APPENDIX C

FIELD LOGS

SAIC
An Employee-Owned Company

Site Name: DCD	Boring No. SB-BK-01	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 7'
Fed ID No. NA	Probed Depth: 7'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 1/26/00	Finish Date: 1/26/00
First Encountered Water: NA Static Water Level: NA		Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel:
G - Wayne Stoner
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/N	N Valves (Blows)	Lithology	REMARKS
		Samples						
ML	(0 to 0.5') Silt, trace fine sand. Color: 7.5YR 4/4 brown. Loose, non-plastic, and moist. Root structures.	0 - 1	1	NA	Y	NA		SAIC01. Grab Sample.
ML	(1-3') Silt. Color: 10YR 6/3 pale brown. Dense, non-plastic, and dry.	1 - 3	2	1.25'	Y	NA		SAIC02
		3 - 5						
ML	(5-7') Silt. Color: 10YR 6/3 pale brown. Dense, non-plastic, and. dry.	5 - 7	3	1.5'	Y	NA		SAIC03

Notes:
1. Total depth of boring is approximately 7 feet BLS.
2. Borehole was abandoned using granular Ben-Seal bentonite.
3. Boring location was marked with 1-inch diameter PVC pipe with affixed brass tag. The boring identification was stamped on the tag.
4. The drilling company was Dan's Field Service.

Notes:
NA - Not Applicable
NR - Not Recorded
BLS - below land surface
OD - outside diameter

SAIC
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Site Name: DCD	Boring No. SB-BK-02	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 12'
Fed ID No. NA	Probed Depth: 12'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 1/26/00	Finish Date: 1/26/00
First Encountered Water: NA Static Water Level: NA		Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel
G - Wayne Stoner
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/N	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, trace fine sand. Color: 7.5YR 4/4 brown. Loose, non-plastic, and moist. Root structures.	0 - 1	1	NA	Y	NA		SAIC01. Grab Sample.
ML	(1-3') Silt, some very fine sand. Color: 10YR 5/4 yellowish brown. Slightly dense, non-plastic, and very slightly moist.	1 - 3	2	1.0'	Y	NA		SAIC02
		3 - 5						
ML	(5-7') Silt, some very fine sand. Color: 10YR 5/4 yellowish brown. Slightly dense, non-plastic, and very slightly moist.	5 - 7	3	1.5'	Y	NA		SAIC03 & 03D. Duplicate collected.
		7 - 10						
ML	(10-12') Silt. Color: 10YR 4/2 dark grayish brown. Dense, non- to very slightly plastic, and dry to very slightly moist.	10 - 12	4	1.4'	Y	NA		SAIC04

Notes:
1. Total depth of boring is approximately 12 feet BLS.
2. Borehole was abandoned using granular Ben-Seal bentonite.
3. Boring location was marked with 1-inch diameter PVC pipe with affixed brass tag. The boring identification was stamped on the tag.
4. The drilling company was Dan's Field Service.

Notes:
NA - Not Applicable
NR - Not Recorded
BLS - below land surface
OD - outside diameter

SAIC
An Employee-Owned Company

Site Name: DCD	Boring No. SB-BK-03	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 12'
Fed ID No. NA	Probed Depth: 12'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date 1/25/00	Finish Date: 1/26/00
First Encountered Water: NA	Static Water Level: NA	Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel
G - Wayne Stoner
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, trace fine sand. Color: 7.5YR 4/4 brown. Loose, non-plastic, and moist. Root structures.	0 - 1	1	NA	Y	NA		SAIC01. Grab Sample.
GW	(1-3') Gravel and very fine to very coarse sand, Trc silt. Color: 7.5YR 6/3 light brown. Dense, non-plastic, subangular to subrounded gravel and sand, poorly sorted, and dry.	1 - 3	2	1.3'	Y	NA		SAIC02
		3 - 5						
ML	(5-7') Silt, some very fine sand. Color: 10YR 5/4 yellowish brown. Dense, non-plastic, and dry to very slightly moist.	5 - 7	3	1.5'	Y	NA		SAIC03 & 03D. Duplicate collected.
		7 - 10						
ML	(10-12') Silt, some very fine sand. Color: 10YR 5/4 yellowish brown. Dense, non-plastic, and dry to very slightly moist.	10 - 12	4	1.7'	Y	NA		SAIC04

Notes:
1. Total depth of boring is approximately 12 feet BLS.
2. Borehole was abandoned using granular Ben-Seal bentonite.
3. Boring location was marked with 1-inch diameter PVC pipe with affixed brass tag. The boring identification was stamped on the tag.
4. The drilling company was Dan's Field Service.

Notes:
NA - Not Applicable
NR - Not Recorded
BLS - below land surface
OD - outside diameter

SAIC
An Employee-Owned Company

Site Name: DCD	Boring No. SB-BK-04	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 7'
Fed ID No. NA	Probed Depth: 7'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 1/25/00	Finish Date: 1/26/00
First Encountered Water: NA Static Water Level: NA		Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel
G - Wayne Stoner
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/N	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some very fine to fine sand. Color: 10YR 4/2 dark grayish brown. Slightly dense, slightly plastic, poorly sorted and moist. Root structures.	1	1	NA	Y	NA		SAIC01 & 01D. Grab Sample. Duplicate collected
GM	(1-3') Gravel and very fine to very coarse sand, some silt. Color: 7.5YR 6/3 light brown. Dense, non-plastic, subangular to subrounded gravel and sand, poorly sorted, and dry.	2 3	2	1.5'	Y	NA		SAIC02
		4 5						
GM	(5-7') Gravel and sand, some silt. Color: 10YR 6/1 gray. Dense, non-plastic, poorly sorted, and dry to slightly moist.	6 7	3	1.5'	Y	NA		SAIC03

Notes:
1. Total depth of boring is approximately 7 feet BLS.
2. Borehole was abandoned using granular Ben-Seal bentonite.
3. Boring location was marked with 1-inch diameter PVC pipe with affixed brass tag. The boring identification was stamped on the tag.
4. The drilling company was Dan's Field Service.

Notes:
NA - Not Applicable
NR - Not Recorded
BLS - below land surface
OD - outside diameter

SAIC
An Employee-Owned Company

Site Name: DCD	Boring No. SB-BK-05	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 12'
Fed ID No. NA	Probed Depth: 12'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 1/25/00	Finish Date: 1/26/00
First Encountered Water: NA Static Water Level: NA		Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel
G - Wayne Stoner
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/N	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some very fine to fine sand. Color: 10YR 4/2 dark grayish brown. Slightly dense, slightly plastic, poorly sorted and moist. Root structures.	0 - 1	1	NA	Y	NA		SAIC01. Grab Sample.
GM	(1-3') Gravel and sand, some silt. Color: 10YR 5/4 yellowish brown. Dense, non-plastic, poorly sorted, and dry to slightly moist.	1 - 3	2	1.5'	Y	NA		SAIC02
		3 - 5						
GM	(5-7') Gravel and sand, some silt. Color: 10YR 5/4 yellowish brown. Dense, non-plastic, poorly sorted, and dry to slightly moist.	5 - 7	3	1.0'	Y	NA		SAIC03
		7 - 10						
ML	(10-12') Silt, some very fine sand. Color: 10YR 5/4 yellowish brown. Slightly dense, non-plastic, and very slightly moist.	10 - 12	4	1.5'	Y	NA		SAIC04

Notes:
1. Total depth of boring is approximately 12 feet BLS.
2. Borehole was abandoned using granular Ben-Seal bentonite.
3. Boring location was marked with 1-inch diameter PVC pipe with affixed brass tag. The boring identification was stamped on the tag.
4. The drilling company was Dan's Field Service.

Notes:
NA - Not Applicable
NR - Not Recorded
BLS - below land surface
OD - outside diameter

SAIC
An Employee-Owned Company

Site Name: DCD	Boring No. SB-BK-06	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 12'
Fed ID No. NA	Probed Depth: 12'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 1/25/00	Finish Date: 1/25/00
First Encountered Water: NA Static Water Level: NA		Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel
G - Wayne Stoner
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/N	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, trace fine sand. Color: 7.5YR 4/2 brown.	- -	1	NA	Y	NA		SAIC01 & 01D. Grab Sample.
	Loose, non-plastic, and moist. Root structures.	- 1 -						Duplicate collected.
GM	(1-3') Sand and gravel, some silt. Color: 7.5YR 6/3 light brown.	- -	2	1.0'	Y	NA		SAIC02
	Dense; non-plastic, subangular to subrounded fine to coarse	- 2 -						
	gravel; poorly sorted; and dry.	- -						
		- 3 -						
		- -						
		- 4 -						
		- -						
		- 5 -						
ML	(5-7') Silt, trace very fine to fine sand. Color: 7.5YR 4/4 brown	- -	3	2.0'	Y	NA		SAIC03
	Slightly dense, slightly plastic, and slightly moist.	- 6 -						
		- -						
		- 7 -						
		- -						
		- 8 -						
		- -						
		- 9 -						
		- -						
		- 10 -						
ML	(10-12') Silt, some clay. Color: 10YR 5/4 yellowish brown.	- -	4	1.5'	Y	NA		SAIC04
	Dense, slightly plastic, and moist.	- 11 -						
		- -						
		- 12 -						
	Notes:	- -						**Notes:**
	1. Total depth of boring is approximately 12 feet BLS.	- -						NA - Not Applicable
	2. Borehole was abandoned using granular Ben-Seal bentonite.	- -						NR - Not Recorded
	3. Boring location was marked with 1-inch diameter PVC	- -						BLS - below land surface
	pipe with affixed brass tag. The boring identification was	- -						OD - outside diameter
	stamped on the tag.	- -						
	4. The drilling company was Dan's Field Service.	- -						
		- -						
		- -						
		- -						
		- -						
		- -						
		- -						

SAIC
An Employee-Owned Company

Site Name: DCD	Boring No. SB-BK-07	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 12'
Fed ID No. NA	Probed Depth: 12'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 1/25/00	Finish Date: 1/25/00
First Encountered Water: NA Static Water Level: NA		Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel
G - Wayne Stoner
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/N	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some very fine sand. Color: 10YR 4/2 dark grayish brown. Slightly dense, slightly plastic, and moist.	0 - 1	1	NA	Y	NA		SAIC01. Grab Sample.
ML	Root structures (1-3') Silt. Color: 10YR 6/3 pale brown. Dense, non-plastic, and dry.	1 - 3	2	1.25'	Y	NA		SAIC02 & 02ND. MS/MSD collected.
		3 - 5						
ML	(5-7') Silt. Color: 10YR 6/3 pale brown. Dense, non-plastic, and dry.	5 - 7	3	1.2'	Y	NA		SAIC03
		7 - 10						
ML	(10-12') Silt. Color: 10YR 6/3 pale brown. Dense, non-plastic, and dry.	10 - 12	4	1.5'	Y	NA		SAIC04

Notes:
1. Total depth of boring is approximately 12 feet BLS.
2. Borehole was abandoned using granular Ben-Seal bentonite.
3. Boring location was marked with 1-inch diameter PVC pipe with affixed brass tag. The boring identification was stamped on the tag.
4. The drilling company was Dan's Field Service.

Notes:
NA - Not Applicable
NR - Not Recorded
BLS - below land surface
OD - outside diameter
MS/MSD - matrix spike and matrix spike duplicate

SAIC
An Employee-Owned Company

Site Name: DCD	Boring No. SB-BK-08	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 7'
Fed ID No. NA	Probed Depth: 7'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 1/26/00	Finish Date: 1/26/00
First Encountered Water: NA Static Water Level: NA		Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel
G - Wayne Stoner
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/N	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, trace fine sand. Color: 7.5YR 4/4 brown. Loose, non-plastic, and moist. Root structures.	0 1	1	NA	Y	NA		SAIC01. Grab Sample.
ML	(1-3') Silt, some very fine sand. Color: 10YR 5/4 yellowish brown. Slightly dense, non-plastic, and very slightly moist.	2 3	2	1.5'	Y	NA		SAIC02 & 02ND. MS/MSD collected.
		4 5						
ML	(5-7') Silt, some very fine sand. Color: 10YR 5/4 yellowish brown. Slightly dense, non-plastic, and very slightly moist.	6 7	3	1.5'	Y	NA		SAIC03

Notes:
1. Total depth of boring is approximately 7 feet BLS.
2. Borehole was abandoned using granular Ben-Seal bentonite.
3. Boring location was marked with 1-inch diameter PVC pipe with affixed brass tag. The boring identification was stamped on the tag.
4. The drilling company was Dan's Field Service.

Notes:
NA - Not Applicable
NR - Not Recorded
BLS - below land surface
OD - outside diameter
MS/MSD - matrix spike and matrix spike duplicate

SAIC
An Employee-Owned Company

Site Name: DCD	Boring No. SB-BK-09	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 7'
Fed ID No. NA	Probed Depth: 7'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 1/26/00	Finish Date: 1/26/00
First Encountered Water: NA Static Water Level: NA		Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel
G - Wayne Stoner
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/N	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, trace fine sand. Color: 7.5YR 4/4 brown. Loose, non-plastic, and moist. Root structures.	0 - 1	1	NA	Y	NA		SAIC01. Grab Sample.
GM	(1-3') Gravel and sand, some silt. Color: 10YR 6/1 gray. Dense, non-plastic, poorly sorted, and dry to slightly moist.	1 - 3	2	1.2'	Y	NA		SAIC02
		3 - 5						
GM	(5-7') Gravel and sand, some silt. Color: 10YR 6/1 gray. Dense, non-plastic, poorly sorted, and dry to slightly moist.	5 - 7	3	1.4'	Y	NA		SAIC03

Notes:
1. Total depth of boring is approximately 7 feet BLS.
2. Borehole was abandoned using granular Ben-Seal bentonite.
3. Boring location was marked with 1-inch diameter PVC pipe with affixed brass tag. The boring identification was stamped on the tag.
4. The drilling company was Dan's Field Service.

Notes:
NA - Not Applicable
NR - Not Recorded
BLS - below land surface
OD - outside diameter

SAIC
An Employee-Owned Company

Site Name: DCD	Boring No. SB-BK-10	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 7'
Fed ID No. NA	Probed Depth: 7'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 1/26/00	Finish Date: 1/26/00
First Encountered Water: NA Static Water Level: NA		Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel
G - Wayne Stoner
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/N	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, trace fine sand. Color: 7.5YR 4/4 brown. Loose, non-plastic, and moist. Root structures.	0 - 1	1	NA	Y	NA		SAIC01. Grab Sample.
GM	(1-3') Gravel, some silt to very fine sand. Color: 10YR 6/2 light brownish gray. Dense, non-plastic, poorly sorted, and dry.	1 - 3	2	1.5'	Y	NA		SAIC02
		3 - 5						
GM	(5-7') Gravel, some silt to very fine sand. Color: 10YR 6/1 gray Dense, non-plastic, poorly sorted, and dry.	5 - 7	3	1.3'	Y	NA		SAIC03

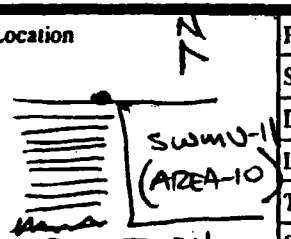
Notes:
1. Total depth of boring is approximately 7 feet BLS.
2. Borehole was abandoned using granular Ben-Seal bentonite.
3. Boring location was marked with 1-inch diameter PVC pipe with affixed brass tag. The boring identification was stamped on the tag.
4. The drilling company was Dan's Field Service.

Notes:
NA - Not Applicable
NR - Not Recorded
BLS - below land surface
OD - outside diameter

SWMU 11
CHEMICAL MUNITIONS STORAGE AREA
(AREA 10)

SWMU 11
SOIL BORING LOGS

Boring Location



DRAINAGE DITCHES ON WEST SIDE OF AREA 10. 1ST DITCH AT NORTH END

Project: TEAD- SOUTH

Start date and time:

Drilling Contractor: SAIC

Logged by: J. Pendleton

Total depth (feet): 3.0' BGS

Sampler type and size (diameter and length): CORE BARREL WITH SLEEVES & S.S. SPOONS

Samples collected from boring: SB-11-001A, SB-11-001B

SWMU No: SWMU-11, AREA 10

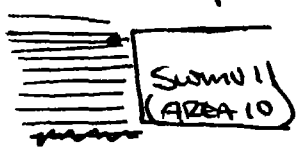
Completion data and time;

Drilling Method: HAND AUGER, HAND TOOLS & CORE BARREL

Diameter (inches): APPROX. 2"x2'

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
0	0	0	N/A	AHOL	N/A	60% SILT	YELLOWISH BROWN 10YR 5/4 SANDY SILT, MOIST, FIRM, MOD. DENSITY, MOD. PLASTICITY, SANDS ARE FINE TO MED. GRAINED, WELL ROUNDED & WELL SORTED
	SB-11-001A					35% SAND	
						5% GRAVEL	
1							AT ~1.5' BGS HAVE LAYER OF SUBROUNDED GRAVEL, ~ 2-5" IN DIA, POORLY SORTED
2							
3	0	0	N/A	AHOL	N/A	50% SILT	BROWN 10YR 5/3 SANDY SILT, MOIST, FIRM, MOD. DENSITY, MOD. PLASTICITY, SANDS FINE TO MED. GRAINED, MOD. SORTING AND SUBROUNDED.
	SB-11-001B					40% SAND	
						10% GRAVEL	
4							

Boring Location

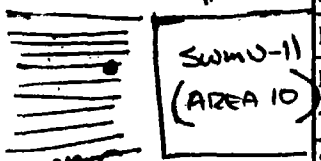


3RD DRAINAGE DITCH ON WEST SIDE OF AREA 10 (THIRD DITCH FROM NORTH)

Project: TEAD-SOUTH
SWMU No: SWMU-11, AREA 10
Start date and time: 10-10-94
Completion data and time: 10-10-94
Drilling Contractor: SAIC
Drilling Method: HAND AUGER WITH CORE BARREL
Logged by: J. Pendleton
Total depth (feet): 2' 10"
Diameter (inches): 6" CORE BARREL
Sampler type and size (diameter and length): CORE BARREL WITH SLEEVES & S.S. SPOONS
Samples collected from boring: SB-11-002A, SB-11-002B, SB-11-002B(DUP.)

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
0	0	0	N/A	AHOL	N/A	45% SAND	YELLOWISH BROWN 10YR 5/4 SANDY SILT MOIST, MOD. TO FIRM CONSISTENCY, LOW PLASTICITY, MOD. DENSITY, SANDS V. FINE TO FINE GRAINED WELL SORTED AND WELL ROUNDED
	SB-11-002A					50% SILT	
						5% CLAY	
			AT APPROXIMATELY BEGIN TO HALE				
1			SMALL % OF GRAY MOTTLING (10YR5/1)				
			STREAKS THROUGH SILTY SANDS.				AT 1.5' BGS BEGIN TO HALE LARGE % OF SUBROUNDED GRAVELS.
2							
	0	0	N/A	AHOL	N/A	80% GRAVEL	GRAYISH BROWN 10YR 5/2 SILTY, SANDY, GRAVEL
	SB-11-002B					15% SAND	GRAVEL 1-5" IN SIZE, SUBROUNDED TO ANGULAR,
3	(DUPLICATE					5% SILT	POORLY SORTED, SAND IS FINE TO MED.
	COLLECTED)						GRAINED MOD. TO WELL ROUNDED, POORLY SORTED
							(SAMPLE COLLECTED FROM 2.8' TO 3.3' BGS)
4							

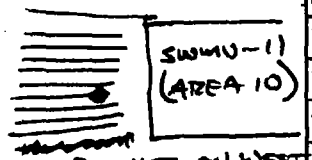
Boring Location



Project: TRAD-SOUTH		SWMU No: SWMU-11, AREA 10
Start date and time:		Completion data and time:
Drilling Contractor: SAIC		Drilling Method: HAND TOOLS, HAND AUGER
Logged by: J. Pendleton		
Total depth (feet): 3.0' BGS		Diameter (inches): APPROX. 2'x2'
Sampler type and size (diameter and length): CORE BARREL 6" x 2"		
Samples collected from boring: SB-11-003A (WITH SVOC), SB-11-003B (W. SVOC) SB-11-003B (MS/MSD)		

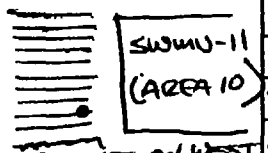
Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
0	0	0	N/A	AHOL	N/A	40% SAND	BROWN 10YR 5/3 SANDY SILT WITH TRACE CLAY, MOIST, FIRM, MOD. TO HIGH DENSITY, LOW-MOD. PLASTICITY
	SB-11-003A					50% SILT	
						10% CLAY	
							AT ~6" BGS, SAND AND SILT CONSTITUENTS
1							BECOME MUCH LESS, CLAY BECOMES DOMINANT MATERIAL
2							
3	0	0	N/A	AHOL	N/A	85% CLAY	DARK GRAYISH BROWN 10YR 4/2 SANDY CLAY, MOIST, FIRM, DENSE, MOD. PLASTICITY, SAND V. FINE GRAINED, WELL ROUNDED, WELL SORTED.
	SB-11-003B					10% SAND	
						5% SILT	
4							

Boring Location



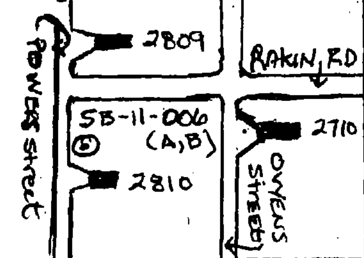
Project: TEAD - SOUTH		SWMU No: SWMU-11, AREA 10
Start date and time:		Completion data and time;
Drilling Contractor: SAIC		Drilling Method: HAND AUGER, HAND TOOLS
Logged by: J. Pendleton		
Total depth (feet): 3.0 BGS		Diameter (inches): APPROX. 2'x2'
Sampler type and size (diameter and length): CORE BARREL WITH SLEEVES, S.S. SPOONS		
Samples collected from boring: SB-11-004A, SB-11-004B		

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
0	0	0	N/A	AHOL	N/A	50% SILT	BROWN 10YR 5/3 SANDY SILT WITH SOME GRAVEL, MOIST, FIRM, DENSE, MOD. PLASTICITY. SAND FINE TO MED. GRAINED, SUBROUNDED, POORLY SORTED
	SB-11-004A					35% SAND	
						15% GRAVEL	
1							
2							
3	0	0	N/A	AHOL	N/A	70% CLAY	DARK BROWN 10YR 4/2 SANDY CLAY WITH SMALL (TRACE) GRAVEL, MOIST, FIRM, DENSE, MOD. PLASTICITY, SAND FINE TO MED. GRAINED MOD. TO WELL ROUNDED, MODERATE SORTING
	SB-11-004B					25% SAND	
						5% GRAVEL	
4							

Boring Location 	Project: TEAD-SOUTH	SWMU No: SWMU-11, AREA 10
	Start date and time:	Completion data and time;
	Drilling Contractor: SAIC	Drilling Method: HAND AUGER, HAND TOOLS, CORE BARREL
	Logged by: J. PENDLETON	
	Total depth (feet): 3.0' BGS	Diameter (inches): APPROX. 2' x 2'
	Sampler type and size (diameter and length): CORE BARREL WITH SLEEVES, S.S. SPOONS	
	Samples collected from boring: SB-11-005A, SB-11-005B	

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
0	0	0				60% SILT	BROWN 10YR 5/3 SANDY SILT, MOIST, FIRM, DENSE, MOD. PLASTICITY, SANDS FINE TO MED. GRAINED, MOD. SORTING, SUBROUNDED
	SB-11-005A					40% SAND	
1							
2							
3	0	0				40% SILT	BROWN 10YR 5/3 SANDY SILT WITH SOME CLAY AND GRAVEL, MOIST, FIRM, MOD. DENSITY HIGH PLASTICITY, SAND FINE - MED GRAINED, MOD. SORTING.
	SB-11-005B					30% SAND	
						15% GRAVEL	
						15% CLAY	
4							

Boring Location

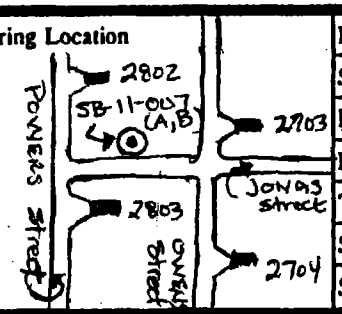


Project: "TOOELE ARMY DEPOT - SOUTH AREA	**SWMU No:** 11, AREA 10 SOIL SAMPLING
Start date and time: 10/24/94 0840	**Completion data and time:** 10/24/94 0910
Drilling Contractor: SAIC	**Drilling Method:** HAND TOOLS WITH POWER AUGER
Logged by: J. PENDLETON	(LITTLE BEAVER AUGER USED)
Total depth (feet): 2' BLS	**Diameter (inches):**
Sampler type and size (diameter and length): SLIDE HAMMER WITH 2"x6" CORE BARREL	
Samples collected from boring: SB-11-006A (VOC, Metals, Agent Break PCB/SVOC) 006B (VOC, Metals, Agent Break)	

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
0	0	0	N/A	SO	100%	50% CLAY	CL BROWN 10YR 4/4 SILTY CLAY WITH SOME SAND, CLAY SOFT TO MEDIUM
	SB-~~11~~-006A					30% SILT	STIFFNESS, FIRM TO DENSE, WITH
	0845					20% SAND	SLIGHT TO MEDIUM PLASTICITY. SAND, MOD. SORTING, SUBROUNDED TO
1							WELL ROUNDED, FINE TO MEDIUM GRAINED.
2	0	0	N/A	SO	100%	50% CLAY	
	SB-11-006B					30% SILT	SAME AS SAMPLE ABOVE
	0900					20% SAND	
3							
4							

SAMPLE LOCATION: North-Northwest of BUNKER 2810, South of RAKIN RD and Adjacent to Powers Street (East side).

Boring Location



Project: TOOELE ARMY DEPOT-SOUTH AREA | SWMU No: 11, AREA 10 SOIL SAMPLING

Start date and time: 10/24/94 0920 | Completion data and time: 10/24/94 0940

Drilling Contractor: SAIC | Drilling Method: HAND TOOLS WITH POWER AUGER (LITTLE BEAVER AUGER USED)

Logged by: J. PENDLETON | Total depth (feet): 2' BLS | Diameter (inches):

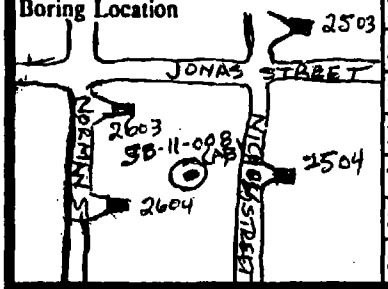
Sampler type and size (diameter and length): SLIDE HAMMER WITH 2"x6" CORE BARREL

Samples collected from boring: SB-11-007A (VOC, METALS, Agent Breakdown) SB-11-007B (VOC, METALS, Agent Breakdown) PCB/SVOC

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
0	0	0	N/A	SO	100%	50% CLAY	CL BROWN 10YR 4/4 SILTY CLAY WITH SOME SAND, CLAY SOFT TO MEDIUM STIFFNESS, FIRM TO DENSE, WITH SLIGHT TO MEDIUM PLASTICITY. SAND, MOD. SORTING, SUBROUNDED TO WELL ROUNDED, FINE TO MEDIUM GRAINED.
	SB-11-007A 0925					30% SILT	
						20% SAND	
1							
2	0	0	N/A	SO	100%	50% CLAY	SAME AS SAMPLE ABOVE
						30% SILT	
						20% SAND	
3	SB-11-007B 0930						
4							

SAMPLE LOCATION: SB-11-007 (A,B) is located on the North side of JONAS Street, South-Southeast of bunker 2802 and North-Northeast of BUNKER 2803.

Boring Location



Project: TOOELE ARMY DEPOT - SOUTH AREA

SWMU No: 11, AREA 10 SOIL SAMPLING

Start date and time: 10/24/94 0953

Completion data and time: 10/24/94 1008

Drilling Contractor: SAIC

Drilling Method: HAND TOOLS WITH POWER AUGER (LITTLE BEAVER AUGER USED)

Logged by: J. PENDLETON

Total depth (feet): 2' BLS

Diameter (inches):

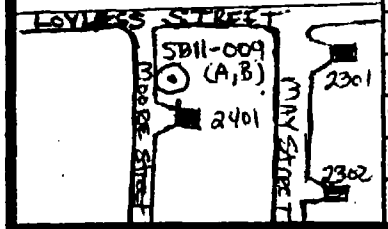
Sampler type and size (diameter and length): SLIDE HAMMER WITH 2"x6" CORE BARREL

Samples collected from boring: SB-11-008A (Duplicate) (VOC, METALS, AGENT BREAKDOWN, PCB/SVOC) SB-11-008B (VOC, METALS, AGENT BREAKDOWN)

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
0	0	0	N/A	SO	100%	50% CLAY	CL BROWN 10YR 4/4 SILTY CLAY WITH SOME SAND, CLAY. SOFT TO MEDIUM STIFFNESS, FIRM TO DENSE, WITH SLIGHT TO MEDIUM PLASTICITY. SAND, MOD. SORTING, SUBROUNDED TO WELL ROUNDED, FINE TO MEDIUM GRAINED.
	SB-11-008A					30% SILT	
	(Duplicate)					20% SAND	
	0958						
1							
2	0	0	N/A	SO	100%	50% CLAY	SAME AS SAMPLE ABOVE
	SB-11-008B					30% SILT	
	0958					20% SAND	
3							
4							

SAMPLE LOCATION: SB-11-008 (A,B) IS LOCATED SOUTH EAST OF BUNKER 2603, SOUTHWEST OF BUNKER 2504 AND NORTHEAST OF BUNKER 2604. IT IS ALSO SOUTH OF JONAS STREET AND BETWEEN NORMAN AND NICHOLS STREETS.

Boring Location: (N) FENCE LINE

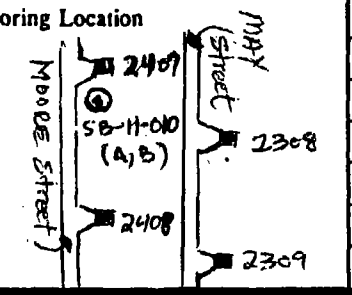


Project: TOOELE ARMY DEPOT - SOUTH AREA	SWMU No: 11, AREA 10 SOIL SAMPLING
Start date and time: 10/24/94 1018	Completion data and time: 10/24/94 1035
Drilling Contractor: SAIC	Drilling Method: HAND TOOLS WITH POWER AUGER
Logged by: J. PENDLETON	(LITTLE BEAVER AUGER USED)
Total depth (feet): 2' BLS	Diameter (inches):
Sampler type and size (diameter and length): SLIDE HAMMER WITH 2"x6" CORE BARREL	
Samples collected from boring: SB-11-009A (VOC, METALS, AGENT BREAKDOWN) SB-11-009B (VOC, METALS, AGENT BKdwn PCB, TSVCL)	

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
0	0	0	N/A	SO	100%	50% CLAY	CL BROWN 10YR 4/4 SILTY CLAY WITH SOME SAND, CLAY SOFT TO MEDIUM STIFFNESS, FIRM TO DENSE, WITH SLIGHT TO MEDIUM PLASTICITY. SAND, MOD. SORTING, SUBROUNDED TO WELL ROUNDED, FINE TO MEDIUM GRAINED.
	SB-11-009A					30% SILT	
	1023					20% SAND	
1							
2	0	0	N/A	SO	100%	50% CLAY	SAME AS SAMPLE ABOVE
	SB-11-009B					30% SILT	
	1025					20% SAND	
3							
4							

SAMPLE LOCATION: Soil Boring SB-11-009 (A,B) is located South of LOVELESS Street, Adjacent and EAST of MOORE street, and North of BUNKER 2401 between MAY AND Moore Street.

Boring Location

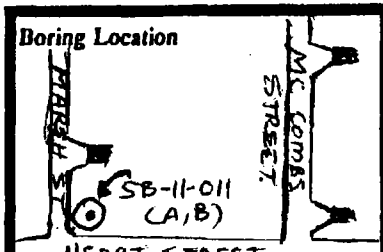


Project: TOOELE ARMY DEPOT - SOUTH AREA		SWMU No: 11, AREA 10 SOIL SAMPLING	
Start date and time: 10/24/94 11:03		Completion data and time: 10/24/94 11:09	
Drilling Contractor: SAIC		Drilling Method: HAND TOOLS WITH POWER AUGER (LITTLE BEAVER AUGER USED)	
Logged by: J. PENDLETON			
Total depth (feet): 2' BLS		Diameter (inches):	
Sampler type and size (diameter and length): SLIDE HAMMER WITH 2"x6" CORE BARREL			
Samples collected from boring: SB11-010A (VOC, METALS, AGENT BREAKDOWN PCB, SVOC		SB-11-010B (VOC, METALS, AGENT BREAKDOWN	

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
0	0	0	N/A	SO	100%	50% CLAY	CL BROWN 10YR 4/4 SILTY CLAY WITH SOME SAND, CLAY SOFT TO MEDIUM STIFFNESS, FIRM TO DENSE, WITH SLIGHT TO MEDIUM PLASTICITY. SAND, MOD. SORTING, SUBROUNDED TO WELL ROUNDED, FINE TO MEDIUM GRAINED.
	SB-11-010 A					30% SILT	
	1058					20% SAND	
1							
2	0	0	N/A	SO	100%	50% CLAY	SAME AS SAMPLE ABOVE
	SB-11-010 B					30% SILT	
	1059					20% SAND	
3							
4							

SAMPLE LOCATION: Soil boring SB-11-010 (A,B) is located due South of Bunker 2407, North of Bunker 2408, West of Bunker 2308 and East (adjacent) of Moore Street.

Boring Location



Project: TOOELE ARMY DEPOT - SOUTH AREA | SWMU No: 11, AREA 10 SOIL SAMPLING

Start date and time: 10/24/94 1135 | Completion data and time: 10/24/94 1152

Drilling Contractor: SAIC | Drilling Method: HAND TOOLS WITH POWER AUGER (LITTLE BEAVER AUGER USED)

Logged by: J. PENDLETON | Total depth (feet): 2' BLS | Diameter (inches):

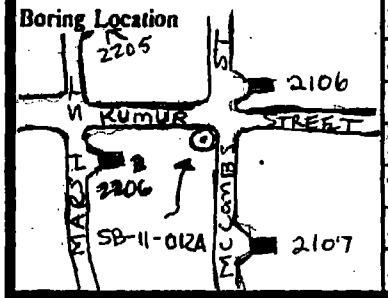
Sampler type and size (diameter and length): SLIDE HAMMER WITH 2"x6" CORE BARREL

Samples collected from boring: SB-011A (VOC, METALS, AGENT BREAKDOWN, PCB / SVOC) SB-011B (VOC, METALS, AGENT BREAKDOWN)

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
0	0	0	N/A	SO	100%	50% CLAY	CL BROWN 10YR 4/4 SILTY CLAY WITH SOME SAND, CLAY SOFT TO MEDIUM STIFFNESS, FIRM TO DENSE, WITH SLIGHT TO MEDIUM PLASTICITY. SAND, MOD. SORTING, SUBROUNDED TO WELL ROUNDED, FINE TO MEDIUM GRAINED.
	SB-11-011A					30% SILT	
	(Duplicate)					20% SAND	
	1140						
1							
2	0	0	N/A	SO	100%	50% CLAY	SAME AS SAMPLE ABOVE
	SB-11-011B					30% SILT	
	1142					20% SAND	
3							
4							

SAMPLE LOCATION: [redacted] Soil Boring SB-11-011 (A,B) IS LOCATED AT the corner of HEART & MARSH Street, Adjacent to the east side of MARSH Street AND the North side OF HEART Street, AND due South OF BUNKER 22R

Boring Location



Project: TOOELE ARMY DEPOT - SOUTH AREA

SWMU No: 11, AREA 10 SOIL SAMPLING

Start date and time: 10/24/94 - 1210

Completion data and time: 10/24/94 1228

Drilling Contractor: SAIC

Drilling Method: HAND TOOLS WITH POWER AUGER (LITTLE BEAVER AUGER USED)

Logged by: J. PENDLETON

Total depth (feet): 2' BLS

Diameter (inches): SB-11-012A (VOC, METALS, AGENT BREAKDOWN, SVOC/PCB) SB-11-012B (VOC, METALS AGENT BREAKDOWN)

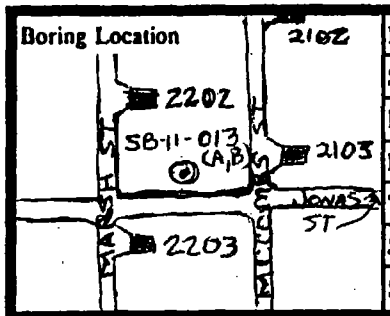
Sampler type and size (diameter and length): SLIDE HAMMER WITH 2"x6" CORE BARREL

Samples collected from boring: SB-11-012A, SB-11-012B (SVOC/PCB COLLECTED FROM A)

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts) (VOC, METALS, AGENT IN REST)
0	0	0	N/A	SO	100%	50% CLAY	CL BROWN 10YR 4/4 SILTY CLAY WITH SOME SAND, CLAY: SOFT TO MEDIUM STIFFNESS, FIRM TO DENSE, WITH
	SB-11-012A					30% SILT	
	1215					20% SAND	SLIGHT TO MEDIUM PLASTICITY. SAND, MOD. SORTING, SUBROUNDED TO
1							WELL ROUNDED, FINE TO MEDIUM GRAINED.
2	0	0	N/A	SO	100%	50% CLAY	
	SB-11-012B					30% SILT	SAME AS SAMPLE ABOVE
	1218					20% SAND	
3							
4							

SAMPLE LOCATION: Soil boring SB11-012(A,B) is located at the southwest corner of the intersection of MC COMBS AND KUMUR Streets. (OFF the ROADWAY)

Boring Location



Project: TOOELE ARMY DEPOT-SOUTH AREA | SWMU No: 11, AREA 10 SOIL SAMPLING

Start date and time: 10/24/94 1253 | Completion data and time: 10/24/94 1310

Drilling Contractor: SAIC | Drilling Method: HAND TOOLS WITH POWER AUGER (LITTLE BEAVER AUGER USED)

Logged by: J. PENDLETON

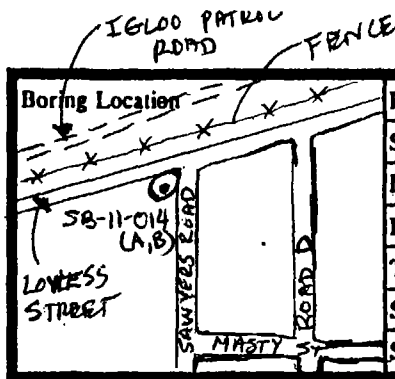
Total depth (feet): 2' BLS | Diameter (inches):

Sampler type and size (diameter and length): SLIDE HAMMER WITH 2"x6" CORE BARREL

Samples collected from boring: SB-11-013A, SB-11-013B (SVOC/PCB COLLECTED FROM B)

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts) VOC, METALS Agent FROM BOTH
0	0	0	N/A	SO	100%	50% CLAY	CL BROWN 10YR 4/4 SILTY CLAY WITH SOME SAND, CLAY SOFT TO MEDIUM STIFFNESS, FIRM TO DENSE WITH
	SB-11-013A					30% SILT	
	1258					20% SAND	SLIGHT TO MEDIUM PLASTICITY. SAND, MOD. SORTING, SUBROUNDED TO
1							WELL ROUNDED, FINE TO MEDIUM GRAINED.
2	0	0	N/A	SO	100%	50% CLAY	
	SB-11-013B					30% SILT	SAME AS SAMPLE ABOVE
	1300					20% SAND	
3							
4							

SAMPLE LOCATION: Soil boring SB-11-013(A,B) is located on the North side (adjacent to) JONAS street between Marsh and McCombs Street, it is Southeast of Bunker 2202, West of Bunker 2103, and North-Northeast of Bunker 2203



Project: TOOELE ARMY DEPOT - SOUTH AREA | SWMU No: 11, AREA 10 SOIL SAMPLING

Start date and time: 10/24/94 1313 | Completion data and time: 10/24/94 1330

Drilling Contractor: SAIC | Drilling Method: HAND TOOLS WITH POWER AUGER (LITTLE BEAVER AUGER USED)

Logged by: J. PENDLETON | Total depth (feet): 2' BLS | Diameter (inches):

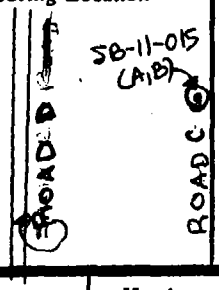
Sampler type and size (diameter and length): SLIDE HAMMER WITH 2"x6" CORE BARREL

Samples collected from boring: SB-11-014A, SB-11-014B (SVOC/PCB COLLECTED FROM A) METALS, VOC, ASBST FROM BOTH.

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
0	0	0	N/A	SO	100%	50% CLAY	CL BROWN 10YR 4/4 SILTY CLAY WITH SOME SAND, CLAY SOFT TO MEDIUM STIFFNESS, FIRM TO DENSE, WITH SLIGHT TO MEDIUM PLASTICITY. SAND, MOD. SORTING, SUBROUNDED TO WELL ROUNDED, FINE TO MEDIUM GRAINED.
	SB-11-014A					30% SILT	
	1318					20% SAND	
1							
		1320					
	SB-11-014B						
2	0	0	N/A	SO	100%	50% CLAY	SAME AS SAMPLE ABOVE
						30% SILT	
						20% SAND	
3							
4							

SAMPLE LOCATION: Soil Boring SB-11-014 (A,B) is located on the Southwest corner of Loveless Road and Sawyer road adjacent to the roadway.

Boring Location



Project: TOOELE ARMY DEPOT - SOUTH AREA | SWMU No: 11, AREA 10 SOIL SAMPLING

Start date and time: 10/24/94 1351 | Completion data and time: 10/24/94 1405

Drilling Contractor: SAIC | Drilling Method: HAND TOOLS WITH POWER AUGER (LITTLE BEAVER AUGER USED)

Logged by: J. PENDLETON | Total depth (feet): 2' BLS | Diameter (inches):

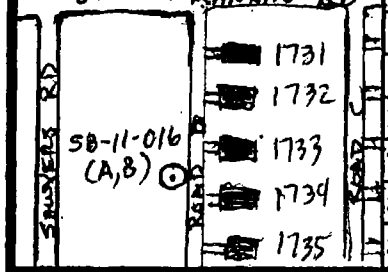
Sampler type and size (diameter and length): SLIDE HAMMER WITH 2"x6" CORE BARREL

Samples collected from boring: SB-11-015A, SB-11-015B (SVOC/PCB COLLECTED FROM A) VOC, METALS

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts) Agent from Both.
0	0	0	N/A	SO	100%	50% CLAY	CL BROWN 10YR 4/4 SILTY CLAY WITH SOME SAND, CLAY. SOFT TO MEDIUM STIFFNESS, FIRM TO DENSE, WITH SLIGHT TO MEDIUM PLASTICITY. SAND, MOD. SORTING, SUBROUNDED TO WELL ROUNDED, FINE TO MEDIUM GRAINED.
	SB-11-015A					30% SILT	
	1354					20% SAND	
1							
		1355					
	SB-11-015B						
2	0	0	N/A	SO	100%	50% CLAY	SAME AS SAMPLE ABOVE
						30% SILT	
						20% SAND	
3							
4							

SAMPLE LOCATION: Soil boring SB-11-015(A/B) is located on the ~~EAST~~ WEST side (adjacent) to ROAD C, across the street and directly between bunker 1615 and 1616

Boring Location



Project: TOOELE ARMY DEPOT-SOUTH AREA | SWMU No: 11, AREA 10 SOIL SAMPLING

Start date and time: 10/24/94 1442 | Completion data and time: 10/24/94 1458

Drilling Contractor: SAIC | Drilling Method: HAND TOOLS WITH POWER AUGER (LITTLE BEAVER AUGER USED)

Logged by: J. PENDLETON | Total depth (feet): 2' BLS | Diameter (inches):

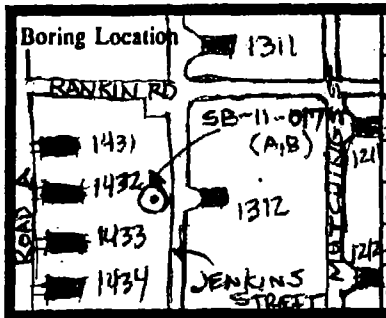
Sampler type and size (diameter and length): SLIDE HAMMER WITH 2"x6" CORE BARREL

Samples collected from boring: SB-11-016A (VOC, METALS, SVOC/PCB, AGENT BREAKDOWN) SB-11-016B (VOC, METALS, Agent Breakdown)

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
0	0	0	N/A	SO	100%	50% CLAY	CL BROWN 10YR 4/4 SILTY CLAY WITH SOME SAND, CLAY SOFT TO MEDIUM STIFFNESS, FIRM TO DENSE, WITH SLIGHT TO MEDIUM PLASTICITY. SAND, MOD. SORTING, SUBROUNDED TO WELL ROUNDED, FINE TO MEDIUM GRAINED.
	SB-11-016A 1447					30% SILT	
						20% SAND	
1							
	SB-11-016B 1448						
2	0	0	N/A	SO	100%	50% CLAY	SAME AS SAMPLE ABOVE
						30% SILT	
						20% SAND	
3							
4							

SAMPLE LOCATION:

Soil boring SB-11-016 (A/B) is located on the west side and adjacent to ROAD D. IT IS LOCATED Directly across the street and INbetween BUNKERS 1733 AND 1734



Project: TOOELE ARMY DEPOT - SOUTH AREA | SWMU No: 11, AREA 10 SOIL SAMPLING

Start date and time: 10/24/94 1525 | Completion data and time: 10/24/94 1544

Drilling Contractor: SAIC | Drilling Method: HAND TOOLS WITH POWER AUGER (LITTLE BEAVER AUGER USED)

Logged by: J. PENDLETON

Total depth (feet): 2' BLS | Diameter (inches):

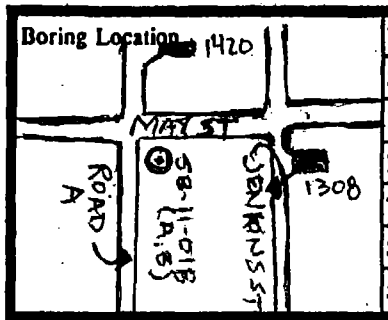
Sampler type and size (diameter and length): SLIDE HAMMER WITH 2"x6" CORE BARREL

Samples collected from boring: SB-11-017A, SB-11-017B (DUPLICATE SAMPLE COLLECTED FROM 17A, SVOC/PCB VOC, METALS, EQUIP BLK.)

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
0	0	0	N/A	SO	100%	50% CLAY	CL BROWN 10YR 4/4 SILTY CLAY WITH SOME SAND, CLAY SOFT TO MEDIUM STIFFNESS, FIRM TO DENSE, WITH SLIGHT TO MEDIUM PLASTICITY. SAND, MOD. SORTING, SUBROUNDED TO WELL ROUNDED, FINE TO MEDIUM GRAINED.
	SB-11-017A					30% SILT	
	1530					20% SAND	
1							
2	0	0	N/A	SO	100%	50% CLAY	SAME AS SAMPLE ABOVE
	SB-11-017B					30% SILT	
	1534					20% SAND	
3							
4							

SAMPLE LOCATION: Soil boring SB-11-017 (A,B) IS LOCATED ON the west side and Adjacent to JENKINS street. IT IS directly across the street and due west OF BUNKER 1312 AND EAST OF BUNKER 1432.

Boring Location



Project: TOOELE ARMY DEPOT - SOUTH AREA
SWMU No: 11, AREA 10 SOIL SAMPLING
Start date and time: 10/24/94 1555
Completion data and time: 10/24/94 1612
Drilling Contractor: SAIC
Drilling Method: HAND TOOLS WITH POWER AUGER (LITTLE BEAVER AUGER USED)
Logged by: J. PENDLETON
Total depth (feet): 2' BLS
Diameter (inches):
Sampler type and size (diameter and length): SLIDE HAMMER WITH 2"x6" CORE BARREL
Samples collected from boring: SB-11-018A (VOC, METALS, AGENT BREAKDOWN) SB-11-018B (VOC, METALS, AGENT BREAKDOWN, PCB-VOC)

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
0	0	0	N/A	SO	100%	50% CLAY	CL BROWN 10YR 4/4 SILTY CLAY WITH SOME SAND, CLAY SOFT TO MEDIUM STIFFNESS, FIRM TO DENSE, WITH SLIGHT TO MEDIUM PLASTICITY. SAND, MOD. SORTING, SUBROUNDED TO WELL ROUNDED, FINE TO MEDIUM GRAINED.
	SB-11-018A					30% SILT	
	1600					20% SAND	
1							
2	0	0	N/A	SO	100%	50% CLAY	SAME AS SAMPLE ABOVE
	SB-11-018B					30% SILT	
	1602					20% SAND	
3							
4							

SAMPLE LOCATION: Soil boring SB-11-018 (A/B) is located on the southeast corner of May Street and Road A. Bunker 1420 is due North and across the street (May ST). Bunker 1308 is ~~across~~ due east and across Jenkins Street.

Boring Location		
	Project: TOOELE ARMY DEPOT - SOUTH	SWMU No: SWMU 11, AREA 10
	Start date and time: 10/24/94	Completion data and time: 10/24/94
	Drilling Contractor: SAIC	Drilling Method: HAND TOOLS WITH POWER AUGER
	Logged by: J. PENDLETON	
	Total depth (feet): 2.4' BLS	Diameter (inches): N/A
	Sampler type and size (diameter and length): SLIDE HAMMER WITH 2" x 6" CORE BARREL	
	Samples collected from boring: SB-11-019A, SB-11-019B	

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
0	0	0	N/A	SO	100%	50% CLAY	CL BROWN 10YR 4/4 SILTY CLAY WITH SOME SAND, CLAY SOFT, MOD. PLASTICITY, MODERATE STIFFNESS, MOD. DENSITY.
	SB-11-019A					30% SILT	
						20% SAND	SAND FINE - MED. GRAINED, SUBROUNDED, MOD. SORTING.
1							
2	0	0	N/A	SO	100%	40% CLAY	CL BROWN 10YR 4/3 SILTY CLAY, WITH SOME SAND (SAME AS ABOVE)
	SB-11-019B					35% SILT	
						25% SAND	
3							
4							

Boring Location	Project: TOOELE ARMY DEPOT- SOUTH	SWMU No: 11, AREA 10
	Start date and time: 10/24/94	Completion data and time: 10/24/94
	Drilling Contractor: SAIC	Drilling Method: POWER AUGER W. HAND TOOLS
	Logged by: M.J. Pendleton	
	Total depth (feet): 2.3' BLS	Diameter (inches): N/A
	Sampler type and size (diameter and length): SLIDE HAMMER W. 2" x 6" CORE BARREL	
	Samples collected from boring: SB-11-020A, SB-11-020B	

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages		Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
0	0	0	N/A	SO	100%	50% CLAY	CL	BROWN 10YR 4/3 SILTY CLAY WITH SOME SAND. CLAY, MOIST, MOD. DENSITY, MOD. PLASTICITY, FIRM, SAND MED. TO COARSE GRAINED SUBROUNDED, POORLY SORTED.
	SB-11-020A					40% SILT		
						10% SAND		
1								
2	0	0	N/A	SO	100%	50% CLAY	CL	BROWN 10YR 4/3 SILTY CLAY WITH SOME SAND (SAME AS ABOVE)
	SB-11-020B					25% SILT		
						15% SAND		
						10% GRAVEL		
3								
4								

SWMU 11
MONITORING WELL S-3

SAIC An Employee-Owned Company

Well Development Form

(Field Sheet)

Project Name and Number: TOELE S AREA 10 01-0827-03-6523-020

Well Number and Location: S-3 AREA 10

Development Crew: MARK MCGUIRE Driller (if applicable): DAN PCOTTS

Water Levels/Time: Initial: 25.825 Pumping: 3 GPM Final: _____

Total Well Depth: Initial: 45.34 Final: _____

Date and Time: Begin: 10-5-94 9:00 Completed: _____

Development: Method(s): GRUNDFOS PUMP 2"

Total Quantity of Water Removed: 300 (6 DRUMS) gals
RSW1124426908, RSW1124426909, RSW1124426910, RSW1124426911
RSW1124427821, RSW1124427822

Date Time and Pump Setting	Discharge Rate* and Measurement Method	Field Measurements				Remarks (Including Sand Production)
		Temp (°C)	Specific Conductivity (umhos/cm)	pH (Standard Units)	Turbidity	
10-5-94 ~~1½ GPM~~ 9:30	1½ GPM	11.0	80x100	6.83	>200	H_2O IS WHITE & CLOUDY, NO SILT
9:45	3 GPM	11.2	75x100	7.11	9.46	NOTICED THE H_2O IS MUCH CLEARER.
10:00	3 GPM	11.2	77x100	~~3.83~~ 7.20	3.83	DAN WAS FAMILIAR W/ PUMPING OF THIS WELL, THAT IS WHY WE HAD A HIGHER PUMPING RATE.
10:15	3 GPM	11.2	77x100	7.18	2.52	
10:30	3 GPM	11.3	76x100	7.21	0.91	

*gallons per minute or bailer capacity

SAIC
An Employee-Owned Company

Sampling Form
(Field Sheet)

Project Name and Number: TEAD-5

Sampling Crew: JOE SKIBINSKI + MARK MCGUIRE

Sampling Point Number: S-3 S

Sampling Location: AREA 10 SWMU 11

Sample Type: ☒ GW ☐ SW ☐ Soil ☐ SED ☐ Other: _____

Date and Time Sample Collected: 10/6/99 1233

Weather Conditions: CLOUDY, 45°F

Purging Information (if applicable):

Method: 2" GRUNDFOS SUBMERSIBLE PUMP

Quantity of Water Purged: _____

Disposition of Purge Water: CLEAR

Date and Time of Purging: Start: 10/5/99 925 End: 10/5/99 1040

Comments: FIELD MEASUREMENTS TAKEN DURING PURGING.
@ 10:30 3GPM pH: 7.21 TEMP: 11.3°C COND: 76X100 umhos/cm TURBIDITY: 0.91 NTU

Groundwater:

Date and Time Collected: 10/6/99 1233

Sampling Depth: 23.6'

Water Level: INITIAL WATER SURFACE LEVEL: 25.83' TOC

Sampling Method/Equipment: _____

Field Measurements: pH _____ Temp: _____ Cond: _____ Alkalinity: _____

Date and Time Filtered (if applicable): NA

Comments: FIELD MEASUREMENTS TAKEN DURING PURGING.

Surface Water:

Date and Time Collected: _____

Collection Method: _____

Date and Time Filtered (if applicable): _____

Field Measurements: pH _____ Temp: _____ Cond: _____ Turbidity: _____

Comments: _____

Soils/Sediment Sampling:

Date and Time Collected: _____

Sampling Depth: _____

Sampling Method: _____

Comments: _____

* TOC - TOP OF CASING

SAIC
An Employee-Owned Company

Sampling Form
(Field Sheet)

Project Name and Number: TOOELE South RFI 01-0827-03-6523-025
Sampling Crew: J. Carter, J SKIBINSKI, J PENDLETON
Sampling Point Number: WELL S-3 South WEST OF AREA 10
Sampling Location: SWMU-10 X ↵
Sample Type: ☒ GW ☐ SW ☐ Soil ☐ SED ☐ Other: _____
Date and Time Sample Collected: 1/30/95 11:45
Weather Conditions: 35°F, CLOUDY, slight breeze

Purging Information (if applicable):
Method: 2" Submersible pump (GRUNDFOS)
Quantity of Water Purged: [redacted] 120 gallons
Disposition of Purge Water: Clear
Date and Time of Purging: Start: 1/30/95 1030 End: 1/30/95 10:52
Comments: _____

Groundwater:
Date and Time Collected: 1/30/95 11:45
Sampling Depth: 23.5' BTOC
25.43 Water Level: 25.43 BTOC
Sampling Method/Equipment: PVC Bailer (dedicated)
Field Measurements: pH 6.99 Temp: 10°C Cond: 65 ~~µmhos~~ mS Alkalinity: _____
Date and Time Filtered (if applicable): NA
Comments: _____

Surface Water:
Date and Time Collected: _____
Collection Method: _____
Date and Time Filtered (if applicable): _____
Field Measurements: pH _____ Temp: _____ Cond: _____ Turbidity: _____
Comments: _____

Soils/Sediment Sampling:
Date and Time Collected: _____
Sampling Depth: _____
Sampling Method: _____
Comments: _____

An Employee-Owned Company

Well Purging/Sampling Form

(Field Sheet)

Project Name and Number: Deseret Chemical Depot 01-0827-03-6523

Well Number and Location: S-3 SWMU 11

Sampling Crew: Knut Torgerson, Patrick Sorderberg

Pump Depth/Total Depth (btoc): 40'/45.05'

Purging Method: Submersible Pump EPA Low Flow Method

Quantity of Water Removed: 11 gal Screen Length:

Sample Number: S-3 (SAIC01, SAIC01D, SAIC01N, SAIC01ND)

Date/Time 11/17/98 1250 - 1400

Trip Blank Number: S-3 (SAICTB02) Sampled by:

FIELD MEASUREMENTS

Date/Time	Rate (GPM)	Volume (gals.)	Water Level (BTOC)	Temp (°C)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)
11/17/98 1258	.25	3	23.33'	13.7	7.72	15.4	20	3.37	250.1
11/17/98 1306	.25	5	23.33'	13.7	7.52	15.2	0	3.42	228.8
11/17/98 1314	.25	7	23.33'	14.0	7.55	14.9	0	3.41	212.0
11/17/98 1322	.25	9	23.33'	13.9	7.48	14.4	0	3.42	207.0
11/17/98 1330	.25	11	23.33'	13.8	7.50	14.3	0	3.43	207.8

GPM = Gallons per Minute LPM = Liters per Minute BTOC = Below Top of Casing

Comments:

Form Completed by: Ty Grivat

One well volume = (H × W) + {0.33[(SH × B) - (SH × W)]}
Where: H = water column, W = well multiplier (2" = 0.16, 4" = 0.65), SH = screen height,
B = borehole diameter multiplier (for 6" = 1.47, 8" = 2.61, 10" = 4.08, 12" = 5.89)

SAIC
An Employee-Owned Company

Well Development Form

(Field Sheet)

Project Name and Number: TEAD - SOUTH 01-0827-03-6523-666

Well Number and Location: S-45-90 SW CORNER AREA 1D

Development Crew: PENDLETON/SKIBINSKI Driller (if applicable): DAN PLOTTS

Water Levels/Time: Initial: 19.1 Pumping: 22.16 Final: _____

Total Well Depth: Initial: _____ Final: _____

Date and Time: Begin: 9/22/94 1216 Completed: _____

Development: Method(s): 2" SUBMERSIBLE GRUNDFOS

Total Quantity of Water Removed: _____ gals

Date/Time and Pump Setting	Discharge Rate* and Measurement Method	Field Measurements				Remarks (Including Sand Production)
		Temp (°C)	Specific Conductivity (umhos/cm)	pH (Standard Units)	Turbidity	
9/22/94	~1 1/2 GAL/MIN					
1216	"	12.3	65x100	6.84		SLIGHTLY TURBID
1252	"	11.9	68x100	7.20		V. CLEAR
1320	"	11.9	68x100	7.21		V. CLEAR
1343	"	SP ~~12.1~~ 11.7	67x100	7.21		V. CLEAR
1354	"	11.8	65x100	7.23		V. CLEAR
1405	"	11.9	62x100	7.24		V. CLEAR.
PUMP INTAKE SET AT ~30.5' BGS						

*gallons per minute or bailer capacity

SAIC
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Sampling Form
(Field Sheet)

Project Name and Number: TEAD-5

Sampling Crew: JOE SKIBINSKI + JOHN PENDLETON

Sampling Point Number: S-45-90

Sampling Location: SWMU 11

Sample Type: ☒ GW ☐ SW ☐ Soil ☐ SED ☐ Other: _____

Date and Time Sample Collected: 9/28/94 1106

Weather Conditions: _____

Purging Information (if applicable):

Method: 2" GRUNDFOS SUBMERSIBLE PUMP

Quantity of Water Purged: _____

Disposition of Purge Water: CLEAR

Date and Time of Purging: Start: 9/27/94 1216 End: 9/27/94 1405

Comments: FIELD MEASUREMENTS TAKEN DURING PURGING.
@ 1405 1.5 GPM pH: 7.29 TEMP: 11.9°C COND: 62X100 μmhos/cm TURBIDITY: CLEAR

Groundwater:

Date and Time Collected: 9/28/94 1106

Sampling Depth: 16.7'

Water Level: INITIAL WATER LEVEL = 19.1' TOC

Sampling Method/Equipment: _____

Field Measurements: pH _____ Temp: _____ Cond: _____ Alkalinity: _____

Date and Time Filtered (if applicable): NA

Comments: FIELD MEASUREMENTS TAKEN DURING PURGING.

Surface Water:

Date and Time Collected: _____

Collection Method: _____

Date and Time Filtered (if applicable): _____

Field Measurements: pH _____ Temp: _____ Cond: _____ Turbidity: _____

Comments: _____

Soils/Sediment Sampling:

Date and Time Collected: _____

Sampling Depth: _____

Sampling Method: _____

Comments: _____

*TOC = TOP OF CASING

An Employee-Owned Company

Well Purging/Sampling Form

(Field Sheet)

Project Name and Number: Deseret Chemical Depot 01-0827-03-6523

Well Number and Location: S-45-90 SWMU 11

Sampling Crew: Knut Torgerson, Patrick Sorderberg

Pump Depth/Total Depth (btoc): 28'/33.86'

Purging Method: Submersible Pump EPA Low Flow Method

Quantity of Water Removed: 23 gal Screen Length:

Sample Number: S-45-90 (SAIC01)

Date/Time 11/17/98 1135 - 1315

Trip Blank Number: S-3 (SAICTB02) Sampled by:

FIELD MEASUREMENTS

Date/Time	Rate (GPM)	Volume (gals.)	Water Level (BTOC)	Temp (°C)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)
11/17/98 1235	.25	15	14.49'	11.2	7.42	12.3	4	6.03	170.1
11/17/98 1243	.25	17	14.49'	11.2	7.42	12.5	0	6.21	164.2
11/17/98 1251	.25	19	14.49'	11.1	7.41	12.6	0	6.18	162.5
11/17/98 1259	.25	21	14.49'	11.3	7.36	12.5	0	6.27	161.5
11/17/98 1307	.25	23	14.49'	11.2	7.40	12.6	0	6.23	161.9

GPM = Gallons per Minute LPM = Liters per Minute BTOC = Below Top of Casing

Comments: Due to a problem with the pump, 15 gallons of water had been removed before the pump could be set at .25 gal/min.

PID = 1.2 ppm

Form Completed by: Ty Grivat

One well volume = (H × W) + {0.33[(SH × B) - (SH × W)]}
Where: H = water column, W = well multiplier (2" = 0.16, 4" = 0.65), SH = screen height,
~~B = borehole diameter multiplier (for 6" = 1.47, 8" = 2.61, 10" = 4.08, 12" = 5.89)~~

SWMU 11
MONITORING WELL S-46-90

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Well Development Form
(Field Sheet)

Project Name and Number: TEAD - S 01-0827-03-6523-444

Well Number and Location: S-46-90

Development Crew: SKIBINSKI / NELSON Driller (if applicable): DAN PLOTTS

Water Levels/Time: Initial: 20.75' BTOC Pumping: ________ Final: ________

Total Well Depth: Initial: 28.05' BTOC Final: ________

Date and Time: Begin: 9/26/94 1345 Completed: ________

Development: Method(s): 2" SUBMERSIBLE GRUNDFOS

Total Quantity of Water Removed: ________ gals

Date/Time and Pump Setting	Discharge Rate* and Measurement Method	Field Measurements				Remarks (Including Sand Production)
		Temp (°C)	Specific Conductivity (umhos/cm)	pH (Standard Units)	Turbidity	
9/26/94 1352	BUCKET 2gpm	14.2	120 x 100	6.47	slt cloudy	pumped 3' in 3 min lowered pump 6' out of water again in 9 min total lowered pump ag. 1405 - adjusted p. seems to be hold. 2gpm flow now 1407 out of water ag decided will period rest the well for 5 recharge so don't burn out the pump 1411 restarted pump
1411	1 gpm					
1434		~~15.1~~ 14.1 IN	12~~3~~8 x 100	6.94	clear	
1452		14.2	135 x 100	7.25	clear	
1512		14.2	135 x 100	7.28	clear	
1530		16.4	135 x 100	7.34	clear	
1545		15.2	~~19 x 10~~	7.34	clear	PROBE WAS NOT SUBMERGED

*gallons per minute or bailer capacity

1547 STOPPED PUMPING

Science Applications International Corporation ■ 8400 Westpark Drive, McLean, Virginia 22102

White: File Pink: Field Manager Yellow: Supervisory Geologist Goldenrod: Field Book

SAIC
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Sampling Form
(Field Sheet)

Project Name and Number: TEAD-S

Sampling Crew: JOE SKIBINSKI + ~~JOHN MIDDLETON~~ MOM JO NELSON

Sampling Point Number: S-96-90

Sampling Location: AREA 10 SWMU 11

Sample Type: ☒ GW ☐ SW ☐ Soil ☐ SED ☐ Other: _____

Date and Time Sample Collected: 9/27/99 ~~1002~~ MOM 1015

Weather Conditions: _____

Purging Information (if applicable):

Method: 2" GRUNDFOS SUBMERSIBLE PUMP

Quantity of Water Purged: _____

Disposition of Purge Water: WATER WAS TURBID, SLOW RECHARGE RATE.

Date and Time of Purging: Start: 9/26/99 1395 End: 9/26/99 1597

Comments: FIELD MEASUREMENTS TAKEN DURING PURGING.
@ 1352 1GPM pH: 6.67 TEMP: 19.2°C COND: 120 x 100 umhos/cm TURB: SLIGHTLY CLOUDY

Groundwater:

Date and Time Collected: 9/27/99 1002

Sampling Depth: 20.9'

Water Level: INITIAL WATER SURFACE ELEVATION: 20.75' TOC

Sampling Method/Equipment: _____

Field Measurements: pH _____ Temp: _____ Cond: _____ Alkalinity: _____

Date and Time Filtered (if applicable): NA

Comments: FIELD MEASUREMENTS TAKEN DURING PURGING.

Surface Water:

Date and Time Collected: _____

Collection Method: _____

Date and Time Filtered (if applicable): _____

Field Measurements: pH _____ Temp: _____ Cond: _____ Turbidity: _____

Comments: _____

Soils/Sediment Sampling:

Date and Time Collected: _____

Sampling Depth: _____

Sampling Method: _____

Comments: _____

* TOC - TOP OF CASING

SAIC
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Sampling Form
(Field Sheet)

Project Name and Number: TOOELE South RFI 01-0827-03-6523-025
Sampling Crew: J. Carter, J. SKIBINSKI, J. Pendleton
Sampling Point Number: Well 5-46-90 South of Area 10
Sampling Location: SWMU-10
Sample Type: ☒ GW ☐ SW ☐ Soil ☐ SED ☐ Other: _____
Date and Time Sample Collected: 1/30/95 15:15
Weather Conditions: 35°F, Cloudy, Slight Breeze

Purging Information (if applicable):
Method: 2" Submersible pump (GRUNDFOS)
Quantity of Water Purged: 85 gallons
Disposition of Purge Water: Clear
Date and Time of Purging: Start: 1/30/95 13:41 End: 1/30/95 14:50
Comments: _____

Groundwater:
Date and Time Collected: 1/30/95 15:15
Sampling Depth: 18.0' BTOC
Water Level: 9.66' BTOC
Sampling Method/Equipment: PVC Bailer (dedicated)
Field Measurements: pH _____ Temp: 11.0 °C Cond: 110 umhos/cm Alkalinity: _____
Date and Time Filtered (if applicable): N/A
Comments: _____

Surface Water:
Date and Time Collected: _____
Collection Method: _____
Date and Time Filtered (if applicable): _____
Field Measurements: pH _____ Temp: _____ Cond: _____ Turbidity: _____
Comments: _____

Soils/Sediment Sampling:
Date and Time Collected: _____
Sampling Depth: _____
Sampling Method: _____
Comments: _____

An Employee-Owned Company

Well Purging/Sampling Form

(Field Sheet)

Project Name and Number: Deseret Chemical Depot 01-0827-03-6523

Well Number and Location: S-46-90 SWMU 11

Sampling Crew: Knut Torgerson, Patrick Sorderberg

Pump Depth/Total Depth (btoc): 22'/28.02'

Purging Method: Submersible Pump EPA Low Flow Method

Quantity of Water Removed: 10 gal Screen Length:

Sample Number: S-46-90 (SAIC01)

Date/Time 11/17/98 1425 - 1515

Trip Blank Number: S-3 (SAICTB02) Sampled by:

FIELD MEASUREMENTS

Date/Time	Rate (GPM)	Volume (gals.)	Water Level (BTOC)	Temp (°C)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)
11/17/98 1433	.25	2	18.28'	12.6	7.77	15.8	553	3.47	166.8
11/17/98 1441	.25	4	18.28'	13.1	7.62	16.1	0	5.44	153.0
11/17/98 1449	.25	6	18.28'	12.8	7.63	16.2	0	5.58	146.2
11/17/98 1457	.25	8	18.28'	12.7	7.60	16.3	0	5.61	146.1
11/17/98 1507	.25	10	18.28'	12.9	7.62	16.3	0	5.64	144.4

GPM = Gallons per Minute LPM = Liters per Minute BTOC = Below Top of Casing

Comments:

Form Completed by: Ty Grivat

One well volume = (H × W) + {0.33[(SH × B) - (SH × W)]}
Where: H = water column, W = well multiplier (2" = 0.16, 4" = 0.65), SH = screen height,
B = borehole diameter multiplier (for 6" = 1.47, 8" = 2.61, 10" = 4.08, 12" = 5.89)

SWMU 11
MONITORING WELL S-74-90

SAIC
An Employee-Owned Company

Well Development Form

(Field Sheet)

Project Name and Number: TOOELE ARMY DEPOT - SOUTH AREA

Well Number and Location: S-74-90 ; SW NW 11

Development Crew: SKIBINSKI, PENDLETON Driller (if applicable): PLOTS

Water Levels/Time: Initial: 26.225 : 0751 Pumping: _____ Final: _____

Total Well Depth: Initial: 32.10 Final: _____

Date and Time: Begin: 9/27/94 : ~~0740~~ 0750 SNS Completed: 9/27/94 1128

Development: Method(s): PUMPING WITH 2" SUBMERSIBLE GRUNDFOS

Total Quantity of Water Removed: ~92 gals

Date/Time and Pump Setting	Discharge Rate* and Measurement Method	Field Measurements				Remarks (Including Sand Production)
		Temp (°C)	Specific Conductivity (umhos/cm)	pH (Standard Units)	Turbidity	
9/27/94 0750	0.3gal/min TIMED BUCKET FILLING					
0807		9.7	15x100	6.71	CLOUDY	COLORLESS, FINE PARTICLES
0830	0.5gal/min	10.9	18x100	6.94	SLIGHTLY CLOUDY	
0855						
0915	"	11.3	19x100	7.02	CLEAR	
0945	"	11.7	20x100	6.97	"	
1035	"	12.4	20x100	6.96	"	
1125	"	14.2	01x100	6.95	"	
1127	"	14.2	02x100	6.95	"	
		14.2	01x100	6.96	"	

*gallons per minute or bailer capacity

SAIC
An Employee-Owned Company

Sampling Form
(Field Sheet)

Project Name and Number: TEAD-S

Sampling Crew: JOE SKIBINSKI & JOHN PENDLETON

Sampling Point Number: S-79-90

Sampling Location: SWMU 11

Sample Type: ☒ GW ☐ SW ☐ Soil ☐ SED ☐ Other: _____

Date and Time Sample Collected: 9/27/94 1220

Weather Conditions: _____

Purging Information (if applicable):

Method: 2" GRUNDFOS SUBMERSIBLE PUMP

Quantity of Water Purged: _____

Disposition of Purge Water: COLORLESS, FINE PARTICLES

Date and Time of Purging: Start: 9/27/94 0800 End: 9/27/94 1128

Comments: FIELD MEASUREMENTS TAKEN DURING PURGING.
@ 1127 0.5 GPM pH: 6.96 TEMP: 14.2°C COND: 61X100 UMhos/cm TURBIDITY: CLEAR

Groundwater:

Date and Time Collected: 9/27/94 1220

Sampling Depth: 23.25'

Water Level: INITIAL WATER SURFACE LEVEL: 26.23' TOC

Sampling Method/Equipment: _____

Field Measurements: pH _____ Temp: _____ Cond: _____ Alkalinity: _____

Date and Time Filtered (if applicable): NA

Comments: _____

Surface Water:

Date and Time Collected: _____

Collection Method: _____

Date and Time Filtered (if applicable): _____

Field Measurements: pH _____ Temp: _____ Cond: _____ Turbidity: _____

Comments: _____

Soils/Sediment Sampling:

Date and Time Collected: _____

Sampling Depth: _____

Sampling Method: _____

Comments: _____

* TOC - TOP OF CASING

An Employee-Owned Company

Well Purging/Sampling Form

(Field Sheet)

Project Name and Number: Deseret Chemical Depot 01-0827-03-6523

Well Number and Location: S-74-90 SWMU 11

Sampling Crew: Knut Torgerson, Patrick Sorderberg

Pump Depth/Total Depth (btoc): 26'/31.82'

Purging Method: Submersible Pump EPA Low Flow Method

Quantity of Water Removed: 23 gal Screen Length:

Sample Number: S-74-90 (SAIC01)

Date/Time 11/17/98 0950 - 1110

Trip Blank Number: S-3 (SAICTB02) Sampled by:

FIELD MEASUREMENTS

Date/Time	Rate (GPM)	Volume (gals.)	Water Level (BTOC)	Temp (°C)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)
11/17/98 1020	.25	15	22.35'	11.0	7.50	8.69	9	2.87	141.0
11/17/98 1028	.25	17	22.35'	11.7	7.49	8.66	0	3.35	139.9
11/17/98 1036	.25	19	22.35'	12.1	7.51	8.66	0	4.00	142.9
11/17/98 1044	.25	21	22.35'	12.2	7.55	8.68	0	4.11	145.0
11/17/98 1052	.25	23	22.35'	12.0	7.49	8.65	0	3.98	142.3

GPM = Gallons per Minute LPM = Liters per Minute BTOC = Below Top of Casing

Comments: Due to a problem with the pump, 15 gallons of water had been removed before the pump could be set at .25 gal/min.

Form Completed by: Ty Grivat

One well volume = (H × W) + {0.33[(SH × B) - (SH × W)]}
Where: H = water column, W = well multiplier (2" = 0.16, 4" = 0.65), SH = screen height,
B = borehole diameter multiplier (for 6" = 1.47, 8" = 2.61, 10" = 4.08, 12" = 5.89)

SWMU 11
MONITORING WELL S-75-90

SAIC® An Employee-Owned Company

Well Development Form

(Field Sheet)

Project Name and Number: TOOELE SOUTH INVESTIGATION 01-0827-03-6523-666

Well Number and Location: S-75-90 SOUTH OF AREA 10 (SWMU 11)

Development Crew: SCIBINSKI/PENDLETON Driller (if applicable): DAN PLOTTS

Water Levels/Time: Initial: _____ Pumping: _____ Final: _____

Total Well Depth: Initial: _____ Final: _____

Date and Time: Begin: 9/26/94 1628 Completed: _____

Development: Method(s): 2" SUBMERSIBLE GRUNDFOS

Total Quantity of Water Removed: _____ gals

Date/Time and Pump Setting	Discharge Rate* and Measurement Method	Field Measurements				Remarks (Including Sand Production)
		Temp (°C)	Specific Conductivity (umhos/cm)	pH (Standard Units)	Turbidity	
9/26/94 1628	0.2 gal/min	19.1	35x10	7.51	SILTY	WELL PUMPED OFF ~ 6 gal.
1645						
1727						

*gallons per minute or bailer capacity

SAIC® An Employee-Owned Company

Well Development Form

(Field Sheet)

Project Name and Number: TEAD-5 01-0827-~~0801~~ 03-6523-021

Well Number and Location: S-75 OUTSIDE AREA 10

Development Crew: MARK MCGUIRE MIKE MILES Driller (if applicable): _____

Water Levels/Time: Initial: 20.1 BGS Pumping: _____ Final: _____

Total Well Depth: Initial: 27.75 BGS Final: _____

Date and Time: Begin: 10/11/99 1345 Completed: _____

Development: Method(s): 1.5 GAL DEDICATED BAILOR

Total Quantity of Water Removed: 18 GALS gals

Date/Time and Pump Setting	Discharge Rate* and Measurement Method	Field Measurements				Remarks (Including Sand Production)
		Temp (°C)	Specific Conductivity (umhos/cm)	pH (Standard Units)	Turbidity	
10/11/99						
1345	1.5 GALS	15.5	319 X10	7.18	54.5	RELATIVELY CLEAR
1410	1.5 GALS	13.3	323 X10	7.60	7200	-MUCH MORE TURBID SINCE WE ARE TAKING IT FROM THE
1435	1.5 GALS	14.4	323 X10	7.68	19.9	
1450	1.5 GALS	13.5	333 X10	7.65	7200	BOTTOM.

*gallons per minute or bailer capacity

SAIC
An Employee-Owned Company

Sampling Form
(Field Sheet)

Project Name and Number: TEAD-5

Sampling Crew: MARK MCGUIRE & MIKE MILES

Sampling Point Number: S-75-90

Sampling Location: SWMU 11

Sample Type: ☒ GW ☐ SW ☐ Soil ☐ SED ☐ Other: _____

Date and Time Sample Collected: 10/11/99 1615

Weather Conditions: SUNNY, 60°F

Purging Information (if applicable):

Method: 1.5 GAL DEDICATED TEFLON BAILOR

Quantity of Water Purged: 18 GAL

Disposition of Purge Water: SLIGHTLY TURBID, NO EVIDENCE OF PRODUCT

Date and Time of Purging: Start: 10/11/99 1395 End: 10/11/99 1950

Comments: FIELD MEASUREMENTS TAKEN DURING PURGING.

@ 1950 1.5 GPM pH: 7.65 TEMP: 13.5°C COND: 333X10 uMhos/cm TURBIDITY: >200 NTU

Groundwater:

Date and Time Collected: 10/11/99 1616

Sampling Depth: _____

Water Level: INITIAL WATER LEVEL = 22.2' TOC

Sampling Method/Equipment: _____

Field Measurements: pH _____ Temp: _____ Cond: _____ Alkalinity: _____

Date and Time Filtered (if applicable): NA

Comments: FIELD MEASUREMENTS TAKEN DURING PURGING.

Surface Water:

Date and Time Collected: _____

Collection Method: _____

Date and Time Filtered (if applicable): _____

Field Measurements: pH _____ Temp: _____ Cond: _____ Turbidity: _____

Comments: _____

Soils/Sediment Sampling:

Date and Time Collected: _____

Sampling Depth: _____

Sampling Method: _____

Comments: _____

*TOC - TOP OF CASING

SAIC
An Employee-Owned Company

Sampling Form
(Field Sheet)

Project Name and Number: TOOELE South RFI 01-0827-03-6523-025
Sampling Crew: J. Carter, J. SKIBINSKI, J. PENDLETON
Sampling Point Number: Well S-75-90
Sampling Location: SWMU 10 South of Area 10
Sample Type: ☒ GW ☐ SW ☐ Soil ☐ SED ☐ Other: _____
Date and Time Sample Collected: 1/30/95 17:00
Weather Conditions: 35°F, Cloudy, Slight Breeze

Purging Information (if applicable):
Method: 2" Submersible Pump (GRUNDFOS)
Quantity of Water Purged: 25 gallons
Disposition of Purge Water: Clear
Date and Time of Purging: Start: 1/30/95 1605 End: 1/30/95 16:52
Comments: _____

Groundwater:
Date and Time Collected: 1/30/95 17:00
Sampling Depth: 20' BTOC
? Water Level: 20.0' BTOC
Sampling Method/Equipment: PVC Bailer (dedicated)
Field Measurements: pH 7.70 Temp: 11 °C Cond: 290 ~~mS~~ umhos Alkalinity: _____
Date and Time Filtered (if applicable): NA
Comments: _____

Surface Water:
Date and Time Collected: _____
Collection Method: _____
Date and Time Filtered (if applicable): _____
Field Measurements: pH _____ Temp: _____ Cond: _____ Turbidity: _____
Comments: _____

Soils/Sediment Sampling:
Date and Time Collected: _____
Sampling Depth: _____
Sampling Method: _____
Comments: _____

An Employee-Owned Company

Well Purging/Sampling Form

(Field Sheet)

Project Name and Number: Deseret Chemical Depot 01-0827-03-6523

Well Number and Location: S-75-90 SWMU 11

Sampling Crew: Knut Torgerson, Patrick Sorderberg

Pump Depth/Total Depth (btoc): 24'/28'

Purging Method: Submersible Pump EPA Low Flow Method

Quantity of Water Removed: 23 gal Screen Length:

Sample Number: S-75-90 (SAIC01)

Date/Time 11/18/98 0815 - 0930

Trip Blank Number: S-3 (SAICTB02) Sampled by:

FIELD MEASUREMENTS

Date/Time	Rate (GPM)	Volume (gals.)	Water Level (BTOC)	Temp (°C)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)
11/18/98 0835	.25	5	19.60'	10.6	7.15	5.13	46	5.57	184.3
11/18/98 0845	.25	15	19.60'	11.6	7.65	4.60	105	6.50	185.9
11/18/98 0953	.25	17	19.60'	11.8	7.74	4.52	92	6.66	189.2
11/18/98 0901	.25	19	19.60'	12.1	7.78	4.46	1	6.38	186.5
11/18/98 0909	.25	21	19.60'	11.9	7.78	4.52	0	6.44	186.0
11/18/98 0917	.25	23	19.60'	11.9	7.79	4.49	0	6.41	184.4

GPM = Gallons per Minute LPM = Liters per Minute BTOC = Below Top of Casing

Comments: Rinsate Blank = S-75-90 (SAICRB04) @ 0815

Due to a problem with the pump, 15 gallons of water had been removed before the pump could be set at .25 gal/min.

Form Completed by: Ty Grivat

One well volume = (H × W) + {0.33[(SH × B) - (SH × W)]}
Where: H = water column, W = well multiplier (2" = 0.16, 4" = 0.65), SH = screen height,
B = borehole diameter multiplier (for 6" = 1.47, 8" = 2.61, 10" = 4.08, 12" = 5.89)

SWMU 19
BUILDING 533 FOUNDATION
(EMPTY DRUM STORAGE AREA)

SOIL BORING LOGS

SOIL BORING

Project Name: TEAD-S Phase II RFI | Site Location: SWMU 19 | Soil Boring No.: BH-19-001

SAIC Project No.: 01-0827-03-6523 | Drilling Method: Dual Wall Percussion | Start/Finish Date: 10-07-94/10-07-94

Geologist: Mike Miles | Drill Rig: A.P. 1000 | Sampling Method: Split Spoon/Grab

Drilling Co.: Layne Environmental Inc. | Driller: Kevin Cross | Drilled Depth (ft): 20.50

Depth (feet)	Soil Class USCS	Lithologic Symbol	Material Description	Blows/6 in.	Lab ID	Sample Type And #	HNU (ppm)
0	ML		55% Silt, 25% Clay, 15% Gravel, 10% Sand; 10YR3/4 Dark brown. Fine materials are (silts and clays) they are soft; loose damp; low plasticity; no apparent bedding. Gravels are 0.5–1.0" in size; subrounded to subangular; poorly sorted. Depositional environment = Alluvial outwash	6-12-4-16	1	SS	0
5				8-13-12-15	2	SS	0
10	GC		70% Gravel, 15%Sand, 15% Silt; Dark gray 7.5YR3/1 limestones; 1 to 4" in size. Sand fine to medium grained, subrounded to subangular poorly sorted. Large Gravel to cobble size limestone (1–4), dark gray when intact, decomposed cement when broken up.				
15	CL		50% Clay, 50% Silt. 7.5YR5/4 brown; soft loose; damp; moderate plasticity; no apparent bedding	50/	3	SS	0
20				9-18-28-38	4	SS	0
			Bottom of Boring at 22 feet				
25			*NOTE:NR=Not Recorded, NA=Not Applicable Borehole Diameter=9.5"*				

SOIL BORING

Project Name: TEAD-S Phase II RFI | Site Location: SWMU 19 | Soil Boring No.: BH-19-002

SAIC Project No.: 01-0827-03-6523 | Drilling Method: Dual Wall Percussion | Start/Finish Date: 10-07-94/10-07-94

Geologist: Mike Miles | Drill Rig: A.P. 1000 | Sampling Method: Split Spoon/Grab

Drilling Co.: Layne Environmental Inc. | Driller: Kevin Cross | Drilled Depth (ft): 22

Depth (feet)	Soil Class USCS	Lithologic Symbol	Material Description	Blows/6 in.	Lab ID	Sample Type And #	HNU (ppm)
0	ML		55% Silt, 25% Clay, 15% Gravel, 10% Sand; 10YR3/4 Dark brown. Fine materials are (silts and clays) they are soft; loose damp; low plasticity; no apparent bedding. Gravels are 0.5-1.0" in size; subrounded to subangular; poorly sorted. Depositional environment = Alluvial outwash	3-5-12-12	1	SS	0
10	GC		70% Gravel, 15%Sand, 15% Silt; Dark gray 7.5YR3/1 limestones; 1 to 4" in size. Sand fine to medium grained, subrounded to subangular poorly sorted. Large Gravel to cobble size limestone (1-4), dark gray when intact, decomposed cement when broken up.	10-22-50/6	2	SS	0
15	CL		50% Clay, 50% Silt. 7.5YR5/4 brown; soft loose; damp; moderate plasticity; no apparent bedding	8-12-18-21	3	SS	0
20			*Bottom of Boring at 22 feet*				
25			*NOTE:NR=Not Recorded, NA=Not Applicable Borehole Diameter=9.5"*				

SOIL BORING

Project Name: TEAD-S Phase II RFI | Site Location: SWMU 19 | Soil Boring No.: BH-19-003

SAIC Project No.: 01-0827-03-6523 | Drilling Method: Dual Wall Percussion | Start/Finish Date: 10-07-94/10-07-94

Geologist: Mike Miles | Drill Rig: A.P. 1000 | Sampling Method: Split Spoon/Grab

Drilling Co.: Layne Environmental Inc. | Driller: Kevin Cross | Drilled Depth (ft): 35

Depth (feet)	Soil Class USCS	Lithologic Symbol	Material Description	Blows/6 in.	Lab ID	Sample Type And #	HNU (ppm)
0–5	ML		60% Silt, 25% Clay, 10% Sand, 10% Gravel 10YR3/4 Dark brown. Fine materials are soft; loose; damp; moderate pasticity; no apparent bedind. Depositional environment = Alluvial outwash	6-11-10-12	1	SS	0
5–15	GC		70% Gravel, 15% Sand, 10% Silt, 5% Clay Dark gray 7.5YR3/1. Gravel, 0.5–1.5" in size; subrounded to angular; poorly sorted. Sands fine to medium grained; subrounded; poorly sorted	50/3 50/5	2	SS	0
15–25					3	SS	0
25–35	ML		55% Silt, 45% Clay. Fine materials are hard; dense; damp; no apparent moderate plaicity; apparent bedding	26-39-44-50/5	4	SS	0
35			*Bottom of Boring at 35 feet*				
35–40			*NOTE:NR=Not Recorded, NA=Not Applicable Borehole Diameter=9.5"*				

SOIL BORING

Project Name: TEAD-S Phase II RFI | Site Location: SWMU 19 | Soil Boring No.: BH-19-004

SAIC Project No.: 01-0827-03-6523 | Drilling Method: Dual Wall Percussion | Start/Finish Date: 10-07-94/10-07-94

Geologist: Mike Miles | Drill Rig: A.P. 1000 | Sampling Method: Split Spoon/Grab

Drilling Co.: Layne Environmental Inc. | Driller: Kevin Cross | Drilled Depth (ft): 35

Depth (feet)	Soil Class USCS	Lithologic Symbol	Material Description	Blows/6 in.	Lab ID	Sample Type And #	HNU (ppm)
0	ML		65% Silt, 25% Clay, 15% Sand, 5% Gravel 10YR3/4 Dark brown. Soft; loose to dense; damp; moderate pasticity; Depositional environment = Alluvial outwash	3-8-13-18	1	SS	0
15	GC		Gravel				
25	CL		55% Clay, 45% Silt. 10YR5/3 brown. Fine materials are hard; dense; high platicity; no apparent bedding. Depositional environment = Lake sediments	27-33-50/2	2	SS	0
35			*Bottom of Boring at 35 feet*				
40			*NOTE:NR=Not Recorded, NA=Not Applicable Borehole Diameter=9.5"*				

SOIL BORING LOG

Project Name: TEAD-S Phase II RFI
SAIC Project No.: 01-0827-03-6523
Geologist: Mike Miles
Drilling Co.: Layne Environmental Inc.
Driller: Kevin Cross
Drill Rig: A.P. 1000

Site Location: SWMU 19
Northing (ft): ?
Easting (ft): ?
Groundwater Elev. (ft): NA
Drilling Method: Dual Wall Percussion
Sampling Method: Split Spoon/Grab

Monitoring Well No.: BH-19-005
Start/Finish Date: 10-08-94/10-08-94
Well Completion Depth (ft): NA
Drilled Depth (ft): 35.00
Surface Pad Elevation (ft): NA
Top of Casing Elevation (ft): NA

Depth (feet)	Soil Class USCS	Lithologic Symbol	Material Description	Blows/6 in.	Lab ID	Sample Type And #	HNU (ppm)
0	ML		55% Silt, 35% Clay, 10% Sand, <5% Gravel. 10YR5/4 dark brown; medium plasticity; medium hard; medium dense; damp; no apparent bedding. Lake Sediments.	2-26-10-8	1	SS-1	0
15			Same material, color change. 2.5YR6/4 light yellowish brown; Sand content has increased to 15-20% fine to very fine.				
25			Lithologically the same. some tracks of iron staining have shown up in the micro-fractures; moist	7-42-50/5	1	SS-2	15
40							

SOIL BORING LOG

Project Name: TEAD-S Phase II RFI
Site Location: SWMU 19
Monitoring Well No.: BH-19-006
SAIC Project No.: 01-0827-03-6523
Northing (ft): ?
Start/Finish Date: 10-07-94/10-07-94
Geologist: Mike Miles
Easting (ft): ?
Well Completion Depth (ft): NA
Drilling Co.: Layne Environmental Inc.
Groundwater Elev. (ft): NA
Drilled Depth (ft): 35.00
Driller: Kevin Cross
Drilling Method: Dual Wall Percussion
Surface Pad Elevation (ft): NA
Drill Rig: A.P. 1000
Sampling Method: Split Spoon/Grab
Top of Casing Elevation (ft): NA

Depth (feet)	Soil Class USCS	Material Description	Blows/6 in.	Lab ID	Sample Type And #	HNU (ppm)
0	ML	55% Silt, 35% Clay, 10% Sand, 5% Gravel (.25-1"). 10YR3/3 dark brown; medium plasticity; soft; loose to dense; damp; no apparent bedding. Alluvial Outwash.	NA	1	G-1	0
15	CL	60% Clay, 25% Silt, 15% Sand fine to very fine. 7.5YR5/3 brown; medium plasticity; dense; stiff; moist; no apparent bedding. Lake Sediments				
17	GC	Gravel (.5-1.2"). Alluvial Outwash				
23	CL	Silty Clay, 55% Clay, 45% Silt. 10YR6/2 light brown gray; plastic; hard; dense; moist to dry; iron staining in microfractures. Lake Sediments.	12-19-22-28	1	SS-2	0
			23-34-42-50/3	1	SS-3	0
35		*Bottom of Boring at 35.0 feet*				

NOTE:NR=Not Recorded, NA=Not Applicable Borehole Diameter=9.5"

SOIL BORING LOG

Project Name: TEAD-S Phase II RFI
SAIC Project No.: 01-0827-03-6523
Geologist: Mike Miles
Drilling Co.: Layne Environmental Inc.
Driller: Kevin Cross
Drill Rig: A.P. 1000

Site Location: SWMU 19
Northing (ft): ?
Easting (ft): ?
Groundwater Elev. (ft): NA
Drilling Method: Dual Wall Percussion
Sampling Method: Split Spoon/Grab

Monitoring Well No.: BH-19-007
Start/Finish Date: 10-07-94/10-07-94
Well Completion Depth (ft): NA
Drilled Depth (ft): 37.00
Surface Pad Elevation (ft): NA
Top of Casing Elevation (ft): NA

Depth (feet)	Soil Class USCS	Lithologic Symbol	Material Description	Blows/6 in.	Lab ID	Sample Type And #	HNU (ppm)
0	ML		Decomposed Asphalt 60% Silt, 30% Clay, 10% Sand, <5% Gravel. 10YR4/3 dark brown; medium plasticity; stiff; dense; moist; no apparent bedding. Lake Sediment and Alluvial Outwash.	12-25-18-17	1	SS-1	0
5							
10	CL		60% Clay, 30% Silt, 10% Sand, 10% Gravel. 10YR4/3 dark brown; medium plasticity; dense; stiff; moist. Alluvial Outwash				
15			Silty Clay, 60% Clay, 40% Silt. 2.5YR6/3 light yellow brown; high plasticity; stiff; dense; moist; no apparent bedding; some iron staining. Lake Sediments	17-19-21-20	1	SS-2	0
20							
25							
30			55% Clay, 25% Silt, 20% Sand. 2.5YR5/4 light olive brown; high plasticity; dense; stiff; moist. Lake Sediments				
35				9-12-21-30	1	SS-3	0
40			*Bottom of Boring at 37.0 feet* *NOTE:NR=Not Recorded, NA=Not Applicable Borehole Diameter=9.5"*				

SWMU 19
MONITORING WELL S-113-94

SOIL BORING/WELL LOG

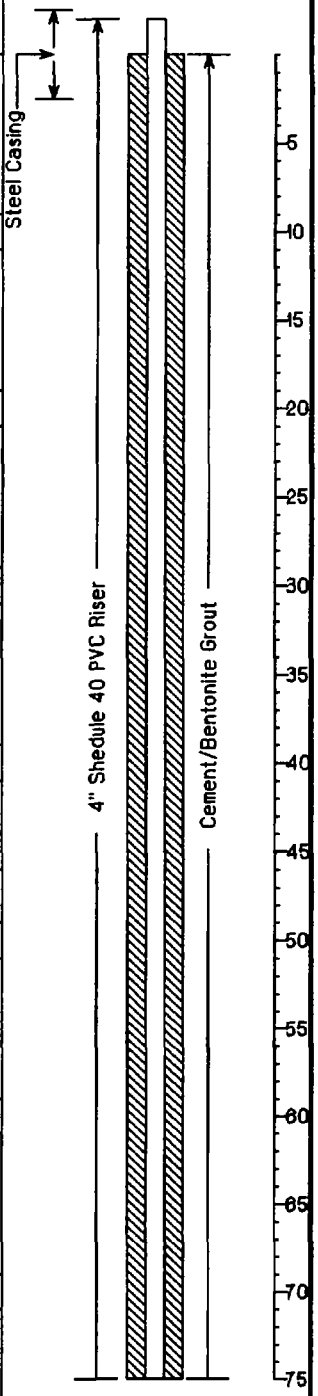
Project Name: TEAD-S Phase II RFI
SAIC Project No.: 01-0827-03-6523
Geologist: Mike Miles
Drilling Co.: Layne Environmental Inc.
Driller: Kevin Cross
Drill Rig: A.P. 1000

Site Location: SWMU 19
Northing (ft): 2219784.42
Easting (ft): 428919.48
Groundwater Elev. (ft): 5117.04 on 09/26/94
Drilling Method: Dual Wall Percusion
Sampling Method: Split Spoon/Grab

Monitoring Well No.: S-113-94
Start/Finish Date: 09-25-94/09-26-94
Well Completion Depth (ft): 135.0
Drilled Depth (ft): 139.0
Surface Pad Elevation (ft): 5229.04
Top of Casing Elevation (ft): 5231.00

Depth (feet)	Soil Class USCS	Material Description	Blows/6 in.	Sample #	Sample Type	HNU (ppm)
5	GC	50% Gravel, 25% Sand, 20% Silt, 5% Clay. 10YR7/3 pale brown; no plasticity; loose; soft; dry; no aparent bedding; sub-rounded to angular. Depositional environment = Alluvial outwash				
10	GC	70% Gravel, 15% Sand, 10% Silt, 5% Clay. 10YR7/3 pale brown; no plasticity; loose; dry; no apparent bedding; Sample Interval was 9 to 9.5. Depositional environment = Alluvial outwash	NA	1	G	0
15	ML	55% Silt, 40% Clay, 5% Sand. 10YR6/4 light yellowish brown; high plasticity; stiff; dense; moist; no apparent bedding. Sand is very fine grained, subrounded, poorly sorted. Sample Interval was 19.0 to 20.5. Depositional environment = Lake sediment	15-13-15	2	SS	0
25						
30	GC	75% Gravel (.25-1"), 15% Sand, 10% Silt and Clay. 10YR6/5 pale brown; non-plastic; soft loose; dry; no apparent bedding; Gravel is subrounded to angular, poorly sorted; Sample Interval was 29.0 to 29.5 Depositional environment = Alluvial outwash	50/	3	G	0
35	ML	55% Silt, 45% Clay. 2.5YR5/3 light olive brown; high plasticity; stiff; dense; moist; no apparent bedding. Sample Interval 39.0 to 40.5. Depositional environment = Lake sediment	8-11-21	4	SS	0
40						
45	GC	Gravel is 1/4-3/4" in size, subrounded to angular, hard, damp and clean. Sample Interval was 44 to 46, Sample collected from cyclone.	NA	5	G	0
50	CL	60% Clay, 40% Silt, 10YR5/3 brown; stiff; dense; moist; no apparent bedding planes. Sample Interval was 49 to 50.5. Depositional environment = Lake sediments	22-25-25	6	SS	0
55						
60		Lithology remained unchanged color change to 10YR6/3 pale brown. Sample Interval was 59.0 to 59.5	NA	7	G	0
65						
70	ML	60% Silt, 25% Clay, 15% Sand 10YR5/3 brown; medium plasticity; dense; stiff; moist; no apparent bedding. Sample Interval was 69 to 70.5. Depositional environment = lake sediments	10-11-20	8	SS	0
75						

Well Const. As-Built



SOIL BORING/WELL LOG

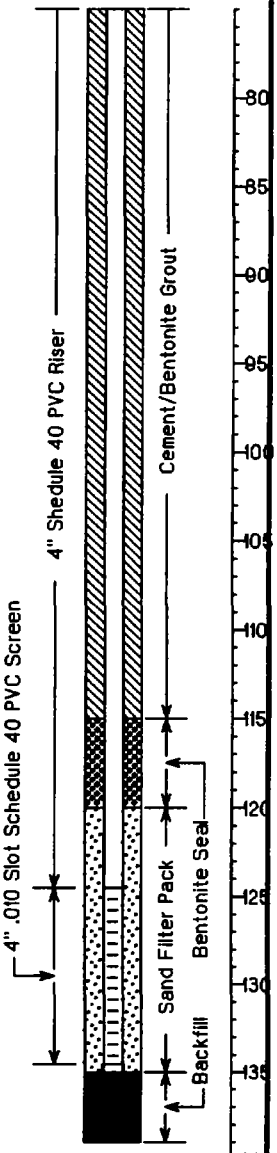
Project Name: TEAD-S Phase II RFI
SAIC Project No.: 01-0827-03-6523
Geologist: Mike Miles
Drilling Co.: Layne Environmental Inc.
Driller: Kevin Cross
Drill Rig: A.P. 1000

Site Location: SWMU 19
Northing (ft): 2219784.42
Easting (ft): 428919.48
Groundwater Elev. (ft): 5117.04 on 09/26/94
Drilling Method: Dual Wall Percusion
Sampling Method: Split Spoon/Grab

Monitoring Well No.: S-113-94
Start/Finish Date: 09-25-94/09-26-94
Well Completion Depth (ft): 135.0
Drilled Depth (ft): 139.0
Surface Pad Elevation (ft): 5229.04
Top of Casing Elevation (ft): 5231.00

Depth (feet)	Soil Class USCS	Lithologic Symbol	Material Description	Blows/6 in.	Sample #	Sample Type	HNU (ppm)
80			60 % Silt, 40% Clay fragments of Mudstone (.25"-.75"). 10YR5/3 pale brown; high plasticity; medium consistency; stiff; moist; dense; Sample Interval was 79.0 to 80.5	6-8-13	9	SS	0
100	ML		45% Clay, 35% Silt, 20% Sand. 10YR5/3 brown; medium plasticity; stiff; dense; moist; no apparent bedding. Some iron staining in micro-fractures. 99.0 to 100.5 .Depositional environments = Lake sediments	7-10-21	10	SS	0
			Sample Interval was 109 to 109.5; Sample was collected fron cyclone.				
110				NA	12	G	0
120			60% Silt, 25% Clay, 15% Sand. 10YR5/3 brown; medium dense; moist; no apparent bedding. organics in micro-fractues. Depositional environment = Lake Sediment	20-23-26	13	SS	0
130	SP GC		100% Sand 10YR3/1 very dark gray. Very fine to fine grained sands subrounded to rounded, moderately sorted, wet, groundwater encountered	25-50/4	14	SS	0
135	ML		80% Gravel, 15% Sand, 5% Silt, 10YR5/3 brown; Gravel 0.25 to 1" in size; rounded to subrounded, poorly sorted; loose and saturated. Clear bedding contact between sand and gravel. Dep[ositional environment = Lake Sediments. Sample Interval = Alluvial outwash	NA	15	G	0
140			60% Silt, 30% Clay; 10% Sand. 10YR5/3 brown; medium plasticity; stiff: dense; moist; no apparent bedding planes. Depositional environment = Lake sediments				
145			*Bottom of Boring at 139.0 feet*				
150			*NOTE:NR=Not Recorded, NA=Not Applicable Borehole Diameter=9.5"*				

Well Const. As-Built



WL1

WELL DRILLER'S REPORT
State of Utah
Division of Water Rights

For additional space, use "Additional Well Data Form" and attach

Well Identification MONITOR WELL: 94-15-002-M-01

Owner *Note any changes*
SAIC - Tooele Army Depot
P.O. Box 1303
McLean, VA 22102

Contact Person/Engineer: John Pendleton

Well Location *Note any changes*
NORTH 1600 feet EAST 2750 feet from the SW Corner of SECTION 7, TOWNSHIP 6S, RANGE 4W, SLB&M.

Location Description: (address, proximity to buildings, landmarks, ground elevation, local well #)

Drillers Activity
Start Date: 9-19-94 Completion Date: 10-1-94
Check all that apply:
[X] New [ ] Repair [ ] Deepen [ ] Abandon [ ] Replace [ ] Public Nature of Use:

DEPTH (feet) FROM	TO	BOREHOLE DIAMETER (in)	DRILLING METHOD	DRILLING FLUID
0	139	9	Percussin hammer	Air

Well Log

DEPTH (feet) FROM	TO	WATER	PERMEABLE High	PERMEABLE Low	UNCONSOLIDATED CLAY	SILT	SAND	GRAVEL	COBBLES	BOULDER	OTHER	CONSOLIDATED ROCK TYPE	COLOR	DESCRIPTIONS AND REMARKS (include comments on *water quality* if known.)
0	139				X	X		X	X					

Static Water Level
Date 9-26-94 Water Level 130 feet Flowing? [ ] Yes [X] No
Method of Water Level Measurement _____ If Flowing, Capped Pressure _____ PSI
Point to Which Water Level Measurement was Referenced _____
Height of Water Level reference point above ground surface _____ feet Temperature _____ [ ] °C [ ] °F

Construction Information

DEPTH (feet) FROM	TO	CASING: CASING TYPE AND MATERIAL/GRADE	WALL THICK (in)	NOMINAL DIAM. (in)	DEPTH (feet) FROM	TO	SCREEN X PERFORATIONS: SLOT SIZE OR PERF SIZE (in)	SCREEN DIAM. OR PERF LENGTH (in)	SCREEN TYPE OR NUMBER PERF (per round/interval)
0	125	Sch. 40 PVC		4	125	135	.010		

Well Head Configuration: Above grade Access Port Provided? ☒ Yes ☐ No

Casing Joint Type: Flush thread Perforator Used:

DEPTH (feet) FROM	TO	FILTER PACK / GROUT / PACKER / ABANDONMENT MATERIAL: ANNULAR MATERIAL, ABANDONMENT MATERIAL and/or PACKER DESCRIPTION	Quantity of Material Used (if applicable)	GROUT DENSITY (lbs./gal.,# bag mix, gal./sack etc.)
120	135	10-20 Sand	14	
115	120	Bentonite seal, pellets	2	
0	115	Portland cement	28	

Well Development / Pump or Bail Tests

Date	Method	Yield	Units Check One GPM	CFS	DRAWDOWN (ft)	TIME PUMPED (hrs & min)

Pump (Permanent)

Pump Description: Horsepower: Pump Intake Depth: feet

Approximate maximum pumping rate: Well disinfected upon completion? ☐ Yes ☐ No

Comments

Description of construction activity, additional materials used, problems encountered, extraordinary circumstances, abandonment / procedures. *Use additional well data form for more space.*

Well Driller Statement

This well was drilled or abandoned under my supervision, according to applicable rules and regulations, and this report is complete and correct to the best of my knowledge and belief.

Name Layne Environmental Services License No. 626
(Person, Firm, or Corporation – Print or Type)

Signature (Licensed Well Driller) Date 10-18-94

SAIC® An Employee-Owned Company

Well Development Form

(Field Sheet)

Project Name and Number: TOOELE-SOUTH 01-0827-03-6523-020

Well Number and Location: MW 5-113-99

Development Crew: MARK MCGUIRE Driller (if applicable): DAN PLOTTS

Water Levels/Time: Initial: 109.98' Pumping: _____ Final: _____

Total Well Depth: Initial: 135' Final: 135'

Date and Time: Begin: 10-3-99 14:45 Completed: 16:15 10-3-99

Development: Method(s): SUBMERSIBLE PUMP

Total Quantity of Water Removed: PUMPED 165 GALS gals
BAILED 100 GALS (DONE AT PREVIOUS TIME)

Date/Time and Pump Setting	Discharge Rate* and Measurement Method	Field Measurements				Remarks (Including Sand Production)
		Temp (°C)	Specific Conductivity (umhos/cm)	pH (Standard Units)	Turbidity	
10-3-99 14:45	1½ GAL/MIN	13.1		12.52	152.6	BAILING WAS DONE @ AN EARLIER DATE.
15:05	1½ GAL/MIN	14.9		11.35	117.8	- SPECIFIC COND. BATTERY DIED.
15:25	1½ GPM	14.1		8.98	9.31	
15:45	1½ GPM	14.1		8.62	4.93	
16:05	1½ GPM	13.9		8.42	2.45	
16:15	1½ GPM	14.9		8.41	2.06	

*gallons per minute or bailer capacity

SAIC® An Employee-Owned Company

Well Development Form

(Field Sheet)

Project Name and Number: TEAD-5 01.0827-03-6523-021

Well Number and Location: 5-113-94 SWMU 1 (PURGE)

Development Crew: MARIC MCGUIRE JOHN PENDLETON Driller (if applicable): DAN PLOTTS

Water Levels/Time: Initial: 109.98 Pumping: 112. Final: 118

Total Well Depth: Initial: 135' Final: 135

Date and Time: Begin: 10/22/94 0915 Completed: 10/22/94 1020

Development: Method(s): 4" ~~GROUNDFOS~~ 16E SUBMERSIBLE PUMP GRUNDFOS

Total Quantity of Water Removed: 165 ~~145~~ JP gals

Date/Time and Pump Setting	Discharge Rate* and Measurement Method	Field Measurements				Remarks (Including Sand Production)
		Temp (°C)	Specific Conductivity (umhos/cm)	pH (Standard Units)	Turbidity	
10/22	PUMP					WATER IS
9:17	1.5 GPM	11.8	261X10	11.98	52.1	CLOUDY, WHITE W/ SMALL FLOCS
9:32	1.5 GPM	13.1	73X10	10.97	6.51	MUCH CLEARER, LOT LESS
9:47	1.5 GPM	13.7	59X10	10.51	2.55	FLOCS
10:02	1.54 GPM	13.6	58X10	10.07	3.51	
10:05	1.5 GPM	13.6	57X10	10.10	3.41	
10:20	STOPPED PUMPING, TOTAL OF 145 GALLONS PUMPED					
10:~~18~~ 10	BEGAN PUMPING AT ~8 GAL. PER MINUTE FOR EXTRA DRAW DOWN FOR SLUG TEST					
10:17	1.5 GPM	14.7	59X10	9.57	3.01	
DRUM #S RSW1974285 01, 502, 503						

*gallons per minute or bailer capacity

SAIC
An Employee-Owned Company

Sampling Form
(Field Sheet)

Project Name and Number: TEAD-S 01-0827-03-6523-021

Sampling Crew: MARK MCGUIRE JOHN PENDLETON

Sampling Point Number: S-113-99

Sampling Location: SWMU 19

Sample Type: ☒ GW ☐ SW ☐ Soil ☐ SED ☐ Other: _____

Date and Time Sample Collected: 10/22/99 ~~0917~~ AM 1210

Weather Conditions: SUNNY, 50°F

Purging Information (if applicable):

Method: 4" GRUNDFOS 16E SUBMERSIBLE PUMP

Quantity of Water Purged: 165 GAL

Disposition of Purge Water: WATER IS SLIGHTLY CLOUDY W/ VERY SMALL FLOCS AND SOME PRODUCT FLOATING ON TOP.

Date and Time of Purging: Start: 10/22/99 0915 End: 10/22/99 1020

Comments: FIELD MEASURMENTS TAKEN DURING PURGING.
@ 10:17 1.5 GPM pH: 9.57 TEMP(°C): 14.7° COND: 59 X 10 Mmhos/cm TURBIDITY: 3.01 NTU

Groundwater:

Date and Time Collected: 10/22/99 1210

Sampling Depth: ~~109.98~~

Water Level: INITIAL WATER LEVEL = 109.98' TOC (TOP OF CASING)

Sampling Method/Equipment: STAINLESS STEEL BAILOR.

Field Measurements: pH _____ Temp: _____ Cond: _____ Alkalinity: _____

Date and Time Filtered (if applicable): NA

Comments: FIELD MEASUREMENTS TAKEN DURING PURGING.

Surface Water:

Date and Time Collected: _____

Collection Method: _____

Date and Time Filtered (if applicable): _____

Field Measurements: pH _____ Temp: _____ Cond: _____ Turbidity: _____

Comments: _____

Soils/Sediment Sampling:

Date and Time Collected: _____

Sampling Depth: _____

Sampling Method: _____

Comments: _____

SAIC
An Employee-Owned Company

Sampling Form
(Field Sheet)

Project Name and Number: Tooele South RFI 01-0827-03-6523-025
Sampling Crew: J. Carter, J. SKIBINSKE, J. PENDLETON
Sampling Point Number: S-113-94
Sampling Location: SWMU 19, South of Building 536
Sample Type: ☒ GW ☐ SW ☐ Soil ☐ SED ☐ Other:
Date and Time Sample Collected: 1/27/95 1310
Weather Conditions: Partly Cloudy & Clearing Temp 30's, Wind 2-3mph SE

Purging Information (if applicable):
Method: 4" GrundFos Submersible Pump
Quantity of Water Purged: 95 gallons
Disposition of Purge Water: Clear

Date and Time of Purging: Start: 1/27/95 1135 End: 1/27/95 1238
Comments:

Groundwater:
Date and Time Collected: 1/27/95 1310
Sampling Depth: 109' BTOC
Water Level: 109.65 BTOC
Sampling Method/Equipment: PVC Bailer (Dedicated)
Field Measurements: pH 10.62 Temp: 9 °C Cond: 55 umhos/cm Alkalinity:
Date and Time Filtered (if applicable): NA
Comments:

Surface Water:
Date and Time Collected:
Collection Method:
Date and Time Filtered (if applicable):
Field Measurements: pH _____ Temp: _____ Cond: _____ Turbidity: _____
Comments:

Soils/Sediment Sampling:
Date and Time Collected:
Sampling Depth:
Sampling Method:
Comments:

An Employee-Owned Company

Well Purging/Sampling Form

(Field Sheet)

Project Name and Number: Deseret Chemical Depot 01-0827-03-6523

Well Number and Location: S-113-94 SWMU 19

Sampling Crew: John Carter, Knut Torgerson, Patrick Sorderburg

Pump Depth/Total Depth (btoc): 125'

Purging Method: Submersible Pump EPA Low Flow Method

Quantity of Water Removed: 12 gal Screen Length:

Sample Number: S-113-94 (SAIC01, SAIC01D, SAIC01N, SAIC01ND)

Date/Time 11/16/98 1300 - 1430

Trip Blank Number: S-113-94 (SAICTB01) Sampled by:

FIELD MEASUREMENTS

Date/Time	Rate (GPM)	Volume (gals.)	Water Level (BTOC)	Temp (°C)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)
11/16/98 1315	.25	4	106.87'	14.2	10.01	.660	317	7.55	116.4
11/16/98 1323	.25	6	106.87'	14.4	9.74	.709	18	7.46	148.1
11/16/98 1331	.25	8	106.87'	14.5	9.56	.706	0	7.43	165.3
11/16/98 1339	.25	10	106.87'	14.6	9.49	.707	0	7.41	175.5
11/16/98 1347	.25	12	106.87'	14.7	9.47	.697	0	7.47	178.1

GPM = Gallons per Minute LPM = Liters per Minute BTOC = Below Top of Casing

Comments: Equipment Rinsate = S-113-94 (SAICRB01) @1150

Form Completed by: Ty Grivat

One well volume = (H × W) + {0.33[(SH × B) - (SH × W)]}
Where: H = water column, W = well multiplier (2" = 0.16, 4" = 0.65), SH = screen height,
B = borehole diameter multiplier (for 6" = 1.47, 8" = 2.61, 10" = 4.08, 12" = 5.89)

SWMU 19
MONITORING WELL S-114-94

SOIL BORING/WELL LOG

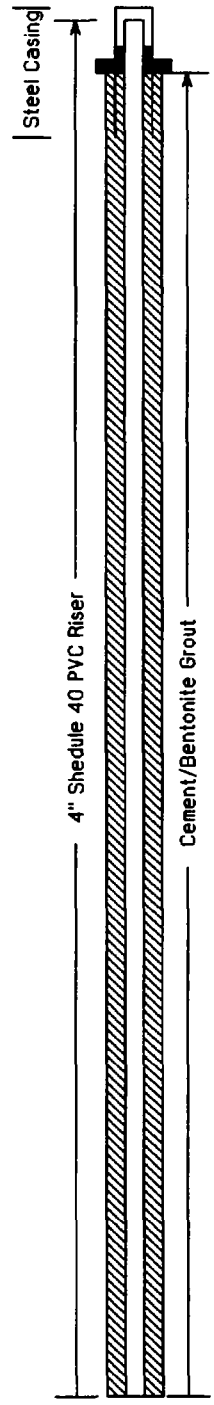
Project Name: TEAD-S Phase II RFI
SAIC Project No.: 01-0827-03-6523
Geologist: Mike Miles
Drilling Co.: Layne Environmental Inc.
Driller: Kevin Cross
Drill Rig: A.P. 1000

Site Location: SWMU 19
Northing (ft): 2219807.33
Easting (ft): 428893.36
Groundwater Elev. (ft): 5121.96 on 10/22/94
Drilling Method: Dual Wall Percusion
Sampling Method: Split Spoon/Grab Samples

Monitoring Well No.: S-114-94
Start/Finish Date: 09-27-94/09-27-94
Well Completion Depth (ft): 135.0
Drilled Depth (ft): 135.0
Surface Pad Elevation (ft): 5229.03
Top of Casing Elevation (ft): 5230.81

Depth (feet)	Soil Class USCS	Lithologic Symbol	Material Description	Blows/6 in.	Sample #	Sample Type	HNU (ppm)
0	GC		55% Gravel (2-5"), 20% Sand, 20% Silt, 5% Clay. 10YR7/3 pale brown; no plasticity; loose; dry; no apparent bedding				
10	GC		70% Gravel, 15% Sand, 10% Silt, 5% Clay. 10YR7/3 pale brown; no plasticity; loose; dry; no apparent bedding; Sample Interval was 9.0 to 9.5; Depositional environment = Lake sediment	NA	1	G	0
20	CL		55% Clay, 45% Silt, 5% Sand. 10YR6/4 light yellowish brown; high plasticity; stiff; dense; moist; no apparent bedding. Sample Interval was 19.0 to 20.2. Depositional environment = Lake Sediment	11-15-15	2	SS	0
30	CL		Grab, Sample Interval was 29.0 to 29.5	NA	3	G	0
40	ML		50% Silt, 30% Gravel; 10% Silt; 10% Clay. 10 YR6/5 pale brown; no plasticity; loose; soft; dry; no apparent bedding; Gravel sub-rounded to angular; Sample Interval was 39.0 to 40.5. Depositional environment = Alluvial outwash	7-15-16	4	SS	0
50	CL		55% Clay, 45% Silt. 2.5YR5/3 light olive brown; high plasticity; stiff; dense; no apparent bedding. Grab, Sample Interval was 49 to 49.5. Depositional environment = Lake sediment	NA	5	G	0
	GC						

Well Const. As-Built



SOIL BORING/WELL LOG

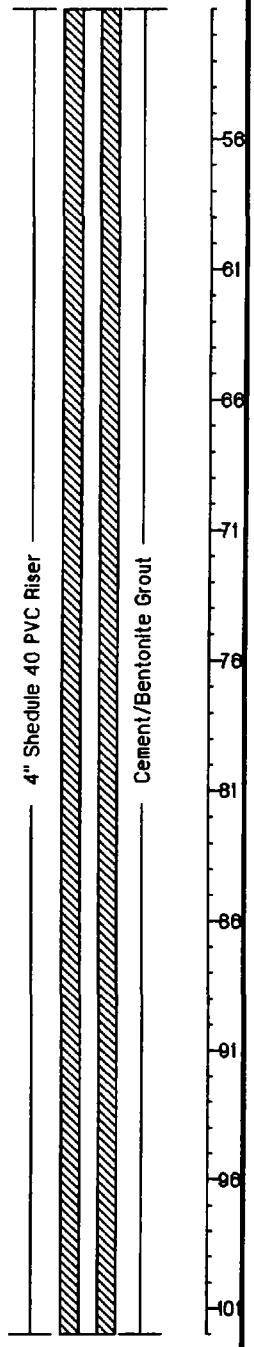
Project Name: TEAD-S Phase II RFI
SAIC Project No.: 01-0827-03-6523
Geologist: Mike Miles
Drilling Co.: Layne Environmental Inc.
Driller: Kevin Cross
Drill Rig: A.P. 1000

Site Location: SWMU 19
Northing (ft): 2219807.33
Easting (ft): 428893.36
Groundwater Elev. (ft): 5121.96 on 10/22/94
Drilling Method: Dual Wall Percusion
Sampling Method: Split Spoon/Grab Samples

Monitoring Well No.: S-114-94
Start/Finish Date: 09-27-94/09-27-94
Well Completion Depth (ft): 135.0
Drilled Depth (ft): 135.0
Surface Pad Elevation (ft): 5229.03
Top of Casing Elevation (ft): 5230.81

Depth (feet)	Soil Class USCS	Lithologic Symbol	Material Description	Blows/6 in.	Sample #	Sample Type	HNU (ppm)
	GC		90% Gravel, (Limestones and Sandstones 4-5"). 10% Silt. dark grey limestones intermixed with light reddish brown sandstones; poorly sorted; sub-rounded to angular; Sample Interval was 59.0 to 60.5				
56	ML		60% Silty Clay, 40% Silt, 10YR5/3 brown; high plasticity; hard; dense; stiff; moist; no apparent bedding; Grab; Sample Interval was 69.0 to Depositional environment = Lake Sediment Interval was 69.0 to 69.5; Sample Recovery = NA	4-22-23	6	SS	0
61							
66				NA	7	G	0
71							
76			Sample Interval was 79 to 79.5	37/50/3	8	SS	0
81			50% Silt, 50% Clay, <10% Sand Siltstone, 10YR5/3 brown; Mohr hardness = 2; medium plasticity; no apparent bedding; Sample Interval was 89 to 89.5; Depositional environment = Lake sediment				
86				NA	9	G	0
91							
96	CL		45% Clay, 45% Silt, 10% Sand fine to very fine. 10YR5/3 brown; medium plasticity; stiff; dense; moist no apparent bedding; some iron staining in the microfractures; Sample Interval was 99.0 to 100.5; Depositional environment = Lake sediment	7-14-18	10	SS	0
101							

Well Const. As-Built



SOIL BORING/WELL LOG

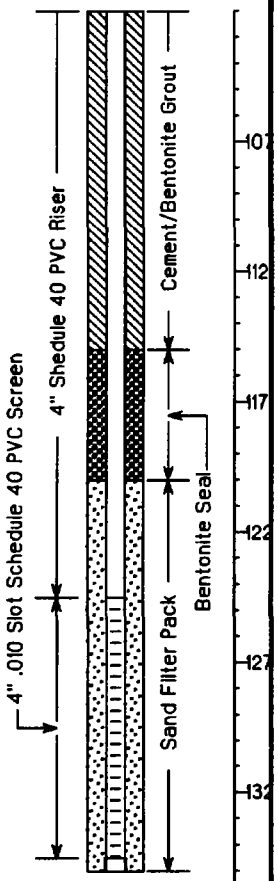
Project Name: TEAD-S Phase II RFI
SAIC Project No.: 01-0827-03-6523
Geologist: Mike Miles
Drilling Co.: Layne Environmental Inc.
Driller: Kevin Cross
Drill Rig: A.P. 1000

Site Location: SWMU 19
Northing (ft): 2219807.33
Easting (ft): 428893.36
Groundwater Elev. (ft): 5121.96 on 10/22/94
Drilling Method: Dual Wall Percusion
Sampling Method: Split Spoon/Grab Samples

Monitoring Well No.: S-114-94
Start/Finish Date: 09-27-94/09-27-94
Well Completion Depth (ft): 135.0
Drilled Depth (ft): 135.0
Surface Pad Elevation (ft): 5229.03
Top of Casing Elevation (ft): 5230.81

Depth (feet)	Soil Class USCS	Lithologic Symbol	Material Description	Blows/6 in.	Sample #	Sample Type	HNU (ppm)
107	CL						
			60 %Silt, 25% Clay, 15% Sand. 10YR5/3 brown, medium dense; moist; no apparent bedding; some black material in microfractures. Sample Sample Interval was 109.0 to 110.5; Depositional environment = Lake Lake sediment	9-24-38	11	SS	0
112							
117	SP						
122							
127	GC		100% Sand (fine to very fine grained). 10YR grayish black; moderate sorting; subangular to subrounded; saturated; Depositional environment = Alluvial Outwash	10-16-23	12	SS	0
132	CL		80% Gravel (.25-1.0), 15% Sand, 5% Clay/Silt. 10YR5/3 brown; poorly sorted; loose; saturated; clear bedding contact; sub rounded to angular. Sample Interval was 129 to 130.5; Depositional environment = Alluvial Outwash				
137			55% Clay, 35% Silt, 5% Sand. 10YR5/3 brown; high plasticity; stiff; dense; moist; no apparent bedding. Lake Sediment				
			Bottom of Boring at 135.0 feet				
142			*NOTE:NR=Not Recorded, NA=Not Applicable Borehole Diameter=9.5"*				
147							
152							

Well Const. As-Built



WI.I

WELL DRILLER'S REPORT
State of Utah
Division of Water Rights

For additional space, use "Additional Well Data Form" and attach

Well Identification: MONITOR WELL: 94-15-002-M-03

Owner *Note any changes*
SAIC - Tooele Army Depot
P.O. Box 1303
McLash, VA 22102

Contact Person/Engineer: John Pendleton

Well Location *Note any changes*
NORTH 1650 feet EAST 2950 feet from the SW Corner of SECTION 7, TOWNSHIP 6S, RANGE 4W, SLB&M.

Location Description: (address, proximity to buildings, landmarks, ground elevation, local well #)

Drillers Activity

Start Date: 9-19-94 Completion Date: 10-1-94

Check all that apply:
[X] New [ ] Repair [ ] Deepen [ ] Abandon [ ] Replace [ ] Public Nature of Use:

DEPTH (feet) FROM	TO	BOREHOLE DIAMETER (in)	DRILLING METHOD	DRILLING FLUID
0	135	9	Percussion hammer	Air

Well Log

DEPTH (feet) FROM	TO	WATER	PERMEABLE high	PERMEABLE low	UNCONSOLIDATED CLAY	SILT	SAND	GRAVEL	CONSOLIDATED COBBLES	BOULDER	OTHER	ROCK TYPE	COLOR	DESCRIPTIONS AND REMARKS (include comments on *water quality* if known.)
0	135				X	X		X	X					

Static Water Level

Date 9-28-94 Water Level 130 feet Flowing? [X] Yes [ ] No

Method of Water Level Measurement If Flowing, Capped Pressure PSI

Point to Which Water Level Measurement was Referenced

Height of Water Level reference point above ground surface feet Temperature [ ] °C [ ] °F

Construction Information

DEPTH (feet) FROM	TO	CASING: CASING TYPE AND MATERIAL/GRADE	WALL THICK (in)	NOMINAL DIAM. (in)	DEPTH (feet) FROM	TO	SCREEN ☒ PERFORATIONS ☐: SLOT SIZE OR PERF SIZE (in)	SCREEN DIAM. OR PERF LENGTH (in)	SCREEN TYPE OR NUMBER PERF (per round/interval)
0	125	Sch. 40 PVC		4	125	135	.010		

Well Head Configuration: Above grade Access Port Provided? ☒ Yes ☐ No

Casing Joint Type: Flush thread Perforator Used:

DEPTH (feet) FROM	TO	FILTER PACK / GROUT / PACKER / ABANDONMENT MATERIAL: ANNULAR MATERIAL, ABANDONMENT MATERIAL and/or PACKER DESCRIPTION	Quantity of Material Used (if applicable)	GROUT DENSITY (lbs./gal.-# bag mix, gal./sack etc.)
120	135	10-20 Sand	9	
115	120	Bentonite seal, pellets	2	
0	115	Portland cement	32	

Well Development / Pump or Bail Tests

Date	Method	Yield	Units Check One GPM	CFS	DRAWDOWN (ft)	TIME PUMPED (hrs & min)

Pump (Permanent)

Pump Description: Horsepower: Pump Intake Depth: feet

Approximate maximum pumping rate: Well disinfected upon completion? ☐ Yes ☐ No

Comments

Description of construction activity, additional materials used, problems encountered, extraordinary circumstances, abandonment / procedures. *Use additional well data form for more space.*

Well Driller Statement

This well was drilled or abandoned under my supervision, according to applicable rules and regulations, and this report is complete and correct to the best of my knowledge and belief.

Name Layne Environmental Services License No. 626
(Person, Firm, or Corporation – Print or Type)

Signature (Licensed Well Driller) Date 10-18-94

SAIC® An Employee-Owned Company

Well Development Form

(Field Sheet)

Project Name and Number: TOOELE - SOUTH 01-0827-03-6523-020

Well Number and Location: MW S-114-94

Development Crew. MARK MAGUIRE Driller (if applicable): DAN PLOTTS

Water Levels/Time: Initial: 109.55 9:30 Pumping _____ Final: _____

Total Well Depth: Initial: 135' Final: 135'

Date and Time: Begin: 10-3-94 9:30 Completed: 10:55 10/3/94

Development: Method(s): BAILING WITH 6 GAL. S.S. BAILER & PUMPING W. SUBMERSIBLE PUMP.

Total Quantity of Water Removed: 100 (BAILING) gals

Date/Time and Pump Setting	Discharge Rate* and Measurement Method	Field Measurements				Remarks (Including Sand Production)
		Temp (°C)	Specific Conductivity (umhos/cm)	pH (Standard Units)	Turbidity	
10-3 9:50	6 GAL BAILOR	9.9		10.64	~~2,30~~ >200	M.M.
10:20		10.8		8.35	~~1213~~ >200	M.M.
10:35		11.0		8.08	>200	SPECIFIC CONDUCTIVITY METER HAD A DEAD BATTERY

*gallons per minute or bailer capacity

SAIC® An Employee-Owned Company

Well Development Form

(Field Sheet)

Project Name and Number: TOOELE SOUTH 01-0824-03-6523-020

Well Number and Location: MW-S-11 A.M. -94

Development Crew: MARK MCGUIRE Driller (if applicable): DAN PLOTTS

Water Levels/Time: Initial: _____ Pumping: _____ Final: _____

Total Well Depth: Initial: 135' Final: 135'

Date and Time: Begin: 10-3-94 12:00 Completed: 1:30 10-3-94

Development: Method(s): SUBMERSIBLE PUMP 4" GRUNDFOS

Total Quantity of Water Removed: 100 (BAILING) + 110 PUMPING = 210 TOTAL gals

Date/Time and Pump Setting	Discharge Rate* and Measurement Method	Field Measurements				Remarks (Including Sand Production)
		Temp (°C)	Specific Conductivity (umhos/cm)	pH (Standard Units)	Turbidity	
10-3 12:15	2½ GAL/MIN	12.3		8.53	110.3	SPECIFIC CONDUCTIVITY METER BATTERY IS DEAD.
12:40	1 GAL/MIN	13.3		7.87	8.90	STEADY FLOW WAS EASILY OBTAINABLE.
1:00	1 GAL/MIN	13.9		7.77	1.81	
1:10	1 GAL/MIN	14.0		7.90	2.96	
1:20	1 GAL/MIN	14.0		7.85	1.17	
1:30	1 GAL/MIN	14.0		7.79	2.02	

*gallons per minute or bailer capacity

SAIC® An Employee-Owned Company

Well Development Form

(Field Sheet)

Project Name and Number: TEAD-5 01-0827-03-6527-021

Well Number and Location: S-114-99 SWMU 19

Development Crew: MARK MCGUIRE JOHN ANDLETON Driller (if applicable): DAN PLOTTS

Water Levels/Time: Initial: 109.85' Pumping: 121 Final: 121

Total Well Depth: Initial: 135' Final: 135'

Date and Time: Begin: 10/22/94 13:15 Completed: 10/22/94 1420

Development: Method(s): 4" SUBMERSIBLE PUMP WITH DATA LOGGER

(H_2O MEASUREMENT OF FLOW RATE W/ FLOW METER AT WELL HEAD)

Total Quantity of Water Removed: 85 GALS gals

Date/Time and Pump Setting	Discharge Rate* and Measurement Method	Field Measurements				Remarks (Including Sand Production)
		Temp (°C)	Specific Conductivity (umhos/cm)	pH (Standard Units)	Turbidity (NTU)	
10/22/94						
13:25	1.54 GPM	14.8	118X10	11.53	79.8	VERY TURBID BUT NO SILTS.
13:40	1.59 GPM	16.0	70X10	9.29	3.09	
13:55	1.23 GPM	15.8	71X10	8.59	0.58	
1410	1.23 GPM	15.0	70X10	8.40	0.18	
1413	1.23 GPM	14.9	70X10	8.38	0.16	
1415	1.23 GPM	15.0	70X10	8.41	0.16	
1420	STOP PUMPING ACTIVITIES					
PUMP INTAKE SET AT 127' BTOC						
DATA LOGGER SET AT 125' BTOC						

*gallons per minute or bailer capacity

SAIC
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Sampling Form
(Field Sheet)

Project Name and Number: TEAD-S

Sampling Crew: MARK MCGUIRE + JOHN PENDLETON

Sampling Point Number: S-119-94

Sampling Location: SWMU 19

Sample Type: ☒ GW ☐ SW ☐ Soil ☐ SED ☐ Other: _____

Date and Time Sample Collected: 10/22/94 1542

Weather Conditions: SUNNY, 50°F.

Purging Information (if applicable):

Method: 4" GRUNDFOS 10E SUBMERSIBLE PUMP

Quantity of Water Purged: 85 GAL

Disposition of Purge Water: CLEAR WATER W/SOME PRODUCT FLOATING ON TOP.

Date and Time of Purging: Start: 10/22/94 1315 End: 10/22/94 1920

Comments: FIELD MEASUREMENTS TAKING DURING PURGING.
@ 1415 1.23GPM pH: 8.91 TEMP: 15.0 COND: 70X10 Mmhos/cm TURBIDITY: 0.16 NTU

Groundwater:

Date and Time Collected: 10/22/94 1542

Sampling Depth: _____

Water Level: INITIAL WATER SURFACE LEVEL = 109.85' TOC

Sampling Method/Equipment: STAINLESS STEEL BAILOR.

Field Measurements: pH _____ Temp: _____ Cond: _____ Alkalinity: _____

Date and Time Filtered (if applicable): NA

Comments: FIELD MEASUREMENTS TAKEN DURING PURGING.

Surface Water: NA

Date and Time Collected: _____

Collection Method: _____

Date and Time Filtered (if applicable): _____

Field Measurements: pH _____ Temp: _____ Cond: _____ Turbidity: _____

Comments: _____

Soils/Sediment Sampling: NA

Date and Time Collected: _____

Sampling Depth: _____

Sampling Method: _____

Comments: _____

* TOC - TOP OF CASING

SAIC
An Employee-Owned Company

Sampling Form
(Field Sheet)

Project Name and Number: TOOELE South RFI 01-0827-03-6523-025
Sampling Crew: J. Carter, J. SKIBINSKI, J. Pendleton
Sampling Point Number: WELL S-114-94
Sampling Location: SWMU-19, South of Building 536
Sample Type: ☒ GW ☐ SW ☐ Soil ☐ SED ☐ Other: _____
Date and Time Sample Collected: 1/28/95 11:50
Weather Conditions: Sunny 35°F

Purging Information (if applicable):
Method: 3 7/8" Submersible Pump (GRUNDFOS)
Quantity of Water Purged: 85 gallons
Disposition of Purge Water: Clear

Date and Time of Purging: Start: 1/28/95 0924 End: 1/28/95 1055
Comments: _____

Groundwater:
Date and Time Collected: 1/28/95 11:50
Sampling Depth: 122' BTOC
Water Level: 109.21' BTOC
Sampling Method/Equipment: Dedicated PVC Bailer
Field Measurements: pH 7.62 Temp: 13°C Cond: 58 umHOS/cm Alkalinity: _____
Date and Time Filtered (if applicable): _____
Comments: _____

Surface Water:
Date and Time Collected: _____
Collection Method: _____
Date and Time Filtered (if applicable): _____
Field Measurements: pH _____ Temp: _____ Cond: _____ Turbidity: _____
Comments: _____

Soils/Sediment Sampling:
Date and Time Collected: _____
Sampling Depth: _____
Sampling Method: _____
Comments: _____

An Employee-Owned Company

Well Purging/Sampling Form

(Field Sheet)

Project Name and Number: Deseret Chemical Depot 01-0827-03-6523

Well Number and Location: S-114-94 SWMU 19

Sampling Crew: John Carter, Knut Torgerson, Patrick Sorderburg

Pump Depth/Total Depth (btoc): 130'/138'

Purging Method: Submersible Pump EPA Low Flow Method

Quantity of Water Removed: 13 gal Screen Length:

Sample Number: S-114-94 (SAIC01)

Date/Time 11/16/98 1515 - 1645

Trip Blank Number: SAICTB01 Sampled by:

FIELD MEASUREMENTS

Date/Time	Rate (GPM)	Volume (gals.)	Water Level (BTOC)	Temp (°C)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)
11/16/98 1527	.25	3	105.42'	12.4	11.96	.759	0	7.54	227.5
11/16/98 1535	.25	5	105.42'	13.1	11.66	.679	0	7.61	194.3
11/16/98 1543	.25	7	105.42'	13.3	9.67	.677	0	7.73	235.4
11/16/98 1551	.25	9	105.42'	13.2	9.20	.693	0	7.84	240.1
11/16/98 1559	.25	11	105.42'	13.1	9.15	.701	0	7.89	242.8
11/16/98 1607	.25	13	105.42'	13.0	9.11	.699	0	7.95	239.5

GPM = Gallons per Minute LPM = Liters per Minute BTOC = Below Top of Casing

Comments:

Form Completed by: Ty Grivat

One well volume = (H × W) + {0.33[(SH × B) - (SH × W)]}
Where: H = water column, W = well multiplier (2" = 0.16, 4" = 0.65), SH = screen height,
B = borehole diameter multiplier (for 6" = 1.47, 8" = 2.61, 10" = 4.08, 12" = 5.89)

SWMU 19
MONITORING WELL S-115-94

SOIL BORING/WELL LOG

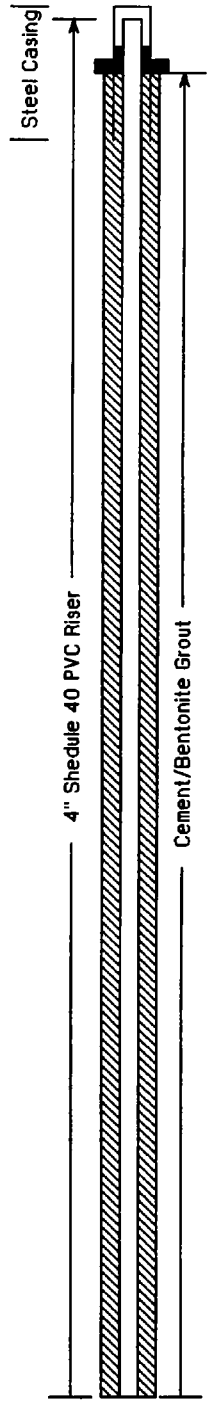
Project Name: TEAD-S Phase II RFI
SAIC Project No.: 01-0827-03-6523
Geologist: Mike Miles
Drilling Co.: Layne Environmental Inc.
Driller: Kevin Cross
Drill Rig: A.P. 1000

Site Location: SWMU 19
Northing (ft): 2219830.58
Easting (ft): 428867.18
Groundwater Elev. (ft): 5232.66 on 09/29/94
Drilling Method: Dual Wall Percussion
Sampling Method: Split Spoon/Grab

Monitoring Well No.: S-115-94
Start/Finish Date: 09-29-94/09-29-94
Well Completion Depth (ft): 138.5
Drilled Depth (ft): 139.0
Surface Pad Elevation (ft): 5232.66
Top of Casing Elevation (ft): 5230.79

Depth (feet)	Soil Class USCS	Lithologic Symbol	Material Description	Blows/6 in.	Sample #	Sample Type	HNU (ppm)
0–5	SP		35% Sand, 30% Gravel, 20% Silt, 15% Clay. Sands medium to coarse grained, subrounded to subangular, poorly sorted intermixed with very dark gray limestone 7.5YR3/1 and light brown sandstones 7.5YR6/3. Gravels are 0.25–1.5" in size, dry sub-rounded to angular and non-plastic. Depositional environment = Alluvial outwash				
5–10	GC		80% Gravel, 10% Sand, 10% Silt, 10% Clay. Very dark gray 7.5YR3/1 limestone 0.5–4" in size; looase ;dry; no apparent bedding. Sands are medium to coarse grained, subrounded and poorly sorted. Sample Sample Interval was 9.0 to 10.5 and was collected from the cyclone. Depositional environment = Alluvial outwash	NA	1	G	0
10–15	GC						
15–20	GC						
20–25	CL		55% Clay, 40% Silt, 5% Sand. 7.5YR6/4 light brown; stiff; dense; moist; moderate plasticity; no apparent bedding. Sample Interval was 19.0 to 20.5. Depositional environments = Lake Sediments	50/5	2	SS	0
25–30	CL						
30–35	CL		Sample Interval was 29.0 to 30.5	15-23-27	3	SS	0
35–40	GC		85% Gravel, 15% Sand. Gravel consisting of intermixed limestone and sandstone; 0.25–1.25" in size, sub-rounded to angular; poorly sorted; Sample Interval was 37.0 to 37.5. Depositional environment = Alluvial outwash	NA	4	G	0
40–45	CL		60% Clay, 40% Silt. 2.5YR5/3 light olive brown; stiff; dense; high plasticity; no apparent bedding. clearly defined contact between this clay and the gravel directly above. Sample Interval was 39.0 to 40.5. Depositional environments = Lake sediments	7-14-19	5	SS	0
45–50	GC		85% Gravel, 10% Sand, 5% Silt. Intermixed limestones and sandstones; 0.25–1.25" in size; sub-rounded to angular; poorly sorted; Sample Interval was 49.0 to 50.5. Depositional environment = Alluvial outwash	50/6	6	SS	0

Well Const. As-Built



SOIL BORING/WELL LOG

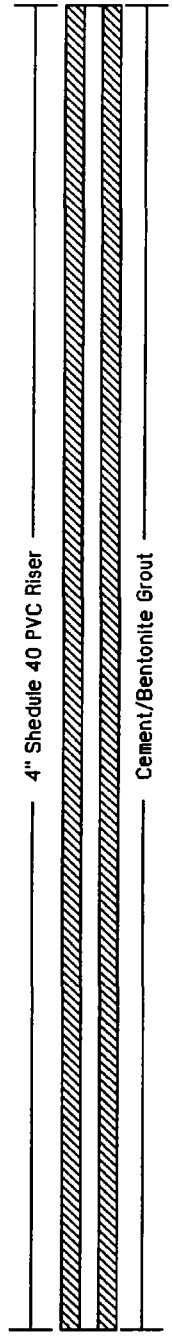
Project Name: TEAD-S Phase II RFI
SAIC Project No.: 01-0827-03-6523
Geologist: Mike Miles
Drilling Co.: Layne Environmental Inc.
Driller: Kevin Cross
Drill Rig: A.P. 1000

Site Location: SWMU 19
Northing (ft): 2219830.58
Easting (ft): 428867.18
Groundwater Elev. (ft): 5232.66 on 09/29/94
Drilling Method: Dual Wall Percussion
Sampling Method: Split Spoon/Grab

Monitoring Well No.: S-115-94
Start/Finish Date: 09-29-94/09-29-94
Well Completion Depth (ft): 138.5
Drilled Depth (ft): 139.0
Surface Pad Elevation (ft): 5232.66
Top of Casing Elevation (ft): 5230.79

Depth (feet)	Soil Class USCS	Lithologic Symbol	Material Description	Blows/6 in.	Sample #	Sample Type	HNU (ppm)
	GC			50/6	6	SS	0
55	CL		60% Clay, 40% Silt, 2.5YR5/3 light olive; brown; stiff; dense; high moist; plasticity; no apparent bedding				
	GC		70% Gravel, 20% Sand, 10% Silt, 10% Clay, Intermixed limestones and sandstones; 0.5–1.5"in size; subrounded to angular; poorly sorted. Sample Interval was 59.0 to 59.5 Depositional environment = Alluvial outwash	NA	7	G	0
60	CL		65% Clay, 35% Silt, 2.5YR5/3 light olive brown; stiff; dense; moist; high plasticity; no apparent bedding. Depositional environments = Lake sediments				
65	GC		70% Gravel, 20% Sand, 10% Clays, Intermixed limestone and sandstones, 0.25 to 1.25" in size, subrounded to angular, poorly sorted. Depositional environment = Alluvial outwash				
70				10-30-25	8	SS	0
	ML		50% Silt, 25% very fine Sand, 25% Clay. 10YR4/3 brown; soft; loose; moist; low plasticity; no apparent bedding; some iron staining in microfratures. Sample Interval was 69.0 to 70.5. Depositional environments = Lake sediments				
75							
80							
85							
			60% Silt, 30% Clay, 10% Sand. 10YR6/4 light yellow brown; dense; moderately cemented; partially decomposed weathered siltstone. Sample Interval was 89.0 to 90.5	50/6	9	SS	0
90							
95	CL		70% Clay, 30% Silt. 5YR5/3 reddish brown; stiff; dense; moist; high plasticity; no apparent bedding. Sample Interval was 99.0 to 100.5. Depositional environments = Lake sediments				
				NA	10	G	0
100							

Well Const. As-Built



SOIL BORING/WELL LOG

Project Name: TEAD-S Phase II RFI
SAIC Project No.: 01-0827-03-6523
Geologist: Mike Miles
Drilling Co.: Layne Environmental Inc.
Driller: Kevin Cross
Drill Rig: A.P. 1000

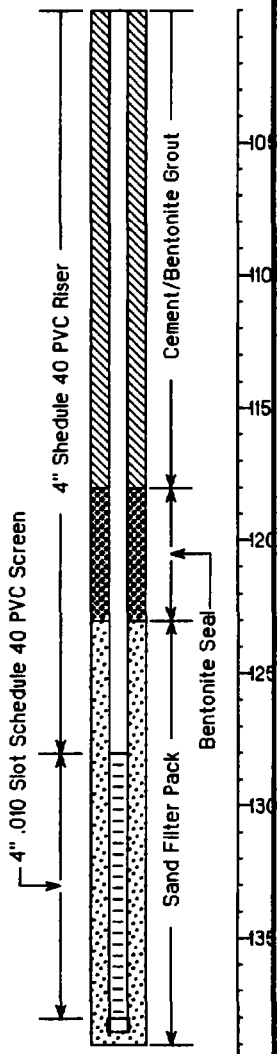
Site Location: SWMU 19
Northing (ft): 2219830.58
Easting (ft): 428867.18
Groundwater Elev. (ft): 5232.66 on 09/29/94
Drilling Method: Dual Wall Percussion
Sampling Method: Split Spoon/Grab

Monitoring Well No.: S-115-94
Start/Finish Date: 09-29-94/09-29-94
Well Completion Depth (ft): 138.5
Drilled Depth (ft): 139.0
Surface Pad Elevation (ft): 5232.66
Top of Casing Elevation (ft): 5230.79

Depth (feet)	Soil Class USCS	Lithologic Symbol	Material Description	Blows/6 in.	Sample #	Sample Type	HNU (ppm)
				NA	10	G	0
			Sample Interval was 109 to 109.5	10-16-22	11	SS	0
	CL			NA	12	G	0
	GC		80% Gravel, 15% Sand, 5% Silt. Intermixed limestone and sandstone; subrounded to angular; poorly sorted. Sample Interval was 129.0 to 130.5 Depositional environment = Alluvial outwash	18-50/5	13	SS	0
	ML		45% Silt, 45% Clay, 10% Sand, 10YR5/3 brown; dense; very stiff; moist; high plasticity; some oxidized nodules (.1-.2"); no apparent bedding				
			Bottom of Boring at 139.0 feet				

NOTE:NR=Not Recorded, NA=Not Applicable Borehole Diameter=9.5"

Well Const. As-Built



WL1

WELL DRILLER'S REPORT
State of Utah
Division of Water Rights

For additional space, use "Additional Well Data Form" and attach

Well Identification MONITOR WELL: 94-15-002-M-02

Owner *Note any changes*
SAIC - Tooele Army Depot
P.O. Box 1303
McLean, VA 22102

Contact Person/Engineer: John Pendleton

Well Location *Note any changes*
NORTH 1650 feet EAST 2850 feet from the SW Corner of SECTION 7, TOWNSHIP 6S, RANGE 4W, SLB&M.

Location Description: (address, proximity to buildings, landmarks, ground elevation, local well #)

Drillers Activity Start Date: 9-19-94 Completion Date: 10-1-94

Check all that apply:
[X] New [ ] Repair [ ] Deepen [ ] Abandon [ ] Replace [ ] Public Nature of Use:

DEPTH (feet) FROM	TO	BOREHOLE DIAMETER (in)	DRILLING METHOD	DRILLING FLUID
0	138	9	Percussion hammer	Air

Well Log

DEPTH (feet) FROM	TO	WATER	FORMATION: High	FORMATION: Low	UNCONSOLIDATED: CLAY	SILT	SAND	GRAVEL	COBBLES	BOULDER	OTHER	CONSOLIDATED: ROCK TYPE	COLOR	DESCRIPTIONS AND REMARKS (include comments on *water quality* if known.)
0	138				X	X		X	X					

Static Water Level

Date 9-29-94 Water Level 132 feet Flowing? [X] Yes [ ] No

Method of Water Level Measurement If Flowing, Capped Pressure PSI

Point to Which Water Level Measurement was Referenced

Height of Water Level reference point above ground surface feet Temperature [ ] °C [ ] °F

Construction Information

DEPTH (feet) FROM	TO	CASING: CASING TYPE AND MATERIAL/GRADE	WALL THICK (in)	NOMINAL DIAM. (in)	DEPTH (feet) FROM	TO	SCREEN ☒ PERFORATIONS ☐: SLOT SIZE OR PERF SIZE (in)	SCREEN DIAM. OR PERF LENGTH (in)	SCREEN TYPE OR NUMBER PERF (per round/interval)
0	128	Sch. 40 PVC		4	128	138	.010		

Well Head Configuration: Above grade Access Port Provided? ☒ Yes ☐ No

Casing Joint Type: Flush thread Perforator Used:

DEPTH (feet) FROM	TO	FILTER PACK / GROUT / PACKER / ABANDONMENT MATERIAL: ANNULAR MATERIAL, ABANDONMENT MATERIAL and/or PACKER DESCRIPTION	Quantity of Material Used (if applicable)	GROUT DENSITY (lbs./gal., # bag mix, gal./sack etc.)
123	138	10-20 Sand	6	
118	123	Bentonite seal, pellets	2	
0	118	Portland cement	28	

Well Development / Pump or Bail Tests

Date	Method	Yield	Units Check One GPM	CFS	DRAWDOWN (ft)	TIME PUMPED (hrs & min)

Pump (Permanent)

Pump Description: Horsepower: Pump Intake Depth: feet

Approximate maximum pumping rate: Well disinfected upon completion? ☐ Yes ☐ No

Comments

Description of construction activity, additional materials used, problems encountered, extraordinary circumstances, abandonment / procedures. *Use additional well data form for more space.*

Well Driller Statement

This well was drilled or abandoned under my supervision, according to applicable rules and regulations, and this report is complete and correct to the best of my knowledge and belief.

Name Layne Environmental Services (Person, Firm, or Corporation – Print or Type) License No. 626

Signature (Licensed Well Driller) Date 10-18-94

SAIC® An Employee-Owned Company

Well Development Form

(Field Sheet)

Project Name and Number: TOOELE - SOUTH 01-0827-03-6523-020

Well Number and Location: MW S-115-94

Development Crew: MARIC MCGUIRE Driller (if applicable): DAN ROBERTS

Water Levels/Time: Initial: ~~101.35~~ MW 111.35' Pumping: _____ Final: _____

Total Well Depth: Initial: 137.0 Final: 137'

Date and Time: Begin: 8:45 10/4/94 Completed: 9:40 10/4/94

Development: Method(s): BAILING W/ 6 GAL BAILOR + PUMPING W/ SUBMERSIBLE PUMP.

Total Quantity of Water Removed: BAILED 55 GALS gals

Date/Time and Pump Setting	Discharge Rate* and Measurement Method	Field Measurements				Remarks (Including Sand Production)
		Temp (°C)	Specific Conductivity (umhos/cm)	pH (Standard Units)	Turbidity	
10-4 8:50	6 GAL BAILOR	11.7	208 X10	11.72	>200	HIGH TURBIDITY
9:25	6 GAL BAILOR	11.3	59 X10	8.47	>200	SILTY, SANDY DARK BROWN WATER. PRODUCT NOTICED IN WELL WATER. BROWN, CLOUDY LIQUID FLOATING ON TOP. LOOKS SIMILAR TO PRODUCT SEEN IN WELL S-114-94

*gallons per minute or bailer capacity

SAIC® An Employee-Owned Company

Well Development Form

(Field Sheet)

Project Name and Number: TOOELE - SOUTH 01-0827-03-6523-020

Well Number and Location: MW S-115 - 99

Development Crew: MARK MCGUIRE Driller (if applicable): DAN PCOTTS

Water Levels/Time: Initial: 111.65' Pumping: _____ Final: _____

Total Well Depth: Initial: 137' Final: 137'

Date and Time: Begin: 12:45 10-9-99 Completed: 1420 10/4/99

Development: Method(s): SUBMERSIBLE PUMP 4" GRUNDFOS

Total Quantity of Water Removed: 55 BAILED + 115 GALS PUMPED = 170 TOTAL gals

Date/Time and Pump Setting	Discharge Rate* and Measurement Method	Field Measurements				Remarks (Including Sand Production)
		Temp (°C)	Specific Conductivity (umhos/cm)	pH (Standard Units)	Turbidity	
10/4/99 12:50	1 GPM	13.1	55X10	9.58	7200	VERY SANDY DARK BROWN WATER.
1:10	1 GPM	15.0	65X10	8.50	4.82	
1:30	1 GPM	15.1	67X10	8.49	2.58	GOT TURBIDITY BELOW 5 NTU'S, SO WE INCREASED
1:50	1 GPM	15.5	69X10	8.42	1.68	PUMP RATE TO MEET OUR
2:10	2½ GPM	13.6	64X10	8.68	43.2	VOLUME REQ., BUT TURB.
2:20	1 GPM	13.9	65X10	8.01	4.33	INCREASED. WENT BACK TO 1 GPM.

*gallons per minute or bailer capacity

SAIC® An Employee-Owned Company

Well Development Form

(Field Sheet)

Project Name and Number: TEAD-S 01-0827-03-6523-021

Well Number and Location: S-115-94 SWMU 19

Development Crew: MARK MCGUIRE Driller (if applicable): DAN PLOTTS

Water Levels/Time: Initial: 111.65 Pumping: 122 Final: 122

Total Well Depth: Initial: 138' Final: 138'

Date and Time: Begin: 10/22/94 17:20 Completed: 10/22/94 1820

Development: Method(s): 4" SUBMERSIBLE PUMP.

Total Quantity of Water Removed: 85 GALS gals

Date/Time and Pump Setting	Discharge Rate* and Measurement Method	Field Measurements				Remarks (Including Sand Production)
		Temp (°C)	Specific Conductivity (umhos/cm)	pH (Standard Units)	Turbidity	
10/22/94						CLEAR H_2O, NO SIGN OF PRODUCT
17:30	1.59 GPM	14.9	64X10	8.39	0.48	
17:45	1.49 GPM	14.7	62X10	7.87	1.73	SMALL INCREASE IN TURBIDITY
17:57	1.60 GPM	15.3	63X10	7.75	0.38	
18:13	1.60 GPM	14.5	62X10	7.79	0.84	
1816	1.60 GPM	14.4	61X10	7.78	0.75	
1819	1.60	14.4	62X10	7.80	0.69	
PUMP INTAKE SET AT 127' BTOC DATA LOGGER SET AT 125' BTOC						

*gallons per minute or bailer capacity

SAIC
An Employee-Owned Company

Sampling Form
(Field Sheet)

Project Name and Number: TEAD-S

Sampling Crew: JOHN PENDLETON + MARK MCGUIRE

Sampling Point Number: S-115-99

Sampling Location: SWMU 19

Sample Type: ☒ GW ☐ SW ☐ Soil ☐ SED ☐ Other: _____

Date and Time Sample Collected: 10/22/99 1910

Weather Conditions: SUNNY, 50°F

Purging Information (if applicable):

Method: 4" GRUNDFOS 16E SUBMERSIBLE PUMP

Quantity of Water Purged: 85 GAL.

Disposition of Purge Water: CLEAR WATER W/ NO SIGN OF PRODUCT.

Date and Time of Purging: Start: 10/22/99 17:10 End: 10/22/99 1820

Comments: FIELD MEASUREMENTS TAKEN DURING PURGING.
@ 1819 1.60 GPM pH: 7.80 TEMP: 14.9 °C COND: 62 X10 Amhos/cm TURBIDITY: 0.69 NTU

Groundwater:

Date and Time Collected: 10/22/99 1910

Sampling Depth: _____

Water Level: INITIAL WATER SURFACE ELEVATION 111.65' TOC

Sampling Method/Equipment: STAINLESS STEEL BAILERS

Field Measurements: pH _____ Temp: _____ Cond: _____ Alkalinity: _____

Date and Time Filtered (if applicable): NA

Comments: FIELD MEASUREMENTS TAKEN DURWG PURGING

Surface Water:

Date and Time Collected: _____

Collection Method: _____

Date and Time Filtered (if applicable): _____

Field Measurements: pH _____ Temp: _____ Cond: _____ Turbidity: _____

Comments: _____

Soils/Sediment Sampling:

Date and Time Collected: _____

Sampling Depth: _____

Sampling Method: _____

Comments: _____

* TOC - TOP OF CASING

SAIC
An Employee-Owned Company

Sampling Form
(Field Sheet)

Project Name and Number: Tooele South RFI 01-0827-03-6523-025
Sampling Crew: J. Carter, J. SKIBINSKI, J. PENDLETON
Sampling Point Number: WELL S-115-94
Sampling Location: SWMU-19, South of Building 536
Sample Type: ☒ GW ☐ SW ☐ Soil ☐ SED ☐ Other: _____
Date and Time Sample Collected: 1/28/95 16:30
Weather Conditions: SUNNY, 35°F

Purging Information (if applicable):
Method: 3 7/8" Submersible Pump (GRUNDFOS)
Quantity of Water Purged: 90 gallons
Disposition of Purge Water: Clear

Date and Time of Purging: Start: 13:40 1/28/95 End: 1/28/95 16:00
Comments: _____

Groundwater:
Date and Time Collected: 1/28/95 16:30
Sampling Depth: 119.0' BTOC
Water Level: 111.6' BTOC
Sampling Method/Equipment: Bailer (PVC, dedicated)
Field Measurements: pH 7.6 Temp: 10°C Cond: 30 umhos Alkalinity: _____
Date and Time Filtered (if applicable): NA
Comments: _____

Surface Water:
Date and Time Collected: _____
Collection Method: _____
Date and Time Filtered (if applicable): _____
Field Measurements: pH _____ Temp: _____ Cond: _____ Turbidity: _____
Comments: _____

Soils/Sediment Sampling:
Date and Time Collected: _____
Sampling Depth: _____
Sampling Method: _____
Comments: _____

An Employee-Owned Company

Well Purging/Sampling Form

(Field Sheet)

Project Name and Number: Deseret Chemical Depot 01-0827-03-6523

Well Number and Location: S-115-94 SWMU19

Sampling Crew: John Carter, Knut Torgerson, Patrick Sorderberg

Pump Depth/Total Depth (btoc): 130'/135'

Purging Method: Submersible Pump EPA Low Flow Method

Quantity of Water Removed: 11 gal Screen Length:

Sample Number: S-115-94 (SAIC01)

Date/Time 11/17/98 0800 - 0915

Trip Blank Number: S-3 (SAICTB02) Sampled by:

FIELD MEASUREMENTS

Date/Time	Rate (GPM)	Volume (gals.)	Water Level (BTOC)	Temp (°C)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)
11/17/98 08	.25	3	107.75'	11.4	7.61	.689	0	8.17	228.9
11/17/98 08	.25	5	107.75'	12.4	7.86	.701	0	7.94	211.3
11/17/98 08	.25	7	107.75'	12.4	7.96	.700	0	7.92	198.4
11/17/98 08	.25	9	107.75'	12.3	8.00	.700	0	8.00	188.5
11/17/98 08	.25	11	107.75'	12.3	8.03	.699	0	7.84	182.4

GPM = Gallons per Minute LPM = Liters per Minute BTOC = Below Top of Casing

Comments:

Form Completed by: Ty Grivat

One well volume = (H × W) + {0.33[(SH × B) - (SH × W)]}
Where: H = water column, W = well multiplier (2" = 0.16, 4" = 0.65), SH = screen height,
B = borehole diameter multiplier (for 6" = 1.47, 8" = 2.61, 10" = 4.08, 12" = 5.89)

SWMU 19
MONITORING WELL S-116-94

SOIL BORING/WELL LOG

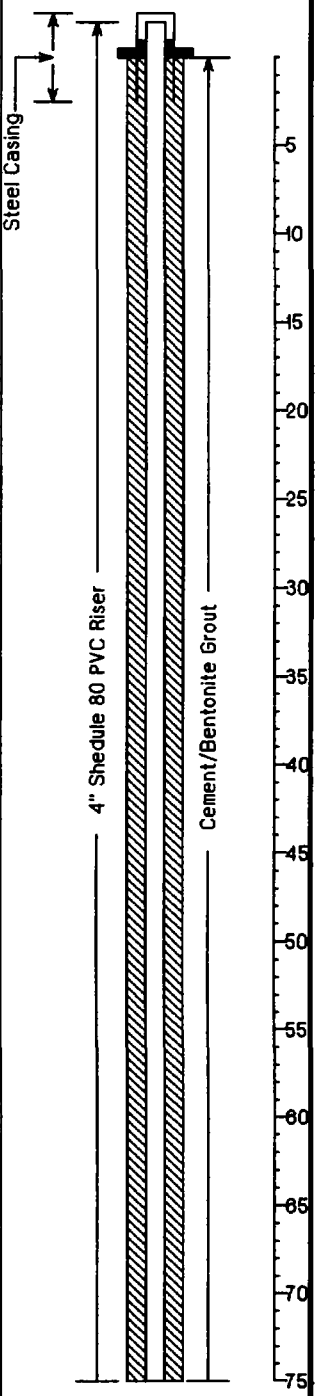
Project Name: TEAD-S Phase II RFI
SAIC Project No.: 01-0827-03-6523
Geologist: Mike Miles
Drilling Co.: Layne Environmental Inc.
Driller: Kevin Cross
Drill Rig: A.P. 1000

Site Location: SWMU 19
Northing (ft): 2219901.79
Easting (ft): 429015.01
Groundwater Elev. (ft): 5100.42 on 10/21/94
Drilling Method: Dual Wall Percusion
Sampling Method: Split Spoon/Grab

Monitoring Well No.: S-116-94
Start/Finish Date: 09-19-94/09-21-94
Well Completion Depth (ft): 218.0
Drilled Depth (ft): 220.0
Surface Pad Elevation (ft): 5235.01
Top of Casing Elevation (ft): 5238.08

Depth (feet)	Soil Class USCS	Lithologic Symbol	Material Description	Blows/6 in.	Sample #	Sample Type	HNU (ppm)
0	GC		50% Gravel ,20% Sand, 20% Silt, 10% Clay. 7.5YR6/6 reddish yellow; Gravel is 0.5-3" in size, consisting of limestones and sandstones, subangular to angular, loose, dry, no apparent bedding, low plasticity, moderate consistency. Sample Interval was 9.0 to 9.5. Depositional environment = Alluvial outwash				
10				39-50/	1	SS	0
15							
20			At 18 feet there was a color change to 10YR7/1 light gray and % of rock has increased 70%	50/	2	SS	0
25							
30	CL		85% Clay, 15% Silt. 7.5YR7/2 light gray; high plasticity; stiff; dense; damp; no bedding; Sample Interval was 29.0 to 30.5;	7-10-10	3	SS	0
35							
40			Sample Interval was 39.0 to 40.5	8-19-20	4	SS	0
45	ML		75% Silt, 25% Clay. 10YR5/3 brown; low to medium plasticity; soft; loose; slightly moist; no apparent bedding; some oxidation in micro- fractures. Bonniville Sediments. Sample Interval was 49.0 to 50.5; Sample Interval was 49.0 to 50.5				
50				15-27-44	5	SS	0
55	CL		60% Clay, 35% Silt 5% Sand. 10YR5/4 light yellowish brown; medium plasticity; firm; dense; moist; no apparent bedding; Some concreations of very hard gray limestone; (.5-1") sub-rounded to sub-angular. Lake sediments. Interval was 69.0 to 70.5				
60				9-24-28	6	SS	0
65			Sample Interval was 59.0 to 60.5				
70			Sample Interval was 69 to 70.5	7-27-35	7	SS	0
75							

Well Const. As-Built



SOIL BORING/WELL LOG

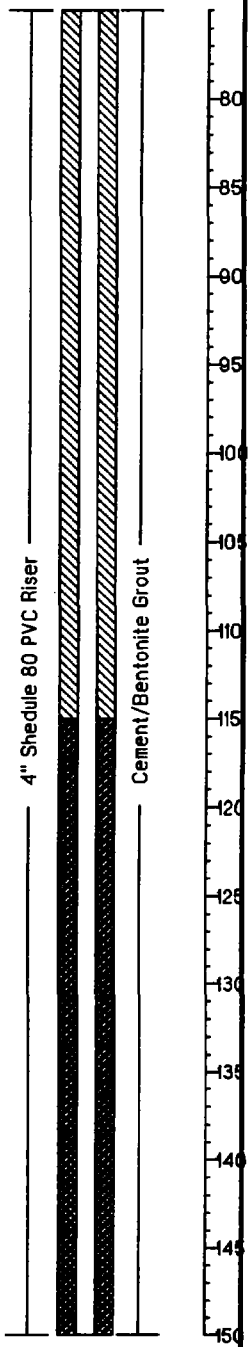
Project Name: TEAD-S Phase II RFI
SAIC Project No.: 01-0827-03-6523
Geologist: Mike Miles
Drilling Co.: Layne Environmental Inc.
Driller: Kevin Cross
Drill Rig: A.P. 1000

Site Location: SWMU 19
Northing (ft): 2219901.79
Easting (ft): 429015.01
Groundwater Elev. (ft): 5100.42 on 10/21/94
Drilling Method: Dual Wall Percusion
Sampling Method: Split Spoon/Grab

Monitoring Well No.: S-116-94
Start/Finish Date: 09-19-94/09-21-94
Well Completion Depth (ft): 218.0
Drilled Depth (ft): 220.0
Surface Pad Elevation (ft): 5235.01
Top of Casing Elevation (ft): 5238.08

Depth (feet)	Soil Class USCS	Lithologic Symbol	Material Description	Blows/6 in.	Sample #	Sample Type	HNU (ppm)
	CL						
80	GC		80% Gravel, 15% Sand, 5% Silt. 10YR5/3 brown; Gravel is black, calcareous limestone, 0.5-2.0" in size, subangular to angular. Sediments are loose, slightly moist, non cemented, non-plastic with no apparent bedding planes. Depositional environment = Alluvial outwash. Sample Interval was 78 to 79.5	50/	8	SS	0
90	CL		70% Clay, 25% Silt, 5% Sand. 10YR5/3 brown. Moist; medium plasticity; medium to firm consistancy; dense hard; no apparent bedding. Sediment. Sample Interval was 89 to 90.5	10-12-20	9	G	0
100			Sample Interval was 99.0 to 100.5	NA	10	SS	0
110	ML		60% Silt, 20% Clay, 20% Sand. 2.5Y8/2 pale yellow. Medium plasticity; medium dense; stiff; moist; interbedded silt and clay lenses with lenses of fractured siltstone Lake Sediments. Sample Interval was Interval was 109.0 to 110.5. Depositional environments = Lake sediments	5-19-27	11	SS	0
120	SP		50% Silt, 35% Sand; 15% Clay. 10YR4/3 brown; no to low plasticity; soft; dense; moist; no apparent bedding or rock fragments. Sample Interval was 119.0 to 120.5	18-18-35	12	SS	0
130			70% Silt, 30% Clay, brown 10YR5/3; medium plasticity; stiff; dense; moist; no apparent bedding. Sample Interval was 129.0 to 130.5. Depositional environments = Lake sediments	7-15-19	13	SS	0
140			Sample Interval was 139 to 139.5	NA	14	G	0
150			Sample Interval was 149 to 150.5	16-22-25	15	SS	0

Well Const. As-Built



SOIL BORING/WELL LOG

Project Name: TEAD-S Phase II RFI
SAIC Project No.: 01-0827-03-6523
Geologist: Mike Miles
Drilling Co.: Layne Environmental Inc.
Driller: Kevin Cross
Drill Rig: A.P. 1000

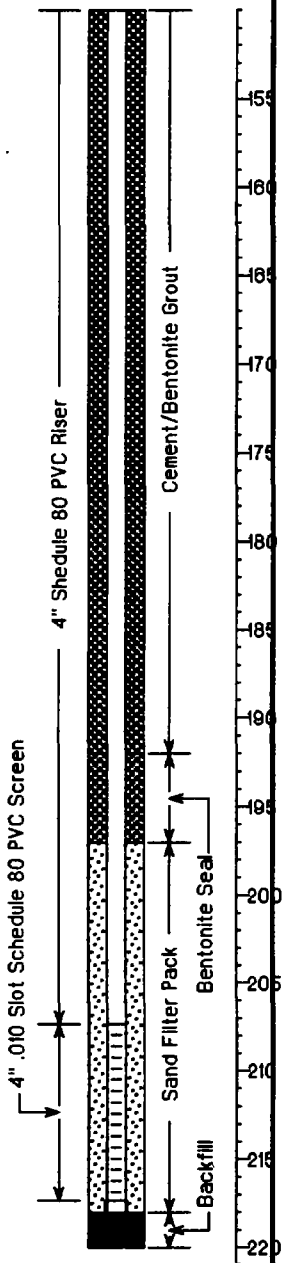
Site Location: SWMU 19
Northing (ft): 2219901.79
Easting (ft): 429015.01
Groundwater Elev. (ft): 5100.42 on 10/21/94
Drilling Method: Dual Wall Percusion
Sampling Method: Split Spoon/Grab

Monitoring Well No.: S-116-94
Start/Finish Date: 09-19-94/09-21-94
Well Completion Depth (ft): 218.0
Drilled Depth (ft): 220.0
Surface Pad Elevation (ft): 5235.01
Top of Casing Elevation (ft): 5238.08

Depth (feet)	Soil Class USCS	Lithologic Symbol	Material Description	Blows/6 in.	Sample #	Sample Type	HNU (ppm)
				16-22-25	15	SS	0
160			Sample Interval was 159 to 159.5	NA	16	G	0
170			This area had an increase in very fine Sand; Sample interval was 169.0 to 170.5.	11-18-50/	17	SS	0
180	SP		60% Silt, 30% Clay, 10% Sand. 10YR5/3 brown; medium plasticity; stiff; dense; moist; no apparent bedding; no apparent rock fragments but there does exist a few small siltstone fragments that are part of the original stone but have not yet decomposed. Sample Interval was 179 to 179.5 Depositional environments = Lake sediments	NA	18	G	0
190			Sample Interval was 189.0 to 190.5	8-12-22	19	SS	0
200			Same Sandy Clay Silt as above with an increase in clay up to 40%. Sample Interval was 199.0 to 199.5	NA	20	G	0
210	GC		90% Sand, 10% Silt. Very dark gray 2.5Y3/1. very fine to fine, sub-rounded to angular; moderately sorted sands with loose, saturated, non plastic silts. No bedding plains apparent. Sample Interval at 209 to 210.5. Depositional environment = Alluvial outwash.	50/6	21	SS	0
220			95% Gravel, 5% Silt. Very dark gray 2.5Y3/1, 0.25-1" in size, subrounded to angular, well sorted, hard, non cemented, no plasticity. Depositional environment = Alluvial ouwash				
225			*Bottom of Boring at 219.0 feet*				

NOTE:NR=Not Recorded, NA=Not Applicable Borehole Diameter=9.5"

Well Const. As-Built



WLI

WELL DRILLER'S REPORT

State of Utah
Division of Water Rights

For additional space, use "Additional Well Data Form" and attach

Well Identification MONITOR WELL: 94-15-002-M-04

Owner *Note any changes*

SAIC - Tooele Army Depot
P.O. Box 1303
McLean, VA 22102

Contact Person/Engineer: John Pendleton

Well Location *Note any changes*

NORTH 2200 feet EAST 2900 feet from the SW Corner of SECTION 7, TOWNSHIP 6S, RANGE 4W, SLB&M.

Location Description: (address, proximity to buildings, landmarks, ground elevation, local well #)

Drillers Activity

Start Date: 9-19-94 Completion Date: 10-1-94

Check all that apply:
[X] New [ ] Repair [ ] Deepen [ ] Abandon [ ] Replace [ ] Public Nature of Use:

DEPTH (feet) FROM	TO	BOREHOLE DIAMETER (in)	DRILLING METHOD	DRILLING FLUID
0	220	9	Percussion Hammer	Air

Well Log

DEPTH (feet) FROM	TO	WATER	PERMEABLE High	PERMEABLE low	UNCONSOLIDATED CLAY	SILT	SAND	GRAVEL	CONSOLIDATED COBBLES	BOULDER	OTHER	ROCK TYPE	COLOR	DESCRIPTIONS AND REMARKS (include comments on *water quality* if known.)
0	220				XX			X	X					

Static Water Level

Date 9-24-94 Water Level 213 feet Flowing? [ ] Yes [X] No

Method of Water Level Measurement _____ If Flowing, Capped Pressure _____ PSI

Point to Which Water Level Measurement was Referenced _____

Height of Water Level reference point above ground surface _____ feet Temperature _____ [ ] °C [ ] °F

Construction Information

DEPTH (feet) FROM	DEPTH (feet) TO	CASING: CASING TYPE AND MATERIAL/GRADE	CASING: WALL THICK (in)	CASING: NOMINAL DIAM. (in)	DEPTH (feet) FROM	DEPTH (feet) TO	SCREEN ☒ PERFORATIONS ☐: SLOT SIZE OR PERF SIZE (in)	SCREEN DIAM. OR PERF LENGTH (in)	SCREEN TYPE OR NUMBER PERF (per round/interval)
0	208	Sch. 80 PVC		4	208	218	.010		

Well Head Configuration: Abovegrade Access Port Provided? ☒ Yes ☐ No

Casing Joint Type: Flush thread Perforator Used:

DEPTH (feet) FROM	DEPTH (feet) TO	FILTER PACK / GROUT / PACKER / ABANDONMENT MATERIAL: ANNULAR MATERIAL, ABANDONMENT MATERIAL and/or PACKER DESCRIPTION	Quantity of Material Used (if applicable)	GROUT DENSITY (lbs./gal.,# bag mix, gal./sack etc.)
203	218	10-20 Sand	8	
198	203	Bentonite seal, pellets	1	
0	198	Portland cement	57	

Well Development / Pump or Bail Tests

Date	Method	Yield	Units Check One: GPM	Units Check One: CFS	DRAWDOWN (ft)	TIME PUMPED (hrs & min)

Pump (Permanent)

Pump Description: Horsepower: Pump Intake Depth: feet

Approximate maximum pumping rate: Well disinfected upon completion? ☐ Yes ☐ No

Comments Description of construction activity, additional materials used, problems encountered, extraordinary circumstances, abandonment / procedures. *Use additional well data form for more space.*

Well Driller Statement

This well was drilled or abandoned under my supervision, according to applicable rules and regulations, and this report is complete and correct to the best of my knowledge and belief.

Name Layne Environmental Services License No. 626
(Person, Firm, or Corporation - Print or Type)

Signature (Licensed Well Driller) Date 10-18-94

SAIC® An Employee-Owned Company

Well Development Form

(Field Sheet)

Project Name and Number: TEAD-S 01-0827-03-0623-021

Well Number and Location: S-116-94 SWMU 19

Development Crew: MARK MCGUIRE JOHN PENDLETON Driller (if applicable): DAN PLOTTS

Water Levels/Time: Initial: 133.78 9:50 Pumping: 156.14 Final: 130.38

Total Well Depth: Initial: 216' Final: _____

Date and Time: Begin: 10/23/94 8:45 Completed: 10/23/94 12:42

Development: Method(s): 4" SUBMERSIBLE PUMP (PURGE)

Total Quantity of Water Removed: 275 GALS (PURGED) gals

Date/Time and Pump Setting	Discharge Rate* and Measurement Method	Field Measurements				Remarks (Including Sand Production)
		Temp (°C)	Specific Conductivity (umhos/cm)	pH (Standard Units)	Turbidity	
161' TOC 10/23/94						H_2O IS VERY CLEAR.
9:28	1.80 GPM	13.9	155X10	11.86	0.75	
9:48	1.51GPM	14.7	99X10	11.11	0.65	
10:08	1.50GPM	14.9	60X10	9.71	0.30	
10:28	1.50 GPM	14.1	59X10	9.14	0.28	
10:48	1.50GPM	14.9	59X10	8.94	0.20	
11:08	1.50GPM	16.8	60X10	8.74	0.11	
11:28	1.2 GPM	16.2	60X10	8.62	0.03	
11:48	1.2 GPM	17.0	61X10	8.45	0.02	
12:30	1.2 GPM	18.0	62X10	8.42	0.02	

*gallons per minute or bailer capacity

HERAIT H_2O LEVEL METER @ 160',

SAIC® An Employee-Owned Company

Well Development Form

(Field Sheet)

Project Name and Number: TOOELE-SOUTH 01-0827-03-6523-666

Well Number and Location: 5-116-94 SWMW-19

Development Crew: PENDLETON Driller (if applicable): DAN PLOTTS

Water Levels/Time: Initial: 132.05 Pumping: _____ Final: _____

Total Well Depth: Initial: 216 Final: _____

Date and Time: Begin: 9/28/94 Completed: _____

Development: Method(s): 3" SUBMERSIBLE PUMP

Total Quantity of Water Removed: 120GAL REMOVED WITH BAILER gals

Date/Time and Pump Setting	Discharge Rate* and Measurement Method	Field Measurements				Remarks (Including Sand Production)
		Temp (°C)	Specific Conductivity (umhos/cm)	pH (Standard Units)	Turbidity	
9/28/94	~2 1/2 gal/min					

*gallons per minute or bailer capacity

SAIC
An Employee-Owned Company

Sampling Form
(Field Sheet)

Project Name and Number: TEAD-S

Sampling Crew: JOHN PENDLETON + MARK MCGUIRE

Sampling Point Number: S-116-94

Sampling Location: SWMU 19

Sample Type: ☒ GW ☐ SW ☐ Soil ☐ SED ☐ Other: _____

Date and Time Sample Collected: 10/26/94

Weather Conditions: SUNNY, 60°F

Purging Information (if applicable):

Method: 4" SUBMERSIBLE PUMP

Quantity of Water Purged: 275 GAL

Disposition of Purge Water: CLEAR

Date and Time of Purging: Start: 10/23/94 0845 End: 10/23/94 1242

Comments: FIELD MEASUREMENTS TAKEN DURING PURGING.
@ 1230 1.2GPM pH: 8.92 TEMP(°C): 18° COND: 62 X10 UMhos/Cm TURBIDITY: 0.02 NTU

Groundwater:

Date and Time Collected: 10/23/94 1440

Sampling Depth: _____

Water Level: INITIAL WATER SURFACE ELEVATION = 133.78 TOC

Sampling Method/Equipment: STAINLESS STEEL BAILOR.

Field Measurements: pH _____ Temp: _____ Cond: _____ Alkalinity: _____

Date and Time Filtered (if applicable): NA

Comments: FIELD MEASUREMENTS TAKEN DURING PURGING.

Surface Water:

Date and Time Collected: _____

Collection Method: _____

Date and Time Filtered (if applicable): _____

Field Measurements: pH _____ Temp: _____ Cond: _____ Turbidity: _____

Comments: _____

Soils/Sediment Sampling:

Date and Time Collected: _____

Sampling Depth: _____

Sampling Method: _____

Comments: _____

* TOC - TOP OF CASING

SAIC
An Employee-Owned Company

Sampling Form
(Field Sheet)

Project Name and Number: TOOELE-SOUTH RFI 01-0827-03-6523-025
Sampling Crew: J. CARTER, J. SKIBINSKI, JPENDLETON
Sampling Point Number: WELL S-116-94
Sampling Location: SWMU-19, NORTH OF BLDG 536
Sample Type: ☒ GW ☐ SW ☐ Soil ☐ SED ☐ Other: _____
Date and Time Sample Collected: 1/26/95 17:45
Weather Conditions: Overcast, COLD, TEMP MID 30's, Easterly Wind

Purging Information (if applicable):
Method: 3 7/8" Submersible Grundfos pump
Quantity of Water Purged: 285 gallons
Disposition of Purge Water: Clear
Date and Time of Purging: Start: 1/26/95 12:38 End: 1/26/95 17:20
Comments: _____

Groundwater:
Date and Time Collected: 17:45
Sampling Depth: 138' BTOC
Water Level: 111.6'
Sampling Method/Equipment: Dedicated Bailer (PVC)
Field Measurements: pH 7.60 Temp: 10 °C Cond: 30 umhos/cm Alkalinity: _____
Date and Time Filtered (if applicable): NA
Comments: _____

Surface Water:
Date and Time Collected: _____
Collection Method: _____
Date and Time Filtered (if applicable): _____
Field Measurements: pH _____ Temp: _____ Cond: _____ Turbidity: _____
Comments: _____

Soils/Sediment Sampling:
Date and Time Collected: _____
Sampling Depth: _____
Sampling Method: _____
Comments: _____

An Employee-Owned Company

Well Purging/Sampling Form

(Field Sheet)

Project Name and Number: Deseret Chemical Depot 01-0827-03-6523

Well Number and Location: S-116-94 SWMU19

Sampling Crew: Knut Torgerson, Patrick Sorderberg

Pump Depth/Total Depth (btoc): 200'/215'

Purging Method: Submersible Pump EPA Low Flow Method

Quantity of Water Removed: 12 gal Screen Length:

Sample Number: S-116-94 (SAIC01)

Date/Time 1/17/98 0940 - 1105

Trip Blank Number: S-3 (SAICTB02) Sampled by:

FIELD MEASUREMENTS

Date/Time	Rate (GPM)	Volume (gals.)	Water Level (BTOC)	Temp (°C)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)
11/17/98 1003	.25	2	123.13'	11.6	11.77	.677	0	6.00	152.2
11/17/98 1011	.25	4	123.13'	13.2	11.67	.667	0	5.83	127.0
11/17/98 1019	.25	6	123.13'	13.8	10.65	.576	0	6.19	122.9
11/17/98 1027	.25	8	123.13'	14.1	10.48	.574	0	6.26	125.6
11/17/98 1035	.25	10	123.13'	13.8	10.53	.582	0	6.22	122.5
11/17/98 1043	.25	12	123.13'	13.9	10.44	.585	0	6.31	127.1

GPM = Gallons per Minute LPM = Liters per Minute BTOC = Below Top of Casing

Comments:

Form Completed by: Ty Grivat

One well volume = (H × W) + {0.33[(SH × B) - (SH × W)]}
Where: H = water column, W = well multiplier (2" = 0.16, 4" = 0.65), SH = screen height,
B = borehole diameter multiplier (for 6" = 1.47, 8" = 2.61, 10" = 4.08, 12" = 5.89)

APPENDIX C
FIELD LOGS

BACKGROUND

SWMU 20
BUILDING 520
SEPTIC TANK

SOIL BORING

Project Name: TEAD-S Phase II RFI | Site Location: SWMU 20 | Soil Boring No.: BH-20-001

SAIC Project No.: 01-0827-03-6523 | Drilling Method: Dual Wall Percussion | Start/Finish Date: 09-22-94/09-22-94

Geologist: Mike Miles | Drill Rig: A.P. 1000 | Sampling Method: Split Spoon/Grab

Drilling Co.: Layne Environmental Inc. | Driller: Kevin Cross | Drilled Depth (ft): 20.50

Depth (feet)	Soil Class USCS	Lithologic Symbol	Material Description	Blows/6 in.	Lab ID	Sample Type And #	HNU (ppm)
5	GC		50% Gravel, 20% Sand, 20% Silt, 10% Clay. 7.5YR6/1 reddish yellow. Gravel is 0.5-2" in size; subrounded to angular, poorly sorted; loose; dry; moderate density; low plasticity; no apparent bedding. Depositional environment = Alluvial outwash				
10				50/	1	SS	0
15	ML		60% Silt, 40% Clay. 7.5YR6.4 reddish brown; dense; moderate hardness; moist; moderate plasticity; no apparent bedding. Depositional environment = Lake sediment.	5-6-10	2	SS	0
				6-9-10	3	SS	0
				22-40-27	4	SS	0
20				7-21-17	5	SS	0
			Bottom of Boring at 20.5 feet				
25			*NOTE:NR=Not Recorded, NA=Not Applicable Borehole Diameter=9.5"*				

SOIL BORING

Project Name: TEAD-S Phase II RFI | Site Location: SWMU 20 | Soil Boring No.: BH-20-002

SAIC Project No.: 01-0827-03-6523 | Drilling Method: Dual Wall Percussion | Start/Finish Date: 09-23-94/09-23-94

Geologist: Mike Miles | Drill Rig: A.P. 1000 | Sampling Method: Split Spoon/Grab

Drilling Co.: Layne Environmental Inc. | Driller: Kevin Cross | Drilled Depth (ft): 20.50

Depth (feet)	Soil Class USCS	Lithologic Symbol	Material Description	Blows/6 in.	Lab ID	Sample Type And #	HNU (ppm)
5	GC		50% Gravel, 20% Sand, 20% Silt, 10% Clay. 7.5YR6/1 reddish yellow. Gravel is 0.5-2" in size; subrounded to angular, poorly sorted with no apparent bedding; Sand is fine to medium grained; subrounded and poorly sorted. Fine grained silts and clays are loose; dry; low plasticity				
10				9-29	1	G	0
				50/5	2	SS	0
				50/	3	SS	0
15	ML		55% Silt, 45% Clay. 7.5YR6.4 reddish brown; dense; moderate hardness; moist; moderate plasticity; no apparent bedding. Depositional environment = Lake sediment.	5-8-7	4	G	0
				6-11-22	5	SS	0
	GC		Gravel as previously described. Gravel size has increased (.5-3")	27-50/5	6	SS	0
20	Cl		Sandy Silty Clay, Same as previously described at 14.0-17.5				
	GC		Gravel.	6-50/4	7	G	0
			Bottom of Boring at 20.5 feet				
25			*NOTE:NR=Not Recorded, NA=Not Applicable Borehole Diameter=9.5"*				

SWMU 33
BUILDING 536

SWMU 33A
INSIDE BUILDING 536

SWMU 33A
SOIL BORING LOGS

Boring Location

SB33-004

X BLDG 536

N

Project: TOOELE ARMY DEPOT - SOUTH AREA	SWMU No: 33 - BUILDING 536
Start date and time: 9/22/94 1030	Completion data and time: 9/22/94 1130
Drilling Contractor: SAIC	Drilling Method: SLIDE HAMMER
Logged by: J. PENDLETON	
Total depth (feet): 1.5' BLS	Diameter (inches): 2" X 6" CORE BARREL
Sampler type and size (diameter and length): SLIDE HAMMER WITH 2" X 6" CORE BARREL	
Samples collected from boring: SB-33-004 004B 004C	

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
0	0	0	N/A	SO	100%	50% SILT 30% CLAY 20% GRAVEL	ML LIGHT GRAYISH BROWN 10 YR 5/2 CLAYEY SILT, LOOSE, DRY (POWDERY) LOW PLASTICITY, LOW DENSITY GRAVEL SUBANGULAR TO SUBROUNDED, UP TO 5CM IN SIZE
0.5	0	0	N/A	SO	80%	60% SILT 30% CLAY 10% GRAVEL	SEE DESCRIPTION ABOVE
1.0	0	0	N/A	SO	100%	70% SILT 25% CLAY 5% GRAVEL	SEE DESCRIPTION ABOVE.
1.5	0	0					
4							

Boring Location

SB33-005

BLDG 536

Project:	TOOELE ARMY DEPOT - SOUTH AREA	SWMU No:	33 - BUILDING 536
Start date and time:	9/22/94 1430	Completion data and time:	9/22/94 1510
Drilling Contractor:	SAIC	Drilling Method:	SLIDE HAMMER
Logged by:	J. PENDLETON		
Total depth (feet):	1.5' BLS	Diameter (inches):	2" x 6" CORE BARREL
Sampler type and size (diameter and length):	SLIDE HAMMER WITH 2" x 6" CORE BARREL		
Samples collected from boring:	SB-33-005A 005B 005C		

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
0	0	0	N/A	SO	100%	60% SILT 30% CLAY 10% GRAVEL	ML VLIGHT GRAYISH BROWN 10YR 5/2 CLAYEY SILT, LOOSE DRY (POWDERY) LOW PLASTICITY LOW DENSITY, GRAVEL SUB ANGULAR TO SUBROUNDED, UP TO 5CM IN SIZE
0.5	0	0	N/A	SO	100%	70% SILT 20% CLAY 10% GRAVEL	ML SEE ABOVE
1.0	0	0	N/A	SO	100%	SAME AS ABOVE	ML SEE ABOVE
1.5							
4							

Boring Location

SB-33-006

BLDG 536

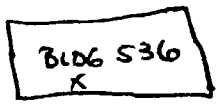
N

Project: TOOELE ARMY DEPOT - SOUTH AREA	SWMU No: 33 - BUILDING 536
Start date and time: 9/22/94 1310	Completion data and time: 9/22/94 1550
Drilling Contractor: SAIC	Drilling Method: SLIDE HAMMER
Logged by: J. PENDLETON	
Total depth (feet): 1.5' BLS	Diameter (inches): 2" x 6" CORE BARREL
Sampler type and size (diameter and length): SLIDE HAMMER WITH 2" x 6" CORE BARREL	
Samples collected from boring: SB-33-006A (DUPLICATE SAMPLE), 006B 006C	

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
0	0	0	N/A	SO	100%	60% SILT	ML LIGHT BROWN 10YR 5/2 CLAYEY SILT LOOSE, DRY (POWDERY) LOW PLASTICITY, LOW DENSITY, GRAVEL SUBANGULAR
						35% CLAY	
	DUPLICATE SAMPLE COLLECTED AT SURFACE					5% GRAVEL	
0.5	0	0	N/A	SO	100%	70% SILT	ML LIGHT BROWN 10YR 5/3 CLAYEY SILT LOOSE DRY (POWDERY) LOW PLASTICITY LOW DENSITY,
						30% CLAY	
1.0	0	0	N/A	SO	100%	70% SILT	ML LIGHT BROWN 10YR 5/3 CLAYEY SILT LOOSE, DRY, (POWDERY) LOW PLASTICITY LOW DENSITY.
						30% CLAY	
1.5							
4							

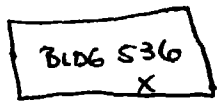
Boring Location	Project: TOOELE ARMY DEPOT - SOUTH AREA	SWMU No: 33 BUILDING 5360 (INSIDE)
XSB-33-007	Start date and time: 9/22/94	Completion data and time;
BLDG 5360	Drilling Contractor: SAIC	Drilling Method: SLIDE HAMMER W. HAND TOOLS
	Logged by: J. Pendleton	
	Total depth (feet): 1.5' BLS	Diameter (inches): N/A
	Sampler type and size (diameter and length): SLIDE hammer with 6" x 2" CORE BARREL	
	Samples collected from boring: SB-33-007A, 007B, 007C	

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
0	0	0	N/A	SO	100%	50% SILT 30% CLAY 20% GRAVEL	ML LIGHT GRAYISH BROWN 10YR 5/2 CLAYEY SILT WITH SOME GRAVEL, SILT IS LOOSE, DRY, LOW PLASTICITY, LOW DENSITY, GRAVEL SUBANGULAR TO SUBROUNDED, 0.3-5 CM IN SIZE
0.5	0	0	N/A	SO	90%	60% SILT 30% CLAY 10% GRAVEL	SAME AS ABOVE
1.0	0	0	N/A	SO	100%	60% SILT 30% CLAY 10% GRAVEL	SAME AS ABOVE
1.5							
4							

Boring Location 	Project: TOOELE ARMY DEPOT - SOUTH AREA	SWMU No: 33 - BUILDING 536
	Start date and time: 9/22/94 1130	Completion data and time: 9/22/94 1240
	Drilling Contractor: SAIC	Drilling Method: SLIDE HAMMER
	Logged by: J. PENDLETON	
	Total depth (feet): 1.5' BLS	Diameter (inches): 2" x 6" CORE BARREL
	Sampler type and size (diameter and length): SLIDE HAMMER WITH 2" x 6" CORE BARREL	
	Samples collected from boring: SB-008A 008B 008C	

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
0	0	0	N/A	SO	100%	60% SILT	ML LIGHT BROWN 10YR 5/3 CLAYEY SILT WITH SOME GRAVEL, LOOSE, DRY, LOW PLASTICITY, LOW DENSITY
						30% CLAY	
						10% GRAVEL	
0.5	0	0	N/A	SO	100%	70%	ML SEE DESCRIPTION ABOVE
						20%	
						10%	
1.0	0	0	N/A	SO	100%	70%	ML SEE DESCRIPTION ABOVE.
						20%	
						10%	
1.5	0	0	N/A	SO			
4							

Boring Location



N

Project: TOOELE ARMY DEPOT - SOUTH AREA | SWMU No: 33 - BUILDING 536

Start date and time: 9/23/94 0800 | Completion data and time: 9/23/94 0950

Drilling Contractor: SAIC | Drilling Method: SLIDE HAMMER

Logged by: J. PENDLETON

Total depth (feet): 1.5' BLS | Diameter (inches): 2" X 6" CORE BARREL

Sampler type and size (diameter and length): SLIDE HAMMER WITH 2" X 6" CORE BARREL

Samples collected from boring: SB-33-009A, 009B, 009C

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
0	0	0	N/A	SO	100%	70% SILT 30% CLAY	ML LIGHT BROWN 10YR 5/3 CLAYEY SILT, LOOSE, DRY, LOW PLASTICITY AND DENSITY
0.5	0	0	N/A	SO	100%	60% SILT 30% CLAY 10% GRAVEL	ML LIGHT BROWN 10YR 5/2 CLAYEY SILT LOOSE DRY LOW PLASTICITY AND DENSITY (POWDERY) GRAVEL SUBANGULAR 2-5 CM IN SIZE
1.0	0	0	N/A	SO	100%	60% SILT 30% CLAY 10% GRAVEL	ML SAME AS ABOVE (0.5)
1.5							
4							

Boring Location	Project: TOOELE ARMY DEPOT - SOUTH AREA	SWMU No: 33 - BUILDING 536
BLDG 536 SB-33-010	Start date and time: 9/23/94 1030	Completion data and time: 9/23/94 1120
	Drilling Contractor: SAIC	Drilling Method: SLIDE HAMMER
	Logged by: J. PENDLETON	
	Total depth (feet): 1.5' BLS	Diameter (inches): 2" x 6" CORE BARREL
	Sampler type and size (diameter and length): SLIDE HAMMER WITH 2" x 6" CORE BARREL	
	Samples collected from boring: SB-33-010A 010B 010C	

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
0	0	0	N/A	SO	100%	60% SILT 30% CLAY 10% GRAVEL	ML BRAYISH BROWN 10YR5/2 CLAYEY SILT, LOOSE DRY, LOW PLASTICITY, LOW DENSITY, GRAVEL, SUBANGULAR - SUBROUNDED
0.5	0	0	N/A	SO	100%	60% SILT 30% CLAY 10% GRAVEL	ML SEE DESCRIPTION ABOVE
1.0	0	0	N/A	SO	100%	70% SILT 20% CLAY 10% GRAVEL	ML SEE DESCRIPTION ABOVE.
1.5	0	0					
4							

SAIC
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Site Name: DCD	Boring No. SB-33A-11	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 6'
Fed ID No. NA	Probed Depth: 6'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 2/24/99	Finish Date: 2/24/99
First Encountered Water: NA	Static Water Level: NA	Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel
G - Glenn Haupt
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some sand. Color: 10YR 4/2 dark grayish brown	- -	1	NA	Y	NA		SAIC01. Grab Sample.
	Slightly dense, slightly plastic, and moist. Root structures.	- 1 -						
		- -						
GM	(1.5-3.5') Sandy silt with some gravel. Color: 10YR 5/3 brown.	- 2 -	2	NR	Y	NA		SAIC02.
	Loose, slightly plastic, subangular to subrounded gravel	- -						
	(up to 20 mm), poorly sorted, and moist.	- 3 -						
		- -						
GM	(3.5-5.5') Sandy silt with some gravel. Color: 10YR 5/3 brown.	- 4 -	3	NR	Y	NA		SAIC03
	Loose, slightly plastic, subangular to subrounded gravel	- -						
	(up to 20 mm), poorly sorted, and moist.	- 5 -						
		- -						
	Notes:	- -						**Notes:**
	1. Total depth of boring is approximately 6 feet BLS due to	- -						NA - Not Applicable
	geoprobe refusal.	- -						NR - Not Recorded
	2. Borehole was abandoned using granular Ben-Seal bentonite	- -						BLS - below land surface
	and topped with an asphalt patch.	- -						
	3. Boring location was marked with a 2 inch brass survey marker	- -						
	placed into the asphalt patch. The boring ID was stampled on top	- -						
	of the survey marker.	- -						
	4. The drilling company was Dan's Field Service.	- -						
		- -						

SAIC
An Employee-Owned Company

Site Name: DCD	Boring No. SB-33A-12	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 14'
Fed ID No. NA	Probed Depth: 14'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 2/25/99	Finish Date: 2/25/99
First Encountered Water: NA	Static Water Level: NA	Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel:
G - Glenn Haupt
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some sand. Color: 10YR 4/2 dark grayish brown Slightly dense, slightly plastic, and moist. Root structures.	1	1	NA	Y	NA		SAIC01. Grab Sample.
GM	(1.5-3.5') Silt with clay. Color: 10YR 5/3 brown. Loose, medium plastic, very moldable, and moist.	2	2	NR	Y	NA		SAIC02.
		3						
		4						
GM	(4-6') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	5	3	NR	Y	NA		SAIC03
		6						
		7						
		8						
		9						
		10						
GW	(10-12') Gravel, some medium to coarse sand, trace silt. Color: 10YR 5/4 yellowish brown. Loose, poorly sorted, subrounded gravel (up to 20 mm), and slightly moist.	11	4	NR	Y	NA		SAIC04 Field Duplicate collected.
		12						
ML	(12-14') Silt, trace course sand. Color: 10YR 5/4 yellowish brown. Moist.	13	5	NR	Y	NA		SAIC05 Field Duplicate collected.
		14						
	Notes:	15						**Notes:**

1. Total depth of boring is approximately 14 feet BLS.
2. Borehole was abandoned using granular Ben-Seal bentonite and topped with an asphalt patch.
3. Boring location was marked with a 2 inch brass survey marker placed into the asphalt patch. The boring ID was stampled on top of the survey marker.
4. The drilling company was Dan's Field Service.

NA - Not Applicable
NR - Not Recorded
BLS - below land surface

An Employee-Owned Company

Site Name: DCD	Boring No. SB-33A-13	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 13.5'
Fed ID No. NA	Probed Depth: 13.5'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 2/24/99	Finish Date: 2/24/99
First Encountered Water: NA Static Water Level: NA		Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel:
G - Glenn Haupt
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some sand, some gravel. Color: 10YR 4/2 dark grayish brown. Slightly dense, slightly plastic, and moist. Root structures.	0 - 1	1	NA	Y	NA		SAIC01. Grab Sample.
GM	(1.5-3.5') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	2 - 3	2	NR	Y	NA		SAIC02.
GM	(3.5-5.5') Sandy silt with gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	4 - 5	3	NR	Y	NA		SAIC03
		6 - 7 - 8 - 9 - 10						
GW	(10-12') Silt and clay. Color: 10YR 5/4 yellowish brown. Loose, poorly sorted, subrounded gravel (up to 20 mm), and slightly moist.	0 - 11 - 12	4	.50'	Y	NA		SAIC04
ML	(12-13.5') Fine silt, trace fine sand.	0 - 13	5	NR	Y	NA		SAIC05
	Notes: **1.** Total depth of boring is approximately 13.5 feet BLS due to geoprobe refusal. **2.** Borehole was abandoned using granular Ben-Seal bentonite and topped with an asphalt patch. **3.** Boring location was marked with a 2 inch brass survey marker placed into the asphalt patch. The boring ID was stampled on top of the survey marker. **4.** The drilling company was Dan's Field Service.	14						**Notes:** NA - Not Applicable NR - Not Recorded BLS - below land surface

SAIC
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Site Name: DCD	Boring No. SB-33A-14	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 6'
Fed ID No. NA	Probed Depth: 6'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 2/24/99	Finish Date: 2/24/99
First Encountered Water: NA Static Water Level: NA		Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel
G - Glenn Haupt
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some sand. Color: 10YR 4/2 dark grayish brown Slightly dense, slightly plastic, and moist. Root structures.	1	1	NA	Y	NA		SAIC01. Grab Sample.
GM	(1.5-3.5') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	2 3	2	NR	Y	NA		SAIC02.
GM	(3.5-5.5') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	4 5	3	NR	Y	NA		SAIC03
	Notes: **1.** Total depth of boring is approximately 6 feet BLS due to geoprobe refusal. **2.** Borehole was abandoned using granular Ben-Seal bentonite and topped with an asphalt patch. **3.** Boring location was marked with a 2 inch brass survey marker placed into the asphalt patch. The boring ID was stampled on top of the survey marker. **4.** The drilling company was Dan's Field Service.							**Notes:** NA - Not Applicable NR - Not Recorded BLS - below land surface

SAIC
An Employee-Owned Company

Site Name: DCD	Boring No. SB-33A-15	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 6'
Fed ID No. NA	Probed Depth: 6'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 2/24/99	Finish Date: 2/24/99
First Encountered Water: NA Static Water Level: NA		Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel
G - Glenn Haupt
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some sand. Color: 10YR 4/2 dark grayish brown	- -	1	NA	Y	NA		SAIC01. Grab Sample.
	Slightly dense, slightly plastic, and moist. Root structures.	- 1 -						
GM	(1-3') Sandy silt with some gravel. Color: 10YR 5/3 brown.	- -	2	NR	Y	NA		SAIC02.
	Loose, slightly plastic, subangular to subrounded gravel	- 2 -						
	(up to 20 mm), poorly sorted, and moist.	- -						
		- 3 -						
GM	(3-5') Sandy silt with some gravel. Color: 10YR 5/3 brown.	- -	3	NR	Y	NA		SAIC03
	Loose, slightly plastic, subangular to subrounded gravel	- 4 -						
	(up to 20 mm), poorly sorted, and moist.	- -						
		- 5 -						
	Notes:	- -						**Notes:**
	1. Total depth of boring is approximately 6 feet BLS due to	- -						NA - Not Applicable
	geoprobe refusal.	- -						NR - Not Recorded
	2. Borehole was abandoned using granular Ben-Seal bentonite	- -						BLS - below land surface
	and topped with an asphalt patch.	- -						
	3. Boring location was marked with a 2 inch brass survey marker	- -						
	placed into the asphalt patch. The boring ID was stampled on top	- -						
	of the survey marker.	- -						
	4. The drilling company was Dan's Field Service.	- -						

SAIC
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Site Name: DCD	Boring No. SB-33A-16	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 14'
Fed ID No. NA	Probed Depth: 14'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 2/24/99	Finish Date: 2/24/99
First Encountered Water: NA Static Water Level: NA		Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel:
G - Glenn Haupt
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some sand. Color: 10YR 4/2 dark grayish brown Slightly dense, slightly plastic, and moist. Root structures.	1	1	NA	Y	NA		SAIC01. Grab Sample.
GM	(1.5-3.5') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	2 3	2	NR	Y	NA		SAIC02.
		4 5						
GM	(5-7') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	6 7	3	NR	Y	NA		SAIC03
		8 9 10						
GW	(10-12') Gravel, some medium to coarse sand, trace silt. Color: 10YR 5/4 yellowish brown. Loose, poorly sorted, subrounded gravel (up to 20 mm), and slightly moist.	11 12	4	NR	Y	NA		SAIC04
ML	(12-13.6') Fine silt, trace fine sand.	13	5	NR	Y	NA		SAIC05
	Notes: **1.** Total depth of boring is approximately 14 feet BLS due to geoprobe refusal. **2.** Borehole was abandoned using granular Ben-Seal bentonite and topped with an asphalt patch. **3.** Boring location was marked with a 2 inch brass survey marker placed into the asphalt patch. The boring ID was stampled on top of the survey marker. **4.** The drilling company was Dan's Field Service.							**Notes:** NA - Not Applicable NR - Not Recorded BLS - below land surface

SAIC
An Employee-Owned Company

Site Name: DCD	Boring No. SB-33A-17 & 17A	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 13.5'
Fed ID No. NA	Probed Depth: 13.5'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 2/24/99	Finish Date: 2/24/99
First Encountered Water: NA Static Water Level: NA		Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel
G - Glenn Haupt
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/N	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some sand. Color: 10YR 4/2 dark grayish brown Slightly dense, slightly plastic, and moist. Root structures.	0 - 1	1	NA	Y	NA		SAIC01. Grab Sample.
GM	(1.5-3.5') Sandy silt and gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	2 - 3	2	NR	Y	NA		SAIC02. Rocky gravelly soil. Second sample collected (17a).
		4 - 5						
GM	(5-7') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	6 - 7	3	NR	Y	NA		SAIC03. A Duplicate sample was also collected and combined with this sample due to volume requirements.
		8 - 9 - 10						
GW	(10-12') Gravel, some medium to coarse sand, trace silt. Color: 10YR 5/4 yellowish brown. Loose, poorly sorted, subrounded gravel (up to 20 mm), and slightly moist.	11 - 12	4	0.5'	Y	NA		SAIC04
ML	(12-14') Silt, trace fine sand.	13 - 14	5	NR	Y	NA		SAIC05
	Notes: 1. Total depth of boring is approximately 13.5 feet BLS due to geoprobe refusal. 2. Borehole was abandoned using granular Ben-Seal bentonite and topped with an asphalt patch. 3. Boring location was marked with a 2 inch brass survey marker placed into the asphalt patch. The boring ID was stampled on top of the survey marker. 4. The drilling company was Dan's Field Service.	15						**Notes:** NA - Not Applicable NR - Not Recorded BLS - below land surface

SAIC
An Employee-Owned Company

Site Name: DCD	Boring No. SB-33A-18	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 13.7'
Fed ID No. NA	Probed Depth: 13.7'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 2/24/99	Finish Date: 2/24/99
First Encountered Water: NA Static Water Level: NA		Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel:
G - Glenn Haupt
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some sand. Color: 10YR 4/2 dark grayish brown Slightly dense, slightly plastic, and moist. Root structures.	1	1	NA	Y	NA		SAIC01. Grab Sample.
GM	(1-3') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	2 3	2	NR	Y	NA		SAIC02.
		4 5						
GM	(5-7') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	6 7	3	NR	Y	NA		SAIC03
		8 9 10						
GW	(10-12') Gravel, some medium to coarse sand, trace silt. Color: 10YR 5/4 yellowish brown. Loose, poorly sorted, subrounded gravel (up to 20 mm), and slightly moist.	11 12	4	NR	Y	NA		SAIC04
ML	(12-14') Silt, trace fine sand.	13 14	5	NR	Y	NA		SAIC05. Hardpan encountered 13.7'.
	Notes: **1.** Total depth of boring is approximately 13.7 feet BLS due to geoprobe refusal. **2.** Borehole was abandoned using granular Ben-Seal bentonite and topped with an asphalt patch. **3.** Boring location was marked with a 2 inch brass survey marker placed into the asphalt patch. The boring ID was stampled on top of the survey marker. **4.** The drilling company was Dan's Field Service.	15						**Notes:** NA - Not Applicable NR - Not Recorded BLS - below land surface

SAIC
An Employee-Owned Company

Site Name: DCD	Boring No. SB-33A-19	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 7'
Fed ID No. NA	Probed Depth: 7'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 2/24/99	Finish Date: 2/24/99
First Encountered Water: NA	Static Water Level: NA	Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel:
G - Glenn Haupt
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some sand. Color: 10YR 4/2 dark grayish brown Slightly dense, slightly plastic, and moist. Root structures.	0–1	1	NA	Y	NA		SAIC01. Grab Sample.
GM	(1-3') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	2–3	2	NR	Y	NA		SAIC02.
		4–5						
GM	(5-7') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	6–7	3	1.0	Y	NA		SAIC03. Hardpan at 6'. Geoprobe refusal at 7'.

Notes:
1. Total depth of boring is approximately 7 feet BLS.
2. Borehole was abandoned using granular Ben-Seal bentonite and topped with an asphalt patch.
3. Boring location was marked with a 2 inch brass survey marker placed into the asphalt patch. The boring ID was stampled on top of the survey marker.
4. The drilling company was Dan's Field Service.

Notes:
NA - Not Applicable
NR - Not Recorded
BLS - below land surface

SAIC
An Employee-Owned Company

Site Name: DCD	Boring No. SB-33A-19FD	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 7'
Fed ID No. NA	Probed Depth: 7'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 2/24/99	Finish Date: 2/24/99
First Encountered Water: NA Static Water Level: NA		Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel
G - Glenn Haupt
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some sand. Color: 10YR 4/2 dark grayish brown Slightly dense, slightly plastic, and moist. Root structures.	1	1	NA	Y	NA		SAIC01.·Grab Sample.
GM	(1-3') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	2 3	2	NR	Y	NA		SAIC02D.
		4 5						
GM	(5-7') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	6 7	3	NR	Y	NA		SAIC03D.

Notes:
1. Total depth of boring is approximately 7 feet BLS.
2. Borehole was abandoned using granular Ben-Seal bentonite and topped with an asphalt patch.
3. Boring location was marked with a 2 inch brass survey marker placed into the asphalt patch. The boring ID was stampled on top of the survey marker.
4. The drilling company was Dan's Field Service.

Notes:
NA - Not Applicable
NR - Not Recorded
BLS - below land surface

SAIC
An Employee-Owned Company

Site Name: DCD	Boring No. SB-33A-20	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 7'
Fed ID No. NA	Probed Depth: 7'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 2/23/99	Finish Date: 2/23/99
First Encountered Water: NA Static Water Level: NA		Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel:
G - Glenn Haupt
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some sand. Color: 10YR 4/2 dark grayish brown Slightly dense, slightly plastic, and moist. Root structures.	0–1	1	NA	Y	NA		SAIC01. Grab Sample.
GM	(1-3') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	2–3	2	NR	Y	NA		SAIC02.
		4–5						
GM	(5-7') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	6–7	3	NR	Y	NA		SAIC03.

Notes:
1. Total depth of boring is approximately 7 feet BLS due to geoprobe refusal.
2. Borehole was abandoned using granular Ben-Seal bentonite and topped with an asphalt patch.
3. Boring location was marked with a 2 inch brass survey marker placed into the asphalt patch. The boring ID was stampled on top of the survey marker.
4. The drilling company was Dan's Field Service.

Notes:
NA - Not Applicable
NR - Not Recorded
BLS - below land surface

SAIC
An Employee-Owned Company

Site Name: DCD	Boring No. SB-33A-21	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 14'
Fed ID No. NA	Probed Depth: 14'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 2/23/99	Finish Date: 2/23/99
First Encountered Water: NA	Static Water Level: NA	Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel:
G - Glenn Haupt
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some sand. Color: 10YR 4/2 dark grayish brown Slightly dense, slightly plastic, and moist. Root structures.	1	1	NA	Y	NA		SAIC01. Grab Sample.
GM	(1-3') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	2 3	2	NR	Y	NA		SAIC02.
		4 5						
GM	(5-7') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	6 7	3	NR	Y	NA		SAIC03
		8 9 10						
GW	(10-12') Gravel, some medium to coarse sand, trace silt. Color: 10YR 5/4 yellowish brown. Loose, poorly sorted, subrounded gravel (up to 20 mm), and slightly moist.	11 12	4	NR	Y	NA		SAIC04
ML	(12-14') Silt, trace fine sand.	13 14	5	NR	Y	NA		SAIC05.
	Notes: 1. Total depth of boring is approximately 14 feet BLS. 2. Borehole was abandoned using granular Ben-Seal bentonite and topped with an asphalt patch. 3. Boring location was marked with a 2 inch brass survey marker placed into the asphalt patch. The boring ID was stampled on top of the survey marker. 4. The drilling company was Dan's Field Service.							**Notes:** NA - Not Applicable NR - Not Recorded BLS - below land surface

SAIC
An Employee-Owned Company

Site Name: DCD	Boring No. SB-33A-22	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 13.9'
Fed ID No. NA	Probed Depth: 13.9'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 2/24/99	Finish Date: 2/24/99
First Encountered Water: NA Static Water Level: NA		Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel:
G - Glenn Haupt
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some sand. Color: 10YR 4/2 dark grayish brown Slightly dense, slightly plastic, and moist. Root structures.	0 - 1	1	NA	Y	NA		SAIC01. Grab Sample.
GM	(1-3') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	1 - 3	2	NR	Y	NA		SAIC02.
		3 - 5						
GM	(5-7') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	5 - 7	3	NR	Y	NA		SAIC03
		7 - 10						
GW	(10-12') Gravel, some medium to coarse sand, trace silt. Color: 10YR 5/4 yellowish brown. Loose, poorly sorted, subrounded gravel (up to 20 mm), and slightly moist.	10 - 12	4	NR	Y	NA		SAIC04
ML	(12-13.6') Silt, trace fine sand.	12 - 13	5	NR	Y	NA		SAIC05. Hardpan reached at 13.6'
	Notes: **1.** Total depth of boring is approximately 13.9 feet BLS. **2.** Borehole was abandoned using granular Ben-Seal bentonite and topped with an asphalt patch. **3.** Boring location was marked with a 2 inch brass survey marker placed into the asphalt patch. The boring ID was stampled on top of the survey marker. **4.** The drilling company was Dan's Field Service.	13 - 13						**Notes:** NA - Not Applicable NR - Not Recorded BLS - below land surface

SAIC
An Employee-Owned Company

Site Name: DCD	Boring No. SB-33A-23	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 13.7'
Fed ID No. NA	Probed Depth: 13.7'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 2/23/99	Finish Date: 2/23/99
First Encountered Water: NA Static Water Level: NA		Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel
G - Glenn Haupt
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some sand. Color: 10YR 4/2 dark grayish brown Slightly dense, slightly plastic, and moist. Root structures.	0 - 1	1	NA	Y	NA		SAIC01. Grab Sample.
GM	(1.5-3.5') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	2 - 3	2	NR	Y	NA		SAIC02.
		4 - 5						
GM	(5-7') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	6 - 7	3	NR	Y	NA		SAIC03
		8 - 9 - 10						
GW	(10-12') Gravel, some medium to coarse sand, trace silt. Color: 10YR 5/4 yellowish brown. Loose, poorly sorted, subrounded gravel (up to 20 mm), and slightly moist.	11 - 12	4	NR	Y	NA		SAIC04
ML	(12-13.7') Fine silt, trace fine sand.	13	5	NR	Y	NA		SAIC05. Refusal at 13.7'.
	Notes: **1.** Total depth of boring is approximately 13.7 feet BLS due to geoprobe refusal. **2.** Borehole was abandoned using granular Ben-Seal bentonite and topped with an asphalt patch. **3.** Boring location was marked with a 2 inch brass survey marker placed into the asphalt patch. The boring ID was stampled on top of the survey marker. **4.** The drilling company was Dan's Field Service.	14 - 15						**Notes:** NA - Not Applicable NR - Not Recorded BLS - below land surface

SAIC
An Employee-Owned Company

Site Name: DCD	Boring No. SB-33A-24	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 13'
Fed ID No. NA	Probed Depth: 13'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 2/24/99	Finish Date: 2/24/99
First Encountered Water: NA Static Water Level: NA		Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel:
G - Glenn Haupt
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some sand. Color: 10YR 4/2 dark grayish brown Slightly dense, slightly plastic, and moist. Root structures.	0 - 1	1	NA	Y	NA		SAIC01. Grab Sample.
GM	(1-3') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	1 - 3	2	NR	Y	NA		SAIC02.
		3 - 5						
GM	(5-7') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	5 - 7	3	NR	Y	NA		SAIC03
		7 - 10						
GW	(10-12') Gravel, some medium to coarse sand, trace silt. Color: 10YR 5/4 yellowish brown. Loose, poorly sorted, subrounded gravel (up to 20 mm), and slightly moist.	10 - 12	4	NR	Y	NA		SAIC04
ML	(12-13') Fine silt, trace fine sand.	12 - 13	5	NR	Y	NA		SAIC05. Geoprobe Refusal at 13'.

Notes:
1. Total depth of boring is approximately 13 feet BLS.
2. Borehole was abandoned using granular Ben-Seal bentonite and topped with an asphalt patch.
3. Boring location was marked with a 2 inch brass survey marker placed into the asphalt patch. The boring ID was stampled on top of the survey marker.
4. The drilling company was Dan's Field Service.

Notes:
NA - Not Applicable
NR - Not Recorded
BLS - below land surface

SAIC
An Employee-Owned Company

Site Name: DCD	Boring No. SB-33A-25	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 15.5'
Fed ID No. NA	Probed Depth: 15.5'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 2/23/99	Finish Date: 2/23/99
First Encountered Water: NA	Static Water Level: NA	Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel
G - Glenn Haupt
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some sand. Color: 10YR 4/2 dark grayish brown Slightly dense, slightly plastic, and moist. Root structures.	- 1 -	1	NA	Y	NA		SAIC01. Grab Sample.
ML	(1-3') Silt with clay. Color: 10YR 5/3 brown. Loose, medium plastic, very moldable, and moist.	- 2 - - 3 -	2	NR	Y	NA		SAIC02. Void space below grade, poor Geoprobe recovery. Driller moved 1' to side of borehole to push new sample.
		- 4 - - 5 -						
GM	(5-7') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	- 6 - - 7 -	3	NR	Y	NA		SAIC03
		- 8 - - 9 - - 10 -						
GW	(10-12') Gravel, some medium to coarse sand, trace silt. Color: 10YR 5/4 yellowish brown. Loose, poorly sorted, subrounded gravel (up to 20 mm), and slightly moist.	- 11 - - 12 -	4	NR	Y	NA		SAIC04
		- 13 - - 14 - - 15 -						
	(15-15.5')	-		NR	N	NA		Analytical sample not collected.

SAIC
An Employee-Owned Company

Site Name: DCD	Boring No. SB-33A-25	Monitoring Well No. NA

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Samples: Moisture | Sample No. | Sample Recovery | Lab Analysis Y/ | N Valves (Blows) | FID or PID LEL Readings

Personnel:
G - Glenn Haupt
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	REMARKS
	Notes:		**Notes:**
	1. Total depth of boring is approximately 15.5 feet BLS. Geoprobe refusal.		NA - Not Applicable
	2. Borehole was abandoned using granular Ben-Seal bentonite and topped with an asphalt patch.		NR - Not Recorded
	3. Boring location was marked with a 2 inch brass survey marker placed into the asphalt patch. The boring ID was stampled on top of the survey marker.		BLS - below land surface
	4. The drilling company was Dan's Field Service.		
	5. Hit hard pan at 15'.		

SAIC
An Employee-Owned Company

Site Name: DCD	Boring No. SB-33A-26	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 15'
Fed ID No. NA	Probed Depth: 15'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 2/23/99	Finish Date: 2/23/99
First Encountered Water: NA	Static Water Level: NA	Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel:
G - Glenn Haupt
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some sand. Color: 10YR 4/2 dark grayish brown Slightly dense, slightly plastic, and moist. Root structures.	1	1	NA	Y	NA		SAIC01. Grab Sample.
GM	(1-3') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	2 3	2	NR	Y	NA		SAIC02.
		4 5						
GM	(5-7') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	6 7	3	NR	Y	NA		SAIC03
		8 9 10						
GW	(10-12') Gravel, some medium to coarse sand, trace silt. Color: 10YR 5/4 yellowish brown. Loose, poorly sorted, subrounded gravel (up to 20 mm), and slightly moist.	11 12	4	NR	Y	NA		SAIC04
		13						
ML	(13-15') Silt, trace fine sand.	14 15	5	NR	Y	NA		SAIC05. Driller hit hardpan at 14'.

SAIC
An Employee-Owned Company

Site Name: DCD		Boring No. SB-33A-26			Monitoring Well No. NA				
Drilling Equipment: Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.			Samples						Personnel G - Glenn Haupt D - Dan Plotts H - Brad Holdaway H -
USCS	DESCRIPTION	Depth in feet	Moisture	Sample No.	Sample Recovery	Lab Analysis Y/	N Valves (Blows)	FID or PID LEL Readings	REMARKS
	Notes: **1.** Total depth of boring is approximately 15 feet BLS. **2.** Borehole was abandoned using granular Ben-Seal bentonite and topped with an asphalt patch. **3.** Boring location was marked with a 2 inch brass survey marker placed into the asphalt patch. The boring ID was stampled on top of the survey marker. **4.** The drilling company was Dan's Field Service. **5.** Hit hard pan at 14'.								**Notes:** NA - Not Applicable NR - Not Recorded BLS - below land surface

SAIC
An Employee-Owned Company

Site Name: DCD	Boring No. SB-33A-27	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 14'
Fed ID No. NA	Probed Depth: 14'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 2/23/99	Finish Date: 2/23/99
First Encountered Water: NA Static Water Level: NA		Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel:
G - Glenn Haupt
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some sand. Color: 10YR 4/2 dark grayish brown Slightly dense, slightly plastic, and moist. Root structures.	1	1	NA	Y	NA		SAIC01. Grab Sample.
GM	(1-3') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	2 3	2	NR	Y	NA		SAIC02.
		4 5						
GM	(5-7') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	6 7	3	NR	Y	NA		SAIC03
		8 9 10						
GW	(10-12') Gravel, some medium to coarse sand, trace silt. Color: 10YR 5/4 yellowish brown. Loose, poorly sorted, subrounded gravel (up to 20 mm), and slightly moist.	11 12	4	NR	Y	NA		SAIC04
ML	(12-14') Silt, trace fine sand.	13 14	5	NR	Y	NA		SAIC05
	Notes: **1.** Total depth of boring is approximately 14 feet BLS. **2.** Borehole was abandoned using granular Ben-Seal bentonite and topped with an asphalt patch. **3.** Boring location was marked with a 2 inch brass survey marker placed into the asphalt patch. The boring ID was stampled on top of the survey marker. **4.** The drilling company was Dan's Field Service.	15						**Notes:** NA - Not Applicable NR - Not Recorded BLS - below land surface

SAIC
An Employee-Owned Company

Site Name: DCD	Boring No. SB-33A-28	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 17'
Fed ID No. NA	Probed Depth: 17'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date 2/22/99	Finish Date: 2/22/99
First Encountered Water: NA	Static Water Level: NA	Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel
G - Glenn Haupt
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some sand. Color: 10YR 4/2 dark grayish brown Slightly dense, slightly plastic, and moist. Root structures.	- 1 -	1	NA	Y	NA		SAIC01. Grab Sample.
GM	(1-3') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	- 2 - 3 -	2	NR	Y	NA		SAIC02
		- 4 - 5 -						
GM	(5-7') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	- 6 - 7 -	3	NR	Y	NA		SAIC03
		- 8 - 9 - 10 -						
GW	(10-12') Gravel, some medium to coarse sand, trace silt. Color: 10YR 5/4 yellowish brown. Loose, poorly sorted, subrounded gravel (up to 20 mm), and slightly moist.	- 11 - 12 -	4	NR	Y	NA		SAIC04
		- 13 - 14 - 15 -						
ML	(15-17') Silt, trace fine sand.	- 16 - 17 -	5	NR	Y	NA		SAIC05
		- - -						

SAIC
An Employee-Owned Company

Site Name: DCD	Boring No. SB-33A-28	Monitoring Well No. NA

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Samples: Moisture | Sample No. | Sample Recovery | Lab Analysis Y/N | Valves (Blows) | FID or PID LEL Readings

Personnel:
G - Glenn Haupt
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	REMARKS
	Notes: 1. Total depth of boring is approximately 17 feet BLS. 2. Borehole was abandoned using granular Ben-Seal bentonite and topped with an asphalt patch. 3. Boring location was marked with a 2-inch brass survey marker placed into the asphalt patch. The boring ID was stamped on top of the survey marker. 4. The drilling company was Dan's Field Service.		**Notes:** NA - Not Applicable NR - Not Recorded BLS - below land surface

SAIC
An Employee-Owned Company

Site Name: DCD	Boring No. SB-33A-29	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 14'
Fed ID No. NA	Probed Depth: 14'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 2/23/99	Finish Date: 2/23/99
First Encountered Water: NA	Static Water Level: NA	Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel
G - Glenn Haupt
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/	N Valves (Blows)	Lithology	REMARKS
		Samples						
ML	(0 to 0.5') Silt, some sand. Color: 10YR 4/2 dark grayish brown	- -	1	NA	Y	NA		SAIC01. Grab Sample.
	Slightly dense, slightly plastic, and moist. Root structures.	- 1 -						
GM	(1-3') Sandy silt with some gravel. Color: 10YR 5/3 brown.	- -	2	NR	Y	NA		SAIC02.
	Loose, slightly plastic, subangular to subrounded gravel	- 2 -						
	(up to 20 mm), poorly sorted, and moist.	- -						
		- 3 -						
		- 4 -						
		- -						
		- 5 -						
GM	(5-7') Sandy silt with some gravel. Color: 10YR 5/3 brown.	- -	3	NR	Y	NA		SAIC03
	Loose, slightly plastic, subangular to subrounded gravel	- 6 -						
	(up to 20 mm), poorly sorted, and moist.	- -						
		- 7 -						
		- -						
		- 8 -						
		- -						
		- 9 -						
		- -						
		- 10 -						
GW	(10-12') Gravel, some medium to coarse sand, trace silt. Color:	- -	4	NR	Y	NA		SAIC04
	10YR 5/4 yellowish brown. Loose, poorly sorted, subrounded	- 11 -						
	gravel (up to 20 mm), and slightly moist.	- -						
		- 12 -						
ML	(12-14') Silt, trace fine sand.	- -	5	NR	Y	NA		SAIC05
		- 13 -						
		- -						

Notes:
1. Total depth of boring is approximately 13.5 feet BLS due to geoprobe refusal.
2. Borehole was abandoned using granular Ben-Seal bentonite and topped with an asphalt patch.
3. Boring location was marked with a 2 inch brass survey marker placed into the asphalt patch. The boring ID was stampled on top of the survey marker.
4. The drilling company was Dan's Field Service.

Notes:
NA - Not Applicable
NR - Not Recorded
BLS - below land surface

SWMU 33B
OUTSIDE BUILDING 536

SWMU 33B
SOIL BORING LOGS

Boring Location

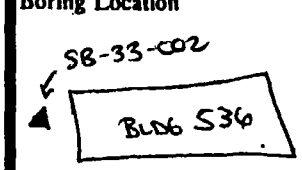
SB-33-001

Bldg 536

Project: TOOELE ARMY DEPOT - SOUTH AREA		SWMU No: 33, Building 536
Start date and time: 9/20/94 1205		Completion data and time: 9/20/94 1300
Drilling Contractor: SAIC		Drilling Method: SLIDE HAMMER & HAND TOOLS
Logged by: J. Pendleton		
Total depth (feet): 1.5' BLS		Diameter (inches): N/A
Sampler type and size (diameter and length): Slide Hammer with 6" x 2" core barrel		
Samples collected from boring: SB-33-001A, 001B, 001C		

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
0	0	0	N/A	SO	100	70% GRAVEL 20% SAND 10% SILT	GM Light grey 10YR5/1 sandy gravel with some silt (Road base) gravel poorly sorted subrounded-angular, (2-6cm), sand med. to coarse grained, poorly sorted, subrounded. silt dry, loose, low plasticity
0.5	0	0	N/A	SO	100	60% GRAVEL 25% SAND 15% SILT	GM Light grey 10YR5/1 sandy gravel with some silt, gravel subangular-subrounded, size 2-5 cm, sand - fine to med. grained, well sorted, silt, dry, loose, poor plasticity
1.0	0	0	N/A	SO	100	75% SILT 15% SAND 10% GRAVEL	SM Grayish brown 10YR5/2 sandy silt with some gravel, silt loose dry, (low density, low consistency) gravel poorly sorted, subrounded
1.5							
4							

Boring Location



Project: TOOELE ARMY DEPOT - SOUTH AREA | SWMU No: 33 BUILDING 536

Start date and time: 9/20/94 1300 | Completion data and time: 9/20/94 1400

Drilling Contractor: SAIC | Drilling Method: SLIDE HAMMER W 2"x6" CORE BARREL

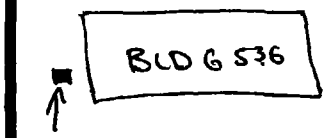
Logged by: J. Pendleton

Total depth (feet): 1.5' BLS | Diameter (inches): N/A

Sampler type and size (diameter and length): SLIDE HAMMER WITH 6" x 2" CORE BARREL

Samples collected from boring: SB-33-002A, 002B, 002C

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
0	0	0	N/A	SO	100%	50% ~~SILT~~	ML LIGHT GRAYISH BROWN 10YR5/2 CLAYEY SILT WITH SOME GRAVEL, LOOSE, DRY, LOW DENSITY GRAVEL POORLY SORTED SUBROUNDED 2-5CM IN DIA.
						40% CLAY	
						10% GRAVEL	
0.5	0	0	N/A	SO	100%	50%	ML GRAYISH BROWN 10YR5/2 CLAYEY SILT WITH SOME GRAVEL, LOOSE, DRY LOW DENSITY, GRAVEL SUBROUNDED POORLY SORTED.
						~~45%~~ 30%	
						20%	
1.0	0	0	N/A	SO	100%		ML GRAYISH BROWN 10YR5/2 CLAYEY SILT WITH SOME GRAVEL, LOOSE, DRY, LOW DENSITY, GRAVEL SUBROUNDED 2-5CM IN DIA.
1.5							
4							

Boring Location	Project: TEAD - SOUTH	SWMU No: 33 BUILDING 536
	Start date and time: 9/20/95	Completion data and time: 9/20/95
	Drilling Contractor: SAIC	Drilling Method: SLIDE HAMMER W 2"x6" CORE BARREL
	Logged by: J. Pendleton	
	Total depth (feet): 1.5' BLS	Diameter (inches): N/A
	Sampler type and size (diameter and length): SLIDE HAMMER WITH CORE BARREL 2"x6"	
	Samples collected from boring: SB-33-003A, 003B, 003C	

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
0	0	0	N/A	SO	100%	40% SILT 30% CLAY 20% GRAVEL	ML GRAYISH BROWN 10YR 5/2 CLAYEY SILT WITH SOME GRAVEL, LOOSE DRY (LOW PLASTICITY, LOW DENSITY) GRAVEL 2-5 CM, SUBANGULAR - SUBROUNDED.
0.5	0	0	N/A	SO	100%	50% SILT 30% CLAY 20% GRAVEL	ML GRAYISH BROWN 10YR 5/2 CLAYEY SILT, LOOSE, DRY GRAVEL SUBROUNDED 2-5 CM IN SIZE
1.0	0	0	N/A	SO	100%	40% SILT 40% CLAY 20% GRAVEL	ML LIGHT BROWN 10YR 5/2 CLAYEY SILT, LOOSE DRY GRAVEL 2-5 CM IN DIA. SUBROUNDED
1.5	0	0	N/A		N/A		
4							

SAIC
An Employee-Owned Company

Site Name: DCD	Boring No. SB-33B-30	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 7'
Fed ID No. NA	Probed Depth: 7'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 2/22/99	Finish Date: 2/22/99
First Encountered Water: NA	Static Water Level: NA	Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel:
G - Glenn Haupt
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/N	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some sand. Color: 10YR 4/2 dark grayish brown Slightly dense, slightly plastic, and moist. Root structures.	0–1	1	NA	Y	NA		SAIC01. Grab Sample.
GM	(1-3') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	2–3	2	NR	Y	NA		SAIC02
		4–5						
GM	(5-7') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	6–7	3	NR	Y	NA		SAIC03

Notes:
1. Total depth of boring is approximately 7 feet BLS.
2. Borehole was abandoned using granular Ben-Seal bentonite.
3. Boring location was marked with 1-inch diameter PVC pipe with affixed brass tag. The boring identification was stamped on the tag.
4. The drilling company was Dan's Field Service.

Notes:
NA - Not Applicable
NR - Not Recorded
BLS - below land surface

SAIC
An Employee-Owned Company

Site Name: DCD	Boring No. SB-33B-31	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 7'
Fed ID No. NA	Probed Depth: 7'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date 2/22/99	Finish Date: 2/22/99
First Encountered Water: NA Static Water Level: NA		Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel
G - Glenn Haupt
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some sand. Color: 10YR 4/2 dark grayish brown	- -	1	NA	Y	NA		SAIC01. Grab Sample.
	Slightly dense, slightly plastic, and moist. Root structures.	- 1 -						
GM	(1-3') Sandy silt with some gravel. Color: 10YR 5/3 brown.	- -	2	NR	Y	NA		SAIC02
	Loose, slightly plastic, subangular to subrounded gravel	- 2 -						
	(up to 20 mm), poorly sorted, and moist.	- -						
		- 3 -						
		- -						
		- 4 -						
		- -						
		- 5 -						
GM	(5-7') Sandy silt with some gravel. Color: 10YR 5/3 brown.	- -	3	1.0	Y	NA		SAIC03. At 7' driller hit void and drill dropped ~1'.
	Loose, slightly plastic, subangular to subrounded gravel	- 6 -						
	(up to 20 mm), poorly sorted, and moist.	- -						
		- 7 -						

Notes:
1. Total depth of boring is approximately 7 feet BLS.
2. Borehole was abandoned using granular Ben-Seal bentonite.
3. Boring location was marked with 1-inch diameter PVC pipe with affixed brass tag. The boring identification was stamped on the tag.
4. The drilling company was Dan's Field Service.

Notes:
NA - Not Applicable
NR - Not Recorded
BLS - below land surface

SAIC
An Employee-Owned Company

Site Name: DCD	Boring No. SB-33B-32	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 7'
Fed ID No. NA	Probed Depth: 7'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 2/22/99	Finish Date: 2/22/99
First Encountered Water: NA	Static Water Level: NA	Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel:
G - Glenn Haupt
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/N	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some sand. Color: 10YR 4/2 dark grayish brown Slightly dense, slightly plastic, and moist. Root structures.	1	1	NA	Y	NA		SAIC01. Grab Sample.
GM	(1-3') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	2 3	2	NR	Y	NA		SAIC02 & 02D. Field Duplicate collected.
		4 5						
GM	(5-7') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	6 7	3	NR	Y	NA		SAIC03 & 03D Field Duplicate collected.

Notes:
1. Total depth of boring is approximately 7 feet BLS.
2. Borehole was abandoned using granular Ben-Seal bentonite.
3. Boring location was marked with 1-inch diameter PVC pipe with affixed brass tag. The boring identification was stamped on the tag.
4. The drilling company was Dan's Field Service.

Notes:
NA - Not Applicable
NR - Not Recorded
BLS - below land surface

SAIC
An Employee-Owned Company

Site Name: DCD	Boring No. SB-33B-33	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 7'
Fed ID No. NA	Probed Depth: 7'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 2/22/99	Finish Date: 2/22/99
First Encountered Water: NA	Static Water Level: NA	Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel:
G - Glenn Haupt
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/N	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some sand. Color: 10YR 4/2 dark grayish brown Slightly dense, slightly plastic, and moist. Root structures.	1	1	NA	Y	NA		SAIC01. Grab Sample.
GM	(1-3') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	2, 3	2	NR	Y	NA		SAIC02
		4, 5						
GM	(5-7') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	6, 7	3	NR	Y	NA		SAIC03

Notes:
1. Total depth of boring is approximately 7 feet BLS.
2. Borehole was abandoned using granular Ben-Seal bentonite.
3. Boring location was marked with 1-inch diameter PVC pipe with affixed brass tag. The boring identification was stamped on the tag.
4. The drilling company was Dan's Field Service.

Notes:
NA - Not Applicable
NR - Not Recorded
BLS - below land surface

SAIC
An Employee-Owned Company

Site Name: DCD	Boring No. SB-33B-34	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 7'
Fed ID No. NA	Probed Depth: 7'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 2/22/99	Finish Date: 2/22/99
First Encountered Water: NA	Static Water Level: NA	Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel
G - Glenn Haupt
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/N	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some sand. Color: 10YR 4/2 dark grayish brown Slightly dense, slightly plastic, and moist. Root structures.	0–1	1	NA	Y	NA		SAIC01. Grab Sample.
GM	(1-3') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	1–3	2	NR	Y	NA		SAIC02
		3–5						
GM	(5-7') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	5–7	3	NR	Y	NA		SAIC03

Notes:
1. Total depth of boring is approximately 7 feet BLS.
2. Borehole was abandoned using granular Ben-Seal bentonite.
3. Boring location was marked with 1-inch diameter PVC pipe with affixed brass tag. The boring identification was stamped on the tag.
4. The drilling company was Dan's Field Service.

Notes:
NA - Not Applicable
NR - Not Recorded
BLS - below land surface

SAIC
An Employee-Owned Company

Site Name: DCD	Boring No. SB-33B-35	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 7'
Fed ID No. NA	Probed Depth: 7'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 2/22/99	Finish Date: 2/22/99
First Encountered Water: NA Static Water Level: NA		Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel
G - Glenn Haupt
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/N	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some sand. Color: 10YR 4/2 dark grayish brown Slightly dense, slightly plastic, and moist. Root structures.	1	1	NA	Y	NA		SAIC01. Grab Sample.
GM	(1-3') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	2, 3	2	NR	Y	NA		SAIC02
		4, 5						
GM	(5-7') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	6, 7	3	NR	Y	NA		SAIC03

Notes:
1. Total depth of boring is approximately 7 feet BLS.
2. Borehole was abandoned using granular Ben-Seal bentonite.
3. Boring location was marked with 1-inch diameter PVC pipe with affixed brass tag. The boring identification was stamped on the tag.
4. The drilling company was Dan's Field Service.

Notes:
NA - Not Applicable
NR - Not Recorded
BLS - below land surface

SAIC
An Employee-Owned Company

Site Name: DCD	Boring No. SB-33B-36	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 7'
Fed ID No. NA	Probed Depth: 7'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 2/22/99	Finish Date: 2/22/99
First Encountered Water: NA Static Water Level: NA		Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel
G - Glenn Haupt
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/N	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some sand. Color: 10YR 4/2 dark grayish brown	0	1	NA	Y	NA		SAIC01. Grab Sample.
	Slightly dense, slightly plastic, and moist. Root structures.	1						
GM	(1-3') Sandy silt with some gravel. Color: 10YR 5/3 brown.		2	NR	Y	NA		SAIC02
	Loose, slightly plastic, subangular to subrounded gravel	2						
	(up to 20 mm), poorly sorted, and moist.							
		3						
		4						
		5						
GM	(5-7') Sandy silt with some gravel. Color: 10YR 5/3 brown.		3	NR	Y	NA		SAIC03
	Loose, slightly plastic, subangular to subrounded gravel	6						
	(up to 20 mm), poorly sorted, and moist.	7						

Notes:
1. Total depth of boring is approximately 7 feet BLS.
2. Borehole was abandoned using granular Ben-Seal bentonite.
3. Boring location was marked with 1-inch diameter PVC pipe with affixed brass tag. The boring identification was stamped on the tag.
4. The drilling company was Dan's Field Service.

Notes:
NA - Not Applicable
NR - Not Recorded
BLS - below land surface

SAIC
An Employee-Owned Company

Site Name: DCD	Boring No. SB-33B-37	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 12'
Fed ID No. NA	Probed Depth: 12'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 1/24/00	Finish Date: 1/24/00
First Encountered Water: NA Static Water Level: NA		Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel
G - Wayne Stoner
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/N	N Valves (Blows)	Lithology	REMARKS
		1 2 3 4 5 6 7 8 9 10						
GW	(10-12') Gravel, some medium to coarse sand, trace silt. Color: 10YR 5/4 yellowish brown. Loose, poorly sorted, subrounded gravel (up to 20 mm), and slightly moist.	11 12	4	1.6'	Y	NA		SAIC04.
	Notes: 1. Total depth of boring is approximately 12 feet BLS. 2. Borehole was abandoned using granular Ben-Seal bentonite. 3. Boring location was marked with 1-inch diameter PVC pipe with affixed brass tag. The boring identification was stamped on the tag. 4. The drilling company was Dan's Field Service.							**Notes:** NA - Not Applicable NR - Not Recorded BLS - below land surface OD - outside diameter

SAIC
An Employee-Owned Company

Site Name: DCD	Boring No. SB-33B-38	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 7'
Fed ID No. NA	Probed Depth: 7'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date 1/24/00	Finish Date: 1/24/00
First Encountered Water: NA Static Water Level: NA		Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel:
G - Wayne Stoner
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some sand. Color: 10YR 4/2 dark grayish brown	0	1	NA	Y	NA		SAIC01. Grab Sample.
	Slightly dense, slightly plastic, and moist. Root structures.	1						
GM	(1-3') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	2	2	NR	Y	NA		SAIC02
		3						
		4						
		5						
GM	(5-7') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	6	3	NR	Y	NA		SAIC03
		7						
	Notes:	8						**Notes:**
	1. Total depth of boring is approximately 7 feet BLS.	9						NA - Not Applicable
	2. Borehole was abandoned using granular Ben-Seal bentonite.	10						NR - Not Recorded
	3. Boring location was marked with 1-inch diameter PVC pipe with affixed brass tag. The boring identification was stamped on the tag.	11						BLS - below land surface
	4. The drilling company was Dan's Field Service.	12						

SAIC
An Employee-Owned Company

Site Name: DCD	Boring No. SB-33B-39	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 8'
Fed ID No. NA	Probed Depth: 8'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 1/25/00	Finish Date: 1/25/00
First Encountered Water: NA Static Water Level: NA		Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel:
G - Wayne Stoner
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/N	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some sand. Color: 10YR 4/2 dark grayish brown Slightly dense, slightly plastic, and moist. Root structures.	0 - 1	1	NA	Y	NA		SAIC01. Grab Sample (GS)
GM	(1-3') Sandy silt, with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	1 - 3	2	1.0'	Y	NA		SAIC02
		3 - 5						
GM	(5-7') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	5 - 7	3	1.3'	Y	NA		SAIC03
	Notes: 1. Geoprobe refusal at ~ 8 feet below land surface. 2. Borehole was abandoned using granular Ben-Seal bentonite. 3. Boring location was marked with 1-inch diameter PVC pipe with affixed brass tag. The boring identification was stamped on the tag. 4. The drilling company was Dan's Field Service.	7 - 8						**Notes:** NA - Not Applicable NR - Not Recorded BLS - below land surface OD - outside diameter

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Site Name: DCD	Boring No. SB-33B-40	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 7'
Fed ID No. NA	Probed Depth: 7'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 1/25/00	Finish Date: 1/25/00
First Encountered Water: NA Static Water Level: NA		Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel
G - Wayne Stoner
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/N	N Values (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some sand. Color: 10YR 4/2 dark grayish brown	- -	1	NA	Y	NA		SAIC01&01D. Grab Sample
	Slightly dense, slightly plastic, and moist. Root structures.	- 1 -						(GS). Duplicate sample collected.
GM	(1-3') Sandy silt with some gravel. Color: 10YR 5/3 brown.	- -	2	NR	Y	NA		SAIC02
	Loose, slightly plastic, subangular to subrounded gravel	- 2 -						
	(up to 20 mm), poorly sorted, and moist.	- -						
		- 3 -						
		- -						
		- 4 -						
		- -						
		- 5 -						
GM	(5-7') Sandy silt with some gravel. Color: 10YR 5/3 brown.	- -	3	1.25	Y	NA		SAIC03&03D. Duplicate collected.
	Loose, slightly plastic, subangular to subrounded gravel	- 6 -						
	(up to 20 mm), poorly sorted, and moist.	- -						
		- 7 -						

Notes:
1. Geoprobe refusal at ~ 7 feet below land surface.
2. Borehole was abandoned using granular Ben-Seal bentonite.
3. Boring location was marked with 1-inch diameter PVC pipe with affixed brass tag. The boring identification was stamped on the tag.
4. The drilling company was Dan's Field Service.

Notes:
NA - Not Applicable
NR - Not Recorded
BLS - below land surface
OD - outside diameter

SAIC
An Employee-Owned Company

Site Name: DCD	Boring No. SB-33B-41	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 12'
Fed ID No. NA	Probed Depth: 12'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 1/25/00	Finish Date: 1/25/00
First Encountered Water: NA Static Water Level: NA		Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel
G - Wayne Stoner
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/N	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some sand, trace to some gravel. Color: 10YR 4/2 dark grayish brown. Slightly dense, slightly plastic, well rounded gravel, and moist. Root structures.	- 1 -	1	NA	Y	NA		SAIC01&01D. Grab Sample (GS). Duplicate sample collected.
GM	(1-3') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	- 2 - 3 -	2	1.1'	Y	NA		SAIC02
		- 4 - 5 -						
GM	(5-7') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	- 6 - 7 -	3	1.5'	Y	NA		SAIC03
		- 8 - 9 - 10 -						
GW	(10-12') Gravel, some medium to coarse sand, trace silt. Color: 10YR 5/4 yellowish brown. Loose, poorly sorted, subrounded gravel (up to 20 mm), and slightly moist.	- 11 - 12 -	4	1.25	Y	NA		SAIC04
	Notes: 1. Total depth of boring is approximately 12 feet BLS. 2. Borehole was abandoned using granular Ben-Seal bentonite. 3. Boring location was marked with 1-inch diameter PVC pipe with affixed brass tag. The boring identification was stamped on the tag. 4. The drilling company was Dan's Field Service.							**Notes:** NA - Not Applicable NR - Not Recorded BLS - below land surface OD - outside diameter

SAIC
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Site Name: DCD	Boring No. SB-33B-42	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 12'
Fed ID No. NA	Probed Depth: 12'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 1/25/00	Finish Date: 1/25/00
First Encountered Water: NA Static Water Level: NA		Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel
G - Wayne Stoner
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/N	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some sand. Color: 10YR 4/2 dark grayish brown Slightly dense, slightly plastic, and moist. Root structures.	1	1	NA	Y	NA		SAIC01. Grab Sample.
GM	(1-3') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	2 3	2	1.0'	Y	NA		SAIC02
		4 5						
GM	(5-7') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	6 7	3	1.3'	Y	NA		SAIC03
		8 9 10						
GW	(10-12') Gravel, some medium to coarse sand, trace silt. Color: 10YR 5/4 yellowish brown. Loose, poorly sorted, subrounded gravel (up to 20 mm), and slightly moist.	11 12	4	1.1'	Y	NA		SAIC04

Notes:
1. Total depth of boring is approximately 12 feet BLS.
2. Borehole was abandoned using granular Ben-Seal bentonite.
3. Boring location was marked with 1-inch diameter PVC pipe with affixed brass tag. The boring identification was stamped on the tag.
4. The drilling company was Dan's Field Service.

Notes:
NA - Not Applicable
NR - Not Recorded
BLS - below land surface
OD - outside diameter

SAIC
An Employee-Owned Company

Site Name: DCD	Boring No. SB-33B-43	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 12'
Fed ID No. NA	Probed Depth: 12'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 1/25/00	Finish Date: 1/25/00
First Encountered Water: NA Static Water Level: NA		Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel
G - Wayne Stoner
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/N	N Values (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some sand. Color: 10YR 4/2 dark grayish brown Slightly dense, slightly plastic, and moist. Root structures.	- 1 -	1	NA	Y	NA		SAIC01. Grab Sample.
GM	(1-3') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	- 2 - 3 -	2	1.3'	Y	NA		SAIC02 & 02ND. MS/MSD collected.
		- 4 - 5 -						
GM	(5-7') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	- 6 - 7 -	3	1.4'	Y	NA		SAIC03
		- 8 - 9 - 10 -						
GW	(10-12') Gravel, some medium to coarse sand, trace silt. Color: 10YR 5/4 yellowish brown. Loose, poorly sorted, subrounded gravel (up to 20 mm), and slightly moist.	- 11 - 12 -	4	1.3'	Y	NA		SAIC04
	Notes: 1. Total depth of boring is approximately 12 feet BLS. 2. Borehole was abandoned using granular Ben-Seal bentonite. 3. Boring location was marked with 1-inch diameter PVC pipe with affixed brass tag. The boring identification was stamped on the tag. 4. The drilling company was Dan's Field Service.							**Notes:** NA - Not Applicable NR - Not Recorded BLS - below land surface OD - outside diameter MS/MSD - matrix spike and matrix spike duplicate sample.

SAIC
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Site Name: DCD	Boring No. SB-33B-44	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 12'
Fed ID No. NA	Probed Depth: 12'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 1/25/00	Finish Date: 1/25/00
First Encountered Water: NA Static Water Level: NA		Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel
G - Wayne Stoner
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/N	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some sand. Color: 10YR 4/2 dark grayish brown Slightly dense, slightly plastic, and moist. Root structures.	0 - 1	1	NA	Y	NA		SAIC01. Grab Sample.
GM	(1-3') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	1 - 3	2	1.0'	Y	NA		SAIC02
		3 - 5						
GM	(5-7') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	5 - 7	3	1.25'	Y	NA		SAIC03&03ND. MS/MSD collected.
		7 - 10						
GW	(10-12') Gravel, some medium to coarse sand, trace silt. Color: 10YR 5/4 yellowish brown. Loose, poorly sorted, subrounded gravel (up to 20 mm), and slightly moist.	10 - 12	4	1.5'	Y	NA		SAIC04

Notes:
1. Total depth of boring is approximately 12 feet BLS.
2. Borehole was abandoned using granular Ben-Seal bentonite.
3. Boring location was marked with 1-inch diameter PVC pipe with affixed brass tag. The boring identification was stamped on the tag.
4. The drilling company was Dan's Field Service.

Notes:
NA- Not Applicable
NR - Not Recorded
BLS - below land surface
OD - outside diameter
MS/MSD - matrix spike and matrix spike duplicate sample.

SAIC
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Site Name: DCD	Boring No. SB-33B-45	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 12'
Fed ID No. NA	Probed Depth: 12'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 1/25/00	Finish Date: 1/25/00
First Encountered Water: NA Static Water Level: NA		Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel
G - Wayne Stoner
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/N	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some sand. Color: 10YR 4/2 dark grayish brown Slightly dense, slightly plastic, and moist. Root structures.	0 - 1	1	NA	Y	NA		SAIC01. Grab Sample.
GM	(1-3') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	1 - 2 - 3	2	1.0'	Y	NA		SAIC02
		3 - 4 - 5						
GM	(5-7') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	5 - 6 - 7	3	1.5'	Y	NA		SAIC03
		7 - 8 - 9 - 10						
GW	(10-12') Gravel, some medium to coarse sand, trace silt. Color: 10YR 5/4 yellowish brown. Loose, poorly sorted, subrounded gravel (up to 20 mm), and slightly moist.	10 - 11 - 12	4	1.1'	Y	NA		SAIC04
	Notes: **1.** Total depth of boring is approximately 12 feet BLS. **2.** Borehole was abandoned using granular Ben-Seal bentonite. **3.** Boring location was marked with 1-inch diameter PVC pipe with affixed brass tag. The boring identification was stamped on the tag. **4.** The drilling company was Dan's Field Service.	12 -						**Notes:** NA - Not Applicable NR - Not Recorded BLS - below land surface OD - outside diameter

SAIC
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Site Name: DCD	Boring No. SB-33B-46	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 12'
Fed ID No. NA	Probed Depth: 12'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 1/24/00	Finish Date: 1/24/00
First Encountered Water: NA Static Water Level: NA		Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel
G - Wayne Stoner
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/N	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some sand. Color: 10YR 4/2 dark grayish brown	0	1	1.5	Y	NA		SAIC01
	Slightly dense, slightly plastic, and moist. Root structures.	1						
GM	(0.5-2') Sandy silt with some gravel. Color: 10YR 5/3 brown.		2					SAIC02
	Loose, slightly plastic, subangular to subrounded gravel	2						
	(up to 20 mm), poorly sorted, and moist.							
		3						
		4						
		5						
GM	(5-7') Sandy silt with some gravel. Color: 10YR 5/3 brown.		3	2.0'	Y	NA		SAIC03
	Loose, slightly plastic, subangular to subrounded gravel	6						
	(up to 20 mm), poorly sorted, and moist.	7						
		8						
		9						
		10						
GW	(10-12') Gravel, some medium to coarse sand, trace silt. Color:		4	1.5'	Y	NA		SAIC04
	10YR 5/4 yellowish brown. Loose, poorly sorted, subrounded	11						
	gravel (up to 20 mm), and slightly moist.	12						

Notes:
1. Total depth of boring is approximately 12 feet BLS.
2. Borehole was abandoned using granular Ben-Seal bentonite.
3. Boring location was marked with 1-inch diameter PVC pipe with affixed brass tag. The boring identification was stamped on the tag.
4. The drilling company was Dan's Field Service.

Notes:
NA - Not Applicable
NR - Not Recorded
BLS - below land surface
OD - outside diameter

SAIC
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Site Name: DCD	Boring No. SB-33B-47	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 12'
Fed ID No. NA	Probed Depth: 12'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 1/24/00	Finish Date: 1/24/00
First Encountered Water: NA Static Water Level: NA		Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel
G - Wayne Stoner
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/N	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some sand. Color: 10YR 4/2 dark grayish brown Slightly dense, slightly plastic, and moist. Root structures.	0 - 1	1	NA	Y	NA		SAIC01. Grab Sample.
GM	(1-3') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	1 - 2 - 3	2	1.5'	Y	NA		SAIC02
		3 - 4 - 5						
GM	(5-7') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	5 - 6 - 7	3	1.0'	Y	NA		SAIC03
		7 - 8 - 9 - 10						
GW	(10-12') Gravel, some medium to coarse sand, trace silt. Color: 10YR 5/4 yellowish brown. Loose, poorly sorted, subrounded gravel (up to 20 mm), and slightly moist.	10 - 11 - 12	4	1.1'	Y	NA		SAIC04
	Notes: 1. Total depth of boring is approximately 12 feet BLS. 2. Borehole was abandoned using granular Ben-Seal bentonite. 3. Boring location was marked with 1-inch diameter PVC pipe with affixed brass tag. The boring identification was stamped on the tag. 4. The drilling company was Dan's Field Service.	12 -						**Notes:** NA - Not Applicable NR - Not Recorded BLS - below land surface OD - outside diameter

SAIC
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Site Name: DCD	Boring No. SB-33B-48	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 12'
Fed ID No. NA	Probed Depth: 12'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 1/24/00	Finish Date: 1/24/00
First Encountered Water: NA Static Water Level: NA		Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel
G - Wayne Stoner
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/N	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some sand. Color: 10YR 4/2 dark grayish brown Slightly dense, slightly plastic, and moist. Root structures.	0 - 1	1	NA	Y	NA		SAIC01. Grab Sample.
GM	(1-3') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	1 - 2 - 3	2	1.2'	Y	NA		SAIC02
		3 - 4 - 5						
GM	(5-7') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	5 - 6 - 7	3	1.4'	Y	NA		SAIC03
		7 - 8 - 9 - 10						
GW	(10-12') Gravel, some medium to coarse sand, trace silt. Color: 10YR 5/4 yellowish brown. Loose, poorly sorted, subrounded gravel (up to 20 mm), and slightly moist.	10 - 11 - 12	4	1.25'	Y	NA		SAIC04
	Notes: 1. Total depth of boring is approximately 12 feet BLS. 2. Borehole was abandoned using granular Ben-Seal bentonite. 3. Boring location was marked with 1-inch diameter PVC pipe with affixed brass tag. The boring identification was stamped on the tag. 4. The drilling company was Dan's Field Service.	12 -						**Notes:** NA - Not Applicable NR - Not Recorded BLS - below land surface OD - outside diameter

SAIC
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Site Name: DCD	Boring No. SB-33B-49	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 12'
Fed ID No. NA	Probed Depth: 12'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 1/24/00	Finish Date: 1/24/00
First Encountered Water: NA Static Water Level: NA		Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel
G - Wayne Stoner
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/N	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some sand. Color: 10YR 4/2 dark grayish brown Slightly dense, slightly plastic, and moist. Root structures.	0 - 1	1	NA	Y	NA		SAIC01. Grab Sample.
GM	(1-3') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	1 - 2 - 3	2	1.3'	Y	NA		SAIC02
		3 - 4 - 5						
GM	(5-7') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	5 - 6 - 7	3	1.5'	Y	NA		SAIC03
		7 - 8 - 9 - 10						
GW	(10-12') Gravel, some medium to coarse sand, trace silt. Color: 10YR 5/4 yellowish brown. Loose, poorly sorted, subrounded gravel (up to 20 mm), and slightly moist.	10 - 11 - 12	4	1.5'	Y	NA		SAIC04

Notes:
1. Total depth of boring is approximately 12 feet BLS.
2. Borehole was abandoned using granular Ben-Seal bentonite.
3. Boring location was marked with 1-inch diameter PVC pipe with affixed brass tag. The boring identification was stamped on the tag.
4. The drilling company was Dan's Field Service.

Notes:
NA - Not Applicable
NR - Not Recorded
BLS - below land surface
OD - outside diameter

SAIC
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Site Name: DCD	Boring No. SB-33B-50	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 12'
Fed ID No. NA	Probed Depth: 12'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 1/24/00	Finish Date: 1/24/00
First Encountered Water: NA Static Water Level: NA		Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel:
G - Wayne Stoner
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/N	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some sand. Color: 10YR 4/2 dark grayish brown Slightly dense, slightly plastic, and moist. Root structures.	0 - 1	1	NA	Y	NA		SAIC01. Grab Sample.
GM	(1-3') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	1 - 3	2	1.0'	Y	NA		SAIC02
		3 - 5						
GM	(5-7') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	5 - 7	3	1.4'	Y	NA		SAIC03
		7 - 10						
GW	(10-12') Gravel, some medium to coarse sand, trace silt. Color: 10YR 5/4 yellowish brown. Loose, poorly sorted, subrounded gravel (up to 20 mm), and slightly moist.	10 - 12	4	1.5'	Y	NA		SAIC04

Notes:
1. Total depth of boring is approximately 12 feet BLS.
2. Borehole was abandoned using granular Ben-Seal bentonite.
3. Boring location was marked with 1-inch diameter PVC pipe with affixed brass tag. The boring identification was stamped on the tag.
4. The drilling company was Dan's Field Service.

Notes:
NA - Not Applicable
NR - Not Recorded
BLS - below land surface
OD - outside diameter

SAIC
An Employee-Owned Company

Site Name: DCD	Boring No. SB-33B-51	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 12'
Fed ID No. NA	Probed Depth: 12'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 1/24/00	Finish Date: 1/24/00
First Encountered Water: NA Static Water Level: NA		Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel
G - Wayne Stoner
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/N	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some sand. Color: 10YR 4/2 dark grayish brown Slightly dense, slightly plastic, and moist. Root structures.	0 - 1	1	NA	Y	NA		SAIC01&01D. Grab Sample. Duplicate collected.
GM	(1-3') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	1 - 2 - 3	2	1.5'	Y	NA		SAIC02
		3 - 4 - 5						
GM	(5-7') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	5 - 6 - 7	3	1.2'	Y	NA		SAIC03
		7 - 8 - 9 - 10						
GW	(10-12') Gravel, some medium to coarse sand, trace silt. Color: 10YR 5/4 yellowish brown. Loose, poorly sorted, subrounded gravel (up to 20 mm), and slightly moist.	10 - 11 - 12	4	2.0'	Y	NA		SAIC04&04D. Duplicate collected.
	Notes: **1.** Total depth of boring is approximately 12 feet BLS. **2.** Borehole was abandoned using granular Ben-Seal bentonite. **3.** Boring location was marked with 1-inch diameter PVC pipe with affixed brass tag. The boring identification was stamped on the tag. **4.** The drilling company was Dan's Field Service.	12 -						**Notes:** NA - Not Applicable NR - Not Recorded BLS - below land surface OD - outside diameter

SAIC
An Employee-Owned Company

Site Name: DCD	Boring No. SB-33B-52	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 12'
Fed ID No. NA	Probed Depth: 10'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date 1/24/00	Finish Date: 1/24/00
First Encountered Water: NA Static Water Level: NA		Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel:
G - Wayne Stoner
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some sand. Color: 10YR 4/2 dark grayish brown Slightly dense, slightly plastic, and moist. Root structures.	0 - 1	1	NA	Y	NA		SAIC01&01ND. Grab Sample. MS/MSD collected.
GM	(1-3') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	1 - 3	2	1.5'	Y	NA		SAIC02
		3 - 5						
GM	(5-7') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	5 - 7	3	1.5'	Y	NA		SAIC03
		7 - 10						
GW	(10-12') Gravel, some medium to coarse sand, trace silt. Color: 10YR 5/4 yellowish brown. Loose, poorly sorted, subrounded gravel (up to 20 mm), and slightly moist.	10 - 12	4	1.5'	Y	NA		SAIC04.

Notes:
1. Total depth of boring is approximately 12 feet BLS.
2. Borehole was abandoned using granular Ben-Seal bentonite.
3. Boring location was marked with 1-inch diameter PVC pipe with affixed brass tag. The boring identification was stamped on the tag.
4. The drilling company was Dan's Field Service.

Notes:
NA - Not Applicable
NR - Not Recorded
BLS - below land surface
OD - outside diameter
MS/MSD - matrix spike and matrix spike duplicate.

SAIC
An Employee-Owned Company

Site Name: DCD	Boring No. SB-33B-53	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 12'
Fed ID No. NA	Probed Depth: 12'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 1/24/00	Finish Date: 1/24/00
First Encountered Water: NA Static Water Level: NA		Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel
G - Wayne Stoner
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/N	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some sand. Color: 10YR 4/2 dark grayish brown Slightly dense, slightly plastic, and moist. Root structures.	0 - 1	1	NA	Y	NA		SAIC01&01D. Grab Sample. Duplicate collected.
GM	(1-3') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	1 - 2 - 3	2	1.2'	Y	NA		SAIC02
		3 - 4 - 5						
GM	(5-7') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	5 - 6 - 7	3	1.4'	Y	NA		SAIC03
		7 - 8 - 9 - 10						
GW	(10-12') Gravel, some medium to coarse sand, trace silt. Color: 10YR 5/4 yellowish brown. Loose, poorly sorted, subrounded gravel (up to 20 mm), and slightly moist.	10 - 11 - 12	4	1.5'	Y	NA		SAIC04.

Notes:
1. Total depth of boring is approximately 12 feet BLS.
2. Borehole was abandoned using granular Ben-Seal bentonite.
3. Boring location was marked with 1-inch diameter PVC pipe with affixed brass tag. The boring identification was stamped on the tag.
4. The drilling company was Dan's Field Service.

Notes:
NA - Not Applicable
NR - Not Recorded
BLS - below land surface
OD - outside diameter

SAIC
An Employee-Owned Company

Site Name: DCD	Boring No. SB-33B-54	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 12'
Fed ID No. NA	Probed Depth: 12'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 1/24/00	Finish Date: 1/24/00
First Encountered Water: NA Static Water Level: NA		Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel
G - Wayne Stoner
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/N	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some sand. Color: 10YR 4/2 dark grayish brown Slightly dense, slightly plastic, and moist. Root structures.	0 - 1	1	NA	Y	NA		SAIC01. Grab Sample.
GM	(1-3') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	1 - 3	2	2.0'	Y	NA		SAIC02 & 02ND. MS/MSD collected.
		3 - 5						
GM	(5-7') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	5 - 7	3	1.2'	Y	NA		SAIC03
		7 - 10						
GW	(10-12') Gravel, some medium to coarse sand, trace silt. Color: 10YR 5/4 yellowish brown. Loose, poorly sorted, subrounded gravel (up to 20 mm), and slightly moist.	10 - 12	4	1.5'	Y	NA		SAIC04.

Notes:
1. Total depth of boring is approximately 12 feet BLS.
2. Borehole was abandoned using granular Ben-Seal bentonite.
3. Boring location was marked with 1-inch diameter PVC pipe with affixed brass tag. The boring identification was stamped on the tag.
4. The drilling company was Dan's Field Service.

Notes:
NA - Not Applicable
NR - Not Recorded
BLS - below land surface
OD - outside diameter
MS/MSD - matrix spike and matrix spike duplicate sample.

SAIC
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Site Name: DCD	Boring No. SB-33B-55	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 12'
Fed ID No. NA	Probed Depth: 12'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 1/25/00	Finish Date: 1/25/00
First Encountered Water: NA Static Water Level: NA		Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel
G - Wayne Stoner
D - Dan Plotts
H - Brad Holdaway
H -

USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/N	N Valves (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some sand. Color: 10YR 4/2 dark grayish brown Slightly dense, slightly plastic, and moist. Root structures.	- 1 -	1	NA	Y	NA		SAIC01&01ND. Grab Sample. MS/MSD collected.
GM	(1-3') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	- 2 - 3 -	2	1.3'	Y	NA		SAIC02
		- 4 - 5 -						
GM	(5-7') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	- 6 - 7 -	3	1.5'	Y	NA		SAIC03 & 03D. Duplicate collected.
		- 8 - 9 - 10 -						
GW	(10-12') Gravel, some medium to coarse sand, trace silt. Color: 10YR 5/4 yellowish brown. Loose, poorly sorted, subrounded gravel (up to 20 mm), and slightly moist.	- 11 - 12 -	4	1.3'	Y	NA		SAIC04
	Notes: 1. Total depth of boring is approximately 12 feet BLS. 2. Borehole was abandoned using granular Ben-Seal bentonite. 3. Boring location was marked with 1-inch diameter PVC pipe with affixed brass tag. The boring identification was stamped on the tag. 4. The drilling company was Dan's Field Service.							**Notes:** NA - Not Applicable NR - Not Recorded BLS - below land surface OD - outside diameter MS/MSD - matrix spike and matrix spike duplicate sample.

SAIC
An Employee-Owned Company

Site Name: DCD	Boring No. SB-33B-56	Monitoring Well No. NA
Project No. 03-6523-044	Surface Elev. Not Available	Completion Depth: 12'
Fed ID No. NA	Probed Depth: 12'	Rotary Depth: NA
County/State: Tooele Co./Utah	Start Date: 1/25/00	Finish Date: 1/25/00
First Encountered Water: NA Static Water Level: NA		Ground Cover: Shrubs,grasses&forbes

Drilling Equipment:
Geoprobe rig; 1.25-inch OD x 2-foot sampler with stainless steel liners.

Personnel:
G - Wayne Stoner
D - Dan Plotts
H - Brad Holdaway
H -

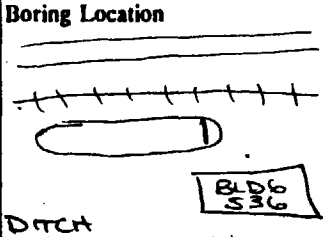
USCS	DESCRIPTION	Depth in feet	Sample No.	Sample Recovery	Lab Analysis Y/N	N Values (Blows)	Lithology	REMARKS
ML	(0 to 0.5') Silt, some sand. Color: 10YR 4/2 dark grayish brown Slightly dense, slightly plastic, and moist. Root structures.	0 - 1	1	NA	Y	NA		SAIC01&01D. Grab Sample. Duplicate collected.
GM	(1-3') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	1 - 3	2	1.0'	Y	NA		SAIC02
		3 - 5						
GM	(5-7') Sandy silt with some gravel. Color: 10YR 5/3 brown. Loose, slightly plastic, subangular to subrounded gravel (up to 20 mm), poorly sorted, and moist.	5 - 7	3	1.3'	Y	NA		SAIC03
		7 - 10						
GW	(10-12') Gravel, some medium to coarse sand, trace silt. Color: 10YR 5/4 yellowish brown. Loose, poorly sorted, subrounded gravel (up to 20 mm), and slightly moist.	10 - 12	4	1.3'	Y	NA		SAIC04

Notes:
1. Total depth of boring is approximately 12 feet BLS.
2. Borehole was abandoned using granular Ben-Seal bentonite.
3. Boring location was marked with 1-inch diameter PVC pipe with affixed brass tag. The boring identification was stamped on the tag.
4. The drilling company was Dan's Field Service.

Notes:
NA - Not Applicable
NR - Not Recorded
BLS - below land surface
OD - outside diameter

TEST PIT LOGS

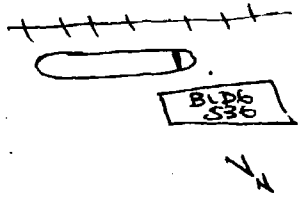
Boring Location



Project: TOOELE ARMY DEPOT - SOUTH AREA	SWMU No: SWMU 33, BUILDING 536 (TRENCH)
Start date and time: 10/7/94 0830	Completion data and time: 10/7/94 0915
Drilling Contractor: UXB	Drilling Method: BACKHOE
Logged by: J. PENDLETON	
Total depth (feet): 10' BLS	Diameter (inches): BACKHOE TRENCH
Sampler type and size (diameter and length): S.S. SPOONS & GLASS CONTAINERS (250 ml)	
Samples collected from boring: TEST PIT (TP-33-001A, 001B, 001C, 001D)	

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
0	0	0	N/A	BORE	N/A	50% CLAY	CL BROWN 10YR 5/3 SILTY CLAY (TOP SOIL) MOIST, FIRM, MOD. DENSITY, LOW PLASTICITY, LARGE % ORGANIC MATERIAL
	TP-33-001A					40% SILT	
	0.5' BLS					10% GRAVEL	
1							SCRAP METAL, WOOD, CONSTRUCTION RAIN GUTTERS AND SHINGLES
	NOTE: DEBRIS BEGINS AT ~1' BLS AND CONTINUES UNTIL ~4' BLS. TRACE OF DEBRIS TO ~6' BLS						
2							
3	0	0	N/A	BORE	N/A	50% CLAY	CL BROWN 10YR 5/3 SILTY CLAY, DRY, MOD. CONSISTENCY, LOW DENSITY LOW PLASTICITY
	TP-33-001B					40% SILT	
	3.0' BLS					10% GRAVEL	
4							

Boring Location



Project: TOOELE ARMY DEPOT SOUTH-AREA | SWMU No: SWMU-33, TRENCH 001

Start date and time: 10/7/94 0830 | Completion data and time: 10/7/94 0915

Drilling Contractor: UXB | Drilling Method: BACKHOE

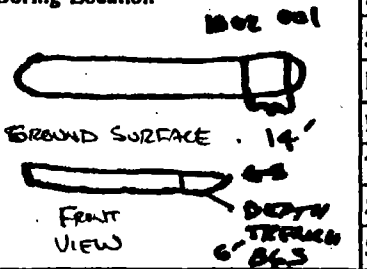
Logged by: J. PERDUETOKI

Total depth (feet): 10' BLS | Diameter (inches): N/A

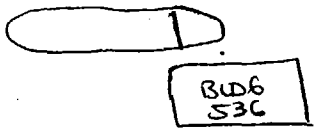
Sampler type and size (diameter and length): STAINLESS STEEL SPOONS WITH GLASS 250 ml CONT.

Samples collected from boring: TEST PIT (TP-33-001A, 001B, 001C, 001D)

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
5	TP-33-001C		N/A	BORE	N/A	50% CLAY	CL BROWN 10YR 5/3 SILTY CLAY, FIRM MOD. DENSITY, LOW PLASTICITY
						40% SILT	
						10% GRAVEL	
6							
7							
8							
9							
						50% CLAY	
						40% SILT	CL BROWN 10YR 5/3 SILTY CLAY, FIRM,
10	TP-33-001D		N/A	BORE	N/A	10% GRAVEL	MOD. DENSITY, LOW PLASTICITY.

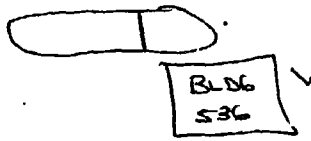
Boring Location 	Project: TEAD - SOUTH	SWMU No: SWMU-33, TRENCH 002
	Start date and time: 10/7/94 0945	Completion data and time: 10/7/94
	Drilling Contractor: UXB	Drilling Method: BACKHOE
	Logged by: J. PENDLETON	
	Total depth (feet): 10'	Diameter (inches): N/A
	Sampler type and size (diameter and length): SPOONS WITH GLASS CONTAINER	
	Samples collected from boring: TP-002A, 002B, 002C, 002D	

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
0	0	0	N/A	BORE	N/A	50% CLAY	YELLOWISH BROWN 10YR 5/4 SANDY CLAY (CL)
	0921					40% SAND	DRY, LOW PLASTICITY, LOW DENSITY,
						10% GRAVEL	LOW CONSISTENCY, SAND DRY SUBROUNDED,
	DITCH BEGINS TO GRADE BELOW LAND						WELL SORTED, MEDIUM GRAINED.
1	SURFACE AS TRAVEL TO EAST						(DEBRIS FROM FIRST 0.5' BELOW DITCH
	TRENCH # 2 ACTUALLY 6' BGS = 0.0'						SURFACE (6.5' BGS). BELOW 0.5 BECOMES
	SAMPLE TP-002A						VERGIN SOIL)
2						40% CLAY	AT 1.5' BELOW DITCH SURFACE BECOMES
						50% SAND	TO BECOME MORE SANDY
						10% GRAVEL	YELLOWISH BROWN 10YR 5/4 CLAYEY SAND
						SC	DRY, LOW TO LOW CONSISTENCY, SAND MED.
3	TP-002B	N/A	N/A	BORE	N/A		GRAINED, WELL SORTED, SUBROUNDED,
	0931						CLAY LOW PLASTICITY, LOW DENSITY.
4							

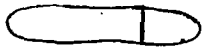
Boring Location	Project: TOOELE ARMY DEPOT-SOUTH AREA	SWMU No: 33 TRENCH No. 2
TP002 	Start date and time: 10/7/94	Completion data and time: 10/7/94
	Drilling Contractor: UXB	Drilling Method: BACKHOE
	Logged by: J. PENDLETON	
	Total depth (feet): 10' BLS	Diameter (inches): BACKHOE, BUCKET 24"
	Sampler type and size (diameter and length): SCAINLESS STEEL SPOONS	
	Samples collected from boring: TEST PIT (TRENCH) TP-002A, 002B, 002C, 002D	

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
5							
6	0	0	N/A	BORE	N/A	70% SAND	SC YELLOWISH BROWN 10YR 5/4 CLAYEY
	TP-33-002C					25% CLAY	SAND, SAND MED-COARSE GRAINED
	0938					5% GRAVEL	SUBROUNDED, POORLY SORTED, DRY,
							LOOSE CLAY, LOW DENSITY & PLASTICITY
7							
							SAME AS DESCRIBED ABOVE
8							
9							SC
	0	0	N/A	BORE	N/A	80% SAND	YELLOWISH BROWN 10YR 5/4 CLAYEY
	TP-33-002D					10% CLAY	SAND WITH SOME GRAVEL, SAND MED-COARSE
10	0950					10% GRAVEL	GRAINED, SUBROUNDED, POORLY SORTED

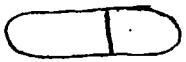
CLAY LOOSE, DRY, LOW PLASTICITY, GRAVEL SUBROUNDED, 3-7 CM IN SIZE.

Boring Location	Project: TEAD-SOUTH	SWMU No: SWMU-33, TP-33-003
TP-33-003	Start date and time: 10-7-94 1000	Completion data and time: 10-7-94 1030
	Drilling Contractor: URB	Drilling Method: BACKHOE
	Logged by: J. PENDLETON	
	Total depth (feet): 10' BDITCH SURFACE	Diameter (inches): 2' BACKHOE BUCKET
	Sampler type and size (diameter and length): S.S. SPOONS & SAMPLE JARS	
	Samples collected from boring: TP-33-003A, 003B, 003C, 003D	

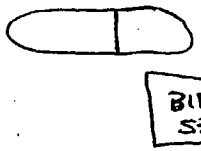
Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
0	0	0	N/A	BORE	N/A	SAND 60%	SC YELLOWISH BROWN 10YR 5/4 CLAYEY SAND WITH SOME GRAVEL, SAND DRY, MED - COARSE GRAINED, SUBROUNDED
	TP-33-003A					CLAY 20%	
	0.5 1010					GRAVEL 20%	
1							
2							SP
3	0	0				SAND 50%	YELLOWISH BROWN 10YR 5/4 GRAVELLY SAND WITH SOME CLAY, SAND MED-COARSE GRAIN, SUBROUNDED,
	TP-33-003B		N/A	BORE	N/A	GRAVEL 30%	
	3.5' B. DITCH SURFACE					CLAY 20%	
	1015						
4							

Boring Location	Project: TEAD - SOUTH	SWMU No: SWMU-33, TRENCH TP-003
TP-33-003	Start date and time: 10-7-94 1000	Completion data and time: 10-7-94 1045
	Drilling Contractor: 8 X B	Drilling Method: BACKHOE
BLDG 536	Logged by: J. PENDLETON	
N	Total depth (feet): 10' BELOW DITCH SURFACE	Diameter (inches): 24" BUCKET
	Sampler type and size (diameter and length): 24" BUCKET	
	Samples collected from boring: TP-33-003A, 003B, 003C, 003D	

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
5							
	0	0					SP
6	TP-33-003C		N/A	BORE	N/A	SAND 60%	YELLOWISH BROWN 10YR 5/4 GRAVELLY SAND
	1021					GRAVEL 30%	SAND DRY, MED-COARSE GRAINED, WELL SORTED, SUBROUNDED, GRAVEL SUBROUNDED,
						CLAY 10%	WELL SORTED
7							
							GRAVEL CONSTITUENT BECOMES MUCH
							GREATER AT DEPTH OF ~6'BGS
							(ALLUVIAL DEPOSITIONAL STYLES, SUBROUNDED
8							& POORLY SORTED)
							GP
9							YELLOWISH BROWN 10YR 5/4 SANDY GRAVEL
	0	0				60% GRAVEL	GRAVEL SUBROUNDED UP ~6-7 IN IN DIA
	10	30				30% SAND	POORLY SORTED, SAND COARSE, SUBROUNDED,
10	TP-33-003D		N/A	BORE	N/A	10% CLAY	POORLY SORTED (ALLUVIAL DEPOSITIONAL STRUCTURE)

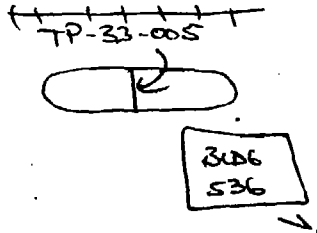
Boring Location	Project: TEAD - SOUTH	SWMU No: SWMU-33 TP-33-004
TP-33-004	Start date and time: 10-7-94	Completion data and time: 10/7/94
	Drilling Contractor: UXB	Drilling Method: BACKHOE
BLDG S36	Logged by: J. PENDLETON	
	Total depth (feet): 10' BGS	Diameter (inches): 24" BUCKET ON BACKHOE
	Sampler type and size (diameter and length): BACKHOE BUCKET WITH SS SLEEVES	
	Samples collected from boring: TP-33-004A, 004B, 004C, 004D	

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
0	0	0	N/A	BORE	N/A	50% SAND	SC GRAYISH BROWN 10YR 5/3 CLAYEY SAND. SAND MED COARSE GRAINED, SUBROUNDED POORLY SORTED, CLAY LOW DENSITY, DRY, LOW CONSISTENCY
	TP-33-004A					35% CLAY	
	0.5' BGS					15% GRAVEL	
	(MS/MSD COLLECTED AT 0.5' BGS)						
1							NO DEBRIS AT ALL, BELOW DITCH SURFACE
2							SOIL HAS BECOME MORE CONSISTANT WITH LESS MATERIALS BURIED.
3							SC
	3.75' BGS		N/A	BORE	N/A	SAND 50%	GRAYISH BROWN 10YR 5/2 CLAYEY SAND WITH SOME GRAVEL
	0.0					CLAY 30%	
4	TP-33-004B					GRAVEL 20%	

Boring Location	Project: TEAD- SOUTH	SWMU No: SWMU -33
TP-33-004	Start date and time: 10-7-94	Completion data and time: 10-7-94
	Drilling Contractor: UXB	Drilling Method: BACKHOE
	Logged by: J. PERDLETON	
	Total depth (feet): 10' BGS	Diameter (inches): 24" BACKHOE
	Sampler type and size (diameter and length): BACKHOE WITH S.S. SPOONS	
	Samples collected from boring: 8 TP-33-004A, 004B 004C, 004D (MS)	

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
5	–					SP	YELLOWISH BROWN 10YR 5/4 GRAVELLY SAND WITH TRACE CLAY, SAND MED- COARSE GRAINED, POORLY SORTED SUBROUNDED, DRY, GRAVEL 5-6 IN. IN DIA.
6	TP-33-004C 6.7' BGS	N/A	BAGG	N/A	SAND 60% GRAVEL 35% 60%	YELLOWISH BROWN 10YR 5/4 ~~SANDY GRAVEL~~ (SEE ABOVE)	
	AT ~6' BGS GRAVEL CONSTITUENT BECOMES DOMINANT, GRAVEL UP TO ~5-6 IN IN DIA.						
7	–						
8	–						
							GP
9	–					GRAVEL 60%	YELLOWISH BROWN 10YR 5/4
	TP-33-004D	N/A	BAGG	N/A		SAND 25%	SANDY GRAVEL, WITH TRACE CLAY
						SILT 15%	SAND MEDIUM TO COARSE GRAINED, POORLY SORTED, SUBROUNDED, DRY, LOOSE. GRAVEL IS 4-6 INCHES IN DIA. SUBANGULAR
10							

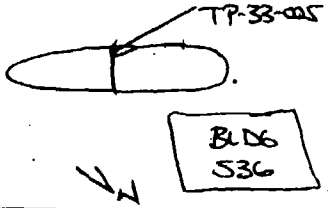
Boring Location



Project: TEAD - SOUTH	SWMU No: SWMU-33, TEST PIT 005
Start date and time: 10-7-94	Completion data and time: 10-7-94
Drilling Contractor: UXB	Drilling Method: BACKHOE
Logged by: J. PENDLETON	
Total depth (feet): 10'	Diameter (inches): 24" BACKHOE BUCKET
Sampler type and size (diameter and length): BACKHOE BUCKET WITH S.S. SPOONS	
Samples collected from boring: TP-33-005A, 005B, 005C, 005D	

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
0	0	0	N/A	BORE	N/A	50% SAND	SC YELLOWISH BROWN 10YR 5/4 CLAYEY SAND DRY, MED - COARSE GRAINED, SUBROUNDED Mod. SORTED, CLAY, DRY, STIFF, MOD. DENSITY,
	TP-33-005A					30% CLAY	LOW PLASTICITY. GRAVEL ~ 3-4 IN. IN DIA,
	1148 (MS/MSD COLLECTED AT 0.5'					20% GRAVEL	SUBANGULAR.
	B.D. ITEM SURFACE)						
1							
2							
	0	0					GP
3	TP-33-005B		N/A	BORE	N/A	60% SAND	YELLOWISH BROWN 10YR 5/4 GRAVELLY SAND
	1158					30% GRAVEL	WITH TRACE CLAY, SAND DR:- COARSE - V.
						10% CLAY	COARSE, SUBROUNDED GRAVEL SIZED,
							GRAVEL 2-5 IN IN DIA. SUBROUNDED.
4							

Boring Location



Project: TEAD - SOUTH

Start date and time: 10-7-94 0840

Drilling Contractor: UKB

Logged by: J. PENDLETON

Total depth (feet): 10' BELOW DITCH SURF.

Sampler type and size (diameter and length): BACKHOE WITH S.S. SPOONS

Samples collected from boring: TP-33-005A, 005B, 005C, 005D

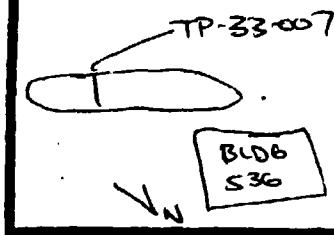
SWMU No: SWMU-33 TEST PIT 005

Completion data and time: 10-7-94 1215

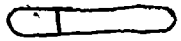
Drilling Method: BACKHOE

Diameter (inches): 24" BACKHOE BUCKET

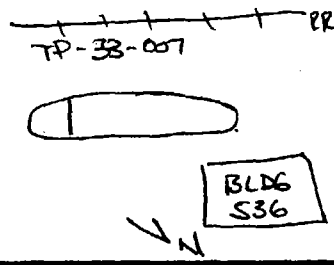
Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
5 ft							
	0	0					GP
6 ft	TP-33-005C		N/A	BORE	N/A	70% SAND	YELLOWISH BROWN 10YR 5/4
	1206					20% GRAVEL	GRAVELLY SAND, MED - COARSE GRAINED,
						10% CLAY	SUBROUNDED, WELL SORTED,
							GRAVEL 2-4 IN DIA, SUBROUNDED
7 ft							CLAY DRY, LOW PLAST. LOW DENSITY
							GRAVEL CONSTITUENT NOT AS
8 ft							DOMINANT AS IN 004.
							(SEE ABOVE)
9 ft							GP
	1214					70% SAND	YELLOWISH BROWN 10YR 5/4 GRAVELLY
	0	0				25% GRAVEL	SAND WITH TRACE CLAY. SAND MED. TO
10	TP-33-005D					5% CLAY	COARSE GRAINED, SUBROUNDED, MODERATELY SORTED.
							GRAVEL UP TO 4 IN IN SIZE SUBROUNDED.
							CLAY LOOSE, DRY, LOW PLASTICITY, LOW
							DENSITY.

Boring Location 	Project: TEAD - SOUTH	SWMU No: SWMU-33, TEST PIT 006
	Start date and time: 10-7-94 1220	Completion data and time: 10-7-94
	Drilling Contractor: UXB	Drilling Method: BACKHOE
	Logged by: J. PENDLETON	
	Total depth (feet): 10' BGS	Diameter (inches): 24" BUCKET OF BACKHOE
	Sampler type and size (diameter and length): BACKHOE WITH S.S. SPOONS	
	Samples collected from boring: TP-006A, 006B, 006C, 006D	

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
0	0	0	N/A	BORE	N/A	50% CLAY	CL YELLOWISH BROWN 10YR 5/4 SANDY CLAY. CLAY DRY, LOW PLASTICITY, LOW DENSITY, FIRM
	TP-006A					40% SAND	~~[illegible]~~ SAND MEDIUM GRAINED, SUBROUNDED, MOD. SORTED
	1230					10% GRAVEL	
1							
2	DEBRIS - METAL AND WOOD PLANK ENCOUNTERED ~ 18-24" BGS						
							CL
3	0	0	N/A	BORE	N/A	60% CLAY	YELLOWISH BROWN 10YR 5/4 SANDY CLAY DRY, ~~[illegible]~~ LOW PLASTICITY, SAND MED-COARSE GRAINED, SUBROUNDED, MODERATE SORTING.
	TP-006B					35% SAND	
						5% GRAVEL	
4							

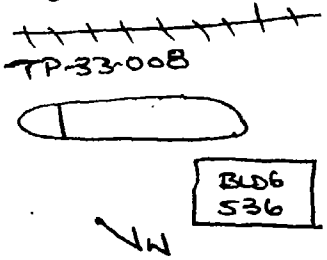
Boring Location	Project: TEAD-SOUTH	SWMU No: SWMU-33, TEST PIT #7
TP-33-007  BLDG 536	Start date and time: 10-7-94 1300	Completion data and time: 10-7-94 1415
	Drilling Contractor: UXB	Drilling Method: BACKHOE
	Logged by: J. Pendleton	
	Total depth (feet): 10' BGS	Diameter (inches): 24" BACKHOE BUCKET
	Sampler type and size (diameter and length): BACKHOE, USE STAINLESS STEEL SPOONS FOR SAMPLING	
	Samples collected from boring: TP-33-009A, 009B, 009C, 009D	

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
0	0	0	N/A	BORE	N/A	CLAY 60%	CL DARK GRAYISH BROWN 10YR 4/2 SANDY CLAY WITH SOME GRAVEL, CLAY DRY, MODERATELY FIRM, LOW PLASTICITY,
	TP-33-007A					SAND 25%	
						GRAVEL 15%	MODERATE DENSITY. SAND MED TO COARSE GRAINED, SUBROUNDED. GRAVEL SUBANGULAR - SUBROUNDED,
1							2-5 IN. IN SIZE.
2							
3							
	0	0	N/A	BORE	N/A	50% SAND	SP GRAYISH BROWN 10YR 5/2 GRAVELY
	TP-33-007B					40% GRAVEL	SAND WITH TRACE CLAY SAND.
						10% CLAY	MEDIUM TO COARSE GRAINED, SUBROUNDED, MODERATE SORTING
4							

Boring Location	Project: TEAD - SOUTH	SWMU No: SWMU-33, TEST AT #7
	Start date and time: 10-7-94 1300	Completion data and time; 10-7-94 1415
	Drilling Contractor: UXB	Drilling Method: BACKHOE
	Logged by: J. Pendleton	
	Total depth (feet): 10' BGS	Diameter (inches): 24" BUCKET OF BACKHOE
	Sampler type and size (diameter and length): BACKHOE, USE S.S. SPOONS FOR SAMPLING	
	Samples collected from boring: TP-33-007A, 007B, 007C, 007D	

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
5							
6	0	0	N/A	BORE	N/A	50% SAND	SP GRAYISH BROWN 10YR 5/2 GRAVELY SAND WITH TRACE CLAY, GRAVEL SUBANGULAR TO SUBROUNDED 2-5 IN DIA. SAND MED. TO COARSE GRAINED, POORLY SORTED,
	TP-33-007C					40% GRAVEL	
						10% CLAY	
7							
8							
9							
	TP-33-007D		N/A	BORE	N/A	60% SAND	SAME AS ABOVE
10	0	0				30% GRAVEL	
						10% CLAY	

Boring Location



Project: TEAD-SOUTH | SWMU No: SWMU-33, TEST P.T #8

Start date and time: 10-7-94 @ 1415 | Completion data and time: 10-7-94 1500

Drilling Contractor: UXB | Drilling Method: BACKHOE

Logged by: J. PENDLETON

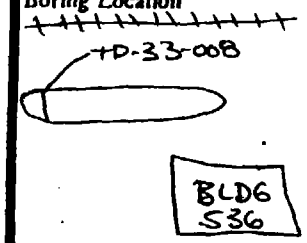
Total depth (feet): 10' BGS | Diameter (inches): 24" BACKHOE BUCKET

Sampler type and size (diameter and length): BACKHOE WITH S.S. SPOONS

Samples collected from boring: TP-33-008A, 008B, 008C, 008D

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts).
0	0	0	N/A	BORE	N/A	CLAY 60%	CL DARK GRAYISH BROWN 10YR 4/2 SANDY CLAY WITH TRACE GRAVEL, SAND CLAY DRY, MOD. FIRM, LOW PLASTICITY, HOM., DENSITY
	TP-33-008A					SAND 25%	SAND MED-COARSE GRAINED, SUBROUNDED
	1426					GRAVEL 15%	GRAVEL SUBROUNDED 2-4 MM IN SIZE
1							
							TOP SOIL ABOVE, ~~BECOMES MUCH~~ LARGER
							CONSTITUENT OF GRAVEL & SAND AT
							~1' BGS. (SOILS MUCH COARSER GRAINED)
2							
							SP
3						SAND 40	GRAYISH BROWN 10YR 5/2 GRAVELLY SAND
	0.0		N/A	BORE	N/A	GRAVEL 40	WITH TRACE CLAY, SAND MED-COARSE GRAINED,
	TP-33-008B					CLAY 20	SUBROUNDED, MOD. SORTING, GRAVEL 2-5 MM IN SIZE
	3.75' BGS						SUBROUNDED
4							

Boring Location

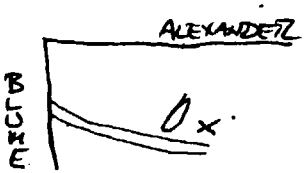


Project: TEAD - SOUTH	SWMU No: SWMU-33, TEST PIT 8
Start date and time: 10-7-94 1415	Completion data and time: 10-7-94
Drilling Contractor: UXB	Drilling Method: BACKHOE WITH 24" BUCKET
Logged by: J. PENDLETON	
Total depth (feet): 10' BGS	Diameter (inches): 24" BUCKET OF BACKHOE
Sampler type and size (diameter and length): BACKHOE 24" BUCKET & 5.5. SPOONS	
Samples collected from boring: TP-33-008A, 008B, 008C, 008D	

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
5	–						
6	–	0	0				SP
	TP-33-008C		N/A	BORE	N/A	55% SAND	YELLOWISH BROWN 10YR5/4 GRAVELLY
	DEPTH 6.3'					45% GRAVEL	SAND WITH TRACE CLAY SAND MED-COARSE
						5% CLAY	GRAINED, SUBROUNDED, MOD. SORTING
7	–						
8	–						
9	–						
							SP
						50% SAND	YELLOWISH BROWN 10YR2.5/4 GRAVELLY
	0	0	N/A	BORE	N/A	40% GRAVEL	SAND WITH TRACE CLAY, SAND IS FINED
10	TP-33-008D					10% CLAY	TO COARSE GRAINED SUBROUNDED, MODERATE SORTING, GRAVEL, 2-5 inches in D.A.
							SUBANGULAR TO SUBROUNDED

SWMU 37
SLAG PILE AND BOMB FRAGMENTS

SWMU 37
SOIL BORING LOGS

Boring Location	Project: TOOELE ARMY DEPOT - SOUTH AREA	SWMU No: SWMU 37 SB-37-001B
	Start date and time: 10/4/94	Completion data and time: 10/4/94 0907
	Drilling Contractor: UXB	Drilling Method: BACKHOE WITH MAGNATOMETER &
	Logged by: J. PENDLETON	S.S. SPOONS AND JARS
	Total depth (feet): 3' BLS	Diameter (inches):
	Sampler type and size (diameter and length): STAINLESS STEEL SPOONS WITH BOWLS	
	Samples collected from boring: SB-37-001B	

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
0	0	0	N/A	BORE	6"	50% SILT 35% SAND 15% GRAVEL	LIGHT TANNISH BROWN SANDY SILT, LOOSE, DRY, MOD. DENSITY LOW PLASTICITY, POORLY SORTED SANDS
1							SAMPLE COLLECTED FROM MOUND OF DEBRIS ADJACENT TO THE ROAD.
2							
3	0	0	N/A	BORE	6"	50% SILT 35% SAND 15% GRAVEL	LIGHT TANNISH BROWN SANDY SILT, LOOSE, DRY, MOD. DENSITY, LOW PLASTICITY, SAND FINE GRAINED, WELL SORTED, ROUNDED, SMALL % GRAVEL, POORLY SORTED AND SUBANGULAR
	SB-37-001B						
	TIME 0907						
4							

Boring Location	Project: TOOELE ARMY DEPOT - SOUTH AREA	SWMU No: 37, SB-37-002B
	Start date and time: 10/4/94	Completion data and time: 10/4/94 0922
	Drilling Contractor: UXB	Drilling Method: BACKHOE WITH MACROTOMETER
	Logged by: J. PENDLETON	STAINLESS STEEL SPOONS
	Total depth (feet): 3' BLS	Diameter (inches):
	Sampler type and size (diameter and length): STAINLESS STEEL SPOONS WITH CORE BARREL	
	Samples collected from boring: SB-37-002B	

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
0	0	0	N/A	BORE	6"	50% SILT	LIGHT TANNISH BROWN SANDY SILT, LOOSE, DRY, MOD. DENSITY
						35% SAND	
						15% GRAVEL	LOW PLASTICITY, POORLY SORTED SANDS
1							
2							
3	0	0	N/A	BORE	6"	40 % SILT	LIGHT TANNISH BROWN - SANDY SILT
						30% CLAY	WITH SOME GRAVEL, SILT LOOSE, DRY,
						20% SAND	LOW PLASTICITY, SAND FINE - MED.
						10% GRAVEL	GRAINED, MOD. SORTING, SUBROUNDED
4							

Boring Location	Project: TOOELE ARMY DEPOT - SOUTH AREA	SWMU No: SWMU 37, SB-37-003B
	Start date and time: 10/4/94 0935	Completion data and time: 10/4/94 0950
	Drilling Contractor: UXB	Drilling Method: BACKHOE WITH STAINLESS STEEL EQUIPMENT (CORE BARREL)
	Logged by: J. PENDLETON	
	Total depth (feet): 3' BLS	Diameter (inches): 2" CORE BARREL
	Sampler type and size (diameter and length): 2" CORE BARREL WITH STAINLESS STEEL SLEEVES	
	Samples collected from boring: SB-37-003B (	

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
0	0	0	N/A	BORE	6"	50% SILT	LIGHT TANNISH BROWN SANDY SILT LOOSE, DRY, MOD. DENSITY, LOW PLASTICITY, POORLY SORTED SAND
						35% SAND	
						15% GRAVEL	
1							
2							
3	0	0	N/A	BORE	6"	50% SILT	SAME AS DESCRIBED ABOVE
						30% SAND	
						20% GRAVEL	
4							

Boring Location	Project: TEAD-SOUTH	SWMU No: SWMU 37, SB-37-004B
	Start date and time: 10-4-94 1000	Completion data and time: 10-4-94 1030
	Drilling Contractor: UXB	Drilling Method: BOREHOLE WITH BACKHOE, DOWN TO 3' BGS, SAMPLE W/ CORE BARREL
	Logged by: J. PENDLETON	
	Total depth (feet): 3' BGS	Diameter (inches):
	Sampler type and size (diameter and length): 3" CORE BARREL WITH S.S. SLEEVES	
	Samples collected from boring: SB-37-004B (METAL, PCB, SVOC, ALCLIT ZERO/DOWN)	

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
0	0	0	N/A	BORE	6"	50% CLAY	LT. YELLOWISH BROWN SANDY, SILTY CLAY, CLAY LOOSE, DRY, MOD. PLASTICITY, MOD. DENSITY SAND FINE GRAINED, WELL SORTED, SUBROUNDED
						30% SILT	
						10% SAND	
						10% GRAVEL	
1							
2							
3	0	0	N/A	BORE	6"	50% CLAY	(SAME AS ABOVE)
						30% SILT	
						10% SAND	
						10% GRAVEL	
4							

Boring Location	Project: TEAD- SOUTH	SWMU No: SWMU-37, SB-37-005B
	Start date and time: 10-4-94 1030	Completion data and time: 10-4-94
	Drilling Contractor: UXB	Drilling Method: BACKHOE WITH CORE BARREL
	Logged by: J. PENDLETON	
	Total depth (feet): 3' BGS	Diameter (inches): 2" CORE BARREL
	Sampler type and size (diameter and length): 2" CORE BARREL W. S.S. SLEEVES	
	Samples collected from boring: SB-37-005B (METALS, PCB & VOC AGENT BREAKDOWN)	

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
0	0	0	N/A	CORE	6"	70% SAND	YELLOWISH BROWN 10YR ~~SILTY CLAY~~ WITH SOME SAND AND GRAVEL; SILT CLAY SAND & GRAVEL
					100%	20% GRAVEL	SAND FINE TO COARSE GRAINED ~~SUBROUNDED~~ POORLY SORTED.
						10% SILT	
1							GRAVELLY SP BROWNISH GRAY 10YR SAND & GRAVEL MODERATE
2							
3	0	0	N/A	CORE	6"	60% SAND	YELLOWISH BROWN 10YR SANDY GRAVEL WITH SOME CLAY
	SB-37-005B					25% GRAVEL	
	1035					15% CLAY	
4							

Boring Location	Project: TRAD-SOUTH	SWMU No: SWMU 37, SB-57-006B
	Start date and time: 10-4-94 1055	Completion data and time: 10-4-94 1125
	Drilling Contractor: UXB	Drilling Method: BACKHOE WITH CORE BARREL
	Logged by: J. PENDLETON	
	Total depth (feet): 3' BGS	Diameter (inches): 2" CORE BARREL
	Sampler type and size (diameter and length): CORE BARREL WITH S.S. SLEEVES	
	Samples collected from boring: SB-57-006B	

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
0	0	0	N/A				
1							
2							
3	0	0					YELLOWISH BROWN 10 YR SANDY GRAVEL WITH SOME CLAY, GRAVEL SUBROUNDED POORLY SORTED, ALLUVIAL MATERIAL
	SB-57-006B 1110						
4							

Boring Location	Project: TEAD - SOUTH	SWMU No: SWMU 37, SB-37-007B
	Start date and time: 10-4-94 1135	Completion data and time: 10-4-94 1145
	Drilling Contractor: WXB	Drilling Method: BACKHOE W/ CORE BARREL
	Logged by: J. PENDLETON/P. DILLON	
	Total depth (feet): 3' BGS	Diameter (inches): 2" CORE BARREL
	Sampler type and size (diameter and length): CORE BARREL W/ S.S. SLEEVES	
	Samples collected from boring: SB-37-007B	

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
0							
1							
2							
3	0	0	N/A	BORE	6"	40% GRAVEL	LIGHT YELLOWISH BROWN 10YR 6/4 SANDY GRAVEL WITH SOME CLAY, LOOSE, DRY, POORLY SORTED, SUBROUNDED GRAVEL, SAND MED. GRAINED, SUBROUNDED, ALLUVIAL MATERIAL
	SB-0037-007				100%	40% SAND	
	3' BGS					20% CLAY	
	1145						
4							

Boring Location	Project: TEAD - SOUTH	SWMU No: SWMU 37 SB-37-008B
	Start date and time: 10-4-94 1148	Completion data and time: 10/4/94 1152
	Drilling Contractor: U&B	Drilling Method: BACKHOE w/ CORE BARREL
	Logged by: T. PENDLETON / P. DILLON	
	Total depth (feet): 3' BGS	Diameter (inches): 2" CORE BARREL
	Sampler type and size (diameter and length): CORE BARREL w/ S.S. SLEEVE	
	Samples collected from boring: SB-37-008B	

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
0							
1							
2							
3	0 0		N/A	BORE	6"	~60% SAND	
	SB-37-008B				100%	40% SILT	
	3' BGS						
	1152						
4							

9

Boring Location	Project: TRAD-SOUTH	SWMU No: SWMU 37, SB-37-008B
	Start date and time: 10/4/94 1155	Completion data and time: 10-4-94 1200
	Drilling Contractor: NKB	Drilling Method: BACKHOE W/ CORE BARREL
	Logged by: J. PENDLETON / P. DILLON	
	Total depth (feet): 3' BGS	Diameter (inches): 2" CORE BARREL
	Sampler type and size (diameter and length): CORE BARREL W/ S.S. SLEEVES	
	Samples collected from boring: SB-37-009 B	

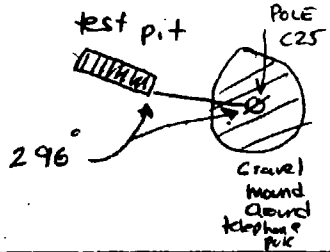
Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
0							
1							
2							
3	0	0	N/A	BORE	6"	80% GRAVEL	
	SB-37-008B				100%	10% SAND	
	3' BGS					10% SILT	
	1200						
4							

Boring Location	Project: TERD - SOUTH	SWMU No: SWMU 37, SB-37-010B
	Start date and time: 10/4/94 1205	Completion data and time: 10/4/94 1210
	Drilling Contractor: LXB	Drilling Method: BACKHOE W/ CORE BARREL
	Logged by: J. PENDLETON / P. DILLON	
	Total depth (feet): 3' BGS	Diameter (inches): 2" CORE BARREL
	Sampler type and size (diameter and length): CORE BARREL W/ S.S. SLEEVES	
	Samples collected from boring: SB-37-010B	

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
0							
1							
2							
3	0	0	N/A	BORE	6"		
	SB-37-010B						
	3' BGS						
	1210						
4							

SWMU 37
TEST PIT LOGS

Boring Location

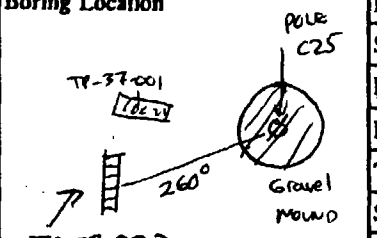


Project: Tooele Army Depot - South Area	SWMU No: SWMU 37 TP-37-001
Start date and time: 10/4/94 14:10	Completion data and time: 10/4/94 14:35
Drilling Contractor: UXB	Drilling Method: BACKHOE
Logged by: J. Pendleton	
Total depth (feet): 1.5' BLS	Diameter (inches): BACKHOE TRENCH
Sampler type and size (diameter and length): S.S. SPOONS AND 250 ML GLASS CONTAINERS	
Samples collected from boring: TP-37-001A, TP-37-001B, TP-37-001C, TP-37-001D	

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
0			N/A				
	TP-37-001A (0.5')	slag	BORE	N/A		slag	
	TP-37-001C (0.5')		BORE	↓			
	SAMPLES / PITS IN SLAG PILES						
1	TP-37-001D (1.2')	N/A	BORE	N/A			
1.5'	TP-37-001B (1.5')		BORE	↓			
2							
3							
4							

Samples collected from above and below virgin barrier

Boring Location



Project: "TOOELE ARMY DEPOT- SOUTH AREA	**SWMU No:** SWMU 37 TP-37-002
Start date and time: 10/4/94 1510	**Completion data and time:** 10/4/94 1555
Drilling Contractor: UXB	**Drilling Method:** BACKHOE
Logged by: J. PENDLETON	
Total depth (feet): 1.5' BLS	**Diameter (inches):** BACKHOE TRENCH
Sampler type and size (diameter and length): S.S. SPOONS AND 250 mL GLASS CONTAINERS	
Samples collected from boring: TP-37-002A, TP-37-002B, TP-37-002C, TP-37-002D	

Depth (feet)	Head-space Reading	Max. PID Reading (ppm)	Blows (6 inches)	Sample Type	Sample Recovery	Secondary Compounds and Percentages	Lithologic Description (USCS name; color; consistency plasticity; density; moisture content; angularity, additional facts)
0							
	TP-37-002A (0.5')		N/A	BORE	N/A	slag	
	TP-37-002C (0.5')		N/A	BORE	↓	↓	
			SAMPLES	FROM	TRENCH	THROUGH SLAG PILE	
1	TP-37-002B (1')		N/A	BORE	N/A		
1.5'	TP-37-002D (1')		N/A	BORE	↓		
2							
3							
4							

Samples collected from above and below virgin barrier

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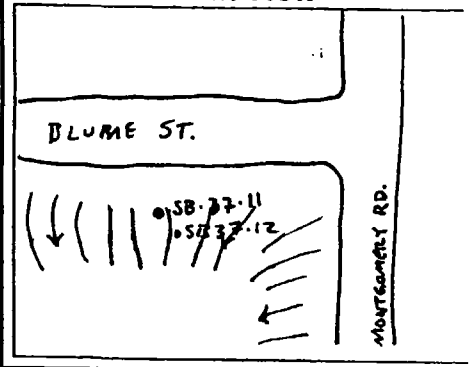
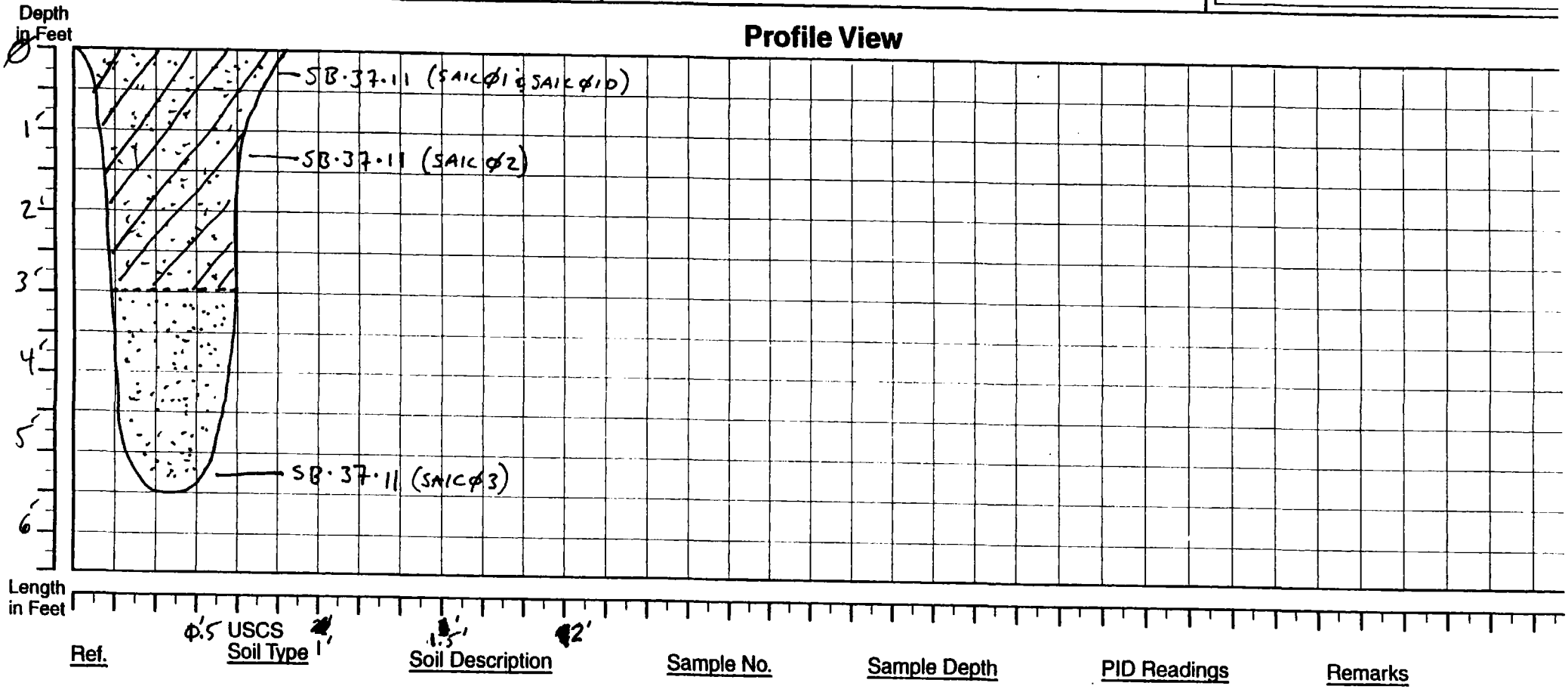
TEST PIT LOG

Site Name: DESERET CHEMICAL DEPOT	Test Pit No.. SB·37·11
Site Location: SWMU 37	Surface Elevation:
Coordinates: N– E–	Depth to Standing Water: N/A
Start Time: 1030 (2/22/99) Finish Time: 1610 (2/22/99)	Disposition of Excavated Material: BACKFILLED
Backhoe Equipment: HAND HELD POWER AUGER 6" FLIGHT DIAM.	Disposition of UXO Encountered:
Pit Orientation:	Personnel: PATRICK SODERBERG (SAIC)
Total Depth: 5.5' BGS	Geologist—
Pit Length: ~8" DIAMETER	Backhoe Op— CECIL TAYLOR (ATI)
	Helper— DARRYL WALDEN (ATI)
	Other—

Plan View



Profile View



Ref. | Soil Type | Soil Description | Sample No. | Sample Depth | PID Readings | Remarks

— See page 2 of 2

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TEST PIT LOG

Site Name: SITE 37	Test Pit No.: SB-37-11

Ref.	USCS Soil Type	Soil Description	Sample No.	Sample Depth	PID Readings	Remarks
		TWO INCHES of gravel ABOVE SANDY clay	SB 37-Ø11 (SAICØ1) SB 37-Ø11 (SAICØ1D)	Ø - Ø.5' BGS	ØPPM	AREA IS NON-VEGETATED WITH RUSTY METAL DEBRIS STREWN ON SURFACE.
		GRAVELLY SANDY clay WITH BURNT & RUSTED METAL FRAGMENTS. - Soil Discolored (WHITE, GRAY, AND DARK BROWN)	SB-37-Ø11 (SAICØ2)	1'-1.5' BGS	ØPPM	SAMPLE collected AMIDST BURNT RUSTED METAL FRAGMENTS.
		LIGHT BROWN SANDY, GRAVELLY clay	SB-37 Ø11 (SAICØ3)	5'-5.5' BGS	Ø PPM	SAMPLE COLLECTED BELOW METAL DEBRIS - EXTENT OF METAL DEBRIS = SURFACE TO 3.Ø' BGS. AT 5' METAL DEBRIS IS NO LONGER PRESENT.

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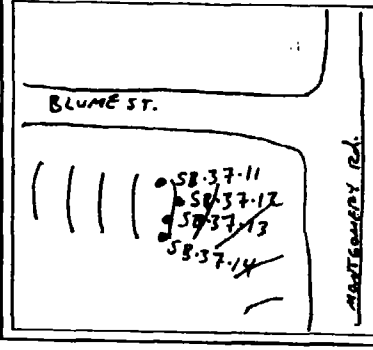
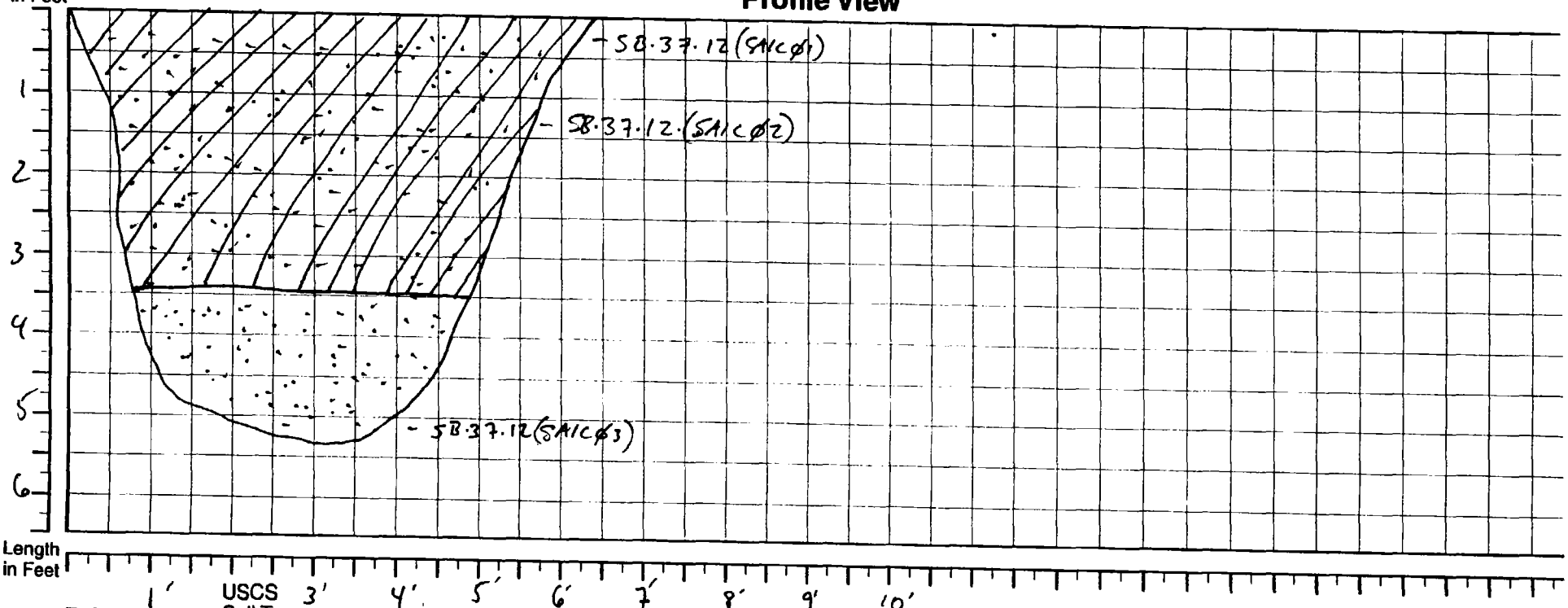
TEST PIT LOG

Site Name: DESERET CHEMICAL DEPOT	Test Pit No.: SB-37-12
Site Location: SWMU 37	Surface Elevation:
Coordinates: N– E–	Depth to Standing Water:
Start Time: 0816 Finish Time: 0840	Disposition of Excavated Material:
Backhoe Equipment:	Disposition of UXO Encountered:
Pit Orientation: PIT IS A HOLE	Personnel: PATRICK SODERBERG (SAIC)
Total Depth: 5.5' BGS	Geologist–
Pit Length: ~6'	Backhoe Op– CECIL TAYLOR (ATI)
	Helper– DARRYL WILDEN (ATI)
	Other–

Plan View



Profile View



Ref.	USCS Soil Type	Soil Description	Sample No.	Sample Depth	PID Readings	Remarks
		GRAVELLY SANDY clay AMIDST RUSTED METAL & BURNT MISSILE BODIES.	See PAGE 2 of 2		Ø ppm	
		GRAVELLY ROOTY SANDY clay – DISC. SMALL BLACK & WHITE (POWDER)			Ø ppm	

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TEST PIT LOG

Site Name: SWMU #37	Test Pit No.: SB-37-12

Ref.	USCS Soil Type	Soil Description	Sample No.	Sample Depth	PID Readings	Remarks
		2" of small gravel above sandy clay w/ metal DEBRIS.	SB-37-12 (SAIC#1)	0-0.5' BGS	0 ppm	- AREA IS NONVEGETATED WITH RUSTED METAL DEBRIS & MISSILE BODIES (4"x14") STREWN ABOUT.
		ROCKY SANDY clay w/ slag, rusted metal & missile body FRAGMENTS - soil black discolored	SB-37-12 (SAIC#2)	1-1.5' BGS	0 ppm	missile body parts, slag, rusty metal & discolored (black) soil.
		GRAVELLY SANDY clay intermixed with white powder.	SB-37-12 (SAIC#3)	5-5.5' BGS	0 ppm	WHITE POWDER IN SOILS.

An Employee-Owned Company

Date: 1/26/00

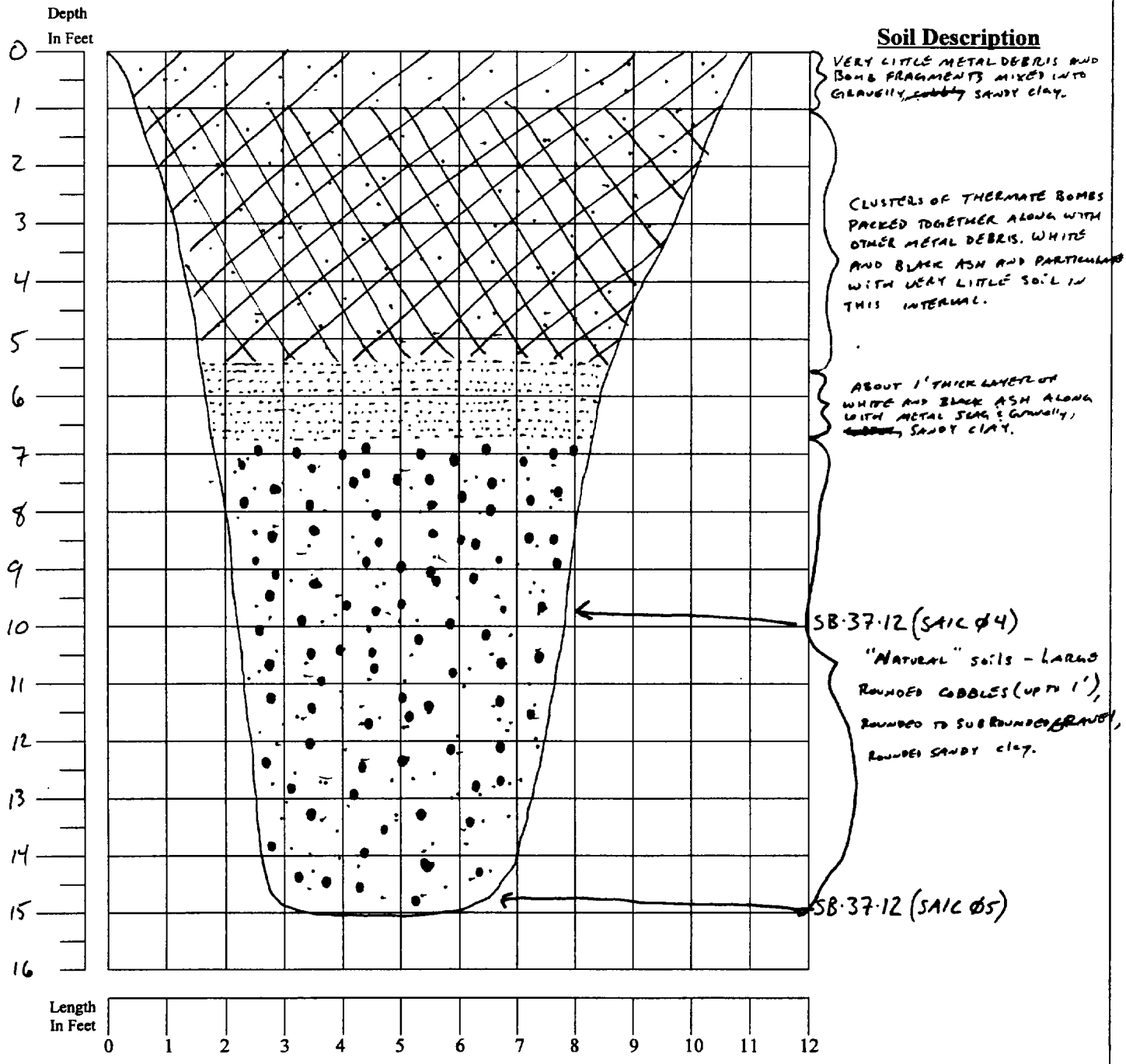
Test Pit Log

Project Name and Number: Deseret Chemical Depot (01-0827-03-6523-028)

Test Pit Number: SB·37·12 Begin: 1440 Completed: 1550

Personnel: Patrick Soderberg (SAIC), Larry Hart (ATI), Mike Blevins (ATI)

Profile View



SAIC
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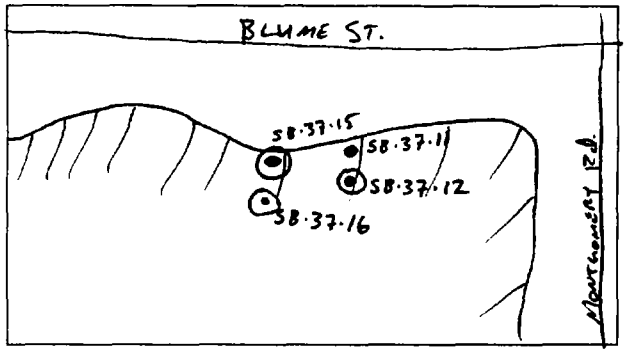
Date: 1/26/00

Test Pit Log (Cont.)

Project Name and Number: Deseret Chemical Depot - 01-0827-03-6523-028
Test Pit Number and Site Location: Site 37 - SB-37-12

Backhoe Equipment: CASE 580L Turbo
Disposition of IDW: Backfilled
Disposition of UXO: N/A
Depth to Water: None encountered
Surface Elevation: _____
Coordinates: N-_____ S-_____

Plan View



USCS Soil Type	Soil Description	Sample #	Sample Depth	P.I.D. Readings
7.5 YR 4/2 DARK BROWN	DRY COBBLY, GRAVELLY clayey sand. - cobbles well rounded to 1' DIAMETER. - GRAVEL rounded to sub rounded - clay - low to no plasticity - rounded to sub rounded sand	SB-37-12 (SAIC #4)	10' BGS	Ø ppm
		SB-37-12 (SAIC #5)	15' BGS	Ø ppm

Comments: _____

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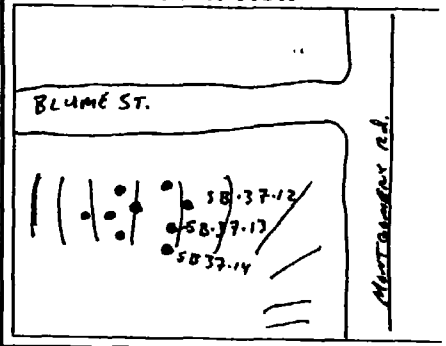
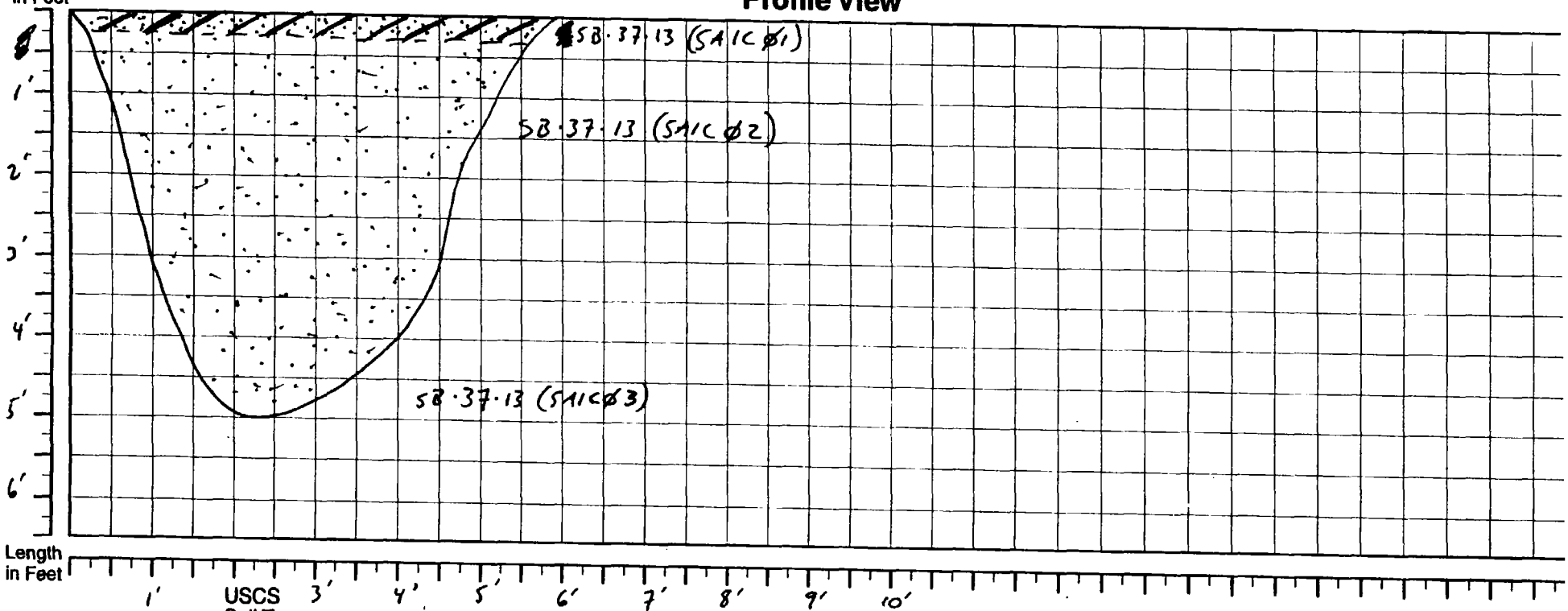
TEST PIT LOG

Site Name: DESERET CHEMICAL DEPOT	Test Pit No.: SB-37-13
Site Location: SWMU #37	Surface Elevation:
Coordinates: N– E–	Depth to Standing Water: N/A
Start Time: 1220 Finish Time: 1245	Disposition of Excavated Material: BACKFILLED
Backhoe Equipment:	Disposition of UXO Encountered:
Pit Orientation: HOLE	Personnel: P. SODERBERG (SAIC) Geologist– Backhoe Op– CECIL TAYLOR (ATI) Helper– DARRYL WALDEN (ATI) Other–
Total Depth:	
Pit Length:	

Plan View



Profile View



Ref.	USCS Soil Type	Soil Description	Sample No.	Sample Depth	PID Readings	Remarks
		ROCKY SANDY GRAVELLY CLAY W. TH METAL DEBRIS & MISSILE FRAGMENTS.				
		SANDY GRAVELLY CLAY				

(– SEE PAGE 2 OF 2)

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TEST PIT LOG

Site Name: SWMU 37	Test Pit No.: SB-37-13

Ref.	USCS Soil Type	Soil Description	Sample No.	Sample Depth	PID Readings	Remarks
		Top 3" of ground surface was rocky sandy clay with metal fragments & missile Bodies (rusted).	SB-37-13 (SAIC #1)	0-0.5' BGS	0 ppm	- AREA WAS NON-VEGETATED
		Rocky gravelly sandy clay	SB-37-13 (SAIC #2)	1-1.5' BGS	0 ppm	
		Sandy gravelly clay	SB-37-13 (SAIC #3)	5-5.5' BGS	0 ppm	

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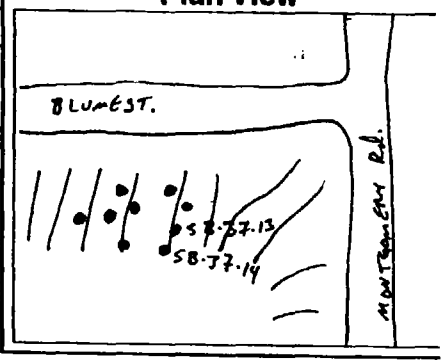
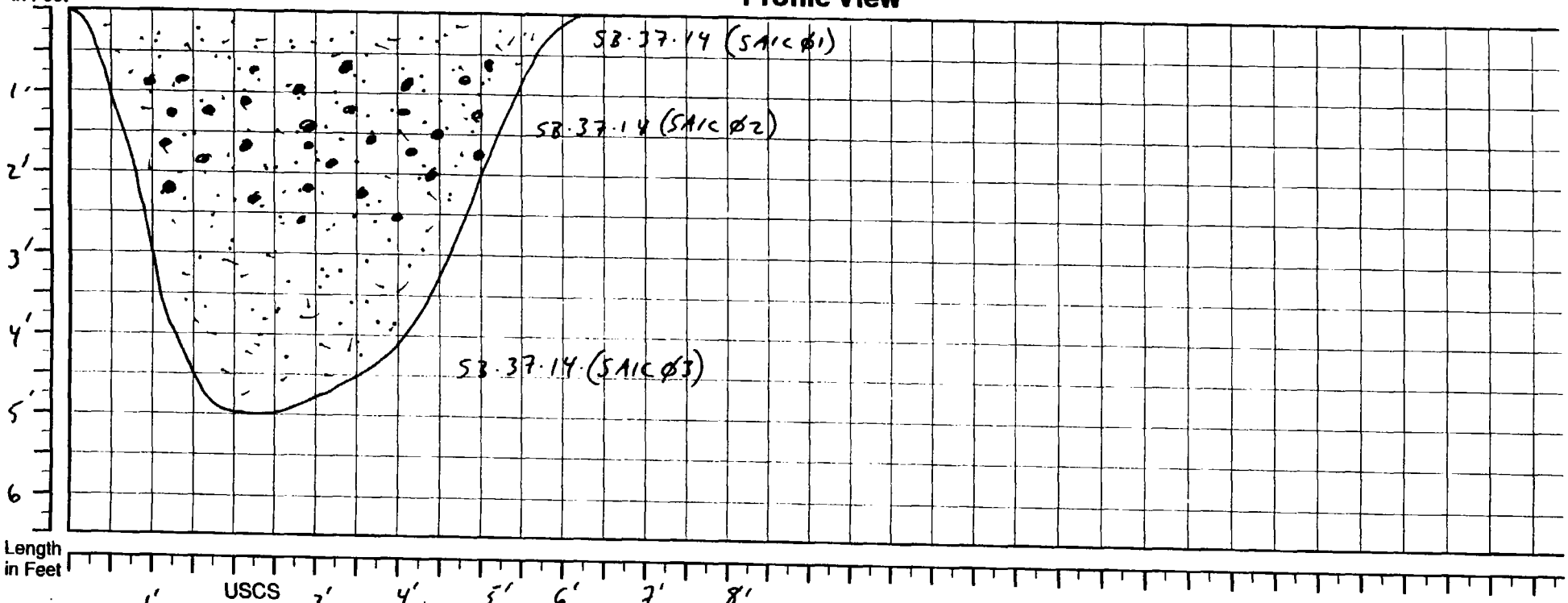
TEST PIT LOG

Site Name: DESERET CHEMICAL DEPOT	Test Pit No.: SB-37-14
Site Location: SWMU 37	Surface Elevation:
Coordinates: N– E–	Depth to Standing Water: N/A
Start Time: Finish Time:	Disposition of Excavated Material: BACKFILLED
Backhoe Equipment:	Disposition of UXO Encountered:
Pit Orientation: Hole	Personnel: P. SODERBERG (SAIC) Geologist— Backhoe Op— CECIL TAYLOR (ATI) Helper— DARRYL WALDEN (ATI) Other—
Total Depth: 5' BGS	
Pit Length:	

Plan View



Profile View



Ref.	USCS Soil Type	Soil Description	Sample No.	Sample Depth	PID Readings	Remarks
		SANDY GRAVELLY clay				
		ROCKY, PEBBLY SANDY clay				

(– See PAGE 2 of 2 –)

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TEST PIT LOG

Site Name: SWMU 37	Test Pit No.: SB-37-14

Ref.	USCS Soil Type	Soil Description	Sample No.	Sample Depth	PID Readings	Remarks
			SB-37-14 (SAIC #1)	Ø-Ø.5' BGS	Ø ppm	AREA IS VEGETATED WITH forbs, SAGE WITH LARGE RUSTED METAL SCRAPS (SOME MISSILES BODIES).
		ROCKY, PEBBLY SANDY clay	SB-37-14 (SAIC #2)	1-1.5' BGS	Ø ppm	
		SANDY GRAVELLY clay	SB-37-14 (SAIC #3)	5-5.5' BGS	Ø ppm	

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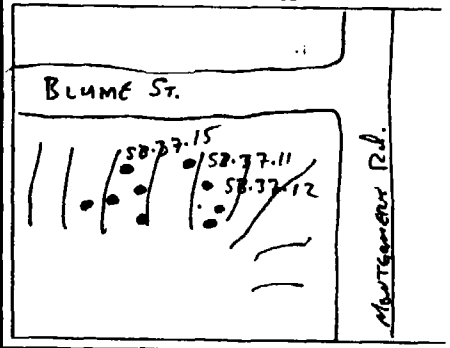
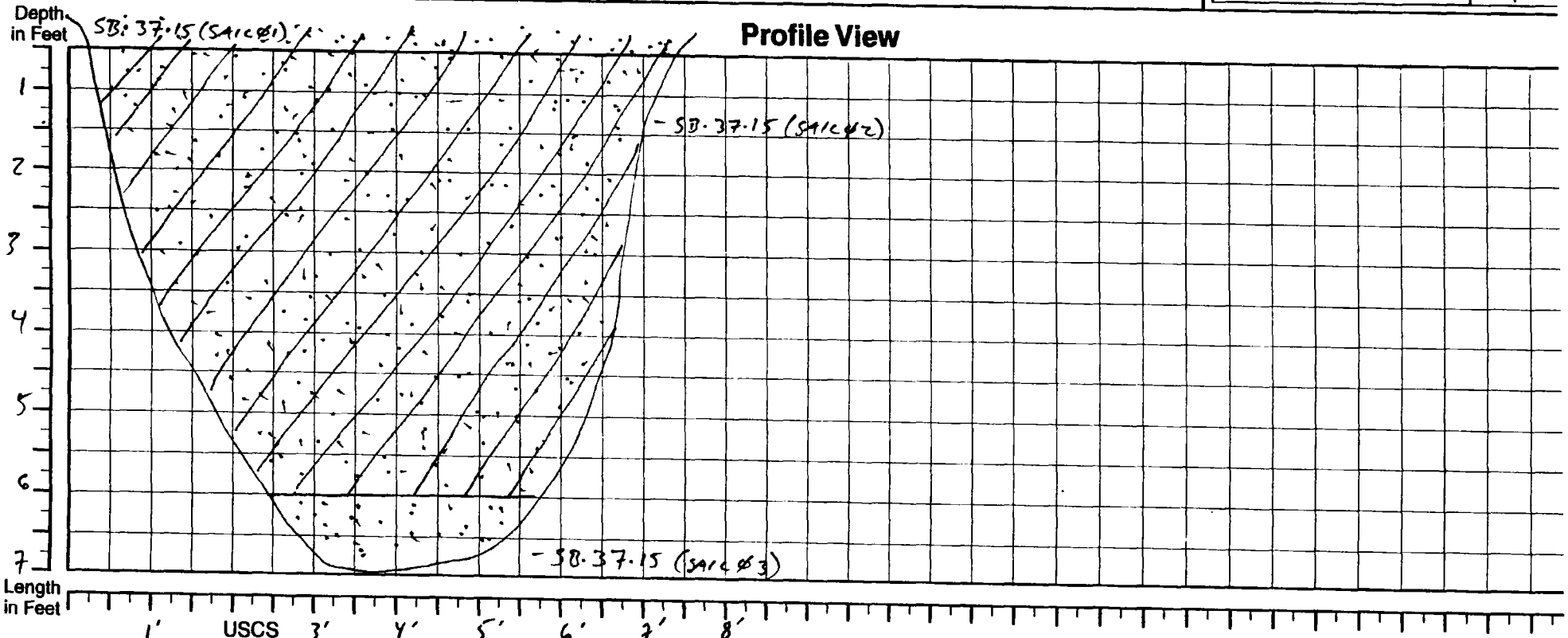
TEST PIT LOG

Site Name: DESERET CHEMICAL DEPOT	Test Pit No.: SB-37-15
Site Location: SWMU #37	Surface Elevation:
Coordinates: N– E– 1220	Depth to Standing Water: N/A
Start Time: 1200 (2/23/99) Finish Time:	Disposition of Excavated Material: BACKFILLED
Backhoe Equipment:	Disposition of UXO Encountered:
Pit Orientation: HOLE	Personnel: P. SODERBERG (SAIC) Geologist— Backhoe Op— CECIL TAYLOR (ATI) Helper— DARRYL WALDEN (ATI) Other—
Total Depth: 7'	
Pit Length:	

Plan View



Profile View



Ref.	USCS Soil Type	Soil Description	Sample No.	Sample Depth	PID Readings	Remarks
		- SOILS INTERMIXED WITH METAL DEBRIS				
		SANDY GRAVELLY CLAY				

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TEST PIT LOG

Site Name: SWMU 37	Test Pit No.: SB-37-15

Ref.	USCS Soil Type	Soil Description	Sample No.	Sample Depth	PID Readings	Remarks
		PEBBLY SANDY clay w/ METAL DEBRIS	SB-37-15 (SAIC-01 & SAIC-01D)	0-0.5' BGS	0 ppm	AREA COVERED BY WEEDS & MOSS. RUSTED METAL AND MISSILE BODIES SURROUND AREA.
		GRAVELLY SANDY clay WITH WHITE POWDER INTERMIXED & METAL DEBRIS	SB-37-15 (SAIC-02)	1-1.5' BGS	0 ppm	SAMPLE COLLECTED BETWEEN A PILE OF MISSILE BODIES - ALOT OF WHITE POWDER INTERMIXED WITH SAMPLE MEDIA.
		GRAVELLY SANDY clay	SB-37-15 (SAIC-03 & SAIC-03D)	6.5-7' BGS	0 ppm	METAL DEBRIS ENCOUNTERED TO 6' BGS - SAMPLE COLLECTED DIRECTLY BENEATH.

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Date: 1/25/00

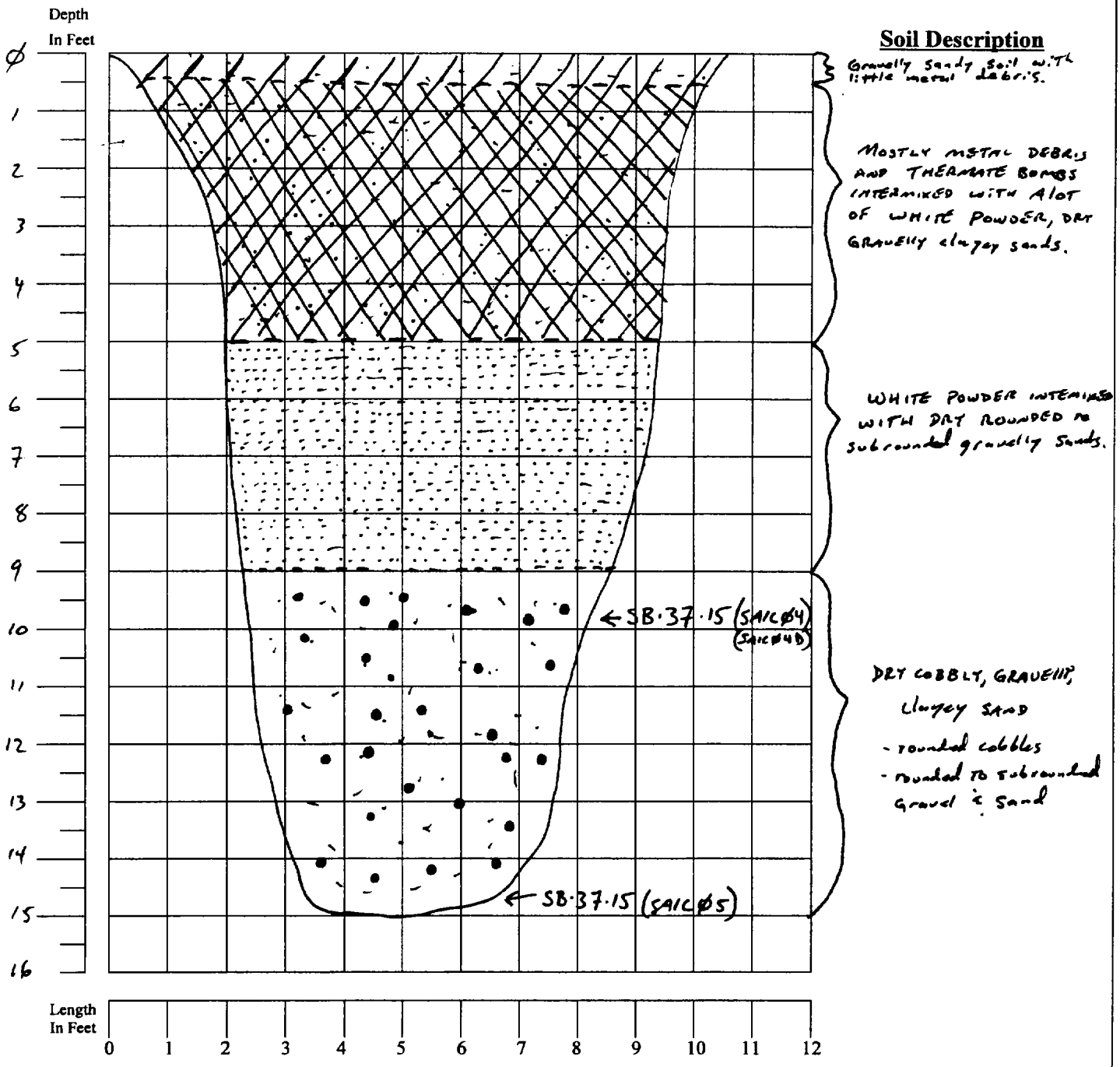
Test Pit Log

Project Name and Number: Deseret Chemical Depot (01-0827-03-6523-028)

Test Pit Number: SB·37·15 Begin: 1020 Completed: 1230

Personnel: Patrick Soderberg (SAIC), Larry Hart (ATI), Mike Blevins (ATI)

Profile View



An Employee-Owned Company

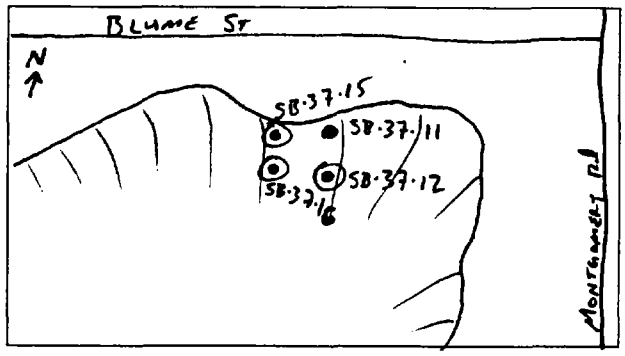
Date: 1/25/00

Test Pit Log (Cont.)

Project Name and Number: Deseret Chemical Depot - 01-0827-03-6523-028
Test Pit Number and Site Location: Site 37 → SB·37·15

Backhoe Equipment: CASE 580L Turbo
Disposition of IDW: Backfilled
Disposition of UXO: N/A
Depth to Water: None encountered
Surface Elevation: _____
Coordinates: N-_____ S-_____

Plan View



USCS Soil Type	Soil Description	Sample #	Sample Depth	P.I.D. Readings
5YR 3/2 DARK REDDISH BROWN	white DRY with powderlike particles, cobbly, Gravelly, clayey SAND (low plasticity) - rounded to Subrounded.	SB·37·15 (SAIC#4 and SAIC#40) ~~SB·37·15 (SAIC#4)~~ (5)	@ 10' BLS	#ppm
5YR 4/4 REDDISH BROWN	DRY rounded cobbly, Gravelly, clayey sand	SB·37·15 (SAIC#5)	@ 15' BLS	#ppm

Comments: _____

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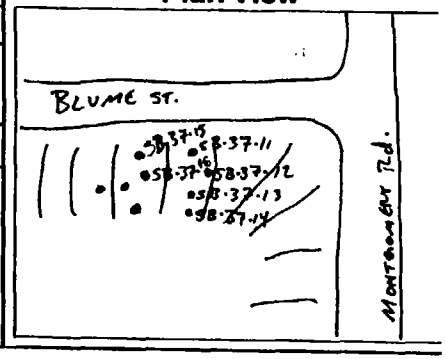
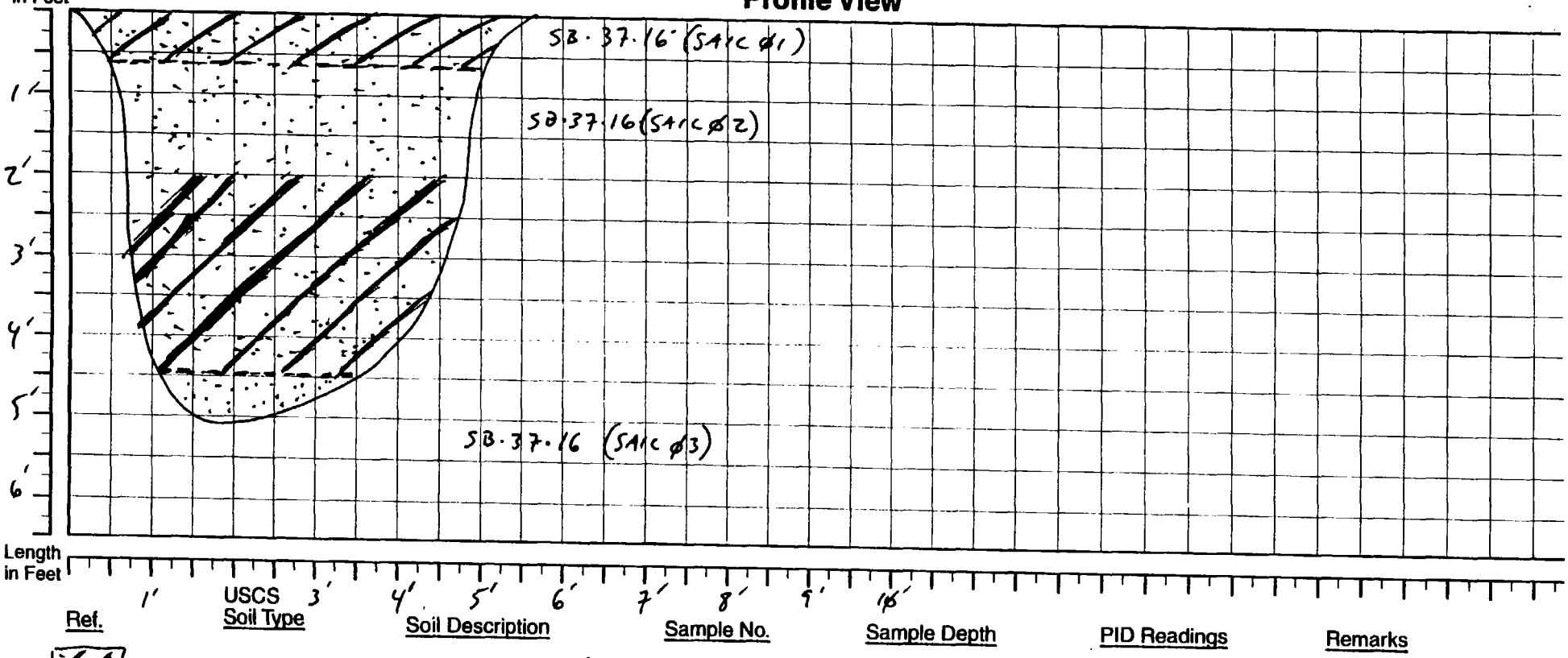
TEST PIT LOG

Site Name: DESERET CHEMICAL DEPOT	Test Pit No.: SB.37.16
Site Location: SUMA 37	Surface Elevation:
Coordinates: N– E–	Depth to Standing Water: N/A
Start Time: 0845 2/23/99 Finish Time: 0900	Disposition of Excavated Material: BACKFILLED
Backhoe Equipment:	Disposition of UXO Encountered:
Pit Orientation: HOLE	Personnel: P. SODERBERG (SAIC)
Total Depth: 5' BGS	Geologist—
Pit Length:	Backhoe Op— CECIL TAYLOR (ATI)
	Helper— DARRYL WALDEN (ATI)
	Other—

Plan View



Profile View



Ref.	USCS Soil Type	Soil Description	Sample No.	Sample Depth	PID Readings	Remarks
		SANDY GRAVELLY clay with rusted metal & missile fragments				
		SANDY GRAVELLY clay				

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TEST PIT LOG

Site Name: SWMU 37	Test Pit No.: SB-37-16

Ref.	USCS Soil Type	Soil Description	Sample No.	Sample Depth	PID Readings	Remarks
		GRAVELLY SANDY clay with rusted metal fragments	SB-37-16 (SAIC Ø1)	0-Ø.5' BGS	Ø ppm	AREA covered with moss AND GRASSES. RUSTED METAL SCRAPS & missile bodies in area also.
		ROCKY, pebbly sandy clay	SB-37-16-(SAIC Ø2)	1-1.5' BGS	Ø ppm	
		Gravelly sandy soil with pieces of metal fragments.	SB-37-16 (SAIC Ø3)	5-5.5' BGS	Ø ppm	Metal fragments @ this DEPTH CAME FROM UPPER portions of EXCAVATION.

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Date: 1/25/00

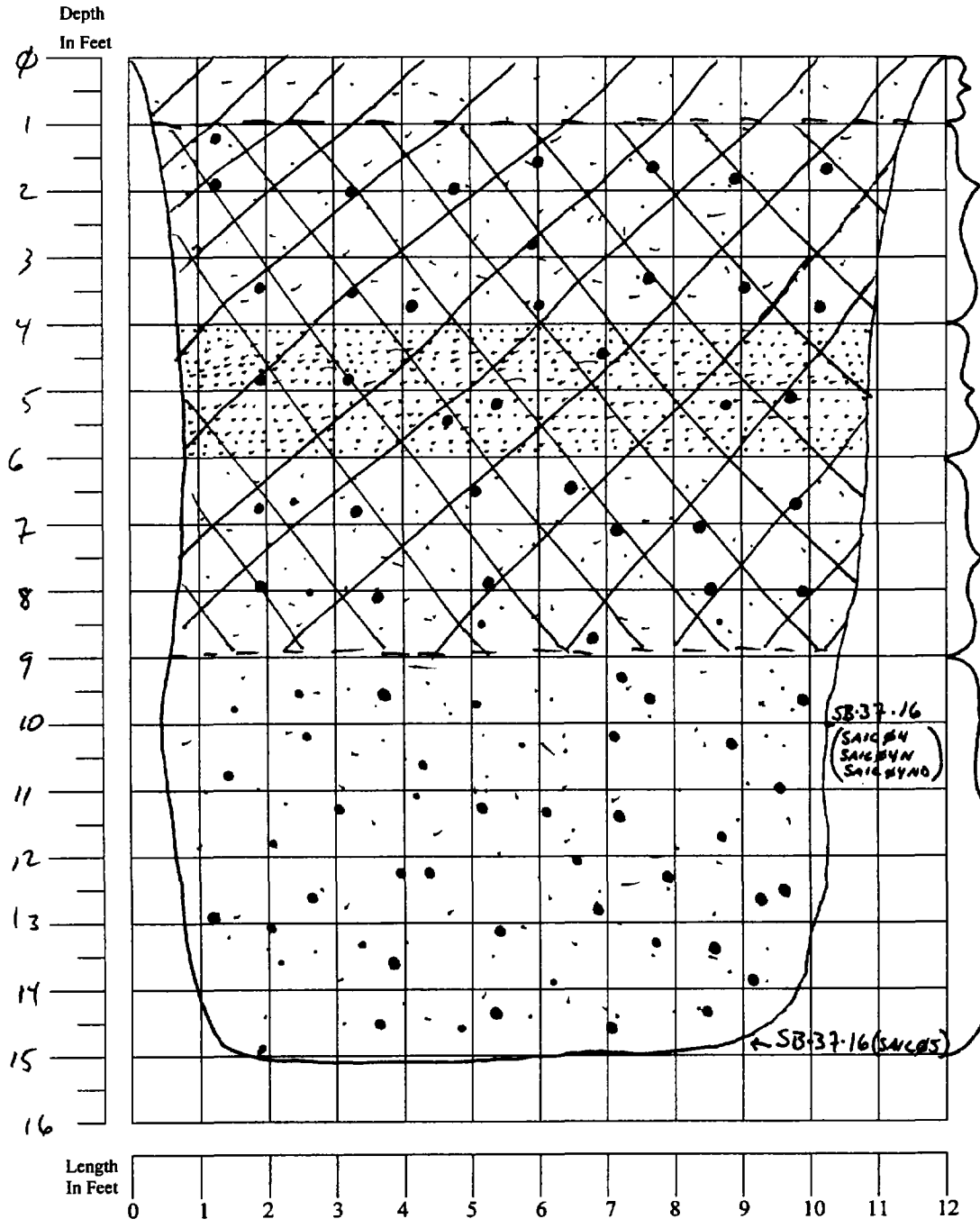
Test Pit Log

Project Name and Number: Deseret Chemical Depot (01-0827-03-6523-028)

Test Pit Number: SB-37-16 Begin: 1300 Completed: 1505

Personnel: Patrick Soderberg (SAIC), Larry Hart (ATI), Mike Blevins (ATI)

Profile View



Soil Description

Gravelly SANDY clay - dry WITH A LITTLE METAL DEBRIS.

DRY COBBLY, GRAVELLY, SANDY clay WITH A lOT OF METAL & BOMB DEBRIS.

DRY COBBLY, GRAVELLY SANDY CLAY WITH A lOT OF METAL & BOMB DEBRIS - ALSO WHITE, GRAY and BLUE POWDER MIXED INTO SOIL.

DRY COBBLY, GRAVELLY SANDY clay WITH A lOT OF METAL & BOMB DEBRIS.

DRY COBBLY, GRAVELLY SANDY CLAY.

- ROUNDED TO SUBROUNDED COBBLES TO 8"
- ROUNDED TO SUBANGULAR GRAVEL
- ROUNDED TO SUBROUNDED SAND.

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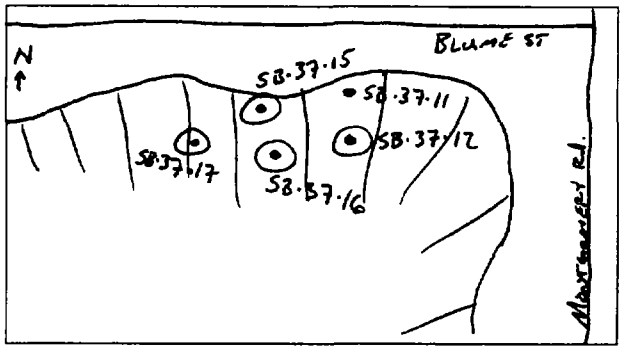
Date: 1/25/00

Test Pit Log (Cont.)

Project Name and Number: Deseret Chemical Depot - 01-0827-03-6523-028
Test Pit Number and Site Location: Site 37 SB-37-16

Plan View



Backhoe Equipment: CASE 580L Turbo
Disposition of IDW: Backfilled
Disposition of UXO: N/A
Depth to Water: None encountered
Surface Elevation: _____
Coordinates: N-_____ S-_____

USCS Soil Type	Soil Description	Sample #	Sample Depth	P.I.D. Readings
10YR 4/2 DARK GRAYISH BROWN 10YR 3/2 VERY DARK GRAYISH BROWN	DRY, ROUNDED TO SUBANGULAR GRAVELLY clayey rounded to subrounded SAND. WITH ROUNDED TO SUBROUNDED COBBLES.	SB-37-16 (SAIC04, SAIC04N, SAIC04ND) -MS/MSD	@10' BLS	0 ppm
		SB-37-16 (SAIC05)	AT 15' BLS	0 ppm

Comments: _____

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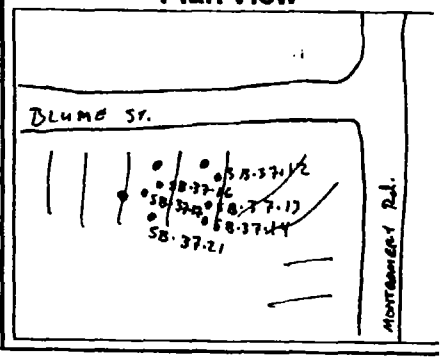
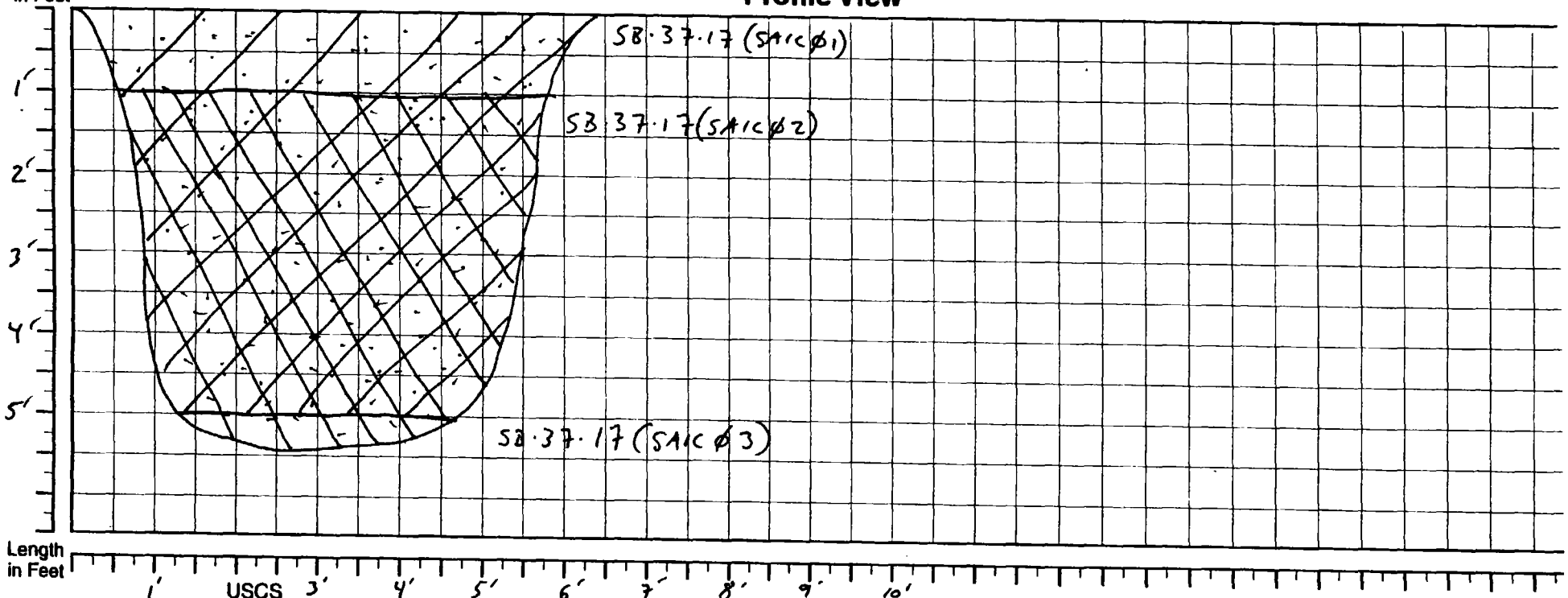
TEST PIT LOG

Site Name: DESERET CHEMICAL DEPOT	Test Pit No.: SB·37·17
Site Location:	Surface Elevation:
Coordinates: N– E–	Depth to Standing Water: N/A
Start Time: 0905 2/23/99 Finish Time: 0920	Disposition of Excavated Material:
Backhoe Equipment:	Disposition of UXO Encountered:
Pit Orientation: HOLE	Personnel: P. SODERBERG (SAIC) Geologist— Backhoe Op— CECIL TAYLOR (ATI) Helper— Other—
Total Depth: 5.5' BGS	
Pit Length:	

Plan View



Profile View



Ref.	USCS Soil Type	Soil Description	Sample No.	Sample Depth	PID Readings	Remarks
		Gravelly sandy clay with rusted missile fragments				
		Gravelly sandy clay with rusted missile fragments and white powder				
		Gravelly sandy clay with white powder				

(see page 2 of 2)

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TEST PIT LOG

Site Name: SWMU 37	Test Pit No.: SB-37-17

Ref.	USCS Soil Type	Soil Description	Sample No.	Sample Depth	PID Readings	Remarks
		Gravelly clay with rusted missile fragments.	SB-37-17 (SAIC#1, SAIC#IN, SAIC#IND)	0-#.5' BGS	#ppm	AREA is non-vegetated and surrounded by rusted missile bodies.
		Gravelly sandy clay with rusted metal fragments & white powder.	SB-37-17 (SAIC#2)	1-1.5' BGS	#ppm	* Rows of missiles All arranged together were located @ 1-3' BGS.
		Gravelly sandy clay -discolored with white talc-like powder.	SB-37-17 (SAIC#3)	5-5.5' BGS	#ppm	SAMPLE CONTAINED DISCOLORED SOIL (WHITE POWDER INTERMIXED).

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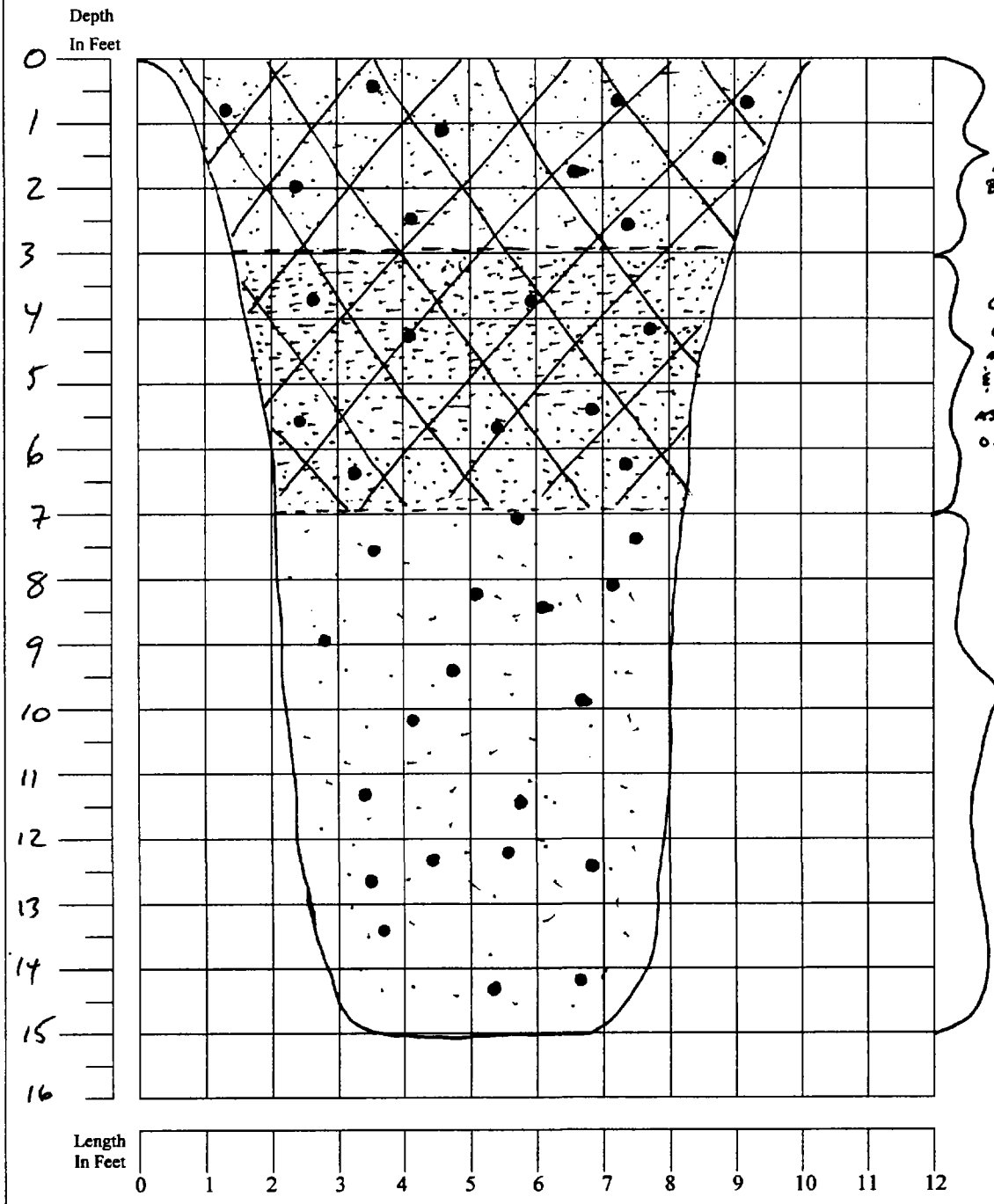
Date: 1/26/00

Test Pit Log

Project Name and Number: Deseret Chemical Depot (01-0827-03-6523-028)
Test Pit Number: SB-37-17 Begin: 1305 Completed: 1435
Personnel: Patrick Soderberg (SAIC), Larry Hart (ATI), Mike Blevins (ATI)

Profile View



Soil Description

COBBLY GRAVELLY SANDY CLAY WITH METAL & THERMATE BOMB DEBRIS ALONG WITH WHITE AND BLACK POWDERY ASH.

COBBLY GRAVELLY SANDY CLAY WITH MORE ASH MIXED IN WITH METAL & BOMB DEBRIS AS WELL AS LARGE (2' LONG) PIECES OF SLAG METAL.

COBBLY, GRAVELLY SANDY CLAY - USED SLIGHT AMOUNT OF BLACK PARTICULATE MIXED INTO SOIL.

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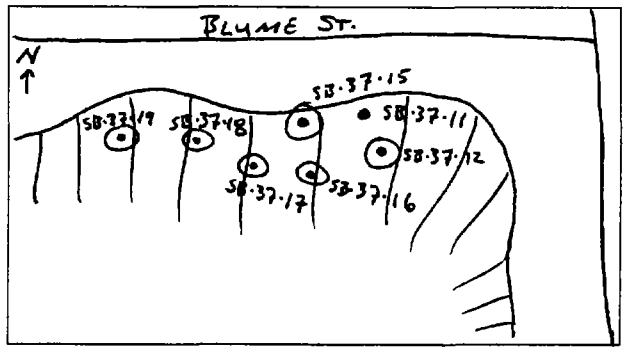
Date: 1/26/00

Test Pit Log (Cont.)

Project Name and Number: Deseret Chemical Depot - 01-0827-03-6523-028
Test Pit Number and Site Location: Site 37 SB·37·17

Backhoe Equipment: CASE 580L Turbo
Disposition of IDW: Backfilled
Disposition of UXO: N/A
Depth to Water: None encountered
Surface Elevation: _____
Coordinates: N-_____ S-_____

Plan View



USCS Soil Type	Soil Description	Sample #	Sample Depth	P.I.D. Readings
10YR 4/2 DARK GRAYISH BROWN	COBBLY, GRAVELLY, SANDY CLAY. - COBBLES - ROUNDED TO SUBROUNDED - GRAVEL & SAND - ROUNDED TO SUBANGULAR. - CLAY - LITTLE TO NO PLASTICITY.	SB·37·17(SAIC#4)	10' BGS	Ø ppm
10YR 4/2 DARK GRAYISH BROWN	- SAME AS ABOVE -	SB·37·17(SAIC#5)	15' BGS	Ø ppm

Comments: _____

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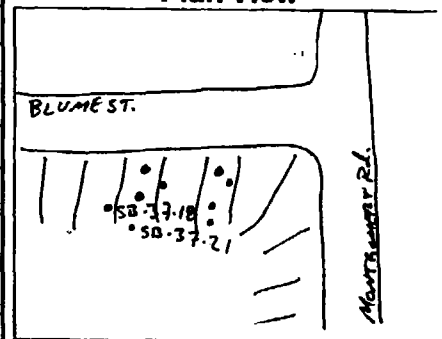
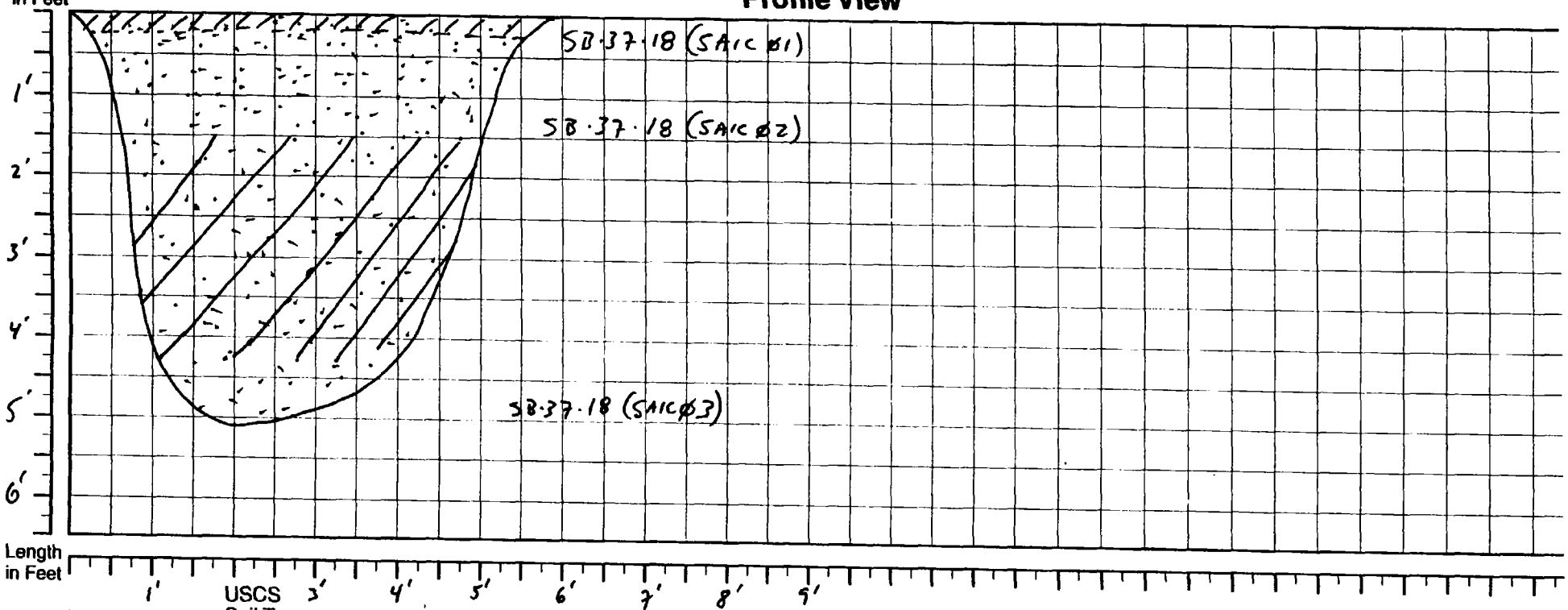
TEST PIT LOG

Site Name: DESERET CHEMICAL DEPOT	Test Pit No.: SB-37-18
Site Location: SWMU 37	Surface Elevation:
Coordinates: N– E–	Depth to Standing Water: N/A
Start Time: 0945 2/23/99 Finish Time: 1005	Disposition of Excavated Material: BACKFILLED
Backhoe Equipment:	Disposition of UXO Encountered:
Pit Orientation: HOLE	Personnel: P. SODERBERG (SAIC) Geologist— Backhoe Op— CECIL TAYLOR (ATI) Helper— DARRYL WALDEN (ATI) Other—
Total Depth: 5.5' BGS	
Pit Length:	

Plan View



Profile View



Ref.	USCS Soil Type	Soil Description	Sample No.	Sample Depth	PID Readings	Remarks
		GRAVELLY SANDY clay with metal debris				
		Gravelly sandy clay				

(See page 2 of 2)

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TEST PIT LOG

Site Name: SWMU 37	Test Pit No.: SB-37-18

Ref.	USCS Soil Type	Soil Description	Sample No.	Sample Depth	PID Readings	Remarks
		Rocky Gravelly sandy clay with rusted metal fragments.	SB-37-18 (SAIC#1)	0-0.5' BGS	0 ppm	AREA was non-vegetated and surrounded by missile bodies.
		Gravelly sandy clay	SB-37-18 (SAIC#2)	1-1.5' BGS	0 ppm	Between 1.5' and about 5' BGS there was large pieces of scrap metal, pipes, RR track & other metal debris that sloughed into the hole. Metal debris ended @ about 5' BGS.
		Gravely sandy clay	SB-37-18 (SAIC#3)	5-5.5' BGS	0 ppm	

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Date: 1/26/00

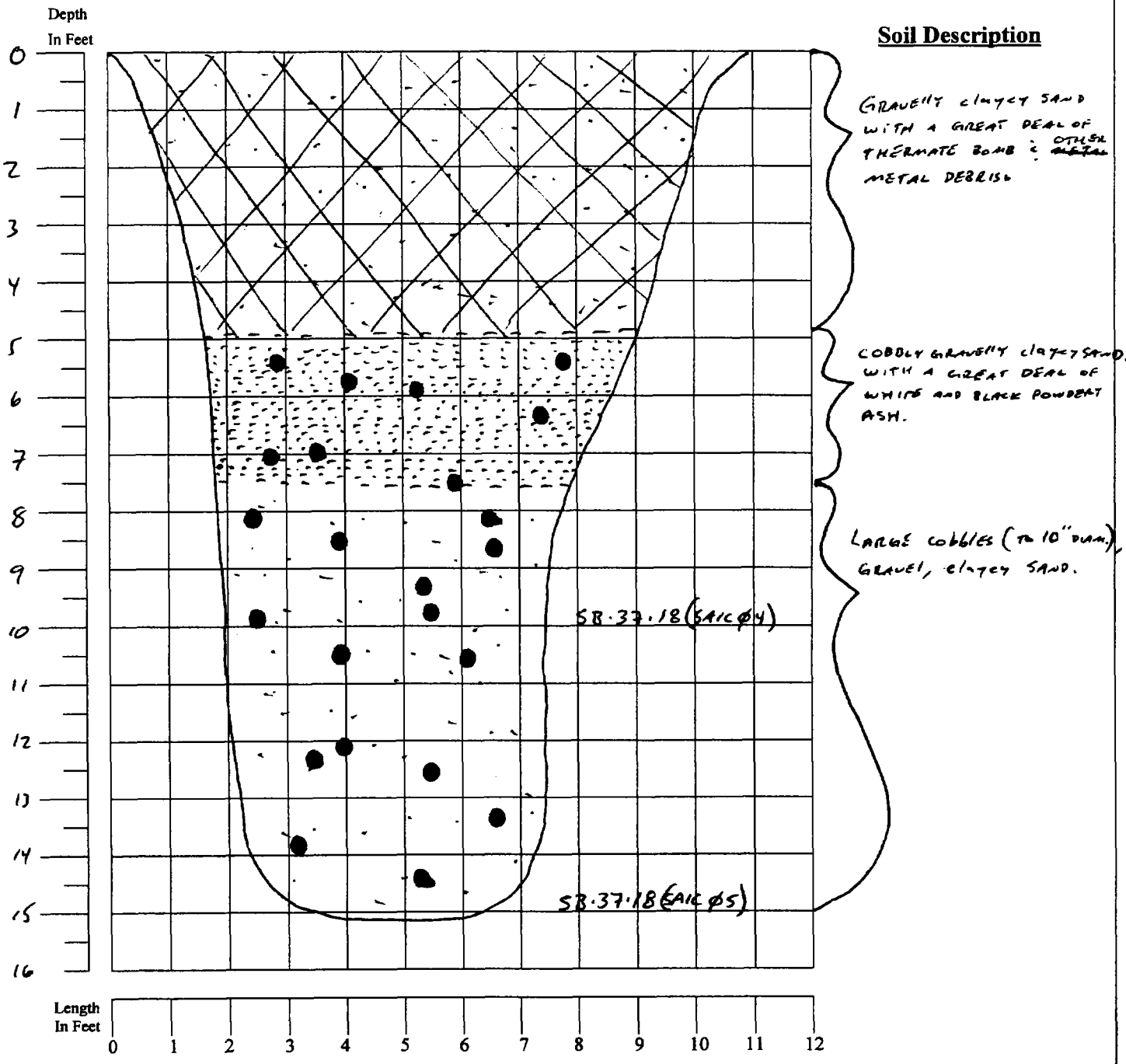
Test Pit Log

Project Name and Number: Deseret Chemical Depot (01-0827-03-6523-028)

Test Pit Number: SB·37·18 Begin: 0835 Completed: 1200

Personnel: Patrick Soderberg (SAIC), Larry Hart (ATI), Mike Blevins (ATI)

Profile View



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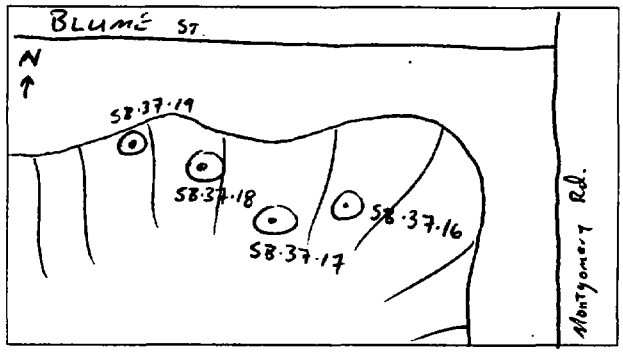
Date: 1/26/00

Test Pit Log (Cont.)

Project Name and Number: Deseret Chemical Depot - 01-0827-03-6523-028
Test Pit Number and Site Location: Site 37 SB-37-18

Backhoe Equipment: CASE 580L Turbo
Disposition of IDW: Backfilled
Disposition of UXO: N/A
Depth to Water: None encountered
Surface Elevation: _____
Coordinates: N-_____ S-_____

Plan View



USCS Soil Type	Soil Description	Sample #	Sample Depth	P.I.D. Readings
10YR 5/3 Brown	Cobbly gravelly clayey sand. (- rounded to subrounded cobbles - subrounded to subangular gravel & sand - clay with little or no plasticity)	SB-37-18 (SAIC #4)	10' BLS	0 ppm
2.5Y 4/2 dark grayish brown	cobbly gravelly clayey sand (same as above).	SB-37-18 (SAIC #5)	15' BLS	0 ppm

Comments: _____

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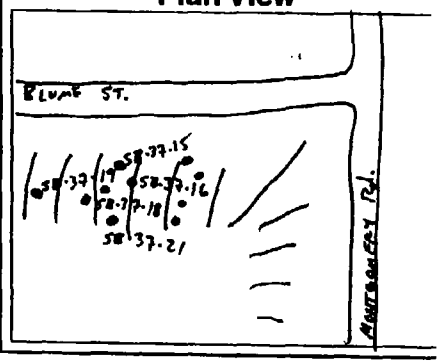
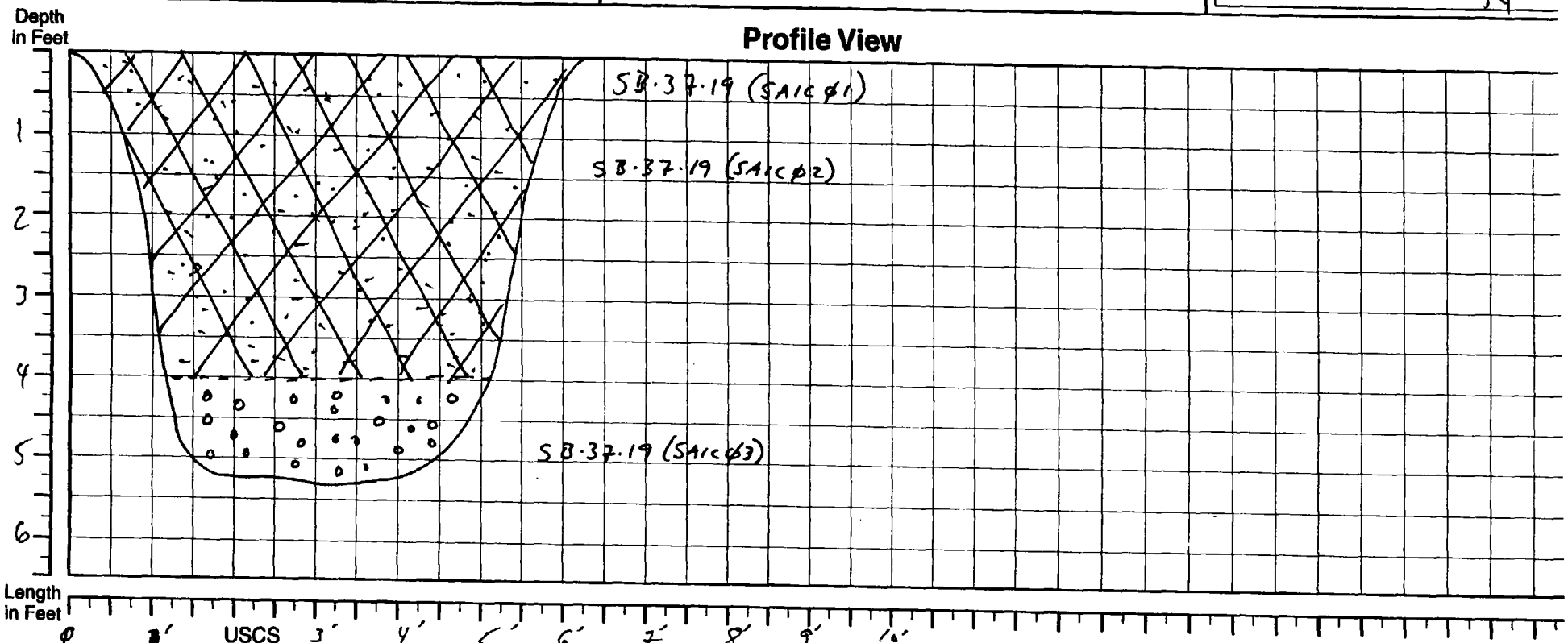
TEST PIT LOG

Site Name: Deseret Chemical Depot	Test Pit No.: SB-37-19
Site Location: SWMU #37	Surface Elevation:
Coordinates: N– E–	Depth to Standing Water: N/A
Start Time: 1055 2/23/99 Finish Time: 1120	Disposition of Excavated Material: Backfilled
Backhoe Equipment:	Disposition of UXO Encountered:
Pit Orientation: Hole	Personnel: D. Soderberg (SAIC) Geologist— Backhoe Op— Cecil Taylor (ATI) Helper— Darryl Walden (ATI) Other—
Total Depth: 5.5' bgs	
Pit Length:	

Plan View



Profile View



Ref.	USCS Soil Type	Soil Description	Sample No.	Sample Depth	PID Readings	Remarks
		Gravelly sandy soil with gray discoloration and metal debris.				
		Very moist reddish brown clay with few pebbles.				

(See page 2 of 2)

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TEST PIT LOG

Site Name: SWMU 37	Test Pit No.: SB-37-19

Ref.	USCS Soil Type	Soil Description	Sample No.	Sample Depth	PID Readings	Remarks
		Gravelly sandy clay with gray discolored soils.	SB-37-19 (SAIC#1)	0-0.5' BGS	0 ppm	AREA was surrounded by rusted metal debris and missile fragments.
		Gravelly sandy clay with clay particles and gray/white dust.	SB-37-19 (SAIC#2)	1-1.5' BGS	0 ppm	
		very moist pebbly reddish brown clay	SB-37-19 (SAIC#3)	5-5.5' BGS	0 ppm	

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Date: 1/26/00 and 1/25/00

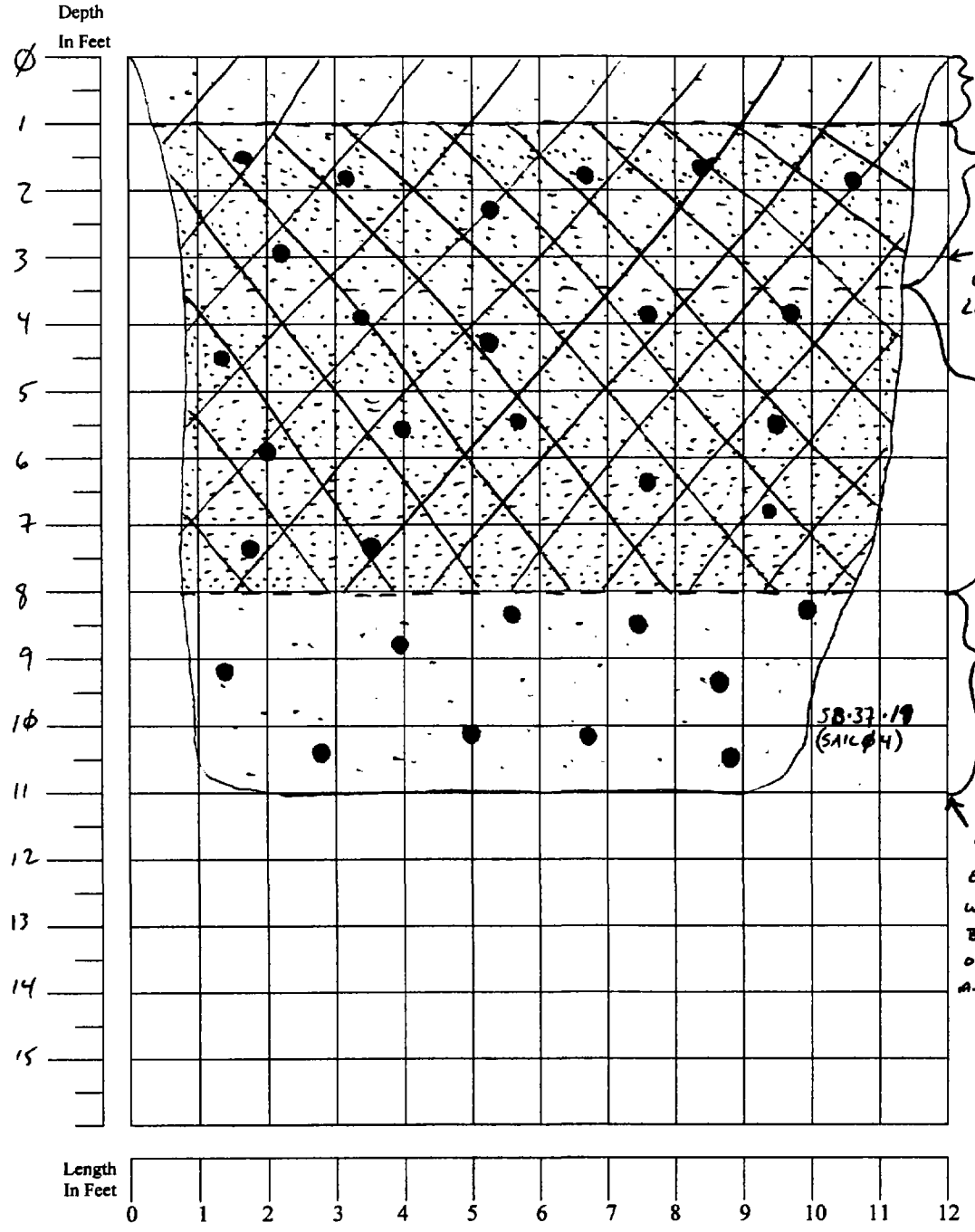
Test Pit Log

Project Name and Number: Deseret Chemical Depot (01-0827-03-6523-028)

Test Pit Number: SB-37-#19 Begin: ~~0835~~ ⑤ 1/25/00 1515 Completed: 1200 (1/26/00)

Personnel: Patrick Soderberg (SAIC), Larry Hart (ATI), Mike Blevins (ATI)

Profile View



Soil Description

GRAVELLY SANDY CLAY WITH LITTLE METAL DEBRIS

GRAVELLY COBBLY SANDY CLAY, WITH A LOT OF WHITE POWDER, A LITTLE (<1L) WHITE LIQUID WAS ENCOUNTERED @ 3' BGS (2ppm) BLACK POWDER AND A LOT OF LARGE METAL DEBRIS

← 2ppm
O_2 = 20.9%
LEL = 0

GRAVELLY COBBLY CLAYEY SAND WITH BLACK AND GRAY POWDER & CRYSTAL PARTICLES MIXED IN. A GREAT DEAL OF LARGE METAL DEBRIS (6' long metal plates about 8" wide and RR tracks)

COBBLY GRAVELLY CLAYEY SAND WITH BLACK PARTICULATE INTERMIXED (CANNOT TELL IF PARTICULATE CAME FROM UPPER PORTION OF EXCAVATION - COULD NOT AUGER BENEATH 10.5' BLS).

AT 11' BLS THE BACKHOE ENCOUNTERS REFUSAL. MATERIAL WAS YELLOWISH WHITE "ROCK" BELIEVED TO BE NATURAL - COMPOSED OF A FUSED COMPOSIT OF COBBLES AND SAND AGGREGATE.

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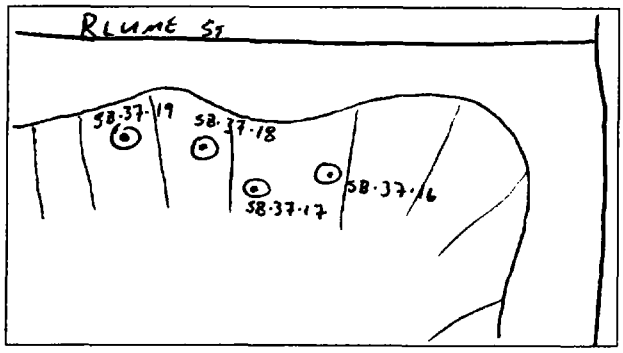
Date: 1/25 and 1/26/00

Test Pit Log (Cont.)

Project Name and Number: Deseret Chemical Depot - 01-0827-03-6523-028
Test Pit Number and Site Location: Site 37 SB·37·19

Plan View



Backhoe Equipment: CASE 580L Turbo
Disposition of IDW: Backfilled
Disposition of UXO: N/A
Depth to Water: None encountered
Surface Elevation: _____
Coordinates: N-_____ S-_____

USCS Soil Type	Soil Description	Sample #	Sample Depth	P.I.D. Readings
10YR 3/2 very dark grayish brown	cobbly gravelly clayey sand - rounded to subrounded cobbles - subrounded to subangular gravel & sand - clay little to no plasticity	SB·37·19 (SAIC #4)	10' BLS	0 ppm

Comments: _____

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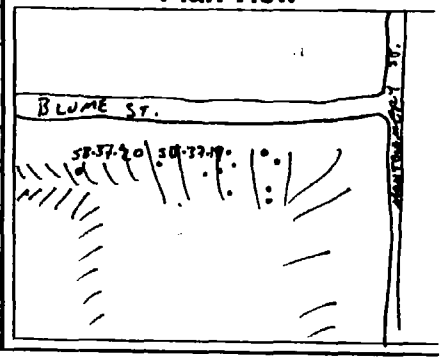
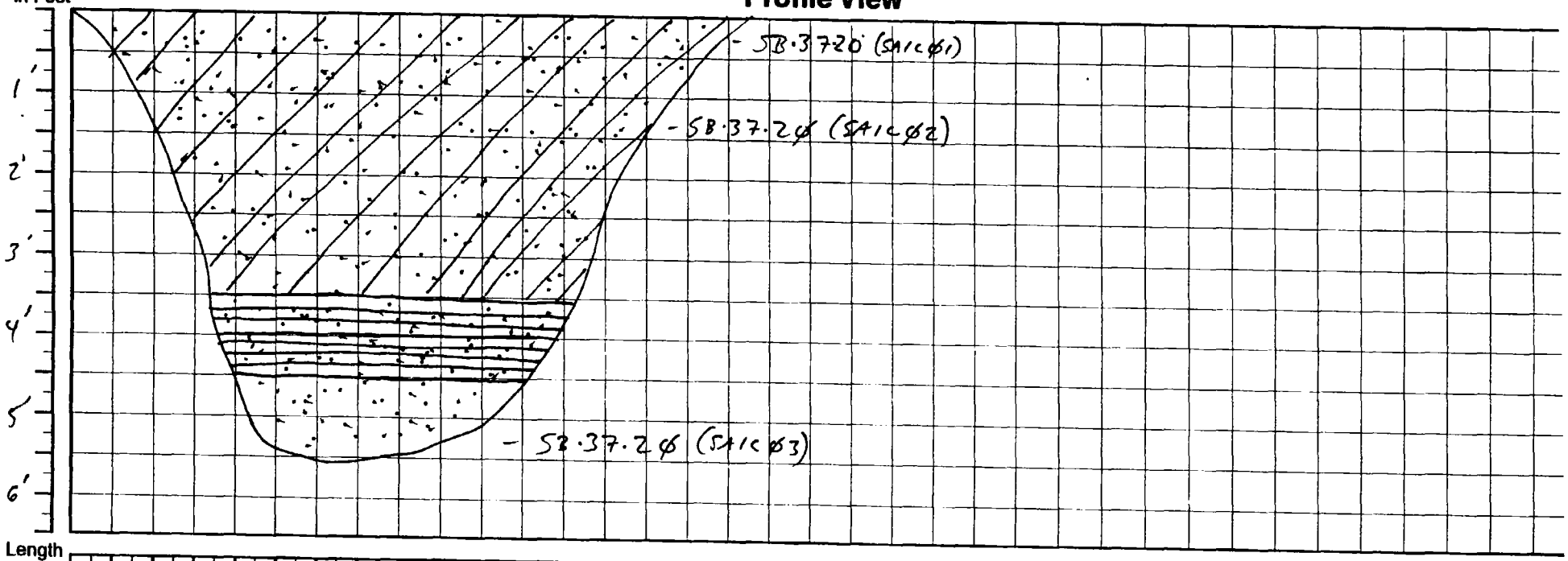
TEST PIT LOG

Site Name: DESERET CHEMICAL DEPOT	Test Pit No.: SB-37-20
Site Location: SWMU # 37	Surface Elevation:
Coordinates: N– E–	Depth to Standing Water: N/A
Start Time: 1125 2/23/99 Finish Time: 1150	Disposition of Excavated Material: BACKFILLED
Backhoe Equipment:	Disposition of UXO Encountered:
	Personnel: P. SODERBERG (SAIC)
Pit Orientation: HOLE	Geologist—
Total Depth: 5.5' BGS	Backhoe Op— CECIL TAYLOR (ATI)
Pit Length:	Helper— DARRYL WALDEN
	Other—

Plan View



Profile View



Ref.	USCS Soil Type	Soil Description	Sample No.	Sample Depth	PID Readings	Remarks
		- GRAVELLY SANDY CLAY W/ METAL FRAGMENTS & WHITE CRYSTALLINE SUBSTANCE IN SOIL MATRIX.	(SEE PAGE 2 OF 2)			
		- GRAVELLY SANDY CLAY ~~W/ METAL FRAGMENTS~~ THAT IS REDDISH BROWN				
		- LIGHT BROWN GRAVELLY SANDY CLAY				

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TEST PIT LOG

Site Name: SWMU 37	Test Pit No.: SB-37-[redacted]2Ø

Ref.	USCS Soil Type	Soil Description	Sample No.	Sample Depth	PID Readings	Remarks
		Gravelly SANDY clay INTERMIXED WITH WHITE CRYSTALLIZED SUBSTANCE & METAL FRAGMENTS.	SB-37-[redacted]Ø (SAICØ1 & SAICØ1D)	Ø-Ø.5'BGS	Ø ppm	NON-VEGETATED AREA - WHITE CRYSTALLINE SUBSTANCE IN SOIL & SAMPLE - RUSTED MISSILE BODIES PROTRUDING FROM GROUND.
		Gravelly SANDY clay WITH Slag METAL DEBRIS.	SB-37-2Ø (SAICØ2)	1-1.5'BGS	Ø ppm	LARGE PIECES OF METAL AND MISSILE FRAGMENTS IN HOLE DOWN TO SAMPLE DEPTH.
		Gravelly SANDY clay	SB-37-2Ø (SAICØ3)	5-5.5'BGS	Ø ppm	METAL DEBRIS ENDED @ 3.5'BGS - SAMPLE COLLECTED BELOW reddish Brown soil band (3.5-4.5'BGS).

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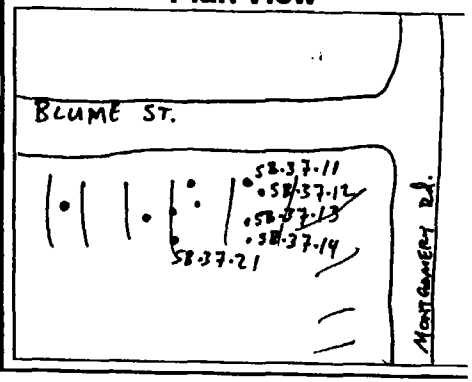
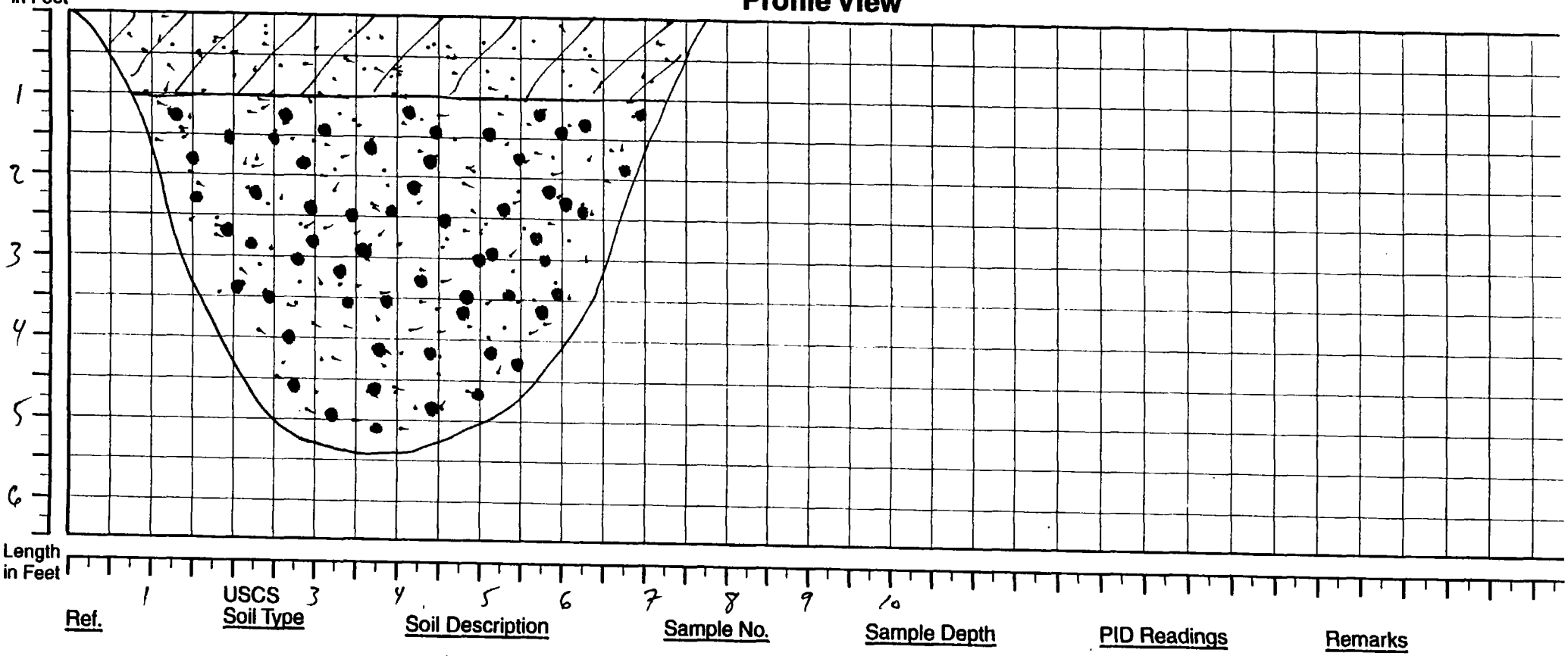
TEST PIT LOG

Site Name: DESERET CHEMICAL DEPOT	Test Pit No.: SB-37-21
Site Location: SWMU #37	Surface Elevation:
Coordinates: N– E–	Depth to Standing Water: N/A
Start Time: 1315 2/23/99 Finish Time: 1325	Disposition of Excavated Material: BACKFILLED
Backhoe Equipment:	Disposition of UXO Encountered:
Pit Orientation: HOLE	Personnel: P. SODERBERG (SAIC) Geologist— Backhoe Op— CECIL TAYLOR (ATI) Helper— DARRYL WALDEN (ATI) Other—
Total Depth: 5.5' BGS	
Pit Length:	

Plan View



Profile View



Ref. | USCS Soil Type | Soil Description | Sample No. | Sample Depth | PID Readings | Remarks

— See page 2 of 2 —

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TEST PIT LOG

Site Name: SWMU #37	Test Pit No.: SB-37-21

Ref.	USCS Soil Type	Soil Description	Sample No.	Sample Depth	PID Readings	Remarks
		Gravelly sandy clay	SB-37-21 (SAIC Ø1)	Ø-Ø.5 'BGS	Ø ppm	- METAL DEBRIS AROUND AREA - MISSILE FRAGMENTS.
		Sandy clay w/pebbles	SB-37-21 (SAIC Ø2)	1-1.5 'BGS.	Ø ppm	SMALL METAL FRAGMENTS IN SAMPLE LOCATION.
		Cobbly sandy clay	SB-37-21 (SAIC Ø3)	5-5.5 'BGS	Ø ppm	NO METAL DEBRIS ENCOUNTERED BELOW 1 'BGS.

SWMU 11 AND 19
WATER LEVEL MEASUREMENTS

Groundwater Elevation Data
Group 3 Phase II RFI, Deseret Chemical Depot

Site	Site ID	Measurement Date	Elevation TOC (MSL; ft)	Water Level (BTOC; ft)	Water Level (MSL; ft)	Northing	Easting
SWMU 11	S-3	9/25/94	5053.63	25.78	5027.85	716593	1756679
		12/12/94	5053.63	25.68	5027.95		
		4/23/98	5053.63	22.55	5031.08		
		5/20/98	5053.63	22.37	5031.26		
		11/13/98	5053.63	23.43	5030.20		
		2/17/99	5053.63	23.24	5030.39		
		5/5/99	5053.63	23.00	5030.63		
		1/27/00	5053.63	23.69	5029.94		
	S-45-90	9/25/94	5049.32	19.15	5030.17	722103	1755904
		12/12/94	5049.32	19.35	5029.97		
		4/23/98	5049.32	13.93	5035.39		
		5/20/98	5049.32	13.98	5035.34		
		11/13/98	5049.32	14.55	5034.77		
		2/17/99	5049.32	14.41	5034.91		
		5/5/99	5049.32	14.28	5035.04		
		1/27/00	5049.32	15.00	5034.32		
	S-46-90	9/25/94	5048.24	20.75	5027.49	716853	1755631
		12/12/94	5048.24	50.56	4997.68		
		4/23/98	5048.24	17.25	5030.99		
		5/20/98	5048.24	17.18	5031.06		
		11/13/98	5048.24	18.38	5029.86		
		2/17/99	5048.24	18.08	5030.16		
		5/5/99	5048.24	17.80	5030.44		
		1/27/00	5048.24	18.50	5029.74		
	S-74-90	9/25/94	5052.54	25.10	5027.44	720481	1755904
		12/12/94	5052.54	24.72	5027.82		
		4/23/98	5052.54	21.08	5031.46		
		5/20/98	5052.54	21.16	5031.38		
		11/13/98	5052.54	22.43	5030.11		
		2/17/99	5052.54	22.03	5030.51		
		5/5/99	5052.54	21.70	5030.84		
		1/27/00	5052.54	22.45	5030.09		
	S-75-90	9/25/94	5049.62	22.20	5027.42	718677	1754869
		12/12/94	5049.62	21.76	5027.86		
		4/23/98	5049.62	18.29	5031.33		
		5/20/98	5049.62	18.38	5031.24		
		11/13/98	5049.62	19.65	5029.97		
		2/17/99	5049.62	19.25	5030.37		
		5/5/99	5049.62	18.88	5030.74		
		1/27/00	5049.62	19.63	5029.99		

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Site	Site ID	Measurement Date	Elevation TOC (MSL; ft)	Water Level (BTOC; ft)	Water Level (MSL; ft)	Northing	Easting
SWMU 19	S-113-94	10/22/94	5231.00	109.98	5121.02	2219784.42	428919.48
		12/12/94	5231.00	109.59	5121.41		
		5/5/95	5231.00	109.32	5121.68		
		4/23/98	5231.00	108.21	5122.79		
		K 9/30/97	5234.96	110.43	5124.53		
		5/20/98	5231.00	108.99	5122.01		
		7/23/98	5231.00	107.82	5123.18		
		11/13/98	5231.00	106.89	5124.11		
		2/17/99	5231.00	106.39	5124.61		
		5/5/99	5231.00	106.72	5124.28		
		1/27/00	5231.00	106.44	5124.56		
	S-114-94	10/22/94	5230.81	109.85	5120.96	2219807.33	428893.36
		12/12/94	5230.81	109.33	5121.48		
		5/5/95	5230.81	109.02	5121.79		
		4/23/98	5230.81	107.90	5122.91		
		K 9/30/97	5234.76	109.76	5125.00		
		5/20/98	5230.81	107.88	5122.93		
		7/23/98	5230.81	107.47	5123.34		
		11/13/98	5230.81	106.51	5124.30		
		2/17/99	5230.81	106.03	5124.78		
		5/5/99	5230.81	106.37	5124.44		
		1/27/00	5230.81	106.10	5124.71		
	S-115-94	10/22/94	5232.66	111.65	5121.01	2219830.58	428867.18
		12/12/94	5232.66	111.13	5121.53		
		5/5/95	5232.66	110.98	5121.68		
		4/23/98	5232.66	109.69	5122.97		
		K 9/30/97	5236.60	111.20	5125.40		
		5/20/98	5232.66	109.66	5123.00		
		7/23/98	5232.66	109.23	5123.43		
		11/13/98	5232.66	108.20	5124.46		
		2/17/99	5232.66	107.75	5124.91		
		5/5/99	5232.66	108.08	5124.58		
		1/27/00	5232.66	107.81	5124.85		
	S-116-94	10/23/98	5238.08	133.78	5104.30	2219901.79	429015.01
		12/12/94	5238.08	133.64	5104.44		
		5/5/95	5238.08	134.06	5104.02		
		4/23/98	5238.08	130.97	5107.11		
		K 9/30/97	5238.08	115.84	5122.24		
		5/20/98	5238.08	129.81	5108.27		
		7/23/98	5238.08	123.44	5114.64		
		11/13/98	5238.08	123.47	5114.61		
		2/17/99	5238.08	123.14	5114.94		
		5/5/99	5238.08	123.46	5114.62		
		1/27/00	5238.08	123.27	5114.81		

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