

APPENDIX A
SOIL BORING, MONITORING WELL LOGS
AND AS-BUILTS

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LIST OF ABBREVIATIONS

CB = Core Boring

DNR = Data Not Recorded

DP = Down Pressure

N/A = Non-Applicable

NR = No Recovery

SS = Split Spoon

ST = Shelby Tube

SOIL BORING/WELL LOG

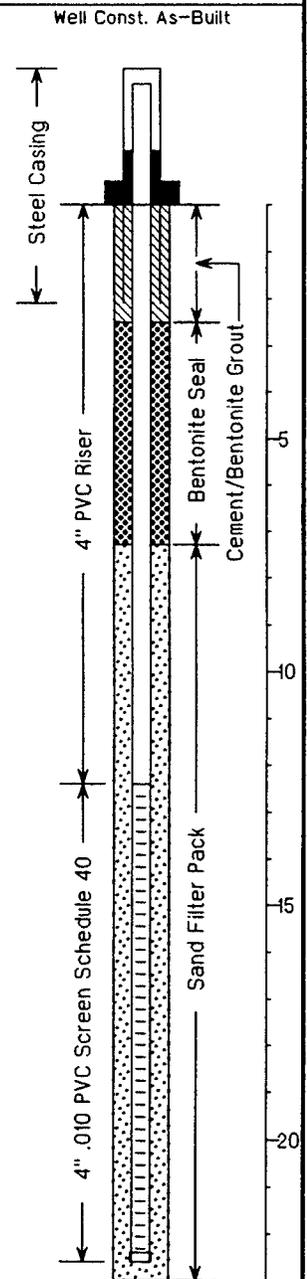
Project Name: Fort McClellan Site Investigation Site Location: Landfill #2 (LF2) Monitoring Well No.: LF2MW1
 SAIC Project No.: 01-0827-03-0424 Northing (ft): 1175402.32 Start/Finish Date: 05-04-92/05-04-92
 Geologist: W.P. Stoner Easting (ft): 516724.30 Well Completion Depth (ft): 27.0
 Drilling Co.: Environmental Exploration, Inc. Groundwater Elev. (ft): 792.81 on 6/4/92 Drilled Depth (ft): 27.0
 Driller: S. Turner Drilling Method: Hollow Stem Auger Surface Pad Elevation (ft): 807.53
 Drill Rig: Mobile Drill B57 Sampling Method: Split Spoon Top of Casing Elevation (ft): 809.59

Depth (feet)	Soil Class USCS	Lithologic Symbol	Material Description	H _{Nu} (ppm)/LEL	Blows/6 in.	Sample No.	Sample Type	Sample Rec (ft)	Well Const. As-Built
0 - 1.8	CL		CLAY, 30-40% silt, 10% very fine to fine sand, <5% medium to coarse sand; 5YR 4/4 reddish brown; stiff; very slightly plastic; dry to slightly moist.	8/3	2-3-6-8	1	SS	1.8	
1.8 - 2.2	SW		SAND, very fine to coarse sand, 20-30% pebbles (up to 40mm); 10YR 4/4 dark yellowish brown; loose; non-plastic; dry to moist.						
2.2 - 2.5	CL		SAND, very fine to coarse sand, 20-30% pebbles (up to 40mm); 5Y 2.5/1 black, shiny appearance; loose; non-plastic; dry to moist.	2/0	9-16-22-22	2	SS	1.5	
2.5 - 3.0	CL		SAND, very fine to coarse sand, 20-30% pebbles (up to 40mm); 10YR 4/4 dark yellowish brown; loose; non-plastic; dry to moist.						
3.0 - 3.5	CL		CLAY, 40% silt, <5% sand; 10YR 5/6 yellowish brown; hard; very slightly plastic; dry.						
3.5 - 4.5	SM		SILTY SAND, 77% sand, 15% silt, 5% clay, 3% fine gravel; 7.5YR 5/8 strong brown and 5Y 7/1 light gray clay bands; very dense; non to low plasticity; dry to slightly moist.	10/1	12-22-30-39	3	SS	1.4	
4.5 - 5.5	CL		CLAY, 30-40% silt; 7.5YR 5/8 strong brown and 2.5Y 7/0 white clay bands; hard; non to low plasticity; dry to slightly moist.	0.2/1	7-11-24-33	4	SS	1.7	
5.5 - 6.5	CL								
6.5 - 7.5	CL			0/DNR	11-27-28-38	5	SS	1.8	
7.5 - 8.5	ML		SILT, 30% clay, 10% very fine sand; 10YR 5/3 brown; hard; non to slightly plastic; dry to slightly moist.	DNR	37-50/2"	6	SS	0.7	
8.5 - 27.0			<i>Bottom of Boring at 27.0 feet</i>						

SOIL BORING/WELL LOG

Project Name: Fort McClellan Site Investigation Site Location: Landfill #2 (LF2) Monitoring Well No.: LF2MW2
 SAIC Project No.: 01-0827-03-0424 Northing (ft): 1175099.16 Start/Finish Date: 05-05-92/05-05-92
 Geologist: W.P. Stoner Easting (ft): 516586.17 Well Completion Depth (ft): 23.0
 Drilling Co.: Environmental Exploration, Inc. Groundwater Elev. (ft): 786.96 on 6/4/92 Drilled Depth (ft): 23.0
 Driller: S. Turner Drilling Method: Hollow Stem Auger Surface Pad Elevation (ft): 791.66
 Drill Rig: Mobile Drill B57 Sampling Method: Split Spoon/Shelby Tube Top of Casing Elevation (ft): 793.89

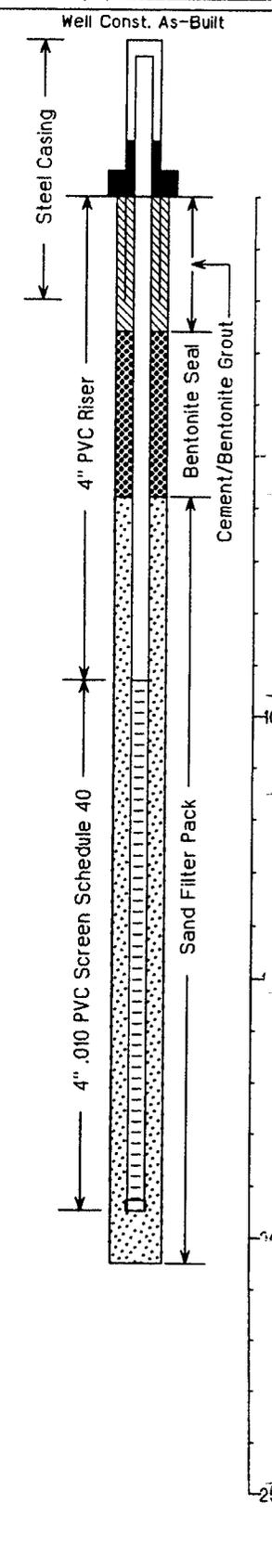
Depth (feet)	Soil Class USCS	Lithologic Symbol	Material Description	H _{Nu} (ppm)/LEL	Blows/6 in.	Sample No.	Sample Type	Sample Rec (ft)
0 - 2.5	ML	[Symbol: Horizontal dashes]	SANDY SILT, some clay, 53% sand, 24% clay, 18% silt, 5% fine gravel; 10YR 2/2 very dark brown; soft; slight to plastic; moist.	20/0	2-3-3-4	1	SS	1.2
2.5 - 5.0	CL	[Symbol: Horizontal lines]	SANDY SILT, some clay, 53% sand, 24% clay, 18% silt, 5% fine gravel; 10YR 6/4 light yellowish brown; firm; slight to plastic; dry to slightly moist.					
5.0 - 7.5		[Symbol: Horizontal lines]	CLAY, 30-40% silt; 7.5YR 5/8 strong brown and 5Y 7/1 light gray thinly bedded clay; very stiff to hard; non to low plasticity; dry to moist. (Hard Drilling)	1/0	10-15-17-22	2	SS	1.5
7.5 - 10.0		[Symbol: Horizontal lines]						
10.0 - 12.5	ML	[Symbol: Horizontal dashes]	SILT, 20% clay; 10YR 5/3 brown; hard; non to slightly plastic; dry. (Attempted Shelby Tube for sample collection between 10 and 12 feet, but material is too dense and it bent Shelby Tube.)	7/0	DP @ 800 PSI	3	ST	0.5
12.5 - 15.0		[Symbol: Horizontal dashes]						
15.0 - 17.5		[Symbol: Horizontal dashes]	SILT, 20% clay, <10% pebbles (up to 10mm); 10YR 5/4 yellowish brown; non-plastic; dry.					
17.5 - 20.0		[Symbol: Horizontal dashes]		170/0	17-50/5"	4	SS	1.0
20.0 - 23.0	N/A	[Symbol: Horizontal dashes]	SILT/CLAYSTONE; 10YR 4/0 dark gray, iron staining; hard; highly weathered; horizontal bedding.					
23.0			<i>Bottom of Boring at 23.0 feet</i>					



SOIL BORING/WELL LOG

Project Name: Fort McClellan Site Investigation Site Location: Landfill #2 (LF2) Monitoring Well No.: LF2MW3
 SAIC Project No.: 01-0827-03-0424 Northing (ft): 1175177.24 Start/Finish Date: 05-06-92/05-06-92
 Geologist: W.P. Stoner Easting (ft): 516947.63 Well Completion Depth (ft): 20.5
 Drilling Co.: Environmental Exploration, Inc. Groundwater Elev. (ft): 789.28 on 6/4/92 Drilled Depth (ft): 20.5
 Driller: S. Turner Drilling Method: Hollow Stem Auger Surface Pad Elevation (ft): 794.53
 Drill Rig: Mobile Drill B57 Sampling Method: Split Spoon/Shelby Tube Top of Casing Elevation (ft): 796.88

Depth (feet)	Soil Class USCS	Lithologic Symbol	Material Description	HNU (ppm)/LEL	Blows/6 in.	Sample No.	Sample Type	Sample Rec (ft)
	N/A		FILL-brick, glass, metal and topsoil. (Note: This material had been deposited in the area during excavation of the access route into the well location. The point was outside of the actual landfill.)					
5	SW		SAND, very fine to coarse sand, 10-20% gravel (pebbles up to 50mm); 10YR 5/6 yellowish brown, iron staining; medium dense; non-plastic; moist. (Rock in the bottom of the spoon, limited recovery)	0/0	15-9-5-9	1	SS	0.7
	SM		SILTY SAND, trace clay, 68% sand, 24% silt, 8% clay; silt is 10YR 4/3 brown, clay is 5Y 7/1 light gray; very dense; non-plastic to plastic; dry to moist. (HNU headspace reading 180 ppm from sample)	0/0	8-21-26-32	2	SS	1.6
10	SC		SITY SAND, some clay, 56% sand, 27% silt, 11% clay, 6% gravel; silt is 10YR 4/3 brown, clay is 5Y 7/1 light gray; non-plastic to plastic; dry to moist.	5/0	DP @ 650 PSI	3	ST	1.9
15			Lithologic samples were not collected beyond 9.5 feet BLS because the water table was encountered, so the borehole was drilled to depth for well installation.					
20			<i>Bottom of Boring at 20.5 feet</i>					
25								



SOIL BORING/WELL LOG

Project Name: Fort McClellan Site Investigation Site Location: Landfill #3 (OLF) Monitoring Well No.: OLF6
 SAIC Project No.: 01-0827-03-0424 Northing (ft): 1180592.99 Start/Finish Date: 04-22-92/04-24-92
 Geologist: W.P. Stoner Easting (ft): 512566.25 Well Completion Depth (ft): 71.0
 Drilling Co.: Environmental Exploration, Inc. Groundwater Elev. (ft): 683.48 on 6/4/92 Drilled Depth (ft): 71.0
 Driller: S. Turner Drilling Method: Hollow Stem Auger/Coring Surface Pad Elevation (ft): 747.73
 Drill Rig: Mobile Drill B57 Sampling Method: Split Spoon/Core Barrel Top of Casing Elevation (ft): 749.93

Depth (feet)	Soil Class USCS	Lithologic Symbol	Material Description	H _{Nu} (ppm)/LEL	Blows/6 in.	Sample No.	Sample Type	Sample Rec (ft)	Well Const. As-Built
5	ML		SILT, 20-30% clay; 5YR 4/6 yellowish red; firm; very low plasticity; moist to dry.	0/0	2-2-3-3	1	SS	1.5	
10	CL		CLAY, 40% silt; 2.5YR 3/4 dark reddish brown; very stiff; low plasticity; dry to very slightly moist.	0/0	5-9-16-20	2	SS	1.3	
15	SM		SAND, very fine to fine sand, 30-40% silt, 5-10% clay; 5YR 5/3 reddish brown; medium dense; non-plastic; dry.	1/0	5-7-7-9	3	SS	1.3	
20			SILTY SAND, some clay, 52% sand, 24% silt, 24% clay; 2.5YR 3/4 dark reddish brown; medium dense; low plasticity; dry to very slightly moist.	0.6/DNR	5-15-14-18	4	SS	2.0	
25	ML		SILT, 20-30% very fine sand, >5% clay; 7.5YR 7/6 reddish yellow; very stiff; non-plastic; dry.	0/0	5-10-13-15	5	SS	1.5	
30			SILT, 10-30% very fine sand, >10% clay; 2.5YR 4/4 reddish brown, mottled with 10YR 6/8 brownish yellow; stiff; non-plastic; dry. Silt/Claystone present in sample.	0.6/0	7-9-11-15	6	SS	1.6	
35			SILT, 20-30% very fine sand, >5% clay; 7.5YR 5/4 brown; hard; non-plastic; dry. Silt/Claystone present.	0/<1	8-18-24-35	7	SS	1.8	
40	CL		CLAYEY SILT, some sand, 60% silt, 22% sand, 14% clay, 4% gravel; 7.5 YR 6/6 reddish yellow; hard; non-plastic; dry.	0/0	23-25-36-50/5.5"	8	SS	1.7	
45			CLAY, 40% silt; 2.5YR 5/3 reddish brown; hard; non-plastic; dry.	0/0	50/5"	9	SS	0.5	
50	N/A		CLAY, 40% silt; 2.5YR 5/3 reddish brown; hard; non-plastic; dry.	0/0	50-50/2"	10	SS	0.5	
55			CLAYSTONE, laminated; 10R 5/3 weak red, horizontal bedding, iron staining; hard; well cemented; fine grained; highly weathered and very fractured; porous to very porous.	DNR	50/2"	11	SS	NR	
60	N/A		CLAYSTONE, laminated; 10R 5/3 weak red, horizontal bedding, iron staining; hard; well cemented; fine grained; very highly weathered and very fractured; porous to very porous.	DNR	DP @ 100 PSI	12	CB	3.5	
65						13	CB	2.5	
70	Bottom of Boring at 71.0 feet								

SOIL BORING/WELL LOG

Project Name: Fort McClellan Site Investigation Site Location: Landfill #3 (OLF) Monitoring Well No.: OLF7
 SAIC Project No.: 01-0827-03-0424 Northing (ft): 1180113.99 Start/Finish Date: 04-14-92/04-21-92
 Geologist: W.P. Stoner Easting (ft): 512352.32 Well Completion Depth (ft): 62.5
 Drilling Co.: Environmental Exploration, Inc. Groundwater Elev. (ft): 697.88 on 6/4/92 Drilled Depth (ft): 62.5
 Driller: S. Turner Drilling Method: H S Auger/Coring/Mud Rotary Surface Pad Elevation (ft): 739.01
 Drill Rig: Mobile Drill B57 Sampling Method: Split Spoon/Core Barrel Top of Casing Elevation (ft): 741.42

Depth (feet)	Soil Class USCS	Lithologic Symbol	Material Description	H _{Nu} (ppm)/LEL	Blows/6 in.	Sample No.	Sample Type	Sample Rec (ft)	Well Const. As-Built
5	ML	[Symbol]	SILT, 20% very fine to fine sand, 10% medium sand; 10YR 4/2 dark grayish brown; firm; very slightly plastic; moist.	0/DNR	2-3-3-5	1	SS	2.0	<p style="text-align: center;">4" PVC Riser Cement/Bentonite Grout</p>
	ML	[Symbol]	SILT, 10% very fine sand, 10-20% clay; 10YR 5/8 yellowish brown; stiff; low plasticity; moist.	0/0	3-4-6-7	2	SS	1.8	
	ML	[Symbol]	SILT, 10-20% clay, 20% very fine to fine sand; 10YR 5/8 yellowish brown; hard; non to very low plasticity; moist to dry.	0.2/0	5-14-34-41	3	SS	1.8	
	SM	[Symbol]	SILT, 20% clay, 20% very fine to fine sand; 7.5YR 7/0 light gray; very stiff; low plasticity; moist to dry. (Piece of quartz in the spoon)	0/0	8-9-15-21	4	SS	2.0	
10	ML	[Symbol]	SAND, very fine to fine sand, 20-30% silt, <5% clay; 7.5YR 4/6 strong brown; medium dense; non-plastic; dry.	0/0	8-14-21-29	5	SS	2.0	
	SM	[Symbol]	SILT, 10-20% very fine sand, 5% clay; 7.5YR 6/8 reddish yellow and 7.5YR 4/4 dark brown; hard; non-plastic; dry.	0/0	9-13-23-30	6	SS	1.7	
15	CL	[Symbol]	SAND, very fine to fine, 20% silt; 5YR 5/2 reddish gray; dense; non-plastic; dry.	0/0	6-10-12-15	7	SS	1.5	
	SM	[Symbol]	SILTY CLAY, 20-30% silt; 10YR 5/8 yellowish brown and 10YR 7/2 light gray; very stiff; low plasticity; dry. (Silty partings)	0/0	9-13-21-27	8	SS	1.5	
20	ML	[Symbol]	SAND, very fine to fine, 20% silt; 5YR 5/2 reddish gray; medium dense; non-plastic; dry.	0/0	10-13-20-36	9	SS	1.07	
	SM	[Symbol]	SILT, 30% clay; 10R 4/2 weak red; hard; non-plastic; dry.	0/0	10-23-33-42	10	SS	1.35	
25	ML	[Symbol]	SAND, very fine to fine, 30% silt; 5YR 5/2 reddish gray; dense to very dense; non-plastic; dry.	0/0	8-15-19-31	11	SS	1.4	
	ML	[Symbol]	CLAYEY SILT, trace sand, 61% silt, 30% clay, 7% sand, 2% gravel; 5YR 5/2 reddish gray; hard; non-plastic; dry.	0/0	14-50/5"	12	SS	0.9	
30	N/A	[Symbol]	SILT, 30% very fine sand; 5YR 5/2 reddish gray; hard; non-plastic; dry. (Claystone present in sample)	1/0	25-34-50/5"	13	SS	1.1	
	N/A	[Symbol]	CLAYSTONE, laminated; 10R 4/2 weak red; soft; poorly cemented; fine grained; highly weathered.						

SOIL BORING/WELL LOG

Project Name: Fort McClellan Site Investigation Site Location: Landfill #3 (OLF) Monitoring Well No.: OLF7
 SAIC Project No.: 01-0827-03-0424 Northing (ft): 1180113.99 Start/Finish Date: 04-14-92/04-21-92
 Geologist: W.P. Stoner Easting (ft): 512352.32 Well Completion Depth (ft): 62.5
 Drilling Co.: Environmental Exploration, Inc. Groundwater Elev. (ft): 697.88 on 6/4/92 Drilled Depth (ft): 62.5
 Driller: S. Turner Drilling Method: H S Auger/Coring/Mud Rotary Surface Pad Elevation (ft): 739.01
 Drill Rig: Mobile Drill B57 Sampling Method: Split Spoon/Core Barrel Top of Casing Elevation (ft): 741.42

Depth (feet)	Soil Class USCS	Lithologic Symbol	Material Description	H _{Nu} (ppm)/LEL	Blows/6 in.	Sample No.	Sample Type	Sample Rec (ft)	Well Const. As-Built	
				DNR	50/5.5"	14	SS	0.5	<p style="font-size: small;">Well Const. As-Built</p> <p style="font-size: x-small;">4" PVC Riser</p> <p style="font-size: x-small;">Cement/Bentonite Grout</p> <p style="font-size: x-small;">Bentonite Seal</p> <p style="font-size: x-small;">Sand Filter Pack</p> <p style="font-size: x-small;">4" .010 PVC Screen Schedule 40</p>	
40			CLAYSTONE, laminated; 10R 5/3 weak red, horizontal bedding; hard; well cemented; fine grained; highly weathered; porous to very porous; very fractured. (Note: The 36.5 to 40.5 foot interval yielded about 1.5 feet of recovery. Because of fracturing and weathering, the looser material was washed out. It is very difficult to determine an interval or intervals of lost coring.)			15	CB	1.13		
45						16	CB	1.47		
50	N/A				DNR	DP @ 150-300 PSI	17	CB		1.47
55						DP @ 400 PSI	18	CB		3.4
62.5			Bottom of Boring at 62.5 feet							

SOIL BORING/WELL LOG

Project Name: Fort McClellan Site Investigation Site Location: Landfill #3 (OLF) Monitoring Well No.: OLF8
 SAIC Project No.: 01-0827-03-0424 Northing (ft): 1179911.24 Start/Finish Date: 04-27-92/04-28-92
 Geologist: W.P. Stoner Easting (ft): 512279.72 Well Completion Depth (ft): 45.0
 Drilling Co.: Environmental Exploration, Inc. Groundwater Elev. (ft): 708.26 on 6/4/92 Drilled Depth (ft): 52.0
 Driller: S. Turner Drilling Method: Hollow Stem Auger/Mud Rotary Surface Pad Elevation (ft): 737.64
 Drill Rig: Mobile Drill B57 Sampling Method: Split Spoon/Shelby Tube Top of Casing Elevation (ft): 739.34

Depth (feet)	Soil Class USCS	Lithologic Symbol	Material Description	H _{nu} (ppm)/LEL	Blows/6 in.	Sample No.	Sample Type	Sample Rec (ft)	Well Const. As-Built
5	ML		SILT, 20-30% clay, 20% very fine sand; 10YR 6/3 pale gray; firm; slightly plastic to plastic; moist.	0.2/0	2-3-2-3	1	SS	1.8	
10	CH		SILTY CLAY, some sand, 61% clay, 21% silt, 18% sand; 10YR 6/8 brownish yellow mottled with 10YR 6/1 gray, iron staining; stiff; plastic; moist.	DNR/0	DP @ 750 PSI	2	ST	2.0	
15	ML		CLAYEY SILT, some sand, 33% silt, 33% clay, 29% sand, 5% gravel; 10YR 6/8 brownish yellow; hard; very slightly plastic; dry.	0/0	7-27-34-27	3	SS	1.3	
20	N/A		CLAYSTONE; 10YR 7/4 very pale brown; no visible bedding; hard; well cemented; very fine grained; moderately weathered. (No geo-technical sample was collected due to low recovery from claystone layer.)	DNR/0	50/3"	4	SS	0.25	
25	ML		SILT, 10-15% clay, 10% very fine sand; 10YR 6/8 brownish yellow; hard; slightly plastic; moist. (Claystone present same as previous sample)	0/0	30-50/3"	5	SS	0.8	
30	GM/GC		SANDY GRAVEL, some silt and clay, 37% gravel, 37% sand, 18% silt, 8% clay; 10YR 3/3 dark brown; hard; very slightly plastic; very moist to wet.	DNR	35-50/5"	6	SS	1.3	
35	N/A			DNR	50/5"	7	SS	0.5	
40	SM		SILTSTONE; 10YR 6/6 brownish yellow stained with 2.5Y 3/0 very dark gray; thinly bedded; hard; well cemented; fine grained; moderately weathered; solid; horizontal fractures.	DNR/0	50/5"	8	SS	0.5	
45	ML		SAND, v. fine to very coarse sand, 20-30% silt, 20% clay; 10YR 6/6 brownish yellow mottled with 2.5Y 3/0 very dark gray; dense; very slightly plastic; moist to wet. (Siltstone present same as previous sample)	DNR/0	50/3"	9	SS	0.25	
50			SILT, 20-30% very fine sand; 10YR 4/2 weak red; hard; non to very slightly plastic; moist to wet.	DNR/0	11-36-62/5"	10	SS	0.5	
55			SILT, 20-30% very fine sand; 10YR 4/2 weak red mottled with 7.5YR 4/6 strong brown; hard; non to very slightly plastic; moist to wet.						
60			SILT, 10-15% very fine sand; 10YR 4/2 weak red; hard; slightly plastic to non-plastic; dry to moist.						

Bottom of Boring at 52.0 feet

SOIL BORING/WELL LOG

Project Name: Fort McClellan Site Investigation Site Location: Landfill #3 (OLF) Monitoring Well No.: OLF9
 SAIC Project No.: 01-0827-03-0424 Northing (ft): 1180782.95 Start/Finish Date: 04-25-92/04-25-92
 Geologist: W.P. Stoner Easting (ft): 513343.85 Well Completion Depth (ft): 32.0
 Drilling Co.: Environmental Exploration, Inc. Groundwater Elev. (ft): 718.48 on 6/4/92 Drilled Depth (ft): 35.0
 Driller: S. Turner Drilling Method: Hollow Stem Auger Surface Pad Elevation (ft): 738.96
 Drill Rig: Mobile Drill B57 Sampling Method: Split Spoon Top of Casing Elevation (ft): 741.20

Depth (feet)	Soil Class USCS	Lithologic Symbol	Material Description	HNu (ppm)/LEL	Blows/6 in.	Sample No.	Sample Type	Sample Rec (ft)	Well Const. As-Built
5	CL		CLAY, 30% silt, >5% coarse to very coarse sand; 7.5YR 5/8 strong brown; stiff; low plasticity; dry to very slightly moist.	DNR/0	4-5-8-8	1	SS	1.4	<p style="font-size: small;">Well Const. As-Built</p> <p style="font-size: x-small;">Steel Casing</p> <p style="font-size: x-small;">4" PVC Riser</p> <p style="font-size: x-small;">Bentonite Seal</p> <p style="font-size: x-small;">Cement/Bentonite Grout</p> <p style="font-size: x-small;">4" .010 PVC Screen Schedule 40</p> <p style="font-size: x-small;">Sand Filter Pack</p> <p style="font-size: x-small;">Backfill</p>
10			CLAY, 30% silt, >5% coarse to very coarse sand; 7.5YR 5/8 strong brown; very stiff; low plasticity; dry to very slightly moist; interbedded CLAY; 10YR 8/1 white; soft; plastic; slightly moist.	1.2/0	8-10-13-14	2	SS	1.8	
15			CLAY, 30% silt, 10% very fine sand, >5% coarse to very coarse sand; 7.5YR 5/8 strong brown; firm to stiff; low plasticity; dry to slightly moist; interbedded CLAY; 10YR 8/1 white; soft; plastic; slightly moist.	0/0	3-3-5-6	3	SS	2.0	
20	ML		SANDY SILT, trace to some clay, 56% silt, 21% sand, 20% clay, 3% gravel; 7.5YR 5/8 strong brown; firm to stiff; low plasticity; dry to very slightly moist; interbedded CLAY; 10YR 8/1 white and 5YR 5/4 reddish brown; soft; plastic; slightly moist.	0/0	3-4-4-7	4	SS	2.0	
25	CL		CLAY, 20% silt; >10% very fine to medium sand; 2.5YR 4/6 red; firm; plastic; moist to wet.	0/0	3-2-3-5	5	SS	1.7	
30	ML		SILT, 20-30% clay, >10% very fine sand; 2.5YR 5/3 reddish brown, iron staining; hard; non-plastic; very dry.	0/0	13-18-28-30	6	SS	1.5	
35	CL		CLAY, 30% silt, 10% very fine to very coarse sand; 10YR 5/6 yellowish brown; hard; non to slightly plastic; dry.	DNR/0	13-28-30-50/5"	7	SS	1.4	
40	N/A		SILT/CLAYSTONE (piece at 35.3 feet) 2.5YR 4/2 weak red, iron stained; thinly bedded; moderately hard; well cemented; fine grained; slightly weathered; solid; horizontal bedding.	DNR/0	36-50/5"	8	SS	1.0	
40			CLAY, 30% silt, 10% very fine to very coarse sand; 10YR 5/6 yellowish brown; firm; non to slightly plastic; dry.	Bottom of Boring at 35.0 feet					

SOIL BORING/WELL LOG

Project Name: <u>Fort McClellan Site Investigation</u>	Site Location: <u>Landfill #3 (OLF)</u>	Monitoring Well No.: <u>OLF10</u>
SAIC Project No.: <u>01-0827-03-0424</u>	Northing (ft): <u>1179303.45</u>	Start/Finish Date: <u>04-26-92/04-26-92</u>
Geologist: <u>W.P. Stoner</u>	Easting (ft): <u>512538.83</u>	Well Completion Depth (ft): <u>28.0</u>
Drilling Co.: <u>Environmental Exploration, Inc.</u>	Groundwater Elev. (ft): <u>729.95 on 6/4/92</u>	Drilled Depth (ft): <u>28.0</u>
Driller: <u>S. Turner</u>	Drilling Method: <u>Hollow Stem Auger</u>	Surface Pad Elevation (ft): <u>746.62</u>
Drill Rig: <u>Mobile Drill B57</u>	Sampling Method: <u>Split Spoon/Shelby Tube</u>	Top of Casing Elevation (ft): <u>748.53</u>

Depth (feet)	Soil Class USCS	Lithologic Symbol	Material Description	H _{Nu} (ppm)/LEL	Blows/6 in.	Sample No.	Sample Type	Sample Rec (ft)	Well Const. As-Built
5	ML	[Symbol: Horizontal dashes]	SILT, 20-30% clay; 7YR 4/6 strong brown; firm to stiff; low plasticity; slightly moist.	0/<1	2-3-5-4	1	SS	1.0	
10	ML	[Symbol: Horizontal dashes]	SILT; 20% clay; 5Y 6/2 light olive gray; very stiff; non to slightly plastic; dry.	DNR/<1	5-10-7-17	2	SS	0.6	
15	CH	[Symbol: Horizontal lines]	SILTY CLAY, trace sand, 55% clay, 33% silt, 10% very fine to very coarse sand, 2% fine gravel; yellow red; very plastic; wet.	0/<1	DP @ 900 PSI	3	ST	2.5	
20	ML	[Symbol: Horizontal dashes]	SILT, 20-30% clay; 10YR 6/8 brownish yellow; very stiff; slight to low plasticity; dry to moist.	0/<1	5-15-11-11	4	SS	1.8	
22			No descriptive sample collected. Pushed shelly tube 2.0 feet.	DNR	DP @ 750 PSI	5	ST	2.0	
25	SM/SC	[Symbol: Dotted pattern]	CLAYEY SILTY SAND, 42% sand, 38% silt, 17% clay, 3% fine gravel; 2.5YR 4/8 red mottled with 10YR 5/6 yellowish brown; very dense; non to slightly plastic; dry. SILT/CLAYSTONE; 10YR 5/6 yellowish brown and 2.5Y 6/4 light yellowish brown; moderately cemented; moderately hard; highly weathered.	DNR/0	17-50-50/5"	6	SS	1.5	
28	CL	[Symbol: Horizontal lines]	CLAY, 40% silt, >5% very fine sand; 7.5YR 5/4 brown; stiff; non-plastic; dry. SILT/CLAYSTONE; 10YR 5/6 yellowish brown and 2.5Y 6/4 light yellowish brown; moderately cemented; moderately hard; highly weathered.	DNR/0	50/2"	7	SS	NR	
30			<i>Bottom of Boring at 28.0 feet</i>						