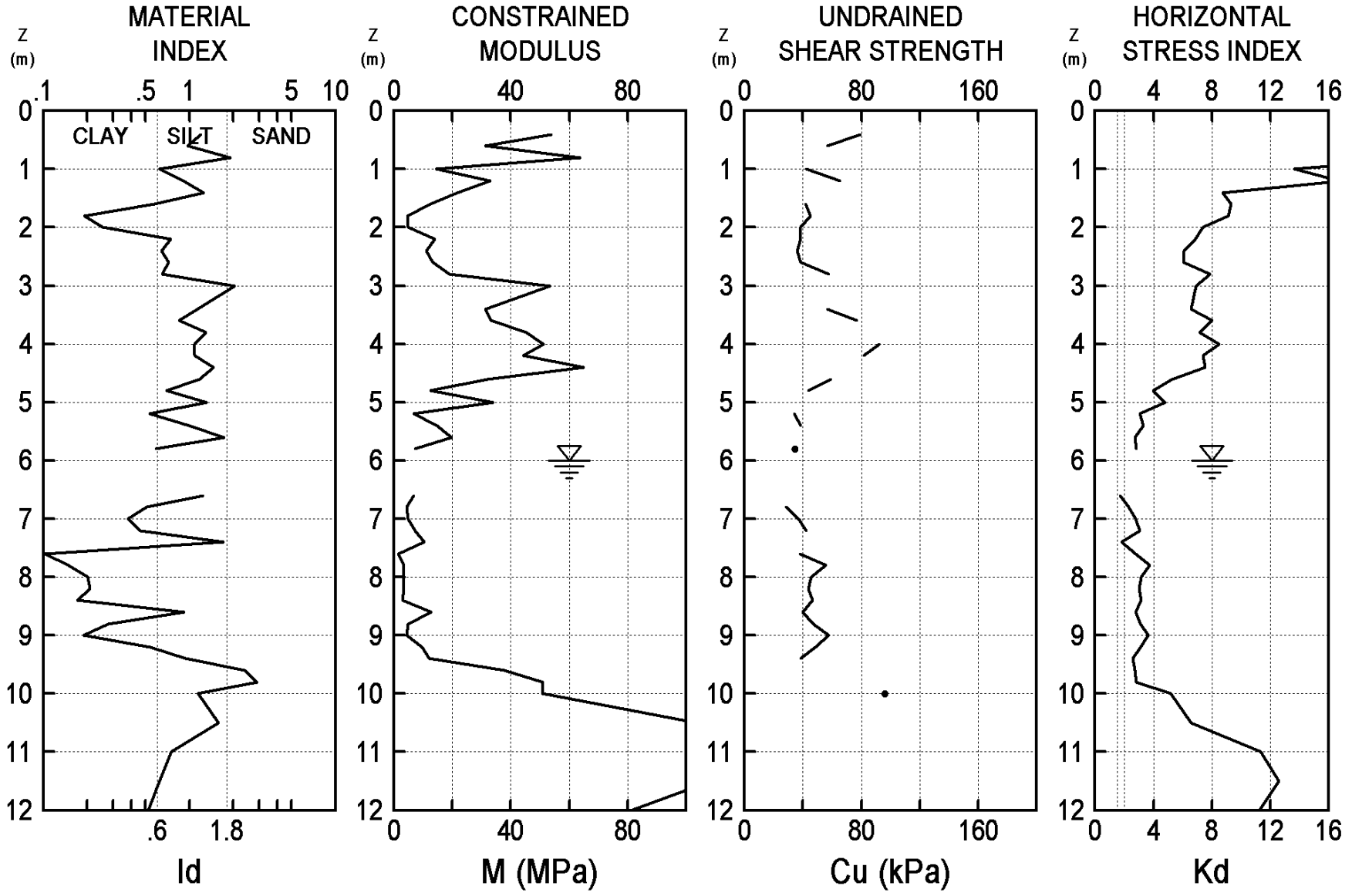
DILATOMETER TEST (D M T)



Insitu Geotech Services (IGS) Golder Associates

Rapid Transit Gold Coast, QLD

INTERPRETED GEOTECHNICAL PARAMETERS

TEST **D11**

8 SEP 2011

D11

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LEGEND
Z = Depth Below Ground Level
Po,P1,P2 = Corrected A,B,C readings
Id = Material Index
Ed = Dilatometer Modulus
Ud = Pore Press. Index = (P2-Uo)/(Po-Uo)
Gamma = Bulk unit weight
Sigma' = Effective overb. stress
Uo = Pore pressure

INTERPRETED PARAMETERS
Phi = Safe floor value of Friction Angle
Ko = In situ earth press. coeff.
M = Constrained modulus (at Sigma')
Cu = Undrained shear strength
Ocr = Overconsolidation ratio
(OCR = "relative OCR"- generally realistic. If accurate independent OCR
available, apply suitable factor)

SOUNDING PARAMETERS
DeltaA = 14 kPa
DeltaB = 35 kPa
GammaTop = 17.0 kN/m^3
FactorEd = 34.7
Zm = 0.0 kPa
Zabs = 0.0 m
Zw = 6.0 m

WaterTable at 6.00 m
Reduction formulae according to Marchetti, ASCE Geot.Jnl.Mar. 1980, Vol.109, 299-321; Phi according to TC16 ISSMGE, 2001

Z (m)	A (kPa)	B (kPa)	C (kPa)	Po (kPa)	P1 (kPa)	P2 (kPa)	Gamma (kN/m^3)	Sigma' (kPa)	Uo (kPa)	Id	Kd	Ed (MPa)	Ud	Ko	Ocr	Phi (Deg)	M (MPa)	Cu (kPa)	D11 DESCRIPTION
0.4	330	750		325	715		17.7	7	0	1.20	47.9	13.5		4.5	>99.9		53.8	79	SILT
0.6	270	570		271	535		16.7	10	0	0.97	26.3	9.1		3.2	55.7		31.2	57	SILT
0.8	310	900		297	865		18.6	14	0	1.91	21.7	19.7				44	63.8		SILTY SAND
1.0	230	420		237	385		16.7	17	0	0.62	13.6	5.1		2.2	20.0		14.3	42	CLAYEY SILT
1.2	350	700		349	665		17.7	21	0	0.91	16.8	11.0		2.5	27.8		32.8	65	SILT
1.4	210	510		211	475		16.7	24	0	1.25	8.7	9.1					21.6		SANDY SILT
1.6	250	440		257	405		16.7	28	0	0.58	9.3	5.1		1.8	11.0		12.5	42	SILTY CLAY
1.8	270	370		281	335		15.7	31	0	0.19	9.1	1.9		1.7	10.7		4.5	45	CLAY
2.0	240	350		251	315		15.7	34	0	0.26	7.4	2.2		1.5	7.7		4.9	38	CLAY
2.2	250	480		255	445		16.7	37	0	0.75	6.9	6.6		1.4	6.8		14.0	38	CLAYEY SILT
2.4	240	440		246	405		16.7	41	0	0.64	6.1	5.5		1.3	5.7		11.0	36	CLAYEY SILT
2.6	260	490		265	455		16.7	44	0	0.72	6.0	6.6		1.3	5.6		13.1	38	CLAYEY SILT
2.8	370	650		372	615		17.7	47	0	0.65	7.9	8.4		1.6	8.5		19.0	58	CLAYEY SILT
3.0	370	1100		350	1065		18.6	51	0	2.04	6.9	24.8				39	53.4		SILTY SAND
3.4	390	850		383	815		17.7	58	0	1.13	6.6	15.0		1.4	6.4		31.2	57	SILT
3.6	500	950		494	915		17.7	62	0	0.85	8.0	14.6		1.6	8.7		33.2	77	SILT
3.8	480	1100		465	1065		17.7	65	0	1.29	7.1	20.8					45.1		SANDY SILT
4.0	600	1250		584	1215		19.1	69	0	1.08	8.5	21.9		1.7	9.6		51.2	92	SILT
4.2	550	1150		536	1115		17.7	73	0	1.08	7.4	20.1		1.5	7.7		44.1	82	SILT
4.4	600	1450		574	1415		19.1	76	0	1.47	7.5	29.2					65.0		SANDY SILT
4.6	430	950		420	915		17.7	80	0	1.18	5.3	17.2		1.2	4.5		32.0	59	SILT
4.8	330	600		333	565		16.7	84	0	0.70	4.0	8.1		0.98	2.9		12.6	44	CLAYEY SILT
5.0	430	1000		418	965		17.7	87	0	1.31	4.8	19.0					33.9		SANDY SILT
5.2	270	460		277	425		16.7	90	0	0.53	3.1	5.1		0.80	2.0		6.6	34	SILTY CLAY
5.4	310	650		309	615		17.7	94	0	0.99	3.3	10.6		0.85	2.2		14.8	39	SILT
5.6	270	750		262	715		17.7	97	0	1.72	2.7	15.7				34	19.7		SANDY SILT
5.8	280	490		286	455		16.7	101	0	0.59	2.8	5.9		0.75	1.7		7.1	34	SILTY CLAY
6.6	190	460		193	425		16.7	108	6	1.24	1.7	8.1					6.8		SANDY SILT
6.8	250	420		258	385		16.7	110	8	0.51	2.3	4.4		0.62	1.2		4.3	28	SILTY CLAY
7.0	310	470		318	435		16.7	111	10	0.38	2.8	4.0		0.74	1.7		4.8	37	SILTY CLAY
7.2	350	550		356	515		16.7	112	12	0.46	3.1	5.5		0.80	2.0		7.1	42	SILTY CLAY
7.4	220	600		217	565		16.7	114	14	1.71	1.8	12.1				32	10.4		SANDY SILT
7.6	320	400		332	365		14.7	115	16	0.10	2.8	1.1		0.73	1.6		1.3	38	MUD
7.8	440	550		451	515		16.7	116	18	0.15	3.7	2.2		0.93	2.7		3.3	56	CLAY
8.0	380	500		390	465		16.7	117	20	0.20	3.2	2.6		0.82	2.0		3.4	46	CLAY
8.2	370	490		380	455		16.7	119	22	0.21	3.0	2.6		0.79	1.9		3.3	44	CLAY
8.4	390	500		401	465		16.7	120	24	0.17	3.1	2.2		0.81	2.0		2.9	46	CLAY
8.6	360	700		359	665		17.7	122	26	0.91	2.7	10.6		0.73	1.6		12.7	40	SILT
8.8	400	550		409	515		16.7	123	27	0.28	3.1	3.7		0.81	2.0		4.8	47	CLAY
9.0	470	600		480	565		16.7	125	29	0.19	3.6	3.0		0.91	2.5		4.3	57	CLAY
9.2	420	670		424	635		17.7	126	31	0.54	3.1	7.3		0.81	2.0		9.6	48	SILTY CLAY

9.4	360	700		359	665		17.7	127	33	0.94	2.6	10.6		0.68	1.5		12.0	38	SILT
9.6	410	1250		384	1215		18.6	129	35	2.38	2.7	28.8				34	37.8		SILTY SAND
Z	A	B	C	Po	P1	P2	Gamma	Sigma'	Uo	Id	Kd	Ed	Ud	Ko	Ocr	Phi	M	Cu	D11
(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN/m^3)	(kPa)	(kPa)			(MPa)				(Deg)	(MPa)	(kPa)	DESCRIPTION
9.8	440	1500		403	1465		18.6	131	37	2.90	2.8	36.8				34	51.0		SILTY SAND
10.0	750	1550		726	1515		19.1	133	39	1.15	5.2	27.4		1.2	4.4		50.6	96	SILT
10.5	1000	2400		946	2365		19.1	137	44	1.57	6.6	49.2					103.2		SANDY SILT
11.0	1700	2900		1656	2865		20.6	142	49	0.75	11.3	41.9		2.0	15.0		109.8	273	CLAYEY SILT
11.5	1950	3100		1909	3065		20.6	147	54	0.62	12.6	40.1		2.1	17.7		109.1	323	CLAYEY SILT
12.0	1800	2700		1771	2665		20.1	153	59	0.52	11.2	31.0		2.0	14.8		80.9	290	SILTY CLAY