safety-kleen

1993 NOV
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HAZARDOUS WASTE
PROGRAM

October 28, 1993

Mr. Marc Sides
Water and Waste Management Division
New Mexico Environment Department
Harold Runnels Building
1190 St. Francis Drive
Santa Fe, New Mexico 87502

Re: Closure Progress Report and Closure Plan Amendment/Remedial Action Plan, Safety-Kleen Corp. Service Center, Albuquerque, New Mexico

Dear Mr. Sides:

Safety-Kleen Corp. (S-K) initiated closure of the inactive underground storage tank (UST) system, return/fill station, and associated equipment at the service center in Albuquerque, New Mexico. Enclosed is a closure progress report which summarizes the results of the completed closure activities. The closure activities completed to date include:

1. Decontamination and removal of the inactive spent mineral spirits and product mineral spirits (not a hazardous waste management unit) USTs in July 1993; and

2. Implementation of additional assessment activities in August 1993 to fully evaluate the horizontal and vertical extent of subsurface impacts.

Based on the results of the additional closure assessment activities, the extent, degree, and characteristics of soil degradation have been defined in the vicinity of the former USTs. In accordance with the approved closure plan, the closure progress report includes a closure plan amendment/remedial action plan for remediation of the degraded soils.

In a letter to NMED dated October 7, 1993, S-K requested an extension to the closure period in accordance with the enclosed closure plan amendment/remedial action plan. NMED responded in a letter to S-K dated October 14, 1993, and stated that approval for an extension would be considered upon review of the enclosed report.

S-K is committed to achieving clean closure of the former USTs and return/fill station at the Albuquerque Service Center. If you have any questions regarding the enclosed closure progress report and

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closure plan amendment/remedial action plan, please contact Jack Bedessem (TriHydro Corporation) at (307) 745-7474 or me at (713) 280-9754.

Sincerely,
SAFETY-KLEEN CORP.

Tom Maher /THC

for Joe Herrin
Senior Project Manager - Remediation

JH:TM:ahj/739

Enclosure

cc: Rich Mayer, USEPA
Kalvin Martin, NMED
Gary Long, S-K
Bob Wachsmuth, S-K
Scott Gariss, S-K
TriHydro Corporation

Enclosure not Found

PROJECT 739

CLOSURE PROGRESS REPORT
AND CLOSURE PLAN AMENDMENT/
REMEDIAL ACTION PLAN
SAFETY-KLEEN CORP. SERVICE CENTER
ALBUQUERQUE, NEW MEXICO
NMD000804294

October 28, 1993

Submitted to:

Safety-Kleen Corp.
17629 El Camino Real, Ste 400
Houston, TX 77058

TriHydro Corporation

920 Sheridan Street
Laramie, Wyoming 82070

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CHAPTER 1.0

INTRODUCTION

Safety-Kleen Corp. (S-K) operates a branch service center at 2720 Girard NE, Albuquerque, New Mexico. The facility functions as a service center for distribution of mineral spirits, and storage of spent mineral spirits, other parts-cleaning solvents, spent dry cleaning waste, and paint waste. The service center is an integral part of a distribution/recycling network and does not include treatment or disposal facilities.

The New Mexico Environment Department (NMED) approved a partial facility closure plan for the inactive hazardous waste management units (HWMUs) in a letter dated May 7, 1993. S-K commenced closure of inactive HWMUs at the facility during the week of May 31, 1993. The inactive HWMUs (i.e., underground storage tank system for the storage of spent mineral spirits, return/fill station, and associated equipment) were removed from service following installation of a new UST system and return/fill station (March 1992).

S-K is also in the process of permanently closing an underground storage tank (UST) system which had been used for the product mineral spirits at the facility. The inactive product mineral spirits tank is not a HWMU; however, this UST system is being closed concurrently with and similarly to the HWMUs. The product mineral spirits tank is being closed in accordance with the applicable federal UST regulations (40 CFR 280.70 et seq.) and State of New Mexico UST regulations.

The HSWA conditions of the Facility Permit included requirements for a RCRA Facility Investigation. The primary objective of the RFI was to address potential subsurface degradation in the vicinity of an alleged spent mineral spirits sludge tank (SWMU No. 4). Therefore, the assessment activities associated with closure of the inactive HWMUs were also designed to satisfy the RFI requirements.

The inactive HWMUs and product UST system were decontaminated and removed during the week of July 26, 1993, and the closure assessment activities were conducted during the weeks of August 9, and 16, 1993. S-K plans to remediate associated subsurface degradation and achieve clean closure. Additional assessment and remediation, relative to the HWMUs, will be performed in accordance with the NMED-approved closure plan, RCRA interim status regulations (40 CFR 265), and applicable NMED regulations.

The purpose of this document is to summarize the results of the closure activities completed to date and present a closure plan amendment/remedial action plan for achieving clean closure. This document also presents the results of the subsurface assessment activities to satisfy the requirements of the RFI report.

1.1 Facility Identification

Name:	Safety-Kleen Corp. 7-008-01 Albuquerque Service Center
Location:	2720 Girard NE Albuquerque, NM 87101 Lat: 35° 06′ 44"N, Lon: 106° 36′ 46"W
EPA ID:	NMD000804294
Facility Operator:	Safety-Kleen Corp. 1000 N. Randall Road Elgin, IL 60123
Contact for Closure:	Joe Herrin Senior Project Manager - Remediation 17629 El Camino Real, Suite 400 Houston, TX 77058 (713) 280-9754
Facility Contact:	Scott Gariss, Branch Facility Manager (505) 884-2277

1.2 Facility Description

The Albuquerque Service Center is located in Bernalillo County, New Mexico. A site location map is shown on Figure 1-1. The site is surrounded by light industrial, commercial, and business facilities. The site occupies an area of approximately 45,000 square feet and lies at an elevation of approximately 5,110 feet above sea level. The site is adjacent to a flood control canal located on the east side of the site.

A site plan showing the units undergoing closure is presented on Figure 1-2. The entire site is surrounded by a

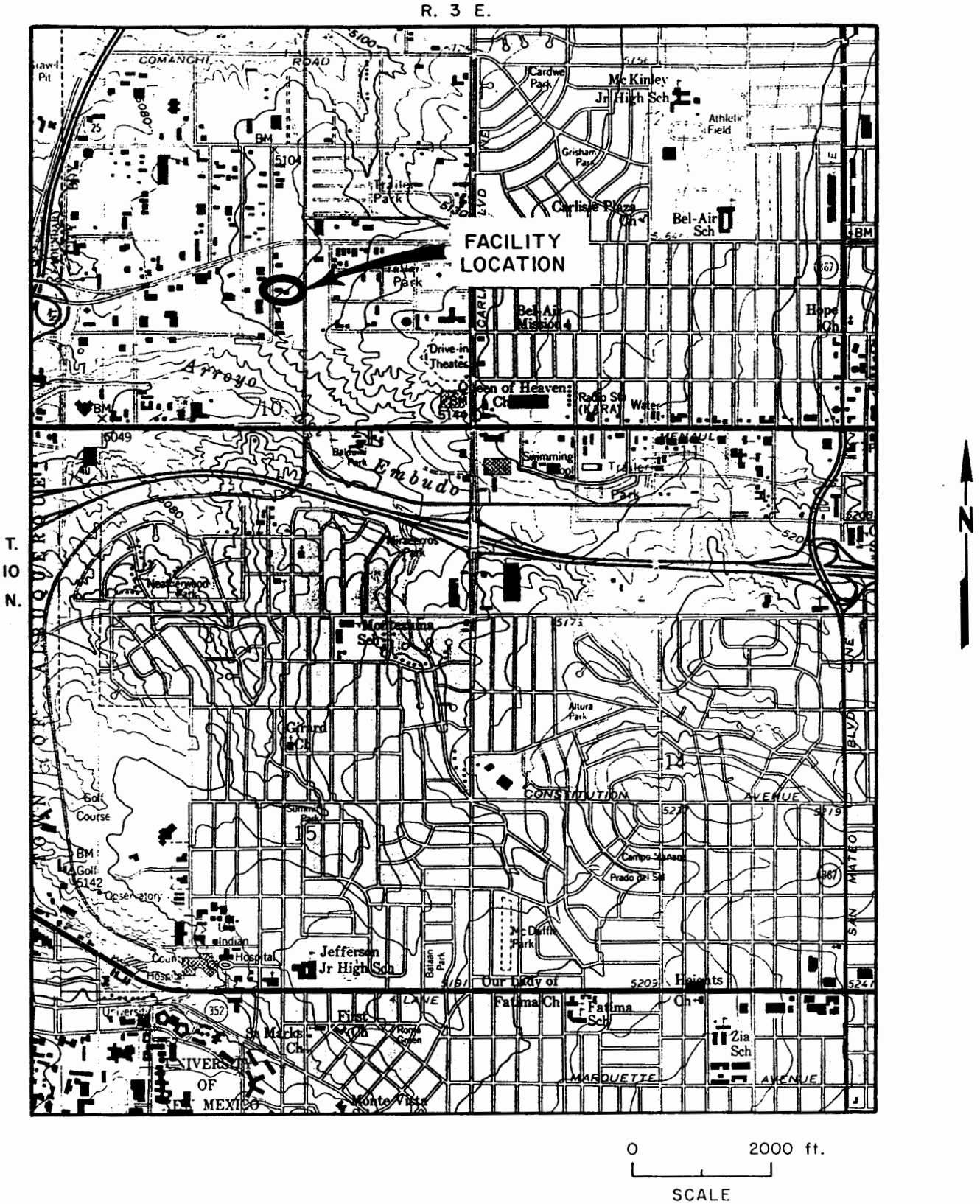

FIGURE 1-1 : FACILITY LOCATION, SAFETY-KLEEN CORP. SERVICE CENTER, ALBUQUERQUE, NEW MEXICO

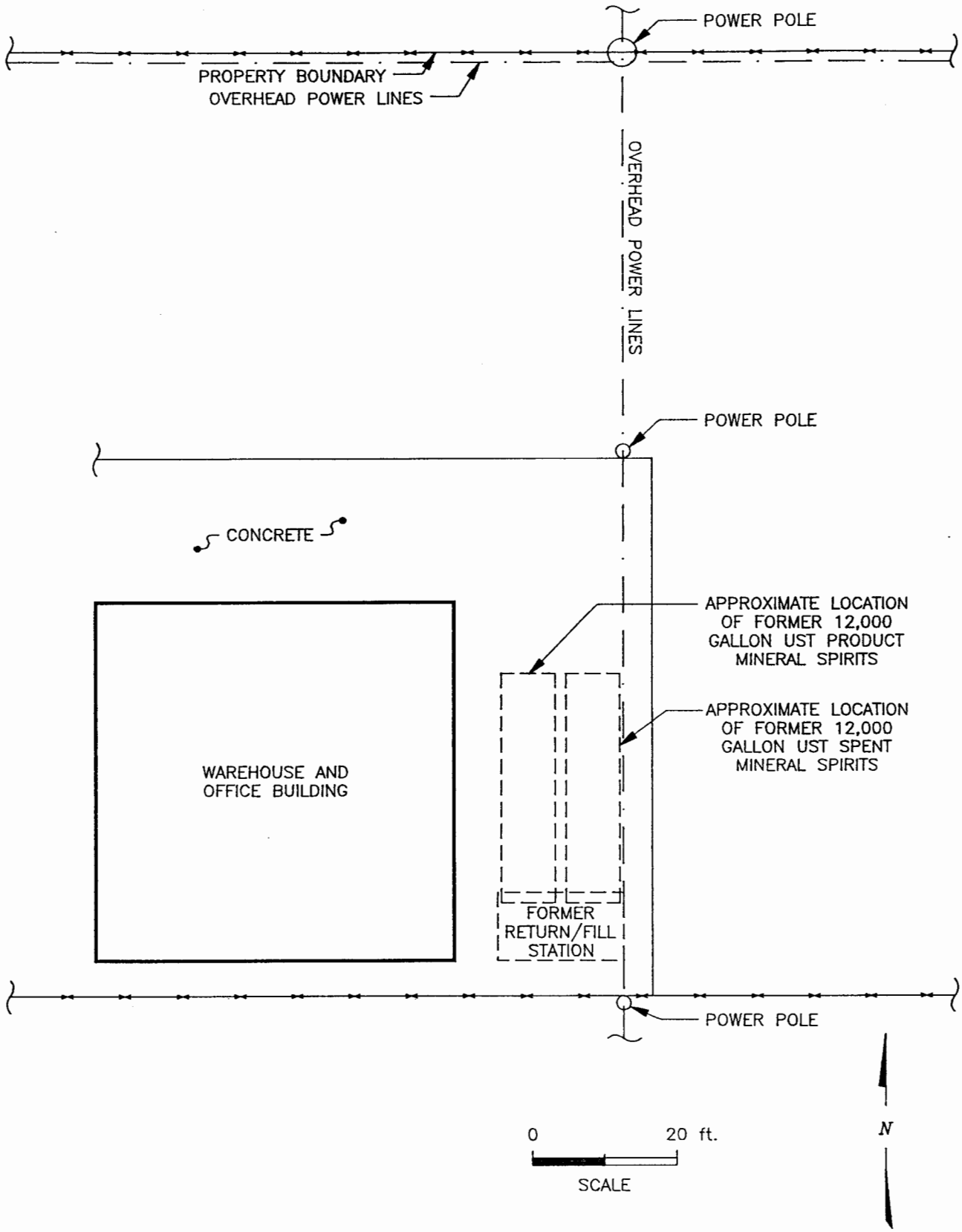

FIGURE 1–2 :SITE PLAN, SAFETY–KLEEN CORP. SERVICE CENTER, ALBUQUERQUE, NEW MEXICO

SKANSITE

six-foot high security fence with lockable gates topped with three rows of bare wire and razor wire. The gates are locked after business hours. The units being closed are located in the south central part of the site and are described below.

1.2.1 Hazardous Waste Management Units (HWMUs)

The HWMUs being closed at the Albuquerque Service Center in accordance with the NMED-approved closure plan include:

1. One 12,000-gallon steel UST for the storage of spent mineral spirits and sludge, associated piping, and appurtenances; and

2. A two-bay return and fill station with two wet dumpsters (capacity 375 gallons each).

During a RCRA facility assessment at the Albuquerque Service Center, USEPA identified a potential UST (1,000 to 2,000-gallon) as SWMU No. 4, which may have been used to store spent mineral spirits sludge. As indicated in the progress report dated July 26, 1993, S-K records are unclear as to whether this sludge tank ever existed at the site. If present, this sludge tank would have been located in the vicinity of the two 12,000-gallon USTs included in this closure plan. The alleged sludge tank was not encountered during UST decontamination and removal activities in July 1993 (see Chapter 3.0). As a result, decontamination, removal and sampling under SWMU No. 4 could not be accomplished since the small sludge UST was not present.

1.2.2 Product Mineral Spirits UST

A second 12,000-gallon steel UST used for the storage of product mineral spirits was located immediately west of the spent solvent UST (Figure 1-2). The product UST, with associated piping and appurtenances, is not a HWMU. The product mineral spirits UST system was removed at the same time as the waste management UST in general accordance with this closure plan.

1.3 Closure Activities Completed to Date

S-K submitted a partial facility closure plan for the Albuquerque Service Center in a document dated May 18, 1992 (Phase 1). S-K revised the closure plan to address decontamination/removal and RFI sampling under the potential sludge tank with a letter dated June 22, 1992 (Appendix A). In a

letter dated May 7, 1993, NMED approved the closure plan with conditions (Appendix A). A 180-day closure period subsequently commenced on May 14, 1993.

S-K commenced closure of the inactive HWMUs and product mineral spirits UST on May 31, 1993 with pre-excavation soil sampling, analysis, and characterization. The two USTs and return/fill station were decontaminated/removed, and approximately 160 cubic yards of degraded soils were excavated during the week of July 26, 1993. As discussed previously, an alleged sludge UST identified during a USEPA RCRA facility assessment was not encountered during decontamination and removal of the two 12,000-gallon USTs. The Phase 2 closure activities are summarized in Chapter 3.0.

In response to a release from the product mineral spirits UST piping, S-K conducted pre-closure site assessment activities in October 1991 and January-February 1992. These assessment results were presented in an "Onsite Investigation Report" (Delta Environmental Consultants Inc., 1991) and the "Results of Additional Activities" (TriHydro Corporation, 1992). The results are also summarized in Chapter 2.0 of this progress report.

The pre-closure assessments did not fully define the extent of impacts. The assessments were limited due to constraining site conditions (e.g., aboveground and subsurface structures and overhead power lines). Therefore, following decontamination and removal of the USTs, return/fill station, and associated equipment, S-K implemented closure assessment activities to further evaluate the extent of subsurface impacts (Phase 3). The results of the closure assessment activities are described in Chapter 4.0 and fully define the horizontal and vertical extent of impacts.

S-K intends to conduct remediation of degraded soils to achieve clean closure of the USTs at the Albuquerque Service Center (Phase 4). In a letter to NMED dated October 7, 1993 (Appendix A), S-K requested an extension of the closure period to allow remediation of degraded soils. In accordance with the closure plan, S-K will implement soil remediation under a closure plan modification/amendment which is included in this closure progress report. A proposed plan and schedule for remediation are presented in Chapter 5.0.

1.4 Organization of Progress Report/Closure Plan Amendment

This progress report and Closure Plan Amendment/Remedial Action Plan are organized as follows:

- Pre-Closure Site Assessment Results (Chapter 2.0)
- USTs Decontamination and Removal (Chapter 3.0)
- Results of Extent of Degradation Investigation (Chapter 4.0)
- Remedial Action Plan (Chapter 5.0)

CHAPTER 2.0

PRE-CLOSURE SITE ASSESSMENTS

S-K conducted pre-closure site assessments at the Albuquerque Service Center in October 1991 and January-February 1992. These assessments were conducted in the vicinity of the inactive USTs and return/fill station in response to a release from the product mineral spirits UST feedline. The results of these assessments were used along with closure assessment results (Chapter 4.0) to determine the horizontal and vertical extent of subsurface degradation.

2.1 October 1991 Assessment

A preliminary assessment was performed at the site on October 17, 1991. The preliminary investigation included the collection and analysis of soil samples at five borehole locations (Figure 2-1); depths ranging from 8-74 feet below ground surface. Based on the results of the preliminary investigation (Table 2-1), S-K determined that additional assessment work was necessary and implemented the additional investigation in January and February 1992.

2.2 January-February 1992 Assessment

The additional assessment work included borehole drilling in the vicinity of old USTs and return/fill station, and soil sample collection for field screening and laboratory analysis. The objectives of the investigation were to:

1. Confirm the results of the preliminary investigation;

2. Evaluate the lateral and vertical extent of subsurface impacts; and

3. Determine whether soil quality degradation extends to ground water.

The results of the additional assessment activities are contained in the report "Results of Additional Assessment Activities, Safety-Kleen Corp. Service Center, Albuquerque, New Mexico," dated April 14, 1992. A copy of this report was included in Appendix B of the closure plan.

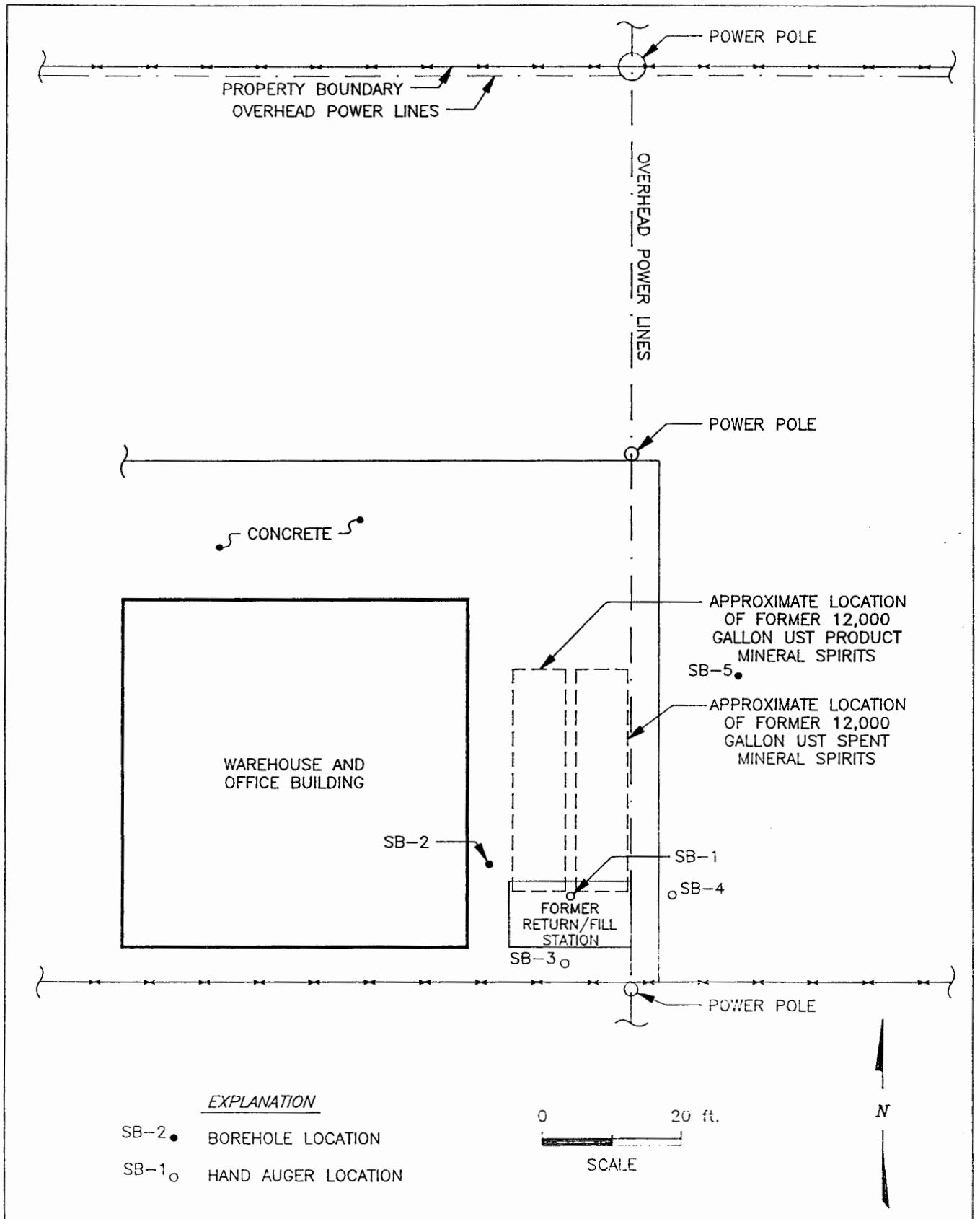

FIGURE 2-1 :SOIL SAMPLING LOCATIONS, SAFETY-KLEEN CORP. SERVICE CENTER, ALBUQUERQUE, NEW MEXICO (October 1991)

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Table 2-1. Summary of Soil Quality Data, Safety-Kleen Corp., Albuquerque, New Mexico (October 1991).

			Volatile Organic Compounds							
Borehole	Depth (ft-bgs)[1]	Total Petroleum Hydrocarbons (mg/kg)	Benzene (mg/kg)	Tetrachloro-ethene (mg/kg)	Toluene (mg/kg)	Chloro-benzene (mg/kg)	Ethyl-benzene (mg/kg)	1,2-Dichloro-benzene (mg/kg)	1,4-Dichloro-benzene (mg/kg)	Xylenes (mg/kg)
SB-1	8	10,000	0.05	2.8	5.8	ND(0.025)	3.6	ND(.025)	ND(0.025)	25
SB-2	15	ND(10)	ND(0.005)	ND(0.005)	0.012	ND(0.005)	0.0073	ND(0.005)	ND(0.005)	0.0085
	20	410	ND(0.005)	0.02	0.063	ND(0.005)	0.019	0.017	ND(0.005)	0.17
	30	ND(10)	ND(0.005)	ND(0.005)	0.016	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
	45	55,000	0.5	16	19	ND(0.005)	17	5.1	ND(0.005)	150
	50	ND(10)	ND(0.005)	ND(0.005)	0.018	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
	60	5,500	0.036	4.3	5.3	ND(0.025)	2.9	3.5	1.4	25
SB-3	5	22,000	0.017	5.7	11	0.36	6.1	2.8	ND(0.005)	54
SB-4	5	2,800	ND(0.005)	0.59	2.1	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	5.7
SB-5	15	ND(10)	ND(0.005)	ND(0.005)	0.035	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
	40	ND(10)	ND(0.005)	ND(0.005)	0.013	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
SB-6	Comp.[2]	ND(10)	NA	NA	NA	NA	NA	NA	NA	NA

Table 2-1. Summary of Soil Quality Data, Safety-Kleen Corp., Albuquerque, New Mexico (October 1991) (continued).

		Volatile Organic Compounds							
Borehole	Depth (ft-bgs)[1]	Methyl Chloride (mg/kg)	Acetone (mg/kg)	Carbon Disulfide (mg/kg)	1,1-Dichloro-ethene (mg/kg)	2-Butanone (mg/kg)	1,1,1-Trichloro-ethane (mg/kg)	Trichloro-ethene (mg/kg)	All Others
SB-1	8	ND(0.025)	0.85	ND(0.025)	0.14	0.4	1.6	0.29	ND
SB-2	15	ND(0.005)	ND(0.1	ND(0.005)	ND(0.005)	ND(0.1	ND(0.005)	ND(0.005)	ND
	20	ND(0.005)	ND(0.1	ND(0.005)	ND(0.005)	ND(0.1	ND(0.005)	ND(0.005)	ND
	30	ND(0.005)	ND(0.1	ND(0.005)	ND(0.005)	ND(0.1	ND(0.005)	ND(0.005)	ND
	45	0.12	ND(0.1	ND(0.005)	0.11	7.8	13	0.29	ND
	50	ND(0.005)	0.68	ND(0.005)	ND(0.005)	0.24	ND(0.005)	ND(0.005)	ND
	60	ND(0.025)	ND(0.5	1.55	0.08	0.9	1	0.033	ND
SB-3	5	0.014	ND(0.1	ND(0.005)	0.052	ND(0.1	2.7	0.034	ND
SB-4	5	ND(0.005)	ND(0.1	ND(0.005)	ND(0.005)	ND(0.1	0.043	ND(0.005)	ND
SB-5	15	ND(0.005)	ND(0.1	ND(0.005)	ND(0.005)	ND(0.1	ND(0.005)	ND(0.005)	ND
	40	ND(0.005)	ND(0.1	ND(0.005)	ND(0.005)	ND(0.1	ND(0.005)	ND(0.005)	ND
SB-6	Comp.[2]	NA	NA	NA	NA	NA	NA	NA	ND

Notes: [1] Feet below ground surface
[2] SB-6, a cuttings composite sample from SB-1 through SB-5, was analyzed for TCLP VOCs and TCLP metals. The results were all ND.
[3] ND - Consituent was not detected above the analytical detection limit given in parentheses.

2.2.1 Geology and Hydrogeology

The area lithology is unconsolidated sand and gravel basin fill, composed primarily of granite from the Sandia Mountains to the east. Sediments encountered during borehole drilling were sand and silty sand, grading into coarser-grained sand, gravel, and cobbles.

Ground water was not encountered in any of the borings to a depth of 85 feet, the deepest boring drilled. Information obtained from the City of Albuquerque indicates 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. A City water supply well is located approximately one-quarter mile east of the site, and may influence the local ground-water gradient during operation.

2.2.2 Soil Boring/Sampling Procedures

Soil samples were collected from the 1992 borehole locations shown on Figure 2-2. Borehole locations were chosen based on proximity to the USTs and drill rig accessibility (i.e., overhead power lines, buildings, USTs, piping and return/fill station). The borings were advanced to depths of 80 to 85 feet, and soil samples were collected at 5 foot intervals with a split-spoon sampler. In addition to the borehole samples, one sample was collected from a backhoe pit at a depth of 5 feet (Figure 2-2).

Soil samples were field screened for organic vapors with a photoionization detector (PID) and a field gas chromatograph (GC). The field screening results were used to select soil samples for laboratory analysis. Ten samples were retained for laboratory analysis of total petroleum hydrocarbon screen (EPA 8015, modified), volatile organic compounds (EPA 8240) and metals (EPA 6010 - cadmium, chromium, and lead).

2.2.3 Soil Boring/Sampling Results

The soil sampling in results are summarized in tables 2-2 and 2-3. Table 2-2 contains the field screening results and Table 2-3 contains the laboratory results.

Borehole TB-1 was drilled west of the USTs and return/fill station and as close to the mineral spirits product spill site as possible. Field screening of Borehole TB-1 samples indicated impacts to a depth of 70 feet. The laboratory data indicated the low level presence of toluene (0.016 mg/kg) and xylenes (0.023 mg/kg) at this depth.

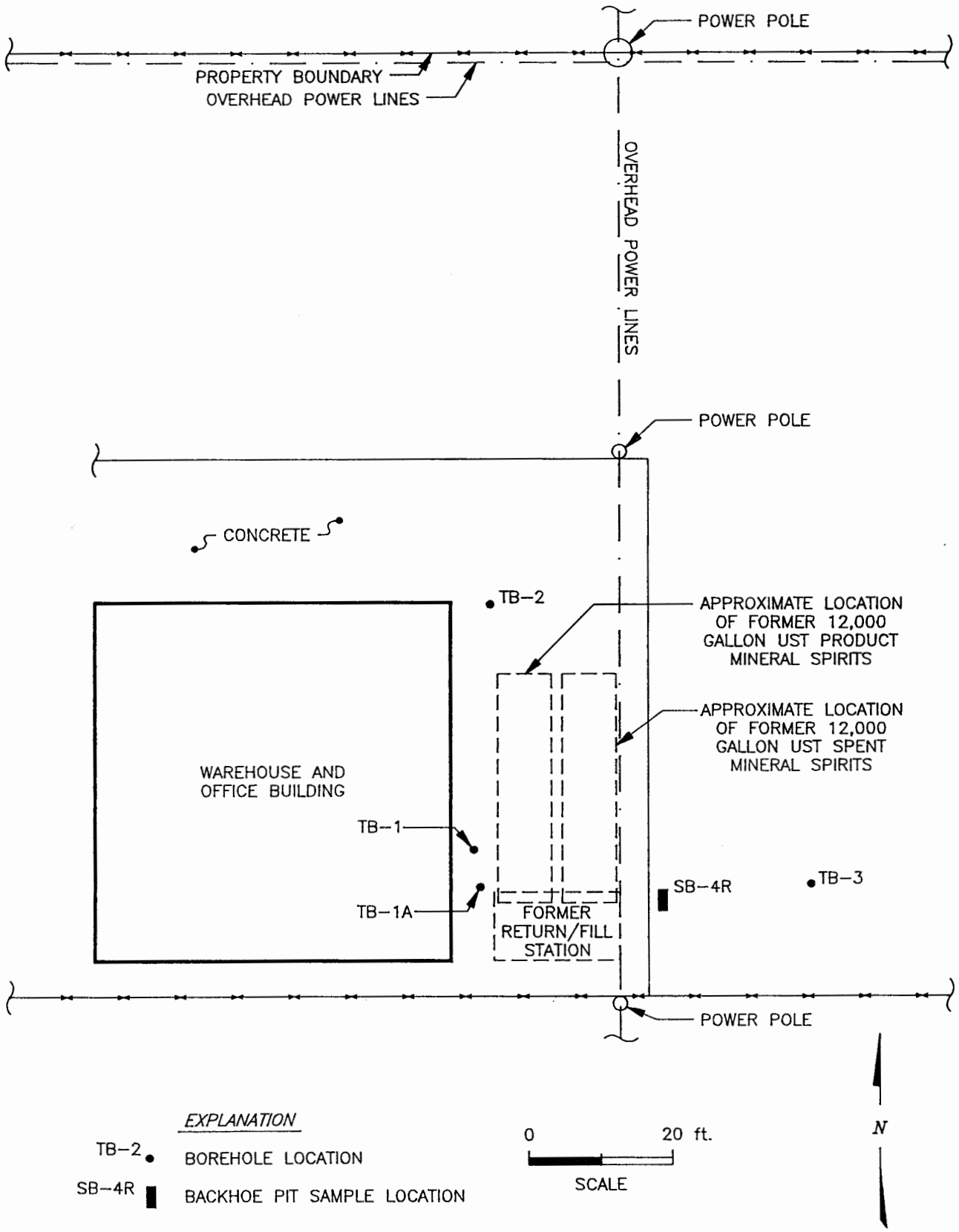

FIGURE 2-2 :SOIL SAMPLING LOCATIONS, SAFETY-KLEEN CORP. SERVICE CENTER, ALBUQUERQUE, NEW MEXICO (January-February 1992)

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Table 2-2. 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.

Table 2-3. 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 xylenes	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 xylenes	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

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 detected background levels of total organic vapors (TOV), except at Borehole TB-2, between 60 and 80 feet. A low level of xylene (0.0076 mg/kg) was detected in the deepest soil sample from Borehole TB-2. All organic constituents were nondetectable 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 of the USTs and west of TB-1 was not available during the January-February 1992 investigation.

Subsurface conditions and drill rig access 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 pre-closure assessment activities do not indicate that soil quality degradation extends to the ground-water table (at the locations investigated) underlying the S-K facility. Additional assessment was conducted as part of closure following removal of the USTs and return/fill station. The results of the closure assessment activities are summarized in Chapter 4.0 of this progress report.

CHAPTER 3.0

USTs AND RETURN/FILL STATION DECONTAMINATION AND REMOVAL (PHASE 2)

S-K completed decontamination and removal of the two inactive USTs and former return/fill station at the Albuquerque service center during the week of July 26, 1993. The closure activities were performed by Reidel Environmental Services (RES) of Denver, Colorado, under the direction of a TriHydro Corporation professional engineer, staff engineer, and a S-K representative. The decontamination and removal activities were performed in accordance with the NMED-approved closure plan and modifications.

The purpose of this chapter is to summarize the results of Phase 2 (Return/Fill Station and UST System Decontamination) activities as described in the approved facility closure plan. Information in this chapter satisfies the requirements of the Phase 2 progress report (Activity 2.9). The principal activities performed under Phase 2 include:

1. Pre-excavation soil sampling and analytical characterization;

2. Decontamination and removal of the spent mineral spirits and product mineral spirits USTs;

3. Dismantling and decontamination of the former return/fill station; and

4. Sampling of soils from the UST excavation.

As discussed in Chapter 1.0, the potential presence of a small spent mineral spirits sludge tank was identified by USEPA in the RCRA Facility Assessment. If present, this small sludge tank should have been located near the two 12,000-gallon USTs. During the USTs and return/fill station decontamination and removal in July 1993, this alleged tank was not discovered at the site.

3.1 Pre-Excavation Soil Sampling and Characterization

The results of the pre-closure assessment activities (Chapter 2.0) indicated soils in the vicinity of the USTs did not exhibit the characteristics of hazardous waste. During the week of May 31, 1993, S-K collected additional samples in the vicinity of the USTs to confirm the characteristics and

address NMED conditions of the closure plan approval. Data generated from the pre-excavation sampling and analysis were also used to profile the soils and obtain Waste Management of New Mexico approval for disposal.

Six testholes were constructed adjacent to the USTs and return/fill station to collect representative samples of soils to be excavated during removal. Soil samples were collected from each testhole between ground surface and a depth of three feet. The soils were composited into one representative sample and submitted to GTEL Laboratory (Wichita, Kansas) for analysis of the following:

Toxicity Characteristic Leaching Procedure (40 CFR 261.24)

- Volatile organic compounds (11)
- Semi-Volatile organic compounds (12)
- Metals (8)

Ignitability (Closed Cup, ASTM D-93 modified)

Volatile Organic Compounds (SW-846 Method 8240)

Total Metals (Cadmium, Chromium, Lead)

TPH as Mineral Spirits (ASTM D3328 modified)

Data generated during the pre-excavation sampling program confirm the soils in the vicinity of the USTs and return/fill station did not exhibit the characteristics of hazardous waste. Subsequently, Waste Management of New Mexico approved disposal of the soils at the Rio Rancho Landfill. Copies of the Waste Profile Sheet and laboratory data reports are included in Appendix B.

3.2 Decontamination and Removal of USTs

UST decontamination and removal were conducted in accordance with the approval closure plan and applicable local regulations. Removal and decontamination of the spent solvent tank and product tank included the following activities:

1. Removal and management of tank contents;
2. UST system excavation and entry;
3. UST system decontamination;

4. Removal and disposal of UST systems; and

5. Excavation sampling and soil management.

Site work commenced on July 26, 1993 with a health and safety meeting. Strict health and safety protocol was adhered to throughout the project, and all applicable regulations (40 CFR parts 265 and 280) and guidelines (e.g. API, OSHA, NIOSH and NFPA) were followed during UST decontamination/removal.

3.2.1 Removal and Management of UST Contents

The 12,000 gallon spent mineral spirits UST and the 12,000 gallon product UST were removed from service in March 1992 following installation of a new UST system. During the interim period, S-K removed as much liquid and sludges from the USTs as possible to minimize the potential for release. The residual contents of the USTs were evacuated and containerized prior to tank removal.

The spent mineral spirits tank contained approximately 35 gallons of liquids and sludge prior to cleaning. The product mineral spirits tank contained approximately 110 gallons of liquids, without any apparent sludges. The evacuated materials were transferred to the new spent mineral spirits management system at the Albuquerque service center. Subsequently, the residual contents were managed as hazardous waste and transferred to the S-K recycle center in Denton, Texas (permitted TSD facility) for processing.

3.2.2 UST Systems Excavation and Entry

Approximately 160 cubic yards of soil and concrete were excavated and removed from the site during the closure activities. Concrete overlying the USTs was visually inspected by the onsite engineer for areas of staining, residue build-up and any other material. Following a determination that the concrete was acceptable for landfill disposal, it was broken up and stockpiled at the site. Approximately 40 cubic yards of concrete was hauled to the landfill.

Soil (approximately 120 cubic yards) overlying and adjacent to the tanks was excavated to facilitate access to and removal of the tanks. The soil and concrete were stockpiled on visquene within the secured S-K facility boundary and covered with visquene to prevent runoff due to possible precipitation. The excavated material was transported to Waste Management Landfill in Rio Rancho, New Mexico, for disposal. Copies of the Bills of Lading are included in Appendix C.

3.2.3 UST Systems Decontamination

Appurtenances associated with the UST systems included piping, pumps and distribution hoses and nozzles. Prior to being disconnected from the USTs, all appurtenances were flushed with a high-pressure soap and water solution, and then triple rinsed with water. All rinsate solution was collected in the USTs.

The two 12,000-gallon USTs were washed with a high pressure detergent water mixture and then scraped to remove any rust and/or scale. The tank interiors were then triple rinsed with clean water. UST decontamination generated approximately 100 gallons of rinsate solution for each tank. All rinsate solution was collected and disposed as hazardous waste through the S-K spent mineral spirits management system.

Aliquots of the final rinse solution for both tanks were collected and allowed to equilibrate to ambient temperature. Headspace analysis of the rinsate solution with a photoionization detector (PID) indicated 1.6 parts per million (ppm) for the product mineral spirits UST and 1.2 ppm for the spent mineral spirits tank. Background readings fluctuated between 0.6 and 1.0 ppm. The field screening results and visual inspection indicated the tanks, piping, and appurtenances were clean and suitable for transport and disposal as scrap metal (40 CFR 261.6).

3.2.4 Removal and Disposal of UST System

Following decontamination, the product mineral spirits and spent mineral spirits tanks were removed on July 28, 1993. Mr. Mark Coffman of the New Mexico Environment Department (NMED) Underground Storage Tank Bureau and Mr. Steve Villescas of the City of Albuquerque Fire Marshal Office were onsite during removal of the USTs. Once removed, the USTs were visually inspected by the engineer and the condition documented with photographs. The spent mineral spirits and product mineral spirits tanks had no visible holes.

The tanks were rendered unusable by creating large holes in the sides of the USTs with the teeth on the backhoe bucket. The contractor (RES) arranged for disposal of the tanks, piping and appurtenances at a local metal recycling scrap yard (Acme Recycling, Albuquerque, New Mexico). A certificate of destruction was provided by the contractor and is included in Appendix D.

3.3 Excavation Soil Sampling

After removal of the USTs, soil samples were obtained from the excavation to assess the extent and degree of subsurface degradation. Eight soil samples were collected from the excavation in accordance with the approved closure plan and modifications. The excavation soil sampling locations are shown on Figure 3-1. The excavation soil samples were collected a minimum of 24 inches into the soils surrounding the USTs excavation using a backhoe bucket. The samples were placed into laboratory prepared containers and immediately packed on ice in an opaque cooler.

The soil samples were submitted to GTEL Laboratories, Inc. (Wichita, Kansas) for analysis of mineral spirits (8015/ASTM D3328 modified), volatile organic compounds (VOCs - 8240), and metals (6010 - cadmium, chromium, and lead). The analyses were performed in accordance with USEPA SW-846 methods or equivalent. The analytical results are summarized in tables 3-1 and 3-2, and Figure 3-1. The laboratory data sheets and chain-of-custody/sample-analysis-request forms are included in Appendix E. The results are discussed in the following sections.

3.3.1 Volatile Organic Compounds

VOCs were analyzed in accordance with USEPA Method 8240. Thirty-eight VOCs are on the list of analytes. VOCs were detected in three of the eight soil samples (PTBS, STBS, SW) collected from the UST excavation. The compounds detected in one or more of these samples included:

Acetone

1,1-Dichloroethane

1,2-Dichloroethane (total)

1,1,1-Trichloroethane

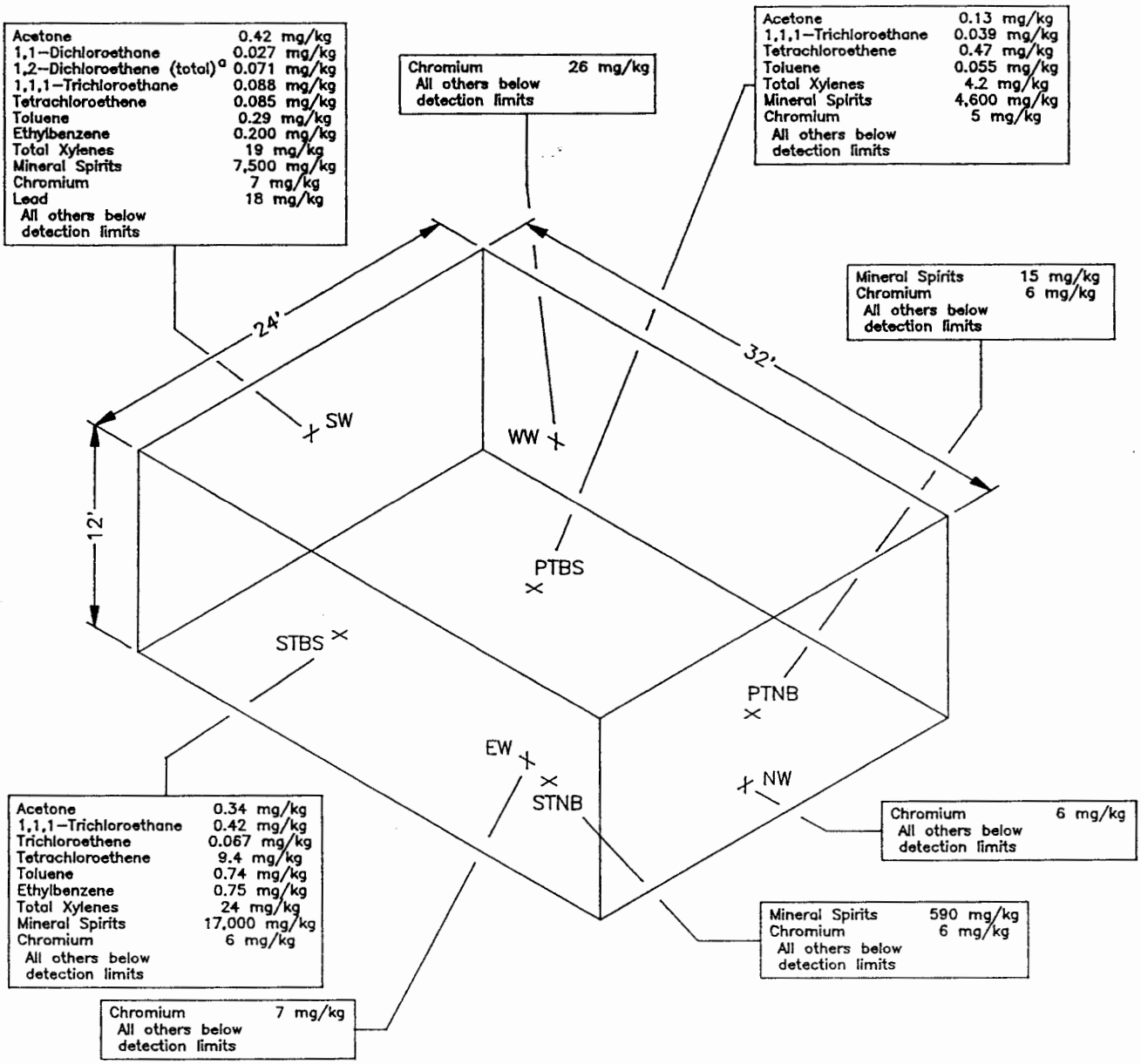
Trichloroethene

Tetrachloroethene

Toluene

Ethylbenzene

Total xylenes



NOTES: Reference laboratory data reports regarding mineral spirits analytical results

[a] total 1,2-dichloroethene is the sum of the cis- and trans- isomers.

FIGURE 3-1 :SOIL SAMPLING RESULTS, UST EXCAVATION, SAFETY-KLEEN CORP. SERVICE CENTER, ALBUQUERQUE, NEW MEXICO (July 1993)

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Table 3-1. UST Excavation Soil Quality Data, Organic Constituents, Safety-Kleen Corp. Service Center, Albuquerque, New Mexico (July 1993).

Sample Ident-ification	Mineral Spirits (mg/kg)[a]	Volatile Organic Compounds (mg/kg)									
		Acetone	1,1-Dichloro-ethane	1,2-Dichloro-ethene (total)[b]	1,1,1-Trichloro-ethane	Trichloro-ethene	Tetra-chloro-ethene	Toluene	Ethyl-benzene	Total Xylenes	All Others
PTNB	15	ND(0.020)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND
STNB	590	ND(0.020)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND
PTBS	4600	0.13	ND(0.015)	ND(0.015)	0.039	ND(0.015)	0.47	0.055	ND(0.015)	4.2	ND
STBS	17000	0.34	ND(0.025)	ND(0.025)	0.42	0.067	9.4	0.74	0.75	24	ND
EW	ND(10)	ND(0.020)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND
SW	7500	0.42	0.027	0.071	0.088	ND(0.025)	0.085	0.29	0.20	19	ND
WW	ND(10)	ND(0.020)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND
NW	ND(10)	ND(0.020)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND

Notes: [a] Reference laboratory data reports regarding analytical results.

[b] Total 1,2-dichloroethene is the sum of the cis- and trans- isomers.

ND - Constituent not detected above analytical limits in parentheses.

Table 3-2. UST Excavation Soil Quality Data, Inorganic Constituents, Safety-Kleen Corp. Service Center, Albuquerque, New Mexico (July 1993).

Sample Identification	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)
PTNB	ND(0.5)	6	ND(10)
STNB	ND(0.5)	6	ND(10)
PTBS	ND(0.5)	5	ND(10)
STBS	ND(0.5)	6	ND(10)
EW	ND(0.5)	7	ND(10)
SW	ND(0.5)	7	18
WW	ND(0.5)	26	ND(10)
NW	ND(0.5)	6	ND (10)

ND - Constituent not detected above analytical limits in parentheses

S-K is suspicious of the presence of acetone as a facility-related compound. Acetone is not a typical constituent associated with S-K operations and is a common laboratory solvent.

3.3.2 Mineral Spirits

Mineral spirits was analyzed by EPA method 8015 modified. Five of the eight excavation soil samples (PTNB, STNB, PTBS, STBS, and SW) contained mineral spirits at concentrations ranging from 15 mg/kg to 17,000 mg/kg. The elevated concentrations of mineral spirits were primarily in the bottom and southern part of the excavation.

3.3.3 Inorganic Constituents

Cadmium was not detected (ND) above the analytical detection limit (0.5 mg/kg) in any of the soil samples. Lead was detected in sample SW at a concentration of 18 mg/kg. All of the other samples were below the lead detection limit of 10 mg/kg. Chromium was detected in all soil samples at concentrations ranging from 5 to 26 mg/kg. USGS Open File Report 81-197 (Chemical Analysis of Soils and Other Surficial Materials of the Conterminous United States, Boerngan and Shacklette, 1981) reports background concentrations of these detected metals in New Mexico as:

Chromium:	5 to 500 mg/kg.
Lead:	ND to 70 mg/kg.

3.4 Decontamination and Dismantling of Return/Fill Station

The major components of the former return/fill station were two drum washers, associated pumps and piping, steel floor grating, and the wooden structure. The western half of the return/fill station had been previously dismantled and stockpiled at the site. Activities conducted during closure of the structure included:

1. Decontamination, dismantling and disposal as scrap of the grating, dock, piping and other appurtenances.

2. Decontamination, dismantling and sampling of the wooden shelter.

3.4.1 Decontamination and Disposal of Steel Components

The components of the return/fill station were decontaminated and disposed of in accordance with the approved closure plan. These components included the grating, dock support structures, hard piping and hoses. The steel components were decontaminated with high-pressure water spray until there was no evidence of residue or scale. Once each section of steel was washed to the satisfaction of the TriHydro Corporation engineer, it was removed from the structure and stockpiled for disposal as scrap. All rinsate solution was collected and disposed of through the S-K spent mineral spirits management system.

Hard piping, hoses and appurtenances were flushed with the high-pressure spray and washed on the outside to the satisfaction of the engineer. These components were then cut into manageable lengths and stockpiled for disposal as scrap. The decontaminated scrap metal was transported to Acme Recycling (Albuquerque, New Mexico) along with the USTs.

3.4.2 Decontamination of Wooden Structure

Wooden components of the return/fill station structure were decontaminated with high-pressure spray and stockpiled at the site. A representative sample of the decontaminated wood components was collected to characterize the waste for disposal. The sample was submitted to GTEL Laboratory (Wichita, Kansas) for analysis of VOCs, semi-VOCs, and metals by TCLP (40 CFR 261.24) and ignitability.

Stockpiled segments of the structure were placed on visquene inside the secured boundaries of the site. A visquene cover was placed over the wood and held in place with duct tape. Following receipt of the laboratory data (Appendix F), the wood was disposed of at the Waste Management of New Mexico Rio Rancho Landfill.

3.4.3 Concrete Containment Area

The concrete secondary containment area under the return/fill station was washed with high-pressure water spray until no residue was visible. Areas that were stained were washed several times with the high-pressure spray until cleaned to the satisfaction of the engineer. Rinsate was collected and disposed of through the S-K spent mineral spirits management system.

The concrete containment area was inspected for cracks and piping. All remaining pipes which entered the former re-

turn/fill station were plugged with concrete grout. No cracks were observed in the concrete.

3.5 Disposal of Personal Protective Equipment

All non-reusable personal protective equipment (coveralls, gloves, etc.) was placed into 16-gallon drums at the site. The drums were managed as hazardous waste and shipped to the S-K recycle center in Denton, Texas (permitted TSD), for disposal.

CHAPTER 4.0

ADDITIONAL ASSESSMENT ACTIVITIES (PHASE 3)

Phase 3 of the NMED-approved closure plan described procedures for additional assessment activities at the Albuquerque service center. S-K conducted a subsurface soil investigation between August 12 and August 18, 1993, to further evaluate the extent of subsurface impacts in the vicinity of the former USTs and to provide data for the development of an appropriate remedial action plan. The results of this investigation supplement the results of the previous investigations discussed in Chapter 2.

The additional assessment activities were also designed to address RFI sampling beneath an alleged sludge UST and NMED/UST Bureau requirements for completing the minimum site assessment. As discussed in previous chapters, the small sludge tank was not discovered during UST removal. This chapter summarizes the results of the closure assessment activities (Phase 3). S-K also addresses RFI requirements at the end of this chapter.

4.1 Closure Assessment

Soil boring and sampling locations were chosen to supplement previous soil quality data and define the vertical and horizontal extent of soil degradation. Previous assessments have defined the horizontal extent of impacts to the north and east of the USTs. Additional assessment activities were conducted to define the lateral extent to the south and west of the USTs and the vertical extent of degradation.

Ground water was not encountered during the investigation and is reported to be at least 200 feet below ground surface. The vertical extent of degradation was determined by drilling, sampling, and field screening soils at depth. Soil samples were submitted for laboratory analysis to confirm the extent. Because the deepest soil impacts were more than 50 feet above the uppermost aquifer, S-K did not implement a ground-water investigation.

4.1.1 Methods of Investigation

Eight soil borings were drilled at the former S-K service center and on the adjacent property to the south. The

borehole locations, shown in Figure 4-1, were chosen based on the results of the previous investigations discussed in chapters 2 and 3. The locations were also selected to satisfy the NMED/UST Bureau requirements as described in a letter dated March 10, 1993.

Boreholes TB-5 and TB-6 were drilled and sampled to assess the vertical extent of soil degradation. Boreholes TB-5 and TB-6 were located at the southern end of the former USTs and return/fill area, in the area of greatest soil degradation detected during the UST removal. Boreholes TB-4, TB-7, TB-8, TB-9, TB-10, and TB-11 were drilled and sampled to determine the horizontal extent of soil degradation.

4.1.1.1 Borehole Drilling And Abandonment

The soil borings were drilled by Beylik Drilling, Inc. of Albuquerque, New Mexico, using a CME-95 auger drill rig with 8-inch outside diameter hollow-stem augers. The soil borings were drilled to the apparent extent of soil degradation, based on the results of field screening. A qualified field geologist supervised the drilling and soil sampling activities.

Soil samples were collected at 5-foot to 10-foot intervals through the hollow-stem augers with a 1.5-foot split-spoon sampler from ground surface to total depths drilled. The split spoon sampler was lined with 6-inch brass sample sleeves. The soil samples were collected for initial field screening, chemical analysis, and lithologic description. Copies of the completed borehole logs are included in Appendix G.

The split-spoon sampler was decontaminated before collection of each soil sample. The sampler was scrubbed with a brush in a detergent and water wash and rinsed with water. The brass sample sleeves were washed in a separate detergent and water wash, rinsed with tap water, and then rinsed with deionized water. The brass sample sleeves were then allowed to air dry before use. All drilling equipment used downhole was steam cleaned prior to use and between boreholes. Equipment decontamination water was containerized and processed as hazardous waste through the S-K waste management system.

Soil cuttings generated during borehole drilling were contained at the site in two roll-off bins. The waste characterization profile generated during UST removal supplemented with the results of the soil sample analyses were used to characterize the soil cuttings for disposal. In addition, a composite soil sample was collected from the roll-off bin and analyzed for TPH as mineral spirits. The results of the soil sample analyses indicated the soil did not exhibit the

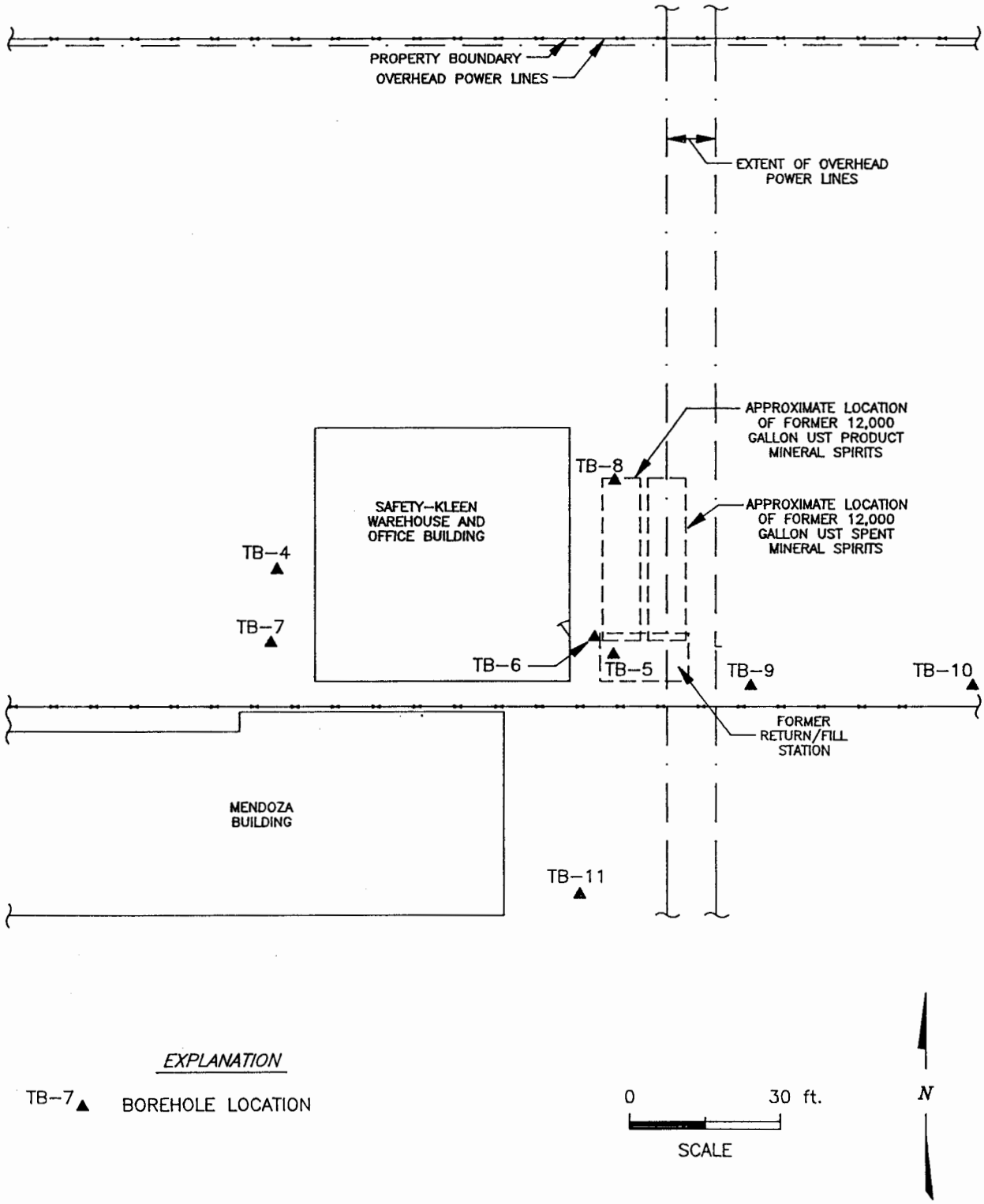


FIGURE 4-1 :SOIL SAMPLING LOCATIONS, SAFETY-KLEEN CORP. SERVICE CENTER, ALBUQUERQUE, NEW MEXICO (August 1993)

SKANSOLS

characteristics of hazardous waste. Therefore, S-K disposed of the soil as nonhazardous special waste at the Waste Management landfill in Rio Rancho, New Mexico.

After sampling was completed, all boreholes were abandoned in accordance with NMED rules and regulations. Abandoned boreholes were filled from total depth to approximately 6 inches below grade with bentonite chips. Approximately 6 inches of native soil, gravel, or concrete were added on top of the grout in the borehole to match the existing surface.

4.1.1.2 Field Screening Procedures

An aliquot of soil was collected from each interval for field screening when feasible. The soil samples were screened in the field for TOV to assist in selecting samples for laboratory analysis. Due to low recovery at several intervals, there was not enough soil to conduct field screening on all samples. In this case, soil samples collected from the auger cuttings were used for field screening. The soil used for field screening and soil descriptions was not submitted for laboratory analysis. Only undisturbed soil samples were submitted for laboratory analysis.

Each sample collected for field screening was placed in a 8-ounce glass jar which was then covered with aluminum foil. The soil sample was shaken in the jar to enhance volatilization and allowed to equilibrate to ambient temperature. TOV measurements were obtained by inserting the probe of a photoionization detector (PID) through the aluminum foil and monitoring the headspace vapors. The PID was calibrated at the beginning of each working day and field checked as needed using a 100 parts per million (ppm) isobutylene standard. The jars used for field screening were washed after use in a detergent and water wash, rinsed with tap water, rinsed with deionized water, and allowed to air dry.

4.1.1.3 Soil Sampling

Soil samples were selected for laboratory analysis based on field screening results. For samples in which TOV was detected during field screening, the apparently most degraded sample was submitted for analysis. In addition, the deepest recovered soil sample in each borehole was selected for analysis. Due to the depth of the boreholes, several intermediate samples were also collected to characterize the vertical profile of soil degradation.

Soil samples selected for laboratory analysis were collected in brass soil sample sleeves. Upon retrieval of the sampler, one or two brass sleeves containing undisturbed soil

samples were removed from the sampler. The ends of the brass sleeves were covered with teflon sheeting and capped with plastic caps. The ends of the brass sleeves were sealed with non-adhesive silicone tape. The sample sleeves were then labeled and placed on ice in an opaque cooler. The coolers and soil samples were shipped under chain of custody to GTEL Laboratories in Wichita, Kansas, for analysis.

4.1.1.4 Soil Sample Analysis

All soil analyses were conducted in accordance with USEPA SW-846 methods or equivalent. The soil samples were analyzed for TPH as mineral spirits by modified 8015/ASTM Method D3328 (GC/FID), VOCs by Method 8240, and cadmium, chromium, and lead by Method 6010. A total of 24 soil boring samples were submitted for laboratory analyses during this 1993 investigation.

4.1.2 Results of Investigation

The Albuquerque facility is approximately 5,110 feet above mean sea level on a gently sloping alluvial plain. The soil descriptions recorded during drilling of the soil borings were used to evaluate the site geology/hydrogeology with respect to regional information. The 1993 borehole logs are included in Appendix G.

4.1.2.1 Site Geology/Hydrogeology

Sediments in the Albuquerque area are primarily sand and gravel basin fill eroded from the Sandia Mountains to the east. According to Mr. Kelly Summers, a hydrologist with the City of Albuquerque Public Works Department, ground water in the vicinity of the service center is about 200 feet to 250 feet below ground surface (ft-bgs). The closest municipal water well, Santa Barbara #1, is about 0.25 miles east of the service center. The well is reported to operate seasonally. When the municipal well is not pumping, ground water is reported to flow regionally from the Sandia Mountains to the east towards the Rio Grande River. However, when the municipal well is operating, ground water may flow to the east, towards the well.

As shown on cross section A-A′ (Figure 4-2) and the borehole logs, the soil beneath the site is primarily sand, gravel, and cobbles. The location of cross section A-A′ is shown on Figure 4-3. The uppermost soil at the facility is a 15-foot thick silt layer. Beneath the silt is a poorly sorted (well graded) sand with minor amounts of silty sand. Below the sand, an apparently laterally-extensive sandy silt layer

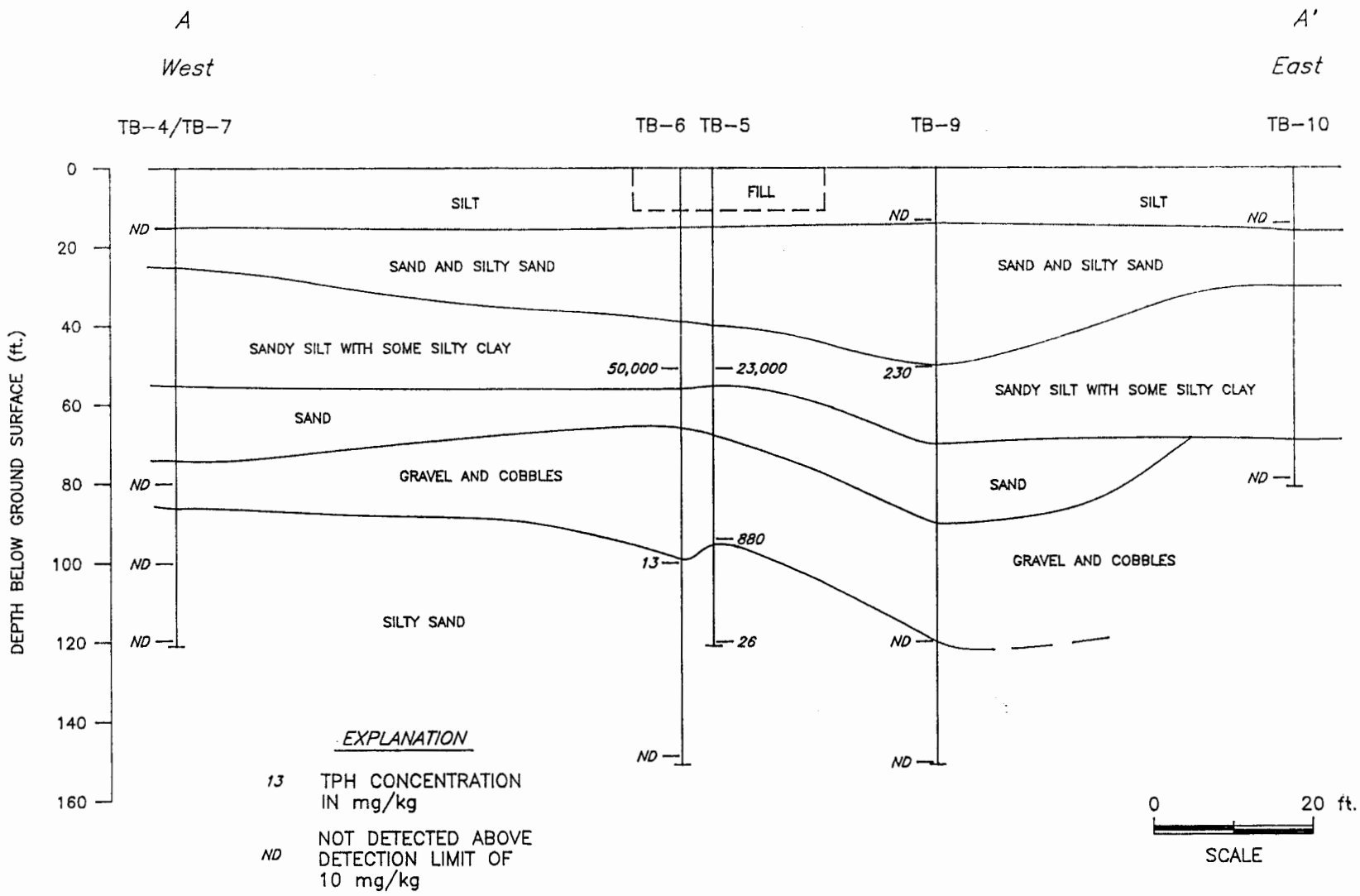


FIGURE 4-2 :GEOLOGIC CROSS SECTION A-A', SAFETY-KLEEN CORP. SERVICE CENTER, ALBUQUERQUE, NEW MEXICO

SKANXSAA

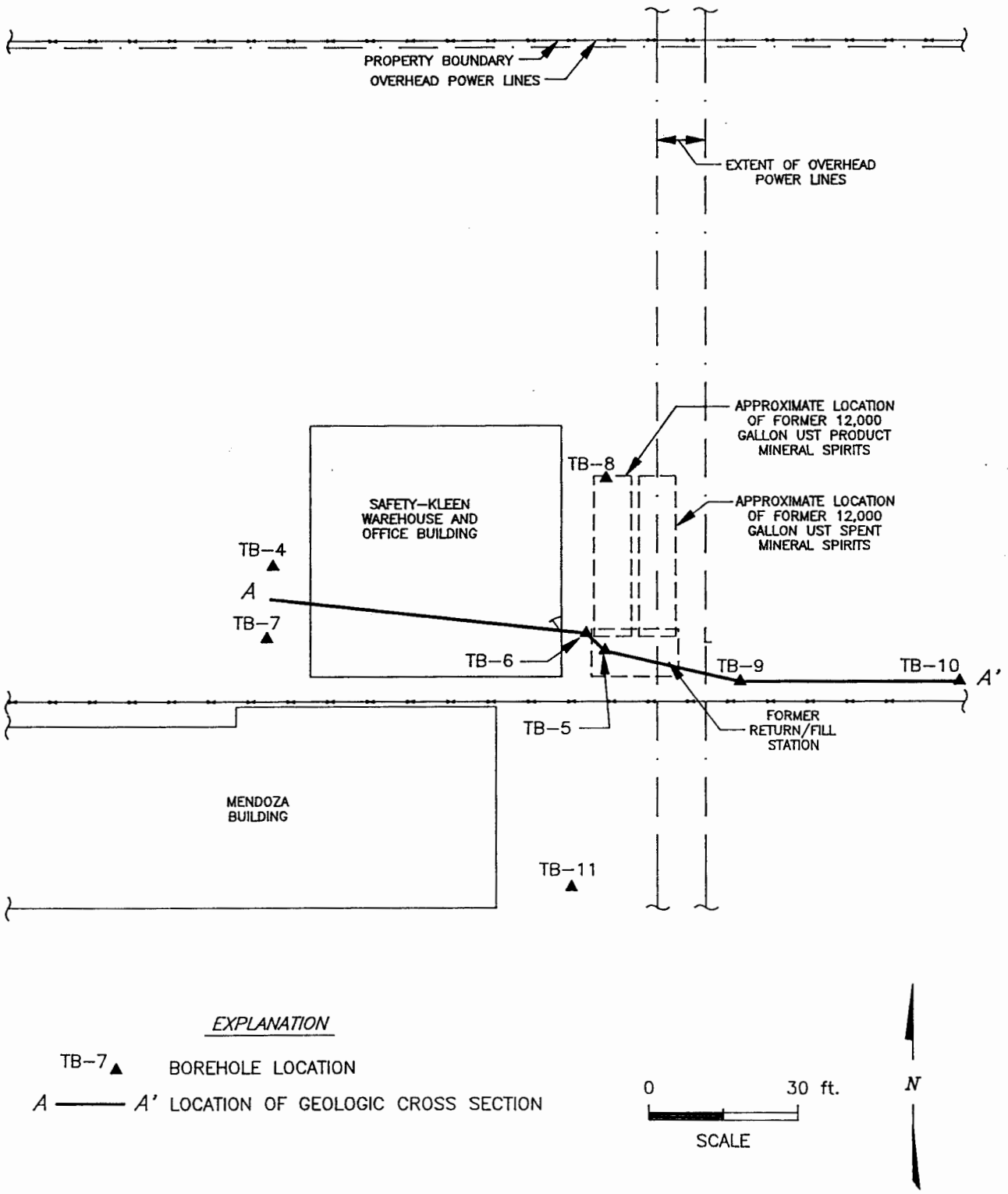


FIGURE 4-3 :GEOLOGIC CROSS SECTION LOCATION, SAFETY-KLEEN CORP. SERVICE CENTER, ALBUQUERQUE, NEW MEXICO

SKANXSLO

with some silty clay was encountered. The silt layer ranges from 15 feet to 40 feet in thickness, and occurs at about 50 ft-bgs. A thin layer of sand underlies the silt layer.

Beneath the sand is a layer of primarily well-rounded gravel to 3 inches in diameter with a few cobbles to 4 inches. Sample recovery in this zone was very low. Underlying the gravel is silty sand to total depths drilled of 151 ft-bgs. No ground water or very moist soil indicative of the capillary fringe were encountered in any of the boreholes.

4.1.2.2 Field Screening

The soil samples were field screened for TOV headspace concentrations during drilling. The results of the field screening are presented in Table 4-1. These data were used to select soil samples for laboratory analysis. The samples which were selected for laboratory analysis are indicated on the table with parentheses.

4.1.2.3 Laboratory Analytical Results

Soil samples were collected from eight boreholes at the former S-K service center. In general, the soil sample analytical results indicate soil degradation at the Albuquerque facility is limited to the southern end of the former USTs. The analytical results are summarized in tables 4-2 and 4-3 and on Figure 4-4. The laboratory data reports and chain-of-custody/sample-analysis-request forms are included in Appendix H.

TPH as mineral spirits and VOCs were detected in samples from boreholes TB-5 and TB-6, located at the southern end of the UST excavation, and Borehole TB-9, located east of the UST excavation. TPH as mineral spirits was detected at the highest concentrations in these soil samples and is indicative of the extent of degradation. Low concentrations of up to seven VOCs were detected in the soil samples in which TPH as mineral spirits was detected. No mineral spirits or VOCs were detected in samples from the other soil borings.

The concentrations of TPH detected in soil samples collected during this investigation are shown on Figures 4-2 and 4-4. TPH as mineral spirits was detected in the soil samples at concentrations from nondetectable to 50,000 mg/kg. Mineral spirits was measured in the deepest sample (120 ft-bgs) from Borehole TB-5, at a concentration of 26 mg/kg. However, no mineral spirits or VOCs were detected in the sample from 150 ft-bgs in Borehole TB-6, located 5 feet northwest of TB-5, indicating soil degradation is limited to less than 150 feet below ground surface.

Table 4-1. Field Screening Results, Safety-Kleen Service Center, Albuquerque, New Mexico (August 1993).

Borehole Depth (ft-bgs)	TOV Reading (ppm)							
	TB-4	TB-5	TB-6	TB-7	TB-8	TB-9	TB-10	TB-11
0.0-1.5	--	--	--	--	--	--	--	(18.8)
4.5-6.0	0.0	551.0	1,703	--	NS	7.8	11.4	10.6
9.5-11.0	0.0	632.0	2,542	--	7.0	7.0	14.0	9.6
14.5-16.0	(1.5)	669.0	1,550	--	(14.2)	(19.4)	(19.0)	7.0
19.5-21.0	0.0	592.0	1,869	0.0*	9.4	9.2	NR	(7.6)
24.5-26.0	0.0	527.0	653	--	6.8	--	--	--
29.5-31.0	0.0	643.0	13.5	0.0*	6.4	10.0	21.0	10.0
34.5-36.0	0.0	529.0	152.5	--	4.8	--	--	--
39.5-41.0	0.0	579.0	1,330	--	5.4	6.2	8.4	12.2
44.5-46.0	0.0	641.0	2,398	--	(4.6)	--	--	13.4*
49.5-51.0	0.0	(893.0)	(2,583)	0.0*	10.6	(1,320)	7.4	9.8
54.5-56.0	0.0	829.0	1,987	--	4.8	--	--	--
59.5-61.0	0.0	781.0	1,902	0.0*	2.6	980	13.0	(11.4)
64.5-66.0	0.0	508.0	1,357	--	1.6	--	--	--
69.5-71.0	0.0	558.0	1,543	0.0*	NR	59.0	24.0	10.6
74.5-76.0	0.0	886.0	1,749	--	1.0	--	--	--
79.5-81.0	(0.0)	546.0	NR	--	NR	180.0	(19.0)	(10.4)
84.5-86.0	TD=81.0′	518.0	NR	0.0	3.4	--	TD=81.0′	11.4
89.5-91.0		459.0	NR	3.3	4.2	114.0		TD=87.0′
94.5-96.0		(532.0)	2,070*	1.1	(40.0)	--		
99.5-101.0		504.0	(20.3)	(10.0)	17.6	420.0		
104.5-106.0		500.0	10.6	0.0	15.2	--		
109.5-111.0		0.0	8.6	0.0	13.0	54.0		
114.5-116.0		1.0	13.0	0.0	(12.2)	--		
119.5-121.0		(0.5)	8.4	(0.0)	(9.6)	(62.0)		
124.5-126.0		TD=121.0′	11.6	TD=121.0′	TD=121.0′	--		
129.5-131.0			7.2			34.0		
134.5-136.0			87.6			--		
139.5-141.0			4.4			49.0		
144.5-146.0			1.1			--		
149.5-151.0			(1.1)			(38.0)		
			TD=151.0′			TD=151′		

-- - No Sample
NR - No Recovery
NS - Not Screened (fill sand)
* - Screened Cuttings
() - Sample retained for laboratory analysis
ft-bgs - Sample depth interval in feet below ground surface
Total organic vapor (TOV) data reported as total ionizable compounds, relative to a 100 ppm isobutylene standard.

Table 4-2. Soil Quality Data, Organic Constituents, Closure Assessment, Safety-Kleen Corp. Service Center, Albuquerque, New Mexico (August 1993).

Borehole	Depth (ft-bgs)	Mineral Spirits[a] (mg/kg)	Volatile Organic Compounds							
			Tetra-Chloroethene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Xylenes (Total) (mg/kg)	Acetone (mg/kg)	2-Butanone (mg/kg)	1,1,1-Tri-chloroethane (mg/kg)	All Others
TB-4	14.5-16.0	ND(10.0)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.020)	ND(0.020)	ND(0.005)	ND
	79.5-81.0	ND(10.0)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.020)	ND(0.020)	ND(0.005)	ND
TB-5	49.5-51.0	23,000.0	9.5	13.0	11.0	93.0	ND(20.0)	ND(20.0)	5.0	ND
	94.5-96.0	880.0	ND(0.010)	ND(0.010)	ND(0.10)	0.036	0.045	ND(0.040)	ND(0.010)	ND
	119.5-121.0	26.0	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.020)	ND(0.020)	ND(0.005)	ND
TB-6	49.5-51.0	50,000.0	28.0	30.0	27.0	210.0	ND(20.0)	ND(20.0)	15.0	ND
	99.5-101.0	13.0	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.020)	ND(0.020)	ND(0.005)	ND
	149.5-151.0	ND(10.0)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.020)	ND(0.020)	ND(0.005)	ND
TB-7	99.5-101.0	ND(10.0)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.020)	ND(0.020)	ND(0.005)	ND
	119.5-121.0	ND(10.0)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.020)	ND(0.020)	ND(0.005)	ND
TB-8	14.5-16.0	ND(10.0)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.020)	ND(0.020)	ND(0.005)	ND
	44.5-46.0	ND(10.0)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.020)	ND(0.020)	ND(0.005)	ND
	94.5-96.0	ND(10.0)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.020)	ND(0.020)	ND(0.005)	ND
	119.5-121.0	ND(10.0)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.020)	ND(0.020)	ND(0.005)	ND
TB-9	14.5-16.0	ND(10.0)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.020)	ND(0.020)	ND(0.005)	ND
	49.5-51.0	230.0	0.007	0.008	0.006	0.060	0.28	0.076	ND(0.005)	ND
	119.5-121.0	ND(10.0)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.020)	ND(0.020)	ND(0.005)	ND
	149.5-151.0	ND(10.0)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.020)	ND(0.020)	ND(0.005)	ND
TB-10	14.5-16.0	ND(10.0)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.020)	ND(0.020)	ND(0.005)	ND
	79.5-81.0	ND(10.0)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.020)	ND(0.020)	ND(0.005)	ND
TB-11	0.0-1.5	ND(10.0)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.020)	ND(0.020)	ND(0.005)	ND
	19.5-21.0	ND(10.0)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.020)	ND(0.020)	ND(0.005)	ND
	59.5-61.0	ND(10.0)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.020)	ND(0.020)	ND(0.005)	ND
	79.5-81.0	ND(10.0)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.020)	ND(0.020)	ND(0.005)	ND

Notes: All results in mg/kg.
[a] Reference laboratory data reports regarding analytical results.

Table 4-3. Soil Quality Data, Inorganic Constituents, Safety-Kleen Corp. Service Center, Albuquerque, New Mexico (August 1993).

Borehole	Depth (ft-bgs)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)
TB-4	14.5-16.0	ND(0.5)	2.0	ND(10.0)
	79.5-81.0	ND(0.5)	3.0	ND(10.0)
TB-5	49.5-51.0	ND(0.5)	7.0	ND(10.0)
	94.5-96.0	ND(0.5)	8.0	ND(10.0)
	119.5-121.0	ND(0.5)	4.0	ND(10.0)
TB-6	49.5-51.0	ND(0.5)	7.0	ND(10.0)
	99.5-101.0	ND(0.5)	7.0	ND(10.0)
	149.5-151.0	ND(0.5)	3.0	ND(10.0)
TB-7	99.5-101.0	ND(0.5)	4.0	ND(10.0)
	119.5-121.0	ND(0.5)	5.0	ND(10.0)
TB-8	14.5-16.0	ND(2)	4.0	ND(10.0)
	44.5-46.0	ND(2)	11.0	ND(10.0)
	94.5-96.0	ND(2)	7.0	ND(10.0)
	119.5-121.0	ND(2)	4.0	ND(10.0)
TB-9	14.5-16.0	ND(2)	3.0	ND(10.0)
	49.5-51.0	ND(2)	7.0	ND(10.0)
	119.5-121.0	ND(2)	6.0	ND(10.0)
	149.5-151.0	ND(2)	2.0	ND(10.0)
TB-10	14.5-16.0	ND(2)	3.0	ND(10.0)
	79.5-81.0	ND(2)	3.0	ND(10.0)
TB-11	0.0-1.5	ND(2)	9.0	180.0
	19.5-21.0	ND(2)	2.0	ND(10.0)
	59.5-61.0	ND(2)	8.0	ND(10.0)
	79.5-81.0	ND(2)	7.0	ND(10.0)

Notes:

NA - Not Analyzed
All results in mg/kg

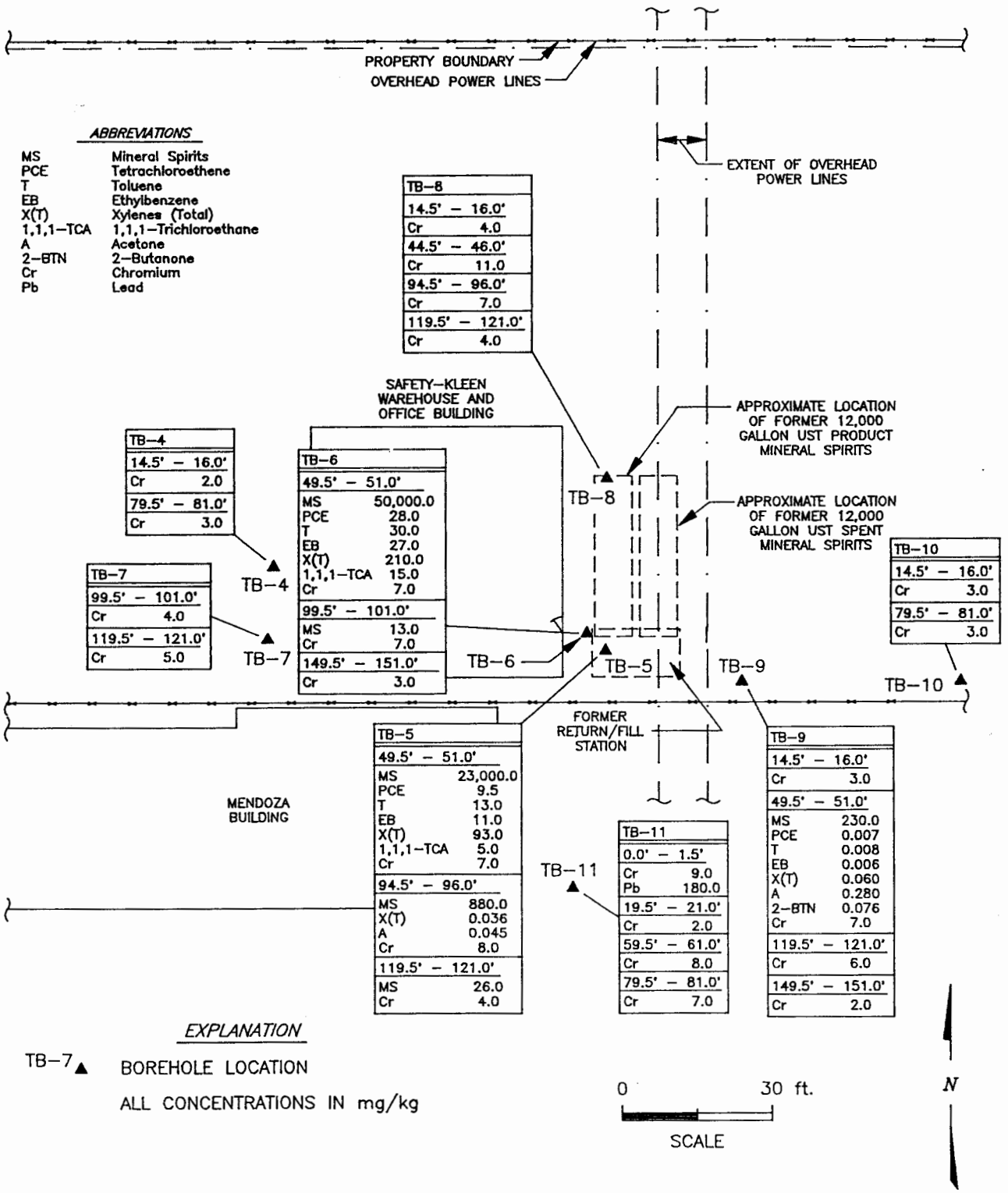


FIGURE 4-4 :SOIL SAMPLING RESULTS, SAFETY-KLEEN CORP. SERVICE CENTER, ALBUQUERQUE, NEW MEXICO (August 1993)

SKANSSRE

The highest concentrations of mineral spirits were detected in the soil samples from approximately 50 ft-bgs in boreholes TB-5, TB-6, and TB-9. The 50-foot samples from these boreholes were collected in the silt layer discussed in section 4.1.2.1. No mineral spirits was detected in the soil sample from 15 ft-bgs in Borehole TB-9, indicating that the mineral spirits detected in the sample from 50 ft-bgs is not due to a surface release near TB-9.

Mineral spirits and VOCs were also not detected in the soil samples collected from perimeter boreholes TB-4, TB-7, TB-8, TB-10, and TB-11. These boreholes were sited approximately 40 to 60 feet north, south, east, and west of the south end of the former USTs to evaluate the horizontal extent of impacts. Analysis of soil samples from these boreholes indicates the lateral extent of subsurface degradation is limited to an area within these perimeter boreholes.

The soil samples were also analyzed for cadmium, chromium, and lead. Cadmium was not detected in any of the August 1993 soil samples. Chromium was detected in each soil sample at concentrations from 2 mg/kg to 11 mg/kg. The USGS Open File Report 81-197 (Boerngen and Shacklette, 1981) documents naturally occurring chromium concentrations of 5 to 500 mg/kg in New Mexico soils. Therefore, the concentrations of chromium detected in the 1993 soil samples from this site are within the range of background.

Lead was detected in only one of the 24 soil samples collected during the August 1993 investigation. Lead was detected at a concentration of 180 mg/kg in the shallowest soil sample (0-1.5 ft-bgs) from Borehole TB-11. Borehole TB-11 was constructed on adjacent property (offsite) to the south of the S-K service center. Mineral spirits and VOCs were not detected in this shallow sample from Borehole TB-11; therefore, the detected lead level is not related to S-K site activities. Note, the USGS Open File Report 81-197 documents naturally occurring lead concentrations in New Mexico soils from nondetectable to 70 mg/kg.

4.2 RFI Assessment

As described in Chapter 3.0, the sludge tank that was identified in the USEPA RCRA Facility assessment was not discovered during UST decontamination/removal activities. However, S-K has collected substantial soil quality data at the site during pre-closure and closure activities. S-K believes that soil degradation has been adequately characterized at the site and intends to complete remediation of the

soil impacts in accordance with the approved closure plan and as described in the next chapter.

CHAPTER 5.0

PROPOSED REMEDIATION PROGRAM

In October 1991, S-K initiated a subsurface investigation in response to a release of product mineral spirits from the UST feedline. S-K identified the extent of subsurface degradation in the vicinity of the former USTs and return/fill station during assessment activities conducted between October 1991 and August 1993. The results of the closure assessment activities are summarized in chapters 2.0 and 4.0 of this report.

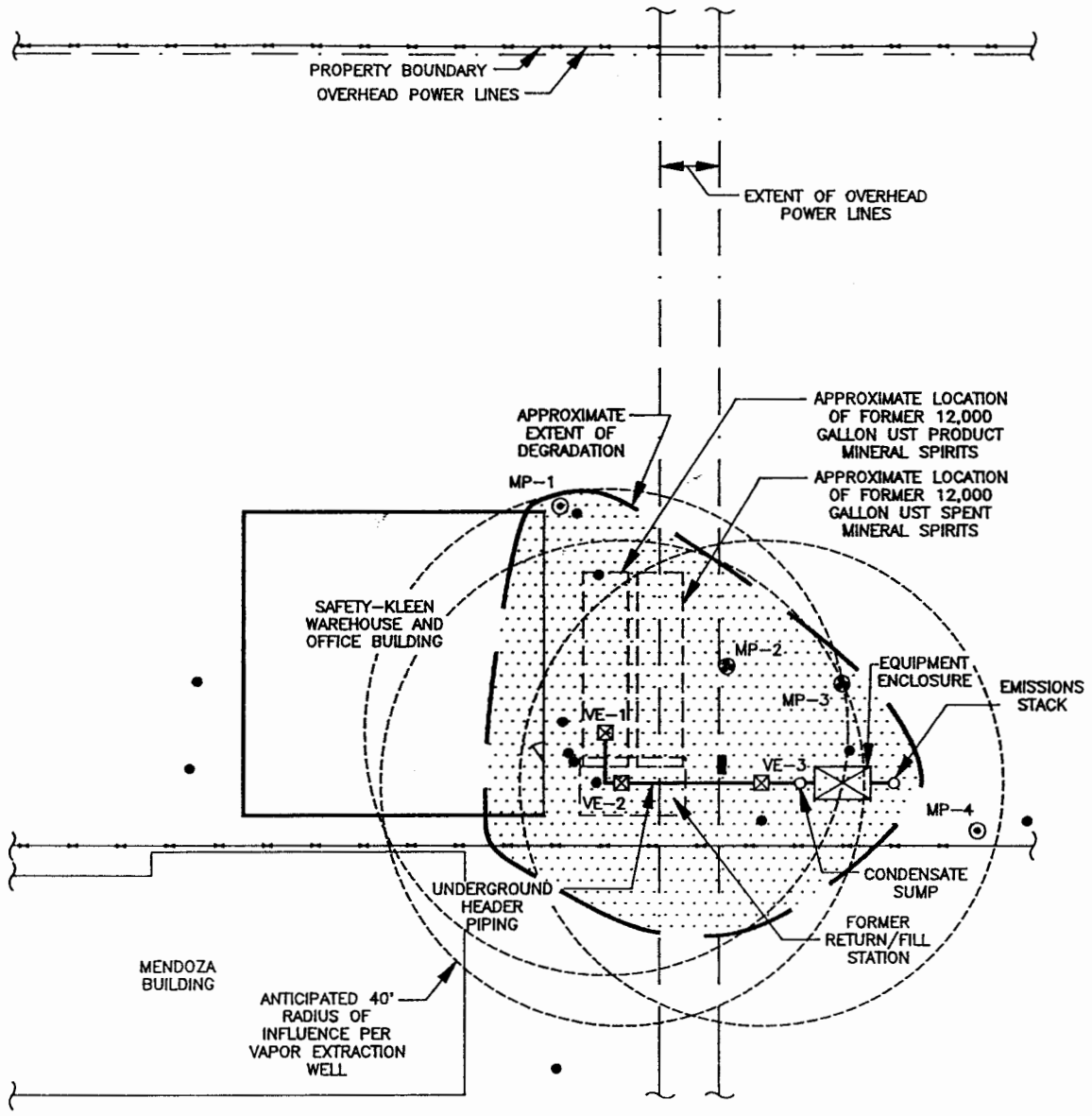
S-K intends to remediate soil impacts at the site to meet the closure performance standards and achieve clean closure. This chapter describes the selection, design, and operation of the proposed remedial action program. A schedule of implementation is included at the end of the chapter.

5.1 Selection of Remedial Action

As shown on Figure 4-2, the subsurface lithology within the zone of soil degradation is composed of primarily sand, gravel, and cobbles. The uppermost 15 feet of soil consists of sandy silt. A 15- to 40-foot thick sandy silt layer with some silty clay was also encountered at about 50 feet below ground surface (ft-bgs). Ground water has not encountered during previous assessment activities, and is reported to be 200 to 250 ft-bgs.

The vertical extent of soil degradation is limited to the upper 150 feet, based on the results of closure assessment activities. The horizontal extent of degradation also appears to be limited as shown on Figure 5-1. Sampling data indicate that the soils are degraded primarily with mineral spirits and associated VOCs; however, mineral spirits is the primary component of the impacts.

Organic constituents detected in the soils during the subsurface assessments, and the respective maximum concentrations are summarized in Table 5-1. Respective NMED-Approved Health-Based Exposure Limit Criteria or NMUSTR Cleanup Levels are also summarized in Table 5-1. Condition No. 11 of the NMED approval letter, dated May 7, 1993, stipulates the clean closure criteria are the USEPA draft 40 CFR, Subpart S levels, found in 55 FR No. 145, Appendices A through F (dated July 27, 1990).



EXPLANATION

- ● BOREHOLE LOCATION
- ▮ PREVIOUS BACKHOE PIT SAMPLE LOCATION
- VE-1 ⊠ PROPOSED VAPOR EXTRACTION WELL LOCATION
- MP-4 ⊙ PROPOSED SINGLE VAPOR MONITORING WELL LOCATION
- MP-2 PROPOSED VAPOR MONITORING WELL CLUSTER

0 30 ft.
SCALE

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FIGURE 5-1 :PROPOSED SVES LAYOUT, SAFETY-KLEEN CORP. SERVICE CENTER, ALBUQUERQUE, NEW MEXICO (August 1993)

SKANPSVE

Table 5-1. Organic Constituents Detected During Subsurface Investigations, Safety-Kleen Corp. Service Center, Albuquerque, New Mexico (October 1991 to August 1993).

Constituent	Maximum Concentration Detected[1] (mg/kg)	NMED-Approved Cleanup Levels[2] (mg/kg)	NMUSTR Cleanup Levels[3] (mg/kg)
TPH (as Mineral Spirits)	55,000	--	100
Benzene	0.50	--	10
Tetrachloroethene	28.0	10.0	--
Toluene	30.0	20,000	--
Chlorobenzene	0.36	2,000	--
Ethylbenzene	27.0	8,000	--
1,2-Dichlorobenzene	5.10	--	--
1,4-Dichlorobenzene	1.40	--	--
Xylenes (total)	210.0	200,000	--
Methylene Chloride	0.12	90.0	--
Acetone	0.85	8,000	--
Carbon Disulfide	1.55	8,000	--
1,1-Dichloroethene	0.14	10.0	--
2-Butanone	7.80	4,000	--
1,1,1-Trichloroethane	15.0	7,000	--
Trichloroethene	0.29	60.0	--
1,1-Dichloroethane	0.027	--	--
1,2-Dichloroethene	0.071	8.0	--

Notes:

[1] Based on soil quality results from the October 1991, January/February 1992 and August 1993 assessment activities.

[2] Reference Federal Register, Vol. 55, No. 145, Appendix A through F, pages 30865-30873, dated July 27, 1990.

[3] Reference New Mexico Underground Storage Tank Regulations, Section 1209, page XII-14, dated September 12, 1988.

Based on existing site conditions, S-K plans to use soil vapor extraction (SVE) to remediate degraded soils at the Albuquerque Service Center. The goal of the proposed SVE system (SVES) is to achieve clean closure by soil remediation to acceptable cleanup levels. S-K has selected SVE at the Albuquerque Service Center for the following reasons:

1. VOCs and volatile hydrocarbons associated with mineral spirits are conducive to in-situ remediation by SVE;

2. Soil boring/sampling results indicate the lithology of the subsurface is composed mainly of coarse grained soils;

3. Based on assessment data, subsurface degradation is limited to the vadose zone and does not extend to ground water; and

4. Soil remediation by excavation is not economically feasible due to the vertical extent of degradation.

SVE is based on the principal that VOCs adsorbed on soil particles will volatilize at typical subsurface temperatures. A zone of low pressure is created at a vapor extraction well which induces subsurface air flow through the surrounding soils. This ventilation of the degraded soil enhances the natural volatilization of VOCs by upsetting the vapor-phase equilibrium in the pore spaces. Research has also shown that increased oxygen concentrations in the venting zone will enhance the natural biodegradation of organic compounds in the subsurface.

5.2 Schedule of Implementation

S-K is submitting this closure plan amendment/remedial action plan for NMED review. Within 90 days of approval of the proposed plan and obtaining an air emissions permit to construct and operate, S-K intends to finalize the design of the SVES, and commence construction. The system will begin operation within 120 days of approval of this remedial action plan and/or air emissions permit, whichever is later.

Based on experience with remediation by SVE at similar sites, S-K anticipates the system should operate for one to two years. Therefore, an extension of the closure period of up to two years will be necessary to remediate soils degradation and achieve clean closure. S-K plans to submit quarterly progress reports of system operation as described in a following section.

5.3 SVES Design

The full-scale SVES will address remediation of the entire zone of degradation attributed to the former USTs. Based on experience at similar sites, S-K anticipates a minimum achievable radius of influence of 40 feet per vapor extraction well. One well would likely provide a sufficient area of influence to accomplish the desired remediation. However, to more effectively remediated degraded soils at depths ranging from 50 to 150 ft-bgs, a full-scale system has been designed to included three four-inch diameter vapor extraction wells.

A proposed SVE system layout is shown on Figure 5-1. As shown in figures 5-1 and 5-2, proposed wells VE-1, VE-2, and VE-3 will be completed at depths of 150, 100, and 50 ft-bgs, respectively. A 25-foot screened interval will be installed at the bottom of each well. A typical vapor extraction well completion is shown in Figure 5-2.

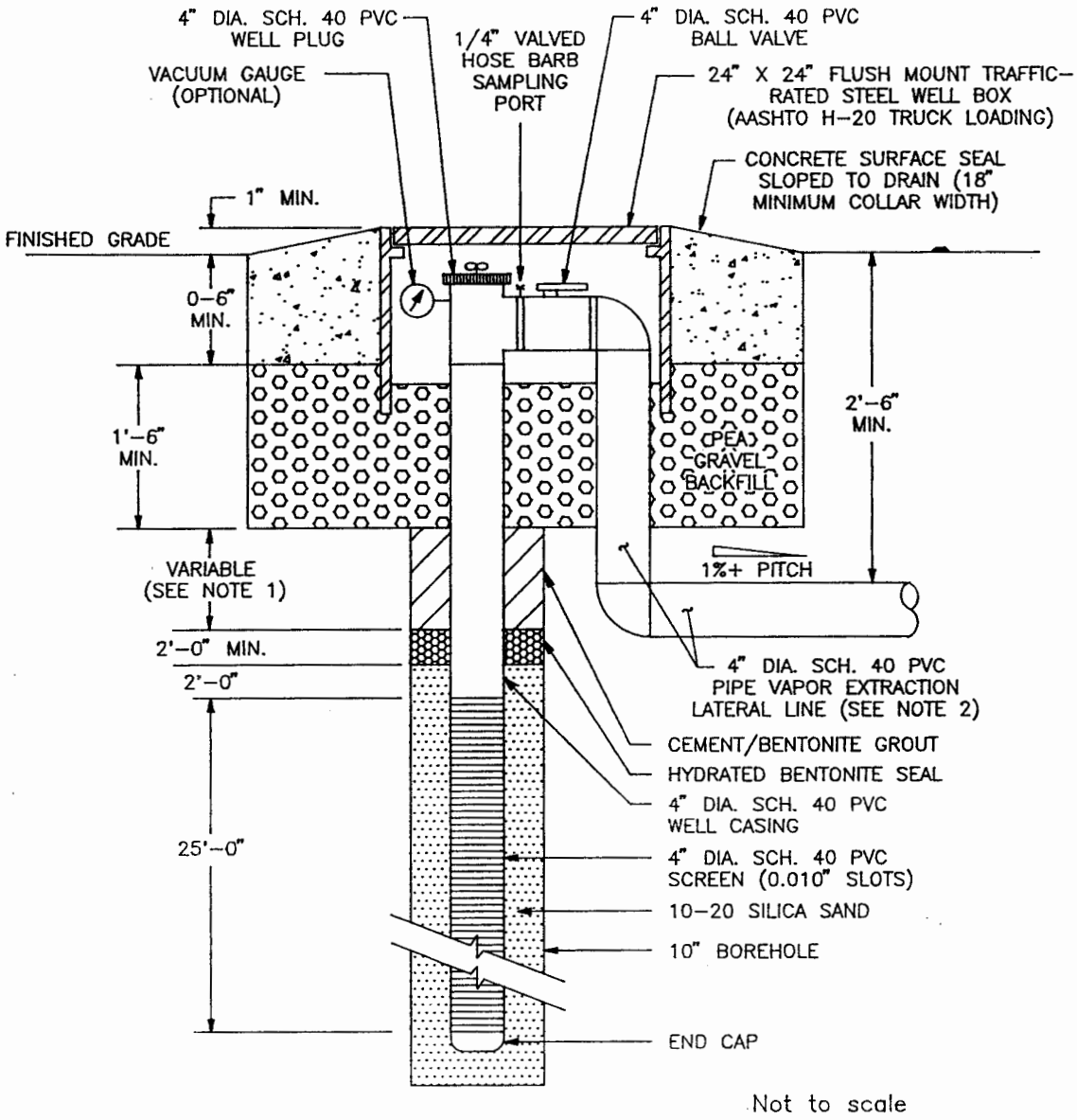
The vapor extraction wells will be connected to a vacuum pump/blower unit via underground header piping as shown on figures 5-1, 5-3, and 5-4. The header piping will consist of four-inch diameter schedule 40 PVC. The header piping will be installed a minimum of 2.5 ft-bgs on a slope of one percent. All pipe joints and fittings will be slip-fit, solvent welded connections.

A vacuum will be applied at each vapor extraction well by a vacuum pump/regenerative blower unit capable of 300 standard cubic feet per minute (scfm) at 40 inches of water column vacuum. The electrical power for the blower shall be routed from the main S-K warehouse by a qualified electrician. Concrete pavement which exists over most of the site will function as an impermeable surface cap to enhance the SVE radius of influence.

Extracted vapors will be treated or vented directly to the atmosphere through a four-inch diameter emissions stack with a minimum height of 15 feet. The incorporation of a vapor treatment system will be based on NMED air emissions permitting requirements. A typical layout of the blower assembly and emissions stack is detailed on figures 5-3 and 5-4.

5.4 SVES Operation and Monitoring

S-K intends to operate the SVES in accordance with a permit issued by the NMED/Air Quality Division (NMED/AQD).



Notes:

1. The total depths of proposed vapor extraction wells VE-1, VE-2, and VE-3 shall be approximately 150, 100, and 50 feet, respectively.
2. The lateral line from each vapor extraction well will be routed to a common manifold line which is connected to the vacuum extraction unit.

FIGURE 5-2 :TYPICAL VAPOR EXTRACTION WELL, PROPOSED SVES, SAFETY-KLEEN CORP. SERVICE CENTER, ALBUQUERQUE, NEW MEXICO

SKANTVEW

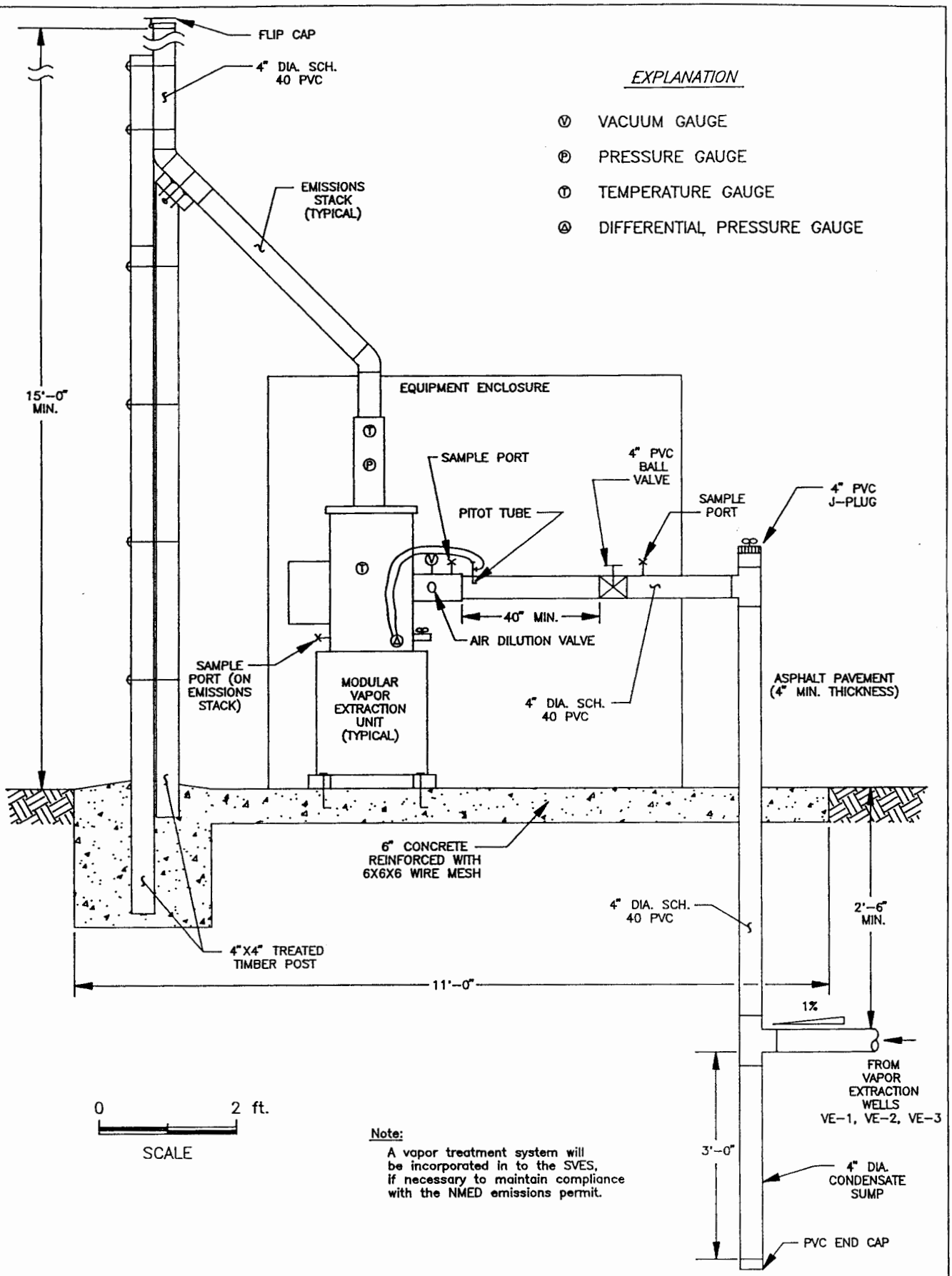
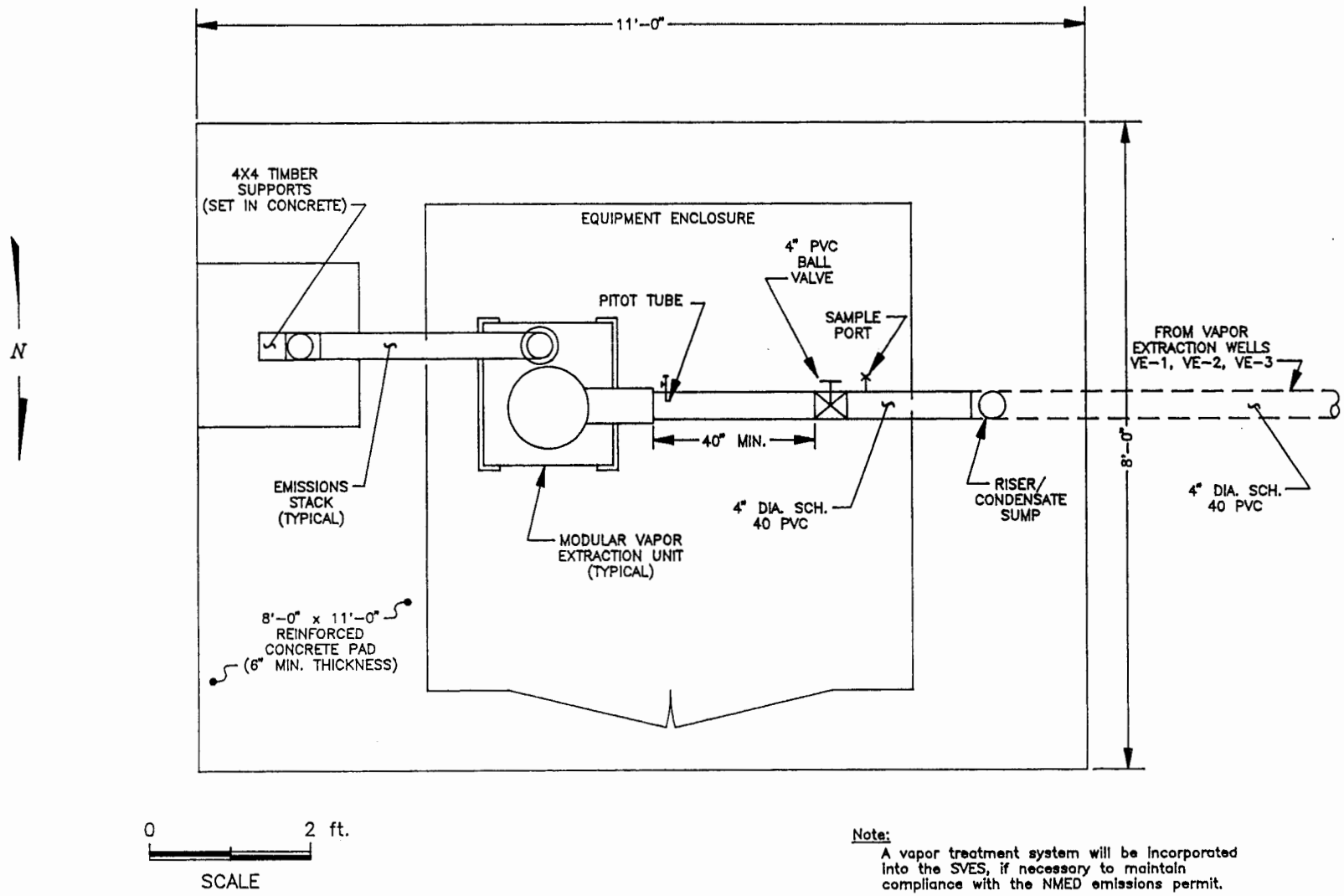


FIGURE 5-3 :CONCEPTUAL BLOWER AND RISER ASSEMBLY, PROPOSED SVES, SAFETY-KLEEN CORP. SERVICE CENTER, ALBUQUERQUE, NEW MEXICO

SKANLSVE



Note:
A vapor treatment system will be incorporated into the SVES, if necessary to maintain compliance with the NMED emissions permit.

FIGURE 5-4 :EQUIPMENT ENCLOSURE LAYOUT, PROPOSED SVES, SAFETY-KLEEN CORP. SERVICE CENTER, ALBUQUERQUE, NEW MEXICO

SKANELSV

Prior to commencing full-scale operation, S-K will conduct a pilot test of the SVES to verify the area of influence of the system and evaluate the vapor emissions quality. If necessary, vapor treatment will be incorporated into the SVES to maintain compliance with the NMED/AQD air emissions permit.

5.4.1 Pilot Test

A brief pilot test will be performed prior to commencing full-scale operation to determine the optimal system operating parameters. Vapor concentrations and applied/induced wellhead vacuums will be monitored to determine the achievable radius of influence, extracted vapor concentrations, and expected removal rates. The results of the pilot test will be used to verify compliance with emissions limitations in the operating permit.

During the pilot test, the SVES will be operated at the air flowrate anticipated for full-scale operation. Total organic vapor (TOV) concentrations in the extracted air will be regularly measured with a photoionization detector (PID). Induced wellhead vacuums will be measured at four proposed vapor monitoring wells (see figures 5-1 and 5-5) at least twice during initial system startup. The vapor monitoring wells will be completed as shown in Figure 5-5 and will consist of two sets of three-well clusters and two single vapor monitoring wells.

Induced vacuums and TOV concentrations are expected to stabilize within a short period. S-K's experience with SVES operation at other sites shows that stabilization in coarse-grained soils can occur in less than an hour. When conditions stabilize, at least two samples of extracted vapors will be collected for laboratory analysis of mineral spirits, and VOCs. The samples will be collected in Tedlar bags or an equivalent container from a port on the emissions stack.

During the pilot test, S-K will ensure that an acceptable area of influence is being generated by the vapor extraction wells. If induced vacuum measurements at the monitoring wells indicate an inadequate radius of influence, S-K intends to increase the applied wellhead vacuum to achieve an acceptable radius of influence. Based on the results of the pilot test and air emissions criteria stipulated by the NMED/AQD operating permit, S-K will implement a vapor treatment system, if necessary.

5.4.2 Full-Scale System

The results of the pilot test will be used to confirm full-scale operating parameters including flowrate and applied

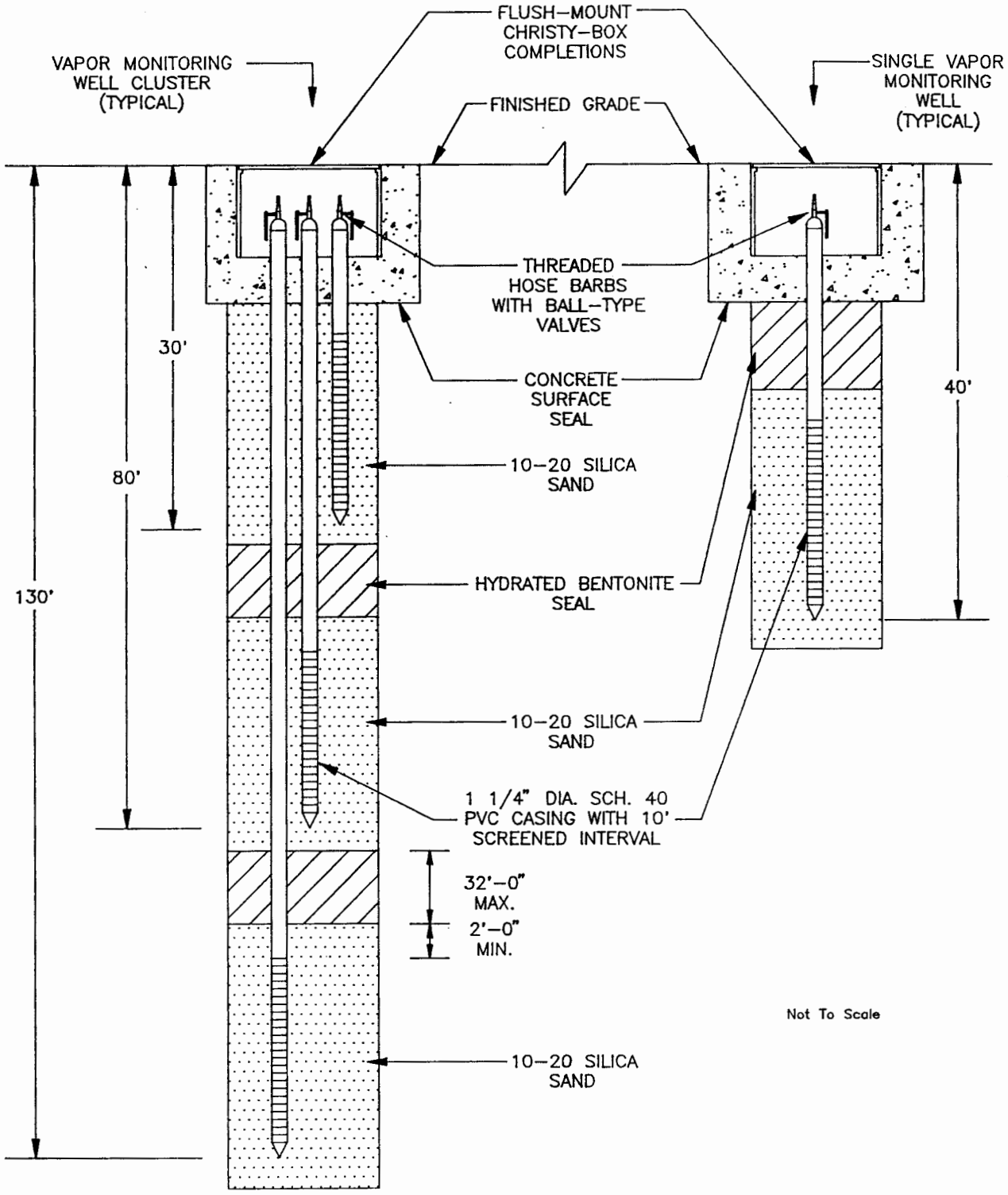


FIGURE 5-5 :VAPOR MONITORING WELLS COMPLETION, PROPOSED SVES, SAFETY-KLEEN CORP. SERVICE CENTER, ALBUQUERQUE, NEW MEXICO

SKANPVWC

extraction wellhead vacuum. S-K will commence full-scale SVES operation following approval of the NMED/AQD air emissions permit. The SVES is intended to operate continuously from startup until remediation is complete.

S-K intends to routinely monitor the SVES to ensure proper operation, compliance with the NMED/AQD operating permit, and progress toward remediation. S-K has proposed the monitoring schedule shown in Table 5-2. This monitoring schedule may be modified based on the results of the pilot test.

Experience at other sites has shown that extracted vapor concentrations decline rapidly during the first few weeks of operation and in-situ remediation may take up to two years to complete. The quarterly monitoring data will be continuously evaluated to determine the SVES performance, and when the in-situ remediation is near completion. During the last month(s) of operation, S-K may intermittently operate the SVES to evaluate progress toward clean closure.

S-K will notify NMED of any operational problems with the proposed SVES which result in shut down for more than 10 days. Note that routine maintenance and performance monitoring may result in shutting down the SVES for periods of one to seven days throughout the life of the system. NMED will also be notified when S-K determines that intermittent operation is necessary to evaluate remedial progress and/or prior to collection of closure verification samples.

5.5 Demonstrating Completion of Remediation

Degraded soils will be remediated to the extent practicable to satisfy cleanup objectives agreed upon between S-K and NMED. As stated in Condition 11 of the May 7, 1993, closure plan approval letter, the cleanup levels shall be NMED-Approved Health-Based Exposure Limit Criteria (reference Federal Register, Vol. 55, No. 145, Appendix A through F, pages 30865-30873, dated July 27, 1990). Respective cleanup levels for VOCs detected at the Albuquerque Service Center are summarized in Table 5-1.

A health-based exposure limit is not specified for mineral spirits or benzene in the proposed USEPA 40 CFR 264, Subpart S regulations. Therefore, S-K proposes that the cleanup level for mineral spirits, as well as benzene, be those specified in the New Mexico Underground Storage Tank Regulations. These levels are also summarized in Table 5-1 and include 100 ppm of total petroleum hydrocarbons (as mineral spirits), and 10 ppm of benzene.

Table 5-2. Monitoring Schedule, Proposed SVES, Safety-Kleen Corp. Service Center, Albuquerque, New Mexico.

Start Up

Day 1:

1. Monitor operating parameters (e.g., flowrate, applied wellhead vacuum, inlet and outlet temperature).

2. Frequently monitor TOV concentrations in the SVES emissions with a PID.

3. Frequently monitor TOV concentrations and induced vacuums at the vapor monitoring wells.

4. Collect two vapor samples from the emissions to be analyzed for a target list of compounds including mineral spirits and at a minimum the VOCs listed in Table 5-1.

Day 2:

1. Monitor operating parameters.

2. Frequently monitor TOV concentrations in the SVES emissions with a PID.

3. Frequently monitor TOV concentrations and induced vacuums at the vapor monitoring wells.

4. Collect one vapor sample from the emissions to be analyzed for the target list of compounds.

End of Week 1:

1. Monitor operating parameters.

2. Monitor TOV concentrations in the SVES in emissions with PID.

3. Monitor TOV concentrations and induced vacuums at the vapor monitoring wells.

4. Collect one vapor sample from emissions to be analyzed for the target list of compounds.

End of Month 1: Same as End of Week 1.

Table 7. Monitoring Schedule, Proposed SVES Safety-Kleen Corp. Service Center, Albuquerque, New Mexico (continued).

Daily for System Life:

Monitor operating parameters (e.g., flowrate, applied wellhead vacuum, inlet and outlet temperatures.

Quarterly for System Life:

1. Monitor operating parameters.
2. Monitor TOV concentrations in the SVES emissions with PID.
3. Monitor TOV concentrations and induced vacuums at the vapor monitoring wells.
4. Collect one vapor sample from emissions to be analyzed for the target list of compounds.
5. Perform routine inspection and maintenance of the system.

Note, mineral spirits and tetrachloroethene (a component of S-K mineral spirits) are the only constituents detected which exceed the proposed clean closure criteria. The proposed SVE system will be designed and operated to focus on remediating the mineral spirits degradation; and, thus reducing the levels of the other detected constituents.

Based on previous experience with soil vapor extraction, S-K believes significant progress toward remediation will occur during the first few months of operation. However, complete remediation by the SVES, to the extent practicable, may take up to two years. The SVES quarterly monitoring results will be evaluated to determine when remediation is complete or near completion. Verification soil samples will be collected to document clean closure at the end of the remediation period.

5.5.1 Preliminary Evaluation of Remedial Progress

When remediation appears to be nearing completion, based on VOC concentrations in the emissions, S-K will conduct performance testing of the SVES. Performance testing will include shutdown for at least one week to allow residual VOCs in the soil, if any, to reach approximate equilibrium. The system will be restarted and a vapor sample will be collected to evaluate residual soil degradation. Based on the results of this performance testing, S-K will coordinate with NMED to demonstrate complete remediation.

5.5.2 Verification Soil Sampling and Analysis

S-K proposes to demonstrate that soil quality has been remediated to the extent necessary to achieve clean closure by collecting and analyzing soil samples from the areas of documented worst-case degradation. Two soil borings will be constructed within the former USTs excavation at the locations of August 1993 boreholes TB-5 and TB-6 (see Figure 4-1). Three soil samples will be collected from each boring. One sample will be collected just below the former USTs excavation, and two samples will be collected from near the depths at which the highest TOV concentrations were measured during August 1993 field screening.

The verification soil sampling and analysis procedures will be in accordance with the NMED-approved closure plan and the same as previous site assessment activities. The four verification soil samples will be analyzed for mineral spirits (modified 8015/ASTM D 3328 or equivalent) and VOCs (8240 or equivalent), including the target list of compounds. Results of the analyses will be compared to the cleanup objectives to

determine whether clean closure has been achieved at the former USTs.

S-K will prepare a closure certification report in accordance with the Phase 5 of the May 18, 1992, Closure plan if the soil sample verification results are less than or equal to the proposed clean closure objectives. If the verification sample results do not satisfy the proposed clean closure objectives, S-K will continue and/or modify the remediation program until clean closure has been achieved. NMED will be notified of the verification soil sample results within 60 days following receipt of complete and accurate laboratory data.

S-K is committed to achieving clean closure of the USTs. Therefore, S-K may request an additional extension of the partial closure period to complete the in-situ remediation and achieve clean closure.

APPENDIX A

PERTINENT CORRESPONDENCE

- PARTIAL CLOSURE PLAN REVISION AND RFI WORKPLAN, DATED JUNE 22, 1992
- RFI WORKPLAN APPROVAL, DATED JULY 28, 1992
- NMED CLOSURE PLAN APPROVAL LETTER, DATED MAY 7, 1993
- REQUEST FOR EXTENSION OF CLOSURE PERIOD, DATED OCTOBER 7, 1993

safety-kleen.

June 22, 1992

Mr. Allyn Davis
Hazardous Waste Management Division
USEPA Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

and

Dr. Herb Grover
Hazardous and Radioactive Materials Division
New Mexico Environment Division
Harold Runnels Building
1190 St. Francis Drive
Santa Fe, NM 87502

Re: Partial Facility Closure and RCRA Facility Investigation, Safety-Kleen Corp. Service Center, 2720 Girard NE, Albuquerque, New Mexico (NMD 000804294)

Dear Sirs:

The HSWA permit conditions for the above-referenced facility requested that a RCRA Facility Investigation (RFI) workplan be prepared to address potential subsurface degradation in the vicinity of a spent solvent sludge tank (SWMU #4). In response to this request, Safety-Kleen Corp. (S-K) submitted a letter dated April 24, 1992, along with copies of the following assessment reports: (1) Onsite Investigation Report, dated November 4, 1991; and (2) Results of Additional Assessment Activities, dated April 14, 1992. These assessment reports, in conjunction with the May 18, 1992, Closure Plan were submitted to USEPA to address the requirements for an RFI workplan.

The partial facility Closure Plan was prepared to address closure of the interim status single wall underground storage tank system (USTs) and old return/fill station. The May 18, 1992, Closure Plan is currently under review by the New Mexico Environment Division (NMED). S-K intends to implement the partial facility Closure Plan and associated assessment activities following agency approval.

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

In a letter dated May 21, 1992, the USEPA Region 6 requested that soil samples be collected at discrete intervals to depths of at least 10 feet below the bottom of the spent solvent sludge tank and associated piping. S-K proposes to perform the required sampling and analysis as part of Phase 3 (Additional Assessment Activities) of the interim status Closure Plan. At least one soil boring/test pit will be constructed to sample soils underlying former location of the old spent solvent sludge tank. Soil sampling and analysis will be performed in accordance with the procedures described under Activity 3.1 of the May 18, 1992 Closure Plan and USEPA letter dated May 21, 1992.

The partial facility Closure Plan focuses on the interim status return/fill station and 10,000 gallon spent mineral spirits UST because S-K records are unclear as to the status (absence/presence) of the old spent solvent sludge tank. In the event that the old sludge tank is present, S-K will close the unit during implementation of the proposed partial facility closure activities. The old sludge tank (SWMU #4) will be managed in the same manner as the 10,000 gallon spent mineral spirits UST (Phases 1 through 3 of the Closure Plan).

S-K requests that this letter be considered an addendum to the May 18, 1992, partial facility Closure Plan, and therefore satisfy the RFI workplan requirements. If you have any questions, please feel free to contact me at 310-831-3903.

Sincerely,
SAFETY-KLEEN CORP.

Anne Lunt

Anne Lunt
Senior Project Manager - Remediation

ahj/502

cc: Gary Long
Bob Wachsmuth
Ralph Ondatje

561

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TEXAS 75202-2733

JUN 30 1992

received 7/8/92

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Anne Lunt
Sr. Project Manager-Remediation
Safety-Kleen
P.O. Box 1429
San Pedro, California 90733

RE: RCRA Facility Investigation (RFI) Workplan Approval for Safety-Kleen in Albuquerque, New Mexico (NMD000804294)

Dear Ms. Lunt:

We hereby approve your RCRA Facility Investigation Workplan for the underground storage tank (SWMU No. 4). The approved RFI Workplan consists of the May 18 and June 22, 1992 submittals. Enclosed is a copy of the RCRA Facility Assessment, which you requested.

The RFI Report for the underground storage tank is due January 2, 1993. If you have any questions concerning this matter, please contact Rich Mayer of my staff at (214) 655-6775.

Sincerely yours,

Allyn M. Davis, Director
Hazardous Waste Management Division (6H)

cc: Kathy Sisneros, NMED

Post-it™ brand fax transmittal memo 7671	# of pages ▸ 1
To Joe Herrin	From Anne Lunt
Co.	Co.
Dept.	Phone #
Fax #	Fax #

#714

State of New Mexico
ENVIRONMENT DEPARTMENT
Harold Runnels Building
1190 St. Francis Drive, P.O. Box 26110
Santa Fe, New Mexico 87502
(505) 827-2850

BRUCE KING
GOVERNOR

JUDITH M. ESPINOSA
SECRETARY

RON CURRY
DEPUTY SECRETARY

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

May 7, 1993

Joe Herrin, Senior Project Manager
Remediation
Safety-Kleen Corp.
17629 El Camino Real, Suite 400
Houston, Texas 77058

RE: Response to Public Comments and Closure Plan Approval

Dear Mr. Herrin:

The New Mexico Environment Department (NMED) hereby approves the final closure plan for Safety-Kleen Corp. Service Center 2720 Girard NE, Albuquerque, New Mexico (NMD000804294) dated May 18, 1992, with the enclosed Conditions for Closure Plan Approval. The Conditions for Closure Plan Approval is an addendum to the closure plan dated May 18, 1992. The approved plan is for closure of an underground storage tank system located at your Albuquerque facility.

On March 26, 1993, the Hazardous and Radioactive Materials Bureau (HRMB) of the NMED released the proposed closure plan for public notice. The closure plan issued for public comment included draft Conditions for Closure Plan Approval proposed by the HRMB. The HRMB received comments on the proposed closure plan during the public comment period which ended on April 26, 1993. Enclosed is NMED's Response to Comments.

The effective date of the NMED closure plan approval is May 14, 1993. This is the date that the HRMB will begin tracking Safety-Kleen's compliance with the schedule on page VII-2, Figure VII-1 of the approved closure plan. Safety-Kleen shall complete all closure activities and submit the closure certification to NMED by November 10, 1993, unless Safety-Kleen demonstrates to NMED, at least by October 11, 1993, that closure activities will, of necessity, take longer than 180 days to complete.

New Mexico DRUG FREE

Please contact Barbara Hoditschek or Marc Sides of my staff at (505) 827-4308 if you have any questions.

Sincerely,

Kathleen M. Sisneros, Director
Water and Waste Management Division

Enclosures

cc: Benito Garcia, HRMB
Barbara Hoditschek, HRMB
Marc Sides, HRMB
Bob Wachsmuth, Safety-Kleen
Jack Bedessem, Safety-Kleen
Dan Vigil, NMED District I Office
David Neleigh, EPA
File - Red

CONDITIONS FOR CLOSURE PLAN APPROVAL

SAFETY-KLEEN CORP. SERVICE CENTER CLOSURE PLAN
ALBUQUERQUE, NEW MEXICO
DATED MAY 18, 1992

The following Conditions for Closure Plan Approval is an addendum to the Closure Plan Safety-Kleen Corp. Service Center 2720 Girard NE, Albuquerque, New Mexico (NMD000804294) dated May 18, 1992. These conditions take precedence over any less stringent or conflicting requirements found in the above referenced document.

Page #III-7, first paragraph:

1. Any contamination identified during closure activities shall be subject to RCRA hazardous waste management requirements unless Safety-Kleen clearly demonstrates to NMED that the contamination resulted from sources other than a RCRA regulated hazardous waste management unit.

Page #III-7, paragraph 5:

2. All waste residues and decontamination waste water generated during closure activities shall be disposed of as hazardous waste unless laboratory analytical results demonstrate the waste is non-hazardous.

Page III-11, third paragraph:

3. Contaminated soils and concrete that are excavated during closure are subject to HWMR-7, Part VI, Section 40 CFR 265.117(a) and shall be managed and disposed of properly as non-hazardous or hazardous waste. Safety-Kleen shall notify NMED of any materials excavated and allow NMED the opportunity to collect all samples that NMED deems appropriate to confirm the nature of the waste.

Page III-12, second paragraph:

4. Degraded soils and other waste debris excavated during closure activities that are temporarily stored on plastic sheeting shall be kept covered or otherwise managed to minimize wind dispersal and precipitation run-on and run-off.

Page III-12, third paragraph:

5. The HRMB shall be notified at least 10 days prior to the soil sampling events.

Page III-13:

6. Safety-Kleen shall collect and analyze soil samples at a depth of 24" to 30" at the location selected in #1 and #2 in Activity 2.7, pages III-12 and III-13, (8 samples total).

Page III-13, fourth paragraph:

7. A closure plan amendment request will be prepared and submitted to the NMED within 60 days of completion of Phase 3 sample collection or by November 10, 1993, whichever is later. The amendment request shall include a plan to effectively monitor, and remediate any residual subsurface contamination to below NMED-Approved Health-Based Exposure Limit Criteria.

Page III-14, Activity 2.9:

8. Safety-Kleen shall report the location where clean fill was obtained.

Page IV-2, third paragraph:

9. Subsurface soils laboratory analytical results shall demonstrate at least 10 feet of uncontaminated soils underneath the USTs in the vadose zone, or groundwater monitoring shall be conducted to determine impacts to groundwater from releases from the units.

Page IV-4, second paragraph:

10. The Phase 3 assessment report shall be submitted to NMED within 60 days after Phase 3 samples are collected or by November 10, 1993, whichever is later.

Page IV-4, third paragraph:

11. The clean up levels shall be NMED-Approved Health-Based Exposure Limit Criteria. The criteria for clean closure are found in 55 FR No. 145, Appendix A through F, pages 30865-30873, dated July 27, 1990. The EPA Office of Solid Waste at (202) 260-4761 or the Environmental Criteria Assessment Office at (513) 569-7595 shall be consulted for the most current health effects data on any constituent of interest. The Point of Exposure is the location of the highest concentration of contamination released to the subsurface within the excavated unit. Combined health effects of contaminants shall be used to establish clean up concentrations.

Page V-1:

12. Safety-Kleen shall conduct Phase 3 Additional Assessment activities to determine the extent of soil and groundwater degradation and to develop site clean up activities. Within 60 days of completion of Phase 3 activities Safety-Kleen shall submit to NMED a detailed closure plan modification request to remove or decontaminate the site to NMED-Approved Health-Based Exposure Limit Criteria, or Safety-Kleen shall submit the certification report described in Activity 5.2.

Page VI-fourth paragraph:

13. The independent registered professional engineer shall be registered in the State of New Mexico.

NEW MEXICO ENVIRONMENT DEPARTMENT

RESPONSE TO COMMENTS

on the
Safety-Kleen Corp. Service Center Closure Plan
2720 Girard NE, Albuquerque, New Mexico

May 7, 1993

Below are significant public comments received on the proposed closure plan by the New Mexico Environment Department (NMED) during the public comment period which ran from March 26, 1993, through April 26, 1993. Following the comment is NMED's response and any changes made in finalizing the closure plan approval.

1. Comment: Conditions for Closure Plan Approval #1

S-K preformed a preliminary subsurface investigation in January-February 1992 to evaluate the potential impacts in the vicinity of the old USTs and return/fill station (reference Appendix B of Closure Plan). During the 1992 investigation, samples were collected from soil borings constructed as close to the old USTs and return/fill station as possible. The samples were field screened, and the most impacted soil samples were submitted to the laboratory for analyses. In addition, a composite sample (DS-1) of the auger cuttings was submitted for laboratory analysis of the toxicity characteristics.

The results of the analyses indicate that the degraded soils in the vicinity of the units scheduled for closure do not exhibit the characteristics of hazardous waste. Based on the 1992 investigation results and considerable past experience, S-K believes that degradation encountered during the proposed closure activities may be managed as non-hazardous waste. S-K proposes to inspect the material excavated during closure activities. If conditions appear different than anticipated or identified during the 1992 investigation, additional samples will be collected.

NMED Response:

Condition for Closure Plan Approval #1 was proposed to address the following statement on page III-7 of the closure plan: "The mineral spirits product tank and subsurface degradation associated with the product tank, if present, are not subject to RCRA hazardous waste closure regulations." NMED proposed Condition for Closure Plan Approval #1 to clarify that any and all subsurface degradation found during the conduct of approved closure plan activities is subject to RCRA closure regulations unless Safety-Kleen clearly demonstrates to NMED that the subsurface contamination present results from sources other than the RCRA regulated unit (eg. the mineral spirits

product tank or other potential contaminant source). This means that all activities approved in the closure plan are subject to the New Mexico Hazardous Waste Management Regulations (HWMR-7), Part VI, Subpart G closure regulations and any waste material or contaminated soil excavated or removed during closure activities is subject to HWMR-7, Part VI, Section 40 CFR 265.117(a). Likewise, any contamination left in place must meet NMED-Approved Health-Based Exposure Limit Criteria as the closure performance standard applicable to RCRA regulated units in order for NMED to accept a clean closure certification.

Changes Made in Finalizing Closure Plan Approval:

No changes were made to proposed Condition for Closure Plan Approval #1 in finalizing the closure plan approval.

2. Comment: Conditions for Closure Plan Approval #3

The inactive UST and return/fill station were used to manage spent mineral spirits. Spent mineral spirits has the potential to exhibit the characteristics of ignitability and toxicity (reference Table II-1 of Closure Plan). Therefore, soils and concrete degraded with spent mineral spirits would be hazardous only if the material exhibits the characteristics of hazardous waste.

As discussed in the Response to Condition (1), samples collected during the 1992 investigation were analyzed to evaluate the characteristics, degree and extent of degradation. The results of the analyses indicate soils in the vicinity of the old UST and return/fill station do not exhibit the toxicity characteristics of hazardous waste. Therefore, S-K believes that additional sampling and analysis of soils and/or concrete is unnecessary to document/justify appropriate management as a non-hazardous waste.

NMED Response:

Condition for Closure Plan Approval #3 proposes sampling and laboratory analysis of contaminated soils and concrete to determine proper disposal as non-hazardous or hazardous waste. The commentor states that preliminary investigations have not identified contaminated soils that would have to managed as hazardous waste if excavated. NMED is not convinced that Safety-Kleen has demonstrated that the limited investigations conducted in 1992 have identified the highest concentrations of contamination in subsoils. One of the main goals of closure activities is to determine the extent of subsoil contamination and its concentrations in order to make decisions on the amount of any excavation necessary to meet the clean closure performance standards.

NMED recognizes that methods other than sampling and laboratory analysis are available to make a hazardous waste determination. Safety-Kleen is ultimately responsible for making a proper determination of whether or not excavated soils are hazardous, and properly managing the waste. Any excavated soils generated during closure are subject to HWMR-7, Part VI, Section 40 CFR 265.117(a). NMED is not requiring that Safety-Kleen conduct laboratory analysis of excavated soils to make a hazard determination. However, NMED reserves the right to take samples to ensure that they are managed properly.

Changes Made in Finalizing Closure Plan Approval:

Condition for Closure Plan Approval #3 is revised as follows:

Contaminated soils and concrete that are excavated during closure are subject to HWMR-7, Part VI, Section 40 CFR 265.117(a), and shall be managed and disposed of properly as hazardous or non-hazardous waste. Safety-Kleen shall notify NMED of any materials excavated and allow NMED the opportunity to collect all samples that NMED deems appropriate to confirm the nature of the waste.

3. Comment: Conditions for Closure Plan Approval #7

This condition refers to submittal of a closure plan amendment which is referenced under Activity 2.7 (page III-13) and Phase 4 (page V-1). The results of Phase 3 (Additional Assessment Activities) will be necessary to evaluate the extent of potential subsurface impacts and develop an appropriate closure plan amendment/remedial action plan. Therefore, S-K proposes to submit a closure progress report (Phases 1-3) and a closure plan amendment/remedial action plan (Phase 4) within 60 days following receipt of complete and accurate laboratory data from Phases 2 and 3.

NMED Response:

Condition for Closure Plan Approval #7 requires Safety-Kleen to submit a closure plan amendment request to NMED within 60 days of completion of Phase 3 sample collection. Closure regulations stipulate that closure activities be completed within 180 days after closure plan approval by the Department. NMED requires Safety-Kleen to submit a closure plan amendment request or closure certification by November 10, 1993 or within 60 days of completion of Phase 3 sample collection, whichever is later. Safety-Kleen is responsible for ensuring timely receipt of laboratory analytical data. The schedule on Figure VII-1 establishes the time frame for completion of Phase 3 sampling efforts.

Changes Made in Finalizing Closure Plan Approval:

Condition for Closure Plan Approval #7 is revised as follows:

A closure plan amendment request will be prepared and submitted to the NMED within 60 days of completion of Phase 3 sample collection or by November 10, 1993, whichever is later. The amendment request shall include a plan to effectively monitor, and remediate any residual subsurface contamination to below NMED-Approved Health-Based Exposure Limit Criteria.

4. Comment: Conditions for Closure Plan Approval #10

The results of the additional assessment activities (Phase 3) will be necessary to evaluate the extent of subsurface impacts and develop an appropriate remedial action program. S-K intends to prepare the Phase 3 assessment report in conjunction with the closure progress report and closure plan amendment (reference Condition 7). Therefore S-K proposes submittal of this comprehensive document(s) within 60 days following receipt of complete and accurate laboratory data, as opposed to within 60 days after sample collection.

NMED Response:

Condition for Closure Plan Approval #10 requires the Phase 3 assessment report to be submitted to the NMED within 60 days after samples are collected. Since Safety-Kleen intends to prepare this report in conjunction with the closure progress report and closure plan amendment, NMED requires that the Phase 3 assessment report be submitted at the same time as the closure progress report, closure plan amendment, and/or the closure certification. Since closure activities are to be completed within 180 days after closure plan approval by the Department, the Phase 3 assessment report submittal can not extend beyond that time period, unless Safety-Kleen demonstrates to NMED that closure activities will, of necessity, extend beyond 180 days. Therefore, the Phase 3 assessment report is due to be submitted to NMED by November 10, 1993, or within 60 days after Phase 3 samples are collected, whichever is later.

Changes Made in Finalizing Closure Plan Approval:

Condition for Closure Plan Approval #10 is revised as follows:

The Phase 3 assessment report shall be submitted to NMED within 60 days after Phase 3 samples are collected or by November, 10, 1993, whichever is later.

safety-kleen.

October 7, 1993

Mr. Marc Sides
Water and Waste Management Division
New Mexico Environment Department
Harold Runnels Building
1190 St. Francis Drive
Santa Fe, New Mexico 87502

Re: Request for Extension to the Closure Period, Safety-Kleen Corp. Service Center, Albuquerque, New Mexico

Dear Mr. Sides:

Safety-Kleen Corp. (S-K) has commenced closure of an inactive underground storage tank (UST) system, return/fill station, and associated equipment at the service center in Albuquerque, New Mexico. The inactive units are being closed in accordance with a closure plan dated May 18, 1992, and approved (with conditions) by New Mexico Environment Department (NMED) in a letter dated May 7, 1993.

A 180-day closure period commenced on May 14, 1993. Closure activities completed to date in accordance with the approved-closure plan include:

1. Decontamination and removal of the inactive spent mineral spirits and product mineral spirits (not a hazardous waste management unit) USTs in July 1993; and

2. Implementation of additional assessment activities in August 1993 to fully evaluate the horizontal and vertical extent of subsurface impacts.

S-K plans to submit a closure progress report to NMED on or before November 10, 1993, which summarizes the results of these closure activities. The results of the completed closure activities confirm that soil quality degradation exists in the vicinity of the former USTs. Therefore, an extension of the closure period will be necessary to remediate the remaining soil degradation and achieve the closure objectives. In accordance with the NMED closure plan approval letter, and 40 CFR 265.113(b)(1), the purpose of this letter is to request an extension of the closure period.

A plan for in-situ remediation of degraded soils will be included in the closure progress report. The closure progress report will also include a closure plan amendment request and a schedule for

1000 NORTH RANDALL ROAD ELGIN, ILLINOIS 60123-7857 PHONE 708/697-8460 FAX 708/468-8500

implementation of the remedial action plan. S-K is requesting a closure period extension in accordance with the schedule to be proposed in the closure progress report.

S-K is committed to achieving clean closure at the Albuquerque Service Center and intends to remediate soil impacts to the extent necessary to meet the closure performance standard. If you have any questions regarding this request for extension of the closure period, please contact Jack Bedessem (TriHydro Corporation) at (307) 745-7474 or me at (713) 280-9754.

Sincerely,
SAFETY-KLEEN CORP.

Tom Madsen

for Joe Herrin
Senior Project Manager - Remediation

JH:TM:lrb/739

cc: Barbara Hoditschek, NMED
David Neleigh, EPA
Gary Long, S-K
Bob Wachsmuth, S-K
Ron Stephanson, S-K
TriHydro Corporation

APPENDIX B

PRE-EXCAVATION SOIL QUALITY CHARACTERISTICS
WASTE MANAGEMENT WASTE PROFILE
LABORATORY DATA REPORTS

TriHydro Corporation

920 Sheridan Street
Laramie, Wyoming 82070

(307) 745-7474
FAX: (307) 745-7729

CORRES

June 30, 1993

Mr. Kevin Bunker
Waste Management of New Mexico
402 Industrial Park Loop NE
Rio Rancho, NM 87124

Re: Disposal of Degraded Soils From Safety-Kleen Corp. Service Center, Albuquerque, New Mexico

Dear Mr. Bunker:

Safety-Kleen Corp. (S-K) intends to remove underground storage tanks (USTs) from the S-K service center in Albuquerque, New Mexico during the week of July 19 or July 26, 1993. Between 100 and 200 cubic yards of soils and construction debris degraded with mineral spirits will be generated during the onsite activities. S-K requests approval from Waste Management to dispose of the soil and construction debris (concrete, lumber, etc.) at the Waste Management Rio Rancho Landfill near Albuquerque, New Mexico. Enclosed as Attachment A is a completed Generator's Waste Profile Sheet.

S-K arranged to have soil samples taken from the area surrounding the USTs during the week of June 1, 1993. Six test holes were constructed to a depth of approximately three feet below ground surface, and soil was obtained from each site. The soils were composited into one representative sample and submitted to GTEL Laboratory (Wichita, KS) for TCLP analyses (metals, VOCs, and semi-volatiles) in accordance with 40 CFR 261.24. In addition, the composite soil sample was analyzed for total metals (cadmium, chromium and lead), volatile organic compounds, ignitibility and mineral spirits.

Mineral spirits (230 mg/kg) and two total metals, (chromium at 11 mg/kg and lead at 10 mg/kg) were the only constituents detected in the representative composite soil sample. Copies of the laboratory data sheets and chain-of-custody/sample-analysis-request forms are included in Attachment B. A Material Safety Data Sheet for S-K mineral spirits is included as Attachment C.

S-K requests that Waste Management evaluate the analytical data and determine if the soils and construction debris are acceptable for disposal at the Rio Rancho Landfill. Subsequent to Waste Management's approval, S-K will make arrangements to have the soils loaded and transported to the landfill. If any other forms and/or information are required by Waste Management, S-K would appreciate receiving notice of these items as soon as possible. Note Waste

Management approved disposal of similar soils from this site under Waste Profile Sheet Code 170474 (1992).

The invoice(s) for disposal of this soil and construction debris should be submitted to Joe Herrin, Safety-Kleen Corp., 17629 El Camino Real, Houston, TX 77058. In addition, the invoice(s) must include the site name (Safety-Kleen Corp., Albuquerque, New Mexico) and S-K authorization No. RM250910248582.

Disposal activities will be coordinated primarily through TriHydro Corporation (Laramie, Wyoming). If you have any questions or need additional information, please feel free to call either Jack Bedessem or Jeff Weber (TriHydro Corporation) at (307) 745-7474 or me at (713) 280-9754.

Sincerely,
SAFETY-KLEEN CORP.

Joe Herrin
Senior Project Manager - Remediation

JAW:ahj/714

Attachments

cc: Gary Long

ATTACHMENT A

GENERATOR'S WASTE PROFILE SHEET

GENERATOR'S WASTE PROFILE SHEET

PLEASE PRINT IN INK OR TYPE

Waste Profile Sheet Code: WMNA 028463

This form is to be used to comply with the requirements of a waste agreement.

INSTRUCTIONS FOR COMPLETING THIS FORM ARE ATTACHED

(Shaded Areas For Contractor Use Only) Decision Expiration Date: / /

Contractor Sales Rep#: _____ Service Agr. Renewal Date: / /

A. WASTE GENERATOR INFORMATION

1. Generator Name: Safety-Kleen Corp. 2. SIC Code: 7399
3. Facility Address (site of waste generation): 2720 Girard Blvd. NE
4. Generator City, State/Province: Albuquerque, NM 5. Zip/Postal Code: 87107
6. Generator USEPA/Federal ID #: NMD000804294 7. State/Province ID #: _____
8. Technical Contact: Mr. Joe Herrin 9. Phone: (310) 831 - 3903

B. WASTE STREAM INFORMATION (See Instructions)

1. Name of Waste: Soil and construction debris contaminated with mineral spirits
2. Process Generating Waste: UST removal
3. Annual Amount/Units: 200 yds^3 4. Type A ☒ Type B ☐
5. Special Handling Instructions/Supplemental Information: See Laboratory Data Sheets (Attachment B) and S-K Material Safety Data Sheet (Attachment C)
6. Incidental Waste Types and Amounts: None

C. TRANSPORTATION INFORMATION

1. Method of Shipment: ☐ Bulk Liquid ☐ Bulk Sludge ☒ Bulk Solid ☐ Drum/Box ☐ Other _____
2. Supplemental Shipping Information: _____
3. Is this a DOT hazardous material? ☒ No ☐ Yes (If yes, complete 4, 5 & 6) 4. Hazard Class/ID #: N/A
5. Reportable Quantity/Units (lb/kg): N/A 6. Shipping Name: N/A

D. TECHNICAL MANAGER DECISION (Check One) ☐ **APPROVED** ☐ **DISAPPROVED** ☐ Check if additional information is attached

If Disapproved, Explain:
If Approved, Continue.
1. Management Method(s)
2. Precautions, Conditions, or Limitations on Approval:
3. For Type A Wastes, Laboratory Analysis of a Representative Sample Was: ☐ Waived ☐ Attached
If waived, explain why:
4. List Non-WMI Facility that is Approved to Manage this Waste: _____ Date: _____
Tech. Mgr. Signature: _____ Name (Print): _____ Date: _____

E. MANAGEMENT FACILITY INFORMATION / DECISION

1. Proposed Management Facility: _____
2. Proposed Intermediate Transfer Facility: _____ 3. Transporter: _____
4. **Management Facility Gen. Mgr. Decision (Check One)** ☐ **APPROVED** ☐ **DISAPPROVED**

If Disapproved, Explain:
If Approved, List Precautions, Conditions, or Limitations on Approval:
General Mgr. Signature: _____ Name (Print): _____ Date: _____

Turn Page and Complete Side 2 (If Type B Special Waste, only complete Part J of Side 2)

GENERATOR'S WASTE PROFILE SHEET

PLEASE PRINT IN INK OR TYPE

F. PHYSICAL CHARACTERISTICS OF WASTE (See Instructions)

1. Color	2. Does the waste have a strong incidental odor?	3. Physical State @ 70°F/21°C:	4. Layers	5. Specific Gravity	6. Free Liquids:
N/A	☐ No ☒ Yes; if so, describe: Solvent	☐ Solid ☐ Semi-Solid ☐ Liquid ☐ Powder ☐ Other: N/A	☐ Multi-layered ☐ Bi-layered ☒ Single Phased	Range 1.8 - 2.2	☐ Yes ☒ No Volume: N/A %

7. pH: ☐ ≤2 ☐ > 2-4 ☐ 4-7 ☐ 7 ☐ 7-10 ☐ 10- <12.5 ☐ ≥12.5 ☐ Range ☒ NA

8. Flash Point: ☐ None ☐ <140°F/60°C ☐ 140 - 199°F/60 - 93°C ☒ ≥200°F/93°C ☐ Closed Cup ☐ Open Cup

G. CHEMICAL COMPOSITION

	RANGE (MIN-MAX)
See attached Laboratory Data Sheets	- %
(Attachment B)	- %
	- %
Soil	84.98-85 %
Construction Debris (Concrete,	- %
Lumber)	0-15 %
Mineral Spirits	0-0.02 %
	- %
	- %
Total:	100.02 %

2. Does the waste contain any of the following? (provide concentration if known):

	NO	or	LESS THAN	or	ACTUAL
PCBs	☒		☐ < 50 ppm		____ ppm
Cyanides	☒		☐ < 30 ppm		____ ppm
Sulfides	☒		☐ < 500 ppm		____ ppm

Please note: Unless analytical results are attached, the chemical composition identification should include, at a minimum, Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, Silver, Pesticides, Herbicides, and any other TCLP constituents that may be present in the waste. The total composition must be greater than or equal to 100%. (.0001% = 1 ppm or 1 mg/l)

3. Indicate method used to determine composition (if provided): ☒ TCLP ☒ Total ☐ Other: ____

H. SAMPLING SOURCE (e.g., Drum, Lagoon, Pit, Pond, Tank, Vat) Test Hole Composite

I. REPRESENTATIVE SAMPLE CERTIFICATION

1. Print Sampler's Name: Jeffrey A. Weber 2. Sample Date: June 1, 1993
3. Sampler's Title: Engineer
4. Sampler's Employer (if other than Generator): TriHydro Corporation, Laramie, Wyoming

The sampler's signature certifies that any sample submitted is representative of the waste described above pursuant to 40 CFR 261.20(c) or equivalent rules.

5. Sampler's Signature Jeffrey A. Weber

J. GENERATOR CERTIFICATION

By signing this profile sheet, the Generator cetifies:

1. This waste is not a "Hazardous Waste" as defined by USEPA or Canadian Federal regulation and/or the state/province.
2. This waste does not contain regulated radioactive materials or regulated concentrations of PCB's (Polychiorinated Biphenyls).
3. The unshaded portions of this sheet and the attachments contain true and accurate descriptions of the waste material. All relevant information regarding known or suspected hazards in the possession of the Generator has been disclosed.
4. The Generator has read and understands the Contractor's Definition of Special Waste included in Part B.5. of the attached instructions form. All types and amounts of special wastes provided in incidental amounts have been identified in section B.6. of this form.
5. The analytical data presented herein or attached hereto were derived from testing a representative sample taken in accordance with 40 CFR 261.20(c) or equivalent rules.
6. If any changes occur in the character of the waste, the Generator shall notify the Contractor prior to providing the waste to the Contractor.

7. Signature Joe Herrin 8. Title Senior Project Manager - Remediation
9. Name (Type or Print) Joe Herrin 10. Date 6-30-93

ATTACHMENT B

SOIL QUALITY DATA
LABORATORY DATA SHEETS

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Midwest Region
4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)

GTEL Client Number: TRI02.SFK01
Project ID (Number): 714
Project ID (Name): SK - Albuquerque, NM
Work Order Number: W3-06-0018

June 16, 1993

Jack Bedessem
TriHydro Corporation
920 Sheridan Street
Laramie, WY 82070

Dear Mr. Bedessem:

Enclosed please find the analytical results for samples received by GTEL Environmental Laboratories on 06-02-93.

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 met QA/QC criteria unless otherwise stated in the footnotes.

GTEL is certified by the State of Kansas under Certification #E-103 and #E-1113.

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

Sincerely,

Lori K Longe
Asst Lab Director
for

Terry R. Loucks
Laboratory Director

GTEL Wichita, KS
COVLET.SET

GTEL Client Number: TRI02.SFK01
Project ID (Number): 561
Project ID (Name): SK - Albuquerque, NM
Work Order Number: W3-06-0018
Date Reported: 06-16-93

Table 1

ANALYTICAL RESULTS

Total Petroleum Hydrocarbons as Mineral Spirits in Soil
GC/FID[a]

Sample Identification		Date Sampled	Date Extracted	Date Analyzed	Concentration, mg/kg	Reporting Limit, mg/kg	% Solids
GTEL No.	Client ID						
01	060193-COMP	06-01-93	06-09-93	06-11-93	230	10	97.7

a ASTM Method D3328 (modified) is used for qualitative identification of fuel patterns. The method has been modified to include quantitation by applying calibration and quality assurance guidelines outlined in EPA's publication, Test Methods for Evaluating Solid Waste, SW846, Third Edition, Revision 0, November 1986. Extraction by modified EPA Method 3550. Results are calculated on a wet weight basis.

b Chromatographic pattern indicated the presence of non-target hydrocarbons.

NOTE: Sample temperature when received at the laboratory was 8°C.

GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL Client Number: TRI02.SFK01
Project ID (Number): 714
Project ID (Name): SK - Albuquerque, NM
Work Order Number: W3-06-0018
Date Reported: 06-15-93

ANALYTICAL RESULTS

Volatile Organics in Soil
EPA Method 8240[a]

GTEL Sample Number		01			
Client Identification		060193 Comp			
Date Sampled		06-01-93			
Date Analyzed		06-06-93			
Dilution Multiplier[b]		1			
Analyte	Reporting Limit, mg/kg	Concentration, mg/kg			
Chloromethane	1.2	<1.2			
Bromomethane	1.2	<1.2			
Vinyl Chloride	1.2	<1.2			
Chloroethane	1.2	<1.2			
Methylene Chloride	1.2	<1.2			
Acetone	2.5	<2.5			
Carbon Disulfide	0.6	<0.6			
1,1-Dichloroethene	0.6	<0.6			
1,1-Dichloroethane	0.6	<0.6			
1,2-Dichloroethene (total)[c]	0.6	<0.6			
Chloroform	0.6	<0.6			
1,2-Dichloroethane	0.6	<0.6			
2-Butanone	2.5	<2.5			
1,1,1-Trichloroethane	0.6	<0.6			
Carbon Tetrachloride	0.6	<0.6			
Vinyl Acetate	2.5	<2.5			
Bromodichloromethane	0.6	<0.6			
1,2-Dichloropropane	0.6	<0.6			
cis-1,3-Dichloropropene	0.6	<0.6			
Trichloroethene	0.6	<0.6			
Dibromochloromethane	0.6	<0.6			

GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL Client Number: TRI02.SFK01
Project ID (Number): 714
Project ID (Name): SK - Albuquerque, NM
Work Order Number: W3-06-0018
Date Reported: 06-15-93

ANALYTICAL RESULTS

Volatile Organics in Soil
EPA Method 8240[a]

GTEL Sample Number		01			
Client Identification		060193 Comp			
Date Sampled		06-01-93			
Date Analyzed		06-06-93			
Dilution Multiplier[b]		1			
Analyte	Reporting Limit, mg/kg	Concentration, mg/kg			
1,1,2-Trichloroethane	0.6	<0.6			
Benzene	0.6	<0.6			
2-Chloroethylvinyl Ether	1.2	<1.2			
trans-1,3-Dichloropropene	0.6	<0.6			
Bromoform	0.6	<0.6			
4-Methyl-2-pentanone	2.5	<2.5			
2-Hexanone	2.5	<2.5			
Tetrachloroethene	0.6	<0.6			
1,1,2,2-Tetrachloroethane	0.6	<0.6			
Toluene	0.6	<0.6			
Chlorobenzene	0.6	<0.6			
Ethylbenzene	0.6	<0.6			
Styrene	0.6	<0.6			
Xylenes (total)	0.6	<0.6			
1,2-Dichlorobenzene	1.2	<1.2			
1,3-Dichlorobenzene	1.2	<1.2			
1,4-Dichlorobenzene	1.2	<1.2			
Percent Solids	%	97.7			

a Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986; sample preparation by high-level methanol extraction and purge and trap. This method is modified for megabore column use and additional compounds. Results are calculated on a wet weight basis.

b Dilution multiplier indicates the adjustments made for sample dilution.

c Total 1,2-dichloroethene is the sum of the cis- and trans- isomers.

NOTE: Lower detection limits could not be achieved due to the high concentration of non-target analytes.

NOTE: Sample temperature when received at the laboratory was 8°C.

GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL Client Number: TRI02.SFK01
Project ID (Number): 561
Project ID (Name): SK - Albuquerque, NM
Work Order Number: W3-06-0018
Date Reported: 06-16-93

Table 1

ANALYTICAL RESULTS

Metals in Soil[a]

GTEL Sample Number			01			
Client Identification			060193 Comp			
Date Sampled			06-01-93			
Date Digested			06-11-93			
Date Analyzed			06-14-93			
Analyte	Method	QL,* mg/Kg	Concentration, mg/Kg			
Cadmium	EPA 6010	2	<2			
Chromium	EPA 6010	1	**11**			
Lead	EPA 6010	10	**10**			
Percent Solids			97.7			

a Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986; Digestion by Method 3050, except 7471 which is method specific. Results calculated on a wet weight basis.

* Quantitation Limit.

NOTE: Sample temperature when received at the laboratory was 8°C.

GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL Client Number: TRI02.SFK01
Project ID (Number): 714
Project ID (Name): SK - Albuquerque, NM
Work Order Number: W3-06-0018
Date Reported: 06-15-93

ANALYTICAL RESULTS

Volatile Organics in TCLP Leachate[a]
EPA Method 8240 Modified

GTEL Sample Number		01			
Client Identification		060193 Comp			
Date Sampled		06-01-93			
Date Leached		06-03-93			
Extraction Fluid		1			
Date Analyzed		06-06-93			
Dilution Multiplier[b]		1			
Analyte	Reporting Limit, mg/L	Concentration, mg/L			
Benzene	0.050	<0.050			
Carbon tetrachloride	0.050	<0.050			
Chlorobenzene	0.050	<0.050			
Chloroform	0.050	<0.050			
1,4-Dichlorobenzene	0.050	<0.050			
1,2-Dichloroethane	0.050	<0.050			
1,1-Dichloroethylene	0.050	<0.050			
Methyl ethyl ketone	0.20	<0.20			
Tetrachloroethylene	0.050	<0.050			
Trichloroethylene	0.050	<0.050			
Vinyl chloride	0.10	<0.10			

a Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA, November 1986. This method is modified for megabore column use. TCLP is performed as per 40 CFR, Part 261, Appendix II - Method 1311. These data are presented in accordance with the Federal Register 57, p. 55114, November 24, 1992.

b Dilution multiplier indicates the adjustments made for sample dilution.

NOTE: Sample temperature when received at the laboratory was 8°C.

GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL Client Number: TRI02.SFK01
Project ID (Number): 714
Project ID (Name): SK - Albuquerque, NM
Work Order Number: W3-06-0018
Date Reported: 06-16-93

ANALYTICAL RESULTS

Semivolatile Organics in TCLP Leachate[a]
EPA Method 8270[b]

GTEL Sample Number		01			
Client Identification		060193-Comp			
Date Sampled		06-01-93			
Date Leached		06-07-93			
Date Extracted		06-11-93			
Extraction Fluid		#2			
Date Analyzed		06-14-93			
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[c]		1			

a Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA, November 1986; extraction by EPA Method 3510 (liquid/liquid). TCLP performed as per 40 CFR, Part 261, Appendix II - Method 1311. These data are presented in accordance with the Federal Register, 57, p.55114, November 24, 1992.

b Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA, November 1986; extraction by EPA Method 3510 (liquid/liquid).

c The quantitation limit multiplier indicates the adjustments made to the data and detection limits for sample dilutions.

NOTE: Sample temperature when received at the laboratory was 8°C.

GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL Client Number: TRI02.SFK01
Project ID (Number): 561
Project ID (Name): SK - Albuquerque, NM
Work Order Number: W3-06-0018
Date Reported: 06-16-93

ANALYTICAL RESULTS

Metals in TCLP Leachate[a]

		GTEL Sample Number	01			
		Client Identification	060193 Comp			
		Date Sampled	06-01-93			
		Date Leached	06-10-93			
		Extraction Fluid	#2			
		Date Analyzed (Method 7470)	06-16-93			
		Date Analyzed (Method 6010)	06-11-93			
		Dilution Multiplier (Method 6010)[b]	4			
Analyte	Method[c]	Reporting Limit, mg/L	Concentration, mg/L			
Arsenic	EPA 6010	.50	<2.0			
Barium	EPA 6010	1.0	<4.0			
Cadmium	EPA 6010	.050	<0.20			
Chromium	EPA 6010	.050	<0.20			
Lead	EPA 6010	.50	<2.0			
Mercury	EPA 7470	.002	<0.002			
Selenium	EPA 6010	.20	<0.80			
Silver	EPA 6010	.050	<0.20			

a TCLP performed as per 40 CFR, Part 261, Appendix II - Method 1311. These data are presented in accordance with the Federal Register, 57, p.55114, November 24, 1992.

b The dilution multiplier indicates the adjustments made for dilutions.

c Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA, November 1986; Digestion by Method 3010 for Method 6010 analytes and Method 7470 for mercury.

NOTE: Sample temperature when received at the laboratory was 8°C.

GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL Client Number: TRI02.SFK01
Project ID (Number): 561
Project ID (Name): SK - Albuquerque, NM
Work Order Number: W3-06-0018
Date Reported: 06-16-93

Table 1

ANALYTICAL RESULTS

Inorganics in Soil

		GTEL Sample Number	01			
		Client Identification	060193 Comp			
		Date Sampled	06-01-93			
		Date Analyzed	06-11-93			
Analyte	Method	QL[a] & Units	Concentration			
Closed Cup Flashpoint	ASTM D-93	NA °F	>200[a]			

a Ignitability of solid waste is not regulated by EPA and no official method exists for its determination.

* Quantitation Limit.

b Ignitability of solid waste is not regulated by EPA and no official method exists for its determination.

NA Not applicable

NOTE: Sample temperature when received at the laboratory was 8°C.

GTEL ENVIRONMENTAL LABORATORIES, INC.

Safety-Kleen Corp. Albuquerque

CHAIN-OF-CUSTODY RECORD

Page ____ of ____

Project No.:	Today's Date:	Date Results Requested:
56-714 GB	6/1/93	Normal-TAT

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

Company Name and Address:	Company Contact:
TriHydro Corporation 920 Sheridan Street Laramie, WY 82070	Jack Bodessem Jeff Weber

Collector's Sample No.	Sample Matrix	Date Sampled/ Time Sampled	No. of Containers	TCLP VOCs, SVOCs, Metals	IGNITABILITY	Mineral Spirits (8015 MOD)	VOC's 8240 GB	Cadmium 6010 GB	Chromium 6010 GB	Lead 6010 GB
060193-COMP	Soil	6/1/93 1410	5	*	✓	✓	✓	✓	✓	✓

Post-it™ brand fax transmittal memo 7671 714

To	Dept.	Fax #	From	Co.	Phone #	Fax #	# of pages ▸ 2
Marlie Ford	GTEL		Jeff	Tri-Hydro			

Remarks: * Run composite sample for TCLP: VOCs, SVOCs and Metals GB

Relinquished by:	Affiliation:	Date/Time:	Received by:	Affiliation:	Date/Time:
[signature]	TriHydro	6/1/93 1615			
Relinquished by:	Affiliation:	Date/Time:	Received by:	Affiliation:	Date/Time:
Relinquished by:	Affiliation:	Date/Time:	Received by: [signature]	Affiliation: GTEL	Date/Time: 6/2/93 0800

Were samples received in good condition? Remarks:

Rec'd ford to GTEL 6/2/93 GB

ATTACHMENT C

MINERAL SPIRITS
MATERIAL SAFETY DATA SHEETS

APPENDIX C

WASTE MANIFESTS/BILLS OF LADING FOR SOILS DISPOSAL AT THE WASTE MANAGEMENT LANDFILL RIO RANCHO, NEW MEXICO

SPECIAL WASTE SHIPMENT RECORD

Waste Management of New Mexico
P.O. Box 15700
Rio Rancho, New Mexico 87174
505/892-1200
A Waste Management Company

1557 750-800 N
376675-700 E
5500-5510 ELEV

Shipment # № 1331

Profile # 028463

1. Work site name and address
SAFETY-KLEEN CORP 2720 GIRARD NE ALBUQUERQUE NM

2. Operator's name and address
SAME AS #1

Operator's Telephone no.
505
884 2277

3. Owner's name and mailing address
SAFETY-KLEEN CORP - Attn Joe Herrin
17629 EL CAMINO REAL
HOUSTON TX 77058

Owner's telephone no.
713
280 9754

4. Address of responsible agency
NMED Air Quality Bureau
1190 St. Francis Drive
P.O. Box 26110
Santa Fe, New Mexico 87502
(505) 827-0064

5. Description materials	6. Containers No.	Type	7. Total quantity m3 (yd3)
SOIL & CONST. DEBRIS			
CONTAMINATED WITH	1	TRUCK	27 CY
MINERAL SPIRITS			

8. Special handling instructions:
Do not break bags or cause dust, avoid breathing dust. Bury separately and cover with backfill.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable International and government regulations.

Printed/typed name and title	Signature	Month/Day/Year
JA Weber Engineer	JA Weber	7 28 93

10. Transporter 1 (Acknowledgement of receipt of materials)

Printed/typed name & title, address, telephone no.	Signature	Month/Day/Year
TAHOE TRAXCAVATORS RICHARD D. GOOLSKY (DRIVER)	Richard D. Goolsky	7 28 93

11. Transporter 2 (Acknowledgement of receipt of materials)

Printed/typed name & title, address, telephone no.	Signature	Month/Day/Year
		/ /

12. Discrepancy indication space

13. Waste disposal site Operator: Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.

Printed/typed name & title	Signature	Month/Day/Year
Delores Ford, Gate	Delores Ford	07 28 93

White/GEN Green/LANDFILL Yellow/NMED Pink/TRANSPORTER Gold/EXTRA

SPECIAL WASTE SHIPMENT RECORD

Waste Management of New Mexico
P.O. Box 15700
Rio Rancho, New Mexico 87174
505/892-1200
A Waste Management Company

1557 750 - 800 N
376 675 - 700 E
5500 - 5510 - ELEV

Shipment # № 1329

Profile # 028463

1. Work site name and address
SAFETY-KLEEN CORP 2720 GIRARD NE ALBUQUERQUE NM

2. Operator's name and address
SAME AS #1

Operator's Telephone no.
505 884 2277

3. Owner's name and mailing address
SAFETY KLEEN CORP - Attn Joe Herrin
17629 EL CAMINO REAL
HOUSTON TX 77058

Owner's telephone no.
713 280 9754

4. Address of responsible agency
NMED Air Quality Bureau
1190 St. Francis Drive
P.O. Box 26110
Santa Fe, New Mexico 87502
(505) 827-0064

5. Description materials	6. Containers No.	Type	7. Total quantity m3 (yd3)
SOIL & CONST. DEBRIS			
CONTAMINATED WITH	1	TRUCK	~~1~~ CY
MINERAL SPIRITS			24 yd³

8. Special handling instructions:
Do not break bags or cause dust, avoid breathing dust. Bury separately and cover with backfill.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable International and government regulations.

Printed/typed name and title	Signature	Month/Day/Year
JA Weber Engineer	[signature]	7/28/93

10. Transporter 1 (Acknowledgement of receipt of materials)

Printed/typed name & title, address, telephone no.	Signature	Month/Day/Year
CHAVA TRUCKING 6313 State Rd 47 SE ALBUQUERQUE NM	[signature]	7/28/93

11. Transporter 2 (Acknowledgement of receipt of materials)

Printed/typed name & title, address, telephone no.	Signature	Month/Day/Year
		/ /

12. Discrepancy indication space

13. Waste disposal site Operator: Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.

Printed/typed name & title	Signature	Month/Day/Year
Delores Ford, Gate	Delores Ford	07/28/93

White/GEN Green/LANDFILL Yellow/NMED Pink/TRANSPORTER Gold/EXTRA

SPECIAL WASTE SHIPMENT RECORD

Waste Management of New Mexico
P.O. Box 15700
Rio Rancho, New Mexico 87174
505/892-1200
A Waste Management Company

1557 750-800 N
376 675-700 E
5500-5510 ELEV

Shipment # № 1330

Profile # 028463

1. Work site name and address SAFETY-KLEEN CORP 2720 GIRARD NE ALBUQUERQUE NM	
2. Operator's name and address SAME AS #1	Operator's Telephone no. 505 884 2277
3. Owner's name and mailing address SAFETY-KLEEN CORP - ATTN JOE HERRIN 17629 EL CAMINO REAL HOUSTON TX 77058	Owner's telephone no. 713 280 9754
4. Address of responsible agency NMED Air Quality Bureau 1190 St. Francis Drive P.O. Box 26110 Santa Fe, New Mexico 87502 (505) 827-0064	

5. Description materials	6. Containers No.	Type	7. Total quantity m3 (yd3)
SOIL & CONST DEBRIS			
CONTAMINATED WITH	1	TRUCK	17 CY
MINERAL SPIRITS			

8. Special handling instructions:
Do not break bags or cause dust, avoid breathing dust. Bury separately and cover with backfill.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable International and government regulations.

Printed/typed name and title	Signature	Month/Day/Year
J A Weber Engineer	J A Weber	7 12 93

10. Transporter 1 (Acknowledgement of receipt of materials)

Printed/typed name & title, address, telephone no.	Signature	Month/Day/Year
CHAVA TRUCKING 6313 State Rd 47 SE ALBUQUERQUE NM	Joe Montano	7 12 93

11. Transporter 2 (Acknowledgement of receipt of materials)

Printed/typed name & title, address, telephone no.	Signature	Month/Day/Year
		/ /

12. Discrepancy indication space

13. Waste disposal site Operator: Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.

Printed/typed name & title	Signature	Month/Day/Year
		/ /

White/GEN Green/LANDFILL Yellow/NMED Pink/TRANSPORTER Gold/EXTRA

SPECIAL WASTE SHIPMENT RECORD

Waste Management of New Mexico
P.O. Box 15700
Rio Rancho, New Mexico 87174
505/892-1200
A Waste Management Company

1557760-800 N
376675-700 E
5500-5510 ELEV

Shipment # № 1328

Profile # 028463

1. Work site name and address SAFETY-KLEEN CORP 2720 GIRARD NE ALBUQUERQUE NM	
2. Operator's name and address SAME AS #1	Operator's Telephone no. 505 884 2277
3. Owner's name and mailing address SAFETY KLEEN CORP - Attn. JOE HERRIN 17629 EL CAMINO REAL HOUSTON TX 77058	Owner's telephone no. 713 280 9754
4. Address of responsible agency NMED Air Quality Bureau 1190 St. Francis Drive P.O. Box 26110 Santa Fe, New Mexico 87502 (505) 827-0064	

5. Description materials	6. Containers No.	Type	7. Total quantity m3 (yd3)
SOIL & CONST DEBRIS			
CONTAMINATED WITH	1	TRUCK	17 CY
MINERAL SPIRITS			

8. Special handling instructions:
Do not break bags or cause dust, avoid breathing dust. Bury separately and cover with backfill.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable International and government regulations.

Printed/typed name and title	Signature	Month/Day/Year
JAWeber Engineer	JAWeber	7 28 93

10. Transporter 1 (Acknowledgement of receipt of materials)

Printed/typed name & title, address, telephone no.	Signature	Month/Day/Year
TAHOE TRUCKING RIO RANCHO 891-0004	Tom Sm	/ / 2 28 93

11. Transporter 2 (Acknowledgement of receipt of materials)

Printed/typed name & title, address, telephone no.	Signature	Month/Day/Year
		/ /

12. Discrepancy indication space

13. Waste disposal site Operator: Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.

Printed/typed name & title	Signature	Month/Day/Year
Delores Ford, Gate	Delores Ford	07 28 93

White/GEN Green/LANDFILL Yellow/NMED Pink/TRANSPORTER Gold/EXTRA

SPECIAL WASTE SHIPMENT RECORD

Waste Management of New Mexico
P.O. Box 15700
Rio Rancho, New Mexico 87174
505/892-1200
A Waste Management Company

1551 750 800 N
376 675 700 E
5500 5510 ELEV

Shipment # № 1330

Profile # 028463

1. Work site name and address
SAFETY-KLEEN CORP 2720 GIRARD NE ALBUQUERQUE NM

2. Operator's name and address
SAME AS #1

Operator's Telephone no.
505 884 2277

3. Owner's name and mailing address
SAFETY-KLEEN CORP - ATTN JOE HERRIN
17629 EL CAMINO REAL
HOUSTON TX 77058

Owner's telephone no.
713 280 9754

4. Address of responsible agency
NMED Air Quality Bureau
1190 St. Francis Drive
P.O. Box 26110
Santa Fe, New Mexico 87502
(505) 827-0064

5. Description materials	6. Containers No.	Type	7. Total quantity m3 (yd3)
SOIL & CONST DEBRIS			
CONTAMINATED WITH	1	TRUCK	24 yd³
MINERAL SPIRITS			

8. Special handling instructions:
Do not break bags or cause dust, avoid breathing dust. Bury separately and cover with backfill.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable International and government regulations.

Printed/typed name and title	Signature	Month/Day/Year
JA Weber Engineer	JAWeber	7 28 93

10. Transporter 1 (Acknowledgement of receipt of materials)

Printed/typed name & title, address, telephone no.	Signature	Month/Day/Year
Tahoe Traxcavators Richard D. Goolsby (driver)	Richard D. Goolsby	7 28 93

11. Transporter 2 (Acknowledgement of receipt of materials)

Printed/typed name & title, address, telephone no.	Signature	Month/Day/Year

12. Discrepancy indication space

13. Waste disposal site Operator: Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.

Printed/typed name & title	Signature	Month/Day/Year
Delores Ford, Gate	Delores Ford	07 28 93

White/GEN Green/LANDFILL Yellow/NMED Pink/TRANSPORTER Gold/EXTRA

SPECIAL WASTE SHIPMENT RECORD

Waste Management of New Mexico
P.O. Box 15700
Rio Rancho, New Mexico 87174
505/892-1200
A Waste Management Company

Shipment # № 1330

Profile # 028463

1. Work site name and address
SAFETY-KLEEN CORP 2720 GIRARD NE ALBUQUERQUE NM

2. Operator's name and address
SAME AS #1

Operator's Telephone no.
505 884 2277

3. Owner's name and mailing address
SAFETY-KLEEN CORP - ATTN JOE HERRIN
17629 EL CAMINO REAL
HOUSTON TX 77058

Owner's telephone no.
713 280 9754

4. Address of responsible agency
NMED Air Quality Bureau
1190 St. Francis Drive
P.O. Box 26110
Santa Fe, New Mexico 87502
(505) 827-0064

5. Description materials	6. Containers No.	Type	7. Total quantity m3 (yd3)
SOIL & CONST DEBRIS			
CONTAMINATED WITH	1	TRUCK	24 yd³
MINERAL SPIRITS			

8. **Special handling instructions:**
Do not break bags or cause dust, avoid breathing dust. Bury separately and cover with backfill.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable International and government regulations.

Printed/typed name and title	Signature	Month/Day/Year
JA Weber - Engineer	JA Weber	7 28 93

10. Transporter 1 (Acknowledgement of receipt of materials)

Printed/typed name & title, address, telephone no.	Signature	Month/Day/Year
Chava Excavating Albuquerque, NM	G. Martinez	7 28 93

11. Transporter 2 (Acknowledgement of receipt of materials)

Printed/typed name & title, address, telephone no.	Signature	Month/Day/Year
		/ /

12. Discrepancy indication space

13. Waste disposal site Operator: Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.

Printed/typed name & title	Signature	Month/Day/Year
Delores Ford, Gate	Delores Ford	07/28/93

White/GEN Green/LANDFILL Yellow/NMED Pink/TRANSPORTER Gold/EXTRA

SPECIAL WASTE SHIPMENT RECORD

Waste Management of New Mexico
P.O. Box 15700
Rio Rancho, New Mexico 87174
505/892-1200
A Waste Management Company

1557 750 800 N
376 675 700 E
5500 5510 ELEV

Shipment # № 1330

Profile # 028463

1. Work site name and address SAFETY-KLEEN CORP 2720 GIRARD NE ALBUQUERQUE NM	
2. Operator's name and address SAME AS #1	Operator's Telephone no. 505 884 2277
3. Owner's name and mailing address SAFETY-KLEEN CORP - ATTN JOE HERRIN 17629 EL CAMINO REAL HOUSTON TX 77058	Owner's telephone no. 713 280 9754
4. Address of responsible agency NMED Air Quality Bureau 1190 St. Francis Drive P.O. Box 26110 Santa Fe, New Mexico 87502 (505) 827-0064	

5. Description materials	6. Containers No.	Type	7. Total quantity m3 (yd3)
SOIL & CONST DEBRIS			
CONTAMINATED WITH	1	TRUCK	24 yd3
MINERAL SPIRITS			

8. Special handling instructions:
Do not break bags or cause dust, avoid breathing dust. Bury separately and cover with backfill.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable International and government regulations.

Printed/typed name and title	Signature	Month/Day/Year
JA Weber - Engineer	JA Weber	7 28 93

10. Transporter 1 (Acknowledgement of receipt of materials)

Printed/typed name & title, address, telephone no.	Signature	Month/Day/Year
TABOE Trucking Rio Rancho NM	Tom [illegible]	7 28 93

11. Transporter 2 (Acknowledgement of receipt of materials)

Printed/typed name & title, address, telephone no.	Signature	Month/Day/Year
		/ /

12. Discrepancy indication space

13. Waste disposal site Operator: Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.

Printed/typed name & title	Signature	Month/Day/Year
Delores Ford, Gate	Delores Ford	07 28 93

White/GEN Green/LANDFILL Yellow/NMED Pink/TRANSPORTER Gold/EXTRA

APPENDIX D

CERTIFICATE OF DESTRUCTION FOR USTS

#738

TANK CERTIFICATE OF DESTRUCTION

The 2-20,000 gallon UST's,steel sections of the return/fill station,and all piping associated with the UST's removal at the Safety Kleen Facility located at 2070 Girard N.E., Albuqurque,NM. were destroyed beyond use by Riedel Environmental Service prior to the removal of the tanks. The tanks were transported to Acme Salvage of Albuquerqe,NM. for steel recycling on July 27,1993.

Riedel Environmental
Services, Denver, CO.
JB

APPENDIX E

UST EXCAVATION SAMPLING ANALYTICAL RESULTS
AND
CHAIN-OF-CUSTODY/SAMPLE-ANALYSIS-REQUEST FORMS

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Midwest Region
4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)

GTEL Client Number: TR102.SFK01
Project ID (Number): 738
Project ID (Name): SK - Albuquerque, NM
Work Order Number: W3-07-0485

AUG 1 3 1993

Jack Bedessem
TriHydro Corporation
920 Sheridan Street
Laramie, WY 82070

Dear Mr. Bedessem:

Enclosed please find the analytical results for samples received by GTEL Environmental Laboratories on 07-30-93.

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 met QA/QC criteria unless otherwise stated in the footnotes.

GTEL is certified by the State of Kansas under Certification #E-103 and #E-1113.

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

Sincerely,

Ronald Kennedy/Extractables Mgr.

Terry R. Loucks
Laboratory Director

GTEL Wichita, KS
COVLET.SET

GTEL Client Number: TR102.SFK01
Project ID (Number): 738
Project ID (Name): SK - Albuquerque, NM
Work Order Number: W3-07-0485
Date Reported: 08-09-93

ANALYTICAL RESULTS

Volatile Organics in Soil
Modified EPA Method 8240[a]

GTEL Sample Number		01	02	03	04
Client Identification		PTNB	STNB	PTBS	STBS
Date Sampled		07-28-93	07-28-93	07-28-93	07-28-93
Date Analyzed		08-02-93	08-02-93	08-02-93	08-02-93
Dilution Multiplier[b]		1	1	3	5
Analyte	Reporting Limit, mg/kg	Concentration, mg/kg			
Chloromethane	0.010	<0.010	<0.010	<0.030	<0.050
Bromomethane	0.010	<0.010	<0.010	<0.030	<0.050
Vinyl Chloride	0.010	<0.010	<0.010	<0.030	<0.050
Chloroethane	0.010	<0.010	<0.010	<0.030	<0.050
Methylene Chloride	0.010	<0.010	<0.010	<0.030	<0.050
Acetone	0.020	<0.020	<0.020	**0.13**	**0.34**
Carbon Disulfide	0.005	<0.005	<0.005	<0.015	<0.025
1,1-Dichloroethene	0.005	<0.005	<0.005	<0.015	<0.025
1,1-Dichloroethane	0.005	<0.005	<0.005	<0.015	<0.025
1,2-Dichloroethene (total)[c]	0.005	<0.005	<0.005	<0.015	<0.025
Chloroform	0.005	<0.005	<0.005	<0.015	<0.025
1,2-Dichloroethane	0.005	<0.005	<0.005	<0.015	<0.025
2-Butanone	0.020	<0.020	<0.020	<0.060	<0.10
1,1,1-Trichloroethane	0.005	<0.005	<0.005	**0.039**	**0.42**
Carbon Tetrachloride	0.005	<0.005	<0.005	<0.015	<0.025
Vinyl Acetate	0.020	<0.020	<0.020	<0.060	<0.010
Bromodichloromethane	0.005	<0.005	<0.005	<0.015	<0.025
1,2-Dichloropropane	0.005	<0.005	<0.005	<0.015	<0.025
cis-1,3-Dichloropropene	0.005	<0.005	<0.005	<0.015	<0.025
Trichloroethene	0.005	<0.005	<0.005	<0.015	**0.067**
Dibromochloromethane	0.005	<0.005	<0.005	<0.015	<0.025

GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL Client Number: TR102.SFK01
Project ID (Number): 738
Project ID (Name): SK - Albuquerque, NM
Work Order Number: W3-07-0485
Date Reported: 08-09-93

ANALYTICAL RESULTS

Volatile Organics in Soil
Modified EPA Method 8240[a]

GTEL Sample Number		01	02	03	04
Client Identification		PTNB	STNB	PTBS	STBS
Date Sampled		07-28-93	07-28-93	07-28-93	07-28-93
Date Analyzed		08-02-93	08-02-93	08-02-93	08-02-93
Dilution Multiplier[b]		1	1	3	5
Analyte	Reporting Limit, mg/kg	Concentration, mg/kg			
1,1,2-Trichloroethane	0.005	<0.005	<0.005	<0.015	<0.025
Benzene	0.005	<0.005	<0.005	<0.015	<0.025
2-Chloroethylvinyl Ether	0.010	<0.010	<0.010	<0.030	<0.050
trans-1,3-Dichloropropene	0.005	<0.005	<0.005	<0.015	<0.025
Bromoform	0.005	<0.005	<0.005	<0.015	<0.025
4-Methyl-2-Pentanone	0.020	<0.020	<0.020	<0.060	<0.10
2-Hexanone	0.020	<0.020	<0.020	<0.060	<0.10
Tetrachloroethene	0.005	<0.005	<0.005	**0.47**	**9.4**
1,1,2,2-Tetrachloroethane	0.005	<0.005	<0.005	<0.015	<0.025
Toluene	0.005	<0.005	<0.005	**0.055**	**0.74**
Chlorobenzene	0.005	<0.005	<0.005	<0.015	<0.025
Ethylbenzene	0.005	<0.005	<0.005	<0.015	**0.75**
Styrene	0.005	<0.005	<0.005	<0.015	<0.025
Xylenes (total)	0.005	<0.005	<0.005	**4.2**	**24**
1,2-Dichlorobenzene	0.010	<0.010	<0.010	<0.030	<0.050
1,3-Dichlorobenzene	0.010	<0.010	<0.010	<0.030	<0.050
1,4-Dichlorobenzene	0.010	<0.010	<0.010	<0.030	<0.050
Percent Solids	%	90.1	91.9	94.5	79.2

a Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986; Heated purge and trap for sample preparation. This method is modified for megabore column use and additional compounds. Results are calculated on a wet weight basis.

b Dilution multiplier indicates the adjustments made for sample dilution.

c Total 1,2-dichloroethene is the sum of the cis- and trans- isomers.

NOTE: Sample temperature when received at the laboratory was 6°C.

GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL Client Number: TR102.SFK01
Project ID (Number): 738
Project ID (Name): SK - Albuquerque, NM
Work Order Number: W3-07-0485
Date Reported: 08-09-93

ANALYTICAL RESULTS

Volatile Organics in Soil
Modified EPA Method 8240[a]

GTEL Sample Number		05	06	07	08
Client Identification		EW	SW	WW	NW
Date Sampled		07-28-93	07-28-93	07-28-93	07-28-93
Date Analyzed		08-02-93	08-02-93	08-02-93	08-02-93
Dilution Multiplier[b]		1	5	1	1
Analyte	Reporting Limit, mg/kg	Concentration, mg/kg			
Chloromethane	0.010	<0.010	<0.050	<0.010	<0.010
Bromomethane	0.010	<0.010	<0.050	<0.010	<0.010
Vinyl Chloride	0.010	<0.010	<0.050	<0.010	<0.010
Chloroethane	0.010	<0.010	<0.050	<0.010	<0.010
Methylene Chloride	0.010	<0.010	<0.050	<0.010	<0.010
Acetone	0.020	<0.020	**0.42**	<0.020	<0.020
Carbon Disulfide	0.005	<0.005	<0.025	<0.005	<0.005
1,1-Dichloroethene	0.005	<0.005	<0.025	<0.005	<0.005
1,1-Dichloroethane	0.005	<0.005	**0.027**	<0.005	<0.005
1,2-Dichloroethene (total)[c]	0.005	<0.005	**0.071**	<0.005	<0.005
Chloroform	0.005	<0.005	<0.025	<0.005	<0.005
1,2-Dichloroethane	0.005	<0.005	<0.025	<0.005	<0.005
2-Butanone	0.020	<0.020	<0.10	<0.020	<0.020
1,1,1-Trichloroethane	0.005	<0.005	**0.088**	<0.005	<0.005
Carbon Tetrachloride	0.005	<0.005	<0.025	<0.005	<0.005
Vinyl Acetate	0.020	<0.020	<0.10	<0.020	<0.020
Bromodichloromethane	0.005	<0.005	<0.025	<0.005	<0.005
1,2-Dichloropropane	0.005	<0.005	<0.025	<0.005	<0.005
cis-1,3-Dichloropropene	0.005	<0.005	<0.025	<0.005	<0.005
Trichloroethene	0.005	<0.005	<0.025	<0.005	<0.005
Dibromochloromethane	0.005	<0.005	<0.025	<0.005	<0.005

GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL Client Number: TR102.SFK01
Project ID (Number): 738
Project ID (Name): SK - Albuquerque, NM
Work Order Number: W3-07-0485
Date Reported: 08-09-93

ANALYTICAL RESULTS

Volatile Organics in Soil
Modified EPA Method 8240[a]

GTEL Sample Number		05	06	07	08
Client Identification		EW	SW	WW	NW
Date Sampled		07-28-93	07-28-93	07-28-93	07-28-93
Date Analyzed		08-02-93	08-02-93	08-02-93	08-02-93
Dilution Multiplier[b]		1	5	1	1
Analyte	Reporting Limit, mg/kg	Concentration, mg/kg			
1,1,2-Trichloroethane	0.005	<0.005	<0.025	<0.005	<0.005
Benzene	0.005	<0.005	<0.025	<0.005	<0.005
2-Chloroethylvinyl Ether	0.010	<0.010	<0.050	<0.010	<0.010
trans-1,3-Dichloropropene	0.005	<0.005	<0.025	<0.005	<0.005
Bromoform	0.005	<0.005	<0.025	<0.005	<0.005
4-Methyl-2-Pentanone	0.020	<0.020	<0.10	<0.020	<0.020
2-Hexanone	0.020	<0.020	<0.10	<0.020	<0.020
Tetrachloroethene	0.005	<0.005	**0.085**	<0.005	<0.005
1,1,2,2-Tetrachloroethane	0.005	<0.005	<0.025	<0.005	<0.005
Toluene	0.005	<0.005	**0.29**	<0.005	<0.005
Chlorobenzene	0.005	<0.005	<0.025	<0.005	<0.005
Ethylbenzene	0.005	<0.005	**0.20**	<0.005	<0.005
Styrene	0.005	<0.005	<0.025	<0.005	<0.005
Xylenes (total)	0.005	<0.005	**19**	<0.005	<0.005
1,2-Dichlorobenzene	0.010	<0.010	<0.050	<0.010	<0.010
1,3-Dichlorobenzene	0.010	<0.010	<0.050	<0.010	<0.010
1,4-Dichlorobenzene	0.010	<0.010	<0.050	<0.010	<0.010
Percent Solids	%	85.1	85.9	89.3	90.9

a Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986; Heated purge and trap for sample preparation. This method is modified for megabore column use and additional compounds. Results are calculated on a wet weight basis.

b Dilution multiplier indicates the adjustments made for sample dilution.

c Total 1,2-dichloroethene is the sum of the cis- and trans- isomers.

NOTE: Sample temperature when received at the laboratory was 6°C.

GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL Client Number: TR102.SFK01
Project ID (Number): 738
Project ID (Name): SK - Albuquerque, NM
Work Order Number: W3-07-0485
Date Reported: 08-13-93

ANALYTICAL RESULTS

Total Petroleum Hydrocarbons as Mineral Spirits in Soil GC/FID[a]

Sample Identification		Date Sampled	Date Extracted	Date Analyzed	Concentration, mg/kg	Reporting Limit, mg/kg	% Solids
GTEL No.	Client ID						
01	PTNB	07-28-93	08-04-93	08-11-93	15[b]	10	90.1
02	STNB	07-28-93	08-04-93	08-11-93	590[bc]	10	91.9
03	PTBS	07-28-93	08-04-93	08-11-93	4600	10	94.5
04	STBS	07-28-93	08-04-93	08-11-93	17000	10	79.2
05	EW	07-28-93	08-04-93	08-12-93	<10	10	85.1
06	SW	07-28-93	08-04-93	08-12-93	7500	10	85.9
07	WW	07-28-93	08-04-93	08-13-93	<10	10	89.3
08	NW	07-28-93	08-04-93	08-11-93	<10	10	90.9

a ASTM Method D3328 (modified) is used for qualitative identification of fuel patterns. The method has been modified to include quantitation by applying calibration and quality assurance guidelines outlined in EPA's publication, Test Methods for Evaluating Solid Waste, SW846, Third Edition, Revision 0, November 1986. Extraction by modified EPA Method 3550. Results are calculated on a wet weight basis.

b Qualitative identification is uncertain because the material present does not match laboratory standards.

c Chromatographic data indicated the presence of non-target hydrocarbons.

NOTE: Sample temperature when received at the laboratory was 6°C.

GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL Client Number: TR102.SFK01
Project ID (Number): 738
Project ID (Name): SK - Albuquerque, NM
Work Order Number: W3-07-0485
Date Reported: 08-13-93

ANALYTICAL RESULTS

Metals in Soil[a]

		GTEL Sample Number	01	02	03	04
		Client Identification	PTNB	STNB	PTBS	STBS
		Date Sampled	07-28-93	07-28-93	07-28-93	07-28-93
		Date Digested	08-10-93	08-10-93	08-10-93	08-10-93
		Date Analyzed	08-12-93	08-12-93	08-12-93	08-12-93
Analyte	Method	QL,* mg/Kg	Concentration, mg/Kg			
Cadmium	EPA 6010	0.5	<0.5	<0.5	<0.5	<0.5
Chromium	EPA 6010	1	**6**	**6**	**5**	**6**
Lead	EPA 6010	10	<10	<10	<10	<10

		GTEL Sample Number	05	06	07	08
		Client Identification	EW	SW	WW	NW
		Date Sampled	07-28-93	07-28-93	07-28-93	07-28-93
		Date Digested	08-10-93	08-10-93	08-10-93	08-10-93
		Date Analyzed	08-12-93	08-12-93	08-12-93	08-12-93
Analyte	Method	QL,* mg/Kg	Concentration, mg/Kg			
Cadmium	EPA 6010	0.5	<0.5	<0.5	<0.5	<0.5
Chromium	EPA 6010	1	**7**	**7**	**26**	**6**
Lead	EPA 6010	10	<10	**18**	<10	<10

* Quantitation Limit.
a Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986; Digestion by Method 3050 except when method specific.

NOTE: Sample temperature when received at the laboratory was 6°C.

GTEL ENVIRONMENTAL LABORATORIES, INC.

ALBUQUERQUE

CHAIN-OF-CUSTODY RECORD

Project No.:	Today's Date:	Date Results Reqeusted:
738	28 Jul, 93	

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

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

Company Contact: Jack Bedessem

Analyses Requested

Collector's Sample No.	DATE ~~Sample Matrix~~	TIME	~~Date Sampled/ Time Sampled~~ MATRIX	No. of Containers	Volatile Organic Compounds (8240)			Mineral Spirits (MOD 8015)			Total: Cadmium	Chromium	Lead	
PTNB	7/28/93	1115	SOIL	3	✓			✓			✓	✓	✓	01
STNB	↓	1055	↓	↓	✓			✓			✓	✓	✓	02
PTBS		1415			✓			✓			✓	✓	✓	03
STBS		1430			✓			✓			✓	✓	✓	04
EW		1135			✓			✓			✓	✓	✓	05
SW		1545			✓			✓			✓	✓	✓	06
WW		1605			✓			✓			✓	✓	✓	07
NW	↓	1125	↓	↓	✓			✓			✓	✓	✓	08

W3-07-0495

Seals intact 6°C

Remarks:

Auth # RM2509102485 82

Relinquished by:	Affiliation:	Date/Time:	Received by:	Affiliation:	Date/Time:
[signature]	TRIHYDRO	7/29/93 1410			
Relinquished by:	Affiliation:	Date/Time:	Received by:	Affiliation:	Date/Time:
Relinquished by:	Affiliation:	Date/Time:	Received by: Sandra Cam	Affiliation: ATEL	Date/Time: 7/30/93 0810

Were samples received in good condition?

Remarks:

APPENDIX F

ANALYTICAL RESULTS OF WOOD FROM RETURN/FILL STATION

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Midwest Region
4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)

GTEL Client Number: TR102.SFK01
Project ID (Number): 738
Project ID (Name): SK - Albuquerque, NM
Work Order Number: W3-07-0485

AUG 1 3 1993

#738
DATA

Jack Bedessem
TriHydro Corporation
920 Sheridan Street
Laramie, WY 82070

Dear Mr. Bedessem:

Enclosed please find the analytical results for samples received by GTEL Environmental Laboratories on 07-30-93.

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 met QA/QC criteria unless otherwise stated in the footnotes.

GTEL is certified by the State of Kansas under Certification #E-103 and #E-1113.

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

Sincerely,

Ronald Kennedy/Extractables Mgr.

Terry R. Loucks
Laboratory Director

GTEL Wichita, KS
COVLET.SET

GTEL Client Number: TR102.SFK01
Project ID (Number): 738
Project ID (Name): SK - Albuquerque, NM
Work Order Number: W3-07-0485
Date Reported: 08-11-93

ANALYTICAL RESULTS

Volatile Organics in TCLP Leachate[a]
EPA Method 8240 Modified

GTEL Sample Number		09			
Client Identification		WOOD			
Date Sampled		07-29-93			
Date Leached		08-05-93			
Extraction Fluid		#1			
Date Analyzed		08-06-93			
Dilution Multiplier[b]		1			
Analyte	Reporting Limit, mg/L	Concentration, mg/L			
Benzene	0.050	<0.050			
Carbon tetrachloride	0.050	<0.050			
Chlorobenzene	0.050	<0.050			
Chloroform	0.050	<0.050			
1,4-Dichlorobenzene	0.050	<0.050			
1,2-Dichloroethane	0.050	<0.050			
1,1-Dichloroethylene	0.050	<0.050			
Methyl ethyl ketone	0.20	<0.20			
Tetrachloroethylene	0.050	<0.050			
Trichloroethylene	0.050	<0.050			
Vinyl chloride	0.10	<0.10			

a Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA, November 1986. This method is modified for megabore column use. TCLP is performed as per 40 CFR, Part 261, Appendix II - Method 1311. These data are presented in accordance with the Federal Register 57, p. 55114, November 24, 1992.

b Dilution multiplier indicates the adjustments made for sample dilution.

NOTE: Sample temperature when received at the laboratory was 6°C.

GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL Client Number: TR102.SFK01
Project ID (Number): 738
Project ID (Name): SK - Albuquerque, NM
Work Order Number: W3-07-0485
Date Reported: 08-13-93

ANALYTICAL RESULTS

Semivolatile Organics in TCLP Leachate[a]
EPA Method 8270[b]

GTEL Sample Number		09			
Client Identification		WOOD			
Date Sampled		07-29-93			
Date Leached		08-04-93			
Date Extracted		08-06-93			
Extraction Fluid		#1			
Date Analyzed		08-10-93			
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[c]		1			

a Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA, November 1986; extraction by EPA Method 3510 (liquid/liquid). TCLP performed as per 40 CFR, Part 261, Appendix II - Method 1311. These data are presented in accordance with the Federal Register, 57, p.55114, November 24, 1992.

b Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA, November 1986; extraction by EPA Method 3510 (liquid/liquid).

c The quantitation limit multiplier indicates the adjustments made to the data and detection limits for sample dilutions.

NOTE: Sample temperature when received at the laboratory was 6°C.

GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL Client Number: TR102.SFK01
Project ID (Number): 738
Project ID (Name): SK - Albuquerque, NM
Work Order Number: W3-07-0485
Date Reported: 08-13-93

ANALYTICAL RESULTS

Metals in TCLP Leachate[a]

GTEL Sample Number			09			
Client Identification			WOOD			
Date Sampled			07-29-93			
Date Leached			08-09-93			
Extraction Fluid			#1			
Date Analyzed (Method 7470)			08-11-93			
Date Analyzed (Method 6010)			08-12-93			
Dilution Multiplier (Method 6010)[b]			4			
Analyte	Method[c]	Reporting Limit, mg/L	Concentration, mg/L			
Arsenic	EPA 6010	.50	<2.0			
Barium	EPA 6010	1.0	<4.0			
Cadmium	EPA 6010	.050	<0.20			
Chromium	EPA 6010	.050	<0.20			
Lead	EPA 6010	.50	<2.0			
Mercury	EPA 7470	.002	<0.002			
Selenium	EPA 6010	.20	<0.80			
Silver	EPA 6010	.050	<0.20			

a TCLP performed as per 40 CFR, Part 261, Appendix II - Method 1311. These data are presented in accordance with the Federal Register, 57, p.55114, November 24, 1992.

b The dilution multiplier indicates the adjustments made for dilutions.

c Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA, November 1986; Digestion by Method 3010 for Method 6010 analytes and Method 7470 for mercury.

NOTE: Sample temperature when received at the laboratory was 6°C.

GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL Client Number: TR102.SFK01
Project ID (Number): 738
Project ID (Name): SK - Albuquerque, NM
Work Order Number: W3-07-0485
Date Reported: 08-13-93

ANALYTICAL RESULTS

Inorganics in Soil

		GTEL Sample Number	09			
		Client Identification	WOOD			
		Date Sampled	07-29-93			
		Date Analyzed	08-04-93			
Analyte	Method	QL[a] & Units	Concentration			
Closed Cup Flashpoint	ASTM D-93	NA°F	145[a]			

a Ignitability of solid waste is not regulated by EPA and no official method exists for its determination.

* Quantitation Limit.

b Ignitability of solid waste is not regulated by EPA and no official method exists for its determination.

NA Not applicable

NOTE: Sample temperature when received at the laboratory was 6°C.

GTEL ENVIRONMENTAL LABORATORIES, INC.

[redacted]

CHAIN-OF-CUSTODY RECORD

Project No.:	Today's Date:	Date Results Requested:
758	29 July 93	

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

Company Name and Address:	Company Contact:
TriHydro Corporation 920 Sheridan Street Laramie, WY 82070	Jack Bedessem

Analyses Requested

Collector's Sample No.	Sample Matrix	Date Sampled/ Time Sampled	No. of Containers	TCLP	VOC's	Semi VOC's	Metals	Ignitability (?)	Paint Filter
WOOD	Solid	7/29/93 10:00-14:00	4		✓	✓	✓	✓	09

WZ01045

seals intact 6°C

Remarks:

Relinquished by:	Affiliation:	Date/Time:	Received by:	Affiliation:	Date/Time:
[signature]	TRIHYDRO	7/29/93 1411			
Relinquished by:	Affiliation:	Date/Time:	Received by:	Affiliation:	Date/Time:
Relinquished by:	Affiliation:	Date/Time:	Received by: Sandra Cox	Affiliation: GEL	Date/Time: 7/30/93 0810

Were samples received in good condition?

Remarks:

APPENDIX G

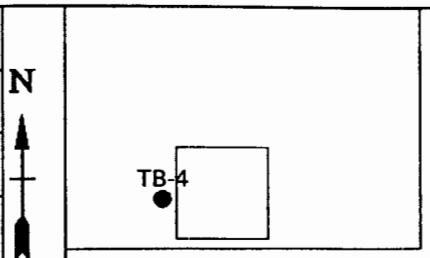
BOREHOLE LOGS
ADDITIONAL CLOSURE ASSESSMENT
SAFETY-KLEEN CORP. SERVICE CENTER
ALBUQUERQUE, NEW MEXICO

TriHydro Corporation
920 Sheridan Street
Laramie, Wyoming 82070
(307) 745-7474

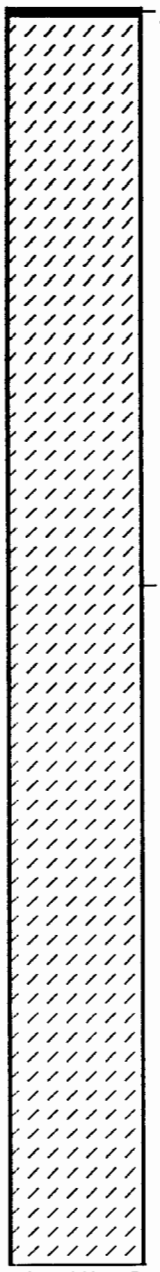
Borehole Log

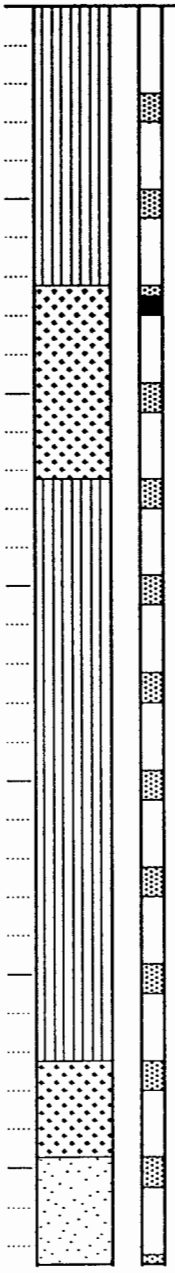
Borehole: **TB-4**

Client: **Safety-Kleen Corp. Albuquerque, New Mexico**		
Date Started: **AUG 12 93**	Date Completed: **AUG 12 93**	Permit Number:
Logged By: **E. Hill**	Driller: **Dave Long**	1/4, 1/4, S, T, R:
Drilling Co.: **West Hazmat, Inc.**	Drilling Rig: **CME-95**	Borehole Diameter: **9"**
Method: **Hollow-Stem Auger**	Measuring Point Elevation:	Sample Type: **Split Spoon**
Borehole Depth: **81.0**	Ground Surface Elevation:	Location: **7.5 feet west of office building, in parking lot**



CONSTRUCTION | **SAMPLING DATA** | **LITHOLOGY**





Depth, feet	TOV Values (ppmv)	Blow Count Recovery	Visual Description
	0	6-10-10 18"	SANDY SILT (ML), brown, damp, moderately dense, very fine to medium grained sand, trace clay, low plasticity.
10	0	3-4-6 18"	
	1.5	9-18-22 18"	SAND (SW), very fine to medium grained, gray-brown, damp, loose, trace silt, orange and brownish black streaks.
20	0	7-15-23 18"	-with trace fine gravel.
	0	9-13-13 18"	SANDY SILT (ML), orange-brown, damp, moderately dense, very fine to medium grained sand, trace fine to medium grained subrounded gravel.
30	0	6-10-14 18"	
	0	8-17-30 18"	-with 1-inch lens of 50% fine to medium grained gravel.
40	0	12-39-34 18"	-with hard, pinkish to red-brown, thin, wavy laminations, friable.
	0	18-30-50 18"	SANDY SILT, (ML), light red-brown to red-brown, damp, loose, trace clay, thin layers of hard, dry, friable, clayey silt.
50	0	12-22-31 18"	-with rounded 2-inch cobble in shoe.
	0	21-35-50/5 15"	SAND (SW), very fine to very coarse grained, light gray-brown, damp, loose, little silt, 30% gravel to 1.75-inch, subrounded to subangular.
60	0	8-21-30 4"	SAND (SP), fine to medium grained, light brown, damp, loose, gravel in auger cuttings, flat, rounded, up to 3-inch dia.

Continued Next Page

Interval Sampled
Sample Retained

TriHydro Corporation
920 Sheridan Street
Laramie, Wyoming 82070
(307) 745-7474

Borehole Log

Client:

Safety-Kleen Corp. Albuquerque, New Mexico

CONSTRUCTION		SAMPLING DATA			LITHOLOGY
Depth, feet	Continued	Graphic Log	TOV Values (ppmv)	Blow Count Recovery	Visual Description
			0	11-50/3 18"	-with 10% gravel to 1/2-inch dia.
70			0	50/3 0"	
			0	50/3 4"	SANDY GRAVEL (GW), light gray-brown, damp, loose, up to 3-in dia., flat, rounded, very fine to very coarse sand. Hard drilling.
80			0	30-50/3	

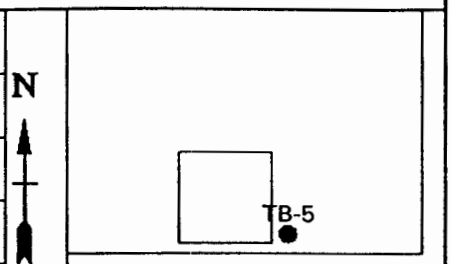
Interval Sampled
Sample Retained

TriHydro Corporation
920 Sheridan Street
Laramie, Wyoming 82070
(307) 745-7474

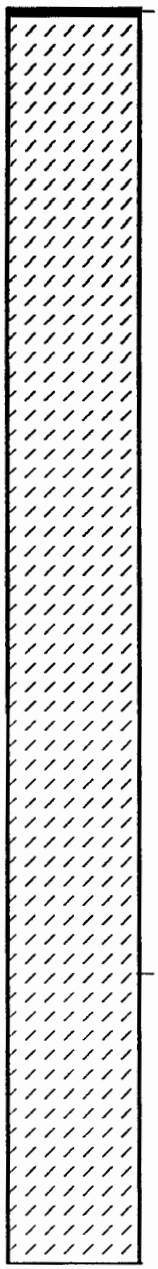
Borehole Log

Borehole: **TB-5**

Client: **Safety-Kleen Corp. Albuquerque, New Mexico**		
Date Started: **AUG 12 93**	Date Completed: **AUG 12 93**	Permit Number:
Logged By: **E. Hill**	Driller: **Dave Long**	1/4, 1/4, S, T, R:
Drilling Co.: **West Hazmat, Inc.**	Drilling Rig: **CME-95**	Borehole Diameter: **9"**
Method: **Hollow-Stem Auger**	Measuring Point Elevation:	Sample Type: **Split Spoon**
Borehole Depth: **121.0**	Ground Surface Elevation:	Location: **9 feet east of office building, at location of former return/fill station.**



CONSTRUCTION | **SAMPLING DATA** | **LITHOLOGY**



Depth, feet	TOV Values (ppmv)	Blow Count Recovery	Visual Description
	551	2-1-2 9"	FILL: silty sand, very fine to very coarse grained, light yellow-brown, damp, loose.
10	632	4-6-8 14"	SILT (ML), brown to orange-brown, moist, soft, little clay, low plasticity.
	669	10-14-17 18"	SAND (SW), very fine to very coarse grained, light brown to gray-brown, moist, loose, trace fine subrounded gravel.
20	592	14-24-20 18"	-with 25-30% gravel to 3/4-inch dia.
	527	14-17-19 18"	-with 10-20% gravel.
30	643	9-14-17 16"	SANDY SILT (ML), yellow-brown, moist, soft, trace clay, low plasticity.
	529	11-13-17 16"	SILTY SAND (SM), very fine to very coarse grained, orange-brown, moist, loose, 30% silt, 10-20% gravel to 1/4-inch dia.
40	579	9-7-19 15"	SANDY SILT (ML), orange brown, moist, firm, 20% very fine to fine grained sand, trace clay.
	641	8-13-31 18"	SILTY CLAY and CLAYEY SILT (ML, CL), brown, moist, clay is stiff, silt is soft, trace very fine grained sand.
50	893	15-16-50 18"	
	829	50/2 2"	SAND (SW) very fine to very coarse grained, brown, moist, loose, 20% or more gravel to 2-inch dia., flat, rounded, trace silt.
60	781	50/3 8"	

Continued Next Page

Interval Sampled
Sample Retained

TriHydro Corporation
920 Sheridan Street
Laramie, Wyoming 82070
(307) 745-7474

Borehole Log

Client:

Safety-Kleen Corp. Albuquerque, New Mexico

Depth, feet	CONSTRUCTION	Graphic Log	TOV Values (ppmv)	Blow Count Recovery	LITHOLOGY Visual Description
	Continued		508	50/3 2"	
70			558	50/0 1"	SANDY GRAVEL (GW), brown, moist, gravel and cobbles to 4-inch dia., mostly 2-3-inch dia. gravel. Rough drilling.
			886	50/1 2"	
80			546	50/3 2"	
			518	31-50/6 12"	
90			459	33-50/5 12"	SILTY SAND (SM), very fine to very coarse grained, gray-brown, damp, loose, subangular, 30% silt.
			532	41-50/3 12"	
100			504	23-37-50/4 16"	
			500	36-50/3 9"	-with 20% silt, trace gravel to 1/4-inch dia. -rough drilling, 2-3-inch gravel, few 4-inch cobbles, flat, rounded.
110			0	42-50/5 12"	SANDY SILT (ML), light brown, damp, moderately dense, 40% very fine to very coarse grained sand.
			1.0	28-50/5 12"	SILTY SAND (SM), very fine to very coarse grained, light brown, damp, loose, 30% silt.
120			0.5	36-50/4 10"	

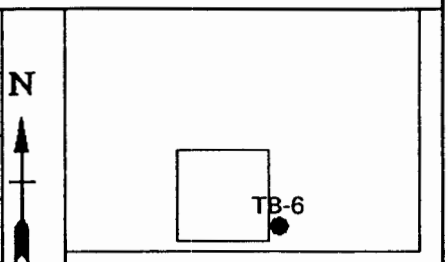
Interval Sampled
Sample Retained

TriHydro Corporation
920 Sheridan Street
Laramie, Wyoming 82070
(307) 745-7474

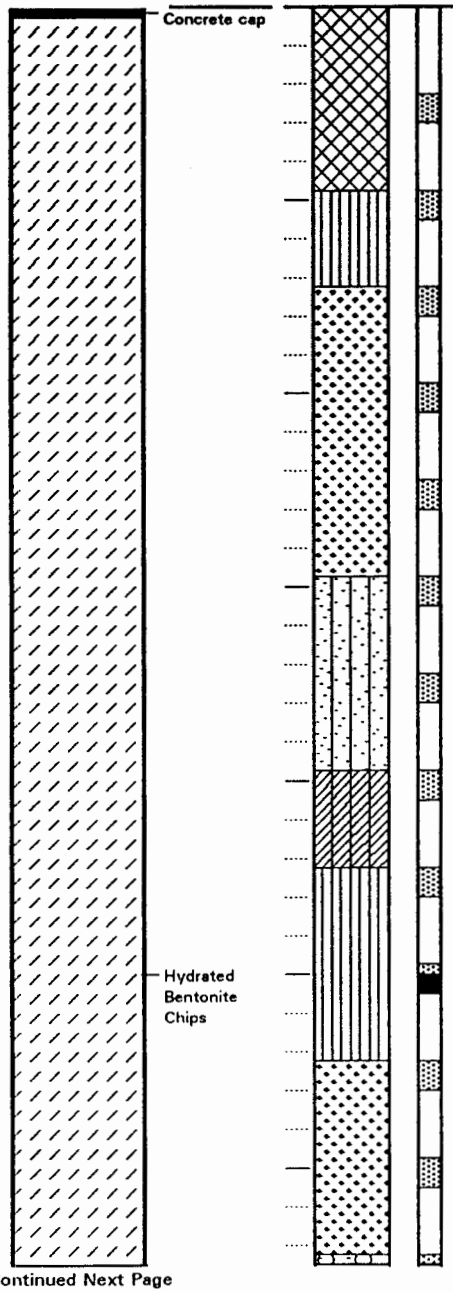
Borehole Log

Borehole: **TB-6**

Client: **Safety-Kleen Corp. Albuquerque, New Mexico**		
Date Started: **AUG 13 93**	Date Completed: **AUG 13 93**	Permit Number:
Logged By: **E. Hill**	Driller: **Dave Long**	1/4, 1/4, S, T, R:
Drilling Co.: **West Hazmat, Inc.**	Drilling Rig: **CME-95**	Borehole Diameter: **9"**
Method: **Hollow-Stem Auger**	Measuring Point Elevation:	Sample Type: **Split Spoon**
Borehole Depth: **151.0**	Ground Surface Elevation:	Location: **5 feet east of office building, NW corner of former return/fill station.**



CONSTRUCTION | **SAMPLING DATA** | **LITHOLOGY**



Depth, feet	TOV Values (ppmv)	Blow Count Recovery	Visual Description
	1703	5-6-7 10"	FILL: silty sand, very fine to medium grained, yellow-brown, moist, loose, subangular, minor silty clay nodules.
10	2542	4-5-8 14"	CLAYEY SILT (ML), brown, moist, slightly plastic, 20-30% very fine grained sand.
	1550	9-13-17 18"	SAND (SW), fine to very coarse grained, light brown, moist, loose, subangular, 10% gravel to 1/8-inch diam.
20	1869	9-16-18 18"	
	653	12-18-22 18"	-with 20% gravel to 1-inch diam.
30	13.5	8-17-18 18"	SILTY SAND (SM), very fine to very coarse grained, orange-brown, moist, loose, subangular, slightly plastic, 10-20% subrounded gravel to 1/4-inch diam.
	152.5	16-18-16 18"	
40	1330	13-17-24 18"	SANDY SILT and SILTY CLAY (ML, CL), silt is orange-brown, firm, clay is pinkish brown, stiff, damp, low to moderate plasticity.
	2398	9-24-39 18"	CLAYEY SILT (ML), red-brown, moist, low plasticity. SANDY SILT (ML), yellow-brown, damp to moist, loose, 20-30% very fine grained sand, trace clay, low plasticity.
50	2583	12-14-27 16"	
	1987	10-14-37 14"	SAND (SW), very fine to very coarse grained, brown, damp, loose, 20% gravel to 2-inch diam., rounded to subangular, 10-20% silt.
60	1902	12-10-9 4"	

Continued Next Page

Interval Sampled
Sample Retained

TriHydro Corporation
920 Sheridan Street
Laramie, Wyoming 82070
(307) 745-7474

Borehole Log

Client:

Safety-Kleen Corp. Albuquerque, New Mexico

CONSTRUCTION	SAMPLING DATA		LITHOLOGY
Depth, feet	TOV Values (ppmv)	Blow Count Recovery	Visual Description
Continued			
	1357	50/0 0"	SANDY GRAVEL (GW), brown, damp, gravel to 3-inch diam., few cobbles to 4-inch diam., very fine to very coarse grained sand.
70	1543	42-50/3 5"	
	1749	50/3 3"	
80	No sample, broke split spoon, drill out.		
90	No sample, broke split spoon, drill out.		
100	20.3	40-50/4 11"	SILTY SAND (SM), very fine to very coarse grained, brown, damp, subangular, 30% silt.
	10.6	50/5 8"	
110	8.6	30-40-50/4 12"	
	13	50/6 7"	-with very fine to medium grained sand, 10-20% silt.
120	8.4	50/6 13"	
	11.6	50/5 4"	
130	7.2	22-50/5 9"	SILT and SAND (ML-SM), very fine to medium grained sand, light brown, damp, loose.
	87.6	50/1 1"	SILTY SAND (SM), very fine to coarse grained, light brown-gray, hard, slightly lithified.
140	4.4	50/5 5"	-with very fine to very coarse grained sand, 20-30% silt, loose.

Continued Next Page

Interval Sampled
Sample Retained

TriHydro Corporation
920 Sheridan Street
Laramie, Wyoming 82070
(307) 745-7474

Borehole Log

Client:

Safety-Kleen Corp. Albuquerque, New Mexico

CONSTRUCTION		SAMPLING DATA			LITHOLOGY
Depth, feet	Continued	Graphic Log	TOV Values (ppmv)	Blow Count Recovery	Visual Description
			1.1	50/5 6"	-yellow-brown, with 10% gravel to 1/2-inch diam.
150			1.1	36-50/4 8"	SILTY CLAYEY SAND (SM-SC), very fine to very coarse grained, yellow-brown, damp, loose, slightly plastic, 20-30% silt and clay, trace gravel to 1/8-inch diam.

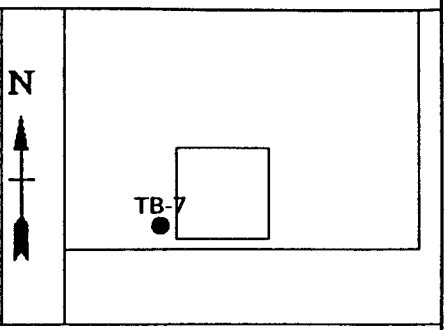
Interval Sampled
Sample Retained

TriHydro Corporation
920 Sheridan Street
Laramie, Wyoming 82070
(307) 745-7474

Borehole Log

Borehole: **TB-7**

Client: **Safety-Kleen Corp. Albuquerque, New Mexico**		
Date Started: **AUG 13 93**	Date Completed: **AUG 13 93**	Permit Number:
Logged By: **E. Hill**	Driller: **Dave Long**	1/4, 1/4, S, T, R:
Drilling Co.: **West Hazmat, Inc.**	Drilling Rig: **CME-95**	Borehole Diameter: **9"**
Method: **Hollow-Stem Auger**	Measuring Point Elevation:	Sample Type: **Split Spoon**
Borehole Depth (ft): **121.0**	Ground Surface Elevation:	Location: **Southwest corner of office building, 23 feet south of TB-4.**



CONSTRUCTION	SAMPLING DATA	LITHOLOGY
Depth, feet	TOV Values (ppmv) / Blow Count / Recovery	Visual Description
		SILTY SAND (SM), very fine to very coarse grained, red-brown, moist, trace clay, trace gravel. Logged from auger cuttings.
Asphalt cap		
	Augered only to 84.5 ft. No samples.	
10		
20	0	
30	0	
40		
50	0	
Hydrated Bentonite Chips		
60	0	

Continued Next Page

Interval Sampled
Sample Retained

TriHydro Corporation
920 Sheridan Street
Laramie, Wyoming 82070
(307) 745-7474

Borehole Log

Client:

Safety-Kleen Corp. Albuquerque, New Mexico

CONSTRUCTION		SAMPLING DATA		LITHOLOGY
Depth, feet	Continued	TOV Values (ppmv)	Blow Count Recovery	Visual Description
70				
80				
		0	20-50/5 11"	SAND (SW), very fine to very coarse grained, light brown, damp, loose, gravel to 1/2-inch diam.
90		3.3	28-50/5 12"	SILTY SAND (SM), very fine to medium grained, orange-brown, moist, moderately dense, trace clay.
		1.1	40-50/3 8"	SAND (SW), very fine to coarse grained, mostly medium grained, damp, loose, 10% gravel to 1/2-inch diam.
100		10	36-50/5 13"	-very fine to very coarse grained, with 20% gravel to 1/2-inch diam.
		0	31-50/3 NA	
110		0	30-50/5 13"	SILTY SAND (SM), very fine to very coarse grained, light gray-brown, damp, loose, 10% gravel to 1/4-inch diam.
		0	45-50/3 NA	SAND (SP), very fine to medium grained, light yellow-brown, damp, loose.
120		0	48-50/2 9"	

Graphic Log

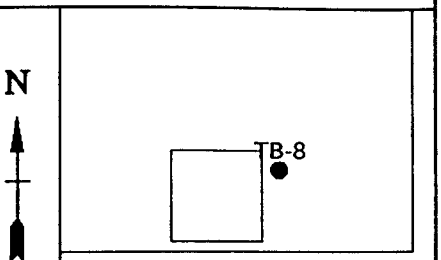
Interval Sampled
Sample Retained

TriHydro Corporation
920 Sheridan Street
Laramie, Wyoming 82070
(307) 745-7474

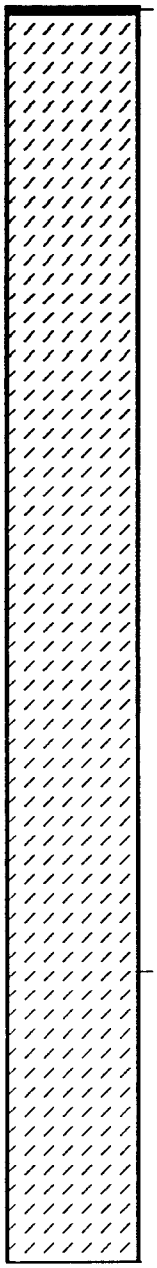
Borehole Log

Borehole: **TB-8**

Client: Safety-Kleen Corp. Albuquerque, New Mexico		
Date Started: AUG 16 93	Date Completed: AUG 16 93	Permit Number:
Logged By: E. Hill	Driller: Dave Long	1/4, 1/4, S, T, R:
Drilling Co.: West Hazmat, Inc.	Drilling Rig: CME-95	Borehole Diameter: 9"
Method: Hollow-Stem Auger	Measuring Point Elevation:	Sample Type: Split Spoon
Borehole Depth: 121.0	Ground Surface Elevation:	Location: 9 feet east of office building, north of former USTs.



CONSTRUCTION | **SAMPLING DATA** | **LITHOLOGY**



Depth, feet	TOV Values (ppmv)	Blow Count Recovery	Visual Description
			FILL: silty sand, very fine to very coarse grained, yellow-brown, 20% gravel to 1/8-inch diam.
10	7.0	6-4-4 18"	CLAYEY SILT (ML), orange-brown, moist, soft, slightly plastic, trace very fine grained sand.
	14.2	7-22-26 18"	SAND (SP), very fine to medium grained, brown, moist, loose.
20	9.4	20-28-33 18"	-very fine to very coarse grained, light brown, with 10% gravel to 1-inch diam.
	6.8	12-25-31 18"	-with gravel to 1.5-inch diam.
30	6.4	12-13-22 18"	SILT and SAND (ML), very fine grained sand, orange-brown, moist, soft, 20-30% gravel to 1/8-inch diam., grading to 0% gravel.
	4.8	21-33-32 18"	-dry, with 10% gravel to 1/8-inch diam.
40	5.4	50/6 3"	SILTY CLAY (CL), light orange-brown, dry, hard, friable, moderately plastic when wetted.
	4.6	22-40-50/5 18"	
50	10.6	29-50/3 8"	
	4.8	50/4 1"	SILTY SANDY GRAVEL (GW), to 2-inch diam., brown, moist, rounded, 40% silt and sand.
60	2.6	50/2 8"	-with gravel to 3-inch diam.

Continued Next Page

Interval Sampled
Sample Retained

TriHydro Corporation
920 Sheridan Street
Laramie, Wyoming 82070
(307) 745-7474

Borehole Log

Client:

Safety-Kleen Corp. Albuquerque, New Mexico

Depth, feet	CONSTRUCTION	SAMPLING DATA: TOV Values (ppmv)	Blow Count Recovery	LITHOLOGY: Visual Description
	Continued	1.6	40-50/3 5"	
70		NA	50/4 2"	-with cobbles to 4-inch diam.
		1.0	50/3 6"	
80		NA	50/2 2"	
		3.4	50/4 8"	SAND (SW), very fine to very coarse grained, brown, moist, loose, 30-40% gravel and cobbles to 4-inch diam.
90		4.2	50/4 3"	SILTY SAND (SM), very fine to very coarse grained, brown, damp, 30% gravel to 1.5-inch diam., 20% silt.
		40	50/5 6"	SANDY SILT (ML), brown, moist, hard, 20% very fine to coarse grained sand.
100		17.6	33-50/4 NA	SILTY SAND (SM), very fine to medium grained, light brown, damp, loose.
		15.2	39-50/3 10"	SAND (SW), very fine to very coarse grained, light brown, damp, loose, trace silt, trace gravel to 1/8-inch diam.
110		13	50/4 0.5"	SANDY SILT (ML), very light gray-brown, damp, stiff, 40% very fine to very coarse grained sand, trace gravel to 1/8-inch diam.
		12.2	40-50/4 9"	
120		9.6	50/6 7"	

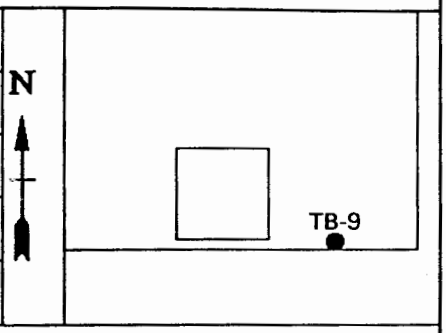
Interval Sampled
Sample Retained

TriHydro Corporation
920 Sheridan Street
Laramie, Wyoming 82070
(307) 745-7474

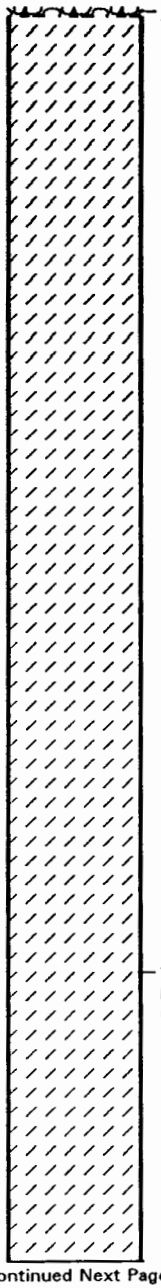
Borehole Log

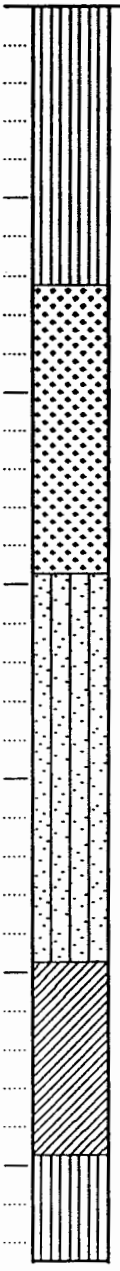
Borehole: **TB-9**

Client: Safety-Kleen Corp. Albuquerque, New Mexico		
Date Started: AUG 16 93	Date Completed: AUG 17 93	Permit Number:
Logged By: E. Hill	Driller: Dave Long	1/4, 1/4, S, T, R:
Drilling Co.: West Hazmat, Inc.	Drilling Rig: CME-95	Borehole Diameter: 9"
Method: Hollow-Stem Auger	Measuring Point Elevation:	Sample Type: Split Spoon
Borehole Depth: 151.0	Ground Surface Elevation:	Location: 36 feet east of office building, along south fence.



CONSTRUCTION | **SAMPLING DATA** | **LITHOLOGY**





Depth, feet	TOV Values (ppmv)	Blow Count Recovery	Visual Description
	7.8	7-7-6 18"	SANDY SILT (ML), orange-brown, moist, soft, very fine grained sand.
10	7.0	6-6-7 18"	
	19.4	10-17-24 12"	SAND (SW), very fine to very coarse grained, light brown, moist, loose, subangular.
20	9.2	8-16-21 14"	
30	10.0	10-14-15 18"	SILTY SAND (SM), very fine to very coarse grained, orange-brown, moist, firm, 30% silt, 10% gravel to 1/8-inch diam.
40	6.2	NA 18"	
50	1320	20-40-37 18"	SILTY CLAY (CL), brown, moist, moderately plastic, thin lenses of sandy silt, trace gravel to 1/8-inch diam., few orange spots.
60	980	50/4 3"	SANDY SILT (ML), yellow-brown, damp, soft, 30% gravel to 3-inch diam, 20% sand.

Continued Next Page

Interval Sampled
Sample Retained

TriHydro Corporation
920 Sheridan Street
Laramie, Wyoming 82070
(307) 745-7474

Borehole Log

Client:

Safety-Kleen Corp. Albuquerque, New Mexico

Depth, feet	CONSTRUCTION	Graphic Log	TOV Values (ppmv)	Blow Count Recovery	LITHOLOGY Visual Description
	Continued				
70			59	50/3 4"	SAND (SW), very fine to very coarse grained, light brown, damp, loose, subangular, 20% subrounded gravel to 1/2-inch diam., trace silt.
80			180	50/5 1"	-with gravel to 3-inch diam., rounded.
90			114	50/3 2"	GRAVEL (GW), up to 3-inch diam., 20% cobbles to 4-inch diam., rounded, flat (described from cuttings).
100			420	50/4 1	-with 30% very fine to very coarse grained sand.
110			54	50/2 0.5"	
120			62	50/5 8"	SILTY SAND (SM), very fine to very coarse grained, very light brown, damp, dense, 20% silt.
130			34	48-50/1 12"	-with 40% silt, mostly very fine to fine grained sand, 20% medium to coarse grained sand.
140			49	50/5 8"	-with increased percentage of medium to coarse grained sand.

Continued Next Page

Interval Sampled
Sample Retained

TriHydro Corporation
920 Sheridan Street
Laramie, Wyoming 82070
(307) 745-7474

Borehole Log

Client:

Safety-Kleen Corp. Albuquerque, New Mexico

CONSTRUCTION		SAMPLING DATA			LITHOLOGY
Depth, feet	Continued	Graphic Log	TOV Values (ppmv)	Blow Count Recovery	Visual Description
150			38	42-50/3 9"	-with a 3-inch layer of mostly coarse to very coarse grained sand and gravel to 1/8-inch diam.

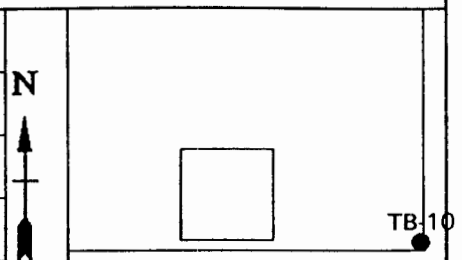
Interval Sampled
Sample Retained

TriHydro Corporation
920 Sheridan Street
Laramie, Wyoming 82070
(307) 745-7474

Borehole Log

Borehole: **TB-10**

Client: **Safety-Kleen Corp. Albuquerque, New Mexico**		
Date Started: **AUG 17 93**	Date Completed: **AUG 17 93**	Permit Number:
Logged By: **E. Hill**	Driller: **Dave Long**	1/4, 1/4, S, T, R:
Drilling Co.: **West Hazmat, Inc.**	Drilling Rig: **CME-95**	Borehole Diameter: **9"**
Method: **Hollow-Stem Auger**	Measuring Point Elevation:	Sample Type: **Split Spoon**
Borehole Depth: **81.0**	Ground Surface Elevation:	Location: **80 feet east of office building, along south fence.**



CONSTRUCTION | **SAMPLING DATA** | **LITHOLOGY**

Depth, feet	Graphic Log	TOV Values (ppmv)	Blow Count Recovery	Visual Description
	Soil and Gravel			
		11.4	4-7-7 18"	SANDY SILT (ML), brown, moist, firm, slight plasticity, 30% very fine to very coarse grained sand, 10% gravel to 1/8-inch diam., trace clay.
10		14	6-5-7 18"	-with 20% very fine to fine grained sand, no gravel.
		19	14-21-30 18"	SAND (SW), very fine to coarse grained, light brown, damp, loose, subangular.
20		NA	7-17-19 0"	
30	Hydrated Bentonite Chips	21	32-42-19 18"	SANDY SILT (ML), brown, damp, stiff, 30-40% very fine to very coarse grained sand and gravel to 1/16" diam.
40		8.4	25-20-34 18"	-light brown, with very fine to fine grained sand.
50		7.4	19-37-46 18"	-hard
60		13	19-30-50/5 14"	-light gray-brown, dry, very hard.

Continued Next Page

Interval Sampled
Sample Retained

TriHydro Corporation
920 Sheridan Street
Laramie, Wyoming 82070
(307) 745-7474

Borehole Log

Client:

Safety-Kleen Corp. Albuquerque, New Mexico

CONSTRUCTION		SAMPLING DATA			LITHOLOGY
Depth, feet	Continued	Graphic Log	TOV Values (ppmv)	Blow Count Recovery	Visual Description
70			24	50/4-50/0 2"	GRAVEL (GW), to 3-inch diam., cobbles to 4-inch diam.
80			19	32-50/4 8"	SAND (SW), very fine to medium grained, light brown, damp, medium dense, subangular.

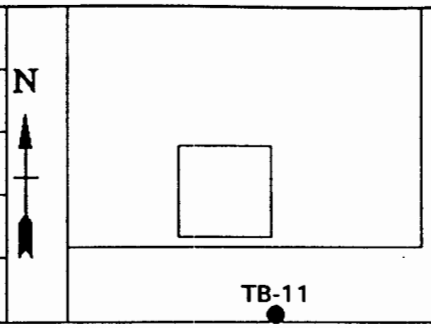
Interval Sampled
Sample Retained

TriHydro Corporation
920 Sheridan Street
Laramie, Wyoming 82070
(307) 745-7474

Borehole Log

Borehole: TB-11

Client: Safety-Kleen Corp. Albuquerque, New Mexico		
Date Started: AUG 18 93	Date Completed: AUG 18 93	Permit Number:
Logged By: E. Hill	Driller: Dave Long	1/4, 1/4, S, T, R:
Drilling Co.: West Hazmat, Inc.	Drilling Rig: CME-95	Borehole Diameter: 9"
Method: Hollow-Stem Auger	Measuring Point Elevation:	Sample Type: Split Spoon
Borehole Depth: 87.0	Ground Surface Elevation:	Location: South of former USTs, on Mendoza property, 15 feet east of building



Depth, feet	CONSTRUCTION	Graphic Log	TOV Values (ppmv)	Blow Count Recovery	Visual Description
	Soil and Gravel		18.8	55/18 8"	FILL: silty sand, very fine to very coarse grained, brown, damp, hard, 30% silt, 20% gravel to 1/2-inch diam., angular.
			10.6	17-14-15 18"	SILTY SAND (SM), orange-brown, moist, moderately dense, 20% silt, 10% gravel to 1/8-inch diam.
10			9.6	20-18-20 18"	CLAYEY SAND (SC), very fine to medium grained, orange-brown, moist, trace silt, moderately plastic.
			7.0	16-22-30 18"	SAND (SW), very fine to very coarse grained, gray-brown, moist, loose, subrounded, 10% gravel to 1/4-inch diam.
20			7.6	17-18-30 18"	-with gravel to 1-inch diam.
30	Hydrated Bentonite Chips		10	31-18-27 18"	SILTY SAND (SM), very fine to very coarse grained, orange-brown, moist, loose, 40% silt and trace clay.
40			12.2	42-27-33 18"	SANDY SILT (ML), orange-brown, moist, firm, 30% very fine to fine grained sand, trace gravel to 1/8-inch diam.
			13.4		SILTY CLAY (CL), orange-brown, moist, 10-20% very fine to medium grained sand, moderately plastic (described from cuttings).
50			9.8	24-50/3 6"	SAND (SW), very fine to very coarse grained, very light brown, damp, loose, 20% gravel to 2-inch diam., angular to subrounded, 10% silt.
60			11.4	36-50/2 6"	-with gravel to 3-inch diam.

Continued Next Page

Interval Sampled
Sample Retained

TriHydro Corporation
920 Sheridan Street
Laramie, Wyoming 82070
(307) 745-7474

Borehole Log

Client:

Safety-Kleen Corp. Albuquerque, New Mexico

CONSTRUCTION		SAMPLING DATA			LITHOLOGY
Depth, feet	Continued	Graphic Log	TOV Values (ppmv)	Blow Count Recovery	Visual Description
70			10.6	50/2 1"	GRAVEL (GW), to 3-inch diam., few cobbles to 4-inch diam., some sand.
80			10.4	50/6 4"	-due to low recovery, additional soil for this sample collected from 85-87 feet.
			11.4		

Interval Sampled
Sample Retained

APPENDIX H

LABORATORY ANALYTICAL DATA
ADDITIONAL CLOSURE ASSESSMENT
SAFETY-KLEEN CORP. SERVICE CENTER
ALBUQUERQUE, NEW MEXICO

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Midwest Region
4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)

GTEL Client Number: TRI02.SFK01
Project ID (Number): 739
Project ID (Name): SK - Albuquerque, NM
Work Order Number: W3-08-0318

September 02, 1993

Jack Bedessem
TriHydro Corporation
920 Sheridan Street
Laramie, WY 82070

Dear Mr. Bedessem:

Enclosed please find the analytical results for samples received by GTEL Environmental Laboratories on 08-19-93.

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 met QA/QC criteria unless otherwise stated in the footnotes.

GTEL is certified by the State of Kansas under Certification Numbers E-103, E-1113.

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

Sincerely,

Lori K Loney
Asst Lab Director for

Terry R. Loucks
Laboratory Director

GTEL Wichita, KS
TRIHYDRO.CL

GTEL Client Number: TRI02.SFK01
Project ID (Number): 739
Project ID (Name): SK - Albuquerque, NM
Work Order Number: W3-08-0318
Date Reported: 09-02-93
Date Reissued: 09-07-93

ANALYTICAL RESULTS

Metals in Soil[a]

		GTEL Sample Number	01	02	03	04
		Client Identification	TB-8 (14.5'-16.0')	TB-8 (44.5'-46.0')	TB-8 (94.5'-96.0')	TB-8 (119.5'-121.0')
		Date Sampled	08-16-93	08-16-93	08-16-93	08-16-93
		Date Digested	08-26-93	08-26-93	08-26-93	08-26-93
		Date Analyzed	08-27-93	08-27-93	08-27-93	08-27-93
Analyte	Method	QL,* mg/Kg	Concentration, mg/Kg			
Cadmium	EPA 6010	2	<2	<2	<2	<2
Chromium	EPA 6010	1	4	11	7	4
Lead	EPA 6010	10	<10	<10	<10	<10
Percent Solids			97.4	94.7	85.7	86.6

		GTEL Sample Number	06	07	08	09
		Client Identification	TB-9 (14.5'-16.0')	TB-9 (49.5'-51.0')	TB-9 (119.5'-121.0')	TB-9 (149.5'-151.0')
		Date Sampled	08-16-93	08-17-93	08-17-93	08-17-93
		Date Digested	08-26-93	08-26-93	08-26-93	08-26-93
		Date Analyzed	08-27-93	08-27-93	08-27-93	08-27-93
Analyte	Method	QL,* mg/Kg	Concentration, mg/Kg			
Cadmium	EPA 6010	2	<2	<2	<2	<2
Chromium	EPA 6010	1	3	7	6	2
Lead	EPA 6010	10	<10	<10	<10	<10
Percent Solids			95.1	94.3	94.2	97.2

a Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986; Digestion by Method 3050, except for 7471 which is method specific.

* Quantitation Limit.

NOTE: Sample temperature when received at the laboratory was 3°C.

GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL Client Number: TRI02.SFK01
Project ID (Number): 739
Project ID (Name): SK - Albuquerque, NM
Work Order Number: W3-08-0318
Date Reported: 09-02-93

ANALYTICAL RESULTS

Metals in Soil[a]

		GTEL Sample Number	10	11	12	13
		Client Identification	TB-10 (145'-16.0')	TB-10 (79.5'-81.0')	TB-11 (0.0'-1.5')	TB-11 (19.5'-21.0')
		Date Sampled	08-17-93	08-17-93	08-18-93	08-18-93
		Date Digested	08-26-93	08-26-93	08-26-93	08-26-93
		Date Analyzed	08-27-93	08-27-93	08-27-93	08-27-93
Analyte	Method	QL,* mg/Kg	Concentration, mg/Kg			
Cadmium	EPA 6010	2	<2	<2	<2	<2
Chromium	EPA 6010	1	**3**	**3**	**9**	**2**
Lead	EPA 6010	10	<10	<10	**180**	<10
Percent Solids			95.2	97.7	92.6	97.6

		GTEL Sample Number	14	15		
		Client Identification	TB-11 (59.5'-61.0')	TB-11 (79.5'-81.0')		
		Date Sampled	08-18-93	08-18-93		
		Date Digested	08-26-93	08-26-93		
		Date Analyzed	08-27-93	08-27-93		
Analyte	Method	QL,* mg/Kg	Concentration, mg/Kg			
Cadmium	EPA 6010	2	<2	<2		
Chromium	EPA 6010	1	**8**	**7**		
Lead	EPA 6010	10	<10	<10		
Percent Solids			97.1	95.3		

a Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986; Digestion by Method 3050, except for 7471 which is method specific.

* Quantitation Limit.

NOTE: Sample temperature when received at the laboratory was 3°C.

GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL Client Number: TRI02.SFK01
Project ID (Number): 739
Project ID (Name): SK - Albuquerque, NM
Work Order Number: W3-08-0318
Date Reported: 08-26-93

ANALYTICAL RESULTS

Volatile Organics in Soil
Modified EPA Method 8240[a]

	GTEL Sample Number	01	02	03	04
	Client Identification	TB-8 (14.5'-16.0')	TB-8 (44.5'-46.0')	TB-8 (94.5'-96.0')	TB-8 (119.5'-121.0')
	Date Sampled	08-16-93	08-16-93	08-16-93	08-16-93
	Date Analyzed	08-23-93	08-23-93	08-23-93	08-23-93
	Dilution Multiplier[b]	1	1	1	1
Analyte	Reporting Limit, mg/kg	Concentration, mg/kg			
Chloromethane	0.010	<0.010	<0.010	<0.010	<0.010
Bromomethane	0.010	<0.010	<0.010	<0.010	<0.010
Vinyl Chloride	0.010	<0.010	<0.010	<0.010	<0.010
Chloroethane	0.010	<0.010	<0.010	<0.010	<0.010
Methylene Chloride	0.010	<0.010	<0.010	<0.010	<0.010
Acetone	0.020	<0.020	<0.020	<0.020	<0.020
Carbon Disulfide	0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethene	0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethane	0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethene (total)[c]	0.005	<0.005	<0.005	<0.005	<0.005
Chloroform	0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.005	<0.005	<0.005	<0.005	<0.005
2-Butanone	0.020	<0.020	<0.020	<0.020	<0.020
1,1,1-Trichloroethane	0.005	<0.005	<0.005	<0.005	<0.005
Carbon Tetrachloride	0.005	<0.005	<0.005	<0.005	<0.005
Vinyl Acetate	0.020	<0.020	<0.020	<0.020	<0.020
Bromodichloromethane	0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloropropane	0.005	<0.005	<0.005	<0.005	<0.005
cis-1,3-Dichloropropene	0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethene	0.005	<0.005	<0.005	<0.005	<0.005
Dibromochloromethane	0.005	<0.005	<0.005	<0.005	<0.005

GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL Client Number: TRI02.SFK01
Project ID (Number): 739
Project ID (Name): SK - Albuquerque, NM
Work Order Number: W3-08-0318
Date Reported: 08-26-93

ANALYTICAL RESULTS

Volatile Organics in Soil
Modified EPA Method 8240[a]

	GTEL Sample Number	01	02	03	04
	Client Identification	TB-8 (14.5'-16.0')	TB-8 (44.5'-46.0')	TB-8 (94.5'-96.0')	TB-8 (119.5'-121.0')
	Date Sampled	08-16-93	08-16-93	08-16-93	08-16-93
	Date Analyzed	08-23-93	08-23-93	08-23-93	08-23-93
	Dilution Multiplier[b]	1	1	1	1
Analyte	Reporting Limit, mg/kg	Concentration, mg/kg			
1,1,2-Trichloroethane	0.005	<0.005	<0.005	<0.005	<0.005
Benzene	0.005	<0.005	<0.005	<0.005	<0.005
2-Chloroethylvinyl Ether	0.010	<0.010	<0.010	<0.010	<0.010
trans-1,3-Dichloropropene	0.005	<0.005	<0.005	<0.005	<0.005
Bromoform	0.005	<0.005	<0.005	<0.005	<0.005
4-Methyl-2-Pentanone	0.020	<0.020	<0.020	<0.020	<0.020
2-Hexanone	0.020	<0.020	<0.020	<0.020	<0.020
Tetrachloroethene	0.005	<0.005	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane	0.005	<0.005	<0.005	<0.005	<0.005
Toluene	0.005	<0.005	<0.005	<0.005	<0.005
Chlorobenzene	0.005	<0.005	<0.005	<0.005	<0.005
Ethylbenzene	0.005	<0.005	<0.005	<0.005	<0.005
Styrene	0.005	<0.005	<0.005	<0.005	<0.005
Xylenes (total)	0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichlorobenzene	0.010	<0.010	<0.010	<0.010	<0.010
1,3-Dichlorobenzene	0.010	<0.010	<0.010	<0.010	<0.010
1,4-Dichlorobenzene	0.010	<0.010	<0.010	<0.010	<0.010
Percent Solids	%	97.4	94.7	85.7	86.6

a Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986; Heated purge and trap for sample preparation. This method is modified for megabore column use and additional compounds. Results are calculated on a wet weight basis.

b Dilution multiplier indicates the adjustments made for sample dilution.

c Total 1,2-dichloroethene is the sum of the cis- and trans- isomers.

GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL Client Number: TRI02.SFK01
Project ID (Number): 739
Project ID (Name): SK - Albuquerque, NM
Work Order Number: W3-08-0318
Date Reported: 08-26-93
Date Reissued: 09-07-93

ANALYTICAL RESULTS

Volatile Organics in Soil
Modified EPA Method 8240[a]

GTEL Sample Number		06	07	08	09
Client Identification		TB-9 (14.5'-16.0')	TB-9 (49.5'-51.0')	TB-9 (119.5'-121.0')	TB-9 (149.5'-151.0')
Date Sampled		08-16-93	08-17-93	08-17-93	08-17-93
Date Analyzed		08-23-93	08-23-93	08-23-93	08-23-93
Dilution Multiplier[b]		1	1 *	1	1
Analyte	Reporting Limit, mg/kg	Concentration, mg/kg			
Chloromethane	0.010	<0.010	<0.010	<0.010	<0.010
Bromomethane	0.010	<0.010	<0.010	<0.010	<0.010
Vinyl Chloride	0.010	<0.010	<0.010	<0.010	<0.010
Chloroethane	0.010	<0.010	<0.010	<0.010	<0.010
Methylene Chloride	0.010	<0.010	<0.010	<0.010	<0.010
Acetone	0.020	<0.020	**0.28**	<0.020	<0.020
Carbon Disulfide	0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethene	0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethane	0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethene (total)[c]	0.005	<0.005	<0.005	<0.005	<0.005
Chloroform	0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.005	<0.005	<0.005	<0.005	<0.005
2-Butanone	0.020	<0.020	**0.076**	<0.020	<0.020
1,1,1-Trichloroethane	0.005	<0.005	<0.005	<0.005	<0.005
Carbon Tetrachloride	0.005	<0.005	<0.005	<0.005	<0.005
Vinyl Acetate	0.020	<0.020	<0.020	<0.020	<0.020
Bromodichloromethane	0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloropropane	0.005	<0.005	<0.005	<0.005	<0.005
cis-1,3-Dichloropropene	0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethene	0.005	<0.005	<0.005	<0.005	<0.005
Dibromochloromethane	0.005	<0.005	<0.005	<0.005	<0.005

GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL Client Number: TRI02.SFK01
Project ID (Number): 739
Project ID (Name): SK - Albuquerque, NM
Work Order Number: W3-08-0318
Date Reported: 08-26-93
Date Reissued: 09-07-93

ANALYTICAL RESULTS

Volatile Organics in Soil
Modified EPA Method 8240[a]

GTEL Sample Number		06	07	08	09
Client Identification		TB-9 (14.5'-16.0')	TB-9 (49.5'-51.0')	TB-9 (119.5'-121.0')	TB-9 (149.5'-151.0')
Date Sampled		08-16-93	08-17-93	08-17-93	08-17-93
Date Analyzed		08-23-93	08-23-93	08-23-93	08-23-93
Dilution Multiplier[b]		1	1 *	1	1
Analyte	Reporting Limit, mg/kg	Concentration, mg/kg			
1,1,2-Trichloroethane	0.005	<0.005	<0.005	<0.005	<0.005
Benzene	0.005	<0.005	<0.005	<0.005	<0.005
2-Chloroethylvinyl Ether	0.010	<0.010	<0.010	<0.010	<0.010
trans-1,3-Dichloropropene	0.005	<0.005	<0.005	<0.005	<0.005
Bromoform	0.005	<0.005	<0.005	<0.005	<0.005
4-Methyl-2-Pentanone	0.020	<0.020	<0.020	<0.020	<0.020
2-Hexanone	0.020	<0.020	<0.020	<0.020	<0.020
Tetrachloroethene	0.005	<0.005	**0.007**	<0.005	<0.005
1,1,2,2-Tetrachloroethane	0.005	<0.005	<0.005	<0.005	<0.005
Toluene	0.005	<0.005	**0.008**	<0.005	<0.005
Chlorobenzene	0.005	<0.005	<0.005	<0.005	<0.005
Ethylbenzene	0.005	<0.005	**0.006**	<0.005	<0.005
Styrene	0.005	<0.005	<0.005	<0.005	<0.005
Xylenes (total)	0.005	<0.005	**0.060**	<0.005	<0.005
1,2-Dichlorobenzene	0.010	<0.010	<0.010	<0.010	<0.010
1,3-Dichlorobenzene	0.010	<0.010	<0.010	<0.010	<0.010
1,4-Dichlorobenzene	0.010	<0.010	<0.010	<0.010	<0.010
Percent Solids	%	95.1	94.3	94.2	97.2

a Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986; Heated purge and trap for sample preparation. This method is modified for megabore column use and additional compounds. Results are calculated on a wet weight basis.

b Dilution multiplier indicates the adjustments made for sample dilution.

c Total 1,2-dichloroethene is the sum of the cis- and trans- isomers.

* GC/MS data indicated the presence of non-target compounds.

GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL Client Number: TRI02.SFK01
Project ID (Number): 739
Project ID (Name): SK - Albuquerque, NM
Work Order Number: W3-08-0318
Date Reported: 08-26-93

ANALYTICAL RESULTS

Volatile Organics in Soil
Modified EPA Method 8240[a]

GTEL Sample Number		10	11	12	13
Client Identification		TB-10 (14.5'-16.0')	TB-10 (79.5'-81.0')	TB-11 (0.0'-1.5')	TB-11 (19.5'-21.0')
Date Sampled		08-17-93	08-17-93	08-18-93	08-18-93
Date Analyzed		08-23-93	08-23-93	08-23-93	08-23-93
Dilution Multiplier[b]		1	1	1	1
Analyte	Reporting Limit, mg/kg	Concentration, mg/kg			
Chloromethane	0.010	<0.010	<0.010	<0.010	<0.010
Bromomethane	0.010	<0.010	<0.010	<0.010	<0.010
Vinyl Chloride	0.010	<0.010	<0.010	<0.010	<0.010
Chloroethane	0.010	<0.010	<0.010	<0.010	<0.010
Methylene Chloride	0.010	<0.010	<0.010	<0.010	<0.010
Acetone	0.020	<0.020	<0.020	<0.020	<0.020
Carbon Disulfide	0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethene	0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethane	0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethene (total)[c]	0.005	<0.005	<0.005	<0.005	<0.005
Chloroform	0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.005	<0.005	<0.005	<0.005	<0.005
2-Butanone	0.020	<0.020	<0.020	<0.020	<0.020
1,1,1-Trichloroethane	0.005	<0.005	<0.005	<0.005	<0.005
Carbon Tetrachloride	0.005	<0.005	<0.005	<0.005	<0.005
Vinyl Acetate	0.020	<0.020	<0.020	<0.020	<0.020
Bromodichloromethane	0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloropropane	0.005	<0.005	<0.005	<0.005	<0.005
cis-1,3-Dichloropropene	0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethene	0.005	<0.005	<0.005	<0.005	<0.005
Dibromochloromethane	0.005	<0.005	<0.005	<0.005	<0.005

GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL Client Number: TRI02.SFK01
Project ID (Number): 739
Project ID (Name): SK - Albuquerque, NM
Work Order Number: W3-08-0318
Date Reported: 08-26-93

ANALYTICAL RESULTS

Volatile Organics in Soil
Modified EPA Method 8240[a]

GTEL Sample Number		10	11	12	13
Client Identification		TB-10 (14.5'-16.0')	TB-10 (79.5'-81.0')	TB-11 (0.0'-1.5')	TB-11 (19.5'-21.0')
Date Sampled		08-17-93	08-17-93	08-18-93	08-18-93
Date Analyzed		08-23-93	08-23-93	08-23-93	08-23-93
Dilution Multiplier[b]		1	1	1	1
Analyte	Reporting Limit, mg/kg	Concentration, mg/kg			
1,1,2-Trichloroethane	0.005	<0.005	<0.005	<0.005	<0.005
Benzene	0.005	<0.005	<0.005	<0.005	<0.005
2-Chloroethylvinyl Ether	0.010	<0.010	<0.010	<0.010	<0.010
trans-1,3-Dichloropropene	0.005	<0.005	<0.005	<0.005	<0.005
Bromoform	0.005	<0.005	<0.005	<0.005	<0.005
4-Methyl-2-Pentanone	0.020	<0.020	<0.020	<0.020	<0.020
2-Hexanone	0.020	<0.020	<0.020	<0.020	<0.020
Tetrachloroethene	0.005	<0.005	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane	0.005	<0.005	<0.005	<0.005	<0.005
Toluene	0.005	<0.005	<0.005	<0.005	<0.005
Chlorobenzene	0.005	<0.005	<0.005	<0.005	<0.005
Ethylbenzene	0.005	<0.005	<0.005	<0.005	<0.005
Styrene	0.005	<0.005	<0.005	<0.005	<0.005
Xylenes (total)	0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichlorobenzene	0.010	<0.010	<0.010	<0.010	<0.010
1,3-Dichlorobenzene	0.010	<0.010	<0.010	<0.010	<0.010
1,4-Dichlorobenzene	0.010	<0.010	<0.010	<0.010	<0.010
Percent Solids	%	95.2	97.7	92.6	97.6

a Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986; Heated purge and trap for sample preparation. This method is modified for megabore column use and additional compounds. Results are calculated on a wet weight basis.

b Dilution multiplier indicates the adjustments made for sample dilution.

c Total 1,2-dichloroethene is the sum of the cis- and trans- isomers.

GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL Client Number: TRI02.SFK01
Project ID (Number): 739
Project ID (Name): SK - Albuquerque, NM
Work Order Number: W3-08-0318
Date Reported: 08-26-93

ANALYTICAL RESULTS

Volatile Organics in Soil
Modified EPA Method 8240[a]

GTEL Sample Number		14	15		
Client Identification		TB-11 (59.5'-61.0')	TB-11 (79.5'-81.0')		
Date Sampled		08-18-93	08-18-93		
Date Analyzed		08-23-93	08-23-93		
Dilution Multiplier[b]		1	1		
Analyte	Reporting Limit, mg/kg	Concentration, mg/kg			
Chloromethane	0.010	<0.010	<0.010		
Bromomethane	0.010	<0.010	<0.010		
Vinyl Chloride	0.010	<0.010	<0.010		
Chloroethane	0.010	<0.010	<0.010		
Methylene Chloride	0.010	<0.010	<0.010		
Acetone	0.020	<0.020	<0.020		
Carbon Disulfide	0.005	<0.005	<0.005		
1,1-Dichloroethene	0.005	<0.005	<0.005		
1,1-Dichloroethane	0.005	<0.005	<0.005		
1,2-Dichloroethene (total)[c]	0.005	<0.005	<0.005		
Chloroform	0.005	<0.005	<0.005		
1,2-Dichloroethane	0.005	<0.005	<0.005		
2-Butanone	0.020	<0.020	<0.020		
1,1,1-Trichloroethane	0.005	<0.005	<0.005		
Carbon Tetrachloride	0.005	<0.005	<0.005		
Vinyl Acetate	0.020	<0.020	<0.020		
Bromodichloromethane	0.005	<0.005	<0.005		
1,2-Dichloropropane	0.005	<0.005	<0.005		
cis-1,3-Dichloropropene	0.005	<0.005	<0.005		
Trichloroethene	0.005	<0.005	<0.005		
Dibromochloromethane	0.005	<0.005	<0.005		

GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL Client Number: TRI02.SFK01
Project ID (Number): 739
Project ID (Name): SK - Albuquerque, NM
Work Order Number: W3-08-0318
Date Reported: 08-26-93

ANALYTICAL RESULTS

Volatile Organics in Soil
Modified EPA Method 8240[a]

GTEL Sample Number		14	15		
Client Identification		TB-11 (59.5'-61.0')	TB-11 (79.5'-81.0')		
Date Sampled		08-18-93	08-18-93		
Date Analyzed		08-23-93	08-23-93		
Dilution Multiplier[b]		1	1		
Analyte	Reporting Limit, mg/kg	Concentration, mg/kg			
1,1,2-Trichloroethane	0.005	<0.005	<0.005		
Benzene	0.005	<0.005	<0.005		
2-Chloroethylvinyl Ether	0.010	<0.010	<0.010		
trans-1,3-Dichloropropene	0.005	<0.005	<0.005		
Bromoform	0.005	<0.005	<0.005		
4-Methyl-2-Pentanone	0.020	<0.020	<0.020		
2-Hexanone	0.020	<0.020	<0.020		
Tetrachloroethene	0.005	<0.005	<0.005		
1,1,2,2-Tetrachloroethane	0.005	<0.005	<0.005		
Toluene	0.005	<0.005	<0.005		
Chlorobenzene	0.005	<0.005	<0.005		
Ethylbenzene	0.005	<0.005	<0.005		
Styrene	0.005	<0.005	<0.005		
Xylenes (total)	0.005	<0.005	<0.005		
1,2-Dichlorobenzene	0.010	<0.010	<0.010		
1,3-Dichlorobenzene	0.010	<0.010	<0.010		
1,4-Dichlorobenzene	0.010	<0.010	<0.010		
Percent Solids	%	97.1	95.3		

a Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986; Heated purge and trap for sample preparation. This method is modified for megabore column use and additional compounds. Results are calculated on a wet weight basis.

b Dilution multiplier indicates the adjustments made for sample dilution.

c Total 1,2-dichloroethene is the sum of the cis- and trans- isomers.

GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL Client Number: TRI02.SFK01
Project ID (Number): 739
Project ID (Name): SK - Albuquerque, NM
Work Order Number: W3-08-0318
Date Reported: 09-02-93
Date Reissued: 09-07-93

ANALYTICAL RESULTS

Total Petroleum Hydrocarbons as Mineral Spirits in Soil
GC/FID[a]

Sample Identification		Date Sampled	Date Extracted	Date Analyzed	Concentration, mg/kg	Reporting Limit, mg/kg	% Solids
GTEL No.	Client ID						
01	TB-8 (14.5'-16.0')	08-16-93	08-26-93	08-29-93	<10	10	97.4
02	TB-8 (44.5'-46.0')	08-16-93	08-26-93	08-29-93	<10	10	94.7
03	TB-8 (94.5'-96.0')	08-16-93	08-26-93	08-29-93	<10	10	85.7
05	TB-8 (119.5'-121.0')	08-16-93	08-26-93	08-29-93	<10	10	86.6
06	TB-9 (14.5'-16.0')	08-16-93	08-26-93	08-30-93	<10	10	95.1
07	TB-9 (49.5'-51.0')	08-17-93	08-26-93	08-31-93	230	10	94.3
08	TB-9 (119.5'-121.0')	08-17-93	08-26-93	08-30-93	<10[b]	10	94.2
09	TB-9 (149.5'-151.0')	08-17-93	08-26-93	08-30-93	<10	10	97.2
10	TB-10 (14.5'-16.0')	08-17-93	08-26-93	08-30-93	<10	10	95.2
11	TB-10 (79.5'-81.0')	08-17-93	08-26-93	08-30-93	<10	10	97.7
12	TB-11 (0.0'-1.5')	08-18-93	08-26-93	08-31-93	<10[b]	10	92.6
13	TB-11 (19.5'-21.0')	08-18-93	08-26-93	08-30-93	<10	10	97.6
14	TB-11 (59.5'-61.0')	08-18-93	08-26-93	08-30-93	<10	10	97.1
15	TB-11 (79.5'-81.0')	08-18-93	08-26-93	08-31-93	<10	10	95.3

a ASTM Method D3328 (modified) is used for qualitative identification of fuel patterns. The method has been modified to include quantitation by applying calibration and quality assurance guidelines outlined in EPA's publication, Test Methods for Evaluating Solid Waste, SW846, Third Edition, Revision 0, November 1986. Extraction by modified EPA Method 3550. Results are calculated on a wet weight basis.

b Chromatographic pattern indicates non-target material present.

NOTE: Sample temperature when received at the laboratory was 3°C.

GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL Client Number: TRI02.SFK01
Project ID (Number): 739
Project ID (Name): SK - Albuquerque, NM
Work Order Number: W3-08-0318
Date Reported: 09-02-93

ANALYTICAL RESULTS

Inorganics in Soil

		GTEL Sample Number	01	02	04	
		Client Identification	TB-8 (14.5'-16.0')	TB-8 (44.5'-46.0')	TB-8 (114.5'-116.0')	
		Date Sampled	08-16-93	08-16-93	08-16-93	
		Date Analyzed	09-01-93	09-01-93	09-01-93	
Analyte	Method	QL[a] & Units	Concentration			
Total Organic Carbon	Modified[b] EPA 9060	5 mg/Kg	**170**	**580**	**90**	
Percent Solids			97.4	94.7	97.3	

a Quantitation Limit

b 10-50 mgs of sample were acidified and heated to eliminate inorganic carbon before analysis.

NA Not applicable

NOTE: Sample temperature when received at the laboratory was 3°C.

GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Midwest Region
4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)

GTEL Client Number: TRI02.SFK01
Project ID (Number): 739
Project ID (Name): SK - Albuquerque, NM
Work Order Number: W3-08-0279

AUG 3 1 1993

Jack Bedessem
TriHydro Corporation
920 Sheridan Street
Laramie, WY 82070

Dear Mr. Bedessem:

Enclosed please find the analytical results for samples received by GTEL Environmental Laboratories on 08-17-93.

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 met QA/QC criteria unless otherwise stated in the footnotes.

GTEL is certified by the State of Kansas under Certification Numbers E-103, E-1113.

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

Sincerely,

Lori K Kony
Asst Lab Director
for

Terry R. Loucks
Laboratory Director

GTEL Wichita, KS
TRIHYDRO.CL

GTEL Client Number: TRI02.SFK01
Project ID (Number): 739
Project ID (Name): SK - Albuquerque, NM
Work Order Number: W3-08-0279
Date Reported: 08-24-93

ANALYTICAL RESULTS

Volatile Organics in Soil
Modified EPA Method 8240[a]

GTEL Sample Number		01	02	03	04
Client Identification		TB-5 (49.5'-51.0')	TB-5 (94.5'-96.0')	TB-5 (119.5'-120.0')	TB-6 (49.5'-51.0')
Date Sampled		08-12-93	08-12-93	08-12-93	08-13-93
Date Analyzed		08-19-93	08-19-93	08-19-93	08-19-93
Dilution Multiplier[b]		1000*	2*	1	1000*
Analyte	Reporting Limit, mg/kg	Concentration, mg/kg			
Chloromethane	0.010	<10	<0.020	<0.010	<10
Bromomethane	0.010	<10	<0.020	<0.010	<10
Vinyl Chloride	0.010	<10	<0.020	<0.010	<10
Chloroethane	0.010	<10	<0.020	<0.010	<10
Methylene Chloride	0.010	<10	<0.020	<0.010	<10
Acetone	0.020	<20	**0.045**	<0.020	<20
Carbon Disulfide	0.005	<5	<0.010	<0.005	<5
1,1-Dichloroethene	0.005	<5	<0.010	<0.005	<5
1,1-Dichloroethane	0.005	<5	<0.010	<0.005	<5
1,2-Dichloroethene (total)[c]	0.005	<5	<0.010	<0.005	<5
Chloroform	0.005	<5	<0.010	<0.005	<5
1,2-Dichloroethane	0.005	<5	<0.010	<0.005	<5
2-Butanone	0.020	<20	<0.040	<0.020	<20
1,1,1-Trichloroethane	0.005	**5**	<0.010	<0.005	**15**
Carbon Tetrachloride	0.005	<5	<0.010	<0.005	<5
Vinyl Acetate	0.020	<20	<0.040	<0.020	<20
Bromodichloromethane	0.005	<5	<0.010	<0.005	<5
1,2-Dichloropropane	0.005	<5	<0.010	<0.005	<5
cis-1,3-Dichloropropene	0.005	<5	<0.010	<0.005	<5
Trichloroethene	0.005	<5	<0.010	<0.005	<5
Dibromochloromethane	0.005	<5	<0.010	<0.005	<5

GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL Client Number: TRI02.SFK01
Project ID (Number): 739
Project ID (Name): SK - Albuquerque, NM
Work Order Number: W3-08-0279
Date Reported: 08-24-93

ANALYTICAL RESULTS

Volatile Organics in Soil
Modified EPA Method 8240[a]

GTEL Sample Number		01	02	03	04
Client Identification		TB-5 (49.5'-51.0')	TB-5 (94.5'-96.0')	TB-5 (119.5'-120.0')	TB-6 (49.5'-51.0')
Date Sampled		08-12-93	08-12-93	08-12-93	08-13-93
Date Analyzed		08-19-93	08-19-93	08-19-93	08-19-93
Dilution Multiplier[b]		1000*	2*	1	1000*
Analyte	Reporting Limit, mg/kg	Concentration, mg/kg			
1,1,2-Trichloroethane	0.005	<5	<0.010	<0.005	<5
Benzene	0.005	<5	<0.010	<0.005	<5
2-Chloroethylvinyl Ether	0.010	<10	<0.020	<0.010	<10
trans-1,3-Dichloropropene	0.005	<5	<0.010	<0.005	<5
Bromoform	0.005	<5	<0.010	<0.005	<5
4-Methyl-2-Pentanone	0.020	<20	<0.040	<0.020	<20
2-Hexanone	0.020	<20	<0.040	<0.020	<20
Tetrachloroethene	0.005	**9.5**	<0.010	<0.005	**28**
1,1,2,2-Tetrachloroethane	0.005	<5	<0.010	<0.005	<5
Toluene	0.005	**13**	<0.010	<0.005	**30**
Chlorobenzene	0.005	<5	<0.010	<0.005	<5
Ethylbenzene	0.005	**11**	<0.010	<0.005	**27**
Styrene	0.005	<5	<0.010	<0.005	<5
Xylenes (total)	0.005	**93**	**0.036**	<0.005	**210**
1,2-Dichlorobenzene	0.010	<10	<0.020	<0.010	<10
1,3-Dichlorobenzene	0.010	<10	<0.020	<0.010	<10
1,4-Dichlorobenzene	0.010	<10	<0.020	<0.010	<10
Percent Solids	%	94.4	96.9	95.9	85.1

a Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986; Heated purge and trap for sample preparation. This method is modified for megabore column use and additional compounds. Results are calculated on a wet weight basis.

b Dilution multiplier indicates the adjustments made for sample dilution.

c Total 1,2-dichloroethene is the sum of the cis- and trans- isomers.

* GC/MS data indicated the presence of non-target compounds.

NOTE: Sample temperature when received at the laboratory was 5°C

GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL Client Number: TRI02.SFK01
Project ID (Number): 739
Project ID (Name): SK - Albuquerque, NM
Work Order Number: W3-08-0279
Date Reported: 08-24-93

ANALYTICAL RESULTS

Volatile Organics in Soil
Modified EPA Method 8240[a]

GTEL Sample Number		05	06	07	08
Client Identification		TB-6 (99.5'-101.0')	TB-6 (149.5'-151.0')	TB-7 (99.5'-101.0')	TB-7 (119.5'-121.0')
Date Sampled		08-13-93	08-13-93	08-13-93	08-13-93
Date Analyzed		08-19-93	08-19-93	08-19-93	08-20-93
Dilution Multiplier[b]		1	1	1	1
Analyte	Reporting Limit, mg/kg	Concentration, mg/kg			
Chloromethane	0.010	<0.010	<0.010	<0.010	<0.010
Bromomethane	0.010	<0.010	<0.010	<0.010	<0.010
Vinyl Chloride	0.010	<0.010	<0.010	<0.010	<0.010
Chloroethane	0.010	<0.010	<0.010	<0.010	<0.010
Methylene Chloride	0.010	<0.010	<0.010	<0.010	<0.010
Acetone	0.020	<0.020	<0.020	<0.020	<0.020
Carbon Disulfide	0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethene	0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethane	0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethene (total)[c]	0.005	<0.005	<0.005	<0.005	<0.005
Chloroform	0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.005	<0.005	<0.005	<0.005	<0.005
2-Butanone	0.020	<0.020	<0.020	<0.020	<0.020
1,1,1-Trichloroethane	0.005	<0.005	<0.005	<0.005	<0.005
Carbon Tetrachloride	0.005	<0.005	<0.005	<0.005	<0.005
Vinyl Acetate	0.020	<0.020	<0.020	<0.020	<0.020
Bromodichloromethane	0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloropropane	0.005	<0.005	<0.005	<0.005	<0.005
cis-1,3-Dichloropropene	0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethene	0.005	<0.005	<0.005	<0.005	<0.005
Dibromochloromethane	0.005	<0.005	<0.005	<0.005	<0.005

GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL Client Number: TRI02.SFK01
Project ID (Number): 739
Project ID (Name): SK - Albuquerque, NM
Work Order Number: W3-08-0279
Date Reported: 08-24-93

ANALYTICAL RESULTS

Volatile Organics in Soil
Modified EPA Method 8240[a]

GTEL Sample Number		05	06	07	08
Client Identification		TB-6 (99.5'-101.0')	TB-6 (149.5'-151.0')	TB-7 (99.5'-101.0')	TB-7 (119.5'-121.0')
Date Sampled		08-13-93	08-13-93	08-13-93	08-13-93
Date Analyzed		08-19-93	08-19-93	08-19-93	08-20-93
Dilution Multiplier[b]		1	1	1	1
Analyte	Reporting Limit, mg/kg	Concentration, mg/kg			
1,1,2-Trichloroethane	0.005	<0.005	<0.005	<0.005	<0.005
Benzene	0.005	<0.005	<0.005	<0.005	<0.005
2-Chloroethylvinyl Ether	0.010	<0.010	<0.010	<0.010	<0.010
trans-1,3-Dichloropropene	0.005	<0.005	<0.005	<0.005	<0.005
Bromoform	0.005	<0.005	<0.005	<0.005	<0.005
4-Methyl-2-Pentanone	0.020	<0.020	<0.020	<0.020	<0.020
2-Hexanone	0.020	<0.020	<0.020	<0.020	<0.020
Tetrachloroethene	0.005	<0.005	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane	0.005	<0.005	<0.005	<0.005	<0.005
Toluene	0.005	<0.005	<0.005	<0.005	<0.005
Chlorobenzene	0.005	<0.005	<0.005	<0.005	<0.005
Ethylbenzene	0.005	<0.005	<0.005	<0.005	<0.005
Styrene	0.005	<0.005	<0.005	<0.005	<0.005
Xylenes (total)	0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichlorobenzene	0.010	<0.010	<0.010	<0.010	<0.010
1,3-Dichlorobenzene	0.010	<0.010	<0.010	<0.010	<0.010
1,4-Dichlorobenzene	0.010	<0.010	<0.010	<0.010	<0.010
Percent Solids	%	97.3	95.4	93.7	96.4

a Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986; Heated purge and trap for sample preparation. This method is modified for megabore column use and additional compounds. Results are calculated on a wet weight basis.

b Dilution multiplier indicates the adjustments made for sample dilution.

c Total 1,2-dichloroethene is the sum of the cis- and trans- isomers.

NOTE: Sample temperature when received at the laboratory was 5°C

GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL Client Number: TRI02.SFK01
Project ID (Number): 739
Project ID (Name): SK - Albuquerque, NM
Work Order Number: W3-08-0279
Date Reported: 08-24-93

ANALYTICAL RESULTS

Volatile Organics in Soil
Modified EPA Method 8240[a]

	GTEL Sample Number	09	10		
	Client Identification	TB-4 (14.5'-16.0')	TB-4 (79.5'-81.0')		
	Date Sampled	08-12-93	08-12-93		
	Date Analyzed	08-20-93	08-20-93		
	Dilution Multiplier[b]	1	1		
Analyte	Reporting Limit, mg/kg	Concentration, mg/kg			
Chloromethane	0.010	<0.010	<0.010		
Bromomethane	0.010	<0.010	<0.010		
Vinyl Chloride	0.010	<0.010	<0.010		
Chloroethane	0.010	<0.010	<0.010		
Methylene Chloride	0.010	<0.010	<0.010		
Acetone	0.020	<0.020	<0.020		
Carbon Disulfide	0.005	<0.005	<0.005		
1,1-Dichloroethene	0.005	<0.005	<0.005		
1,1-Dichloroethane	0.005	<0.005	<0.005		
1,2-Dichloroethene (total)[c]	0.005	<0.005	<0.005		
Chloroform	0.005	<0.005	<0.005		
1,2-Dichloroethane	0.005	<0.005	<0.005		
2-Butanone	0.020	<0.020	<0.020		
1,1,1-Trichloroethane	0.005	<0.005	<0.005		
Carbon Tetrachloride	0.005	<0.005	<0.005		
Vinyl Acetate	0.020	<0.020	<0.020		
Bromodichloromethane	0.005	<0.005	<0.005		
1,2-Dichloropropane	0.005	<0.005	<0.005		
cis-1,3-Dichloropropene	0.005	<0.005	<0.005		
Trichloroethene	0.005	<0.005	<0.005		
Dibromochloromethane	0.005	<0.005	<0.005		

GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL Client Number: TRI02.SFK01
Project ID (Number): 739
Project ID (Name): SK - Albuquerque, NM
Work Order Number: W3-08-0279
Date Reported: 08-24-93

ANALYTICAL RESULTS

Volatile Organics in Soil
Modified EPA Method 8240[a]

	GTEL Sample Number	09	10		
	Client Identification	TB-4 (14.5'-16.0')	TB-4 (79.5'-81.0')		
	Date Sampled	08-12-93	08-12-93		
	Date Analyzed	08-20-93	08-20-93		
	Dilution Multiplier[b]	1	1		
Analyte	Reporting Limit, mg/kg	Concentration, mg/kg			
1,1,2-Trichloroethane	0.005	<0.005	<0.005		
Benzene	0.005	<0.005	<0.005		
2-Chloroethylvinyl Ether	0.010	<0.010	<0.010		
trans-1,3-Dichloropropene	0.005	<0.005	<0.005		
Bromoform	0.005	<0.005	<0.005		
4-Methyl-2-Pentanone	0.020	<0.020	<0.020		
2-Hexanone	0.020	<0.020	<0.020		
Tetrachloroethene	0.005	<0.005	<0.005		
1,1,2,2-Tetrachloroethane	0.005	<0.005	<0.005		
Toluene	0.005	<0.005	<0.005		
Chlorobenzene	0.005	<0.005	<0.005		
Ethylbenzene	0.005	<0.005	<0.005		
Styrene	0.005	<0.005	<0.005		
Xylenes (total)	0.005	<0.005	<0.005		
1,2-Dichlorobenzene	0.010	<0.010	<0.010		
1,3-Dichlorobenzene	0.010	<0.010	<0.010		
1,4-Dichlorobenzene	0.010	<0.010	<0.010		
Percent Solids	%	96.9	97.9		

a Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986; Heated purge and trap for sample preparation. This method is modified for megabore column use and additional compounds. Results are calculated on a wet weight basis.

b Dilution multiplier indicates the adjustments made for sample dilution.

c Total 1,2-dichloroethene is the sum of the cis- and trans- isomers.

NOTE: Sample temperature when received at the laboratory was 5°C

GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL Client Number: TRI02.SFK01
Project ID (Number): 739
Project ID (Name): SK - Albuquerque, NM
Work Order Number: W3-08-0279
Date Reported: 08-27-93

ANALYTICAL RESULTS

Metals in Soil[a]

		GTEL Sample Number	01	02	03	04
		Client Identification	TB-5 (49.5'-51.0')	TB-5 (94.5'-96.0')	TB-5 (119.5'-120.0')	TB-6 (49.5'-51.0')
		Date Sampled	08-12-93	08-12-93	08-12-93	08-13-93
		Date Digested	08-23-93	08-23-93	08-23-93	08-23-93
		Date Analyzed	08-26-93	08-26-93	08-26-93	08-26-93
Analyte	Method	QL,* mg/Kg	Concentration, mg/Kg			
Cadmium	EPA 6010	.5	<.5	<.5	<.5	<.5
Chromium	EPA 6010	1	7	8	4	7
Lead	EPA 6010	10	<10	<10	<10	<10
Percent Solids			94.4	96.9	95.9	85.1

		GTEL Sample Number	05	06	07	08
		Client Identification	TB-6 (99.5'-101.0')	TB-6 (149.5'-151.0')	TB-7 (99.5'-101.0')	TB-7 (119.5'-121.0')
		Date Sampled	08-13-93	08-13-93	08-13-93	08-13-93
		Date Digested	08-23-93	08-23-93	08-23-93	08-23-93
		Date Analyzed	08-26-93	08-26-93	08-26-93	08-26-93
Analyte	Method	QL,* mg/Kg	Concentration, mg/Kg			
Cadmium	EPA 6010	.5	<.5	<.5	<.5	<.5
Chromium	EPA 6010	1	7	3	4	5
Lead	EPA 6010	10	<10	<10	<10	<10
Percent Solids			97.3	95.4	93.7	96.4

a Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986; Digestion by Method 3050.

* Quantitation Limit.

NOTE: Sample temperature when received at the laboratory was 5°C.

GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL Client Number: TRI02.SFK01
Project ID (Number): 739
Project ID (Name): SK - Albuquerque, NM
Work Order Number: W3-08-0279
Date Reported: 08-27-93

ANALYTICAL RESULTS

Metals in Soil[a]

GTEL Sample Number			09	10		
Client Identification			TB-4 (14.5'-16.0')	TB-4 (79.5'-81.0')		
Date Sampled			08-12-93	08-12-93		
Date Digested			08-23-93	08-23-93		
Date Analyzed			08-26-93	08-26-93		
Analyte	Method	QL,* mg/Kg	Concentration, mg/Kg			
Cadmium	EPA 6010	.5	<.5	<.5		
Chromium	EPA 6010	1	**2**	**3**		
Lead	EPA 6010	10	<10	<10		
Percent Solids			96.9	97.9		

a Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986; Digestion by Method 3050.

* Quantitation Limit.

NOTE: Sample temperature when received at the laboratory was 5°C.

GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL Client Number: TRI02.SFK01
Project ID (Number): 739
Project ID (Name): SK - Albuquerque, NM
Work Order Number: W3-08-0279
Date Reported: 08-30-93

ANALYTICAL RESULTS

Total Petroleum Hydrocarbons as Mineral Spirits in Soil
GC/FID[a]

Sample Identification		Date Sampled	Date Extracted	Date Analyzed	Concentration, mg/kg	Reporting Limit, mg/kg	% Solids
GTEL No.	Client ID						
01	TB-5 (49.5-51.0')	08-12-93	08-20-93	08-28-93	**23000**	10	94.4
02	TB-5 (94.5-96.0')	08-12-93	08-20-93	08-28-93	**880**	10	96.9
03	TB-5 (119.5-120.0')	08-12-93	08-20-93	08-28-93	**26**	10	95.9
04	TB-6 (49.5-51.0')	08-13-93	08-20-93	08-28-93	**50000**	10	85.1
05	TB-6 (99.5-101.0')	08-13-93	08-20-93	08-28-93	**13[b]**	10	97.3
06	TB-6 (149.5-151.0')	08-13-93	08-20-93	08-28-93	<10	10	95.4
07	TB-7 (99.5-101.0')	08-13-93	08-20-93	08-28-93	<10	10	93.7
08	TB-7 (119.5-121.0')	08-13-93	08-20-93	08-28-93	<10	10	96.4
09	TB-4 (14.5-16.0')	08-12-93	08-20-93	08-28-93	<10	10	96.9
10	TB-4 (79.5-81.0')	08-12-93	08-20-93	08-28-93	<10	10	97.9

a ASTM Method D3328 (modified) is used for qualitative identification of fuel patterns. The method has been modified to include quantitation by applying calibration and quality assurance guidelines outlined in EPA's publication, Test Methods for Evaluating Solid Waste, SW846, Third Edition, Revision 0, November 1986. Extraction by modified EPA Method 3550. Results are calculated on a wet weight basis.

b Chromatographic data indicates the presence of non-target material.

NOTE: Sample temperature when received at the laboratory was 5°C.

GTEL ENVIRONMENTAL LABORATORIES, INC.

CHAIN-OF-CUSTODY RECORD

Project No.:	Today's Date:	Date Results Reqeusted:
739	8-13-93	Standard T.A.T.

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

Company Name and Address:	Company Contact:
TriHydro Corporation 410 Grand Avenue Laramie, WY 82070	Jack Bedessem

Analyses Requested

Collector's Sample No.	Sample Matrix	Date Sampled/ Time Sampled	No. of Containers	Mineral Spirits (Mod. 8015)	VOC's (8240)	Total Cd, Cr, Pb (6010)
TB-5 (49.5'-51.0')	Soil	8-12-93 15:20	2 brass rings	X	X	X
TB-5 (94.5'-96.0')	↓	8-12-93 16:35	↓	X	X	X
TB-5 (119.5'-120.0')	↓	8-12-93 17:20	↓	X	X	X
TB-6 (49.5'-51.0')	↓	8-13-93 08:57	↓	X	X	X
TB-6 (99.5'-101.0')	↓	8-13-93 12:20	↓	X	X	X
TB-6 (149.5'-151.0')	↓	8-13-93 14:25	1 brass ring	X	X	X
TB-7 (99.5'-101.0')	↓	8-13-93 17:30	2 brass rings	X	X	X
TB-7 (119.5'-121.0')	↓	8-13-93 18:00	1 brass ring	X	X	X

Remarks: S-K Authorization # RM 270939248582. Attention Martha Ward. Shipped overnight on ice in an opaque cooler.

Relinquished by:	Affiliation:	Date/Time:	Received by:	Affiliation:	Date/Time:
John Schneider	TriHydro Corp	8-13-93 18:50			
Relinquished by:	Affiliation:	Date/Time:	Received by:	Affiliation:	Date/Time:
Relinquished by:	Affiliation:	Date/Time:	Received by:	Affiliation:	Date/Time:

Were samples received in good condition?

Remarks:

CHAIN-OF-CUSTODY RECORD

Project No.:	Today's Date:	Date Results Reqeusted:
739	8-13-93	Standard T.A.T.

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

Company Name and Address:	Company Contact:
TriHydro Corporation 410 Grand Avenue Laramie, WY 82070	Jack Bedessem

Analyses Requested

Collector's Sample No.	Sample Matrix	Date Sampled/ Time Sampled	No. of Containers	Mineral Spirits (Mod. 8015)	VOC's (8240)	Total Cd, Cr, Pb
TB-4 (14.5'-16.0')	Soil	8-12-93 10:45	2 brass rings	X	X	X
TB-4 (79.5'-81.0')	↓	8-12-93 12:25	2 brass rings	X	X	X

Remarks: S-K Authorization # RM 27093924 8582. Attention Martha Ward. Shipped overnight on ice in an opaque cooler.

Relinquished by:	Affiliation:	Date/Time:	Received by:	Affiliation:	Date/Time:
John Schneider	TriHydro Corp	8-13-93 18:50			
Relinquished by:	Affiliation:	Date/Time:	Received by:	Affiliation:	Date/Time:
Relinquished by:	Affiliation:	Date/Time:	Received by:	Affiliation:	Date/Time:

Were samples received in good condition?	Remarks:

CHAIN-OF-CUSTODY RECORD

Project No.:	Today's Date:	Date Results Requested:
739		Standard T.A.T.

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

Company Name and Address:	Company Contact:
TriHydro Corporation 410 Grand Avenue Laramie, WY 82070	Jack Bedessem

Analyses Requested

Collector's Sample No.	Sample Matrix	Date Sampled/ Time Sampled	No. of Containers	Mineral Spirits (Mod. 8015)	VOCs (8240)	Total Cd, Cr, Pb (6010)	TOC
TB-8 (14.5'-16.0')	Soil	8-16-93 10:20	2 brass rings	X	X	X	X
TB-8 (44.5'-46.0')		8-16-93 10:50	2 brass rings	X	X	X	X
TB-8 (94.5'-96.0')		8-16-93 13:05	1 brass ring	X	X	X	
TB-8 (114.5'-116.0')		8-16-93 13:40	1 brass ring				X
TB-8 (119.5'-121.0')		8-16-93 13:50	1 brass ring	X	X	X	
TB-9 (14.5'-16.0')		8-16-93 16:25	2 brass rings	X	X	X	
TB-9 (49.5'-51.0')		8-17-93 08:25	2 brass rings	X	X	X	
TB-9 (119.5'-121.0') ~~109.5-111.0~~	EMH 8/19/93	8-17-93 09:55	1 brass ring	X	X	X	

Remarks: S-K Authorization # RM 270939248582. Attention Martha Ward. Shipped overnight on ice in an opaque cooler.

Relinquished by:	Affiliation:	Date/Time:	Received by:	Affiliation:	Date/Time:
John Schneider	8-18-93	11:45			
Relinquished by:	Affiliation:	Date/Time:	Received by:	Affiliation:	Date/Time:
Relinquished by:	Affiliation:	Date/Time:	Received by:	Affiliation:	Date/Time:

Were samples received in good condition?	Remarks:

CHAIN-OF-CUSTODY RECORD

Project No.:	Today's Date:	Date Results Requested:
739		Standard T.A.T.

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

Company Name and Address:	Company Contact:
TriHydro Corporation 410 Grand Avenue Laramie, WY 82070	Jack Bedessem

Analyses Requested

Collector's Sample No.	Sample Matrix	Date Sampled/ Time Sampled	No. of Containers	Mineral Spirits (Mod. 8015)	VOC's (8240)	Total Cd, Cr, Pb (6010)
TB-9 (149.5'-151.0')	Soil	8-17-93 11:17	1 brass ring	X	X	X
TB-10 (14.5'-16.0')		8-17-93 14:44	2 brass rings	X	X	X
TB-10 (79.5'-81.0')		8-17-93 16:25	1 brass ring	X	X	X
TB-11 (0.0'-1.5')		8-18-93 08:45	1 brass ring	X	X	X
TB-11 (19.5'-~~20.0'~~ 21.0')	EMH 8/19/93	8-18-93 09:08	2 brass rings	X	X	X
TB-11 (59.5'-61.0')		8-18-93 10:05	1 brass ring	X	X	X
TB-11 (79.5'-81.0')	✓	8-18-93 10:27	1 brass ring	X	X	X

Remarks: S-K Authorization # RM 270939 248582. Attention Martha Ward. Shipped overnight on ice in an opaque cooler.

Relinquished by:	Affiliation:	Date/Time:	Received by:	Affiliation:	Date/Time:
John Schneider	TriHydro	8-18-93 11:45			
Relinquished by:	Affiliation:	Date/Time:	Received by:	Affiliation:	Date/Time:
Relinquished by:	Affiliation:	Date/Time:	Received by:	Affiliation:	Date/Time:

Were samples received in good condition?	Remarks: