

AUG 27 2015

Mr. Roger E. Schweitzer, Hydrogeologist
Solid Waste Groundwater Section
Division of Mining and Solid Waste Management
Bureau of Land and Waste Management
South Carolina Department of Health and Environmental Control
2600 Bull Street
Columbia, SC 29201

Dear Mr. Schweitzer:

SUBMITTAL OF THE SALTSTONE DISPOSAL FACILITY SALTSTONE DISPOSAL UNIT 4 CONE PENETROMETER FIELD REPORTS FOR THE CONE PENETROMETER TESTS (CPTs) AND DIRECT PUSH TECHNOLOGY (DPT) SAMPLES (WELL APPROVAL #MW-10066) (ER-HGPP-2015-00003)

Ref: Letter, R. E. Schweitzer (SCDHEC) to B. Terry (SRNS), *Re: Groundwater Monitoring Well and CPT Installation Requests Terry to Schweitzer, dated February 26, 2015 and March 9, 2015 Saltstone Disposal Facility Savannah River Site Solid Waste Permit #025500-1603 Aiken County, dated March 25, 2015 (SRNS-OS-2015-00021)*

In your letter dated March 25, 2015 (Reference), the South Carolina Department of Health and Environmental Control approved the installation of twelve cone penetrometer tests (CPTs) (ZCPT-04 through ZCPT-15) to better delineate the top of the Tan Clay Confining Zone (TCCZ). Twelve direct push technology (DPT) water samples were also collected / attempted immediately above the TCCZ based on the CPT data. The Cone Penetrometer Field Reports and Logs for the CPTs and the Cone Penetrometer Field Reports and Field Results for the DPTs are enclosed for your files

If you have any questions or comments regarding this submittal, please contact Shelia McFalls at (803) 952-6819.

Sincerely,



Benjamin C. Terry, Manager
Environmental Permitting
Environmental Compliance & Area Completion Projects

slm:tab

Mr. Roger E. Schweitzer
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Enclosures:

1. Cone Penetrometer Field Reports for ZCPT-04 through ZCPT-15
2. Logs for ZCPT-04 through ZCPT-15
3. Cone Penetrometer Field Reports for ZDPT-04 through ZDPT-15
4. Saltstone Disposal Facility ZDPT-04 through ZDPT-15 Field Results

ec w/enclosure:

J. R. Hughes, SCDHEC – Midlands EQC Region – Aiken
J. C. Shirley, SCDHEC – Midlands EQC Region – Aiken

Cone Penetrometer Field Report

Test Hole Number (AAA,NNN,AA)		
ZCPT	04	-

General

Project Name Z-AREA SALTSTONE CPTs / GROUNDWATER INVESTIGATION			
Project Manager (last name, first initial) KILLEEN/TERRY		Department EC&ACP	
Type of Cone Penetrometer Test CPT		County AIKEN	Location Description Z AREA
SRS North Grid Coordinate 76042.6	SRS East Grid Coordinate 67596.5	Ground Elevation 269.0	Latitude (degrees, minutes, seconds) 33°18'15.29"
		Longitude (degrees, minutes, seconds) -81°38'11.44"	

Testing and Sampling

Test Start Date 6/22/15	Test Complete Date 6/22/15	Total Penetration Depth 88.76	Interpreted Water Table Level —	Ground Water Samples? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Soil Samples? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Cone Penetrometer Test Type Cone	Depth to Sample 0-88.76	Cone Penetrometer Test Type	Depth to Sample	Cone Penetrometer Test Type	Depth to Sample

Cone Penetrometer Company SRNL	Cone Operator K. HYDE	Oversight Company SRNL	Oversight (last name, first initial) AMIDON, M
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Drilling and Sampling Comments (drilling muds used, source of water, lost circulation zones, etc.)

Logging

Log Type

Sleeve (psi)
 Tip (psi)
 Ratio (%)
 ^{Pore} Pressure (psi)
 Resistivity

Other Logs (list)

Abandonment

Date Abandoned 6/22/15	Method of Abandonment <input type="checkbox"/> Tremie Pipe <input checked="" type="checkbox"/> CP Rod-Grouting Method	Theoretical Grout Volume 15 gal	Actual Grout Volume 16 gal
Report Prepared by MB AMIDON/MS <i>di2</i>		Date Report Prepared 7/7/15	

Cone Penetrometer Field Report

Test Hole Number (AAA,NNN,AA)		
ZCPT	05	-
General		
Project Name Z-AREA SALTSTONE CPTs / GROUNDWATER INVESTIGATION		
Project Manager (last name, first initial) KILLEEN/TERRY		Department EC&ACP
Type of Cone Penetrometer Test CPT	County AIKEN	Location Description Z AREA
SRS North Grid Coordinate 76136.6	SRS East Grid Coordinate 67561.9	Ground Elevation 268.7
Latitude (degrees, minutes, seconds) 33°18'15.83"		Longitude (degrees, minutes, seconds) -81°38'15.83" W.40"
Testing and Sampling		
Test Start Date 6/18/15	Test Complete Date 6/18/15	Total Penetration Depth 92.1
Interpreted Water Table Level —		Ground Water Samples? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		Soil Samples? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Cone Penetrometer Test Type Cone	Depth to Sample 0-92.1	Cone Penetrometer Test Type Cone
Cone Penetrometer Company SRNL	Cone Operator K. HYDE	Oversight Company SRNL
		Oversight (last name, first initial) AMIDON, M
Drilling and Sampling Comments (drilling muds used, source of water, lost circulation zones, etc.)		
Logging		
Log Type		
<input checked="" type="checkbox"/> Sleeve (psi) <input checked="" type="checkbox"/> Tip (psi) <input checked="" type="checkbox"/> Ratio (%) <input checked="" type="checkbox"/> ^{Pore} Pressure (psi) <input checked="" type="checkbox"/> Resistivity		
Other Logs (list)		
Abandonment		
Date Abandoned 6/18/15	Method of Abandonment <input type="checkbox"/> Tremie Pipe <input checked="" type="checkbox"/> CP Rod-Grouting Method	Theoretical Grout Volume 15 gal
Report Prepared by MB AMIDON/MS <i>Amid</i>		Actual Grout Volume 17 gal
		Date Report Prepared 7/7/15

Cone Penetrometer Field Report

Test Hole Number (AAA,NNN,AA)		
ZCPT	ϕ6	-

General						
Project Name Z-AREA SALTSTONE CPTs / GROUNDWATER INVESTIGATION						
Project Manager (last name, first initial) KILLEEN/TERRY				Department EC&ACP		
Type of Cone Penetrometer Test CPT		County AIKEN	Location Description Z AREA			
SRS North Grid Coordinate 76231.2	SRS East Grid Coordinate 67527.3	Ground Elevation 268.9	Latitude (degrees, minutes, seconds) 33°18'16.38"		Longitude (degrees, minutes, seconds) -81°38'13.41"	
Testing and Sampling						
Test Start Date 6/17/15		Test Complete Date 6/17/15	Total Penetration Depth 88.2	Interpreted Water Table Level -		Ground Water Samples? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
						Soil Samples? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Cone Penetrometer Test Type cone	Depth to Sample 0-88.2	Cone Penetrometer Test Type	Depth to Sample	Cone Penetrometer Test Type	Depth to Sample	
Cone Penetrometer Company SRNL		Cone Operator K. HYDE	Oversight Company SRNL		Oversight (last name, first initial) AMIDON, M	
Drilling and Sampling Comments (drilling muds used, source of water, lost circulation zones, etc.) Hard pushing from 0-12 ± 68-78 ft bls.						
Logging						
Log Type						
<input checked="" type="checkbox"/> Sleeve (psi)	<input checked="" type="checkbox"/> Tip (psi)	<input checked="" type="checkbox"/> Ratio (%)	<input checked="" type="checkbox"/> ^{Pore} Pressure (psi)	<input checked="" type="checkbox"/> Resistivity		
Other Logs (list)						
Abandonment						
Date Abandoned 6/18/15	Method of Abandonment <input type="checkbox"/> Tremie Pipe <input checked="" type="checkbox"/> CP Rod-Grouting Method		Theoretical Grout Volume 15 gal		Actual Grout Volume 14 gal	
Report Prepared by MB AMIDON/MS di2					Date Report Prepared 7/7/15	

Cone Penetrometer Field Report

Test Hole Number (AAA, NNN, AA)		
ZCPT	07	-

General								
Project Name Z-AREA SALTSTONE CPTs / GROUNDWATER INVESTIGATION								
Project Manager (last name, first initial) KILLEEN/TERRY				Department EC&ACP				
Type of Cone Penetrometer Test CPT		County AIKEN		Location Description Z AREA				
SRS North Grid Coordinate 75718.4		SRS East Grid Coordinate 68188.3		Ground Elevation 246.6		Latitude (degrees, minutes, seconds) 33° 18' 16.18"		
						Longitude (degrees, minutes, seconds) -81° 38' 16.18" 3.56"		
Testing and Sampling								
Test Start Date 6/15/15		Test Complete Date 6/15/15		Total Penetration Depth 78.73		Interpreted Water Table Level —		
						Ground Water Samples? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
						Soil Samples? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Cone Penetrometer Test Type Cone		Depth to Sample 0-78.73		Cone Penetrometer Test Type		Depth to Sample		
Cone Penetrometer Company SRNL				Cone Operator K. HYDE		Oversight Company SRNL		
						Oversight (last name, first initial) AMIDON, M		
Drilling and Sampling Comments (drilling muds used, source of water, lost circulation zones, etc.)								
Logging								
Log Type								
<input checked="" type="checkbox"/> Sleeve (psi) <input checked="" type="checkbox"/> Tip (psi) <input checked="" type="checkbox"/> Ratio (%) <input checked="" type="checkbox"/> ^{Pore} Pressure (psi) <input checked="" type="checkbox"/> Resistivity								
Other Logs (list)								
Abandonment								
Date Abandoned 6/16/15		Method of Abandonment <input type="checkbox"/> Tremie Pipe <input checked="" type="checkbox"/> CP Rod-Grouting Method			Theoretical Grout Volume 13 gal		Actual Grout Volume 19 gal	
Report Prepared by MB AMIDON/MS ^{dic2}						Date Report Prepared 7/7/15		

Cone Penetrometer Field Report

Test Hole Number (AAA,NNN,AA)		
ZCPT	08	-

General

Project Name Z-AREA SALTSTONE CPTs / GROUNDWATER INVESTIGATION				
Project Manager (last name, first initial) KILLEEN/TERRY			Department EC&ACP	
Type of Cone Penetrometer Test CPT		County AIKEN	Location Description Z AREA	
SRS North Grid Coordinate 75842.6	SRS East Grid Coordinate 68117.2	Ground Elevation 248.6	Latitude (degrees, minutes, seconds) 33° 8' 16.75"	Longitude (degrees, minutes, seconds) -81° 38' 5.10"

Testing and Sampling

Test Start Date 6/11/15		Test Complete Date 6/12/15		Total Penetration Depth 77-23	Interpreted Water Table Level -	Ground Water Samples? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Soil Samples? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Cone Penetrometer Test Type Cone	Depth to Sample 6-77-23	Cone Penetrometer Test Type	Depth to Sample	Cone Penetrometer Test Type	Depth to Sample		

Cone Penetrometer Company SRNL	Cone Operator K. HYDE	Oversight Company SRNL	Oversight (last name, first initial) AMIDON, M
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Drilling and Sampling Comments (drilling muds used, source of water, lost circulation zones, etc.)

Logging

Log Type

Sleeve (psi)
 Tip (psi)
 Ratio (%)
 ^{Pore} Pressure (psi)
 Resistivity

Other Logs (list)

Abandonment

Date Abandoned 6/12/15	Method of Abandonment <input type="checkbox"/> Tremie Pipe <input checked="" type="checkbox"/> CP Rod-Grouting Method	Theoretical Grout Volume 13 gal	Actual Grout Volume 16 gal
Report Prepared by MB AMIDON/MS <i>Amid</i>			Date Report Prepared 7/7/15

Cone Penetrometer Field Report

Test Hole Number (AAA,NNN,AA)		
ZCPT	09	-

General						
Project Name Z-AREA SALTSTONE CPTs / GROUNDWATER INVESTIGATION						
Project Manager (last name, first initial) KILLEEN/TERRY				Department EC&ACP		
Type of Cone Penetrometer Test CPT			County AIKEN	Location Description Z AREA		
SRS North Grid Coordinate 75964.3	SRS East Grid Coordinate 68076.9		Ground Elevation 251.4	Latitude (degrees, minutes, seconds) 33°18'17.48"	Longitude (degrees, minutes, seconds) -81°38'6.33"	
Testing and Sampling						
Test Start Date 6/11/15		Test Complete Date 6/11/15		Total Penetration Depth 80.76	Interpreted Water Table Level —	Ground Water Samples? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Cone Penetrometer Test Type cone		Depth to Sample 0-80.76	Cone Penetrometer Test Type	Depth to Sample	Cone Penetrometer Test Type	Soil Samples? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Cone Penetrometer Company SRNL			Cone Operator K. HYDE	Oversight Company SRNL	Oversight (last name, first initial) AMIDON, M	
Drilling and Sampling Comments (drilling muds used, source of water, lost circulation zones, etc.)						
Logging						
Log Type <input checked="" type="checkbox"/> Sleeve (psi) <input checked="" type="checkbox"/> Tip (psi) <input checked="" type="checkbox"/> Ratio (%) <input checked="" type="checkbox"/> ^{Pore} Pressure (psi) <input checked="" type="checkbox"/> Resistivity						
Other Logs (list)						
Abandonment						
Date Abandoned 6/11/15		Method of Abandonment <input type="checkbox"/> Tremie Pipe <input checked="" type="checkbox"/> CP Rod-Grouting Method		Theoretical Grout Volume 14 gal	Actual Grout Volume 18 gal	
Report Prepared by MB AMIDON/MS <i>Mid</i>					Date Report Prepared 7/7/15	

Cone Penetrometer Field Report

Test Hole Number (AAA,NNN,AA)		
ZCPT	1φ	-

General					
Project Name Z-AREA SALTSTONE CPTs / GROUNDWATER INVESTIGATION					
Project Manager (last name, first initial) KILLEEN/TERRY			Department EC&ACP		
Type of Cone Penetrometer Test CPT		County AIKEN	Location Description Z AREA		
SRS North Grid Coordinate 76φ94.1	SRS East Grid Coordinate 68φ34.1	Ground Elevation 254.5	Latitude (degrees, minutes, seconds) 33° 18' 17.84"	Longitude (degrees, minutes, seconds) -81° 38' 7.28"	
Testing and Sampling					
Test Start Date 6/10/15	Test Complete Date 6/10/15	Total Penetration Depth 92.4	Interpreted Water Table Level -	Ground Water Samples? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Soil Samples? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Cone Penetrometer Test Type CONE	Depth to Sample 0-92.4	Cone Penetrometer Test Type	Depth to Sample	Cone Penetrometer Test Type	Depth to Sample
Cone Penetrometer Company SRNL		Cone Operator K. HYDE	Oversight Company SRNL	Oversight (last name, first initial) AMIDON, M	
Drilling and Sampling Comments (drilling muds used, source of water, lost circulation zones, etc.)					
Logging					
Log Type					
<input checked="" type="checkbox"/> Sleeve (psi)	<input checked="" type="checkbox"/> Tip (psi)	<input checked="" type="checkbox"/> Ratio (%)	<input checked="" type="checkbox"/> Pore Pressure (psi)	<input checked="" type="checkbox"/> Resistivity	
Other Logs (list)					
Abandonment					
Date Abandoned 6/10/15	Method of Abandonment <input type="checkbox"/> Tremie Pipe <input checked="" type="checkbox"/> CP Rod-Grouting Method		Theoretical Grout Volume 16 gal	Actual Grout Volume 21 gal	
Report Prepared by MB AMIDON/MB <i>Amid</i>				Date Report Prepared 7/7/15	

Cone Penetrometer Field Report

Test Hole Number (AAA,NNN,AA)		
ZCPT	11	-

General					
Project Name Z-AREA SALTSTONE CPTs / GROUNDWATER INVESTIGATION					
Project Manager (last name, first initial) KILLEEN/TERRY			Department EC&ACP		
Type of Cone Penetrometer Test CPT		County AIKEN	Location Description Z AREA		
SRS North Grid Coordinate 76214.4	SRS East Grid Coordinate 67992.8	Ground Elevation 257.7	Latitude (degrees, minutes, seconds) 33°18'18.98"	Longitude (degrees, minutes, seconds) -81°38'8.88"	
Testing and Sampling					
Test Start Date 6/9/15	Test Complete Date 6/9/15	Total Penetration Depth 86.5	Interpreted Water Table Level -	Ground Water Samples? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Soil Samples? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Cone Penetrometer Test Type Cone	Depth to Sample 0-86.5	Cone Penetrometer Test Type	Depth to Sample	Cone Penetrometer Test Type	Depth to Sample
Cone Penetrometer Company SRNL		Cone Operator K. HYDE	Oversight Company SRNL	Oversight (last name, first initial) AMIDON, M	
Drilling and Sampling Comments (drilling muds used, source of water, lost circulation zones, etc.) H2S to push from 22-27 ft bbl.					
Logging					
Log Type <input checked="" type="checkbox"/> Sleeve (psi) <input checked="" type="checkbox"/> Tip (psi) <input checked="" type="checkbox"/> Ratio (%) <input checked="" type="checkbox"/> Pore Pressure (psi) <input checked="" type="checkbox"/> Resistivity					
Other Logs (list)					
Abandonment					
Date Abandoned 6/9/15	Method of Abandonment <input type="checkbox"/> Tremie Pipe <input checked="" type="checkbox"/> CP Rod-Grouting Method		Theoretical Grout Volume 14 gal	Actual Grout Volume 21 gal	
Report Prepared by MB AMIDON/MS dic2				Date Report Prepared 7/7/15	

Cone Penetrometer Field Report

Test Hole Number (AAA.NNN.AA)

ZCPT

12

-

General

Project Name

Z-AREA SALTSTONE CPTs / GROUNDWATER INVESTIGATION

Project Manager (last name, first initial)

KILLEEN/TERRY

Department

EC&ACP

Type of Cone Penetrometer Test

CPT

County

AIKEN

Location Description

Z AREA

SRS North Grid Coordinate

76175.3

SRS East Grid Coordinate

67320.5

Ground Elevation

271.3

Latitude (degrees, minutes, seconds)

33° 18' 14.72"

Longitude (degrees, minutes, seconds)

-81° 38' 14.98"

Testing and Sampling

Test Start Date

6/17/15

Test Complete Date

6/17/15

Total Penetration Depth

97.51

Interpreted Water Table Level

-

Ground Water Samples?

 Yes No

Soil Samples?

 Yes No

Cone Penetrometer Test Type

Cone

Depth to Sample

0-97.51

Cone Penetrometer Test Type

Depth to Sample

Cone Penetrometer Test Type

Depth to Sample

Cone Penetrometer Company

SRNL

Cone Operator

K. HYDE

Oversight Company

SRNL

Oversight (last name, first initial)

AMIDON, M

Drilling and Sampling Comments (drilling muds used, source of water, lost circulation zones, etc.)

Logging

Log Type

 Sleeve (psi) Tip (psi) Ratio (%) ^{Pore} Pressure (psi) Resistivity

Other Logs (list)

Abandonment

Date Abandoned

6/17/15

Method of Abandonment

 Tremie Pipe CP Rod-Grouting Method

Theoretical Grout Volume

16 gal

Actual Grout Volume

20 gal

Report Prepared by

MB AMIDON/MS ^{dir}2

Date Report Prepared

7/7/15

Cone Penetrometer Field Report

General					Test Hole Number (AAA,NNN,AA)	
Project Name Z-AREA SALTSTONE CPTs / GROUNDWATER INVESTIGATION					ZCPT	13
Project Manager (last name, first initial) KILLEEN/TERRY			Department EC&ACP			
Type of Cone Penetrometer Test CPT		County AIKEN	Location Description Z AREA			
SRS North Grid Coordinate 75834.7	SRS East Grid Coordinate 67648.6	Ground Elevation 268.6	Latitude (degrees, minutes, seconds) 33°18'13.94"	Longitude (degrees, minutes, seconds) -81°38'9.49"		
Testing and Sampling						
Test Start Date 7/13/15	Test Complete Date 7/13/15	Total Penetration Depth 88.95	Interpreted Water Table Level —	Ground Water Samples? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Soil Samples? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Cone Penetrometer Test Type cone	Depth to Sample 0-88.95	Cone Penetrometer Test Type	Depth to Sample	Cone Penetrometer Test Type	Depth to Sample	
Cone Penetrometer Company SRNL		Cone Operator K. HYDE	Oversight Company SRNL	Oversight (last name, first initial) AMIDON, M		
Drilling and Sampling Comments (drilling muds used, source of water, lost circulation zones, etc.)						
Logging						
Log Type						
<input checked="" type="checkbox"/> Sleeve (psi) <input checked="" type="checkbox"/> Tip (psi) <input checked="" type="checkbox"/> Ratio (%) <input checked="" type="checkbox"/> ^{Pore} Pressure (psi) <input checked="" type="checkbox"/> Resistivity						
Other Logs (list)						
Abandonment						
Date Abandoned 7/13/15	Method of Abandonment <input type="checkbox"/> Tremie Pipe <input checked="" type="checkbox"/> CP Rod-Grouting Method		Theoretical Grout Volume 15 gal	Actual Grout Volume 17 gals		
Report Prepared by MB AMIDON/MS di2				Date Report Prepared 7/27/15		

Cone Penetrometer Field Report

Test Hole Number (AAA,NNN,AA)		
ZCPT	14	-

General

Project Name Z-AREA SALTSTONE CPTs / GROUNDWATER INVESTIGATION					
Project Manager (last name, first initial) KILLEEN/TERRY			Department EC&ACP		
Type of Cone Penetrometer Test CPT		County AIKEN	Location Description Z AREA		
SRS North Grid Coordinate 75799.6	SRS East Grid Coordinate 67535.8	Ground Elevation 268.6	Latitude (degrees, minutes, seconds) 33° 18' 12.99"	Longitude (degrees, minutes, seconds) -81° 38' 10.31"	

Testing and Sampling

Test Start Date 7/13/15		Test Complete Date 7/14/15		Total Penetration Depth 99.15	Interpreted Water Table Level -	Ground Water Samples? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Soil Samples? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Cone Penetrometer Test Type cone	Depth to Sample 0-99.15	Cone Penetrometer Test Type	Depth to Sample	Cone Penetrometer Test Type	Depth to Sample		

Cone Penetrometer Company SRNL	Cone Operator K. HYDE	Oversight Company SRNL	Oversight (last name, first initial) AMIDON, M
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Drilling and Sampling Comments (drilling muds used, source of water, lost circulation zones, etc.)

Logging

Log Type

Sleeve (psi)
 Tip (psi)
 Ratio (%)
 ^{Pore} Pressure (psi)
 Resistivity

Other Logs (list)

Abandonment

Date Abandoned 7/14/15	Method of Abandonment <input type="checkbox"/> Tremie Pipe <input checked="" type="checkbox"/> CP Rod-Grouting Method	Theoretical Grout Volume 16 gal	Actual Grout Volume 15 gals
Report Prepared by MB AMIDON/MS di2		Date Report Prepared 7/27/15	

Cone Penetrometer Field Report

Test Hole Number (AAA,NNN,AA)

ZCPT

15

-

General						
Project Name Z-AREA SALTSTONE CPTs / GROUNDWATER INVESTIGATION						
Project Manager (last name, first initial) KILLEEN/TERRY				Department EC&ACP		
Type of Cone Penetrometer Test CPT		County AIKEN	Location Description Z AREA			
SRS North Grid Coordinate 75749.1	SRS East Grid Coordinate 67326.9	Ground Elevation 268.8	Latitude (degrees, minutes, seconds) 33°18'11.37"		Longitude (degrees, minutes, seconds) -81°38'11.94"	
Testing and Sampling						
Test Start Date 7/14/15		Test Complete Date 7/14/15	Total Penetration Depth 88.3	Interpreted Water Table Level -	Ground Water Samples? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Soil Samples? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Cone Penetrometer Test Type cone	Depth to Sample 0-88.3	Cone Penetrometer Test Type	Depth to Sample	Cone Penetrometer Test Type	Depth to Sample	
Cone Penetrometer Company SRNL		Cone Operator K. HYDE	Oversight Company SRNL		Oversight (last name, first initial) AMIDON, M	
Drilling and Sampling Comments (drilling muds used, source of water, lost circulation zones, etc.)						
Logging						
Log Type <input checked="" type="checkbox"/> Sleeve (psi) <input checked="" type="checkbox"/> Tip (psi) <input checked="" type="checkbox"/> Ratio (%) <input checked="" type="checkbox"/> Pore Pressure (psi) <input checked="" type="checkbox"/> Resistivity						
Other Logs (list)						
Abandonment						
Date Abandoned 7/14/15	Method of Abandonment <input type="checkbox"/> Tremie Pipe <input checked="" type="checkbox"/> CP Rod-Grouting Method		Theoretical Grout Volume 15 gal		Actual Grout Volume 15 gal	
Report Prepared by MB AMIDON/MS <i>MS</i>				Date Report Prepared 7/27/15		



SRNL-SCAPS
Savannah River Site

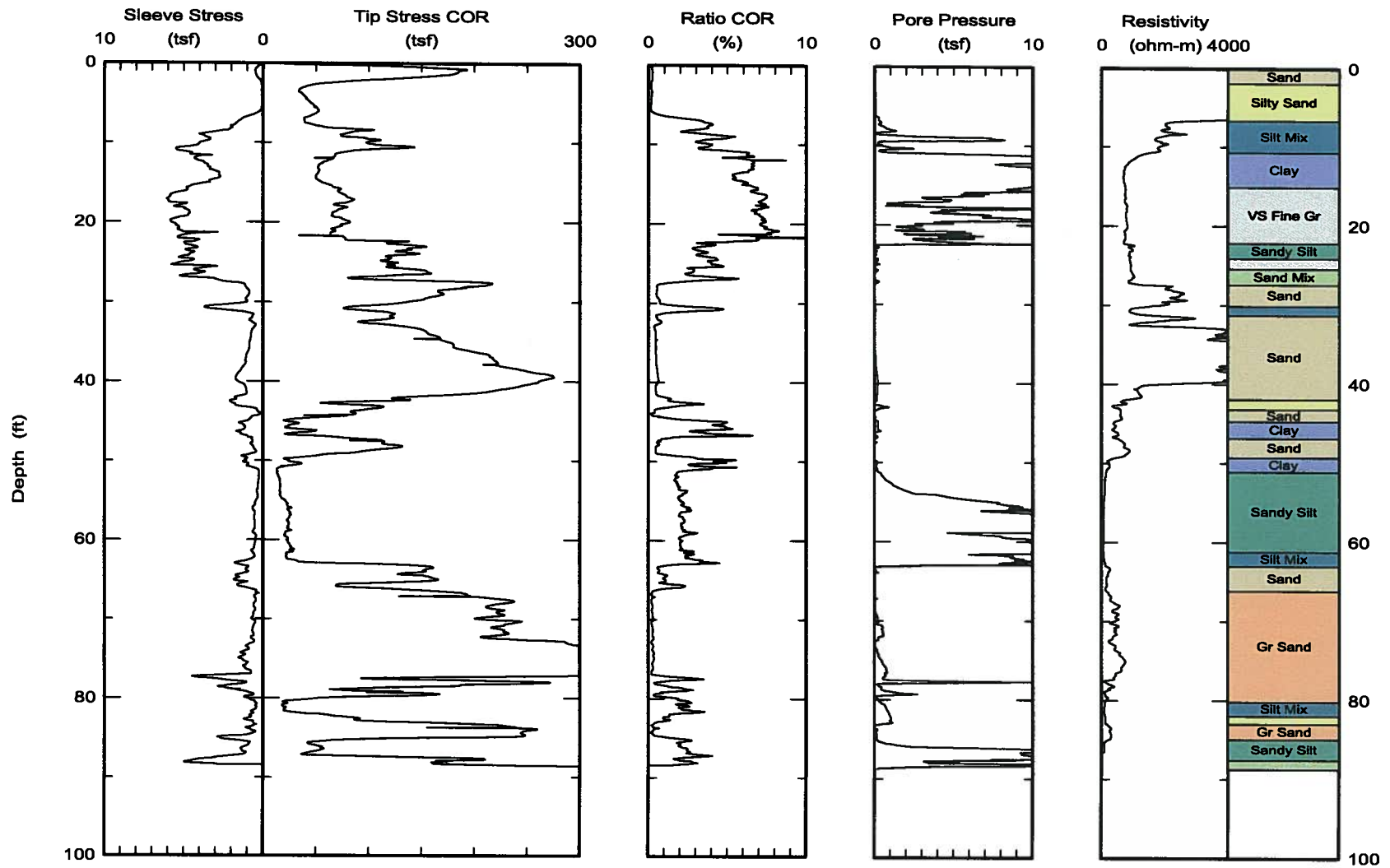
SRNLTM

Environmental Restoration Tech.
Bldg. 773-42A

Northing: 76042.6
Easting: 67596.5
Elevation: 269.0000000

Customer: ACP
Job Site: ZC PT-4

Date: 22/Jun/2015
Test ID: ZCPT-4
Project: SALTSTONE



Maximum depth: 88.73 (ft)



SRNL-SCAPS
Savannah River Site

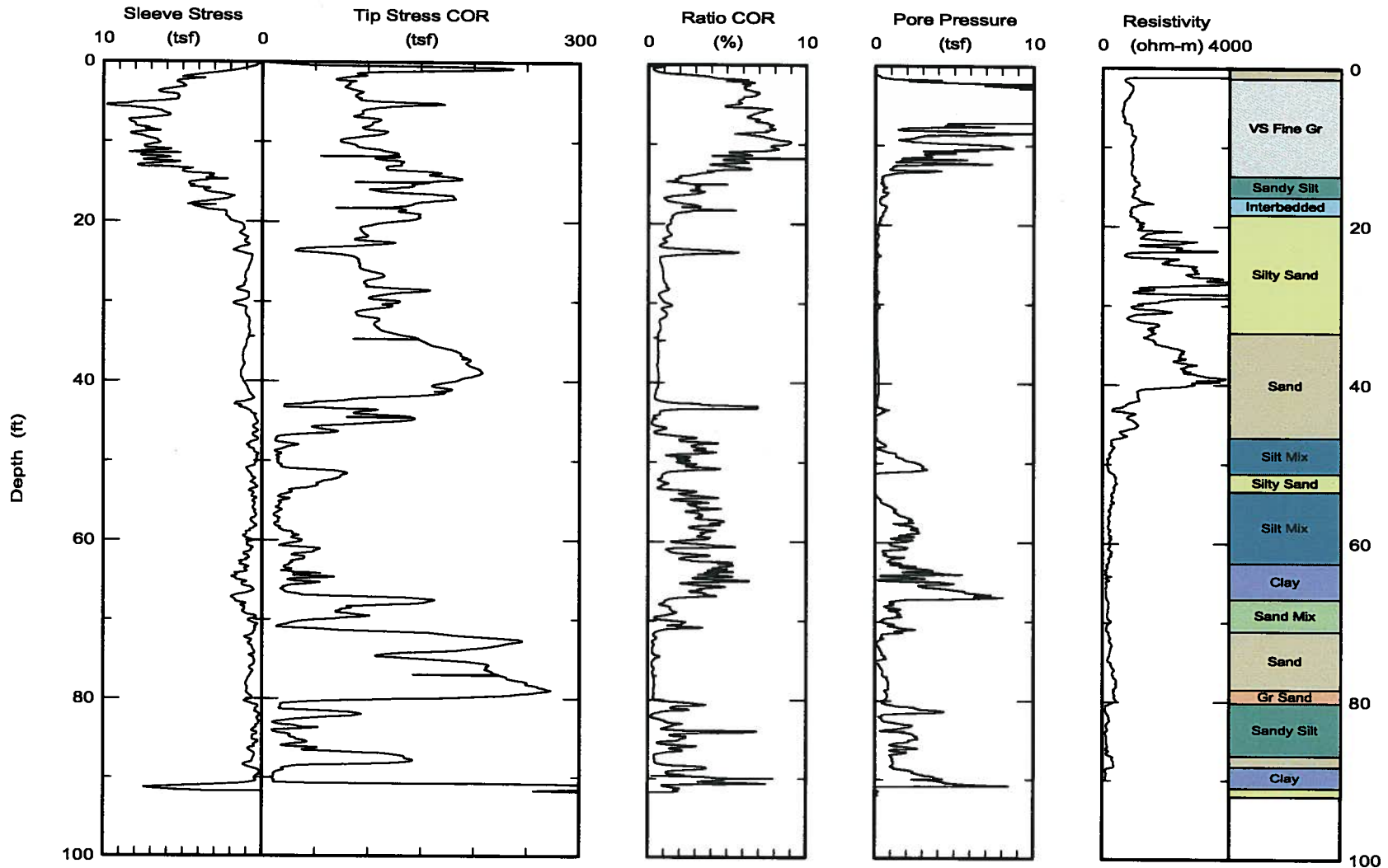
SRNL

Environmental Restoration Tech.
Bldg. 773-42A

Northing: 76136.6
Easting: 67561.9
Elevation: 268.7000122

Customer: ACP
Job Site: ZCPT-5

Date: 18/Jun/2015
Test ID: ZCPT-5
Project: SALTSTONE



Maximum depth: 92.09 (ft)



SRNL-SCAPS
Savannah River Site

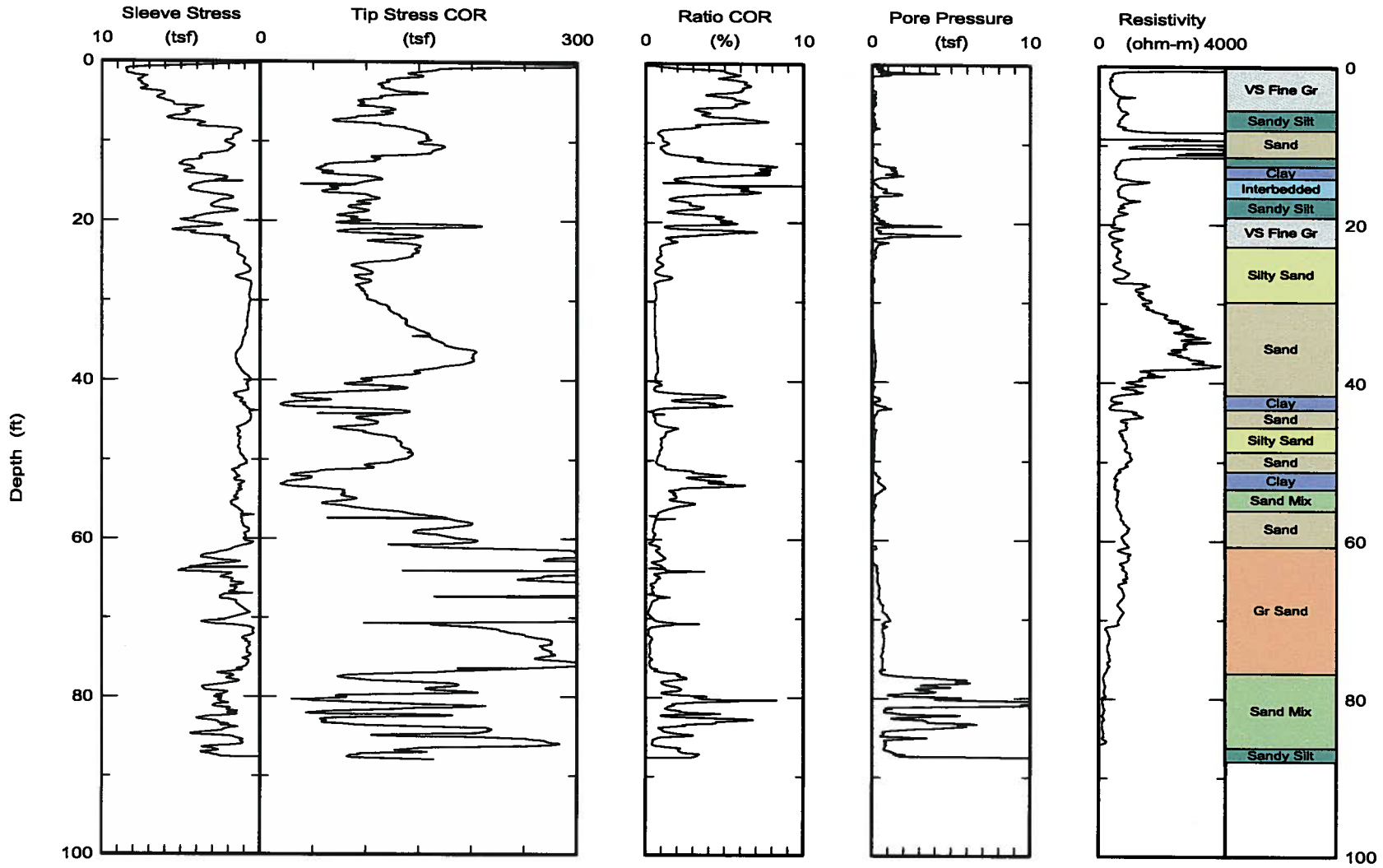


Environmental Restoration Tech.
Bldg. 773-42A

Northing: 76231.2
Easting: 67527.3
Elevation: 268.8999939

Date: 17/Jun/2015
Test ID: ZCPT-6
Project: SALTSTONE

Customer: ACP
Job Site: ZCPT-6



Maximum depth: 87.93 (ft)



SRNL-SCAPS
Savannah River Site

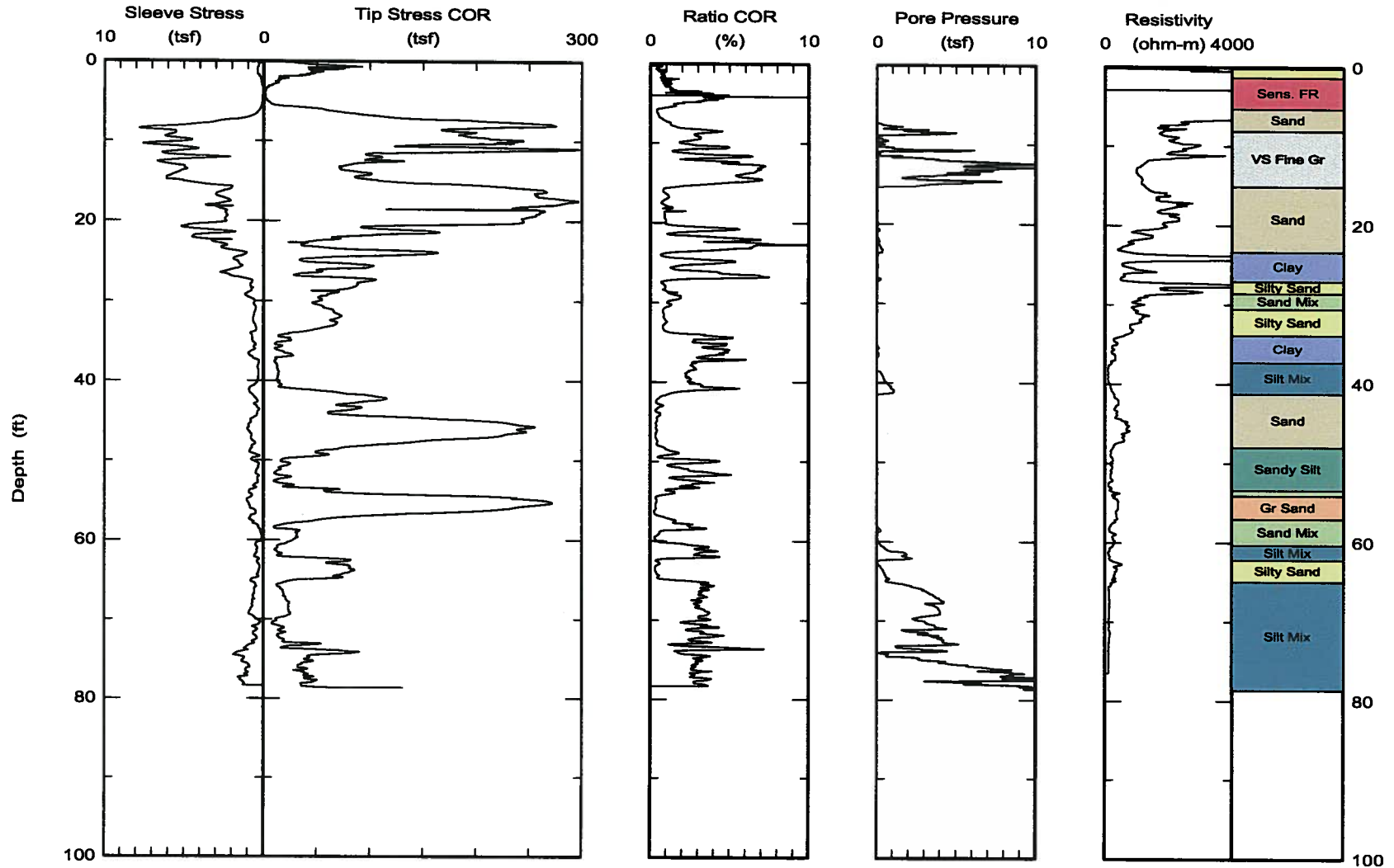
SRNLTM

Environmental Restoration Tech.
Bldg. 773-42A

Northing: 75715.2
Easting: 68162.1
Elevation: 246.6000061

Customer: ACP
Job Site: ZCPT-7

Date: 15/Jun/2015
Test ID: ZCPT-7
Project: SALTSTONE



Maximum depth: 78.68 (ft)



SRNL-SCAPS
Savannah River Site

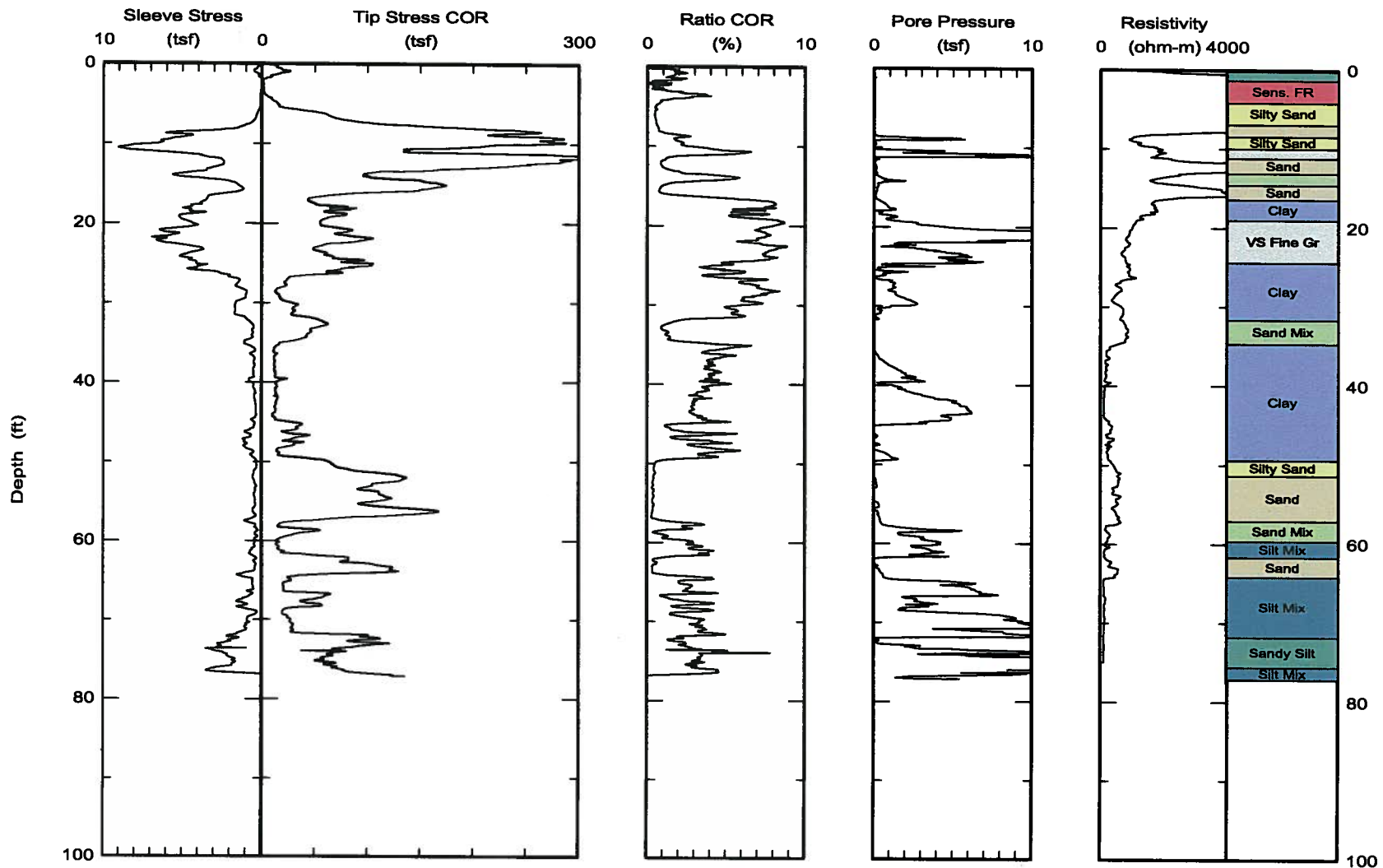
SRNL

Environmental Restoration Tech.
Bldg. 773-42A

Northing: 75842.6
Easting: 68117.2
Elevation: 248.600061

Customer: ACP
Job Site: ZCPT-8

Date: 11/Jun/2015
Test ID: ZCPT-8
Project: SALTSTONE



Maximum depth: 77.14 (ft)



SRNL-SCAPS
Savannah River Site

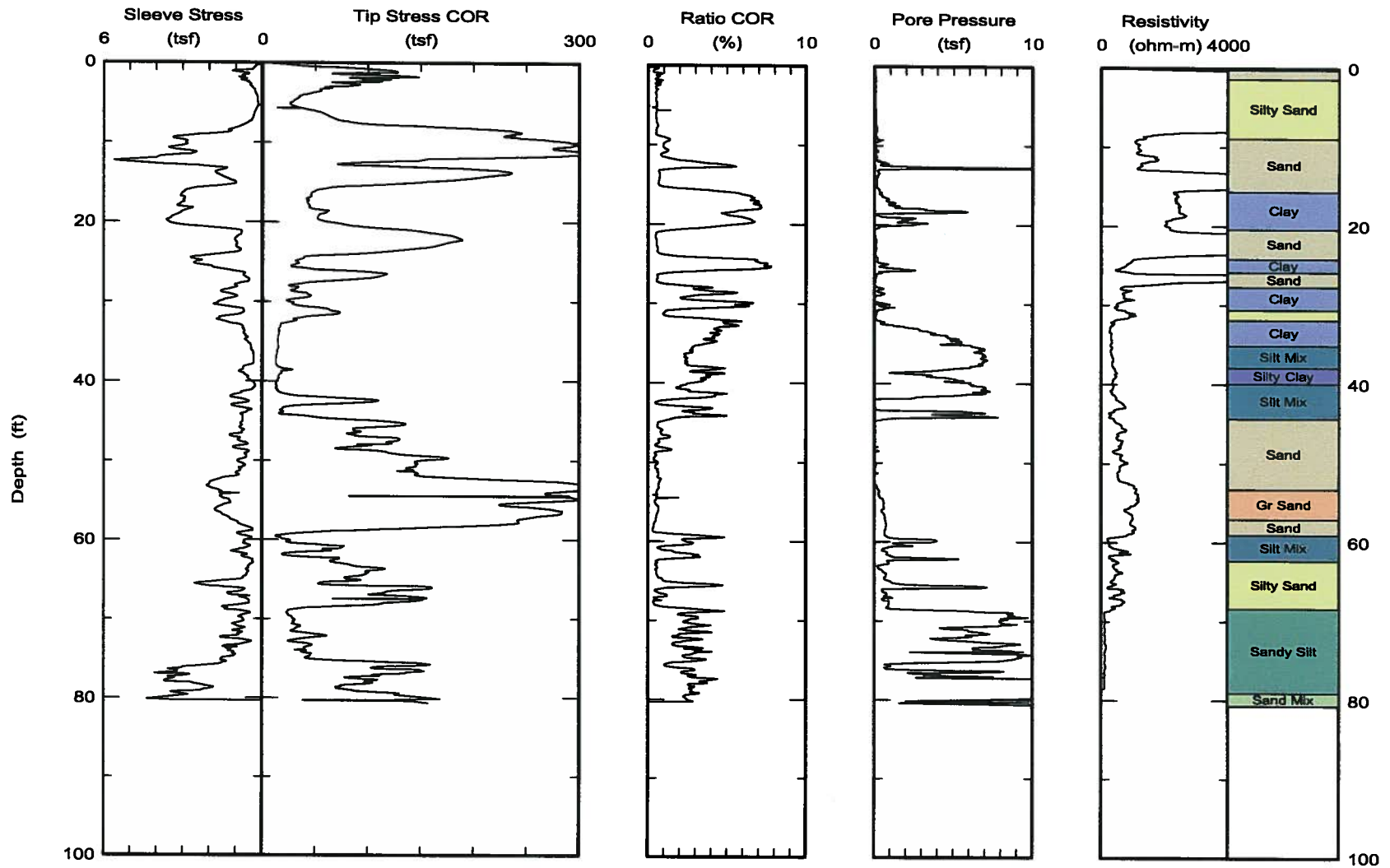
SRNL

Environmental Restoration Tech.
Bldg. 773-42A

Northing: 75964.3
Easting: 68076.9
Elevation: 251.3999939

Customer: ACP
Job Site: ZCPT-9

Date: 11/Jun/2015
Test ID: ZCPT-9
Project: SALTSTONE



Maximum depth: 80.69 (ft)



SRNL-SCAPS
Savannah River Site

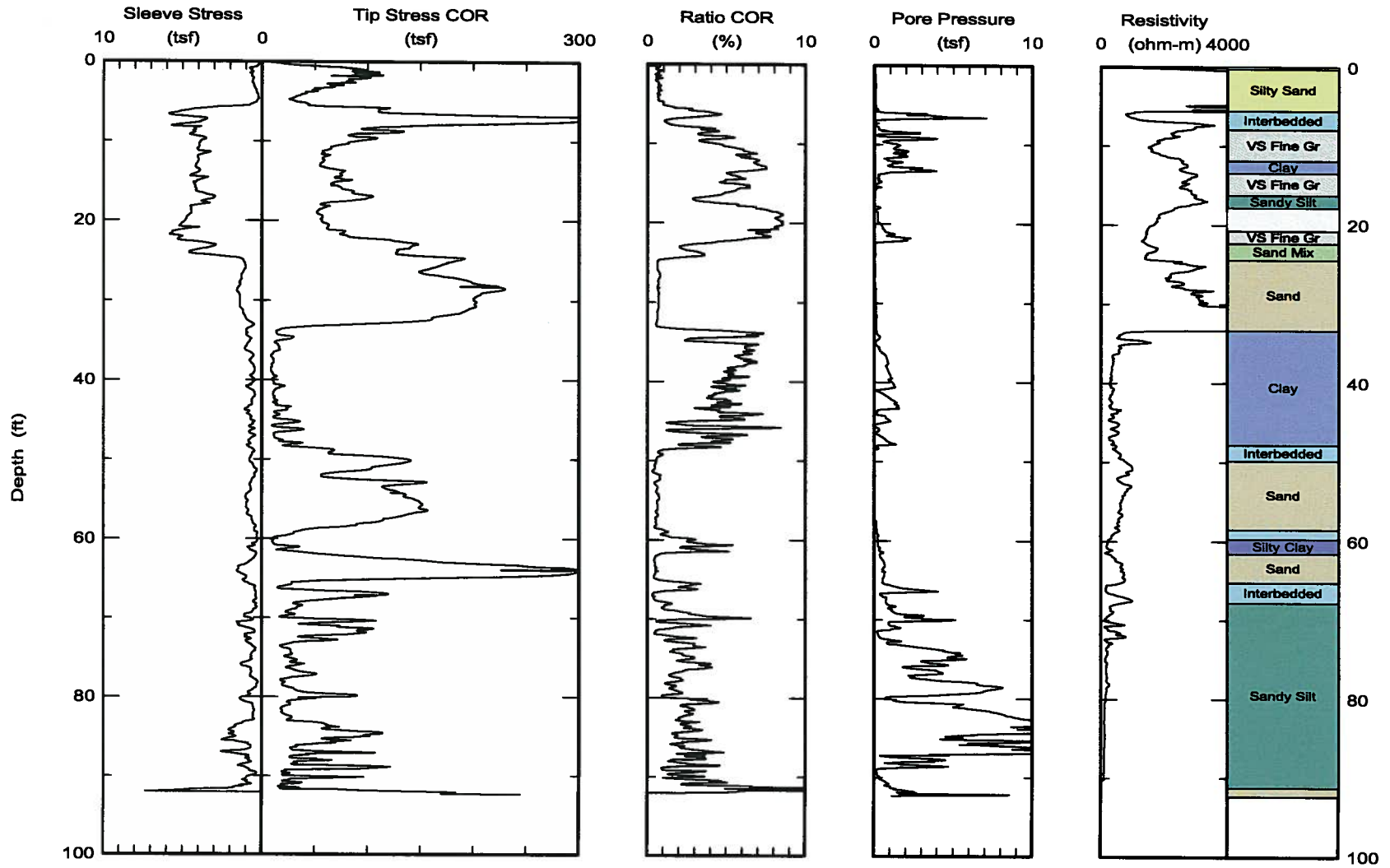


Environmental Restoration Tech.
Bldg. 773-42A

Northing: 76094.1
Easting: 68034.1
Elevation: 254.500000

Customer: ACP
Job Site: ZCPT-10

Date: 10/Jun/2015
Test ID: ZCPT-10
Project: SALTSTONE



Maximum depth: 92.38 (ft)



SRNL-SCAPS
Savannah River Site

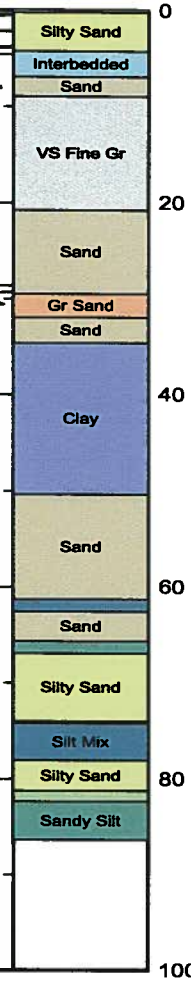
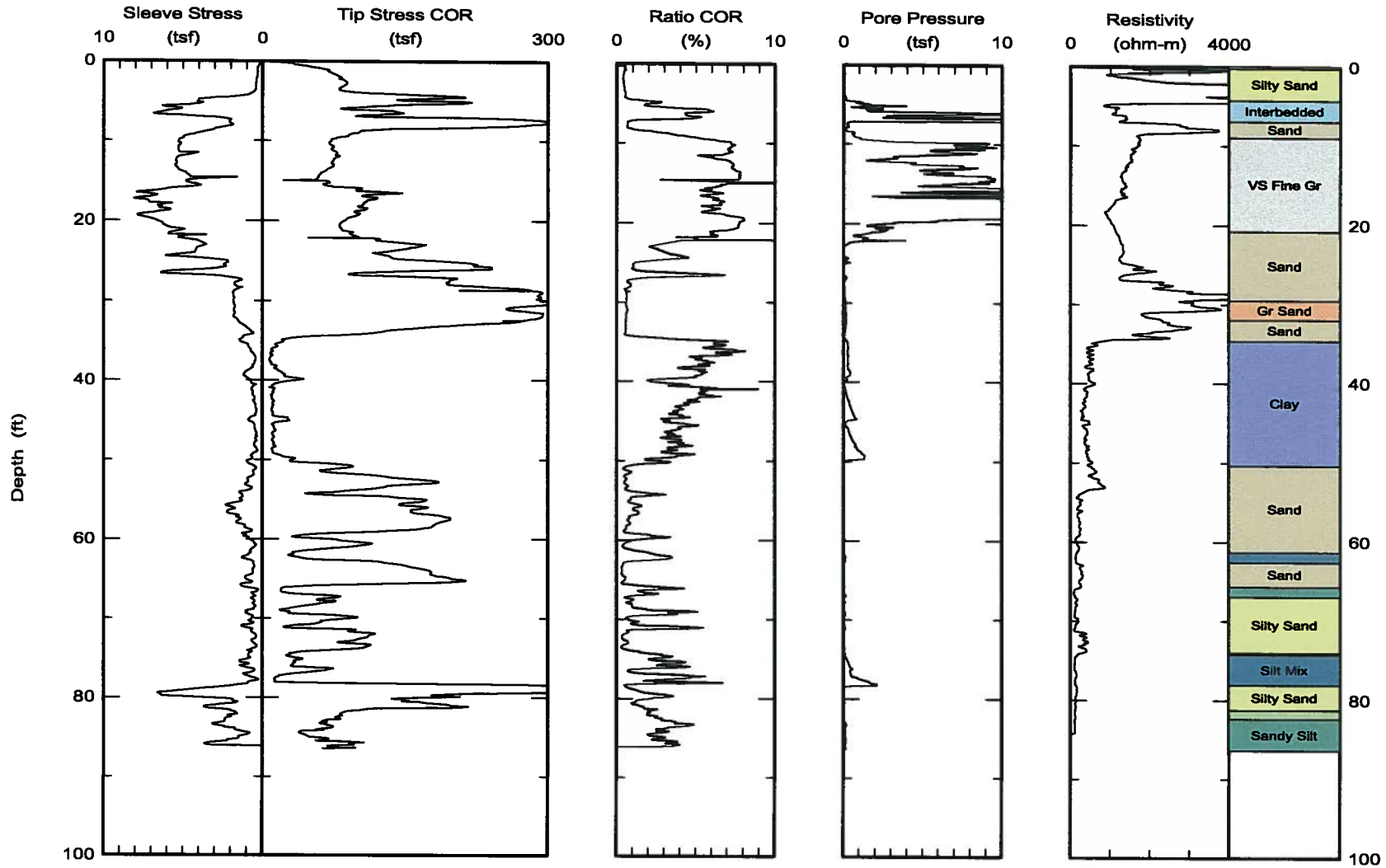
SRNLTM

Environmental Restoration Tech.
Bldg. 773-42A

Northing: 76231.2
Easting: 67527.3
Elevation: 268.8999939

Customer: ACP
Job Site: ZCPT-11

Date: 09/Jun/2015
Test ID: ZCPT-11
Project: SALTSTONE



Maximum depth: 86.43 (ft)



SRNL-SCAPS
Savannah River Site

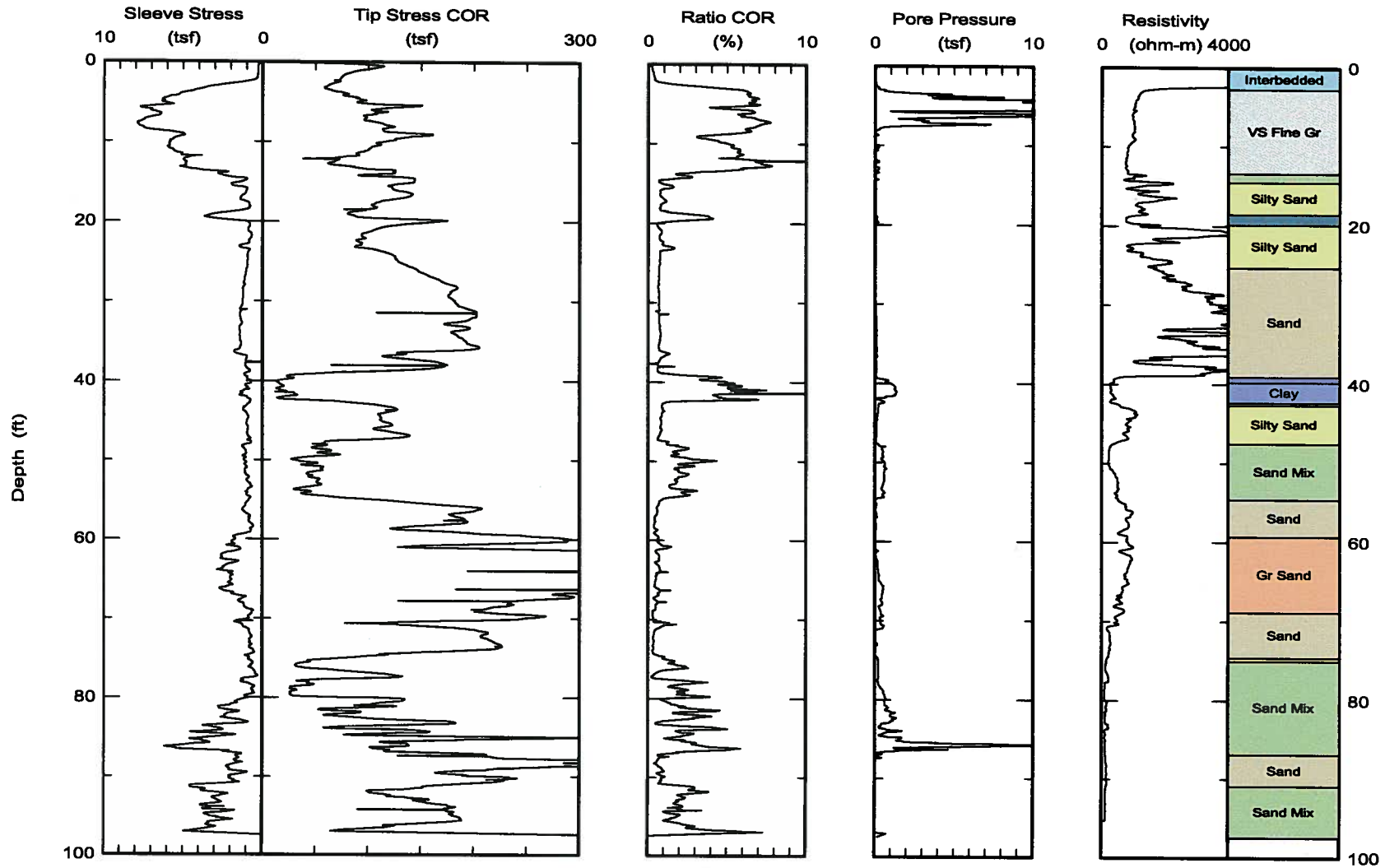
SRNLTM

Environmental Restoration Tech.
Bldg. 773-42A

Northing: 76175.3
Easting: 67320.5
Elevation: 271.2999878

Customer: ACP
Job Site: ZCPT-12

Date: 17/Jun/2015
Test ID: ZCPT-12
Project: SALTSTONE



Maximum depth: 97.49 (ft)



SRNL-SCAPS
Savannah River Site

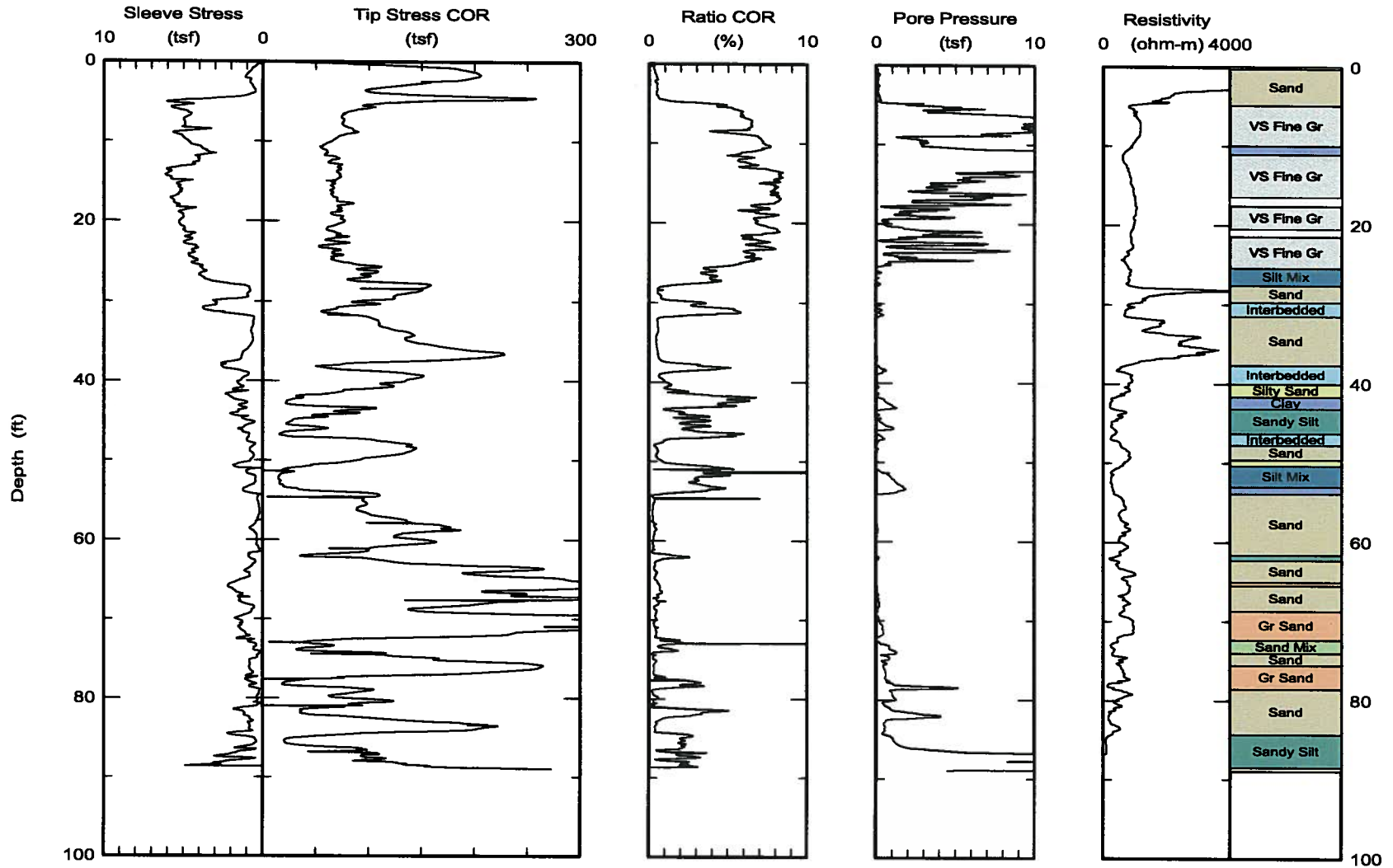


Environmental Restoration Tech.
Bldg. 773-42A

Northing: 75834.7
Easting: 67648.6
Elevation: 268.6000061

Customer: ACP
Job Site: ZCPT13

Date: 13/Jul/2015
Test ID: ZCPT13
Project: SALTSTONE



Maximum depth: 88.94 (ft)



SRNL-SCAPS
Savannah River Site

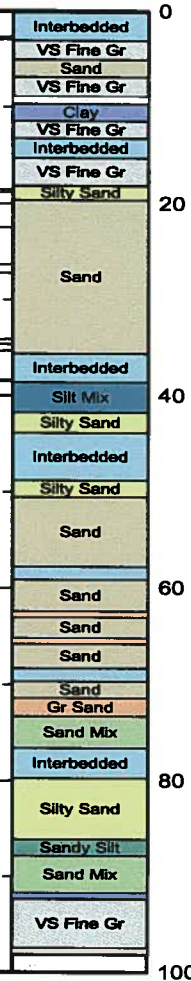
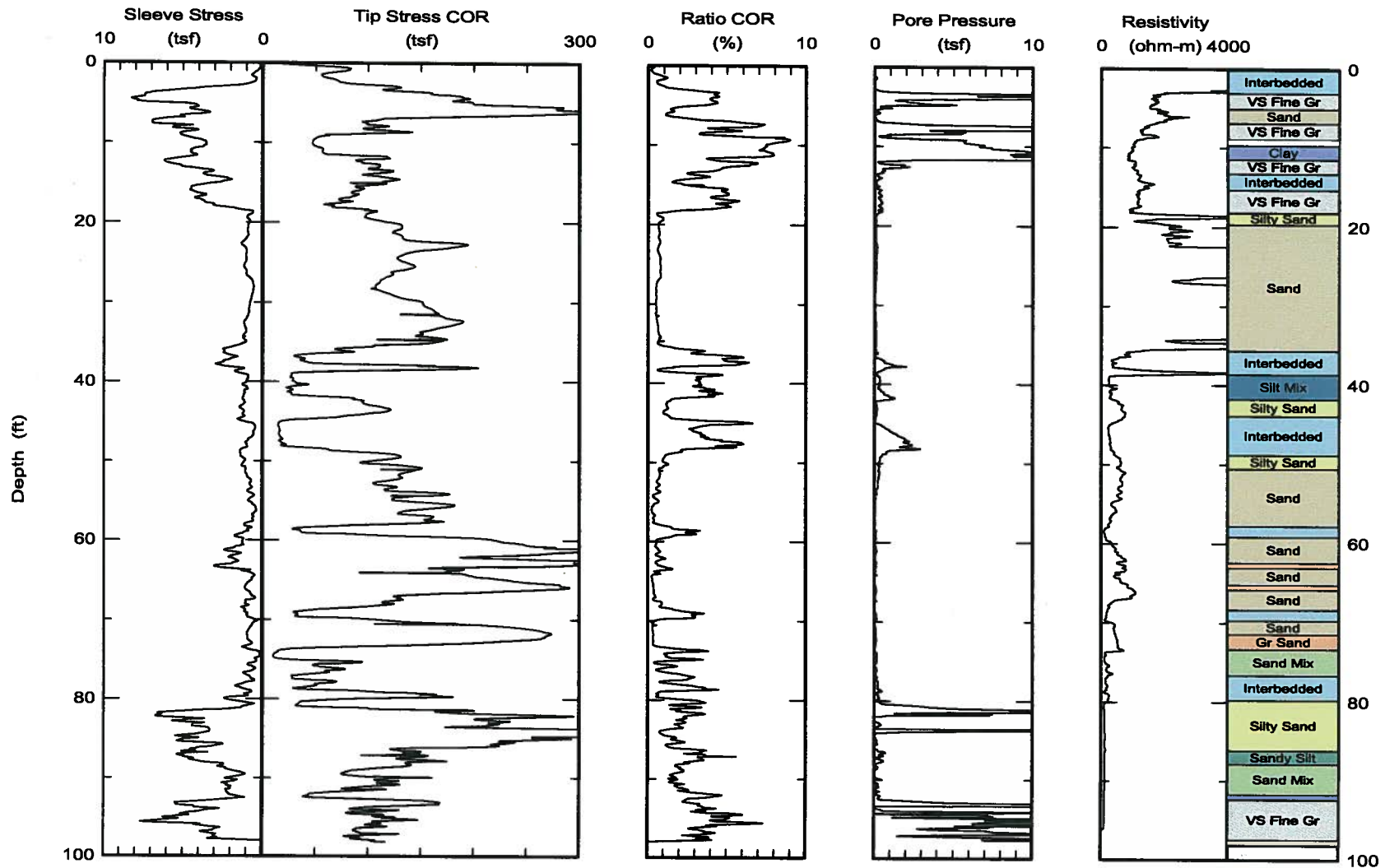
SRNL

Environmental Restoration Tech.
Bldg. 773-42A

Northing: 75799.6
Easting: 67535.8
Elevation: 268.6000061

Customer: ACP
Job Site: ZCPT14

Date: 13/Jul/2015
Test ID: ZCPT14
Project: SALTSTONE



Maximum depth: 98.20 (ft)



SRNL-SCAPS
Savannah River Site

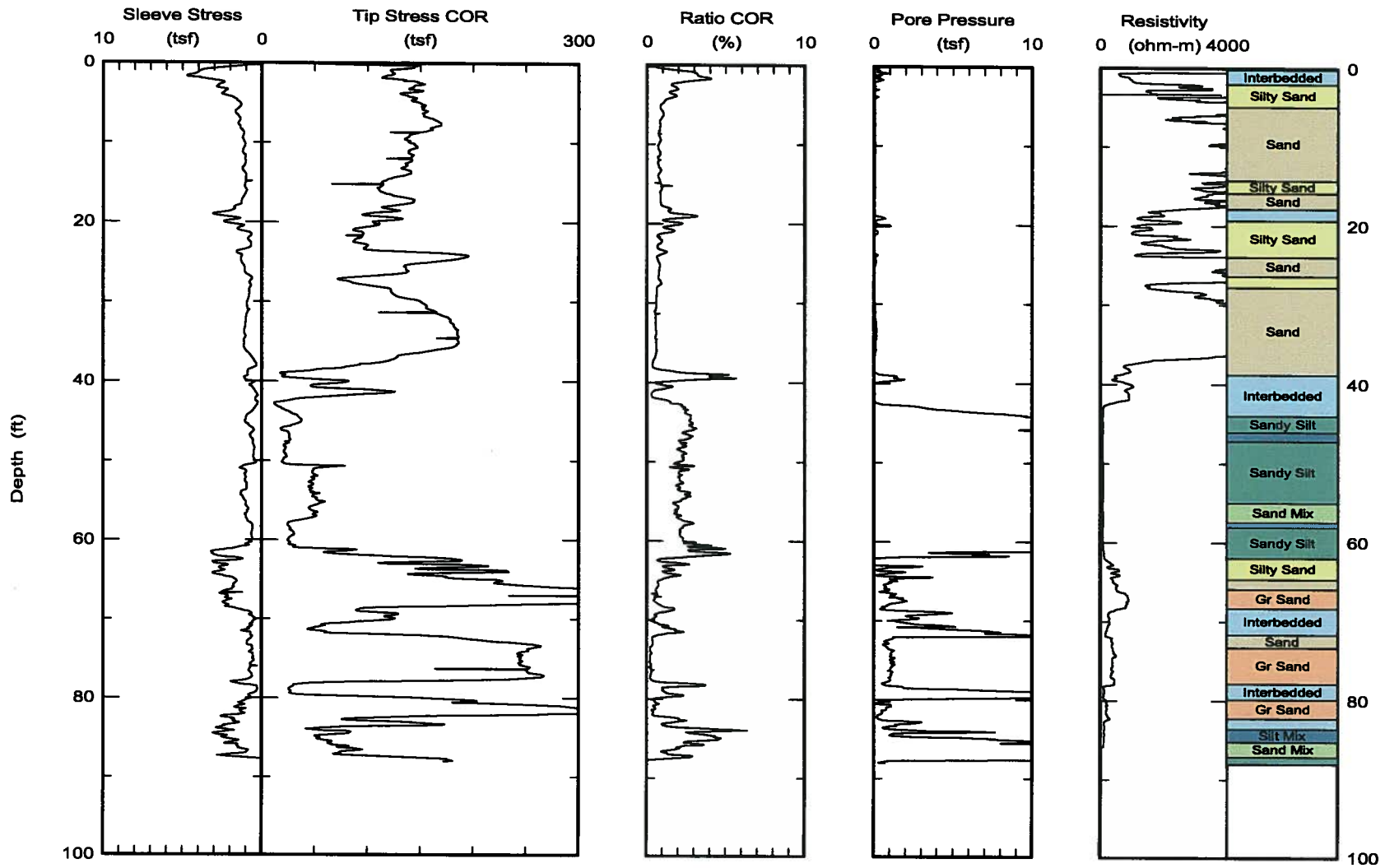
SRNLTM

Environmental Restoration Tech.
Bldg. 773-42A

Northing: 75749.1
Easting: 67326.9
Elevation: 268.7999878

Customer: ACP
Job Site: ZCPT15

Date: 14/Jul/2015
Test ID: ZCPT15
Project: SALTSTONE



Maximum depth: 88.00 (ft)

Cone Penetrometer Field Report

Test Hole Number (AAA,NNN,AA)		
ZDPT	04	-

General					
Project Name Z-AREA SALTSTONE CPTs / GROUNDWATER INVESTIGATION					
Project Manager (last name, first initial) KILLEEN/TERRY			Department EC&ACP		
Type of Cone Penetrometer Test DPT-Groundwater		County AIKEN	Location Description Z AREA		
SRS North Grid Coordinate 76041.12	SRS East Grid Coordinate 67589.33	Ground Elevation 269.25	Latitude (degrees, minutes, seconds) 33° 48' 15.22"	Longitude (degrees, minutes, seconds) -81° 38' 11.51"	
Testing and Sampling					
Test Start Date 7/15/15		Test Complete Date 7/15/15		Total Penetration Depth 50'	Interpreted Water Table Level 42.08 ft b/s
Cone Penetrometer Test Type groundwater		Depth to Sample 45-50'	Ground Water Samples? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Soil Samples? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Cone Penetrometer Test Type		Depth to Sample	Cone Penetrometer Test Type		Depth to Sample
Cone Penetrometer Company SRNL		Cone Operator K. HYDE	Oversight Company SRNL		Oversight (last name, first initial) AMIDON, M
Drilling and Sampling Comments (drilling muds used, source of water, lost circulation zones, etc.) Temporarily installed 3/4-in PVC w/ 5' screen in cone rods. PVC was left in hole & grouted in place.					
Logging					
Log Type					
<input type="checkbox"/> Sleeve (psi) <input type="checkbox"/> Tip (psi) <input type="checkbox"/> Ratio (%) <input type="checkbox"/> Pressure (psi) <input type="checkbox"/> Resistivity					
Other Logs (list)					
Abandonment					
Date Abandoned 7/23/15		Method of Abandonment <input checked="" type="checkbox"/> Tremie Pipe <input type="checkbox"/> CP Rod-Grouting Method		Theoretical Grout Volume —	Actual Grout Volume 16 gal
Report Prepared by MB AMIDON/MS <i>MS</i>				Date Report Prepared 7/23/15	

Cone Penetrometer Field Report

Test Hole Number (AAA,NNN,AA)		
ZDPT	05	—

General					
Project Name Z-AREA SALTSTONE CPTs / GROUNDWATER INVESTIGATION					
Project Manager (last name, first initial) KILLEEN/TERRY			Department EC&ACP		
Type of Cone Penetrometer Test DPT-Groundwater		County AIKEN	Location Description Z AREA		
SRS North Grid Coordinate 76014.99	SRS East Grid Coordinate 67593.82	Ground Elevation 269.21	Latitude (degrees, minutes, seconds) 33°18'15.05"	Longitude (degrees, minutes, seconds) -81°38'11.27"	
Testing and Sampling					
Test Start Date 7/15/15		Test Complete Date 7/15/15		Total Penetration Depth 49	Interpreted Water Table Level 42.17 ft b1s
				Ground Water Samples? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Soil Samples? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Cone Penetrometer Test Type Groundwater	Depth to Sample 44-49	Cone Penetrometer Test Type	Depth to Sample	Cone Penetrometer Test Type	Depth to Sample
Cone Penetrometer Company SRNL		Cone Operator K. HYDE	Oversight Company SRNL	Oversight (last name, first initial) AMIDON, M	
Drilling and Sampling Comments (drilling muds used, source of water, lost circulation zones, etc.) Temporarily installed 5/4-in PVC w/ 5' screen in cone rods. PVC was grouted in place.					
Logging					
Log Type <input type="checkbox"/> Sleeve (psi) <input type="checkbox"/> Tip (psi) <input type="checkbox"/> Ratio (%) <input type="checkbox"/> Pressure (psi) <input type="checkbox"/> Resistivity					
Other Logs (list)					
Abandonment					
Date Abandoned 7/23/15		Method of Abandonment <input checked="" type="checkbox"/> Tremie Pipe <input type="checkbox"/> CP Rod-Grouting Method		Theoretical Grout Volume —	Actual Grout Volume 14 gal
Report Prepared by MB AMIDON/MS die2				Date Report Prepared 7/23/15	

Cone Penetrometer Field Report

Test Hole Number (AAA,NNN,AA)	
ZDPT	06

General					
Project Name Z-AREA SALTSTONE CPTs / GROUNDWATER INVESTIGATION					
Project Manager (last name, first initial) KILLEEN/TERRY			Department EC&ACP		
Type of Cone Penetrometer Test DPT-Groundwater		County AIKEN	Location Description Z AREA		
SRS North Grid Coordinate 76072.76	SRS East Grid Coordinate 67579.22	Ground Elevation 268.95	Latitude (degrees, minutes, seconds) 33°18'15.42"	Longitude (degrees, minutes, seconds) -81°38'11.81"	
Testing and Sampling					
Test Start Date 7/15/15		Test Complete Date 7/15/15		Total Penetration Depth 49	Interpreted Water Table Level 41.66 ft b/s
				Ground Water Samples? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Soil Samples? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Cone Penetrometer Test Type groundwater	Depth to Sample 44-49	Cone Penetrometer Test Type	Depth to Sample	Cone Penetrometer Test Type	Depth to Sample
Cone Penetrometer Company SRNL		Cone Operator K. HYDE	Oversight Company SRNL	Oversight (last name, first initial) AMIDON, M	
Drilling and Sampling Comments (drilling muds used, source of water, lost circulation zones, etc.) Temporarily installed 3/4" m PVC w/ 5' screen in cone rods. PVC was grouted in place.					
Logging					
Log Type <input type="checkbox"/> Sleeve (psi) <input type="checkbox"/> Tip (psi) <input type="checkbox"/> Ratio (%) <input type="checkbox"/> Pressure (psi) <input type="checkbox"/> Resistivity					
Other Logs (list)					
Abandonment					
Date Abandoned 7/23/15	Method of Abandonment <input checked="" type="checkbox"/> Tremie Pipe <input type="checkbox"/> CP Rod-Grouting Method		Theoretical Grout Volume —	Actual Grout Volume 15 gal	
Report Prepared by MB AMIDON/MS				Date Report Prepared 7/23/15	

Cone Penetrometer Field Report

Test Hole Number (AAA,NNN,AA)		
ZDPT	47	—

General

Project Name Z-AREA SALTSTONE CPTs / GROUNDWATER INVESTIGATION				
Project Manager (last name, first initial) KILLEEN/TERRY			Department EC&ACP	
Type of Cone Penetrometer Test DPT-Groundwater		County AIKEN	Location Description Z AREA	
SRS North Grid Coordinate 75718.4	SRS East Grid Coordinate 68188.3	Ground Elevation 246.6	Latitude (degrees, minutes, seconds) 33°18'16.18"	Longitude (degrees, minutes, seconds) -81°38'3.56"

Testing and Sampling							
Test Start Date 8/4/15		Test Complete Date 8/4/15		Total Penetration Depth 35.6	Interpreted Water Table Level 34.00 ft b1s	Ground Water Samples? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Soil Samples? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Cone Penetrometer Test Type	Depth to Sample	Cone Penetrometer Test Type	Depth to Sample	Cone Penetrometer Test Type	Depth to Sample		
groundwater	30.6-35.6						

Cone Penetrometer Company SRNL	Cone Operator K. HYDE	Oversight Company SRNL	Oversight (last name, first initial) AMIDON, M
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Drilling and Sampling Comments (drilling muds used, source of water, lost circulation zones, etc.)

Temporarily installed 3/4-in PVC w/ 5' screen in core rods. PVC was grouted in place. Very slow recharge. Water very muddy. Limited water collected for analyses.

Logging

Log Type

Sleeve (psi) Tip (psi) Ratio (%) Pressure (psi) Resistivity

Other Logs (list)

Abandonment

Date Abandoned 8/6/15	Method of Abandonment <input type="checkbox"/> Tremie Pipe <input checked="" type="checkbox"/> CP Rod-Grouting Method	Theoretical Grout Volume —	Actual Grout Volume 7 gals
Report Prepared by MB AMIDON/MS dci2			Date Report Prepared 8/17/15

Cone Penetrometer Field Report

Test Hole Number (AAA,NNN,AA)		
ZDPT	DB	-

General

Project Name Z-AREA SALTSTONE CPTs / GROUNDWATER INVESTIGATION				
Project Manager (last name, first initial) KILLEEN/TERRY			Department EC&ACP	
Type of Cone Penetrometer Test DPT-Groundwater		County AIKEN	Location Description Z AREA	
SRS North Grid Coordinate 75842.6	SRS East Grid Coordinate 68117.2	Ground Elevation 248.6	Latitude (degrees, minutes, seconds) 33°18' 16.75"	Longitude (degrees, minutes, seconds) -81°38' 5.10"

Testing and Sampling				
Test Start Date 8/4/15	Test Complete Date 8/4/15	Total Penetration Depth 35.9'	Interpreted Water Table Level 33.02 ft bls	Ground Water Samples? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Cone Penetrometer Test Type groundwater		Depth to Sample 30.9-35.9'	Cone Penetrometer Test Type	Depth to Sample

Cone Penetrometer Company SRNL	Cone Operator K. HYDE	Oversight Company SRNL	Oversight (last name, first initial) AMIDON, M
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Drilling and Sampling Comments (drilling muds used, source of water, lost circulation zones, etc.)

Temporarily installed 3/4-in PVC w/ 5' screen in cone rods. PVC was grouted in place.

Logging

Log Type

Sleeve (psi) Tip (psi) Ratio (%) Pressure (psi) Resistivity

Other Logs (list)

Abandonment

Date Abandoned 8/6/15	Method of Abandonment <input type="checkbox"/> Tremie Pipe <input checked="" type="checkbox"/> CP Rod-Grouting Method	Theoretical Grout Volume -	Actual Grout Volume 8 gal
Report Prepared by MB AMIDON/MS			Date Report Prepared 8/17/15

Cone Penetrometer Field Report

Test Hole Number (AAA, NNN, AA)		
ZDPT	09	-

General

Project Name Z-AREA SALTSTONE CPTs / GROUNDWATER INVESTIGATION				
Project Manager (last name, first initial) KILLEEN/TERRY			Department EC&ACP	
Type of Cone Penetrometer Test DPT-Groundwater		County AIKEN	Location Description Z AREA	
SRS North Grid Coordinate 75668.9	SRS East Grid Coordinate 68194.2	Ground Elevation 246	Latitude (degrees, minutes, seconds) 33° 18' 15.82"	Longitude (degrees, minutes, seconds) -81° 38' 3.15"

Testing and Sampling					
Test Start Date 8/4/15	Test Complete Date 8/4/15	Total Penetration Depth 33.5'	Interpreted Water Table Level —	Ground Water Samples? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Soil Samples? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Cone Penetrometer Test Type groundwater	Depth to Sample 28.5-33.5'	Cone Penetrometer Test Type	Depth to Sample	Cone Penetrometer Test Type	Depth to Sample

Cone Penetrometer Company SRNL	Cone Operator K. HYDE	Oversight Company SRNL	Oversight (last name, first initial) AMIDON, M
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Drilling and Sampling Comments (drilling muds used, source of water, lost circulation zones, etc.)

Temporarily installed 3/4-in PVC w/ 5' screen in cone rods. PVC was grouted in place. No sample collected. Screen had 6" of mud. No water present.

Logging

Log Type

Sleeve (psi) Tip (psi) Ratio (%) Pressure (psi) Resistivity

Other Logs (list)

Abandonment			
Date Abandoned 8/6/15	Method of Abandonment <input type="checkbox"/> Tremie Pipe <input checked="" type="checkbox"/> CP Rod-Grouting Method	Theoretical Grout Volume —	Actual Grout Volume 7 gals
Report Prepared by MB AMIDON/MS Aid			Date Report Prepared 8/17/15

Cone Penetrometer Field Report

Test Hole Number (AAA, NNN, AA)		
ZDPT	10	-

General					
Project Name Z-AREA SALTSTONE CPTs / GROUNDWATER INVESTIGATION					
Project Manager (last name, first initial) KILLEEN/TERRY			Department EC&ACP		
Type of Cone Penetrometer Test DPT-Groundwater		County AIKEN	Location Description Z AREA		
SRS North Grid Coordinate 75780.7	SRS East Grid Coordinate 68153.9	Ground Elevation 247	Latitude (degrees, minutes, seconds) 33° 18' 16.47"	Longitude (degrees, minutes, seconds) -81° 38' 4.32"	
Testing and Sampling					
Test Start Date 8/4/15	Test Complete Date 8/4/15	Total Penetration Depth 35.6'	Interpreted Water Table Level 32.15 ft b1s	Ground Water Samples? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Soil Samples? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Cone Penetrometer Test Type Groundwater	Depth to Sample 30.6-35.6	Cone Penetrometer Test Type	Depth to Sample	Cone Penetrometer Test Type	Depth to Sample
Cone Penetrometer Company SRNL		Cone Operator K. HYDE	Oversight Company SRNL	Oversight (last name, first initial) AMIDON, M	
Drilling and Sampling Comments (drilling muds used, source of water, lost circulation zones, etc.) Temporarily installed 3/4-in PVC w/ 5' screen in cone rods. PVC was grouted in place.					
Logging					
Log Type <input type="checkbox"/> Sleeve (psi) <input type="checkbox"/> Tip (psi) <input type="checkbox"/> Ratio (%) <input type="checkbox"/> Pressure (psi) <input type="checkbox"/> Resistivity					
Other Logs (list)					
Abandonment					
Date Abandoned 8/6/15	Method of Abandonment <input checked="" type="checkbox"/> Tremie Pipe <input type="checkbox"/> CP Rod-Grouting Method		Theoretical Grout Volume -	Actual Grout Volume 8 gal	
Report Prepared by MB AMIDON/MS <i>MS</i>				Date Report Prepared 8/17/15	

Cone Penetrometer Field Report

Test Hole Number (AAA,NNN,AA)		
ZDPT	11	-
General		
Project Name Z-AREA SALTSTONE CPTs / GROUNDWATER INVESTIGATION		
Project Manager (last name, first initial) KILLEEN/TERRY		Department EC&ACP
Type of Cone Penetrometer Test DPT-Groundwater	County AIKEN	Location Description Z AREA
SRS North Grid Coordinate 75891.5	SRS East Grid Coordinate 68105.7	Ground Elevation 249
Latitude (degrees, minutes, seconds) 33°18'17.07"		Longitude (degrees, minutes, seconds) -81°38'5.55"
Testing and Sampling		
Test Start Date 8/4/15	Test Complete Date 8/4/15	Total Penetration Depth 37'
Interpreted Water Table Level 34.0 ft b/s		Ground Water Samples? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Soil Samples? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Cone Penetrometer Test Type groundwater	Depth to Sample 32-37	Cone Penetrometer Test Type Depth to Sample
Cone Penetrometer Company SRNL		Cone Operator K. HYDE
Oversight Company SRNL		Oversight (last name, first initial) AMIDON, M
Drilling and Sampling Comments (drilling muds used, source of water, lost circulation zones, etc.) Temporarily installed 3/4-in PVC w/ 5' screen in cone rods. PVC was grouted in place.		
Logging		
Log Type <input type="checkbox"/> Sleeve (psi) <input type="checkbox"/> Tip (psi) <input type="checkbox"/> Ratio (%) <input type="checkbox"/> Pressure (psi) <input type="checkbox"/> Resistivity		
Other Logs (list)		
Abandonment		
Date Abandoned 8/6/15	Method of Abandonment <input checked="" type="checkbox"/> Tremie Pipe <input type="checkbox"/> CP Rod-Grouting Method	Theoretical Grout Volume -
Report Prepared by MB AMIDON/MS, dki2		Actual Grout Volume 7 gal
		Date Report Prepared 8/17/15

Cone Penetrometer Field Report

Test Hole Number (AAA, NNN, AA)		
ZDPT	12	—

General

Project Name Z-AREA SALTSTONE CPTs / GROUNDWATER INVESTIGATION				
Project Manager (last name, first initial) KILLEEN/TERRY			Department EC&ACP	
Type of Cone Penetrometer Test DPT-Groundwater		County AIKEN	Location Description Z AREA	
SRS North Grid Coordinate 76112.0	SRS East Grid Coordinate 67498	Ground Elevation 270.7	Latitude (degrees, minutes, seconds) 33° 18' 15.26"	Longitude (degrees, minutes, seconds) -81° 38' 12.86"

Testing and Sampling

Test Start Date 7/15/15	Test Complete Date 7/15/15	Total Penetration Depth 49'	Interpreted Water Table Level 45.32 ft b/s	Ground Water Samples? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Soil Samples? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Cone Penetrometer Test Type Groundwater	Depth to Sample 44-49	Cone Penetrometer Test Type	Depth to Sample	Cone Penetrometer Test Type	Depth to Sample

Cone Penetrometer Company SRNL	Cone Operator K. HYDE	Oversight Company SRNL	Oversight (last name, first initial) AMIDON, M
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Drilling and Sampling Comments (drilling muds used, source of water, lost circulation zones, etc.)

Temporarily installed 3/4-in PVC w/ 5' screen in cone rods. PVC was grouted in place.

Logging

Log Type

Sleeve (psi) Tip (psi) Ratio (%) Pressure (psi) Resistivity

Other Logs (list)

Abandonment

Date Abandoned 7/27/15	Method of Abandonment <input checked="" type="checkbox"/> Tremie Pipe <input type="checkbox"/> CP Rod-Grouting Method	Theoretical Grout Volume —	Actual Grout Volume 14 gal
Report Prepared by MB AMIDON/MS			Date Report Prepared 7/28/15

Cone Penetrometer Field Report

Test Hole Number (AAA,NNN,AA)		
ZDPT	13	—
General		
Project Name Z-AREA SALTSTONE CPTs / GROUNDWATER INVESTIGATION		
Project Manager (last name, first initial) KILLEEN/TERRY		Department EC&ACP
Type of Cone Penetrometer Test DPT-Groundwater	County AIKEN	Location Description Z AREA
SRS North Grid Coordinate 75779.03	SRS East Grid Coordinate 67468.97	Ground Elevation 268.60
Latitude (degrees, minutes, seconds) 33° 18' 12.44"		Longitude (degrees, minutes, seconds) -81° 38' 10.80"
Testing and Sampling		
Test Start Date 7/16/15	Test Complete Date 7/16/15	Total Penetration Depth 49.7
Interpreted Water Table Level 42.50 ft b/s		Ground Water Samples? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Soil Samples? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Cone Penetrometer Test Type groundwater	Depth to Sample 44.7 - 49.7	Cone Penetrometer Test Type
		Depth to Sample
Cone Penetrometer Company SRNL	Cone Operator K. HYDE	Oversight Company SRNL
		Oversight (last name, first initial) AMIDON, M
Drilling and Sampling Comments (drilling muds used, source of water, lost circulation zones, etc.)		
Temporarily installed 3/4-in PVC w/ 5' screen in cone rods. PVC was grouted in place.		
Logging		
Log Type		
<input type="checkbox"/> Sleeve (psi) <input type="checkbox"/> Tip (psi) <input type="checkbox"/> Ratio (%) <input type="checkbox"/> Pressure (psi) <input type="checkbox"/> Resistivity		
Other Logs (list)		
Abandonment		
Date Abandoned 7/23/15	Method of Abandonment <input checked="" type="checkbox"/> Tremie Pipe <input type="checkbox"/> CP Rod-Grouting Method	Theoretical Grout Volume —
Report Prepared by MB AMIDON/MS <i>MS</i>		Actual Grout Volume 14 gal
		Date Report Prepared 7/23/15

Cone Penetrometer Field Report

Test Hole Number (AAA,NNN,AA)

ZDPT

14

—

General

Project Name

Z-AREA SALTSTONE CPTs / GROUNDWATER INVESTIGATION

Project Manager (last name, first initial)

KILLEEN/TERRY

Department

EC&ACP

Type of Cone Penetrometer Test

DPT-Groundwater

County

AIKEN

Location Description

Z AREA

SRS North Grid Coordinate

75 768.56

SRS East Grid Coordinate

67441.31

Ground Elevation

268.91

Latitude (degrees, minutes, seconds)

33° 18' 12.19"

Longitude (degrees, minutes, seconds)

-81° 38' 10.99"

Testing and Sampling

Test Start Date

7/16/15

Test Complete Date

7/16/15

Total Penetration Depth

51

Interpreted Water Table Level

42.51 ft b/s

Ground Water Samples?

 Yes No

Soil Samples?

 Yes No

Cone Penetrometer Test Type

Groundwater

Depth to Sample

46-51

Cone Penetrometer Test Type

Depth to Sample

Cone Penetrometer Test Type

Depth to Sample

Cone Penetrometer Company

SRNL

Cone Operator

K. HYDE

Oversight Company

SRNL

Oversight (last name, first initial)

AMIDON, M

Drilling and Sampling Comments (drilling muds used, source of water, lost circulation zones, etc.)

Temporarily installed 3/4-in PVC w/ 5' screen in cone rods. PVC was grouted in place.

Logging

Log Type

 Sleeve (psi) Tip (psi) Ratio (%) Pressure (psi) Resistivity

Other Logs (list)

Abandonment

Date Abandoned

7/27/15

Method of Abandonment

 Tremie Pipe CP Rod-Grouting Method

Theoretical Grout Volume

—

Actual Grout Volume

139 gal

Report Prepared by

MB AMIDON/MS dci2

Date Report Prepared

7/29/15

Cone Penetrometer Field Report

Test Hole Number (AAA,NNN,AA)

ZDPT

15

-

General

Project Name

Z-AREA SALTSTONE CPTs / GROUNDWATER INVESTIGATION

Project Manager (last name, first initial)

KILLEEN/TERRY

Department

EC&ACP

Type of Cone Penetrometer Test

DPT-Groundwater

County

AIKEN

Location Description

Z AREA

SRS North Grid Coordinate

675786.9

SRS East Grid Coordinate

67400.1

Ground Elevation

268.9

Latitude (degrees, minutes, seconds)

33°18'12.10"

Longitude (degrees, minutes, seconds)

-81°38'11.57"

Testing and Sampling

Test Start Date

7/20/15

Test Complete Date

7/20/15

Total Penetration Depth

49.7

Interpreted Water Table Level

39.7 ft bks

Ground Water Samples?

 Yes No

Soil Samples?

 Yes No

Cone Penetrometer Test Type

groundwater

Depth to Sample

44.7-49.7

Cone Penetrometer Test Type

Depth to Sample

Cone Penetrometer Test Type

Depth to Sample

Cone Penetrometer Company

SRNL

Cone Operator

K. HYDE

Oversight Company

SRNL

Oversight (last name, first initial)

AMIDON, M

Drilling and Sampling Comments (drilling muds used, source of water, lost circulation zones, etc.)

Temporarily installed 3/4-in PVC w/ 5' screen in cone rods. PVC was grouted in place.

Logging

Log Type

 Sleeve (psi) Tip (psi) Ratio (%) Pressure (psi) Resistivity

Other Logs (list)

Abandonment

Date Abandoned

7/29/15

Method of Abandonment

 Tremie Pipe CP Rod-Grouting Method

Theoretical Grout Volume

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Actual Grout Volume

10 gal

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Saltstone Disposal Facility ZDPT-04 through ZDPT-15 Field Results

STATION NAME	DATE COLLECTED	TIME	ANALYTE NAME	RESULT	RESULT UNITS	COMMENTS
ZDPT-04	7/21/2015	948	DEPTH TO WATER	42.2	FT BLS	
ZDPT-04	7/21/2015	948	PH	5.23	PH	FIELD RESULTS AFTER BAILING 600 ML
ZDPT-04	7/21/2015	948	SPECIFIC CONDUCTIVITY	60	USCM	
ZDPT-04	7/21/2015	948	OXYGEN-REDUCTION POTENTIAL	245.2	MV	
ZDPT-04	7/21/2015	948	TEMPERATURE	23.43	C	
ZDPT-04	7/21/2015	948	TURBIDITY	>1000	NTU	
ZDPT-05	7/21/2015	1150	DEPTH TO WATER	42.4	FT BLS	
ZDPT-05	7/21/2015	1150	PH	4.94	PH	FIELD RESULTS AFTER BAILING 600 ML
ZDPT-05	7/21/2015	1150	SPECIFIC CONDUCTIVITY	48	USCM	
ZDPT-05	7/21/2015	1150	OXYGEN-REDUCTION POTENTIAL	294.1	MV	
ZDPT-05	7/21/2015	1150	TEMPERATURE	24.78	C	
ZDPT-05	7/21/2015	1150	TURBIDITY	>1000	NTU	
ZDPT-06	7/20/2015	1321	DEPTH TO WATER	41.7	FT BLS	
ZDPT-06	7/20/2015	1321	PH	4.97	PH	FIELD RESULTS AFTER BAILING 600 ML
ZDPT-06	7/20/2015	1321	SPECIFIC CONDUCTIVITY	41	USCM	
ZDPT-06	7/20/2015	1321	OXYGEN-REDUCTION POTENTIAL	217.6	MV	
ZDPT-06	7/20/2015	1321	TEMPERATURE	24.16	C	
ZDPT-06	7/20/2015	1321	TURBIDITY	>1000	NTU	
ZDPT-07	8/6/2015	850	DEPTH TO WATER	34	FT BLS	NO FIELD RESULTS DUE TO INSUFFICIENT WATER. WATER WAS REALLY SILTY/MUDDY.
ZDPT-08	8/5/2015	1120	DEPTH TO WATER	33.02	FT BLS	
ZDPT-08	8/5/2015	1120	PH	5.55	PH	FIELD RESULTS AFTER BAILING 7.6 L
ZDPT-08	8/5/2015	1120	SPECIFIC CONDUCTIVITY	34	USCM	
ZDPT-08	8/5/2015	1120	OXYGEN-REDUCTION POTENTIAL	171.4	MV	
ZDPT-08	8/5/2015	1120	TEMPERATURE	22.92	C	
ZDPT-08	8/5/2015	1120	TURBIDITY	>1000	NTU	
ZDPT-09	8/6/2015	851	DEPTH TO WATER		FT BLS	NO SAMPLE COLLECTED DUE TO ONLY MUD PRESENT IN WELL. NO WATER PRESENT TO SAMPLE.
ZDPT-10	8/5/2015	1520	DEPTH TO WATER	32.15	FT BLS	
ZDPT-10	8/5/2015	1520	PH	5.75	PH	FIELD RESULTS AFTER BAILING 7.6 L
ZDPT-10	8/5/2015	1520	SPECIFIC CONDUCTIVITY	49	USCM	
ZDPT-10	8/5/2015	1520	OXYGEN-REDUCTION POTENTIAL	105	MV	
ZDPT-10	8/5/2015	1520	TEMPERATURE	23.31	C	
ZDPT-10	8/5/2015	1520	TURBIDITY	>1000	NTU	
ZDPT-11	8/5/2015	948	DEPTH TO WATER	34	FT BLS	
ZDPT-11	8/5/2015	948	PH	5.11	PH	FIELD RESULTS AFTER BAILING 7.6 L
ZDPT-11	8/5/2015	948	SPECIFIC CONDUCTIVITY	45	USCM	
ZDPT-11	8/5/2015	948	OXYGEN-REDUCTION POTENTIAL	208.6	MV	
ZDPT-11	8/5/2015	948	TEMPERATURE	20.74	C	
ZDPT-11	8/5/2015	948	TURBIDITY	>1000	NTU	
ZDPT-12	7/20/2015	1112	DEPTH TO WATER	45.36	FT BLS	
ZDPT-12	7/20/2015	1112	PH	4.93	PH	FIELD RESULTS AFTER BAILING 600 ML
ZDPT-12	7/20/2015	1112	SPECIFIC CONDUCTIVITY	144	USCM	
ZDPT-12	7/20/2015	1112	OXYGEN-REDUCTION POTENTIAL	183.3	MV	
ZDPT-12	7/20/2015	1112	TEMPERATURE	23.17	C	
ZDPT-12	7/20/2015	1112	TURBIDITY	>1000	NTU	
ZDPT-13	7/21/2015	1502	DEPTH TO WATER	42.45	FT BLS	
ZDPT-13	7/21/2015	1502	PH	5.86	PH	
ZDPT-13	7/21/2015	1502	SPECIFIC CONDUCTIVITY	84	USCM	
ZDPT-13	7/21/2015	1502	OXYGEN-REDUCTION POTENTIAL	139.8	MV	
ZDPT-13	7/21/2015	1502	TEMPERATURE	27.16	C	
ZDPT-13	7/21/2015	1502	TURBIDITY	>1000	NTU	
ZDPT-14	7/23/2015	928	DEPTH TO WATER	42.7	FT BLS	SLOW RECHARGE. BAILED DRY NUMEROUS TIMES.
ZDPT-14	7/23/2015	928	PH	5.81	PH	FIELD RESULTS AFTER BAILING 600 ML
ZDPT-14	7/23/2015	928	SPECIFIC CONDUCTIVITY	62	USCM	
ZDPT-14	7/23/2015	928	OXYGEN-REDUCTION POTENTIAL	192.1	MV	
ZDPT-14	7/23/2015	928	TEMPERATURE	27.03	C	
ZDPT-14	7/23/2015	928	TURBIDITY	>1000	NTU	
ZDPT-15	7/23/2015	1500	DEPTH TO WATER	39.7	FT BLS	SLOW RECHARGE. BAILED DRY NUMEROUS TIMES.
ZDPT-15	7/23/2015	1500	PH	5.48	PH	FIELD RESULTS AFTER BAILING 2.5L
ZDPT-15	7/23/2015	1500	SPECIFIC CONDUCTIVITY	38	USCM	
ZDPT-15	7/23/2015	1500	OXYGEN-REDUCTION POTENTIAL	130	MV	
ZDPT-15	7/23/2015	1500	TEMPERATURE	29.75	C	
ZDPT-15	7/23/2015	1500	TURBIDITY	>1000	NTU	