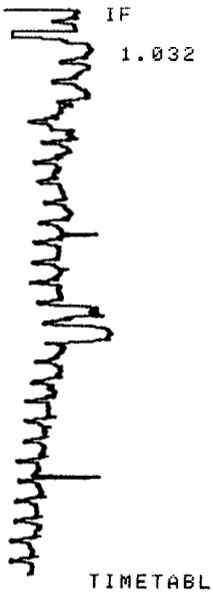
Carrier Gas UHP N_2

Gas Flow Rate (ml/min) 18

Chart Speed (cm/min) 0.5

Chart Input (mV) 1000

```
*  RUN #    40      FEB  3, 1992  11:36:13
START
```



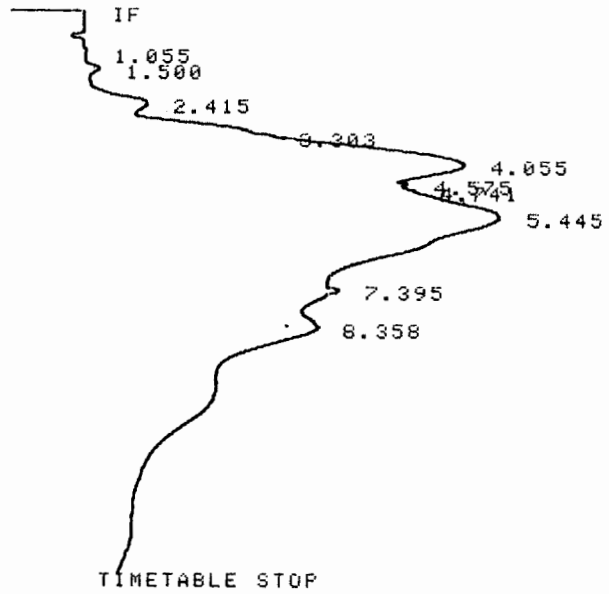

```
      TIMETABLE STOP

Closing signal file M:SIGNAL  .BNC

RUN#     40            FEB  3, 1992  11:36:13

SIGNAL FILE: M:SIGNAL.BNC
AREA%
       RT       AREA TYPE  WIDTH       AREA%
    1.032      45495   PB   .651   100.00000

TOTAL AREA=  45495
MUL FACTOR=1.0000E+00
```

Site S-K Albuquerque
Project No. 502
Date 2-3-92
Analyst EJB
Location Map: 1.0ml Vapor Syringe Blank 100°C

Instrument IEI-210
Column 6' 5% SP1200/1.75% Bentone 34
Carrier Gas UHP N_2
Gas Flow Rate (ml/min) 18
Chart Speed (cm/min) 0.5
Chart Input (mV) 1000

```
RUN PARAMETERS
ZERO    =  0
ATT 2^  =  0
CHT SP  =  0.5
AR REJ  =  0
THRSH   =  2
PK WD   =  0.04

TIMETABLE EVENTS
    0.000 INTG # =   11
    0.000 INTG # =   13
   15.000 STOP
```

*AN
RUN # 41 FEB 3, 1992 11:51:47
START



Closing signal file M:SIGNAL .BNA

RUN# 41 FEB 3, 1992 11:51:47

SIGNAL FILE: M:SIGNAL.BNA
AREA%

RT	AREA	TYPE	WIDTH	AREA%
1.055	52297	PV	.549	.28160
1.500	31771	BP	.181	.17108
2.415	286782	PV	.431	1.54423
3.303	819703	VV	.372	4.41385
4.055	4713507	VV	1.020	25.38078
4.575	351117	VV	.094	1.89066
4.741	457959	VV	.121	2.46597
5.445	8866291	VV	1.848	47.74226
7.395	1365953	VV	.620	7.35524
8.358	1625787	VV	.951	8.75436

TOTAL AREA=1.8571E+07
MUL FACTOR=1.0000E+00

Site S-K Albuquerque
Project No. 502
Date 2-3-92
Analyst ESB
Location
Map:

1.0 ml vapor
Mineral Spirits
100°C

Instrument TEI-210
Column 6' 5% SP1200/1.75 Bentone 34
Carrier Gas UHP N_2
Gas Flow Rate (ml/min) 18
Chart Speed (cm/min) 0.5
Chart Input (mV) 1000

RUN PARAMETERS
ZERO = 0
ATT 2^ = 5
CHT SP = 0.5
AR REJ = 0
THRSH = 2
PK WD = 0.04

TIMETABLE EVENTS
0.000 INTG # = 11
0.000 INTG # = 13
15.000 STOP

*
*