Data File:CPT380 09-22-05 12:33
Operator:B. BUCKNAM Location:HP-16
Cone ID:510 Job Number:
Customer:TEST AMERICA Units:English

Depth (ft)	Qt (TSF)	Fs (TSF)	Fs/Qt (%)	Pw (PSI)	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
0.16	64.5	1.360	2.108	0.20	19	5	clayey silt to silty cla
0.33	55.1	2.650	4.810	-0.40	27	5	clayey silt to silty cla
0.49	47.4	3.140	6.625	-0.20	48	3	clay
0.66	49.0	2.970	6.062	-0.30	44	3	clay
0.82	40.5	2.220	5.482	-0.30	40	3	clay
0.98	37.1	2.070	5.580	-0.10	39	3	clay
1.15	45.5	2.030	4.462	-0.20	27	4	silty clay to clay
1.31	45.3	1.900	4.194	0.10	27	4	silty clay to clay
1.48	36.6	1.510	4.126	-0.10	24	4	silty clay to clay
1.64	32.1	1.350	4.206	0.00	21	4	silty clay to clay
1.80	31.5	1.590	5.047	0.10	21	4	silty clay to clay
1.97	36.4	1.700	4.670	0.00	22	4	silty clay to clay
2.13	34.7	1.160	3.343	-0.10	20	4	silty clay to clay
2.30	20.8	0.720	3.462	-0.10	11	5	clayey silt to silty cla
2.46	16.5	0.580	3.515	-0.10	10	4	silty clay to clay
2.62	10.7	0.470	4.393	0.00	7	5	clayey silt to silty cla
2.79	17.5	0.290	1.657	0.10	8	5	clayey silt to silty cla
2.95	20.1	0.640	3.184	0.10	10	5	clayey silt to silty cla
3.12	23.2	0.890	3.836	0.00	12	5	clayey silt to silty cla
3.28	31.5	1.090	3.460	0.10	13	5	clayey silt to silty cla
3.44	28.6	1.140	3.986	0.10	18	4	silty clay to clay
3.61	25.2	1.280	5.079	0.10	25	3	clay
3.77	25.2	1.500	5.952	0.10	25	3	clay
3.94	27.6	1.740	6.304	0.10	25	3	clay
4.10	25.0	1.490	5.960	0.00	24	3	clay
4.27	23.7	1.430	6.034	0.00	23	3	clay
4.43	23.7	1.450	6.117	0.20	22	3	clay
4.59	20.2	1.430	7.079	0.10	21	3	clay
4.76	20.4	1.470	7.205	0.10	20	3	clay
4.92	20.6	1.540	7.475	0.10	20	3	clay
5.09	20.6	1.530	7.427	0.10	20	3	clay
5.25	20.2	1.530	7.568	1.10	19	3	clay
5.41	19.9	1.530	7.685	0.70	19	3	clay
5.58	19.8	1.570	7.928	0.30	19	3	clay
5.74	20.8	1.610	7.740	0.10	19	3	clay
5.91	19.6	1.580	8.064	-0.40	19	3	clay
6.07	19.6	1.270	6.484	-0.90	19	3	clay
6.23	21.2	1.300	6.137	-1.10	20	3	clay
6.40	20.5	1.330	6.492	-0.90	20	3	clay
6.56	22.3	1.380	6.193	-1.20	21	3	clay
6.73	23.2	1.430	6.164	0.00	21	3	clay
6.89	21.7	1.440	6.637	-0.20	20	3	clay
7.05	18.5	1.370	7.406	-0.10	18	3	clay
7.22	16.9	1.270	7.517	-0.30	16	3	clay
7.38	15.8	1.200	7.591	0.60	16	3	clay
7.55	16.2	1.140	7.035	0.30	15	3	clay
7.71	16.3	1.100	6.757	-1.40	15	3	clay
7.87	15.6	1.040	6.675	-1.30	14	3	clay
8.04	12.9	0.960	7.462	-2.40	12	3	clay
8.20	10.0	0.730	7.283	-5.30	10	3	clay
8.37	8.8	0.570	6.502	-2.30	9	3	clay
8.53	8.5	0.480	5.671	-2.50	8	3	clay
8.69	8.8	0.460	5.250	-2.60	8	3	clay
8.86	9.0	0.500	5.580	-2.70	9	3	clay
9.02	9.6	0.540	5.650	-3.00	9	3	clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt (TSF)	Fs (TSF)	Fs/Qt (%)	Pw (PSI)	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
9.19	10.3	0.580	5.655	-3.00	10	3	clay
9.35	10.9	0.600	5.529	-3.40	10	3	clay
9.51	10.6	0.600	5.645	-5.00	10	3	clay
9.68	10.4	0.600	5.755	-5.20	10	3	clay
9.84	10.5	0.620	5.896	-5.80	10	3	clay
10.01	9.9	0.620	6.279	-8.70	10	3	clay
10.17	9.7	0.580	5.996	-8.80	10	3	clay
10.33	11.4	0.720	6.331	-8.90	14	3	clay
10.50	24.2	1.020	4.220	-8.90	19	4	silty clay to clay
10.66	55.1	1.760	3.192	-10.80	21	6	sandy silt to clayey sil
10.83	82.9	1.850	2.231	-11.40	32	6	sandy silt to clayey sil
10.99	115.7	2.620	2.264	-11.40	36	7	silty sand to sandy silt
11.15	138.1	2.070	1.499	-1.70	31	8	sand to silty sand
11.32	138.0	1.540	1.116	-0.50	34	8	sand to silty sand
11.48	145.8	1.090	0.748	0.80	38	8	sand to silty sand
11.65	186.4	2.550	1.368	0.80	37	9	sand
11.81	253.0	2.960	1.170	1.00	56	8	sand to silty sand
11.98	261.2	4.810	1.841	1.10	53	9	sand
12.14	312.0	3.650	1.170	1.00	58	9	sand
12.30	333.3	2.680	0.804	1.10	65	9	sand
12.47	366.6	3.070	0.837	1.20	67	9	sand
12.63	343.4	2.530	0.737	1.30	66	9	sand
12.80	328.9	1.980	0.602	1.40	63	9	sand
12.96	307.4	2.830	0.921	1.50	61	9	sand
13.12	317.9	3.400	1.069	1.80	61	9	sand
13.29	328.9	2.510	0.763	1.80	60	9	sand
13.45	290.9	2.230	0.767	1.80	57	9	sand
13.62	280.4	3.460	1.234	1.90	53	9	sand
13.78	259.3	2.880	1.111	2.00	51	9	sand
13.94	262.9	1.790	0.681	2.00	50	9	sand
14.11	254.0	0.950	0.374	1.80	50	9	sand
14.27	266.0	0.600	0.226	-0.30	42	10	gravelly sand to sand
14.44	263.5	1.720	0.653	-2.40	50	9	sand
14.60	252.6	1.860	0.736	-5.40	50	9	sand
14.76	260.0	1.620	0.623	-5.80	47	9	sand
14.93	219.7	1.370	0.623	-4.20	45	9	sand
15.09	224.1	1.410	0.629	-5.10	43	9	sand
15.26	224.1	1.350	0.602	-5.00	45	9	sand
15.42	249.0	0.870	0.349	-4.70	46	9	sand
15.58	253.3	0.820	0.324	-5.80	41	10	gravelly sand to sand
15.75	270.0	1.410	0.522	-8.60	50	9	sand
15.91	263.1	1.350	0.513	-8.60	48	9	sand
16.08	222.2	0.710	0.320	-9.30	46	9	sand
16.24	228.3	1.050	0.460	-9.70	45	9	sand
16.40	249.7	1.230	0.493	-10.00	46	9	sand
16.57	247.7	1.970	0.795	-9.90	48	9	sand
16.73	259.3	2.020	0.779	-9.80	50	9	sand
16.90	283.5	1.070	0.377	-9.70	52	9	sand
17.06	267.8	1.120	0.418	-9.20	52	9	sand
17.22	264.5	2.980	1.127	-10.10	51	9	sand
17.39	265.9	3.120	1.174	-9.90	50	9	sand
17.55	258.6	2.030	0.785	-9.70	52	9	sand
17.72	286.7	1.360	0.474	-10.10	52	9	sand
17.88	274.7	1.140	0.415	-9.90	44	10	gravelly sand to sand
18.04	271.7	0.710	0.261	-10.00	43	10	gravelly sand to sand
18.21	266.3	0.960	0.361	-9.90	43	10	gravelly sand to sand
18.37	276.3	1.480	0.536	-10.20	53	9	sand
18.54	282.5	1.450	0.513	-10.10	52	9	sand
18.70	253.8	1.030	0.406	-9.90	40	10	gravelly sand to sand
18.86	224.3	0.450	0.201	-9.80	44	9	sand

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt (TSF)	Fs (TSF)	Fs/Qt (%)	Pw (PSI)	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
19.03	210.6	0.780	0.370	-9.50	40	9	sand
19.19	196.7	2.060	1.047	-9.30	34	9	sand
19.36	129.8	1.350	1.040	-9.20	38	8	sand to silty sand
19.52	149.4	1.970	1.319	-9.20	35	9	sand
19.69	262.7	2.020	0.769	-11.00	46	9	sand
19.85	305.2	1.990	0.652	-11.30	57	9	sand
20.01	320.7	1.970	0.614	-11.40	59	9	sand
20.18	305.8	1.560	0.510	-11.30	53	10	gravelly sand to sand
20.34	363.7	1.270	0.349	-11.40	57	10	gravelly sand to sand
20.51	397.1	1.800	0.453	-11.70	63	10	gravelly sand to sand
20.67	428.4	1.380	0.322	-11.70	69	10	gravelly sand to sand
20.83	464.6	1.480	0.319	-11.60	70	10	gravelly sand to sand
21.00	420.9	1.600	0.380	-11.50	64	10	gravelly sand to sand
21.16	323.7	2.140	0.661	-11.90	60	9	sand
21.33	194.8	2.660	1.365	-12.10	41	9	sand
21.49	126.1	2.280	1.808	-13.00	46	7	silty sand to sandy silt
21.65	108.2	2.640	2.440	-13.80	34	7	silty sand to sandy silt
21.82	82.0	1.980	2.415	0.20	30	6	sandy silt to clayey sil
21.98	44.5	1.360	3.058	-1.40	19	6	sandy silt to clayey sil
22.15	24.7	0.970	3.930	-1.40	14	5	clayey silt to silty cla
22.31	18.8	0.660	3.514	-1.40	12	4	silty clay to clay
22.47	13.2	0.440	3.339	-1.50	10	4	silty clay to clay
22.64	13.1	0.360	2.752	-1.40	8	4	silty clay to clay
22.80	13.7	0.440	3.216	-1.30	9	4	silty clay to clay
22.97	16.9	0.520	3.080	-1.30	8	5	clayey silt to silty cla
23.13	18.9	0.470	2.489	-1.40	8	5	clayey silt to silty cla
23.29	12.8	0.340	2.661	-1.50	7	5	clayey silt to silty cla
23.46	12.7	0.430	3.391	-1.30	9	4	silty clay to clay
23.62	18.7	0.680	3.640	-1.30	9	5	clayey silt to silty cla
23.79	23.9	0.560	2.345	-1.40	9	5	clayey silt to silty cla
23.95	15.7	0.670	4.271	-0.90	9	5	clayey silt to silty cla
24.11	19.9	0.720	3.620	-0.80	14	4	silty clay to clay
24.28	30.2	1.090	3.611	-1.10	18	4	silty clay to clay
24.44	33.5	1.570	4.689	-1.20	21	4	silty clay to clay
24.61	36.1	1.790	4.961	-1.40	23	4	silty clay to clay
24.77	36.5	1.530	4.195	-2.10	32	3	clay
24.93	27.5	1.460	5.317	-2.80	23	4	silty clay to clay
25.10	46.5	1.920	4.133	-2.80	24	4	silty clay to clay
25.26	40.3	1.850	4.589	-5.90	21	5	clayey silt to silty cla
25.43	46.9	1.800	3.837	-6.40	22	5	clayey silt to silty cla
25.59	53.0	1.340	2.529	-8.10	21	6	sandy silt to clayey sil
25.75	66.8	0.910	1.362	-5.90	19	6	sandy silt to clayey sil
25.92	31.4	0.690	2.198	-1.00	15	6	sandy silt to clayey sil
26.08	16.6	0.490	2.953	-0.60	9	5	clayey silt to silty cla
26.25	11.4	0.460	4.035	0.10	8	4	silty clay to clay
26.41	9.3	0.410	4.405	0.50	9	3	clay
26.57	7.9	0.380	4.805	0.60	8	3	clay
26.74	7.6	0.340	4.466	0.90	7	3	clay
26.90	7.4	0.360	4.855	1.00	7	3	clay
27.07	8.0	0.400	4.989	1.20	8	3	clay
27.23	8.9	0.470	5.270	1.30	8	3	clay
27.40	9.1	0.510	5.592	1.40	9	3	clay
27.56	8.9	0.500	5.605	1.40	9	3	clay
27.72	8.7	0.470	5.389	1.50	8	3	clay
27.89	8.6	0.450	5.219	1.50	8	3	clay
28.05	8.8	0.460	5.213	1.70	9	3	clay
28.22	9.8	0.520	5.293	1.70	10	3	clay
28.38	12.0	0.590	4.905	2.00	11	3	clay
28.54	12.8	0.630	4.911	2.00	12	3	clay
28.71	13.3	0.660	4.951	2.10	13	3	clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt (TSF)	Fs (TSF)	Fs/Qt (%)	Pw (PSI)	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
28.87	14.1	0.640	4.529	2.20	14	3	clay
29.04	15.0	0.690	4.590	2.30	15	3	clay
29.20	18.9	0.790	4.172	2.40	17	3	clay
29.36	20.6	0.850	4.119	2.50	13	4	silty clay to clay
29.53	19.7	0.790	4.003	2.50	13	4	silty clay to clay
29.69	18.6	0.710	3.810	2.50	12	4	silty clay to clay
29.86	18.4	0.720	3.905	2.60	12	4	silty clay to clay
30.02	17.4	0.710	4.072	2.60	11	4	silty clay to clay
30.18	14.1	0.600	4.244	2.70	14	3	clay
30.35	11.5	0.480	4.159	2.80	11	3	clay
30.51	9.9	0.440	4.426	2.80	10	3	clay
30.68	9.1	0.410	4.484	3.00	9	3	clay
30.84	7.8	0.320	4.080	3.00	8	3	clay
31.00	7.4	0.310	4.163	3.20	8	3	clay
31.17	9.2	0.300	3.278	3.60	8	3	clay
31.33	9.6	0.230	2.408	3.70	6	4	silty clay to clay
31.50	9.5	0.260	2.750	3.80	6	4	silty clay to clay
31.66	11.5	0.290	2.531	4.00	7	5	clayey silt to silty cla
31.82	21.3	0.260	1.223	4.10	8	5	clayey silt to silty cla
31.99	14.9	0.390	2.624	4.30	9	5	clayey silt to silty cla
32.15	20.1	0.830	4.136	4.60	14	4	silty clay to clay
32.32	29.2	1.160	3.977	4.90	18	4	silty clay to clay
32.48	33.9	1.230	3.632	4.60	15	5	clayey silt to silty cla
32.64	34.1	1.220	3.581	4.80	16	5	clayey silt to silty cla
32.81	34.1	1.270	3.727	5.10	17	5	clayey silt to silty cla
32.97	39.8	1.010	2.539	5.50	18	5	clayey silt to silty cla
33.14	36.6	1.260	3.444	5.70	19	5	clayey silt to silty cla
33.30	40.1	1.280	3.193	6.00	20	5	clayey silt to silty cla
33.46	49.5	1.330	2.688	5.60	20	5	clayey silt to silty cla
33.63	34.9	1.320	3.786	4.80	19	5	clayey silt to silty cla
33.79	34.9	1.210	3.470	5.20	17	5	clayey silt to silty cla
33.96	34.6	1.280	3.702	5.40	17	5	clayey silt to silty cla
34.12	36.1	1.320	3.658	5.70	17	5	clayey silt to silty cla
34.28	37.4	1.370	3.665	5.80	17	5	clayey silt to silty cla
34.45	34.7	1.300	3.748	6.00	16	5	clayey silt to silty cla
34.61	29.7	1.150	3.873	6.50	20	4	silty clay to clay
34.78	28.2	1.360	4.823	6.90	20	4	silty clay to clay
34.94	38.1	1.750	4.593	6.90	28	4	silty clay to clay
35.10	66.1	2.600	3.934	6.70	35	4	silty clay to clay
35.27	62.5	2.960	4.733	2.80	41	4	silty clay to clay
35.43	64.8	3.740	5.769	1.90	38	5	clayey silt to silty cla
35.60	111.4	3.160	2.837	-1.50	37	6	sandy silt to clayey sil
35.76	117.1	3.270	2.793	-7.10	37	6	sandy silt to clayey sil
35.93	61.3	2.090	3.410	-8.10	27	6	sandy silt to clayey sil
36.09	34.4	1.870	5.439	-8.20	23	5	clayey silt to silty cla
36.25	46.3	1.840	3.976	-8.20	24	4	silty clay to clay
36.42	31.4	1.540	4.907	-8.10	21	4	silty clay to clay
36.58	18.9	0.920	4.873	-8.30	20	3	clay
36.75	13.5	0.580	4.303	-8.30	14	3	clay
36.91	12.6	0.440	3.497	-8.20	13	3	clay
37.07	15.5	0.630	4.069	-8.10	11	4	silty clay to clay
37.24	22.6	0.640	2.834	-8.10	10	5	clayey silt to silty cla
37.40	21.7	0.680	3.136	-8.00	12	4	silty clay to clay
37.57	13.7	0.920	6.723	-8.00	21	3	clay
37.73	30.4	1.440	4.738	-7.40	31	3	clay
37.89	53.6	2.230	4.161	-7.40	32	4	silty clay to clay
38.06	67.3	3.370	5.008	-7.40	37	5	clayey silt to silty cla
38.22	112.8	4.470	3.963	-7.60	45	6	sandy silt to clayey sil
38.39	172.2	3.710	2.155	-8.30	54	7	silty sand to sandy silt
38.55	221.2	1.670	0.755	-9.20	40	9	sand

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt (TSF)	Fs (TSF)	Fs/Qt (%)	Pw (PSI)	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
38.71	241.1	1.210	0.502	-10.20	42	9	sand
38.88	191.2	1.430	0.748	-10.40	35	9	sand
39.04	121.9	2.030	1.665	-10.90	29	8	sand to silty sand
39.21	55.9	2.290	4.094	-11.60	26	6	sandy silt to clayey sil
39.37	27.8	1.560	5.605	-11.80	21	4	silty clay to clay
39.53	15.6	0.790	5.054	-11.80	18	3	clay
39.70	14.4	0.530	3.673	-11.70	15	3	clay
39.86	16.3	0.560	3.429	-11.70	11	4	silty clay to clay
40.03	19.2	0.570	2.963	-11.50	8	5	clayey silt to silty cla
40.19	17.0	0.510	2.994	-11.60	8	5	clayey silt to silty cla
40.35	14.6	0.400	2.734	-11.60	7	5	clayey silt to silty cla
40.52	13.2	0.350	2.645	-11.60	6	5	clayey silt to silty cla
40.68	12.7	0.320	2.513	-11.50	6	5	clayey silt to silty cla
40.85	12.7	0.350	2.748	-11.50	6	5	clayey silt to silty cla
41.01	13.7	0.410	2.985	-11.50	9	4	silty clay to clay
41.17	15.0	0.470	3.126	-11.50	9	4	silty clay to clay
41.34	15.5	0.470	3.025	-11.40	7	5	clayey silt to silty cla
41.50	16.2	0.500	3.080	-11.50	8	5	clayey silt to silty cla
41.67	18.0	0.590	3.272	-11.50	9	5	clayey silt to silty cla
41.83	20.9	0.620	2.962	-11.50	10	5	clayey silt to silty cla
41.99	22.0	0.620	2.814	-11.40	10	5	clayey silt to silty cla
42.16	21.4	0.620	2.893	-11.50	10	5	clayey silt to silty cla
42.32	20.2	0.590	2.916	-11.50	10	5	clayey silt to silty cla
42.49	19.8	0.600	3.025	-11.40	10	5	clayey silt to silty cla
42.65	20.3	0.580	2.852	-11.50	10	5	clayey silt to silty cla
42.81	20.1	0.570	2.831	-11.40	10	5	clayey silt to silty cla
42.98	20.4	0.660	3.230	-11.40	10	5	clayey silt to silty cla
43.14	22.6	0.890	3.932	-11.40	14	4	silty clay to clay
43.31	23.1	0.910	3.933	-11.40	15	4	silty clay to clay
43.47	22.6	0.980	4.329	-11.30	16	4	silty clay to clay
43.64	29.4	1.370	4.654	-11.40	19	4	silty clay to clay
43.80	38.2	1.670	4.367	-11.30	22	4	silty clay to clay
43.96	37.7	1.710	4.531	-11.30	24	4	silty clay to clay
44.13	35.4	1.900	5.362	-11.40	27	4	silty clay to clay
44.29	52.8	2.550	4.826	-11.30	47	3	clay
44.46	60.2	3.260	5.412	-11.30	72	11	very stiff fine grained (
44.62	113.4	4.660	4.108	-11.20	45	6	sandy silt to clayey sil
44.78	176.7	4.530	2.563	-11.80	54	7	silty sand to sandy silt
44.95	217.3	4.720	2.172	-12.90	66	7	silty sand to sandy silt
45.11	230.8	4.250	1.841	-13.00	53	8	sand to silty sand
45.28	211.6	3.270	1.545	-13.10	52	8	sand to silty sand
45.44	205.7	2.710	1.317	-13.10	47	8	sand to silty sand
45.60	175.8	2.950	1.678	-13.10	45	8	sand to silty sand
45.77	177.0	3.240	1.830	-13.10	45	8	sand to silty sand
45.93	210.9	3.460	1.640	-13.00	47	9	sand
46.10	347.6	2.900	0.834	-13.00	61	9	sand
46.26	391.8	2.330	0.595	-12.90	61	10	gravelly sand to sand
46.42	404.9	2.570	0.635	-12.80	62	10	gravelly sand to sand
46.59	369.7	1.780	0.481	-12.70	60	10	gravelly sand to sand
46.75	350.4	2.010	0.574	-12.70	56	10	gravelly sand to sand
46.92	324.2	1.800	0.555	-12.60	52	10	gravelly sand to sand
47.08	294.9	1.350	0.458	-12.40	49	10	gravelly sand to sand
47.24	303.1	1.230	0.406	-12.50	48	10	gravelly sand to sand
47.41	299.3	1.370	0.458	-12.40	47	10	gravelly sand to sand
47.57	281.7	1.180	0.419	-12.40	48	10	gravelly sand to sand
47.74	321.1	1.850	0.576	-12.30	53	10	gravelly sand to sand
47.90	388.6	1.890	0.486	-11.90	60	10	gravelly sand to sand
48.06	419.9	2.200	0.524	-11.90	64	10	gravelly sand to sand
48.23	403.4	2.170	0.538	-11.90	65	10	gravelly sand to sand
48.39	394.4	2.020	0.512	-11.70	64	10	gravelly sand to sand

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt (TSF)	Fs (TSF)	Fs/Qt (%)	Pw (PSI)	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
48.56	399.2	1.440	0.361	-11.80	63	10	gravelly sand to sand
48.72	389.6	1.750	0.449	-11.70	62	10	gravelly sand to sand
48.88	386.1	1.410	0.365	-11.70	64	10	gravelly sand to sand
49.05	424.4	1.730	0.408	-11.70	70	10	gravelly sand to sand
49.21	509.7	1.730	0.339	-11.70	79	10	gravelly sand to sand
49.38	549.2	1.710	0.311	-10.90	0	0	<out of range>
49.54	550.6	-32768	-32768	-10.90	0	0	<out of range>
49.70	545.7	-32768	-32768	-10.90	0	0	<out of range>

*Soil behavior type and SPT based on data from UBC-1983