Table 7-15 Summary of K_0-Consolidated Undrained Triaxial Tests
EAST CONTRACT
Brightwater Conveyance System

Boring No.	Sample Top Depth (ft)	Elevation (ft) [a]	Geologic Unit	σ_v (ksf)	σ_h (ksf)	K_0	Initial Conditions			After Consolidation			Failure @ R_{max} [b]				Failure @ q_{max} [c]				E_i [d] (ksf)	E_{50} [e] (ksf)
							W (%)	γ_{dry} (pcf)	e	W (%)	γ_{dry} (pcf)	e	p (ksf)	p' (ksf)	q_{max} (ksf)	A_f	p (ksf)	p' (ksf)	q_{max} (ksf)	A_f		
BRIGHTWATER TUNNEL 1																						
E-334	167.0	22.5	Qpfnl	5.0	3.55	0.7	25.0	100.6	0.74	25.8	100.6	0.71	8.4	7.0	4.9	0.15	10.3	10.7	6.7	(0.03)	1,204	530
E-334	167.3	22.2	Qpfnl	14.9	5.65	0.4	25.6	103.8	0.72	25.5	103.8	0.65	14.5	14.4	8.9	0.01	16.3	18.2	10.7	(0.09)	2,191	1,382
E-334	167.6	21.9	Qpfnl	29.9	10.83	0.4	25.6	102.4	0.73	25.7	102.4	0.68	23.3	23.1	12.4	0.01	24.1	26.2	13.3	(0.08)	2,880	2,791
E-334	177.5	12.0	Qpfnl	10.0	3.26	0.3	25.5	105.5	0.66	24.7	105.5	0.63	9.2	8.9	6.0	0.03	11.2	13.0	7.9	(0.12)	1,521	1,028
E-334	178.0	11.5	Qpfnl	20.1	7.20	0.4	25.4	103.7	0.70	26.7	103.7	0.66	16.7	16.6	11.0	(0.10)	18.3	20.5	11.0	(0.10)	2,220	2,220
E-334	178.5	11.0	Qpfnl	40.2	15.50	0.4	24.9	104.0	0.70	26.6	104.0	0.65	30.2	29.7	14.8	0.00	30.3	30.3	14.8	0.00	2,885	2,885
E-337	288.0	78.5	Qpfnl	10.0	4.00	0.4	27.7	100.8	0.74	27.8	100.8	0.70	11.5	11.8	16.0	(0.27)	20.0	28.7	16.0	(0.3)	1,503	1,414
E-337	289.0	77.5	Qpfnl	20.6	20.10	1.0	24.6	96.2	0.76	25.7	96.2	0.78	33.0	22.3	15.0	0.27	35.1	26.9	15.0	0.3	2,312	1,622
E-337	289.5	77.0	Qpfnl	40.3	16.50	0.4	28.9	103.1	0.80	27.0	103.1	0.67	33.0	30.0	16.5	0.09	33.0	30.1	16.5	0.1	3,927	3,927
E-337	326.0	40.5	Qpfnf	10.1	3.50	0.4	23.5	99.5	0.70	26.5	99.5	0.73	15.7	19.0	18.7	(0.20)	22.3	29.7	18.7	(0.2)	1,194	559
E-337	326.5	40.0	Qpfnf	20.1	8.00	0.4	24.1	100.1	0.71	26.0	100.1	0.72	23.6	24.6	26.2	(0.21)	34.2	45.3	26.2	(0.2)	3,001	2,264

Notes:
a) Vertical datum = Metro. All locations surveyed to +/- 0.1 foot accuracy with the exception of some off alignment borings (noted as scaled on the log) which were estimated.
b) Failure defined by maximum principal stress ratio.
c) Failure defined by maximum principal stress difference.
d) Initial secant modulus E_i taken at 0.1% strain.
e) Young's secant modulus E_{50} taken at 50% of q at failure @ R_{max}.
f) For all Geologic Unit descriptions, see Figure 3-1.

Table 7-15 Summary of K_0-Consolidated Undrained Triaxial Tests
CENTRAL CONTRACT
Brightwater Conveyance System

Boring No.	Sample Top Depth (ft)	Elevation (ft) [a]	Geologic Unit	σ_v (ksf)	σ_h (ksf)	K_0	Initial Conditions			After Consolidation			Failure @ R_{max} [b]				Failure @ q_{max} [c]				E_i [d] (ksf)	E_{50} [e] (ksf)
							W (%)	γ_{dry} (pcf)	e	W (%)	γ_{dry} (pcf)	e	p (ksf)	p' (ksf)	q_{max} (ksf)	A_f	p (ksf)	p' (ksf)	q_{max} (ksf)	A_f		
BRIGHTWATER TUNNEL 2																						
E-324	297.0	47.6	Qpogf	19.7	7.90	0.4	19.9	107.2	0.61	21.1	108.6	0.58	41.7	40.1	25.1	(0.14)	42.8	41.9	26.1	(0.15)	2,797	709

Notes:
a) Vertical datum = Metro. All locations surveyed to +/- 0.1 foot accuracy with the exception of some off alignment borings (noted as scaled on the log) which were estimated.
b) Failure defined by maximum principal stress ratio.
c) Failure defined by maximum principal stress difference.
d) Initial secant modulus E_i taken at 0.1% strain.
e) Young's secant modulus E_{50} taken at 50% of q at failure @ R_{max}.
f) For all Geologic Unit descriptions, see Figure 3-1.

Table 7-15 Summary of K_0-Consolidated Undrained Triaxial Tests
WEST CONTRACT
Brightwater Conveyance System

Boring No.	Sample Top Depth (ft)	Elevation (ft) [a]	Geologic Unit	σ_v (ksf)	σ_h (ksf)	K_0	Initial Conditions			After Consolidation			Failure @ R_{max} [b]				Failure @ q_{max} [c]				E_i [d] (ksf)	E_{50} [e] (ksf)
							W (%)	γ_{dry} (pcf)	e	W (%)	γ_{dry} (pcf)	e	p (ksf)	p' (ksf)	q_{max} (ksf)	A_f	p (ksf)	p' (ksf)	q_{max} (ksf)	A_f		
BRIGHTWATER TUNNEL 4																						
E-408	413.3	163.4	Qpfnl	55.2	23.6	0.4	20.0	106.5	0.61	21.7	107.9	0.59	57.7	44.5	25.5	0.09	59.7	50.2	27.5	0.02	5,102	5,102
E-408	414.0	162.7	Qpfnl	35.3	17.4	0.5	25.9	100.0	0.70	24.2	103.9	0.65	43.0	28.6	16.8	0.17	43.8	30.5	17.7	0.13	5,011	5,011
E-409	383.0	113.4	Qpogl	20.7	5.7	0.3	16.0	118.4	0.47	17.9	119.7	0.43	28.3	20.2	13.1	(0.05)	35.3	33.3	20.1	(0.19)	3,434	3,434
E-409	383.5	112.9	Qpogl	55.1	22.9	0.4	19.6	112.2	0.53	18.5	117.6	0.46	57.6	47.3	27.6	0.06	60.6	55.8	30.6	(0.04)	5,814	5,814
E-412	248.5	152.2	Qpfnf	10.1	10.0	1.0	20.8	103.6	0.69	22.8	100.8	0.70	39.5	33.2	20.8	(0.06)	41.8	36.9	23.1	(0.08)	1,341	578
E-412	249.0	151.7	Qpfnf	20.1	7.4	0.4	21.0	106.2	0.64	23.0	106.3	0.62	49.1	50.5	33.0	(0.15)	49.1	50.5	33.0	(0.15)	2,271	1,097
E-412	249.5	151.2	Qpfnf	39.9	16.6	0.4	21.5	105.3	0.61	20.1	108.4	0.58	54.3	47.8	29.1	(0.04)	60.6	58.8	35.4	(0.10)	5,573	5,159
E-412	258.0	142.7	Qpogm	20.2	4.9	0.2	35.4	85.6	1.01	36.1	89.1	0.93	25.8	12.9	8.6	0.04	25.8	12.9	8.6	0.04	1,720	1,720
E-412	258.5	142.2	Qpogm	5.0	2.0	0.4	25.1	97.4	0.74	26.6	100.7	0.71	16.1	3.5	1.8	0.07	16.2	3.8	1.9	0.01	175	175

Notes:
a) Vertical datum = Metro. All locations surveyed to +/- 0.1 foot accuracy with the exception of some off alignment borings (noted as scaled on the log) which were estimated.
b) Failure defined by maximum principal stress ratio.
c) Failure defined by maximum principal stress difference.
d) Initial secant modulus E_i taken at 0.1% strain.
e) Young's secant modulus E_{50} taken at 50% of q at failure @ R_{max}.
f) For all Geologic Unit descriptions, see Figure 3-1.