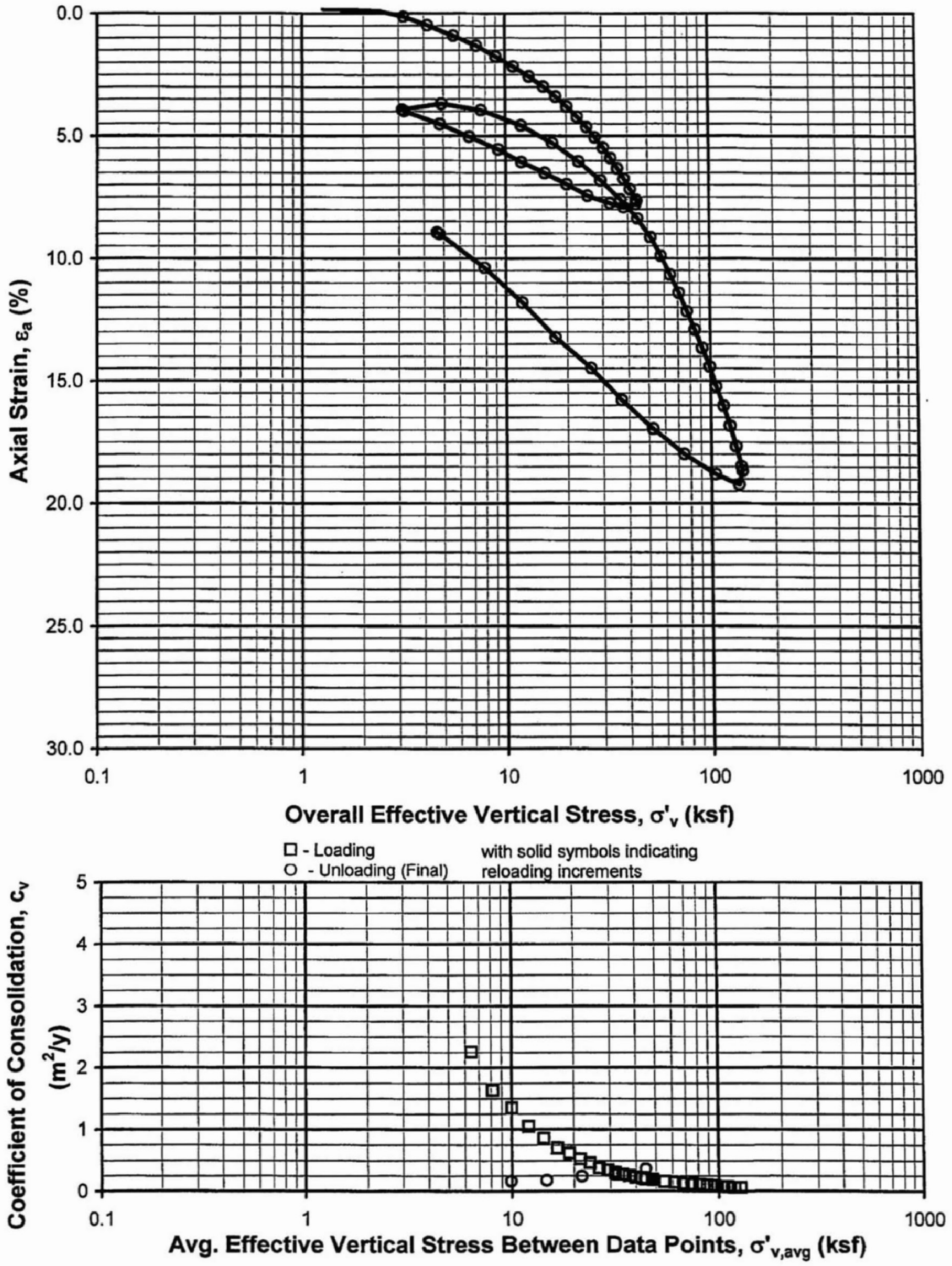
ONE - DIMENSIONAL CONSOLIDATION TEST: CRS LOADING RESULTS (Load Time - Deformation Properties)

Load-ing Info. (1)	Elapsed Time from Start of Loading, Δt_n (min)	Overall Effective Vertical Stress, $\sigma'_{v,n}$ (ksf)	Corrected Volumetric (Axial) Strain, $\varepsilon_{v,n}$ ($\varepsilon_{ac,n}$) $\Delta H_{c,n} / H_o$ (%)	Overall Void Ratio, e_n	Total Vertical Stress, $\sigma_{v,n}$ (ksf)	Excess Pore-Water Pressure, ΔU_n (2) (ksf)	Loading Pore-Water Pressure Ratio, R_u $\Delta U_n / \sigma_{v,n}$ (%)	Corrected Specimen Height, $H_{c,n}$ (mm)	Calculations Between n and n-1: Average Effective Vertical Stress, $\sigma'_{v,avg}$ (ksf)	Coefficient of Consolidation, c_v (m^2/y)	Average Void Ratio, e_{avg}	Hydraulic Conductivity, k @ 20°C (m/y)	Steady State Ratio, $SSR_n = \frac{c_v \cdot t_n \cdot UCF}{T_v \cdot (H_{c,avg})^2}$	Rate of Secondary Comp. (3), $C_\alpha = \Delta d_{a,sc} / H_o$ ($\times 10^{-4}$)
	347	48.83	5.40	0.490	48.83	-0.002	0.0	17.884	45.56		0.493		-28686.95	
	375	55.90	5.80	0.484	55.90	-0.001	0.0	17.808	52.37		0.487		-39714.99	
	403	63.40	6.19	0.477	63.40	-0.001	0.0	17.735	59.65		0.480		-67392.62	
	431	71.57	6.57	0.471	71.57	-0.002	0.0	17.662	67.48		0.474		-66763.22	
	459	80.17	6.93	0.466	80.17	-0.003	0.0	17.593	75.87		0.469		-52376.13	
UE	487	89.24	7.29	0.460	89.24	-0.002	0.0	17.526	84.71		0.463		-50160.57	
	515	98.71	7.64	0.454	98.71	-0.004	0.0	17.459	93.98		0.457			
	519	100.13	7.69	0.454	100.13	-0.005	0.0	17.449	99.42		0.454			
	521	99.54	7.71	0.453	99.53	-0.006	0.0	17.447	99.84		0.454			
	557	96.01	7.80	0.452	96.01	-0.009	0.0	17.429	97.77		0.453			
	593	90.15	7.80	0.452	90.14	-0.011	0.0	17.429	93.08		0.452			
	629	77.15	7.77	0.453	77.15	-0.011	0.0	17.436	83.65		0.452			
	665	64.01	7.71	0.453	64.00	-0.013	0.0	17.446	70.58		0.453			
	701	51.78	7.65	0.454	51.77	-0.013	0.0	17.457	57.90		0.454			
US	737	40.64	7.57	0.456	40.63	-0.013	0.0	17.472	46.21		0.455			
	773	30.72	7.48	0.457	30.71	-0.014	0.0	17.490	35.68	1646.53	0.456	3.20E-02	738.08	
	809	22.22	7.36	0.459	22.21	-0.016	-0.1	17.512	26.47	1285.84	0.458	3.50E-02	1150.18	
	845	15.43	7.23	0.461	15.42	-0.016	-0.1	17.537	18.83	960.17	0.460	3.78E-02	1284.88	
UE	881	10.12	7.07	0.464	10.11	-0.018	-0.2	17.568	12.78	712.96	0.462	4.43E-02	1268.04	
	883	9.87	7.06	0.464	9.86	-0.017	-0.2	17.570	10.00		0.464			
	885	9.89	7.05	0.464	9.88	-0.017	-0.2	17.571	9.88		0.464			
	899	10.72	7.07	0.464	10.71	-0.015	-0.1	17.568	10.31		0.464			
	913	16.02	7.09	0.463	16.01	-0.015	-0.1	17.564	13.37		0.463			
	927	21.63	7.15	0.462	21.61	-0.016	-0.1	17.552	18.82		0.463			
	941	27.59	7.23	0.461	27.58	-0.017	-0.1	17.538	24.61		0.462			
	955	34.14	7.30	0.460	34.13	-0.016	0.0	17.524	30.86		0.460			
US	969	41.08	7.38	0.459	41.07	-0.017	0.0	17.509	37.61		0.459			
	983	48.22	7.45	0.458	48.21	-0.017	0.0	17.496	44.65		0.458		-421.77	
	997	55.53	7.53	0.456	55.52	-0.017	0.0	17.481	51.87		0.457		-846.02	
	1011	62.98	7.60	0.455	62.97	-0.017	0.0	17.467	59.26		0.456		-1316.13	

ONE - DIMENSIONAL CONSOLIDATION TEST: CRS LOADING RESULTS (Load Time - Deformation Properties)

Loading Info. (1)	Elapsed Time from Start of Loading, Δt_n (min)	Overall Effective Vertical Stress, $\sigma'_{v,n}$ (ksf)	Corrected Volumetric (Axial) Strain, $\varepsilon_{v,n}$ ($\varepsilon_{ac,n}$) $\Delta H_{c,n} / H_o$ (%)	Overall Void Ratio, e_n	Total Vertical Stress, $\sigma_{v,n}$ (ksf)	Excess Pore-Water Pressure, ΔU_n (2) (ksf)	Loading Pore-Water Pressure Ratio, R_u $\Delta U_n / \sigma_{v,n}$ (%)	Corrected Specimen Height, $H_{c,n}$ (mm)	Calculations Between n and n-1: Average Effective Vertical Stress, $\sigma'_{v,avg}$ (ksf)	Calculations Between n and n-1: Coefficient of Consolidation, c_v (m^2/y)	Calculations Between n and n-1: Average Void Ratio, e_{avg}	Calculations Between n and n-1: Hydraulic Conductivity, k @ 20°C (m/y)	Steady State Ratio, $SSR_n = \frac{c_v \cdot t_n \cdot UCF}{T_v \cdot (H_{c,avg})^2}$	Rate of Secondary Comp. (3), $c_\alpha = \Delta d_{a,sc} / H_o$ ($\times 10^{-4}$)
	1025	70.37	7.69	0.454	70.36	-0.018	0.0	17.450	66.68		0.454		-1700.26	
	1039	77.81	7.79	0.452	77.80	-0.017	0.0	17.431	74.09		0.453		-2126.13	
	1053	85.25	7.88	0.451	85.24	-0.014	0.0	17.414	81.53		0.451		-2912.48	
	1067	92.33	7.99	0.449	92.32	-0.014	0.0	17.394	88.79		0.450		-3624.64	
	1081	99.22	8.10	0.447	99.21	-0.013	0.0	17.372	95.78		0.448		-4060.48	
	1095	105.96	8.22	0.445	105.95	-0.014	0.0	17.349	102.59		0.446		-4449.83	
	1109	112.39	8.35	0.443	112.38	-0.013	0.0	17.325	109.18		0.444		-4711.34	
	1123	118.61	8.49	0.441	118.61	-0.013	0.0	17.298	115.50		0.442		-5207.17	
	1137	124.72	8.64	0.439	124.71	-0.014	0.0	17.271	121.67		0.440		-5403.49	
	1151	130.83	8.78	0.437	130.82	-0.013	0.0	17.244	127.78		0.438		-5733.24	
	1165	136.73	8.94	0.434	136.72	-0.013	0.0	17.214	133.78		0.435		-6146.48	
	1179	142.20	9.09	0.432	142.19	-0.015	0.0	17.186	139.46		0.433		-5784.21	
UE	1191	146.89	9.20	0.430	146.88	-0.014	0.0	17.165	144.55		0.431		-6004.64	
	1193	146.32	9.21	0.430	146.31	-0.016	0.0	17.162	146.61		0.430			
	1273	137.29	9.34	0.428	137.28	-0.018	0.0	17.139	141.80		0.429			
	1353	105.69	9.30	0.428	105.67	-0.022	0.0	17.146	121.49		0.428			
	1433	75.15	9.15	0.431	75.14	-0.024	0.0	17.174	90.42		0.430			
US	1513	48.48	8.98	0.433	48.47	-0.022	0.0	17.207	61.82		0.432			
	1593	26.70	8.75	0.437	26.69	-0.025	-0.1	17.249	37.59	930.79	0.435	1.89E-02	954.66	
	1673	12.23	8.44	0.442	12.22	-0.019	-0.2	17.309	19.47	673.09	0.439	2.86E-02	1372.56	
UE	1753	4.47	7.99	0.449	4.46	-0.007	-0.1	17.394	8.35	647.67	0.446	7.10E-02	1964.52	
	1833	1.54	7.34	0.459	1.53	-0.009	-0.6	17.517	3.00		0.454			
	1913	0.55	6.50	0.473	0.54	-0.010	-1.9	17.676	1.04		0.466			
	1993	0.22	5.58	0.487	0.21	-0.010	-4.5	17.848	0.38		0.480			
	2007	0.19	5.42	0.490	0.18	-0.009	-4.8	17.880	0.20		0.488			



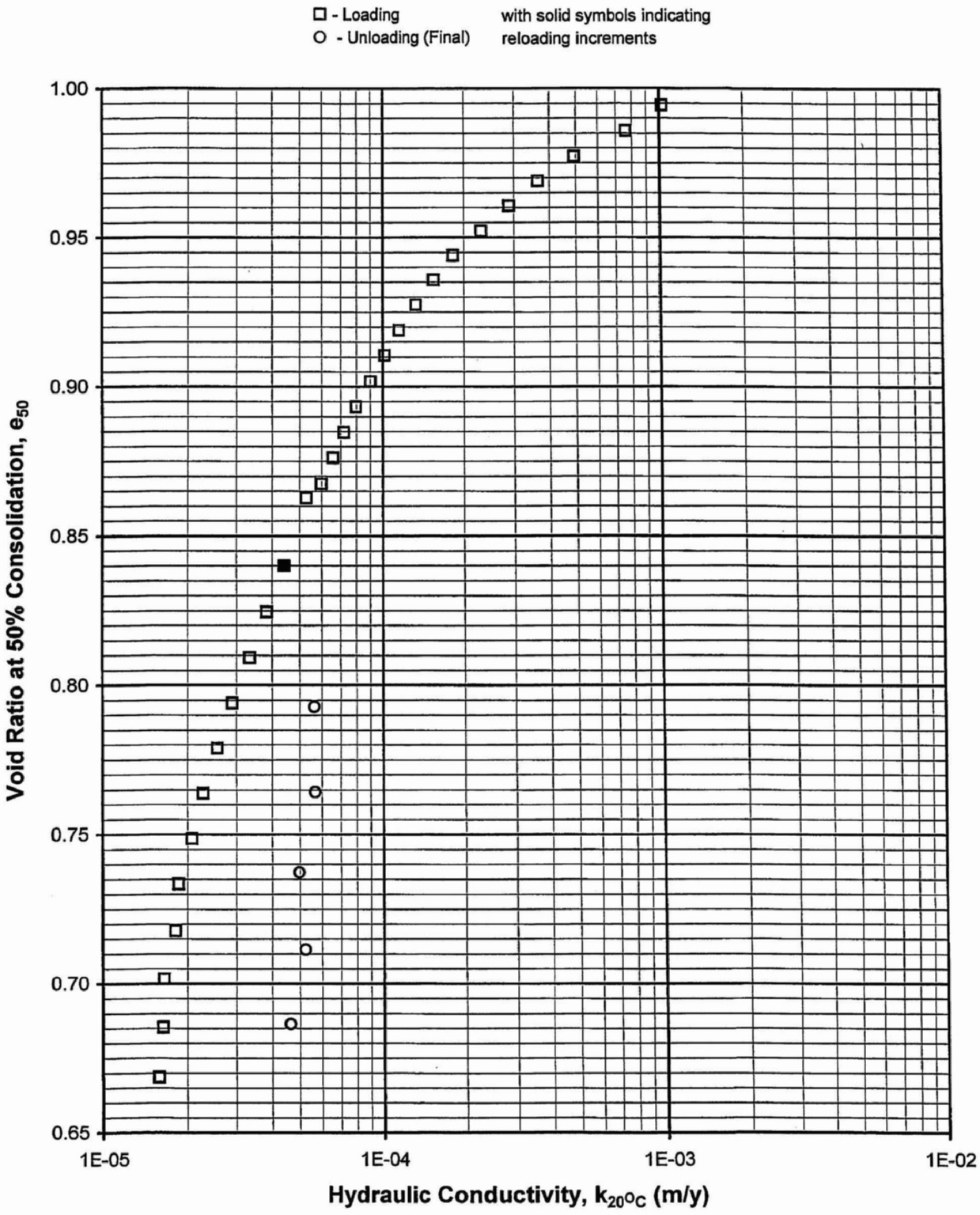
1-D CONSOLIDATION TEST: CRS

Sample No. UD-20A - Depth 120.0 - 121.7 ft

Boring B-2359UD

KAW 7/16/08

Reviewed By: HP



1-D CONSOLIDATION TEST: CRS

Sample No. UD-20A - Depth 120.0 - 121.7 ft

Boring B-2359UD

KAW 7/16/08

ONE - DIMENSIONAL CONSOLIDATION TEST: Specimen Setup / Take Down

Project Number: 0411-08-1686 | Test Station No.: CRS-2 | File Name: B-2359_UD20a
Task No.: NA | Specific Gravity, G_s: 2.720 [X] Meas. ; [ ] Assumed | Ring No.: 2
Project Name: Exelon (Victoria) | Assig. Remarks: | Ring Area, A_r (cm^2) = 31.695
TEST TYPE: [X] CRS (D 4186-06); [ ] Method A; [ ] Method B; [ ] Method C; [ ] Method D; | Ring Height (mm) = NA
[ ] Method E; [ ] Method F; [ ] Method G; [ ] Method H; [ ] Method I; [ ] Method J; | **Summary of Methods:** NA

[X] Tube [ ] Field Extruded	[ ] Liner [ ] Remolded	[ ] Tamping	[ ] Constant Effort:	Blows/Tamps per Layer =
Boring No.: B-2359UD	[ ] LPC Core	[ ] Impact/Rammer	Rammer Wgt.(lbf)=	No. Layers =
Sample No.: UD-20	Compostite No.:	[ ] Pluviated:	Tamper Force (lbf)=	Drop (in.) =
Depth (ft): 120.0 - 121.7	Specimen No.: A	[ ] Kneading	[ ] Undercompaction: U_{ni} (%) =	Dia. (in.) =
[ ] Spec. Selection by X-ray;	[ ] Geomarine Sample		Ref. Effort= % Comp. =	± Opt.=

Water Content (W);	Initial - Trimming Location			Final, W_{at}
	Top (W1)	Bottom (W2)	Sides (W3)	(see below)
Container No.	136	801	986	907
Mass Moist Soil + Container (g)	110.58	118.02	95.45	62.90
Mass Dry Soil + Container (g)	90.17	96.21	79.39	55.30
Mass Container (g)	30.13	31.81	32.23	31.93
WATER CONTENT (%)	33.99	33.87	34.05	32.52
Avg. Initial Water Content, W4 (%)	33.97	Final W_{at}: [X] Slice ; [ ]		Whole Spec.

[ ] See attached data sheet(s) for additional water contents

Soil and Ring Masses	Initial	Final
Mass Moist Soil + Ring (g)	325.41	320.48
Mass Ring (g)	212.92	
Mass Moist Soil, $M_{t,o}$ or $M_{t,at}$ (g)	112.49	107.56
EXCESS DRY SOIL (soil not incl. in final mass above)		
Container No.		2016
Mass Dry Soil + Container (g)		32.64
Mass Container (g)		30.71
Mass Excess Dry Soil, $M_{d,es}$ (g)		1.93

Soil Height: Measurements (mm)			
Initial		Final	
with Spec.	without Spec.	with Spec.	without Spec.
19.310	0.000	11.170	12.840
19.210	0.000	11.070	12.780
19.280	0.000	11.150	12.800
19.220	0.000	11.190	12.810
19.280	0.000	11.130	12.780
[ ] Yes ; [X] No		[X] Yes ; [ ] No		Require H_{gb} & d_{gb} (1)
[ ] Yes ; [X] No		[X] Yes ; [ ] No		Filter Paper Included:

(1) Req. block ht. to set bench comparator so the final soil ht. can be determined directly by the diff. between the reading with and without spec. : ~ 12.7 mm; CRS ~ 25 mm
Enter value of H_{gb} & d_{gb} only when that value has to be included in the determination of the soil height.

Soil Height: Calculations, (mm)	Initial	Final
Height of Gauge Block, H_{gb} (1)	0.000	19.060
Reading on Gauge Block, d_{gb}	0.000	0.000
Avg. Reading on Soil, d_{soil}	19.260	11.142
Avg. Reading on Apparatus without Specimen, d_{app}	0.000	12.802
Soil Height, $H = d_{soil} - d_{app} + H_{gb} - d_{gb}$	19.260	17.400

Soil Height: Final by Dial Change During Test (mm)	
Initial Height, H_o	19.260
Final (end of test) Corr. Total Spec. Deformation, $\Delta H_{c,f}$	1.722
Final Calculated Height, $H_{f,c} = H_o - \Delta H_{c,f}$	17.538
Final Soil Height Measurement, $H_{f,m}$	17.400
Normalized Difference in %, $(H_{f,c} - H_{f,m})/H_o$	0.72

Estimated Initial Unit Weight	
Total, $\gamma_{t,o}$ (pcf)= 115.04	Dry, $\gamma_{d,o}$ (pcf)= 85.87

Filter Paper Used: [X] Whatman No. 54; [ ] Other
Incremental Test: Top & Bottom: [ ] Yes ; [ ] No
CRS Test: Top Only: [X] Yes ; [ ] No

Soil Extruded During Loading	
Container No.	
Mass Dry Soil + Cont. (g)	NA
Mass Cont. (g)	NA
Dry Mass - Soil Extruded During Loading, $M_{d,et}$ (g)	0.00

Photo taken of Sliced Test Specimen: [ ] Yes ; [X] No

Final Visual Description: Light Gray Fat CLAY (CH)

Trimming/Etc. Remarks: Excessive soil extrusions during testing

Method of trimming periphery: [X] "Casagrande" Lathe ; [ ] Cutting Shoe ; [ ] Wire Saw; [ ] Other
Method of trimming ends: [ ] Wire Saw & Sharp (knife) Straight Edge; [X] Wire Saw & Straight Edge; [ ] Wire Saw

Trim./Recon. By: JTG | Setup By: JTG | Prelim. Calc. By: LF | Take Down By: JTG
Date: 4/1/2008 | Date: 4/1/2008 | Final Calc. By: LF | Date: 4/7/2008
Reviewed By: HP HP

Note: NA - Not Applicable

KAW 7/16/08

ONE - DIMENSIONAL CONSOLIDATION TEST: Specimen Calculations & Summary

Project Number: 0411-08-1686 Test Station No.: CRS-2 File Name: B-2359_UD20a
Task No.: NA Specific Gravity, G_s: 2.720 [X] Measured ; [ ] Assumed.
Calculations Corrected for Salt (dissolved solids): [X] No or, [ ] Yes, with Concentration = _____ g/kg

Cal.-Routine	ITEM	Water Content, (%)	Mass Dry Soil, (g)	Degree of Saturation, S in %		
				Height Initial	Final Height Meas.	Final Height Dial
1	Initial, Top, W1	33.99	83.95	94.9	97.6	95.9
2	" Bottom, W2	33.87	84.03	94.7	97.4	95.7
3	" Sides, W3	34.05	83.91	95.0	97.7	96.0
4	" Average, W4	33.97	83.97	94.9	97.6	95.8
5	" Back Calculated (1)	35.38	83.09 (3)	96.7	99.9	98.1
6	Final	32.52	83.09 (2)	96.7	99.9	98.1

Calculated Specific Gravity for Final Saturation = 100%:
Used Cal. Routine No. [5] to obtain the mass of dry soil
and final height by: [X] Measurement; [ ] Dial Change.
Back Cal. G_s = 2.717
Avg. G_s (measured/assumed) & Back Cal. G_s = 2.718

Calculation Constant, K = (unit conversion) / $G_s \times \rho_w \times A_r$	
Estimated, K_e	0.11620
Final Selected, K_f	0.11620

Calculated Mass Dry Soil for Final Saturation = 100%: using measured/assumed G_s
and final height by: [X] Measurement; [ ] Dial Change.
Back Cal. Mass Dry Soil, (g) = 83.04
Avg. Back Calculated and Measured Mass Dry Soil (g) = 83.07

Summary of Specimen Physical Properties

Specific Gravity G_s = 2.720 — [ ] Assumed [X] Measured
To make S_f = 100% at end of test. / Avg. of measured/assumed G_s and G_s to make S_f = 100%
Mass Dry Soil, (g): Initial: 83.09, Final (4): NA
[X] From Cal. Routine No. 5 — Note: Routine #5 is based on final measurements.
[ ] Make S_f = 100%, or; [ ] Avg. of measured & make S_f = 100%
Initial Height (mm) = 19.26 [X] Measured ; [ ] Back Calculated Back-cal. Sat. (%) = NA
Final Height (mm) = 17.40 [X] Measured ; [ ] Initial H_o & dial change during loading

	Water Content, w (%)	Void Ratio, e	Degree of Saturation, S (%)	Total Unit Weight, γ_t (pcf)	Dry Unit Weight, γ_d (pcf)	Height of Solids, H_s (2,4) (mm)	Extruded soil loss proportioned in increasing loading increments (5) From	To (ksf)
Initial	35.4	0.995	96.7	115.0	85.0	9.656	From	To (ksf)
Final	29.4	0.802	99.9	121.8	94.1	NA	NA	NA

Graphical Construction	σ'_p (ksf)	ε_s (%)	CR	RR	OCR			
Casagrande Method	40.00	NA	0.273	0.064	3.7	Liquid Limit (LL)	51	Minus 200 (%)
Becker Method	NA	Becker minimium σ'_p (ksf):			NA	Plastic Limit (PL)	15	95.4
						Plasticity Index (PI)	36	

NA - Indicates not applicable

Notes:

(1) Back Calculated based on final mass of oven-dry soil (corrected for dry mass of any excess and extruded soil).
(2) Corrected for any excess dry soil (soil stuck to ring, filter paper, etc.).
(3) This value is only different from the final value if there is soil extrusion during loading.
(4) Final is only different from the initial value if there is soil extrusion during loading.
(5) There should not be any soil loss in a CRS test, unless stress increments are applied.

Calculated By: LF Reviewed By: HP
Date: 4/8/2008

ONE - DIMENSIONAL CONSOLIDATION TEST:
CALCULATED CRS LOADING DATA

Project Number: 0411-08-1686 | Test Station No.: CRS-2 | File Name: B-2359_UD20a

Task No.: NA | Date; Start: 4/1/2008 | Initial Height, H_o (mm): 19.26

Project Name: Exelon (Victoria) | Completed: 4/7/2008 | Ring Area, A_r (cm^2): 31.6954

Test: Initial / Pressure | Gauge Back Pressure, U_G (psi): 70 | [X] Undisturbed or ; [ ] Reconstituted - Specimen.

Reference Values: | Back Pressure, $U_{b,BE}$ (psi): 70.6429 ,V: 0.02221709 | Piston Uplift, P_{up} (lbf): 34.80

Back Pressure, $U_{b,CS}$ (psi): 70.83457 ,V: 0.02227924 | Setup DT_{ref} (V): 0.0469072

Displacement Transducer No.: DT-102 | Calib. Factor (mm/V): -212.321 | Ch. No.: 4

Pore Press. Transducer No.: PT-110 | Calib. Factor (psi/V): 3084.04 | Ref. Zero (V): -0.000689 | Ch. No.: 5

Force Cell No.: FT-106 | Calib. Factor (lbf/V): 161475.386 | Ref. Zero (V): 0.000138 | Ch. No.: 6

Notes:

(1) S - Seating, BS - Start of Back Pressure, BE - End of Back Pressure, SC - Stress Controlled, CS - Constant Rate of Strain
US - Start of Uniform Strain Rate, UE - End of Uniform Strain Rate

(2) Total Vertical Stress (σ_v) corrected to account for the force caused by the back pressure acting on the piston (Piston Uplift).

(3) Increasing deformation value indicates: [X] compression; or [ ] swell.

(4) "App. Flex. Corr." values based on the apparatus calibration.

Data Management By: LF | Reviewed By: HP

Remarks:

Loading Info. (1)	Julian Day (dd)	Hour (hr.:min.:s)	Elapsed Time from Start of Loading, Δt_n (min)	Total Vertical Stress, $\sigma_{v,n}$ (2) (ksf)	Excess Pore-Water Pressure, ΔU_n (ksf)	Total Specimen Deformation, ΔH_n (3) (mm)	Apparatus Flexibility Correction, $\Delta d_{afc,n}$ (mm)	Corr. Total Specimen Deformation, $\Delta H_{c,n}$ (4) (mm)	Strain Rate, between n & n-1, $\Delta\varepsilon_{ac,rate}$ (%/hr)
S	92	17 : 42 : 00		0.30		0.000			
BS	92	17 : 57 : 00		1.26		0.043	0.065	-0.023	
BE	93	09 : 06 : 00		1.24	-0.028	0.028	0.065	-0.037	
CS	93	09 : 07 : 00	0	1.29	0.000	0.029	0.067	-0.038	
	93	09 : 33 : 00	26	2.55	0.213	0.084	0.104	-0.020	0.221
	93	09 : 59 : 00	52	3.44	0.380	0.147	0.121	0.026	0.546
	93	10 : 36 : 00	89	4.62	0.626	0.233	0.140	0.093	0.566
US	93	11 : 28 : 00	141	6.45	1.211	0.336	0.163	0.174	0.484
	93	12 : 20 : 00	193	8.57	1.892	0.436	0.184	0.252	0.470
	93	13 : 12 : 00	245	10.90	2.675	0.542	0.204	0.338	0.514
	93	14 : 04 : 00	297	13.68	3.766	0.641	0.224	0.417	0.471
	93	14 : 56 : 00	349	16.68	4.932	0.740	0.244	0.495	0.471
	93	15 : 48 : 00	401	19.90	6.246	0.839	0.264	0.576	0.481
	93	16 : 40 : 00	453	23.21	7.615	0.938	0.282	0.655	0.478
	93	17 : 32 : 00	505	26.84	9.282	1.034	0.301	0.733	0.464
	93	18 : 24 : 00	557	30.60	11.045	1.132	0.319	0.812	0.475
	93	19 : 16 : 00	609	34.60	13.011	1.231	0.338	0.893	0.484
	93	20 : 08 : 00	661	38.42	14.761	1.329	0.355	0.974	0.486
	93	21 : 00 : 00	713	42.45	16.723	1.427	0.371	1.056	0.489
	93	21 : 52 : 00	765	46.56	18.727	1.526	0.388	1.138	0.492
	93	22 : 44 : 00	817	50.72	20.752	1.623	0.404	1.219	0.488
	93	23 : 36 : 00	869	55.05	22.894	1.721	0.420	1.301	0.489
	94	00 : 28 : 00	921	59.34	24.989	1.819	0.435	1.383	0.494
	94	01 : 20 : 00	973	63.95	27.396	1.917	0.451	1.466	0.495

ONE - DIMENSIONAL CONSOLIDATION TEST:
CALCULATED CRS LOADING DATA

Load-ing Info. (1)	Julian Day (dd)	Hour (hr.:min.:s)	Elapsed Time from Start of Loading, Δt_n (min)	Total Vertical Stress, $\sigma_{v,n}$ (2) (ksf)	Excess Pore-Water Pressure, ΔU_n (ksf)	Total Specimen Deformation, ΔH_n (3) (mm)	Apparatus Flexibility Correction, $\Delta d_{afc,n}$ (mm)	Corr. Total Specimen Deformation, $\Delta H_{c,n}$ (4) (mm)	Strain Rate, between n & n-1, $\Delta\varepsilon_{ac,rate}$ (%/hr)
UE	94	01 : 26 : 00	979	64.47	27.644	1.928	0.453	1.475	0.462
	94	01 : 46 : 00	999	60.21	22.665	1.942	0.443	1.499	0.376
	94	04 : 00 : 00	1133	36.95	-1.948	1.905	0.380	1.524	0.059
	94	05 : 32 : 00	1225	29.20	-5.499	1.849	0.356	1.493	-0.104
	94	07 : 34 : 00	1347	20.50	-7.823	1.758	0.324	1.434	-0.151
US	94	09 : 36 : 00	1469	14.82	-8.507	1.643	0.300	1.343	-0.232
	94	11 : 38 : 00	1591	10.32	-9.028	1.531	0.276	1.255	-0.225
	94	13 : 40 : 00	1713	6.82	-9.145	1.421	0.253	1.168	-0.222
	94	15 : 42 : 00	1835	4.59	-8.583	1.303	0.233	1.070	-0.250
	94	17 : 44 : 00	1957	2.65	-7.983	1.175	0.207	0.968	-0.261
	94	19 : 46 : 00	2079	1.55	-6.966	1.051	0.182	0.869	-0.253
UE	94	21 : 48 : 00	2201	0.73	-5.992	0.917	0.148	0.769	-0.256
	94	22 : 02 : 00	2215	0.71	-5.839	0.902	0.147	0.755	-0.305
	94	22 : 26 : 00	2239	2.71	-3.878	0.918	0.208	0.710	-0.585
	94	23 : 42 : 00	2315	10.05	3.388	1.035	0.275	0.760	0.205
	95	01 : 20 : 00	2413	19.35	9.862	1.199	0.319	0.879	0.378
US	95	02 : 58 : 00	2511	28.46	15.190	1.371	0.353	1.018	0.442
	95	04 : 36 : 00	2609	37.94	20.111	1.547	0.383	1.163	0.462
	95	06 : 14 : 00	2707	47.53	24.226	1.723	0.410	1.313	0.474
	95	07 : 52 : 00	2805	57.72	28.051	1.902	0.437	1.465	0.484
	95	09 : 30 : 00	2903	67.29	30.862	2.076	0.463	1.614	0.473
	95	11 : 08 : 00	3001	77.40	35.080	2.256	0.495	1.761	0.467
	95	12 : 46 : 00	3099	86.89	39.415	2.432	0.524	1.908	0.467
	95	14 : 24 : 00	3197	96.91	44.375	2.608	0.553	2.054	0.466
	95	16 : 02 : 00	3295	107.05	49.346	2.780	0.582	2.199	0.459
	95	17 : 40 : 00	3393	117.68	54.676	2.953	0.610	2.343	0.458
	95	19 : 18 : 00	3491	129.08	60.513	3.125	0.639	2.486	0.456
	95	20 : 56 : 00	3589	140.46	66.239	3.299	0.666	2.633	0.466
	95	22 : 34 : 00	3687	151.97	71.543	3.472	0.693	2.778	0.462
	96	00 : 12 : 00	3785	162.54	76.178	3.650	0.717	2.933	0.492
	96	01 : 50 : 00	3883	173.52	79.407	3.826	0.741	3.084	0.481
	96	03 : 28 : 00	3981	182.76	81.125	4.004	0.761	3.243	0.504
UE	96	05 : 06 : 00	4079	192.25	83.236	4.185	0.781	3.404	0.512
	96	06 : 44 : 00	4177	200.95	84.793	4.359	0.799	3.561	0.498
	96	07 : 04 : 00	4197	202.79	84.969	4.396	0.802	3.593	0.512
	96	07 : 06 : 00	4199	202.32	84.612	4.398	0.802	3.597	0.523
	96	12 : 06 : 00	4499	144.87	13.440	4.420	0.715	3.705	0.112
	96	17 : 06 : 00	4799	98.43	-9.780	4.253	0.632	3.621	-0.087
	96	22 : 06 : 00	5099	67.07	-11.103	4.028	0.566	3.463	-0.164
US	97	03 : 06 : 00	5399	45.22	-11.157	3.776	0.510	3.265	-0.205
	97	08 : 06 : 00	5699	29.78	-11.297	3.505	0.464	3.041	-0.233
	97	13 : 06 : 00	5999	19.14	-11.357	3.213	0.425	2.788	-0.263

ONE - DIMENSIONAL CONSOLIDATION TEST:
CALCULATED CRS LOADING DATA

Load-ing Info. (1)	Julian Day (dd)	Hour (hr.:min.:s)	Elapsed Time from Start of Loading, Δt_n (min)	Total Vertical Stress, $\sigma_{v,n}$ (2) (ksf)	Excess Pore-Water Pressure, ΔU_n (ksf)	Total Specimen Deformation, ΔH_n (3) (mm)	Apparatus Flexibility Correction, $\Delta d_{afc,n}$ (mm)	Corr. Total Specimen Deformation, $\Delta H_{c,n}$ (4) (mm)	Strain Rate, between n & n-1, $\Delta \varepsilon_{ac,rate}$ (%/hr)
	97	18 : 06 : 00	6299	10.84	-11.427	2.934	0.385	2.548	-0.249
	97	23 : 06 : 00	6599	5.84	-11.462	2.625	0.351	2.274	-0.285
UE	98	04 : 06 : 00	6899	2.50	-11.467	2.312	0.311	2.001	-0.283
	98	09 : 06 : 00	7199	0.74	-11.437	1.990	0.255	1.735	-0.277
	98	09 : 22 : 00	7215	0.68	-11.434	1.974	0.252	1.722	-0.247
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ONE - DIMENSIONAL CONSOLIDATION TEST: CRS LOADING RESULTS (Load Time - Deformation Properties)

Project Number: 0411-08-1686 Test Station No.: CRS-2 [X] Undisturbed or ; [ ] Reconstituted - Specimen. File Name: B-2359_UD2(

Task No.: NA Date; Start: 4/1/2008 Back Pressure, $U_{b,cs}$ (psi): 70.8 Piston Uplift, P_{up} (lbf): 34.80

Project Name: Exelon (Victoria) Completed: 4/7/2008 Transient Time Factor, $T_v = (C_v \cdot t) / H^2$ = 0.5

D 4186-06-Summary of Methods: NA [ ] Data corrected for salt _____; in [ ] g/kg

Final Description of Specimen: Light Gray Fat CLAY (CH)

	Ring No.:	2	Area, A_r (cm^2):	31.695	Solids Ht., H_s (mm):	9.656	Specific Gravity, G_s =	2.720	[X] Meas. ;	[ ] Assumed			
Initial:	Height	H_o: 19.26	Water	35.4	Void	0.995	Deg. of	96.7	Total Unit	115.0	Dry Unit	85.0	
Final:	(mm):	H_f: 17.40	Content, w (%):	29.4	Ratio, e:	0.802	Sat., S (%):	99.9	Weight, γ_t (pcf):	121.8	Weight, γ_d (pcf):	94.1	

Notes:

(1) S - Seating, BS - Start of Back Pressure, BE - End of Back Pressure, SC - Stress Controlled, CS - Constant Rate of Strain, US - Start of Uniform Strain Rate, UE - End of Uniform Strain Rate or ΔU_n to errati

(2) Excess pore-water pressure measured at the base of the specimen.

(3) Only applicable during stress controlled (SC) loading.

Data Management by: LF Reviewed By: HP

Loading Info. (1)	Elapsed Time from Start of Loading, Δt_n (min)	Overall Effective Vertical Stress, $\sigma'_{v,n}$ (ksf)	Corrected Volumetric (Axial) Strain, $\varepsilon_{v,n}$ ($\varepsilon_{ac,n}$) $\Delta H_{c,n} / H_o$ (%)	Overall Void Ratio, e_n	Total Vertical Stress, $\sigma_{v,n}$ (ksf)	Excess Pore-Water Pressure, ΔU_n (2) (ksf)	Loading Pore-Water Pressure Ratio, R_u $\Delta U_n / \sigma_{v,n}$ (%)	Corrected Specimen Height, $H_{c,n}$ (mm)	Calculations Between n and n-1: Average Effective Vertical Stress, $\sigma'_{v,avg}$ (ksf)	Coefficient of Consolidation, c_v (m^2/y)	Average Void Ratio, e_{avg}	Hydraulic Conductivity, k @ 20°C (m/y)	Steady State Ratio, $SSR_n = \frac{c_v \cdot t_n \cdot UCF}{T_v \cdot (H_{c,avg})^2}$	Rate of Secondary Comp. (3), $C_\alpha = \Delta d_{a,sc} / H_o$ ($\times 10^{-4}$)
S					0.30				Data on given line represents average conditions between that line and the previous line of data.					
BS			-0.12	0.997	1.26			19.283						
BE		1.26	-0.19	0.998	1.24	-0.028	-2.2	19.297			0.998			
CS	0	1.29	-0.20	0.999	1.29	0.000	0.0	19.298			0.999			
	26	2.41	-0.10	0.997	2.55	0.213	8.3	19.280	1.85		0.998			
	52	3.18	0.13	0.992	3.44	0.380	11.0	19.234	2.79		0.994			
	89	4.19	0.48	0.985	4.62	0.626	13.6	19.167	3.68		0.988			
US	141	5.62	0.90	0.977	6.45	1.211	18.8	19.086	4.90		0.981			
	193	7.26	1.31	0.969	8.57	1.892	22.1	19.008	6.44	2.25	0.973	1.02E-03	1.23	
	245	9.04	1.76	0.960	10.90	2.675	24.5	18.922	8.15	1.63	0.964	7.59E-04	1.80	
	297	11.03	2.16	0.951	13.68	3.766	27.5	18.843	10.03	1.35	0.956	4.93E-04	2.24	
	349	13.20	2.57	0.943	16.68	4.932	29.6	18.765	12.12	1.05	0.947	3.64E-04	2.35	
	401	15.48	2.99	0.935	19.90	6.246	31.4	18.684	14.34	0.86	0.939	2.88E-04	2.42	
	453	17.80	3.40	0.927	23.21	7.615	32.8	18.605	16.64	0.70	0.931	2.30E-04	2.38	
	505	20.22	3.80	0.919	26.84	9.282	34.6	18.527	19.01	0.61	0.923	1.83E-04	2.47	
	557	22.70	4.22	0.911	30.60	11.045	36.1	18.448	21.46	0.52	0.915	1.55E-04	2.40	
	609	25.27	4.64	0.902	34.60	13.011	37.6	18.367	23.98	0.46	0.906	1.33E-04	2.40	

ONE - DIMENSIONAL CONSOLIDATION TEST: CRS LOADING RESULTS (Load Time - Deformation Properties)

Load-ing Info. (1)	Elapsed Time from Start of Loading, Δt_n (min)	Overall Effective Vertical Stress, $\sigma'_{v,n}$ (ksf)	Corrected Volumetric (Axial) Strain, $\varepsilon_{v,n}$ ($\varepsilon_{ac,n}$) $\Delta H_{c,n} / H_o$ (%)	Overall Void Ratio, e_n	Total Vertical Stress, $\sigma_{v,n}$ (ksf)	Excess Pore-Water Pressure, ΔU_n (2) (ksf)	Loading Pore-Water Pressure Ratio, R_u $\Delta U_n / \sigma_{v,n}$ (%)	Corrected Specimen Height, $H_{c,n}$ (mm)	Calculations Between n and n-1: Average Effective Vertical Stress, $\sigma'_{v,avg}$ (ksf)	Calculations Between n and n-1: Coefficient of Consolidation, c_v (m^2/y)	Calculations Between n and n-1: Average Void Ratio, e_{avg}	Calculations Between n and n-1: Hydraulic Conductivity, k @ 20°C (m/y)	Steady State Ratio, $SSR_n = \frac{c_v \cdot t_n \cdot UCF}{T_v \cdot (H_{c,avg})^2}$	Rate of Secondary Comp. (3), $c_\alpha = \Delta d_{a,sc} / H_o$ ($\times 10^{-4}$)
	661	27.80	5.06	0.894	38.42	14.761	38.4	18.286	26.54	0.37	0.898	1.15E-04	2.18	
	713	30.41	5.48	0.885	42.45	16.723	39.4	18.204	29.10	0.34	0.890	1.01E-04	2.23	
	765	33.04	5.91	0.877	46.56	18.727	40.2	18.122	31.72	0.30	0.881	9.02E-05	2.18	
	817	35.72	6.33	0.868	50.72	20.752	40.9	18.041	34.38	0.27	0.873	7.97E-05	2.14	
	869	38.47	6.75	0.860	55.05	22.894	41.6	17.959	37.09	0.25	0.864	7.17E-05	2.15	
	921	41.21	7.18	0.851	59.34	24.989	42.1	17.877	39.84	0.22	0.856	6.57E-05	2.07	
	973	44.05	7.61	0.843	63.95	27.396	42.8	17.794	42.63	0.22	0.847	5.97E-05	2.16	
UE	979	44.38	7.66	0.842	64.47	27.644	42.9	17.785	44.21	0.20	0.842	5.29E-05	2.01	
	999	43.95	7.78	0.839	60.21	22.665	37.6	17.761	44.16		0.841			
	1133	38.24	7.91	0.837	36.95	-1.948	-5.3	17.736	41.09		0.838			
	1225	32.76	7.75	0.840	29.20	-5.499	-18.8	17.767	35.50		0.838			
	1347	25.43	7.45	0.846	20.50	-7.823	-38.2	17.826	29.09		0.843			
US	1469	20.05	6.97	0.856	14.82	-8.507	-57.4	17.917	22.74		0.851			
	1591	15.69	6.52	0.865	10.32	-9.028	-87.5	18.005	17.87		0.860		0.68	
	1713	12.02	6.07	0.874	6.82	-9.145	-134.1	18.092	13.85	0.40	0.869	6.46E-05	1.15	
	1835	9.27	5.56	0.884	4.59	-8.583	-187.0	18.190	10.65	0.30	0.879	7.36E-05	1.27	
	1957	6.69	5.03	0.894	2.65	-7.983	-300.9	18.292	7.98	0.33	0.889	8.17E-05	1.84	
	2079	4.82	4.51	0.905	1.55	-6.966	-450.5	18.391	5.76	0.26	0.899	8.71E-05	1.78	
UE	2201	3.21	3.99	0.915	0.73	-5.992	-816.7	18.491	4.02	0.29	0.910	1.02E-04	2.36	
	2215	3.12	3.92	0.916	0.71	-5.839	-821.0	18.505	3.17		0.916			
	2239	4.90	3.69	0.921	2.71	-3.878	-142.9	18.550	4.01		0.919			
	2315	7.64	3.95	0.916	10.05	3.388	33.7	18.500	6.27		0.919			
	2413	12.03	4.56	0.904	19.35	9.862	51.0	18.381	9.83		0.910			
US	2511	17.11	5.29	0.889	28.46	15.190	53.4	18.242	14.57		0.896			
	2609	22.94	6.04	0.874	37.94	20.111	53.0	18.097	20.03		0.882		0.38	
	2707	29.55	6.82	0.859	47.53	24.226	51.0	17.947	26.24		0.866		0.62	
	2805	37.04	7.61	0.843	57.72	28.051	48.6	17.795	33.30		0.851		0.85	
	2903	44.70	8.38	0.828	67.29	30.862	45.9	17.646	40.87		0.835		0.96	
	3001	51.76	9.14	0.812	77.40	35.080	45.3	17.499	48.23	0.19	0.820	4.39E-05	1.15	
	3099	58.07	9.91	0.797	86.89	39.415	45.4	17.352	54.92	0.16	0.805	3.83E-05	1.15	

ONE - DIMENSIONAL CONSOLIDATION TEST: CRS LOADING RESULTS (Load Time - Deformation Properties)

Load-ing Info. (1)	Elapsed Time from Start of Loading, Δt_n (min)	Overall Effective Vertical Stress, $\sigma'_{v,n}$ (ksf)	Corrected Volumetric (Axial) Strain, $\varepsilon_{v,n}$ ($\varepsilon_{ac,n}$) $\Delta H_{c,n} / H_o$ (%)	Overall Void Ratio, e_n	Total Vertical Stress, $\sigma_{v,n}$ (ksf)	Excess Pore-Water Pressure, ΔU_n (2) (ksf)	Loading Pore-Water Pressure Ratio, R_u $\Delta U_n / \sigma_{v,n}$ (%)	Corrected Specimen Height, $H_{c,n}$ (mm)	Calculations Between n and n-1: Average Effective Vertical Stress, $\sigma'_{v,avg}$ (ksf)	Calculations Between n and n-1: Coefficient of Consolidation, c_v (m^2/y)	Calculations Between n and n-1: Average Void Ratio, e_{avg}	Calculations Between n and n-1: Hydraulic Conductivity, k @ 20°C (m/y)	Steady State Ratio, $SSR_n = \frac{c_v \cdot t_n \cdot UCF}{T_v \cdot (H_{c,avg})^2}$	Rate of Secondary Comp. (3), $c_\alpha = \Delta d_{a,sc} / H_o$ ($\times 10^{-4}$)
	3197	64.42	10.67	0.782	96.91	44.375	45.8	17.206	61.25	0.14	0.789	3.34E-05	1.25	
	3295	70.91	11.42	0.767	107.05	49.346	46.1	17.061	67.67	0.13	0.774	2.90E-05	1.30	
	3393	77.60	12.16	0.752	117.68	54.676	46.5	16.917	74.25	0.12	0.759	2.56E-05	1.37	
	3491	84.67	12.91	0.737	129.08	60.513	46.9	16.774	81.13	0.11	0.745	2.27E-05	1.47	
	3589	91.81	13.67	0.722	140.46	66.239	47.2	16.627	88.24	0.10	0.730	2.07E-05	1.46	
	3687	99.43	14.42	0.707	151.97	71.543	47.1	16.482	95.62	0.09	0.714	1.86E-05	1.48	
	3785	106.63	15.23	0.691	162.54	76.178	46.9	16.327	103.03	0.08	0.699	1.81E-05	1.38	
	3883	115.40	16.01	0.675	173.52	79.407	45.8	16.176	111.01	0.07	0.683	1.65E-05	1.47	
	3981	123.59	16.84	0.659	182.76	81.125	44.4	16.017	119.50	0.06	0.667	1.63E-05	1.30	
UE	4079	131.71	17.67	0.642	192.25	83.236	43.3	15.856	127.65	0.06	0.650	1.58E-05	1.40	
	4177	139.44	18.49	0.626	200.95	84.793	42.2	15.699	135.57		0.634			
	4197	141.20	18.66	0.622	202.79	84.969	41.9	15.667	140.32		0.624			
	4199	141.00	18.67	0.622	202.32	84.612	41.8	15.663	141.10		0.622			
	4499	135.76	19.24	0.611	144.87	13.440	9.3	15.555	138.38		0.617			
	4799	104.85	18.80	0.620	98.43	-9.780	-9.9	15.639	120.31		0.615			
	5099	74.28	17.98	0.636	67.07	-11.103	-16.6	15.797	89.56		0.628			
US	5399	52.38	16.95	0.656	45.22	-11.157	-24.7	15.995	63.33		0.646			
	5699	36.90	15.79	0.680	29.78	-11.297	-37.9	16.219	44.64	0.36	0.668	4.62E-05	1.59	
	5999	26.11	14.48	0.706	19.14	-11.357	-59.3	16.472	31.51	0.27	0.693	5.24E-05	2.32	
	6299	17.51	13.23	0.731	10.84	-11.427	-105.4	16.712	21.81	0.24	0.718	4.97E-05	3.02	
	6599	12.04	11.81	0.759	5.84	-11.462	-196.4	16.986	14.78	0.18	0.745	5.67E-05	2.87	
UE	6899	7.88	10.39	0.787	2.50	-11.467	-457.8	17.259	9.96	0.16	0.773	5.63E-05	3.20	
	7199	4.78	9.01	0.815	0.74	-11.437	-1551.6	17.525	6.33		0.801			
	7215	4.65	8.94	0.816	0.68	-11.434	-1670.7	17.538	4.71		0.816			

Hydraulic Conductivity Tests

MACTEC

HYDRAULIC CONDUCTIVITY

Project No.	*6468-07-1777*	Tested By	*HJ*
Project Name	*Exelon Texas COL (Victoria)*	Test Date	*4/21/2008*
Boring No.	*B-2319UD*	Reviewed By	JW
Sample No.	*UD-3*	Review Date	5/7/08
Sample Depth	*11-13 Ft (Bottom)*	Lab No.	*8353*

Sample Description *Pale Yellow Silty SAND (SM) Visual*

ASTM D5084-03 - (Method C Falling Head Rising Tail)

Sample Type:	*UD*
Sample Orientation:	*Vertical*
Initial Water Content, %:	*8.7*
Wet Unit Weight, pcf:	*111.7*
Dry Unit Weight, pcf:	*102.8*
Compaction, %:	*N/A*
Hydraulic Conductivity, cm/sec. @20 °C	***8.5E-04***

Remarks: B Value = 0.98

KAW 5/9/08

PERMEABILITY TEST
(ASTM D5084 - 03) (Method C, Increasing Tailwater Level)

MACTEC

Project Number	6468-07-1777	Tested By	HJ
Project Name	Exelon Texas COL (Victoria)	Test Date	04/21/08
Boring No.	B-2319UD	Reviewed By	JW
Sample No.	UD-3	Review Date	5/2/08
Sample Depth	11-13 Ft (Bottom)	Lab No.	8353
Sample Description	Pale Yellow Silty SAND (SM) Visual		

Initial Sample Data				Final Sample Data	
Length, in		Diameter, in		Pan No.	AB-23
Location 1	3.348	Location 1	2.736	Wet Soil+Pan, g	735.26
Location 2	3.350	Location 2	2.729	Dry Soil + Pan, g	613.06
Location3	3.348	Location 3	2.732	Pan Weight, g	83.60
Average	3.349	Average	2.732	Moisture Content, %	23.1
Volume, in^3	19.63	Wet Soil + Tare, g	575.85	Dry Unit Weight, pcf	104.0
SG Measured	2.72	Tare Weight, g	0.00	Saturation, %	99.3
Soil Sample Wt., g	575.85	Dry Soil + Tare, g	530.00	Diameter, in.	N/M
Dry UW, pcf	102.8	Moisture Content, %	8.7	Length, in.	N/M
Saturation, %	36.2			Volume, in^3	N/M

N/M - not measured due to the nature of sample.

Consolidation	
Chamber Pressure, psi	40
Back Pressure, psi	30
Confining Pressure, psi	10
Initial Burette Reading	24.5
Finial Burette Reading	21.0
Volume Change, cc	3.5
Permeant used	Water

Time (sec)	H_a (cm)	H_1 (cm)	H_b (cm)	H_2 (cm)	Temp (°C)	Initial Hydraulic Gradient	Final Hydraulic Gradient	k cm/sec	k cm/sec at 20 °C
60	6.0	21.1	9.0	18.2	25.0	1.8	1.1	9.28E-04	8.26E-04
120	6.0	21.1	10.9	16.3	25.0	1.8	0.6	9.63E-04	8.57E-04
180	6.0	21.1	12.1	15.1	25.0	1.8	0.4	1.01E-03	8.98E-04
60	6.5	22.0	9.5	19.0	25.0	1.8	1.1	9.17E-04	8.16E-04
120	6.5	22.0	11.4	17.1	25.0	1.8	0.7	9.37E-04	8.33E-04
180	6.5	22.0	12.6	15.9	25.0	1.8	0.4	9.66E-04	8.59E-04

No. of Trials	Sample Type	Max. Density (pcf)	Compaction %	Sample Orientation
6	UD	N/A	N/A	Vertical

Avg. k at 20 °C **8.48E-04 cm/sec**

a = area of burette in cm^2
L = length of sample in cm
A = area of sample in cm^2
Ha = initial inlet head in cm
H_1 = initial outlet head in cm
t = time in seconds
H_b = final inlet head in cm
H_2 = final outlet head in cm

a = 1.00 cm^2
A = 37.83 cm^2
L = 8.51 cm

Remarks: B Value = 0.98

HYDRAULIC CONDUCTIVITY (PERMEABILITY) TEST: Specimen Setup / Take Down
ASTM D 5084-03

Project Number: 0411-08-1686 | Test Type: Permeability Vert. | Cell No.: 15 | File Name: B-2319_UD4dV
Project Name: Exelon (Victoria) | Test Stress(es), σ'_c or $\sigma'_{v,c}$ = 20 , NA , NA & NA psi (1)
Task No.: NA | Perm. Orientation: [X] Vert.; [ ] Horiz. G_s = 2.720 | [X] Meas.; [ ] Assumed
Test No.: NA | Test Series No.: NA | Hydraulic System Used: [X] Hg (CV-FH) [ ] FH (Open System)
Part of Hyd. Conductivity Series: [X] No.; [ ] Yes; if yes with [ ] Vert.; [ ] Horiz.; [ ] Remolded
Assig. Remarks:

[X] Tube [ ] Field Extruded [ ] Liner [ ] Remolded	[ ] Tamping	[ ] Constant Effort:	Blows/Tamps per Layer =
Boring No.: B-2319UD [ ] Reconstituted	[ ] Impact/Rammer	Rammer Wgt.(lbf)=	No. Layers =
Sample No.: UD4 Compostite No.:	[ ] Pluviated:	Tamper Force (lbf)=	Drop (in.) =
Depth (ft): 25.0 - 27.0 Specimen No.: D	[ ] Kneading	[ ] Undercompaction: U_{ni} (%) =	Dia. (in.) =
[ ] Spec. Selection by X-ray; [ ] Geomarine Sample		Ref. Effort= % Comp. =	± Opt. =

Type Consolidation:	[X] Isotropic [ ] Anisotropic	[ ] K_o stress path [ ] 45° stress path	[ ] Rings	Piston: [X] Yes ; [ ] No	[ ] Attached to top cap	
				Piston diameter: [ ] 1/2"; [ ] 1/4"; [X] 1/8"; [ ]		

Water Content (WC);	Initial - Trimming Location			Final (W_{at})	**SOIL MASSES:**	Initial	Final
	Top ($W_{o,1}$)	Bottom ($W_{o,2}$)	Sides ($W_{o,3}$)	(see below)	Moist + Tare (etc.)(g):	593.03	604.45
Container No	675	681		4123	Tare (etc.) (g):	0.00	0.00
Mass Moist Soil + Cont. (g)	111.22	141.99		164.04	Spec. Moist Mass (g):	593.03	604.45
Mass Dry Soil + Cont. (g)	97.59	123.19		139.32	EXCESS DRY SOIL (soil stuck to stones, filter paper, membrane, etc.)		
Mass Container (g)	31.81	32.10		30.42	Container No:		
Water Content, $W_{o,n}$ (%)	20.72	20.64		22.70	Mass Dry Soil + Container (g):		
Avg. Initial WC, $W_{o,avg}$ (%)	20.68	Final (W_{at}); [X] Slice; [ ]		Whole Spec.	Mass Container (g):		
[ ] See attached data sheet(s) for additional water contents					Mass Excess Dry Soil (g):		0.00

Specimen Dimensions

	Height (mm) Initial (H_o)	Height (mm) Final (H_{at})		Diameter (mm) Initial (D_o)	Diameter (mm) Final (D_{at})
GB	70.000	70.000	T	73.00	74.00
1	-1.19	-0.05	M	73.00	73.60
2	-1.28	0.12	B	73.00	73.65
3	-0.95	-0.30	T'		
4	-1.31	0.16	M'		
5	-1.26	-0.24	B'		
Avg.	68.80	69.94	Avg.	73.00	73.75

Measuring Devices:
Pi Tape: [X] Dia.
Calipers: [ ] Ht.; [ ] Dia.
Dial Comparator: [X] Ht.; [ ] Dia.

A_o (cm^2) = 41.85
V_o (cm^3) = 287.96
A_{at} (cm^2) = 42.72
V_{at} (cm^3) = 298.76

NA - Not Applicable; UK - Unknown; GB - Gage Block

Estimated Initial Unit Weight:
Total, $\gamma_{t,o}$ (lb/ft^3) = 128.56 | Dry, $\gamma_{d,o}$ (lb/ft^3) = 106.53

Membrane / Filter Paper / Platens

Membrane (mm)		Top	Bottom
Thickness:	[ ] Single	0.75	0.68
	[X] Double	0.76	0.67
Circumference (C_m)		216.00	216.00
Summary:		Thickness	Diameter
[ ] Nominal Value	Average:	0.36	68.75

Filter Paper : Top + Bottom : [X] Yes ; [ ] No
Whatman No. 54: [X] Yes ;
[ ] Other:

Mass top cap, M_{tc} (g) = ; ÷ 454 = lbf
Mass (cap, dial, piston, etc.) (g) = NA ; NA lbf

Note: (1) Each Test Stress is identified as a Test Stage on other data sheets.

Final Specimen Description (USCS group name & symbol, color, layering, max. part. size, slickensided, fissured, blocky, honeycombed, etc.):
Light Yellowish Brown Fat CLAY with sand (CH)

[ ] Photo taken (internal sliced surface & outside surface)

Other Remarks

Trimmed / Reconstituted By: RC,jr | Date: 3/27/2008
Setup By: RC.jr | Date: 3/27/2008
Take Down By: RC,jr | Date: 4/9/2008
Prelim. Calc. By: RC,jr | Calculated By: RC,jr | Reviewed By: HP

KAW 7/16/08