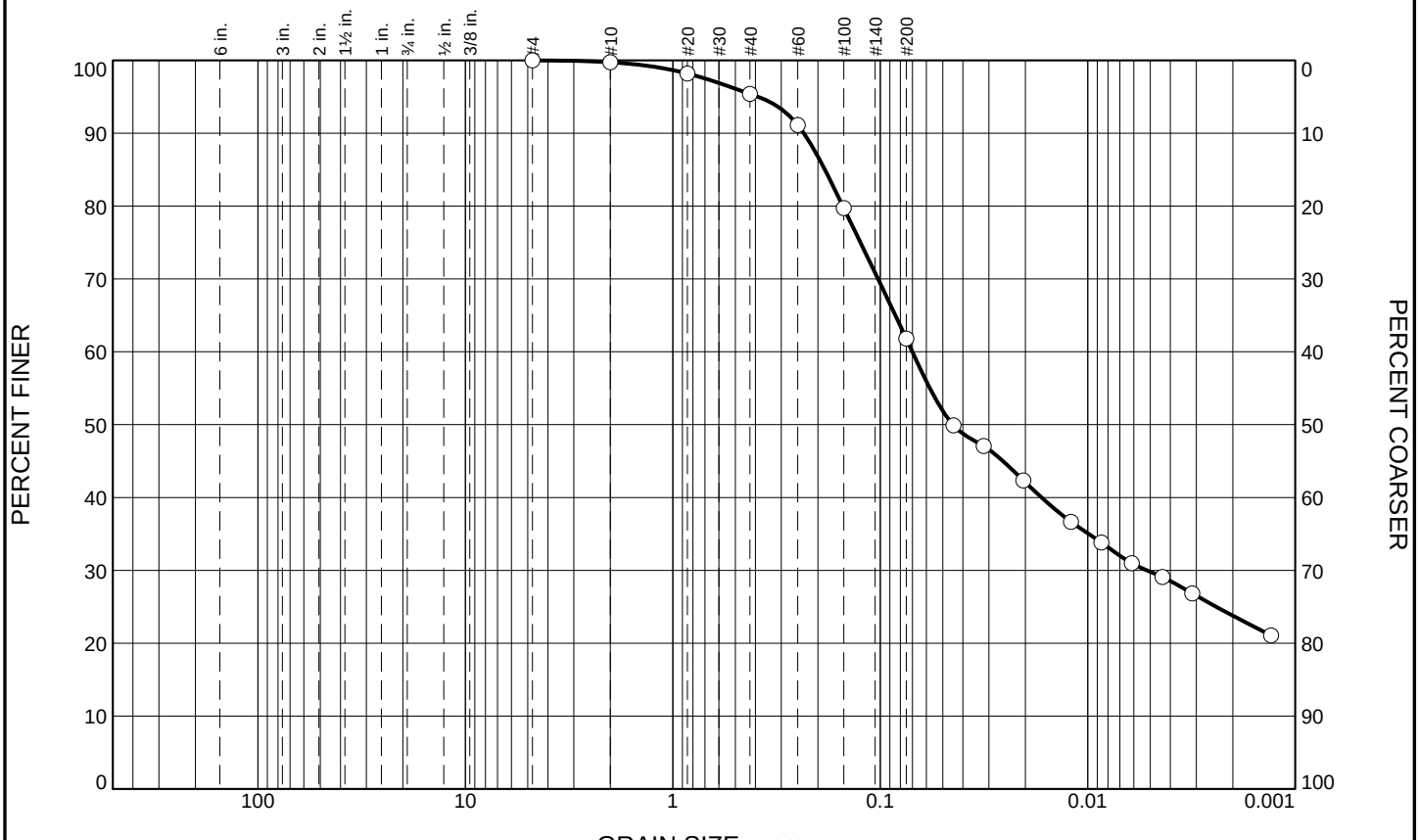
PARTICLE SIZE ANALYSIS OF SOILS ASTM D 422



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.2	4.4	33.6	32.0	29.8

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#4	100.0		
#10	99.8		
#20	98.2		
#40	95.4		
#60	91.1		
#100	79.7		
#200	61.8		

* (no specification provided)

Material Description

SILTY CLAY AND F-M SAND - BROWN AND GRAY

Atterberg Limits

PL= 18 LL= 31 PI= 13

Coefficients

D_{90}= 0.2336 D_{85}= 0.1850 D_{60}= 0.0701
D_{50}= 0.0447 D_{30}= 0.0052 D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= CL AASHTO= A-6(6)

Remarks

F.M.=0.31

Source of Sample: Boring 09-600A **Depth:** +728.5' - +729.8'
Sample Number: ST-2 **Date:** 3/26/09

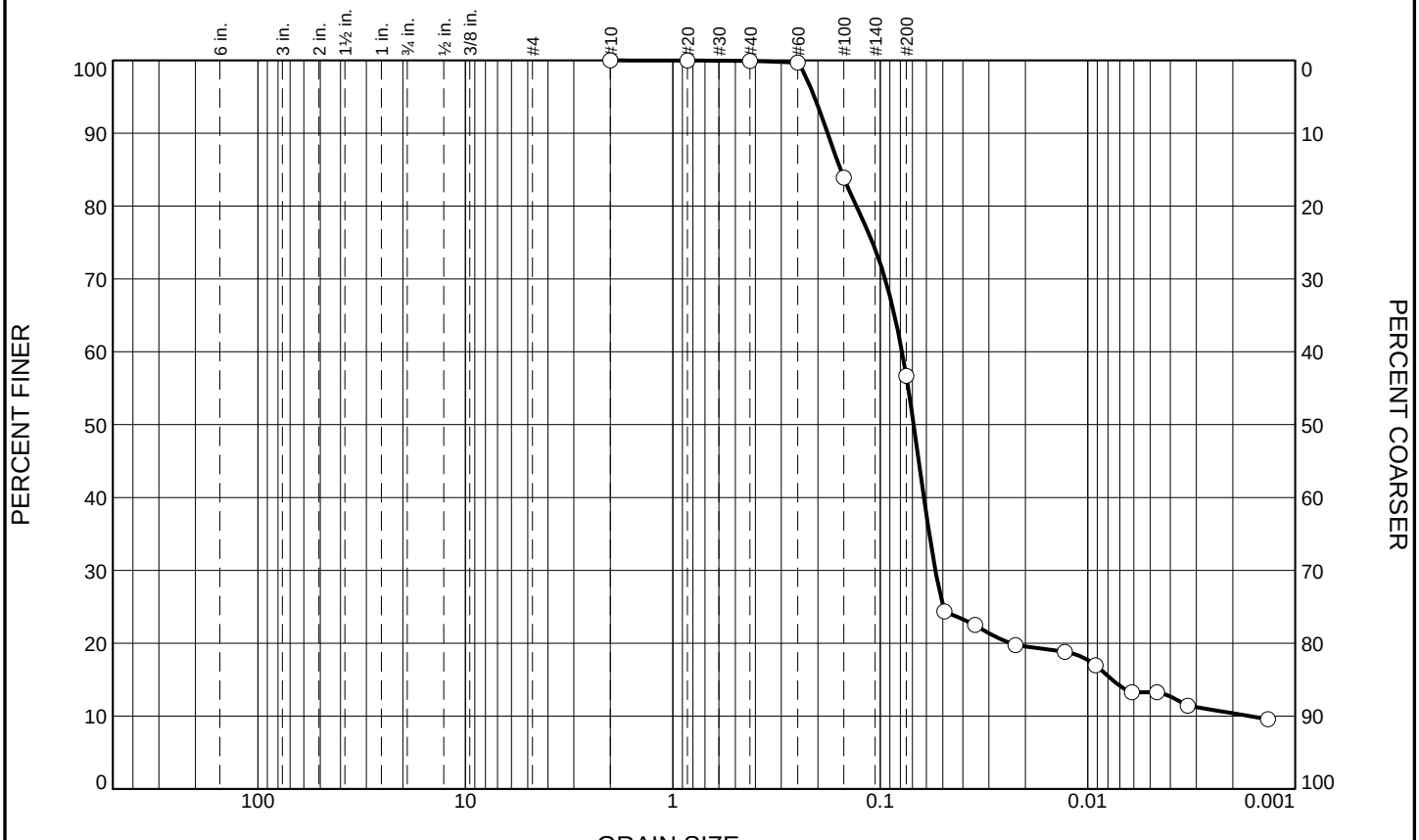
STS | AECOM

Client: Tennessee Valley Authority
Project: Kingston Dredge Cell Failure RCA

Project No: 60095742 **Figure**

Tested By: ER **Checked By:** WPQ

PARTICLE SIZE ANALYSIS OF SOILS ASTM D 422



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	0.1	43.2	43.4	13.3

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#10	100.0		
#20	100.0		
#40	99.9		
#60	99.7		
#100	83.9		
#200	56.7		

* (no specification provided)

Material Description

SILT AND FINE SAND, LITTLE CLAY - GRAY

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.1795 D_{85}= 0.1553 D_{60}= 0.0786
D_{50}= 0.0691 D_{30}= 0.0543 D_{15}= 0.0076
D_{10}= 0.0017 C_u= 47.14 C_c= 22.54

Classification

USCS= ML AASHTO=

Remarks

F.M.=0.16

Source of Sample: Boring 09-601 **Depth:** +711.9' - +713.4'
Sample Number: S-29 **Date:** 4/3/09

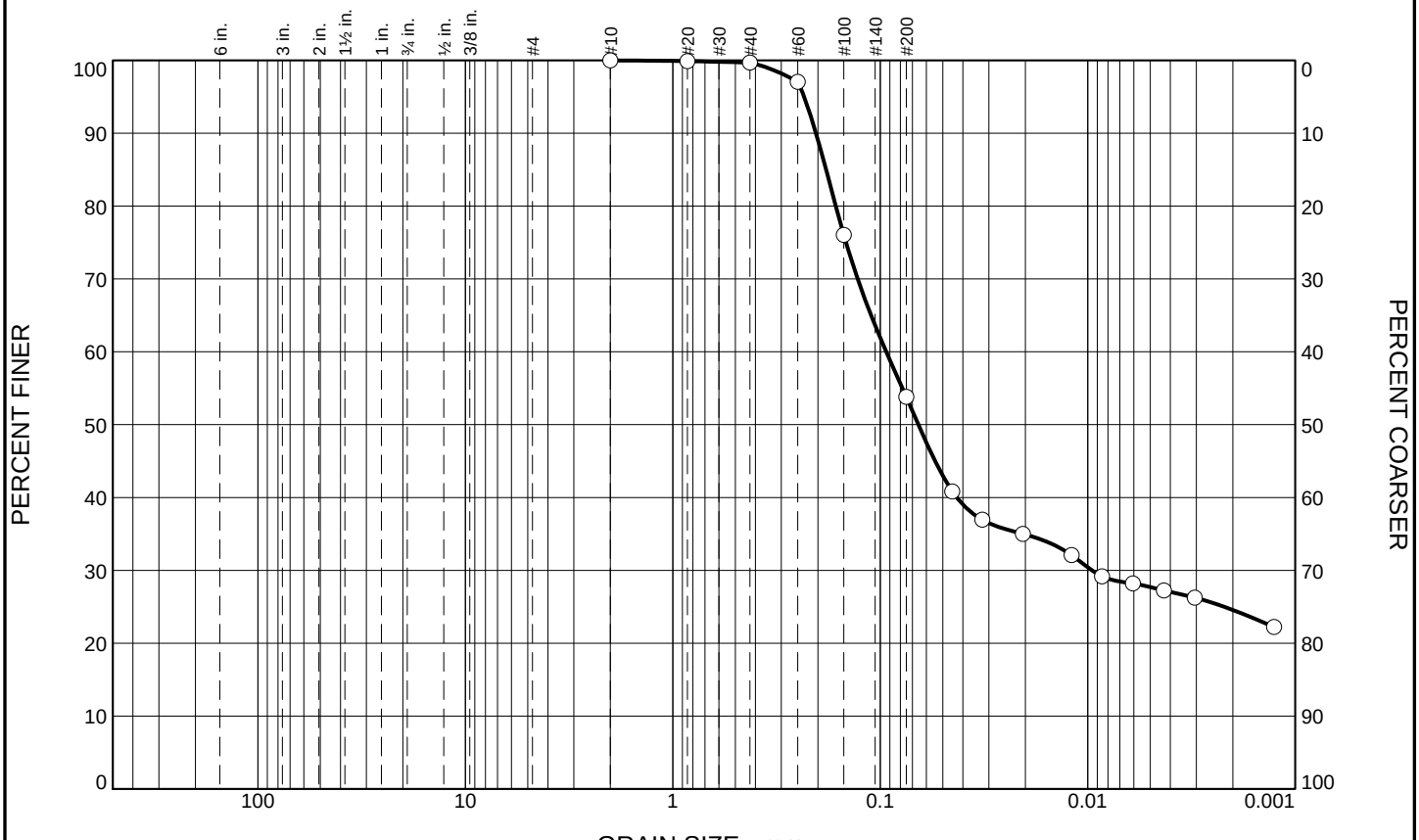
STS | AECOM

Client: Tennessee Valley Authority
Project: Kingston Dredge Cell Failure RCA

Project No: 60095742 **Figure**

Tested By: ER **Checked By:** WPQ

PARTICLE SIZE ANALYSIS OF SOILS ASTM D 422



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	0.3	45.9	26.1	27.7

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#10	100.0		
#20	99.9		
#40	99.7		
#60	97.1		
#100	76.1		
#200	53.8		

* (no specification provided)

Material Description

SILTY CLAY AND F-M SAND - BROWN

Atterberg Limits

PL= 16 LL= 27 PI= 11

Coefficients

D_{90}= 0.2041 D_{85}= 0.1825 D_{60}= 0.0936
D_{50}= 0.0655 D_{30}= 0.0095 D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= CL AASHTO= A-6(3)

Remarks

F.M.=0.26

Source of Sample: Boring 09-601A **Depth:** +731.6' - +733.1'
Sample Number: ST-2 **Date:** 3/27/09

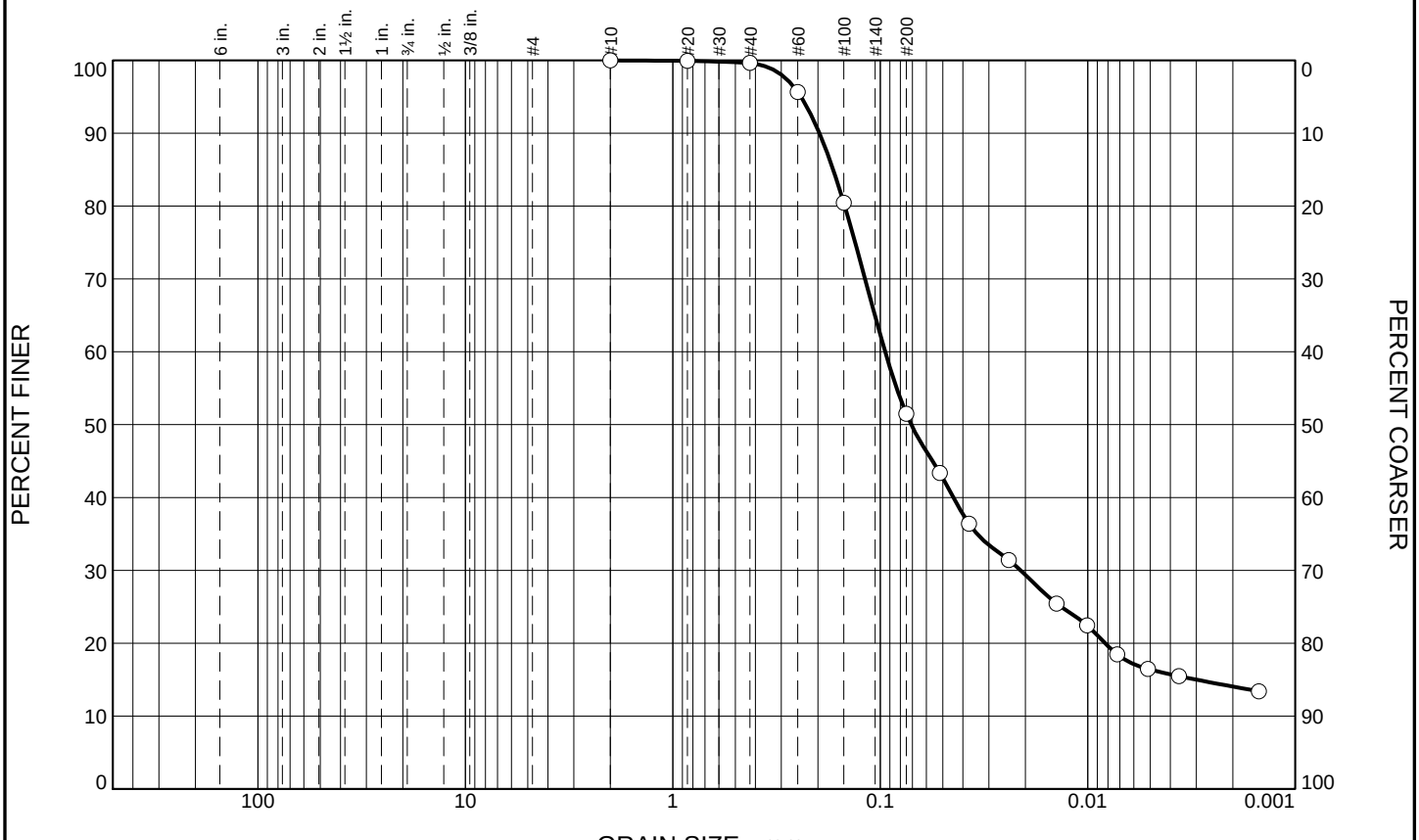
STS | AECOM

Client: Tennessee Valley Authority
Project: Kingston Dredge Cell Failure RCA

Project No: 60095742 **Figure**

Tested By: DD **Checked By:** WPQ

PARTICLE SIZE ANALYSIS OF SOILS ASTM D 422



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	0.3	48.2	35.1	16.4

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#10	100.0		
#20	100.0		
#40	99.7		
#60	95.7		
#100	80.5		
#200	51.5		

* (no specification provided)

Material Description

CLAYEY SILT AND FINE SAND - GRAY

Atterberg Limits

PL= 11 LL= 16 PI= 5

Coefficients

D_{90}= 0.1965 D_{85}= 0.1687 D_{60}= 0.0947
D_{50}= 0.0710 D_{30}= 0.0211 D_{15}= 0.0030
D_{10}= C_u= C_c=

Classification

USCS= CL-ML AASHTO= A-4(0)

Remarks

F.M.=0.22

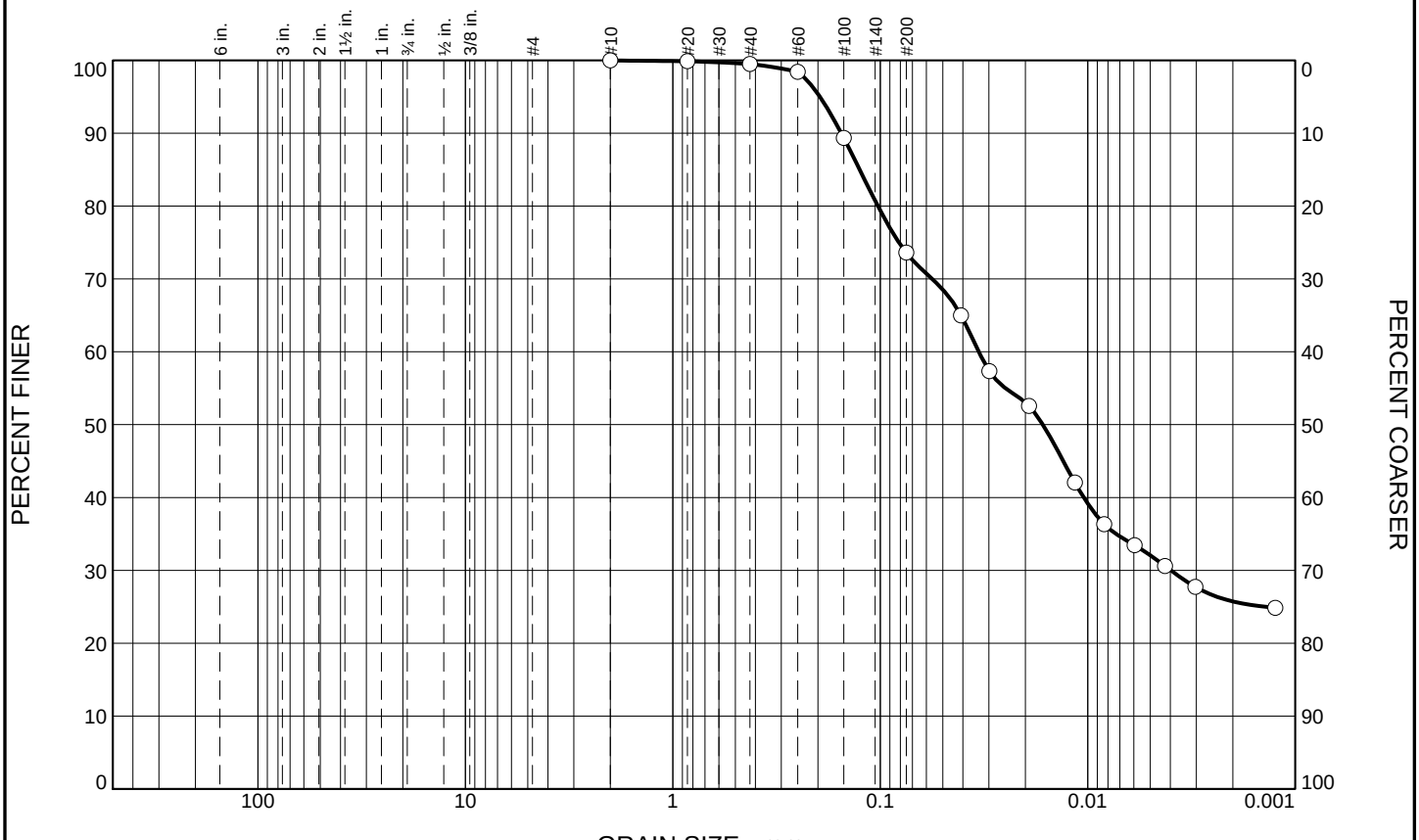
Source of Sample: Boring 09-602A **Depth:** +718.0' - +718.5'
Sample Number: ST-3 **Date:** 3/26/09

STS | AECOM

Client: Tennessee Valley Authority
Project: Kingston Dredge Cell Failure RCA
Project No: 60095742 **Figure**

Tested By: ER **Checked By:** WPQ

PARTICLE SIZE ANALYSIS OF SOILS ASTM D 422



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	0.5	25.9	41.5	32.1

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#10	100.0		
#20	99.9		
#40	99.5		
#60	98.4		
#100	89.4		
#200	73.6		

* (no specification provided)

Material Description

SILTY CLAY, SOME F-M SAND - GRAY

Atterberg Limits

PL= 16 LL= 28 PI= 12

Coefficients

D_{90}= 0.1542 D_{85}= 0.1257 D_{60}= 0.0335
D_{50}= 0.0165 D_{30}= 0.0040 D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= CL AASHTO= A-6(7)

Remarks

F.M.=0.12

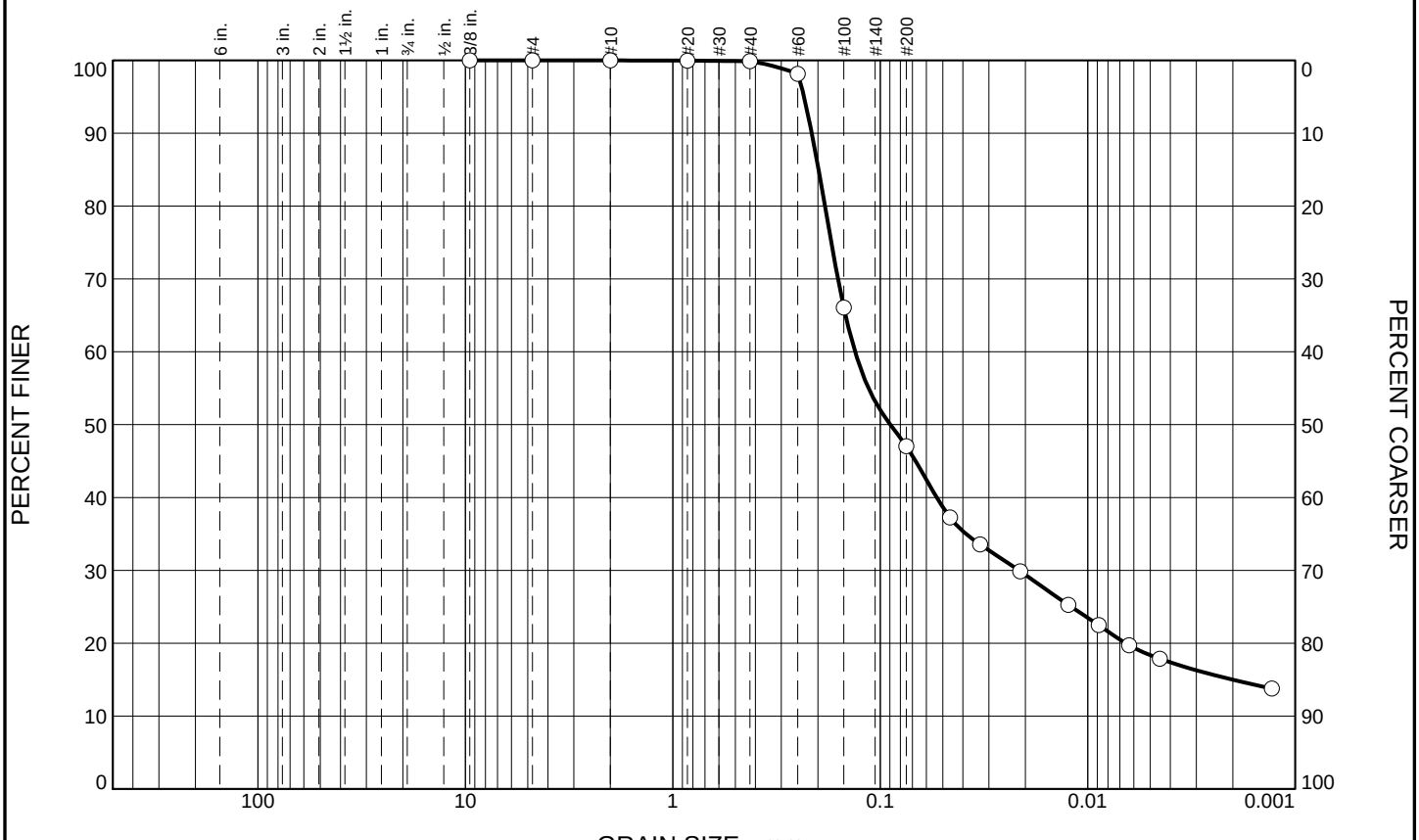
Source of Sample: Boring 09-604A **Depth:** +715.9' - +716.4'
Sample Number: ST-2 **Date:** 3/27/09

STS | AECOM

Client: Tennessee Valley Authority
Project: Kingston Dredge Cell Failure RCA
Project No: 60095742 **Figure**

Tested By: DD **Checked By:** WPQ

PARTICLE SIZE ANALYSIS OF SOILS ASTM D 422



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	0.1	52.9	28.6	18.4

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
.375	100.0		
#4	100.0		
#10	100.0		
#20	100.0		
#40	99.9		
#60	98.2		
#100	66.1		
#200	47.0		

* (no specification provided)

Material Description

SILTY FINE SAND, LITTLE CLAY - GRAY

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.2138 D_{85}= 0.1983 D_{60}= 0.1323
D_{50}= 0.0894 D_{30}= 0.0215 D_{15}= 0.0020
D_{10}= C_u= C_c=

Classification

USCS= SM AASHTO=

Remarks

F.M.=0.35

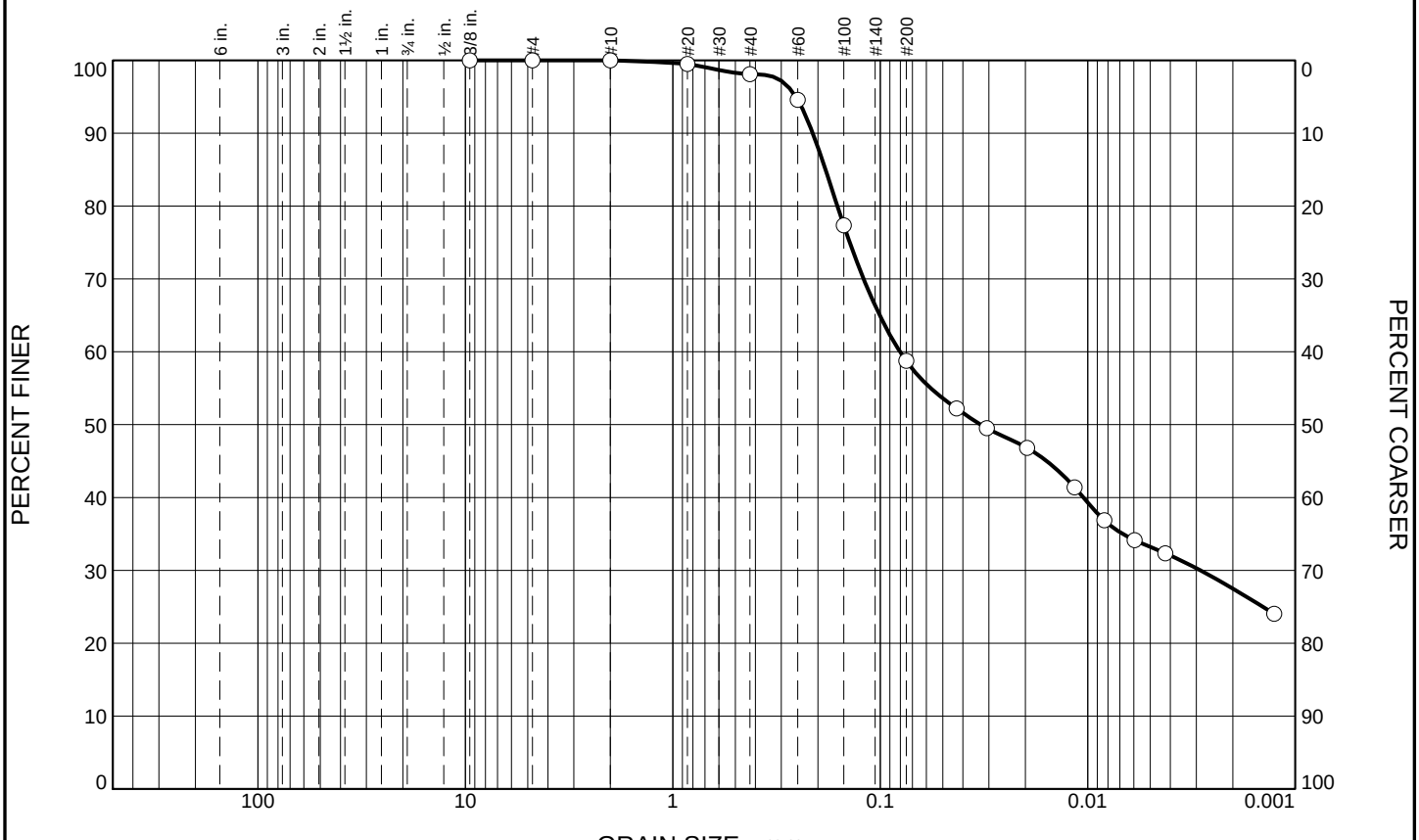
Source of Sample: Boring 09-604A **Depth:** +710.4' - +712.4'
Sample Number: ST-3 **Date:** 05/13/2009

STS | AECOM

Client: Tennessee Valley Authority
Project: Kingston Dredge Cell Failure RCA
Project No: 60095742 **Figure**

Tested By: DD **Checked By:** WPQ

PARTICLE SIZE ANALYSIS OF SOILS ASTM D 422



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	1.9	39.3	25.6	33.2

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
.375	100.0		
#4	100.0		
#10	100.0		
#20	99.5		
#40	98.1		
#60	94.6		
#100	77.4		
#200	58.8		

* (no specification provided)

Material Description

SILTY CLAY AND F-M SAND - BROWN

Atterberg Limits

PL= 20 LL= 37 PI= 17

Coefficients

D_{90}= 0.2115 D_{85}= 0.1837 D_{60}= 0.0804
D_{50}= 0.0328 D_{30}= 0.0029 D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= CL AASHTO= A-6(8)

Remarks

F.M.=0.27

Source of Sample: Boring 09-605A **Depth:** +725.1' - +726.3'
Sample Number: ST-4 **Date:** 05/13/2009

STS | AECOM

Client: Tennessee Valley Authority
Project: Kingston Dredge Cell Failure RCA

Project No: 60095742 **Figure**

Tested By: DD **Checked By:** WPQ