ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

StID 2112

August 30, 2000

Mr. James McAtee Jr.
7664 Gardella Drive
Dublin, CA 94568

Mr. Masood Filabadi
Springtown ARCO
909 Bluebell Drive
Livermore, CA 94550

Re: Fuel Leak Site Case Closure for 909 Bluebell Drive, Livermore, CA

Dear Messrs. McAtee and Filabadi:

This letter transmits the enclosed underground storage tank (UST) case closure letter in accordance with Chapter 6.75 (Article 4, Section 25299.37[h]). The State Water Resources Control Board adopted this letter on February 20, 1997. As of March 1, 1997, the Alameda County Environmental Protection Division is required to use this case closure letter for all UST leak sites. We are also transmitting to you the enclosed case closure summary. These documents confirm the completion of the investigation and cleanup of the reported release at the subject site. The subject fuel leak case is closed.

SITE INVESTIGATION AND CLEANUP SUMMARY

Please be advised that the following conditions exist at the site:

- up to 7,000ppm TPH as gasoline, and 5.8ppm benzene exists in soil beneath the site;
- up to 5000ppm total oil and grease exists in soil beneath the former waste oil tank;

If you have any questions, please contact me at (510) 567-6762.

eva chu
Hazardous Materials Specialist

enlosures: 1. Case Closure Letter 2. Case Closure Summary

c: Dave Clemens, City of Livermore, Planning Div., 1052 S. Livermore Ave., Livermore, CA 94550
files (springtownarco12)

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REMEDIAL ACTION COMPLETION CERTIFICATION

StID 2112 - 909 Bluebell Drive, Livermore, CA
(1-250 gallon and 3-10K-gallon tanks removed in 1992 and 1993)

August 30, 2000

Mr. James McAtee Jr.
7664 Gardella Drive
Dublin, CA 94568

Mr. Masood Filabadi
Springtown ARCO
909 Bluebell Drive
Livermore, CA 94550

Dear Messrs. McAtee and Filabadi:

This letter confirms the completion of site investigation and corrective action for the underground storage tanks formerly located at the above-described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tanks are greatly appreciated.

Based on information in the above-referenced file and with the provision that the information provided to this agency was accurate and representative of site conditions, this agency finds that the site investigation and corrective action carried out at your underground storage tank site is in compliance with the requirements of subdivisions (a) and (b) of Section 25299.37 of the Health and Safety Code and with corrective action regulations adopted pursuant to Section 25299.77 of the Health and Safety Code and that no further action related to the petroleum release(s) at the site is required.

This notice is issued pursuant to subdivision (h) of Section 25299.37 of the Health and Safety Code. Please contact our office if you have any questions regarding this matter.

Sincerely,

Mee Ling Tung, Director

cc: Chuck Headlee, RWQCB
Allan Patton, SWRCB
Danielle Stefani, Livermore-Pleasanton Fire Department
files-ec (springtownarco11)

01-0206

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION

Date: **July 17, 2000**

Agency name: **Alameda County-HazMat**
Address: **1131 Harbor Bay Pkwy**
City/State/Zip: **Alameda, CA 94502**
Phone: **(510) 567-6700**
Responsible staff person: **Eva Chu**
Title: **Hazardous Materials Spec.**

II. CASE INFORMATION

Site facility name: **Springtown ARCO**
Site facility address: **909 Bluebell Drive, Livermore, CA 94550**
RB LUSTIS Case No: **N/A**
Local Case No./LOP Case No.: **2112**
URF filing date: **12/17/93**
SWEEPS No: **N/A**

Responsible Parties:	Addresses:	Phone Numbers:
James McAtee Jr. **7664 Gardella Drive** **Dublin, CA 94568**	**Masood A Filabadi** **Springtown ARCO** **909 Bluebell Drive** **Livermore, CA 94550**	

Tank No:	Size in gal.:	Contents:	Closed in-place or removed?:	Date:
1	250	Waste Oil	Removed	2/7/92
2	10,000	Gasoline	"	12/13/93
3	10,000	"	"	"
4	10,000	"	"	"

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: **Unknown**
Site characterization complete? **YES**
Date approved by oversight agency: **5/20/99**
Monitoring Wells installed? **Yes** Number: **3**
Proper screened interval? **Yes, from 5' to 20'bgs**
Highest GW depth below ground surface: **7.60'** Lowest depth: **8.42' bgs in MW-1**
Flow direction: **NNW**
Most sensitive current use: **Commercial**
Are drinking water wells affected? **No** Aquifer name: **NA**
Is surface water affected? **No** Nearest affected SW name: **NA**
Off-site beneficial use impacts (addresses/locations): **None**
Report(s) on file? **YES** Where is report(s) filed? **Alameda County**
1131 Harbor Bay Pkwy
Alameda, CA 94502
and
Livermore Fire Dept
4550 East Ave
Livermore, CA 94550

Treatment and Disposal of Affected Material:

Material	Amount (include units)	Action (Treatment or Disposal w/destination)	Date
Tank	1-250 gallon UST	Disposed by Erickson, Richmond, CA	2/7/92
	3-10K gallon UST	Disposed by Erickson, Richmond, CA	12/16/93
Soil	1,500 cy	Treated onsite and reused to fill pit	
	20 cy	Disposed at Vasco Rd L.F., Livermore, CA	6/20/95
Groundwater	7,000 gallon	Disposed by Waste Oil Recovery	12/93l

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil (ppm)		Water (ppb)	
	Before[1]	After[2]	Before[3]	After[4]
TPH (Gas)	7,000		33,000	89
TPH (Diesel)				ND
Benzene	5.8		160	17
Toluene	8.8		200	ND
Ethylbenzene	46		220	ND
Xylenes	330		1,200	.31
MTBE			130	80
TOG	5,000[5]			ND
Heavy metals Pb	140[5]			ND
Other PCE	.210			ND

NOTE: 1 soil samples collected from north wall of fuel tank pit after overexcvation. These levels are one to two magnitude of order higher than soil samples collected at the time of UST removal. Dec 1993
2 soil samples from waste oil pit after overexcavation, 2/95
3 grab water sampes from former fuel tank pit
4 water samples from monitoring well, 4/99
5 soil sample from waste oil tank pit, 2/92

IV. CLOSURE

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

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

Does corrective action protect public health for current land use? **YES**

Site management requirements: **A site safety plan must be prepared for construction workers in the event excavation/trenching is proposed in the vicinity of residual soil and groundwater contamination.**

Should corrective action be reviewed if land use changes? **YES**

Monitoring wells Decommissioned: **None, pending site closure**

Number Decommissioned: **0** Number Retained: **3**

List enforcement actions taken: **NOVs issued 6/94, 8/94, 7/95, 4/96, and 5/97**

List enforcement actions rescinded: **NA**

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: **Eva Chu** Title: **Haz Mat Specialist**

Signature: Eva Chu Date: 7/25/00

Reviewed by

Name: **Don Hwang** Title: **Haz Mat Specialist**

Signature: Don Hwang Date: 7/28/00

Name: **Thomas Peacock** Title: **Supervisor**

Signature: Thomas Peacock Date: 7-27-00

VI. RWQCB NOTIFICATION

Date Submitted to RB: 7/28/00 RB Response: Concur

RWQCB Staff Name: **Chuck Headlee** Title: AEG

Signature: Chuck Headlee Date: 8/7/00

VII. ADDITIONAL COMMENTS, DATA, ETC.

The site is currently an active gasoline service station with three permitted USTs.

A 250 gallon waste oil UST was removed on February 7, 1992. One soil sample (B-1-6) was collected beneath the tank at ~6'bgs. It contained up to 89ppm TPHd, 5,000ppm TOG, 140ppm lead, and trace or non-detectable levels of BTEX and HVOCs, with the exception of 0.21ppm PCE. (See Figs 1, 2, and Tables 1, 1B)

In December 1993, three gasoline USTs were removed and three new USTs were installed in a separate pit. After the removal of the fuel USTs, a sheen was noted on the groundwater in the excavation. Soil samples were collected from the sidewalls at the end of each UST (S-1 through S-6). These samples contained up to 43ppm TPHg, and .29, .33, .35, and 1.1ppm BTEX, respectively. (See Fig 3, Table 2)

Since a product sheen was noted on groundwater, ~1,000 gallons of grossly contaminated water was removed from the pit and recycled at Waste Oil Recovery. Another 20,000 gallon of groundwater was later pumped from the fuel pit and stored in a holding tank. In December 16, 1993, the fuel tank pit was overexcavated laterally, removed a couple of feet more of the sidewalls. And the depth of the excavation was extended from 11' to 14'bgs. Soil samples were collected from the north, south, and west walls (S-12 through S-14).

Analytical results identified elevated hydrocarbons in the north and east walls. These two walls were overexcavated and resampled on December 30, 1993 (S-15 and S-16). Analytical results indicated that the north wall still contained up to 7,200ppm TPHg and 5.8, 88, 46, and 550ppm BTEX, respectively. (See Table 3)

When the product lines were removed, soil samples were collected at ~3'bgs (P-1 through P-5). The pipeline samples contained low to non-detectable levels of petroleum hydrocarbons. (See Table 4)

A groundwater sample (SW-1) was also collected from the former fuel tank pit. Up to 33,000ppb TPHg, and 160, 200, 220, and 1,200 ppb BTEX, respectively was identified in the water sample. (See Table 5)

In February 1995, the waste oil pit was re-excavated and limited overexcavation conducted. Confirmatory soil samples (SW)-1 through SWO-3) were collected. (See Fig 4, Table 6)

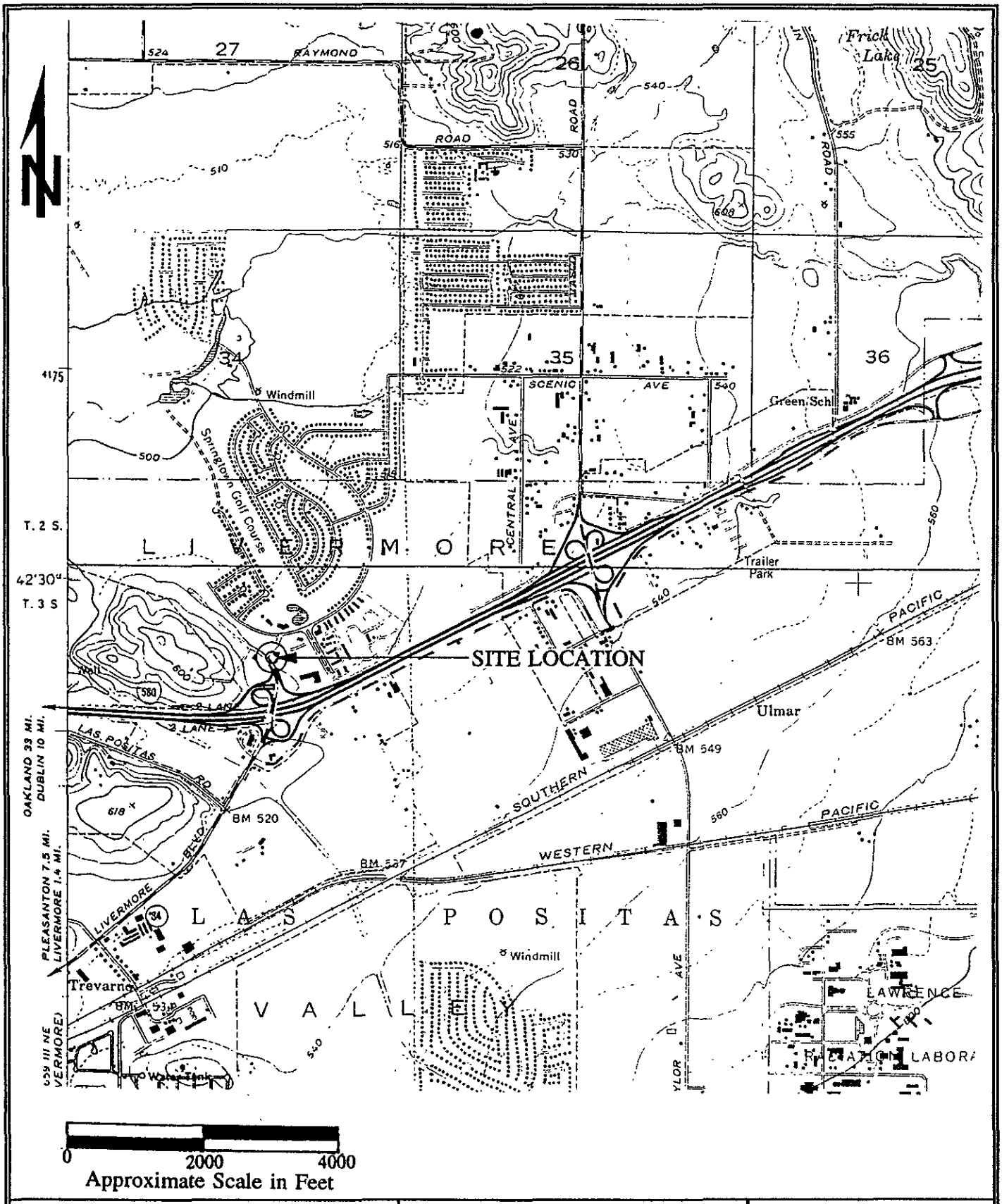
A total of ~1,500 cy of hydrocarbon impacted soil was removed from the waste oil and fuel UST pits. The soil was heat-treated onsite by National Vapor Industries. The treated soil was sampled in March 1995. Approximately 20cy still contained elevated hydrocarbons and was disposed at Vasco Road Landfill, in Livermore. The remaining treated soil was deemed "clean" and was reused to backfill the former UST pits.

In July 1996 three groundwater monitoring wells (MW-1 through MW-3) were installed at the site. Soil samples were collected at 10'bgs from each boring. Soil from Boring MW-1, located immediately north of the former fuel UST pit, did not contain petroleum hydrocarbons. It appears residual soil contamination along the north wall of the former tank excavation is limited in extent. (See Fig 5, Table 7)

Groundwater was sampled in July 1996 and April 1999. A maximum of 180ppb TPHg, 130ppb MTBE, and 17, ND, 0.31, and 3.6ppb BTEX, respectively has been identified. HVOCs have not been detected with the exception of 0.8ppb chloroform (see Table 8). It appears the hydrocarbon release form the former USTs did not significantly impact groundwater quality beneath the site.

In summary, case closure is recommended because:

- the leak and ongoing sources have been removed;
- the site has been adequately characterized;
- the dissolved hydrocarbon plume is not migrating;
- no preferential pathways exist at the site;
- no water wells, deeper drinking water aquifers, surface water, or other sensitive receptors are likely to be impacted; and,
- the site presents no significant risk to human health or the environment.



Quaterly Groundwater Monitoring Underground Storage Tank Site 909 Bluebell Dr. Livermore, California	BSK Job No. 040400203 FIGURE 1 VICINITY MAP	BSK

File No. 10-93-567-ST

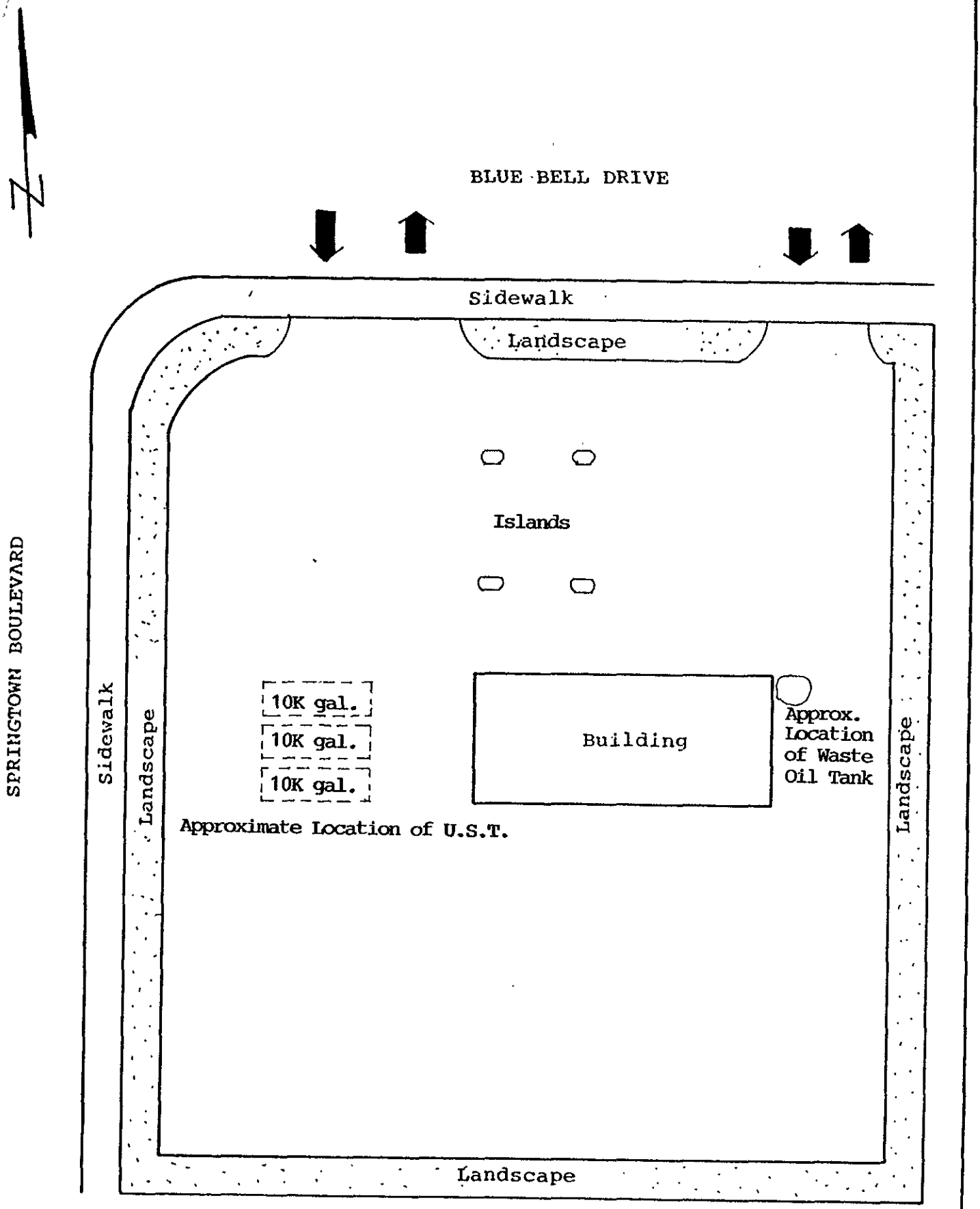


Figure 2

ALPHA GEO SERVICES

M2

File No. 10-93-567-ST

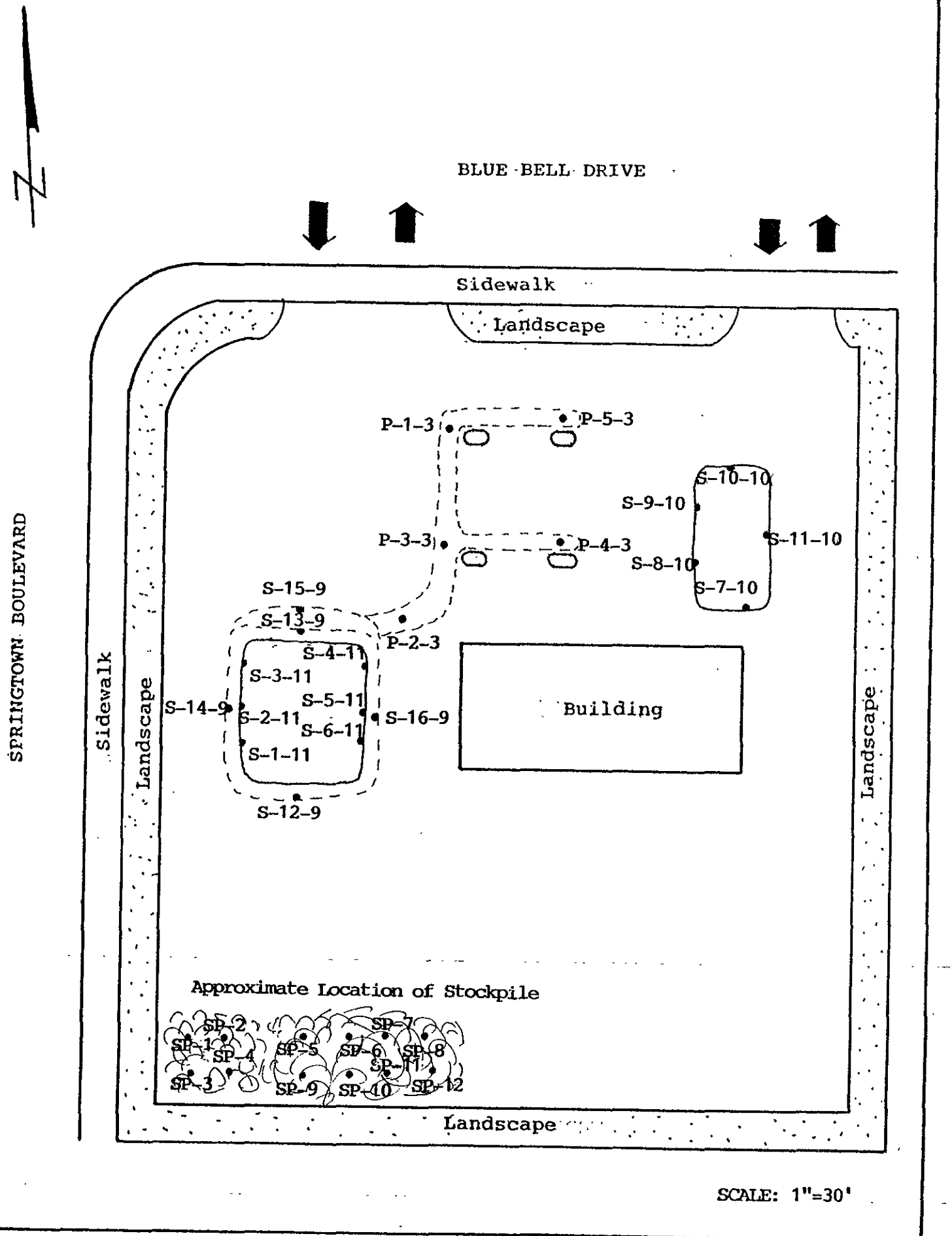


Figure 3

SOIL TECH ENGINEERING, INC.

M3

File No. 10-93-567-ST

TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS
FROM FORMER FUEL TANKS AREA
IN
MILLIGRAMS PER KILOGRAM (mg/Kg)

Date	Sample Number	Depth Feet	TPHg	B	T	E	X	Total Lead
12/13/93	S-1-11	11	6.0	0.041	0.046	0.049	0.15	ND
	S-2-11	11	43	0.29	0.33	0.35	1.1	ND
	S-3-11	11	ND	ND	ND	0.0096	0.028	ND
	S-4-11	11	13	0.089	0.1	0.11	0.32	ND
	S-5-11	11	1.7	0.011	0.013	0.014	0.044	ND
	S-6-11	11	ND	ND	ND	ND	0.0072	5.0

TPHg - Total Petroleum Hydrocarbons as gasoline
BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
TOG - Total Oil & Grease
ND - Not Detected (Below Laboratory Detection Limit)

TABLE 2
SUMMARY OF SOIL ANALYTICAL RESULTS
FROM PROPOSED NEW TANKS AREA
IN
MILLIGRAMS PER KILOGRAM (mg/Kg)

Date	Sample Number	Depth Feet	TPHg	B	T	E	X	TOG	Total Lead
12/13/93	S-7-10	10	ND	ND	ND	ND	ND	ND	5.0
	S-8-10	10	ND	ND	ND	ND	ND	NA	ND
	S-9-10	10	ND	ND	ND	ND	ND	NA	5.0
	S-10-10	10	ND	ND	ND	ND	ND	NA	5.0
	S-11-10	10	ND	ND	ND	ND	ND	ND	ND

TPHg - Total Petroleum Hydrocarbons as gasoline
BTEX - Benzene, Toluene, Ethylbenzene, Total Xylenes
TOG - Total Oil & Grease
NA - Not Analyzed
ND - Not Detected (Below Laboratory Detection Limit)

TABLE 3
SUMMARY OF SOIL ANALYTICAL RESULTS
FROM OVER EXCAVATION OF FORMER FUEL TANK AREA
IN
MILLIGRAMS PER KILOGRAM (mg/Kg)

I. SOIL SAMPLES RESULTS FROM OVER EXCAVATION

Date	Sample Number	Depth Feet	TPHg	B	T	E	X
12/16/93	S-12-9	9	ND	ND	ND	ND	ND
	S-13-9	9	280	2.9	3.8	4.1	14
	S-14-9	9	5.1	0.05	0.069	0.073	0.23

II. SOIL SAMPLES RESULTS FROM ADDITIONAL OVER EXCAVATION

Date	Sample Number	Depth Feet	TPHg	B	T	E	X
12/30/93	S-15-9	9	7,200	5.8	88	46	330
	S-16-9	9	ND	ND	ND	ND	ND

TPHg - Total Petroleum Hydrocarbons as gasoline
BTEX - Benzene, Toluene, Ethylbenzene, Total Xylenes
ND - Not Detected (Below Laboratory Detection Limit)

TABLE 4
SUMMARY OF SOIL ANALYTICAL RESULTS
FROM PIPING AREA
IN
MILLIGRAMS PER KILOGRAM (mg/Kg)

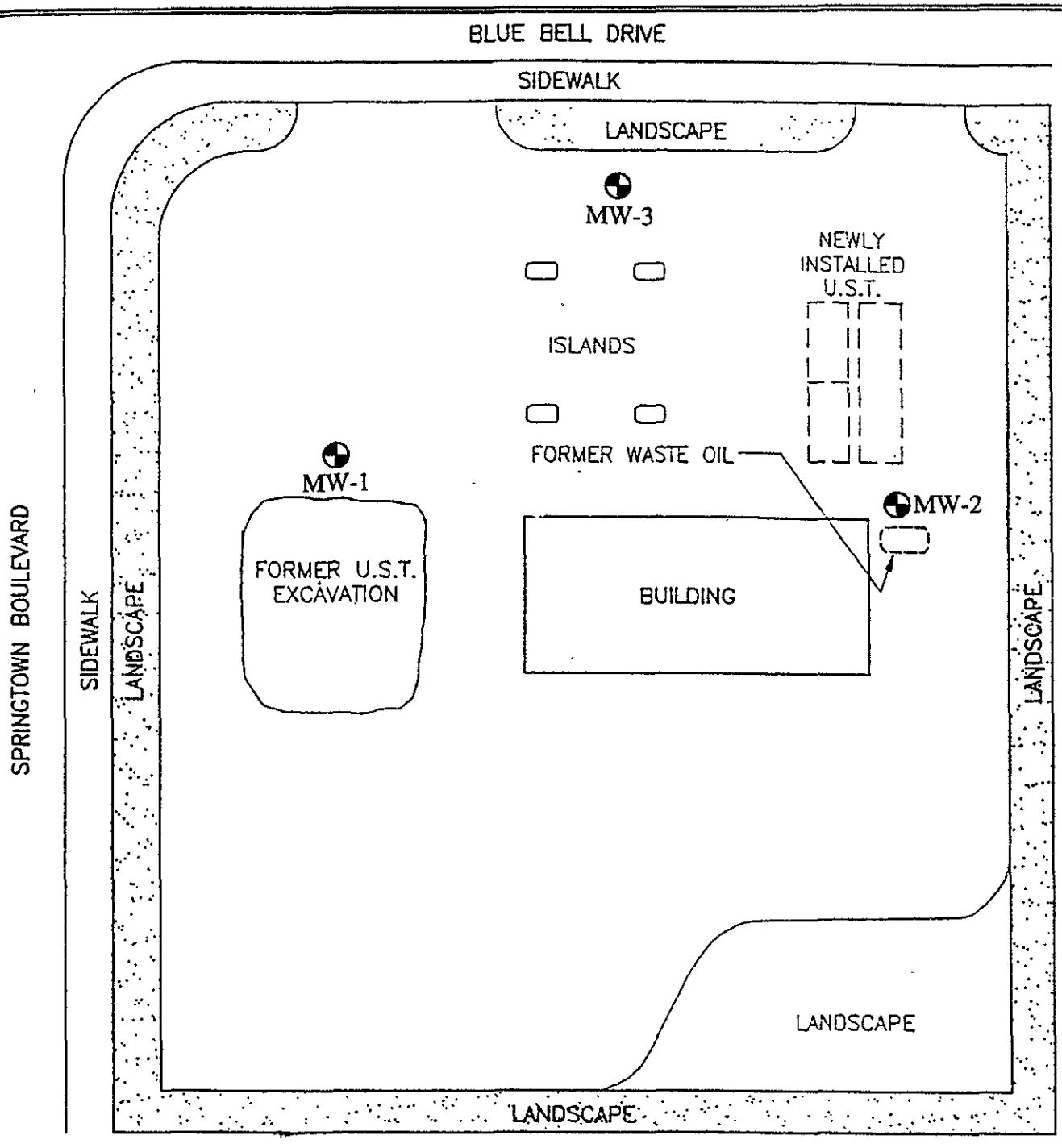
Date	Sample Number	Depth Feet	TPHg	B	T	E	X
1/06/94	P-1-3	3	ND	ND	ND	ND	ND
	P-2-3	3	ND	ND	ND	ND	ND
	P-3-3	3	1.1	ND	0.01	0.017	0.025
	P-4-3	3	ND	ND	0.01	0.018	0.085
	P-5-3	3	ND	ND	ND	ND	ND

TPHg - Total Petroleum Hydrocarbons as gasoline
BTEX - Benzene, Toluene, Ethylbenzene, Total Xylenes
ND - Not Detected (Below Laboratory Detection Limit)

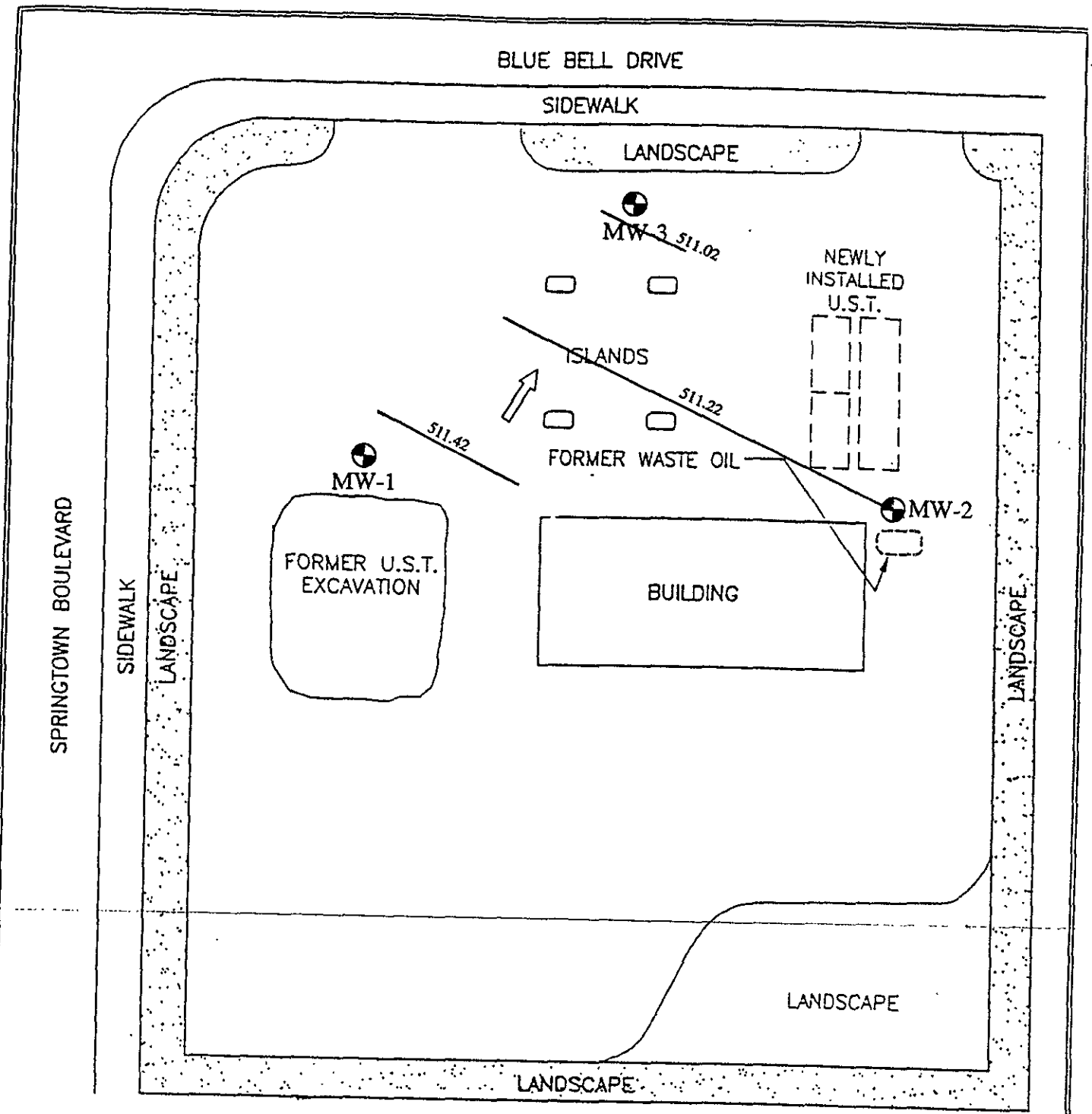
TABLE 6
SUMMARY OF WATER ANALYTICAL RESULTS
IN
MILLIGRAMS PER LITER (mg/L)

Date	Sample No.	TPHg	B	T	E	X
12/21/93	SW-1	33	0.16	0.2	0.22	1.2
	T-1	14	0.068	0.084	0.091	0.51

TPHg - Total Petroleum Hydrocarbons as gasoline
BTEX - Benzene, Toluene, Ethylbenzene, Total Xylenes



Quaterly Groundwater Monitoring Underground Storage Tank Site 909 Bluebell Dr. Livermore, California	BSK Job No. 040-40-0203 FIGURE 2 SITE PLAN	BSK



Groundwater Elevation Contour

Direction of Groundwater Flow

Approximate Location of Groundwater Monitoring Well

0 10 20 30

Appoximate Scale in feet

Groundwater Investigation Underground Storage Tank Site 909 Bluebell Dr. Livermore, California	BSK Job No. 040-40-0072 GROUNDWATER ELEVATION CONTOUR MAP FIGURE 10	BSK &ASSOCIATES

TABLE 1
SUMMARY OF ANALYTICAL RESULTS - GROUNDWATER SAMPLES
Results in micrograms per liter (ug/l)

Sample Location	Date	TPH as Gasoline	Benzene	Toluene	Xylene	Ethyl-Benzene	MTBE	TPH as Diesel	Oil and Grease	Total Lead	EPA 601 Compounds
MW-1	7/22/96	180	ND	ND	ND	3.6	130	--	--	--	--
MW-1	4/13/99	79	0.55	ND	ND	ND	80	--	--	--	--
MW--2	7/22/96	ND	ND	ND	ND	ND	--	ND	ND	ND	Chloroform0.8
MW--2	4/13/99	89	17	ND	0.31	ND	16	ND	ND	ND	--
MW-3	7/22/96	ND	ND	ND	ND	ND	ND	--	--	--	--
MW-3	4/13/99	150	ND	ND	ND	ND	48	--	--	--	--
Detection Limit		50	0.3	0.3	0.3	0.3	5	50	1000	5	--

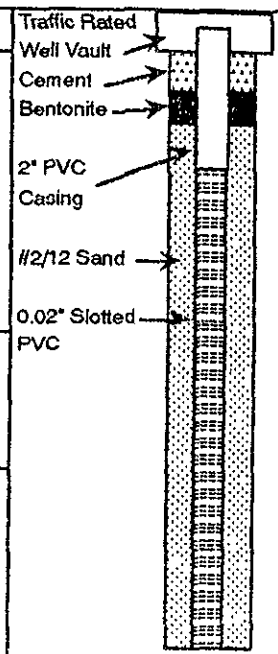
ND - None detected
-- - Not tested

BSK

BORING LOG MW-1

DATE: 7/11/96
LOGGED BY: M. Cline
WATER LEVEL: 9.5 feet at time of drilling
ELEVATION: --
EQUIPMENT: Mobile Drill B-53, 8" Hollow Stem Auger

	PID READING (PPM)	SAMPLE INTERVAL	BLOWS/FOOT	TYPE OF SAMPLER	SYMBOLS	DESCRIPTION
0					PMT	6" Asphalt concrete over aggregate baserock
					CL	SILTY CLAY: Brown,moist
5	0		18	CS		SILTY CLAY: Light yellow brown, moist, no odor
10	0		53	CS	SM	SILTY SAND : Brown, wet, no odor
15	0		20	CS	CL	SANDY CLAY: Light olive gray, very moist to wet in lenses, clayey sand lenses, no odor
20	0		21	CS		SILTY CLAY with sand: Light brown, moist, carbonates in nodules, trace pebbles, no odor



NOTES:

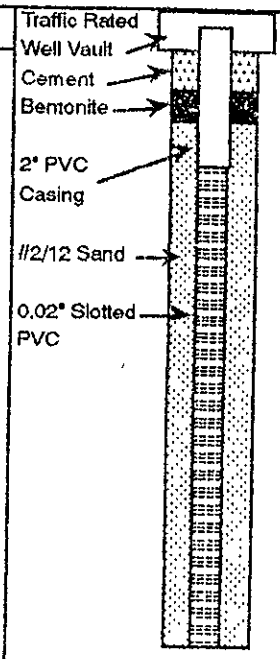
1. Boring completed at a depth of 21.5 feet on 7/11/95.
2. Sampling resistance is measured in blows per foot required to drive the sampler 12 inches with a 140 lb. hammer falling 30 inches after sampler has been seated 6 inches.
3. Boring log indicates interpreted subsurface conditions only at the location and the time the boring was driven.

GROUNDWATER INVESTIGATION UNDERGROUND STORAGE TANK SITE 909 BLUEBELL LIVERMORE, CALIFORNIA	BSK Job No. 04400072 Figure 4	BSK & ASSOCIATES

BORING LOG MW-2

DATE: 7/11/96
LOGGED BY: M. Cline
WATER LEVEL: 10 feet at time of drilling
ELEVATION: --
EQUIPMENT: Mobile Drill B-53, 8" Hollow Stem Auger

	PID READING (PPM)	SAMPLE INTERVAL	BLOWS/FOOT	TYPE OF SAMPLER	SYMBOLS	DESCRIPTION
0					PMT	6" Asphalt concrete over aggregate baserock
					CL	SILTY CLAY: Dark gray brown,moist, no odor
5	0		61	CS		SILTY CLAY: Light brown, moist, trace sand and gravel, no odor
10	0		19	CS		wet clayey sand lenses
15	0		14	CS		grades wet in pores, trace carbonates
20	0		18	CS		grades very moist in pockets



NOTES:

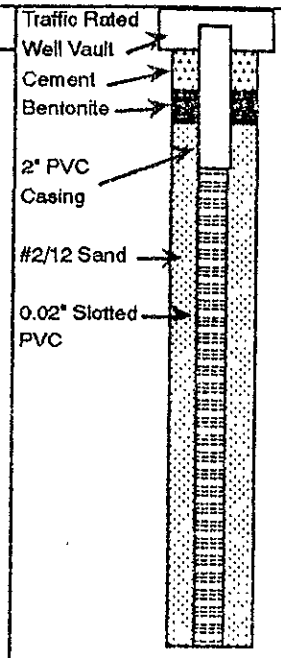
1. Boring completed at a depth of 21.5 feet on 7/12/95.
2. Sampling resistance is measured in blows per foot required to drive the sampler 12 inches with a 140 lb. hammer falling 30 inches after sampler has been seated 6 inches.
3. Boring log indicates interpreted subsurface conditions only at the location and the time the boring was driven.

GROUNDWATER INVESTIGATION UNDERGROUND STORAGE TANK SITE 909 BLUEBELL LIVERMORE, CALIFORNIA	BSK Job No. 04400072 Figure 5	BSK & ASSOCIATES

BORING LOG MW-3

DATE: 7/12/96
LOGGED BY: M. Cline
WATER LEVEL: 11 feet at time of drilling
ELEVATION: --
EQUIPMENT: Mobile Drill B-53, 8" Hollow Stem Auger

	PID READING (PPM)	SAMPLE INTERVAL	BLOWS/FOOT	TYPE OF SAMPLER	SYMBOLS	DESCRIPTION
0					PMT	6" Asphalt concrete over aggregate baserock
					CL	SILTY CLAY: Dark gray brown,moist. no odor
5	0		25	CS		SILTY CLAY: Light brown to whitish brown, moist, cemented, no odor
10	0		14	CS		SANDY CLAY: Brown to motlled olive brown, very moist to wet in pores, very faint odor
15	0			CS		grades brown, very moist to wet
20	0			CS		



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3. Boring log indicates interpreted subsurface conditions only at the location and the time the boring was driven.

GROUNDWATER INVESTIGATION
UNDERGROUND STORAGE TANK SITE
909 BLUEBELL
LIVERMORE, CALIFORNIA

BSK Job No. 04400072
Figure 6

BSK & ASSOCIATES