JOHN SEVIER STEAM PLANT

ASH DISPOSAL AREA

SOILS EXPLORATION AND TESTING

EN DES SOILS SCHEDULE NO. 6.2

TENNESSEE VALLEY AUTHORITY
DIVISION OF CONSTRUCTION
SINGLETON MATERIALS ENGINEERING LABORATORY

Knoxville, Tennessee

CSB 810724 301

JOHN SEVIER STEAM PLANT

ASH DISPOSAL AREA

SOILS EXPLORATION AND TESTING

EN DES SOILS SCHEDULE NO. 6.2

FEP - KWB

Table 1

JOHN SEVIER STEAM PLANT

PROPOSED NEW DIKE FOUNDATION

FOUNDATION INVESTIGATION

SUMMARY OF LABORATORY TEST DATA

Elevation	Soil Symbol	Soil Type *	Nat. Moist. %	% Sat.	Grain-Size Analysis Gravel %	Sand %	Silt %	Clay %	D_{10} mm	Atterb. Limits Liq. Limit %	Plastic Index %	Dry Dens. pcf	Void Ratio	Triaxial Q Undisturbed ϕ deg	c tsf	Remolded ϕ deg	c tsf	Saturated Triaxial R̄ Apparent ϕ deg	c tsf	Effective ϕ deg	c tsf	Coefficient of Permeability K_h cm/sec	K_v cm/sec
Boring No. US-1 Sta. Surface Elev. 1094.4																							
1093.4-1091.1	CL-ML	CA	14.9	75.8	1	42	35	22	--	19	6	110.0	.529	27.4	0.05			17.7	0.32	28.6	0.22	1.1	
1090.4-1088.0	SC	GA	21.5	96.9	0	52	20	28	--	39	22	104.8	.592										
1087.4-1085.5	SC	GA	16.0	67.6	0	73	12	15	--	28	10	102.1	.633	27.9	0.27			12.0	1.63	32.0	0.18	**	4.69×10^{-5}
1083.4-1081.2	GM	WS	29.4	94.9	31	31	26	12	--	45	15	94.0	.873										
1080.4-1078.0	SM-SC	WS	27.8	90.4	18	41	27	14	--	39	13	93.3	.852										
1077.4-1075.0	SM-SC	WS	24.1	82.5	38	39	16	7	--	39	13	95.7	.811										
1074.4-1072.2	CL-ML	WS	27.9	100	1	44	41	14	--	41	16	97.4	.775										
1071.4-1069.5	GM-GC	WS	24.3	83.0	49	36	10	5	--	37	13	95.1	.806										
1068.4-1066.7	SM-SC	WS	23.7	78.1	26	47	20	7	--	36	12	93.8	.837										
1065.4-1064.6	GM-GC	WS	24.3	95.7	50	37	9	4	--	36	12	101.2	.702										
Boring No. US-4 Sta. Surface Elev. 1089.6																							
1088.6-1086.2	CL	CA	18.4	81.7	1	26	47	26	--	31	15	104.1	.603	19.6	0.71			26.4	0.40	30.5	0.12	2.4	
1085.6-1083.3	CL	CA	19.3	93.8	2	25	49	24	--	29	11	108.4	.557										
1082.6-1081.4	CL	CA	19.5	91.8	1	24	45	30	--	32	16	106.6	.569										
1079.6-1078.5	CL	CA	21.7	84.8	0	38	38	24	--	28	12	99.8	.694										
Boring No. US-4A Sta Surface Elev. 1089.6																							
1082.6-1080.2	CL	CA	21.8	91.7	0	17	47	36	--	38	19	102.5	.641										
Boring No. US-8 Sta. Surface Elev. 1087.0																							
1086.0-1083.6	CL-CH	CA	22.7	89.2	0	19	38	43	--	49	30	99.7	.687	22.7	0.58			16.7	0.35	26.1	0.24	4.8	
1083.0-1080.8	CL	CA	15.7	96.5	0	24	45	31	--	33	18	114.8	.460										
1080.0-1077.6	CL	CA	19.7	92.2	0	23	43	34	--	39	22	107.2	.579	17.8	0.79			20.5	0.51	28.4	0.00	0	
1077.0-1075.7	CL	CA	18.9	88.8	1	27	38	34	--	31	18	107.4	.579										
Boring No US-12 Surface Elev. 1071.2																							
1070.2-1067.9	CL	CA	26.3	76.0	0	24	39	37	--	40	20	86.6	.946	6.2	0.42			11.2	0.55	24.7	0.31	6.2	
1067.2-1064.9	CL	CA	23.8	95.0	0	18	40	42	--	39	19	100.7	.667										
1064.2-1063.1	CL	CA	23.4	100	0	18	42	40	--	38	18	103.0	.630										
1061.2-1060.7	CL	WS	28.8	98.3	2	43	30	25	--	32	14	94.6	.800										
1060.7-1059.0	SM	WS	26.0	84.0	37	46	17	0	--	NP	NP	91.3	.826										
Boring No. US-15 Surface Elev. 1077.3																							
1076.3-1074.2	CL	CA	19.5	83.0	0	28	41	31	--	32	12	102.4	.627										
1073.3-1070.9	CL	CA	20.2	93.0	0	31	40	29	--	30	13	106.1	.588										
1070.3-1068.6	CL	CA	20.9	90.0	0	31	42	27	--	28	11	103.2	.623										
1067.3-1065.7	CL	CA	21.8	87.7	0	22	46	32	--	31	13	100.9	.677	0.0	0.87			13.7	0.59	29.7	0.05	1.0	
1064.3-1063.2	CL	CA	21.3	93.4	0	24	46	30	--	29	12	104.0	.611										
1061.3-1060.4	CL-ML	CA	18.8	92.3	0	44	36	20	--	21	7	107.7	.541										

*CA Cohesive Alluvium GA Granular Alluvium WS Weathered Shale

**Machine Malfunction

JOHN SEVIER STEAM PLANT

BORROW AREAS A & B

SUMMARY OF LABORATORY TEST DATA

BORROW SOIL CLASSES

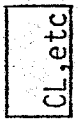
Class		I	III	IV	V	VI
Symbol		SC	CL	CL	CL	CH-MH
Mechanical and Hydrometer Analysis						
Gravel, percent		0	0	0	0	0
Sand, percent		53	26	19	20	12
Silt, percent		23	40	42	36	39
Clay, percent		24	34	39	44	49
Atterberg Limits						
Liquid limit, percent		26	36	42	48	56
Plastic limit, percent		14	17	19	25	29
Plasticity index, percent		12	19	23	23	27
Shrinkage limit, percent		--	--	--	--	--
Standard Proctor Compaction						
Optimum moisture, percent		11.5	16.2	18.2	21.2	18.2
Maximum density, pcf		120.0	111.3	107.3	101.7	107.3
Penetration resistance, psi		1650	685	705	675	790
Shear Strength at 3% Wet of Optimum Moisture and at 95% of Maximum Unit Weight						
Triaxial Q:	ϕ degrees	10.0	4.8	3.3	10.6	10.1
	c tsf	0.99	0.88	1.00	0.98	0.98
Triaxial Q:	ϕ degrees	9.6	4.0	6.6	7.8	10.9
	c tsf	0.98	0.83	0.89	1.12	0.96
Shear Strength at 3% Dry of Optimum Moisture and at 95% of Maxium Unit Weight						
Triaxial R:	ϕ degrees	14.9	16.1	18.6	18.2	16.1
	c tsf	0.08	0.16	0.05	0.05	0.16
Triaxial R:	ϕ degrees	16.9	16.2	17.9	17.8	17.4
	c tsf	0.01	0.11	0.15	0.04	0.11
Triaxial $\bar{R}$	ϕ	31.2	27.5	28.8	25.0	23.8
	c	0.03	0.12	0.06	0.08	0.16
Triaxial $\bar{R}$	ϕ	32.7	26.9	27.5	24.8	26.1
	c	0.00	0.13	0.12	0.13	0.09

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE LEGEND AND SYMBOLS

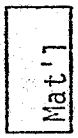
DEPTH 1"=5'	EL	SPT (N)	LOG	W	LL	PI	X	REMARKS OR TEST RESULTS
Boring Depth and Scale	Elevation	Blows/Foot (SS Boring)	Lab Soil Type	Moisture Content	Liquid Limit	Plasticity Index	Soil Letter	

LEGEND

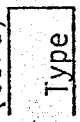
Topsoil



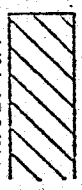
Soil Type (Unified Classification)



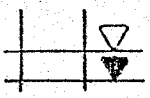
Notation of Soil Not Sampled (SS, PA, HA Logs)



Bedrock (Note Core if Cored)



Refusal (Impractical to Penetrate with Boring Equipment Used)



Watertable (Date)

Explanation of UD Sampling Limits if Applicable

BORING SYMBOLS

- SS - 2" OD Splitspoon Boring
- SPT - Standard Penetration Test Blows Per Foot with 2" Splitspoon
- UD - Undisturbed Sample Boring
- PA - Power Auger Boring
- HA - Hand Auger Boring
- TP - Test Pit or Trench

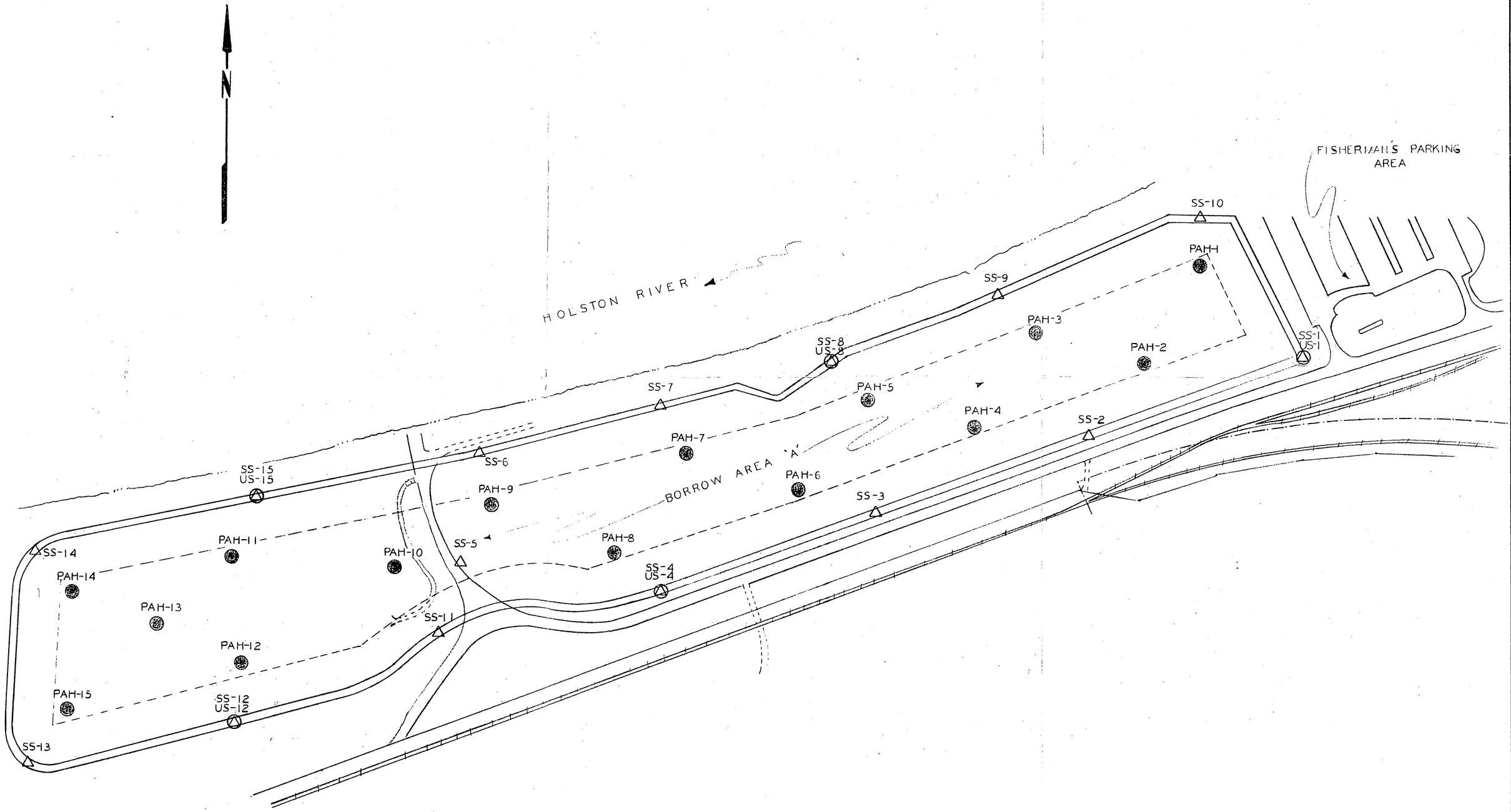
IN BLOCKS BESIDE UD BORING SAMPLES		
Test	Engineering Test Results	
Q, R, $\bar{R}$, S	Friction Angle (Degrees)	Cohesion (tsf)
UC	Unconfined Compressive Strength (tsf)	Sensitivity Ratio
C	Compression Index	Preconsolidation Pressure (tsf)
k	Coefficient of Permeability (cm/sec x 10^{-4})	

Example: Blocks as Required:

Q	12.0	0.62	R	19.6	0.21	S	34.0	0
UC	4.0	2.6	C	0.27	2.0	k	5.6	

SOIL TEST SYMBOLS

- Q - Unconsolidated-Undrained Triaxial Compression
- R - Consolidated-Undrained Triaxial Compression
- $\bar{R}$ - Effective Consolidated-Undrained Triaxial Compression
- S - Consolidated-Drained Direct Shear
- UC - Unconfined Compression
- C - Consolidation
- k - Permeability
- X - Letter Identification of Soil Type. Lower Case (a, etc.), By Index Tests. Capital (A, etc.), Subjected to Additional Tests.



SYMBOLS

- ● - AUGER BORINGS
- △ - SPLITSPOON BORINGS
- ○ - UNDISTURBED BORINGS

SCALE: 1" = 163.6'

JOHN SEVIER STEAM PLANT

PROPOSED NEW ASH DISPOSAL AREA PLAN OF SOIL INVESTIGATION

TENNESSEE VALLEY AUTHORITY
MATERIALS ENGINEERING LABORATORY

SUBMITTED	RECOMMENDED				APPROVED
HFM					
KNOXVILLE	6-10-81	41	CS	3	604G1095RO

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

Sheet 1 Of 1

Project JOHN SEVIER S. P. Feature NEW ASH DISPOSAL AREA

Boring SS-1 Station 60 +32W Range 5 +12S Surface El 1094.4

Date Drilled 3-3-81 To 3-3-81 Prepared By JLB Checked By HPM

Depth	El	SPT (N)	LOG	W	LL	PI	X	Remarks
1"=5'								
0								
		5	CL	14.7	21	7		COHESIVE ALLUVIUM
	1090	9		18.2	32	16		
5		22	SC	15.7	28	11		GRANULAR ALLUVIUM
		24		16.2				
	1085	42	SM	8.1	NP	NP		
10		17	GC	7.9	42	17		
		36	SM	25.3	39	13		
15	1080	25	SM-SC	27.1	41	15		
		19	GM-GC	25.3	39	15		
	1075	20	SM-SC	20.7	36	12		WEATHERED SHALE
20		6	GM-GC	26.4	39	15		▽ ▼
		19		—	32	11		
25	1070	7		28.4				
		12	SC	24.4	34	12		
	1065	28		19.6				
30		50+		11.3				
								BEDROCK
	1060							
35								

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

Sheet 1 Of 1

Project JOHN SEVIER S. P. Feature NEW ASH DISPOSAL AREA

Boring SS-2 Station 66+22W Range 4+99S Surface El 1092.0

Date Drilled 3-4-81 To 3-4-81 Prepared By JLB Checked By HPM

Depth	El	SPT (N)	Log	W	LL	PI	X	Remarks
1"=5'								
0								COHESIVE ALLUVIUM
	1090	23	CL	19.5	34	15		
		50		19.5	42	18		
5		26		14.6				
	1085				28	10		GRANULAR ALLUVIUM
		23	SC	12.9				
10		43		10.4	26	8		
			SM-SC					
	1080	36		23.2	37	12		
		50+		2.8	NP	NP		WEATHERED SHALE
15		50+	SM	12.5	—	—		
								BEDROCK
	1075							
20								
	1070							
25								
	1065							
30								
35								

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

Sheet 1 Of 1

Project JOHN SEVIER S. P. Feature NEW ASH DISPOSAL AREA

Boring SS-3 Station 70+55W Range 5+00S Surface El 1089.4

Date Drilled 3-4-81 To 3-4-81 Prepared By JLB Checked By HPM

Depth	El	SPT (N)	Log	W	LL	PI	X	Remarks
1"=5'								
0								
		18	CL	15.8	26	11		COHESIVE ALLUVIUM
	1085	20		17.5				
5		50+	SC	12.9	26	9		GRANULAR ALLUVIUM
		38	SM	31.9	42	14		WEATHERED SHALE
	1080	30		35.4				
10		50+	GM	8.2	NP	NP		BEDROCK
	1075							
15								
20								
25								
30								
35								

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

Sheet 1 Of 1

Project JOHN SEVIER S. P. Feature NEW ASH DISPOSAL AREA

Boring SS-4 Station 75+09W Range 4+92S Surface El 1089.6

Date Drilled 3-5-81 To 3-5-81 Prepared By JLB Checked By HPM

Depth	El	SPT (N)	Log	W	LL	PI	X	Remarks
1"=5'								
0								
		14	CL	18.3	32	15		
		18		17.2				
	1085							
5		24		19.6	31	14		COHESIVE ALLUVIUM
		26		19.8				
								▽
10	1080	19		21.8				
					27	11		
		13		22.1				
			SM-SC					GRANULAR ALLUVIUM
		11		21.5	22	6		
15	1075		GP-GM					
		41		9.6	NP	NP		
								DISCONTINUED
20	1070							
25								
30								
35								

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

Sheet 1 Of 1

Project JOHN SEVIER S. P. Feature NEW ASH DISPOSAL AREA

Boring SS-5 Station 78+70W Range 3+32S Surface El 1082.9

Date Drilled 3-5-81 To 3-5-81 Prepared By JLB Checked By HPM

Depth	El	SPT (N)	Log	W	LL	PI	X	Remarks
1"=5'								
0								
		27		19.3	37	17		
	1080							
		35		16.4	33	16		▽ COHESIVE ALLUVIUM
5			CL					
		20		18.3				
					37	20		
	1075	27		20.8				
								GRANULAR ALLUVIUM
10		43		14.1	28	15		
		50+	SC	13.9	—	—		WEATHERED SHALE
	1070							
		50+		6.8	—	—		
15								BEDROCK
	1065							
20								
25								
30								
35								

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

Sheet 1 Of 1

Project JOHN SEVIER S.P. Feature NEW ASH DISPOSAL AREA

Boring SS-6 Station 78+21W Range 0+60S Surface El 1085.0

Date Drilled 3-5-81 To 3-5-81 Prepared By JLB Checked By HPM

Depth	El	SPT (N)	Log	W	LL	PI	X	Remarks
1"=5'								
0	1085							
		35		18.3	35	16		COHESIVE ALLUVIUM
		31		17.7				
5	1080	34	CL	19.0	37	18		
		30		19.3	32	16		
10	1075	21		18.4				
		50+		4.9	—	—		BEDROCK
15	1070							
20								
25								
30								
35								

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

Sheet 1 Of 1

Project JOHN SEVIER S. P. Feature NEW ASH DISPOSAL AREA

Boring SS-7 Station 72+92W Range 1+28S Surface El 1073.8

Date Drilled 3-9-81 To 3-9-81 Prepared By JLB Checked By HPM

Depth	El	SPT (N)	Log	W	LL	PI	X	Remarks
1"=5'								
0								
		50+	CL		31	12		WEATHERED SHALE
			CL-ML	26.9	40	25		
	1070	50+		—	29	11		
5								BEDROCK
	1065							
10								
15								
20								
25								
30								
35								

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

Sheet 1 Of 1

Project JOHN SEVIER S. P. Feature NEW ASH DISPOSAL AREA

Boring SS-8 Station 70+13W Range 1+56S Surface El 1087.0

Date Drilled 3-6-81 To 3-6-81 Prepared By JLB Checked By HPM

Depth	El	SPT (N)	Log	W	LL	PI	X	Remarks
1"=5'								
0								
	1085	19	CH	23.2	52	31		COHESIVE ALLUVIUM
		34		18.0	45	25		
5		26		14.2				
	1080		CL					
		25		18.5	38	22		
10		15		17.0				
		50+	GP-GM	5.2				
	1075							GRANULAR ALLUVIUM
		50+	GW-GM	4.6	NP	NP		
15								
		50+		15.1				WEATHERED SHALE
	1070		SC		35	12		
		25		16.8				
								DISCONTINUED
20								
25								
30								
35								

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

Sheet 1 Of 1

Project JOHN SEVIER S. P. Feature NEW ASH DISPOSAL AREA

Boring SS-9 Station 66+05W Range 1+49S Surface El 1080.8

Date Drilled 3-9-81 To 3-9-81 Prepared By JLB Checked By HPM

Depth	El	SPT (N)	Log	W	LL	PI	X	Remarks
1"=5'								
0	1080							COHESIVE ALLUVIUM
		8	CL	17.7	33	16		
		35		18.0				
5	1075	50+	GM	8.3	NP	NP		GRANULAR ALLUVIUM
								WEATHERED SHALE
10	1070	50+	SC	18.3	32	12		
		50+		7.4				
								BEDROCK
15	1065							
20								
25								
30								
35								

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

Sheet 1 Of 1

Project JOHN SEVIER S.P. Feature NEW ASH DISPOSAL AREA

Boring SS-10 Station 61+43W Range 1+48S Surface El 1091.4

Date Drilled 3-3-81 To 3-3-81 Prepared By JLB Checked By HPM

Depth	El	SPT (N)	Log	W	LL	PI	X	Remarks
1"=5'								
0								
	1090	13	CL	17.9	37	20		COHESIVE ALLUVIUM
		25		22.9	41	24		
5		27		19.2				
	1085	14	SC	25.2	29	14		
		12	SM-SC	18.5	22	6		GRANULAR ALLUVIUM
10	1080	22		12.2				
		20	SM	12.2	NP	NP		
15								
	1075	31		14.3				DISCONTINUED
20								
	1070							
25								
30								
35								

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

SHEET 1 OF 1

PROJECT JOHN SEVIER S. P. FEATURE NEW ASH DISPOSAL AREA

BORING SS-11 STATION 80+35W RANGE 4+40S SURFACE EL 1084.3

DATE DRILLED 4-27-81 TO 4-27-81 PREPARED BY JLB CHECKED BY HPM

DEPTH	EL	SPT (N)	LOG	W	LL	PI	REMARKS
1"=5'							
0							
		9		20.0	35	16	COHESIVE ALLUVIUM
	1080	15	CL	19.6			
5		18		22.6	38	19	
		32		19.0			
	1075						
10		20		18.6	24	8	▽ GRANULAR ALLUVIUM
		50+	SC	7.8	—	—	
	1070	35		20.1	37	14	WEATHERED SHALE
15		29		23.2			
							BEDROCK
	1065						
20							
25							
30							
35							

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

SHEET 1 OF 1

PROJECT JOHN SEVIER S.P. FEATURE NEW ASH DISPOSAL AREA

BORING SS-12 STATION 85+39W RANGE 4+68S SURFACE EL 1071.2

DATE DRILLED 4-22-81 TO 4-22-81 PREPARED BY JLB CHECKED BY HPM

DEPTH	EL	SPT (N)	LOG	W	LL	PI	REMARKS
1"=5'							
0	1070	5	CL	23.9			COHESIVE ALLUVIUM
		6		25.2			
5					38	19	
	1065	10		21.5			
		5		24.6			
10		3		23.4	28	11	
	1060		SC	51.3	28	8	WEATHERED SHALE
		22		9.8	29	10	
			GC				BEDROCK
15							
20							
25							
30							
35							

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

SHEET 1 OF 1

PROJECT JOHN SEVIER S.P. FEATURE NEW ASH DISPOSAL AREA

BORING SS-13 STATION 90+27W RANGE 4+67S SURFACE EL 1069.3

DATE DRILLED 4-22-81 TO 4-22-81 PREPARED BY JLB CHECKED BY HPM

DEPTH	EL	SPT (N)	LOG	W	LL	PI	REMARKS
1"=5'							
0							
		15		25.3			COHESIVE ALLUVIUM
	1065	12	CL	22.2	42	21	
5		9		21.9			▽ ▼
		7	CL-ML	17.5	21	6	
	1060						WEATHERED SHALE
10		17	SC	16.7	30	10	
							BEDROCK
	1055						
15							
20							
25							
30							
35							

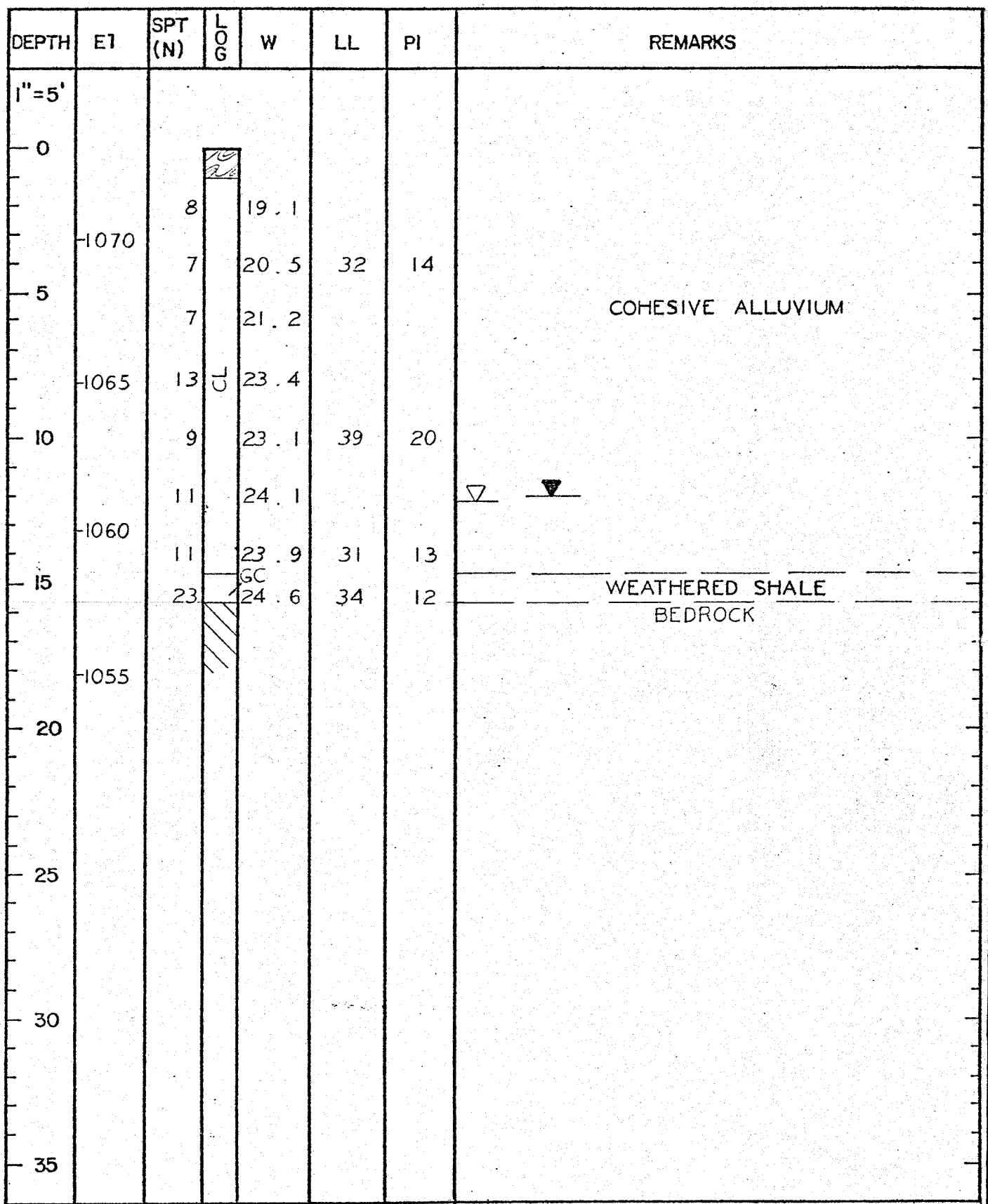
TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

SHEET 1 OF 1

PROJECT JOHN SEVIER S. P. FEATURE NEW ASH DISPOSAL AREA

BORING SS-14 STATION 87+69 W RANGE 0+84 N SURFACE EL 1073.1

DATE DRILLED 4-23-80 TO 4-23-80 PREPARED BY JLB CHECKED BY HPM



TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

SHEET 1 OF 1

PROJECT JOHN SEVIER S. P. FEATURE NEW ASH DISPOSAL AREA

BORING SS-15 STATION 82 + 71 W RANGE 0 + 17 S SURFACE EL 1077.3

DATE DRILLED 4-23-81 TO 4-23-81 PREPARED BY JLB CHECKED BY HPM

DEPTH	EL	SPT (N)	LOG	W	LL	PI	REMARKS
1"=5'							
0							
	1075	12	CL	18.3	30	11	
		13		18.7			
5		9		19.7	31	12	COHESIVE ALLUVIUM
	1070	6		20.5			
10		6		21.7			
					30	12	▼
	1065	9		23.1			
		12		23.7	36	17	▽
15		7		20.6	23	9	
	1060	9	SM	21.9	19	4	GRANULAR ALLUVIUM
		28		20.6	NP	NP	WEATHERED SHALE
20			GM				BEDROCK
	1055						
25							
30							
35							

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (UD BORING)

Project JOHN SEVIER S. P. Feature NEW ASH DISPOSAL AREA

Boring US-1 Station 60 +32 W Range 5 +17 S Surface El 1094.4

Date Drilled 3-11-81 To 3-11-81 Prepared By JLB Checked By HPM

Depth	El	Log	W	LL	PI	X	Engineering Test Results
1"=5'							
0		CL-ML	14.9	19	6		Q 27.4 0.05 | R 17.7 0.32
5	1090	SC	21.5	39	22		
		SC	16.0	28	10		Q 27.9 0.27 | R 12.0 1.63 | Kv 4.69X10^{-5}
10	1085	GM	29.4	45	15		
15	1080	SM-SC	27.8	39	13		
		SM-SC	24.1	39	13		
20	1075	CL-ML	27.9	41	16		
		GM-GC	24.3	37	13		
25	1070	SM-SC	23.7	36	12		
		GM-GC	24.3	36	12		
30	1065						DISCONTINUED
35	1060						

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (UD BORING)

Project JOHN SEVIER S. P. Feature NEW ASH DISPOSAL AREA

Boring US-4 Station 75 + 09 W Range 4+97S Surface El 1089.6

Date Drilled 3-10-81 To 3-10-81 Prepared By JLB Checked By HPM

Depth	El	Log	W	LL	PI	X	Engineering Test Results
1"=5'							
0							
		CL	18.4	31	15		Q 19.6 0.71 | R 26.4 0.40
5	1085	CL	19.3	29	11		
		CL	19.5	32	16		
10	1080	CL	21.7	28	12		
							NO RECOVERY
15	1075						REFUSAL
20							
25							
30							
35							

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (UD BORING)

Project JOHN SEVIER S. P. Feature NEW ASH DISPOSAL AREA

Boring US - 4A Station 75 + 04 W Range 4 + 92 S Surface El 1089.6

Date Drilled 3-14-81 To 3 - 14 - 81 Prepared By JLB Checked By HPM

Depth	El	Log	W	LL	PI	X	Engineering Test Results
1"=5'							
0							
5	1085	CL	21.8	38	19		
10	1080						NO RECOVERY
							NO RECOVERY
15	1075						REFUSAL
20							
25							
30							
35							

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (UD BORING)

Project JOHN SEVIER S. P. Feature NEW ASH DISPOSAL AREA

Boring US-8 Station 70+13 W Range 1+61 S Surface El 1087.0

Date Drilled 3-10-81 To 3-10-81 Prepared By JLB Checked By HPM

Depth	El	Log	W	LL	PI	X	Engineering Test Results
1"=5'							
0							
	1085	CL-CH	22.7	49	30		Q 22.7 0.58 | R 16.7 0.35
5		CL	15.7	33	18		
	1080						
		CL	19.7	39	22		Q 17.8 0.79 | R 20.5 0.51
10		CL	18.9	31	18		
	1075						NO RECOVERY
15							REFUSAL
	1070						
20							
25							
30							
35							

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (UD BORING)

SHEET 1 OF 1

PROJECT JOHN SEVIER S.P. FEATURE NEW ASH DISPOSAL AREA

BORING US-12 STATION 85+34W RANGE 4+68S SURFACE ET 1071.2

DATE DRILLED 4-28-81 TO 4-28-81 PREPARED BY JLB CHECKED BY HPM

DEPTH	ET	LOG	W	LL	PI	ENGINEERING TEST RESULTS
1"=5'						
0	1070	CL	26.3	40	20	Q 6.2 0.42 | R 11.2 0.55
5	1065	CL	23.8	39	19	
		CL	23.4	38	18	
10		CL	28.8	32	14	
	1060	SM	26.0	NP	NP	
						DISCONTINUED
15	1055					
20	1050					
25	1045					
30	1040					
35						

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (UD BORING)

SHEET 1 OF 1

PROJECT JOHN SEVIER S. P. FEATURE NEW ASH DISPOSAL AREA

BORING US-15 STATION 82+66 W RANGE 0+17S SURFACE EL 1077.3

DATE DRILLED 4-28-81 TO 4-28-81 PREPARED BY JLB CHECKED BY HPM

DEPTH	EL	LOG	W	LL	PI	ENGINEERING TEST RESULTS
1"=5'						
0						
	1075	CL	19.5	32	12	
5		CL	20.2	30	13	
	1070	CL	20.9	28	11	
10		CL	21.5	31	13	Q 0.0 0.87 | R 13.7 0.59
	1065	CL	21.3	29	12	
15		CL-ML	18.8	21	7	
	1060					DISCONTINUED
20						
25						
30						
35						

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

Sheet 1 Of 1

Project JOHN SEVIER S. P. Feature BORROW AREA 'A'

Boring PAH-1 Station 62+22W Range 2+34S Surface El 1090.0

Date Drilled 2-27-81 To 2-27-81 Prepared By JLB Checked By HPM

Depth	El	SPT (N)	Log	W	LL	PI	X	Remarks
1"=5'								
0	1090			24.2	45	27		
5	1085		CL	19.4	42	24		
10	1080			21.7	43	24		
15	1075							POOR RECOVERY
20	1070							SAPROLITIC RESIDUUM
25	1065							DISCONTINUED
30								
35								

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

Sheet 1 Of 1

Project JOHN SEVIER S. P. Feature BORROW AREA 'A'

Boring PAH-2 Station 64+10W Range 3+87S Surface El 1088.2

Date Drilled 2-27-81 To 2-27-81 Prepared By JLB Checked By HPM

Depth	El	SPT (N)	Log	W	LL	PI	X	Remarks
1"=5'								
0								
			CL	19.9	42	25		
	1085			15.5	34	18		
			GC	18.3	37	20		
5								
			CL	21.3	34	18		
	1080							
10								
			SC	17.3	26	11		
	1075							
			CL	26.1	42	24		
15								WEATHERED SHALE
								DISCONTINUED
	1070							
20								
25								
30								
35								

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

Sheet 1 Of 1

Project JOHN SEVIER S. P. Feature BORROW AREA 'A'

Boring PAH-3 Station 66+37W Range 2+41S Surface El 1087.1

Date Drilled 3-2-81 To 3-2-81 Prepared By JLB Checked By HPM

Depth	El	SPT (N)	Log	W	LL	PI	X	Remarks
1"=5'								
0								
	1085			21.7	45	27		
5				19.8				
	1080		CL		43	24		
10				16.2				
	1075			22.7	45	27		
15								WEATHERED SHALE
	1070							BEDROCK
20								
	1065							
25								
30								
35								

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

Sheet 1 Of 1

Project JOHN SEVIER S. P. Feature BORROW AREA 'A'

Boring PAH-4 Station 68+22W Range 3+97S Surface El 1087.7

Date Drilled 3-2-81 To 3-2-81 Prepared By JLB Checked By HPM

Depth	El	SPT (N)	Log	W	LL	PI	X	Remarks
1"=5'								
0								
	1085			19.0	45	27		
				20.0	42	24		
5			CL					
	1080			17.2	34	18		
				16.3	42	24		
10								
	1075		SC	18.1	26	11		
								▽ ▼
15								
				20.4	39	18		
	1070		CL					
20				16.9	39	18		
	1065							WEATHERED SHALE
25								BEDROCK
30								
35								

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

Sheet 1 Of 1

Project JOHN SEVIER S.P. Feature BORROW AREA 'A'

Boring PAH-5 Station 70+41W Range 2+49S Surface El 1083.0

Date Drilled 3-2-81 To 3-2-81 Prepared By JLB Checked By HPM

Depth	El	SPT (N)	Log	W	LL	PI	X	Remarks
1"=5'								
0								
	1080		CL	17.6	42	25		
5				20.0	42	24		
	1075		SC	21.1	26	11		
10								
	1070							
15								WEATHERED SHALE
								BEDROCK
20								
25								
30								
35								

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

Sheet 1 Of 1

Project JOHN SEVIER S. P. Feature BORROW AREA 'A'

Boring PAH-6 Station 72+27W Range 4+04S Surface El 1086.8

Date Drilled 3-2-81 To 3-2-81 Prepared By JLB Checked By HPM

Depth	El	SPT (N)	Log	W	LL	PI	X	Remarks
1"=5'								
0								
	1085			21.2	40	21		
5			CL	22.7	43	24		
	1080							▽
								▼
10				21.4	35	19		
	1075							WET SOIL
15								DISCONTINUED
	1070							
20								
25								
30								
35								

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

Sheet 1 Of 1

Project JOHN SEVIER S. P. Feature BORROW AREA A

Boring PAH-7 Station 74+43W Range 2+28S Surface El 1084.6

Date Drilled 3-2-81 To 3-2-81 Prepared By JLB Checked By HPM

Depth	El	SPT (N)	Log	W	LL	PI	X	Remarks
1"=5'								
0				22.6	40	21		
5	1080		CL	25.0	45	27		
				19.5	35	19		
10	1075		GC	7.8	37	20		
15	1070							WEATHERED SHALE
								BEDROCK
20								
25								
30								
35								

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

Sheet 1 Of 1

Project JOHN SEVIER S. P. Feature BORROW AREA 'A'

Boring PAH-8 Station 76 + 33 W Range 4 + 12 S Surface El 1085.0

Date Drilled 3-2-81 To 3-2-81 Prepared By JLB Checked By HPM

Depth	El	SPT (N)	Log	W	LL	PI	X	Remarks
1"=5'								
0	1085			23.0	35	19		
5	1080		CL	20.4	43	24		▽ ▼
				19.8	35	19		
10	1075							WEATHERED SHALE
15	1070							DISCONTINUED
20								
25								
30								
35								

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

Sheet 1 Of 1

Project JOHN SEVIER S. P Feature BORROW AREA 'A'

Boring PAH-9 Station 78 + 33W Range 2 + 10S Surface El 1083.3

Date Drilled 3-2-81 To 3-2-81 Prepared By JLB Checked By HPM

Depth	El	SPT (N)	Log	W	LL	PI	X	Remarks
1"=5'								
0								
				20.6	43	24		
	1080			20.3				
5			CL		45	27		
				20.8				
	1075							
10				15.9	35	19		
	1070		GC	16.8	37	20		▽ ▼
15								WEATHERED SHALE
	1065							DISCONTINUED
20								
25								
30								
35								

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

SHEET 1 OF

PROJECT JOHN SEVIER S. P. FEATURE BORROW AREA 'A'

BORING PAH-10 STATION 80+99W RANGE 1+86S SURFACE EL 1075.1

DATE DRILLED 4-27-81 TO 4-27-81 PREPARED BY JLB CHECKED BY HPM

DEPTH	EL	SPT (N)	LOG	W	LL	PI	REMARKS
1"=5'							
0	1075						
				23.7	36	14	
5	1070			24.4	34	14	▼
			CL				
10	1065			22.7	38	20	
15	1060			28.6	39	18	
							DISCONTINUED
20	1055						
25							
30							
35							

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

SHEET 1 OF 1

PROJECT JOHN SEVIER S. P. FEATURE BORROW AREA 'A'

BORING PAH-11 STATION 83+62 W RANGE 1+74 S SURFACE EL 1075.4

DATE DRILLED 4-27-81 TO 4-27-81 PREPARED BY JLB CHECKED BY HPM

DEPTH	EL	SPT (N)	LOG	W	LL	PI	REMARKS
1"=5'							
0	1075						
				24.5	37	16	
5	1070		CL	22.4	40	19	
							▼
10	1065			23.5	41	20	
							DISCONTINUED
15	1060						
20							
25							
30							
35							

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

SHEET 1 OF 1

PROJECT JOHN SEVIER S. P. FEATURE BORROW AREA 'A'

BORING PAH-12 STATION 83 + 71W RANGE 3 + 64S SURFACE EL 1071.9

DATE DRILLED 4-27-81 TO 4-27-81 PREPARED BY JLB CHECKED BY HPM

DEPTH	EL	SPT (N)	LOG	W	LL	PI	REMARKS
1"=5'							
0	1070		CL	29.1	39	15	▼
5	1065			26.4	44	24	
							DISCONTINUED
10	1060						
15							
20							
25							
30							
35							

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

SHEET 1 OF 1

PROJECT JOHN SEVIER S.P. FEATURE BORROW AREA 'A'

BORING PAH-13 STATION 86+06W RANGE 1+56 S SURFACE EL 1076.2

DATE DRILLED 4-27-81 TO 4-27-81 PREPARED BY JLB CHECKED BY HPM

DEPTH	EL	SPT (N)	LOG	W	LL	PI	REMARKS
1"=5'							
0	1075		CL	21.9	37	16	
5	1070			22.9	44	23	
10	1065			20.7	31	14	▼
							DISCONTINUED
15	1060						
20							
25							
30							
35							

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

SHEET 1 OF 1

PROJECT JOHN SEVIER S. P. FEATURE BORROW AREA 'A'

BORING PAH-14 STATION 87+28W RANGE 0+07S SURFACE ET 1074.4

DATE DRILLED 4-27-81 TO 4-27-81 PREPARED BY JLB CHECKED BY HPM

DEPTH	ET	SPT (N)	LOG	W	LL	PI	REMARKS
1"=5'							
0				24.4	35	16	
5	1070		CL	23.5	40	19	
10	1065			23.6	43	21	
							DISCONTINUED
15	1060						
20							
25							
30							
35							

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

SHEET 1 OF 1

PROJECT JOHN SEVIER S. P. FEATURE BORROW AREA 'A'

BORING PAH-15 STATION 88+80W RANGE 3+62S SURFACE EL 1071.8

DATE DRILLED 4-27-81 TO 4-27-81 PREPARED BY JLB CHECKED BY HPM

DEPTH	EL	SPT (N)	LOG	W	LL	PI	REMARKS
1"=5'							
0							
	1070		CL	22.6	35	16	
5				23.0	45	24	
	1065						DISCONTINUED
10							
	1060						
15							
20							
25							
30							
35							

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

SHEET 1 OF 1

PROJECT JOHN SEVIER S. P. FEATURE BORROW AREA 'B'

BORING PAH-1 STATION 57+53 W RANGE 16+83 S SURFACE ET 1137.2

DATE DRILLED 4-29-81 TO 4-29-81 PREPARED BY JLB CHECKED BY HPM

DEPTH	ET	SPT (N)	LOG	W	LL	PI	REMARKS
1"=5'							
0							
	1135		CL	14.1	27	9	
5				15.3	42	22	
	1130		GC				
				5.4	49	28	▽
10							
	1125		CL	32.7	46	23	
15							DISCONTINUED
	1120						
20							
25							
30							
35							

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

SHEET 1 OF 1

PROJECT JOHN SEVIER S. P. FEATURE BORROW AREA 'B'

BORING PAH-2 STATION 55 + 67W RANGE 17 + 57S SURFACE ET 1136.6

DATE DRILLED 4-29-81 TO 4-29-81 PREPARED BY JLB CHECKED BY HPM

DEPTH	ET	SPT (N)	LOG	W	LL	PI	REMARKS
1"=5'							
0	1135		CH	22.1	60	36	
5	1130		CL	23.5	49	24	▽
10	1125			17.5			DISCONTINUED
15	1120						
20							
25							
30							
35							

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

SHEET 1 OF 1

PROJECT JOHN SEVIER S. P. FEATURE BORROW AREA 'B'

BORING PAH-3 STATION 53 + 81W RANGE 18 + 32 S SURFACE ET 1140.9

DATE DRILLED 4-29-81 TO 4-29-81 PREPARED BY JLB CHECKED BY HPM

DEPTH	ET	SPT (N)	LOG	W	LL	PI	REMARKS
1"=5'							
0	1140			20.2	31	15	
5	1135		CL	24.8			
					37	19	▽
10	1130			19.9			
							DISCONTINUED
15	1125						
20							
25							
30							
35							

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

SHEET 1 OF 1

PROJECT JOHN SEVIER S. P. FEATURE BORROW AREA 'B'

BORING PAH-4 STATION 51 + 96W RANGE 19 + 06 S SURFACE EL 1138.3

DATE DRILLED 4-29-81 TO 4-29-81 PREPARED BY JLB CHECKED BY HPM

DEPTH	EL	SPT (N)	LOG	W	LL	PI	REMARKS
1"=5'							
0							
			CL	15.9	25	12	
	1135						
5				20.4			
			GC		49	28	
	1130						
10				16.9			
	1125						DISCONTINUED
15							
20							
25							
30							
35							

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

SHEET 1 OF

PROJECT JOHN SEVIER S. P. FEATURE BORROW AREA 'B'

BORING PAH-5 STATION 50 + 10W RANGE 19 + 80S SURFACE EL 1134.8

DATE DRILLED 4-29-81 TO 4-29-81 PREPARED BY JLB CHECKED BY HPM

DEPTH	EL	SPT (N)	LOG	W	LL	PI	REMARKS
1"=5'							
0							
				18.8	25	12	
	1135		CL				
5				18.2	32	20	
	1130						DISCONTINUED
10							
	1125						
15							
20							
25							
30							
35							

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

SHEET 1 OF 1

PROJECT JOHN SEVIER S. P. FEATURE BORROW AREA 'B'

BORING PAH-6 STATION 48 + 24 W RANGE 20 + 54 S SURFACE EL 1130.4

DATE DRILLED 4-29-81 TO 4-29-81 PREPARED BY JLB CHECKED BY HPM

DEPTH	EL	SPT (N)	LOG	W	LL	PI	REMARKS
1"=5'							
0	1130						LIMESTONE GRAVEL ROADBED
5	1125		CL	17 2	32	20	▽
10	1120						BEDROCK
15							
20							
25							
30							
35							

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

SHEET 1 OF 1

PROJECT JOHN SEVIER S. P. FEATURE BORROW AREA 'B'

BORING PAH-7 STATION 46 + 38W RANGE 21 + 28S SURFACE ET 1129.8

DATE DRILLED 4-29-81 TO 4-29-81 PREPARED BY JLB CHECKED BY HPM

DEPTH	ET	SPT (N)	LOG	W	LL	PI	REMARKS
1"=5'							
0							
				16.0	39	16	
			CL	16.3	37	19	
5	1125						
				21.3	49	24	
10	1120						DISCONTINUED
15	1115						
20							
25							
30							
35							

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

SHEET 1 OF 1

PROJECT JOHN SEVIER S. P. FEATURE BORROW AREA 'B'

BORING SS-8 STATION 44 + 53W RANGE 22+02S SURFACE ET 1131.1

DATE DRILLED 4-27-81 TO 4-27-81 PREPARED BY JLB CHECKED BY HPM

DEPTH	ET	SPT (N)	LOG	W	LL	PI	REMARKS
1"=5'							
0	1130		CH	33.3	60	36	
5	1125		CL	37.4	49	24	▽
10	1120			36.4	46	23	
							DISCONTINUED
15	1115						
20							
25							
30							
35							

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

SHEET 1 OF 1

PROJECT JOHN SEVIER S. P. FEATURE BORROW AREA 'B'

BORING PAH-9 STATION 42 + 67W RANGE 22 + 76 S SURFACE ET 1129.5

DATE DRILLED 4-29-81 TO 4-29-81 PREPARED BY JLB CHECKED BY HPM

DEPTH	ET	SPT (N)	LOG	W	LL	PI	REMARKS
1"=5'							
0							
				17.6	31	15	▽
	1125		CL				
5				21.7	46	23	
							DISCONTINUED
10	1120						
15	1115						
20							
25							
30							
35							

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

SHEET 1 OF 1

PROJECT JOHN SEVIER S.P. FEATURE BORROW AREA 'B'

BORING PAH-10 STATION 40+81W RANGE 23+50S SURFACE EL 1137.9

DATE DRILLED 4-30-81 TO 4-30-81 PREPARED BY JLB CHECKED BY HRM

DEPTH	EL	SPT (N)	LOG	W	LL	PI	REMARKS
1"=5'							
0							
	1135		CL	20.8	31	15	
				21.3			
5					46	23	
	1130			21.1			
10							DISCONTINUED
	1125						
15							
20							
25							
30							
35							

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

SHEET 1 OF 1

PROJECT JOHN SEVIER S. P. FEATURE BORROW AREA 'B'

BORING PAH-11 STATION 56 + 79W RANGE 14 + 98S SURFACE EL 1130.9

DATE DRILLED 4-30-81 TO 4-30-81 PREPARED BY JLB CHECKED BY HPM

DEPTH	EL	SPT (N)	LOG	W	LL	PI	REMARKS
1"=5'							
0	1130		ML	25.9	39	9	
			CL	23.0	48	23	
5	1125		SM-SC	25.8			
					53	25	
10	1120			26.7			
15	1115						WEATHERED ROCK
							BEDROCK
20	1110						
25							
30							
35							

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

SHEET 1 OF 1

PROJECT JOHN SEVIER S. P. FEATURE BORROW AREA 'B'

BORING PAH-12 STATION 54 + 93W RANGE 15 +72S SURFACE ET 1121.5

DATE DRILLED 5-4-81 TO 5-4-81 PREPARED BY JLB CHECKED BY HPM

DEPTH	ET	SPT (N)	LOG	W	LL	PI	REMARKS
1"=5'							
0	1120		CL	16.3	25	12	
							HEAVY GRAVEL
5	1115		CH MH	26.1	52	23	
10	1110		CL	18.9	40	18	
							BEDROCK
15	1105						
20							
25							
30							
35							

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

SHEET 1 OF 1

PROJECT JOHN SEVIER S. P. FEATURE BORROW AREA 'B'

BORING PAH-13 STATION 53 + 07W RANGE 16 + 46S SURFACE EL 1131.3

DATE DRILLED 5-4-81 TO 5-4-81 PREPARED BY JLB CHECKED BY HPM

DEPTH	EL	SPT (N)	LOG	W	LL	PI	REMARKS
1"=5'							
0	1130			12.5	31	15	
5	1125		CL	35.2	49	24	
10	1120			34 4	46	23	
							DISCONTINUED
15	1115						
20							
25							
30							
35							

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

SHEET 1 OF 1

PROJECT JOHN SEVIER S. P. FEATURE BORROW AREA 'B'

BORING PAH-14 STATION 51+22W RANGE 17+20S SURFACE ET 1139.4

DATE DRILLED 5-4-81 TO 5-4-81 PREPARED BY JLB CHECKED BY HPM

DEPTH	ET	SPT (N)	LOG	W	LL	PI	REMARKS
1"=5'							
0							
				20.2	25	12	
	1135						
5			CL	23.0	37	19	
	1130						
10				23.4	37	19	▽
							DISCONTINUED
	1125						
15							
20							
25							
30							
35							

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

SHEET 1 OF 1

PROJECT JOHN SEVIER S. P. FEATURE BORROW AREA 'B'

BORING PAH-15 STATION 49 + 36S RANGE 17 + 94S SURFACE ET 1136.5

DATE DRILLED 5-4-81 TO 5-4-81 PREPARED BY JLB CHECKED BY HPM

DEPTH	ET	SPT (N)	LOG	W	LL	PI	REMARKS
1"=5'							
0			TC				
	1135		ML	24.0	39	9	
5			CL	23.3			
	1130						
10				10.5	37	19	
	1125		CL-CH	29.2			
15							
	1120						BEDROCK
20							
	1115						
25							
30							
35							

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

SHEET 1 OF 1

PROJECT JOHN SEVIER S. P. FEATURE BORROW AREA 'B'

BORING PAH-16 STATION 47+50W RANGE 18+685 SURFACE EL 1135.8

DATE DRILLED 5-5-81 TO 5-5-81 PREPARED BY JLB CHECKED BY HPM

DEPTH	EL	SPT (N)	LOG	W	LL	PI	REMARKS
1"=5'							
0	1135		TS				
			CL	22.5	27	9	
				21.2	37	19	
5	1130						
			GC	10.6	34	17	
10	1125						
			CL	31.3	46	23	
15	1120						BEDROCK
20	1115						
25							
30							
35							

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

SHEET 1 OF 1

PROJECT JOHN SEVIER S.P. FEATURE BORROW AREA 'B'

BORING PAH-17 STATION 45+64W RANGE 19+42S SURFACE ET 1131.7

DATE DRILLED 5-5-81 TO 5-5-81 PREPARED BY JLB CHECKED BY HPM

DEPTH	ET	SPT (N)	LOG	W	LL	PI	REMARKS
1"=5'							
0							
	1130		CL	17.6	36	15	
				19.7	46	23	
5							
	1125		CL-ML	15.7	22	7	
10							DISCONTINUED
	1120						
15							
20							
25							
30							
35							

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

SHEET 1 OF 1

PROJECT JOHN SEVIER S. P. FEATURE BORROW AREA 'B'

BORING PAH-19 STATION 41 + 93 W RANGE 20 + 91 S SURFACE ET 1129.8

DATE DRILLED 4-30-81 TO 4-30-81 PREPARED BY JLB CHECKED BY HPM

DEPTH	ET	SPT (N)	LOG	W	LL	PI	REMARKS
1"=5'							
0			CL	11.6	36	16	
							GRAVEL LAYER
5	1125		CL	29.3	49	24	
10	1120		CH MH	28.5	52	23	
							DISCONTINUED
15	1115						
20							
25							
30							
35							

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

SHEET 1 OF 1

PROJECT JOHN SEVIER S. P. FEATURE BORROW AREA 'B'

BORING PAH-20 STATION 40 + 12W RANGE 21 + 63S SURFACE ET 1134.3

DATE DRILLED 4-30-81 TO 4-30-81 PREPARED BY JLB CHECKED BY HPM

DEPTH	ET	SPT (N)	LOG	W	LL	PI	REMARKS
1"=5'							
0			CL	15.1	36	16	
5	1130		CL-CH	21.7	50	27	
10	1125		CL	30.6	46	23	
							BEDROCK
15	1120						
20							
25							
30							
35							

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

SHEET 1 OF 3

PROJECT JOHN SEVIER S. P. FEATURE BORROW AREA 'B'

BORING PAH-21 STATION 56+05W RANGE 13+12S SURFACE ET 1124.4

DATE DRILLED 5-4-81 TO 5-4-81 PREPARED BY JLB CHECKED BY HPM

DEPTH	ET	SPT (N)	LOG	W	LL	PI	REMARKS
1"=5'							
0			CL	17.1	31	15	
5	1130		CL-CH	34.1	50	27	
10	1125			41.3			
							DISCONTINUED
15	1120						
20							
25							
30							
35							

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

SHEET 1 OF 1

PROJECT JOHN SEVIER S. P. FEATURE BORROW AREA 'B'

BORING PAH-22 STATION 54 + 19W RANGE 13 + 86 S SURFACE EL 1125.2

DATE DRILLED 5-4-81 TO 5-4-81 PREPARED BY JLB CHECKED BY HPM

DEPTH	EL	SPT (N)	LOG	W	LL	PI	REMARKS
1"=5'							
0	1125		CL	41.6	36	15	
5	1120		CH-MH	38.5	52	23	
10	1115			35.6			
							DISCONTINUED
15	1110						
20							
25							
30							
35							

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

SHEET 1 OF 1

PROJECT JOHN SEVIER S.P. FEATURE BORROW AREA 'B'

BORING PAH-23 STATION 52 + 33W RANGE 14 + 60S SURFACE EL 1117.7

DATE DRILLED 5-4-81 TO 5-4-81 PREPARED BY JLB CHECKED BY HPM

DEPTH	EL	SPT (N)	LOG	W	LL	PI	REMARKS
1"=5'							
0							
	1115		CL	30.2	39	16	
5				34.0	46	23	
	1110						DISCONTINUED
10							
	1105						
15							
20							
25							
30							
35							

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

SHEET 1 OF 1

PROJECT JOHN SEVIER S. P. FEATURE BORROW AREA 'B'

BORING PAH-24 STATION 50 + 47W RANGE 15 + 34 S SURFACE EL 1129.8

DATE DRILLED 5-4-81 TO 5-4-81 PREPARED BY JLB CHECKED BY HPM

DEPTH	EL	SPT (N)	LOG	W	LL	PI	REMARKS
1"=5'							
0			SC	16.6	32	15	
5	1125		CL	28.7	48	23	
10	1120		CHMH	26.5	58	28	
15	1115			29.0	52	23	
							DISCONTINUED
20	1110						
25							
30							
35							

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

SHEET 1 OF 1

PROJECT JOHN SEVIER S. P. FEATURE BORROW AREA 'B'

BORING PAH-25 STATION 48 + 62W RANGE 16 + 08S SURFACE EL 1122.0

DATE DRILLED 5-4-81 TO 5-4-81 PREPARED BY JLB CHECKED BY HPM

DEPTH	EL	SPT (N)	LOG	W	LL	PI	REMARKS
1"=5'							
0							
	1120		CL	31.2	36	16	
5				32.6			
	1115		CH-MH		58	28	
10				31.1			
	1110						
							BEDROCK
15							
	1105						
20							
25							
30							
35							

TENNESSEE VALLEY AUTHORITY
SINGLETON MATERIALS ENGINEERING LABORATORY
SOIL PROFILE (SS, PA, HA, TP BORING)

SHEET 1 OF 1

PROJECT JOHN SEVIER S. P. FEATURE BORROW AREA 'B'

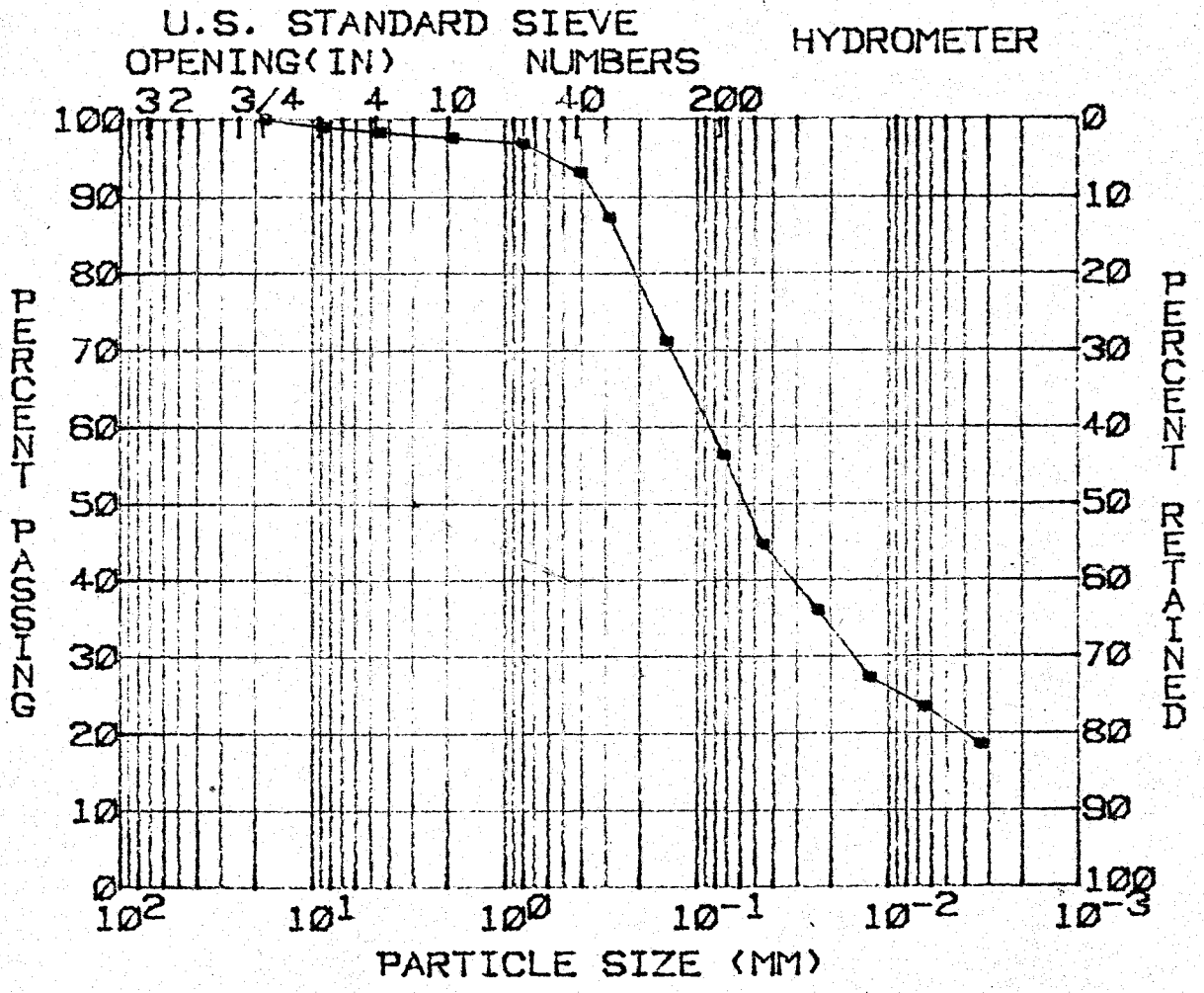
BORING PAH-26 STATION 46 +76W RANGE 16 +82 S SURFACE ET 1122.8

DATE DRILLED 5-5-81 TO 5-5-81 PREPARED BY JLB CHECKED BY HPM

DEPTH	ET	SPT (N)	LOG	W	LL	PI	REMARKS
1"=5'							
0							
			CL	22.6	39	16	
	1120						
5				29.7			
	1115						
10			CH/MH	28.6	52	23	
	1110						
15				29 2			
	1105						
							DISCONTINUED
20							
	1100						
25							
30							
35							

TVA SINGLETON MATERIALS ENGINEERING LABORATORY
PARTICLE SIZE ANALYSIS

PROJECT:JOHN SEVIER S.P. BORING:US-1
FEATURE:ASH DIKE EL. :1094.4
STATION: SAMPLE:1
RANGE : DATE :3-24-81



GRAVEL(%)= 1
SAND(%) =42
SILT(%) =35
CLAY(%) =22

D10(MM) =--
D30(MM) =--
D60(MM) =--
COEF UNIF=--

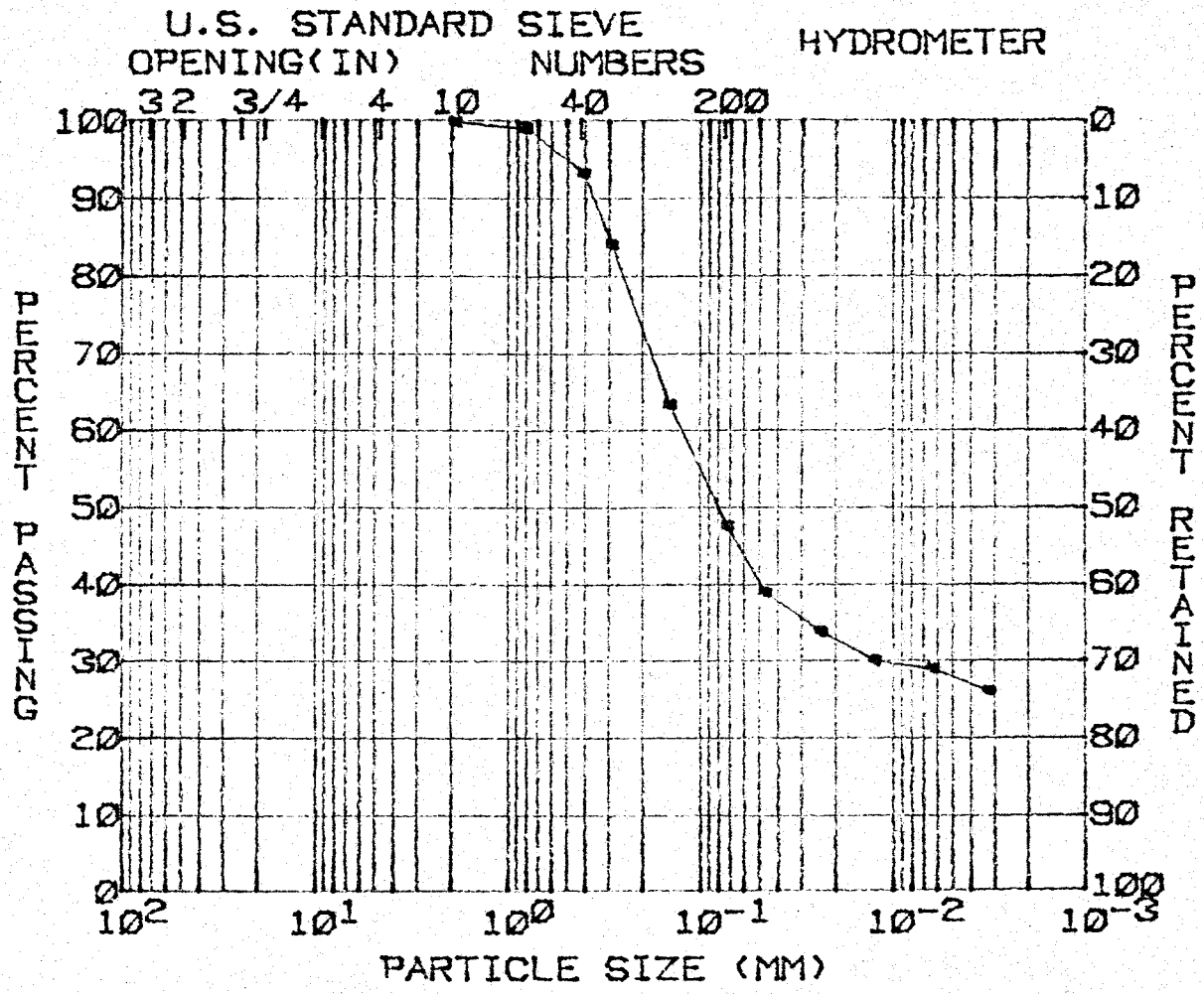
SOIL SYMBOL=CL-ML
MOISTURE(%)=13.5
SP. GR. =2.69

L.L.(%) = 19
P.I.(%) = 6

REMARKS:

TVA SINGLETON MATERIALS ENGINEERING LABORATORY
PARTICLE SIZE ANALYSIS

PROJECT:JOHN SEVIER S.P. BORING:US-1
FEATURE:ASH DIKE EL. :
STATION: SAMPLE:2
RANGE : DATE :3-24-81



GRAVEL(%)= 0
SAND(%) =52
SILT(%) =20
CLAY(%) =28

D10(MM) = 0.0001
D30(MM) = 0.0110
D60(MM) = 0.1271
COEF UNIF> 100

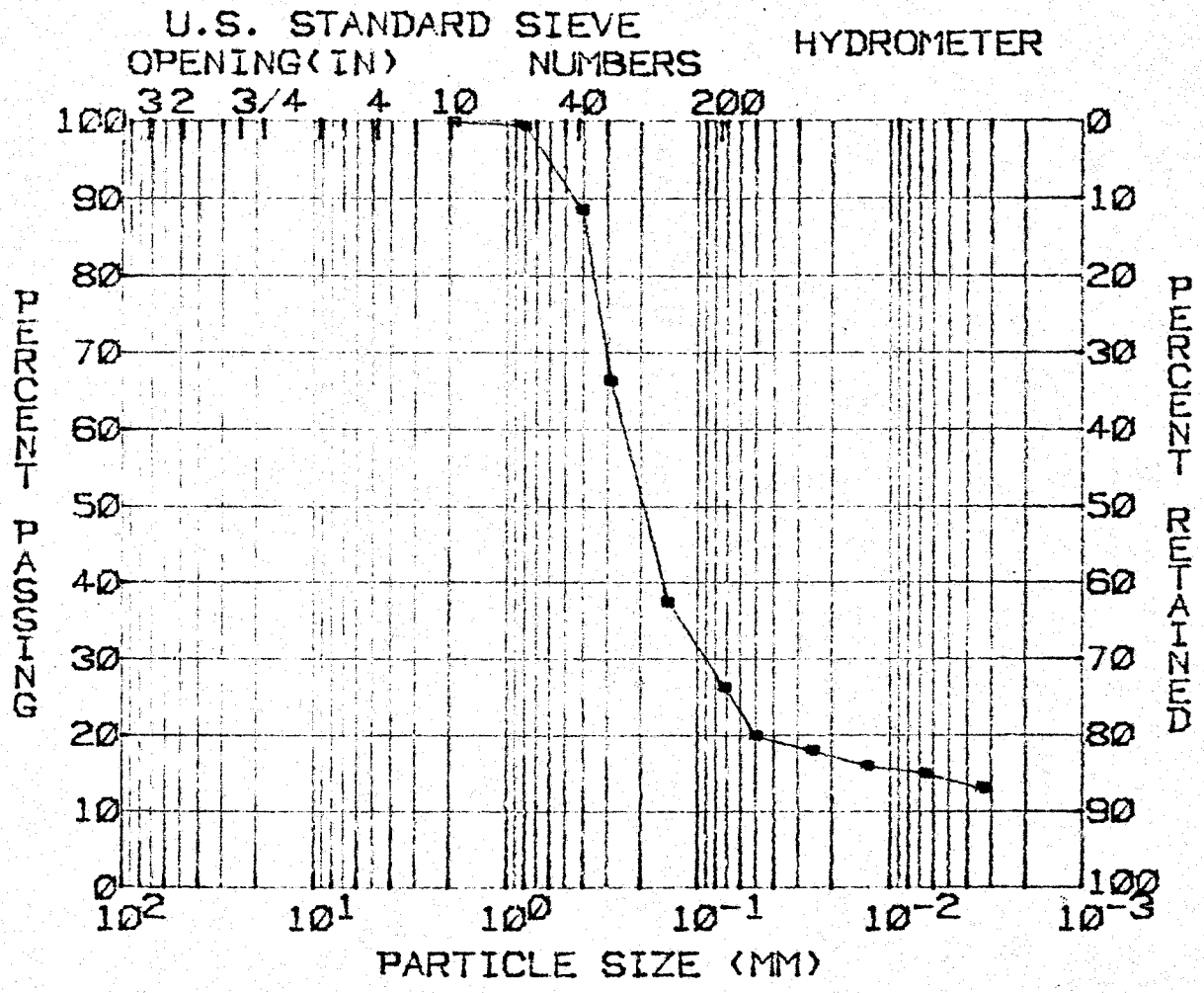
SOIL SYMBOL=SC
MOISTURE(%)=21.5
SP. GR. =2.67

L.L.(%) = 39
P.I.(%) = 22

REMARKS:

TVA SINGLETON MATERIALS ENGINEERING LABORATORY
PARTICLE SIZE ANALYSIS

PROJECT:JOHN SEVIER S.P. BORING:US-1
FEATURE:ASH DIKE EL. :
STATION: SAMPLE:3
RANGE : DATE :3-24-81



GRAVEL(%)= 0
SAND(%) =73
SILT(%) =12
CLAY(%) =15

D10(MM) = 0.0012
D30(MM) = 0.0931
D60(MM) = 0.2561
COEF UNIF) 100

SOIL SYMBOL=SC
MOISTURE(%)=15.9
SP. GR. =2.67

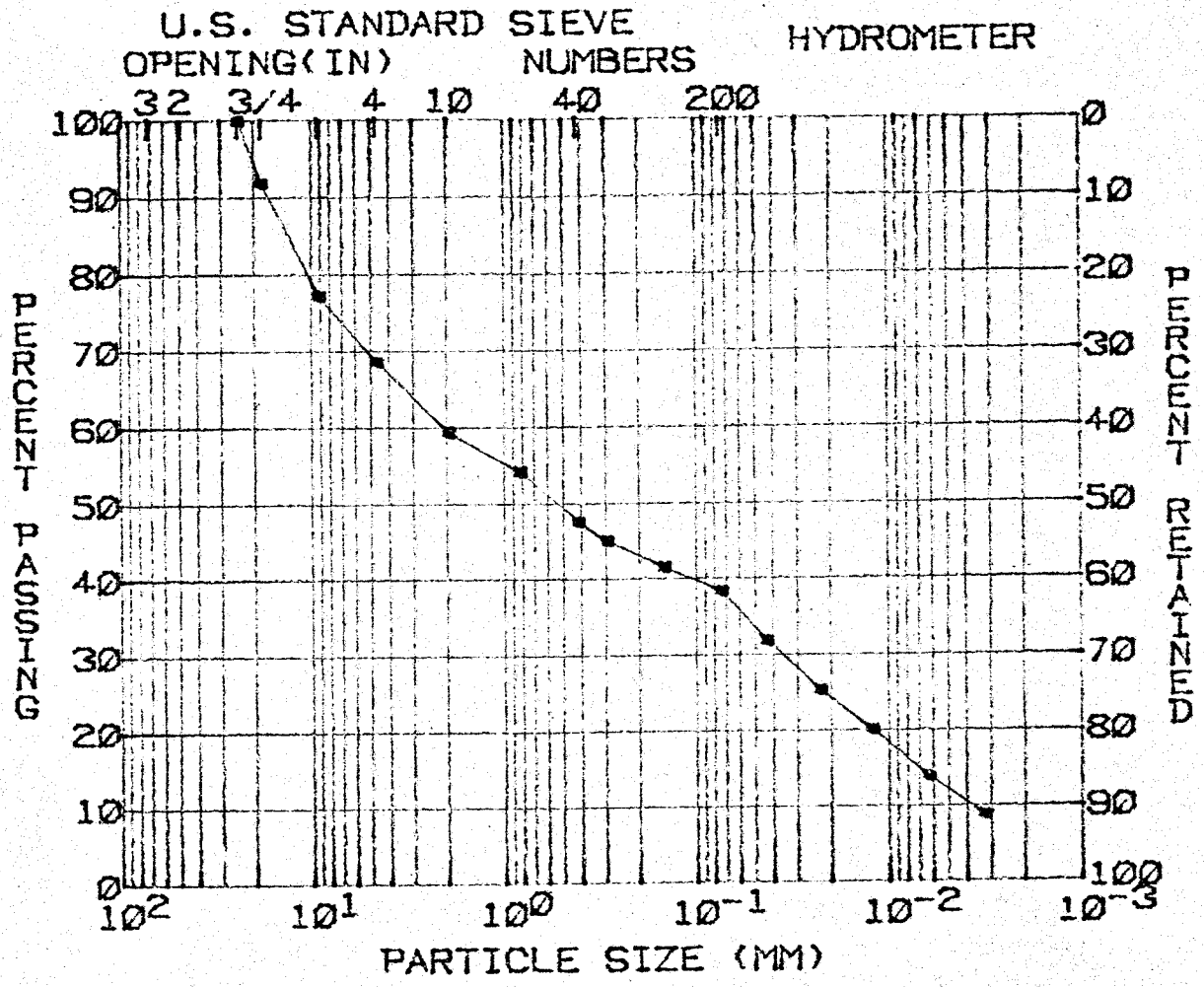
L.L.(%) = 28
P.I.(%) = 10

REMARKS:

TVA SINGLETON MATERIALS ENGINEERING LABORATORY
PARTICLE SIZE ANALYSIS

PROJECT:JOHN SEVIER S.P.
FEATURE:ASH DIKE
STATION:
RANGE :

BORING:US-1
EL. :
SAMPLE:4
DATE :3-24-81



GRAVEL(%)=31
SAND(%) =31
SILT(%) =26
CLAY(%) =12

SOIL SYMBOL=GM
MOISTURE(%)=29.4
SP. GR. =2.82

D10(MM) = 0.0037
D30(MM) = 0.0354
D60(MM) = 2.0069
COEF UNIF> 100

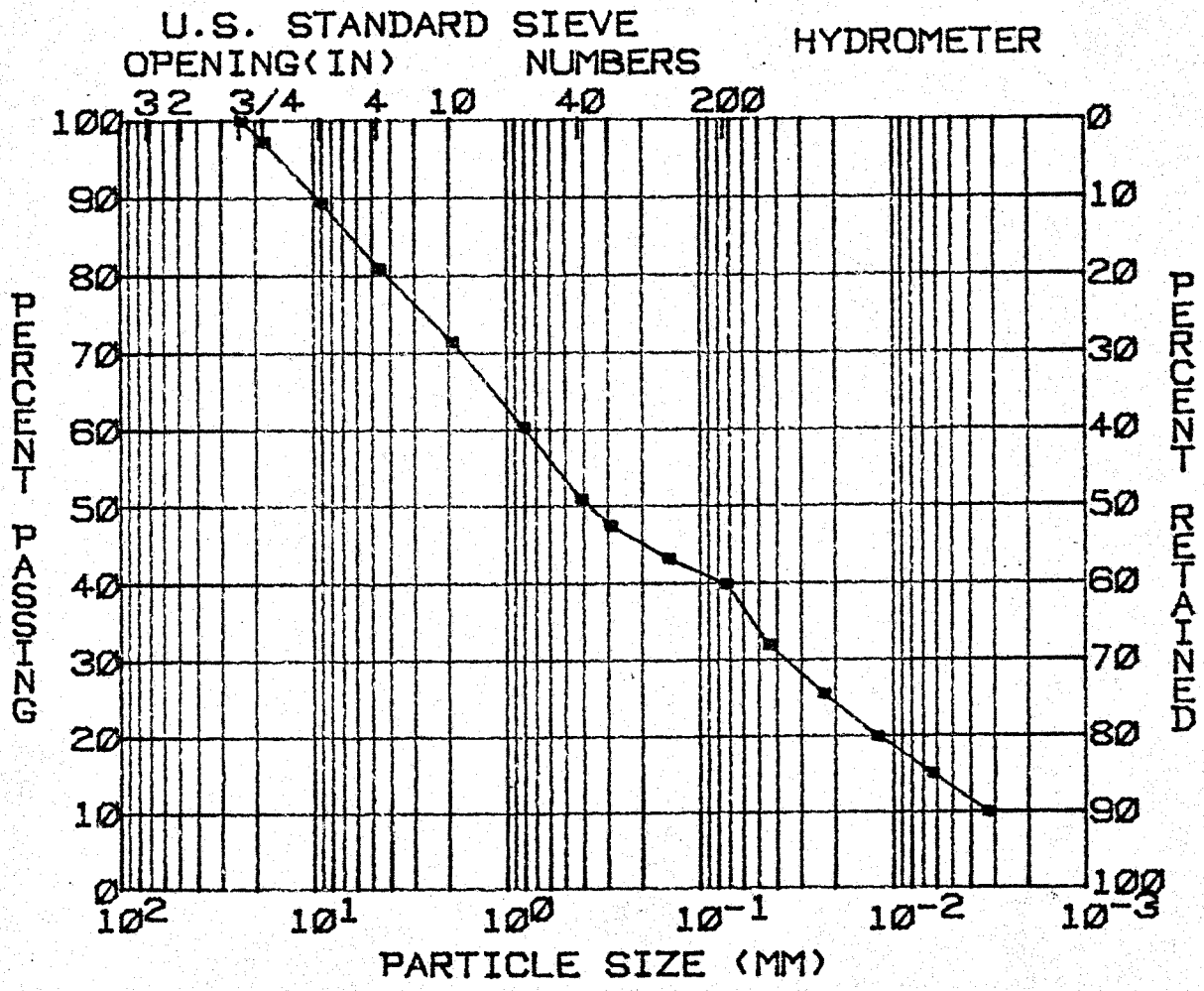
L.L.(%) = 45
P.I.(%) = 15

REMARKS:

TVA SINGLETON MATERIALS ENGINEERING LABORATORY
PARTICLE SIZE ANALYSIS

PROJECT:JOHN SEVIER S.P.
FEATURE:ASH DIKE
STATION:
RANGE :

BORING:US-1
EL. :
SAMPLE:5
DATE :3-24-81



GRAVEL(%)=18
SAND(%) =41
SILT(%) =27
CLAY(%) =14

D10(MM) = 0.0032
D30(MM) = 0.0359
D60(MM) = 0.7996
COEF UNIF> 100

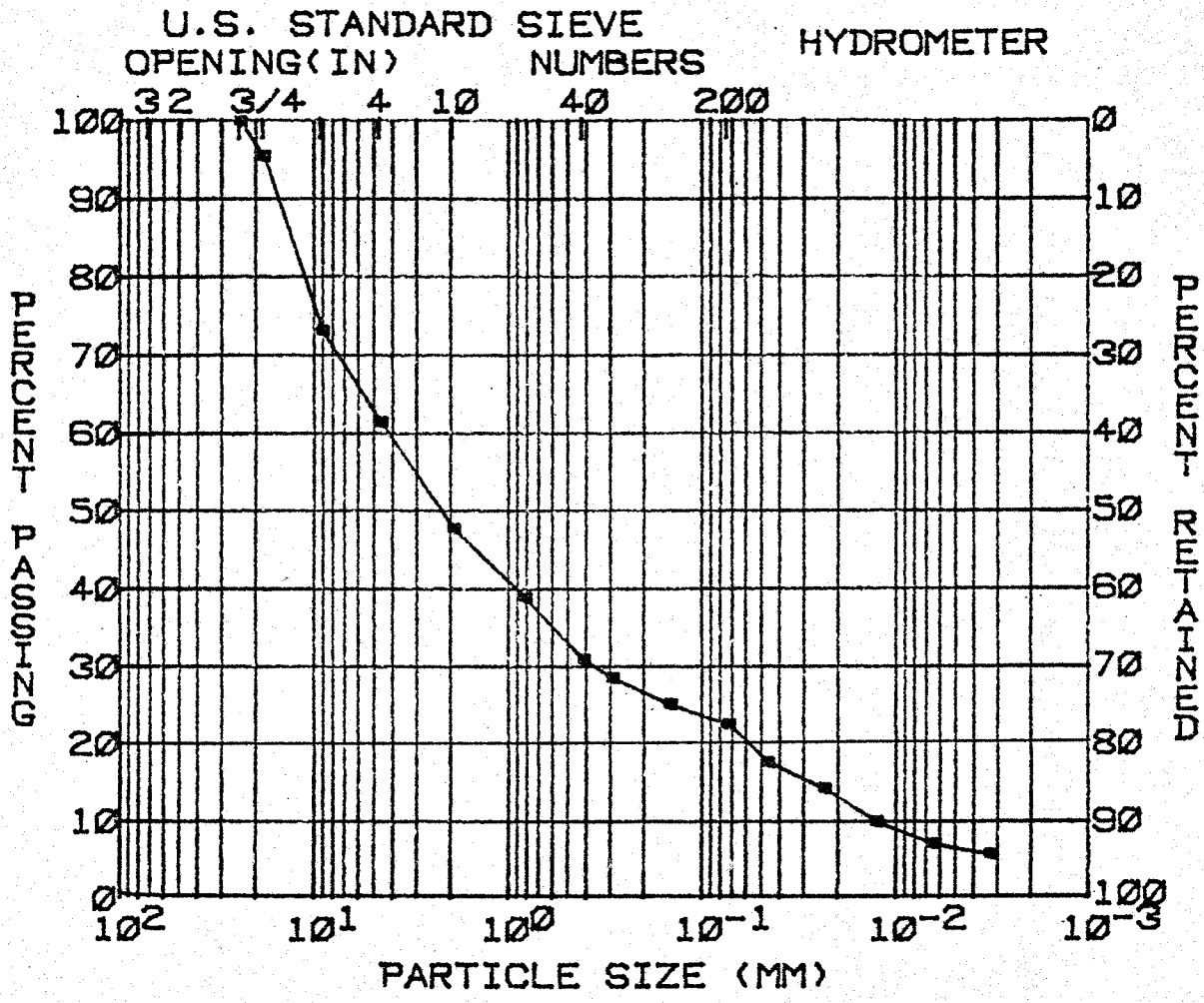
SOIL SYMBOL=SM-SC
MOISTURE(%)=27.8
SP. GR. =2.80

L.L.(%) = 39
P.I.(%) = 13

REMARKS:

TVA SINGLETON MATERIALS ENGINEERING LABORATORY
PARTICLE SIZE ANALYSIS

PROJECT:JOHN SEVIER S.P. BORING:US-1
FEATURE:ASH DIKE EL. :
STATION: SAMPLE:6
RANGE : DATE :3-24-81



GRAVEL(%)=38
SAND(%) =39
SILT(%) =16
CLAY(%) = 7

D10(MM) = 0.0121
D30(MM) = 0.3451
D60(MM) = 4.1421
COEF UNIF) 100

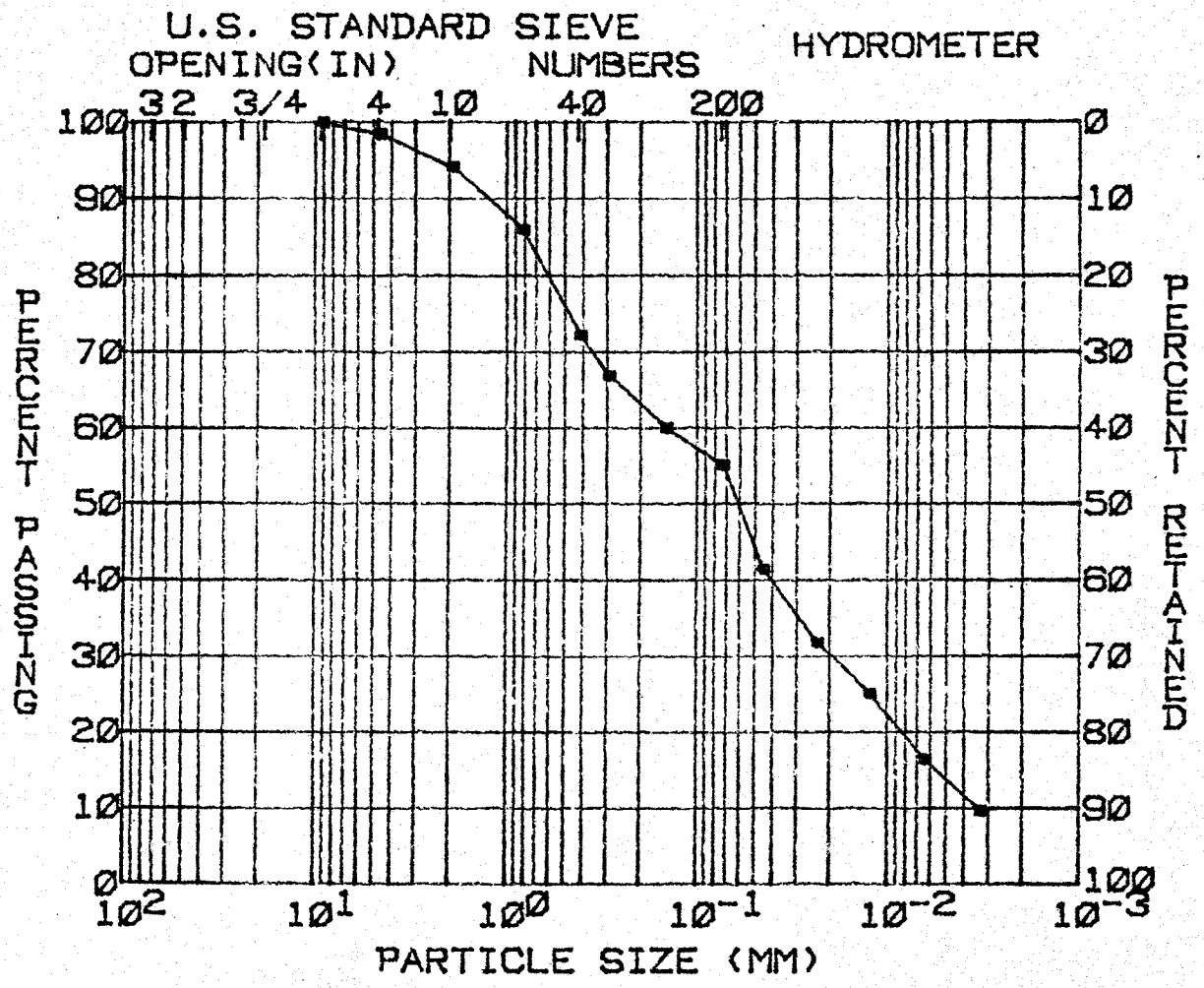
SOIL SYMBOL=SM-SC
MOISTURE(%)=24.1
SP. GR. =2.79

L.L.(%) = 39
P.I.(%) = 13

REMARKS:

TVA SINGLETON MATERIALS ENGINEERING LABORATORY
PARTICLE SIZE ANALYSIS

PROJECT:JOHN SEVIER S.P. BORING:US-1
FEATURE:ASH DIKE EL. :
STATION: SAMPLE:7
RANGE : DATE :3-24-81



GRAVEL(%)= 1
SAND(%) =44
SILT(%) =41
CLAY(%) =14

D10(MM) =--
D30(MM) =--
D60(MM) =--
COEF UNIF=--

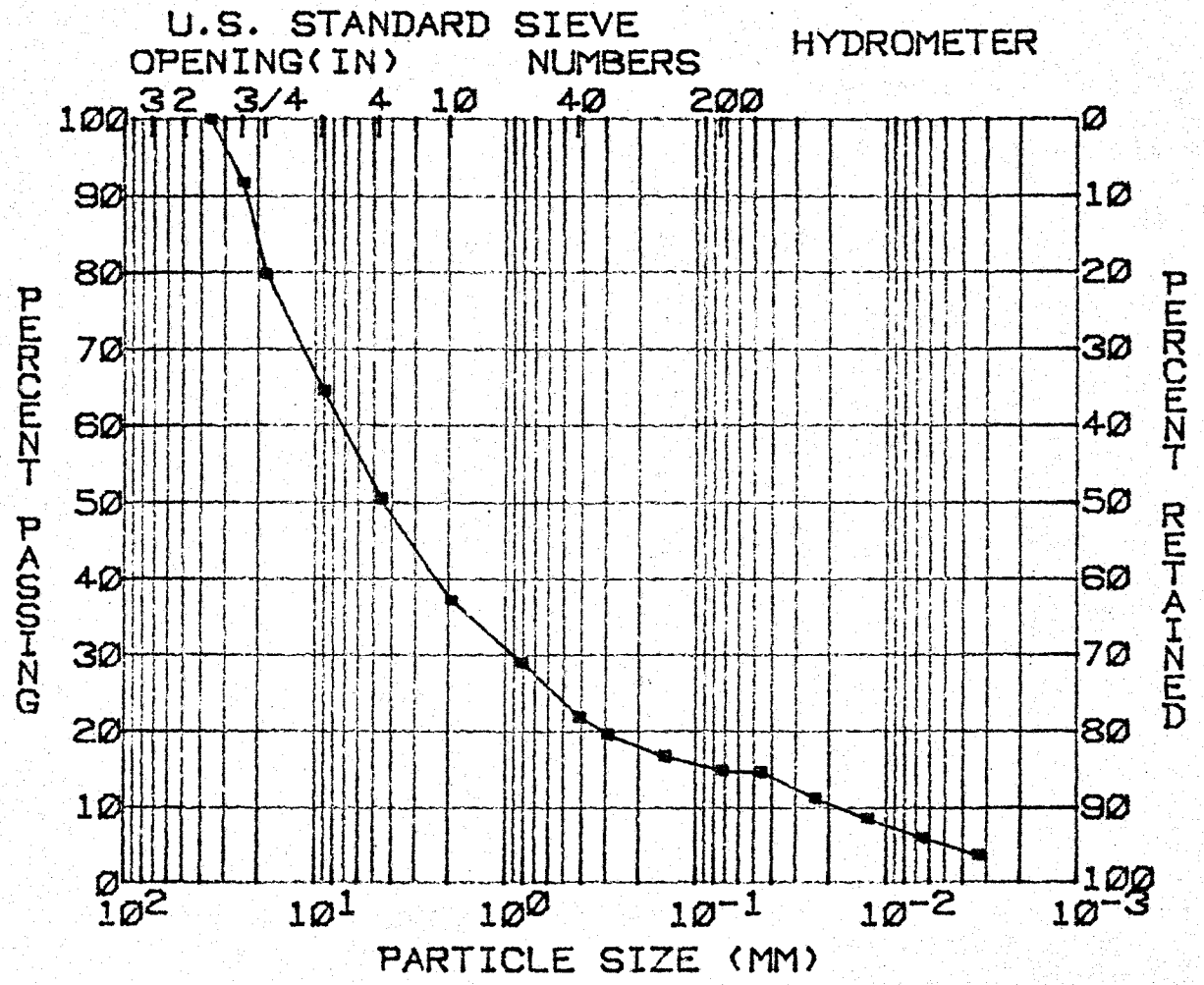
SOIL SYMBOL=CL-ML
MOISTURE(%)=27.9
SP. GR. =2.80

L.L.(%) = 41
P.I.(%) = 16

REMARKS:

TVA SINGLETON MATERIALS ENGINEERING LABORATORY
PARTICLE SIZE ANALYSIS

PROJECT:JOHN SEVIER S.P. BORING:US-1
FEATURE:ASH DIKE EL. :
STATION: SAMPLE:8
RANGE : DATE :3-24-81



GRAVEL(%)=49
SAND(%) =36
SILT(%) =10
CLAY(%) = 5

D10(MM) = 0.0170
D30(MM) = 0.8846
D60(MM) = 7.2941
COEF UNIF) 100

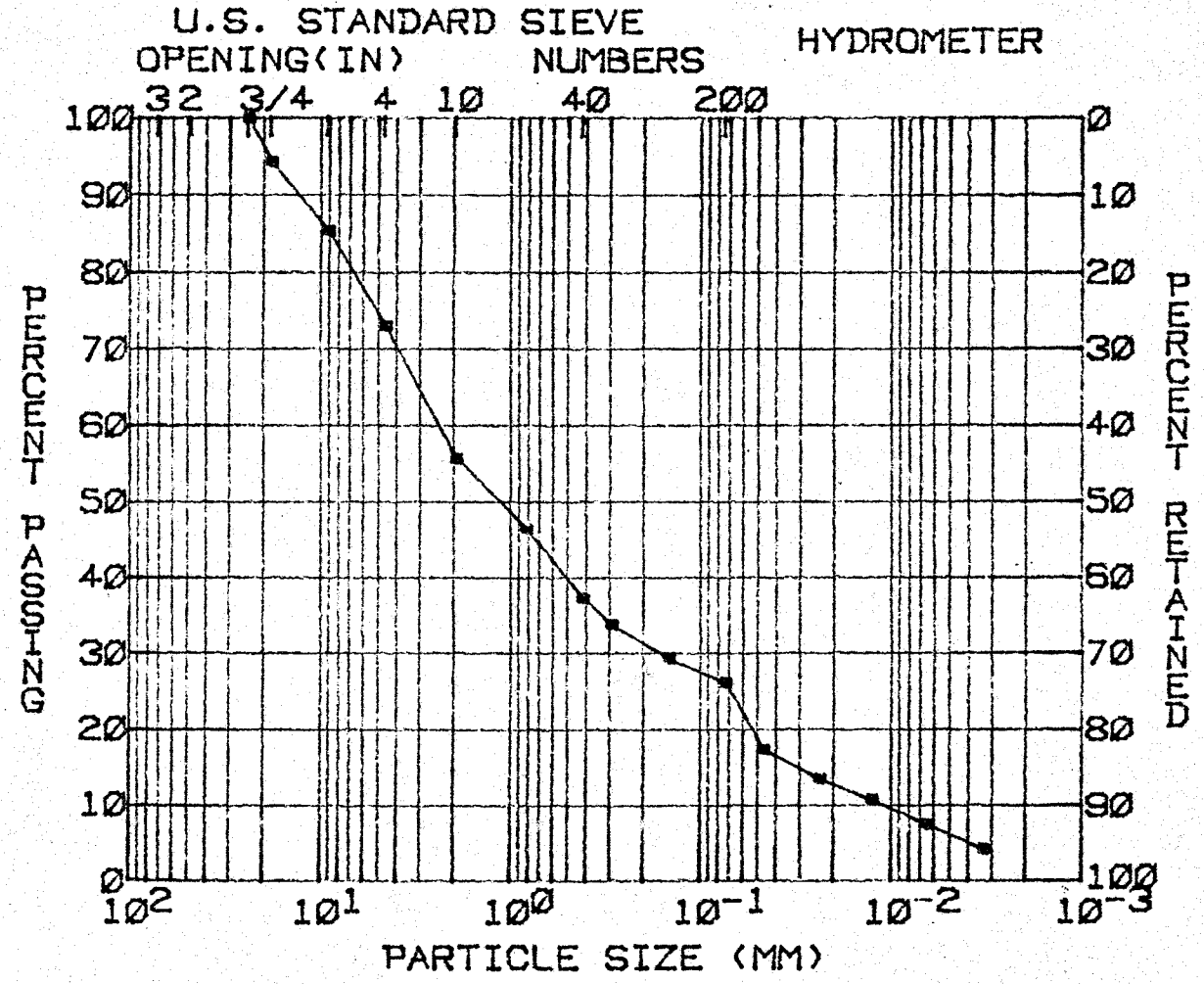
SOIL SYMBOL=GM-GC
MOISTURE(%)=24.3
SP. GR. =2.78

L.L.(%) = 37
P.I.(%) = 13

REMARKS:

TVA SINGLETON MATERIALS ENGINEERING LABORATORY
PARTICLE SIZE ANALYSIS

PROJECT:JOHN SEVIER S.P. BORING:US-1
FEATURE:ASH DIKE EL. :
STATION: SAMPLE:9
RANGE : DATE :3-24-81



GRAVEL(%)=26
SAND(%) =47
SILT(%) =20
CLAY(%) = 7

D10(MM) = 0.0099
D30(MM) = 0.1474
D60(MM) = 2.3796
COEF UNIF) 100

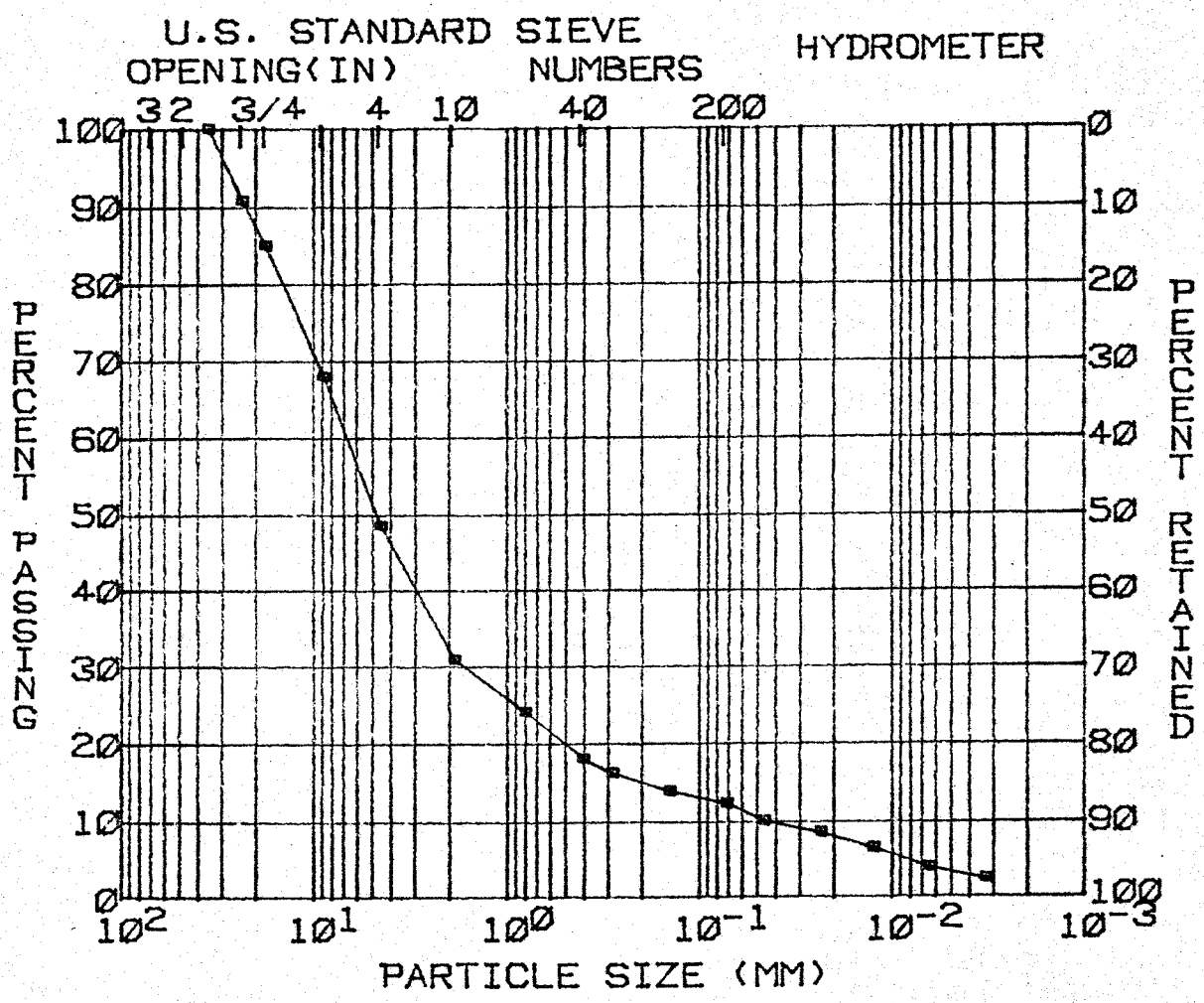
SOIL SYMBOL=SM-SC
MOISTURE(%)=23.7
SP. GR. =2.80

L.L.(%) = 36
P.I.(%) = 12

REMARKS:

TVA SINGLETON MATERIALS ENGINEERING LABORATORY
PARTICLE SIZE ANALYSIS

PROJECT:JOHN SEVIER S.P. BORING:US-1
FEATURE:ASH DIKE EL. :
STATION: SAMPLE:1Ø
RANGE : DATE :3-25-81



GRAVEL(%)=5Ø
SAND(%) =37
SILT(%) = 9
CLAY(%) = 4

D1Ø(MM) = Ø.Ø379
D3Ø(MM) = 1.5434
D6Ø(MM) = 6.9246
COEF UNIF> 1ØØ

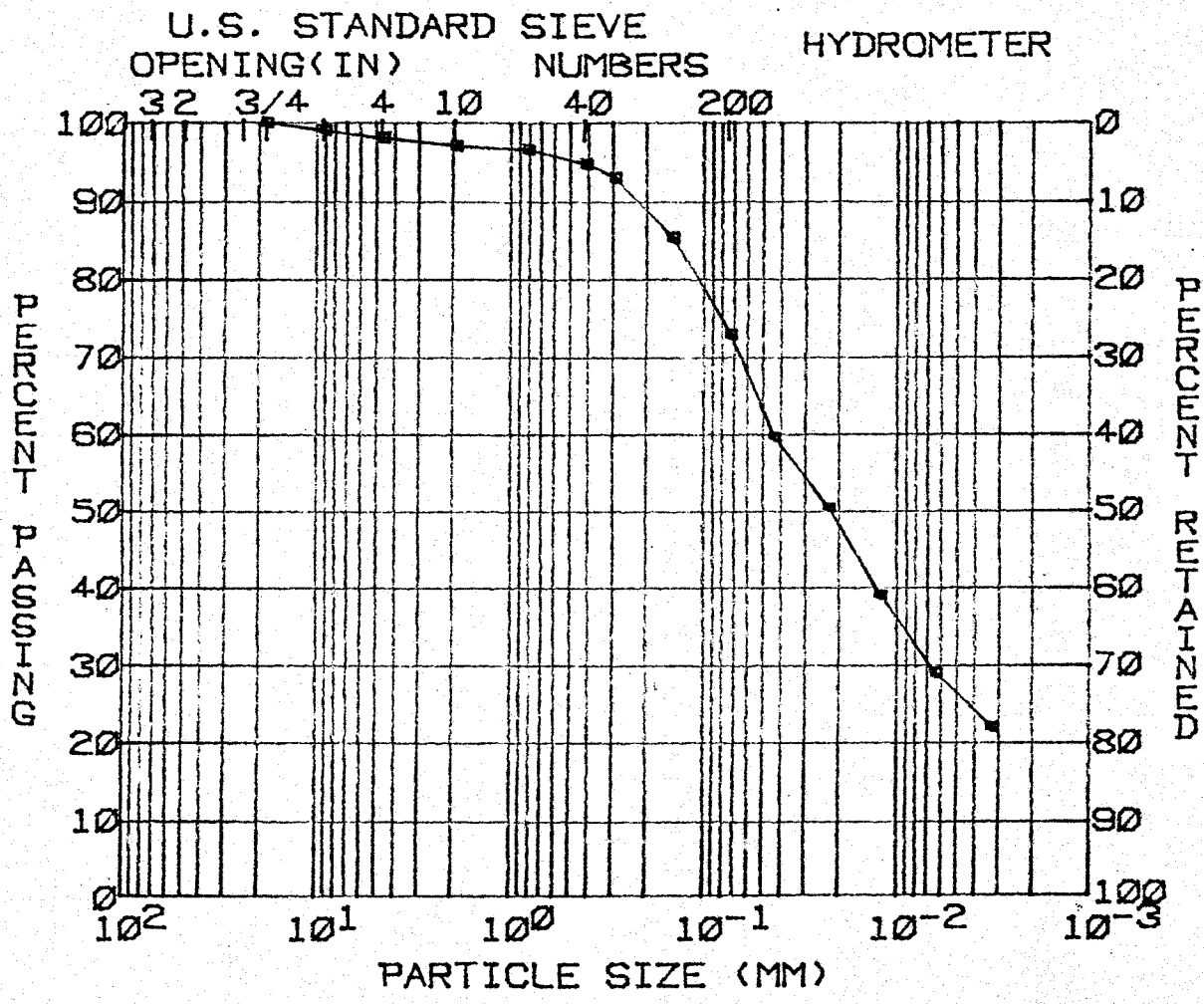
SOIL SYMBOL=GM-GC
MOISTURE(%)=24.3
SP. GR. =2.76

L.L.(%) = 36
P.I.(%) = 12

REMARKS:

TVA SINGLETON MATERIALS ENGINEERING LABORATORY
PARTICLE SIZE ANALYSIS

PROJECT:JOHN SEVIER S.P. BORING:US-4
FEATURE:ASH DIKE EL. :
STATION: SAMPLE:1
RANGE : DATE :3-25-81



GRAVEL(%)= 1
SAND(%) =26
SILT(%) =47
CLAY(%) =26

D10(MM) =--
D30(MM) =--
D60(MM) =--
COEF UNIF=--

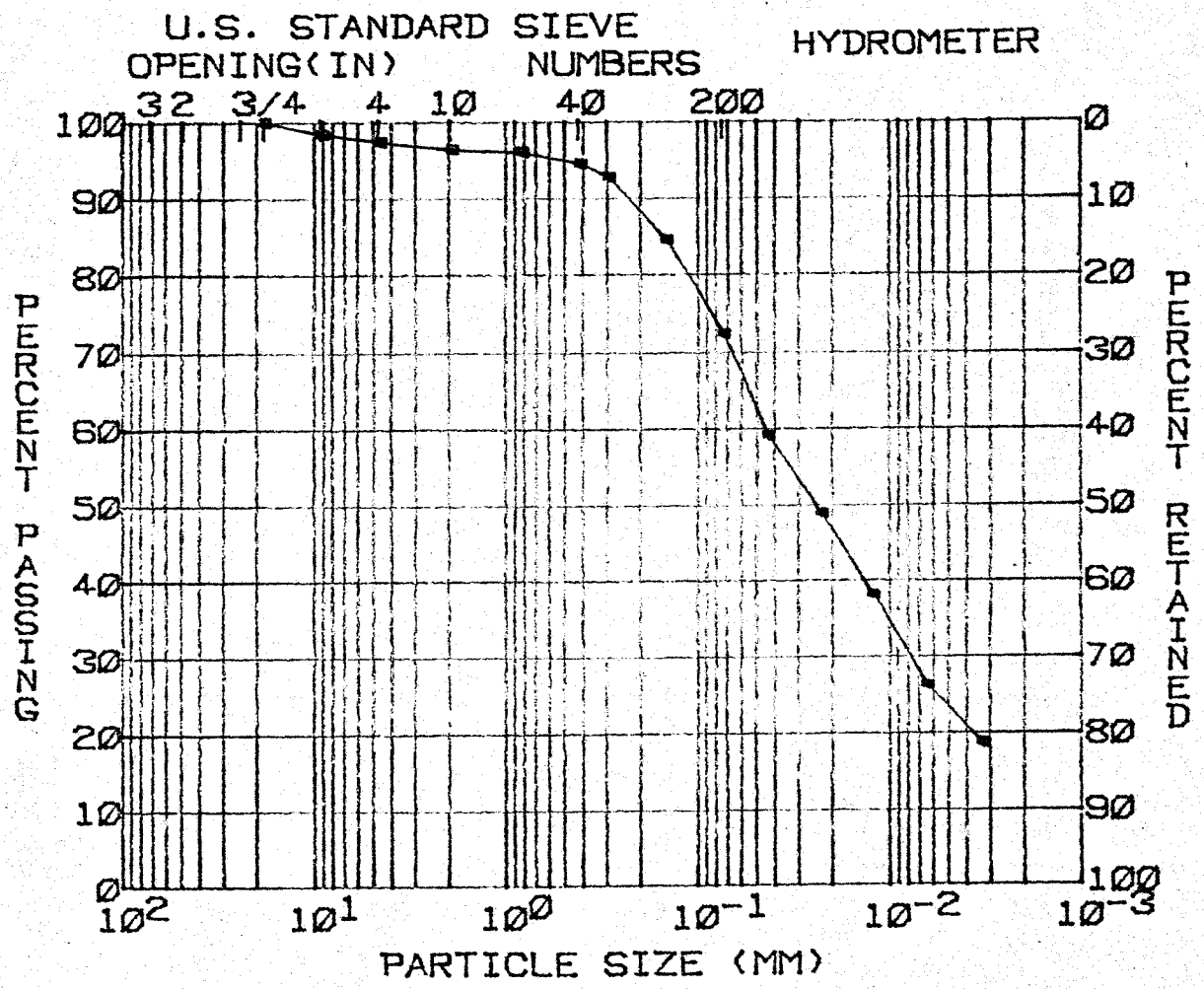
SOIL SYMBOL=CL
MOISTURE(%)=17.9
SP. GR. =2.67

L.L.(%) = 31
P.I.(%) = 15

REMARKS:

TVA SINGLETON MATERIALS ENGINEERING LABORATORY
PARTICLE SIZE ANALYSIS

PROJECT:JOHN SEVIER S.P. BORING:US-4
FEATURE:ASH DIKE EL. :
STATION: SAMPLE:2
RANGE : DATE :3-25-81



GRAVEL(%)= 2
SAND(%) =25
SILT(%) =49
CLAY(%) =24

D10(MM) =--
D30(MM) =--
D60(MM) =--
COEF UNIF=--

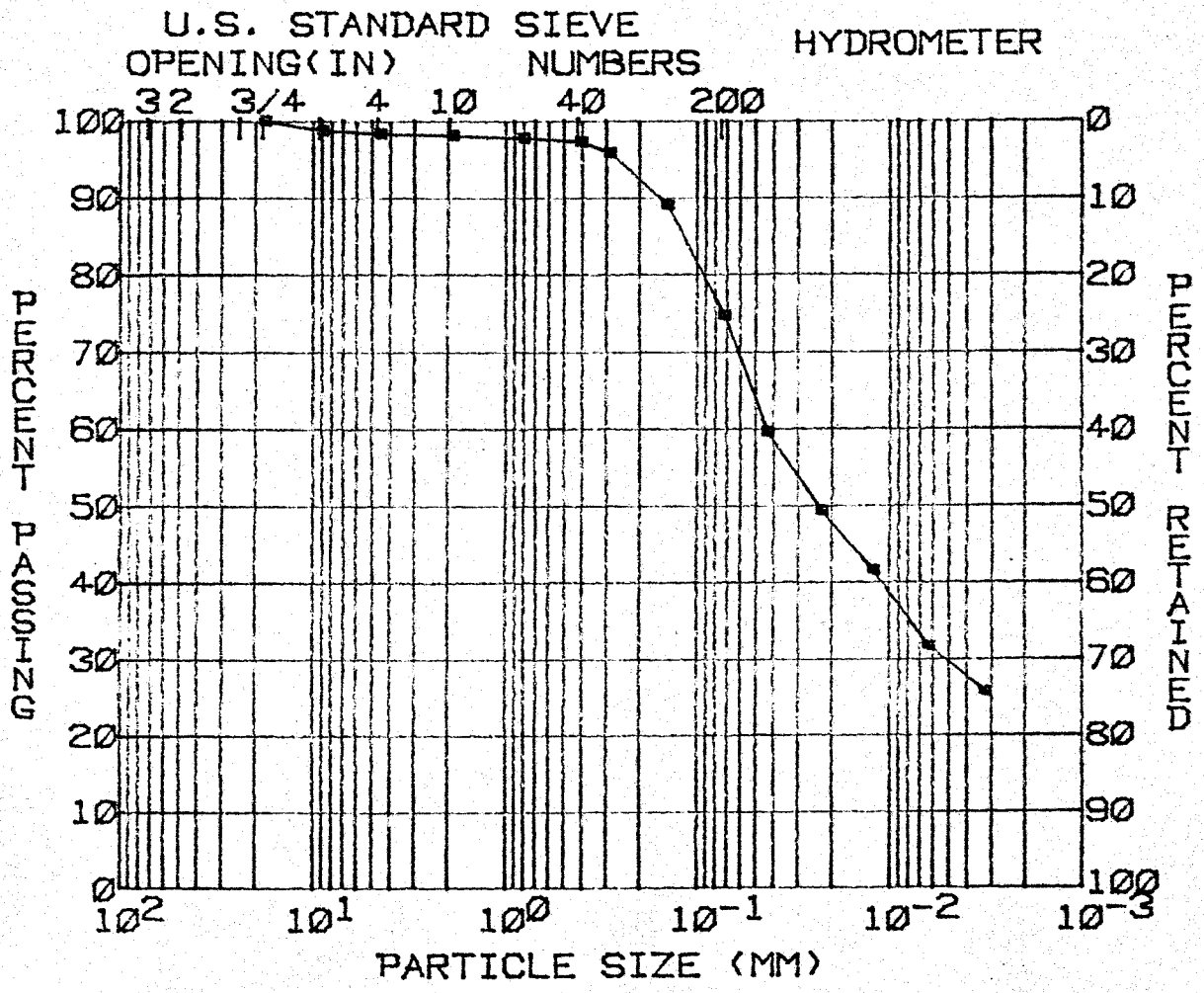
SOIL SYMBOL=CL
MOISTURE(%)=19.3
SP. GR. =2.71

L.L.(%) = 29
P.I.(%) = 11

REMARKS:

TVA SINGLETON MATERIALS ENGINEERING LABORATORY
PARTICLE SIZE ANALYSIS

PROJECT:JOHN SEVIER S.P. BORING:US-4
FEATURE:ASH DIKE EL. :
STATION: SAMPLE:3
RANGE : DATE :3-25-81



GRAVEL(%)= 1
SAND(%) =24
SILT(%) =45
CLAY(%) =30

D10(MM) =--
D30(MM) =--
D60(MM) =--
COEF UNIF=--

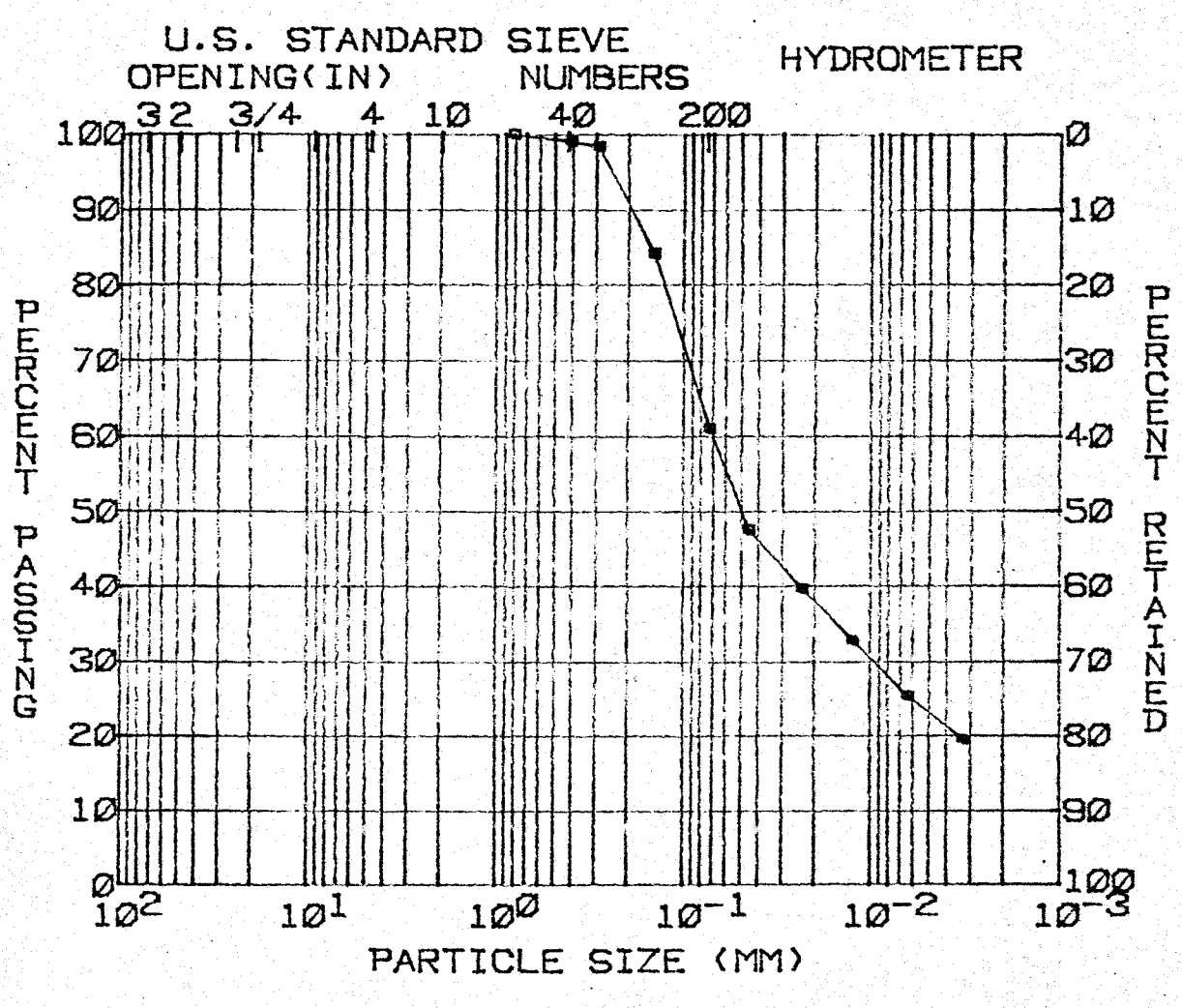
SOIL SYMBOL=CL
MOISTURE(%)=19.5
SP. GR. =2.68

L.L.(%) = 32
P.I.(%) = 16

REMARKS:

TVA SINGLETON MATERIALS ENGINEERING LABORATORY
PARTICLE SIZE ANALYSIS

PROJECT:JOHN SEVIER S.P. BORING:US-4
FEATURE:ASH DIKE EL. :
STATION: SAMPLE:4
RANGE : DATE :3-25-81



GRAVEL(%)= 0 D10(MM) =--
SAND(%) =38 D30(MM) =--
SILT(%) =38 D60(MM) =--
CLAY(%) =24 COEF UNIF=--

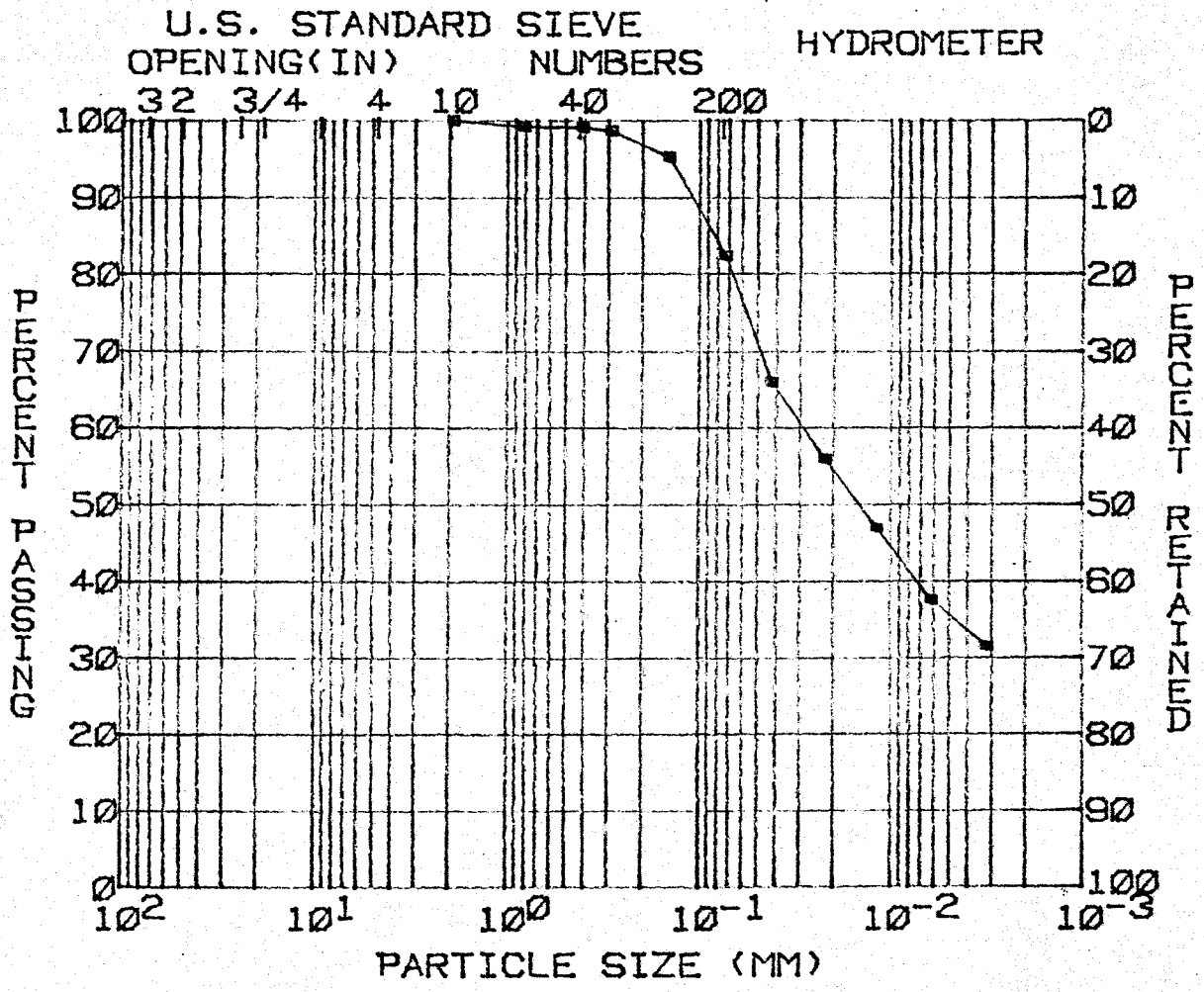
SOIL SYMBOL=CL L.L.(%) = 28
MOISTURE(%)=21.7 P.I.(%) = 12
SP. GR. =2.71

REMARKS:

TVA SINGLETON MATERIALS ENGINEERING LABORATORY
PARTICLE SIZE ANALYSIS

PROJECT:JOHN SEVIER
FEATURE:ASH DIKE
STATION:
RANGE :

BORING:US-4A
EL. :.
SAMPLE:1
DATE :3-25-81



GRAVEL(%)= 0
SAND(%) =17
SILT(%) =47
CLAY(%) =36

D10(MM) =--
D30(MM) =--
D60(MM) =--
COEF UNIF=--

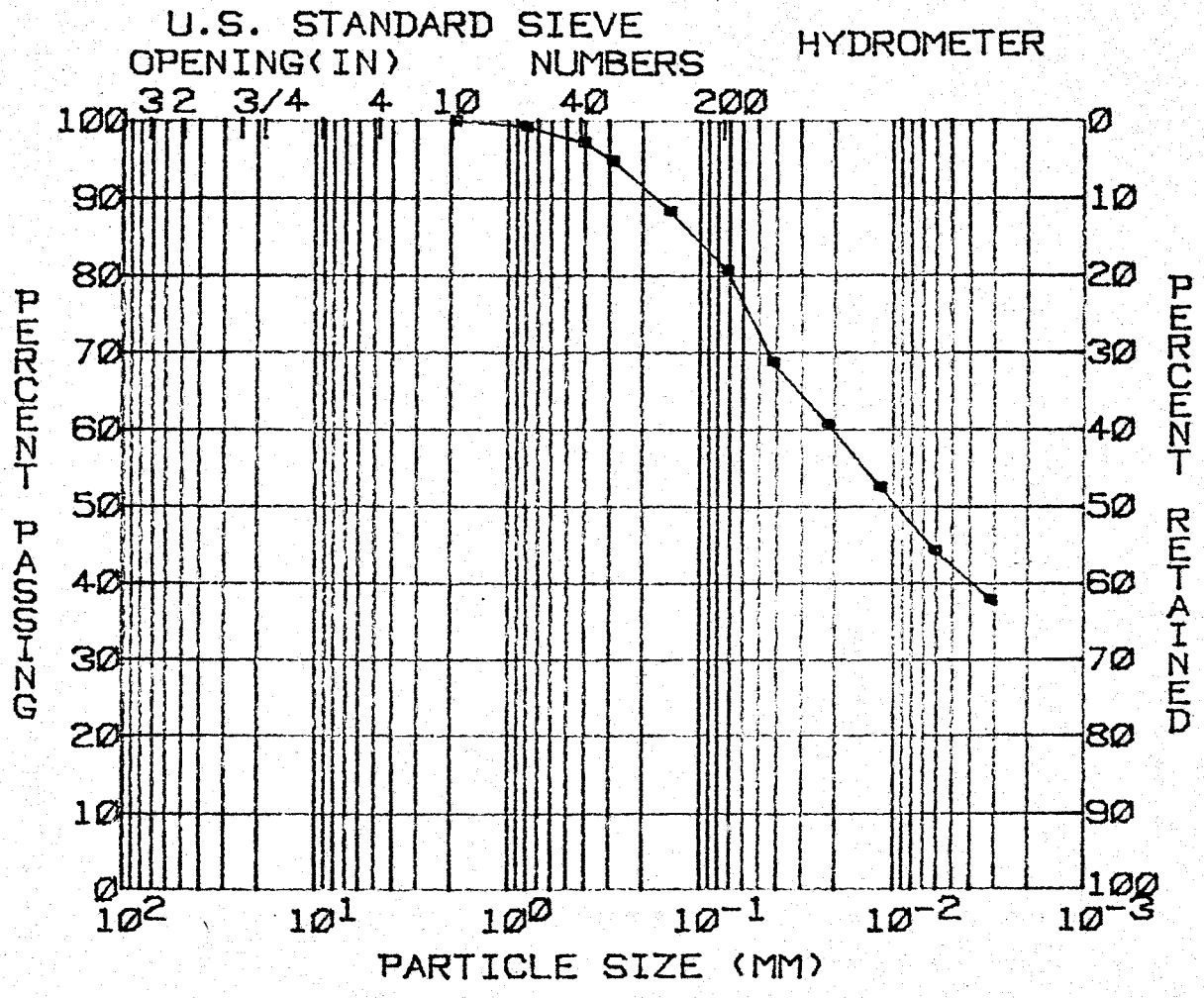
SOIL SYMBOL=CL
MOISTURE(%)=21.8
SP. GR. =2.70

L.L.(%) = 38
P.I.(%) = 19

REMARKS:

TVA SINGLETON MATERIALS ENGINEERING LABORATORY
PARTICLE SIZE ANALYSIS

PROJECT:JOHN SEVIER S.P. BORING:US-8
FEATURE:ASH DIKE EL. :
STATION: SAMPLE:1
RANGE : DATE :3-25-81



GRAVEL(%)= 0
SAND(%) =19
SILT(%) =38
CLAY(%) =43

D10(MM) =--
D30(MM) =--
D60(MM) =--
COEF UNIF=--

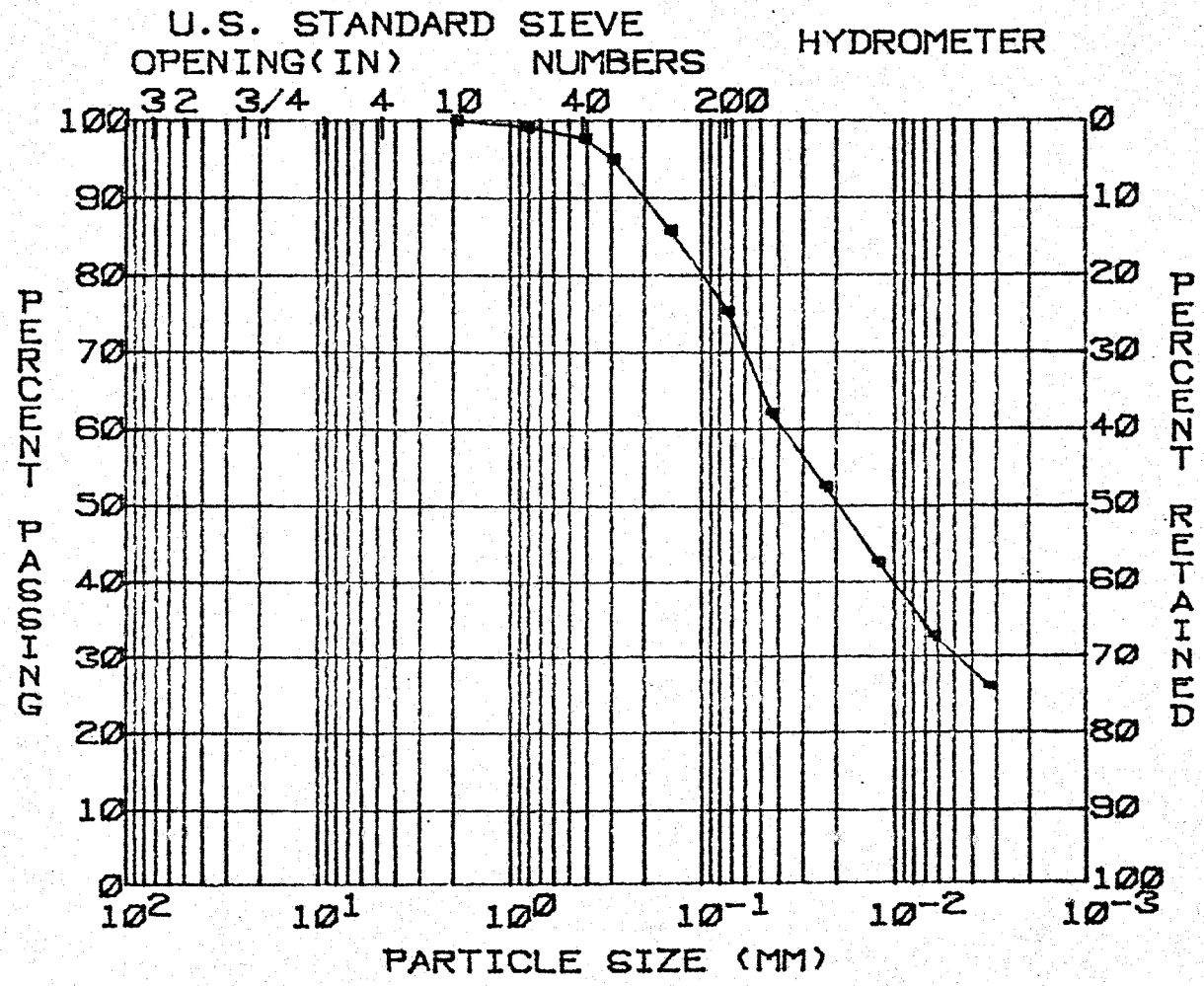
SOIL SYMBOL=CL-CH
MOISTURE(%)=20.7
SP. GR. =2.69

L.L.(%) = 49
P.I.(%) = 30

REMARKS:

TVA SINGLETON MATERIALS ENGINEERING LABORATORY
PARTICLE SIZE ANALYSIS

PROJECT:JOHN SEVIER S.P. BORING:US-8
FEATURE:ASH DIKE EL. :
STATION: SAMPLE:2
RANGE : DATE :3-25-81



GRAVEL(%)= 0
SAND(%) =24
SILT(%) =45
CLAY(%) =31

D10(MM) =--
D30(MM) =--
D60(MM) =--
COEF UNIF=--

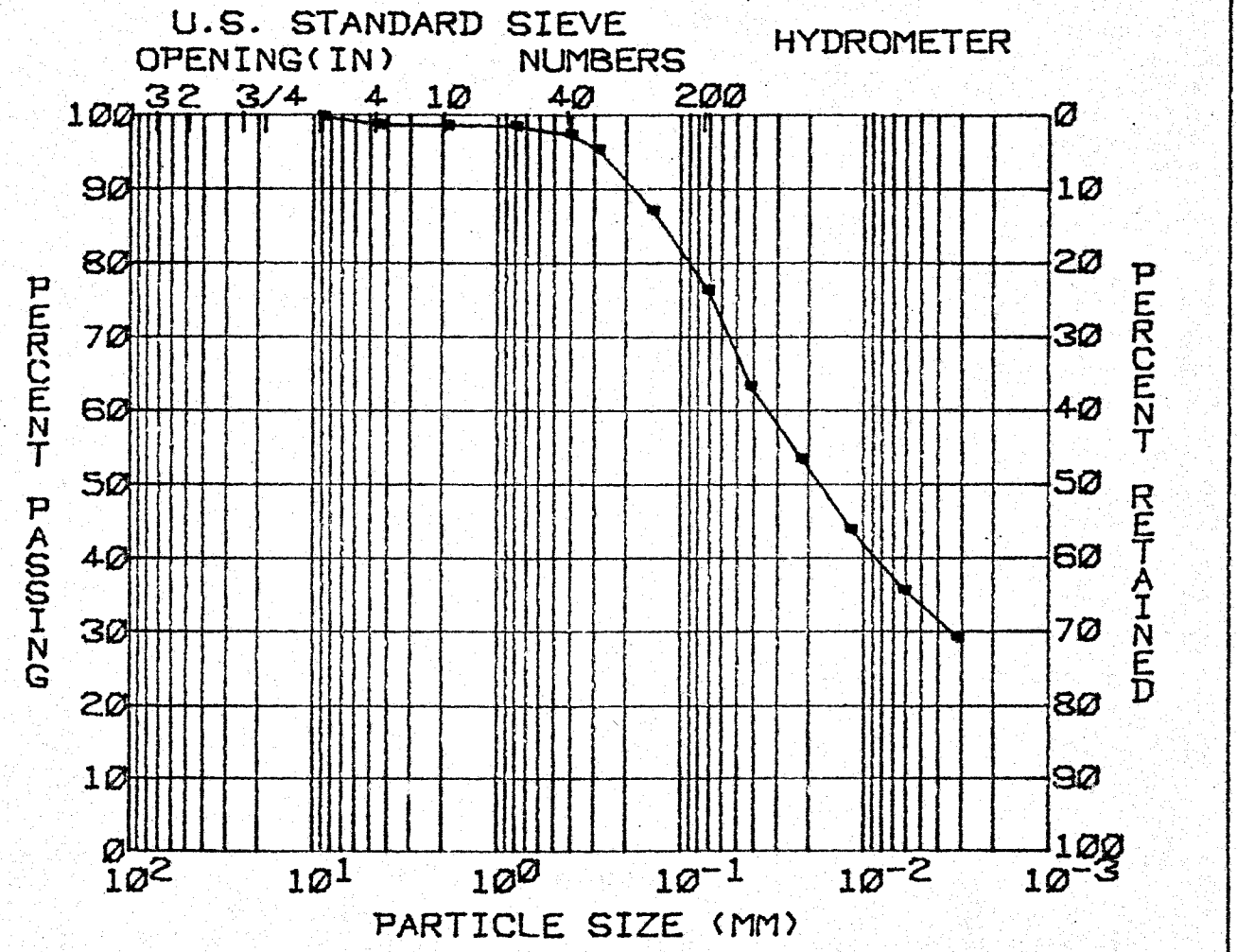
SOIL SYMBOL=CL
MOISTURE(%)=15.7
SP. GR. =2.65

L.L.(%) = 33
P.I.(%) = 18

REMARKS:

TVA SINGLETON MATERIALS ENGINEERING LABORATORY
PARTICLE SIZE ANALYSIS

PROJECT:JOHN SEVIER S.P. BORING:US-8
FEATURE:ASH DIKE EL. :
STATION: SAMPLE:3
RANGE : DATE :3-26-81



GRAVEL(%)= 0
SAND(%) =23
SILT(%) =43
CLAY(%) =34

D10(MM) =--
D30(MM) =--
D60(MM) =--
COEF UNIF=--

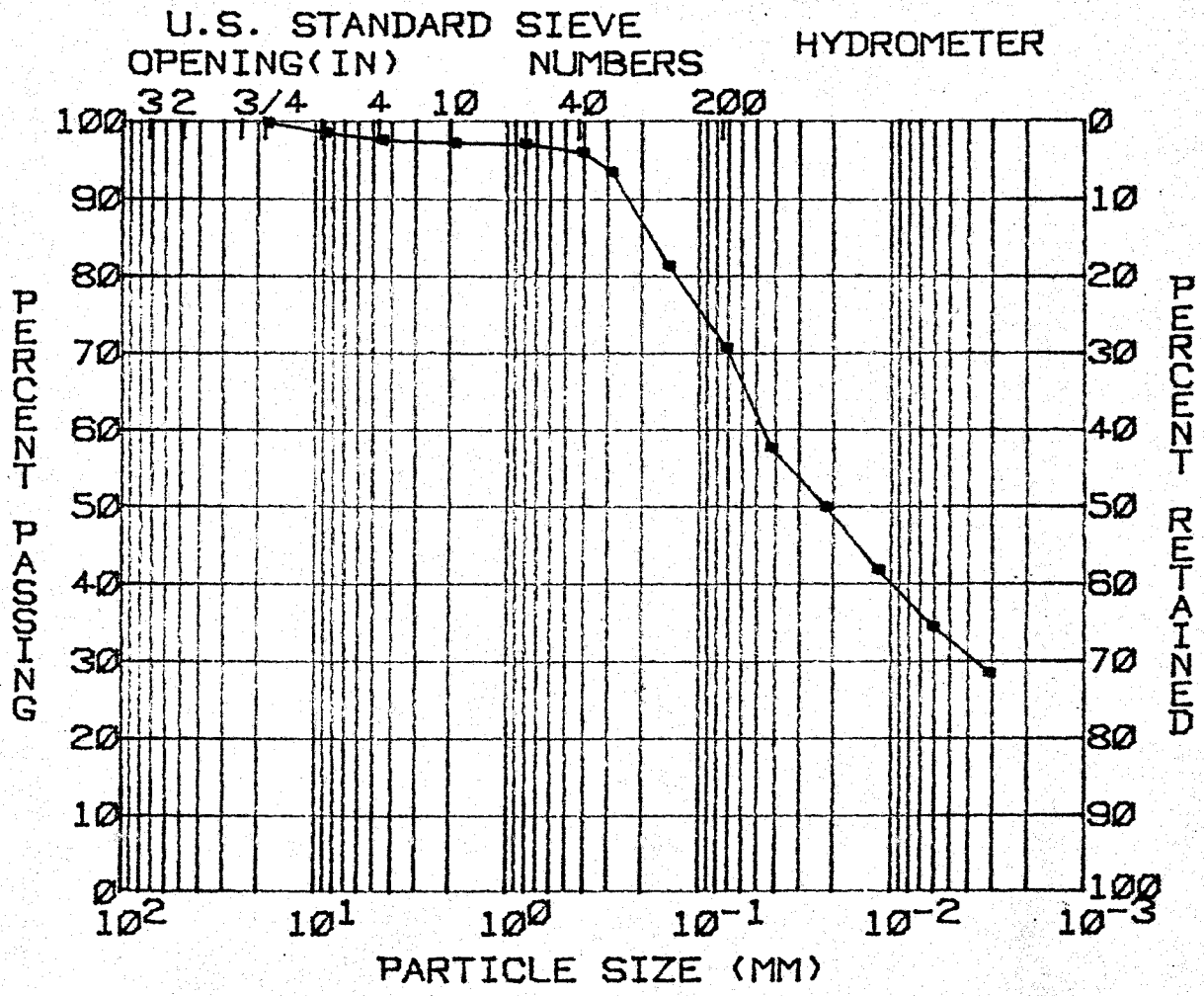
SOIL SYMBOL=CL
MOISTURE(%)=20.3
SP. GR. =2.71

L.L.(%) = 39
P.I.(%) = 22

REMARKS:

TVA SINGLETON MATERIALS ENGINEERING LABORATORY
PARTICLE SIZE ANALYSIS

PROJECT:JOHN SEVIER S.P. BORING:US-8
FEATURE:ASH DIKE EL. :
STATION: SAMPLE:4
RANGE : DATE :3-26-81



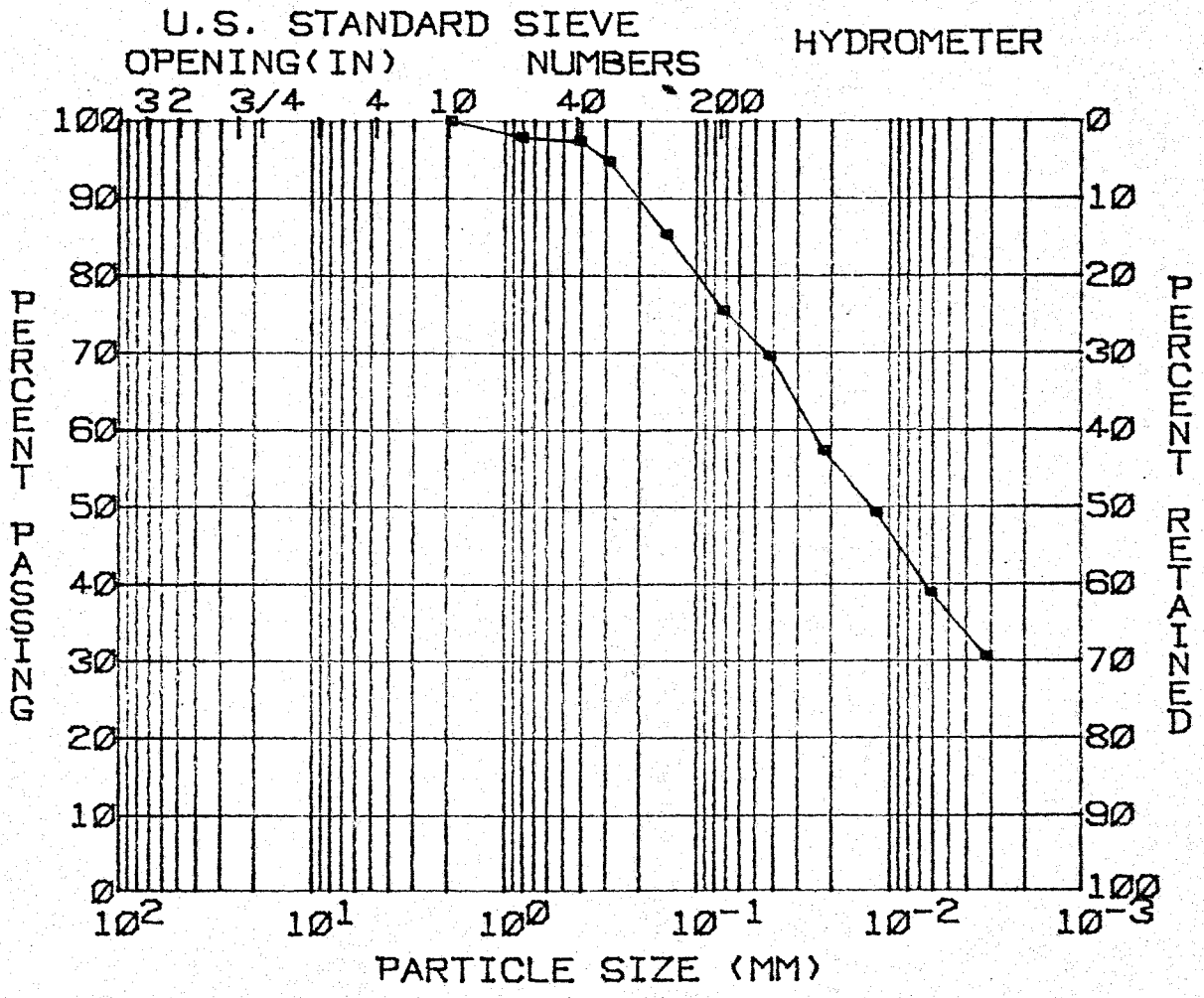
GRAVEL(%)= 1 D10(MM) =--
SAND(%) =27 D30(MM) =--
SILT(%) =38 D60(MM) =--
CLAY(%) =34 COEF UNIF=--

SOIL SYMBOL=CL L.L.(%) = 31
MOISTURE(%)=18.9 P.I.(%) = 18
SP. GR. =2.72

REMARKS:

TVA SINGLETON MATERIALS ENGINEERING LABORATORY
PARTICLE SIZE ANALYSIS

PROJECT:JOHN SEVIER S.P. BORING:US-12
FEATURE:ASH DIKE EL. :1070.2-1067.9
STATION: SAMPLE:1
RANGE : DATE :5-11-81



GRAVEL(%)= 0
SAND(%) =24
SILT(%) =39
CLAY(%) =37

D10(MM) =--
D30(MM) =--
D60(MM) =--
COEF UNIF=--

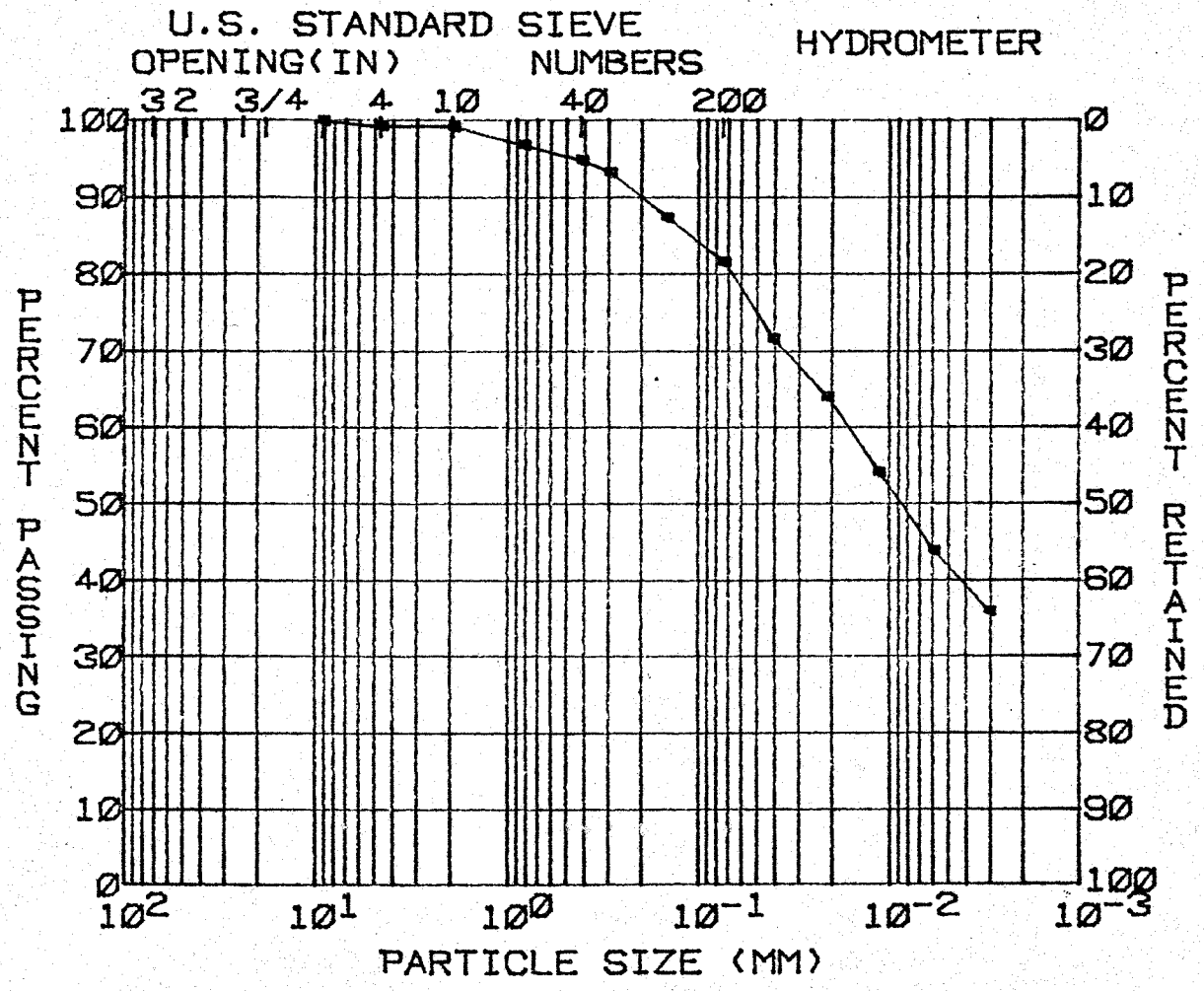
SOIL SYMBOL=CL
MOISTURE(%)=26.7
SP. GR. =2.69

L.L.(%) = 40
P.I.(%) = 20

REMARKS:

TVA SINGLETON MATERIALS ENGINEERING LABORATORY
PARTICLE SIZE ANALYSIS

PROJECT:JOHN SEVIER S.P. BORING:US-12
FEATURE:ASH DIKE EL. :1067.2-1064.9
STATION: SAMPLE:2
RANGE : DATE :5-11-81



GRAVEL(%)= 0
SAND(%) =18
SILT(%) =40
CLAY(%) =42

D10(MM) =--
D30(MM) =--
D60(MM) =--
COEF UNIF=--

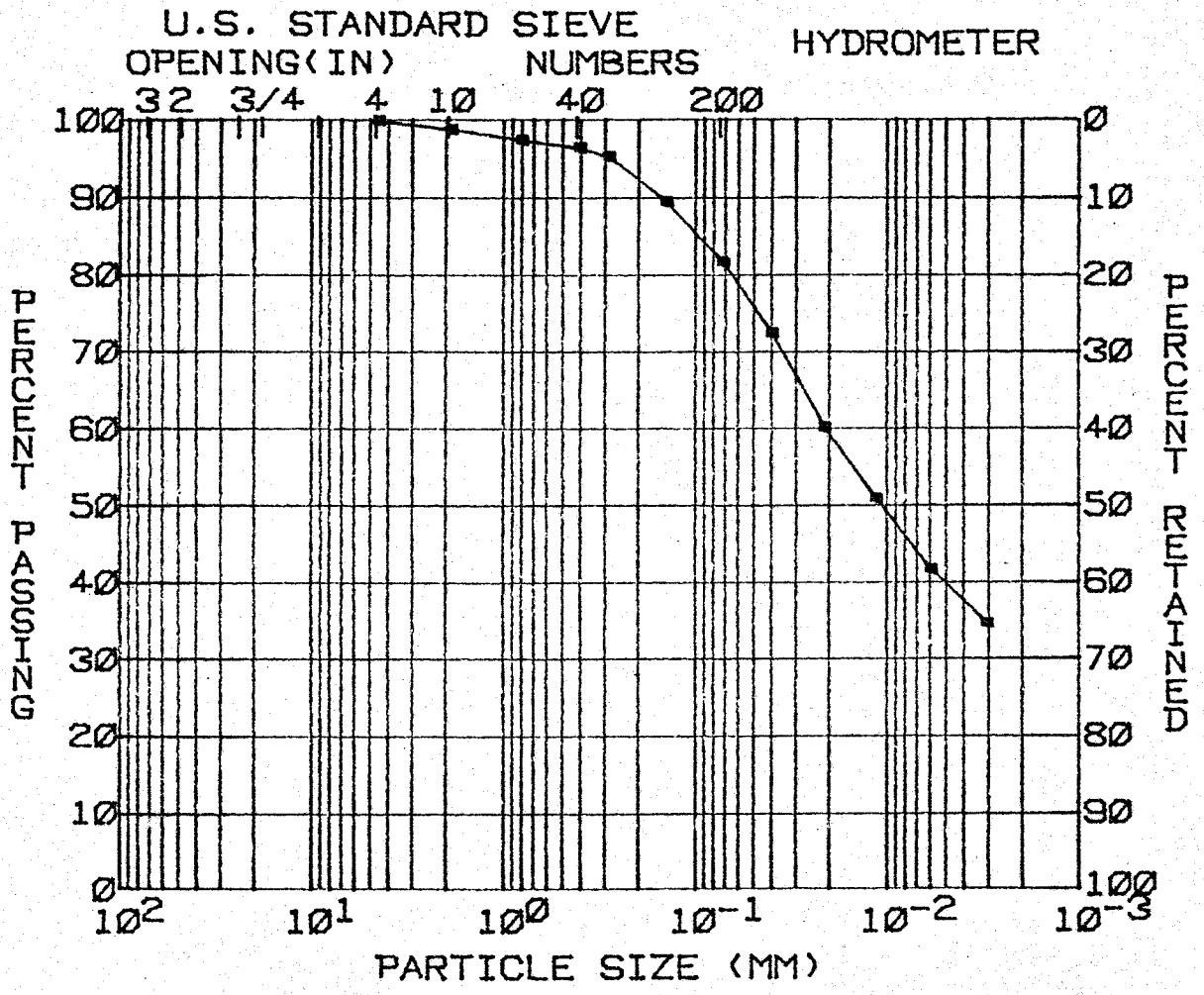
SOIL SYMBOL=CL
MOISTURE(%)=23.8
SP. GR. =2.73

L.L.(%) = 39
P.I.(%) = 19

REMARKS:

TVA SINGLETON MATERIALS ENGINEERING LABORATORY
PARTICLE SIZE ANALYSIS

PROJECT:JOHN SEVIER S.P. BORING:US-12
FEATURE:ASH DIKE EL. :1064.2-1063.1
STATION: SAMPLE:3
RANGE : DATE :5-11-81



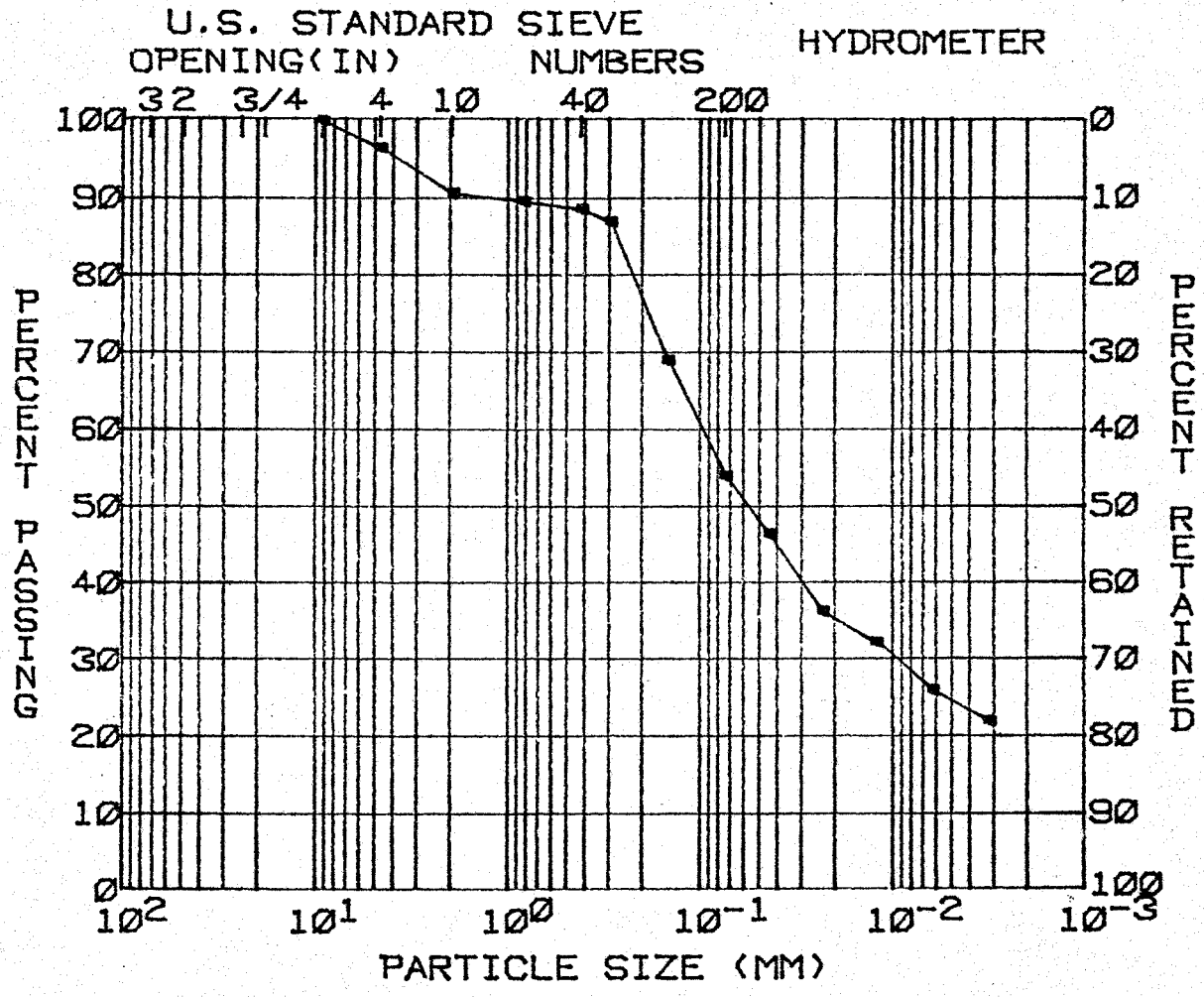
GRAVEL(%)= 0 D10(MM) =--
SAND(%) =18 D30(MM) =--
SILT(%) =42 D60(MM) =--
CLAY(%) =40 COEF UNIF=--

SOIL SYMBOL=CL L.L.(%) = 38
MOISTURE(%)=23.4 P.I.(%) = 18
SP. GR. =2.72

REMARKS:

TVA SINGLETON MATERIALS ENGINEERING LABORATORY
PARTICLE SIZE ANALYSIS

PROJECT:JOHN SEVIER S.P. BORING:US-12
FEATURE:ASH DIKE EL. :
STATION: SAMPLE:4
RANGE : DATE :5-11-81



GRAVEL(%)= 2
SAND(%) =43
SILT(%) =30
CLAY(%) =25

D10(MM) =--
D30(MM) =--
D60(MM) =--
COEF UNIF=--

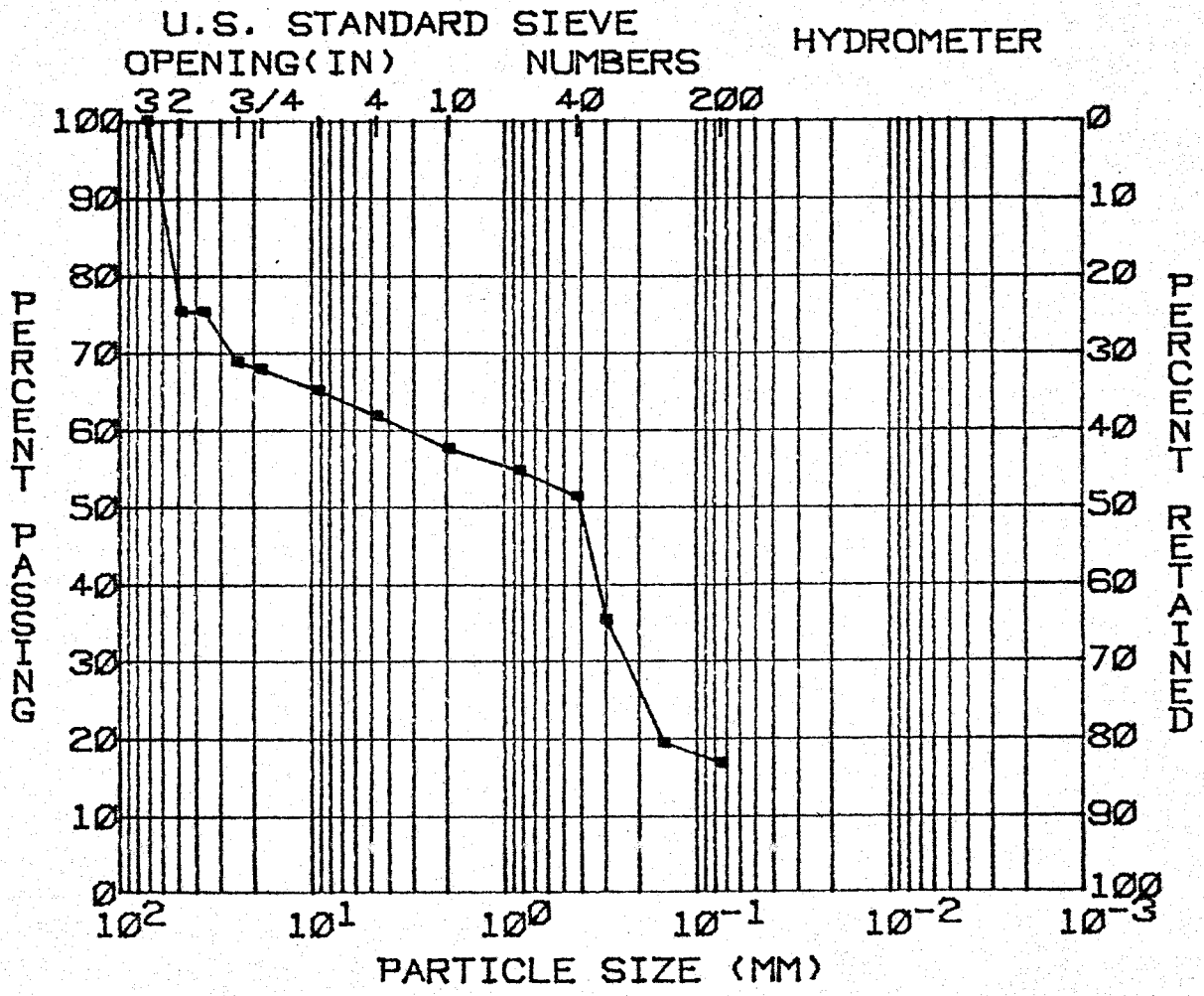
SOIL SYMBOL=CL
MOISTURE(%)=28.8
SP. GR. =2.74

L.L.(%) = 32
P.I.(%) = 14

REMARKS:

TVA SINGLETON MATERIALS ENGINEERING LABORATORY
PARTICLE SIZE ANALYSIS

PROJECT:JOHN SEVIER S.P. BORING:US-12
FEATURE:ASH DIKE EL. :1061.2-1059.0
STATION: SAMPLE:4
RANGE : DATE :5-12-81



GRAVEL(%)=37
SAND(%) =46
SILT(%) =17
CLAY(%) = 0

D10(MM) = 0.0124
D30(MM) = 0.2339
D60(MM) = 2.8254
COEF UNIF> 100

SOIL SYMBOL=SM
MOISTURE(%)=26.0
SP. GR. =2.67

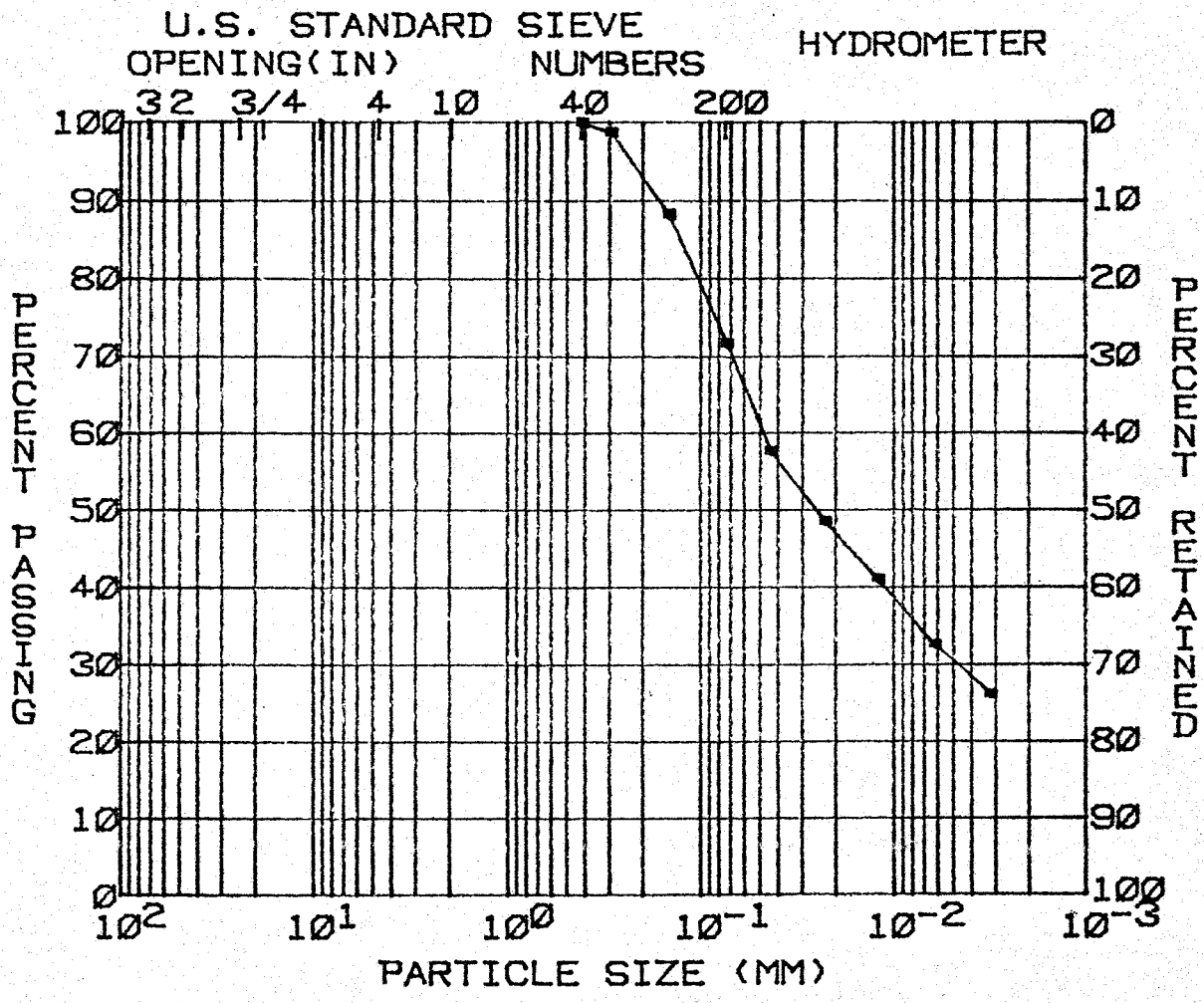
L.L.(%) = NP
P.I.(%) = NP

REMARKS:

TVA SINGLETON MATERIALS ENGINEERING LABORATORY
PARTICLE SIZE ANALYSIS

PROJECT:JOHN SEVIER S.P.
FEATURE:ASH DIKE
STATION:
RANGE :

BORING:US-15
EL. :1076.3-1074.2
SAMPLE:1
DATE :5-11-81



GRAVEL(%)= 0
SAND(%) =28
SILT(%) =41
CLAY(%) =31

D10(MM) =--
D30(MM) =--
D60(MM) =--
COEF UNIF=--

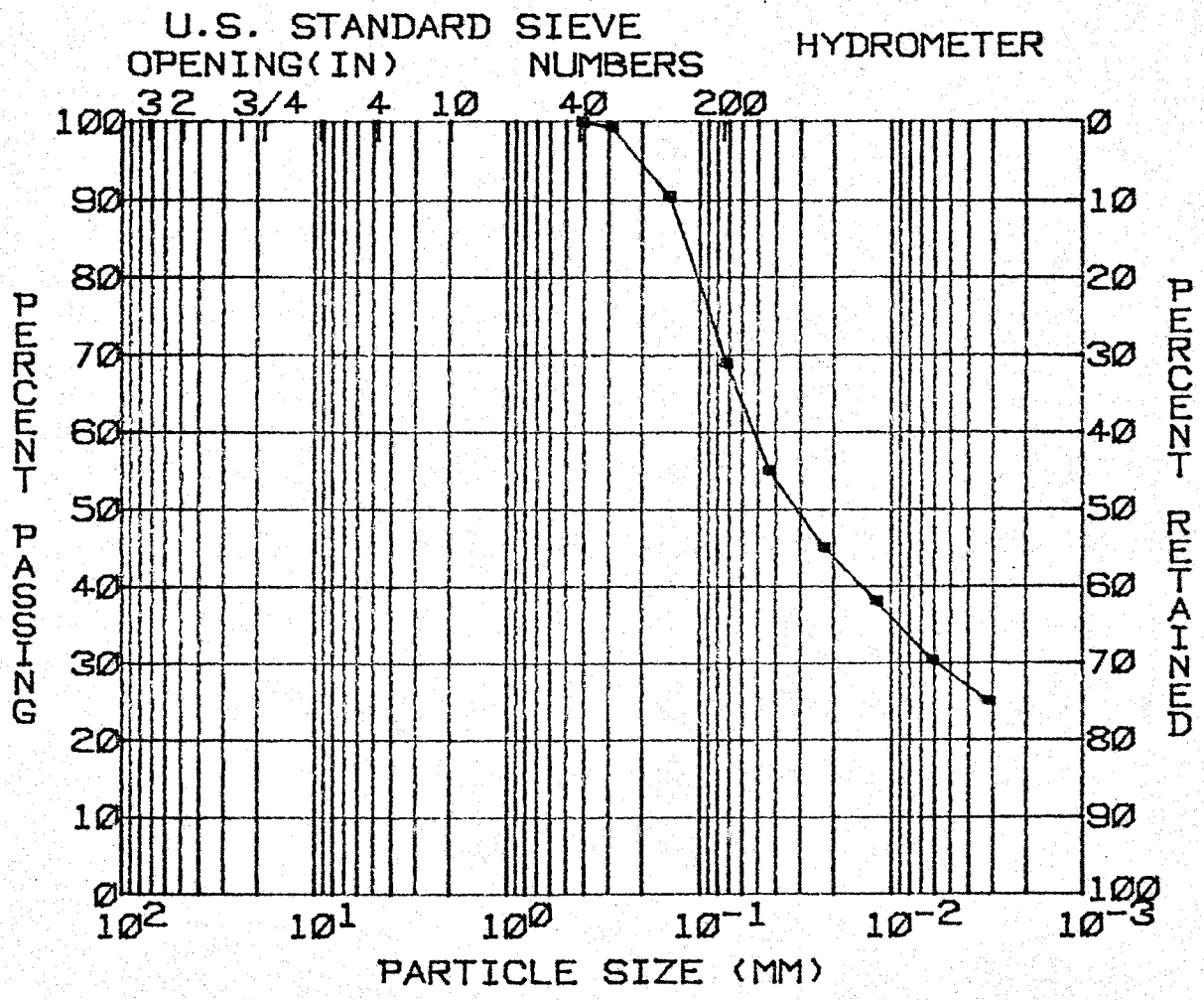
SOIL SYMBOL=CL
MOISTURE(%)=19.5
SP. GR. =2.67

L.L.(%) = 32
P.I.(%) = 12

REMARKS:

TVA SINGLETON MATERIALS ENGINEERING LABORATORY
PARTICLE SIZE ANALYSIS

PROJECT:JOHN SEVIER S.P. BORING:US-15
FEATURE:ASH DIKE EL. :1073.3-1070.7
STATION: SAMPLE:2
RANGE : DATE :5-11-81



GRAVEL(%)= 0
SAND(%) =31
SILT(%) =40
CLAY(%) =29

D10(MM) =--
D30(MM) =--
D60(MM) =--
COEF UNIF=--

SOIL SYMBOL=CL
MOISTURE(%)=20.2
SP. GR. =2.70

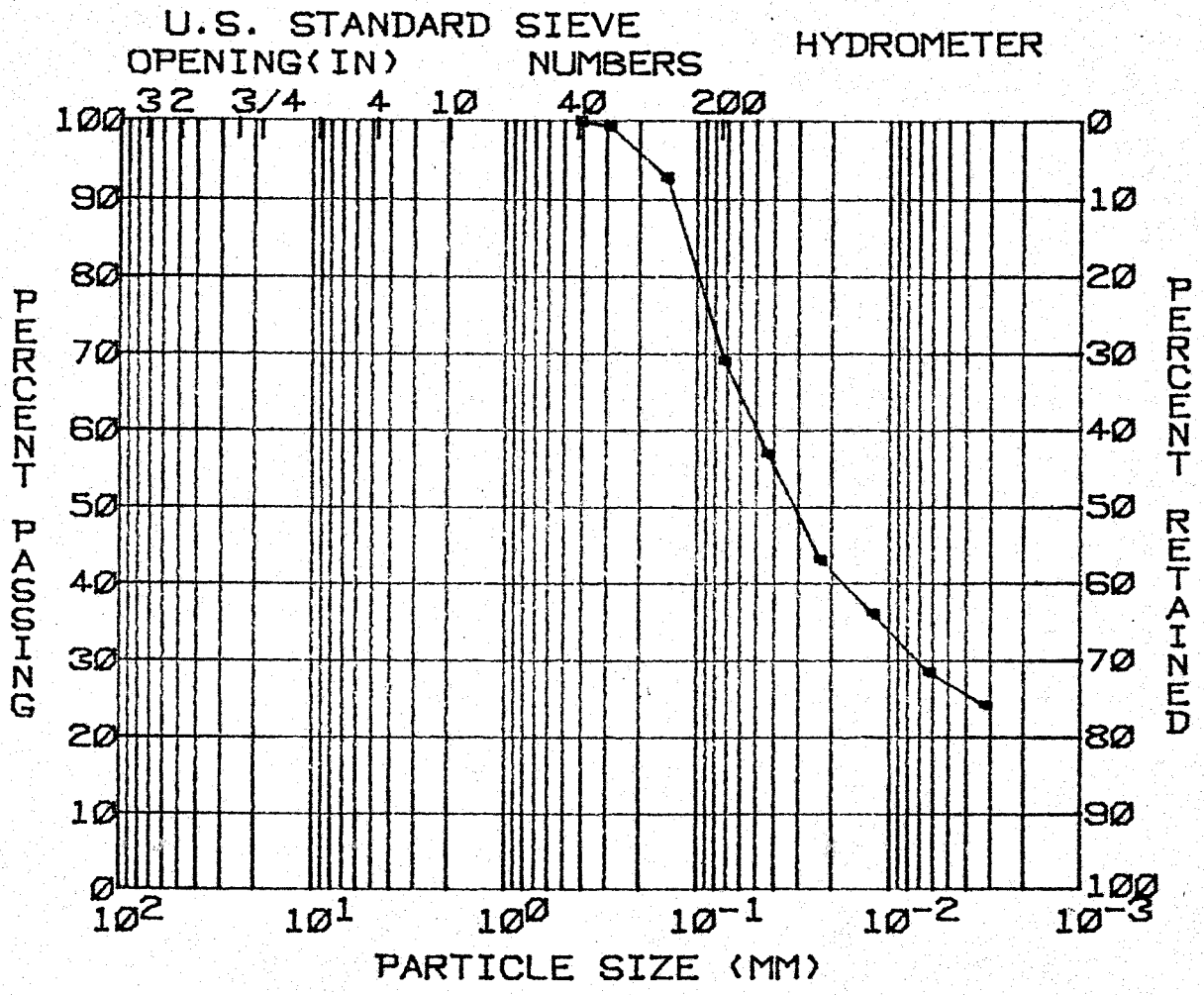
L.L.(%) = 30
P.I.(%) = 13

REMARKS:

TVA SINGLETON MATERIALS ENGINEERING LABORATORY
PARTICLE SIZE ANALYSIS

PROJECT:JOHN SEVIER S.P.
FEATURE:ASH DIKE
STATION:
RANGE :

BORING:US-15
EL. :1070.3-1068.6
SAMPLE:3
DATE :5-11-81



GRAVEL(%)= 0
SAND(%) =31
SILT(%) =42
CLAY(%) =27

D10(MM) =--
D30(MM) =--
D60(MM) =--
COEF UNIF=--

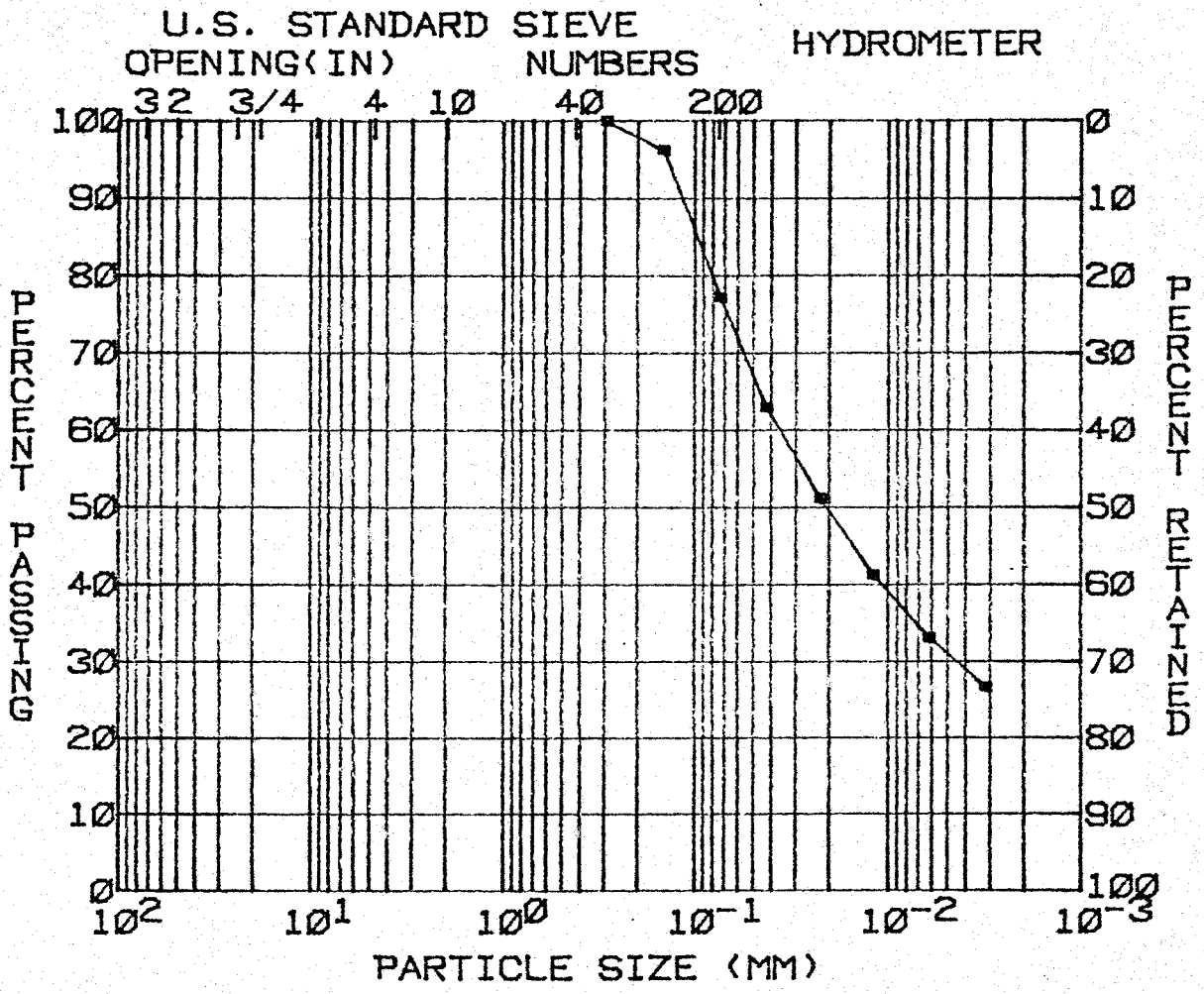
SOIL SYMBOL=CL
MOISTURE(%)=20.9
SP. GR. =2.68

L.L.(%) = 28
P.I.(%) = 11

REMARKS:

TVA SINGLETON MATERIALS ENGINEERING LABORATORY
PARTICLE SIZE ANALYSIS

PROJECT:JOHN SEVIER S.P. BORING:US-15
FEATURE:ASH DIKE EL. :1067.3-1065.7
STATION: SAMPLE:4
RANGE : DATE :5-11-81



GRAVEL(%)= 0
SAND(%) =22
SILT(%) =46
CLAY(%) =32

D10(MM) =--
D30(MM) =--
D60(MM) =--
COEF UNIF=--

SOIL SYMBOL=CL
MOISTURE(%)=21.5
SP. GR. =2.71

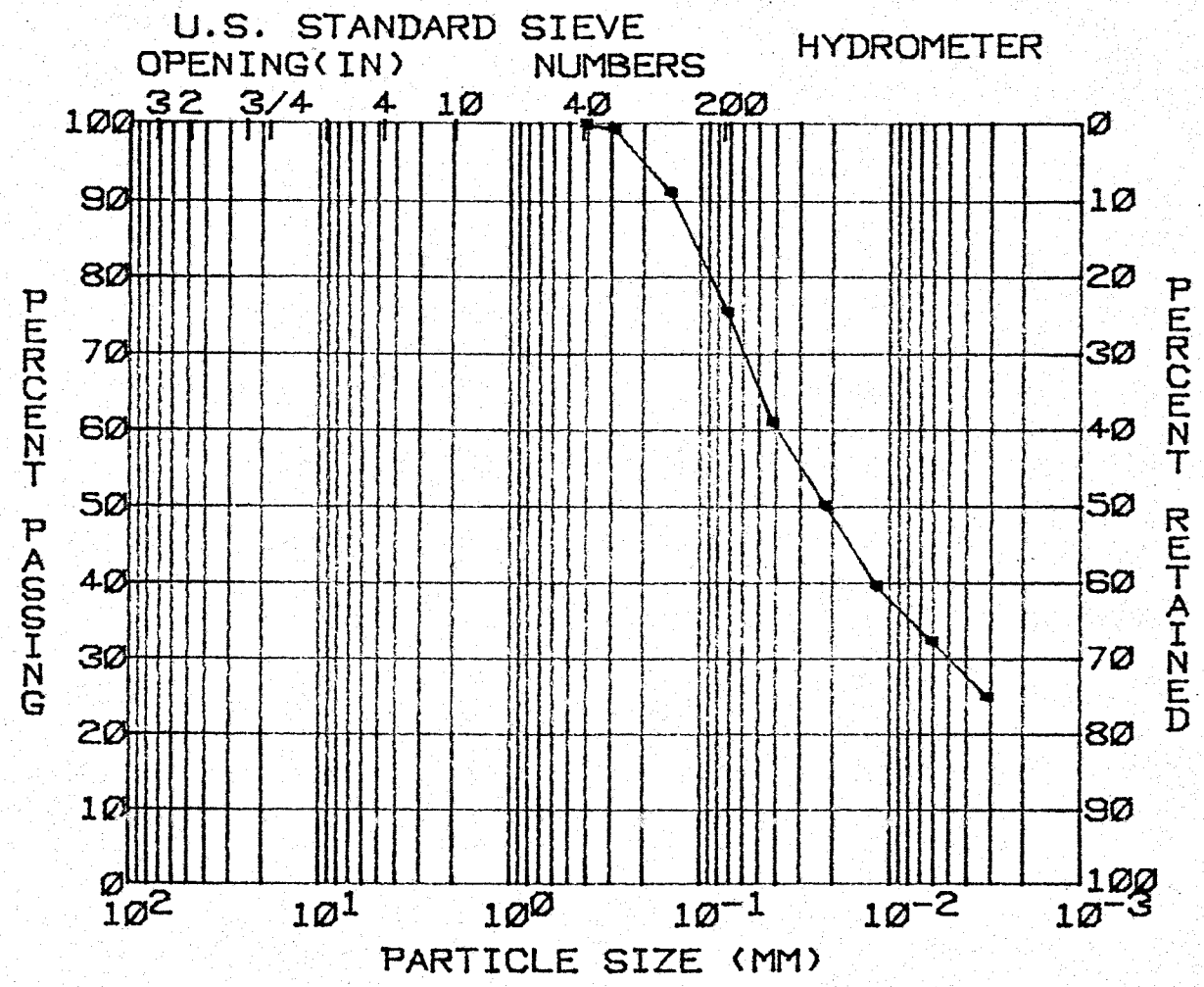
L.L.(%) = 31
P.I.(%) = 13

REMARKS:

TVA SINGLETON MATERIALS ENGINEERING LABORATORY
PARTICLE SIZE ANALYSIS

PROJECT:JOHN SEVIER S.P.
FEATURE:ASH DIKE
STATION:
RANGE :

BORING:US-15
EL. :1064.3-1063.2
SAMPLE:5
DATE :5-11-81



GRAVEL(%)= 0
SAND(%) =24
SILT(%) =46
CLAY(%) =30

D10(MM) =--
D30(MM) =--
D60(MM) =--
COEF UNIF=--

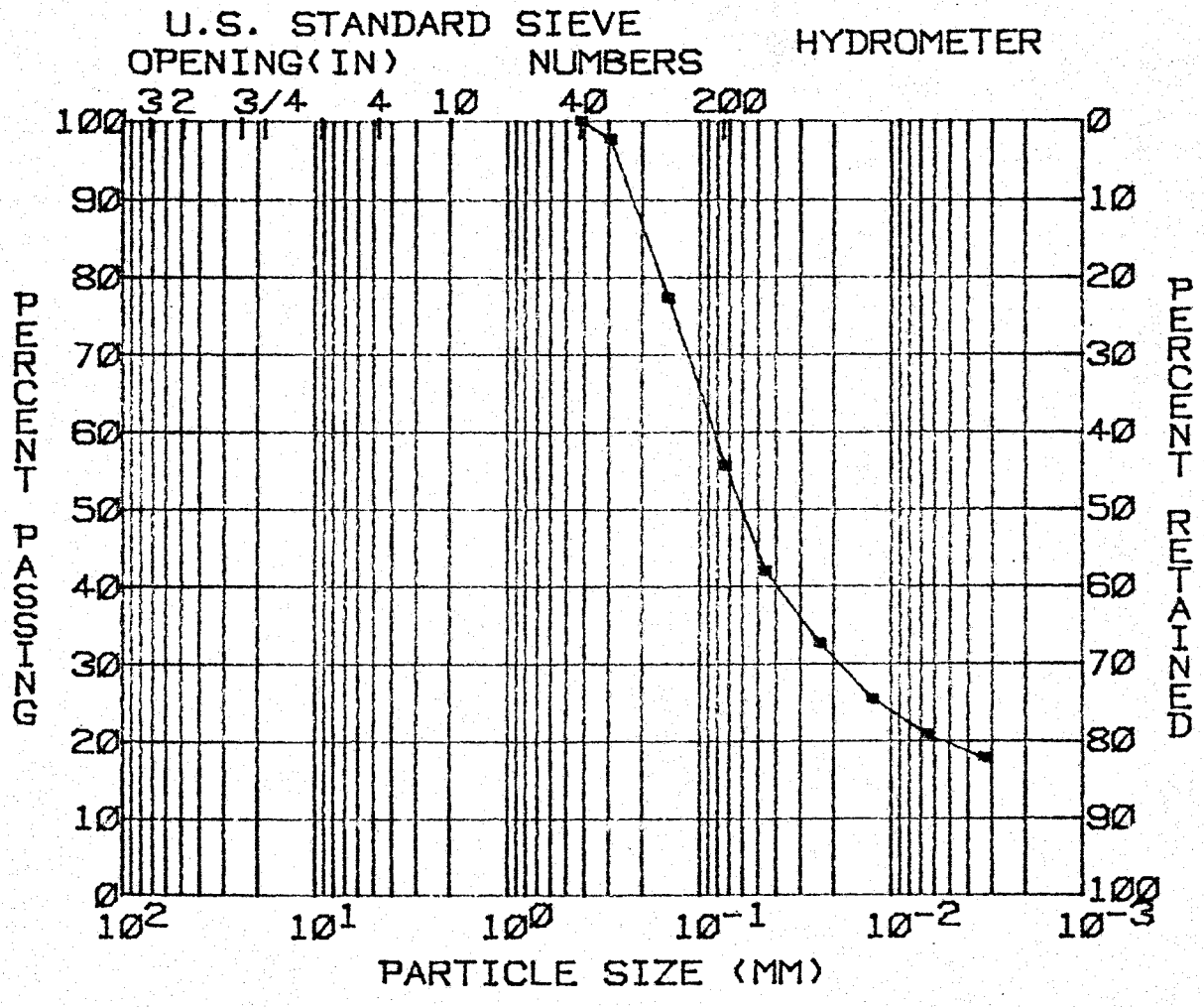
SOIL SYMBOL=CL
MOISTURE(%)=21.3
SP. GR. =2.69

L.L.(%) = 29
P.I.(%) = 12

REMARKS:

TVA SINGLETON MATERIALS ENGINEERING LABORATORY
PARTICLE SIZE ANALYSIS

PROJECT:JOHN SEVIER S.P. BORING:US-15
FEATURE:ASH DIKE EL. :1061.3-1060.4
STATION: SAMPLE:6
RANGE : DATE :5-11-81



GRAVEL(%)= 0 D10(MM) =--
SAND(%) =44 D30(MM) =--
SILT(%) =36 D60(MM) =--
CLAY(%) =20 COEF UNIF=--

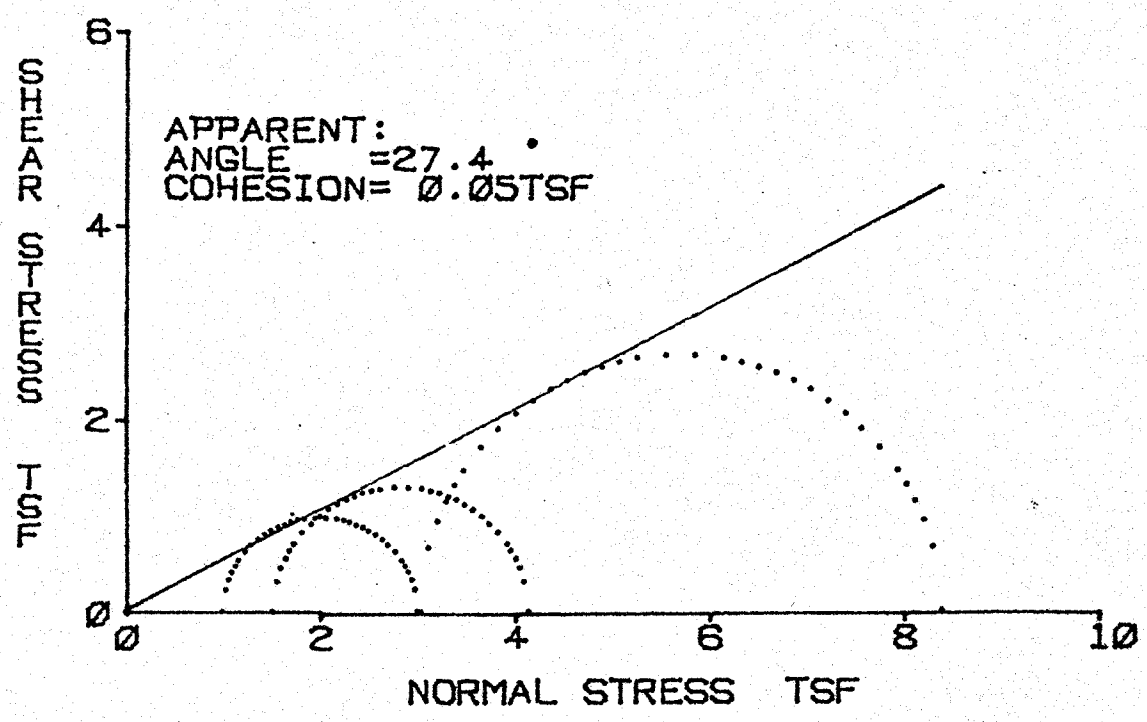
SOIL SYMBOL=CL-ML L.L.(%) = 21
MOISTURE(%)=18.8 P.I.(%) = 7
SP. GR. =2.66

REMARKS:

TVA SINGLETON MATERIALS ENGINEERING LABORATORY

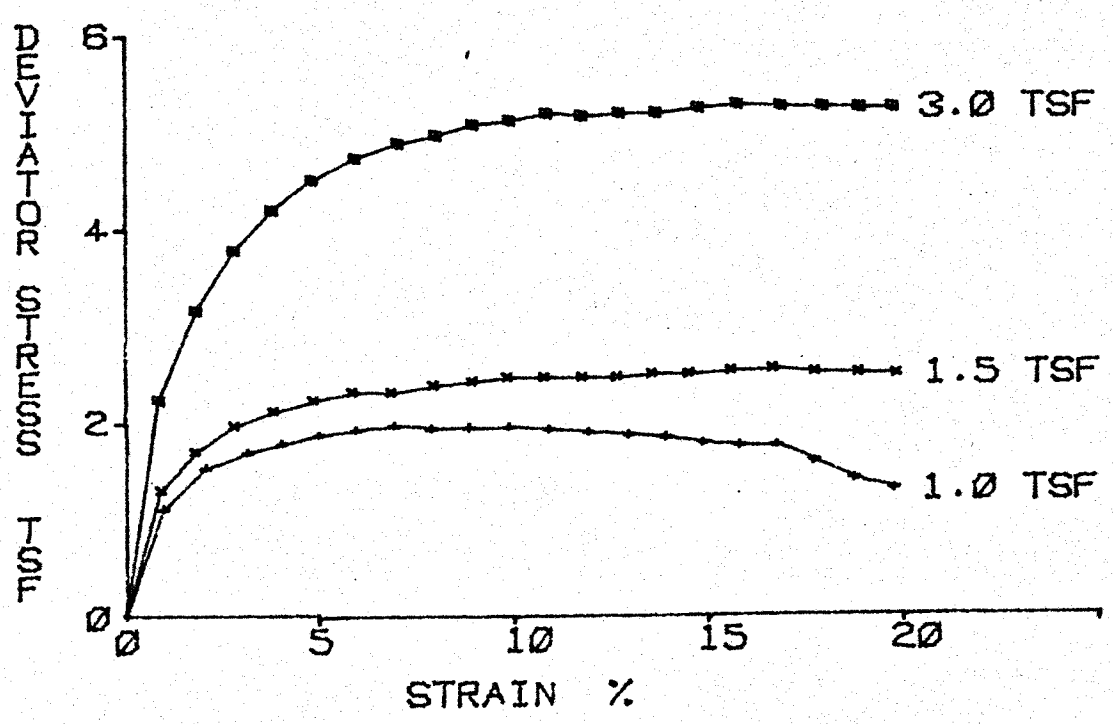
UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION(Q) TEST

PROJECT:	JOHN SEVIER S.P.EL.		:1092.4-1091.9
FEATURE:	ASH DIKE	SAMPLE	:1
STATION:		PART	:3
RANGE	:	SOIL SYM:	CL-ML
BORING	:US-1	DATE	:3-26-81



TVA SINGLETON MATERIALS ENGINEERING LABORATORY
UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION(Q) TEST

PROJECT:JOHN SEVIER S.P.EL.	:1092.4-1091.9
FEATURE:ASH DIKE	SAMPLE :1
STATION:	PART :3
RANGE :	SOIL SYM:CL-ML
BORING :US-1	DATE :3-26-81



Tennessee Valley Authority
Singleton Materials Engineering Laboratory
Unconsolidated Undrained Triaxial Compression (Q) Test

Project: JOHN SEVIER S.P.
Feature: ASH DIKE
Station:
Range :
Boring : US-1

El. : 1092.4-1091.9
Sample: 1
Part : 3

Tested By : RA
Computed By: MHD
Checked By : CBG
Report Date: 3-26-81

Soil Sybmbol= CL-ML
Sp. Gr. = 2.69

L.L.(%)= 19
D10(mm)= 0

P.I.(%)= 6

Specimen Number	1	2	3	4
Initial:				
Moisture Content(%)	13.2	14.4	13.6	0.0
Dry Density(pcf)	106.9	111.4	110.4	0.0
Void Ratio	0.571	0.508	0.521	0.000
Saturation(%)	62.1	76.1	70.0	0.0
Before Shearing:				
Moisture(%) (after satur.)	--	--	--	--
Saturation(%)	--	--	--	--
Moisture(%) (after cons.)	--	--	--	--
Void Ratio (after cons.)	--	--	--	--
Final Moisture Content(%)	13.5	14.3	13.3	0.0
Minor Principal Stress(tsf)	1.01	1.51	3.02	0.00
Major Principal Stress(tsf)	3.00	4.13	8.39	0.00
Eff. Minor Prin. Stress(tsf)	--	--	--	--
Eff. Major Prin. Stress(tsf)	--	--	--	--
Time to Failure(min.)	10	17	16	0
Rate of Strain(%/min.)	1.00	1.00	1.00	0.00
Specimen Height(in.)	3.15	3.15	3.15	3.15
Specimen Diameter(in.)	1.39	1.39	1.39	1.39

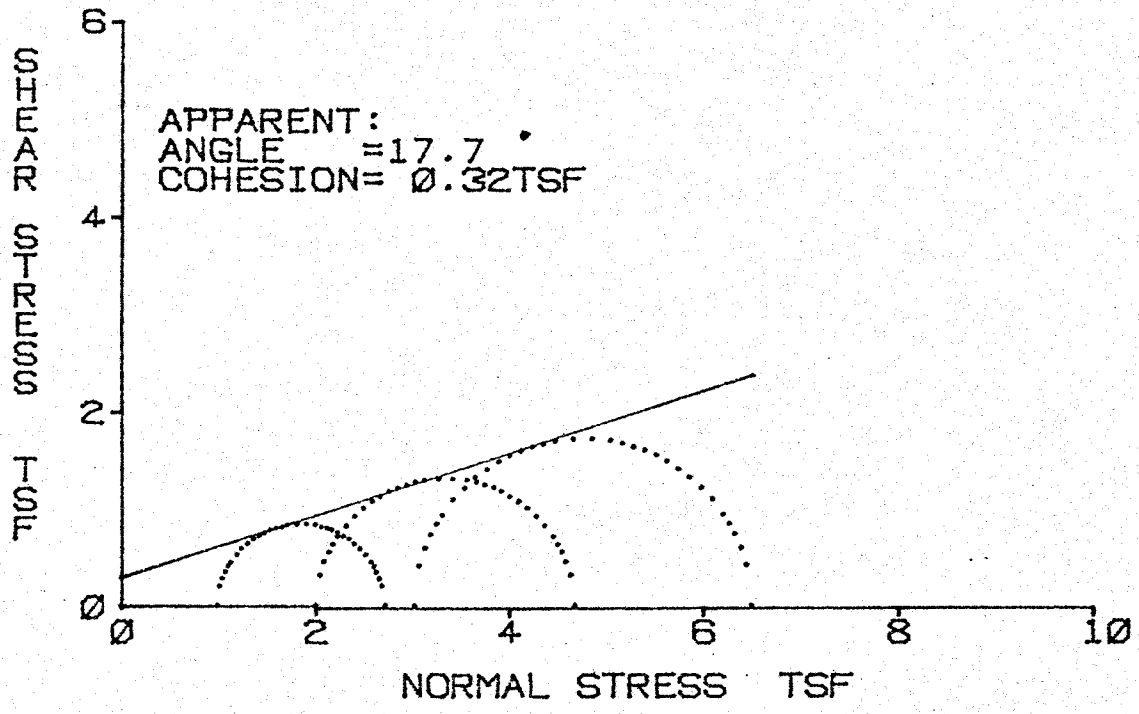
Shear Strength	Deg.	c(tsf)
Apparent	27.4	0.05
Effective	--	--

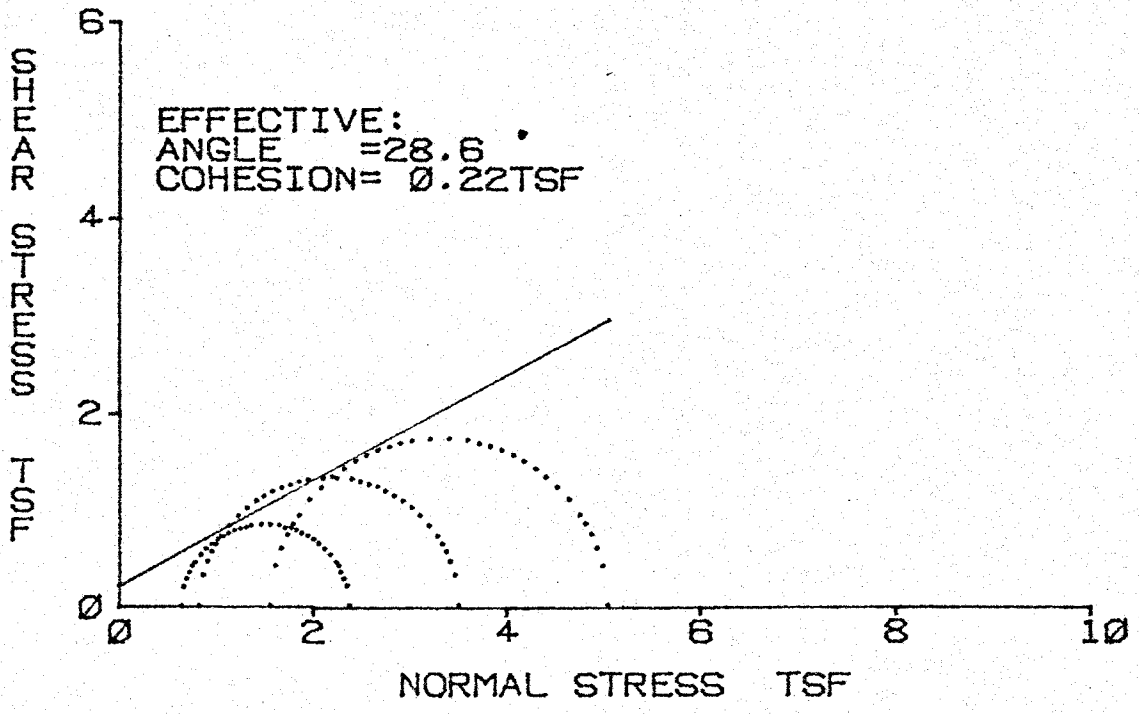
Remarks:

TVA SINGLETON MATERIALS ENGINEERING LABORATORY

CONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION (R) TEST

PROJECT:JOHN SEVIER S.P.EL.		:1091.9-1091.4
FEATURE:ASH DIKE	SAMPLE	:1
STATION:	PART	:4
RANGE :	SOIL SYM	:CL-ML
BORING :US-1	DATE	:4-16-81

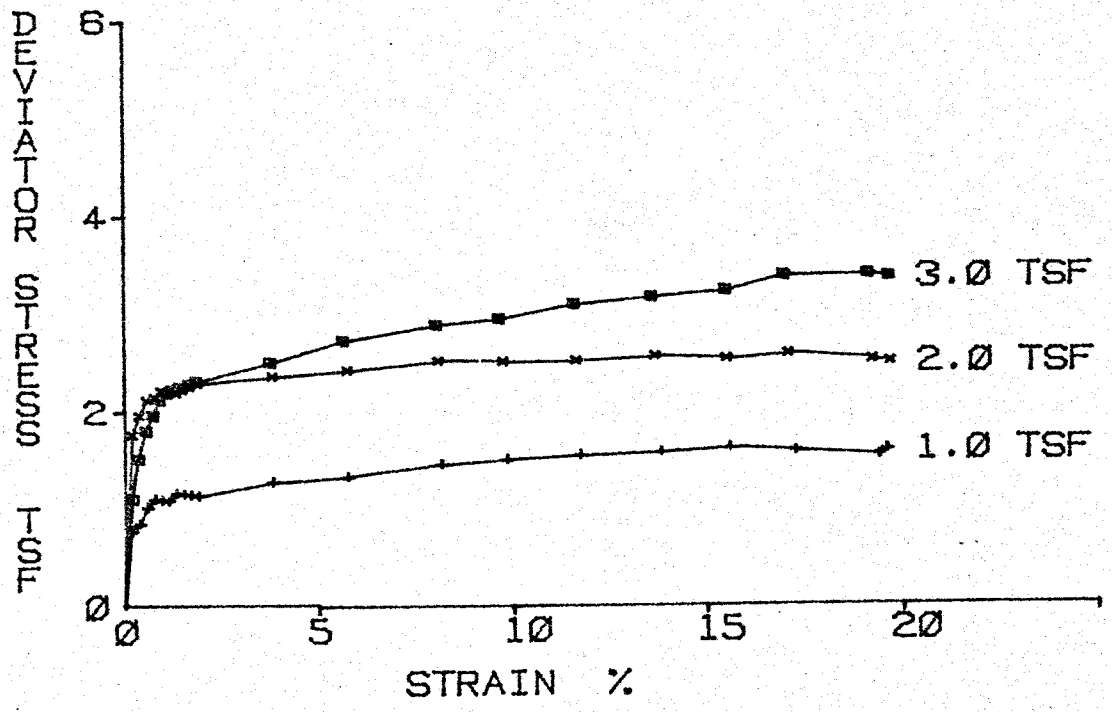


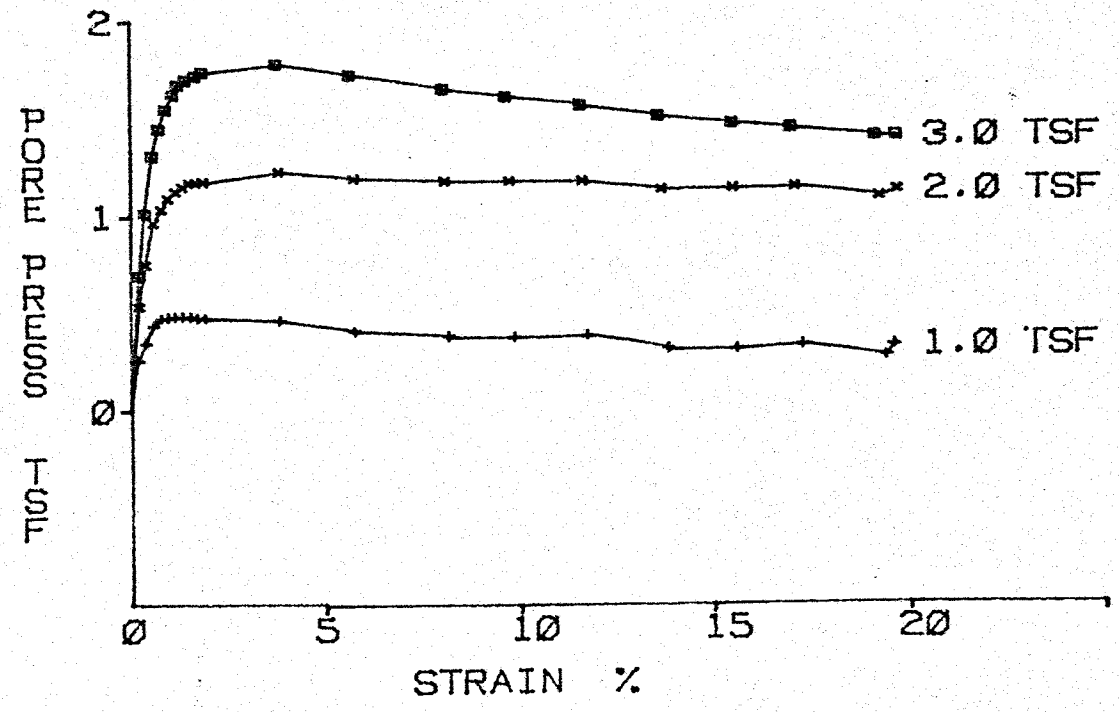


TVA SINGLETON MATERIALS ENGINEERING LABORATORY

CONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION (R) TEST

PROJECT:JOHN SEVIER S.P.EL. :1091.9-1091.4
FEATURE:ASH DIKE SAMPLE :1
STATION: PART :4
RANGE : SOIL SYM:CL-ML
BORING :US-1 DATE :4-16-81





Tennessee Valley Authority
Singleton Materials Engineering Laboratory
Consolidated Undrained Triaxial Compression (R) Test

Project: JOHN SEVIER S.P.
Feature: ASH DIKE
Station:
Range :
Boring : US-1

El. : 1091.9-1091.4
Sample: 1
Part : 4

Tested By : GMD
Computed By: MHD
Checked By : CBG
Report Date: 4-16-81

Soil Sybmbol= CL-ML
Sp. Gr. = 2.69

L.L.(%)= 19
D10(mm)= 0

P.I.(%)= 6

Specimen Number	1	2	3	4
Initial:				
Moisture Content(%)	16.1	17.4	15.9	0.0
Dry Density(pcf)	109.3	106.7	108.7	0.0
Void Ratio	0.537	0.574	0.546	0.000
Saturation(%)	80.8	81.6	78.5	0.0
Before Shearing:				
Moisture(%) (after satur.)	19.9	21.3	20.3	0.0
Saturation(%)	100.0	100.0	100.0	0.0
Moisture(%) (after cons.)	19.9	22.8	20.1	20.1
Void Ratio (after cons.)	0.537	0.612	0.541	0.000
Final Moisture Content(%)	17.2	17.5	16.1	0.0
Minor Principal Stress(tsf)	1.01	2.02	3.02	0.00
Major Principal Stress(tsf)	2.73	4.69	6.51	0.00
Eff. Minor Prin. Stress(tsf)	0.67	0.85	1.58	0.00
Eff. Major Prin. Stress(tsf)	2.40	3.53	5.07	0.00
Time to Failure(min.)	80	90	100	0
Rate of Strain(%/min.)	0.20	0.19	0.19	0.00
Specimen Height(in.)	3.14	3.14	3.14	3.14
Specimen Diameter(in.)	1.40	1.40	1.40	1.40

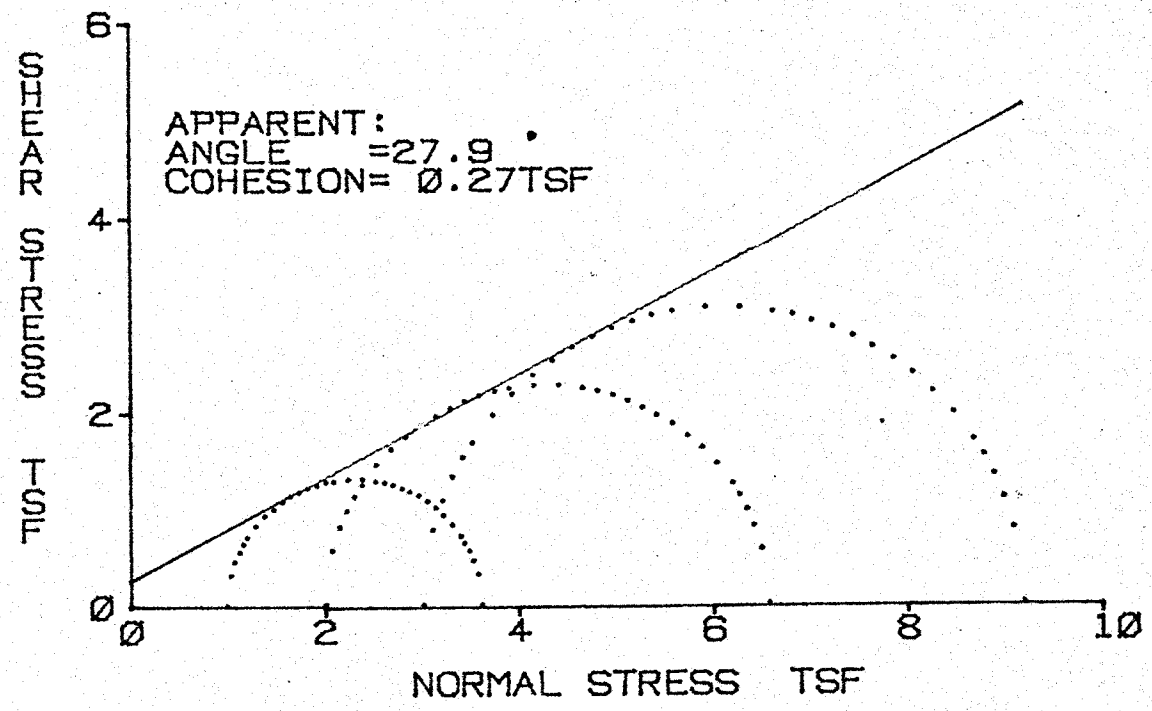
Shear Strength	Deg.	c(tsf)
Apparent	17.7	0.32
Effective	28.6	0.22

Remarks:

TVA SINGLETON MATERIALS ENGINEERING LABORATORY

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION(Q) TEST

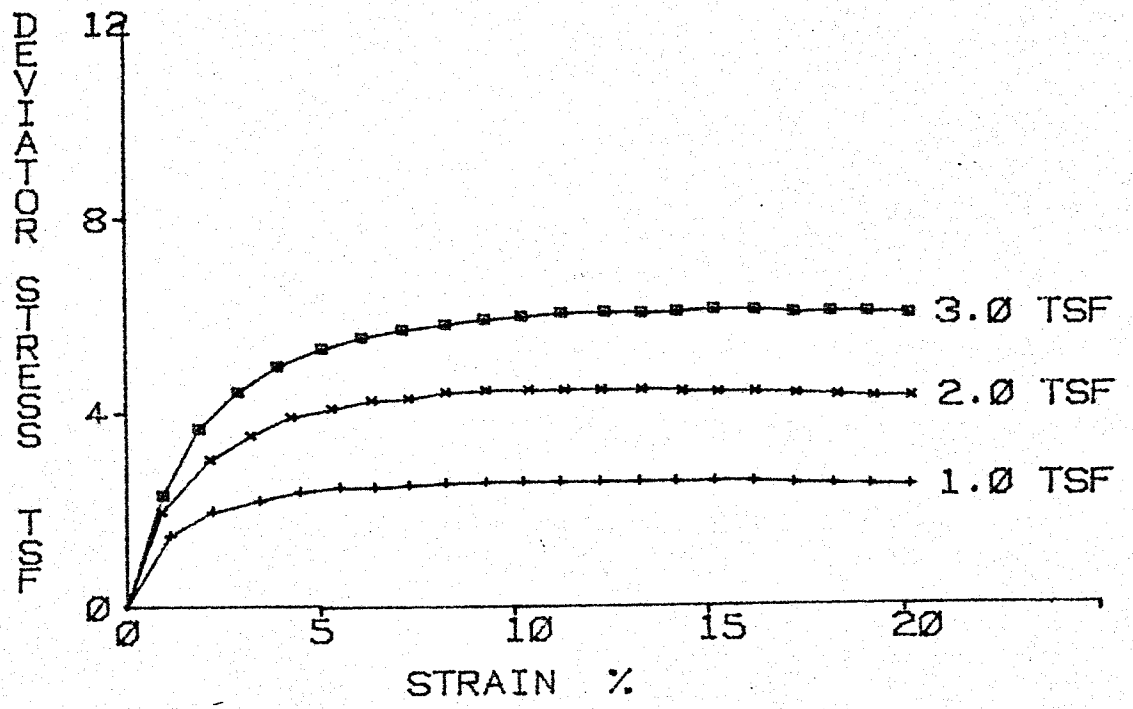
PROJECT:JOHN SEVIER S.P.EL.		:1086.8-1086.3
FEATURE:ASH DIKE	SAMPLE	:3
STATION:	PART	:2
RANGE :	SOIL SYM	:SC
BORING :US-1	DATE	:4-16-81



TVA SINGLETON MATERIALS ENGINEERING LABORATORY

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION(Q) TEST

PROJECT:	JOHN SEVIER S.P.EL.		:1086.8-1086.3
FEATURE:	ASH DIKE	SAMPLE	:3
STATION:		PART	:2
RANGE	:	SOIL SYM:	SC
BORING	:US-1	DATE	:4-16-81



Tennessee Valley Authority
Singleton Materials Engineering Laboratory
Unconsolidated Undrained Triaxial Compression (Q) Test

Project: JOHN SEVIER S.P.
Feature: ASH DIKE
Station:
Range :
Boring : US-1

El. : 1086.8-1086.3
Sample: 3
Part : 2

Tested By : JHD
Computed By: MHD
Checked By : CBC
Report Date: 4-16-81

Soil Sybmbol= SC
Sp. Gr. = 2.67

L.L.(%)= 28
D10(mm)= 1.20000000E-03

P.I.(%)= 10

Specimen Number	1	2	3	4
Initial:				
Moisture Content(%)	15.3	15.2	14.7	0.0
Dry Density(pcf)	99.4	100.7	101.5	0.0
Void Ratio	0.676	0.655	0.641	0.000
Saturation(%)	60.4	61.9	61.3	0.0
Before Shearing:				
Moisture(%) (after satur.)	--	--	--	--
Saturation(%)	--	--	--	--
Moisture(%) (after cons.)	--	--	--	--
Void Ratio (after cons.)	--	--	--	--
Final Moisture Content(%)	15.2	15.1	14.6	0.0
Minor Principal Stress(tsf)	1.01	2.02	3.02	0.00
Major Principal Stress(tsf)	3.64	6.59	9.21	0.00
Eff. Minor Prin. Stress(tsf)	--	--	--	--
Eff. Major Prin. Stress(tsf)	--	--	--	--
Time to Failure(min.)	15	13	15	0
Rate of Strain(%/min.)	1.03	1.04	1.03	0.00
Specimen Height(in.)	3.08	3.08	3.08	3.08
Specimen Diameter(in.)	1.40	1.40	1.40	1.40

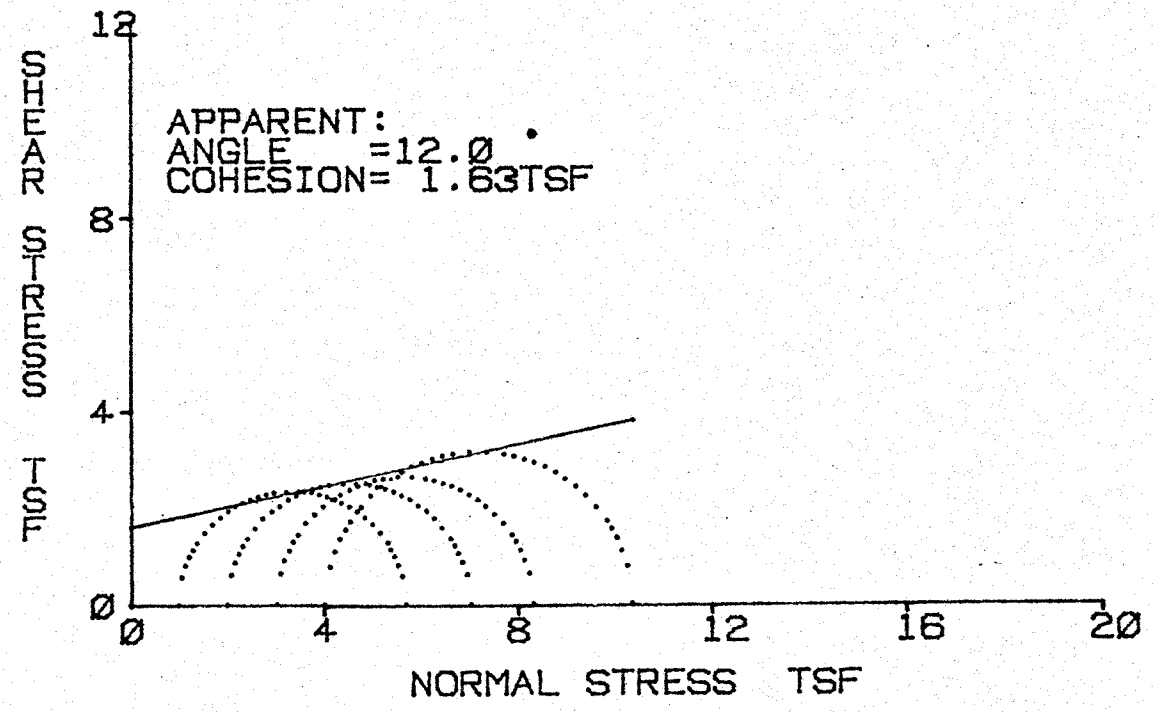
Shear Strength	Deg.	c(tsf)
Apparent	27.9	0.27
Effective	--	--

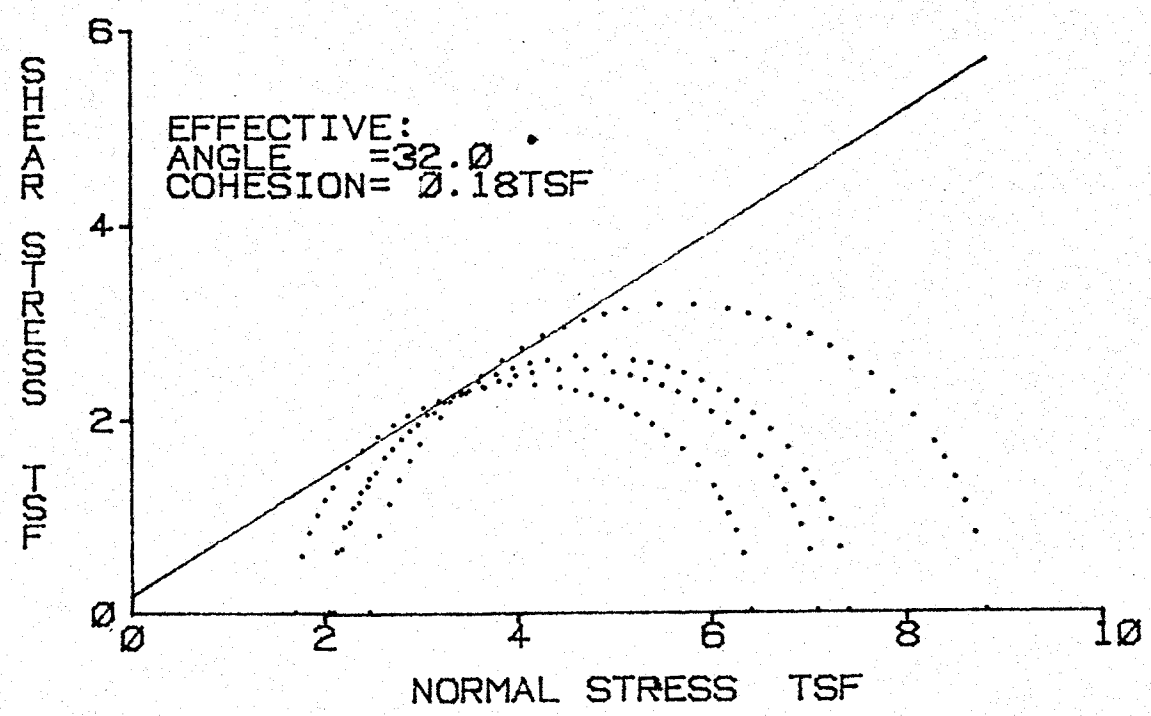
Remarks:

TVA SINGLETON MATERIALS ENGINEERING LABORATORY

CONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION (R) TEST

PROJECT:JOHN SEVIER SP	EL. :1087.4-1086.9
FEATURE:ASH DIKE	SAMPLE :3
STATION:W60+32	PART :1
RANGE :S5+17	SOIL SYM:SC
BORING :US-1	DATE :7/15/81

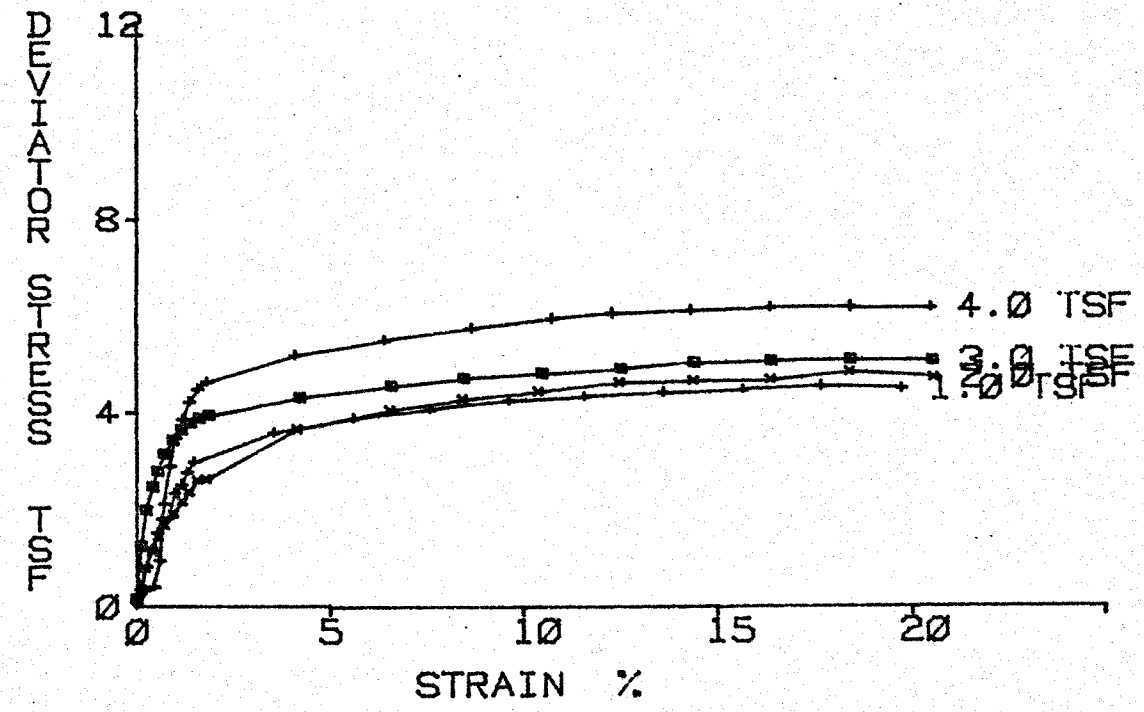


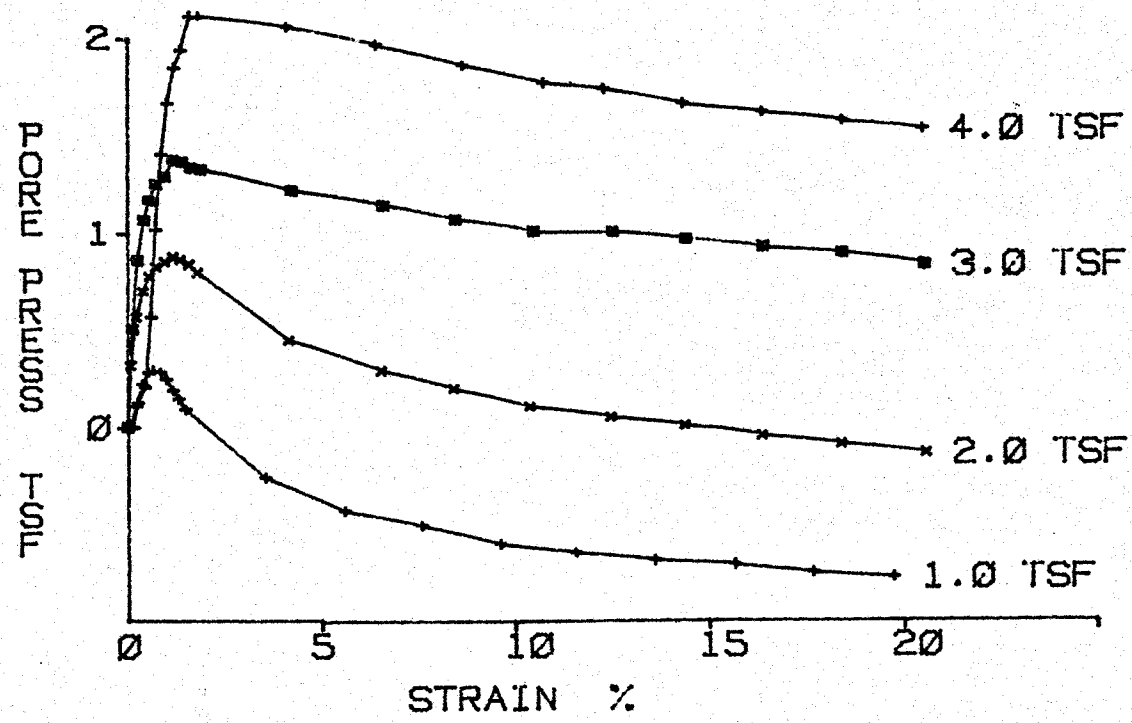


TVA SINGLETON MATERIALS ENGINEERING LABORATORY

CONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION (R) TEST

PROJECT:JOHN SEVIER SP	EL. :1087.4-1086.9
FEATURE:ASH DIKE	SAMPLE :3
STATION:W60+32	PART :1
RANGE :S5+17	SOIL SYM:SC
BORING :US-1	DATE :7/15/81





Tennessee Valley Authority
Singleton Materials Engineering Laboratory
Consolidated Undrained Triaxial Compression (R) Test

Project: JOHN SEVIER SP
Feature: ASH DIKE
Station: W60+32
Range : S5+17
Boring : US-1

El. : 1087.4-1086.9
Sample: 3
Part : 1

Tested By : JHD
Computed By: CRF
Checked By : TAL
Report Date: 7/15/81

Soil Sybmbol= SC
Sp. Gr. = 2.67

L.L.(%)= 28
D10(mm)= 1.20000000E-03

P.I.(%)= 10

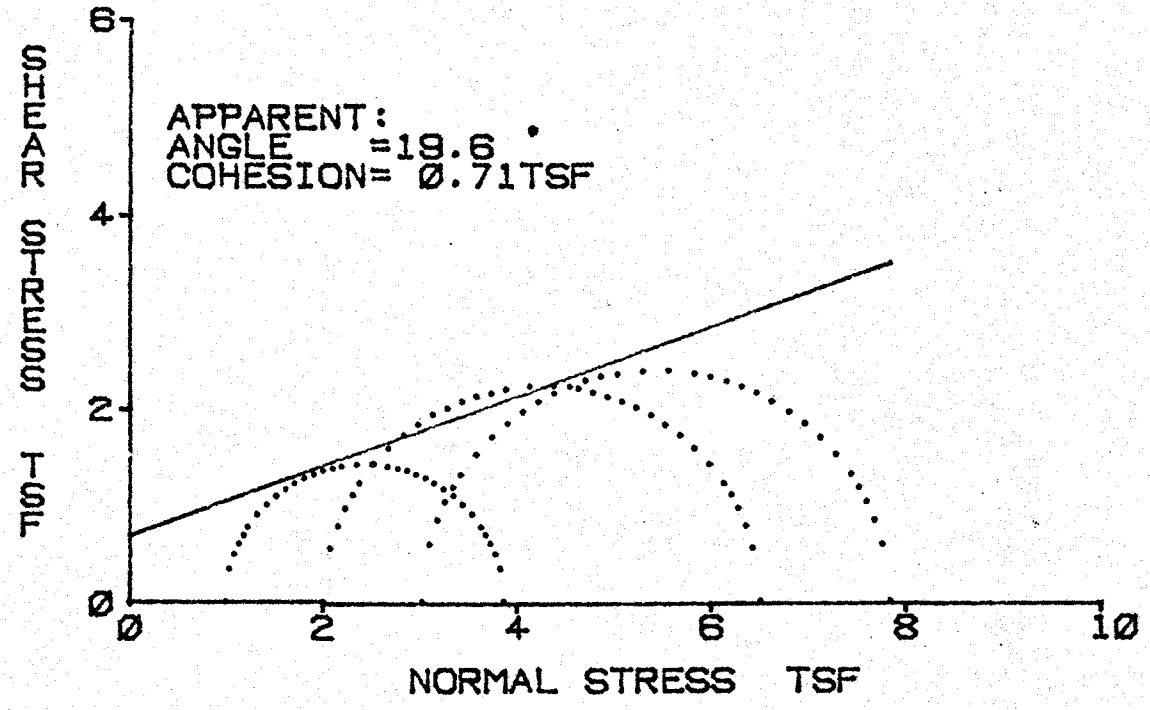
Specimen Number	1	2	3	4
Initial:				
Moisture Content(%)	16.3	16.8	16.9	16.8
Dry Density(pcf)	103.4	104.1	102.7	103.0
Void Ratio	0.612	0.602	0.623	0.618
Saturation(%)	71.0	74.4	72.5	72.5
Before Shearing:				
Moisture(%) (after satur.)	22.9	22.5	23.3	23.2
Saturation(%)	100.0	100.0	100.0	100.0
Moisture(%) (after cons.)	21.9	21.2	23.3	23.3
Void Ratio (after cons.)	0.585	0.566	0.623	0.584
Final Moisture Content(%)	21.7	20.9	21.2	21.0
Minor Principal Stress(tsf)	1.01	2.02	3.02	4.03
Major Principal Stress(tsf)	5.72	7.06	8.33	10.38
Eff. Minor Prin. Stress(tsf)	1.71	2.06	2.10	2.48
Eff. Major Prin. Stress(tsf)	6.42	7.10	7.41	8.83
Time to Failure(min.)	90	90	90	100
Rate of Strain(%/min.)	0.20	0.21	0.21	0.21
Specimen Height(in.)	3.08	3.08	3.08	3.08
Specimen Diameter(in.)	1.40	1.40	1.40	1.40

Shear Strength	Deg.	c(tsf)
Apparent	12.0	1.63
Effective	32.0	0.18

Remarks:

TVA SINGLETON MATERIALS ENGINEERING LABORATORY
UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION(Q) TEST

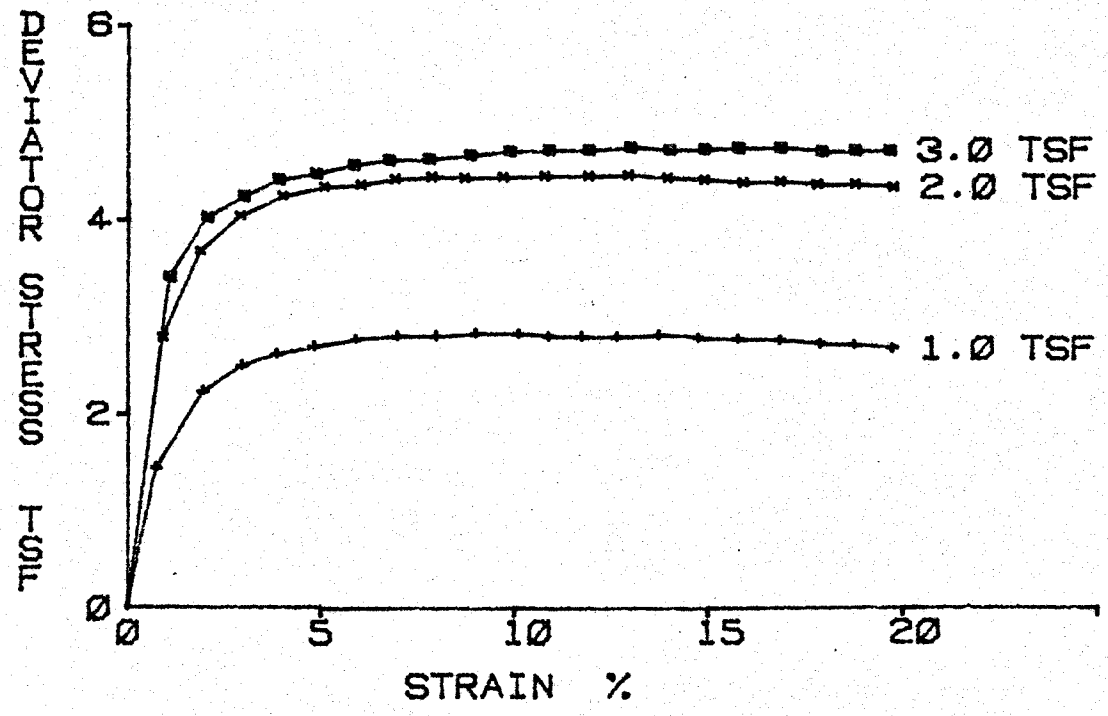
PROJECT:	JOHN SEVIER N.P.EL.		:1087.0-1087.1
FEATURE:	ASH DIKE	SAMPLE	:1
STATION:		PART	:3
RANGE	:	SOIL SYM:	CL
BORING	:US-4	DATE	:6-1-81



TVA SINGLETON MATERIALS ENGINEERING LABORATORY

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION(Q) TEST

PROJECT:	JOHN SEVIER N.P.EL.		:1087.0-1087.1
FEATURE:	ASH DIKE	SAMPLE	:1
STATION:		PART	:3
RANGE	:	SOIL SYM:	CL
BORING	:US-4	DATE	:6-1-81



Tennessee Valley Authority
Singleton Materials Engineering Laboratory
Unconsolidated Undrained Triaxial Compression (Q) Test

Project: JOHN SEVIER N.P.
Feature: ASH DIKE
Station:
Range :
Boring : US-4

El. : 1087.0-1087.1
Sample: 1
Part : 3

Tested By : RA
Computed By: MHD
Checked By : [illegible]
Report Date: 6-1-81

Soil Sybmbol= CL
Sp. Gr. = 2.67

L.L.(%)= 31
D10(mm)= 0

P.I.(%)= 15

Specimen Number	1	2	3	4
Initial:				
Moisture Content(%)	20.5	19.2	19.3	0.0
Dry Density(pcf)	100.4	102.1	101.6	0.0
Void Ratio	0.659	0.632	0.641	0.000
Saturation(%)	83.0	81.2	80.2	0.0
Before Shearing:				
Moisture(%) (after satur.)	--	--	--	--
Saturation(%)	--	--	--	--
Moisture(%) (after cons.)	--	--	--	--
Void Ratio (after cons.)	--	--	--	--
Final Moisture Content(%)	20.3	19.2	19.1	0.0
Minor Principal Stress(tsf)	1.01	2.02	3.02	0.00
Major Principal Stress(tsf)	3.89	6.52	7.85	0.00
Eff. Minor Prin. Stress(tsf)	--	--	--	--
Eff. Major Prin. Stress(tsf)	--	--	--	--
Time to Failure(min.)	14	13	13	0
Rate of Strain(%/min.)	0.99	1.01	1.01	0.00
Specimen Height(in.)	3.15	3.15	3.15	3.15
Specimen Diameter(in.)	1.39	1.39	1.39	1.39

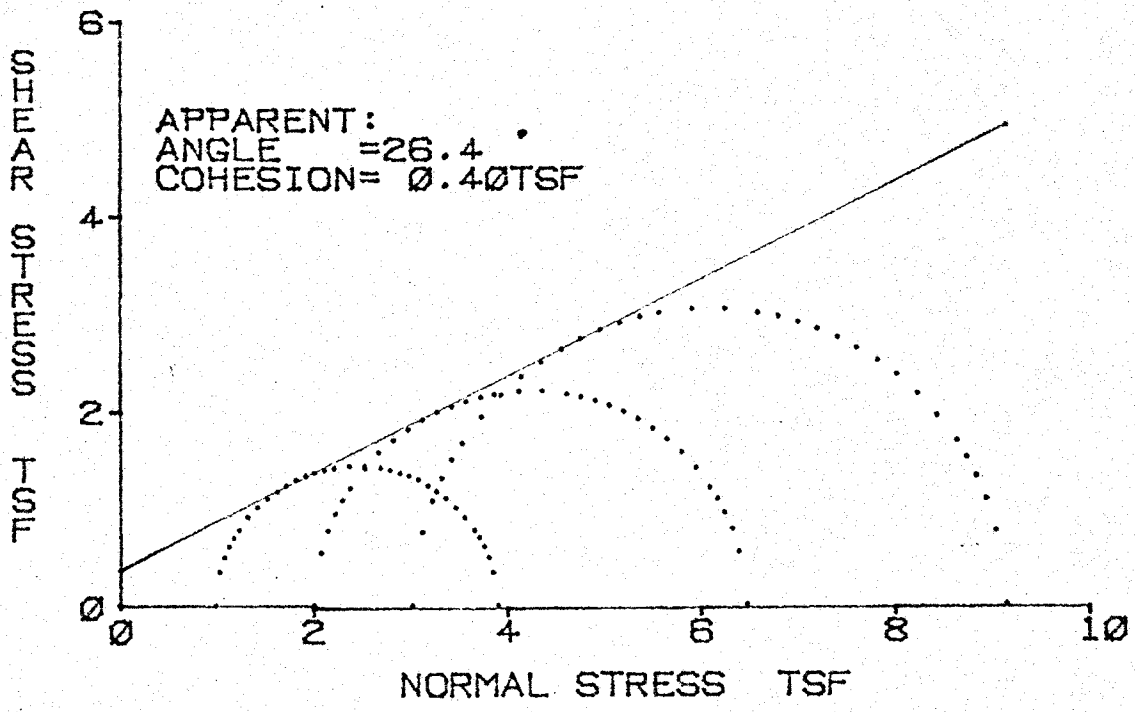
Shear Strength	Deg.	c(tsf)
Apparent	19.6	0.71
Effective	--	--

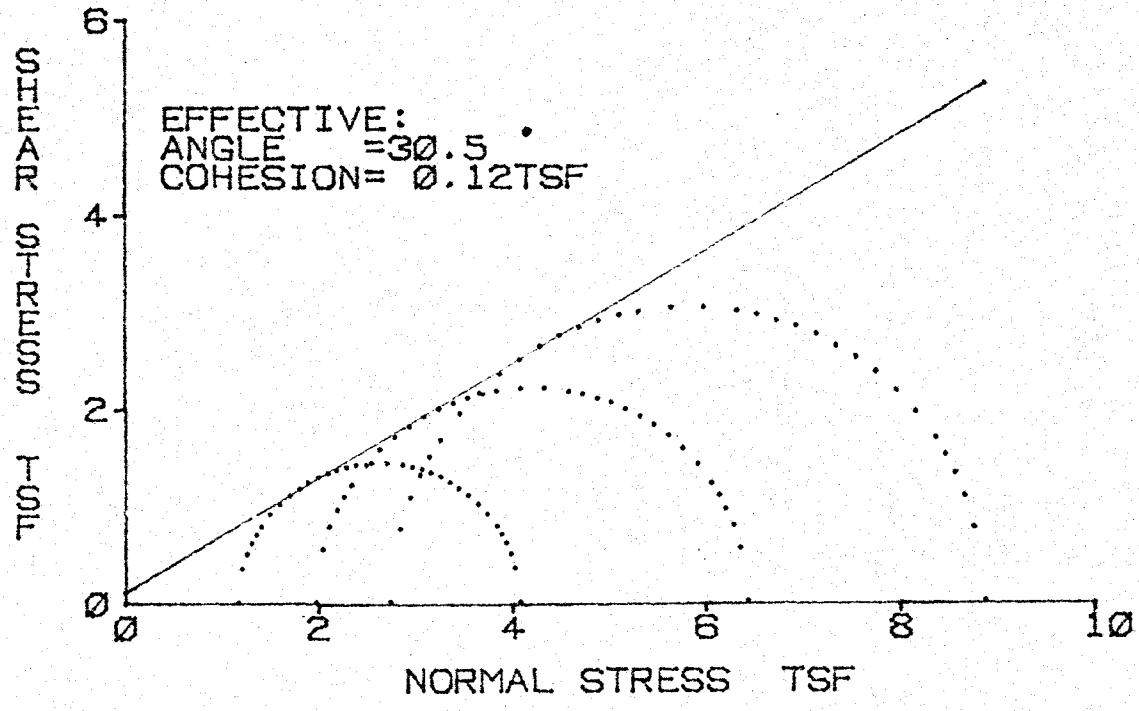
Remarks:

TVA SINGLETON MATERIALS ENGINEERING LABORATORY

CONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION (R) TEST

PROJECT:	JOHN SEVIER S.P.EL.		:1087.1-1086.6
FEATURE:	ASH DIKE	SAMPLE	:1
STATION:		PART	:4
RANGE	:	SOIL SYM:	CL
BORING	:US-4	DATE	:4-28-81

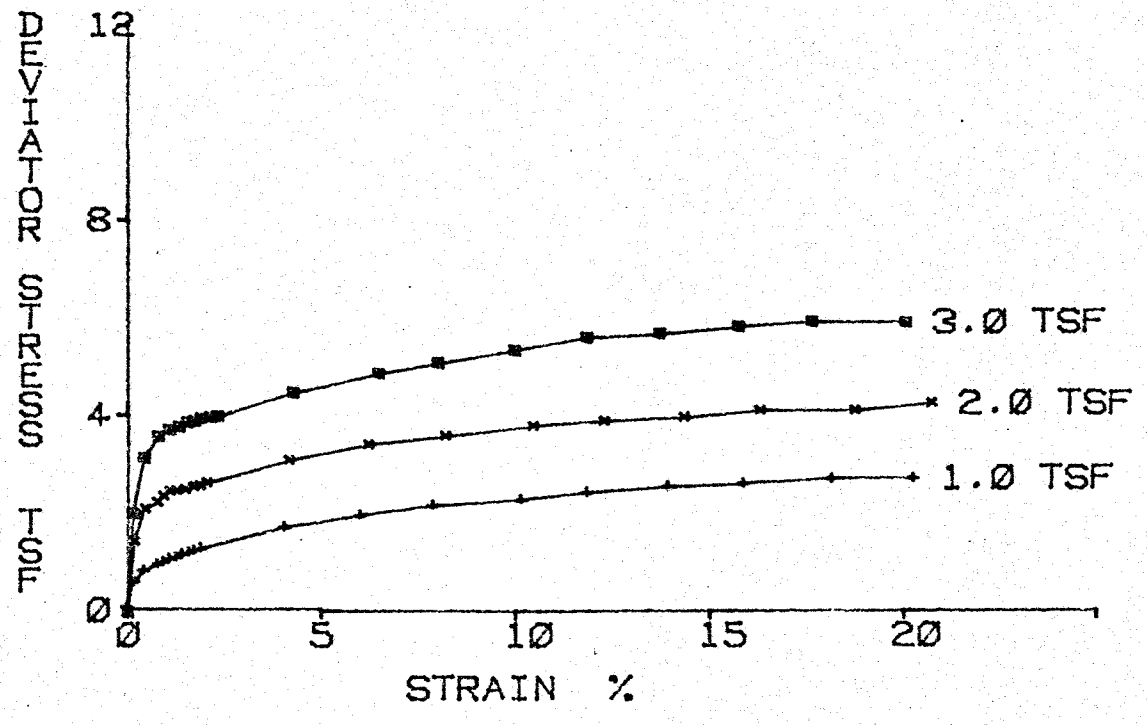


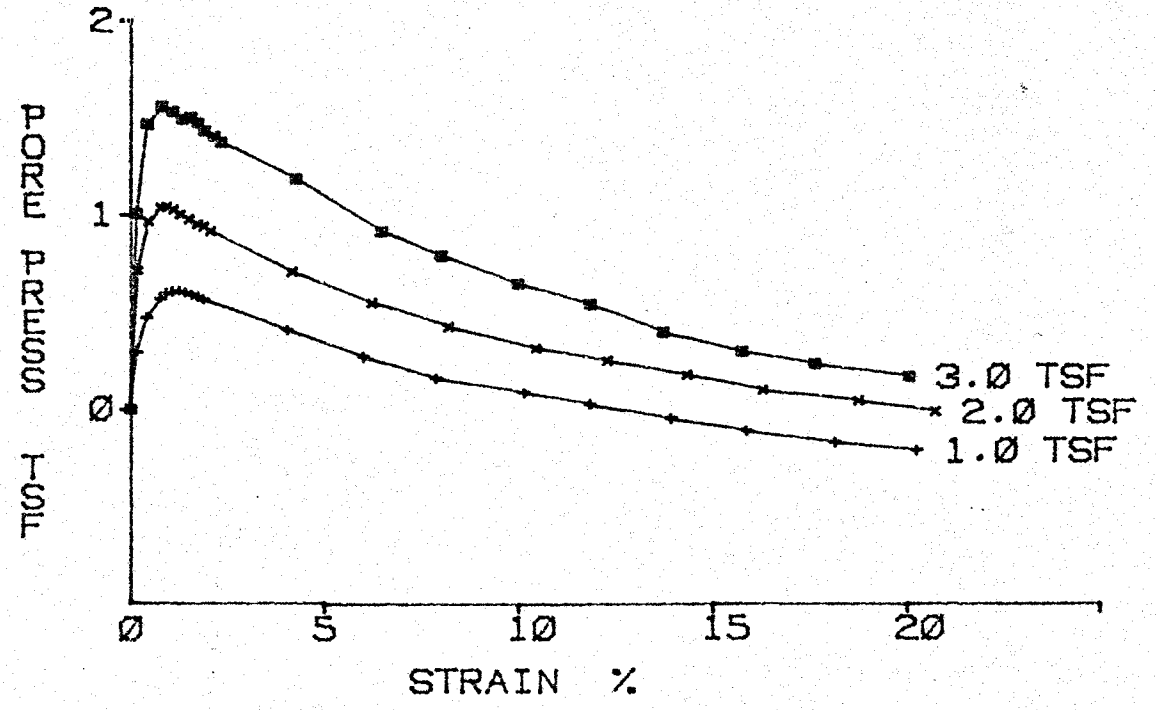


TVA SINGLETON MATERIALS ENGINEERING LABORATORY

CONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION (R) TEST

PROJECT: JOHN SEVIER S.P.EL.		:1087.1-1086.6
FEATURE: ASH DIKE	SAMPLE	:1
STATION:	PART	:4
RANGE :	SOIL SYM	:CL
BORING :US-4	DATE	:4-28-81





Tennessee Valley Authority
Singleton Materials Engineering Laboratory
Consolidated Undrained Triaxial Compression (R) Test

Project: JOHN SEVIER S.P.
Feature: ASH DIKE
Station:
Range :
Boring : US-4

El. : 1087.1-1086.6
Sample: 1
Part : 4

Tested By : JHD
Computed By: MHD
Checked By : TAL
Report Date: 4-28-81

Soil Sybmbol= CL
Sp. Gr. = 2.67

L.L.(%)= 31
D10(mm)= 0

P.I.(%)= 15

Specimen Number	1	2	3	4
Initial:				
Moisture Content(%)	17.4	16.4	16.3	0.0
Dry Density(pcf)	106.6	109.6	111.0	0.0
Void Ratio	0.563	0.520	0.502	0.000
Saturation(%)	82.7	84.4	86.8	0.0
Before Shearing:				
Moisture(%) (after satur.)	21.1	19.5	18.8	0.0
Saturation(%)	100.0	100.0	100.0	0.0
Moisture(%) (after cons.)	20.2	18.3	18.2	18.2
Void Ratio (after cons.)	0.540	0.488	0.487	0.000
Final Moisture Content(%)	20.1	18.7	18.4	0.0
Minor Principal Stress(tsf)	1.01	2.02	3.02	0.00
Major Principal Stress(tsf)	3.92	6.48	9.16	0.00
Eff. Minor Prin. Stress(tsf)	1.19	1.99	2.75	0.00
Eff. Major Prin. Stress(tsf)	4.10	6.45	8.88	0.00
Time to Failure(min.)	100	100	90	0
Rate of Strain(%/min.)	0.21	0.21	0.20	0.00
Specimen Height(in.)	3.08	3.08	3.08	3.08
Specimen Diameter(in.)	1.40	1.40	1.40	1.40

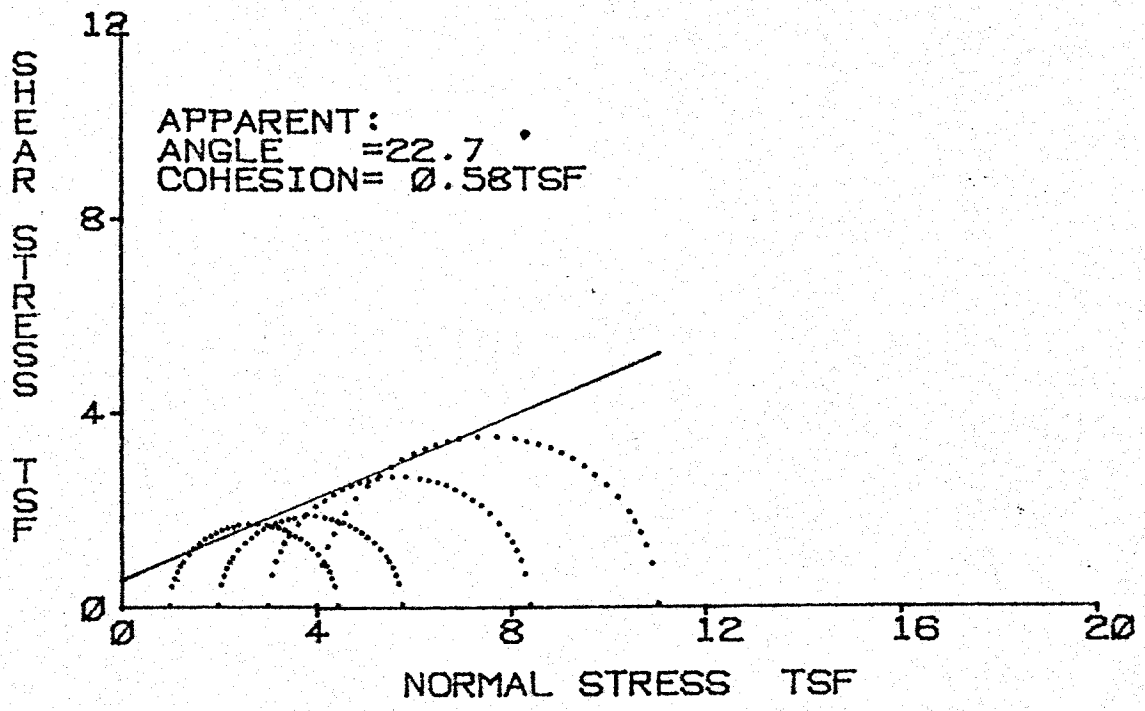
Shear Strength	Deg.	c(tsf)
Apparent	26.4	0.40
Effective	30.5	0.12

Remarks:

TVA SINGLETON MATERIALS ENGINEERING LABORATORY

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION(Q) TEST

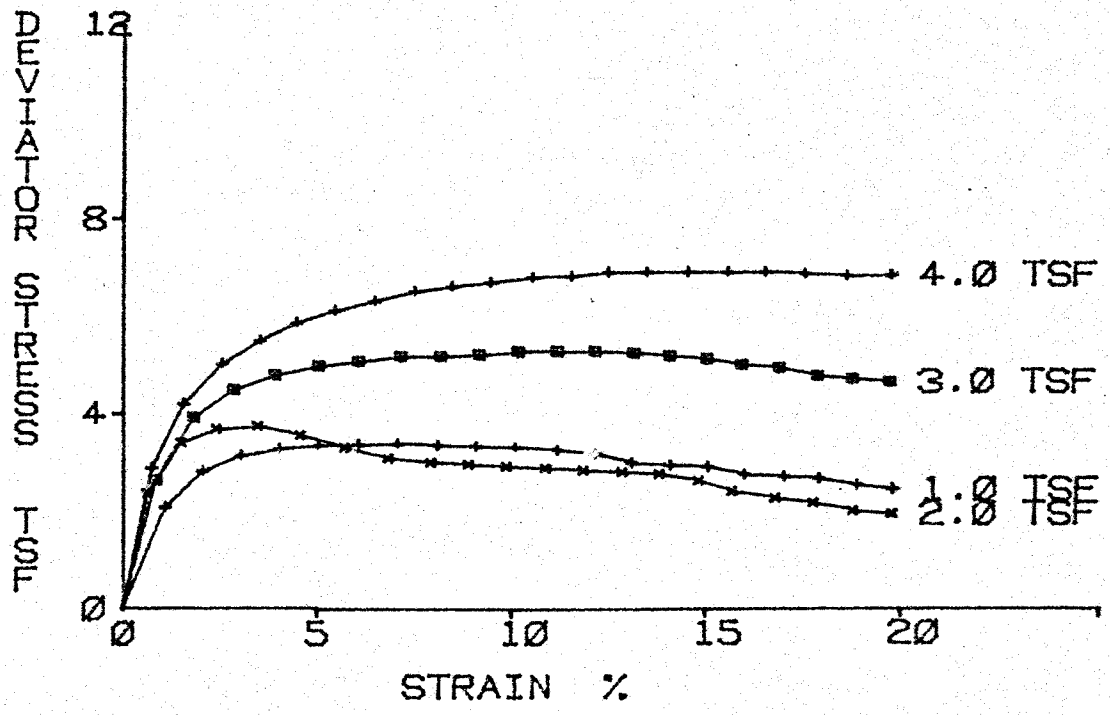
PROJECT:	JOHN SEVIER S.P.EL.		:1084.5-1084.0
FEATURE:	ASH DIKE	SAMPLE	:1
STATION:		PART	:4
RANGE	:	SOIL SYM:	CL-CH
BORING	:US-8	DATE	:4-7-81



TVA SINGLETON MATERIALS ENGINEERING LABORATORY

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION(Q) TEST

PROJECT:	JOHN SEVIER S.P.EL.		:1084.5-1084.0
FEATURE:	ASH DIKE	SAMPLE	:1
STATION:		PART	:4
RANGE	:	SOIL SYM:	CL-CH
BORING	:US-8	DATE	:4-7-81



Tennessee Valley Authority
Singleton Materials Engineering Laboratory
Unconsolidated Undrained Triaxial Compression (Q) Test

Project: JOHN SEVIER S.P.
Feature: ASH DIKE
Station:
Range :
Boring : US-8

El. : 1084.5-1084.0
Sample: 1
Part : 4

Tested By : EL
Computed By: MHD
Checked By : GMD
Report Date: 4-7-81

Soil Sybmbol= CL-CH
Sp. Gr. = 2.69

L.L.(%)= 49
D10(mm)= 0

P.I.(%)= 30

Specimen Number	1	2	3	4
Initial:				
Moisture Content(%)	25.2	22.1	23.8	21.5
Dry Density(pcf)	98.5	102.8	100.1	104.1
Void Ratio	0.706	0.634	0.678	0.613
Saturation(%)	96.2	93.8	94.5	94.5
Before Shearing:				
Moisture(%) (after satur.)	--	--	--	--
Saturation(%)	--	--	--	--
Moisture(%) (after cons.)	--	--	--	--
Void Ratio (after cons.)	--	--	--	--
Final Moisture Content(%)	25.2	21.8	23.6	21.4
Minor Principal Stress(tsf)	1.01	2.02	3.02	4.03
Major Principal Stress(tsf)	4.46	5.79	8.40	11.06
Eff. Minor Prin. Stress(tsf)	--	--	--	--
Eff. Major Prin. Stress(tsf)	--	--	--	--
Time to Failure(min.)	7	4	12	17
Rate of Strain(%/min.)	1.02	0.88	1.03	0.98
Specimen Height(in.)	3.15	3.15	3.15	3.15
Specimen Diameter(in.)	1.40	1.40	1.40	1.40

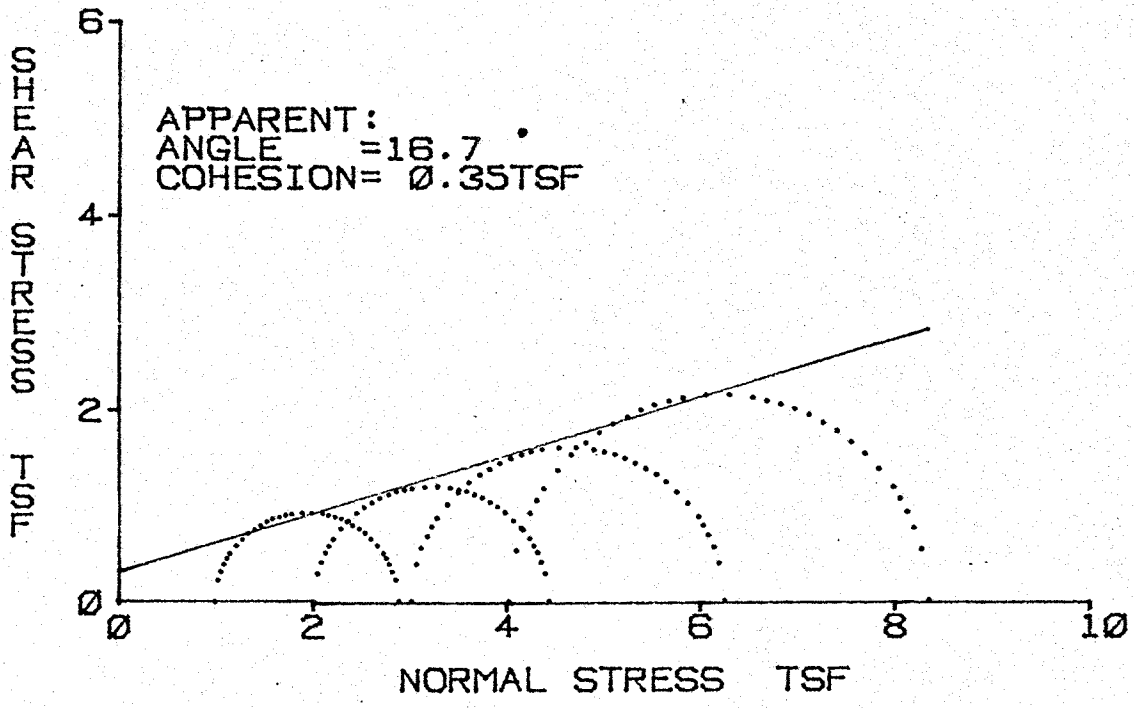
Shear Strength	Deg.	c(tsf)
Apparent	22.7	0.58
Effective	--	--

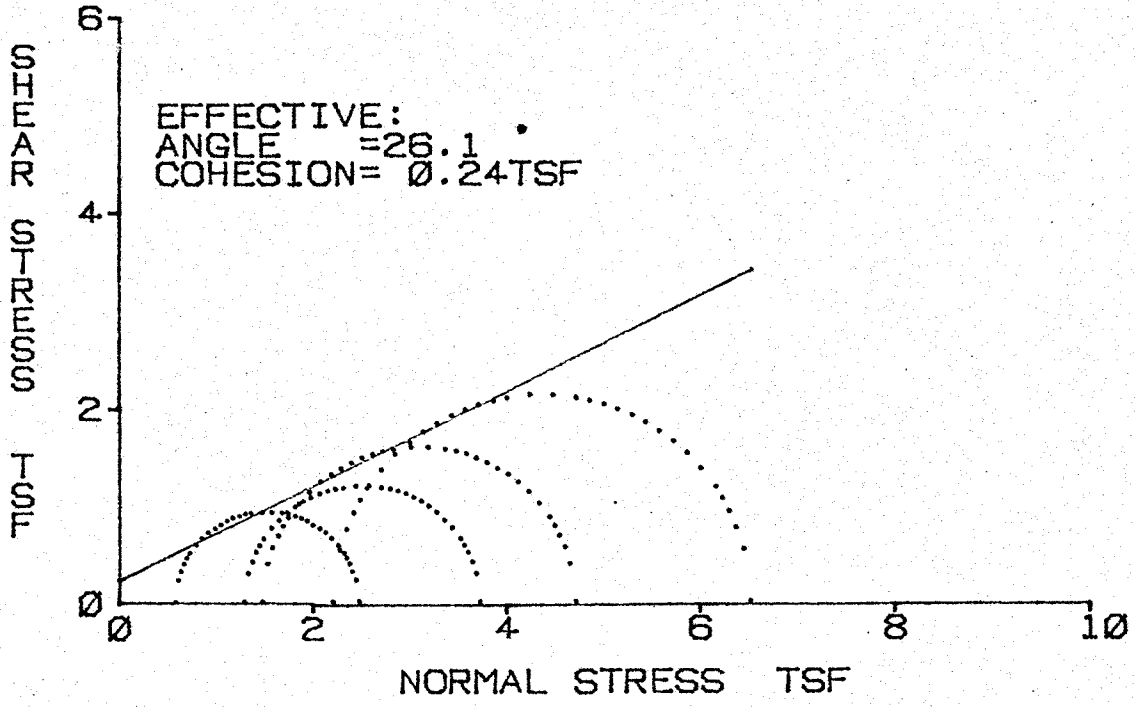
Remarks:

TVA SINGLETON MATERIALS ENGINEERING LABORATORY

CONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION (R) TEST

PROJECT:	JOHN SEVIER S.P.EL.		:1085.5-1085.0
FEATURE:	ASH DIKE	SAMPLE	:1
STATION:	W70+92	PART	:2
RANGE	:S1+55.8	SOIL SYM:	CL-CH
BORING	:US-8	DATE	:6-24-81

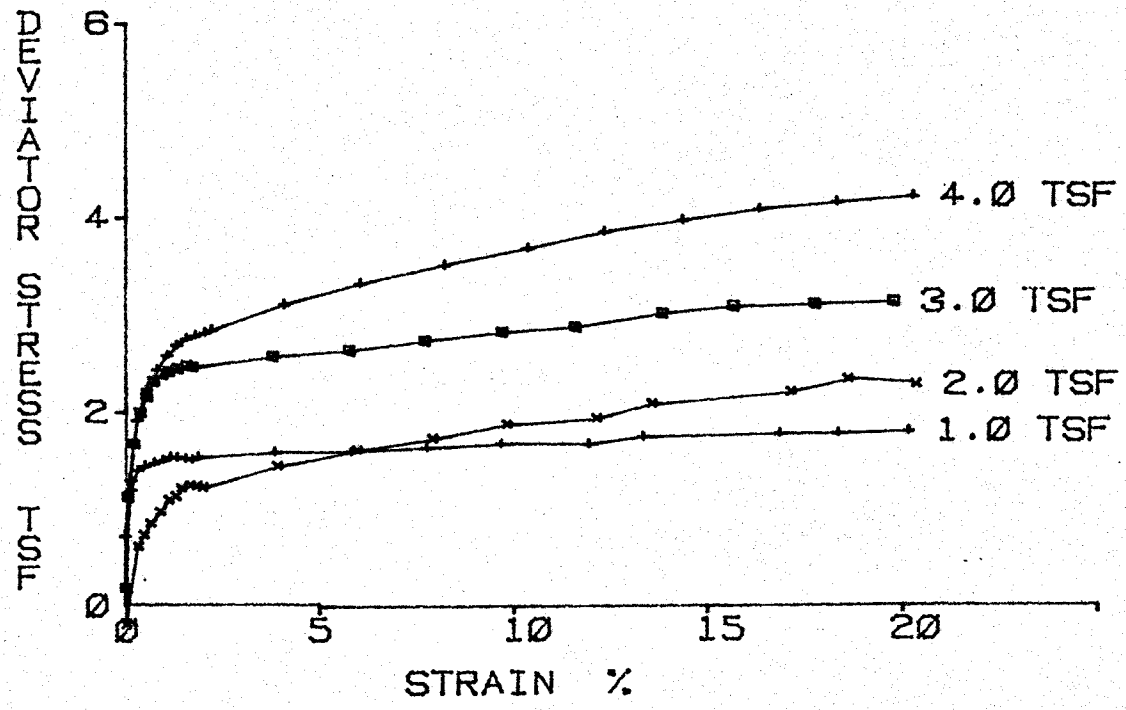


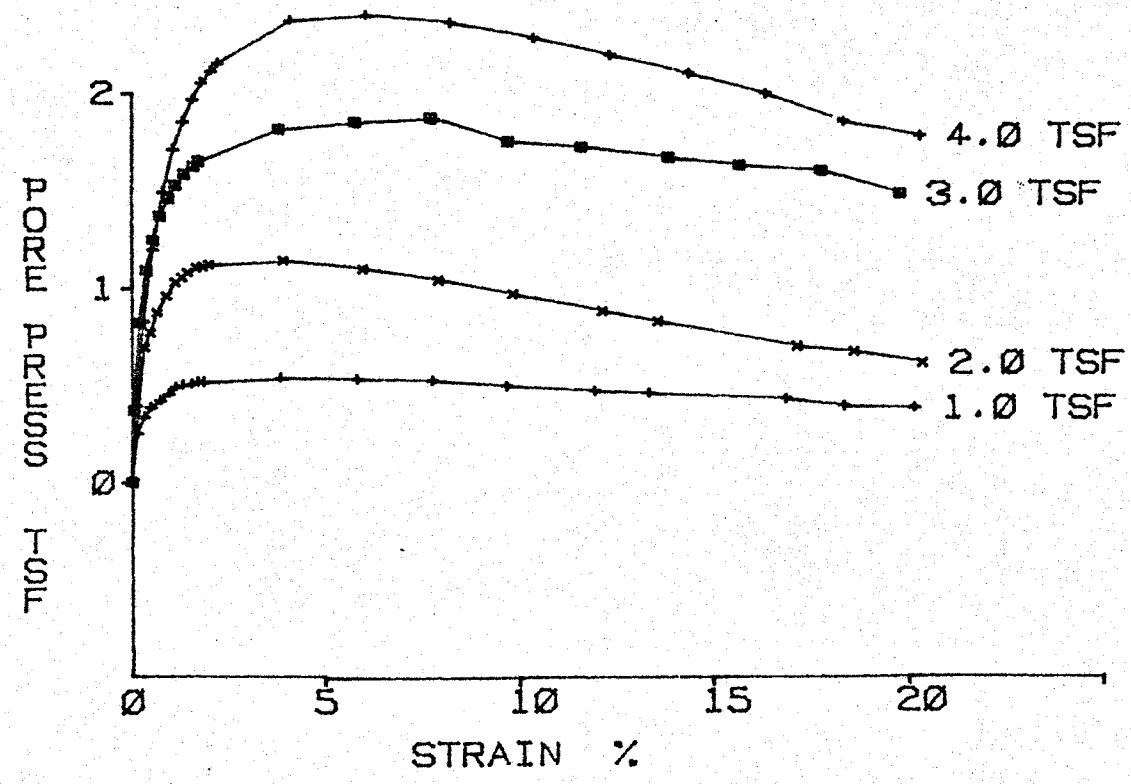


TVA SINGLETON MATERIALS ENGINEERING LABORATORY

CONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION (R) TEST

PROJECT:	JOHN SEVIER S.P.EL.		:1085.5-1085.0
FEATURE:	ASH DIKE	SAMPLE	:1
STATION:	W70+92	PART	:2
RANGE	:S1+55.8	SOIL SYM:	CL-CH
BORING	:US-8	DATE	:6-24-81





Tennessee Valley Authority
Singleton Materials Engineering Laboratory
Consolidated Undrained Triaxial Compression (R) Test

Project: JOHN SEVIER S.P.
Feature: ASH DIKE
Station: W70+92
Range : S1+55.8
Boring : US-8

El. : 1085.5-1085.0
Sample: 1
Part : 2

Tested By : JHD
Computed By: MHD
Checked By : GMD
Report Date: 6-24-81

Soil Sybmbol= CL-CH
Sp. Gr. = 2.69

L.L.(%)= 49
D10(mm)= 0

P.I.(%)= 30

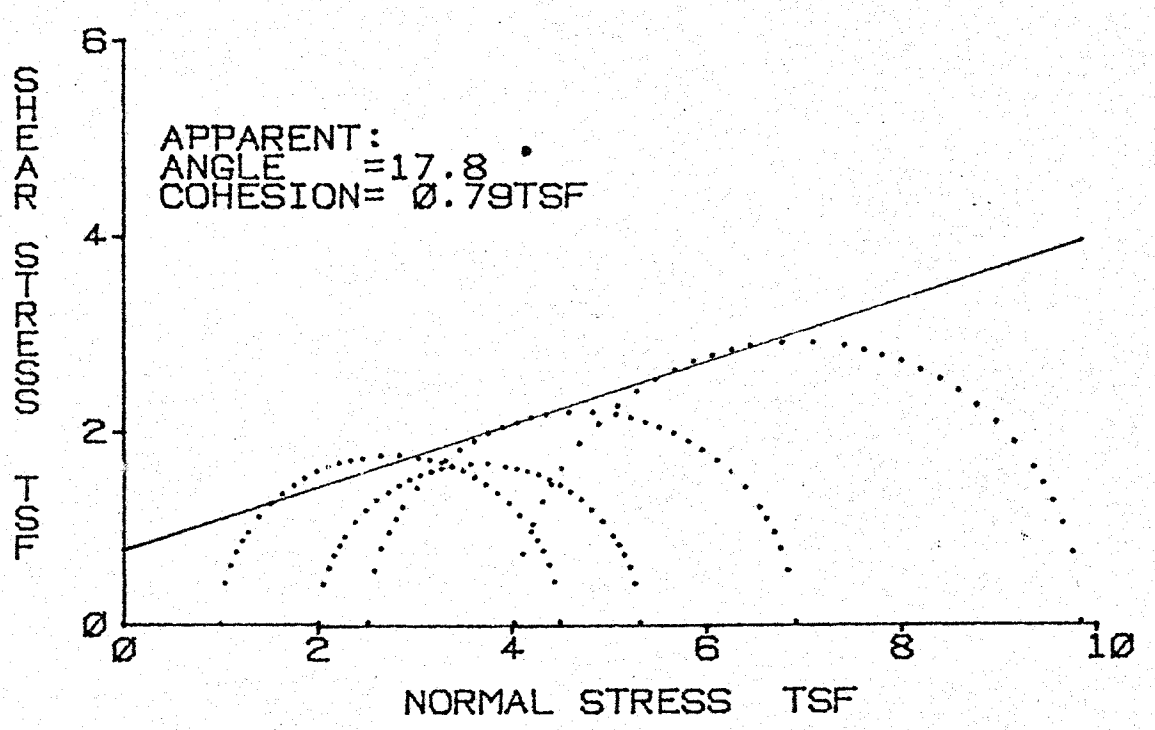
Specimen Number	1	2	3	4
Initial:				
Moisture Content(%)	24.0	23.3	22.1	21.6
Dry Density(pcf)	94.3	96.2	99.0	98.6
Void Ratio	0.781	0.745	0.697	0.704
Saturation(%)	82.7	84.0	85.1	82.4
Before Shearing:				
Moisture(%) (after satur.)	29.0	27.7	25.9	26.2
Saturation(%)	100.0	100.0	100.0	100.0
Moisture(%) (after cons.)	28.9	26.5	22.9	22.9
Void Ratio (after cons.)	0.778	0.712	0.616	0.674
Final Moisture Content(%)	27.2	25.0	22.8	22.6
Minor Principal Stress(tsf)	1.01	2.02	3.02	4.03
Major Principal Stress(tsf)	2.90	4.45	6.26	8.35
Eff. Minor Prin. Stress(tsf)	0.60	1.30	1.50	2.22
Eff. Major Prin. Stress(tsf)	2.49	3.74	4.73	6.53
Time to Failure(min.)	100	90	100	100
Rate of Strain(%/min.)	0.20	0.21	0.20	0.21
Specimen Height(in.)	3.08	3.08	3.08	3.08
Specimen Diameter(in.)	1.40	1.40	1.40	1.40

Shear Strength	Deg.	c(tsf)
Apparent	16.7	0.35
Effective	26.1	0.24

Remarks:

TVA SINGLETON MATERIALS ENGINEERING LABORATORY
UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION(Q) TEST

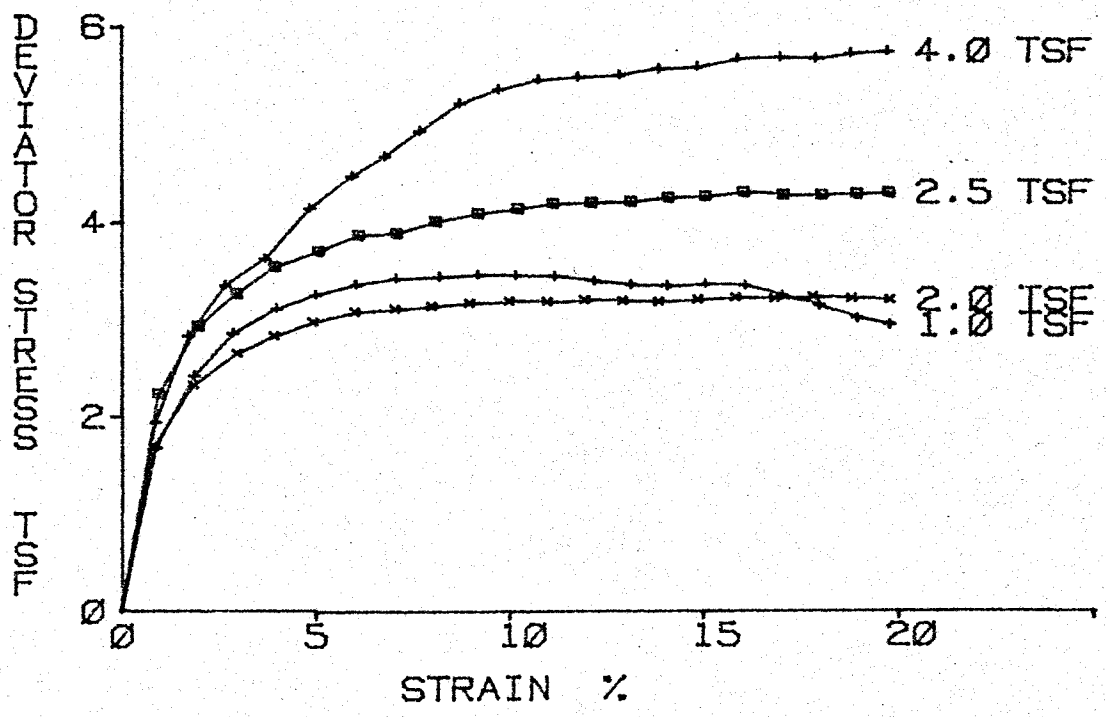
PROJECT:	JOHN SEVIER S.P.EL.		:1078.9-1078.4
FEATURE:	ASH DIKE	SAMPLE	:3
STATION:		PART	:3
RANGE	:	SOIL SYM:	CL
BORING	:US-8	DATE	:4-16-81



TVA SINGLETON MATERIALS ENGINEERING LABORATORY

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION(Q) TEST

PROJECT:	JOHN SEVIER S.P.EL.		:1078.9-1078.4
FEATURE:	ASH DIKE	SAMPLE	:3
STATION:		PART	:3
RANGE	:	SOIL SYM:	CL
BORING	:US-8	DATE	:4-16-81



Tennessee Valley Authority
Singleton Materials Engineering Laboratory
Unconsolidated Undrained Triaxial Compression (Q) Test

Project: JOHN SEVIER S.P.
Feature: ASH DIKE
Station:
Range :
Boring : US-8

El. : 1078.9-1078.4
Sample: 3
Part : 3

Tested By : EL
Computed By: MHD
Checked By : CBL
Report Date: 4-16-81

Soil Sybmbol= CL
Sp. Gr. = 2.71

L.L.(%)= 39
D10(mm)= 0

P.I.(%)= 22

Specimen Number	1	2	3	4
Initial:				
Moisture Content(%)	19.6	20.2	20.8	20.1
Dry Density(pcf)	107.2	105.4	105.0	106.3
Void Ratio	0.578	0.606	0.612	0.592
Saturation(%)	91.9	90.5	92.3	91.9
Before Shearing:				
Moisture(%) (after satur.)	--	--	--	--
Saturation(%)	--	--	--	--
Moisture(%) (after cons.)	--	--	--	--
Void Ratio (after cons.)	--	--	--	--
Final Moisture Content(%)	19.4	20.1	20.5	19.7
Minor Principal Stress(tsf)	1.01	2.02	2.52	4.03
Major Principal Stress(tsf)	4.52	5.34	6.92	9.86
Eff. Minor Prin. Stress(tsf)	--	--	--	--
Eff. Major Prin. Stress(tsf)	--	--	--	--
Time to Failure(min.)	9	18	20	20
Rate of Strain(%/min.)	1.04	1.00	1.00	1.00
Specimen Height(in.)	3.15	3.15	3.15	3.15
Specimen Diameter(in.)	1.40	1.40	1.40	1.40

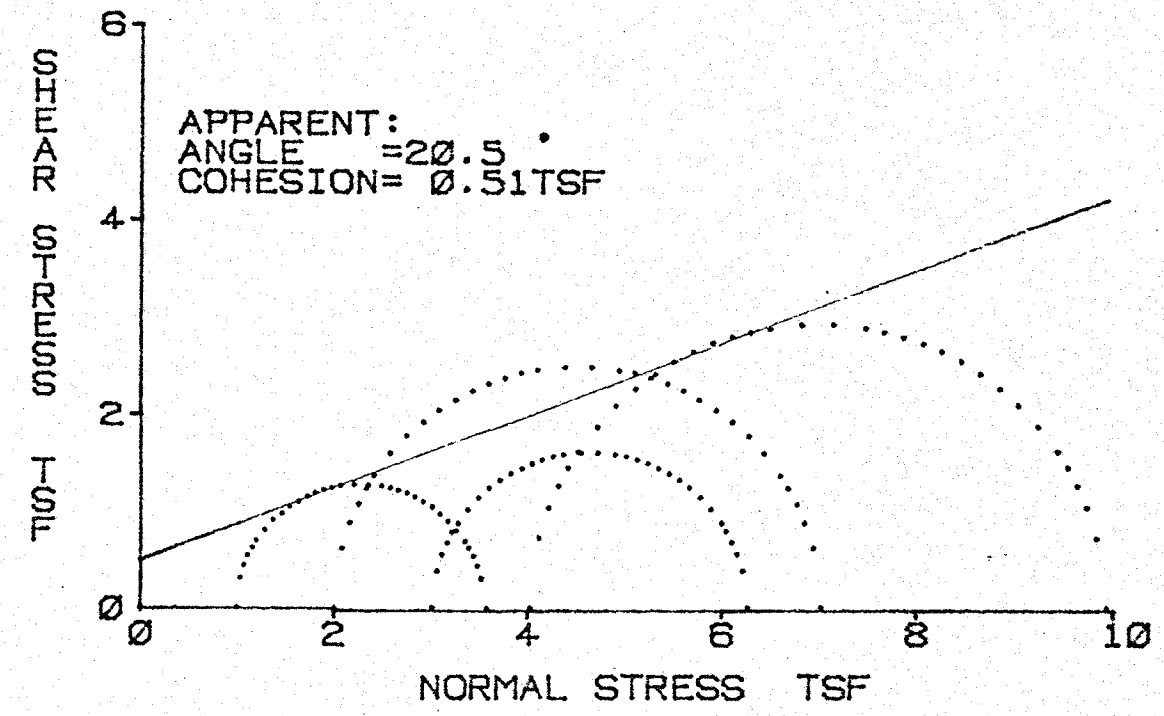
Shear Strength	Deg.	c(tsf)
Apparent	17.8	0.79
Effective	--	--

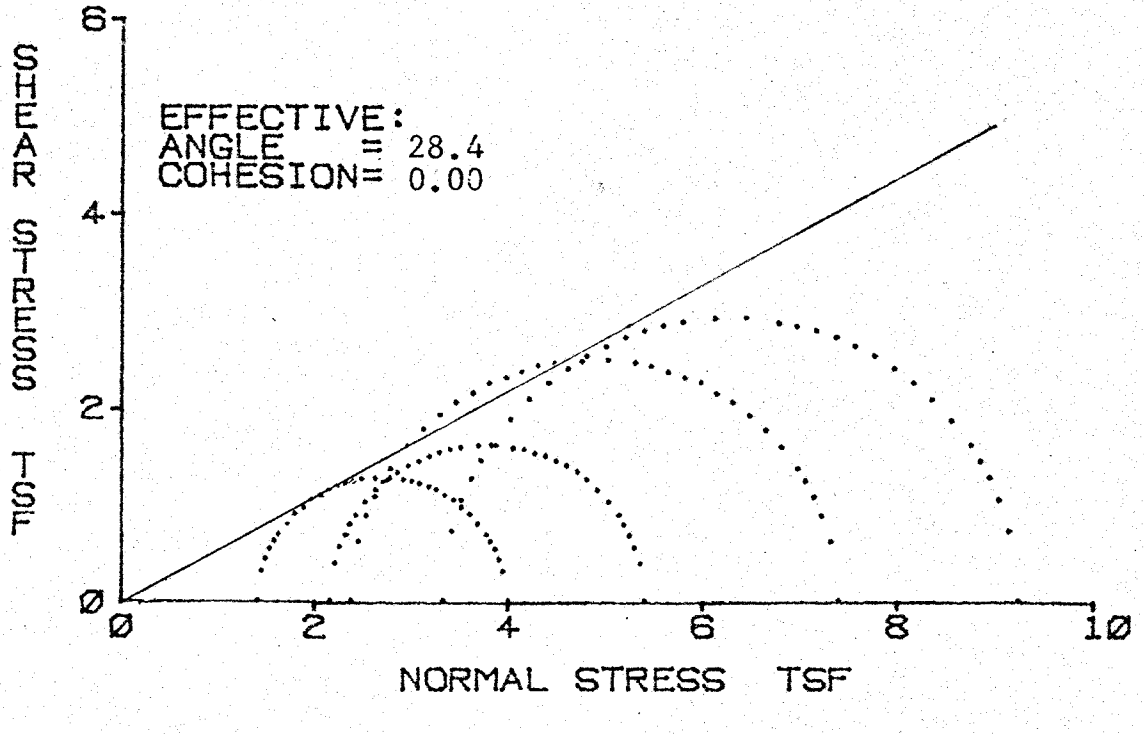
Remarks:

TVA SINGLETON MATERIALS ENGINEERING LABORATORY

CONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION (R) TEST

PROJECT:	JOHN SEVIER S.P.EL.		:1078.4-1077.9
FEATURE:	ASH DIKE	SAMPLE	:3
STATION:	W70+12.7	PART	:4
RANGE	:S1+55.8	SOIL SYM:	CL
BORING	:US-8	DATE	:4-28-81

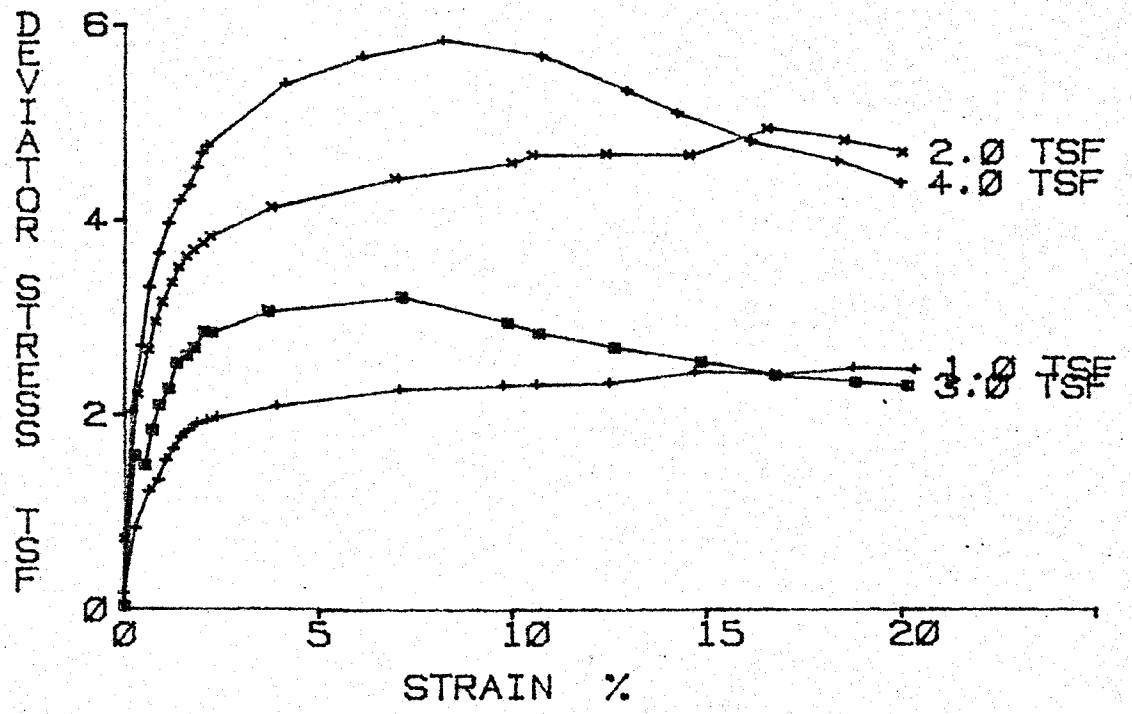


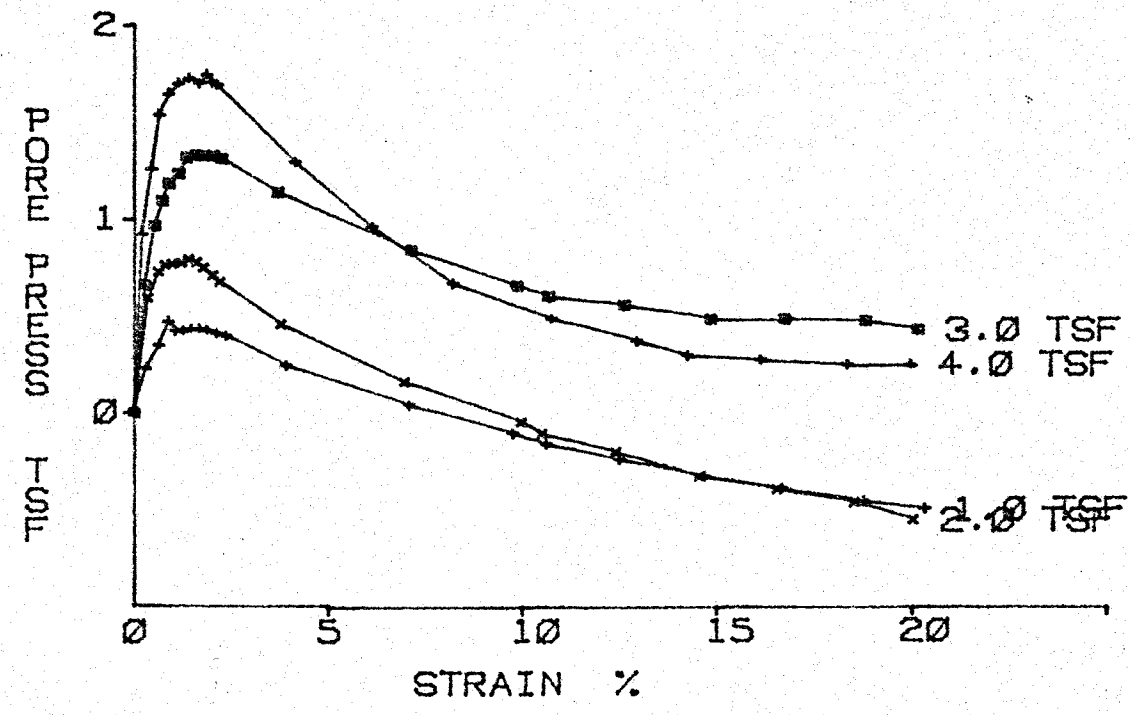


TVA SINGLETON MATERIALS ENGINEERING LABORATORY

CONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION (R) TEST

PROJECT:	JOHN SEVIER S.P.EL.		:1078.4-1077.9
FEATURE:	ASH DIKE	SAMPLE	:3
STATION:	W70+12.7	PART	:4
RANGE	:S1+55.8	SOIL SYM:	CL
BORING	:US-8	DATE	:4-28-81





Tennessee Valley Authority
Singleton Materials Engineering Laboratory
Consolidated Undrained Triaxial Compression (R) Test

Project: JOHN SEVIER S.P.
Feature: ASH DIKE
Station: W70+12.7
Range : S1+55.8
Boring : US-8

El. : 1078.4-1077.9
Sample: 3
Part : 4

Tested By : TAL JHD
Computed By: MHD
Checked By : BMD
Report Date: 4-28-81

Soil Sybmbol= CL
Sp. Gr. = 2.71

L.L.(%)= 39
D10(mm)= 0

P.I.(%)= 22

Specimen Number	1	2	3	4
Initial:				
Moisture Content(%)	19.2	18.6	19.8	18.6
Dry Density(pcf)	108.4	109.0	107.7	109.0
Void Ratio	0.560	0.553	0.571	0.551
Saturation(%)	92.6	91.0	94.0	91.5
Before Shearing:				
Moisture(%) (after satur.)	20.7	20.4	21.1	20.3
Saturation(%)	100.0	100.0	100.0	100.0
Moisture(%) (after cons.)	20.6	20.2	20.2	20.2
Void Ratio (after cons.)	0.559	0.548	0.548	0.545
Final Moisture Content(%)	21.0	20.0	19.8	18.8
Minor Principal Stress(tsf)	1.01	2.02	3.02	4.03
Major Principal Stress(tsf)	3.59	7.04	6.28	9.95
Eff. Minor Prin. Stress(tsf)	1.43	2.38	2.16	3.33
Eff. Major Prin. Stress(tsf)	4.01	7.41	5.42	9.25
Time to Failure(min.)	90	80	30	40
Rate of Strain(%/min.)	0.21	0.21	0.24	0.21
Specimen Height(in.)	3.14	3.14	3.14	3.14
Specimen Diameter(in.)	1.40	1.40	1.40	1.40

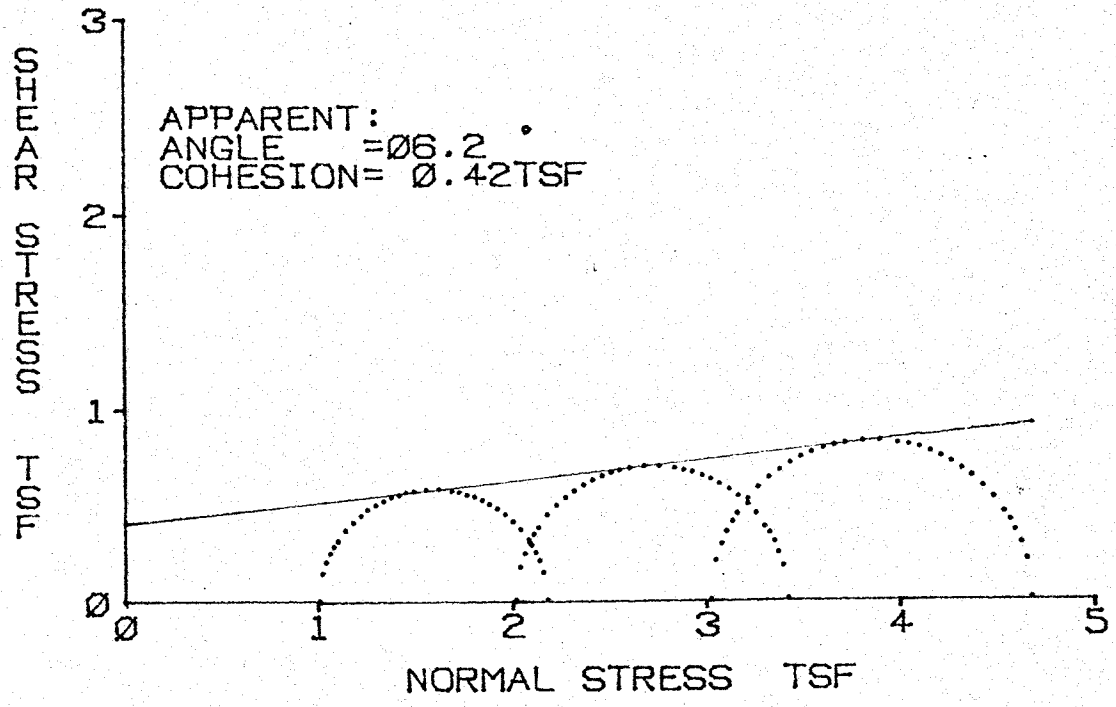
Shear Strength	Deg.	c(tsf)
Apparent	20.5	0.51
Effective	28.4	0.00

Remarks:

TVA SINGLETON MATERIALS ENGINEERING LABORATORY

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION(Q) TEST

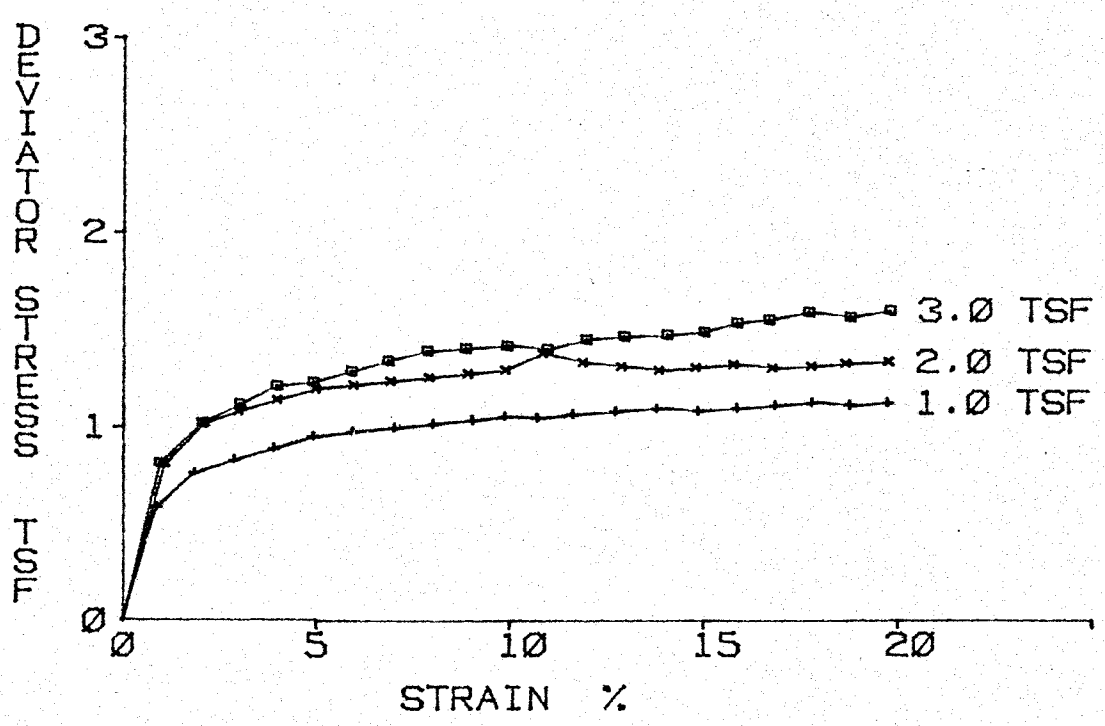
PROJECT:JOHN SEVIER S.P.EL.		:1069.6-1069.1
FEATURE:ASH DIKE	SAMPLE	:1
STATION:85+39W	PART	:2
RANGE :4+68S	SOIL SYM	:CL
BORING :US-12	DATE	:6-8-81



TVA SINGLETON MATERIALS ENGINEERING LABORATORY

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION(Q) TEST

PROJECT:	JOHN SEVIER S.P.EL.		:1069.6-1069.1
FEATURE:	ASH DIKE	SAMPLE	:1
STATION:	85+39W	PART	:2
RANGE	:4+68S	SOIL SYM:	CL
BORING	:US-12	DATE	:6-8-81



Tennessee Valley Authority
Singleton Materials Engineering Laboratory
Unconsolidated Undrained Triaxial Compression (Q) Test

Project: JOHN SEVIER S.P.
Feature: ASH DIKE
Station: 85+39W
Range : 4+68S
Boring : US-12

El. : 1069.6-1069.1
Sample: 1
Part : 2

Tested By : RA
Computed By: MHD
Checked By :
Report Date: 6-8-81

Soil Sybmbol= CL
Sp. Gr. = 2.69

L.L.(%)= 40
D10(mm)= 0

P.I.(%)= 20

Specimen Number	1	2	3	4
Initial:				
Moisture Content(%)	27.0	28.5	27.4	0.0
Dry Density(pcf)	82.1	77.9	77.9	0.0
Void Ratio	1.046	1.157	1.157	0.000
Saturation(%)	69.5	66.3	63.7	0.0
Before Shearing:				
Moisture(%) (after satur.)	--	--	--	--
Saturation(%)	--	--	--	--
Moisture(%) (after cons.)	--	--	--	--
Void Ratio (after cons.)	--	--	--	--
Final Moisture Content(%)	26.9	28.4	27.2	0.0
Minor Principal Stress(tsf)	1.01	2.02	3.02	0.00
Major Principal Stress(tsf)	2.18	3.42	4.68	0.00
Eff. Minor Prin. Stress(tsf)	--	--	--	--
Eff. Major Prin. Stress(tsf)	--	--	--	--
Time to Failure(min.)	20	11	20	0
Rate of Strain(%/min.)	1.00	1.00	1.00	0.00
Specimen Height(in.)	3.15	3.15	3.15	3.15
Specimen Diameter(in.)	1.39	1.39	1.39	1.39

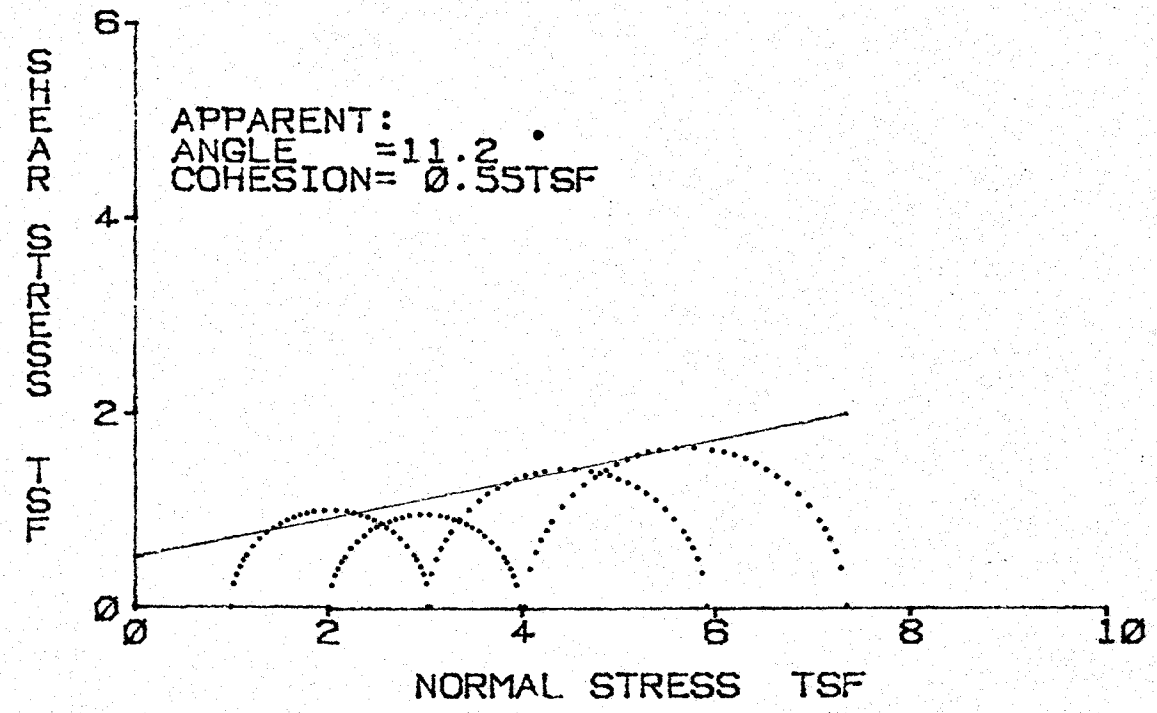
Shear Strength	Deg.	c(tsf)
Apparent	6.2	0.42
Effective	--	--

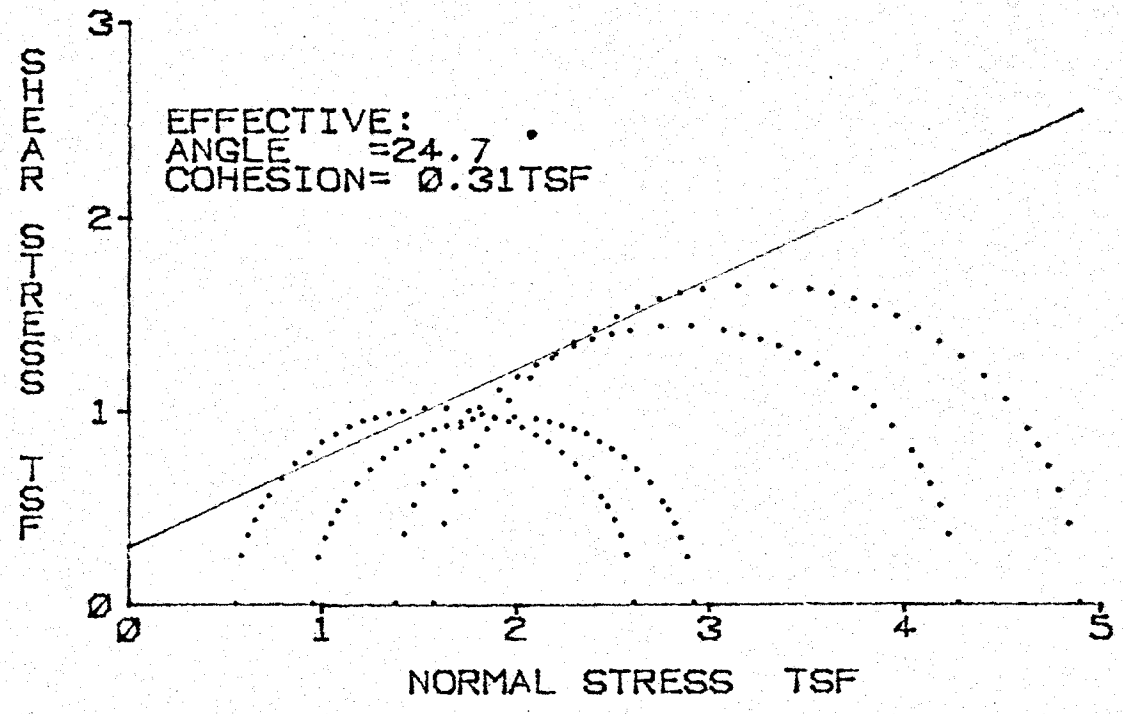
Remarks:

TVA SINGLETON MATERIALS ENGINEERING LABORATORY

CONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION (R) TEST

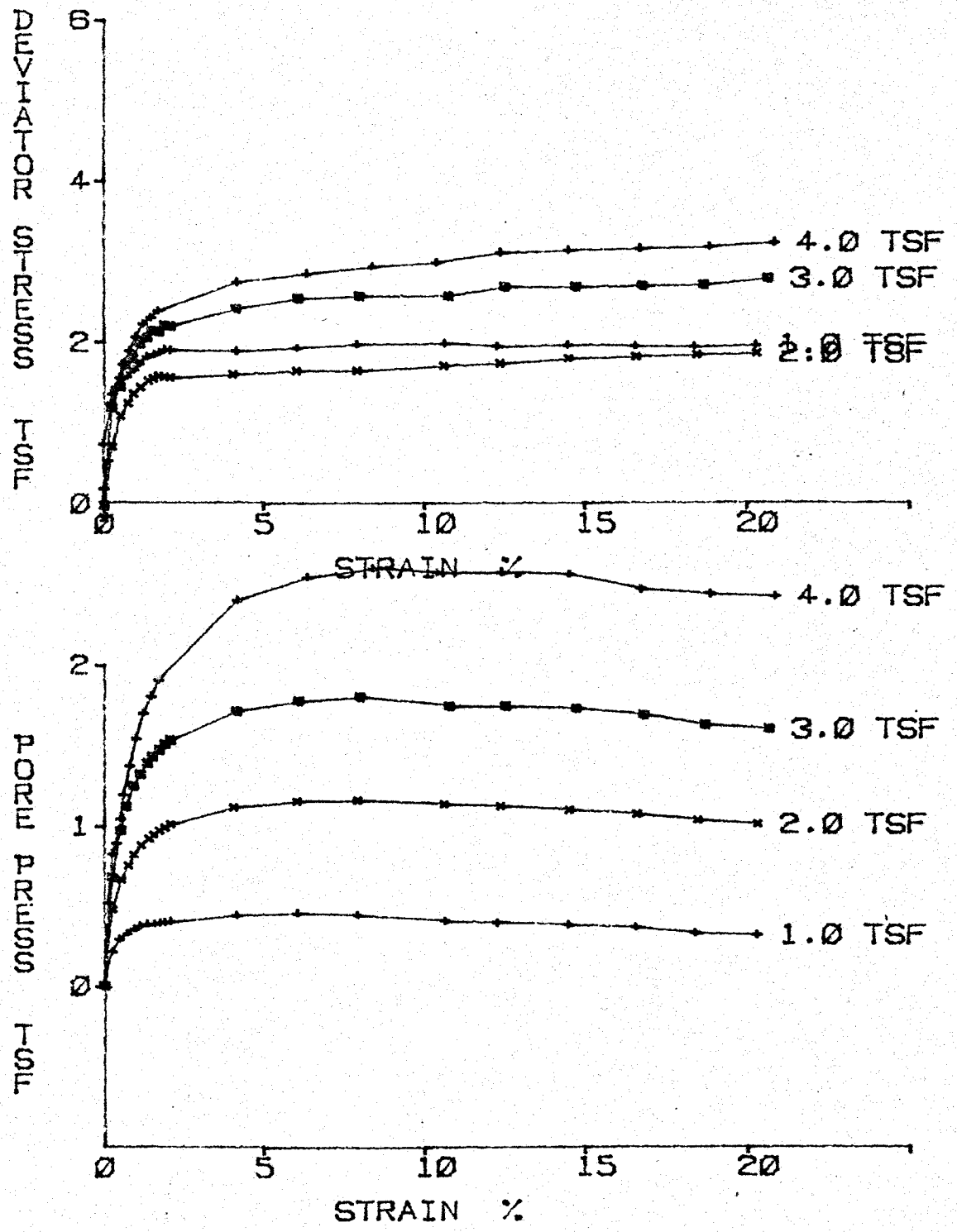
PROJECT:JOHN SEVIER S.P.EL.		:1069.1-1068.6
FEATURE:ASH DIKE	SAMPLE	:1
STATION:W85+39.Ø	PART	:3
RANGE :S4+68.2	SOIL SYM	:CL
BORING :US-12	DATE	:





TVA SINGLETON MATERIALS ENGINEERING LABORATORY
CONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION (R) TEST

PROJECT:JOHN SEVIER S.P.EL. :1069.1-1068.6
FEATURE:ASH DIKE SAMPLE :1
STATION:W85+39.Ø PART :3
RANGE :S4+68.2 SOIL SYM:CL
BORING :US-12 DATE :



Tennessee Valley Authority
Singleton Materials Engineering Laboratory
Consolidated Undrained Triaxial Compression (R) Test

Project: JOHN SEVIER S.P.
Feature: ASH DIKE
Station: W85+39.0
Range : S4+68.2
Boring : US-12

El. : 1069.1-1068.6
Sample: 1
Part : 3

Tested By : JHD
Computed By:
Checked By : TAL
Report Date:

Soil Sybmbol= CL
Sp. Gr. = 2.69

L.L.(%)= 40
D10(mm)= 0

P.I.(%)= 20

Specimen Number	1	2	3	4
Initial:				
Moisture Content(%)	26.9	25.9	25.1	23.4
Dry Density(pcf)	88.4	91.3	92.8	91.9
Void Ratio	0.900	0.840	0.809	0.827
Saturation(%)	80.4	82.8	83.4	76.1
Before Shearing:				
Moisture(%) (after satur.)	33.5	31.2	30.1	30.7
Saturation(%)	100.0	100.0	100.0	100.0
Moisture(%) (after cons.)	32.9	29.8	26.7	26.7
Void Ratio (after cons.)	0.886	0.802	0.718	0.661
Final Moisture Content(%)	30.1	27.4	25.8	25.4
Minor Principal Stress(tsf)	1.01	2.02	3.02	4.03
Major Principal Stress(tsf)	3.06	3.99	5.92	7.36
Eff. Minor Prin. Stress(tsf)	0.56	0.96	1.38	1.58
Eff. Major Prin. Stress(tsf)	2.62	2.93	4.28	4.90
Time to Failure(min.)	50	100	100	100
Rate of Strain(%/min.)	0.22	0.21	0.21	0.21
Specimen Height(in.)	3.08	3.08	3.08	3.08
Specimen Diameter(in.)	1.40	1.40	1.40	1.40

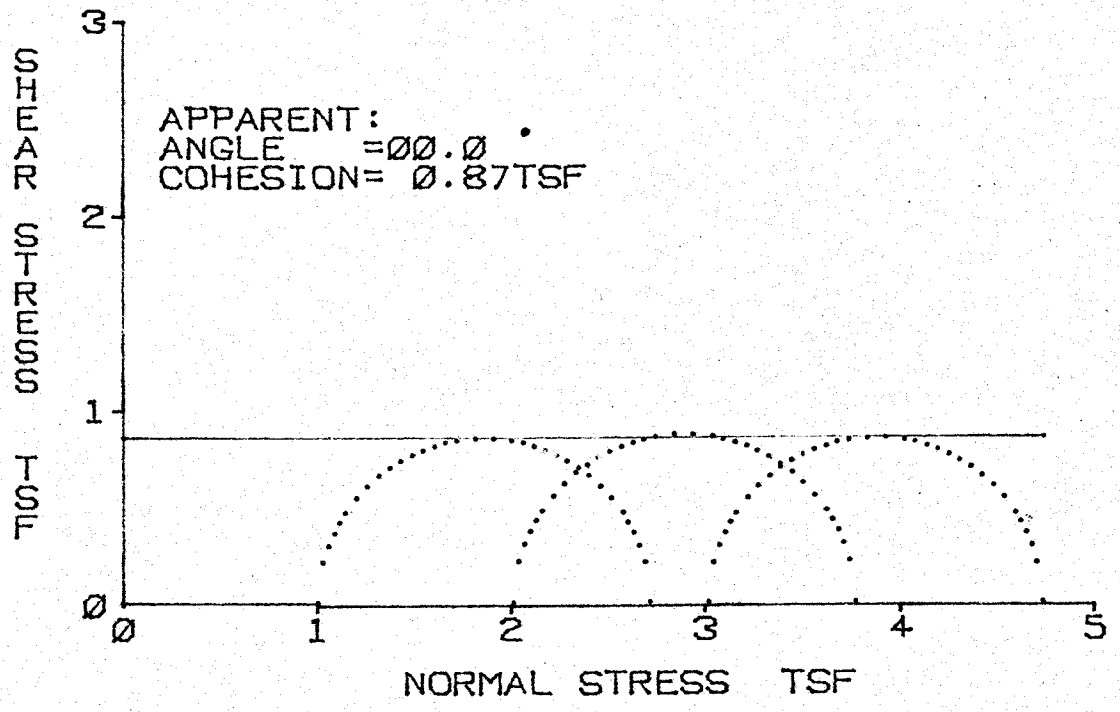
Shear Strength	Deg.	c(tsf)
Apparent	11.2	0.55
Effective	24.7	0.31

Remarks:

TVA SINGLETON MATERIALS ENGINEERING LABORATORY

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION(Q) TEST

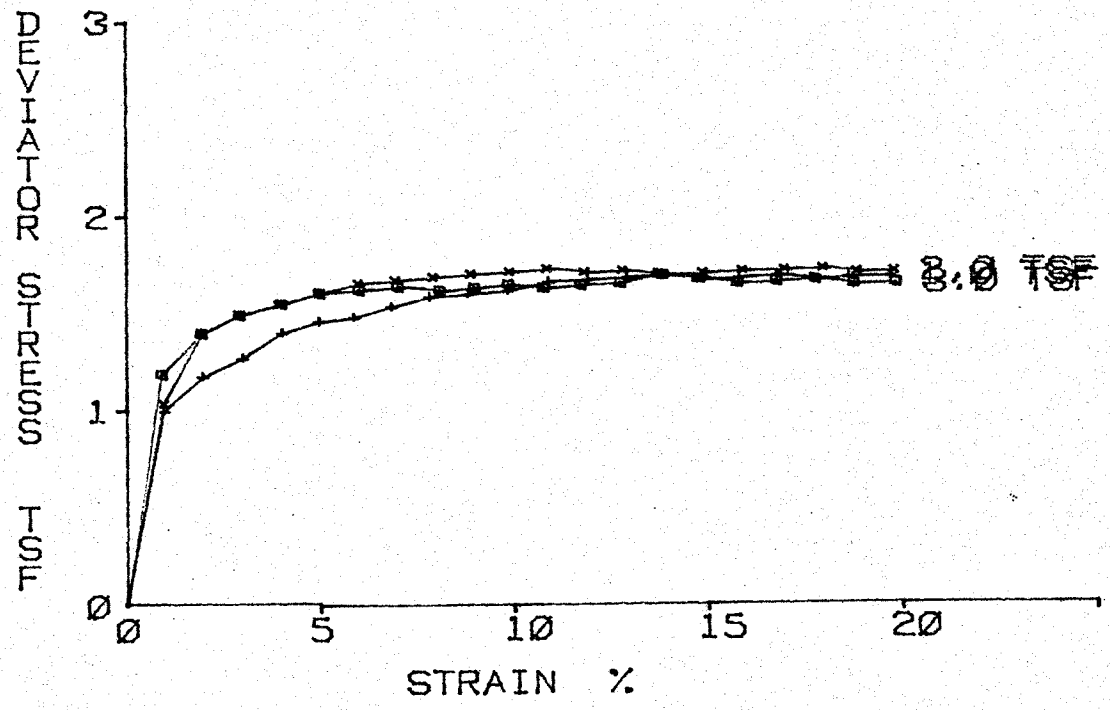
PROJECT:	JOHN SEVIER S.P.EL.		:1066.1-1066.6
FEATURE:	ASH DIKE	SAMPLE	:4
STATION:	82+71W	PART	:2
RANGE	:0+17S	SOIL SYM:	CL
BORING	:US-15	DATE	:6-9-81



TVA SINGLETON MATERIALS ENGINEERING LABORATORY

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION(Q) TEST

PROJECT:	JOHN SEVIER S.P.EL.		:1066.1-1066.6
FEATURE:	ASH DIKE	SAMPLE	:4
STATION:	82+71W	PART	:2
RANGE	:0+17S	SOIL SYM:	CL
BORING	:US-15	DATE	:6-9-81



Tennessee Valley Authority
Singleton Materials Engineering Laboratory
Unconsolidated Undrained Triaxial Compression (Q) Test

Project: JOHN SEVIER S.P.
Feature: ASH DIKE
Station: 82+71W
Range : 0+17S
Boring : US-15

El. : 1066.1-1066.6
Sample: 4
Part : 2

Tested By : RA
Computed By: MHD
Checked By :
Report Date: 6-9-81

Soil Sybmbol= CL
Sp. Gr. = 2.71

L.L.(%)= 31
D10(mm)= 0

P.I.(%)= 13

Specimen Number	1	2	3	4
Initial:				
Moisture Content(%)	20.9	22.0	22.0	0.0
Dry Density(pcf)	98.2	99.9	99.7	0.0
Void Ratio	0.724	0.694	0.696	0.000
Saturation(%)	78.3	86.1	85.6	0.0
Before Shearing:				
Moisture(%) (after satur.)	--	--	--	--
Saturation(%)	--	--	--	--
Moisture(%) (after cons.)	--	--	--	--
Void Ratio (after cons.)	--	--	--	--
Final Moisture Content(%)	20.8	22.0	21.9	0.0
Minor Principal Stress(tsf)	1.01	2.02	3.02	0.00
Major Principal Stress(tsf)	2.73	3.77	4.74	0.00
Eff. Minor Prin. Stress(tsf)	--	--	--	--
Eff. Major Prin. Stress(tsf)	--	--	--	--
Time to Failure(min.)	17	18	14	0
Rate of Strain(%/min.)	1.00	1.01	1.00	0.00
Specimen Height(in.)	3.15	3.15	3.15	3.15
Specimen Diameter(in.)	1.39	1.39	1.39	1.39

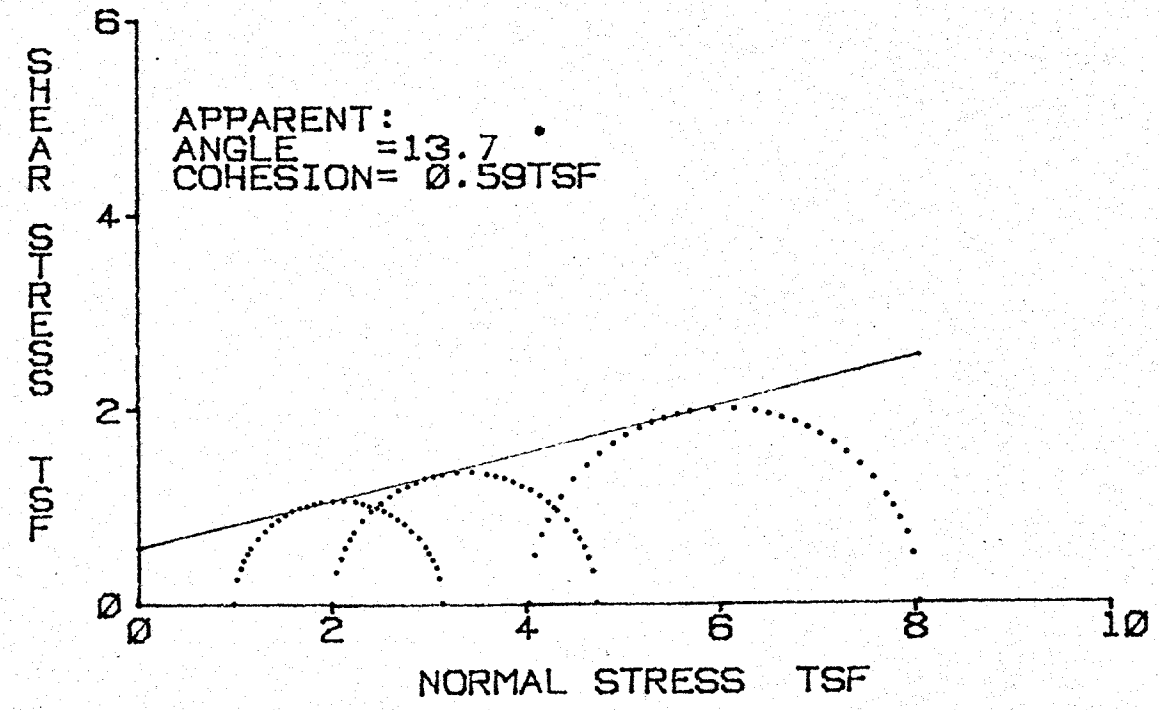
Shear Strength	Deg.	c(tsf)
Apparent	0.0	0.87
Effective	--	--

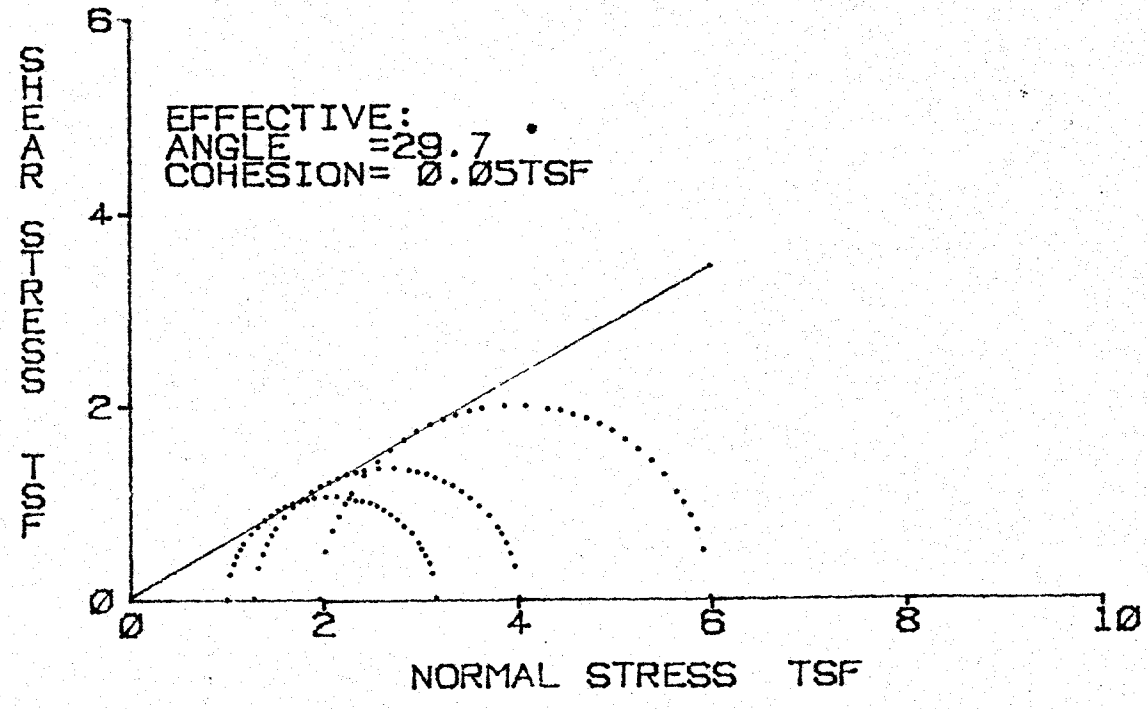
Remarks:

TVA SINGLETON MATERIALS ENGINEERING LABORATORY

CONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION (R) TEST

PROJECT:JOHN SEVIER SP	EL. :1066.2-1065.7
FEATURE:ASH DIKE	SAMPLE :4
STATION:W82+71.2	PART :3
RANGE :SO+72	SOIL SYM:CL
BORING :US-15	DATE :7/17/81

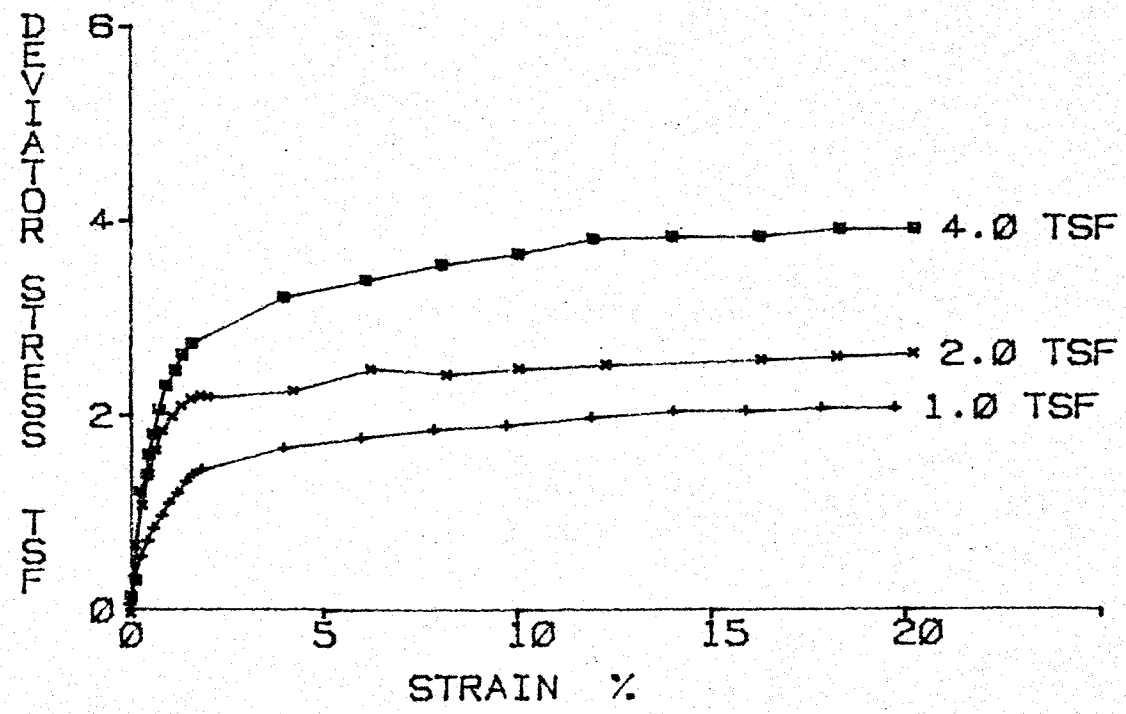


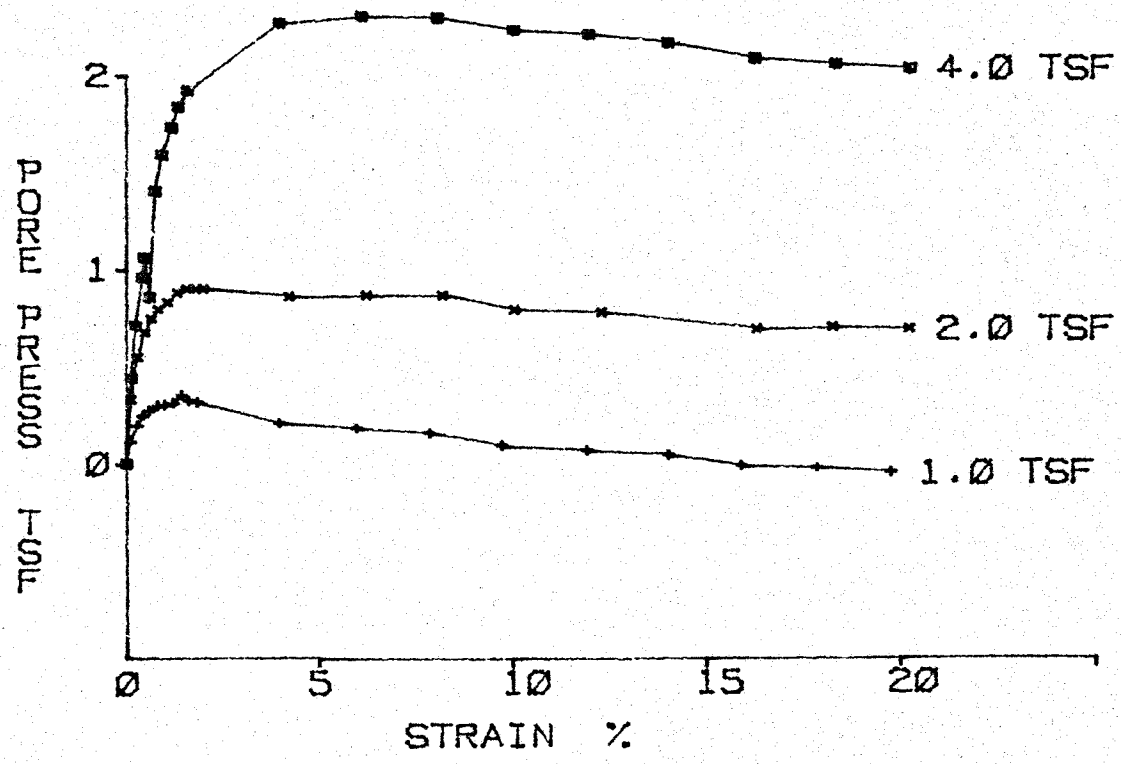


TVA SINGLETON MATERIALS ENGINEERING LABORATORY

CONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION (R) TEST

PROJECT:JOHN SEVIER SP	EL. :1066.2-1065.7
FEATURE:ASH DIKE	SAMPLE :4
STATION:W82+71.2	PART :3
RANGE :SO+72	SOIL SYM:CL
BORING :US-15	DATE :7/17/81





Tennessee Valley Authority
Singleton Materials Engineering Laboratory
Consolidated Undrained Triaxial Compression (R) Test

Project: JOHN SEVIER SP
Feature: ASH DIKE
Station: W82+71.2
Range : SO+72
Boring : US-15

El. : 1066.2-1065.7
Sample: 4
Part : 3

Tested By : JHD
Computed By: CRF
Checked By : CBG
Report Date: 7/17/81

Soil Sybmbol= CL
Sp. Gr. = 2.71

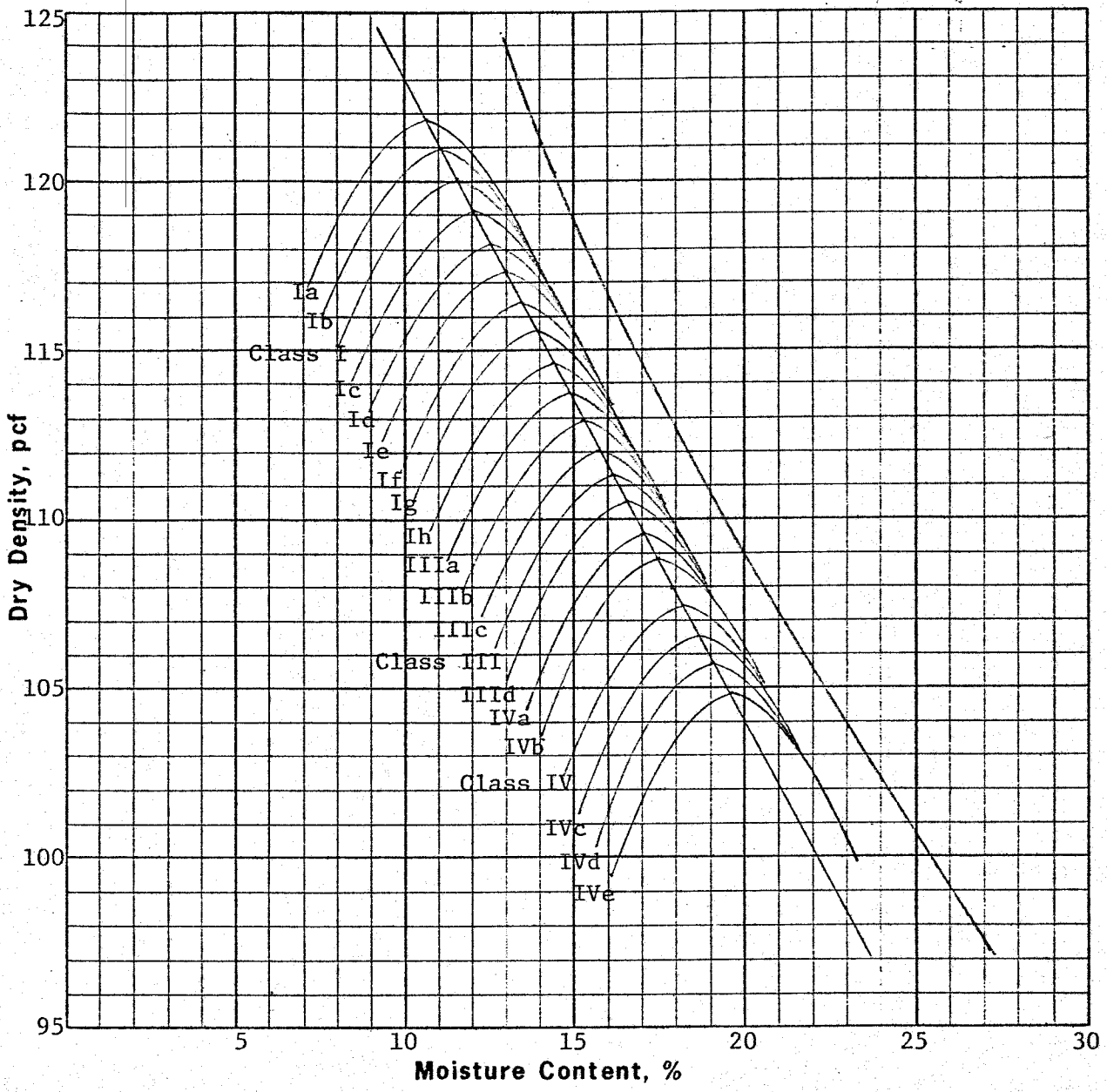
L.L.(%)= 31
D10(mm)= 0

P.I.(%)= 13

Specimen Number	1	2	3	4
Initial:				
Moisture Content(%)	22.1	22.2	22.1	0.0
Dry Density(pcf)	102.7	102.6	102.8	0.0
Void Ratio	0.648	0.649	0.645	0.000
Saturation(%)	92.6	92.8	92.8	0.0
Before Shearing:				
Moisture(%) (after satur.)	23.9	23.9	23.8	0.0
Saturation(%)	100.0	100.0	100.0	0.0
Moisture(%) (after cons.)	23.3	23.4	22.4	22.4
Void Ratio (after cons.)	0.632	0.635	0.607	0.000
Final Moisture Content(%)	23.0	22.2	21.8	0.0
Minor Principal Stress(tsf)	1.01	2.02	4.03	0.00
Major Principal Stress(tsf)	3.16	4.74	8.06	0.00
Eff. Minor Prin. Stress(tsf)	1.02	1.30	1.97	0.00
Eff. Major Prin. Stress(tsf)	3.17	4.02	5.99	0.00
Time to Failure(min.)	100	100	100	0
Rate of Strain(%/min.)	0.20	0.20	0.20	0.00
Specimen Height(in.)	3.08	3.08	3.08	3.08
Specimen Diameter(in.)	1.40	1.40	1.40	1.40

Shear Strength	Deg.	c(tsf)
Apparent	13.7	0.59
Effective	29.7	0.05

Remarks:



Soil Class	Gravel %	Sand %	Silt %	Clay %	Specific Gravity	LL %	PI %	Optimum Moisture, %	Maximum Density, pcf
I-SC	0	53	23	24	2.67	26	12	11.5	120.0
III-CL	0	26	40	34	2.68	36	19	16.2	111.3
IV-CL	0	19	42	39	2.69	42	23	18.2	107.3

Plus No. 4 Specific Gravity, S S D	--
Plus No. 4 Absorption, %	--

Remarks:

Project John Sevier Steam Plant

Feature Borrow Area

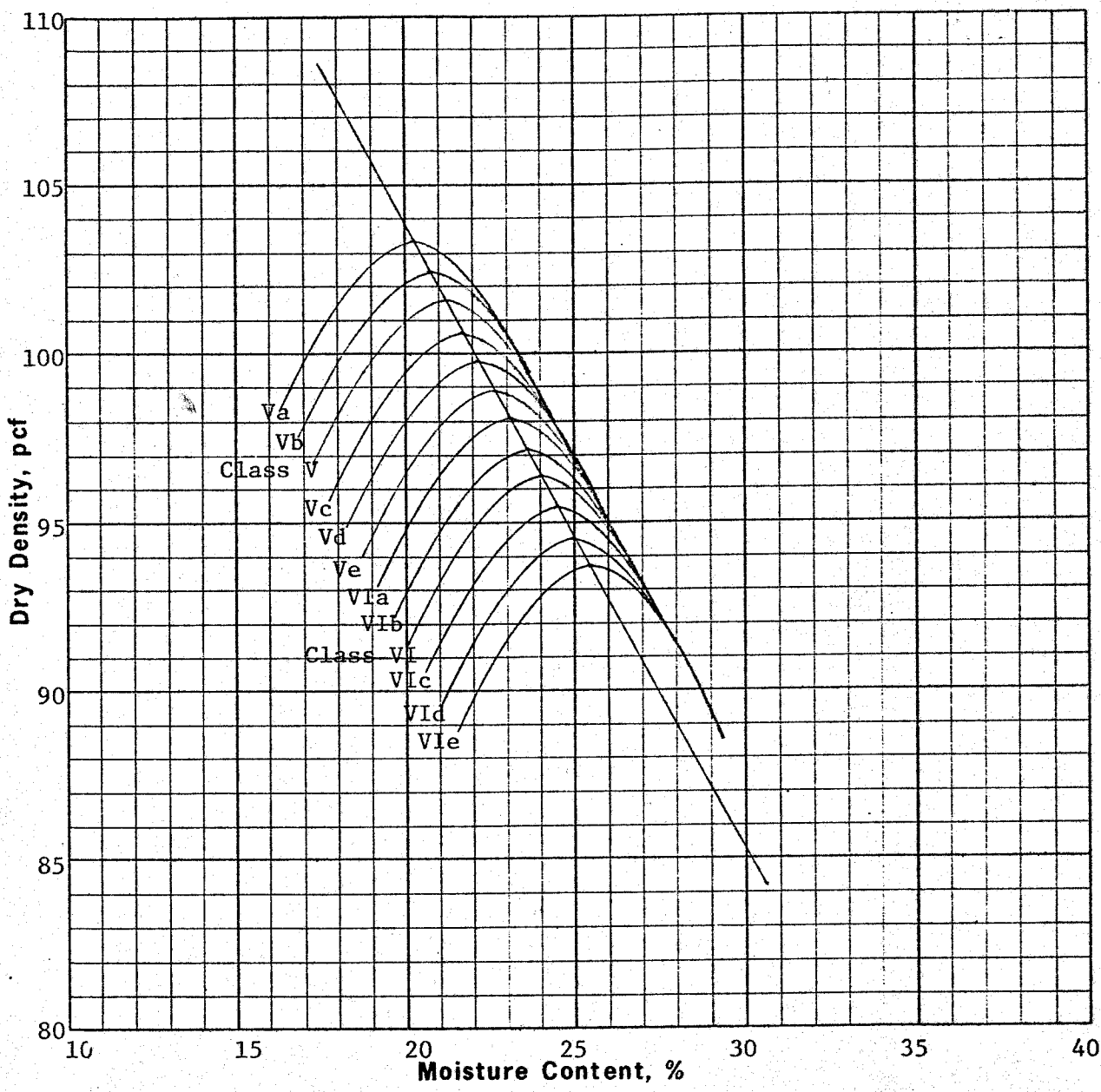
ASTM Designation D 698 A

Date Tested 6-2-81

COMPACTION TEST (FAMILY OF CURVES)

TVA 10201 (CONST-12-76)

Tested by: JSC Reviewed by: CBG



Soil Class	Gravel %	Sand %	Silt %	Clay %	Specific Gravity	LL %	PI %	Optimum Moisture, %	Maximum Density, pcf
V-GL	0	20	36	44	2.74	48	23	21.2	101.7
VI-CH-MH	0	12	39	49	2.77	56	27	24.1	96.3

Plus No. 4 Specific Gravity, S S D	--
Plus No. 4 Absorption, %	--

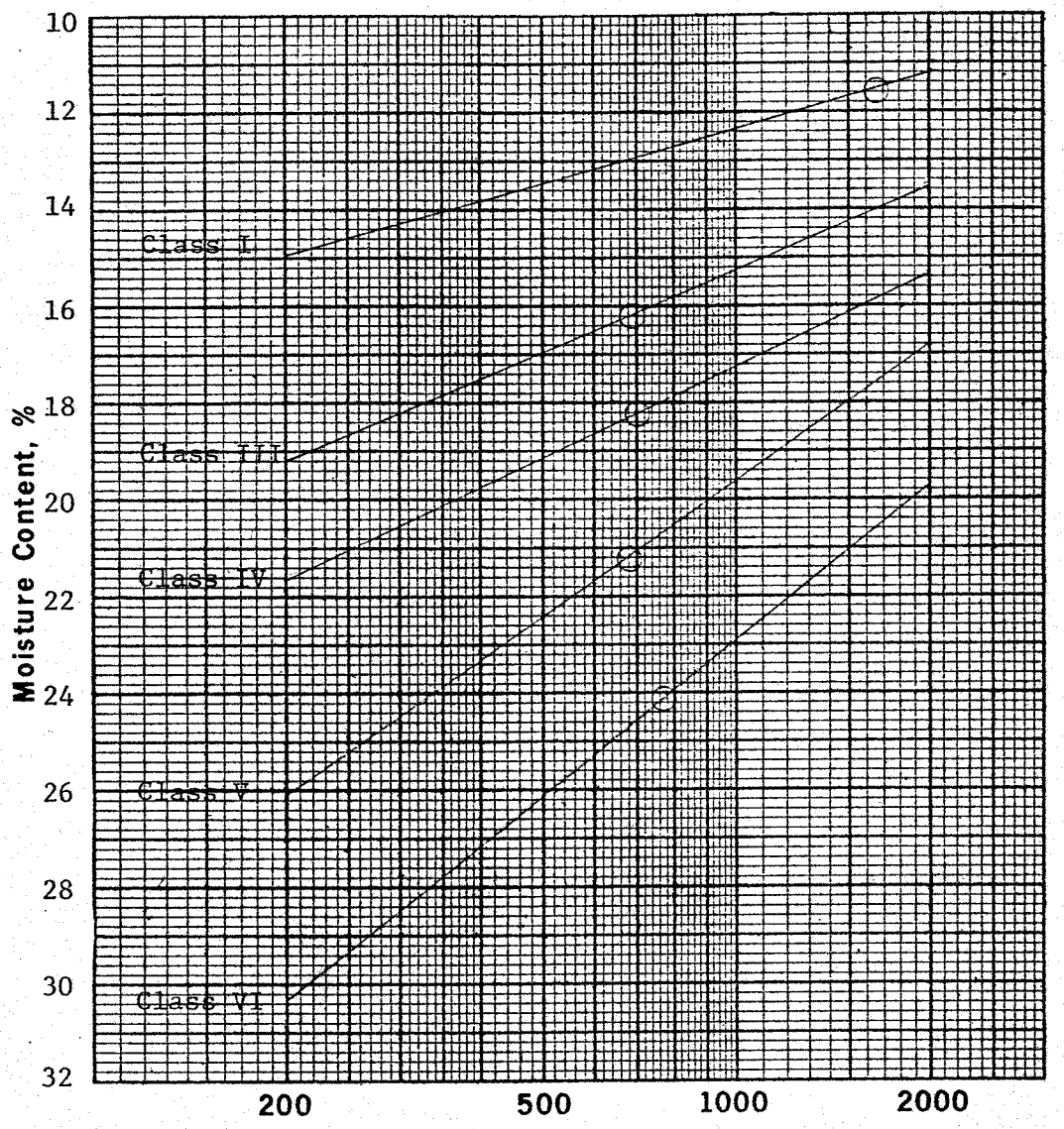
Remarks:

Project	John Sevier Steam Plant
	Ash Dike
Feature	Borrow Areas A & B
ASTM Designation	D 698 A
Date Tested	6-2-81

COMPACTION TEST (FAMILY OF CURVES)

TVA 10201 (CONST-12-76)

Tested by: JDC Reviewed by: CBL



Soil Class	Optimum Moisture, %	Maximum Density, pcf	Penetration Resistance, psi
I-SC	11.5	120.0	1650
III-CL	16.2	111.3	685
IV-CL	18.2	107.3	705
V-CL	21.2	101.7	675
VI-CH-MH	24.1	96.3	790

Remarks:

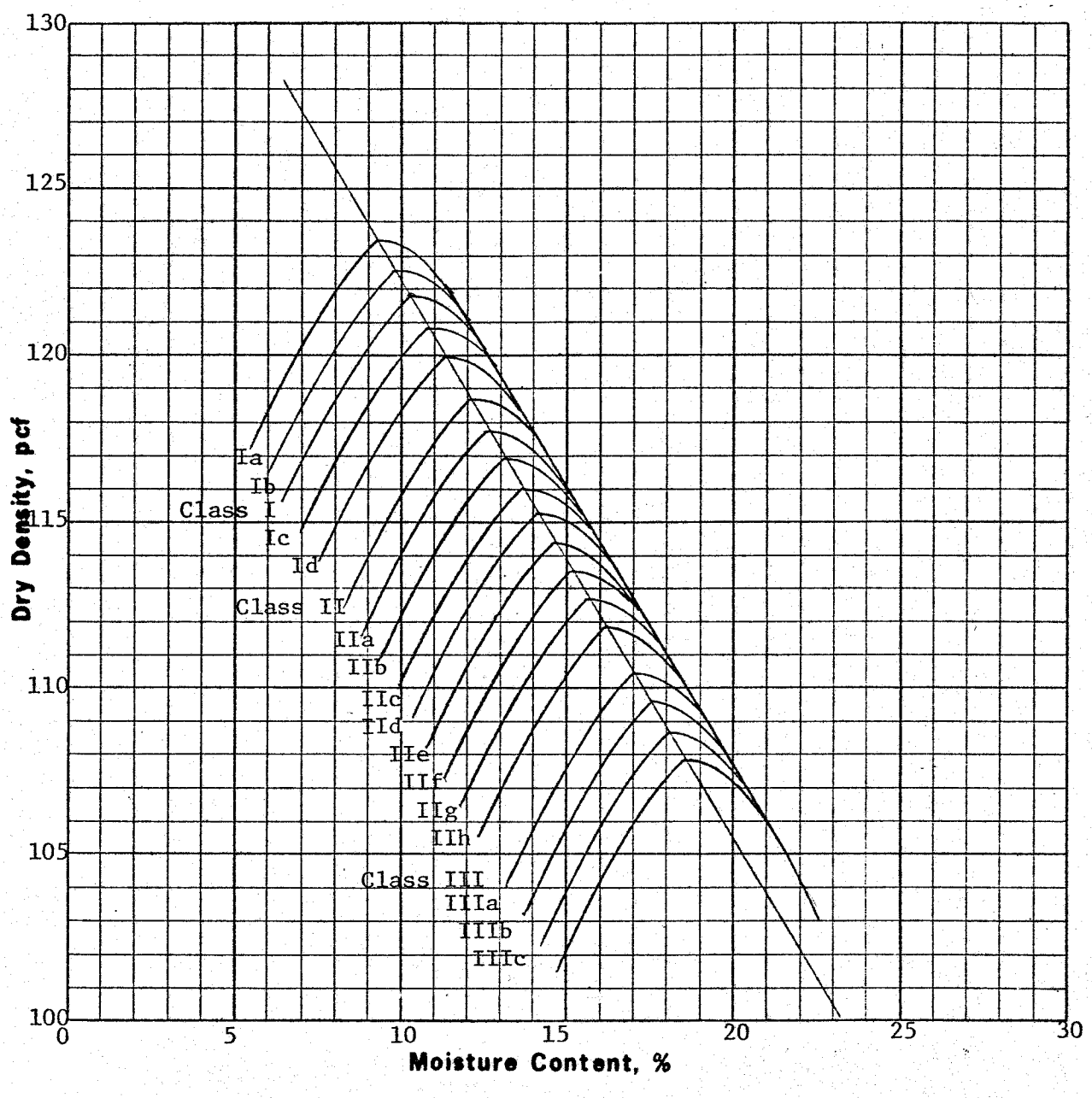
○ **Denotes Optimum Moisture**

Project	John Sevier Steam Plant
	Ash Dike
Feature	Borrow Areas A & B
ASTM Designation	D 698 A
Date Tested	6-2-81

MOISTURE - PENETRATION TEST

TVA 10200 (CONST-12-76)

Tested by: JSC Reviewed by: CBG



Soil Class	Gravel %	Sand %	Silt %	Clay %	Specific Gravity	LL %	PI %	Optimum Moisture, %	Maximum Density, pcf
I-CL	20	22	26	32	2.74	49	23	10.2	121.9
II-SC	20	34	22	24	2.73	37	20	12.1	118.8
III-CL	20	29	23	28	2.71	33	17	16.0	110.4

Plus No. 4 Specific Gravity, S S D	2.55
Plus No. 4 Absorption, %	2.26

Remarks:

Project John Sevier Steam Plant
Ash Dike

Feature Borrow Areas A & B

ASTM Designation D 698 C

Date Tested 6-2-81

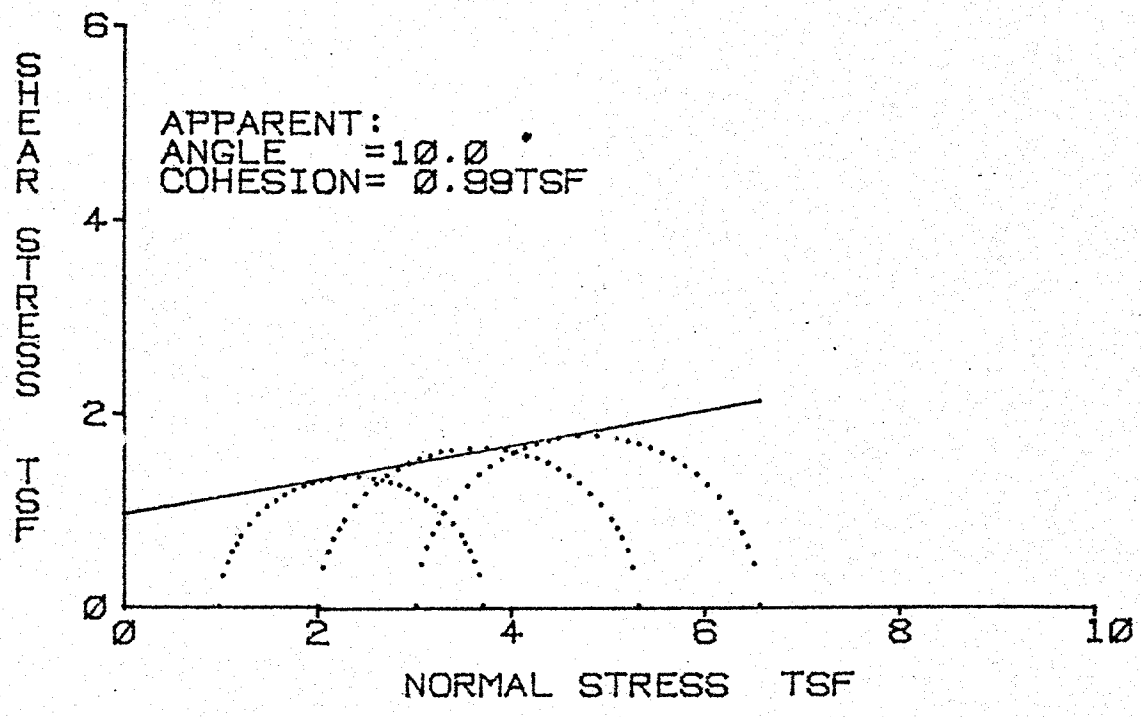
COMPACTION TEST (FAMILY OF CURVES)

Tested by: JDC Reviewed by: CBG

TVA SINGLETON MATERIALS ENGINEERING LABORATORY

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION(Q) TEST

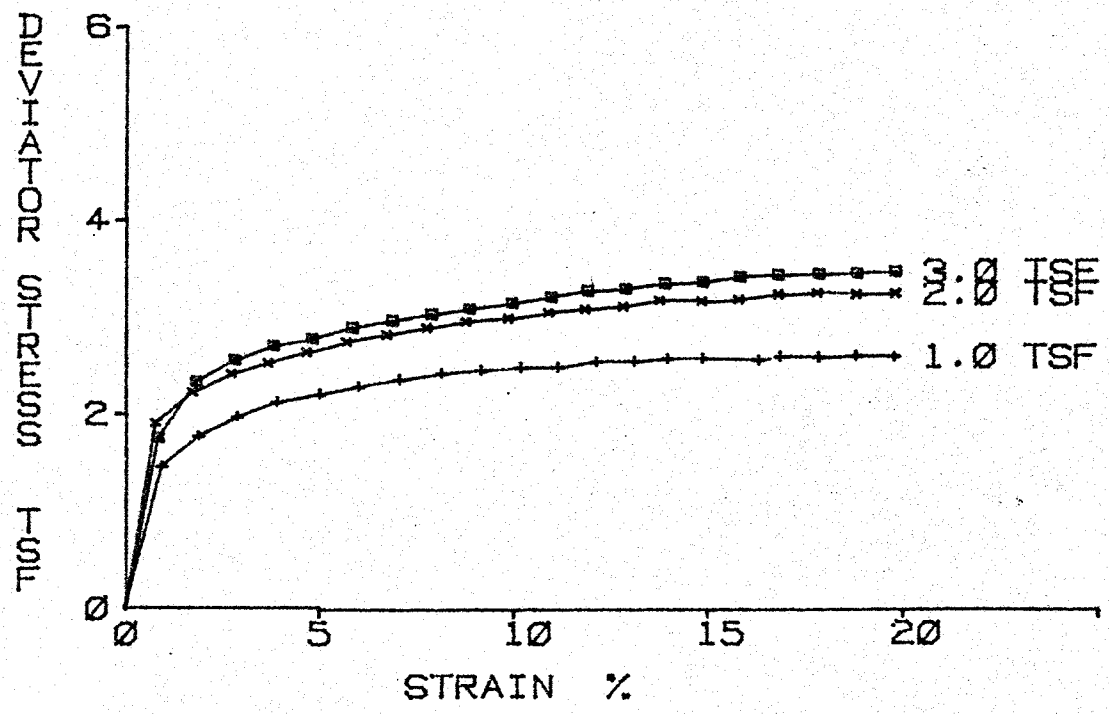
PROJECT:	JOHN SEVIER S.P.EL.		:
FEATURE:	BORROW AREAS A & B	SAMPLE	:CLASS I
STATION:		PART	:
RANGE :		SOIL SYM:	SC
BORING :		DATE	:5-5-81



TVA SINGLETON MATERIALS ENGINEERING LABORATORY

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION(Q) TEST

PROJECT:	JOHN SEVIER S.P.EL.		:
FEATURE:	BORROW AREAS A AND B	SAMPLE	: CLASS I
STATION:		PART	:
RANGE :		SOIL SYM:	SC
BORING :		DATE	: 5-5-81



Tennessee Valley Authority
Singleton Materials Engineering Laboratory
Unconsolidated Undrained Triaxial Compression (Q) Test

Project: JOHN SEVIER S.P.
Feature: Borrow Areas A & B
Station:
Range :
Boring :

El. :
Sample: CLASS I
Part :

Tested By : EL
Computed By: MHD
Checked By : CBE
Report Date: 5-5-81

Soil Sybmbol= SC
Sp. Gr. = 2.67

L.L.(%)= 26
D10(mm)= 0

P.I.(%)= 12

Specimen Number	1	2	3	4
Initial:				
Moisture Content(%)	14.5	14.4	14.4	0.0
Dry Density(pcf)	114.0	114.2	114.2	0.0
Void Ratio	0.462	0.460	0.460	0.000
Saturation(%)	83.9	83.3	83.3	0.0
Before Shearing:				
Moisture(%) (after satur.)	--	--	--	--
Saturation(%)	--	--	--	--
Moisture(%) (after cons.)	--	--	--	--
Void Ratio (after cons.)	--	--	--	--
Final Moisture Content(%)	14.4	14.4	14.3	0.0
Minor Principal Stress(tsf)	1.01	2.02	3.02	0.00
Major Principal Stress(tsf)	3.73	5.33	6.58	0.00
Eff. Minor Prin. Stress(tsf)	--	--	--	--
Eff. Major Prin. Stress(tsf)	--	--	--	--
Time to Failure(min.)	19	20	20	0
Rate of Strain(%/min.)	1.00	1.00	1.00	0.00
Specimen Height(in.)	3.15	3.15	3.15	3.15
Specimen Diameter(in.)	1.40	1.40	1.40	1.40

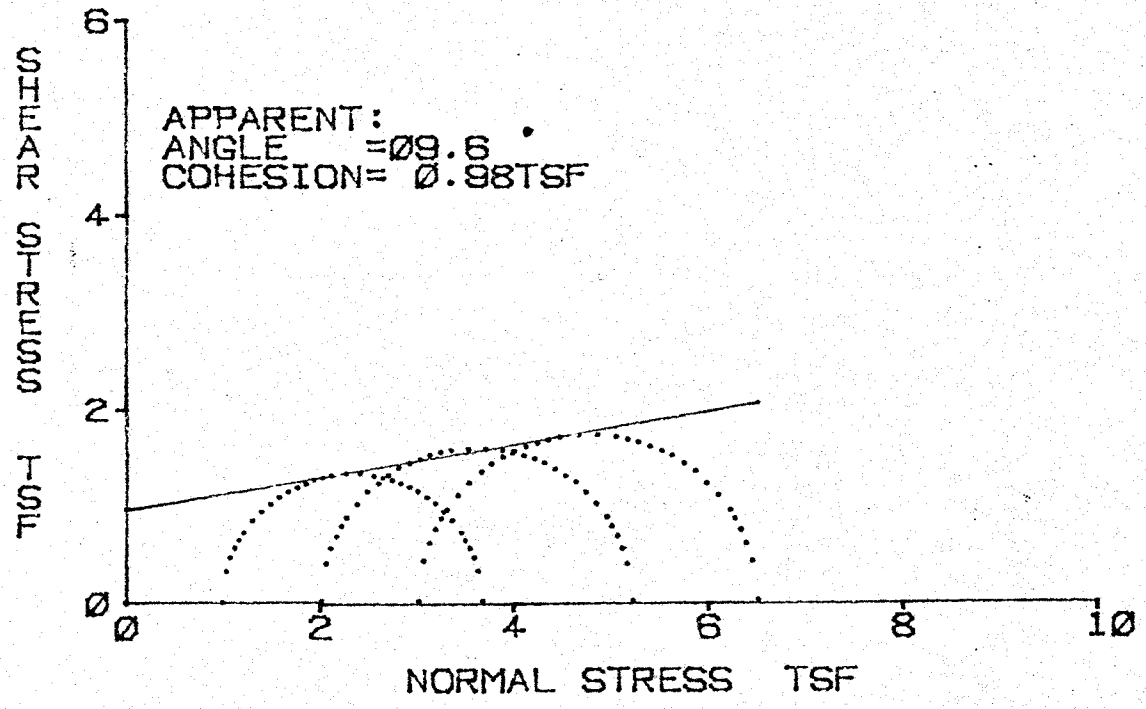
Shear Strength	Deg.	c(tsf)
Apparent	10.0	0.99
Effective	--	--

Remarks: Remolded at 3 (%) wet of optimum moisture and at 95 (%) of maximum unit weight.

TVA SINGLETON MATERIALS ENGINEERING LABORATORY

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION(Q) TEST

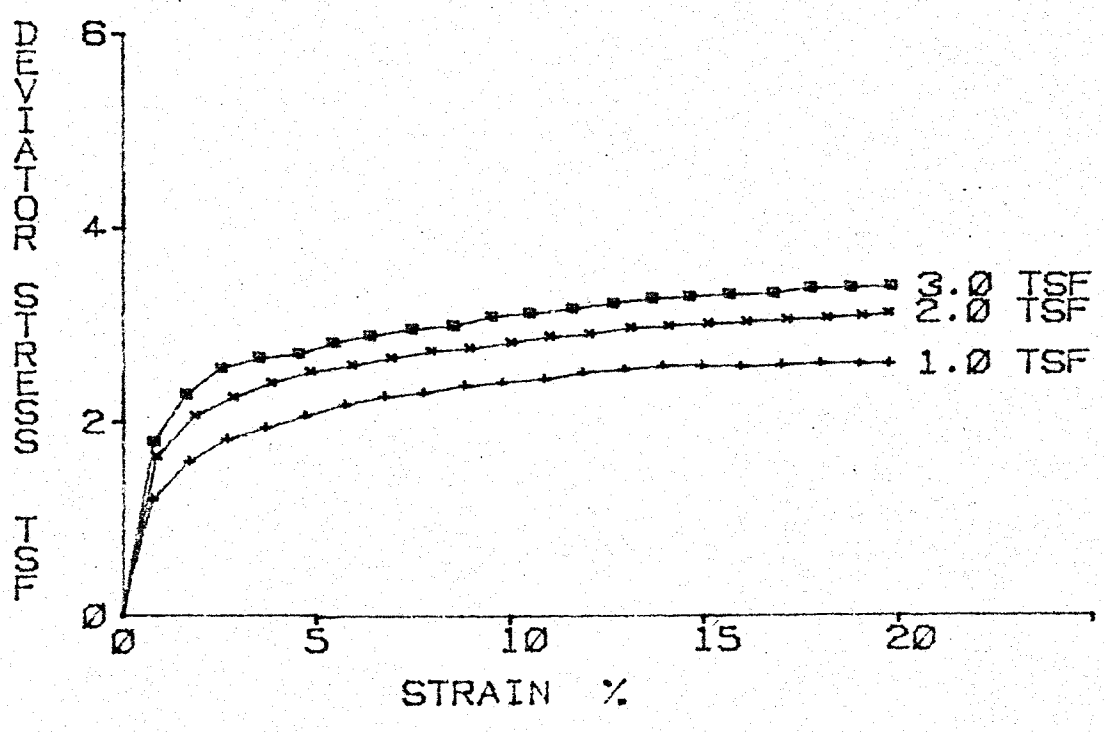
PROJECT:	JOHN SEVIER N.P.EL.	:	
FEATURE:	Borrow Areas A & B	SAMPLE :	CLASS I
STATION:		PART :	
RANGE :		SOIL SYM:	SC
BORING :		DATE :	4-30-81



TVA SINGLETON MATERIALS ENGINEERING LABORATORY

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION(Q) TEST

PROJECT:	JOHN SEVIER N.P.EL.		:
FEATURE:	BORROW AREAS A & B	SAMPLE	:CLASS I
STATION:		PART	:
RANGE :		SOIL SYM:	SC
BORING :		DATE	:4-30-81



Tennessee Valley Authority
Singleton Materials Engineering Laboratory
Unconsolidated Undrained Triaxial Compression (Q) Test

Project: JOHN SEVIER N.P.
Feature: Borrow Areas A & B
Station:
Range :
Boring :

El. :
Sample: CLASS I
Part :

Tested By : JHD
Computed By: MHD
Checked By : TAL
Report Date: 4-30-81

Soil Sybmbol= SC
Sp. Gr. = 2.67

L.L.(%)= 26
D10(mm)= 0

P.I.(%)= 12

Specimen Number	1	2	3	4
Initial:				
Moisture Content(%)	14.5	14.5	14.5	0.0
Dry Density(pcf)	114.0	114.0	114.0	0.0
Void Ratio	0.462	0.462	0.462	0.000
Saturation(%)	83.9	83.9	83.9	0.0
Before Shearing:				
Moisture(%) (after satur.)	--	--	--	--
Saturation(%)	--	--	--	--
Moisture(%) (after cons.)	--	--	--	--
Void Ratio (after cons.)	--	--	--	--
Final Moisture Content(%)	14.3	14.4	14.4	0.0
Minor Principal Stress(tsf)	1.01	2.02	3.02	0.00
Major Principal Stress(tsf)	3.69	5.24	6.52	0.00
Eff. Minor Prin. Stress(tsf)	--	--	--	--
Eff. Major Prin. Stress(tsf)	--	--	--	--
Time to Failure(min.)	20	20	20	0
Rate of Strain(%/min.)	1.00	1.00	1.00	0.00
Specimen Height(in.)	3.15	3.15	3.15	3.15
Specimen Diameter(in.)	1.40	1.40	1.40	1.40

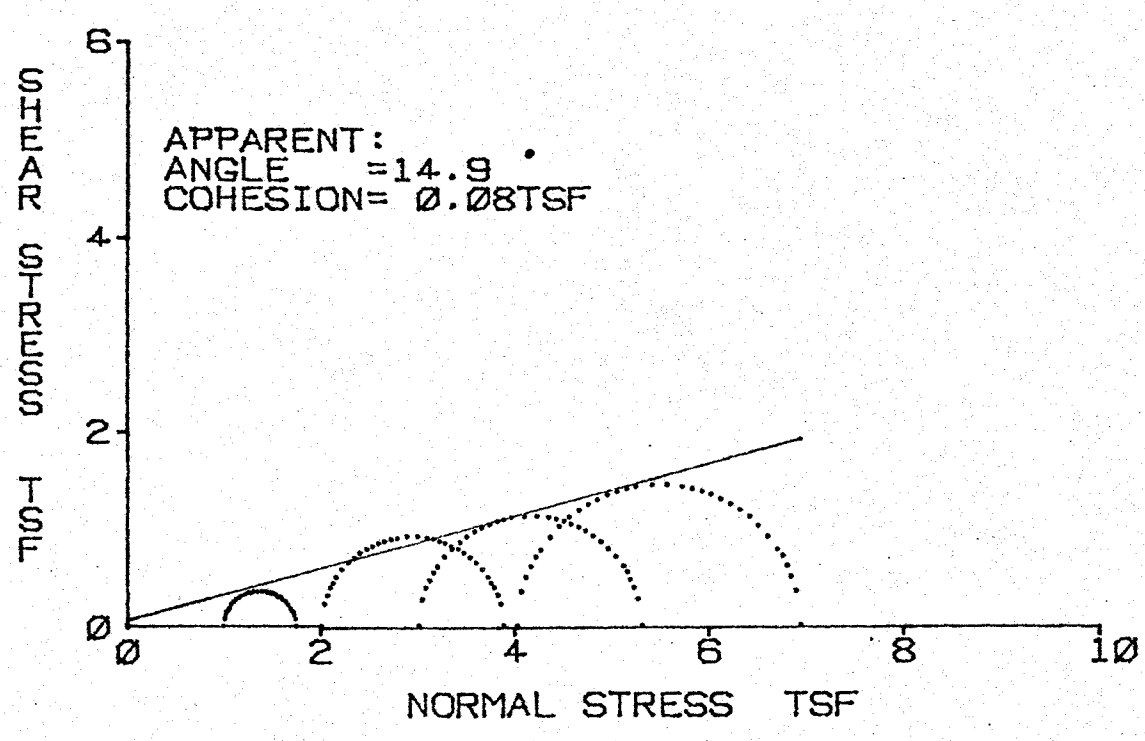
Shear Strength	Deg.	c(tsf)
Apparent	9.6	0.98
Effective	--	--

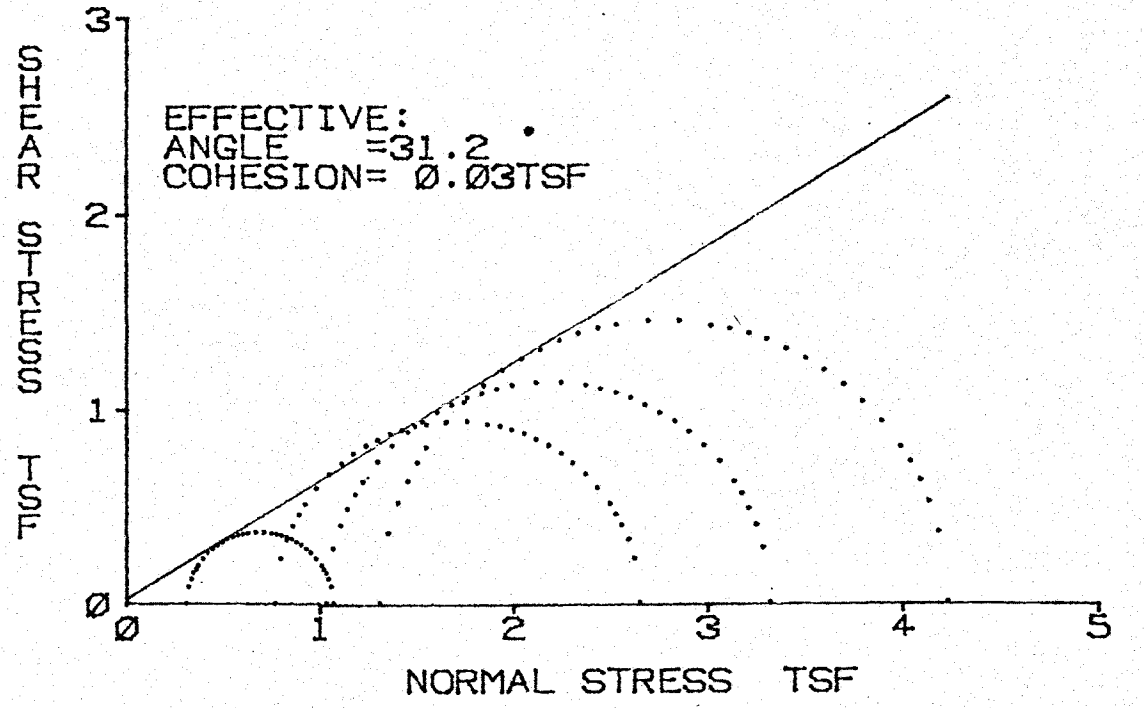
Remarks: Remolded at 3 (%) wet of optimum moisture
and at 95 (%) of maximum unit weight.

TVA SINGLETON MATERIALS ENGINEERING LABORATORY

CONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION (R) TEST

PROJECT:	JOHN SEVIER S.P.EL.		:
FEATURE:	BORROW AREAS A & B	SAMPLE	: CLASS I
STATION:		PART	:
RANGE	:	SOIL SYM:	SC
BORING	:	DATE	: 5-7-81



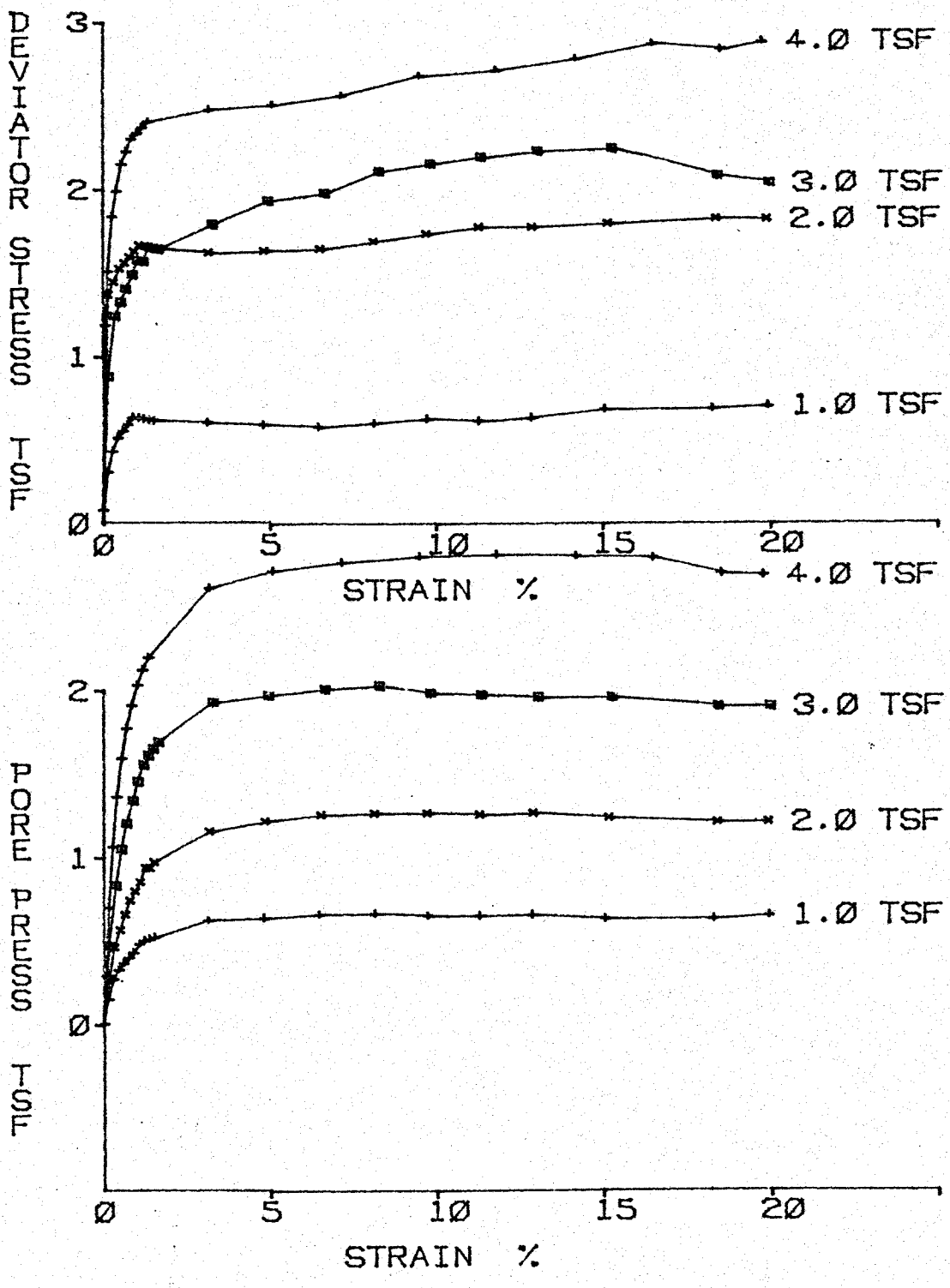


TVA SINGLETON MATERIALS ENGINEERING LABORATORY

CONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION (R) TEST

PROJECT: JOHN SEVIER S.P.EL. :
FEATURE: BORROW AREAS A & B
STATION:
RANGE :
BORING :

SAMPLE : CLASS I
PART :
SOIL SYM: SC
DATE : 5-7-81



Tennessee Valley Authority
Singleton Materials Engineering Laboratory
Consolidated Undrained Triaxial Compression (R) Test

Project: JOHN SEVIER S.P.
Feature: BORROW AREAS A & B
Station:
Range :
Boring :

El. :
Sample: CLASS I
Part :

Tested By : TAL
Computed By: MHD
Checked By : GMD
Report Date: 5-7-81

Soil Sybmbol= SC
Sp. Gr. = 2.67

L.L.(%)= 26
D10(mm)= 6.00000000E-04

P.I.(%)= 12

Specimen Number	1	2	3	4
Initial:				
Moisture Content(%)	8.6	8.6	8.6	8.6
Dry Density(pcf)	114.0	114.0	114.0	114.0
Void Ratio	0.462	0.462	0.462	0.462
Saturation(%)	49.5	49.5	49.5	49.5
Before Shearing:				
Moisture(%) (after satur.)	17.3	17.3	17.3	17.3
Saturation(%)	100.0	100.0	100.0	100.0
Moisture(%) (after cons.)	17.1	17.0	16.3	16.3
Void Ratio (after cons.)	0.457	0.455	0.436	0.451
Final Moisture Content(%)	18.8	17.2	16.3	16.4
Minor Principal Stress(tsf)	1.01	2.02	3.02	4.03
Major Principal Stress(tsf)	1.77	3.90	5.32	6.96
Eff. Minor Prin. Stress(tsf)	0.32	0.77	1.04	1.31
Eff. Major Prin. Stress(tsf)	1.07	2.65	3.33	4.24
Time to Failure(min.)	105	100	90	97
Rate of Strain(%/min.)	0.19	0.19	0.17	0.21
Specimen Height(in.)	3.15	3.15	3.15	3.15
Specimen Diameter(in.)	1.40	1.40	1.40	1.40

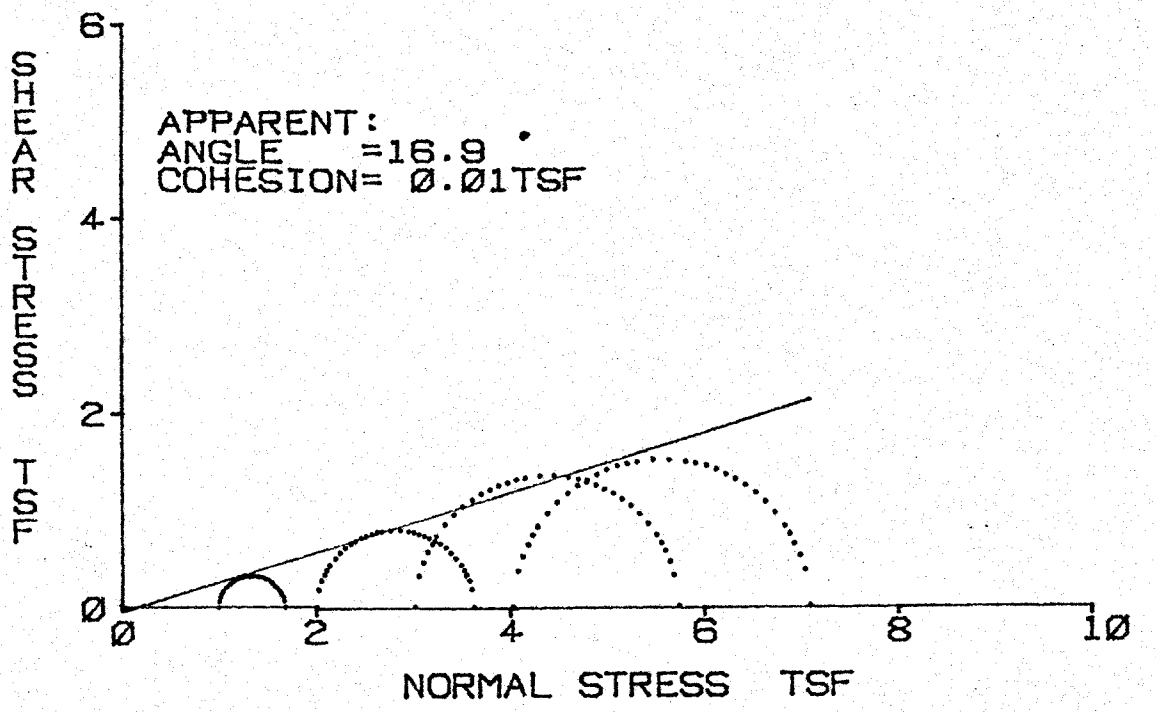
Shear Strength	Deg.	c(tsf)
Apparent	14.9	0.08
Effective	31.2	0.03

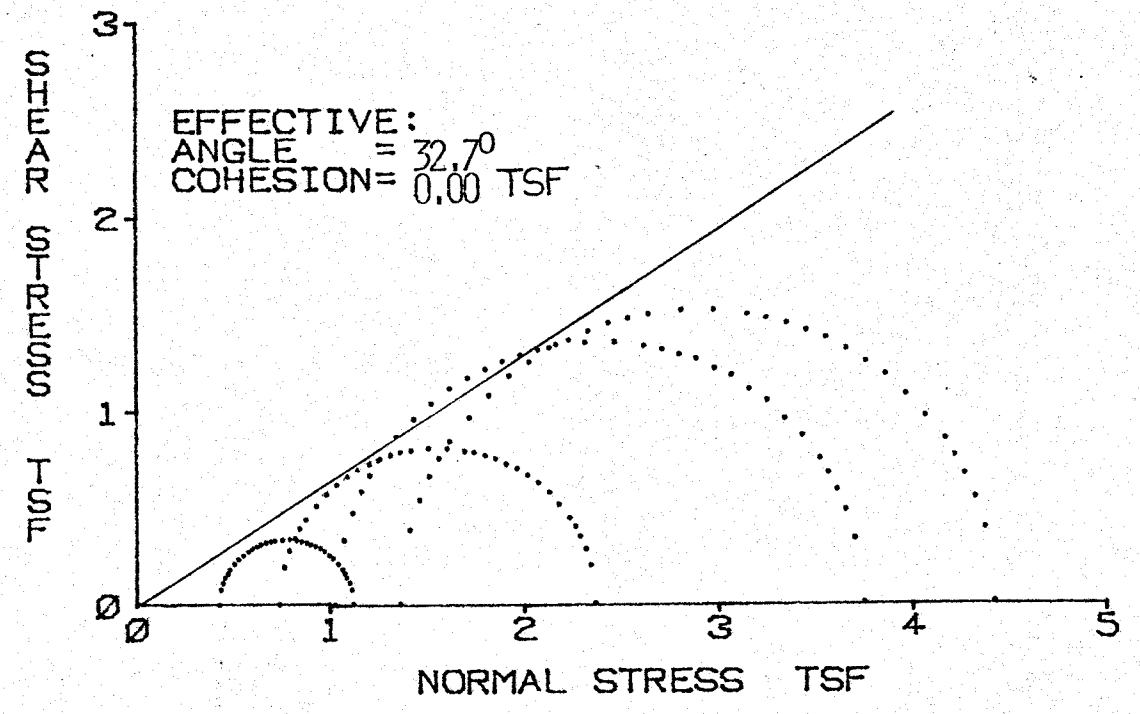
Remarks: Remolded at 3 (%) dry of optimum moisture and at 95 (%) of maximum unit weight.

TVA SINGLETON MATERIALS ENGINEERING LABORATORY

CONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION (R) TEST

PROJECT:	JOHN SEVIER S.P.EL.	:	
FEATURE:	BORROW AREAS A & B	SAMPLE	: CLASS I
STATION:		PART	:
RANGE	:	SOIL SYM:	SC
BORING	:	DATE	: 5-7-81

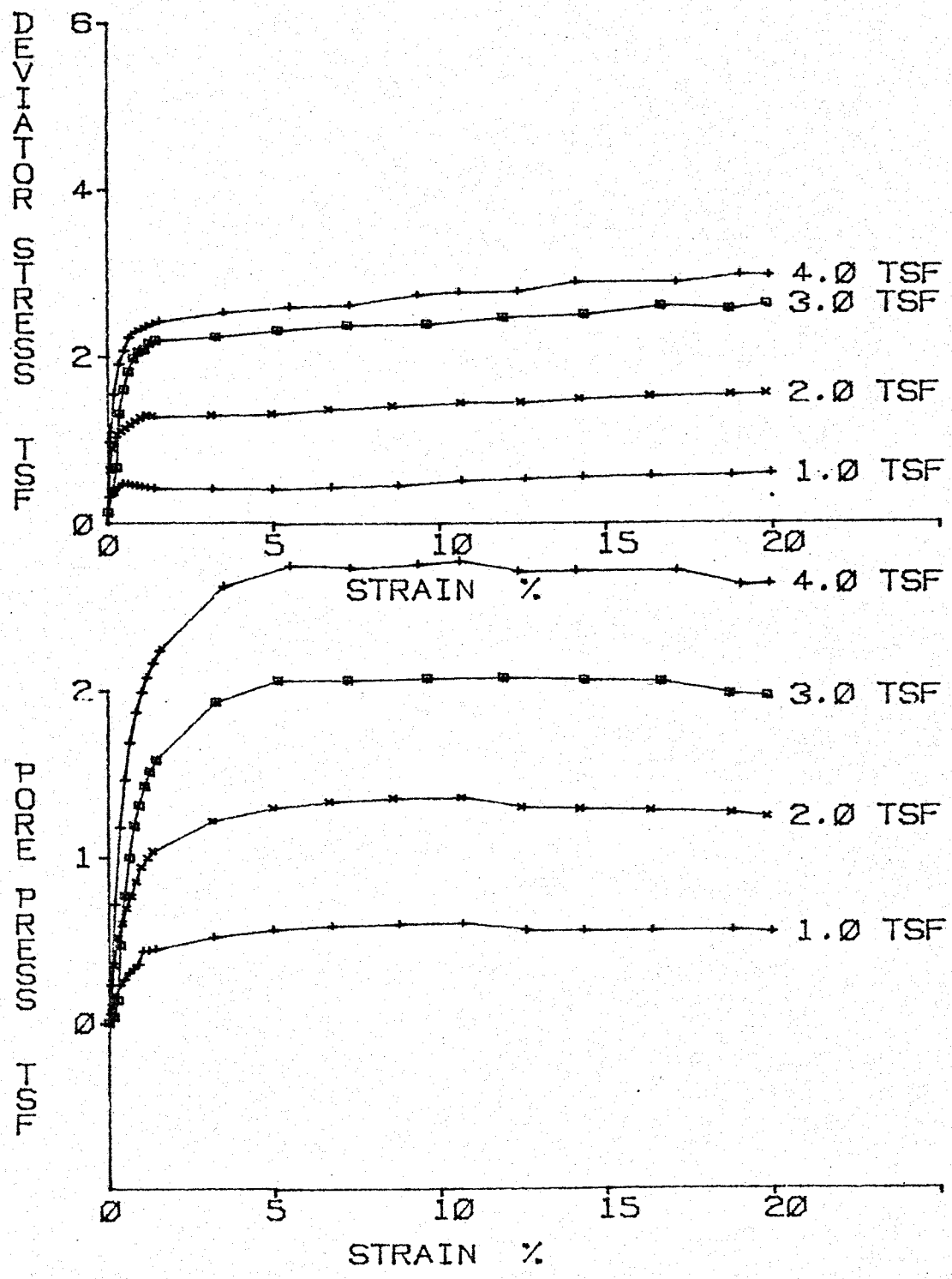




TVA SINGLETON MATERIALS ENGINEERING LABORATORY

CONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION (R) TEST

PROJECT: JOHN SEVIER S.P.EL. :
FEATURE: BORROW AREAS A & B SAMPLE :CLASS I
STATION: PART :
RANGE : SOIL SYM:SC
BORING : DATE :5-7-81



Tennessee Valley Authority
Singleton Materials Engineering Laboratory
Consolidated Undrained Triaxial Compression (R) Test

Project: JOHN SEVIER S.P.
Feature: BORROW AREA A & B
Station:
Range :
Boring :

El. :
Sample: CLASS I
Part :

Tested By : TAL
Computed By: MHD
Checked By : CBG
Report Date: 5-7-81

Soil Sybmbol= SC
Sp. Gr. = 2.67

L.L.(%)= 26
D10(mm)= 6.00000000E-04

P.I.(%)= 12

Specimen Number	1	2	3	4
Initial:				
Moisture Content(%)	8.5	8.5	8.6	8.4
Dry Density(pcf)	114.0	114.0	114.0	114.0
Void Ratio	0.462	0.462	0.462	0.462
Saturation(%)	49.1	49.1	49.5	48.3
Before Shearing:				
Moisture(%) (after satur.)	17.3	17.3	17.3	17.3
Saturation(%)	100.0	100.0	100.0	100.0
Moisture(%) (after cons.)	16.7	16.5	16.8	16.8
Void Ratio (after cons.)	0.445	0.441	0.448	0.445
Final Moisture Content(%)	18.1	17.9	17.0	16.2
Minor Principal Stress(tsf)	1.01	2.02	3.02	4.03
Major Principal Stress(tsf)	1.70	3.65	5.75	7.09
Eff. Minor Prin. Stress(tsf)	0.43	0.74	1.03	1.36
Eff. Major Prin. Stress(tsf)	1.13	2.37	3.75	4.42
Time to Failure(min.)	105	105	97	100
Rate of Strain(%/min.)	0.19	0.19	0.21	0.19
Specimen Height(in.)	3.15	3.15	3.15	3.15
Specimen Diameter(in.)	1.40	1.40	1.40	1.40

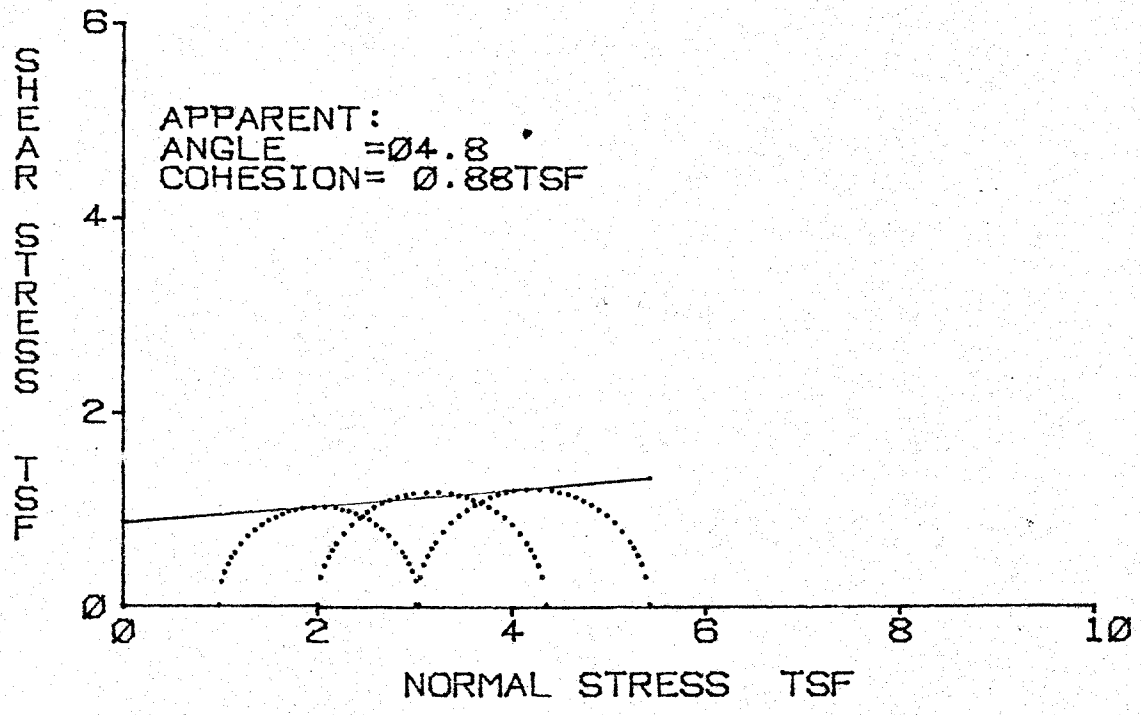
Shear Strength	Deg.	c(tsf)
Apparent	16.9	0.01
Effective	32.7	0.00

Remarks: Remolded at 3 (%) dry of optimum moisture and at 95 (%) of maximum unit weight.

TVA SINGLETON MATERIALS ENGINEERING LABORATORY

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION(Q) TEST

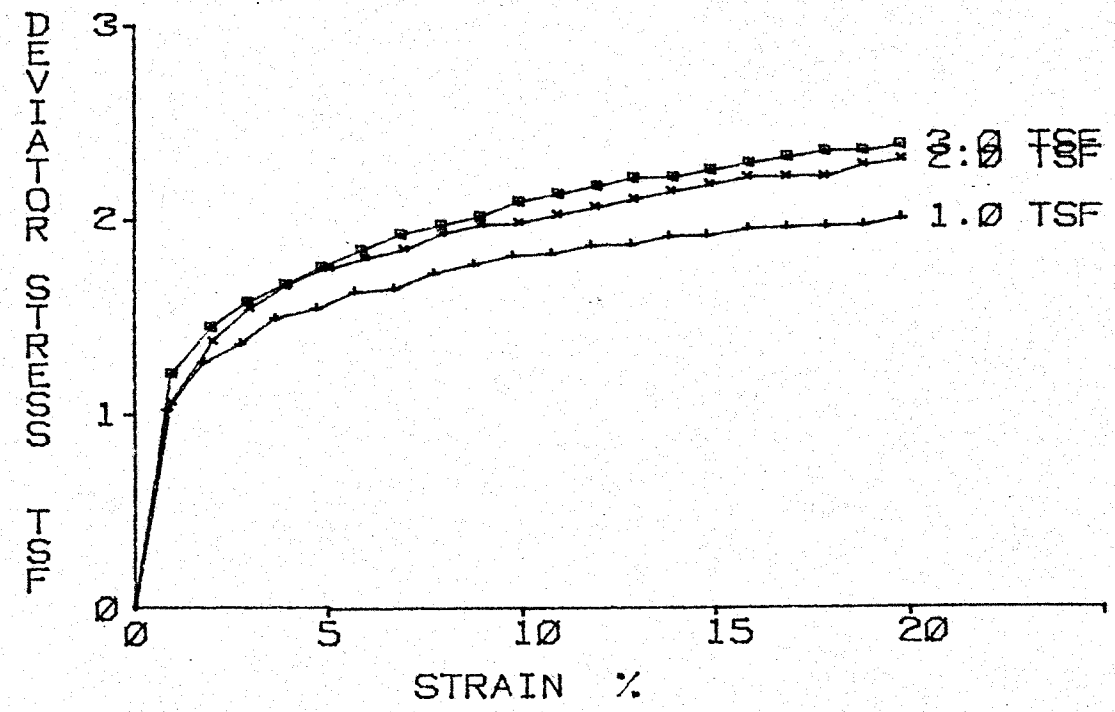
PROJECT:	JOHN SEVIER S.P.EL.		:
FEATURE:	BORROW AREAS A & B	SAMPLE	:CLASS III
STATION:		PART	:
RANGE :		SOIL SYM:	CL
BORING :		DATE	:5-6-81



TVA SINGLETON MATERIALS ENGINEERING LABORATORY

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION(Q) TEST

PROJECT:	JOHN SEVIER S.P.EL.		
FEATURE:	Borrow Areas A & B	SAMPLE	:CLASS III
STATION:		PART	:
RANGE	:	SOIL SYM:	CL
BORING	:	DATE	:5-6-81



Tennessee Valley Authority
Singleton Materials Engineering Laboratory
Unconsolidated Undrained Triaxial Compression (Q) Test

Project: JOHN SEVIER S.P.
Feature: Borrow Areas A & B
Station:
Range :
Boring :

El. :
Sample: CLASS III
Part :

Tested By : EL
Computed By: MHD
Checked By : CBG
Report Date: 5-6-81

Soil Sybmbol= CL
Sp. Gr. = 2.68

L.L.(%)= 36
D10(mm)= 0

P.I.(%)= 19

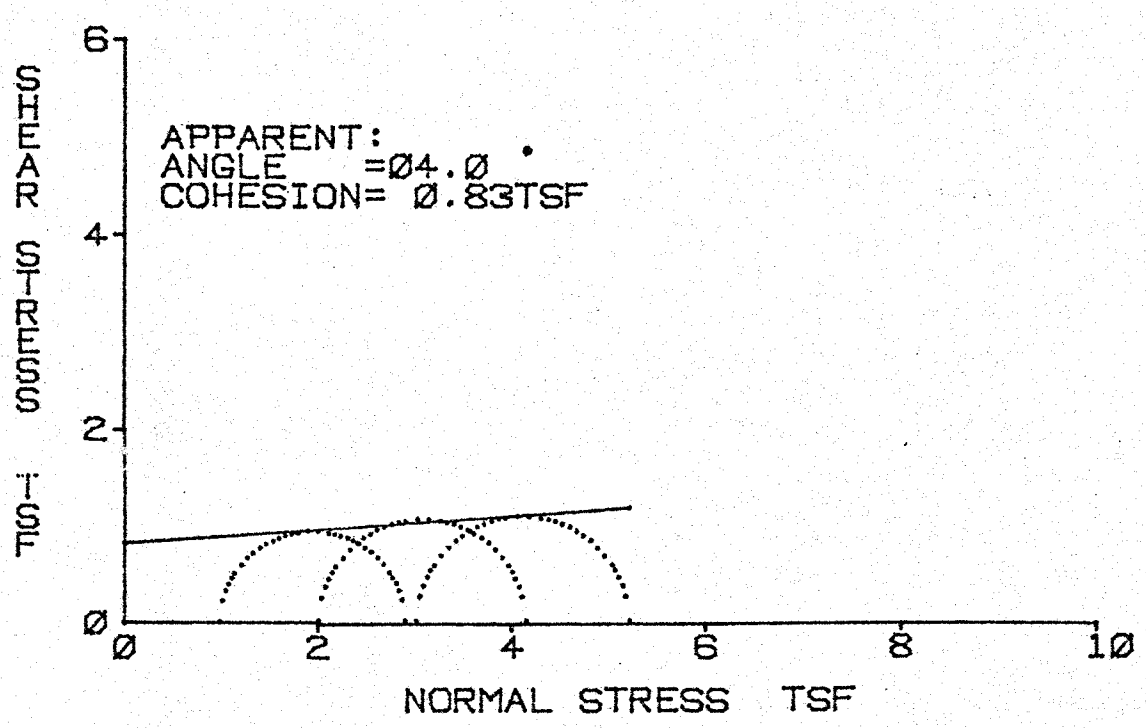
Specimen Number	1	2	3	4
Initial:				
Moisture Content(%)	19.2	19.2	19.0	0.0
Dry Density(pcf)	105.7	105.7	105.8	0.0
Void Ratio	0.583	0.583	0.581	0.000
Saturation(%)	88.3	88.3	87.8	0.0
Before Shearing:				
Moisture(%) (after satur.)	--	--	--	--
Saturation(%)	--	--	--	--
Moisture(%) (after cons.)	--	--	--	--
Void Ratio (after cons.)	--	--	--	--
Final Moisture Content(%)	19.0	19.1	18.9	0.0
Minor Principal Stress(tsf)	1.01	2.02	3.02	0.00
Major Principal Stress(tsf)	3.06	4.37	5.44	0.00
Eff. Minor Prin. Stress(tsf)	--	--	--	--
Eff. Major Prin. Stress(tsf)	--	--	--	--
Time to Failure(min.)	20	20	20	0
Rate of Strain(%/min.)	1.00	1.00	1.00	0.00
Specimen Height(in.)	3.15	3.15	3.15	3.15
Specimen Diameter(in.)	1.40	1.40	1.40	1.40

Shear Strength	Deg.	c(tsf)
Apparent	4.8	0.88
Effective	--	--

Remarks: Remolded at 3% wet of optimum moisture and at 95% of maximum unit weight.

TVA SINGLETON MATERIALS ENGINEERING LABORATORY
UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION(Q) TEST

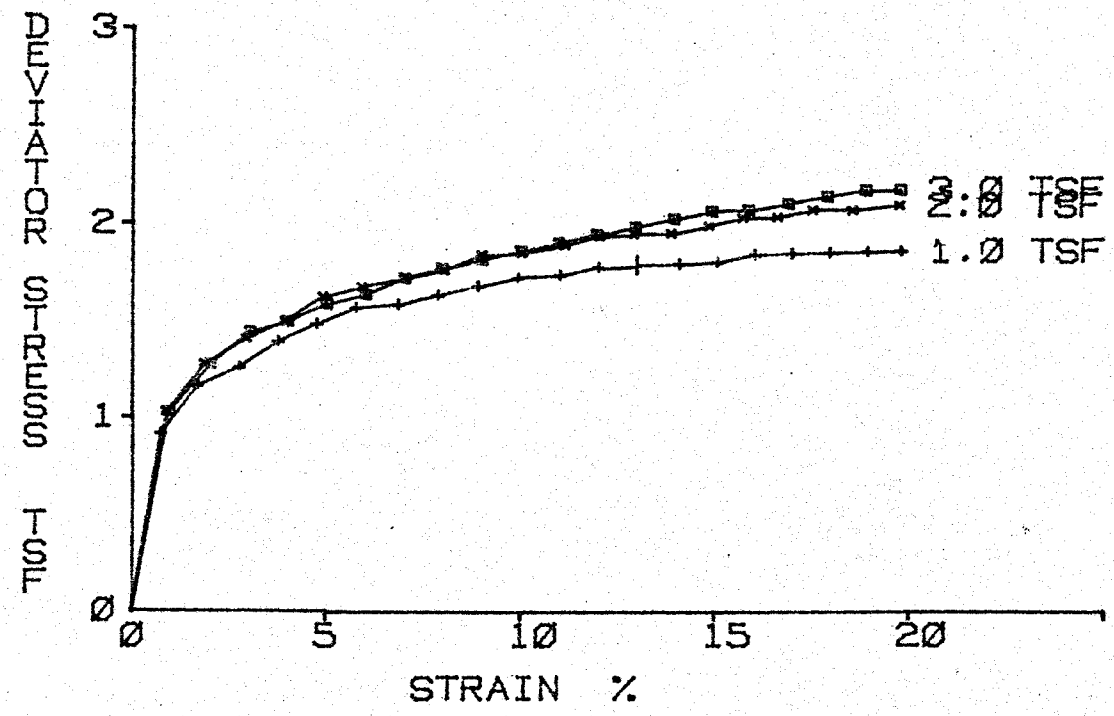
PROJECT:	JOHN SEVIER S.P.EL.		:
FEATURE:	Borrow Areas A & B	SAMPLE	:CLASS III
STATION:		PART	:
RANGE :		SOIL SYM:	CL
BORING :		DATE	:5-5-81



TVA SINGLETON MATERIALS ENGINEERING LABORATORY

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION(Q) TEST

PROJECT:	JOHN SEVIER S.P.EL.		
FEATURE:	BORROW AREAS A & B	SAMPLE :	CLASS III
STATION:		PART :	
RANGE :		SOIL SYM:	CL
BORING :		DATE :	5-5-81



Tennessee Valley Authority
Singleton Materials Engineering Laboratory
Unconsolidated Undrained Triaxial Compression (Q) Test

Project: JOHN SEVIER S.P.
Feature: Borrow Areas A & B
Station:
Range :
Boring :

El. :
Sample: CLASS III
Part :

Tested By : EL
Computed By: MHD
Checked By : CBG
Report Date: 5-5-81

Soil Sybmbol= CL
Sp. Gr. = 2.68

L.L.(%)= 36
D10(mm)= 0

P.I.(%)= 19

Specimen Number	1	2	3	4
Initial:				
Moisture Content(%)	19.4	19.2	19.3	0.0
Dry Density(pcf)	105.6	105.7	105.6	0.0
Void Ratio	0.585	0.583	0.584	0.000
Saturation(%)	88.8	88.3	88.6	0.0
Before Shearing:				
Moisture(%) (after satur.)	--	--	--	--
Saturation(%)	--	--	--	--
Moisture(%) (after cons.)	--	--	--	--
Void Ratio (after cons.)	--	--	--	--
Final Moisture Content(%)	19.2	19.1	19.1	0.0
Minor Principal Stress(tsf)	1.01	2.02	3.02	0.00
Major Principal Stress(tsf)	2.91	4.16	5.23	0.00
Eff. Minor Prin. Stress(tsf)	--	--	--	--
Eff. Major Prin. Stress(tsf)	--	--	--	--
Time to Failure(min.)	20	20	20	0
Rate of Strain(%/min.)	1.00	1.00	1.00	0.00
Specimen Height(in.)	3.15	3.15	3.15	3.15
Specimen Diameter(in.)	1.40	1.40	1.40	1.40

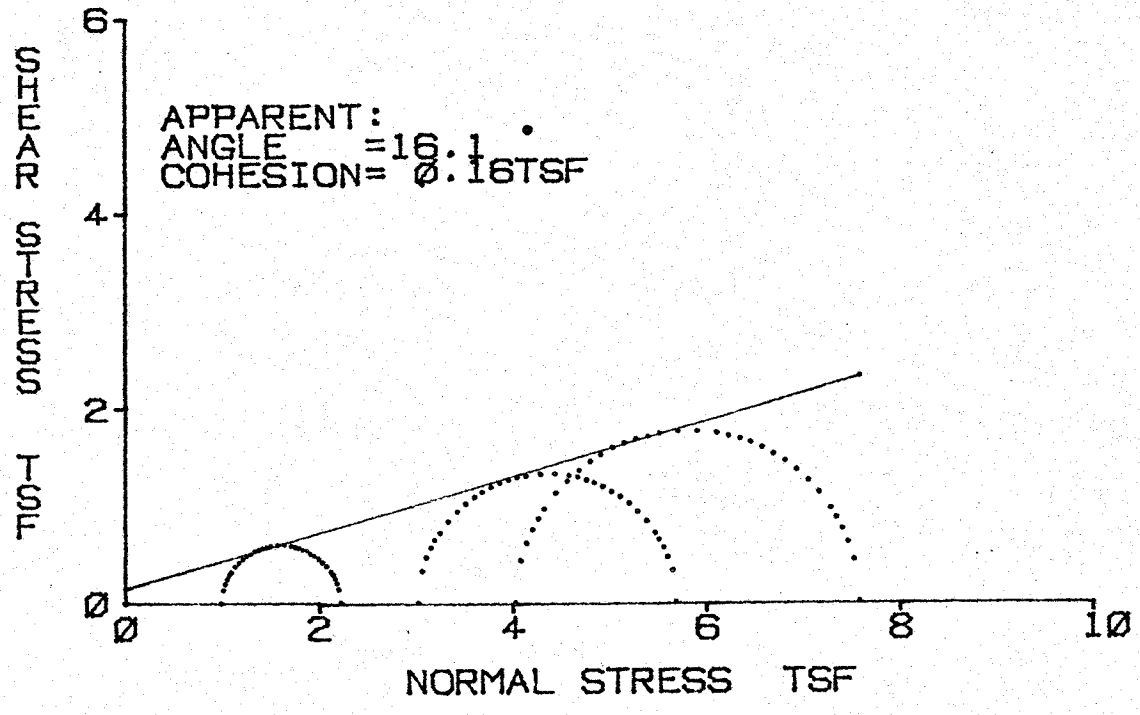
Shear Strength	Deg.	c(tsf)
Apparent	4.0	0.83
Effective	--	--

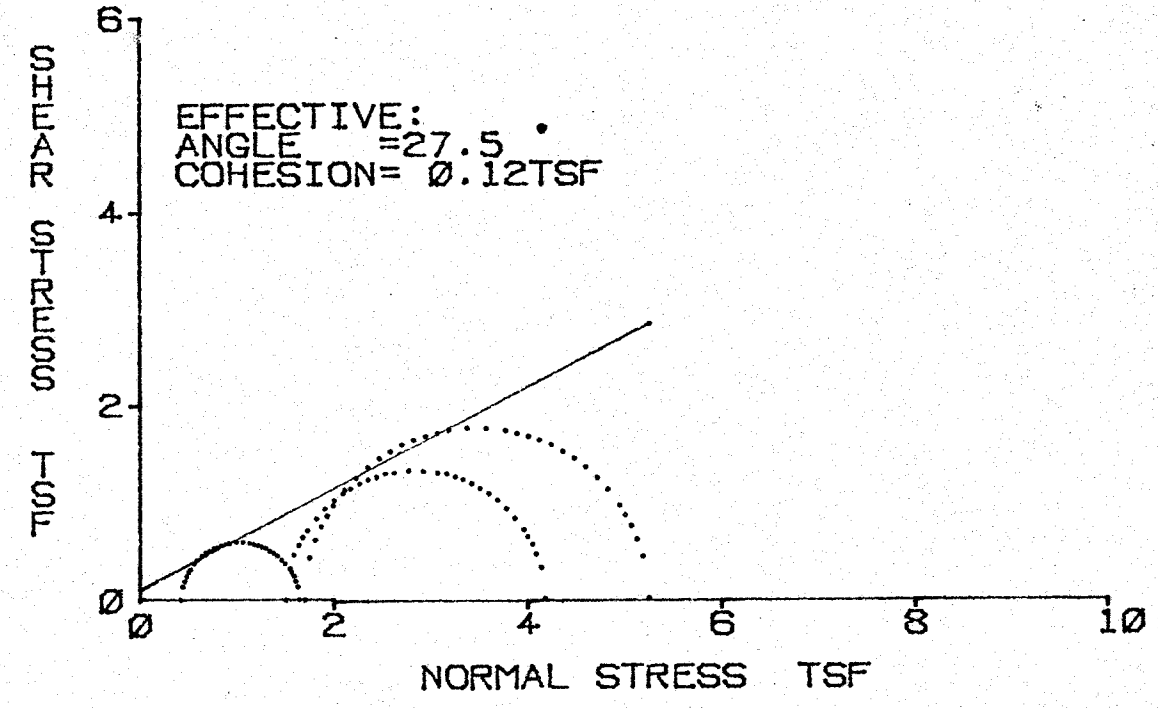
Remarks: Remolded at 3% wet of optimum moisture and at 95% of maximum unit weight.

TVA SINGLETON MATERIALS ENGINEERING LABORATORY

CONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION (R) TEST

PROJECT:	JOHN SEVIER SP	EL.	:
FEATURE:	BORROW AREAS A & B	SAMPLE	: CLASS III
STATION:		PART	:
RANGE	:	SOIL SYM:	CL
BORING	:	DATE	: 7/07/81

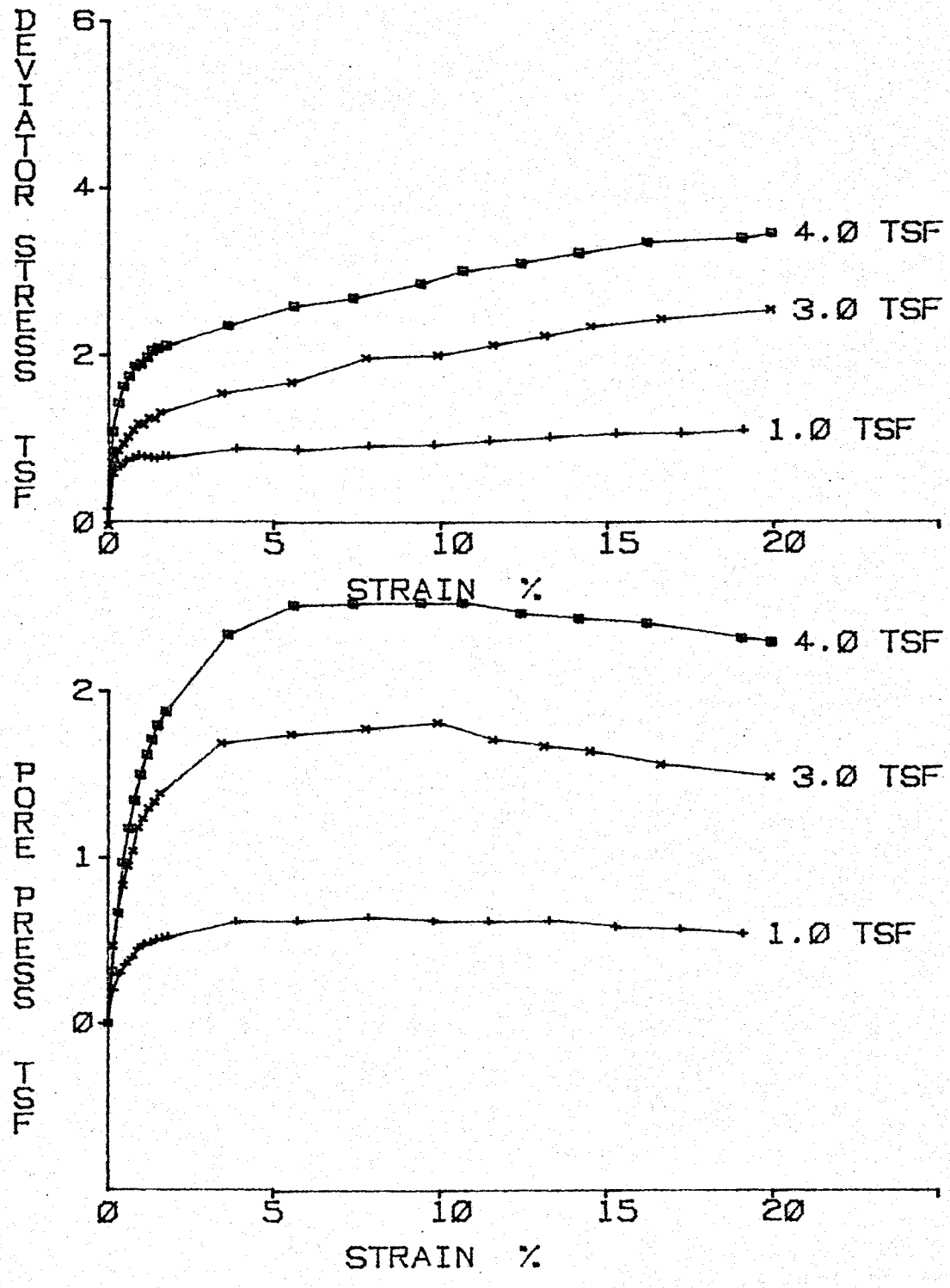




TVA SINGLETON MATERIALS ENGINEERING LABORATORY

CONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION (R) TEST

PROJECT: JOHN SEVIER SP	EL. :
FEATURE: BORROW AREAS A & B	SAMPLE : CLASS III
STATION:	PART :
RANGE :	SOIL SYM: CL
BORING :	DATE : 7/07/81



Tennessee Valley Authority
Singleton Materials Engineering Laboratory
Consolidated Undrained Triaxial Compression (R) Test

Project: JOHN SEVIER SP
Feature: BORROW AREAS A & B
Station:
Range :
Boring :

El. :
Sample: CLASS III
Part :

Tested By : JHD
Computed By: CRF
Checked By : CRF
Report Date: 7/07/81

Soil Sybmbol= CL
Sp. Gr. = 2.68

L.L.(%)= 36
D10(mm)= 0

P.I.(%)= 19

Specimen Number	1	2	3	4
Initial:				
Moisture Content(%)	12.9	13.1	13.1	0.0
Dry Density(pcf)	106.0	105.8	105.8	0.0
Void Ratio	0.579	0.581	0.581	0.000
Saturation(%)	59.7	60.2	60.2	0.0
Before Shearing:				
Moisture(%) (after satur.)	21.6	21.7	21.7	0.0
Saturation(%)	100.0	100.0	100.0	0.0
Moisture(%) (after cons.)	19.9	20.7	20.9	20.9
Void Ratio (after cons.)	0.533	0.556	0.560	0.000
Final Moisture Content(%)	21.4	18.5	18.7	0.0
Minor Principal Stress(tsf)	1.01	3.02	4.03	0.00
Major Principal Stress(tsf)	2.23	5.70	7.59	0.00
Eff. Minor Prin. Stress(tsf)	0.43	1.51	1.71	0.00
Eff. Major Prin. Stress(tsf)	1.65	4.19	5.26	0.00
Time to Failure(min.)	100	100	103	0
Rate of Strain(%/min.)	0.19	0.20	0.20	0.00
Specimen Height(in.)	3.15	3.15	3.15	3.15
Specimen Diameter(in.)	1.40	1.40	1.40	1.40

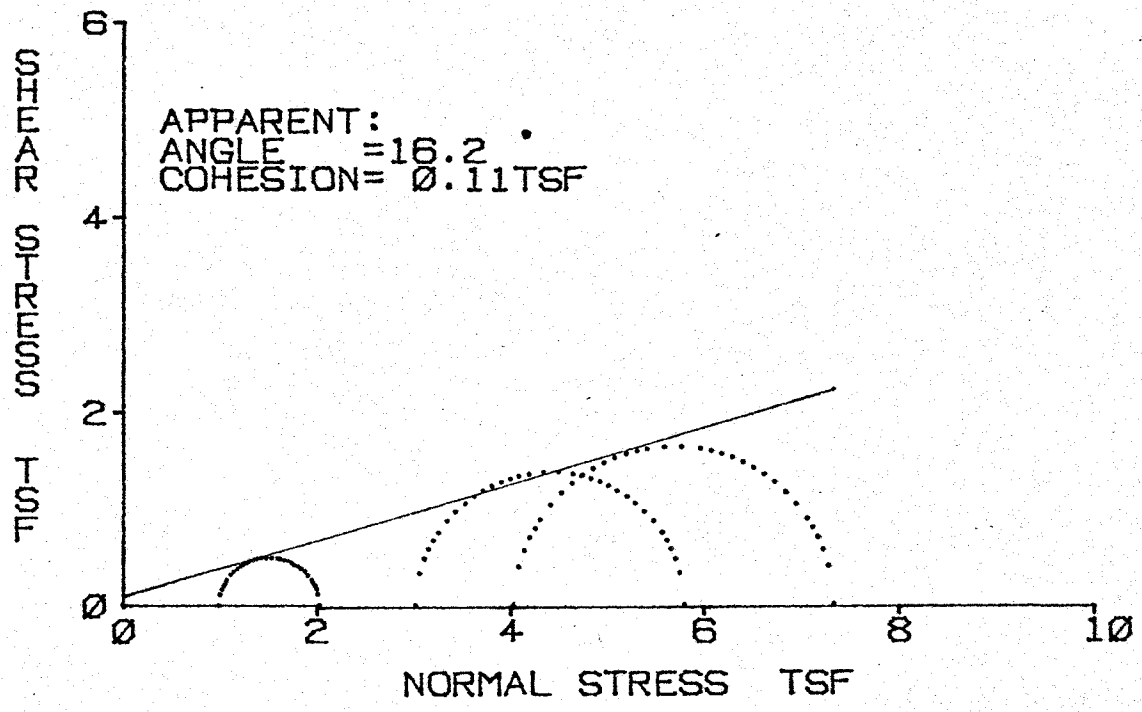
Shear Strength	Deg.	c(tsf)
Apparent	16.1	0.16
Effective	27.5	0.12

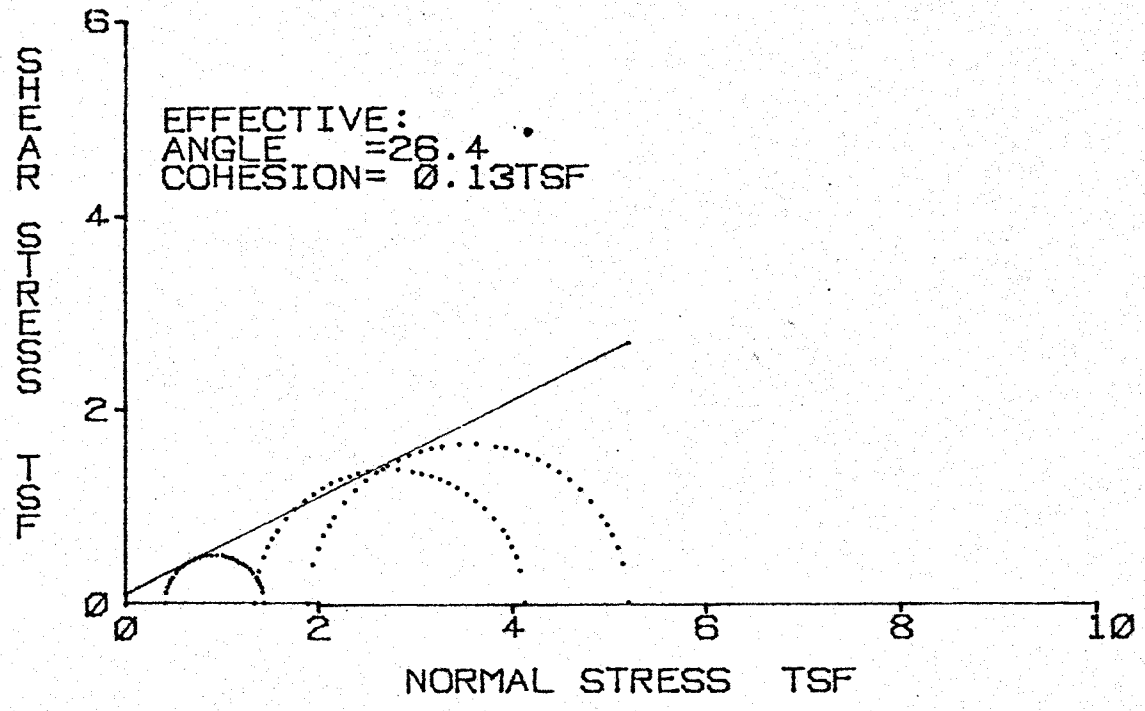
Remarks: Remolded at 3 (%) dry of optimum moisture
and at 95 (%) of maximum unitweight.

TVA SINGLETON MATERIALS ENGINEERING LABORATORY

CONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION (R) TEST

PROJECT: JOHN SEVIER SP	EL. :
FEATURE: BORROW AREAS A & B	SAMPLE : CLASS III
STATION:	PART :
RANGE :	SOIL SYM: CL
BORING :	DATE : 7/06/81

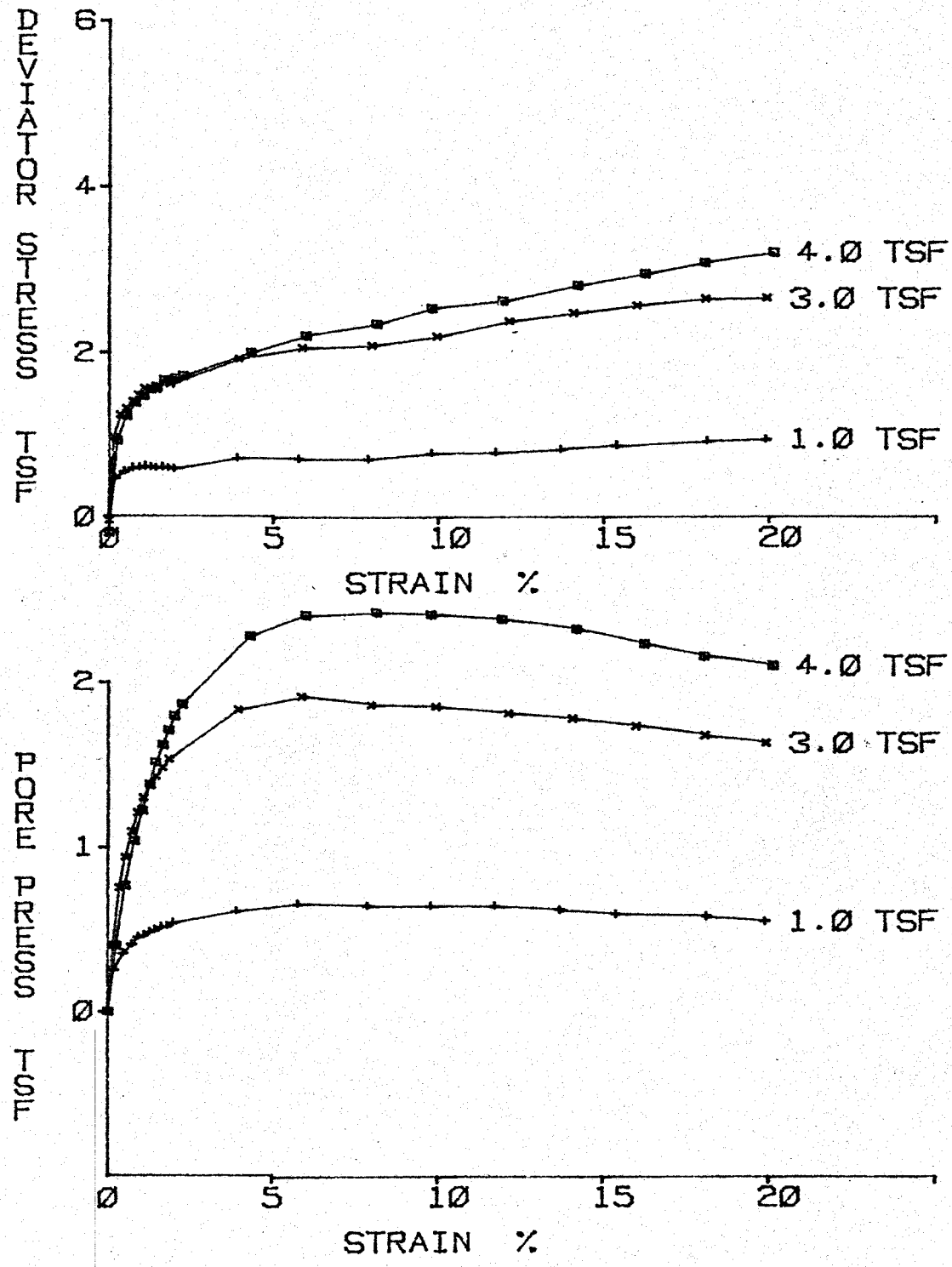




TVA SINGLETON MATERIALS ENGINEERING LABORATORY

CONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION (R) TEST

PROJECT:	JOHN SEVIER SP	EL.	:
FEATURE:	BORROW AREAS A & B	SAMPLE	: CLASS III
STATION:		PART	:
RANGE :		SOIL SYM:	CL
BORING :		DATE	: 7/06/81



Tennessee Valley Authority
Singleton Materials Engineering Laboratory
Consolidated Undrained Triaxial Compression (R) Test

Project: JOHN SEVIER SP
Feature: BORROW AREAS A & B
Station:
Range :
Boring :

El. :
Sample: CLASS III
Part :

Tested By : JHD
Computed By: CRF
Checked By : CRF
Report Date: 7/06/81

Soil Sybmbol= CL
Sp. Gr. = 2.68

L.L.(%)= 36
D10(mm)= 0

P.I.(%)= 19

Specimen Number	1	2	3	4
Initial:				
Moisture Content(%)	12.9	13.1	13.4	0.0
Dry Density(pcf)	106.0	105.8	105.5	0.0
Void Ratio	0.579	0.581	0.586	0.000
Saturation(%)	59.7	60.2	61.3	0.0
Before Shearing:				
Moisture(%) (after satur.)	21.6	21.7	21.9	0.0
Saturation(%)	100.0	100.0	100.0	0.0
Moisture(%) (after cons.)	20.5	19.5	18.8	18.8
Void Ratio (after cons.)	0.549	0.522	0.504	0.000
Final Moisture Content(%)	21.7	18.4	19.2	0.0
Minor Principal Stress(tsf)	1.01	3.02	4.03	0.00
Major Principal Stress(tsf)	2.05	5.81	7.35	0.00
Eff. Minor Prin. Stress(tsf)	0.42	1.35	1.89	0.00
Eff. Major Prin. Stress(tsf)	1.46	4.14	5.21	0.00
Time to Failure(min.)	100	100	100	0
Rate of Strain(%/min.)	0.20	0.20	0.20	0.00
Specimen Height(in.)	3.15	3.15	3.15	3.15
Specimen Diameter(in.)	1.40	1.40	1.40	1.40

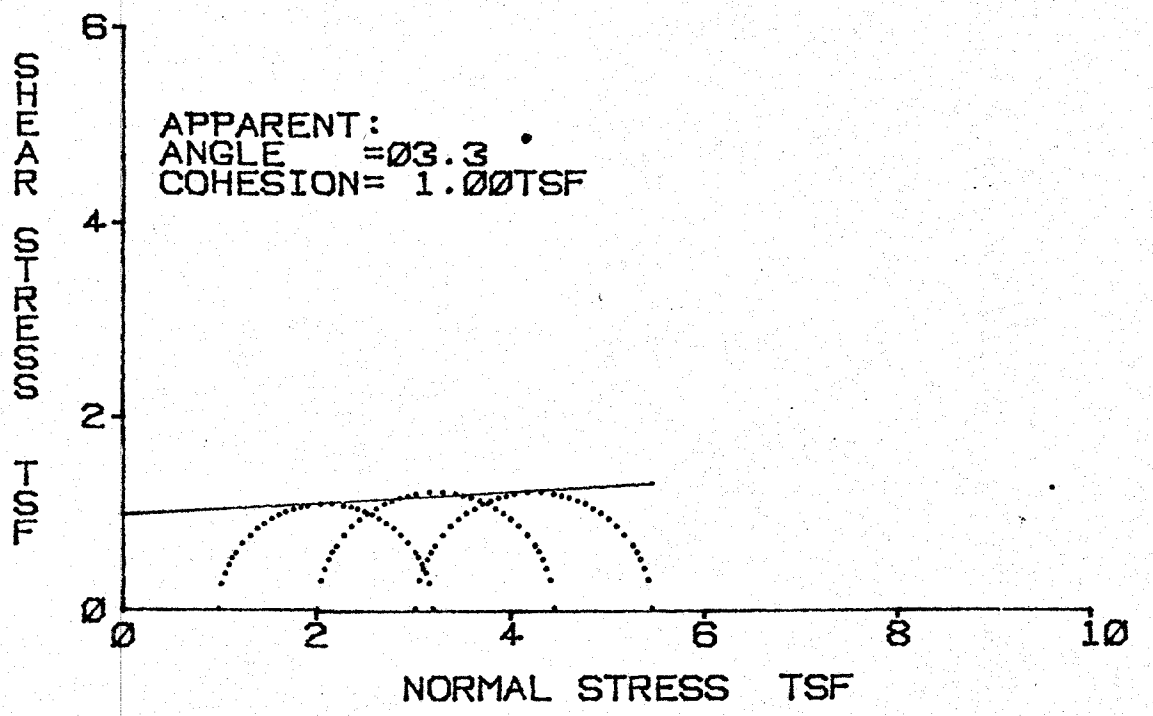
Shear Strength	Deg.	c(tsf)
Apparent	16.2	0.11
Effective	26.4	0.13

Remarks: Remolded at 3 (%) dry of optimum moisture and at 95 (%) of maximum unitweight.

TVA SINGLETON MATERIALS ENGINEERING LABORATORY

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION(Q) TEST

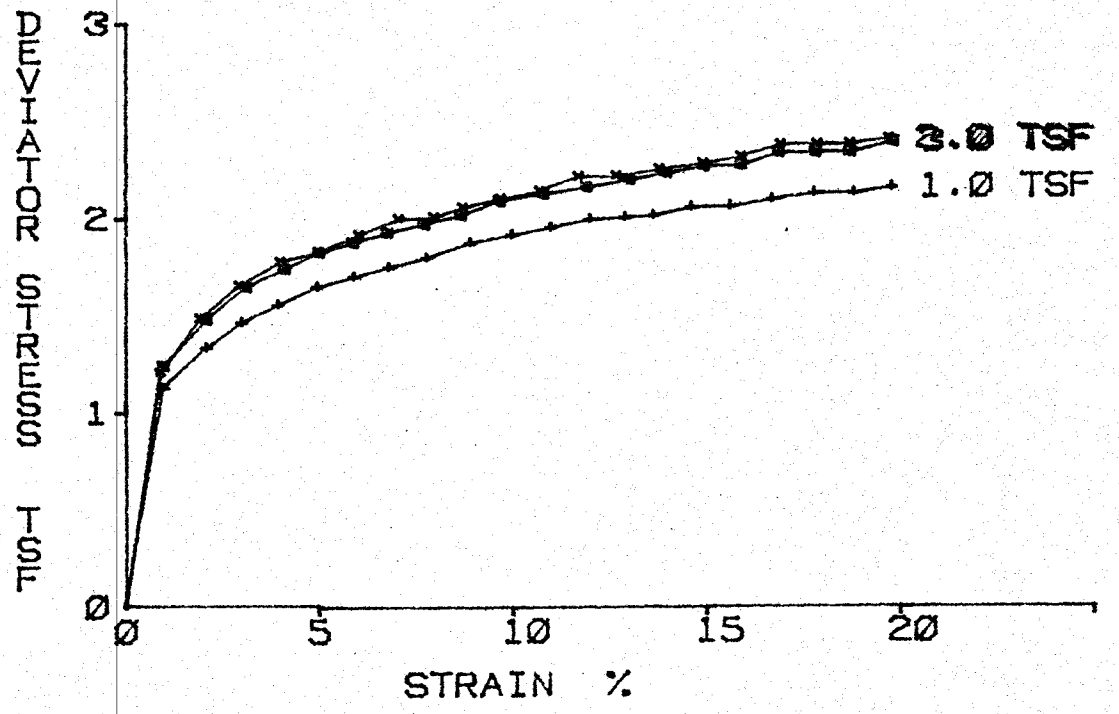
PROJECT:	JOHN SEVIER S.P.	EL.	:
FEATURE:	BORROW AREAS A & B	SAMPLE	:CLASS IV
STATION:		PART	:
RANGE :		SOIL SYM:	CL
BORING :		DATE	:6-15-81



TVA SINGLETON MATERIALS ENGINEERING LABORATORY

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION(Q) TEST

PROJECT:	JOHN SEVIER S.P.EL.	:	
FEATURE:	Borrow Areas A & B	SAMPLE :	CLASS IV
STATION:		PART :	
RANGE :		SOIL SYM:	CL
BORING :		DATE :	6-15-81



Tennessee Valley Authority
Singleton Materials Engineering Laboratory
Unconsolidated Undrained Triaxial Compression (Q) Test

Project: JOHN SEVIER S.P.
Feature: Borrow Areas A & B
Station:
Range :
Boring :

El. :
Sample: CLASS IV
Part :

Tested By : RA
Computed By: MHD
Checked By : BMD
Report Date: 6-15-81

Soil Sybmbol= CL
Sp. Gr. = 2.69

L.L.(%)= 42
D10(mm)= 0

P.I.(%)= 23

Specimen Number	1	2	3	4
Initial:				
Moisture Content(%)	20.9	20.9	21.1	0.0
Dry Density(pcf)	102.1	102.1	102.0	0.0
Void Ratio	0.644	0.644	0.647	0.000
Saturation(%)	87.5	87.5	87.9	0.0
Before Shearing:				
Moisture(%) (after satur.)	--	--	--	--
Saturation(%)	--	--	--	--
Moisture(%) (after cons.)	--	--	--	--
Void Ratio (after cons.)	--	--	--	--
Final Moisture Content(%)	20.9	20.9	21.1	0.0
Minor Principal Stress(tsf)	1.01	2.02	3.02	0.00
Major Principal Stress(tsf)	3.21	4.46	5.47	0.00
Eff. Minor Prin. Stress(tsf)	--	--	--	--
Eff. Major Prin. Stress(tsf)	--	--	--	--
Time to Failure(min.)	20	20	20	0
Rate of Strain(%/min.)	1.00	1.00	1.00	0.00
Specimen Height(in.)	3.15	3.15	3.15	3.15
Specimen Diameter(in.)	1.40	1.40	1.40	1.40

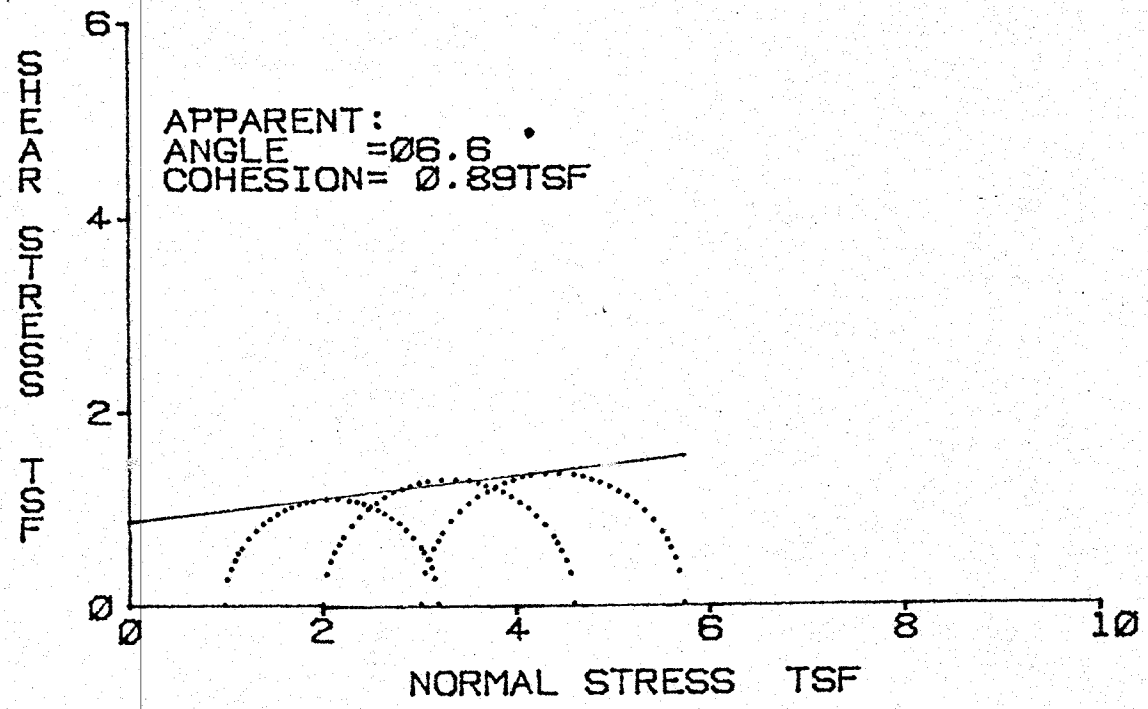
Shear Strength	Deg.	c(tsf)
Apparent	3.3	1.00
Effective	--	--

Remarks: Remolded at 3% wet of optimum moisture and at 95% of maximum unit weight.

TVA SINGLETON MATERIALS ENGINEERING LABORATORY

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION(Q) TEST

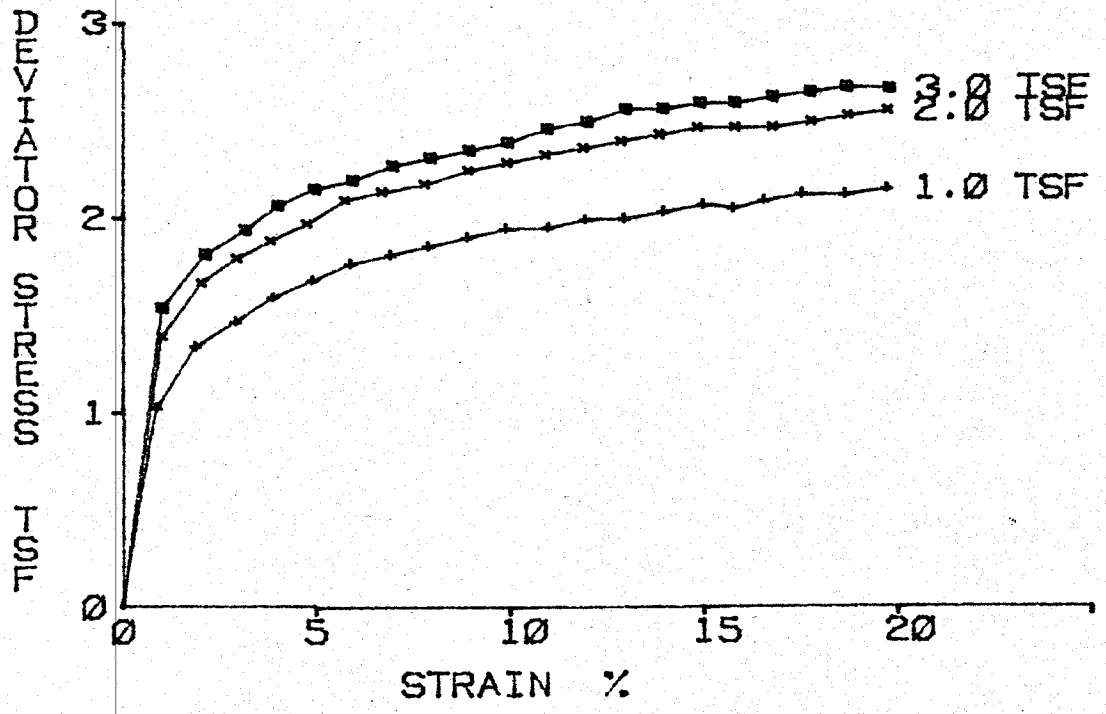
PROJECT:	JOHN SEVIER S.P.EL.	:	
FEATURE:	BORROW AREAS A & B	SAMPLE :	CLASS IV
STATION:		PART :	
RANGE :		SOIL SYM:	CL
BORING :		DATE :	6-15-81



TVA SINGLETON MATERIALS ENGINEERING LABORATORY

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION(Q) TEST

PROJECT:	JOHN SEVIER S.P.EL.	:	
FEATURE:	BORROW AREAS A & B	SAMPLE	:CLASS IV
STATION:		PART	:
RANGE	:	SOIL SYM:	CL
BORING	:	DATE	:6-15-81



Tennessee Valley Authority
Singleton Materials Engineering Laboratory
Unconsolidated Undrained Triaxial Compression (Q) Test

Project: JOHN SEVIER S.P.
Feature: Borrow Areas A & B
Station:
Range :
Boring :

El. :
Sample: CLASS IV
Part :

Tested By : RA
Computed By: MHD
Checked By : GMD
Report Date: 6-15-81

Soil Sybmbol= CL
Sp. Gr. = 2.69

L.L.(%)= 42
D10(mm)= 0

P.I.(%)= 23

Specimen Number	1	2	3	4
Initial:				
Moisture Content(%)	21.0	20.9	20.9	0.0
Dry Density(pcf)	102.1	102.2	102.2	0.0
Void Ratio	0.646	0.643	0.643	0.000
Saturation(%)	87.7	87.2	87.2	0.0
Before Shearing:				
Moisture(%) (after satur.)	--	--	--	--
Saturation(%)	--	--	--	--
Moisture(%) (after cons.)	--	--	--	--
Void Ratio (after cons.)	--	--	--	--
Final Moisture Content(%)	21.0	20.8	20.8	0.0
Minor Principal Stress(tsf)	1.01	2.02	3.02	0.00
Major Principal Stress(tsf)	3.21	4.61	5.75	0.00
Eff. Minor Prin. Stress(tsf)	--	--	--	--
Eff. Major Prin. Stress(tsf)	--	--	--	--
Time to Failure(min.)	20	20	19	0
Rate of Strain(%/min.)	1.00	1.00	1.00	0.00
Specimen Height(in.)	3.15	3.15	3.15	3.15
Specimen Diameter(in.)	1.40	1.40	1.40	1.40

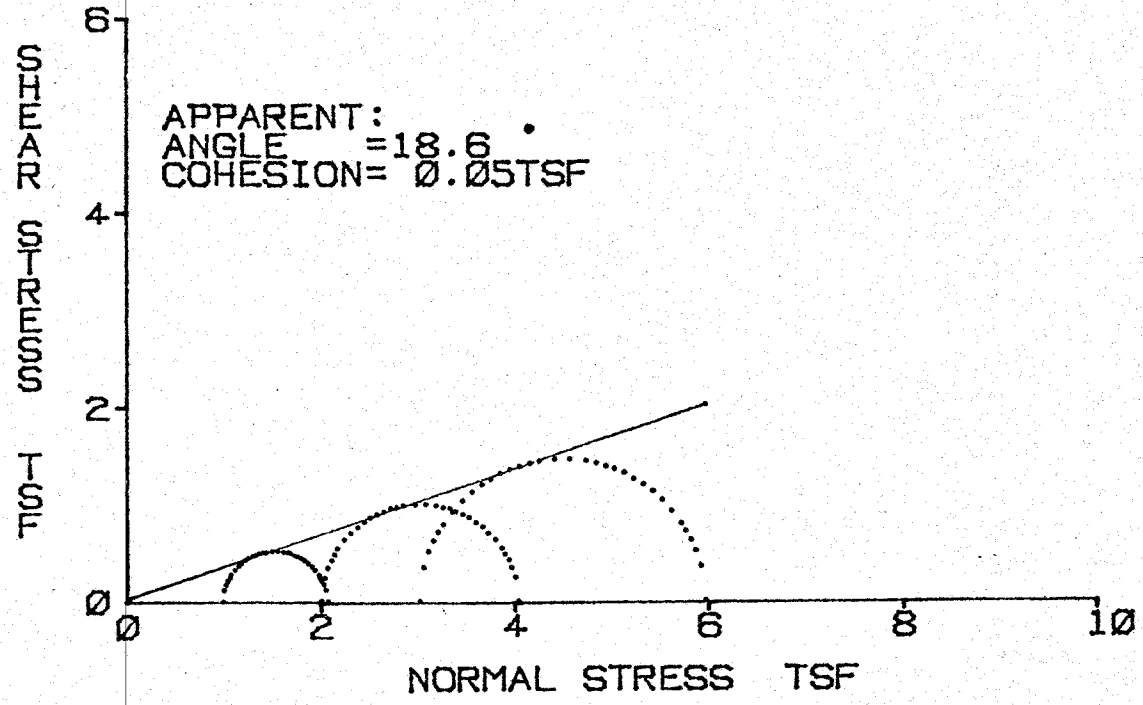
Shear Strength	Deg.	c(tsf)
Apparent	6.6	0.89
Effective	--	--

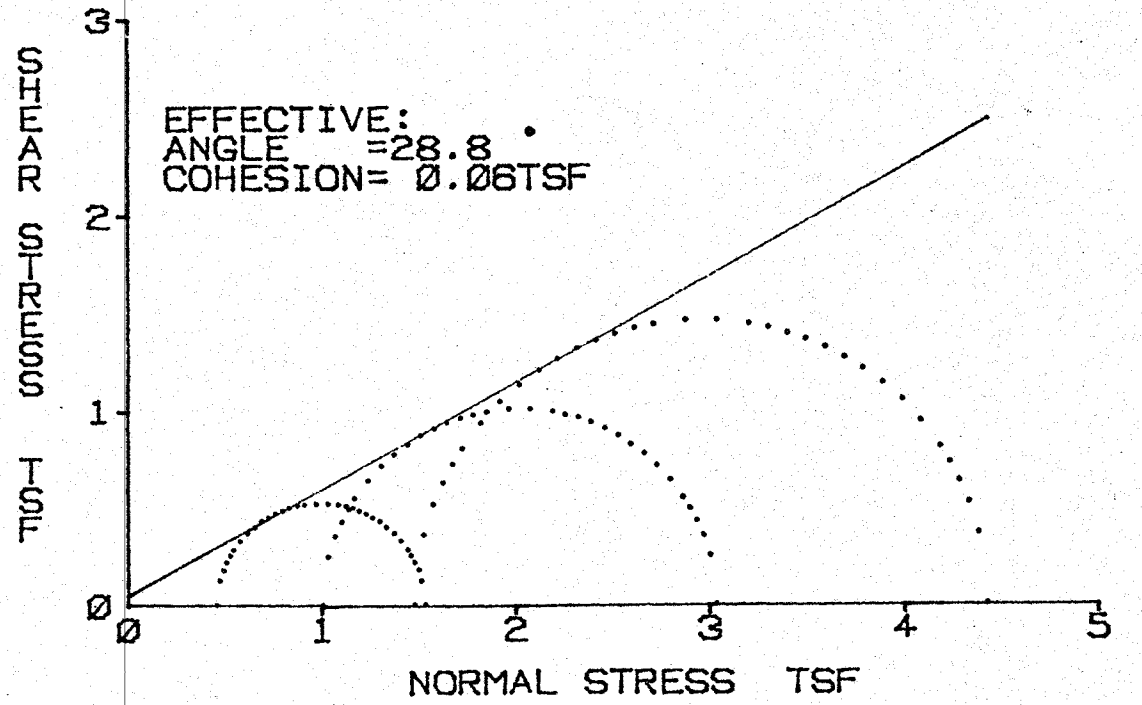
Remarks: Remolded at 3% wet of optimum moisture and at 95% of maximum unit weig

TVA SINGLETON MATERIALS ENGINEERING LABORATORY

CONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION (R) TEST

PROJECT:	JOHN SEVIER SP	EL.	:
FEATURE:	BORROW AREAS A & B	SAMPLE	: CLASS IV
STATION:		PART	:
RANGE :		SOIL SYM:	CL
BORING :		DATE	: 7/10/81

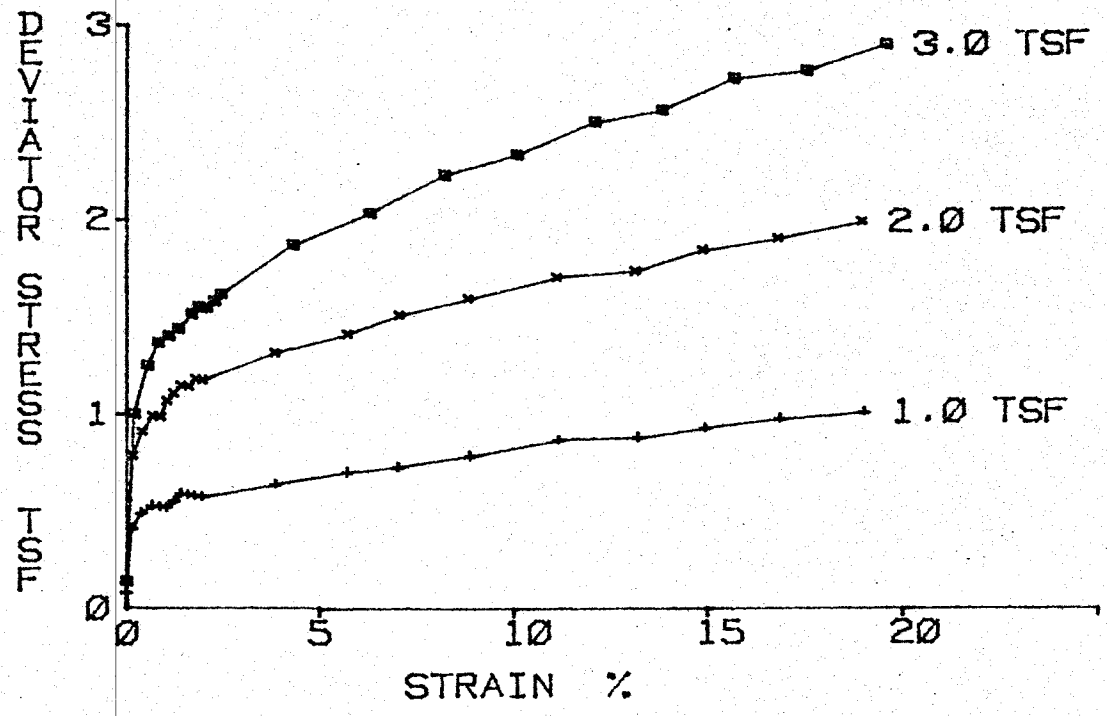


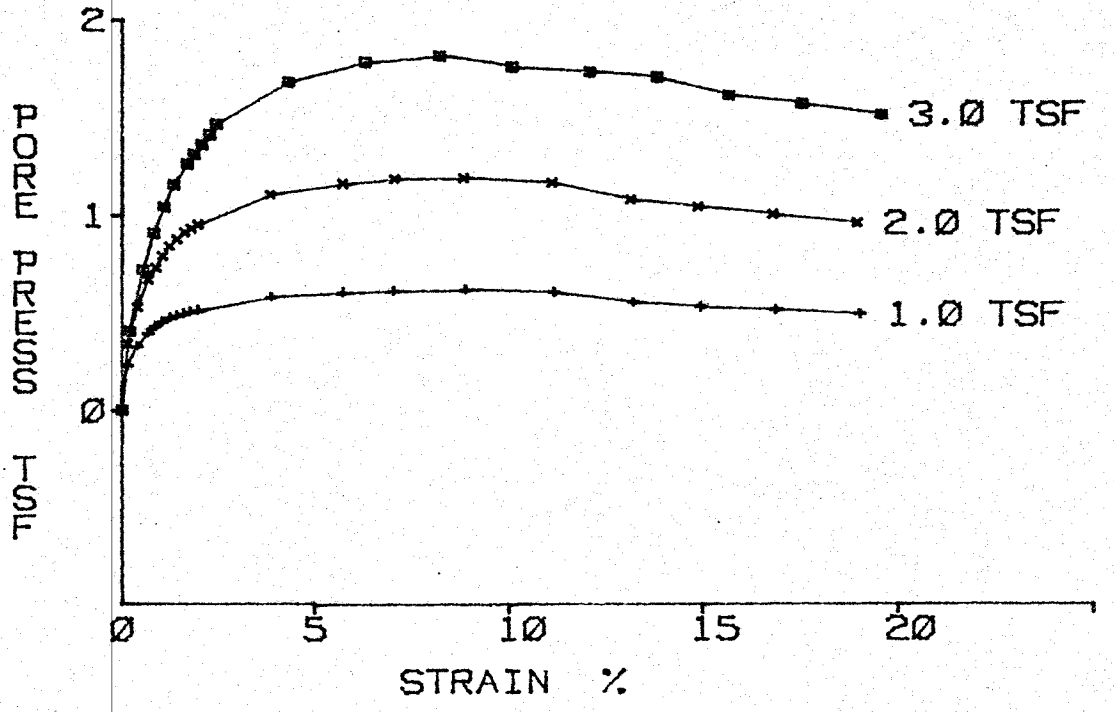


TVA SINGLETON MATERIALS ENGINEERING LABORATORY

CONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION (R) TEST

PROJECT:	JOHN SEVIER SP	EL.	:
FEATURE:	BORROW AREAS A & B	SAMPLE	: CLASS IV
STATION:		PART	:
RANGE	:	SOIL SYM:	CL
BORING	:	DATE	: 7/10/81





Tennessee Valley Authority
Singleton Materials Engineering Laboratory
Consolidated Undrained Triaxial Compression (R) Test

Project: JOHN SEVIER SP
Feature: BORROW AREAS A & B
Station:
Range :
Boring :

El. :
Sample: CLASS IV
Part :

Tested By : TAL
Computed By: CRF
Checked By : JBE
Report Date: 7/10/81

Soil Sybmbol= CL
Sp. Gr. = 2.69

L.L.(%)= 42
D10(mm)= 0

P.I.(%)= 23

Specimen Number	1	2	3	4
Initial:				
Moisture Content(%)	15.5	15.5	15.5	0.0
Dry Density(pcf)	101.7	101.7	101.7	0.0
Void Ratio	0.652	0.652	0.652	0.000
Saturation(%)	64.0	64.0	64.0	0.0
Before Shearing:				
Moisture(%) (after satur.)	24.2	24.2	24.2	0.0
Saturation(%)	100.0	100.0	100.0	0.0
Moisture(%) (after cons.)	23.2	23.2	23.2	23.2
Void Ratio (after cons.)	0.624	0.624	0.625	0.000
Final Moisture Content(%)	23.5	21.7	20.6	0.0
Minor Principal Stress(tsf)	1.01	2.02	3.02	0.00
Major Principal Stress(tsf)	2.08	4.05	5.98	0.00
Eff. Minor Prin. Stress(tsf)	0.47	1.01	1.48	0.00
Eff. Major Prin. Stress(tsf)	1.54	3.04	4.44	0.00
Time to Failure(min.)	100	100	100	0
Rate of Strain(%/min.)	0.19	0.19	0.20	0.00
Specimen Height(in.)	3.15	3.15	3.15	3.15
Specimen Diameter(in.)	1.40	1.40	1.40	1.40

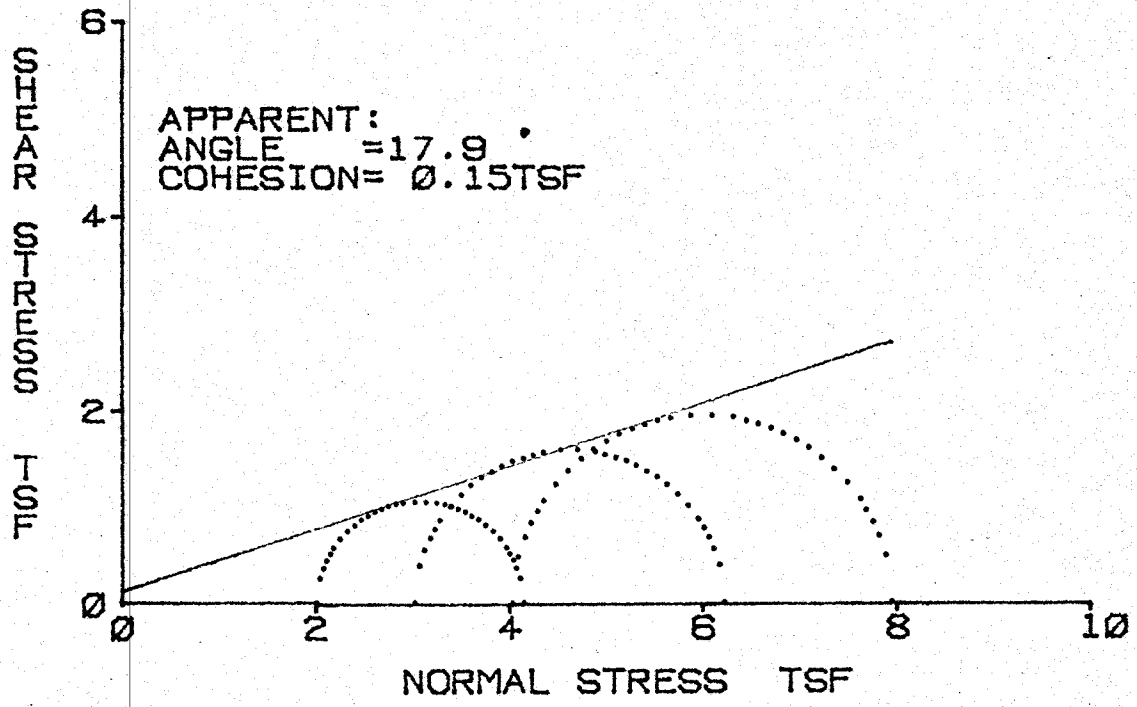
Shear Strength	Deg.	c(tsf)
Apparent	18.6	0.05
Effective	28.8	0.06

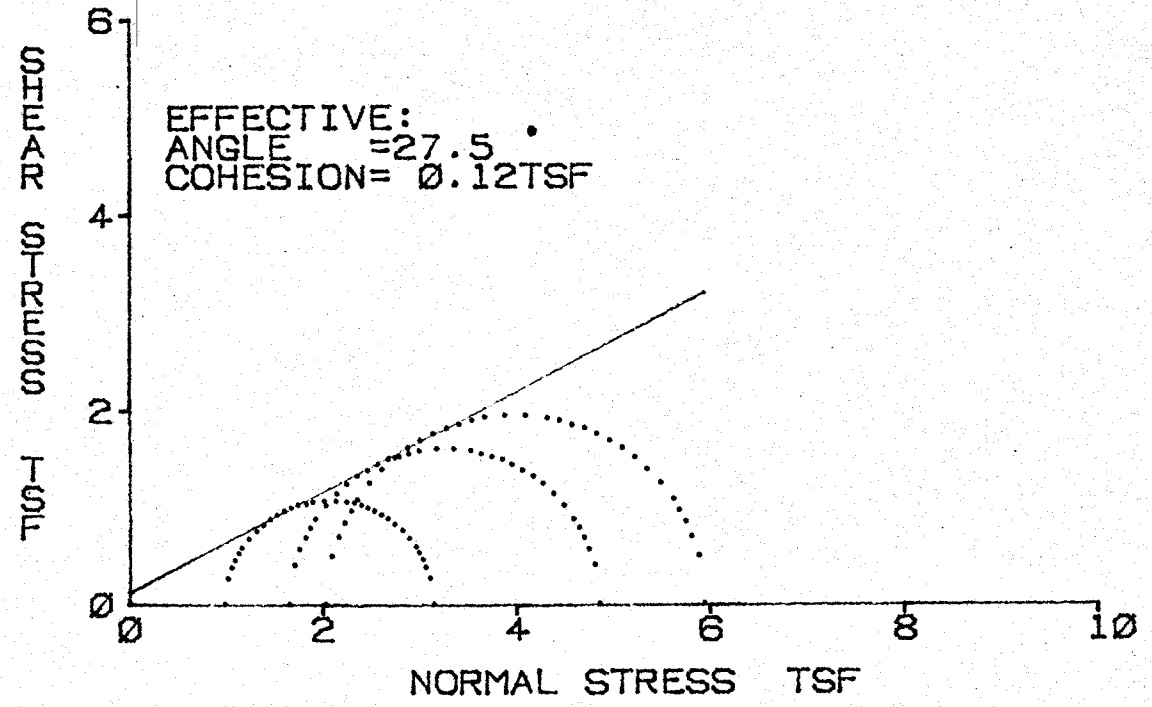
Remarks: Remolded at 3 (%) dry of optimum moisture
and at 95 (%) of maximum unitweight.

TVA SINGLETON MATERIALS ENGINEERING LABORATORY

CONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION (R) TEST

PROJECT:	JOHN SEVIER SP	EL.	:
FEATURE:	BORROW AREAS A & B	SAMPLE	: CLASS IV
STATION:		PART	:
RANGE	:	SOIL SYM:	CL
BORING	:	DATE	: 6/24/81

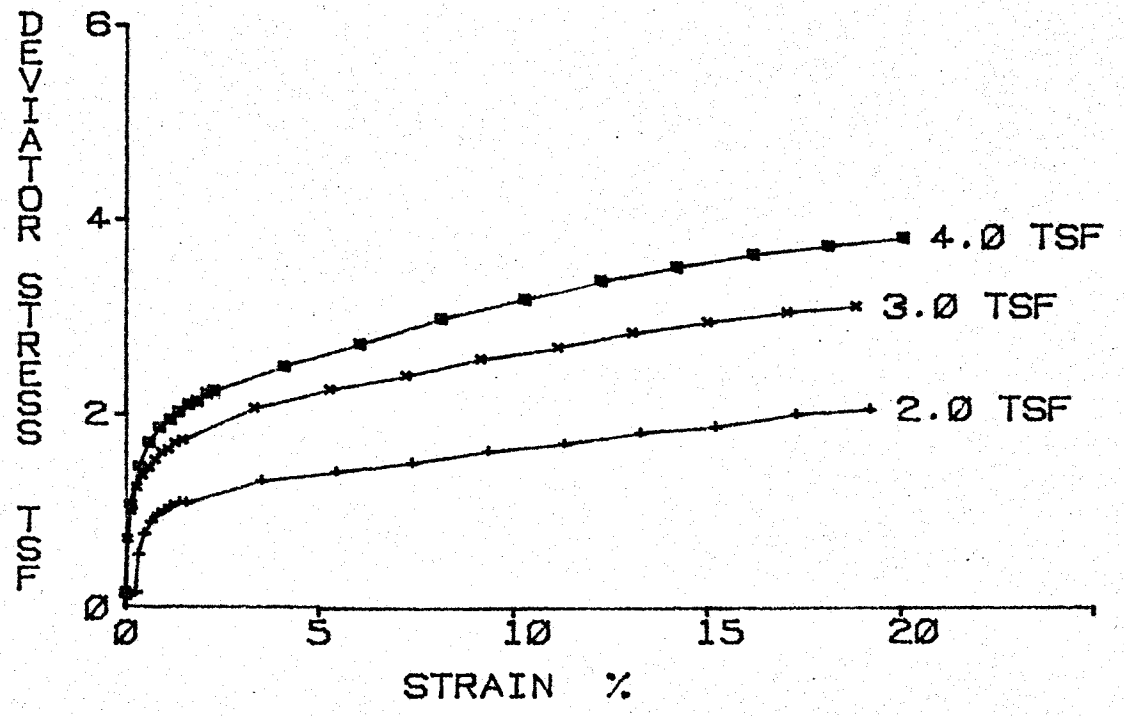


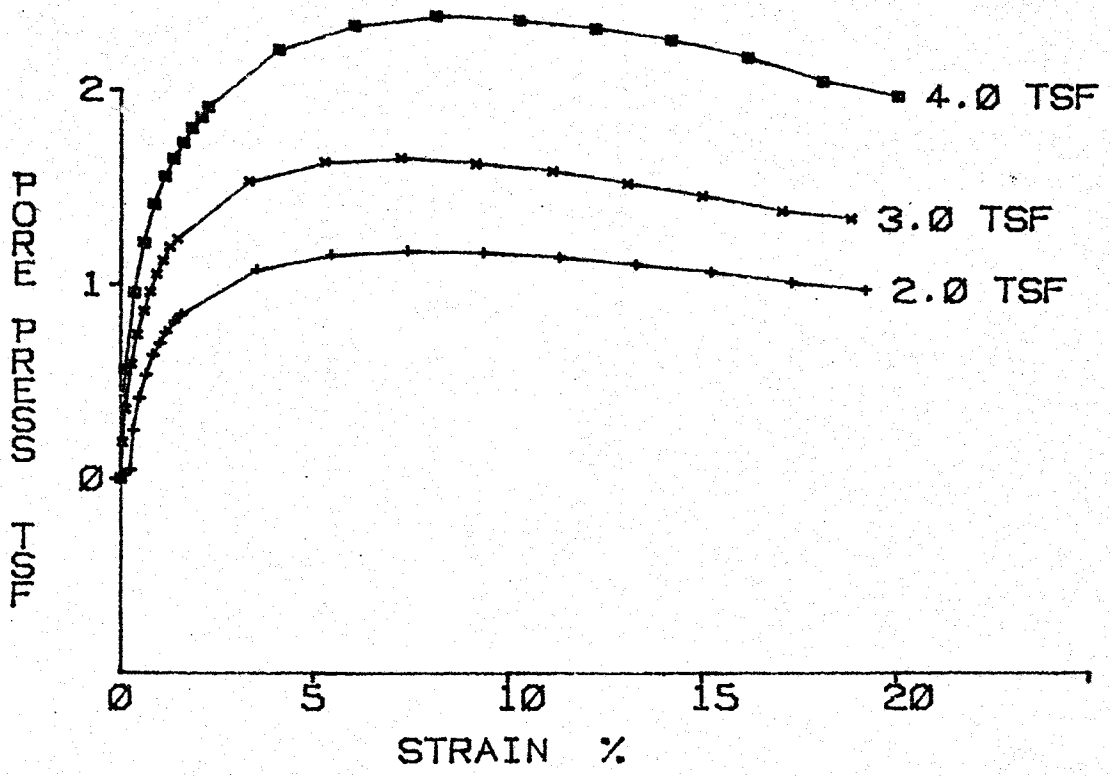


TVA SINGLETON MATERIALS ENGINEERING LABORATORY

CONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION (R) TEST

PROJECT:	JOHN SEVIER SP	EL.	:
FEATURE:	BORROW AREAS A & B	SAMPLE	: CLASS IV
STATION:		PART	:
RANGE :		SOIL SYM:	CL
BORING :		DATE	: 6/24/81





Tennessee Valley Authority
Singleton Materials Engineering Laboratory
Consolidated Undrained Triaxial Compression (R) Test

Project: JOHN SEVIER SP
Feature: BORROW AREAS A & B
Station:
Range :
Boring :

El. :
Sample: CLASS IV
Part :

Tested By : JHD
Computed By: CRF
Checked By : CRF
Report Date: 6/24/81

Soil Sybmbol= CL
Sp. Gr. = 2.69

L.L.(%)= 42
D10(mm)= 2.69

P.I.(%)= 23

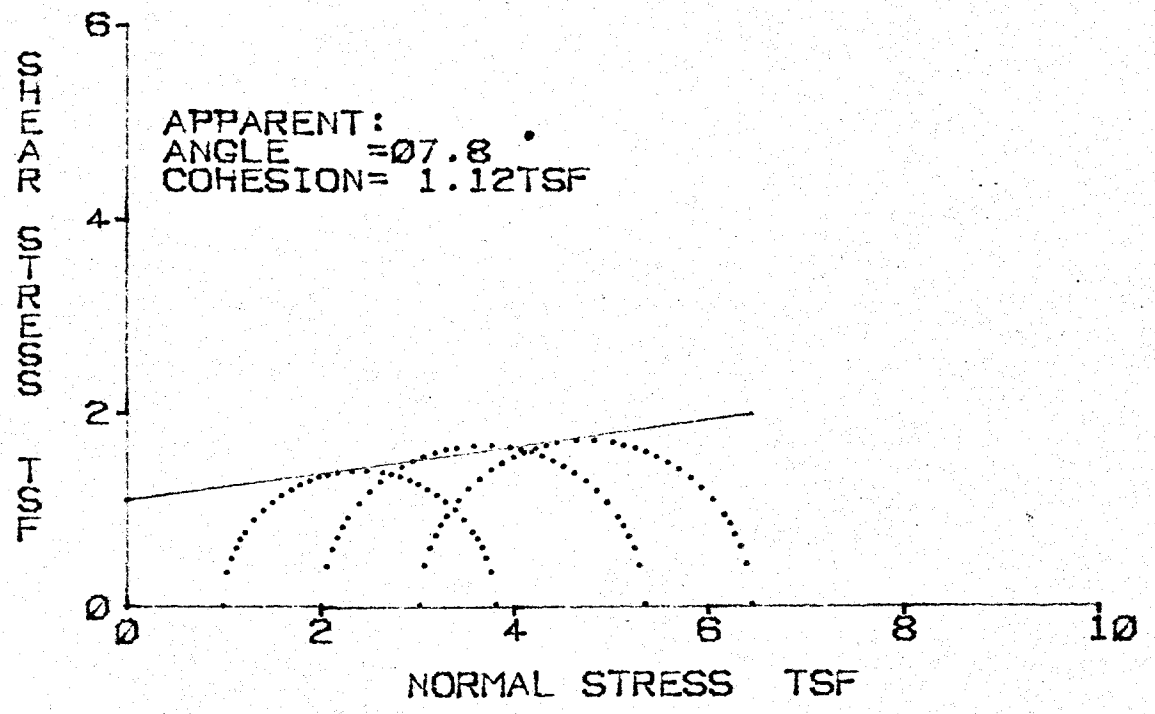
Specimen Number	1	2	3	4
Initial:				
Moisture Content(%)	15.4	15.3	15.0	0.0
Dry Density(pcf)	101.7	101.8	102.1	0.0
Void Ratio	0.652	0.649	0.644	0.000
Saturation(%)	63.7	63.2	62.6	0.0
Before Shearing:				
Moisture(%) (after satur.)	24.2	24.1	24.0	0.0
Saturation(%)	100.0	100.0	100.0	0.0
Moisture(%) (after cons.)	21.4	21.9	21.0	21.0
Void Ratio (after cons.)	0.574	0.589	0.566	0.000
Final Moisture Content(%)	22.4	20.6	19.7	0.0
Minor Principal Stress(tsf)	2.02	3.02	4.03	0.00
Major Principal Stress(tsf)	4.16	6.23	7.95	0.00
Eff. Minor Prin. Stress(tsf)	1.00	1.66	2.03	0.00
Eff. Major Prin. Stress(tsf)	3.14	4.87	5.95	0.00
Time to Failure(min.)	100	100	100	0
Rate of Strain(%/min.)	0.19	0.19	0.20	0.00
Specimen Height(in.)	3.15	3.15	3.15	3.15
Specimen Diameter(in.)	1.40	1.40	1.40	1.40

Shear Strength	Deg.	c(tsf)
Apparent	17.9	0.15
Effective	27.5	0.12

Remarks: Remolded at 3 (%) dry of optimum moisture and at 95 (%) of maximum unit weight.

TVA SINGLETON MATERIALS ENGINEERING LABORATORY
UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION(Q) TEST

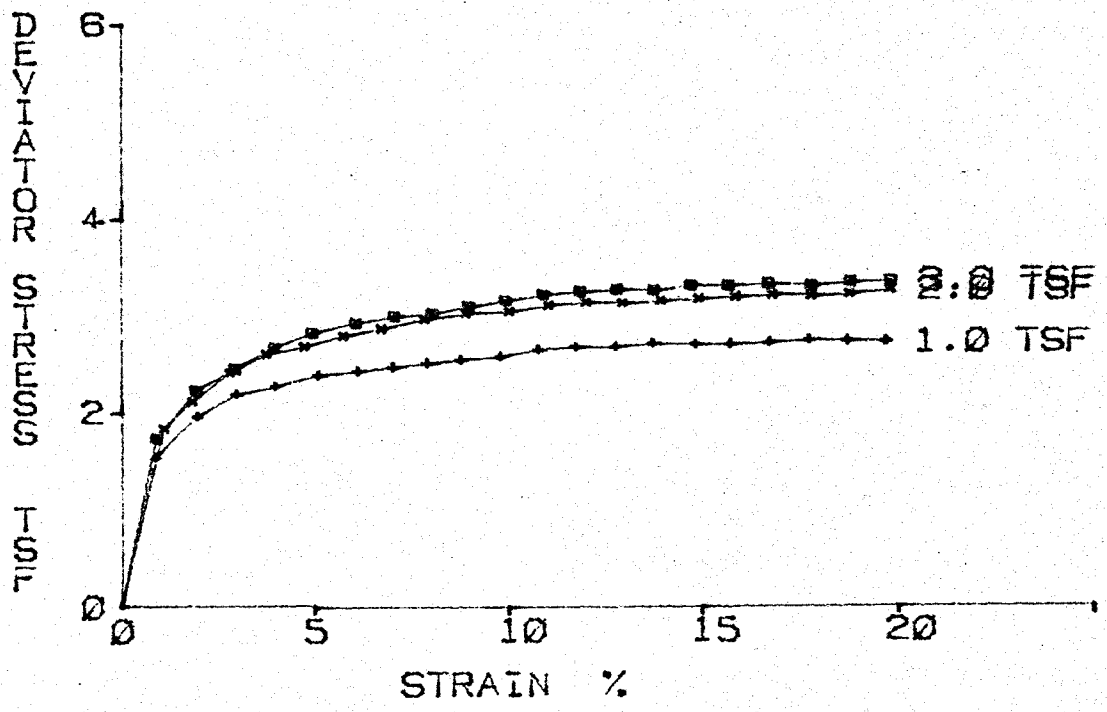
PROJECT:	JOHN SEVIER S.P.EL.		:
FEATURE:	BORROW AREAS A & B	SAMPLE	:CLASS V
STATION:		PART	:
RANGE	:	SOIL SYM:	CL
BORING	:	DATE	:6-22-81



TVA SINGLETON MATERIALS ENGINEERING LABORATORY

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION(Q) TEST

PROJECT:	JOHN SEVIER S.P.EL.		:
FEATURE:	Borrow Areas A & B	SAMPLE	:CLASS V
STATION:		PART	:
RANGE	:	SOIL SYM:	CL
BORING	:	DATE	:6-22-81



Tennessee Valley Authority
Singleton Materials Engineering Laboratory
Unconsolidated Undrained Triaxial Compression (Q) Test

Project: JOHN SEVIER S.P.
Feature: Borrow Areas A & B
Station:
Range :
Boring :

El. :
Sample: CLASS V
Part :

Tested By : RA
Computed By: MHD
Checked By : DBC
Report Date: 6-22-81

Soil Sybmbol= CL
Sp. Gr. = 2.74

L.L.(%)= 48
D10(mm)= 0

P.I.(%)= 23

Specimen Number	1	2	3	4
Initial:				
Moisture Content(%)	24.0	23.8	24.0	0.0
Dry Density(pcf)	96.8	96.9	96.8	0.0
Void Ratio	0.768	0.765	0.768	0.000
Saturation(%)	85.5	85.2	85.5	0.0
Before Shearing:				
Moisture(%) (after satur.)	--	--	--	--
Saturation(%)	--	--	--	--
Moisture(%) (after cons.)	--	--	--	--
Void Ratio (after cons.)	--	--	--	--
Final Moisture Content(%)	23.9	23.7	23.9	0.0
Minor Principal Stress(tsf)	1.01	2.02	3.02	0.00
Major Principal Stress(tsf)	3.82	5.36	6.45	0.00
Eff. Minor Prin. Stress(tsf)	--	--	--	--
Eff. Major Prin. Stress(tsf)	--	--	--	--
Time to Failure(min.)	18	20	20	0
Rate of Strain(%/min.)	1.00	1.00	1.00	0.00
Specimen Height(in.)	3.15	3.15	3.15	3.15
Specimen Diameter(in.)	1.40	1.40	1.40	1.40

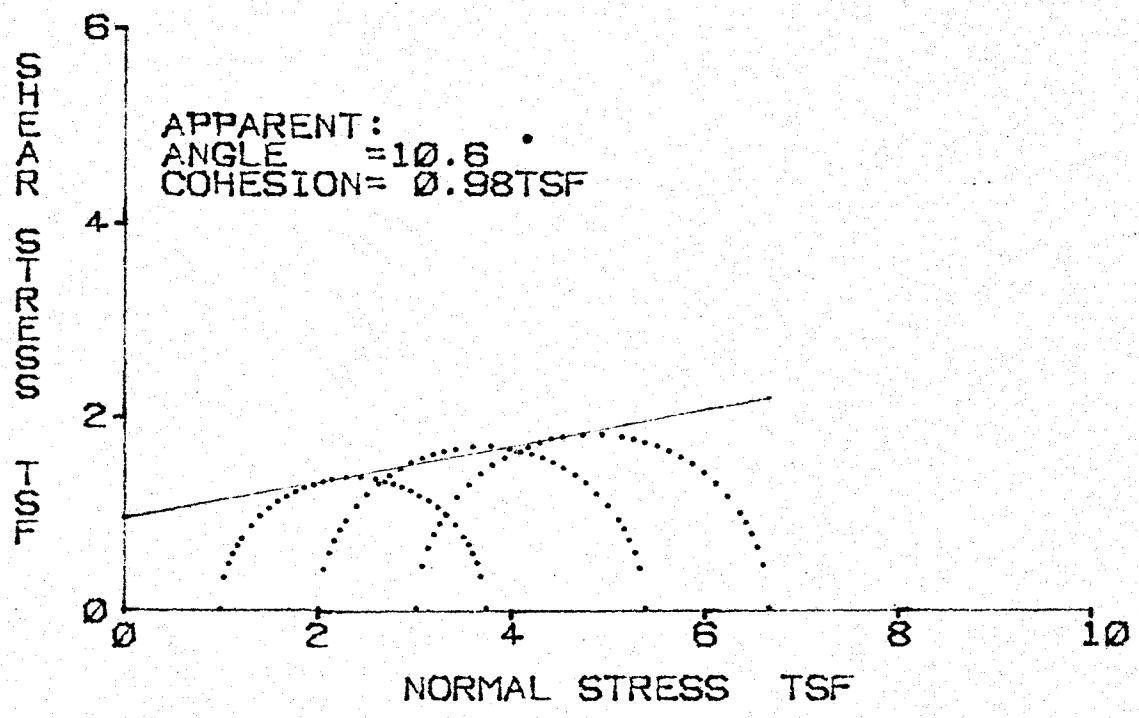
Shear Strength	Deg.	c(tsf)
Apparent	7.8	1.12
Effective	--	--

Remarks: Remolded at 3% wet of optimum moisture and at 95% of maximum unit weight.

TVA SINGLETON MATERIALS ENGINEERING LABORATORY

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION(Q) TEST

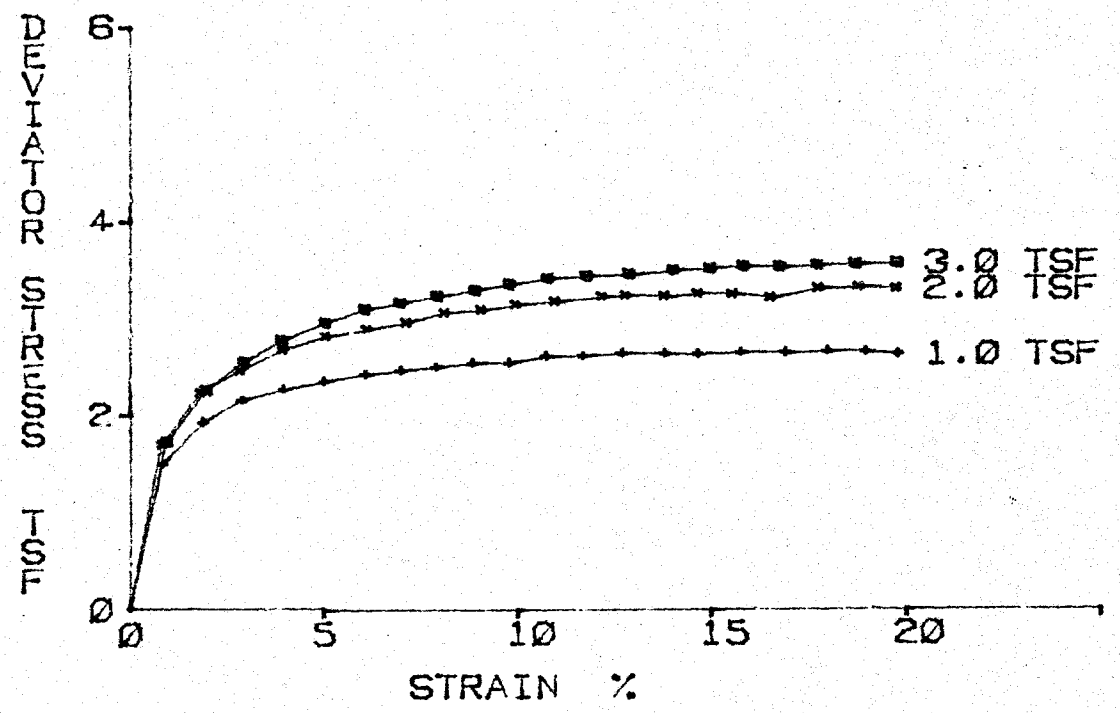
PROJECT:	JOHN SEVIER S.P.EL.	:	
FEATURE:	BORROW AREAS A & B	SAMPLE	:CLASS V
STATION:		PART	:
RANGE	:	SOIL SYM:	CL
BORING	:	DATE	:6-22-81



TVA SINGLETON MATERIALS ENGINEERING LABORATORY

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION(Q) TEST

PROJECT:	JOHN SEVIER S.P.EL.		
FEATURE:	Borrow Areas A & B	SAMPLE	:CLASS V
STATION:		PART	:
RANGE	:	SOIL SYM:	CL
BORING	:	DATE	:6-22-81



Tennessee Valley Authority
Singleton Materials Engineering Laboratory
Unconsolidated Undrained Triaxial Compression (Q) Test

Project: JOHN SEVIER S.P.
Feature: Borrow Areas A & B
Station:
Range :
Boring :

El. :
Sample: CLASS V
Part :

Tested By : RA
Computed By: MHD
Checked By : CBG
Report Date: 6-22-81

Soil Sybmbol= CL
Sp. Gr. = 2.74

L.L.(%)= 48
D10(mm)= 0

P.I.(%)= 23

Specimen Number	1	2	3	4
Initial:				
Moisture Content(%)	23.9	23.9	23.9	0.0
Dry Density(pcf)	96.8	96.8	96.8	0.0
Void Ratio	0.766	0.766	0.766	0.000
Saturation(%)	85.4	85.4	85.4	0.0
Before Shearing:				
Moisture(%) (after satur.)	--	--	--	--
Saturation(%)	--	--	--	--
Moisture(%) (after cons.)	--	--	--	--
Void Ratio (after cons.)	--	--	--	--
Final Moisture Content(%)	23.9	23.9	23.8	0.0
Minor Principal Stress(tsf)	1.01	2.02	3.02	0.00
Major Principal Stress(tsf)	3.75	5.40	6.67	0.00
Eff. Minor Prin. Stress(tsf)	--	--	--	--
Eff. Major Prin. Stress(tsf)	--	--	--	--
Time to Failure(min.)	18	19	20	0
Rate of Strain(%/min.)	1.01	1.00	1.00	0.00
Specimen Height(in.)	3.15	3.15	3.15	3.15
Specimen Diameter(in.)	1.40	1.40	1.40	1.40

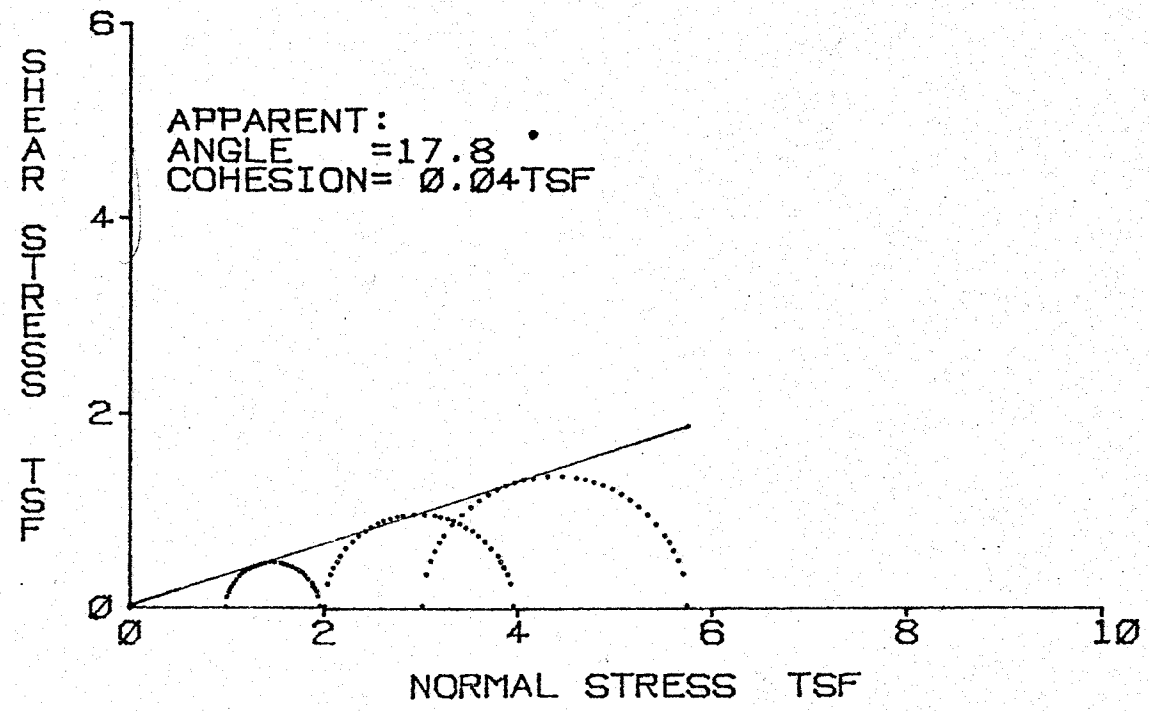
Shear Strength	Deg.	c(tsf)
Apparent	10.6	0.98
Effective	--	--

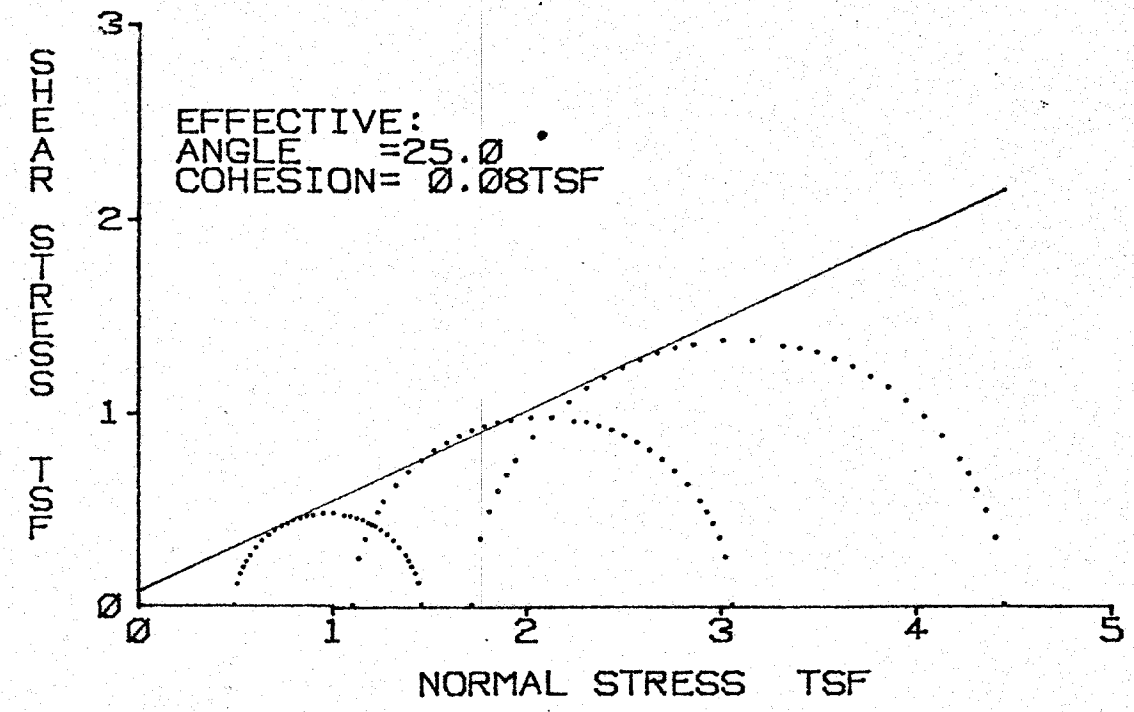
Remarks: Remolded at 3 (%) wet of optimum moisture and at 95 (%) of maximum unit weight.

TVA SINGLETON MATERIALS ENGINEERING LABORATORY

CONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION (R) TEST

PROJECT:	JOHN SEVIER SP	EL.	:
FEATURE:	BORROW AREAS A & B	SAMPLE	: CLASS V
STATION:		PART	:
RANGE	:	SOIL SYM:	CL
BORING	:	DATE	: 7/02/81

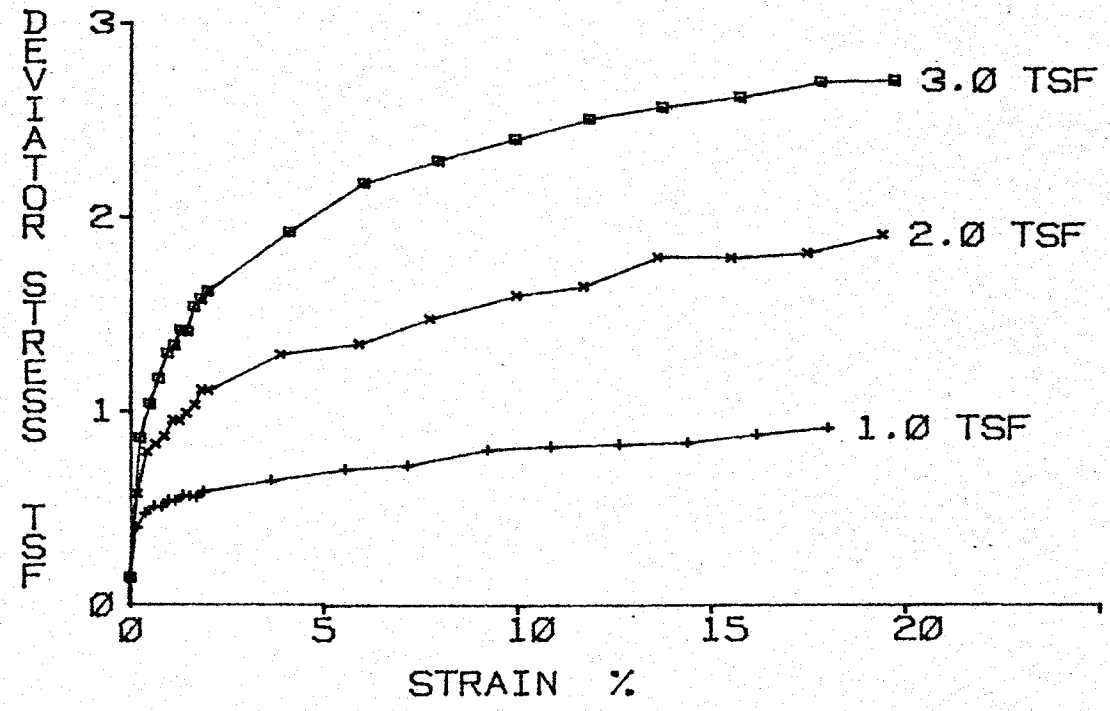


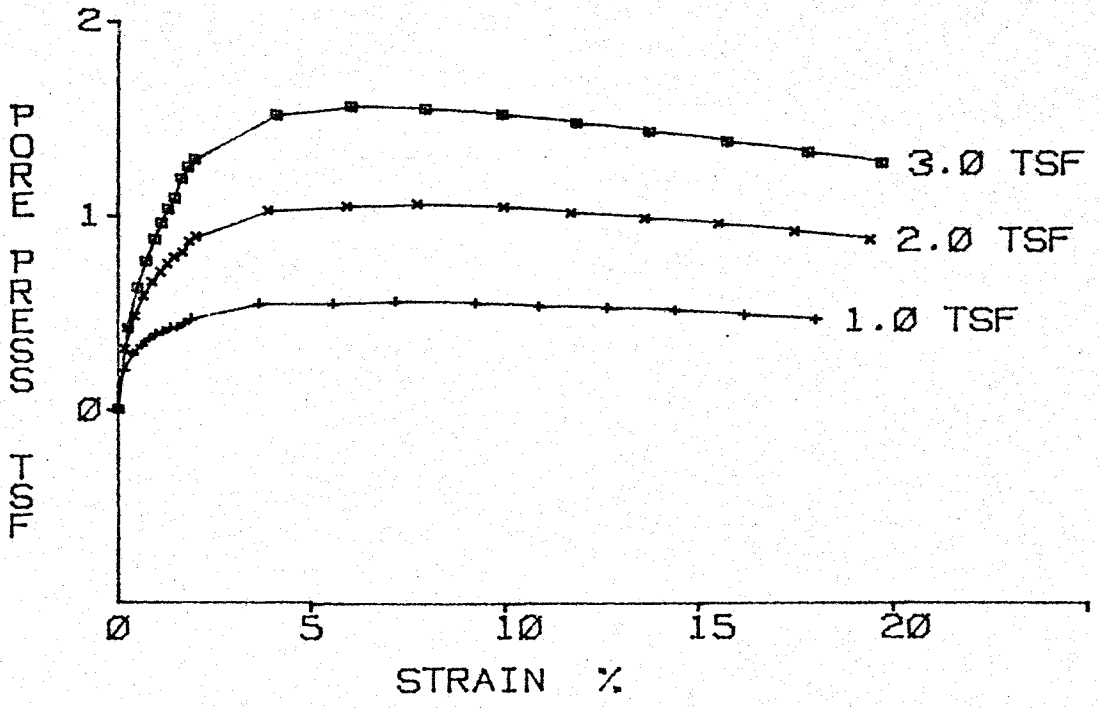


TVA SINGLETON MATERIALS ENGINEERING LABORATORY

CONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION (R) TEST

PROJECT: JOHN SEVIER SP	EL. :
FEATURE: BORROW AREAS A & B	SAMPLE : CLASS V
STATION:	PART :
RANGE :	SOIL SYM: CL
BORING :	DATE : 7/02/81





Tennessee Valley Authority
Singleton Materials Engineering Laboratory
Consolidated Undrained Triaxial Compression (R) Test

Project: JOHN SEVIER SP
Feature: BORROW AREAS A & B
Station:
Range :
Boring :

El. :
Sample: CLASS V
Part :

Tested By : JHD
Computed By: CF
Checked By : BMD
Report Date: 7/02/81

Soil Sybmbol= CL
Sp. Gr. = 2.74

L.L.(%)= 48
D10(mm)= 0

P.I.(%)= 23

Specimen Number	1	2	3	4
Initial:				
Moisture Content(%)	18.3	18.3	18.4	0.0
Dry Density(pcf)	96.5	96.5	96.4	0.0
Void Ratio	0.772	0.772	0.774	0.000
Saturation(%)	64.9	64.9	65.1	0.0
Before Shearing:				
Moisture(%) (after satur.)	28.2	28.2	28.2	0.0
Saturation(%)	100.0	100.0	100.0	0.0
Moisture(%) (after cons.)	40.6	25.3	23.7	23.7
Void Ratio (after cons.)	1.113	0.694	0.650	0.000
Final Moisture Content(%)	29.9	27.9	27.0	0.0
Minor Principal Stress(tsf)	1.01	2.02	3.02	0.00
Major Principal Stress(tsf)	1.97	3.97	5.76	0.00
Eff. Minor Prin. Stress(tsf)	0.50	1.11	1.72	0.00
Eff. Major Prin. Stress(tsf)	1.47	3.07	4.46	0.00
Time to Failure(min.)	100	100	100	0
Rate of Strain(%/min.)	0.18	0.20	0.20	0.00
Specimen Height(in.)	3.15	3.15	3.15	3.15
Specimen Diameter(in.)	1.40	1.40	1.40	1.40

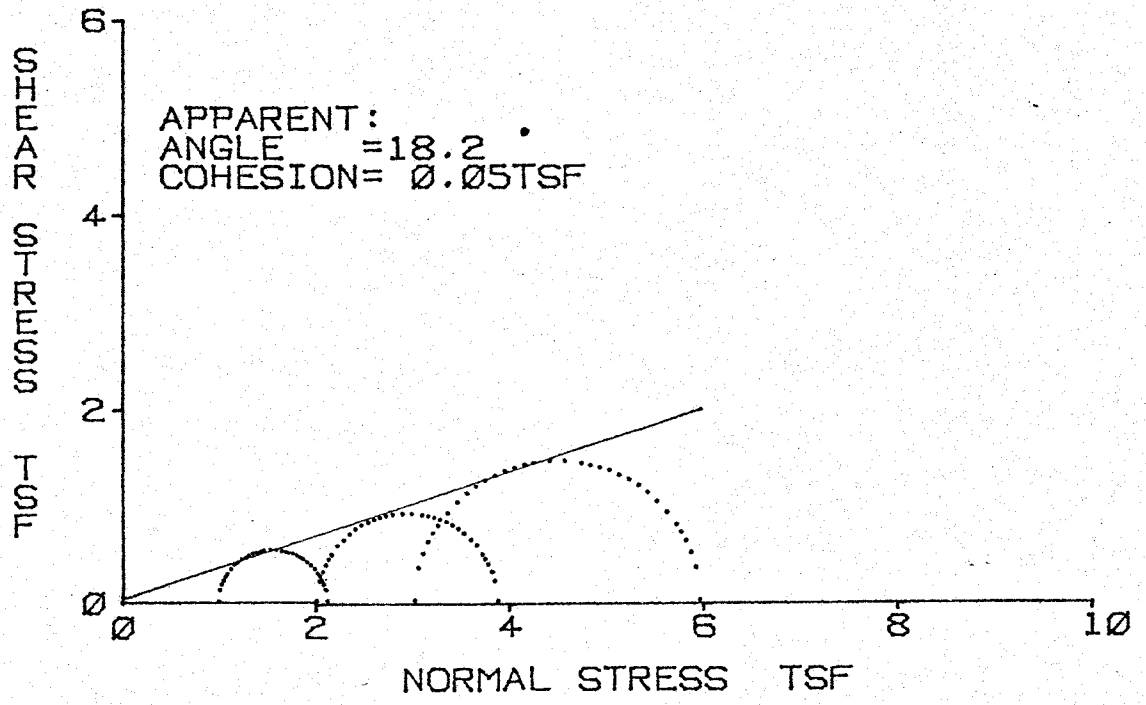
Shear Strength	Deg.	c(tsf)
Apparent	17.8	0.04
Effective	25.0	0.08

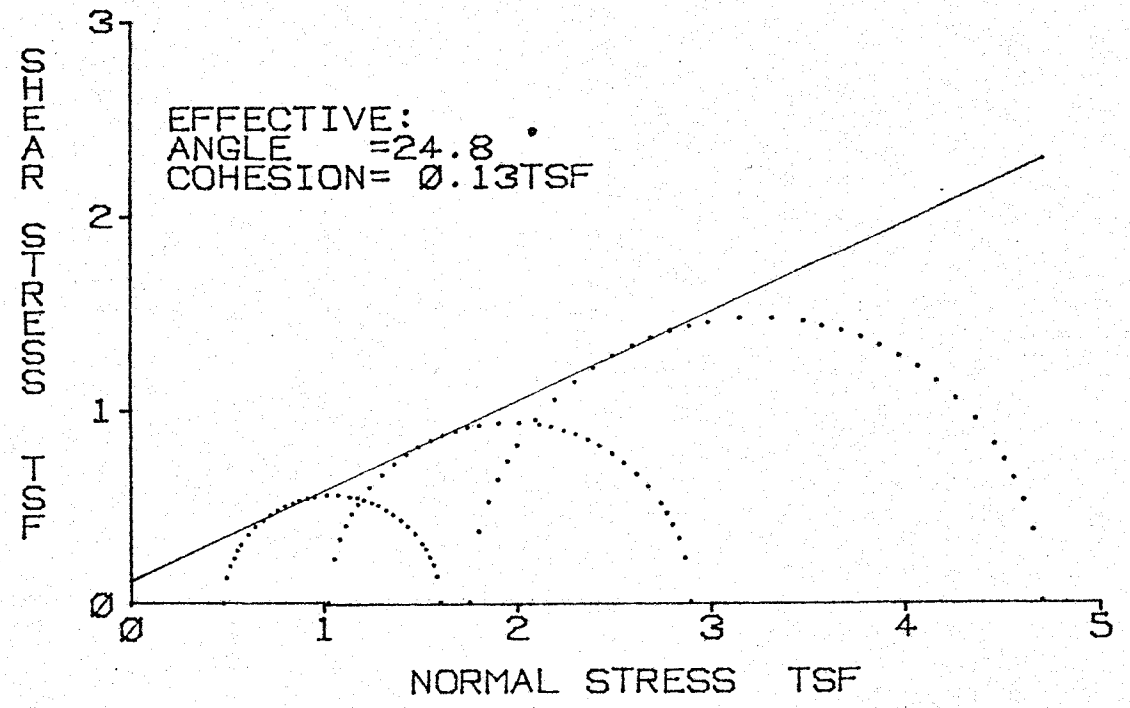
Remarks: Remolded at 3 (%) dry of optimum moisture and at 100 (%) of maximum unit weight.

TVA SINGLETON MATERIALS ENGINEERING LABORATORY

CONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION (R) TEST

PROJECT:	JOHN SEVIER S.P.EL.	:	
FEATURE:	BORROW AREAS A & B	SAMPLE :	CLASS V
STATION:		PART :	
RANGE :		SOIL SYM:	CL
BORING :		DATE :	7-1-81

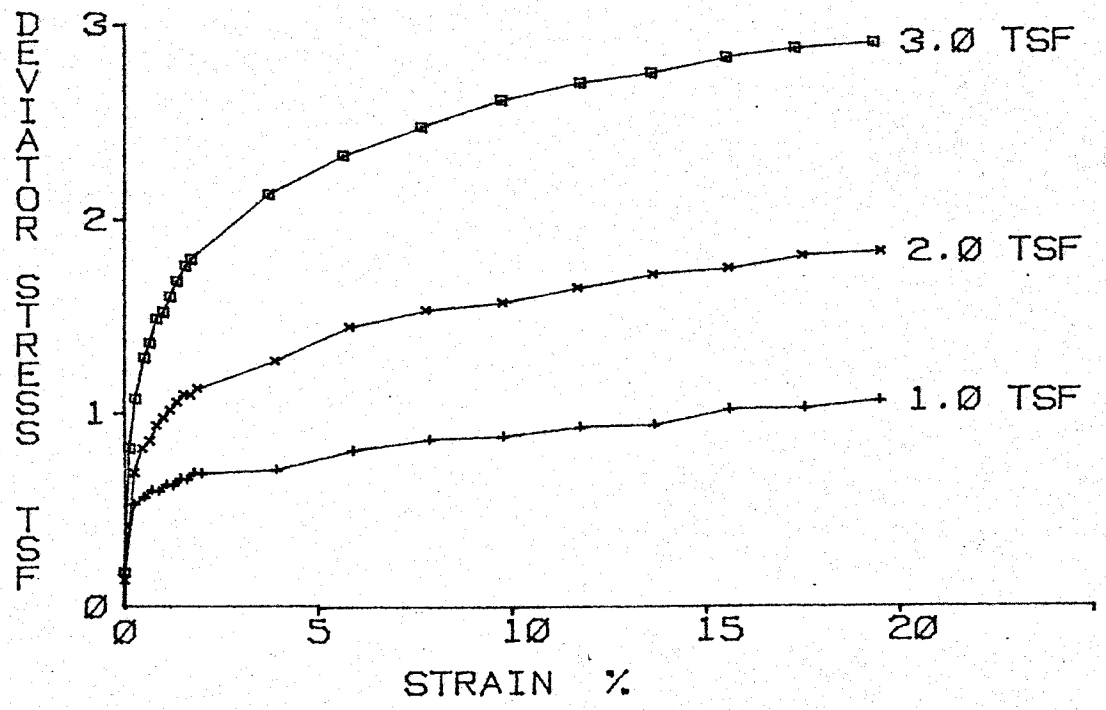


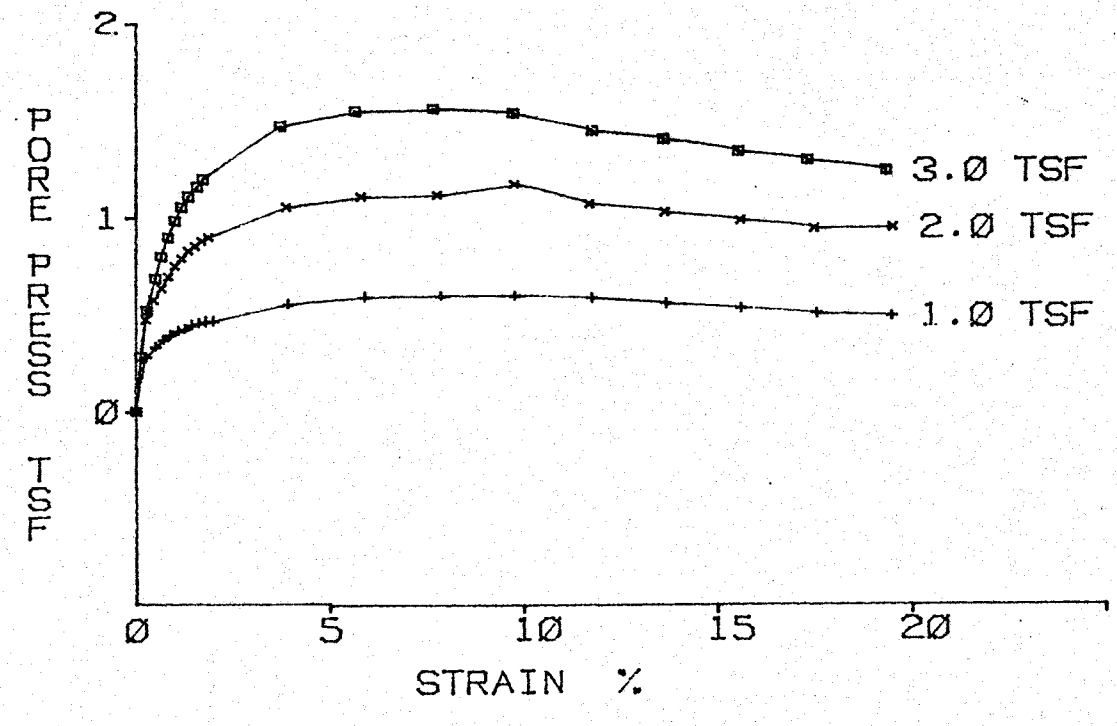


TVA SINGLETON MATERIALS ENGINEERING LABORATORY

CONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION (R) TEST

PROJECT: JOHN SEVIER S.P.EL.	:
FEATURE: BORROW AREAS A & B	SAMPLE : CLASS V
STATION:	PART :
RANGE :	SOIL SYM: CL
BORING :	DATE : 7-1-81





Tennessee Valley Authority
Singleton Materials Engineering Laboratory
Consolidated Undrained Triaxial Compression (R) Test

Project: JOHN SEVIER S.P.
Feature: BORROW AREAS A & B
Station:
Range :
Boring :

El. :
Sample: CLASS V
Part :

Tested By :JHD
Computed By: CRF
Checked By :GMD
Report Date: 7-1-81

Soil Sybmbol= CL
Sp. Gr. = 2.74

L.L.(%)= 48
D10(mm)= 0

P.I.(%)= 23

Specimen Number	1	2	3	4
Initial:				
Moisture Content(%)	18.5	18.5	18.2	0.0
Dry Density(pcf)	96.4	96.4	96.5	0.0
Void Ratio	0.775	0.775	0.772	0.000
Saturation(%)	65.3	65.3	64.6	0.0
Before Shearing:				
Moisture(%) (after satur.)	28.3	28.3	28.2	0.0
Saturation(%)	100.0	100.0	100.0	0.0
Moisture(%) (after cons.)	28.7	27.6	23.7	23.7
Void Ratio (after cons.)	0.787	0.757	0.649	0.000
Final Moisture Content(%)	29.9	28.7	26.3	0.0
Minor Principal Stress(tsf)	1.01	2.02	3.02	0.00
Major Principal Stress(tsf)	2.13	3.89	5.97	0.00
Eff. Minor Prin. Stress(tsf)	0.49	1.03	1.76	0.00
Eff. Major Prin. Stress(tsf)	1.61	2.90	4.71	0.00
Time to Failure(min.)	100	100	100	0
Rate of Strain(%/min.)	0.20	0.20	0.20	0.00
Specimen Height(in.)	3.15	3.15	3.15	3.15
Specimen Diameter(in.)	1.40	1.40	1.40	1.40

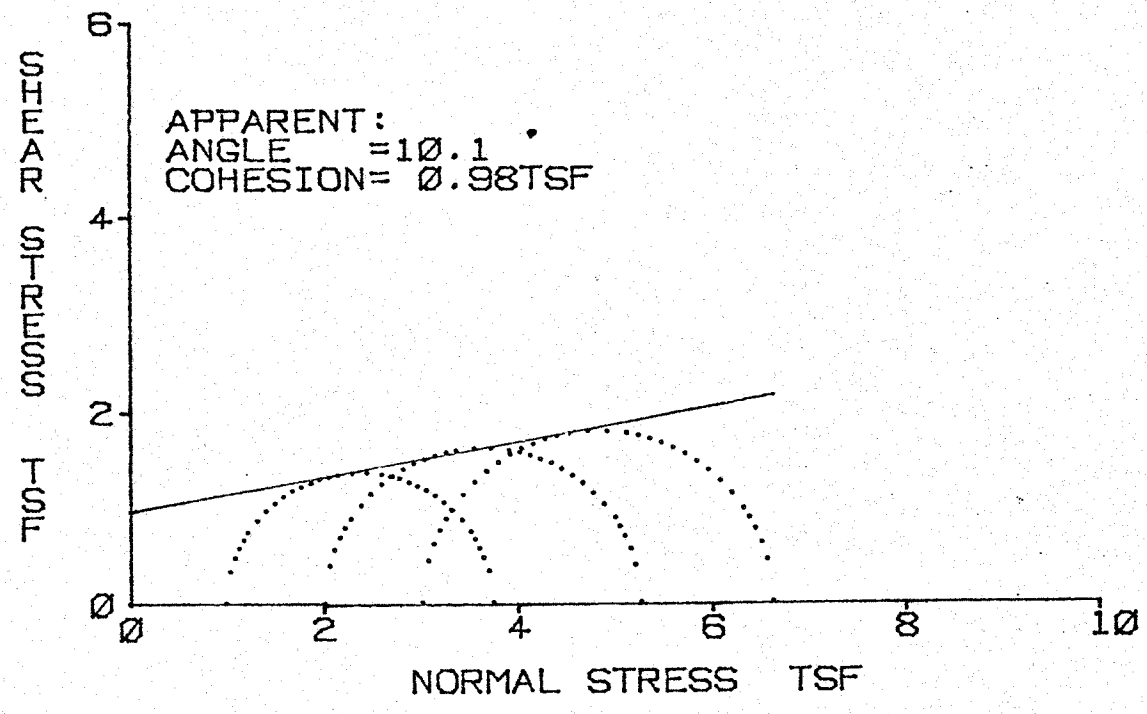
Shear Strength	Deg.	c(tsf)
Apparent	18.2	0.05
Effective	24.8	0.13

Remarks: Remolded at 3 (%) dry of optimum moisture and 95 (%) of maximum unit weight.

TVA SINGLETON MATERIALS ENGINEERING LABORATORY

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION(Q) TEST

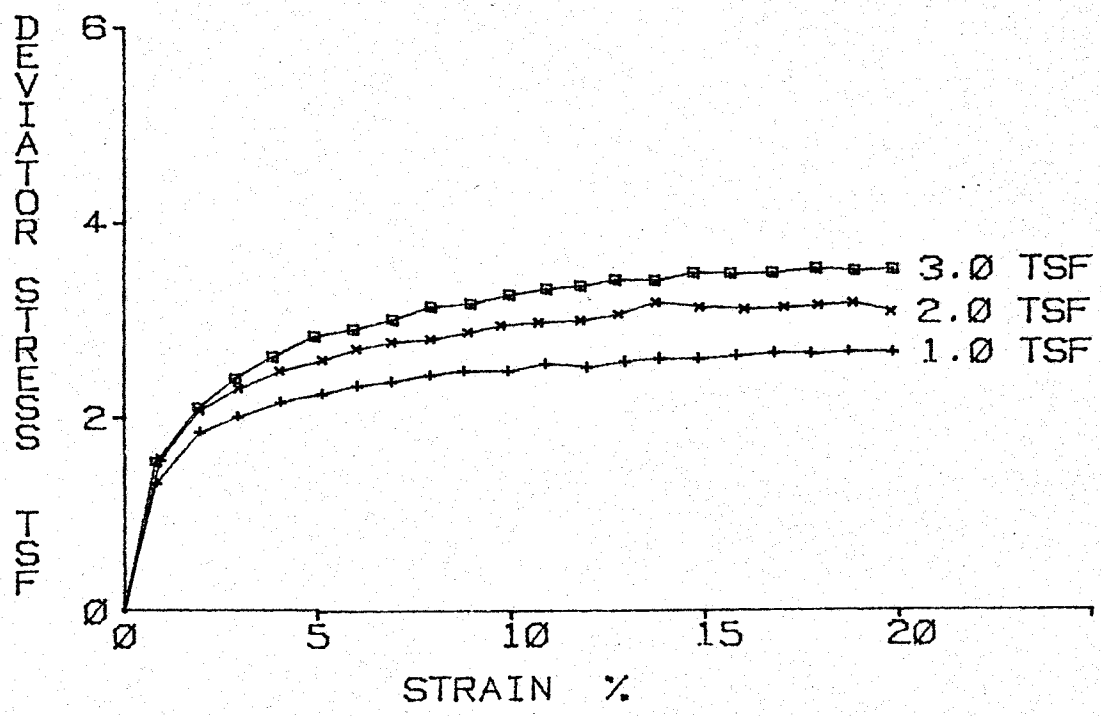
PROJECT: JOHN SEVIER SP	EL. :
FEATURE: BORROW AREAS A & B	SAMPLE : CLASS VI
STATION:	PART :
RANGE :	SOIL SYM: CH-MH
BORING :	DATE : 7/02/81



TVA SINGLETON MATERIALS ENGINEERING LABORATORY

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION(Q) TEST

PROJECT:	JOHN SEVIER SP	EL.	:
FEATURE:	Borrow Areas A & B	SAMPLE	: CLASS VI
STATION:		PART	:
RANGE	:	SOIL SYM:	CH-MH
BORING	:	DATE	: 7/02/81



Tennessee Valley Authority
Singleton Materials Engineering Laboratory
Unconsolidated Undrained Triaxial Compression (Q) Test

Project: JOHN SEVIER SP
Feature: Borrow Areas A & B
Station:
Range :
Boring :

El. :
Sample: CLASS VI
Part :

Tested By : RA
Computed By: CRF
Checked By : CND
Report Date: 7/02/81

Soil Sybmbol= CH-MH
Sp. Gr. = 2.77

L.L.(%)= 56
D10(mm)= 0

P.I.(%)= 27

Specimen Number	1	2	3	4
Initial:				
Moisture Content(%)	27.0	27.0	27.0	0.0
Dry Density(pcf)	91.5	91.5	91.5	0.0
Void Ratio	0.889	0.889	0.889	0.000
Saturation(%)	84.3	84.3	84.3	0.0
Before Shearing:				
Moisture(%) (after satur.)	--	--	--	--
Saturation(%)	--	--	--	--
Moisture(%) (after cons.)	--	--	--	--
Void Ratio (after cons.)	--	--	--	--
Final Moisture Content(%)	27.0	27.0	27.0	0.0
Minor Principal Stress(tsf)	1.01	2.02	3.02	0.00
Major Principal Stress(tsf)	3.76	5.28	6.63	0.00
Eff. Minor Prin. Stress(tsf)	--	--	--	--
Eff. Major Prin. Stress(tsf)	--	--	--	--
Time to Failure(min.)	19	19	20	0
Rate of Strain(%/min.)	1.00	1.00	1.00	0.00
Specimen Height(in.)	3.15	3.15	3.15	3.15
Specimen Diameter(in.)	1.40	1.40	1.40	1.40

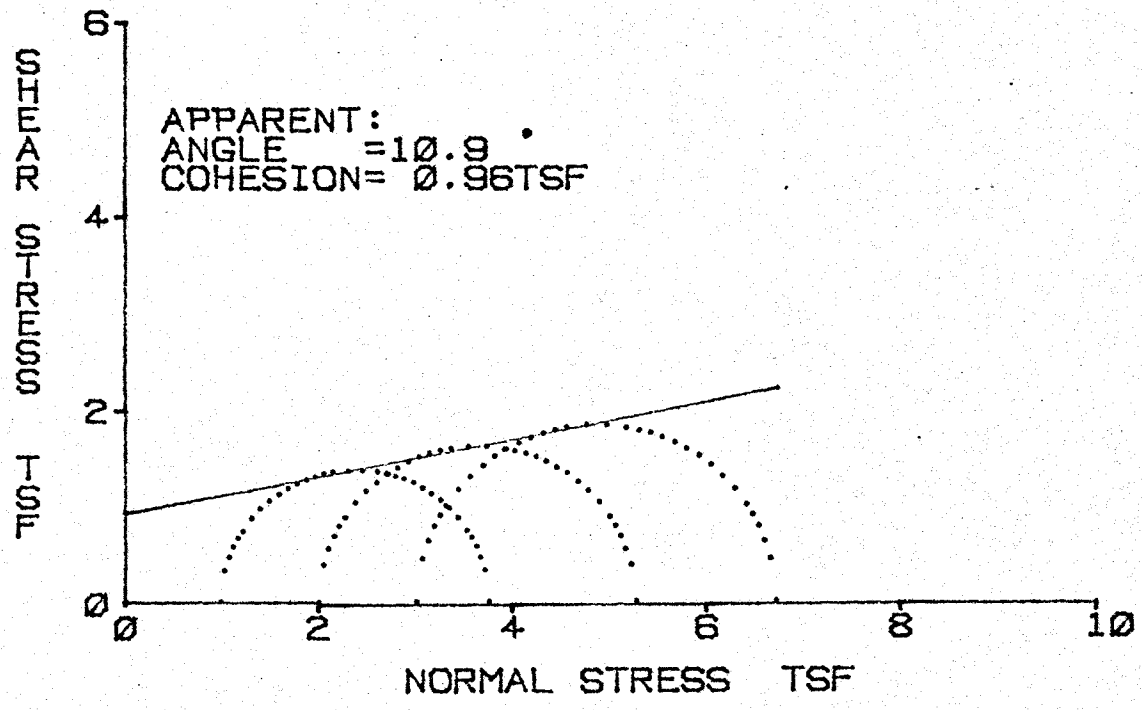
Shear Strength	Deg.	c(tsf)
Apparent	10.1	0.98
Effective	--	--

Remarks: Remolded at 3(%) wet of optimum moisture and at 95(%) of maximum unit weight.

TVA SINGLETON MATERIALS ENGINEERING LABORATORY

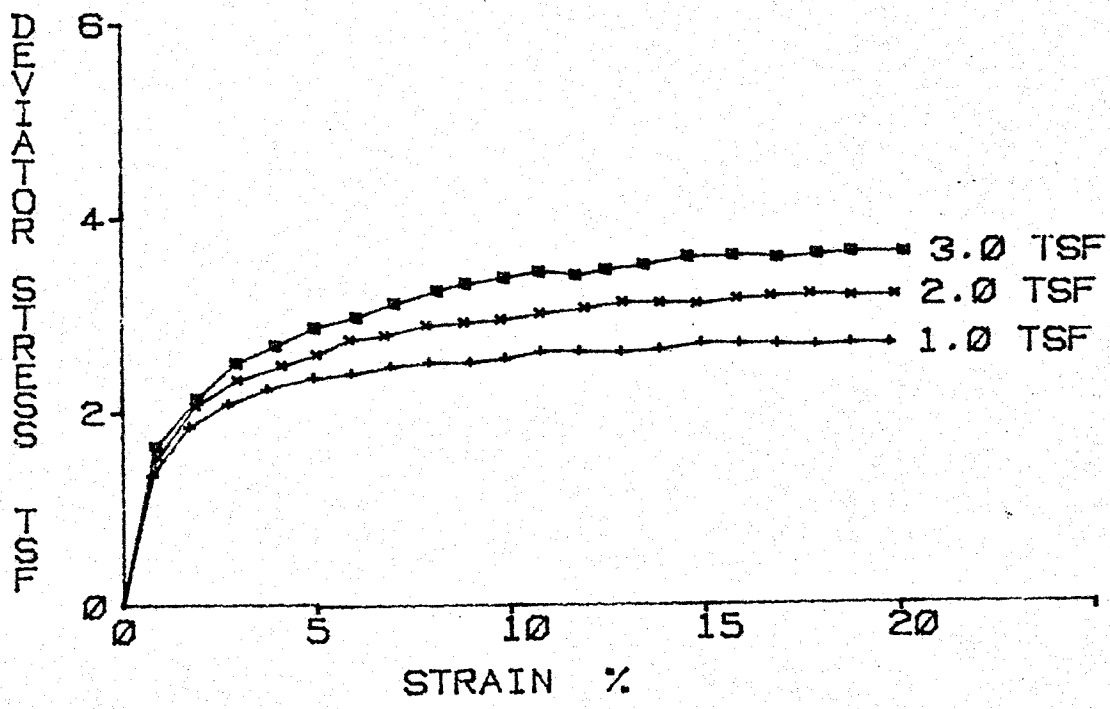
UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION(Q) TEST

PROJECT:JOHN SEVIER SP	EL. :
FEATURE: BORROW AREAS A & B	SAMPLE :CLASS VI
STATION:	PART :
RANGE :	SOIL SYM:CH-MH
BORING :	DATE :6/29/81



TVA SINGLETON MATERIALS ENGINEERING LABORATORY
UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION(Q) TEST

PROJECT:	JOHN SEVIER SP	EL.	:
FEATURE:	BORROW AREAS A & B	SAMPLE	:CLASS VI
STATION:		PART	:
RANGE	:	SOIL SYM:	CH-MH
BORING	:	DATE	:6/29/81



Tennessee Valley Authority
Singleton Materials Engineering Laboratory
Unconsolidated Undrained Triaxial Compression (Q) Test

Project: JOHN SEVIER SP
Feature: Borrow Areas A & B
Station:
Range :
Boring :

El. :
Sample: CLASS VI
Part :

Tested By : RA
Computed By: CRF
Checked By : GMD
Report Date: 6/29/81

Soil Sybmbol= CH-MH
Sp. Gr. = 2.77

L.L.(%)= 56
D10(mm)= 0

P.I.(%)= 27

Specimen Number	1	2	3	4
Initial:				
Moisture Content(%)	27.3	27.0	27.3	0.0
Dry Density(pcf)	91.4	91.5	91.4	0.0
Void Ratio	0.893	0.889	0.893	0.000
Saturation(%)	84.6	84.3	84.6	0.0
Before Shearing:				
Moisture(%) (after satur.)	--	--	--	--
Saturation(%)	--	--	--	--
Moisture(%) (after cons.)	--	--	--	--
Void Ratio (after cons.)	--	--	--	--
Final Moisture Content(%)	27.3	27.0	27.2	0.0
Minor Principal Stress(tsf)	1.01	2.02	3 02	0.00
Major Principal Stress(tsf)	3.79	5.29	6.74	0.00
Eff. Minor Prin. Stress(tsf)	--	--	--	--
Eff. Major Prin. Stress(tsf)	--	--	--	--
Time to Failure(min.)	19	20	19	0
Rate of Strain(%/min.)	1.00	1.01	1.00	0.00
Specimen Height(in.)	3.15	3.15	3.15	3.15
Specimen Diameter(in.)	1.40	1.40	1.40	1.40

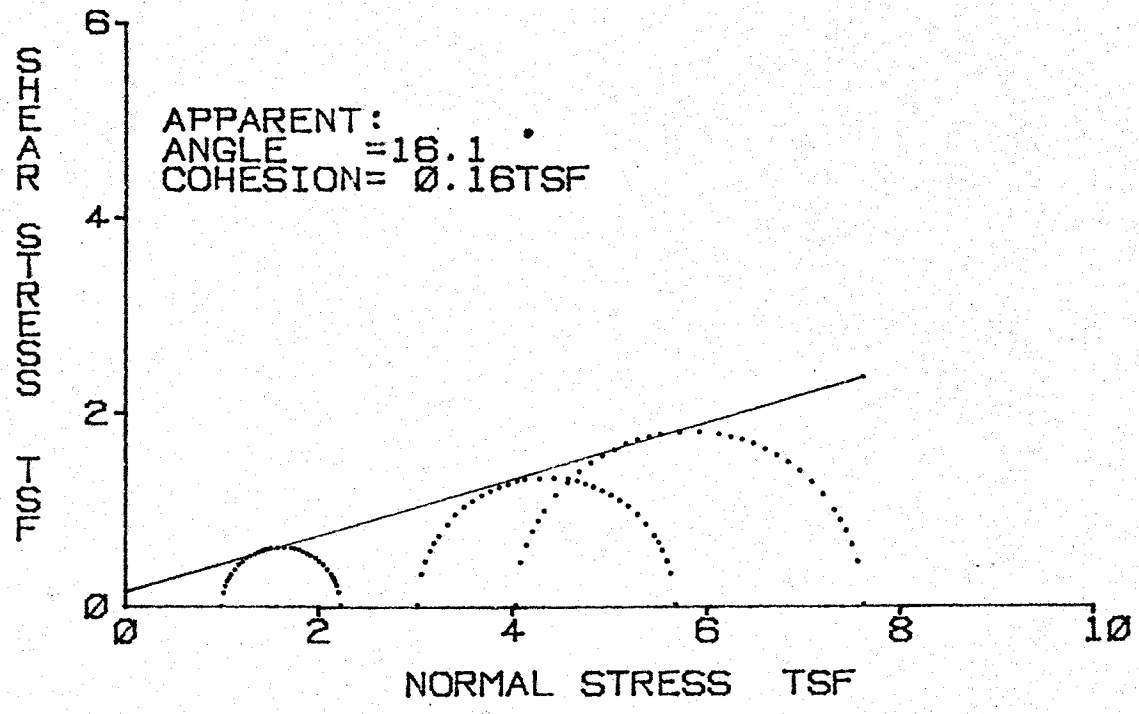
Shear Strength	Deg.	c(tsf)
Apparent	10.9	0.96
Effective	--	--

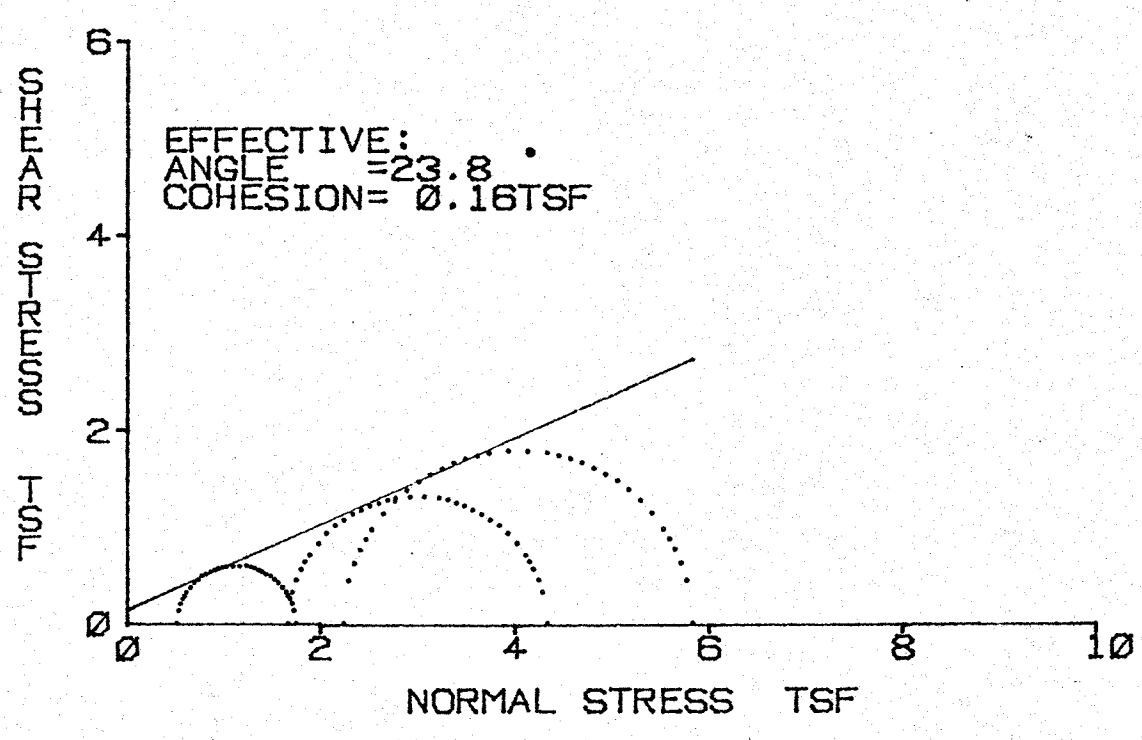
Remarks: Remolded at 3 (%) of wet of optimum moisture
and at 95 (%) of maximum unit weight.

TVA SINGLETON MATERIALS ENGINEERING LABORATORY

CONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION (R) TEST

PROJECT: JOHN SEVIER SP	EL. :
FEATURE BORROW AREAS A & B	SAMPLE : CLASS VI
STATION:	PART :
RANGE :	SOIL SYM: CH-MH
BORING :	DATE : 7/10/81





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CONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION (R) TEST

PROJECT: JOHN SEVIER SP	EL. :
FEATURE: BORROW AREAS A & B	SAMPLE : CLASS VI
STATION:	PART :
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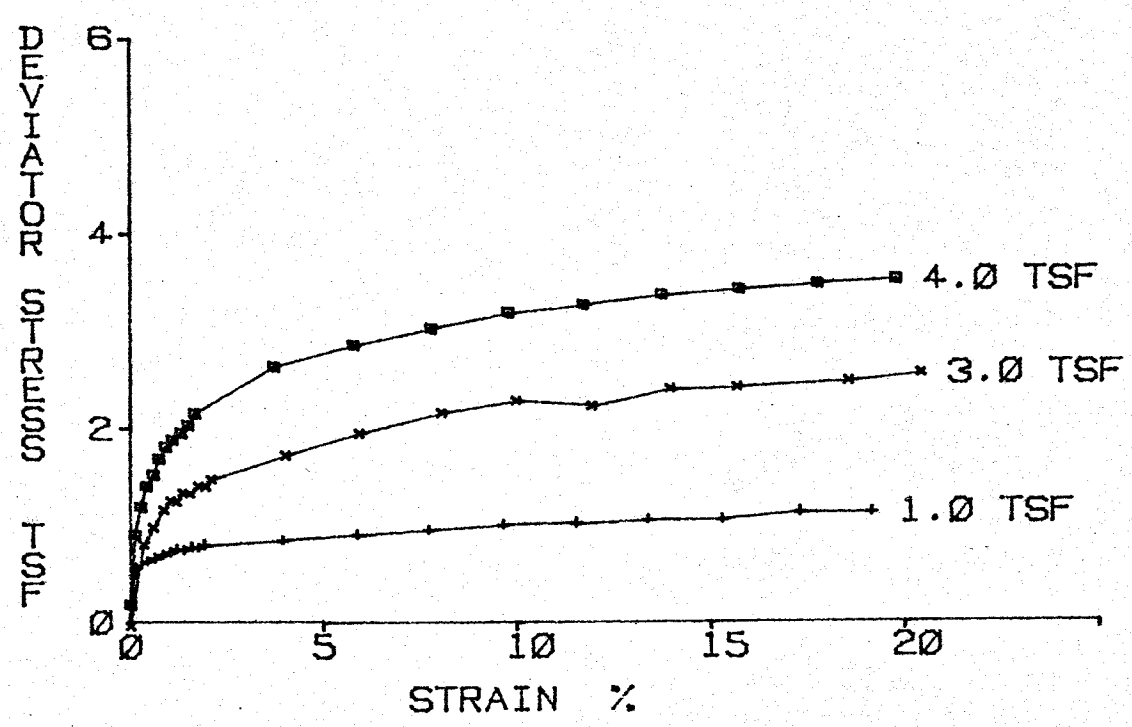
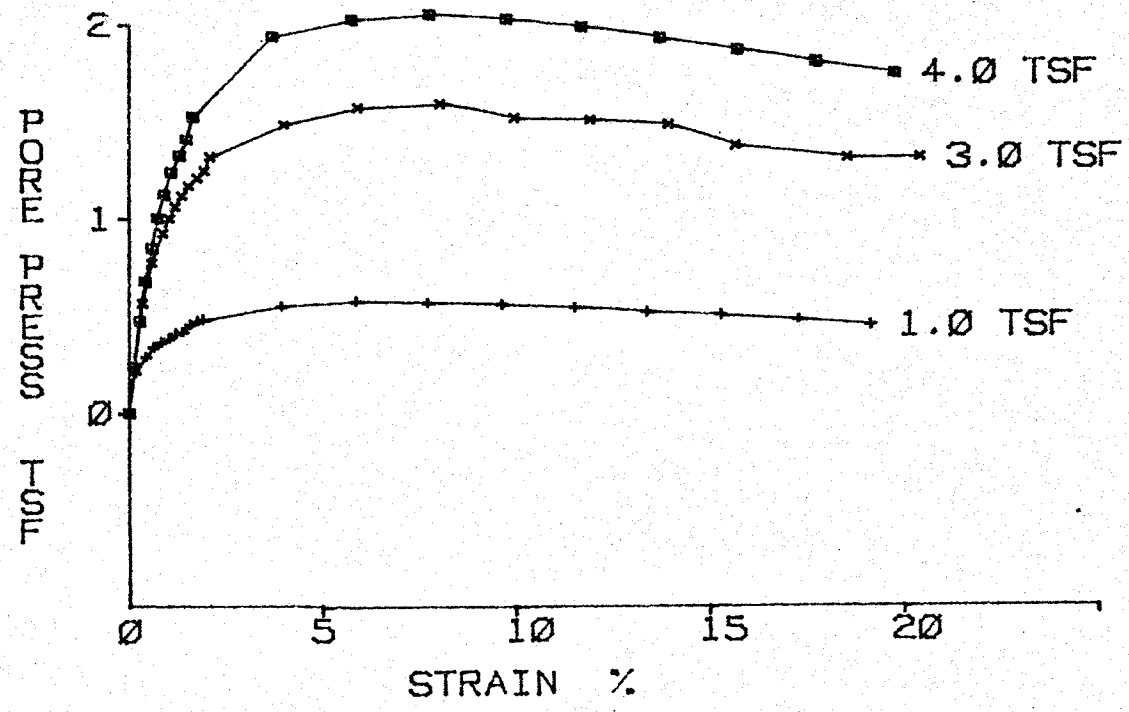




Tennessee Valley Authority
Singleton Materials Engineering Laboratory
Consolidated Undrained Triaxial Compression (R) Test

Project: JOHN SEVIER SP
Feature: BORROW AREA A & B
Station:
Range :
Boring :

El. :
Sample: CLASS VI
Part :

Tested By : JHD
Computed By: CRF
Checked By : TAL
Report Date: 7/10/81

Soil Sybmbol= CH-MH
Sp. Gr. = 2.77

L.L.(%)= 56
D10(mm)= 2.77

P.I.(%)= 27

Specimen Number	1	2	3	4
Initial:				
Moisture Content(%)	21.3	21.2	21.3	0.0
Dry Density(pcf)	91.4	91.4	91.4	0.0
Void Ratio	0.893	0.891	0.893	0.000
Saturation(%)	66.0	65.8	66.0	0.0
Before Shearing:				
Moisture(%) (after satur.)	32.2	32.2	32.2	0.0
Saturation(%)	100.0	100.0	100.0	0.0
Moisture(%) (after cons.)	34.3	28.2	28.2	28.2
Void Ratio (after cons.)	0.951	0.780	0.782	0.000
Final Moisture Content(%)	34.0	31.0	33.1	0.0
Minor Principal Stress(tsf)	1.01	3.02	4.03	0.00
Major Principal Stress(tsf)	2.25	5.69	7.63	0.00
Eff. Minor Prin. Stress(tsf)	0.53	1.67	2.25	0.00
Eff. Major Prin. Stress(tsf)	1.76	4.33	5.84	0.00
Time to Failure(min.)	100	100	100	0
Rate of Strain(%/min.)	0.19	0.21	0.20	0.00
Specimen Height(in.)	3.15	3.15	3.15	3.15
Specimen Diameter(in.)	1.40	1.40	1.40	1.40

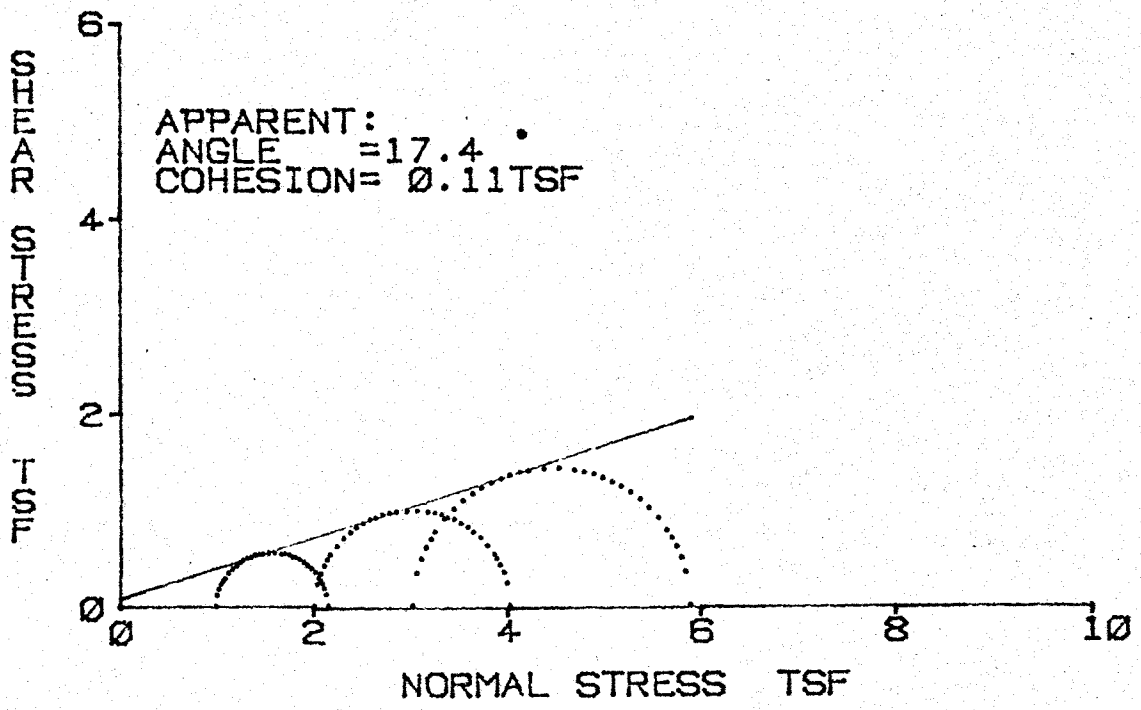
Shear Strength	Deg.	c(tsf)
Apparent	16.1	0.16
Effective	23.8	0.16

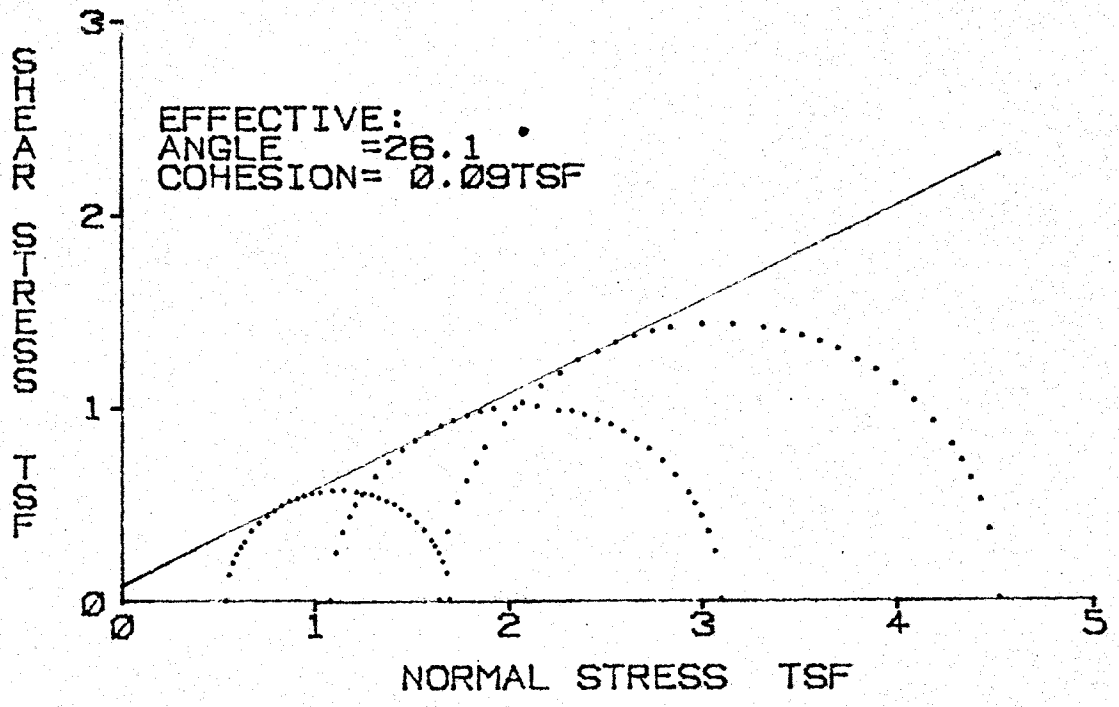
Remarks: Remolded at 3 (%) dry of of optimum moisture and at 95 (%) of maximum unitweight.

TVA SINGLETON MATERIALS ENGINEERING LABORATORY

CONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION (R) TEST

PROJECT:	JOHN SEVIER S.P.EL.	:	
FEATURE:	BORROW AREAS A & B	SAMPLE :	CLASS VI
STATION:		PART :	
RANGE :		SOIL SYM:	CH-MH
BORING :		DATE :	6-20-81

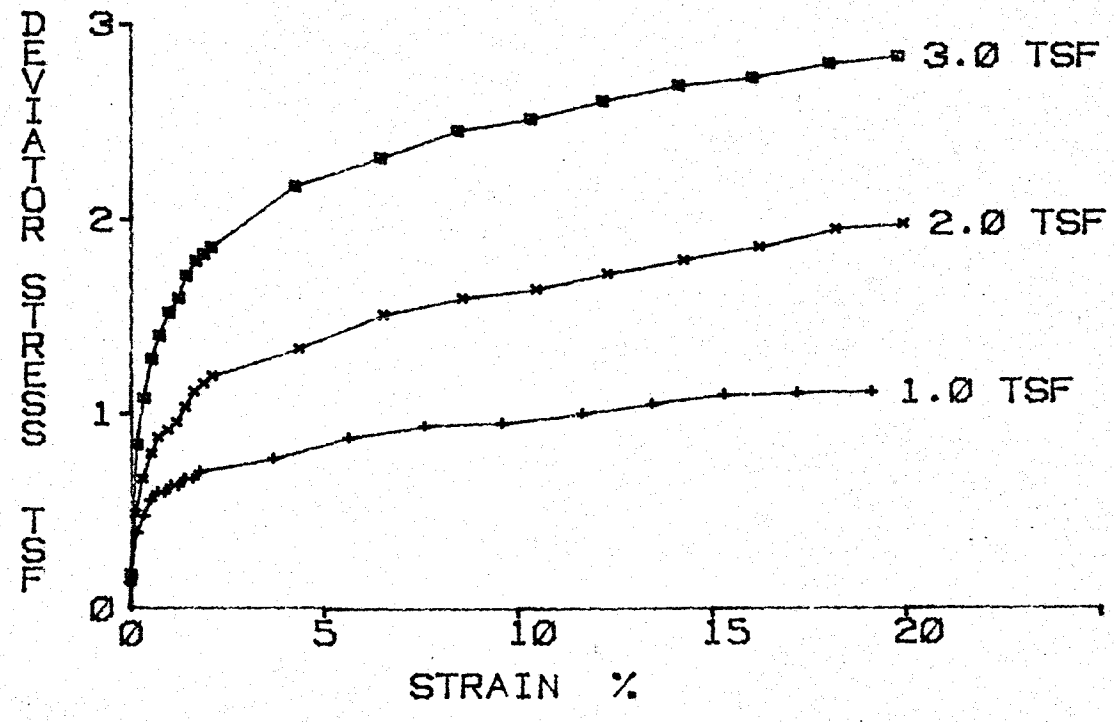


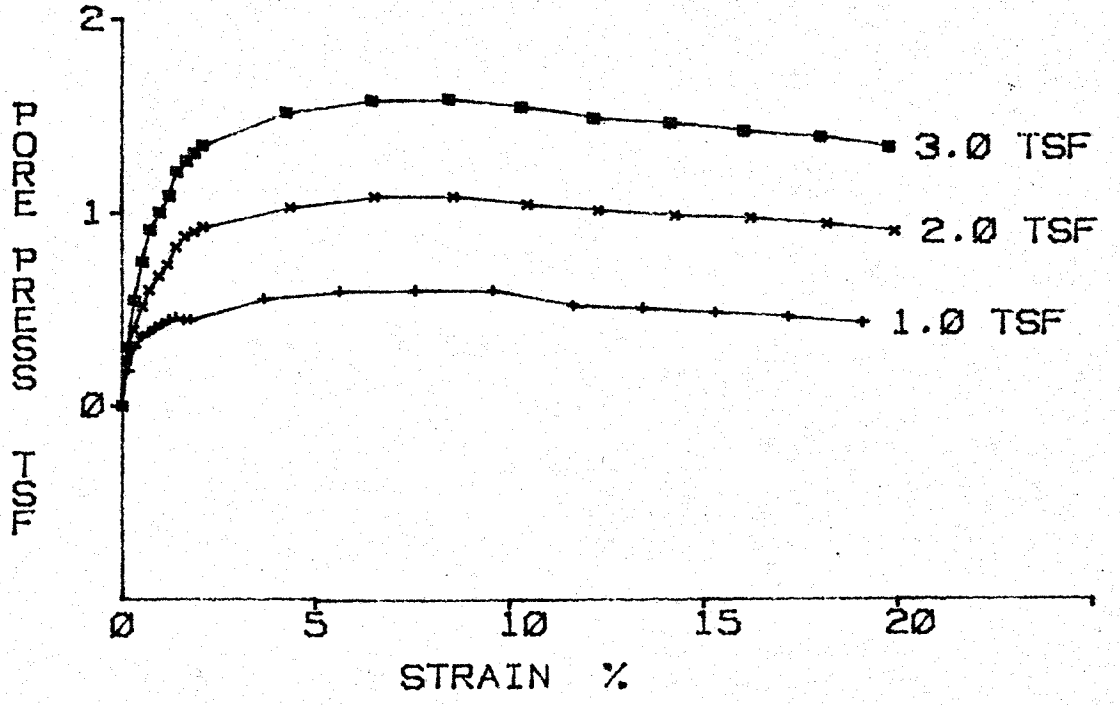


TVA SINGLETON MATERIALS ENGINEERING LABORATORY

CONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION (R) TEST

PROJECT:	JOHN SEVIER S.P.EL.	:	
FEATURE:	BORROW AREAS A & B	SAMPLE :	CLASS VI
STATION:		PART :	
RANGE :		SOIL SYM:	CH-MH
BORING :		DATE :	6-20-81





Tennessee Valley Authority
Singleton Materials Engineering Laboratory
Consolidated Undrained Triaxial Compression (R) Test

Project: JOHN SEVIER S.P.
Feature: BORROW AREAS A & B
Station:
Range :
Boring :

El. :
Sample: CLASS VI
Part :

Tested By : JHD
Computed By: MHD
Checked By :
Report Date: 6-20-81

Soil Sybmbol= CH-MH
Sp. Gr. = 2.77

L.L.(%)= 56
D10(mm)= 0

P.I.(%)= 27

Specimen Number	1	2	3	4
Initial:				
Moisture Content(%)	20.8	20.8	20.9	0.0
Dry Density(pcf)	91.7	91.7	91.7	0.0
Void Ratio	0.885	0.885	0.886	0.000
Saturation(%)	65.0	65.0	65.2	0.0
Before Shearing:				
Moisture(%) (after satur.)	31.9	31.9	32.0	0.0
Saturation(%)	100.0	100.0	100.0	0.0
Moisture(%) (after cons.)	31.2	28.7	30.3	30.3
Void Ratio (after cons.)	0.863	0.795	0.838	0.000
Final Moisture Content(%)	34.3	32.5	31.3	0.0
Minor Principal Stress(tsf)	1.01	2.02	3.02	0.00
Major Principal Stress(tsf)	2.16	4.04	5.90	0.00
Eff. Minor Prin. Stress(tsf)	0.55	1.08	1.64	0.00
Eff. Major Prin. Stress(tsf)	1.70	3.10	4.52	0.00
Time to Failure(min.)	100	100	100	0
Rate of Strain(%/min.)	0.19	0.20	0.20	0.00
Specimen Height(in.)	3.15	3.15	3.15	3.15
Specimen Diameter(in.)	1.40	1.40	1.40	1.40

Shear Strength	Deg.	c(tsf)
Apparent	17.4	0.11
Effective	26.1	0.09

Remarks: Remolded at 3 (%) dry of optimum moisture and at 95 (%) of maximum unit weight.