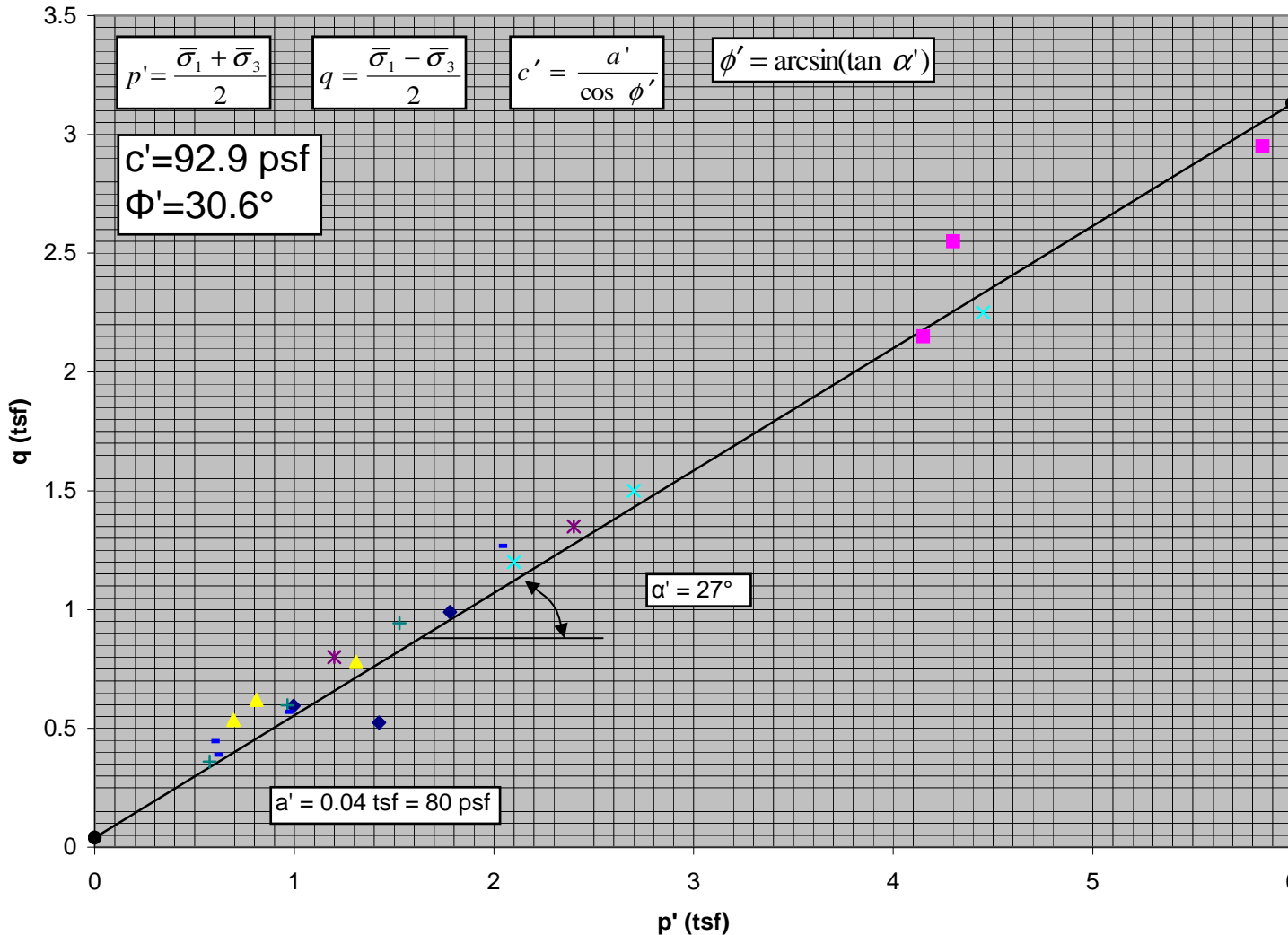


JSF - Dry Fly Ash Stack - Alluvial Clay (Soil 2) - 2/3 Rule Effective Stress from CU Triaxial Tests

Testing Company:
Boring Number
(Sample Type)

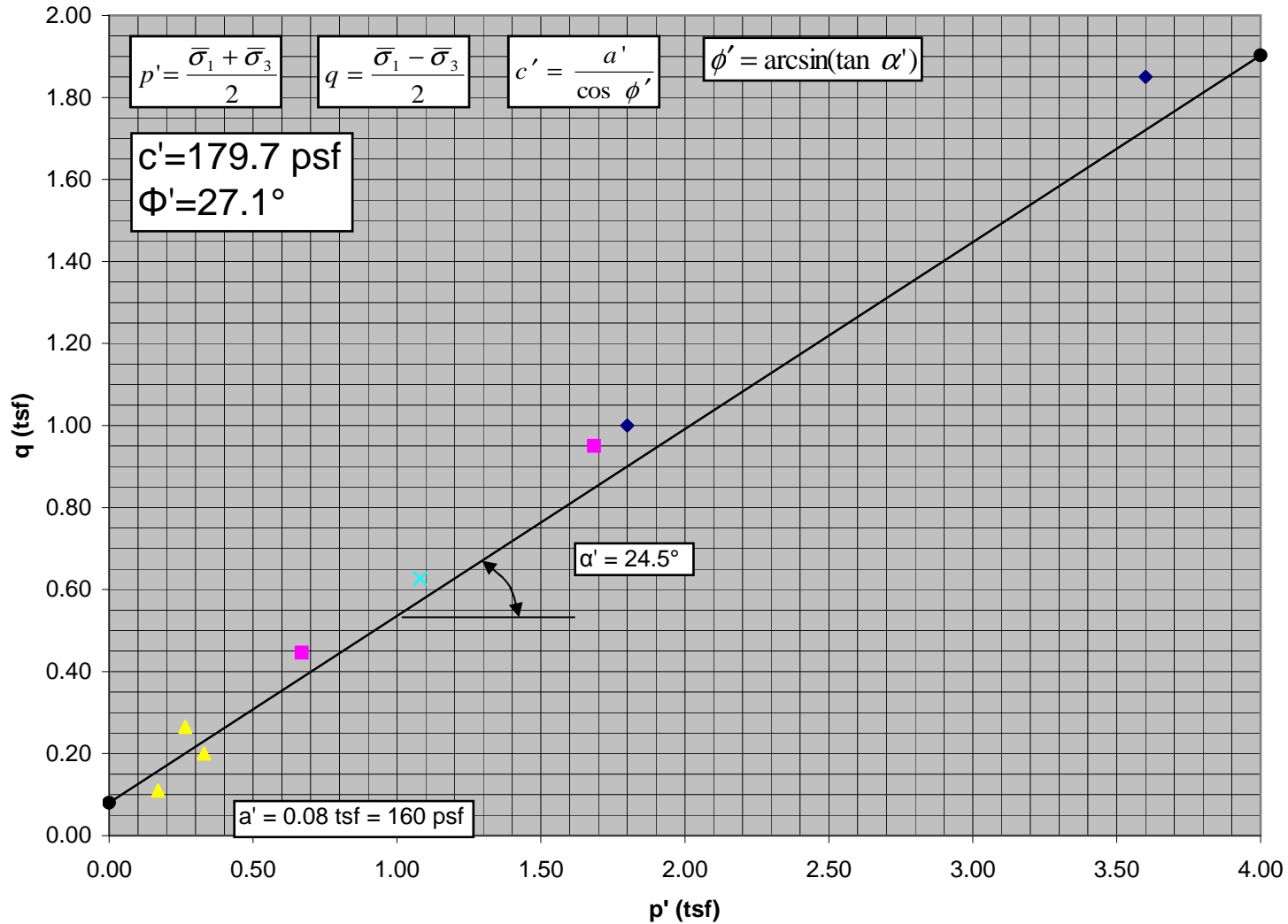


- LAW: B99-4 (UD)
- ◆ STN: JS-12 (Remolded +/- 10% LL)
- ▲ STN: JS-37 SV (UD) STN: JS-36 SV (UD, WOH N-values)
- × LAW: B99-2 (UD)
- ✱ LAW: B99-5 (UD)
- + STN: JS-60A (Remolded to 95% Proctor)
- STN: JS-62B (UD) STN: JS-65A (UD)

Stantec used Maximum Effective Principal Stress Ratio to determine failure criteria.

JSF - Dry Fly Ash Stack - Clay Fill (Soil 1) - 2/3 Rule Effective Stress from CU Triaxial Tests

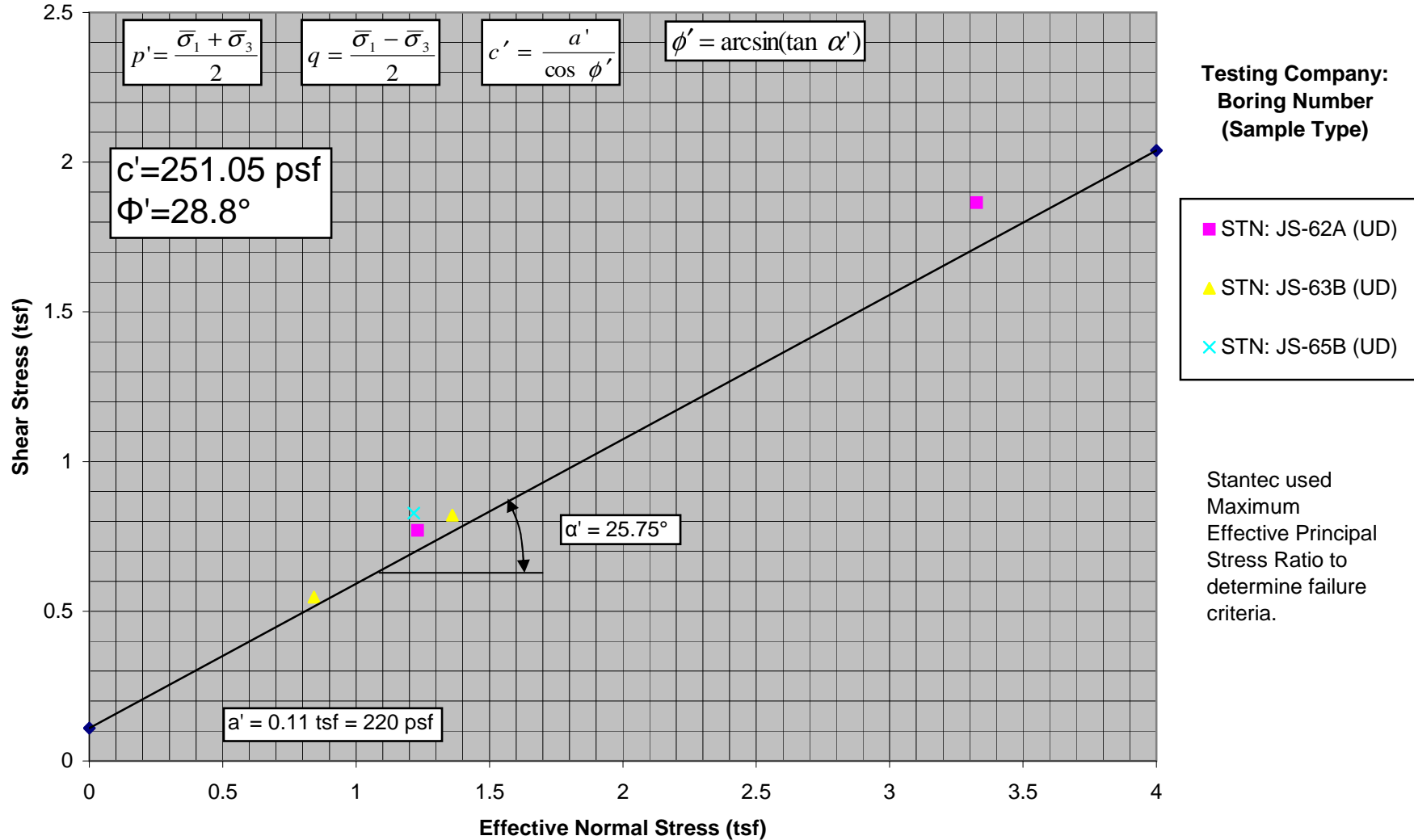
Testing Company:
Boring Number
(Sample Type)



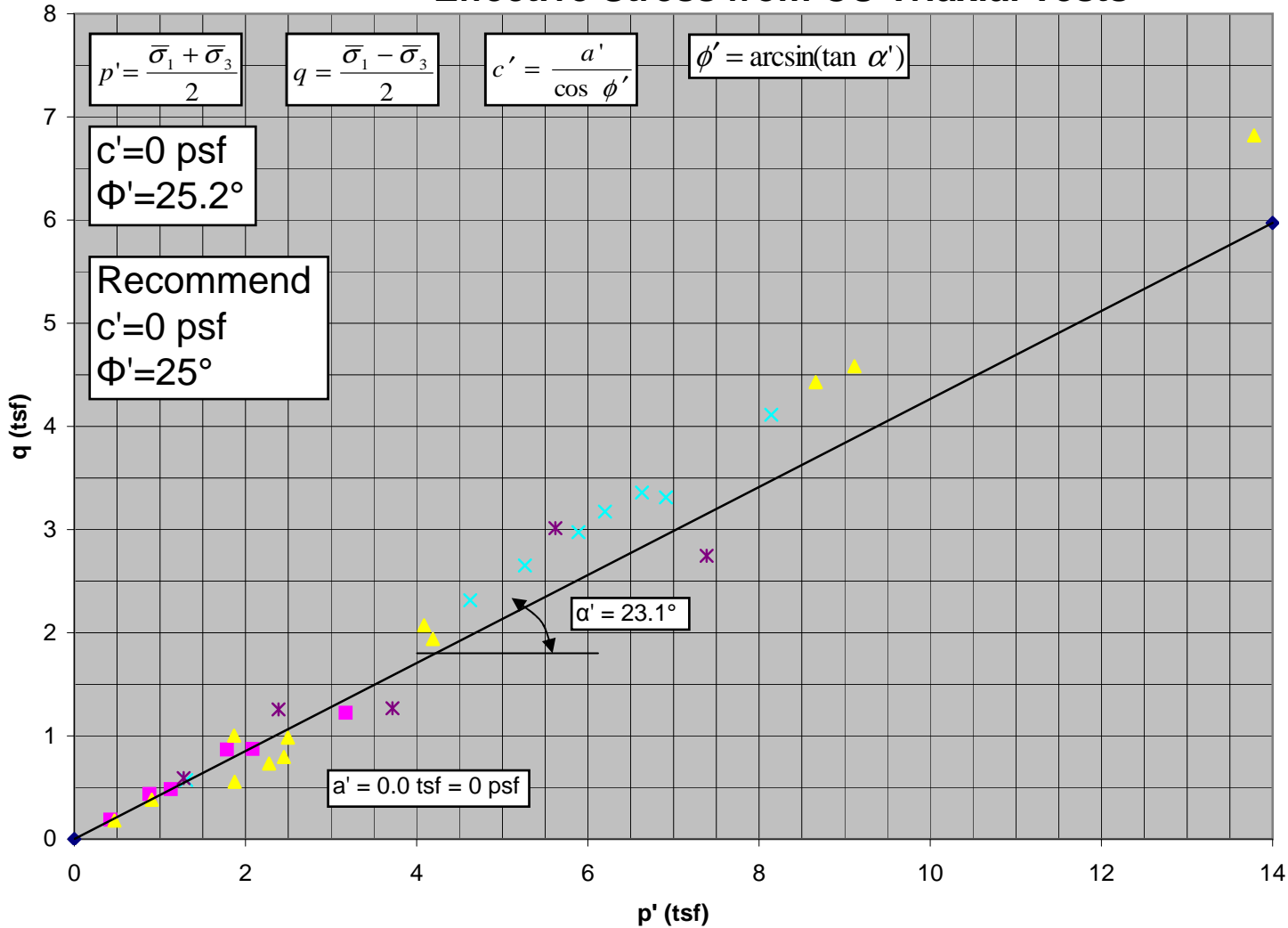
- ◆ LAW: B99-8 (UD)
- ▲ STN: JS-36B (Remolded to +/-5% LL, WOH-4 N-values)
- STN: JS-63B (UD)
- × STN: JS-65B (UD)

Stantec used Maximum Effective Principal Stress Ratio to determine failure criteria.

JSF - Dry Fly Ash Stack - Dike Material (Soil 8) - 2/3 Rule Effective Stress from CU Triaxial Tests



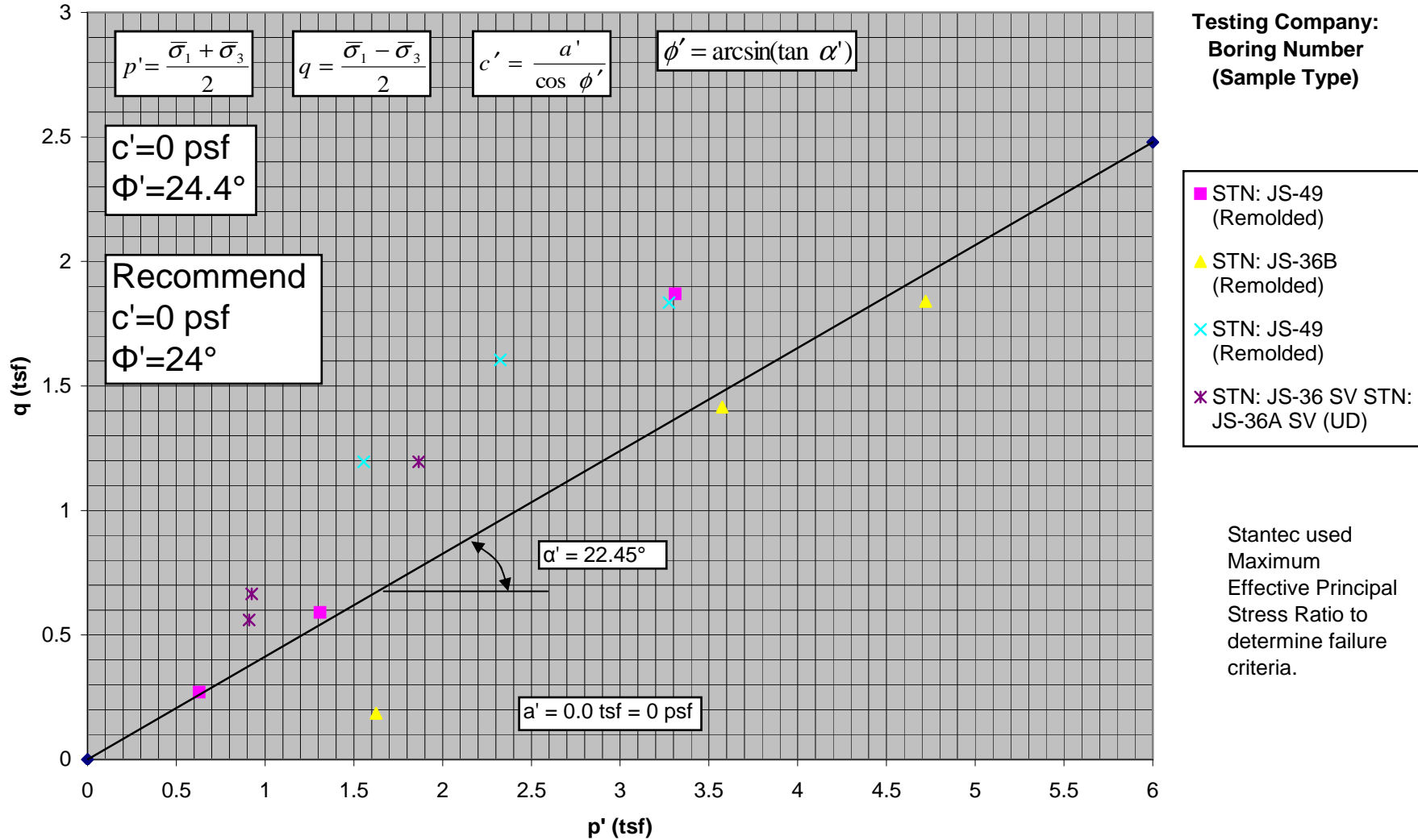
KINGSTON FOSSIL PLANT Hydraulically Placed Ash Effective Stress from CU Triaxial Tests



- Testing Company**
- LAW, eo =0.846, Remolded
 - ▲ AECOM, eo =0.853, Moist Tamp
 - × AECOM, eo =0.725, Pluviation
 - ✱ AECOM, eo =1.191, Slurry

Stantec used Maximum Effective Principal Stress Ratio to determine failure criteria.

JSF - Dry Fly Ash Stack - Sluiced Fly Ash (Soil 5) - 2/3 Rule Effective Stress from CU Triaxial Tests



JOHN SEVIER FOSSIL PLANT
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS
FOR COARSE GRAINED SOILS

Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Estimated Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT N	SPT N	Correction Factor	Corrected N-Value	Relative Density (%)	Unified Soil Classification	Internal Angle of Friction (degrees)	Unit Weight Dry (pcf)	Moisture Content (%)	Revised In-situ Unit Weight (pcf)	Void Ratio
				N ₆₀	N ₆₀									
				Input Required										
JP-1		water =		Not Encountered										
0.0 - 1.5	0.75	120	0.02	8	11	1.00	11	47	CL	FALSE	NA	16.2	NA	NA
1.5 - 3.0	2.25	120	0.06	9	12	1.00	12	52	CL	FALSE	NA	15.2	NA	NA
3.0 - 4.5	3.75	120	0.11	15	20	1.00	20	67	CL	FALSE	NA	13.2	NA	NA
4.5 - 6.0	5.25	120	0.15	10	13	1.00	13	53	CL	FALSE	NA	14.8	NA	NA
6.0 - 7.5	6.75	120	0.19	13	17	1.00	17	60	CL	FALSE	NA	12.2	NA	NA
7.5 - 9.0	8.25	120	0.24	10	13	1.00	13	53	CL	FALSE	NA	11.9	NA	NA
9.0 - 10.5	9.75	120	0.28	16	21	1.00	21	68	CL	FALSE	NA	13.4	NA	NA
10.5 - 12.0	11.25	120	0.32	23	31	1.00	31	79	CL	FALSE	NA	24.1	NA	NA
12.0 - 13.5	12.75	120	0.37	37	49	1.00	49	97	CL	FALSE	NA	19.1	NA	NA
13.5 - 15.0	14.25	120	0.41	22	29	1.00	29	79	CL	FALSE	NA	15.6	NA	NA
15.0 - 16.5	15.75	120	0.45	30	40	1.00	40	89	CL	FALSE	NA	16.4	NA	NA
16.5 - 18.0	17.25	120	0.50	32	43	1.00	43	91	CL	FALSE	NA		NA	NA
18.0 - 19.5	18.75	120	0.54	21	28	1.00	28	77	CL	FALSE	NA	11.2	NA	NA
19.5 - 21.0	20.25	120	0.58	24	32	1.00	32	82	CL	FALSE	NA	16.1	NA	NA
21.0 - 22.5	21.75	120	0.63	28	37	1.00	37	87	CL	FALSE	NA	20.9	NA	NA
22.5 - 24.0	23.25	120	0.67	20	27	1.00	27	75	CL	FALSE	NA	17.6	NA	NA
24.0 - 25.5	24.75	120	0.71	26	35	1.00	35	84	CL	FALSE	NA	16.7	NA	NA
25.5 - 27.0	26.25	120	0.76	20	27	1.00	27	75	CL	FALSE	NA	18.7	NA	NA
27.0 - 28.5	27.75	120	0.80	32	43	1.00	43	91	CL	FALSE	NA	17.6	NA	NA
28.5 - 30.0	29.25	120	0.84	16	21	1.00	21	68	CL	FALSE	NA	20.7	NA	NA
30.0 - 31.5	30.75	118	0.88	12	16	1.00	16	60	SP	35	114	3.8	118	0.46
31.5 - 33.0	32.25	133	0.94	20	27	1.00	27	75	GP-GM	37.6	122	8.7	133	0.37
33.0 - 34.5	33.75	120	0.98	9	12	1.00	12	52	SHALE	FALSE	NA	30.3	NA	NA
34.5 - 36.0	35.25	120	1.02	52	69	0.99	69	100	SHALE	FALSE	NA	23.8	NA	NA

**JOHN SEVIER FOSSIL PLANT
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS
FOR COARSE GRAINED SOILS**

Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Estimated Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT	SPT	Correction Factor	Corrected N-Value	Relative Density (%)	Unified Soil Classification	Internal Angle of Friction (degrees)	Unit Weight Dry (pcf)	Moisture Content (%)	Revised In-situ Unit Weight (pcf)	Void Ratio
				N ₆₀	N ₆₀									
				Input Required										
JP-2		water =		Not Encountered										
0.0 - 1.5	0.75	120	0.02	6	8	1.00	8	41	CL	FALSE	NA	12.7	NA	NA
1.5 - 3.0	2.25	120	0.06	12	16	1.00	16	60	CL	FALSE	NA	15.2	NA	NA
3.0 - 4.5	3.75	120	0.11	14	19	1.00	19	63	CL	FALSE	NA	18.7	NA	NA
4.5 - 6.0	5.25	120	0.15	19	25	1.00	25	74	CL	FALSE	NA	17.9	NA	NA
6.0 - 7.5	6.75	120	0.19	28	37	1.00	37	87	CL	FALSE	NA	10.7	NA	NA
7.5 - 9.0	8.25	120	0.24	28	37	1.00	37	87	CL	FALSE	NA	16.5	NA	NA
9.0 - 10.5	9.75	120	0.28	20	27	1.00	27	75	CL	FALSE	NA	17.7	NA	NA
10.5 - 12.0	11.25	120	0.32	25	33	1.00	33	84	CL	FALSE	NA	17.9	NA	NA
12.0 - 13.5	12.75	120	0.37	37	49	1.00	49	97	CL	FALSE	NA	19.9	NA	NA
13.5 - 15.0	14.25	120	0.41	19	25	1.00	25	74	CL	FALSE	NA	22.7	NA	NA
15.0 - 16.5	15.75	120	0.45	20	27	1.00	27	75	CL	FALSE	NA	20.0	NA	NA
16.5 - 18.0	17.25	120	0.50	25	33	1.00	33	84	CL	FALSE	NA	18.6	NA	NA
18.0 - 19.5	18.75	120	0.54	17	23	1.00	23	70	CL	FALSE	NA	18.3	NA	NA
19.5 - 21.0	20.25	120	0.58	25	33	1.00	33	84	CL	FALSE	NA	15.5	NA	NA
21.0 - 22.5	21.75	120	0.63	45	60	1.00	60	100	CL	FALSE	NA	19.3	NA	NA
22.5 - 24.0	23.25	120	0.67	17	23	1.00	23	70	CL	FALSE	NA	18.1	NA	NA
24.0 - 25.5	24.75	120	0.71	20	27	1.00	27	75	CL	FALSE	NA	14.8	NA	NA
25.5 - 27.0	26.25	120	0.76	18	24	1.00	24	73	CL	FALSE	NA	17.2	NA	NA
27.0 - 28.5	27.75	120	0.80	27	36	1.00	36	86	CL	FALSE	NA	10.5	NA	NA
28.5 - 30.0	29.25	120	0.84	19	25	1.00	25	74	CL	FALSE	NA	14.5	NA	NA
30.0 - 31.5	30.75	120	0.89	24	32	1.00	32	82	CL	FALSE	NA	12.4	NA	NA
31.5 - 33.0	32.25	135	0.94	95	127	1.00	127	100	GP-GC	41.6	129	4.9	135	0.29
33.0 - 34.5	33.75	120	0.98	14	19	1.00	19	63	SHALE	FALSE	NA	27.5	NA	NA
34.5 - 36.0	35.25	120	1.03	53	71	0.99	70	100	SHALE	FALSE	NA	21.3	NA	NA

**JOHN SEVIER FOSSIL PLANT
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS
FOR COARSE GRAINED SOILS**

Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Estimated Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT N Value	SPT N Value	Correction Factor	Corrected N-Value	Relative Density (%)	Unified Soil Classification	Internal Angle of Friction (degrees)	Unit Weight Dry (pcf)	Moisture Content (%)	Revised In-situ Unit Weight (pcf)	Void Ratio
		γ_w	σ	N ₆₀	N ₆₀	C _N	(N ₁) ₆₀	D _r		ϕ	γ_d	m	γ_w	e
				Input Required										
JP-3		water =	Not Encountered											
0.0 - 1.5	0.75	120	0.02	8	11	1.00	11	47	CL	FALSE	NA	19.7	NA	NA
5.0 - 6.5	5.75	120	0.17	11	15	1.00	15	56	CL	FALSE	NA	20.1	NA	NA
10.0 - 11.5	10.75	120	0.31	15	20	1.00	20	67	CL	FALSE	NA	25.5	NA	NA
15.0 - 16.5	15.75	120	0.45	20	27	1.00	27	75	CL	FALSE	NA	15.8	NA	NA
20.0 - 21.5	20.75	120	0.60	38	51	1.00	51	98	CL	FALSE	NA	18.4	NA	NA
25.0 - 26.5	25.75	120	0.74	34	45	1.00	45	93	CL	FALSE	NA	17.4	NA	NA
30.0 - 31.5	30.75	120	0.89	15	20	1.00	20	67	CL	FALSE	NA	17.5	NA	NA
31.5 - 33.0	32.25	120	0.93	20	27	1.00	27	75	CL	FALSE	NA	15.8	NA	NA
33.0 - 34.5	33.75	137	0.98	30	40	1.00	40	89	GP-GC	39.3	125	9.7	137	0.34
34.5 - 35.4	34.95	120	1.02	100	133	0.99	132	100	SHALE	FALSE	NA	13.3	NA	NA

JOHN SEVIER FOSSIL PLANT
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS
FOR COARSE GRAINED SOILS

Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Estimated Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT	SPT	Correction Factor	Corrected N-Value	Relative Density (%)	Unified Soil Classification	Internal Angle of Friction (degrees)	Unit Weight Dry (pcf)	Moisture Content (%)	Revised In-situ Unit Weight (pcf)	Void Ratio
				N ₆₀	N ₆₀									
				Input Required										
JP-4		water =	45.7											
0.0 - 1.5	0.75	120	0.05	6	8	1.00	8	41	CL	FALSE	NA	17.5	NA	NA
5.0 - 6.5	5.75	120	0.35	15	20	1.00	20	67	CL	FALSE	NA	15.0	NA	NA
10.0 - 11.5	10.75	120	0.65	18	24	1.00	24	73	CL	FALSE	NA	16.5	NA	NA
15.0 - 16.5	15.75	120	0.95	14	19	1.00	19	63	CL	FALSE	NA	21.3	NA	NA
20.0 - 21.5	20.75	120	1.25	21	28	0.90	25	74	CL	FALSE	NA	16.5	NA	NA
25.0 - 26.5	25.75	120	1.55	28	37	0.80	30	79	CL	FALSE	NA	16.7	NA	NA
30.0 - 31.5	30.75	120	1.85	19	25	0.74	19	63	CL	FALSE	NA	20.6	NA	NA
31.5 - 33.0	32.25	120	1.94	28	37	0.72	27	75	CL	FALSE	NA	21.2	NA	NA
33.0 - 34.5	33.75	120	2.03	10	13	0.70	9	44	CL	FALSE	NA	19.0	NA	NA
34.5 - 36.0	35.25	120	2.12	6	8	0.69	6	32	CL	FALSE	NA	19.8	NA	NA
36.0 - 37.5	36.75	120	2.21	9	12	0.67	8	41	CL	FALSE	NA	22.5	NA	NA
37.5 - 39.0	38.25	120	2.30	5	7	0.66	4	27	CL	FALSE	NA	24.5	NA	NA
39.0 - 40.5	39.75	120	2.39	4	5	0.65	4	24	CL	FALSE	NA	23.8	NA	NA
40.5 - 42.0	41.25	120	2.48	9	12	0.64	8	41	CL	FALSE	NA	24.4	NA	NA
42.0 - 43.5	42.75	120	2.57	17	23	0.62	14	56	CL	FALSE	NA	23.1	NA	NA
43.5 - 45.0	44.25	120	2.66	4	5	0.61	3	24	CL	FALSE	NA	21.6	NA	NA
45.0 - 46.5	45.75	129	2.71	5	7	0.61	4	27	SP	30	106.5	21.2	129	0.57
46.5 - 47.7	47.1	147	2.76	100	133	0.60	80	100	SP	40.7	124	18.9	147	0.35

**JOHN SEVIER FOSSIL PLANT
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS
FOR COARSE GRAINED SOILS**

Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Estimated Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT	SPT	Correction Factor	Corrected N-Value	Relative Density (%)	Unified Soil Classification	Internal Angle of Friction (degrees)	Unit Weight Dry (pcf)	Moisture Content (%)	Revised In-situ Unit Weight (pcf)	Void Ratio
				N ₆₀	N ₆₀									
				Input Required										
JS-15		water =	22.5											
0.0 - 1.5	0.75	120	0.05	12	16	1.00	16	60	TOPSOIL	FALSE	NA	17.2	NA	NA
1.5 - 3.0	2.25	120	0.14	31	41	1.00	41	91	SHALE	FALSE	NA	14.5	NA	NA
3.0 - 4.5	3.75	120	0.23	23	31	1.00	31	79	SHALE	FALSE	NA	11.0	NA	NA
4.5 - 6.0	5.25	120	0.32	15	20	1.00	20	67	SHALE	FALSE	NA	21.3	NA	NA
6.0 - 7.5	6.75	120	0.41	20	27	1.00	27	75	SHALE	FALSE	NA	22.3	NA	NA
7.5 - 9.0	8.25	120	0.50	12	16	1.00	16	60	SHALE	FALSE	NA	NR	NA	NA
9.0 - 10.5	9.75	120	0.59	9	12	1.00	12	52	SHALE	FALSE	NA	20.2	NA	NA
10.5 - 12.0	11.25	120	0.68	15	20	1.00	20	67	CL	FALSE	NA	22.5	NA	NA
12.0 - 13.5	12.75	120	0.77	29	39	1.00	39	87	CL	FALSE	NA	20.9	NA	NA
13.5 - 15.0	14.25	120	0.86	16	21	1.00	21	68	CL	FALSE	NA	20.0	NA	NA
15.0 - 16.5	15.75	120	0.95	12	16	1.00	16	60	CL	FALSE	NA	22.0	NA	NA
16.5 - 18.0	17.25	120	1.04	14	19	0.98	18	63	CL	FALSE	NA	22.7	NA	NA
18.0 - 19.5	18.75	120	1.13	3	4	0.94	4	24	CL	FALSE	NA	23.7	NA	NA
19.5 - 21.0	20.25	120	1.22	6	8	0.91	7	39	CL	FALSE	NA	24.7	NA	NA
21.0 - 22.5	21.75	120	1.31	11	15	0.88	13	52	CL	FALSE	NA	21.7	NA	NA
22.5 - 24.0	23.25	120	1.35	30	40	0.86	34	84	CL	FALSE	NA	18.2	NA	NA
24.0 - 25.5	24.75	155	1.42	76	101	0.84	85	100	GP-GM	41.6	129	20.0	155	0.29

JOHN SEVIER FOSSIL PLANT															
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS															
FOR COARSE GRAINED SOILS															
		Depth of	Assumed	Vertical	SPT	SPT					Internal	Unit		Revised	
Sample		Mid. Pt.	Estimated	Effective	N	N	Correction	Corrected	Relative		Angle of	Weight	Moisture	In-situ	Void
Interval		of Sample	Unit Weight	Stress	Value	Value	Factor	N-Value	Density	Unified Soil	Friction	Dry	Content	Unit Weight	Ratio
		(ft.)	(pcf)	(tsf)	N ₆₀	N ₆₀	C _N	(N ₁) ₆₀	(%)	Classification	(degrees)	(pcf)	(%)	(pcf)	
			γ_w	σ'					Dr	ϕ'	γ_d	m	γ_w	e	
Input Required															
JS-16			water =	31.5											
0.0 - 1.5	0.75	120	0.05	6	8	1.00	8	41	CL	FALSE	NA	21.4	NA	NA	
1.5 - 3.0	2.25	120	0.14	17	23	1.00	23	70	CL	FALSE	NA	16.0	NA	NA	
3.0 - 4.5	3.75	120	0.23	12	16	1.00	16	60	CL	FALSE	NA	20.6	NA	NA	
4.5 - 6.0	5.25	120	0.32	12	16	1.00	16	60	CL	FALSE	NA	17.0	NA	NA	
6.0 - 7.5	6.75	120	0.41	20	27	1.00	27	75	CL	FALSE	NA	16.2	NA	NA	
7.5 - 9.0	8.25	120	0.50	13	17	1.00	17	60	CL	FALSE	NA	21.3	NA	NA	
9.0 - 10.5	9.75	120	0.59	7	9	1.00	9	44	CL	FALSE	NA	16.2	NA	NA	
10.5 - 12.0	11.25	120	0.68	13	17	1.00	17	60	CL	FALSE	NA	20.9	NA	NA	
12.0 - 13.5	12.75	120	0.77	13	17	1.00	17	60	CL	FALSE	NA	14.6	NA	NA	
13.5 - 15.0	14.25	120	0.86	10	13	1.00	13	53	CL	FALSE	NA	19.6	NA	NA	
15.0 - 16.5	15.75	112	0.94	21	28	1.00	28	77	ML	33.5	93	20.3	112	0.8	
16.5 - 18.0	17.25	107	1.02	17	23	0.99	23	70	ML	33	92	16.2	107	0.82	
18.0 - 19.5	18.75	104	1.10	8	11	0.95	10	47	ML	30.5	88	17.9	104	0.91	
19.5 - 21.0	20.25	106	1.18	8	11	0.92	10	44	ML	30	87	21.6	106	0.93	
21.0 - 22.5	21.75	105	1.25	8	11	0.89	10	44	ML	30	87	20.3	105	0.93	
22.5 - 24.0	23.25	106	1.33	9	12	0.87	10	47	ML	30.5	88	20.5	106	0.91	
24.0 - 25.5	24.75	105	1.41	7	9	0.84	8	41	ML	30	87	20.9	105	0.93	
25.5 - 27.0	26.25	112	1.50	8	11	0.82	9	41	ML	30	87	28.2	112	0.93	
27.0 - 28.5	27.75	114	1.58	7	9	0.79	7	39	ML	29.5	86	33.0	114	0.95	
28.5 - 30.0	29.25	117	1.67	6	8	0.77	6	35	ML	29.5	86	36.3	117	0.95	
30.0 - 31.5	30.75	117	1.76	4	5	0.75	4	27	ML	28.5	84	39.3	117	0.99	
31.5 - 33.0	32.25	123	1.80	4	5	0.74	4	27	ML	28.5	84	46.9	123	0.99	
33.0 - 34.5	33.75	115	1.84	3	4	0.74	3	18	ML	27.5	82	40.3	115	1.03	
34.5 - 36.0	35.25	110	1.88	3	4	0.73	3	18	ML	27.5	82	34.0	110	1.03	
36.0 - 37.5	36.75	120	1.92	25	33	0.72	24	73	LIMESTONE	FALSE	NA	10.3	NA	NA	
37.5 - 39.0	38.25	120	1.97	13	17	0.71	12	52	CL	FALSE	NA	13.7	NA	NA	
39.0 - 40.5	39.75	120	2.01	15	20	0.71	14	56	CL	FALSE	NA	22.2	NA	NA	
40.5 - 42.0	41.25	120	2.05	8	11	0.70	7	39	CL	FALSE	NA	20.8	NA	NA	
42.0 - 43.5	42.75	120	2.10	15	20	0.69	14	53	CL	FALSE	NA	21.7	NA	NA	
43.5 - 45.0	44.25	120	2.14	9	12	0.68	8	41	CL	FALSE	NA	20.8	NA	NA	
45.0 - 46.5	45.75	120	2.18	16	21	0.68	14	56	CL	FALSE	NA	21.1	NA	NA	
46.5 - 48.0	47.25	120	2.22	12	16	0.67	11	47	CL	FALSE	NA	23.2	NA	NA	
48.0 - 49.5	48.75	120	2.27	21	28	0.66	19	63	CL	FALSE	NA	21.9	NA	NA	
49.5 - 51.0	50.25	146	2.33	46	61	0.66	40	89	GP-GC	39.3	125	16.8	146	0.34	
51.0 - 52.5	51.75	142	2.39	46	61	0.65	40	89	GP-GC	39.3	125	13.7	142	0.34	
52.5 - 54.0	53.25	135	2.45	31	41	0.64	26	75	GP-GC	37.6	122	10.9	135	0.37	
54.0 - 55.5	54.75	120	2.49	19	25	0.63	16	60	SHALE	FALSE	NA	23.6	NA	NA	
55.5 - 55.8	55.65	120	2.51	100	133	0.63	84	100	SHALE	FALSE	NA	14.6	NA	NA	

JOHN SEVIER FOSSIL PLANT
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS
FOR COARSE GRAINED SOILS

Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Estimated Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT N	SPT N	Correction Factor	Corrected N-Value	Relative Density (%)	Unified Soil Classification	Internal Angle of Friction (degrees)	Unit Weight Dry (pcf)	Moisture Content (%)	Revised In-situ Unit Weight (pcf)	Void Ratio	
				N ₆₀	N ₆₀	C _N	(N ₁) ₆₀	D _r		φ'	γ _d	m	γ _w		
				Input Required											
JS-17		water =	28.2												
0.0 - 1.5	0.75	120	0.05	11	15	1.00	15	56	CL	FALSE	NA	17.5	NA	NA	
1.5 - 3.0	2.25	120	0.14	10	13	1.00	13	53	CL	FALSE	NA	24.0	NA	NA	
3.0 - 4.5	3.75	120	0.23	6	8	1.00	8	41	CL	FALSE	NA	20.9	NA	NA	
4.5 - 6.0	5.25	110	0.31	14	19	1.00	19	63	ML	32	90	22.3	110	0.85	
6.0 - 7.5	6.75	113	0.39	16	21	1.00	21	68	ML	32.5	91	24.1	113	0.83	
7.5 - 9.0	8.25	109	0.47	8	11	1.00	11	47	ML	30.5	88	23.8	109	0.91	
9.0 - 10.5	9.75	115	0.56	19	25	1.00	25	74	ML	33	92	24.8	115	0.82	
10.5 - 12.0	11.25	111	0.64	9	12	1.00	12	52	ML	31	88.5	25.0	111	0.89	
12.0 - 13.5	12.75	111	0.73	6	8	1.00	8	41	ML	30	87	27.9	111	0.93	
13.5 - 15.0	14.25	111	0.81	11	15	1.00	15	56	ML	31.5	89.5	24.1	111	0.87	
15.0 - 16.5	15.75	117	0.90	10	13	1.00	13	53	ML	31	88.5	32.3	117	0.89	
16.5 - 18.0	17.25	113	0.98	8	11	1.00	11	47	ML	30.5	88	28.6	113	0.91	
18.0 - 19.5	18.75	112	1.07	5	7	0.97	7	35	ML	29.5	86	30.0	112	0.95	
19.5 - 21.0	20.25	112	1.15	3	4	0.93	4	24	ML	28	83	35.1	112	1.01	
21.0 - 22.5	21.75	118	1.24	5	7	0.90	6	35	ML	29.5	86	37.6	118	0.95	
22.5 - 24.0	23.25	107	1.32	5	7	0.87	6	32	ML	29	85	25.4	107	0.97	
24.0 - 25.5	24.75	115	1.41	7	9	0.84	8	41	ML	30	87	32.3	115	0.93	
25.5 - 27.0	26.25	113	1.49	7	9	0.82	8	41	ML	30	87	29.9	113	0.93	
27.0 - 28.5	27.75	118	1.58	5	7	0.80	5	32	ML	29	85	38.5	118	0.97	
28.5 - 30.0	29.25	112	1.62	3	4	0.79	3	24	ML	28	83	34.9	112	1.01	
30.0 - 31.5	30.75	110	1.65	2	3	0.78	2	18	ML	27.5	82	33.7	110	1.03	
31.5 - 33.0	32.25	110	1.69	2	3	0.77	2	18	ML	27.5	82	34.6	110	1.03	
33.0 - 34.5	33.75	120	1.73	5	7	0.76	5	32	CL	FALSE	NA	22.7	NA	NA	
34.5 - 36.0	35.25	120	1.77	4	5	0.75	4	27	CL	FALSE	NA	18.7	NA	NA	
36.0 - 37.5	36.75	120	1.82	6	8	0.74	6	32	CL	FALSE	NA	18.0	NA	NA	
37.5 - 39.0	38.25	120	1.86	13	17	0.73	13	52	CL	FALSE	NA	16.4	NA	NA	
39.0 - 40.5	39.75	120	1.90	14	19	0.72	14	53	CL	FALSE	NA	20.9	NA	NA	
40.5 - 42.0	41.25	120	1.95	13	17	0.72	12	52	CL	FALSE	NA	20.9	NA	NA	
42.0 - 43.5	42.75	120	1.99	16	21	0.71	15	58	CL	FALSE	NA	20.5	NA	NA	
43.5 - 45.0	44.25	120	2.03	100	133	0.70	94	100	CL	FALSE	NA	19.9	NA	NA	
45.0 - 46.5	45.75	138	2.09	35	47	0.69	32	82	GP-GC	38.5	123	12.1	138	0.35	
46.5 - 48.0	47.25	140	2.15	31	41	0.68	28	77	GP-GC	37.6	122	15.1	140	0.37	
48.0 - 49.5	48.75	158	2.22	46	61	0.67	41	91	GP-GC	40	126	25.4	158	0.32	
49.5 - 51.0	50.25	139	2.28	26	35	0.66	23	71	GP-GC	37	121	15.0	139	0.38	
51.0 - 52.5	51.75	137	2.33	30	40	0.65	26	75	GP-GC	37.6	122	12.7	137	0.37	
52.5 - 54.0	53.25	120	2.38	15	20	0.65	13	53	SHALE	FALSE	NA	33.8	NA	NA	
54.0 - 54.5	54.25	120	2.41	100	133	0.64	86	100	SHALE	FALSE	NA	16.0	NA	NA	

JOHN SEVIER FOSSIL PLANT															
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS															
FOR COARSE GRAINED SOILS															
Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Estimated Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT N	SPT N	Correction Factor	Corrected N-Value	Relative Density (%)	Unified Soil Classification	Internal Friction Angle (degrees)	Unit Weight (pcf)	Moisture Content (%)	Revised In-situ Unit Weight (pcf)	Void Ratio	
				N ₆₀	N ₆₀	C _N	(N ₁) ₆₀	D _r		φ	γ _s	m	γ _w		e
Input Required															
JS-18		water =	52.5												
0.0 - 1.5	0.75	120	0.05	7	9	1.00	9	44	CL	FALSE	NA	22.8	NA	NA	
1.5 - 3.0	2.25	120	0.14	25	33	1.00	33	84	CL	FALSE	NA	19.6	NA	NA	
3.0 - 4.5	3.75	115	0.22	27	36	1.00	36	86	ML	34.5	95	20.9	115	0.75	
4.5 - 6.0	5.25	113	0.31	22	29	1.00	29	79	ML	33.5	93	21.6	113	0.8	
6.0 - 7.5	6.75	104	0.38	26	35	1.00	35	84	ML	34	94	10.6	104	0.77	
7.5 - 9.0	8.25	110	0.47	22	29	1.00	29	79	ML	33.5	93	18.3	110	0.8	
9.0 - 10.5	9.75	108	0.55	18	24	1.00	24	73	ML	33	92	17.8	108	0.82	
10.5 - 12.0	11.25	109	0.63	22	29	1.00	29	79	ML	33.5	93	17.3	109	0.8	
12.0 - 13.5	12.75	114	0.71	25	33	1.00	33	84	ML	34	94	20.9	114	0.77	
13.5 - 15.0	14.25	105	0.79	16	21	1.00	21	68	ML	32.5	91	15.4	105	0.83	
15.0 - 16.5	15.75	107	0.87	18	24	1.00	24	73	ML	33	92	16.2	107	0.82	
16.5 - 18.0	17.25	110	0.96	25	33	1.00	33	84	ML	34	94	17.1	110	0.77	
18.0 - 19.5	18.75	113	1.04	24	32	0.98	31	81	ML	34	94	20.6	113	0.77	
19.5 - 21.0	20.25	112	1.13	25	33	0.94	31	81	ML	34	94	19.6	112	0.77	
21.0 - 22.5	21.75	114	1.21	26	35	0.91	32	81	ML	34	94	21.4	114	0.77	
22.5 - 24.0	23.25	107	1.29	19	25	0.88	22	70	ML	33	92	16.2	107	0.82	
24.0 - 25.5	24.75	113	1.38	18	24	0.85	21	67	ML	32.5	91	24.4	113	0.83	
25.5 - 27.0	26.25	114	1.46	21	28	0.83	23	71	ML	33	92	24.0	114	0.82	
27.0 - 28.5	27.75	117	1.55	40	53	0.80	43	91	ML	35	96	21.7	117	0.74	
28.5 - 30.0	29.25	114	1.63	32	43	0.78	33	84	ML	34	94	21.0	114	0.77	
30.0 - 31.5	30.75	116	1.72	21	28	0.76	21	68	ML	32.5	91	27.9	116	0.83	
31.5 - 33.0	32.25	100	1.80	14	19	0.75	14	53	ML	31	88.5	13.2	100	0.89	
33.0 - 34.5	33.75	111	1.88	11	15	0.73	11	47	ML	30.5	88	26.7	111	0.91	
34.5 - 36.0	35.25	115	1.97	7	9	0.71	7	35	ML	29.5	86	33.9	115	0.95	
36.0 - 37.5	36.75	120	2.06	9	12	0.70	8	41	ML	30	87	37.9	120	0.93	
37.5 - 39.0	38.25	88	2.12	6	8	0.69	6	32	ML	29	85	3.4	88	0.97	
39.0 - 40.5	39.75	119	2.21	6	8	0.67	5	32	ML	29	85	40.1	119	0.97	
40.5 - 42.0	41.25	112	2.30	4	5	0.66	4	24	ML	28	83	35.2	112	1.01	
42.0 - 43.5	42.75	99	2.37	6	8	0.65	5	32	ML	29	85	16.2	99	0.97	
43.5 - 45.0	44.25	107	2.45	10	13	0.64	9	41	ML	30	87	22.6	107	0.93	
45.0 - 46.5	45.75	116	2.54	12	16	0.63	10	47	ML	30.5	88	31.5	116	0.91	
46.5 - 48.0	47.25	117	2.63	13	17	0.62	11	47	ML	30.5	88	33.2	117	0.91	
48.0 - 49.5	48.75	114	2.71	17	23	0.61	14	53	ML	31	88.5	28.3	114	0.89	
49.5 - 51.0	50.25	119	2.80	16	21	0.60	13	52	ML	31	88.5	34.1	119	0.89	
51.0 - 52.5	51.75	124	2.89	11	15	0.59	9	41	ML	30	87	42.7	124	0.93	
52.5 - 54.0	53.25	123	2.94	10	13	0.58	8	41	ML	30	87	41.1	123	0.93	
54.0 - 55.5	54.75	116	2.98	3	4	0.58	2	18	ML	27.5	82	42.0	116	1.03	
55.5 - 57.0	56.25	121	3.02	5	7	0.58	4	24	ML	28	83	46.1	121	1.01	
57.0 - 58.5	57.75	125	3.07	6	8	0.57	5	27	ML	28.5	84	48.4	125	0.99	
58.5 - 60.0	59.25	119	3.11	4	5	0.57	3	24	ML	28	83	43.6	119	1.01	
60.0 - 61.5	60.75	111	3.15	0	0	0.56	1	11	ML	27	81	37.6	111	1.05	
61.5 - 63.0	62.25	112	3.19	2	3	0.56	2	11	ML	27	81	37.7	112	1.05	
63.0 - 64.5	63.75	120	3.23	7	9	0.56	5	32	CL	FALSE	NA	19.9	NA	NA	
64.5 - 66.0	65.25	120	3.27	7	9	0.55	5	32	CL	FALSE	NA	22.7	NA	NA	
66.0 - 67.5	66.75	120	3.32	20	27	0.55	15	56	CL	FALSE	NA	19.1	NA	NA	
67.5 - 69.0	68.25	129	3.37	16	21	0.55	12	47	GP-GM	33.5	115	12.5	129	0.45	
69.0 - 70.5	69.75	120	3.41	16	21	0.54	12	47	GP-GM	33.5	115	NR	NR	0.45	
70.5 - 72.0	71.25	136	3.46	32	43	0.54	23	70	GP-GM	37	121	12.4	136	0.38	
72.0 - 73.5	72.75	148	3.53	100	133	0.53	71	100	GP-GM	41.6	129	15.1	148	0.29	
73.5 - 75.0	74.25	133	3.58	30	40	0.53	21	68	GP-GM	36.2	120	10.8	133	0.39	
75.0 - 76.5	75.75	157	3.80	51	68	0.51	35	84	GP-GM	38.5	123	27.5	157	0.35	

JOHN SEVIER FOSSIL PLANT

CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS

FOR COARSE GRAINED SOILS

Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT	SPT	Correction Factor	Corrected N-Value (N ₁) ₆₀	Relative Density (%)	Unified Soil Classification	Internal Angle of Friction (degrees)	Unit Weight Dry (pcf)	Moisture Content (%)	Revised	Void Ratio
				N ₆₀	N ₆₀								In-situ Unit Weight (pcf)	
Input Required														
		water =												
JS-19		16.5												
0.0 - 1.5	0.75	120	0.05	10	13	1.00	13	53	CL	FALSE	NA	22.2	NA	NA
1.5 - 3.0	2.25	120	0.14	11	15	1.00	15	56	CL	FALSE	NA	23.7	NA	NA
3.0 - 4.5	3.75	120	0.23	4	5	1.00	5	32	CL	FALSE	NA	27.7	NA	NA
4.5 - 6.0	5.25	120	0.32	20	27	1.00	27	75	CL	FALSE	NA	24.3	NA	NA
6.0 - 7.5	6.75	120	0.41	29	39	1.00	39	87	CL	FALSE	NA	21.8	NA	NA
7.5 - 9.0	8.25	120	0.50	24	32	1.00	32	82	CL	FALSE	NA	25.4	NA	NA
9.0 - 10.5	9.75	120	0.59	20	27	1.00	27	75	CL	FALSE	NA	23.1	NA	NA
10.5 - 12.0	11.25	120	0.68	13	17	1.00	17	60	CL	FALSE	NA	22.7	NA	NA
12.0 - 13.5	12.75	120	0.77	19	25	1.00	25	74	CL	FALSE	NA	22.6	NA	NA
13.5 - 15.0	14.25	120	0.86	9	12	1.00	12	52	CL	FALSE	NA	22.7	NA	NA
15.0 - 16.5	15.75	120	0.95	14	19	1.00	19	63	CL	FALSE	NA	21.3	NA	NA
16.5 - 18.0	17.25	152	1.01	72	96	0.99	95	100	GP-GM	41.6	129	18.0	152	0.29
18.0 - 19.5	18.75	120	1.06	35	47	0.97	45	93	SHALE	FALSE	NA	22.6	NA	NA
19.5 - 20.0	19.75	120	1.08	100	133	0.96	128	100	SHALE	FALSE	NA	11.5	NA	NA

JOHN SEVIER FOSSIL PLANT
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS
FOR COARSE GRAINED SOILS

Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Estimated Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT	SPT	Correction Factor	Corrected N-Value	Relative Density (%)	Unified Soil Classification	Internal Angle of Friction (degrees)	Unit Weight Dry (pcf)	Moisture Content (%)	Revised	Void Ratio
				N ₆₀	N ₆₀								In-situ Unit Weight (pcf)	
Input Required														
		water = 29.7												
0.0 - 1.5	0.75	120	0.05	7	9	1.00	9	44	CL	FALSE	NA	24.2	NA	NA
1.5 - 3.0	2.25	120	0.14	16	21	1.00	21	68	CL	FALSE	NA	22.8	NA	NA
3.0 - 4.5	3.75	120	0.23	7	9	1.00	9	44	CL	FALSE	NA	20.5	NA	NA
4.5 - 6.0	5.25	103	0.30	2	3	1.00	3	18	ML	27.5	82	25.5	103	1.03
6.0 - 7.5	6.75	105	0.38	4	5	1.00	5	32	ML	29	85	23.4	105	0.97
7.5 - 9.0	8.25	102	0.46	3	4	1.00	4	27	ML	28.5	84	21.4	102	0.99
9.0 - 10.5	9.75	107	0.54	5	7	1.00	7	35	ML	29.5	86	24.7	107	0.95
10.5 - 12.0	11.25	105	0.62	5	7	1.00	7	35	ML	29.5	86	21.6	105	0.95
12.0 - 13.5	12.75	105	0.69	7	9	1.00	9	44	ML	30	87	20.7	105	0.93
13.5 - 15.0	14.25	105	0.77	7	9	1.00	9	44	ML	30	87	21.2	105	0.93
15.0 - 16.5	15.75	112	0.86	15	20	1.00	20	67	ML	32.5	91	23.2	112	0.83
16.5 - 18.0	17.25	106	0.94	8	11	1.00	11	47	ML	30.5	88	20.6	106	0.91
18.0 - 19.5	18.75	114	1.02	24	32	0.99	32	81	ML	34	94	21.3	114	0.77
19.5 - 21.0	20.25	107	1.10	7	9	0.95	9	41	ML	30	87	23.5	107	0.93
21.0 - 22.5	21.75	106	1.18	8	11	0.92	10	44	ML	30	87	21.5	106	0.93
22.5 - 24.0	23.25	104	1.26	6	8	0.89	7	39	ML	29.5	86	20.9	104	0.95
24.0 - 25.5	24.75	106	1.34	6	8	0.86	7	35	ML	29.5	86	23.1	106	0.95
25.5 - 27.0	26.25	107	1.42	7	9	0.84	8	41	ML	30	87	23.0	107	0.93
27.0 - 28.5	27.75	107	1.50	7	9	0.82	8	41	ML	30	87	22.8	107	0.93
28.5 - 30.0	29.25	109	1.58	7	9	0.79	7	39	ML	29.5	86	26.9	109	0.95
30.0 - 31.5	30.75	105	1.61	4	5	0.79	4	27	ML	28.5	84	24.5	105	0.99
31.5 - 33.0	32.25	112	1.65	8	11	0.78	8	41	ML	30	87	28.3	112	0.93
33.0 - 34.5	33.75	111	1.69	3	4	0.77	3	24	ML	28	83	33.9	111	1.01
34.5 - 36.0	35.25	120	1.73	3	4	0.76	3	24	ML	28	83	44.0	120	1.01
36.0 - 37.5	36.75	116	1.77	5	7	0.75	5	32	ML	29	85	36.2	116	0.97
37.5 - 39.0	38.25	112	1.81	8	11	0.74	8	41	ML	30	87	29.0	112	0.93
39.0 - 40.5	39.75	120	1.85	27	36	0.73	27	75	CL	FALSE	NA	24.2	NA	NA
40.5 - 42.0	41.25	120	1.89	19	25	0.73	18	63	CL	FALSE	NA	23.5	NA	NA
42.0 - 43.5	42.75	120	1.94	14	19	0.72	13	53	CL	FALSE	NA	20.8	NA	NA
43.5 - 45.0	44.25	120	1.98	26	35	0.71	25	73	CL	FALSE	NA	25.2	NA	NA
45.0 - 46.5	45.75	120	2.02	8	11	0.70	8	41	CL	FALSE	NA	22.7	NA	NA
46.5 - 48.0	47.25	120	2.07	7	9	0.70	7	35	CL	FALSE	NA	24.4	NA	NA
48.0 - 49.5	48.75	120	2.11	6	8	0.69	6	32	CL	FALSE	NA	21.5	NA	NA
49.5 - 51.0	50.25	120	2.15	10	13	0.68	9	44	CL	FALSE	NA	20.4	NA	NA
51.0 - 52.5	51.75	120	2.20	30	40	0.67	27	77	CL	FALSE	NA	15.9	NA	NA
52.5 - 54.0	53.25	140	2.26	16	21	0.67	14	56	GP-GM	34.8	117.5	19.3	140	0.42
54.0 - 54.2	54.1	120	2.28	100	133	0.66	88	100	GP-GM	41.6	129	NR	NR	0.29
55.5 - 55.8	55.65	148	2.35	100	133	0.65	87	100	GP-GM	41.6	129	15.1	148	0.29

JOHN SEVIER FOSSIL PLANT															
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS															
FOR COARSE GRAINED SOILS															
Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Estimated Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT N	SPT N	Correction Factor	Corrected N-Value	Relative Density (%)	Unified Soil Classification	Internal Angle of Friction (degrees)	Unit Weight Dry (pcf)	Moisture Content (%)	Revised In-situ Unit Weight (pcf)	Void Ratio	
				N ₆₀	N ₆₀	C _N	(N ₁) ₆₀	D _r		φ	γ _d	m	γ _w		
Input Required															
water = 26.5															
JS-21	0.0 - 1.5	0.75	120	0.05	6	8	1.00	8	41	CL	FALSE	NA	23.7	NA	NA
	1.5 - 3.0	2.25	120	0.14	11	15	1.00	15	56	CL	FALSE	NA	23.7	NA	NA
	3.0 - 4.5	3.75	111	0.22	23	31	1.00	31	79	ML	33.5	93	19.8	111	0.8
	4.5 - 6.0	5.25	110	0.30	13	17	1.00	17	60	ML	32	90	21.9	110	0.85
	6.0 - 7.5	6.75	112	0.38	14	19	1.00	19	63	ML	32	90	24.5	112	0.85
	7.5 - 9.0	8.25	111	0.47	8	11	1.00	11	47	ML	30.5	88	26.4	111	0.91
	9.0 - 10.5	9.75	104	0.55	5	7	1.00	7	35	ML	29.5	86	21.2	104	0.95
	10.5 - 12.0	11.25	112	0.63	15	20	1.00	20	67	ML	32.5	91	22.8	112	0.83
	12.0 - 13.5	12.75	110	0.71	24	32	1.00	32	82	ML	34	94	17.1	110	0.77
	13.5 - 15.0	14.25	113	0.80	4	5	1.00	5	32	ML	29	85	33.2	113	0.97
	15.0 - 16.5	15.75	113	0.88	6	8	1.00	8	41	ML	30	87	30.0	113	0.93
	16.5 - 18.0	17.25	116	0.97	7	9	1.00	9	44	ML	30	87	33.2	116	0.93
	18.0 - 19.5	18.75	112	1.05	6	8	0.97	8	41	ML	30	87	28.6	112	0.93
	19.5 - 21.0	20.25	109	1.14	5	7	0.94	6	35	SM	30	94	15.8	109	0.78
	21.0 - 22.5	21.75	113	1.22	7	9	0.91	9	41	SM	30.5	95	18.9	113	0.76
	22.5 - 24.0	23.25	106	1.30	4	5	0.88	5	27	SM	29	92	14.7	106	0.82
	24.0 - 25.5	24.75	115	1.39	5	7	0.85	6	32	SM	29.5	93	24.0	115	0.8
	25.5 - 27.0	26.25	115	1.47	3	4	0.82	3	24	ML	28	83	39.1	115	1.01
	27.0 - 28.5	27.75	122	1.52	4	5	0.81	4	27	ML	28.5	84	44.8	122	0.99
	28.5 - 30.0	29.25	118	1.56	2	3	0.80	2	18	ML	27.5	82	43.9	118	1.03
	30.0 - 31.5	30.75	119	1.60	2	3	0.79	2	18	ML	27.5	82	44.9	119	1.03
	31.5 - 33.0	32.25	137	1.66	3	4	0.78	3	24	ML	28	83	65.2	137	1.01
	33.0 - 34.5	33.75	124	1.70	2	3	0.77	2	18	ML	27.5	82	51.4	124	1.03
	34.5 - 36.0	35.25	106	1.74	2	3	0.76	2	18	ML	27.5	82	29.3	106	1.03
	36.0 - 37.5	36.75	120	1.78	10	13	0.75	10	47	CL	FALSE	NA	23.9	NA	NA
	37.5 - 39.0	38.25	120	1.82	9	12	0.74	9	41	CL	FALSE	NA	24.0	NA	NA
	39.0 - 40.5	39.75	120	1.87	8	11	0.73	8	41	CL	FALSE	NA	19.1	NA	NA
	40.5 - 42.0	41.25	120	1.91	5	7	0.72	5	27	CL	FALSE	NA	25.1	NA	NA
	42.0 - 43.5	42.75	120	1.95	9	12	0.72	9	41	CL	FALSE	NA	19.0	NA	NA
	43.5 - 45.0	44.25	120	1.99	37	49	0.71	35	84	CL	FALSE	NA	18.6	NA	NA
	45.0 - 46.5	45.75	133	2.05	22	29	0.70	21	67	GP-GC	36.2	120	11.1	133	0.39
	46.5 - 48.0	47.25	120	2.09	29	39	0.69	27	75	GP-GC	37.6	122	NR	NR	0.37
	48.0 - 49.5	48.75	120	2.13	7	9	0.68	6	35	GP-GC	32	112.5	NR	NR	0.49
	49.5 - 51.0	50.25	120	2.18	29	39	0.68	26	75	SHALE	FALSE	NA	24.8	NA	NA
	51.0 - 51.8	51.4	120	2.21	100	133	0.67	90	100	SHALE	FALSE	NA	21.8	NA	NA

JOHN SEVIER FOSSIL PLANT															
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS															
FOR COARSE GRAINED SOILS															
Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Estimated Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT	SPT	Correction Factor	Corrected N-Value	Relative Density	Unified Soil Classification	Internal Angle of Friction (degrees)	Unit Weight Dry (pcf)	Moisture Content (%)	Revised In-situ Unit Weight (pcf)	Void Ratio	
				N ₆₀	N ₆₀										C _N
Input Required															
JS-22		water =	61.5												
0.0 - 1.5	0.75	104	0.04	11	15	1.00	15	56	ML	31.5	89.5	16.0	104	0.87	
1.5 - 3.0	2.25	107	0.12	25	33	1.00	33	84	ML	34	94	13.6	107	0.77	
3.0 - 4.5	3.75	109	0.20	31	41	1.00	41	91	ML	35	96	13.7	109	0.74	
4.5 - 6.0	5.25	107	0.28	33	44	1.00	44	93	ML	35	96	11.7	107	0.74	
6.0 - 7.5	6.75	112	0.37	40	53	1.00	53	99	ML	35.5	97	15.9	112	0.72	
7.5 - 9.0	8.25	114	0.45	29	39	1.00	39	87	ML	34.5	95	20.0	114	0.75	
9.0 - 10.5	9.75	108	0.53	31	41	1.00	41	91	ML	35	96	12.9	108	0.74	
10.5 - 12.0	11.25	114	0.62	31	41	1.00	41	91	ML	35	96	18.7	114	0.74	
12.0 - 13.5	12.75	115	0.70	24	32	1.00	32	82	ML	34	94	22.7	115	0.77	
13.5 - 15.0	14.25	106	0.78	17	23	1.00	23	70	ML	33	92	15.4	106	0.82	
15.0 - 16.5	15.75	114	0.87	23	31	1.00	31	79	ML	33.5	93	22.6	114	0.8	
16.5 - 18.0	17.25	110	0.95	24	32	1.00	32	82	ML	34	94	17.5	110	0.77	
18.0 - 19.5	18.75	111	1.04	22	29	0.98	29	77	ML	33.5	93	19.5	111	0.8	
19.5 - 21.0	20.25	114	1.12	33	44	0.94	42	91	ML	35	96	19.0	114	0.74	
21.0 - 22.5	21.75	117	1.21	58	77	0.91	70	100	ML	36	98	19.7	117	0.7	
22.5 - 24.0	23.25	115	1.30	30	40	0.88	35	86	ML	34.5	95	20.7	115	0.75	
24.0 - 25.5	24.75	111	1.38	25	33	0.85	28	77	ML	33.5	93	18.9	111	0.8	
25.5 - 27.0	26.25	111	1.46	27	36	0.83	30	79	ML	33.5	93	19.1	111	0.8	
27.0 - 28.5	27.75	113	1.55	28	37	0.80	30	79	ML	33.5	93	21.9	113	0.8	
28.5 - 30.0	29.25	115	1.63	48	64	0.78	50	98	ML	35.5	97	18.2	115	0.72	
30.0 - 31.5	30.75	114	1.72	39	52	0.76	40	89	ML	34.5	95	20.3	114	0.75	
31.5 - 33.0	32.25	112	1.80	31	41	0.74	31	79	ML	33.5	93	19.9	112	0.8	
33.0 - 34.5	33.75	115	1.89	16	21	0.73	16	58	ML	31.5	89.5	28.5	115	0.87	
34.5 - 36.0	35.25	109	1.97	7	9	0.71	7	35	ML	29.5	86	26.8	109	0.95	
36.0 - 37.5	36.75	118	2.06	10	13	0.70	9	44	ML	30	87	36.0	118	0.93	
37.5 - 39.0	38.25	113	2.14	7	9	0.68	6	35	ML	29.5	86	31.3	113	0.95	
39.0 - 40.5	39.75	109	2.22	8	11	0.67	7	39	ML	29.5	86	26.3	109	0.95	
40.5 - 42.0	41.25	107	2.30	7	9	0.66	6	35	ML	29.5	86	24.0	107	0.95	
42.0 - 43.5	42.75	113	2.39	8	11	0.65	7	35	ML	29.5	86	31.3	113	0.95	
43.5 - 45.0	44.25	118	2.48	10	13	0.64	9	41	ML	30	87	35.4	118	0.93	
45.0 - 46.5	45.75	104	2.56	7	9	0.63	6	32	ML	29	85	22.1	104	0.97	
46.5 - 48.0	47.25	104	2.63	9	12	0.62	7	39	ML	29.5	86	21.1	104	0.95	
48.0 - 49.5	48.75	114	2.72	7	9	0.61	6	32	ML	29	85	34.6	114	0.97	
49.5 - 51.0	50.25	113	2.80	4	5	0.60	3	24	ML	28	83	36.7	113	1.01	
51.0 - 52.5	51.75	116	2.89	2	3	0.59	2	11	ML	27	81	43.5	116	1.05	
52.5 - 54.0	53.25	99	2.97	1	1	0.58	1	11	ML	27	81	21.8	99	1.05	
54.0 - 55.5	54.75	120	3.06	16	21	0.57	12	52	CL	FALSE	NA	19.1	NA	NA	
55.5 - 57.0	56.25	120	3.15	16	21	0.56	12	52	CL	FALSE	NA	19.2	NA	NA	
57.0 - 58.5	57.75	120	3.24	22	29	0.56	16	60	CL	FALSE	NA	18.0	NA	NA	
58.5 - 60.0	59.25	120	3.33	9	12	0.55	7	35	CL	FALSE	NA	NR	NA	NA	
60.0 - 61.5	60.75	120	3.42	15	20	0.54	11	47	CL	FALSE	NA	18.7	NA	NA	
61.5 - 63.0	62.25	120	3.46	13	17	0.54	9	44	CL	FALSE	NA	20.1	NA	NA	
63.0 - 64.5	63.75	120	3.50	14	19	0.53	10	47	CL	FALSE	NA	19.6	NA	NA	
64.5 - 66.0	65.25	120	3.55	5	7	0.53	4	24	CL	FALSE	NA	19.7	NA	NA	
66.0 - 67.5	66.75	120	3.59	5	7	0.53	4	24	CL	FALSE	NA	16.7	NA	NA	
67.5 - 69.0	68.25	120	3.63	4	5	0.52	3	18	CL	FALSE	NA	16.5	NA	NA	
69.0 - 70.5	69.75	120	3.67	17	23	0.52	12	47	CL	FALSE	NA	17.5	NA	NA	
70.5 - 72.0	71.25	141	3.73	34	45	0.52	24	71	SP	36.2	116.5	21.0	141	0.43	
72.0 - 73.5	72.75	131	3.78	41	55	0.51	28	77	SP	37	117.5	11.1	131	0.42	
73.5 - 74.7	74.1	120	3.82	100	133	0.51	68	100	SHALE	FALSE	NA	22.1	NA	NA	

**JOHN SEVIER FOSSIL PLANT
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS
FOR COARSE GRAINED SOILS**

Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Estimated Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT	SPT	Correction Factor	Corrected N-Value	Relative Density (%)	Unified Soil Classification	Internal Angle of Friction (degrees)	Unit Weight Dry (pcf)	Moisture Content (%)	Revised In-situ Unit Weight (pcf)	Void Ratio
				N ₆₀	N ₆₀									
				Input Required										
JS-23		water =	10.5											
0.0 - 1.5	0.75	120	0.05	8	11	1.00	11	47	CL	FALSE	NA	25.8	NA	NA
1.5 - 3.0	2.25	120	0.14	19	25	1.00	25	74	CL	FALSE	NA	22.9	NA	NA
3.0 - 4.5	3.75	120	0.23	21	28	1.00	28	77	CL	FALSE	NA	22.2	NA	NA
4.5 - 6.0	5.25	120	0.32	20	27	1.00	27	75	CL	FALSE	NA	21.5	NA	NA
6.0 - 7.5	6.75	120	0.41	26	35	1.00	35	84	CL	FALSE	NA	22.4	NA	NA
7.5 - 9.0	8.25	120	0.50	14	19	1.00	19	63	CL	FALSE	NA	24.2	NA	NA
9.0 - 10.5	9.75	120	0.59	11	15	1.00	15	56	CL	FALSE	NA	24.4	NA	NA
10.5 - 12.0	11.25	120	0.63	14	19	1.00	19	63	CL	FALSE	NA	24.1	NA	NA
12.0 - 13.5	12.75	120	0.67	15	20	1.00	20	67	CL	FALSE	NA	21.8	NA	NA
13.5 - 15.0	14.25	146	0.73	30	40	1.00	40	89	GP-GM	39.3	125	16.9	146	0.34
15.0 - 16.5	15.75	147	0.80	12	16	1.00	16	60	GP-GM	35.5	118.5	23.8	147	0.41
16.5 - 17.1	16.8	120	0.83	100	133	1.00	133	100	SHALE	FALSE	NA	20.7	NA	NA

JOHN SEVIER FOSSIL PLANT
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS
FOR COARSE GRAINED SOILS

Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Estimated Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT N	SPT N	Correction Factor	Corrected N-Value (N1)60	Relative Density (%) Dr	Unified Soil Classification	Internal Angle of Friction (degrees) ϕ'	Unit Weight Dry (pcf) γ_d	Moisture Content (%) m	Revised In-situ Unit Weight (pcf) γ_w	Void Ratio
Input Required														
JS-24		water =	25.7											
0.0 - 1.5	0.75	120	0.05	9	12	1.00	12	52	CL	FALSE	NA	17.6	NA	NA
1.5 - 3.0	2.25	120	0.14	11	15	1.00	15	56	CL	FALSE	NA	20.3	NA	NA
3.0 - 4.5	3.75	120	0.23	5	7	1.00	7	35	CL	FALSE	NA	26.6	NA	NA
4.5 - 6.0	5.25	112	0.31	19	25	1.00	25	74	ML	33	92	18.6	112	0.82
6.0 - 7.5	6.75	118	0.40	28	37	1.00	37	87	ML	34.5	95	21.4	118	0.75
7.5 - 9.0	8.25	113	0.48	14	19	1.00	19	63	ML	32	90	24.3	113	0.85
9.0 - 10.5	9.75	99	0.56	3	4	1.00	4	27	ML	28.5	84	25.6	99	0.99
10.5 - 12.0	11.25	107	0.64	6	8	1.00	8	41	ML	30	87	17.5	107	0.93
12.0 - 13.5	12.75	107	0.72	5	7	1.00	7	35	ML	29.5	86	23.0	107	0.95
13.5 - 15.0	14.25	108	0.80	5	7	1.00	7	35	ML	29.5	86	24.5	108	0.95
15.0 - 16.5	15.75	109	0.88	4	5	1.00	5	32	ML	29	85	25.9	109	0.97
16.5 - 18.0	17.25	111	0.96	5	7	1.00	7	35	ML	29.5	86	28.1	111	0.95
18.0 - 19.5	18.75	109	1.04	3	4	0.98	4	24	ML	28	83	28.7	109	1.01
19.5 - 21.0	20.25	123	1.14	8	11	0.94	10	47	ML	30.5	88	31.9	123	0.91
21.0 - 22.5	21.75	124	1.23	5	7	0.90	6	35	ML	29.5	86	39.6	124	0.95
22.5 - 24.0	23.25	122	1.32	2	3	0.87	2	18	ML	27.5	82	43.7	122	1.03
24.0 - 25.5	24.75	121	1.41	2	3	0.84	2	18	ML	27.5	82	48.2	121	1.03
25.5 - 27.0	26.25	118	1.45	0	0	0.83	1	11	ML	27	81	47.2	118	1.05
27.0 - 28.5	27.75	118	1.49	0	0	0.82	1	11	ML	27	81	46.0	118	1.05
28.5 - 30.0	29.25	119	1.54	2	3	0.81	2	18	ML	27.5	82	45.4	119	1.03
30.0 - 31.5	30.75	114	1.58	0	0	0.80	1	11	ML	27	81	45.5	114	1.05
31.5 - 33.0	32.25	111	1.61	0	0	0.79	1	11	ML	27	81	40.4	111	1.05
33.0 - 34.5	33.75	111	1.65	2	3	0.78	2	18	ML	27.5	82	36.6	111	1.03
34.5 - 36.0	35.25	115	1.69	2	3	0.77	2	18	ML	27.5	82	35.5	115	1.03
36.0 - 37.5	36.75	110	1.72	3	4	0.76	3	24	ML	28	83	40.5	110	1.01
37.5 - 39.0	38.25	120	1.77	12	16	0.75	12	52	CL	FALSE	NA	32.9	NA	NA
39.0 - 40.5	39.75	120	1.81	14	19	0.74	14	53	CL	FALSE	NA	22.0	NA	NA
40.5 - 42.0	41.25	120	1.85	16	21	0.73	16	58	CL	FALSE	NA	21.8	NA	NA
42.0 - 43.5	42.75	120	1.90	10	13	0.73	10	44	CL	FALSE	NA	22.1	NA	NA
43.5 - 45.0	44.25	120	1.94	85	113	0.72	81	100	CL	FALSE	NA	14.0	NA	NA
45.0 - 46.5	45.75	391	2.19	47	63	0.68	42	91	GP-GC	40	126	20.0	391	0.32
46.5 - 48.0	47.25	138	2.24	10	13	0.67	9	41	GP-GC	32.8	114	210.0	138	0.47
48.0 - 49.5	48.75	143	2.30	26	35	0.66	23	70	GP-GC	37	121	21.3	143	0.38
49.5 - 51.0	50.25	145	2.37	25	33	0.65	22	68	GP-GC	36.2	120	18.4	145	0.39
51.0 - 52.5	51.75	140	2.42	22	29	0.64	19	63	GP-GC	35.5	118.5	20.7	140	0.41
52.5 - 53.9	53.2	120	2.47	100	133	0.64	85	100	SHALE	FALSE	NA	18.5	NA	NA

JOHN SEVIER FOSSIL PLANT
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS
FOR COARSE GRAINED SOILS

Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Estimated Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT	SPT	Correction Factor	Corrected N-Value (N ₁) ₆₀	Relative Density (%)	Unified Soil Classification	Internal Angle of Friction (degrees)	Unit Weight Dry (pcf)	Moisture Content (%)	Revised In-situ Unit Weight (pcf)	Void Ratio
				N ₆₀	N ₆₀									
				Input Required										
JS-25		water =	20.6											
0.0 - 1.5	0.75	120	0.05	8	11	1.00	11	47	CL	FALSE	NA	19.4	NA	NA
1.5 - 3.0	2.25	120	0.14	16	21	1.00	21	68	CL	FALSE	NA	13.2	NA	NA
3.0 - 4.5	3.75	120	0.23	23	31	1.00	31	79	SM	34.5	102	18.1	120	0.63
4.5 - 6.0	5.25	118	0.31	20	27	1.00	27	75	SM	34.5	102	15.4	118	0.63
6.0 - 7.5	6.75	120	0.40	18	24	1.00	24	73	SM	34	101	18.6	120	0.65
7.5 - 9.0	8.25	117	0.49	9	12	1.00	12	52	SM	32	97	20.4	117	0.72
9.0 - 10.5	9.75	119	0.58	3	4	1.00	4	27	SM	29	92	29.3	119	0.82
10.5 - 12.0	11.25	119	0.67	4	5	1.00	5	32	SM	29.5	93	27.5	119	0.8
12.0 - 13.5	12.75	0	0.67	17	23	1.00	23	70	ML	33	92			0.82
13.5 - 15.0	14.25	114	0.75	15	20	1.00	20	67	ML	32.5	91	24.9	114	0.83
15.0 - 16.5	15.75	120	0.84	14	19	1.00	19	63	ML	32	90	33.4	120	0.85
16.5 - 18.0	17.25	122	0.94	12	16	1.00	16	60	ML	32	90	35.4	122	0.85
18.0 - 19.5	18.75	117	1.02	4	5	0.99	5	32	ML	29	85	37.6	117	0.97
19.5 - 21.0	20.25	116	1.11	2	3	0.95	3	18	ML	27.5	82	41.8	116	1.03
21.0 - 22.5	21.75	124	1.16	3	4	0.93	4	24	ML	28	83	49.0	124	1.01
22.5 - 24.0	23.25	116	1.20	2	3	0.91	2	18	ML	27.5	82	41.5	116	1.03
24.0 - 25.5	24.75	115	1.24	0	0	0.90	1	11	ML	27	81	41.7	115	1.05
25.5 - 27.0	26.25	117	1.28	2	3	0.88	2	18	ML	27.5	82	42.9	117	1.03
27.0 - 28.5	27.75	122	1.32	4	5	0.87	5	27	ML	28.5	84	45.0	122	0.99
28.5 - 30.0	29.25	114	1.36	4	5	0.86	5	27	ML	28.5	84	35.8	114	0.99
30.0 - 31.5	30.75	120	1.40	5	7	0.84	6	32	CL	FALSE	NA	22.9	NA	NA
31.5 - 33.0	32.25	120	1.45	14	19	0.83	16	58	CL	FALSE	NA	22.4	NA	NA
33.0 - 34.5	33.75	120	1.49	9	12	0.82	10	44	CL	FALSE	NA	17.0	NA	NA
34.5 - 36.0	35.25	120	1.53	11	15	0.81	12	47	CL	FALSE	NA	25.0	NA	NA
36.0 - 37.5	36.75	120	1.58	100	133	0.80	106	100	CL	FALSE	NA	19.0	NA	NA
37.5 - 39.0	38.25	120	1.62	24	32	0.79	25	74	CL	FALSE	NA	20.5	NA	NA
39.0 - 40.5	39.75	120	1.66	3	4	0.78	3	24	CL	FALSE	NA	20.7	NA	NA
40.5 - 42.0	41.25	120	1.71	5	7	0.77	5	32	CL	FALSE	NA	21.2	NA	NA
42.0 - 43.5	42.75	135	1.76	4	5	0.75	4	27	GP-GC	30.5	110.5	22.0	135	0.51
43.5 - 45.0	44.25	118	1.80	9	12	0.74	9	41	GP-GC	32.8	114	3.6	118	0.47
45.0 - 46.5	45.75	137	1.86	60	80	0.73	59	100	GP-GC	41.6	129	6.5	137	0.29
46.5 - 48.0	47.25	153	1.93	18	24	0.72	17	60	SP	35	114	34.4	153	0.46
48.0 - 48.5	48.25	120	1.96	100	133	0.72	95	100	SHALE	FALSE	NA	13.5	NA	NA

**JOHN SEVIER FOSSIL PLANT
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS
FOR COARSE GRAINED SOILS**

Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Estimated Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT	SPT	Correction Factor	Corrected N-Value	Relative Density (%)	Unified Soil Classification	Internal Angle of Friction (degrees)	Unit Weight Dry (pcf)	Moisture Content (%)	Revised	Void Ratio	
				N ₆₀	N ₆₀								In-situ Unit Weight (pcf)		
				Input Required											
				γ_w	σ					ϕ	γ_d	m	γ_w	e	
JS-26		water =	49.5												
0.0 - 1.5	0.75	110	0.04	4	5	1.00	5	32	ML	29	85	29.8	110	0.97	
1.5 - 3.0	2.25	104	0.12	3	4	1.00	4	27	ML	28.5	84	24.4	104	0.99	
3.0 - 4.5	3.75	104	0.20	3	4	1.00	4	27	ML	28.5	84	24.0	104	0.99	
4.5 - 6.0	5.25	106	0.28	19	25	1.00	25	74	ML	33	92	15.6	106	0.82	
6.0 - 7.5	6.75	114	0.36	46	61	1.00	61	100	ML	36	98	16.8	114	0.7	
7.5 - 9.0	8.25	109	0.44	31	41	1.00	41	91	ML	35	96	13.1	109	0.74	
9.0 - 10.5	9.75	111	0.53	28	37	1.00	37	87	ML	34.5	95	17.2	111	0.75	
10.5 - 12.0	11.25	111	0.61	27	36	1.00	36	86	ML	34.5	95	16.6	111	0.75	
12.0 - 13.5	12.75	108	0.69	21	28	1.00	28	77	ML	33.5	93	15.8	108	0.8	
13.5 - 15.0	14.25	106	0.77	20	27	1.00	27	75	ML	33.5	93	13.8	106	0.8	
15.0 - 16.5	15.75	110	0.85	26	35	1.00	35	84	ML	34	94	17.5	110	0.77	
16.5 - 18.0	17.25	117	0.94	29	39	1.00	39	87	ML	34.5	95	22.9	117	0.75	
18.0 - 19.5	18.75	113	1.03	29	39	0.99	38	87	ML	34.5	95	18.8	113	0.75	
19.5 - 21.0	20.25	119	1.12	33	44	0.95	42	91	ML	35	96	24.3	119	0.74	
21.0 - 22.5	21.75	114	1.20	29	39	0.91	35	86	ML	34.5	95	20.0	114	0.75	
22.5 - 24.0	23.25	110	1.28	20	27	0.88	24	71	ML	33	92	19.6	110	0.82	
24.0 - 25.5	24.75	112	1.37	35	47	0.86	40	89	ML	34.5	95	17.4	112	0.75	
25.5 - 27.0	26.25	116	1.45	41	55	0.83	45	93	ML	35	96	20.9	116	0.74	
27.0 - 28.5	27.75	115	1.54	47	63	0.81	51	98	ML	35.5	97	18.8	115	0.72	
28.5 - 30.0	29.25	108	1.62	23	31	0.79	24	73	ML	33	92	17.2	108	0.82	
30.0 - 31.5	30.75	125	1.72	100	133	0.76	102	100	SM	38	108	15.6	125	0.55	
31.5 - 33.0	32.25	128	1.81	100	133	0.74	99	100	SM	38	108	18.9	128	0.55	
33.0 - 34.5	33.75	120	1.90	38	51	0.73	37	86	SM	36	105	13.9	120	0.6	
34.5 - 36.0	35.25	112	1.99	54	72	0.71	51	98	ML	35.5	97	15.3	112	0.72	
36.0 - 37.5	36.75	117	2.07	71	95	0.69	66	100	ML	36	98	18.9	117	0.7	
37.5 - 39.0	38.25	119	2.16	59	79	0.68	54	99	ML	35.5	97	22.5	119	0.72	
39.0 - 40.5	39.75	110	2.24	22	29	0.67	20	65	ML	32.5	91	21.0	110	0.83	
40.5 - 42.0	41.25	110	2.33	11	15	0.66	10	44	ML	30	87	26.0	110	0.93	
42.0 - 43.5	42.75	116	2.41	10	13	0.64	9	41	ML	30	87	33.2	116	0.93	
43.5 - 45.0	44.25	113	2.50	8	11	0.63	7	35	ML	29.5	86	31.6	113	0.95	
45.0 - 46.5	45.75	115	2.58	8	11	0.62	7	35	ML	29.5	86	33.5	115	0.95	
46.5 - 48.0	47.25	120	2.68	9	12	0.61	7	39	ML	29.5	86	39.8	120	0.95	
48.0 - 49.5	48.75	119	2.76	8	11	0.60	6	35	ML	29.5	86	37.8	119	0.95	
49.5 - 51.0	50.25	120	2.81	7	9	0.60	6	32	ML	29	85	41.6	120	0.97	
51.0 - 52.5	51.75	119	2.85	6	8	0.59	5	27	ML	28.5	84	41.1	119	0.99	
52.5 - 54.0	53.25	114	2.89	2	3	0.59	2	11	ML	27	81	40.9	114	1.05	
54.0 - 55.5	54.75	113	2.93	2	3	0.58	2	11	ML	27	81	39.0	113	1.05	
55.5 - 57.0	56.25	117	2.97	2	3	0.58	2	11	ML	27	81	44.2	117	1.05	
57.0 - 58.5	57.75	131	3.02	8	11	0.58	6	35	ML	29.5	86	52.5	131	0.95	
58.5 - 60.0	59.25	120	3.06	5	7	0.57	4	24	CL	FALSE	NA	19.8	NA	NA	
60.0 - 61.5	60.75	120	3.10	15	20	0.57	11	47	CL	FALSE	NA	22.6	NA	NA	
61.5 - 63.0	62.25	120	3.15	16	21	0.56	12	52	CL	FALSE	NA	22.3	NA	NA	
63.0 - 64.5	63.75	120	3.19	19	25	0.56	14	56	CL	FALSE	NA	20.8	NA	NA	
64.5 - 66.0	65.25	120	3.23	15	20	0.56	11	47	CL	FALSE	NA	16.5	NA	NA	
66.0 - 67.5	66.75	120	3.28	14	19	0.55	10	47	CL	FALSE	NA	18.7	NA	NA	
67.5 - 69.0	68.25	120	3.32	4	5	0.55	3	18	CL	FALSE	NA	22.3	NA	NA	
69.0 - 70.5	69.75	120	3.36	3	4	0.55	2	18	CL	FALSE	NA	23.3	NA	NA	
70.5 - 72.0	71.25	120	3.41	6	8	0.54	4	27	CL	FALSE	NA	24.2	NA	NA	
72.0 - 73.5	72.75	120	3.45	2	3	0.54	1	11	CL	FALSE	NA	24.8	NA	NA	
73.5 - 75.0	74.25	120	3.49	4	5	0.54	3	18	CL	FALSE	NA	22.3	NA	NA	
75.0 - 76.5	75.75	120	3.54	8	11	0.53	6	32	CL	FALSE	NA	19.7	NA	NA	
76.5 - 78.0	77.25	146	3.60	51	68	0.53	36	86	SP	38.5	120.5	21.1	146	0.39	
78.0 - 79.5	78.75	121	3.64	13	17	0.52	9	44	SP	32.3	110	10.3	121	0.52	
79.5 - 81.0	80.25	132	3.70	23	31	0.52	16	60	SP	35	114	15.7	132	0.46	

JOHN SEVIER FOSSIL PLANT														
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS														
FOR COARSE GRAINED SOILS														
Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Estimated Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT	SPT	Correction Factor	Corrected N-Value	Relative Density (%)	Unified Soil Classification	Internal Angle of Friction (degrees)	Unit Weight Dry (pcf)	Moisture Content (%)	Revised	Void Ratio
				N Value	N Value								In-situ Unit Weight (pcf)	
		γ_u	σ_v	N_{60}	N_{60}	CN	$(N_1)_{60}$	Dr		ϕ	γ_d	m	γ_w	e
Input Required														
JS-27		water =	72.6											
0.0 - 1.5	0.75	104	0.04	7	9	1.00	9	44	ML	30	87	19.4	104	0.93
1.5 - 3.0	2.25	106	0.12	16	21	1.00	21	68	ML	32.5	91	16.7	106	0.83
3.0 - 4.5	3.75	108	0.20	19	25	1.00	25	74	ML	33	92	17.5	108	0.82
4.5 - 6.0	5.25	108	0.28	16	21	1.00	21	68	ML	32.5	91	18.2	108	0.83
6.0 - 7.5	6.75	114	0.37	30	40	1.00	40	89	ML	34.5	95	20.1	114	0.75
7.5 - 9.0	8.25	116	0.45	35	47	1.00	47	95	ML	35.5	97	20.1	116	0.72
9.0 - 10.5	9.75	112	0.54	20	27	1.00	27	75	ML	33.5	93	20.5	112	0.8
10.5 - 12.0	11.25	109	0.62	16	21	1.00	21	68	ML	32.5	91	19.7	109	0.83
12.0 - 13.5	12.75	116	0.71	27	36	1.00	36	86	ML	34.5	95	22.4	116	0.75
13.5 - 15.0	14.25	110	0.79	16	21	1.00	21	68	ML	32.5	91	21.1	110	0.83
15.0 - 16.5	15.75	113	0.87	20	27	1.00	27	75	ML	33.5	93	21.9	113	0.8
16.5 - 18.0	17.25	117	0.96	17	23	1.00	23	70	ML	33	92	27.4	117	0.82
18.0 - 19.5	18.75	109	1.04	17	23	0.98	22	70	ML	33	92	18.0	109	0.82
19.5 - 21.0	20.25	105	1.12	24	32	0.94	30	79	ML	33.5	93	12.5	105	0.8
21.0 - 22.5	21.75	105	1.20	35	47	0.91	43	91	ML	35	96	9.5	105	0.74
22.5 - 24.0	23.25	104	1.28	19	25	0.88	22	70	ML	33	92	13.3	104	0.82
24.0 - 25.5	24.75	105	1.36	17	23	0.86	20	65	ML	32.5	91	15.7	105	0.83
25.5 - 27.0	26.25	104	1.44	17	23	0.83	19	63	ML	32	90	16.1	104	0.85
27.0 - 28.5	27.75	108	1.52	32	43	0.81	35	84	ML	34	94	14.7	108	0.77
28.5 - 30.0	29.25	112	1.60	25	33	0.79	26	75	ML	33.5	93	20.1	112	0.8
30.0 - 31.5	30.75	107	1.68	21	28	0.77	22	68	ML	32.5	91	18.0	107	0.83
31.5 - 33.0	32.25	100	1.76	10	13	0.75	10	47	ML	30.5	88	13.3	100	0.91
33.0 - 34.5	33.75	95	1.83	5	7	0.74	5	27	ML	28.5	84	12.5	95	0.99
34.5 - 36.0	35.25	99	1.90	9	12	0.73	9	41	ML	30	87	14.3	99	0.93
36.0 - 37.5	36.75	110	1.98	93	124	0.71	88	100	ML	36	98	12.4	110	0.7
37.5 - 39.0	38.25	113	2.07	63	84	0.70	58	100	ML	36	98	15.8	113	0.7
39.0 - 40.5	39.75	110	2.15	53	71	0.68	48	95	ML	35.5	97	13.6	110	0.72
40.5 - 42.0	41.25	110	2.23	50	67	0.67	45	93	ML	35	96	14.5	110	0.74
42.0 - 43.5	42.75	116	2.32	100	133	0.66	88	100	ML	36	98	18.1	116	0.7
43.5 - 45.0	44.25	106	2.40	24	32	0.65	21	67	ML	32.5	91	16.5	106	0.83
45.0 - 46.5	45.75	107	2.48	34	45	0.63	29	77	ML	33.5	93	14.7	107	0.8
46.5 - 48.0	47.25	106	2.56	62	83	0.63	52	98	ML	35.5	97	8.9	106	0.72
48.0 - 49.5	48.75	110	2.64	46	61	0.62	38	87	ML	34.5	95	15.5	110	0.75
49.5 - 51.0	50.25	104	2.72	31	41	0.61	25	74	ML	33	92	13.0	104	0.82
51.0 - 52.5	51.75	114	2.81	41	55	0.60	33	82	ML	34	94	21.4	114	0.77
52.5 - 54.0	53.25	112	2.89	68	91	0.59	53	99	ML	35.5	97	15.6	112	0.72
54.0 - 55.5	54.75	102	2.97	16	21	0.58	12	52	ML	31	88.5	15.7	102	0.89
55.5 - 57.0	56.25	105	3.05	15	20	0.57	12	47	ML	30.5	88	19.6	105	0.91
57.0 - 58.5	57.75	108	3.13	10	13	0.57	8	41	ML	30	87	24.1	108	0.93
58.5 - 60.0	59.25	116	3.21	10	13	0.56	7	39	ML	29.5	86	34.4	116	0.95
60.0 - 61.5	60.75	120	3.30	8	11	0.55	6	32	ML	29	85	41.1	120	0.97
61.5 - 63.0	62.25	116	3.39	11	15	0.54	8	41	ML	30	87	33.3	116	0.93
63.0 - 64.5	63.75	115	3.48	6	8	0.54	4	27	ML	28.5	84	36.6	115	0.99
64.5 - 66.0	65.25	110	3.56	7	9	0.53	5	27	ML	28.5	84	30.4	110	0.99
66.0 - 67.5	66.75	115	3.64	8	11	0.52	6	32	ML	29	85	35.2	115	0.97
67.5 - 69.0	68.25	131	3.74	13	17	0.52	9	44	ML	30	87	50.4	131	0.93
69.0 - 70.5	69.75	127	3.84	4	5	0.51	3	18	ML	27.5	82	55.4	127	1.03
70.5 - 72.0	71.25	115	3.92	6	8	0.50	4	27	ML	28.5	84	37.2	115	0.99
72.0 - 73.5	72.75	116	3.97	2	3	0.50	1	11	ML	27	81	43.8	116	1.05
73.5 - 75.0	74.25	121	4.01	8	11	0.50	5	32	ML	29	85	42.4	121	0.97
75.0 - 76.5	75.75	120	3.82	2	3	0.51	1	11	ML	27	81	47.9	120	1.05
76.5 - 78.0	77.25	115	3.86	9	12	0.51	6	35	ML	29.5	86	33.9	115	0.95
78.0 - 79.5	78.75	120	3.90	14	19	0.51	9	44	CL	FALSE	NA	19.6	NA	NA
79.5 - 81.0	80.25	120	3.95	13	17	0.50	9	41	CL	FALSE	NA	20.2	NA	NA
81.0 - 82.5	81.75	120	3.99	20	27	0.50	13	53	CL	FALSE	NA	18.6	NA	NA
82.5 - 84.0	83.25	120	4.03	19	25	0.50	13	52	CL	FALSE	NA	19.0	NA	NA
84.0 - 85.5	84.75	120	4.08	19	25	0.50	13	52	CL	FALSE	NA	19.9	NA	NA
85.5 - 87.0	86.25	120	4.12	5	7	0.49	3	24	CL	FALSE	NA	21.1	NA	NA
87.0 - 88.5	87.75	120	4.16	12	16	0.49	8	41	CL	FALSE	NA	22.5	NA	NA
88.5 - 90.0	89.25	120	4.21	9	12	0.49	6	32	CL	FALSE	NA	22.1	NA	NA
90.0 - 91.5	90.75	127	4.25	14	19	0.48	9	44	SP	32.3	110	15.8	127	0.52
91.5 - 93.0	92.25		4.21	17	23	0.49	11	47	SP	33	111			0.5
93.0 - 94.5	93.75	132	4.26	20	27	0.48	13	52	SP	33.6	112	18.0	132	0.49
94.5 - 96.0	95.25	136	4.32	18	24	0.48	12	47	SP	33	111	22.7	136	0.5
96.0 - 97.5	96.75	120	4.36	12	16	0.48	8	41	SHALE	FALSE	NA	120.9	NA	NA

JOHN SEVIER FOSSIL PLANT
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS
FOR COARSE GRAINED SOILS

Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Estimated Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT N Value	SPT N Value	Correction Factor	Corrected N-Value (N ₁) ₆₀	Relative Density (%)	Unified Soil Classification	Internal Friction (degrees)	Unit Weight Dry (pcf)	Moisture Content (%)	Revised In-situ Unit Weight (pcf)	Void Ratio
				N ₆₀	N ₆₀								C _N	
				Input Required										
JS-28		water =	9.0											
0.0 - 1.5	0.75	120	0.05	22	29	1.00	29	79	CL	FALSE	NA	18.2	NA	NA
1.5 - 3.0	2.25	120	0.14	19	25	1.00	25	74	CL	FALSE	NA	25.5	NA	NA
3.0 - 4.5	3.75	120	0.23	6	8	1.00	8	41	CL	FALSE	NA	23.5	NA	NA
4.5 - 6.0	5.25	120	0.32	11	15	1.00	15	56	CL	FALSE	NA	21.6	NA	NA
6.0 - 7.5	6.75	120	0.41	16	21	1.00	21	68	CL	FALSE	NA	21.2	NA	NA
7.5 - 9.0	8.25	120	0.50	23	31	1.00	31	79	CL	FALSE	NA	19.3	NA	NA
9.0 - 10.5	9.75	134	0.55	10	13	1.00	13	53	SP	33.6	112	20.0	134	0.49
10.5 - 12.0	11.25	136	0.60	10	13	1.00	13	53	SP	33.6	112	21.1	136	0.49
12.0 - 13.5	12.75	154	0.67	52	69	1.00	69	100	GP-GM	41.6	129	19.5	154	0.29
13.5 - 15.0	14.25	152	0.74	28	37	1.00	37	87	GP-GM	39.3	125	21.8	152	0.34
15.0 - 16.5	15.75	120	0.78	22	29	1.00	29	79	SHALE	FALSE	NA	23.6	NA	NA
16.5 - 18.0	17.25	120	0.83	63	84	1.00	84	100	SHALE	FALSE	NA	32.5	NA	NA
18.0 - 18.3	18.15	120	0.85	100	133	1.00	133	100	SHALE	FALSE	NA	8.3	NA	NA

JOHN SEVIER FOSSIL PLANT
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS
FOR COARSE GRAINED SOILS

Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Estimated Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT N Value	SPT N Value	Correction Factor	Corrected N-Value	Relative Density (%)	Unified Soil Classification	Internal Angle of Friction (degrees)	Unit Weight Dry (pcf)	Moisture Content (%)	Revised In-situ Unit Weight (pcf)	Void Ratio	
				N ₆₀	N ₆₀										C _N
				Input Required											
JS-29		water =	24.0												
0.0 - 1.5	0.75	120	0.05	5	7	1.00	7	35	CL	FALSE	NA	20.5	NA	NA	
1.5 - 3.0	2.25	120	0.14	8	11	1.00	11	47	CL	FALSE	NA	22.4	NA	NA	
3.0 - 4.5	3.75	120	0.23	11	15	1.00	15	56	CL	FALSE	NA	17.8	NA	NA	
4.5 - 6.0	5.25	120	0.32	6	8	1.00	8	41	CL	FALSE	NA	20.1	NA	NA	
6.0 - 7.5	6.75	120	0.41	5	7	1.00	7	35	CL	FALSE	NA	20.9	NA	NA	
7.5 - 9.0	8.25	120	0.50	17	23	1.00	23	70	CL	FALSE	NA	25.2	NA	NA	
9.0 - 10.5	9.75	107	0.58	11	15	1.00	15	56	ML	31.5	89.5	19.9	107	0.87	
10.5 - 12.0	11.25	106	0.66	13	17	1.00	17	60	ML	32	90	17.9	106	0.85	
12.0 - 13.5	12.75	111	0.74	9	12	1.00	12	52	ML	31	88.5	25.8	111	0.89	
13.5 - 15.0	14.25	113	0.82	9	12	1.00	12	52	ML	31	88.5	28.2	113	0.89	
15.0 - 16.5	15.75	107	0.90	2	3	1.00	3	18	ML	27.5	82	30.6	107	1.03	
16.5 - 18.0	17.25	101	0.98	6	8	1.00	8	41	ML	30	87	16.1	101	0.93	
18.0 - 19.5	18.75	103	1.06	5	7	0.97	7	35	ML	29.5	86	19.3	103	0.95	
19.5 - 21.0	20.25	108	1.14	4	5	0.94	5	32	ML	29	85	27.5	108	0.97	
21.0 - 22.5	21.75	119	1.23	5	7	0.90	6	35	ML	29.5	86	38.6	119	0.95	
22.5 - 24.0	23.25	110	1.31	2	3	0.87	2	18	ML	27.5	82	34.3	110	1.03	
24.0 - 25.5	24.75	105	1.34	2	3	0.86	2	18	ML	27.5	82	27.6	105	1.03	
25.5 - 27.0	26.25	106	1.37	2	3	0.85	2	18	ML	27.5	82	29.8	106	1.03	
27.0 - 28.5	27.75	105	1.41	2	3	0.84	2	18	ML	27.5	82	28.1	105	1.03	
28.5 - 30.0	29.25	103	1.44	0	0	0.83	1	11	ML	27	81	27.5	103	1.05	
30.0 - 31.5	30.75	105	1.47	3	4	0.82	3	24	ML	28	83	27.0	105	1.01	
31.5 - 33.0	32.25	119	1.51	4	5	0.81	4	27	ML	28.5	84	41.6	119	0.99	
33.0 - 34.5	33.75	118	1.55	2	3	0.80	2	18	ML	27.5	82	43.8	118	1.03	
34.5 - 36.0	35.25	113	1.59	4	5	0.79	4	27	ML	28.5	84	35.1	113	0.99	
36.0 - 37.5	36.75	120	1.64	9	12	0.78	9	44	CL	FALSE	NA	28.9	NA	NA	
37.5 - 39.0	38.25	120	1.68	12	16	0.77	12	52	CL	FALSE	NA	19.8	NA	NA	
39.0 - 40.5	39.75	120	1.72	11	15	0.76	11	47	CL	FALSE	NA	19.2	NA	NA	
40.5 - 42.0	41.25	120	1.76	8	11	0.75	8	41	CL	FALSE	NA	20.5	NA	NA	
42.0 - 43.5	42.75	120	1.81	13	17	0.74	13	52	CL	FALSE	NA	20.8	NA	NA	
43.5 - 45.0	44.25	120	1.85	6	8	0.73	6	32	CL	FALSE	NA	19.8	NA	NA	
45.0 - 46.5	45.75	120	1.89	4	5	0.73	4	24	CL	FALSE	NA	19.2	NA	NA	
46.5 - 48.0	47.25	141	1.95	36	48	0.72	34	84	GP-GM	38.5	123	14.9	141	0.35	
48.0 - 49.5	48.75	134	2.01	20	27	0.71	19	63	GP-GM	35.5	118.5	13.5	134	0.41	
49.5 - 51.0	50.25	120	2.05	9	12	0.70	8	41	SHALE	FALSE	NA	26.3	NA	NA	
51.0 - 51.5	51.25	120	2.08	100	133	0.69	93	100	SHALE	FALSE	NA	24.2	NA	NA	

JOHN SEVIER FOSSIL PLANT																
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS																
FOR COARSE GRAINED SOILS																
		Depth of	Assumed	Vertical	SPT	SPT	Correction	Corrected	Relative		Internal	Unit	Moisture	Revised		
Sample		Mid. Pt.	Estimated	Effective	N	N	Factor	N-Value	Density	Unified Soil	Angle of	Weight	Content	In-situ	Void	
Interval		of Sample	Unit Weight	Stress	Value	Value		N-Value	(%)	Classification	(degrees)	Dry	(%)	Unit Weight	Ratio	
		(ft.)	(pcf)	(tsf)	N ₆₀	N ₆₀	C _N	(N ₁) ₆₀	Dr		φ	γ _d	m	γ _w	e	
			γ _w	σ	Input Required											
JS-30			water =	18.2												
0.0 - 1.5		0.75	120	0.05	7	9	1.00	9	44	CL	FALSE	NA	22.7	NA	NA	
1.5 - 3.0		2.25	120	0.14	18	24	1.00	24	73	CL	FALSE	NA	15.1	NA	NA	
3.0 - 4.5		3.75	102	0.21	7	9	1.00	9	44	ML	30	87	17.2	102	0.93	
4.5 - 6.0		5.25	112	0.30	6	8	1.00	8	41	ML	30	87	28.8	112	0.93	
6.0 - 7.5		6.75	123	0.39	19	25	1.00	25	74	ML	33	92	34.2	123	0.82	
7.5 - 9.0		8.25	114	0.47	12	16	1.00	16	60	ML	32	90	27.2	114	0.85	
9.0 - 10.5		9.75	116	0.56	13	17	1.00	17	60	ML	32	90	28.7	116	0.85	
10.5 - 12.0		11.25	116	0.65	9	12	1.00	12	52	ML	31	88.5	31.5	116	0.89	
12.0 - 13.5		12.75	112	0.73	12	16	1.00	16	60	ML	32	90	24.7	112	0.85	
13.5 - 15.0		14.25	113	0.82	9	12	1.00	12	52	ML	31	88.5	27.4	113	0.89	
15.0 - 16.5		15.75	115	0.90	13	17	1.00	17	60	ML	32	90	27.3	115	0.85	
16.5 - 18.0		17.25	128	1.00	21	28	1.00	28	77	ML	33.5	93	38.1	128	0.8	
18.0 - 19.5		18.75	121	1.04	11	15	0.98	14	56	ML	31.5	89.5	35.5	121	0.87	
19.5 - 21.0		20.25	122	1.09	15	20	0.96	19	65	ML	32.5	91	33.7	122	0.83	
21.0 - 22.5		21.75	120	1.13	15	20	0.94	19	63	ML	32	90	33.2	120	0.85	
22.5 - 24.0		23.25	116	1.17	9	12	0.92	11	47	ML	30.5	88	32.0	116	0.91	
24.0 - 25.5		24.75	108	1.21	0	0	0.91	1	11	ML	27	81	33.6	108	1.05	
25.5 - 27.0		26.25	120	1.25	3	4	0.89	4	24	CL	FALSE	NA	23.1	NA	NA	
27.0 - 28.5		27.75	120	1.29	4	5	0.88	5	27	CL	FALSE	NA	19.8	NA	NA	
28.5 - 30.0		29.25	120	1.34	14	19	0.87	16	60	CL	FALSE	NA	18.4	NA	NA	
30.0 - 31.5		30.75	120	1.38	11	15	0.85	13	52	CL	FALSE	NA	19.2	NA	NA	
31.5 - 33.0		32.25	120	1.42	15	20	0.84	17	60	CL	FALSE	NA	21.0	NA	NA	
33.0 - 34.5		33.75	120	1.46	10	13	0.83	11	47	CL	FALSE	NA	20.4	NA	NA	
34.5 - 36.0		35.25	120	1.51	6	8	0.81	7	35	CL	FALSE	NA	20.8	NA	NA	
36.0 - 37.5		36.75	120	1.55	20	27	0.80	21	68	CL	FALSE	NA	23.6	NA	NA	
37.5 - 39.0		38.25	120	1.59	7	9	0.79	7	39	CL	FALSE	NA	18.1	NA	NA	
39.0 - 40.5		39.75	135	1.65	16	21	0.78	17	60	GP-GM	35.5	118.5	13.7	135	0.41	
40.5 - 42.0		41.25	153	1.72	37	49	0.76	38	87	GP-GM	39.3	125	22.7	153	0.34	
42.0 - 43.5		42.75	142	1.78	100	133	0.75	100	100	GP-GM	41.6	129	10.2	142	0.29	
43.5 - 45.0		44.25	130	1.83	25	33	0.74	25	73	GP-GM	37	121	7.4	130	0.38	
45.0 - 46.5		45.75	120	1.87	39	52	0.73	38	87	SHALE	FALSE	NA	21.5	NA	NA	
46.5 - 48.0		47.25	120	1.91	45	60	0.72	43	91	SHALE	FALSE	NA	22.6	NA	NA	
48.0 - 49.2		48.6	120	1.95	100	133	0.72	95	100	SHALE	FALSE	NA	24.3	NA	NA	

JOHN SEVIER FOSSIL PLANT															
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS															
FOR COARSE GRAINED SOILS															
Sample Interval	Depth of Mid. Pt. (ft.)	Assumed Estimated Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT	SPT	Correction Factor	Corrected N-Value (N)60	Relative Density (%)	Unified Soil Classification	Internal Angle of Friction (degrees)	Unit Weight Dry (pcf)	Moisture Content (%)	Revised	Void Ratio	
				N	N								In-situ Unit Weight (pcf)		
				N60	N60	CN	(N)60	Dr		φ	γd	w	γw	e	
Input Required															
		water =	55.5												
JS-31	0.0 - 1.5	0.75	104	0.04	6	8	1.00	8	41	ML	30	87	20.0	104	0.93
	1.5 - 3.0	2.25	104	0.12	7	9	1.00	9	44	ML	30	87	19.5	104	0.93
	3.0 - 4.5	3.75	103	0.19	5	7	1.00	7	35	ML	29.5	86	19.5	103	0.95
	4.5 - 6.0	5.25	101	0.27	3	4	1.00	4	27	ML	28.5	84	20.0	101	0.99
	6.0 - 7.5	6.75	99	0.34	3	4	1.00	4	27	ML	28.5	84	17.7	99	0.99
	7.5 - 9.0	8.25	101	0.42	4	5	1.00	5	32	ML	29	85	19.0	101	0.97
	9.0 - 10.5	9.75	104	0.50	8	11	1.00	11	47	ML	30.5	88	18.2	104	0.91
	10.5 - 12.0	11.25	113	0.58	11	15	1.00	15	56	ML	31.5	89.5	26.3	113	0.87
	12.0 - 13.5	12.75	114	0.67	10	13	1.00	13	53	ML	31	88.5	29.3	114	0.89
	13.5 - 15.0	14.25	110	0.75	30	40	1.00	40	89	ML	34.5	95	16.3	110	0.75
	15.0 - 16.5	15.75	114	0.84	28	37	1.00	37	87	ML	34.5	95	20.1	114	0.75
	16.5 - 18.0	17.25	110	0.92	33	44	1.00	44	93	ML	35	96	14.8	110	0.74
	18.0 - 19.5	18.75	100	0.99	10	13	1.00	13	53	ML	31	88.5	12.7	100	0.89
	19.5 - 21.0	20.25	95	1.07	3	4	0.97	4	24	ML	28	83	14.0	95	1.01
	21.0 - 22.5	21.75	117	1.15	22	29	0.93	27	77	ML	33.5	93	26.0	117	0.8
	22.5 - 24.0	23.25	113	1.24	31	41	0.90	37	87	ML	34.5	95	18.9	113	0.75
	24.0 - 25.5	24.75	111	1.32	22	29	0.87	26	74	ML	33	92	20.2	111	0.82
	25.5 - 27.0	26.25	108	1.40	19	25	0.84	21	68	ML	32.5	91	19.1	108	0.83
	27.0 - 28.5	27.75	109	1.48	21	28	0.82	23	71	ML	33	92	18.0	109	0.82
	28.5 - 30.0	29.25	99	1.56	16	21	0.80	17	60	ML	32	90	9.8	99	0.85
	30.0 - 31.5	30.75	109	1.64	22	29	0.78	23	70	ML	33	92	19.0	109	0.82
	31.5 - 33.0	32.25	118	1.73	56	75	0.76	57	100	ML	36	98	20.1	118	0.7
	33.0 - 34.5	33.75	114	1.81	83	111	0.74	82	100	ML	36	98	16.3	114	0.7
	34.5 - 36.0	35.25	116	1.90	100	133	0.73	97	100	ML	36	98	18.3	116	0.7
	36.0 - 37.5	36.75	116	1.99	100	133	0.71	95	100	ML	36	98	18.3	116	0.7
	37.5 - 39.0	38.25	108	2.07	27	36	0.70	25	74	ML	33	92	17.9	108	0.82
	39.0 - 40.5	39.75	113	2.15	33	44	0.68	30	79	ML	33.5	93	21.3	113	0.8
	40.5 - 42.0	41.25	114	2.24	42	56	0.67	37	87	ML	34.5	95	20.5	114	0.75
	42.0 - 42.8	42.4	113	2.30	100	133	0.66	88	100	ML	36	98	15.5	113	0.7
	43.5 - 45.0	44.25	109	2.41	30	40	0.64	26	74	ML	33	92	18.6	109	0.82
	45.0 - 46.5	45.75	115	2.49	24	32	0.63	20	67	ML	32.5	91	26.2	115	0.83
	46.5 - 48.0	47.25	118	2.58	27	36	0.62	22	70	ML	33	92	28.1	118	0.82
	48.0 - 49.5	48.75	113	2.66	14	19	0.61	11	47	ML	30.5	88	28.1	113	0.91
	49.5 - 51.0	50.25	111	2.75	18	24	0.60	15	56	ML	31.5	89.5	24.1	111	0.87
	51.0 - 52.5	51.75	109	2.83	15	20	0.59	12	47	ML	30.5	88	23.8	109	0.91
	52.5 - 54.0	53.25	110	2.91	12	16	0.59	9	44	ML	30	87	26.2	110	0.93
	54.0 - 55.5	54.75	116	3.00	7	9	0.58	5	32	ML	29	85	35.9	116	0.97
	55.5 - 57.0	56.25	117	3.04	4	5	0.57	3	24	ML	28	83	41.1	117	1.01
	57.0 - 58.5	57.75	109	3.07	1	1	0.57	1	11	ML	27	81	34.6	109	1.05
	58.5 - 60.0	59.25	113	3.11	0	0	0.57	1	11	ML	27	81	39.3	113	1.05
	60.0 - 61.5	60.75	121	3.16	2	3	0.56	2	11	ML	27	81	49.5	121	1.05
	61.5 - 63.0	62.25	120	3.20	3	4	0.56	2	11	ML	27.5	82	46.0	120	1.03
	63.0 - 64.5	63.75	116	3.24	0	0	0.56	1	18	ML	27	81	43.7	116	1.05
	64.5 - 66.0	65.25	113	3.28	0	0	0.55	1	11	ML	27	81	40.0	113	1.05
	66.0 - 67.5	66.75	112	3.31	0	0	0.55	1	11	ML	27	81	38.1	112	1.05
	67.5 - 69.0	68.25	113	3.35	0	0	0.55	1	11	ML	27	81	40.0	113	1.05
	69.0 - 70.5	69.75	114	3.39	3	4	0.54	2	18	ML	27.5	82	39.4	114	1.03
	70.5 - 72.0	71.25	121	3.44	0	0	0.54	1	11	ML	27	81	49.3	121	1.05
	72.0 - 73.5	72.75	120	3.48	14	19	0.54	10	47	CL	FALSE	NA	33.4	NA	NA
	73.5 - 75.0	74.25	120	3.52	22	29	0.53	16	58	CL	FALSE	NA	22.0	NA	NA
	75.0 - 76.5	75.75	120	3.59	17	23	0.53	12	52	CL	FALSE	NA	20.7	NA	NA
	76.5 - 78.0	77.25	120	3.63	18	24	0.52	13	52	CL	FALSE	NA	21.3	NA	NA
	78.0 - 79.5	78.75	120	3.67	13	17	0.52	9	44	CL	FALSE	NA	21.9	NA	NA
	79.5 - 81.0	80.25	120	3.71	12	16	0.52	8	41	CL	FALSE	NA	22.6	NA	NA
	81.0 - 82.5	81.75	120	3.76	7	9	0.52	5	27	CL	FALSE	NA	24.4	NA	NA
	82.5 - 84.0	83.25	129	3.81	4	5	0.51	3	18	SP	29	105	22.9	129	0.59
	84.0 - 85.5	84.75	134	3.86	6	8	0.51	4	27	SP	30	106.5	25.7	134	0.57
	85.5 - 87.0	86.25	134	3.92	8	11	0.51	5	32	SP	30.8	108	24.2	134	0.55
	87.0 - 88.5	87.75	136	3.97	35	47	0.50	23	71	GP-GM	37	121	12.8	136	0.38
	88.5 - 90.0	89.25	120	4.01	39	52	0.50	26	75	SHALE	FALSE	NA	12.8	NA	NA
	90.0 - 90.5	90.25	120	4.04	100	133	0.50	66	100	SHALE	FALSE	NA	12.8	NA	NA

**JOHN SEVIER FOSSIL PLANT
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS
FOR COARSE GRAINED SOILS**

Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Estimated Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT N	SPT N	Correction Factor	Corrected N-Value (N ₆₀)	Relative Density (%)	Unified Soil Classification	Internal Angle of Friction (degrees)	Unit Weight Dry (pcf)	Moisture Content (%)	Revised In-situ Unit Weight (pcf)	Void Ratio
				N ₆₀	N ₆₀								γ _w	
Input Required														
water = 49.7														
0.0 - 1.5	0.75	111	0.04	12	16	1.00	16	60	ML	32	90	23.1	111	0.85
1.5 - 3.0	2.25	120	0.13	22	29	1.00	29	79	ML	33.5	93	29.1	120	0.8
3.0 - 4.5	3.75	115	0.22	15	20	1.00	20	67	ML	32.5	91	26.4	115	0.83
4.5 - 4.8	4.65	116	0.27	26	35	1.00	35	84	ML	34	94	22.9	116	0.77
4.8 - 6.0	5.4	112	0.31	26	35	1.00	35	84	ML	34	94	19.0	112	0.77
6.0 - 7.5	6.75	120	0.40	40	53	1.00	53	99	ML	35.5	97	23.8	120	0.72
7.5 - 9.0	8.25	125	0.49	40	53	1.00	53	99	ML	35.5	97	28.4	125	0.72
9.0 - 10.5	9.75	118	0.58	25	33	1.00	33	84	ML	34	94	25.7	118	0.77
10.5 - 12.0	11.25	118	0.67	15	20	1.00	20	67	ML	32.5	91	29.2	118	0.83
12.0 - 13.5	12.75	117	0.75	16	21	1.00	21	68	ML	32.5	91	28.4	117	0.83
13.5 - 15.0	14.25	115	0.84	25	33	1.00	33	84	ML	34	94	22.1	115	0.77
15.0 - 16.5	15.75	111	0.92	29	39	1.00	39	87	ML	34.5	95	16.5	111	0.75
16.5 - 18.0	17.25	116	1.01	36	48	1.00	48	95	ML	35.5	97	19.8	116	0.72
18.0 - 19.5	18.75	109	1.09	24	32	0.96	31	79	ML	33.5	93	17.1	109	0.8
19.5 - 21.0	20.25	111	1.17	18	24	0.92	22	70	ML	33	92	20.5	111	0.82
21.0 - 22.5	21.75	113	1.26	36	48	0.89	43	91	ML	35	96	17.5	113	0.74
22.5 - 24.0	23.25	114	1.34	32	43	0.86	37	86	ML	34.5	95	19.5	114	0.75
24.0 - 25.5	24.75	117	1.43	38	51	0.84	42	91	ML	35	96	21.5	117	0.74
25.5 - 27.0	26.25	110	1.51	32	43	0.81	35	84	ML	34	94	17.0	110	0.77
27.0 - 28.5	27.75	113	1.60	38	51	0.79	40	89	ML	34.5	95	19.2	113	0.75
28.5 - 30.0	29.25	113	1.68	31	41	0.77	32	81	ML	34	94	19.9	113	0.77
30.0 - 31.5	30.75	110	1.77	26	35	0.75	26	75	ML	33.5	93	18.8	110	0.8
31.5 - 33.0	32.25	112	1.85	38	51	0.73	37	87	ML	34.5	95	18.3	112	0.75
33.0 - 34.5	33.75	108	1.93	19	25	0.72	18	63	ML	32	90	19.9	108	0.85
34.5 - 36.0	35.25	115	2.02	24	32	0.70	23	70	ML	33	92	24.9	115	0.82
36.0 - 37.5	36.75	114	2.10	44	59	0.69	40	89	ML	34.5	95	20.2	114	0.75
37.5 - 39.0	38.25	113	2.19	26	35	0.68	23	71	ML	33	92	22.6	113	0.82
39.0 - 40.5	39.75	114	2.27	30	40	0.66	27	75	ML	33.5	93	22.8	114	0.8
40.5 - 42.0	41.25	113	2.36	19	25	0.65	17	60	ML	32	90	25.0	113	0.85
42.0 - 43.5	42.75	112	2.44	8	11	0.64	7	35	ML	29.5	86	30.5	112	0.95
43.5 - 45.0	44.25	109	2.52	10	13	0.63	8	41	ML	30	87	24.9	109	0.93
45.0 - 46.5	45.75	104	2.60	4	5	0.62	3	24	ML	28	83	25.6	104	1.01
46.5 - 48.0	47.25	111	2.69	9	12	0.61	7	39	ML	29.5	86	28.6	111	0.95
48.0 - 49.5	48.75	106	2.77	2	3	0.60	2	11	ML	27	81	31.4	106	1.05
49.5 - 51.0	50.25	105	2.80	0	0	0.60	1	11	ML	27	81	29.9	105	1.05
51.0 - 52.5	51.75	132	2.85	2	3	0.59	2	11	SM	27.5	89.5	47.8	132	0.87
52.5 - 54.0	53.25	106	2.88	2	3	0.59	2	11	ML	27	81	31.3	106	1.05
54.0 - 55.5	54.75	106	2.92	2	3	0.59	2	11	ML	27	81	30.3	106	1.05
55.5 - 57.0	56.25	106	2.95	0	0	0.58	1	11	ML	27	81	30.7	106	1.05
57.0 - 58.5	57.75	107	2.98	0	0	0.58	1	11	ML	27	81	32.4	107	1.05
58.5 - 60.0	59.25	105	3.01	0	0	0.58	1	11	ML	27	81	29.2	105	1.05
60.0 - 61.5	60.75	111	3.05	4	5	0.57	3	24	ML	28	83	33.8	111	1.01
61.5 - 63.0	62.25	122	3.09	15	20	0.57	11	47	ML	30.5	88	38.3	122	0.91
63.0 - 64.5	63.75	130	3.14	8	11	0.56	6	35	ML	29.5	86	51.3	130	0.95
64.5 - 66.0	65.25	107	3.18	11	15	0.56	8	41	ML	30	87	22.6	107	0.93
66.0 - 67.5	66.75	138	3.23	14	19	0.56	10	47	GP-GM	33.5	115	19.9	138	0.45
67.5 - 69.0	68.25	140	3.29	18	24	0.55	13	53	GP-GM	34.2	116	21.0	140	0.44
69.0 - 70.5	69.75	147	3.36	30	40	0.55	22	68	GP-GM	36.2	120	22.4	147	0.39
70.5 - 72.0	71.25	120	3.40	24	32	0.54	17	60	SHALE	FALSE	NA	21.4	NA	NA
72.0 - 72.8	72.4	120	3.43	100	133	0.54	72	100	SHALE	FALSE	NA	37.2	NA	NA

JOHN SEVIER FOSSIL PLANT
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS
FOR COARSE GRAINED SOILS

Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Estimated Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT	SPT	Correction Factor	Corrected N-Value	Relative Density (%)	Unified Soil Classification	Internal Angle of Friction (degrees)	Unit Weight Dry (pcf)	Moisture Content (%)	Revised	Void Ratio
				N	N								In-situ Unit Weight (pcf)	
		γ_s	σ	N ₆₀	N ₆₀	C _N	(N ₁) ₆₀	D _r		ϕ	γ_d	m	γ_w	e
Input Required														
JS-34A		water =	43.5											
0.0 - 1.5	0.75	112	0.04	18	24	1.00	24	73	ML	33	92	21.2	112	0.82
1.5 - 3.0	2.25	115	0.13	26	35	1.00	35	84	ML	34	94	22.5	115	0.77
3.0 - 4.5	3.75	115	0.21	20	27	1.00	27	75	ML	33.5	93	23.5	115	0.8
4.5 - 6.0	5.25	114	0.30	17	23	1.00	23	70	ML	33	92	23.5	114	0.82
6.0 - 7.5	6.75	116	0.39	28	37	1.00	37	87	ML	34.5	95	21.8	116	0.75
7.5 - 9.0	8.25	114	0.47	29	39	1.00	39	87	ML	34.5	95	19.7	114	0.75
9.0 - 10.5	9.75	113	0.56	23	31	1.00	31	79	ML	33.5	93	21.8	113	0.8
10.5 - 12.0	11.25	109	0.64	13	17	1.00	17	60	ML	32	90	21.3	109	0.85
12.0 - 13.5	12.75	110	0.72	18	24	1.00	24	73	ML	33	92	20.0	110	0.82
13.5 - 15.0	14.25	114	0.81	27	36	1.00	36	86	ML	34.5	95	19.5	114	0.75
15.0 - 16.5	15.75	115	0.89	24	32	1.00	32	82	ML	34	94	21.9	115	0.77
16.5 - 18.0	17.25	123	0.98	42	56	1.00	56	100	ML	36	98	25.5	123	0.7
18.0 - 19.5	18.75	114	1.07	26	35	0.97	34	84	ML	34	94	21.3	114	0.77
19.5 - 21.0	20.25	116	1.16	25	33	0.93	31	81	ML	34	94	23.0	116	0.77
21.0 - 22.5	21.75	119	1.25	35	47	0.90	42	91	ML	35	96	24.0	119	0.74
22.5 - 24.0	23.25	111	1.33	22	29	0.87	25	74	ML	33	92	20.5	111	0.82
24.0 - 25.5	24.75	114	1.41	28	37	0.84	31	81	ML	34	94	21.6	114	0.77
25.5 - 27.0	26.25	116	1.50	31	41	0.82	34	84	ML	34	94	23.8	116	0.77
27.0 - 28.5	27.75	115	1.59	34	45	0.79	36	86	ML	34.5	95	21.4	115	0.75
28.5 - 30.0	29.25	113	1.67	28	37	0.77	29	77	ML	33.5	93	21.2	113	0.8
30.0 - 31.5	30.75	117	1.76	37	49	0.75	37	87	ML	34.5	95	23.5	117	0.75
31.5 - 33.0	32.25	123	1.85	65	87	0.73	64	100	ML	36	98	25.8	123	0.7
33.0 - 34.5	33.75	118	1.94	36	48	0.72	34	84	ML	34	94	26.0	118	0.77
34.5 - 36.0	35.25	122	2.03	35	47	0.70	33	82	ML	34	94	30.1	122	0.77
36.0 - 37.5	36.75	124	2.13	34	45	0.69	31	81	ML	34	94	31.8	124	0.77
37.5 - 39.0	38.25	115	2.21	31	41	0.67	28	77	ML	33.5	93	24.0	115	0.8
39.0 - 40.5	39.75	119	2.30	21	28	0.66	19	63	ML	32	90	31.8	119	0.85
40.5 - 42.0	41.25	113	2.39	6	8	0.65	5	32	ML	29	85	32.4	113	0.97
42.0 - 43.5	42.75	106	2.47	2	3	0.64	2	11	ML	27	81	31.4	106	1.05
43.5 - 45.0	44.25	112	2.50	4	5	0.63	3	24	SM	28.5	91	22.6	112	0.83
45.0 - 46.5	45.75	106	2.54	2	3	0.63	2	11	SM	27.5	89.5	18.8	106	0.87
46.5 - 48.0	47.25	110	2.57	2	3	0.62	2	11	SM	27.5	89.5	32.1	110	0.87
48.0 - 49.5	48.75	106	2.61	2	3	0.62	2	11	SM	27.5	89.5	37.8	106	0.87
49.5 - 51.0	50.25	107	2.64	2	3	0.62	2	11	ML	27	81	38.2	107	1.05
51.0 - 52.5	51.75	112	2.68	1	1	0.61	1	11	ML	27	81	47.6	112	1.05
52.5 - 54.0	53.25	112	2.71	1	1	0.61	1	11	ML	27	81	45.3	112	1.05
54.0 - 55.5	54.75	120	2.76	0	0	0.60	1	11	ML	27	81	39.3	120	1.05
55.5 - 57.0	56.25	118	2.80	0	0	0.60	1	11	ML	27	81	40.1	118	1.05
57.0 - 58.5	57.75	113	2.83	0	0	0.59	1	11	ML	27	81	37.5	113	1.05
58.5 - 60.0	59.25	113	2.87	0	0	0.59	1	11	ML	27	81	35.7	113	1.05
60.0 - 61.5	60.75	120	2.92	0	0	0.59	1	11	CL	FALSE	NA	29.6	NA	NA
61.5 - 63.0	62.25	120	2.96	4	5	0.58	3	24	CL	FALSE	NA	23.6	NA	NA
63.0 - 64.5	63.75	120	3.00	3	4	0.58	2	18	CL	FALSE	NA	25.6	NA	NA
64.5 - 66.0	65.25	120	3.05	9	12	0.57	7	35	CL	FALSE	NA	24.0	NA	NA
66.0 - 67.5	66.75	120	3.09	14	19	0.57	11	47	CL	FALSE	NA	16.3	NA	NA
67.5 - 69.0	68.25	153	3.16	45	60	0.56	34	84	GP-GM	38.5	123	18.2	153	0.35
69.0 - 70.5	69.75	150	3.22	76	101	0.56	56	100	GP-GM	41.6	129	10.6	150	0.29
70.5 - 72.0	71.25	144	3.28	40	53	0.55	29	79	GP-GM	37.6	122	10.6	144	0.37
72.0 - 72.8	72.4	154	3.34	100	133	0.55	73	100	GP-GM	41.6	129	19.6	154	0.29
73.1 - 74.6	73.85	120	3.38	48	64	0.54	35	84	SHALE	FALSE	NA	26.9	NA	NA

JOHN SEVIER FOSSIL PLANT															
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS															
FOR COARSE GRAINED SOILS															
Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Estimated Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT N	SPT N	Correction Factor	Corrected N-Value	Relative Density (%)	Unified Soil Classification	Internal Angle of Friction (degrees)	Unit Weight (pcf)	Moisture Content (%)	Revised In-situ Unit Weight (pcf)	Void Ratio	
				N ₆₀	N ₆₀	C _N	(N ₁) ₆₀	D _r		ψ	γ _d	m	γ _w	e	
Input Required															
		water =													
JS-34B			48.3												
0.0 - 1.5	0.75	117	0.04	9	12	1.00	12	52	ML	31	88.5	32.2	117	0.89	
1.5 - 3.0	2.25	121	0.13	22	29	1.00	29	79	ML	33.5	93	30.2	121	0.8	
3.0 - 4.5	3.75	115	0.22	27	36	1.00	36	86	ML	34.5	95	21.5	115	0.75	
4.5 - 6.0	5.25	123	0.31	42	56	1.00	56	100	ML	36	98	25.1	123	0.7	
6.0 - 7.5	6.75	121	0.40	36	48	1.00	48	95	ML	35.5	97	25.2	121	0.72	
7.5 - 9.0	8.25	116	0.49	22	29	1.00	29	79	ML	33.5	93	24.7	116	0.8	
9.0 - 10.5	9.75	116	0.58	15	20	1.00	20	67	ML	32.5	91	27.8	116	0.83	
10.5 - 12.0	11.25	117	0.67	16	21	1.00	21	68	ML	32.5	91	29.0	117	0.83	
12.0 - 13.5	12.75	111	0.75	20	27	1.00	27	75	ML	33.5	93	19.3	111	0.8	
13.5 - 15.0	14.25	112	0.83	12	16	1.00	16	60	ML	32	90	24.1	112	0.85	
15.0 - 16.5	15.75	116	0.92	24	32	1.00	32	82	ML	34	94	23.5	116	0.77	
16.5 - 18.0	17.25	113	1.01	24	32	1.00	32	81	ML	34	94	20.0	113	0.77	
18.0 - 19.5	18.75	117	1.09	24	32	0.96	31	79	ML	33.5	93	25.6	117	0.8	
19.5 - 21.0	20.25	117	1.18	27	36	0.92	33	84	ML	34	94	24.4	117	0.77	
21.0 - 22.5	21.75	116	1.27	34	45	0.89	40	89	ML	34.5	95	22.1	116	0.75	
22.5 - 24.0	23.25	109	1.35	17	23	0.86	20	65	ML	32.5	91	20.0	109	0.83	
24.0 - 25.5	24.75	112	1.43	26	35	0.84	29	79	ML	33.5	93	20.6	112	0.8	
25.5 - 27.0	26.25	114	1.52	31	41	0.81	34	84	ML	34	94	21.3	114	0.77	
27.0 - 28.5	27.75	115	1.61	30	40	0.79	32	81	ML	34	94	22.8	115	0.77	
28.5 - 30.0	29.25	113	1.69	20	27	0.77	21	67	ML	32.5	91	24.3	113	0.83	
30.0 - 30.2	30.1	120	1.74	ST	NA	0.76	NA	NA	ML	#N/A	#N/A	NA	#N/A	#N/A	
30.2 - 31.5	30.85	109	1.78	9	12	0.75	9	44	ML	30	87	24.9	109	0.93	
31.5 - 33.0	32.25	121	1.87	24	32	0.73	23	71	ML	33	92	31.0	121	0.82	
33.0 - 34.5	33.75	119	1.96	24	32	0.72	23	70	ML	33	92	29.6	119	0.82	
34.5 - 36.0	35.25	120	2.05	27	36	0.70	25	74	ML	33	92	30.5	120	0.82	
36.0 - 37.5	36.75	124	2.14	32	43	0.68	29	79	ML	33.5	93	33.0	124	0.8	
37.5 - 39.0	38.25	113	2.22	4	5	0.67	4	24	ML	28	83	36.3	113	1.01	
39.0 - 40.5	39.75	115	2.31	16	21	0.66	14	56	SM	32.5	98	17.5	115	0.7	
40.5 - 42.5	41.5	120	2.41	ST	NA	0.64	NA	NA	SM	#N/A	#N/A	NA	#N/A	#N/A	
42.5 - 44.0	43.25	104	2.51	3	4	0.63	3	18	SM	28	90	15.5	104	0.85	
44.0 - 45.5	44.75	111	2.59	8	11	0.62	7	35	SM	30	94	18.2	111	0.78	
45.5 - 47.0	46.25	106	2.67	4	5	0.61	3	24	SM	28.5	91	16.3	106	0.83	
47.0 - 48.5	47.75	114	2.75	7	9	0.60	6	32	SM	29.5	93	23.1	114	0.8	
48.5 - 50.0	49.25	105	2.79	2	3	0.60	2	11	ML	27	81	29.7	105	1.05	
50.0 - 51.5	50.75	106	2.82	0	0	0.60	1	11	ML	27	81	31.3	106	1.05	
51.5 - 53.0	52.25	108	2.85	2	3	0.59	2	11	ML	27	81	33.0	108	1.05	
53.0 - 55.0	54	120	2.90	ST	NA	0.59	NA	NA	ML	#N/A	#N/A	NA	#N/A	#N/A	
55.0 - 56.5	55.75	107	2.94	0	0	0.58	1	11	ML	27	81	32.5	107	1.05	
56.5 - 58.0	57.25	116	2.98	0	0	0.58	1	11	ML	27	81	32.2	116	1.05	
58.0 - 59.5	58.75	103	3.01	0	0	0.58	1	11	ML	27	81	43.6	103	1.05	
59.5 - 61.0	60.25	107	3.05	6	8	0.57	5	27	ML	28.5	84	27.1	107	0.99	
61.0 - 62.5	61.75	110	3.08	22	29	0.57	17	60	ML	32	90	27.1	110	0.85	
62.5 - 64.0	63.25	110	3.12	18	24	0.57	14	53	ML	31	88.5	22.3	110	0.89	
64.0 - 65.5	64.75	120	3.16	13	17	0.56	10	44	CL	FALSE	NA	23.9	NA	NA	
65.5 - 67.0	66.25	120	3.20	15	20	0.56	11	47	CL	FALSE	NA	20.6	NA	NA	
67.0 - 68.5	67.75	120	3.25	28	37	0.55	21	67	CL	FALSE	NA	20.3	NA	NA	
68.5 - 70.0	69.25	120	3.29	50	67	0.55	37	86	CL	FALSE	NA	20.4	NA	NA	
70.0 - 71.5	70.75	142	3.35	32	43	0.55	23	71	GP-GM	37	121	17.6	142	0.38	
71.5 - 72.3	71.9	129	3.39	100	133	0.54	72	100	GP-GM	41.6	129	17.3	129	0.29	

JOHN SEVIER FOSSIL PLANT
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS
FOR COARSE GRAINED SOILS

Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Estimated Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT	SPT	Correction Factor	Corrected N-Value	Relative Density (%)	Unified Soil Classification	Internal Angle of Friction (degrees)	Unit Weight Dry (pcf)	Moisture Content (%)	Revised In-situ Unit Weight (pcf)	Void Ratio
				N ₈₀	N ₆₀									
Input Required														
water = 8.5														
JS-34C														
0.0 - 1.5	0.75	112	0.04	12	16	1.00	16	60	ML	32	90	23.9	112	0.85
1.5 - 3.0	2.25	116	0.13	26	35	1.00	35	84	ML	34	94	23.1	116	0.77
3.0 - 4.5	3.75	114	0.21	20	27	1.00	27	75	ML	33.5	93	22.4	114	0.8
4.5 - 6.0	5.25	109	0.30	14	19	1.00	19	63	ML	32	90	21.4	109	0.85
6.0 - 7.5	6.75	109	0.38	25	33	1.00	33	84	ML	34	94	16.3	109	0.77
7.5 - 9.0	8.25	99	0.45	2	3	1.00	3	18	ML	27.5	82	21.3	99	1.03
9.0 - 10.5	9.75	99	0.48	0	0	1.00	1	11	ML	27	81	22.7	99	1.05
10.5 - 12.0	11.25	99	0.51	1	1	1.00	1	11	ML	27	81	22.1	99	1.05
12.0 - 13.5	12.75	106	0.54	5	7	1.00	7	35	ML	29.5	86	23.0	106	0.95
13.5 - 15.0	14.25	101	0.57	0	0	1.00	1	11	ML	27	81	24.4	101	1.05
15.0 - 16.5	15.75	104	0.60	3	4	1.00	4	27	ML	28.5	84	23.4	104	0.99
16.5 - 18.0	17.25	103	0.63	2	3	1.00	3	18	ML	27.5	82	26.0	103	1.03
18.0 - 19.5	18.75	105	0.66	4	5	1.00	5	32	ML	29	85	24.1	105	0.97
19.5 - 21.0	20.25	120	0.71	2	3	1.00	3	18	CL	FALSE	NA	27.6	NA	NA
21.0 - 22.5	21.75	120	0.75	0	0	1.00	1	11	CL	FALSE	NA	19.7	NA	NA
22.5 - 24.0	23.25	120	0.79	0	0	1.00	1	11	CL	FALSE	NA	19.3	NA	NA
24.0 - 25.5	24.75	120	0.84	2	3	1.00	3	18	CL	FALSE	NA	22.6	NA	NA
25.5 - 27.0	26.25	120	0.88	2	3	1.00	3	18	CL	FALSE	NA	34.1	NA	NA
27.0 - 28.5	27.75	120	0.92	3	4	1.00	4	27	CL	FALSE	NA	32.2	NA	NA
28.5 - 30.0	29.25	120	0.97	6	8	1.00	8	41	CL	FALSE	NA	24.8	NA	NA
30.0 - 31.5	30.75	137	1.02	11	15	0.99	15	56	SP	34.4	113	21.3	137	0.48
31.5 - 33.0	32.25	138	1.08	30	40	0.96	39	87	SP	38.5	120.5	14.2	138	0.39
33.0 - 34.5	33.75	130	1.13	22	29	0.94	28	77	SP	37	117.5	10.8	130	0.42
34.5 - 36.0	35.25	131	1.18	17	23	0.92	21	67	SP	35.5	115	14.2	131	0.45
36.0 - 36.9	36.45	120	1.21	100	133	0.91	121	100	SHALE	FALSE	NA	16.1	NA	NA

**JOHN SEVIER FOSSIL PLANT
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS
FOR COARSE GRAINED SOILS**

Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Estimated Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT	SPT	Correction Factor	Corrected N-Value	Relative Density (%)	Unified Soil Classification	Internal Friction (degrees)	Unit Weight Dry (pcf)	Moisture Content (%)	Revised In-situ Unit Weight (pcf)	Void Ratio	
				N ₆₀	N ₆₀										N ₆₀
				Input Required											
JS-35		water =	15.0												
0.0 - 1.5	0.75	120	0.05	15	20	1.00	20	67	CL	FALSE	NA	21.4	NA	NA	
1.5 - 3.0	2.25	120	0.14	20	27	1.00	27	75	CL	FALSE	NA	17.7	NA	NA	
3.0 - 4.5	3.75	120	0.23	13	17	1.00	17	60	CL	FALSE	NA	15.9	NA	NA	
4.5 - 6.0	5.25	120	0.32	9	12	1.00	12	52	CL	FALSE	NA	21.0	NA	NA	
6.0 - 7.5	6.75	120	0.41	23	31	1.00	31	79	CL	FALSE	NA	21.0	NA	NA	
7.5 - 9.0	8.25	120	0.50	15	20	1.00	20	67	CL	FALSE	NA	20.9	NA	NA	
9.0 - 10.5	9.75	120	0.59	12	16	1.00	16	60	CL	FALSE	NA	19.2	NA	NA	
10.5 - 12.0	11.25	120	0.68	13	17	1.00	17	60	CL	FALSE	NA	19.2	NA	NA	
12.0 - 13.5	12.75	120	0.77	11	15	1.00	15	56	CL	FALSE	NA	20.2	NA	NA	
13.5 - 15.0	14.25	120	0.86	15	20	1.00	20	67	CL	FALSE	NA	18.3	NA	NA	
15.0 - 16.5	15.75	136	0.91	56	75	1.00	75	100	GP-GM	41.6	129	5.7	136	0.29	
16.5 - 18.0	17.25	146	0.97	13	17	1.00	17	60	GP-GM	35.5	118.5	23.2	146	0.41	
18.0 - 19.5	18.75	120	1.02	13	17	0.99	17	60	SHALE	FALSE	NA	27.7	NA	NA	
19.5 - 21.0	20.25	120	1.06	18	24	0.97	23	71	SHALE	FALSE	NA	27.8	NA	NA	
21.0 - 22.3	21.65	120	1.10	100	133	0.95	127	100	SHALE	FALSE	NA	13.0	NA	NA	

**JOHN SEVIER FOSSIL PLANT
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS
FOR COARSE GRAINED SOILS**

Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Estimated Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT	SPT	Correction Factor	Corrected N-Value	Relative Density (%)	Unified Soil Classification	Internal Friction (degrees)	Unit Weight Dry (pcf)	Moisture Content (%)	Revised In-situ Unit Weight (pcf)	Void Ratio				
				N	N										N ₆₀	N ₆₀	N ₆₀	N ₆₀
				Value	Value										C _N	(N ₁) ₆₀	D _r	φ
Input Required																		
JS-36		water =	15.0															
0.0 - 1.5	0.75	120	0.05	9	12	1.00	12	52	CL	FALSE	NA	14.6	NA	NA				
1.5 - 3.0	2.25	120	0.14	11	15	1.00	15	56	CL	FALSE	NA	15.8	NA	NA				
3.0 - 4.5	3.75	120	0.23	9	12	1.00	12	52	CL	FALSE	NA	15.4	NA	NA				
4.5 - 6.0	5.25	120	0.32	16	21	1.00	21	68	CL	FALSE	NA	17.8	NA	NA				
6.0 - 7.5	6.75	109	0.40	15	20	1.00	20	67	ML	32.5	91	19.4	109	0.83				
7.5 - 9.0	8.25	105	0.48	22	29	1.00	29	79	ML	33.5	93	12.9	105	0.8				
9.0 - 10.5	9.75	99	0.55	8	11	1.00	11	47	ML	30.5	88	35.1	99	0.91				
10.5 - 12.0	11.25	123	0.64	16	21	1.00	21	68	ML	32.5	91	21.7	123	0.83				
12.0 - 13.5	12.75	103	0.72	4	5	1.00	5	32	ML	29	85	38.1	103	0.97				
13.5 - 15.0	14.25	113	0.80	2	3	1.00	3	18	ML	27.5	82	45.2	113	1.03				
15.0 - 16.5	15.75	118	0.85	0	0	1.00	1	11	ML	27	81	42.2	118	1.05				
16.5 - 18.0	17.25	117	0.89	2	3	1.00	3	18	ML	27.5	82	51.6	117	1.03				
18.0 - 19.5	18.75	123	0.93	0	0	1.00	1	11	ML	27	81	47.5	123	1.05				
19.5 - 21.0	20.25	119	0.97	0	0	1.00	1	11	ML	27	81	52.1	119	1.05				
21.0 - 22.5	21.75	123	1.02	0	0	0.99	1	11	ML	27	81	63.4	123	1.05				
22.5 - 24.0	23.25	132	1.07	0	0	0.97	1	11	ML	27	81	64.5	132	1.05				
24.0 - 25.5	24.75	133	1.13	0	0	0.94	1	11	ML	27	81	69.1	133	1.05				
25.5 - 27.0	26.25	137	1.18	0	0	0.92	1	11	ML	27	81	39.5	137	1.05				
27.0 - 28.5	27.75	113	1.22	0	0	0.91	1	11	ML	27	81	47.7	113	1.05				
28.5 - 30.0	29.25	120	1.26	0	0	0.89	1	11	ML	27	81	51.7	120	1.05				
30.0 - 31.5	30.75	123	1.31	0	0	0.87	1	11	ML	27	81	50.1	123	1.05				
31.5 - 33.0	32.25	122	1.35	0	0	0.86	1	11	ML	27	81	58.6	122	1.05				
33.0 - 34.5	33.75	128	1.40	0	0	0.84	1	11	ML	27	81	64.2	128	1.05				
34.5 - 36.0	35.25	133	1.45	0	0	0.83	1	11	ML	27	81	49.1	133	1.05				
36.0 - 37.5	36.75	121	1.50	0	0	0.82	1	11	ML	27	81	48.5	121	1.05				
37.5 - 39.0	38.25	120	1.54	0	0	0.81	1	11	CL	FALSE	NA	33.7	NA	NA				
39.0 - 40.5	39.75	120	1.59	0	0	0.79	1	11	CL	FALSE	NA	30.6	NA	NA				
40.5 - 42.0	41.25	120	1.63	0	0	0.78	1	11	CL	FALSE	NA	29.7	NA	NA				
42.0 - 43.5	42.75	120	1.67	0	0	0.77	1	11	CL	FALSE	NA	32.8	NA	NA				
43.5 - 45.0	44.25	120	1.71	0	0	0.76	1	11	CL	FALSE	NA	33.2	NA	NA				
45.0 - 46.5	45.75	120	1.76	5	7	0.75	5	32	CL	FALSE	NA	34.1	NA	NA				
46.5 - 47.9	47.2	120	1.80	53	71	0.75	53	98	SHALE	FALSE	NA	26.1	NA	NA				

JOHN SEVIER FOSSIL PLANT
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS
FOR COARSE GRAINED SOILS

Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Estimated Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT N Value	SPT N Value	Correction Factor	Corrected N-Value	Relative Density (%)	Unified Soil Classification	Internal Friction Angle (degrees)	Unit Weight Dry (pcf)	Moisture Content (%)	Revised In-situ Unit Weight (pcf)	Void Ratio	
		γ_w	σ'	N_{60}	N_{60}	C_N	$(N_1)_{60}$	D_r		ϕ'	γ_d	m	γ_w	e	
				Input Required											
JS-37x		water =	13.8												
0.0 - 1.5	0.75	120	0.05	8	11	1.00	11	47	CL	FALSE	NA	20.2	NA	NA	
1.5 - 3.0	2.25	120	0.14	6	8	1.00	8	41	CL	FALSE	NA	21.5	NA	NA	
3.0 - 4.5	3.75	120	0.23	29	39	1.00	39	87	CL	FALSE	NA	10.9	NA	NA	
4.5 - 6.0	5.25	112	0.31	14	19	1.00	19	63	ML	32	90	23.9	112	0.85	
6.0 - 7.5	6.75	115	0.39	13	17	1.00	17	60	ML	32	90	27.9	115	0.85	
7.5 - 9.0	8.25	108	0.48	4	5	1.00	5	32	ML	29	85	26.7	108	0.97	
9.0 - 10.5	9.75	111	0.56	7	9	1.00	9	44	ML	30	87	27.2	111	0.93	
10.5 - 12.0	11.25	113	0.64	16	21	1.00	21	68	ML	32.5	91	23.7	113	0.83	
12.0 - 13.5	12.75	121	0.73	22	29	1.00	29	79	ML	33.5	93	29.7	121	0.8	
13.5 - 15.0	14.25	127	0.78	6	8	1.00	8	41	ML	30	87	46.2	127	0.93	
15.0 - 16.5	15.75	120	0.83	3	4	1.00	4	27	ML	28.5	84	42.6	120	0.99	
16.5 - 18.0	17.25	120	0.87	0	0	1.00	1	11	ML	27	81	48.6	120	1.05	
18.0 - 19.5	18.75	124	0.92	0	0	1.00	1	11	ML	27	81	53.6	124	1.05	
19.5 - 21.0	20.25	148	0.98	0	0	1.00	1	11	ML	27	81	82.7	148	1.05	
21.0 - 22.5	21.75	126	1.03	4	5	0.99	5	32	ML	29	85	47.9	126	0.97	
22.5 - 24.0	23.25	125	1.07	0	0	0.97	1	11	ML	27	81	54.2	125	1.05	
24.0 - 25.5	24.75	119	1.12	0	0	0.95	1	11	ML	27	81	46.7	119	1.05	
25.5 - 27.0	26.25	115	1.16	0	0	0.93	1	11	ML	27	81	41.6	115	1.05	
27.0 - 28.5	27.75	121	1.20	0	0	0.91	1	11	ML	27	81	49.8	121	1.05	
28.5 - 30.0	29.25	125	1.25	0	0	0.90	1	11	ML	27	81	54.2	125	1.05	
30.0 - 31.5	30.75	126	1.29	0	0	0.88	1	11	ML	27	81	55.6	126	1.05	
31.5 - 33.0	32.25	123	1.34	0	0	0.86	1	11	ML	27	81	52.0	123	1.05	
33.0 - 34.5	33.75	115	1.38	0	0	0.85	1	11	ML	27	81	42.4	115	1.05	
34.5 - 36.0	35.25	117	1.42	0	0	0.84	1	11	ML	27	81	44.7	117	1.05	
36.0 - 37.5	36.75	110	1.46	0	0	0.83	1	11	ML	27	81	35.4	110	1.05	
37.5 - 39.0	38.25	120	1.50	17	23	0.82	19	63	CL	FALSE	NA	20.7	NA	NA	
39.0 - 40.5	39.75	146	1.56	33	44	0.80	35	86	GP-GM	39.3	125	16.6	146	0.34	
40.5 - 42.0	41.25	120	1.60	46	61	0.79	48	95	SHALE	FALSE	NA	16.6	NA	NA	
42.0 - 43.2	42.6	120	1.64	100	133	0.78	104	100	SHALE	FALSE	NA	21.8	NA	NA	

**JOHN SEVIER FOSSIL PLANT
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS**

FOR COARSE GRAINED SOILS

Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Estimated Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT N Value	SPT N Value	Correction Factor	Corrected N-Value	Relative Density (%)	Unified Soil Classification	Internal Angle of Friction (degrees)	Unit Weight Dry (pcf)	Moisture Content (%)	Revised In-situ Unit Weight (pcf)	Void Ratio												
															γ_w	σ'	N_{80}	N_{60}	CN	$(N')_{60}$	D_r	ϕ'	γ_d	m	γ_w	e
															Input Required											
JS-38		water =	52.5																							
0.0 - 1.5	0.75	120	0.05	4	5	1.00	5	32	CL	FALSE	NA	20.4	NA	NA												
1.5 - 3.0	2.25	104	0.12	3	4	1.00	4	27	ML	28.5	84	23.7	104	0.99												
3.0 - 4.5	3.75	103	0.20	2	3	1.00	3	18	ML	27.5	82	26.2	103	1.03												
4.5 - 6.0	5.25	106	0.28	2	3	1.00	3	18	ML	27.5	82	29.0	106	1.03												
6.0 - 7.5	6.75	104	0.36	2	3	1.00	3	18	ML	27.5	82	26.9	104	1.03												
7.5 - 9.0	8.25	107	0.44	4	5	1.00	5	32	ML	29	85	25.5	107	0.97												
9.0 - 10.5	9.75	111	0.52	12	16	1.00	16	60	ML	32	90	23.5	111	0.85												
10.5 - 12.0	11.25	112	0.61	10	13	1.00	13	53	ML	31	88.5	26.3	112	0.89												
12.0 - 13.5	12.75	108	0.69	3	4	1.00	4	27	ML	28.5	84	28.9	108	0.99												
13.5 - 15.0	14.25	120	0.78	16	21	1.00	21	68	CL	FALSE	NA	22.6	NA	NA												
15.0 - 16.5	15.75	111	0.86	26	35	1.00	35	84	ML	34	94	18.4	111	0.77												
16.5 - 18.0	17.25	118	0.95	43	57	1.00	57	100	ML	36	98	20.2	118	0.7												
18.0 - 19.5	18.75	112	1.03	20	27	0.98	26	75	ML	33.5	93	20.8	112	0.8												
19.5 - 21.0	20.25	115	1.12	18	24	0.95	23	70	ML	33	92	25.0	115	0.82												
21.0 - 22.5	21.75	115	1.20	15	20	0.91	18	63	ML	32	90	27.5	115	0.85												
22.5 - 24.0	23.25	115	1.29	18	24	0.88	21	68	ML	32.5	91	25.9	115	0.83												
24.0 - 25.5	24.75	114	1.38	17	23	0.85	19	65	ML	32.5	91	25.0	114	0.83												
25.5 - 27.0	26.25	113	1.46	14	19	0.83	15	58	ML	31.5	89.5	26.3	113	0.87												
27.0 - 28.5	27.75	120	1.55	20	27	0.80	21	68	CL	FALSE	NA	20.0	NA	NA												
28.5 - 30.0	29.25	120	1.64	8	11	0.78	8	41	CL	FALSE	NA	19.1	NA	NA												
30.0 - 31.5	30.75	108	1.72	20	27	0.76	20	67	ML	32.5	91	18.2	108	0.83												
31.5 - 33.0	32.25	113	1.81	42	56	0.74	42	91	ML	35	96	17.9	113	0.74												
33.0 - 34.5	33.75	107	1.89	33	44	0.73	32	82	ML	34	94	14.0	107	0.77												
34.5 - 36.0	35.25	113	1.97	52	69	0.71	49	97	ML	35.5	97	16.6	113	0.72												
36.0 - 37.5	36.75	109	2.05	47	63	0.70	44	91	ML	35	96	13.7	109	0.74												
37.5 - 39.0	38.25	110	2.14	32	43	0.68	29	79	ML	33.5	93	17.9	110	0.8												
39.0 - 40.5	39.75	108	2.22	33	44	0.67	30	79	ML	33.5	93	15.6	108	0.8												
40.5 - 42.0	41.25	110	2.30	44	59	0.66	39	87	ML	34.5	95	15.7	110	0.75												
42.0 - 43.5	42.75	119	2.39	86	115	0.65	74	100	ML	36	98	21.0	119	0.7												
43.5 - 45.0	44.25	113	2.47	35	47	0.64	30	79	ML	33.5	93	21.6	113	0.8												
45.0 - 46.5	45.75	114	2.56	41	55	0.63	34	84	ML	34	94	21.8	114	0.77												
46.5 - 48.0	47.25	117	2.65	48	64	0.61	39	89	ML	34.5	95	23.1	117	0.75												
48.0 - 49.5	48.75	115	2.73	43	57	0.60	35	84	ML	34	94	22.3	115	0.77												
49.5 - 51.0	50.25	108	2.77	39	52	0.60	31	81	ML	34	94	14.4	108	0.77												
51.0 - 52.5	51.75	113	2.91	26	35	0.59	20	67	ML	32.5	91	24.6	113	0.83												
52.5 - 54.0	53.25	116	2.40	5	7	0.64	4	27	ML	28.5	84	37.5	116	0.99												
54.0 - 55.5	54.75	113	2.46	3	4	0.64	3	18	ML	27.5	82	37.5	113	1.03												
55.5 - 57.0	56.25	110	2.52	0	0	0.63	1	11	ML	27	81	35.7	110	1.05												
57.0 - 58.5	57.75	116	2.66	0	0	0.61	1	11	ML	27	81	43.7	116	1.05												
58.5 - 60.0	59.25	117	2.75	0	0	0.60	1	11	ML	27	81	44.7	117	1.05												
60.0 - 61.5	60.75	126	2.92	7	9	0.59	6	32	ML	29	85	47.9	126	0.97												
61.5 - 63.0	62.25	133	3.07	8	11	0.57	6	35	ML	29.5	86	54.3	133	0.95												
63.0 - 64.5	63.75	129	3.12	4	5	0.57	3	24	ML	28	83	55.7	129	1.01												
64.5 - 66.0	65.25	128	3.19	2	3	0.56	2	11	ML	27	81	57.6	128	1.05												
66.0 - 67.5	66.75	127	3.27	2	3	0.55	2	11	ML	27	81	56.4	127	1.05												
67.5 - 69.0	68.25	134	3.43	0	0	0.54	1	11	ML	27	81	65.1	134	1.05												
69.0 - 70.5	69.75	146	3.49	2	3	0.54	1	11	ML	27	81	80.4	146	1.05												
70.5 - 72.0	71.25	121	3.53	4	5	0.53	3	18	ML	27.5	82	48.0	121	1.03												
72.0 - 73.5	72.75	121	3.58	3	4	0.53	2	18	ML	27.5	82	47.3	121	1.03												
73.5 - 75.0	74.25	122	3.62	4	5	0.53	3	18	ML	27.5	82	48.6	122	1.03												
75.0 - 76.5	75.75	125	3.67	0	0	0.52	1	11	ML	27	81	54.6	125	1.05												
76.5 - 78.0	77.25	121	3.71	0	0	0.52	1	11	ML	27	81	49.6	121	1.05												
78.0 - 79.5	78.75	130	3.76	0	0	0.52	1	11	ML	27	81	60.0	130	1.05												
79.5 - 81.0	80.25	116	3.80	0	0	0.51	1	11	ML	27	81	43.1	116	1.05												
81.0 - 82.5	81.75	113	3.84	0	0	0.51	1	11	ML	27	81	39.7	113	1.05												
82.5 - 84.0	83.25	120	3.89	16	21	0.51	11	47	CL	FALSE	NA	27.9	NA	NA												
84.0 - 85.5	84.75	120	3.93	18	24	0.50	12	52	CL	FALSE	NA	20.7	NA	NA												
85.5 - 87.0	86.25	120	3.97	54	72	0.50	36	86	SHALE	FALSE	NA	19.6	NA	NA												

JOHN SEVIER FOSSIL PLANT															
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS															
FOR COARSE GRAINED SOILS															
Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Estimated Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT	SPT	Correction Factor	Corrected N-Value	Relative Density (%)	Unified Soil Classification	Internal Angle of Friction (degrees)	Unit Weight Dry (pcf)	Moisture Content (%)	Revised In-situ Unit Weight (pcf)	Void Ratio	
				N	N										N ₆₀
Input Required															
water = 85.0															
JS-39	0.0 - 1.5	0.75	106	0.04	9	12	1.00	12	52	ML	31	88.5	20.3	106	0.89
	1.5 - 3.0	2.25	109	0.12	19	25	1.00	25	74	ML	33	92	19.0	109	0.82
	3.0 - 4.5	3.75	119	0.21	36	48	1.00	48	95	ML	35.5	97	23.1	119	0.72
	4.5 - 6.0	5.25	118	0.30	29	39	1.00	39	87	ML	34.5	95	23.9	118	0.75
	6.0 - 7.5	6.75	116	0.39	25	33	1.00	33	84	ML	34	94	23.2	116	0.77
	7.5 - 9.0	8.25	117	0.47	35	47	1.00	47	95	ML	35.5	97	20.3	117	0.72
	9.0 - 10.5	9.75	113	0.56	19	25	1.00	25	74	ML	33	92	22.7	113	0.82
	10.5 - 12.0	11.25	112	0.64	16	21	1.00	21	68	ML	32.5	91	22.7	112	0.83
	12.0 - 13.5	12.75	116	0.73	29	39	1.00	39	87	ML	34.5	95	22.1	116	0.75
	13.5 - 15.0	14.25	117	0.82	32	43	1.00	43	91	ML	35	96	21.8	117	0.74
	15.0 - 16.5	15.75	112	0.90	13	17	1.00	17	60	ML	32	90	24.6	112	0.85
	16.5 - 18.0	17.25	113	0.99	13	17	1.00	17	60	ML	32	90	25.1	113	0.85
	18.0 - 19.5	18.75	106	1.07	4	5	0.97	5	32	ML	29	85	25.2	106	0.97
	19.5 - 21.0	20.25	111	1.15	11	15	0.93	14	53	ML	31	88.5	25.8	111	0.89
	21.0 - 22.5	21.75	116	1.24	26	35	0.90	31	81	ML	34	94	22.9	116	0.77
	22.5 - 24.0	23.25	113	1.32	15	20	0.87	17	60	ML	32	90	26.0	113	0.85
	24.0 - 25.5	24.75	113	1.41	25	33	0.84	28	77	ML	33.5	93	22.0	113	0.8
	25.5 - 27.0	26.25	114	1.49	19	25	0.82	21	67	ML	32.5	91	24.8	114	0.83
	27.0 - 28.5	27.75	117	1.58	24	32	0.80	26	74	ML	33	92	27.7	117	0.82
	28.5 - 30.0	29.25	116	1.67	14	19	0.77	15	56	ML	31.5	89.5	29.7	116	0.87
	30.0 - 31.5	30.75	116	1.75	13	17	0.76	13	53	ML	31	88.5	31.3	116	0.89
	31.5 - 33.0	32.25	118	1.84	16	21	0.74	16	58	ML	31.5	89.5	32.3	118	0.87
	33.0 - 34.5	33.75	115	1.93	14	19	0.72	13	53	ML	31	88.5	29.8	115	0.89
	34.5 - 36.0	35.25	126	2.02	42	56	0.70	39	89	ML	34.5	95	32.3	126	0.75
	36.0 - 37.5	36.75	120	2.11	44	59	0.69	40	89	ML	34.5	95	26.7	120	0.75
	37.5 - 39.0	38.25	119	2.20	100	133	0.67	90	100	ML	36	98	21.7	119	0.7
	39.0 - 40.5	39.75	120	2.29	28	37	0.66	25	73	CL	FALSE	NA	26.3	NA	NA
	40.5 - 42.0	41.25	120	2.38	42	56	0.65	36	86	ML	34.5	95	14.1	110	0.75
	42.0 - 43.5	42.75	120	2.47	100	133	0.64	85	100	ML	36	98	12.2	104	0.8
	43.5 - 45.0	44.25	110	2.55	54	72	0.63	45	93	ML	35	96	13.5	108	0.75
	45.0 - 46.5	45.75	104	2.63	34	45	0.62	28	77	ML	33.5	93	14.0	106	0.8
	46.5 - 48.0	47.25	108	2.71	46	61	0.61	37	87	ML	34.5	95	10.4	100	0.83
	48.0 - 49.5	48.75	106	2.79	38	51	0.60	30	79	ML	33.5	93	11.3	106	0.75
	49.5 - 51.0	50.25	100	2.73	27	36	0.60	22	68	ML	32.5	91	9.4	102	0.8
	51.0 - 52.5	51.75	106	2.87	49	65	0.59	39	87	ML	34.5	95	16.4	109	0.77
	52.5 - 54.0	53.25	102	2.92	39	52	0.59	30	79	ML	33.5	93	16.2	108	0.8
	54.0 - 55.5	54.75	109	3.09	46	61	0.57	35	84	ML	34	94	18.1	115	0.72
	55.5 - 57.0	56.25	108	3.17	38	51	0.56	29	77	ML	33.5	93	16.3	108	0.8
	57.0 - 58.5	57.75	115	3.32	67	89	0.55	49	97	ML	35.5	97	16.8	109	0.8
	58.5 - 60.0	59.25	108	3.35	39	52	0.55	28	77	ML	33.5	93	18.4	108	0.83
	60.0 - 61.5	60.75	109	3.44	37	49	0.54	27	75	ML	33.5	93	16.0	106	0.83
	61.5 - 63.0	62.25	108	3.52	27	36	0.53	19	65	ML	32.5	91	20.5	108	0.85
	63.0 - 64.5	63.75	106	3.58	31	41	0.53	22	68	ML	32.5	91	16.1	117	0.65
	64.5 - 66.0	65.25	108	3.69	26	35	0.52	18	63	ML	32	90	19.4	111	0.8
	66.0 - 67.5	66.75	117	3.86	37	49	0.51	25	74	SM	34	101	20.3	109	0.83
	67.5 - 69.0	68.25	111	3.88	40	53	0.51	27	77	ML	33.5	93	20.7	111	0.82
	69.0 - 70.5	69.75	109	3.96	30	40	0.50	20	67	ML	32.5	91	19.9	116	0.72
	70.5 - 72.0	71.25	111	4.04	39	52	0.50	26	74	ML	33	92	26.2	112	0.89
	72.0 - 73.5	72.75	116	4.13	78	104	0.49	51	98	ML	35.5	97	29.6	114	0.91
	73.5 - 75.0	74.25	112	4.21	20	27	0.49	13	53	ML	31	88.5	21.8	107	0.91
	75.0 - 76.5	75.75	114	4.30	18	24	0.48	12	47	ML	30.5	88	27.3	115	0.85
	76.5 - 78.0	77.25	107	4.38	16	21	0.48	10	47	ML	30.5	88	37.9	116	0.99
	78.0 - 79.5	78.75	115	4.46	28	37	0.47	18	60	ML	32	90	43.0	119	1.01
	79.5 - 81.0	80.25	116	4.55	7	9	0.47	4	27	ML	28.5	84	64.2	133	1.05
	81.0 - 82.5	81.75	119	4.64	5	7	0.46	3	24	ML	28	83	37.8	112	1.05
	82.5 - 84.0	83.25	133	4.74	0	0	0.46	1	11	ML	27	81	41.0	114	1.05
	84.0 - 85.5	84.75	112	4.82	2	3	0.46	1	11	ML	27	81	41.2	114	1.05
	85.5 - 87.0	86.25	114	4.86	0	0	0.45	1	11	ML	27	81	NR	NR	1.05
	87.0 - 88.5	87.75	114	4.90	2	3	0.45	1	11	ML	27	81	55.6	126	1.05
	88.5 - 90.0	89.25	120	4.94	3	4	0.45	2	11	ML	27	81	NA	NA	NA
	90.0 - 91.5	90.75	126	4.99	0	0	0.45	1	11	ML	27	81	NA	NA	NA
	91.5 - 93.0	91.75	120	5.04	7	9	0.44	4	27	CL	FALSE	NA	22.2	NA	NA
	93.0 - 94.5	93.75	120	5.08	30	40	0.44	18	60	CL	FALSE	NA	22.1	NA	NA
	94.5 - 96.0	95.25	120	5.12	49	65	0.44	29	77	CL	FALSE	NA	24.3	NA	NA
	96.0 - 97.5	96.75	120	5.16	16	21	0.44	9	44	CL	FALSE	NA	23.6	NA	NA
	97.5 - 99.0	98.25	120	5.20	8	11	0.43	5	27	CL	FALSE	NA	28.6	NA	NA
	99.0 - 100.5	99.75	120	5.24	10	13	0.43	6	32	CL	FALSE	NA	NA	NA	NA
	100.5 - 102.0	101.75	120	5.28	91	121	0.43	52	98	SHALE	FALSE	NA	NA	NA	NA

**JOHN SEVIER FOSSIL PLANT
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS
FOR COARSE GRAINED SOILS**

Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Estimated Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT N Value	SPT N Value	Correction Factor	Corrected N-Value	Relative Density (%)	Unified Soil Classification	Internal Angle of Friction (degrees)	Unit Weight Dry (pcf)	Moisture Content (%)	Revised	Void Ratio
													In-situ Unit Weight (pcf)	
		γ_s	σ	N_{60}	N_{60}	CN	(N) ₆₀	D_r		ϕ	γ_d	m	γ_w	e
Input Required														
JS-40		water =	70.5											
0.0 - 1.5	0.75	115	0.04	9	12	1.00	12	52	ML	31	88.5	29.5	115	0.89
1.5 - 3.0	2.25	116	0.13	23	31	1.00	31	79	ML	33.5	93	24.2	116	0.8
3.0 - 4.5	3.75	116	0.22	26	35	1.00	35	84	ML	34	94	22.9	116	0.77
4.5 - 6.0	5.25	116	0.30	24	32	1.00	32	82	ML	34	94	23.4	116	0.77
6.0 - 7.5	6.75	119	0.39	28	37	1.00	37	87	ML	34.5	95	24.8	119	0.75
7.5 - 9.0	8.25	120	0.48	29	39	1.00	39	87	ML	34.5	95	25.9	120	0.75
9.0 - 10.5	9.75	115	0.57	13	17	1.00	17	60	ML	32	90	27.3	115	0.85
10.5 - 12.0	11.25	112	0.65	13	17	1.00	17	60	ML	32	90	24.5	112	0.85
12.0 - 13.5	12.75	119	0.74	20	27	1.00	27	75	ML	33.5	93	28.2	119	0.8
13.5 - 15.0	14.25	111	0.82	10	13	1.00	13	53	ML	31	88.5	25.4	111	0.89
15.0 - 16.5	15.75	116	0.91	17	23	1.00	23	70	ML	33	92	26.1	116	0.82
16.5 - 18.0	17.25	115	1.00	46	61	1.00	61	100	ML	36	98	17.8	115	0.7
18.0 - 19.5	18.75	122	1.09	39	52	0.96	50	97	SM	37	107	14.3	122	0.56
19.5 - 21.0	20.25	124	1.18	57	76	0.92	70	100	SM	38	108	14.4	124	0.55
21.0 - 22.5	21.75	120	1.27	50	67	0.89	59	100	SM	38	108	11.5	120	0.55
22.5 - 24.0	23.25	106	1.35	31	41	0.86	36	86	ML	34.5	95	11.8	106	0.75
24.0 - 25.5	24.75	107	1.43	40	53	0.84	45	93	ML	35	96	11.9	107	0.74
25.5 - 27.0	26.25	108	1.51	49	65	0.81	53	99	ML	35.5	97	11.4	108	0.72
27.0 - 28.5	27.75	108	1.60	64	85	0.79	68	100	ML	36	98	10.6	108	0.7
28.5 - 30.0	29.25	110	1.68	63	84	0.77	65	100	ML	36	98	12.6	110	0.7
30.0 - 31.5	30.75	111	1.76	49	65	0.75	49	97	ML	35.5	97	14.5	111	0.72
31.5 - 33.0	32.25	110	1.84	67	89	0.74	66	100	ML	36	98	12.7	110	0.7
33.0 - 34.5	33.75	107	1.92	38	51	0.72	37	86	ML	34.5	95	12.3	107	0.75
34.5 - 36.0	35.25	107	2.00	43	57	0.71	41	89	ML	34.5	95	12.3	107	0.75
36.0 - 37.5	36.75	106	2.08	41	55	0.69	38	87	ML	34.5	95	11.1	106	0.75
37.5 - 39.0	38.25	112	2.17	59	79	0.68	53	99	ML	35.5	97	15.5	112	0.72
39.0 - 40.5	39.75	107	2.25	32	43	0.67	29	77	ML	33.5	93	15.0	107	0.8
40.5 - 42.0	41.25	104	2.33	34	45	0.66	30	79	ML	33.5	93	12.3	104	0.8
42.0 - 43.5	42.75	106	2.41	36	48	0.64	31	79	ML	33.5	93	14.2	106	0.8
43.5 - 45.0	44.25	104	2.48	37	49	0.63	31	81	ML	34	94	10.5	104	0.77
45.0 - 46.5	45.75	117	2.57	70	93	0.62	58	100	ML	36	98	19.3	117	0.7
46.5 - 48.0	47.25	116	2.66	81	108	0.61	66	100	ML	36	98	18.5	116	0.7
48.0 - 49.5	48.75	113	2.74	35	47	0.60	28	77	ML	33.5	93	21.1	113	0.8
49.5 - 51.0	50.25	108	2.82	51	68	0.60	41	89	ML	34.5	95	14.2	108	0.75
51.0 - 52.5	51.75	115	2.91	68	91	0.59	53	99	ML	35.5	97	18.3	115	0.72
52.5 - 54.0	53.25	107	2.99	37	49	0.58	29	77	ML	33.5	93	15.1	107	0.8
54.0 - 55.5	54.75	113	3.08	36	48	0.57	27	77	ML	33.5	93	21.8	113	0.8
55.5 - 57.0	56.25	116	3.16	51	68	0.56	38	87	ML	34.5	95	21.6	116	0.75
57.0 - 58.5	57.75	113	3.25	35	47	0.55	26	74	ML	33	92	23.1	113	0.82
58.5 - 60.0	59.25	121	3.34	86	115	0.55	63	100	ML	36	98	23.7	121	0.7
60.0 - 61.5	60.75	114	3.42	34	45	0.54	25	73	ML	33	92	23.4	114	0.82
61.5 - 63.0	62.25	114	3.51	26	35	0.53	19	63	ML	32	90	27.2	114	0.85
63.0 - 64.5	63.75	115	3.60	31	41	0.53	22	68	ML	32.5	91	26.6	115	0.83
64.5 - 66.0	65.25	108	3.68	8	11	0.52	6	32	ML	29	85	27.2	108	0.97
66.0 - 67.5	66.75	112	3.76	34	45	0.52	23	71	ML	33	92	21.8	112	0.82
67.5 - 69.0	68.25	117	3.85	22	29	0.51	15	58	ML	31.5	89.5	30.6	117	0.87
69.0 - 70.5	69.75	131	3.95	13	17	0.50	9	41	SM	30.5	95	37.6	131	0.76
70.5 - 72.0	71.25	128	4.00	15	20	0.50	10	47	SM	31	96	33.3	128	0.74
72.0 - 73.5	72.75	124	4.04	0	0	0.50	1	11	SM	27.5	89.5	38.3	124	0.87
73.5 - 75.0	74.25	119	4.08	8	11	0.49	5	32	ML	29	85	39.5	119	0.97
75.0 - 76.5	75.75	117	4.12	6	8	0.49	4	24	ML	28	83	41.3	117	1.01
76.5 - 78.0	77.25	124	4.17	36	48	0.49	24	71	ML	33	92	35.3	124	0.82
78.0 - 79.5	78.75	120	4.21	25	33	0.49	16	60	ML	32	90	33.7	120	0.85
79.5 - 81.0	80.25	118	4.26	5	7	0.48	3	24	ML	28	83	42.4	118	1.01
81.0 - 82.5	81.75	120	4.30	50	67	0.48	32	82	CL	FALSE	NA	27.2	NA	NA
82.5 - 84.0	83.25	120	4.34	64	85	0.48	41	89	CL	FALSE	NA	12.2	NA	NA
84.0 - 85.5	84.75	120	4.39	20	27	0.48	13	52	CL	FALSE	NA	34.4	NA	NA
85.5 - 87.0	86.25	120	4.43	41	55	0.48	26	75	SHALE	FALSE	NA	32.3	NA	NA
90.0 - 90.2	90.1	120	4.14	100	133	0.49	66	100	SHALE	FALSE	NA	21.0	NA	NA

**JOHN SEVIER FOSSIL PLANT
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS
FOR COARSE GRAINED SOILS**

Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Estimated Unit Weight (pcf)	Vertical Effective Stress (tsf) σ_v	SPT N	SPT N	Correction Factor	Corrected N-Value (N ₁) ₆₀	Relative Density (%) D _r	Unified Soil Classification	Internal Angle of Friction (degrees) ϕ	Unit Weight Dry (pcf) γ_d	Moisture Content (%) m	Revised In-situ Unit Weight (pcf) γ_w	Void Ratio	
				Value	Value								C _N		Unit Weight
				Input Required											
JS-41		water =	51.0												
0.0 - 1.5	0.75	109	0.04	13	17	1.00	17	60	ML	32	90	20.8	109	0.85	
1.5 - 3.0	2.25	112	0.12	20	27	1.00	27	75	ML	33.5	93	19.9	112	0.8	
3.0 - 4.5	3.75	112	0.21	23	31	1.00	31	79	ML	33.5	93	20.5	112	0.8	
4.5 - 6.0	5.25	111	0.29	17	23	1.00	23	70	ML	33	92	20.8	111	0.82	
6.0 - 7.5	6.75	114	0.38	25	33	1.00	33	84	ML	34	94	21.3	114	0.77	
7.5 - 9.0	8.25	114	0.46	22	29	1.00	29	79	ML	33.5	93	22.3	114	0.8	
9.0 - 10.5	9.75	113	0.55	18	24	1.00	24	73	ML	33	92	22.6	113	0.82	
10.5 - 12.0	11.25	114	0.63	21	28	1.00	28	77	ML	33.5	93	22.6	114	0.8	
12.0 - 13.5	12.75	117	0.72	21	28	1.00	28	77	ML	33.5	93	25.3	117	0.8	
13.5 - 15.0	14.25	119	0.81	24	32	1.00	32	82	ML	34	94	26.2	119	0.77	
15.0 - 16.5	15.75	117	0.90	15	20	1.00	20	67	ML	32.5	91	29.0	117	0.83	
16.5 - 18.0	17.25	113	0.98	23	31	1.00	31	79	ML	33.5	93	21.9	113	0.8	
18.0 - 19.5	18.75	110	1.06	30	40	0.97	39	87	ML	34.5	95	15.8	110	0.75	
19.5 - 21.0	20.25	111	1.15	36	48	0.93	45	93	ML	35	96	15.5	111	0.74	
21.0 - 22.5	21.75	111	1.23	38	51	0.90	46	93	ML	35	96	15.6	111	0.74	
22.5 - 24.0	23.25	109	1.31	25	33	0.87	29	79	ML	33.5	93	16.8	109	0.8	
24.0 - 25.5	24.75	110	1.40	21	28	0.85	24	71	ML	33	92	19.8	110	0.82	
25.5 - 27.0	26.25	110	1.48	25	33	0.82	27	77	ML	33.5	93	18.4	110	0.8	
27.0 - 28.5	27.75	109	1.56	40	53	0.80	43	91	ML	35	96	13.3	109	0.74	
28.5 - 30.0	29.25	106	1.64	22	29	0.78	23	70	ML	33	92	15.2	106	0.82	
30.0 - 31.5	30.75	106	1.72	28	37	0.76	29	77	ML	33.5	93	14.4	106	0.8	
31.5 - 33.0	32.25	112	1.80	58	77	0.74	58	100	ML	36	98	14.5	112	0.7	
33.0 - 34.5	33.75	110	1.89	71	95	0.73	69	100	ML	36	98	12.0	110	0.7	
34.5 - 36.0	35.25	110	1.97	77	103	0.71	73	100	ML	36	98	12.7	110	0.7	
36.0 - 37.5	36.75	113	2.05	66	88	0.70	61	100	ML	36	98	15.8	113	0.7	
37.5 - 39.0	38.25	110	2.14	48	64	0.68	44	91	ML	35	96	14.7	110	0.74	
39.0 - 40.5	39.75	114	2.22	67	89	0.67	60	100	ML	36	98	16.8	114	0.7	
40.5 - 42.0	41.25	113	2.31	58	77	0.66	51	98	ML	35.5	97	16.8	113	0.72	
42.0 - 43.5	42.75	114	2.39	47	63	0.65	41	89	ML	34.5	95	19.5	114	0.75	
43.5 - 45.0	44.25	116	2.48	77	103	0.64	65	100	ML	36	98	18.7	116	0.7	
45.0 - 46.5	45.75	120	2.57	57	76	0.62	47	95	ML	35.5	97	23.3	120	0.72	
46.5 - 48.0	47.25	119	2.66	34	45	0.61	28	77	ML	33.5	93	27.7	119	0.8	
48.0 - 49.5	48.75	116	2.74	21	28	0.60	17	60	ML	32	90	29.0	116	0.85	
49.5 - 51.0	50.25	117	2.83	20	27	0.59	16	58	ML	31.5	89.5	31.2	117	0.87	
51.0 - 52.5	51.75	121	2.88	16	21	0.59	13	52	ML	31	88.5	36.6	121	0.89	
52.5 - 54.0	53.25	148	2.94	0	0	0.58	1	11	SM	27.5	89.5	65.7	148	0.87	
54.0 - 55.5	54.75	118	2.98	1	1	0.58	1	11	ML	27	81	46.1	118	1.05	
55.5 - 57.0	56.25	112	3.02	2	3	0.58	2	11	ML	27	81	38.8	112	1.05	
57.0 - 58.5	57.75	119	3.06	7	9	0.57	5	32	ML	29	85	39.6	119	0.97	
58.5 - 60.0	59.25	116	3.10	1	1	0.57	1	11	ML	27	81	43.6	116	1.05	
60.0 - 61.5	60.75	128	3.15	100	133	0.56	75	100	ML	36	98	30.8	128	0.7	
61.5 - 63.0	62.25	141	3.21	100	133	0.56	74	100	GP-GM	41.6	129	9.3	141	0.29	
63.0 - 64.5	63.75	139	3.27	67	89	0.55	49	97	GP-GM	41	127.5	9.2	139	0.31	
64.5 - 66.0	65.25	120	3.31	22	29	0.55	16	60	SHALE	FALSE	NA	37.7	NA	NA	
66.0 - 67.5	66.75	120	3.36	46	61	0.55	34	84	SHALE	FALSE	NA	33.4	NA	NA	
70.0 - 71.5	70.75	120	3.47	26	35	0.54	19	63	SHALE	FALSE	NA	27.3	NA	NA	
75.0 - 76.5	75.75	120	3.61	100	133	0.53	70	100	SHALE	FALSE	NA	3.9	NA	NA	

JOHN SEVIER FOSSIL PLANT																
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS																
FOR COARSE GRAINED SOILS																
Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Estimated Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT N	SPT N	Correction Factor	Corrected N-Value	Relative Density (%)	Unified Soil Classification	Internal Angle of Friction (degrees)	Unit Weight Dry (pcf)	Moisture Content (%)	Revised In-situ Unit Weight (pcf)	Void Ratio		
				N ₆₀	N ₆₀	C _N	(N ₁) ₆₀	D _r		ψ	γ _d	m	γ _w	e		
Input Required																
JS-42		water = 30.0														
0.0 - 1.5	0.75	111	0.04	10	13	1.00	13	53	ML	31	88.5	25.0	111	0.89		
1.5 - 3.0	2.25	114	0.13	39	52	1.00	52	98	ML	35.5	97	17.6	114	0.72		
3.0 - 4.5	3.75	107	0.21	16	21	1.00	21	68	ML	32.5	91	17.1	107	0.83		
4.5 - 6.0	5.25	114	0.29	45	60	1.00	60	100	ML	36	98	16.3	114	0.7		
6.0 - 7.5	6.75	115	0.38	37	49	1.00	49	97	ML	35.5	97	18.2	115	0.72		
7.5 - 9.0	8.25	114	0.46	34	45	1.00	45	93	ML	35	96	18.8	114	0.74		
9.0 - 10.5	9.75	113	0.55	28	37	1.00	37	87	ML	34.5	95	19.1	113	0.75		
10.5 - 12.0	11.25	113	0.63	26	35	1.00	35	84	ML	34	94	20.3	113	0.77		
12.0 - 13.5	12.75	121	0.72	61	81	1.00	81	100	ML	36	98	23.1	121	0.7		
13.5 - 15.0	14.25	119	0.81	38	51	1.00	51	98	ML	35.5	97	22.8	119	0.72		
15.0 - 16.5	15.75	118	0.90	38	51	1.00	51	98	ML	35.5	97	21.8	118	0.72		
16.5 - 18.0	17.25	116	0.99	28	37	1.00	37	87	ML	34.5	95	22.0	116	0.75		
18.0 - 19.5	18.75	115	1.08	27	36	0.96	35	84	ML	34	94	22.6	115	0.77		
19.5 - 21.0	20.25	114	1.16	25	33	0.93	31	79	ML	33.5	93	22.7	114	0.8		
21.0 - 22.5	21.75	119	1.25	35	47	0.89	42	91	ML	35	96	24.2	119	0.74		
22.5 - 24.0	23.25	118	1.34	27	36	0.86	31	81	ML	34	94	25.8	118	0.77		
24.0 - 25.5	24.75	123	1.43	29	39	0.84	32	82	SM	35.5	104	18.4	123	0.61		
25.5 - 27.0	26.25	130	1.53	57	76	0.81	62	100	SM	38	108	20.7	130	0.55		
27.0 - 28.5	27.75	129	1.63	100	133	0.78	105	100	SM	38	108	19.4	129	0.55		
28.5 - 30.0	29.25	129	1.72	40	53	0.76	41	89	SM	36	105	22.7	129	0.6		
30.0 - 31.5	30.75	125	1.77	28	37	0.75	28	77	SM	34.5	102	22.8	125	0.63		
31.5 - 33.0	32.25	114	1.81	6	8	0.74	6	32	SM	29.5	93	22.1	114	0.8		
33.0 - 34.5	33.75	112	1.85	0	0	0.74	1	11	SM	27.5	89.5	25.0	112	0.87		
34.5 - 36.0	35.25	110	1.88	1	1	0.73	1	11	SM	27.5	89.5	23.4	110	0.87		
36.0 - 37.5	36.75	110	1.92	5	7	0.72	5	27	SM	29	92	20.0	110	0.82		
37.5 - 39.0	38.25	113	1.96	2	3	0.72	2	11	SM	27.5	89.5	26.6	113	0.87		
39.0 - 40.5	39.75	102	1.99	0	0	0.71	1	11	ML	27	81	26.5	102	1.05		
40.5 - 42.0	41.25	120	2.03	2	3	0.70	2	11	CL	FALSE	NA	24.6	NA	NA		
42.0 - 43.5	42.75	120	2.07	53	71	0.69	49	97	CL	FALSE	NA	15.5	NA	NA		
43.5 - 45.0	44.25	120	2.12	31	41	0.69	28	77	CL	FALSE	NA	20.5	NA	NA		
45.0 - 46.5	45.75	161	2.19	22	29	0.68	20	65	GP-GM	36.2	120	34.0	161	0.39		
46.5 - 48.0	47.25	120	2.23	36	48	0.67	32	82	SHALE	FALSE	NA	26.7	NA	NA		
48.0 - 49.5	48.75	120	2.28	67	89	0.66	59	100	SHALE	FALSE	NA	15.9	NA	NA		

**JOHN SEVIER FOSSIL PLANT
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS
FOR COARSE GRAINED SOILS**

Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Estimated Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT N Value	SPT N Value	Correction Factor	Corrected N-Value	Relative Density (%)	Unified Soil Classification	Internal Angle of Friction (degrees)	Unit Weight Dry (pcf)	Moisture Content (%)	Revised In-situ Unit Weight (pcf)	Void Ratio
				N ₆₀	N ₆₀									
				Input Required										
JS-43		water =	18.0											
0.0 - 1.5	0.75	120	0.05	20	27	1.00	27	75	CL	FALSE	NA	18.5	NA	NA
1.5 - 3.0	2.25	120	0.14	21	28	1.00	28	77	CL	FALSE	NA	16.9	NA	NA
3.0 - 4.5	3.75	120	0.23	9	12	1.00	12	52	CL	FALSE	NA	18.4	NA	NA
4.5 - 6.0	5.25	120	0.32	16	21	1.00	21	68	CL	FALSE	NA	17.5	NA	NA
6.0 - 7.5	6.75	120	0.41	21	28	1.00	28	77	CL	FALSE	NA	20.8	NA	NA
7.5 - 9.0	8.25	120	0.50	21	28	1.00	28	77	CL	FALSE	NA	18.1	NA	NA
9.0 - 10.5	9.75	120	0.59	18	24	1.00	24	73	CL	FALSE	NA	20.4	NA	NA
10.5 - 12.0	11.25	120	0.68	28	37	1.00	37	87	CL	FALSE	NA	19.4	NA	NA
12.0 - 13.5	12.75	120	0.77	29	39	1.00	39	87	CL	FALSE	NA	21.7	NA	NA
13.5 - 15.0	14.25	120	0.86	24	32	1.00	32	82	CL	FALSE	NA	18.5	NA	NA
15.0 - 16.5	15.75	120	0.95	20	27	1.00	27	75	CL	FALSE	NA	17.3	NA	NA
16.5 - 18.0	17.25	120	1.04	32	43	0.98	42	91	CL	FALSE	NA	17.4	NA	NA
18.0 - 19.5	18.75	120	1.08	25	33	0.96	32	82	CL	FALSE	NA	18.4	NA	NA
19.5 - 21.0	20.25	120	1.12	25	33	0.94	32	81	CL	FALSE	NA	16.3	NA	NA
21.0 - 22.5	21.75	120	1.16	32	43	0.93	40	89	CL	FALSE	NA	18.7	NA	NA
22.5 - 23.8	23.15	120	1.20	100	133	0.91	122	100	ROCK	FALSE	NA	13.0	NA	NA

JOHN SEVIER FOSSIL PLANT															
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS															
FOR COARSE GRAINED SOILS															
Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Estimated Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT N	SPT N	Correction Factor	Corrected N-Value	Relative Density (%)	Unified Soil Classification	Internal Angle of Friction (degrees)	Unit Weight Dry (pcf)	Moisture Content (%)	Revised In-situ Unit Weight (pcf)	Void Ratio	
				N ₆₀	N ₆₀	C _N	(N ₁) ₆₀	D _r		φ'	γ _d	m	γ _w	e	
Input Required															
		water =													
JS-44			27.8												
0.0 - 1.5	0.75	120	0.05	5	7	1.00	7	35	CL	FALSE	NA	14.0	NA	NA	
1.5 - 3.0	2.25	120	0.14	13	17	1.00	17	60	CL	FALSE	NA	16.2	NA	NA	
3.0 - 4.5	3.75	120	0.23	18	24	1.00	24	73	CL	FALSE	NA	6.3	NA	NA	
4.5 - 6.0	5.25	120	0.32	17	23	1.00	23	70	CL	FALSE	NA	--	NA	NA	
6.0 - 7.5	6.75	120	0.41	10	13	1.00	13	53	CL	FALSE	NA	16.5	NA	NA	
7.5 - 9.0	8.25	120	0.50	8	11	1.00	11	47	CL	FALSE	NA	19.7	NA	NA	
9.0 - 10.5	9.75	120	0.59	17	23	1.00	23	70	CL	FALSE	NA	17.3	NA	NA	
10.5 - 12.0	11.25	120	0.68	15	20	1.00	20	67	CL	FALSE	NA	19.5	NA	NA	
12.0 - 13.5	12.75	120	0.77	16	21	1.00	21	68	CL	FALSE	NA	18.0	NA	NA	
13.5 - 15.0	14.25	120	0.86	9	12	1.00	12	52	CL	FALSE	NA	18.7	NA	NA	
15.0 - 16.5	15.75	120	0.95	12	16	1.00	16	60	CL	FALSE	NA	16.9	NA	NA	
16.5 - 18.0	17.25	120	1.04	15	20	0.98	20	65	CL	FALSE	NA	20.2	NA	NA	
18.0 - 19.5	18.75	120	1.13	12	16	0.94	15	58	CL	FALSE	NA	19.8	NA	NA	
19.5 - 21.0	20.25	120	1.22	12	16	0.91	15	56	CL	FALSE	NA	16.9	NA	NA	
21.0 - 22.5	21.75	120	1.31	16	21	0.88	19	63	CL	FALSE	NA	17.3	NA	NA	
22.5 - 24.0	23.25	120	1.40	8	11	0.85	9	44	CL	FALSE	NA	19.5	NA	NA	
24.0 - 25.5	24.75	120	1.49	24	32	0.82	26	75	CL	FALSE	NA	19.2	NA	NA	
25.5 - 27.0	26.25	120	1.58	8	11	0.80	9	41	CL	FALSE	NA	23.6	NA	NA	
27.0 - 28.5	27.75	129	1.67	7	9	0.77	7	39	ML	29.5	86	50.5	129	0.95	
28.5 - 30.0	29.25	118	1.71	2	3	0.76	2	18	ML	27.5	82	43.7	118	1.03	
30.0 - 31.5	30.75	120	1.76	2	3	0.75	2	18	CL	FALSE	NA	46.1	NA	NA	
31.5 - 33.0	32.25	120	1.80	3	4	0.75	3	24	CL	FALSE	NA	27.0	NA	NA	
33.0 - 34.5	33.75	120	1.84	100	133	0.74	98	100	CL	FALSE	NA	NR	NA	NA	
34.5 - 36.0	35.25	120	1.89	29	39	0.73	28	77	CL	FALSE	NA	25.2	NA	NA	
36.0 - 37.5	36.75	120	1.93	29	39	0.72	28	77	CL	FALSE	NA	23.6	NA	NA	
37.5 - 39.0	38.25	120	1.97	21	28	0.71	20	65	CL	FALSE	NA	25.9	NA	NA	
39.0 - 40.5	39.75	120	2.02	20	27	0.70	19	63	CL	FALSE	NA	26.6	NA	NA	
40.5 - 42.0	41.25	120	2.06	15	20	0.70	14	53	CL	FALSE	NA	22.7	NA	NA	
42.0 - 43.5	42.75	120	2.10	10	13	0.69	9	44	CL	FALSE	NA	22.2	NA	NA	
43.5 - 43.9	43.7	120	2.13	100	133	0.69	91	100	SHALE	FALSE	NA	21.9	NA	NA	

JOHN SEVIER FOSSIL PLANT
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS
FOR COARSE GRAINED SOILS

Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Estimated Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT	SPT	Correction Factor	Corrected N-Value	Relative Density (%)	Unified Soil Classification	Internal Angle of Friction (degrees)	Unit Weight Dry (pcf)	Moisture Content (%)	Revised In-situ Unit Weight (pcf)	Void Ratio
				N ₆₀	N ₆₀									
				Input Required										
JS-45x		water =	21.0											
0.0 - 1.5	0.75	120	0.05	5	7	1.00	7	35	CL	FALSE	NA	25.4	NA	NA
1.5 - 3.0	2.25	120	0.14	7	9	1.00	9	44	CL	FALSE	NA	22.4	NA	NA
3.0 - 4.5	3.75	110	0.22	14	19	1.00	19	63	ML	32	90	22.5	110	0.85
4.5 - 6.0	5.25	112	0.30	14	19	1.00	19	63	ML	32	90	23.9	112	0.85
6.0 - 7.5	6.75	117	0.39	9	12	1.00	12	52	ML	31	88.5	31.7	117	0.89
7.5 - 9.0	8.25	107	0.47	2	3	1.00	3	18	ML	27.5	82	30.0	107	1.03
9.0 - 10.5	9.75	104	0.55	0	0	1.00	1	11	ML	27	81	27.8	104	1.05
10.5 - 12.0	11.25	108	0.63	0	0	1.00	1	11	ML	27	81	33.8	108	1.05
12.0 - 13.5	12.75	105	0.71	2	3	1.00	3	18	ML	27.5	82	27.6	105	1.03
13.5 - 15.0	14.25	116	0.79	3	4	1.00	4	27	ML	28.5	84	37.5	116	0.99
15.0 - 16.5	15.75	125	0.89	8	11	1.00	11	47	ML	30.5	88	42.2	125	0.91
16.5 - 18.0	17.25	128	0.98	15	20	1.00	20	67	ML	32.5	91	41.0	128	0.83
18.0 - 19.5	18.75	121	1.07	8	11	0.97	10	47	ML	30.5	88	37.4	121	0.91
19.5 - 21.0	20.25	122	1.16	4	5	0.93	5	27	ML	28.5	84	45.0	122	0.99
21.0 - 22.5	21.75	121	1.21	0	0	0.91	1	11	ML	27	81	49.3	121	1.05
22.5 - 24.0	23.25	130	1.26	0	0	0.89	1	11	ML	27	81	60.6	130	1.05
24.0 - 25.5	24.75	122	1.30	0	0	0.88	1	11	ML	27	81	50.8	122	1.05
25.5 - 27.0	26.25	120	1.35	0	0	0.86	1	11	ML	27	81	NR	NR	1.05
27.0 - 28.5	27.75	120	1.39	0	0	0.85	1	11	ML	27	81	48.5	120	1.05
28.5 - 30.0	29.25	137	1.45	0	0	0.83	1	11	ML	27	81	68.6	137	1.05
30.0 - 31.5	30.75	113	1.48	0	0	0.82	1	11	ML	27	81	39.4	113	1.05
31.5 - 33.0	32.25	114	1.52	0	0	0.81	1	11	ML	27	81	41.2	114	1.05
33.0 - 34.5	33.75	122	1.57	0	0	0.80	1	11	ML	27	81	51.0	122	1.05
34.5 - 36.0	35.25	114	1.61	0	0	0.79	1	11	ML	27	81	41.1	114	1.05
36.0 - 37.5	36.75	120	1.65	0	0	0.78	1	11	ML	27	81	48.4	120	1.05
37.5 - 39.0	38.25	120	1.69	10	13	0.77	10	47	CL	FALSE	NA	27.5	NA	NA
39.0 - 40.5	39.75	120	1.74	13	17	0.76	13	53	CL	FALSE	NA	23.7	NA	NA
40.5 - 41.4	40.95	120	1.77	100	133	0.75	100	100	SHALE	FALSE	NA	19.3	NA	NA

JOHN SEVIER FOSSIL PLANT															
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS															
FOR COARSE GRAINED SOILS															
Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT	SPT	Correction Factor	Corrected N-Value (N) ₆₀	Relative Density (%)	Unified Soil Classification	Internal Friction (degrees)	Unit Weight (pcf)	Moisture Content (%)	Revised In-situ Unit Weight (pcf)	Void Ratio	
				N	N										N ₆₀
				Input Required											
JS-46		water =	48.9												
0.0 - 1.5	0.75	120	0.05	3	4	1.00	4	27	CL	FALSE	NA	18.7	NA	NA	
1.5 - 3.0	2.25	109	0.13	5	7	1.00	7	35	ML	29.5	86	26.4	109	0.95	
3.0 - 4.5	3.75	108	0.21	7	9	1.00	9	44	ML	30	87	24.7	108	0.93	
4.5 - 6.0	5.25	108	0.29	6	8	1.00	8	41	ML	30	87	24.5	108	0.93	
6.0 - 7.5	6.75	120	0.38	11	15	1.00	15	56	CL	FALSE	NA	15.5	NA	NA	
7.5 - 9.0	8.25	100	0.45	9	12	1.00	12	52	ML	31	88.5	13.0	100	0.89	
9.0 - 10.5	9.75	100	0.53	6	8	1.00	8	41	ML	30	87	14.8	100	0.93	
10.5 - 12.0	11.25	100	0.60	6	8	1.00	8	41	ML	30	87	14.9	100	0.93	
12.0 - 13.5	12.75	107	0.68	28	37	1.00	37	87	ML	34.5	95	12.8	107	0.75	
13.5 - 15.0	14.25	102	0.76	11	15	1.00	15	56	ML	31.5	89.5	13.6	102	0.87	
15.0 - 16.5	15.75	106	0.84	25	33	1.00	33	84	ML	34	94	13.1	106	0.77	
16.5 - 18.0	17.25	113	0.92	38	51	1.00	51	98	ML	35.5	97	16.0	113	0.72	
18.0 - 19.5	18.75	107	1.00	21	28	1.00	28	77	ML	33.5	93	14.8	107	0.8	
19.5 - 21.0	20.25	108	1.09	23	31	0.96	29	79	ML	33.5	93	15.6	108	0.8	
21.0 - 22.5	21.75	116	1.17	53	71	0.92	65	100	ML	36	98	18.6	116	0.7	
22.5 - 24.0	23.25	113	1.26	33	44	0.89	39	89	ML	34.5	95	19.0	113	0.75	
24.0 - 25.5	24.75	108	1.34	20	27	0.86	23	71	ML	33	92	17.9	108	0.82	
25.5 - 27.0	26.25	103	1.42	9	12	0.84	10	47	ML	30.5	88	16.6	103	0.91	
27.0 - 28.5	27.75	118	1.50	6	8	0.82	7	35	ML	29.5	86	37.0	118	0.95	
28.5 - 30.0	29.25	105	1.58	15	20	0.79	16	58	ML	31.5	89.5	17.6	105	0.87	
30.0 - 31.5	30.75	108	1.66	24	32	0.78	25	73	ML	33	92	17.9	108	0.82	
31.5 - 33.0	32.25	113	1.75	41	55	0.76	41	91	ML	35	96	18.1	113	0.74	
33.0 - 34.5	33.75	112	1.83	40	53	0.74	39	89	ML	34.5	95	17.4	112	0.75	
34.5 - 36.0	35.25	114	1.92	35	47	0.72	34	84	ML	34	94	21.8	114	0.77	
36.0 - 37.5	36.75	110	2.00	43	57	0.71	41	89	ML	34.5	95	16.0	110	0.75	
37.5 - 39.0	38.25	112	2.09	36	48	0.69	33	84	ML	34	94	19.5	112	0.77	
39.0 - 40.5	39.75	112	2.17	35	47	0.68	32	81	ML	34	94	19.1	112	0.77	
40.5 - 42.0	41.25	115	2.26	29	39	0.67	26	74	ML	33	92	24.8	115	0.82	
42.0 - 43.5	42.75	118	2.34	34	45	0.65	30	79	ML	33.5	93	26.8	118	0.8	
43.5 - 45.0	44.25	120	2.43	19	25	0.64	16	60	CL	FALSE	NA	22.2	NA	NA	
45.0 - 46.5	45.75	120	2.52	14	19	0.63	12	47	CL	FALSE	NA	20.7	NA	NA	
46.5 - 48.0	47.25	120	2.61	10	13	0.62	8	41	CL	FALSE	NA	21.8	NA	NA	
48.0 - 49.5	48.75	101	2.69	4	5	0.61	3	24	ML	28	83	22.0	101	1.01	
49.5 - 51.0	50.25	103	2.72	0	0	0.61	1	11	ML	27	81	27.0	103	1.05	
51.0 - 52.5	51.75	112	2.76	20	27	0.60	16	60	ML	32	90	24.6	112	0.85	
52.5 - 54.0	53.25	117	2.80	5	7	0.60	4	27	ML	28.5	84	38.7	117	0.99	
54.0 - 55.5	54.75	123	2.84	0	0	0.59	1	11	ML	27	81	51.9	123	1.05	
55.5 - 57.0	56.25	123	2.89	5	7	0.59	4	24	ML	28	83	48.1	123	1.01	
57.0 - 58.5	57.75	116	2.93	0	0	0.58	1	11	ML	27	81	43.1	116	1.05	
58.5 - 60.0	59.25	105	2.96	0	0	0.58	1	11	ML	27	81	29.9	105	1.05	
60.0 - 61.5	60.75	120	3.00	9	12	0.58	7	35	CL	FALSE	NA	20.4	NA	NA	
61.5 - 63.0	62.25	120	3.05	10	13	0.57	8	41	CL	FALSE	NA	21.4	NA	NA	
63.0 - 64.5	63.75	120	3.09	16	21	0.57	12	52	CL	FALSE	NA	20.8	NA	NA	
64.5 - 66.0	65.25	120	3.13	17	23	0.56	13	52	CL	FALSE	NA	23.5	NA	NA	
66.0 - 67.5	66.75	120	3.18	2	3	0.56	2	11	CL	FALSE	NA	23.8	NA	NA	
67.5 - 69.0	68.25	120	3.22	5	7	0.56	4	24	CL	FALSE	NA	19.5	NA	NA	
69.0 - 70.5	69.75	140	3.28	42	56	0.55	31	79	SP	37	117.5	18.8	140	0.42	
70.5 - 72.0	71.25	120	3.32	8	11	0.55	6	32	SHALE	FALSE	NA	29.3	NA	NA	
72.0 - 73.5	72.75	120	3.37	13	17	0.55	9	44	SHALE	FALSE	NA	40.8	NA	NA	
73.5 - 75.0	74.25	120	3.41	33	44	0.54	24	71	SHALE	FALSE	NA	24.4	NA	NA	
75.0 - 75.7	75.35	120	3.44	100	133	0.54	72	100	SHALE	FALSE	NA	26.5	NA	NA	

JOHN SEVIER FOSSIL PLANT
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS
FOR COARSE GRAINED SOILS

Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Estimated Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT Value	SPT Value	Correction Factor	Corrected N-Value	Relative Density (%)	Unified Soil Classification	Internal Angle of Friction (degrees)	Unit Weight Dry (pcf)	Moisture Content (%)	Revised In-situ Unit Weight (pcf)	Void Ratio	
				N ₆₀	N ₆₀	C _N	(N ₁) ₆₀	Dr		ψ	γ _d	m	γ _w	e	
				Input Required											
JS-47		water =	15.0												
0.0 - 1.5	0.75	120	0.05	13	17	1.00	17	60	CL	FALSE	NA	20.9	NA	NA	
1.5 - 3.0	2.25	120	0.14	28	37	1.00	37	87	CL	FALSE	NA	15.8	NA	NA	
3.0 - 4.5	3.75	120	0.23	38	51	1.00	51	98	CL	FALSE	NA	16.1	NA	NA	
4.5 - 6.0	5.25	120	0.32	18	24	1.00	24	73	CL	FALSE	NA	21.0	NA	NA	
6.0 - 7.5	6.75	120	0.41	24	32	1.00	32	82	CL	FALSE	NA	21.8	NA	NA	
7.5 - 9.0	8.25	120	0.50	22	29	1.00	29	79	CL	FALSE	NA	20.4	NA	NA	
9.0 - 10.5	9.75	120	0.59	13	17	1.00	17	60	CL	FALSE	NA	22.1	NA	NA	
10.5 - 12.0	11.25	120	0.68	15	20	1.00	20	67	CL	FALSE	NA	22.3	NA	NA	
12.0 - 13.5	12.75	120	0.77	15	20	1.00	20	67	CL	FALSE	NA	20.4	NA	NA	
13.5 - 15.0	14.25	120	0.86	44	59	1.00	59	100	CL	FALSE	NA	21.9	NA	NA	
15.0 - 16.5	15.75	135	0.91	20	27	1.00	27	75	GP-GM	37.6	122	10.3	135	0.37	
16.5 - 18.0	17.25	120	0.95	39	52	1.00	52	98	SHALE	FALSE	NA	20.3	NA	NA	

JOHN SEVIER FOSSIL PLANT
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS
FOR COARSE GRAINED SOILS

Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Estimated Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT N Value	SPT N Value	Correction Factor	Corrected N-Value	Relative Density (%)	Unified Soil Classification	Internal Friction (degrees)	Unit Weight Dry (pcf)	Moisture Content (%)	Revised In-situ Unit Weight (pcf)	Void Ratio
		γ_s	σ	N ₆₀	N ₆₀	C _N	(N ₁) ₆₀	D _r		ϕ	γ_d	m	γ_w	e
				Input Required										
JS-48		water =	24.0											
0.0 - 1.5	0.75	120	0.05	5	7	1.00	7	35	CL	FALSE	NA	15.5	NA	NA
1.5 - 3.0	2.25	120	0.14	11	15	1.00	15	56	CL	FALSE	NA	18.6	NA	NA
3.0 - 4.5	3.75	120	0.23	12	16	1.00	16	60	CL	FALSE	NA	17.8	NA	NA
4.5 - 6.0	5.25	120	0.32	15	20	1.00	20	67	CL	FALSE	NA	17.4	NA	NA
6.0 - 7.5	6.75	120	0.41	31	41	1.00	41	91	CL	FALSE	NA	18.9	NA	NA
7.5 - 9.0	8.25	117	0.49	46	61	1.00	61	100	ML	36	98	19.4	117	0.7
9.0 - 10.5	9.75	116	0.58	15	20	1.00	20	67	ML	32.5	91	27.1	116	0.83
10.5 - 12.0	11.25	112	0.66	8	11	1.00	11	47	ML	30.5	88	27.2	112	0.91
12.0 - 13.5	12.75	106	0.74	6	8	1.00	8	41	ML	30	87	22.2	106	0.93
13.5 - 15.0	14.25	113	0.83	2	3	1.00	3	18	ML	27.5	82	37.2	113	1.03
15.0 - 16.5	15.75	106	0.91	2	3	1.00	3	18	ML	27.5	82	28.9	106	1.03
16.5 - 18.0	17.25	113	0.99	0	0	1.00	1	11	ML	27	81	38.9	113	1.05
18.0 - 19.5	18.75	120	1.08	12	16	0.96	15	58	CL	FALSE	NA	19.5	NA	NA
19.5 - 21.0	20.25	120	1.17	12	16	0.92	15	56	CL	FALSE	NA	17.6	NA	NA
21.0 - 22.5	21.75	120	1.26	16	21	0.89	19	65	CL	FALSE	NA	19.9	NA	NA
22.5 - 24.0	23.25	120	1.35	8	11	0.86	9	44	CL	FALSE	NA	24.9	NA	NA
24.0 - 25.5	24.75	142	1.41	11	15	0.84	12	52	GP-GM	34.2	116	22.8	142	0.44
25.5 - 27.0	26.25	139	1.47	33	44	0.83	36	86	GP-GM	39.3	125	11.1	139	0.34
27.0 - 28.5	27.75	136	1.52	32	43	0.81	35	84	GP-GM	38.5	123	10.9	136	0.35
28.5 - 30.0	29.25	120	1.57	26	35	0.80	28	77	SHALE	FALSE	NA	24.5	NA	NA

JOHN SEVIER FOSSIL PLANT
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS
FOR COARSE GRAINED SOILS

Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Estimated Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT	SPT	Correction Factor	Corrected N-Value	Relative Density (%)	Unified Soil Classification	Internal Angle of Friction (degrees)	Unit Weight Dry (pcf)	Moisture Content (%)	Revised In-situ Unit Weight (pcf)	Void Ratio
				N ₆₀	N ₆₀									
				Input Required										
JS-49		water =	6.0											
0.0 - 1.5	0.75	120	0.05	7	9	1.00	9	44	CL	FALSE	NA	23.4	NA	NA
1.5 - 3.0	2.25	120	0.14	11	15	1.00	15	56	CL	FALSE	NA	20.6	NA	NA
3.0 - 4.5	3.75	109	0.22	8	11	1.00	11	47	ML	30.5	88	24.3	109	0.91
4.5 - 6.0	5.25	110	0.30	4	5	1.00	5	32	ML	29	85	29.2	110	0.97
6.0 - 7.5	6.75	108	0.33	3	4	1.00	4	27	ML	28.5	84	29.1	108	0.99
7.5 - 9.0	8.25	103	0.36	2	3	1.00	3	18	ML	27.5	82	25.5	103	1.03
9.0 - 10.5	9.75	110	0.40	3	4	1.00	4	27	ML	28.5	84	31.0	110	0.99
10.5 - 12.0	11.25	116	0.44	2	3	1.00	3	18	ML	27.5	82	41.8	116	1.03
12.0 - 13.5	12.75	104	0.47	0	0	1.00	1	11	ML	27	81	28.6	104	1.05
13.5 - 15.0	14.25	106	0.50	0	0	1.00	1	11	ML	27	81	31.0	106	1.05
15.0 - 16.5	15.75	106	0.54	0	0	1.00	1	11	ML	27	81	31.1	106	1.05
16.5 - 18.0	17.25	106	0.57	0	0	1.00	1	11	ML	27	81	30.8	106	1.05
18.0 - 19.5	18.75	120	0.61	11	15	1.00	15	56	CL	FALSE	NA	21.2	NA	NA
19.5 - 21.0	20.25	120	0.66	8	11	1.00	11	47	CL	FALSE	NA	21.9	NA	NA
21.0 - 22.5	21.75	120	0.70	45	60	1.00	60	100	CL	FALSE	NA	10.5	NA	NA
22.5 - 24.0	23.25	143	0.76	50	67	1.00	67	100	GP-GM	41.6	129	11.1	143	0.29
24.0 - 25.5	24.75	142	0.82	74	99	1.00	99	100	GP-GM	41.6	129	10.3	142	0.29
25.5 - 27.0	26.25	164	0.90	37	49	1.00	49	97	GP-GM	41	127.5	28.3	164	0.31
27.0 - 27.1	27.05	120	0.92	100	133	1.00	133	100	SHALE	FALSE	NA	9.2	NA	NA

**JOHN SEVIER FOSSIL PLANT
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS
FOR COARSE GRAINED SOILS**

Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Estimated Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT N Value	SPT N Value	Correction Factor	Corrected N-Value	Relative Density (%)	Unified Soil Classification	Internal Angle of Friction (degrees)	Unit Weight Dry (pcf)	Moisture Content (%)	Revised In-situ Unit Weight (pcf)	Void Ratio												
															γ_w	σ	N ₈₀	N ₆₀	C _N	(N ₁) ₆₀	D _r	ϕ	γ_d	m	γ_w	e
															Input Required											
JS-50		water =	57.0																							
0.0 - 1.5	0.75	120	0.05	10	13	1.00	13	53	CL	FALSE	NA	21.6	NA	NA												
1.5 - 3.0	2.25	117	0.13	50	67	1.00	67	100	ML	36	98	18.9	117	0.7												
3.0 - 4.5	3.75	116	0.22	74	99	1.00	99	100	ML	36	98	18.0	116	0.7												
4.5 - 6.0	5.25	118	0.31	30	40	1.00	40	89	ML	34.5	95	24.4	118	0.75												
6.0 - 7.5	6.75	118	0.40	49	65	1.00	65	100	ML	36	98	20.2	118	0.7												
7.5 - 9.0	8.25	114	0.48	46	61	1.00	61	100	ML	36	98	16.5	114	0.7												
9.0 - 10.5	9.75	113	0.57	30	40	1.00	40	89	ML	34.5	95	18.9	113	0.75												
10.5 - 12.0	11.25	114	0.65	46	61	1.00	61	100	ML	36	98	16.2	114	0.7												
12.0 - 13.5	12.75	118	0.74	46	61	1.00	61	100	ML	36	98	20.5	118	0.7												
13.5 - 15.0	14.25	118	0.83	43	57	1.00	57	100	ML	36	98	20.0	118	0.7												
15.0 - 16.5	15.75	118	0.92	46	61	1.00	61	100	ML	36	98	20.7	118	0.7												
16.5 - 18.0	17.25	118	1.01	67	89	1.00	89	100	ML	36	98	20.9	118	0.7												
18.0 - 19.5	18.75	119	1.10	45	60	0.96	57	100	ML	36	98	21.6	119	0.7												
19.5 - 21.0	20.25	119	1.18	52	69	0.92	64	100	ML	36	98	21.1	119	0.7												
21.0 - 22.5	21.75	116	1.27	70	93	0.89	83	100	ML	36	98	18.2	116	0.7												
22.5 - 24.0	23.25	115	1.36	64	85	0.86	73	100	ML	36	98	17.6	115	0.7												
24.0 - 25.5	24.75	120	1.45	38	51	0.83	42	91	CL	FALSE	NA	19.3	NA	NA												
25.5 - 27.0	26.25	120	1.54	57	76	0.81	61	100	CL	FALSE	NA	20.0	NA	NA												
27.0 - 28.5	27.75	120	1.63	49	65	0.78	51	98	CL	FALSE	NA	22.9	NA	NA												
28.5 - 30.0	29.25	120	1.72	56	75	0.76	57	100	CL	FALSE	NA	20.8	NA	NA												
30.0 - 31.5	30.75	117	1.81	67	89	0.74	67	100	ML	36	98	18.9	117	0.7												
31.5 - 33.0	32.25	118	1.89	66	88	0.73	64	100	ML	36	98	20.8	118	0.7												
33.0 - 34.5	33.75	117	1.98	58	77	0.71	55	99	ML	35.5	97	20.2	117	0.72												
34.5 - 36.0	35.25	117	2.07	37	49	0.70	34	84	ML	34	94	24.4	117	0.77												
36.0 - 37.5	36.75	111	2.15	21	28	0.68	19	65	ML	32.5	91	22.5	111	0.83												
37.5 - 39.0	38.25	112	2.24	29	39	0.67	26	74	ML	33	92	22.2	112	0.82												
39.0 - 40.5	39.75	117	2.32	39	52	0.66	34	84	ML	34	94	24.1	117	0.77												
40.5 - 42.0	41.25	117	2.41	38	51	0.64	33	82	ML	34	94	24.1	117	0.77												
42.0 - 43.5	42.75	117	2.50	73	97	0.63	62	100	ML	36	98	19.6	117	0.7												
43.5 - 45.0	44.25	117	2.59	56	75	0.62	46	95	ML	35.5	97	21.0	117	0.72												
45.0 - 46.5	45.75	112	2.67	21	28	0.61	17	60	ML	32	90	23.9	112	0.85												
46.5 - 48.0	47.25	120	2.76	20	27	0.60	16	60	CL	FALSE	NA	22.0	NA	NA												
48.0 - 49.5	48.75	110	2.84	11	15	0.59	9	41	ML	30	87	26.5	110	0.93												
49.5 - 51.0	50.25	113	2.93	15	20	0.58	12	47	ML	30.5	88	28.7	113	0.91												
51.0 - 52.5	51.75	114	3.01	21	28	0.58	16	60	ML	32	90	26.7	114	0.85												
52.5 - 54.0	53.25	111	3.10	3	4	0.57	2	18	ML	27.5	82	35.6	111	1.03												
54.0 - 55.5	54.75	117	3.19	14	19	0.56	11	47	ML	30.5	88	32.5	117	0.91												
55.5 - 57.0	56.25	117	3.27	11	15	0.55	8	41	ML	30	87	34.1	117	0.93												
57.0 - 58.5	57.75	120	3.32	12	16	0.55	9	41	CL	FALSE	NA	25.3	NA	NA												
58.5 - 60.0	59.25	120	3.36	23	31	0.55	17	60	CL	FALSE	NA	18.2	NA	NA												
60.0 - 61.5	60.75	120	3.40	20	27	0.54	15	56	CL	FALSE	NA	19.4	NA	NA												
61.5 - 63.0	62.25	140	3.46	45	60	0.54	32	82	GP-GM	38.5	123	14.2	140	0.35												
63.0 - 64.5	63.75	144	3.52	54	72	0.53	38	87	GP-GM	39.3	125	15.4	144	0.34												
64.5 - 66.0	65.25	157	3.59	100	133	0.53	70	100	GP-GM	41.6	129	21.7	157	0.29												
66.0 - 66.3	66.15	120	3.62	100	133	0.53	70	100	SHALE	FALSE	NA	14.1	NA	NA												

JOHN SEVIER FOSSIL PLANT
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS
FOR COARSE GRAINED SOILS

Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Estimated Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT	SPT	Correction Factor	Corrected N-Value (N ₁) ₆₀	Relative Density (%)	Unified Soil Classification	Internal Friction Angle of Dry (degrees)	Unit Weight (pcf)	Moisture Content (%)	Revised In-situ Unit Weight (pcf)	Void Ratio
				N	N									
				N ₆₀	N ₆₀									
				σ	C _N									
Input Required														
JS-52		water =	31.5											
0.0 - 1.5	0.75	120	0.05	5	7	1.00	7	35	CL	FALSE	NA	12.0	NA	NA
1.5 - 3.0	2.25	108	0.13	17	23	1.00	23	70	ML	33	92	17.5	108	0.82
3.0 - 4.5	3.75	104	0.20	9	12	1.00	12	52	ML	31	88.5	17.9	104	0.89
4.5 - 6.0	5.25	105	0.28	7	9	1.00	9	44	ML	30	87	20.3	105	0.93
6.0 - 7.5	6.75	106	0.36	9	12	1.00	12	52	ML	31	88.5	19.3	106	0.89
7.5 - 9.0	8.25	105	0.44	10	13	1.00	13	53	ML	31	88.5	18.5	105	0.89
9.0 - 10.5	9.75	106	0.52	10	13	1.00	13	53	ML	31	88.5	19.9	106	0.89
10.5 - 12.0	11.25	106	0.60	8	11	1.00	11	47	ML	30.5	88	20.4	106	0.91
12.0 - 13.5	12.75	112	0.68	12	16	1.00	16	60	ML	32	90	24.9	112	0.85
13.5 - 15.0	14.25	114	0.77	22	29	1.00	29	79	ML	33.5	93	22.1	114	0.8
15.0 - 16.5	15.75	113	0.85	17	23	1.00	23	70	ML	33	92	22.4	113	0.82
16.5 - 18.0	17.25	115	0.94	17	23	1.00	23	70	ML	33	92	25.5	115	0.82
18.0 - 19.5	18.75	114	1.03	13	17	0.99	17	60	ML	32	90	26.5	114	0.85
19.5 - 21.0	20.25	109	1.11	10	13	0.95	13	52	ML	31	88.5	23.5	109	0.89
21.0 - 22.5	21.75	116	1.19	23	31	0.91	28	77	ML	33.5	93	25.2	116	0.8
22.5 - 24.0	23.25	108	1.28	2	3	0.89	2	18	ML	27.5	82	32.2	108	1.03
24.0 - 25.5	24.75	108	1.36	2	3	0.86	2	18	ML	27.5	82	31.2	108	1.03
25.5 - 27.0	26.25	120	1.45	24	32	0.83	27	75	ML	33.5	93	29.2	120	0.8
27.0 - 28.5	27.75	113	1.53	25	33	0.81	27	75	ML	33.5	93	22.0	113	0.8
28.5 - 30.0	29.25	120	1.62	16	21	0.79	17	60	CL	FALSE	NA	20.8	NA	NA
30.0 - 31.5	30.75	120	1.71	32	43	0.76	33	82	CL	FALSE	NA	16.1	NA	NA
31.5 - 33.0	32.25	120	1.76	50	67	0.75	50	98	ML	35.5	97	23.3	120	0.72
33.0 - 34.5	33.75	118	1.80	20	27	0.75	20	65	ML	32.5	91	29.6	118	0.83
34.5 - 36.0	35.25	115	1.84	13	17	0.74	13	52	ML	31	88.5	30.5	115	0.89
36.0 - 37.5	36.75	118	1.88	25	33	0.73	24	73	ML	33	92	28.3	118	0.82
37.5 - 39.0	38.25	120	1.92	33	44	0.72	32	81	ML	34	94	27.7	120	0.77
39.0 - 40.5	39.75	118	1.96	24	32	0.71	23	70	ML	33	92	28.0	118	0.82
40.5 - 42.0	41.25	115	2.00	19	25	0.71	18	60	ML	32	90	27.3	115	0.85
42.0 - 43.5	42.75	113	2.04	20	27	0.70	19	63	ML	32	90	25.7	113	0.85
43.5 - 45.0	44.25	121	2.08	18	24	0.69	17	60	ML	32	90	34.1	121	0.85
45.0 - 46.5	45.75	120	2.13	15	20	0.69	14	53	SHALE	FALSE	NA	32.2	NA	NA
50.0 - 51.5	50.75	120	2.27	25	33	0.66	22	70	SHALE	FALSE	NA	33.2	NA	NA
51.5 - 53.0	52.25	120	2.31	25	133	0.66	88	100	SHALE	FALSE	NA	32.5	NA	NA
53.0 - 54.1	53.55	120	2.35	100	4	0.65	3	18	SHALE	FALSE	NA	24.1	NA	NA

JOHN SEVIER FOSSIL PLANT
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS
FOR COARSE GRAINED SOILS

Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT Value	SPT Value	Correction Factor	Corrected N-Value	Relative Density (%)	Unified Soil Classification	Internal Angle of Friction (degrees)	Unit Weight Dry (pcf)	Moisture Content (%)	Revised In-situ Unit Weight (pcf)	Void Ratio
				N ₆₀	N ₆₀	C _N	(N ₁) ₆₀	D _r		φ'	γ _d	m	γ _w	e
				Input Required										
JS-53		water = 11.9												
0.0 - 1.5	0.75	120	0.05	12	16	1.00	16	60	CL	FALSE	NA	23.4	NA	NA
1.5 - 3.0	2.25	120	0.14	23	31	1.00	31	79	CL	FALSE	NA	20.2	NA	NA
3.0 - 4.5	3.75	120	0.23	40	53	1.00	53	99	CL	FALSE	NA	17.2	NA	NA
4.5 - 6.0	5.25	120	0.32	32	43	1.00	43	91	CL	FALSE	NA	20.1	NA	NA
6.0 - 7.5	6.75	120	0.41	24	32	1.00	32	82	CL	FALSE	NA	19.6	NA	NA
7.5 - 9.0	8.25	120	0.50	19	25	1.00	25	74	CL	FALSE	NA	21.8	NA	NA
9.0 - 10.5	9.75	120	0.59	18	24	1.00	24	73	CL	FALSE	NA	18.8	NA	NA
10.5 - 12.0	11.25	120	0.68	13	17	1.00	17	60	CL	FALSE	NA	24.8	NA	NA
12.0 - 13.5	12.75	120	0.72	19	25	1.00	25	74	SHALE	FALSE	NA	30.1	NA	NA
13.5 - 13.9	13.7	120	0.75	100	133	1.00	133	100	SHALE	FALSE	NA	15.1	NA	NA

JOHN SEVIER FOSSIL PLANT
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS
FOR COARSE GRAINED SOILS

Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Estimated Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT	SPT	Correction Factor	Corrected N-Value	Relative Density (%)	Unified Soil Classification	Internal Angle of Friction (degrees)	Unit Weight Dry (pcf)	Moisture Content (%)	Revised In-situ Unit Weight (pcf)	Void Ratio
				N ₆₀	N ₆₀									
				Input Required										
JS-54		water =	27.0											
0.0 - 1.5	0.75	120	0.05	6	8	1.00	8	41	CL	FALSE	NA	16.4	NA	NA
1.5 - 3.0	2.25	120	0.14	7	9	1.00	9	44	CL	FALSE	NA	15.9	NA	NA
3.0 - 4.5	3.75	120	0.23	22	29	1.00	29	79	CL	FALSE	NA	11.4	NA	NA
4.5 - 6.0	5.25	120	0.32	19	25	1.00	25	74	CL	FALSE	NA	18.1	NA	NA
6.0 - 7.5	6.75	120	0.41	21	28	1.00	28	77	CL	FALSE	NA		NA	NA
7.5 - 9.0	8.25	120	0.50	17	23	1.00	23	70	CL	FALSE	NA	23.1	NA	NA
9.0 - 10.5	9.75	120	0.59	9	12	1.00	12	52	CL	FALSE	NA	16.9	NA	NA
10.5 - 12.0	11.25	120	0.68	4	5	1.00	5	32	CL	FALSE	NA	17.7	NA	NA
12.0 - 13.5	12.75	120	0.77	6	8	1.00	8	41	CL	FALSE	NA	16.9	NA	NA
13.5 - 15.0	14.25	120	0.86	10	13	1.00	13	53	CL	FALSE	NA	18.4	NA	NA
15.0 - 16.5	15.75	120	0.95	13	17	1.00	17	60	CL	FALSE	NA	18.7	NA	NA
16.5 - 18.0	17.25	120	1.04	22	29	0.98	29	77	CL	FALSE	NA	21.1	NA	NA
18.0 - 19.5	18.75	120	1.13	15	20	0.94	19	63	CL	FALSE	NA	20.6	NA	NA
19.5 - 21.0	20.25	120	1.22	19	25	0.91	23	71	CL	FALSE	NA	16.8	NA	NA
21.0 - 22.5	21.75	120	1.31	30	40	0.88	35	86	CL	FALSE	NA	11.5	NA	NA
22.5 - 24.0	23.25	120	1.40	45	60	0.85	51	98	CL	FALSE	NA	18.9	NA	NA
24.0 - 25.5	24.75	120	1.49	45	60	0.82	49	97	CL	FALSE	NA	8.0	NA	NA
25.5 - 27.0	26.25	120	1.58	53	71	0.80	56	100	CL	FALSE	NA	4.5	NA	NA
27.0 - 27.3	27.15	132	1.61	100	133	0.79	105	100	GP-GM	41.6	129	2.5	132	0.29
27.3 - 28.0	27.65	150	1.63	100	133	0.78	105	100	GP-GM	41.6	129	16.6	150	0.29

JOHN SEVIER FOSSIL PLANT
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS
FOR COARSE GRAINED SOILS

Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Estimated Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT N Value	SPT N Value	Correction Factor	Corrected N-Value	Relative Density (%)	Unified Soil Classification	Internal Angle of Friction (degrees)	Unit Weight Dry (pcf)	Moisture Content (%)	Revised In-situ Unit Weight (pcf)	Void Ratio	
				N ₆₀	N ₆₀								C _N		(N ₁) ₆₀
				Input Required											
JS-55		water =	3.0												
0.0 - 1.5	0.75	120	0.05	4	5	1.00	5	32	CL	FALSE	NA	19.7	NA	NA	
1.5 - 3.0	2.25	114	0.13	9	12	1.00	12	52	ML	31	88.5	28.4	114	0.89	
3.0 - 4.5	3.75	105	0.16	5	7	1.00	7	35	ML	29.5	86	22.3	105	0.95	
4.5 - 6.0	5.25	100	0.19	0	0	1.00	1	11	ML	27	81	23.3	100	1.05	
6.0 - 7.5	6.75	100	0.22	0	0	1.00	1	11	ML	27	81	23.2	100	1.05	
7.5 - 9.0	8.25	101	0.25	0	0	1.00	1	11	ML	27	81	24.9	101	1.05	
9.0 - 10.5	9.75	101	0.28	0	0	1.00	1	11	ML	27	81	24.6	101	1.05	
10.5 - 12.0	11.25	104	0.31	0	0	1.00	1	11	ML	27	81	28.7	104	1.05	
12.0 - 13.5	12.75	103	0.34	0	0	1.00	1	11	ML	27	81	26.7	103	1.05	
13.5 - 15.0	14.25	113	0.38	5	7	1.00	7	35	ML	29.5	86	30.9	113	0.95	
15.0 - 16.5	15.75	103	0.41	0	0	1.00	1	11	ML	27	81	27.4	103	1.05	
16.5 - 18.0	17.25	101	0.44	0	0	1.00	1	11	ML	27	81	24.9	101	1.05	
18.0 - 19.5	18.75	103	0.47	0	0	1.00	1	11	ML	27	81	27.4	103	1.05	
19.5 - 21.0	20.25	120	0.51	3	4	1.00	4	27	CL	FALSE	NA	28.6	NA	NA	
21.0 - 22.5	21.75	120	0.55	6	8	1.00	8	41	CL	FALSE	NA	22.2	NA	NA	
22.5 - 24.0	23.25	146	0.61	48	64	1.00	64	100	GP-GM	41.6	129	13.1	146	0.29	
24.0 - 25.5	24.75	158	0.69	30	40	1.00	40	89	GP-GM	39.3	125	26.5	158	0.34	
25.5 - 27.0	26.25	120	0.73	26	35	1.00	35	84	SHALE	FALSE	NA	26.8	NA	NA	
27.0 - 27.5	27.25	120	0.76	100	133	1.00	133	100	SHALE	FALSE	NA	12.2	NA	NA	

**JOHN SEVIER FOSSIL PLANT
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS
FOR COARSE GRAINED SOILS**

Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Estimated Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT N	SPT N	Correction Factor	Corrected N-Value (N _r) ₆₀	Relative Density (%) D _r	Unified Soil Classification	Internal Angle of Friction (degrees) φ'	Unit Weight Dry (pcf) γ _d	Moisture Content (%) m	Revised In-situ Unit Weight (pcf) γ _w	Void Ratio e
				N ₆₀	N ₆₀									
				Input Required										
JS-56		water =	50.5											
0.0 - 1.5	0.75	106	0.04	9	12	1.00	12	52	ML	31	88.5	19.7	106	0.89
1.5 - 3.0	2.25	106	0.12	19	25	1.00	25	74	ML	33	92	15.7	106	0.82
3.0 - 4.5	3.75	102	0.20	13	17	1.00	17	60	ML	32	90	13.4	102	0.85
4.5 - 6.0	5.25	105	0.27	14	19	1.00	19	63	ML	32	90	16.8	105	0.85
6.0 - 7.5	6.75	106	0.35	16	21	1.00	21	68	ML	32.5	91	17.0	106	0.83
7.5 - 9.0	8.25	105	0.43	14	19	1.00	19	63	ML	32	90	16.4	105	0.85
9.0 - 10.5	9.75	106	0.51	19	25	1.00	25	74	ML	33	92	14.7	106	0.82
10.5 - 12.0	11.25	109	0.59	29	39	1.00	39	87	ML	34.5	95	15.2	109	0.75
12.0 - 13.5	12.75	110	0.68	24	32	1.00	32	82	ML	34	94	16.7	110	0.77
13.5 - 15.0	14.25	108	0.76	21	28	1.00	28	77	ML	33.5	93	16.3	108	0.8
15.0 - 16.5	15.75	108	0.84	16	21	1.00	21	68	ML	32.5	91	18.2	108	0.83
16.5 - 18.0	17.25	112	0.92	27	36	1.00	36	86	ML	34.5	95	18.3	112	0.75
18.0 - 19.5	18.75	111	1.01	28	37	1.00	37	87	ML	34.5	95	17.1	111	0.75
19.5 - 21.0	20.25	107	1.09	22	29	0.96	28	77	ML	33.5	93	15.5	107	0.8
21.0 - 22.5	21.75	90	1.15	14	19	0.93	17	60	ML	32	90		90	0.85
22.5 - 24.0	23.25	107	1.23	20	27	0.90	24	73	ML	33	92	16.5	107	0.82
24.0 - 25.5	24.75	109	1.32	19	25	0.87	22	70	ML	33	92	18.3	109	0.82
25.5 - 27.0	26.25	110	1.40	25	33	0.85	28	77	ML	33.5	93	18.6	110	0.8
27.0 - 28.5	27.75	107	1.48	16	21	0.82	18	60	ML	32	90	18.6	107	0.85
28.5 - 30.0	29.25	101	1.56	3	4	0.80	3	24	ML	28	83	21.9	101	1.01
30.0 - 31.5	30.75	114	1.64	28	37	0.78	29	79	ML	33.5	93	22.8	114	0.8
31.5 - 33.0	32.25	120	1.73	52	69	0.76	53	98	ML	35.5	97	23.4	120	0.72
33.0 - 34.5	33.75	113	1.82	24	32	0.74	24	71	ML	33	92	23.3	113	0.82
34.5 - 36.0	35.25	120	1.91	45	60	0.72	44	91	ML	35	96	24.8	120	0.74
36.0 - 37.5	36.75	111	1.99	9	12	0.71	9	41	ML	30	87	27.8	111	0.93
37.5 - 39.0	38.25	103	2.07	4	5	0.70	4	24	ML	28	83	24.6	103	1.01
39.0 - 40.5	39.75	101	2.14	0	0	0.68	1	11	ML	27	81	24.9	101	1.05
40.5 - 42.0	41.25	103	2.22	0	0	0.67	1	11	ML	27	81	27.0	103	1.05
42.0 - 43.5	42.75	103	2.30	1	1	0.66	1	11	ML	27	81	27.0	103	1.05
43.5 - 45.0	44.25	104	2.37	0	0	0.65	1	11	ML	27	81	27.9	104	1.05
45.0 - 46.5	45.75	103	2.45	2	3	0.64	2	11	ML	27	81	27.1	103	1.05
46.5 - 48.0	47.25	102	2.53	2	3	0.63	2	11	ML	27	81	26.5	102	1.05
48.0 - 49.5	48.75	101	2.60	0	0	0.62	1	11	ML	27	81	24.5	101	1.05
49.5 - 51.0	50.25	107	2.68	7	9	0.61	6	32	ML	29	85	25.6	107	0.97
51.0 - 52.5	51.75	143	2.74	65	87	0.60	52	98	GP-GM	41	127.5	12.3	143	0.31
52.5 - 54.0	53.25	137	2.80	42	56	0.60	34	84	GP-GM	38.5	123	11.5	137	0.35
54.0 - 55.5	54.75	135	2.86	36	48	0.59	28	77	GP-GM	37.6	122	10.6	135	0.37
55.5 - 57.0	56.25	139	2.91	54	72	0.59	42	91	GP-GM	40	126	10.6	139	0.32
57.0 - 58.0	57.5	145	2.96	100	133	0.58	77	100	GP-GM	41.6	129	12.2	145	0.29

JOHN SEVIER FOSSIL PLANT
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS
FOR COARSE GRAINED SOILS

Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Estimated Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT N	SPT N	Correction Factor	Corrected N-Value (N ₁) ₆₀	Relative Density (%)	Unified Soil Classification	Internal Angle of Friction (degrees)	Unit Weight Dry (pcf)	Moisture Content (%)	Revised In-situ Unit Weight (pcf)	Void Ratio
				N ₆₀	N ₆₀									
				Input Required										
JS-57		water =	33.9											
0.0 - 1.5	0.75	120	0.05	6	8	1.00	8	41	CL	FALSE	NA	14.0	NA	NA
1.5 - 3.0	2.25	97	0.12	4	5	1.00	5	32	ML	29	85	14.3	97	0.97
3.0 - 4.5	3.75	102	0.19	6	8	1.00	8	41	ML	30	87	16.9	102	0.93
4.5 - 6.0	5.25	99	0.27	4	5	1.00	5	32	ML	29	85	16.9	99	0.97
6.0 - 7.5	6.75	106	0.35	12	16	1.00	16	60	ML	32	90	18.1	106	0.85
7.5 - 9.0	8.25	103	0.43	9	12	1.00	12	52	ML	31	88.5	16.9	103	0.89
9.0 - 10.5	9.75	105	0.50	9	12	1.00	12	52	ML	31	88.5	18.1	105	0.89
10.5 - 12.0	11.25	108	0.59	14	19	1.00	19	63	ML	32	90	20.0	108	0.85
12.0 - 13.5	12.75	108	0.67	15	20	1.00	20	67	ML	32.5	91	19.1	108	0.83
13.5 - 15.0	14.25	108	0.75	15	20	1.00	20	67	ML	32.5	91	18.6	108	0.83
15.0 - 16.5	15.75	107	0.83	12	16	1.00	16	60	ML	32	90	19.2	107	0.85
16.5 - 18.0	17.25	107	0.91	14	19	1.00	19	63	ML	32	90	19.4	107	0.85
18.0 - 19.5	18.75	104	0.99	10	13	1.00	13	53	ML	31	88.5	17.5	104	0.89
19.5 - 21.0	20.25	102	1.06	6	8	0.97	8	41	ML	30	87	17.3	102	0.93
21.0 - 22.5	21.75	104	1.14	8	11	0.94	10	47	ML	30.5	88	18.7	104	0.91
22.5 - 24.0	23.25	108	1.22	15	20	0.90	18	63	ML	32	90	19.9	108	0.85
24.0 - 25.5	24.75	107	1.30	11	15	0.88	13	52	ML	31	88.5	21.4	107	0.89
25.5 - 27.0	26.25	113	1.39	17	23	0.85	19	65	ML	32.5	91	24.2	113	0.83
27.0 - 28.5	27.75	113	1.47	21	28	0.82	23	71	ML	33	92	22.3	113	0.82
28.5 - 30.0	29.25	112	1.56	15	20	0.80	16	60	ML	32	90	24.7	112	0.85
30.0 - 31.5	30.75	112	1.64	26	35	0.78	27	77	ML	33.5	93	19.9	112	0.8
31.5 - 33.0	32.25	113	1.72	17	23	0.76	17	60	ML	32	90	25.2	113	0.85
33.0 - 34.5	33.75	106	1.80	3	4	0.74	3	24	ML	28	83	27.2	106	1.01
34.5 - 36.0	35.25	102	1.83	2	3	0.74	2	18	ML	27.5	82	24.9	102	1.03
36.0 - 37.5	36.75	106	1.87	5	7	0.73	5	27	ML	28.5	84	25.6	106	0.99
37.5 - 39.0	38.25	102	1.90	0	0	0.73	1	11	ML	27	81	25.6	102	1.05
39.0 - 40.5	39.75	104	1.93	0	0	0.72	1	11	ML	27	81	28.3	104	1.05
40.5 - 42.0	41.25	104	1.96	0	0	0.71	1	11	ML	27	81	28.7	104	1.05
42.0 - 43.5	42.75	103	1.99	0	0	0.71	1	11	ML	27	81	27.4	103	1.05
43.5 - 45.0	44.25	106	2.02	0	0	0.70	1	11	ML	27	81	31.2	106	1.05
45.0 - 46.5	45.75	105	2.05	0	0	0.70	1	11	ML	27	81	29.3	105	1.05
46.5 - 48.0	47.25	120	2.10	7	9	0.69	6	35	CL	FALSE	NA	31.5	NA	NA
48.0 - 49.5	48.75	120	2.14	19	25	0.68	17	60	CL	FALSE	NA	14.5	NA	NA
49.5 - 51.0	50.25	120	2.18	9	12	0.68	8	41	CL	FALSE	NA	20.5	NA	NA
51.0 - 52.5	51.75	120	2.23	12	16	0.67	11	47	CL	FALSE	NA	17.0	NA	NA
52.5 - 54.0	53.25	132	2.28	4	5	0.66	4	24	SP	29.5	106	24.9	132	0.58
54.0 - 54.9	54.45	120	2.31	100	133	0.66	88	100	SHALE	FALSE	NA	19.7	NA	NA

JOHN SEVIER FOSSIL PLANT
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS
FOR COARSE GRAINED SOILS

Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT	SPT	Correction Factor	Corrected N-Value (N ₁) ₆₀	Relative Density (%)	Unified Soil Classification	Internal Friction (degrees)	Unit Weight Dry (pcf)	Moisture Content (%)	Revised In-situ Unit Weight (pcf)	Void Ratio
				N ₆₀	N ₆₀									
				Input Required										
JS-60A		water =	21.0											
0.0 - 1.5	0.75	120	0.05	5	7	1.00	7	35	CL	FALSE	NA	20.5	NA	NA
1.5 - 3.0	2.25	120	0.14	16	21	1.00	21	68	CL	FALSE	NA	16.7	NA	NA
3.0 - 4.5	3.75	120	0.23	12	16	1.00	16	60	CL	FALSE	NA	19.0	NA	NA
4.5 - 6.0	5.25	120	0.32	9	12	1.00	12	52	CL	FALSE	NA	19.6	NA	NA
6.0 - 7.5	6.75	120	0.41	9	12	1.00	12	52	CL	FALSE	NA	19.5	NA	NA
7.5 - 9.0	8.25	120	0.50	6	8	1.00	8	41	CL	FALSE	NA	19.8	NA	NA
9.0 - 10.5	9.75	120	0.59	13	17	1.00	17	60	CL	FALSE	NA	12.5	NA	NA
10.5 - 12.0	11.25	120	0.68	16	21	1.00	21	68	CL	FALSE	NA	10.6	NA	NA
12.0 - 13.5	12.75	120	0.77	19	25	1.00	25	74	CL	FALSE	NA	15.7	NA	NA
13.5 - 15.0	14.25	120	0.86	12	16	1.00	16	60	CL	FALSE	NA	17.0	NA	NA
15.0 - 16.5	15.75	120	0.95	13	17	1.00	17	60	CL	FALSE	NA	NR	NA	NA
16.5 - 18.0	17.25	120	1.04	20	27	0.98	26	75	CL	FALSE	NA	21.3	NA	NA
18.0 - 19.5	18.75	120	1.13	18	24	0.94	23	70	CL	FALSE	NA	19.8	NA	NA
19.5 - 21.0	20.25	120	1.22	9	12	0.91	11	47	CL	FALSE	NA	NR	NA	NA
21.0 - 22.5	21.75	120	1.26	10	13	0.89	12	47	CL	FALSE	NA	24.6	NA	NA
22.5 - 24.0	23.25	120	1.30	10	13	0.88	12	47	CL	FALSE	NA	23.7	NA	NA
24.0 - 25.5	24.75	120	1.34	6	8	0.86	7	35	CL	FALSE	NA	19.2	NA	NA
25.5 - 27.0	26.25	136	1.40	10	13	0.85	11	47	SP	33	111	22.4	136	0.5
27.0 - 28.5	27.75	120	1.44	31	41	0.83	34	84	SHALE	FALSE	NA	18.1	NA	NA

**JOHN SEVIER FOSSIL PLANT
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS
FOR COARSE GRAINED SOILS**

Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT N	SPT N	Correction Factor	Corrected N-Value (N1) ₆₀	Relative Density (%)	Unified Soil Classification	Internal Friction (degrees)	Unit Weight Dry (pcf)	Moisture Content (%)	Revised In-situ Unit Weight (pcf)	Void Ratio
				N ₆₀	N ₆₀									
				Input Required										
JS-61A		water =	18.0											
0.0 - 1.5	0.75	120	0.05	4	5	1.00	5	32	CL	FALSE	NA	18.5	NA	NA
1.5 - 3.0	2.25	120	0.14	6	8	1.00	8	41	CL	FALSE	NA	19.5	NA	NA
3.0 - 4.5	3.75	120	0.23	13	17	1.00	17	60	CL	FALSE	NA	17.2	NA	NA
4.5 - 6.0	5.25	120	0.32	7	9	1.00	9	44	CL	FALSE	NA	19.3	NA	NA
6.0 - 7.5	6.75	120	0.41	18	24	1.00	24	73	CL	FALSE	NA	16.8	NA	NA
7.5 - 9.0	8.25	120	0.50	16	21	1.00	21	68	CL	FALSE	NA	11.0	NA	NA
9.0 - 10.5	9.75	120	0.59	16	21	1.00	21	68	CL	FALSE	NA	17.3	NA	NA
10.5 - 12.0	11.25	120	0.68	19	25	1.00	25	74	CL	FALSE	NA	14.6	NA	NA
12.0 - 13.5	12.75	120	0.77	8	11	1.00	11	47	CL	FALSE	NA	24.6	NA	NA
13.5 - 15.0	14.25	120	0.86	8	11	1.00	11	47	CL	FALSE	NA	22.5	NA	NA
15.0 - 16.5	15.75	120	0.95	8	11	1.00	11	47	CL	FALSE	NA	20.6	NA	NA
16.5 - 18.0	17.25	120	1.04	11	15	0.98	14	56	CL	FALSE	NA	20.1	NA	NA
18.0 - 18.5	18.25	120	1.06	20	27	0.97	26	74	CL	FALSE	NA	17.4	NA	NA
18.5 - 20.0	19.25	120	1.09	13	17	0.96	17	60	CL	FALSE	NA	15.7	NA	NA
20.0 - 21.5	20.75	120	1.14	9	12	0.94	11	47	CL	FALSE	NA	18.4	NA	NA
21.5 - 23.0	22.25	120	1.18	8	11	0.92	10	44	CL	FALSE	NA	21.4	NA	NA
23.0 - 24.5	23.75	120	1.22	4	5	0.90	5	27	CL	FALSE	NA	25.7	NA	NA
24.5 - 26.0	25.25	120	1.27	15	20	0.89	18	60	CL	FALSE	NA	22.0	NA	NA
26.0 - 27.5	26.75	135	1.32	19	25	0.87	22	70	SP	36.2	116.5	15.7	135	0.43
27.5 - 29.0	28.25	153	1.39	33	44	0.85	37	87	SP	38.5	120.5	26.9	153	0.39

JOHN SEVIER FOSSIL PLANT
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS
FOR COARSE GRAINED SOILS

Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Estimated Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT N	SPT N	Correction Factor	Corrected N-Value (N ₁) ₆₀	Relative Density (%)	Unified Soil Classification	Internal Friction Angle of (degrees)	Unit Weight Dry (pcf)	Moisture Content (%)	Revised In-situ Unit Weight (pcf)	Void Ratio
				N ₆₀	N ₆₀								C _N	
				Input Required										
JS-62A		water =	22.0											
0.0 - 1.5	0.75	120	0.05	15	20	1.00	20	67	CL	FALSE	NA	14.1	NA	NA
1.5 - 3.0	2.25	120	0.14	16	21	1.00	21	68	CL	FALSE	NA	14.6	NA	NA
3.0 - 4.5	3.75	120	0.23	18	24	1.00	24	73	CL	FALSE	NA	15.2	NA	NA
4.5 - 6.0	5.25	120	0.32	13	17	1.00	17	60	CL	FALSE	NA	17.6	NA	NA
6.0 - 7.5	6.75	120	0.41	18	24	1.00	24	73	CL	FALSE	NA	19.6	NA	NA
7.5 - 9.0	8.25	120	0.50	21	28	1.00	28	77	CL	FALSE	NA	17.2	NA	NA
9.0 - 10.5	9.75	120	0.59	11	15	1.00	15	56	CL	FALSE	NA	16.8	NA	NA
10.5 - 12.0	11.25	120	0.68	17	23	1.00	23	70	CL	FALSE	NA	22.2	NA	NA
12.0 - 13.5	12.75	120	0.77	13	17	1.00	17	60	CL	FALSE	NA	18.3	NA	NA
13.5 - 15.0	14.25	120	0.86	14	19	1.00	19	63	CL	FALSE	NA	20.9	NA	NA
15.0 - 16.5	15.75	120	0.95	13	17	1.00	17	60	CL	FALSE	NA	16.8	NA	NA
16.5 - 18.0	17.25	120	1.04	21	28	0.98	28	77	CL	FALSE	NA	NR	NR	NA
18.0 - 19.5	18.75	120	1.13	16	21	0.94	20	67	CL	FALSE	NA	18.2	NA	NA
19.5 - 21.0	20.25	120	1.22	8	11	0.91	10	44	CL	FALSE	NA	18.2	NA	NA
21.0 - 22.5	21.75	120	1.31	10	13	0.88	12	47	CL	FALSE	NA	22.5	NA	NA
22.5 - 24.0	23.25	120	1.35	10	13	0.86	12	47	CL	FALSE	NA	32.1	NA	NA
24.0 - 25.5	24.75	120	1.39	17	23	0.85	19	65	CL	FALSE	NA	32.4	NA	NA
25.5 - 27.0	26.25	120	1.43	9	12	0.83	10	47	CL	FALSE	NA	30.1	NA	NA
27.0 - 28.5	27.75	120	1.48	26	35	0.82	29	77	CL	FALSE	NA	21.0	NA	NA
28.5 - 30.0	29.25	120	1.52	37	49	0.81	40	89	SHALE	FALSE	NA	27.5	NA	NA

JOHN SEVIER FOSSIL PLANT
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS
FOR COARSE GRAINED SOILS

Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Estimated Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT N	SPT N	Correction Factor	Corrected N-Value	Relative Density (%)	Unified Soil Classification	Internal Angle of Friction (degrees)	Unit Weight Dry (pcf)	Moisture Content (%)	Revised In-situ Unit Weight (pcf)	Void Ratio	
				N ₆₀	N ₆₀	C _N	(N ₁) ₆₀	D _r		φ'	γ _d	m	γ _w	e	
				Input Required											
JS-63A		water =	18.0												
0.0 - 1.5	0.75	120	0.05	11	15	1.00	15	56	CL	FALSE	NA	23.4	NA	NA	
1.5 - 3.0	2.25	120	0.14	9	12	1.00	12	52	CL	FALSE	NA	16.0	NA	NA	
3.0 - 4.5	3.75	120	0.23	12	16	1.00	16	60	CL	FALSE	NA	17.2	NA	NA	
4.5 - 6.0	5.25	120	0.32	5	7	1.00	7	35	CL	FALSE	NA	17.7	NA	NA	
6.0 - 7.5	6.75	120	0.41	7	9	1.00	9	44	CL	FALSE	NA	19.7	NA	NA	
7.5 - 9.0	8.25	120	0.50	12	16	1.00	16	60	CL	FALSE	NA	19.1	NA	NA	
9.0 - 10.5	9.75	120	0.59	12	16	1.00	16	60	CL	FALSE	NA	17.0	NA	NA	
10.5 - 12.0	11.25	120	0.68	26	35	1.00	35	84	CL	FALSE	NA	21.3	NA	NA	
12.0 - 13.5	12.75	120	0.77	30	40	1.00	40	89	CL	FALSE	NA	19.7	NA	NA	
13.5 - 15.0	14.25	120	0.86	23	31	1.00	31	79	CL	FALSE	NA	19.7	NA	NA	
15.0 - 16.5	15.75	120	0.95	18	24	1.00	24	73	CL	FALSE	NA	18.7	NA	NA	
16.5 - 18.0	17.25	120	1.04	15	20	0.98	20	65	CL	FALSE	NA	18.4	NA	NA	
18.0 - 19.5	18.75	120	1.08	24	32	0.96	31	79	CL	FALSE	NA	22.0	NA	NA	
19.5 - 21.0	20.25	147	1.14	100	133	0.94	125	100	GP-GM	41.6	129	14.2	147	0.29	
21.0 - 22.5	21.75	153	1.21	46	61	0.91	56	100	GP-GM	41.6	129	18.6	153	0.29	
22.5 - 24.0	23.25	120	1.25	20	27	0.89	24	71	GP-GM	37	121	NR	NR	0.38	
24.0 - 25.5	24.75	120	1.30	5	7	0.88	6	32	GP-GM	31	111.5	NR	NR	0.5	
25.5 - 27.0	26.25	120	1.34	100	133	0.86	115	100	SHALE	FALSE	NA	24.2	NA	NA	

**JOHN SEVIER FOSSIL PLANT
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS
FOR COARSE GRAINED SOILS**

Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Estimated Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT N Value	SPT N Value	Correction Factor	Corrected N-Value	Relative Density (%)	Unified Soil Classification	Internal Angle of Friction (degrees)	Unit Weight Dry (pcf)	Moisture Content (%)	Revised In-situ Unit Weight (pcf)	Void Ratio
				Input Required										
JS-64		water =	19.5											
0.0 - 1.5	0.75	120	0.05	7	9	1.00	9	44	CL	FALSE	NA	18.3	NA	NA
1.5 - 3.0	2.25	120	0.14	7	9	1.00	9	44	CL	FALSE	NA	17.5	NA	NA
3.0 - 4.5	3.75	120	0.23	7	9	1.00	9	44	CL	FALSE	NA	20.4	NA	NA
4.5 - 6.0	5.25	120	0.32	7	9	1.00	9	44	CL	FALSE	NA	19.5	NA	NA
6.0 - 7.5	6.75	120	0.41	8	11	1.00	11	47	CL	FALSE	NA	20.7	NA	NA
7.5 - 9.0	8.25	120	0.50	9	12	1.00	12	52	CL	FALSE	NA	19.9	NA	NA
9.0 - 10.5	9.75	120	0.59	5	7	1.00	7	35	CL	FALSE	NA	20.9	NA	NA
10.5 - 12.0	11.25	120	0.68	6	8	1.00	8	41	CL	FALSE	NA	26.4	NA	NA
12.0 - 13.5	12.75	120	0.77	5	7	1.00	7	35	CL	FALSE	NA	26.7	NA	NA
13.5 - 15.0	14.25	120	0.86	6	8	1.00	8	41	CL	FALSE	NA	27.9	NA	NA
15.0 - 16.5	15.75	120	0.95	3	4	1.00	4	27	CL	FALSE	NA	33.1	NA	NA
16.5 - 18.0	17.25	120	1.04	5	7	0.98	7	35	CL	FALSE	NA	32.3	NA	NA
18.0 - 19.5	18.75	120	1.13	8	11	0.94	10	47	CL	FALSE	NA	39.3	NA	NA
19.5 - 21.0	20.25	147	1.19	40	53	0.92	49	95	GP-GM	41	127.5	15.4	147	0.31
21.0 - 22.5	21.75	120	1.23	18	24	0.90	22	68	SHALE	FALSE	NA	24.9	NA	NA

**JOHN SEVIER FOSSIL PLANT
CORRELATION OF SPT DATA TO UNIT WEIGHTS AND SHEAR STRENGTHS
FOR COARSE GRAINED SOILS**

Sample Interval	Depth of Mid. Pt. of Sample (ft.)	Assumed Estimated Unit Weight (pcf)	Vertical Effective Stress (tsf)	SPT N Value	SPT N Value	Correction Factor	Corrected N-Value (N ₁) ₆₀	Relative Density (%)	Unified Soil Classification	Internal Angle of Friction (degrees)	Unit Weight Dry (pcf)	Moisture Content (%)	Revised In-situ Unit Weight (pcf)	Void Ratio
				N ₈₀	N ₆₀									
				Input Required										
JS-65A		water =	24.0											
0.0 - 1.5	0.75	120	0.05	11	15	1.00	15	56	CL	FALSE	NA	14.0	NA	NA
1.5 - 3.0	2.25	120	0.14	9	12	1.00	12	52	CL	FALSE	NA	17.0	NA	NA
3.0 - 4.5	3.75	120	0.23	20	27	1.00	27	75	CL	FALSE	NA	16.3	NA	NA
4.5 - 6.0	5.25	120	0.32	5	7	1.00	7	35	CL	FALSE	NA	20.6	NA	NA
6.0 - 7.5	6.75	120	0.41	15	20	1.00	20	67	CL	FALSE	NA	17.7	NA	NA
7.5 - 9.0	8.25	120	0.50	21	28	1.00	28	77	CL	FALSE	NA	15.6	NA	NA
9.0 - 10.5	9.75	120	0.59	9	12	1.00	12	52	CL	FALSE	NA	20.1	NA	NA
10.5 - 12.0	11.25	120	0.68	14	19	1.00	19	63	CL	FALSE	NA	19.4	NA	NA
12.0 - 13.5	12.75	120	0.77	18	24	1.00	24	73	CL	FALSE	NA	13.8	NA	NA
13.5 - 15.0	14.25	120	0.86	15	20	1.00	20	67	CL	FALSE	NA	17.1	NA	NA
15.0 - 16.5	15.75	120	0.95	11	15	1.00	15	56	CL	FALSE	NA	18.5	NA	NA
16.5 - 18.0	17.25	120	1.04	14	19	0.98	18	63	CL	FALSE	NA	19.9	NA	NA
18.0 - 19.5	18.75	120	1.13	15	20	0.94	19	63	CL	FALSE	NA	21.7	NA	NA
19.5 - 21.0	20.25	120	1.22	5	7	0.91	6	35	CL	FALSE	NA	21.1	NA	NA
21.0 - 22.5	21.75	120	1.31	8	11	0.88	9	44	CL	FALSE	NA	26.9	NA	NA
22.5 - 24.0	23.25	120	1.40	15	20	0.85	17	60	CL	FALSE	NA	25.9	NA	NA
24.0 - 25.5	24.75	120	1.44	16	21	0.83	18	60	CL	FALSE	NA	26.0	NA	NA
25.5 - 27.0	26.25	120	1.48	17	23	0.82	19	63	CL	FALSE	NA	25.4	NA	NA
27.0 - 28.5	27.75	120	1.52	22	29	0.81	24	71	CL	FALSE	NA	23.4	NA	NA
30.5 - 32.0	31.25	120	1.63	19	25	0.78	20	65	CL	FALSE	NA	27.1	NA	NA
32.0 - 33.5	32.75	120	1.67	18	24	0.77	19	63	CL	FALSE	NA	25.2	NA	NA
33.5 - 35.0	34.25	120	1.71	24	32	0.76	25	73	CL	FALSE	NA	19.5	NA	NA
35.0 - 36.5	35.75	120	1.76	46	61	0.75	46	95	SHALE	FALSE	NA	27.8	NA	NA