

TEST PIT SUMMARY



PROJECT:		KX04334-6							EXCAVATOR:		Hitachi EX120						
AREA:		Moose Crossing							DATE:		June 3, 2003						
TEST PIT NUMBER	SAMPLE NUMBER	DEPTH (m)		LAYER THICKNESS (m)	FIELD VISUAL IDENTIFICATION						LABORATORY TEST RESULTS				COMMENTS	DIGITAL IMAGES	
					SOIL CLASSIFICATION	FINES < 0.075 mm (%)	SAND < 4.75 mm (%)	GRAVEL < 75 mm (%)	ADDITIONAL OVERSIZE		WATER TABLE (m)	SOIL CLASSIFICATION	FINES < 0.075 mm (%)	SAND < 4.75 mm (%)			GRAVEL
		> 75 mm (%)	MAX SIZE (mm)						< 25 mm (%)	25 - 75 mm (%)							
1		0	2.1	2.1	GP	2	38	60	10	150	-						
		2.1	3.5	1.4	SM till	20	40	40	5	200	-						1
2		0	1.8	1.8	GP	2	38	60	10	250	1.6						
		1.8	2.0	0.2	SM till												
3		0	1.8	1.8	SP	10	85	5	-	-	-						
		1.8	3.0	1.2	SP/GP	2	45	52	5	150	2.7						Bedding visible Moderate seepage 8
4	1	Pitface (4.5m High)			GP	2	40	58	7	225	-	GW	3.5	40.7	37.3	18.5	
		Toe	1.0		GP	2	48	50	5	150	-						
	2	1.0	3.5	2.5	SP	3	60	37	-	-	3.0	SP	3.1	74.5	14.7	7.7	Light seepage 9
5	3	0	3.5	3.5	GP	1.5	38.5	60	2	200	-	GP	1.5	39.5	39.4	19.6	Heavy caving 10
6	4	0	4.5	4.5	SP	5	95	-	-	-	-	SP	10.1	89.8	0.1	-	Heavy caving 11
7	5	0	3.3	3.3	GP	1	20	79	2	150	3.0	GW	3.2	22.3	51	23.5	Very heavy caving 12
8	6	0	3.0	3.0	GP	2	45	53	5	250	-	SP	1.0	51.1	38.5	9.4	
9	7	Crest	Toe		SP	2	65	33	1	125	-	SP	0.7	73.3	19.9	6.1	
	7B	Toe	3.5		SP	4	81	15	-	-	-	SP	1.5	98.2	0.3	-	17,18 19,20

COMMENTS: OB=Overburden (Typically consists of topsoil, roots and weathered mineral soils); BR=Bedrock
Soil classifications are based on the attached Modified Unified Classification System for soils.

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		> 75 mm (%)	MAX SIZE (mm)						< 25 mm (%)	25 - 75 mm (%)								
10		0	2.5	2.5	SP/GP	2	48	50	2	200	2.5							22
		2.5	3.0	0.5	ML	100	-	-	-	-	-							
11	8	0	3.0	3.0	SP	10	90	-	-	-	-	SM	29.6	68.4	1.2	-		23
12	9	0	0.1	0.1	OB													24
		0.1	4.0	3.9	GP	2	42	56	7	350	-	GW	1.0	30.1	39.0	29.9		
13		0	0.1	0.1	OB													27
		0.1	1.3	1.2	GP	2	42	56	5	150	-							
		1.3	3.7	2.4	ML/SM	50	50	-	-	-	-							
14	10	0	0.1	0.1	OB													28
		0.1	3.8	3.7	GP	2	40	58	10	250	-	GW	1.7	25.0	36.4	36.9		
15		0	2.0	2.0	OB (Strippings)													
16		0	1.1	1.1	GP	2	38	60	20	250	-							32
		1.1	4.0	2.9	SP	2	68	30	2	150	-							
17	11	0	4.0	4.0	GP	2	42	56	2	250	-	SP/GP	1.9	48.7	29.9	19.5		33
18	12	0	3.5	3.5	GP	2	40	58	2	250	-	GP	0.8	46.9	32.8	19.5		34
		3.5	4.0	0.5	GP	2	46	52	2	150	-							

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		From	To		SOIL CLASSIFICATION	FINES < 0.075 mm (%)	SAND < 4.75 mm (%)	GRAVEL < 75 mm (%)	ADDITIONAL OVERSIZE		WATER TABLE (m)	SOIL CLASSIFICATION	FINES < 0.075 mm (%)	SAND < 4.75 mm (%)	GRAVEL				
									> 75 mm (%)	MAX SIZE (mm)					< 25 mm (%)	25 - 75 mm (%)			
19		0	0.1	0.1	SP	2	58	40	-	-	-								
	13	0.1	4.0	4.0	GP	2	42	56	2	350	-	GW	2.8	41.4	36.2	19.6		35	
		4.0m			ML @ 4.0m														Some wood
20		0	1.0	1.0	Fill														
		1.0	2.4	1.4	GM/SM grayish blue						2.4								Heavy seepage
21		0	1.3	1.3	GP fill														
		1.3	1.5	0.2	TS														
	14	1.5	2.8	1.3	SM	15	50	35	-	-	2.7	SW	9.4	55.3	29.0	6.3		36	
		2.8	3.0	0.2	Dense SM till													Seepage 2.7-2.8m	
22		0	0.1	0.1	SP fill														
	15	0.1	1.0	0.9	GP	2	38	60	2	150	-	GW	1.3	33.8	32.0	32.9		37	
	16	1.0	4.5	3.5	SP	10	75	15	-	-	-	SP	1.0	90.8	8.2	-			
23		0	0.1	0.1	OB														
		0.1	1.0	0.9	SP/GP	2	48	50	-	-	0.7								Oxidized from 0.7 to 1.0 m
		1.0	2.2	1.2	SM	20	80												
24	17	Pit face (~10m)			SP	5	80	15	-	-	-	SP/SW	6.0	82.4	9.9	1.7		38 - 40	

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Waypoint List

Map Name : Wistaria 93E16.png
Map File : D:\Prince Rupert\Wistaria 93E16.map

Datum : NAD27 Canada

Waypoint File : C:\AMEC 2003\Projects 2003\KX04334-6 Moose Crossing\4 June Waypoints Edited.wpt

12/06/2003 4:59:08 PM

Num	Name	Zone	Easting	Northing	Description
1	114	9U	693390	5977543,	
2	115	9U	693435	5977518	
3	116	9U	693450	5977495	
4	117	9U	693458	5977439	
5	118	9U	693423	5977453	
6	119	9U	693319	5977499	
7	120	9U	693310	5977522	
8	121	9U	693321	5977558	
9	122	9U	693352	5977572	
10	131	9U	693476	5977578	
11	BANK	9U	693448	5977673	
12	GATE	9U	693402	5977759	
13	SP	9U	693356	5977665	
14	TP1	9U	693371	5977755	
15	TP10	9U	693446	5977460	
16	TP11	9U	693405	5977529	
17	TP12	9U	693426	5977554	
18	TP13	9U	693432	5977587	
19	TP14	9U	693414	5977600	
20	TP16	9U	693466	5977490	
21	TP17	9U	693531	5977514	
22	TP18	9U	693586	5977536	
23	TP19	9U	693633	5977534	
24	TP2	9U	693353	5977674	
25	TP20	9U	693639	5977489	
26	TP21	9U	693614	5977465	
27	TP22	9U	693585	5977519	
28	TP23	9U	693597	5977456	
29	TP24	9U	693606	5977448	
30	TP3	9U	693429	5977683	
31	TP4	9U	693425	5977648	
32	TP5	9U	693374	5977594	
33	TP6	9U	693364	5977568	
34	TP7	9U	693358	5977507	
35	TP8	9U	693350	5977481	
36	TP9	9U	693304	5977527	

Map Feature Waypoints

TEST PIT SUMMARY

PROJECT #:		2331-00565-0											EXCAVATOR:		Hitachi EX200LC										
DESCRIPTION:		Moose Crossing Pit											DATE:		March 15, 16, 17, 2006										
TEST PIT NUMBER	SAMPLE NUMBER	DEPTH (m)		LAYER THICKNESS (m)	FIELD VISUAL IDENTIFICATION								LABORATORY TEST RESULTS								Photo Number	Comments			
		From	To		Soil Classification	Fines < 0.075 mm (%)	Sand < 4.75 mm (%)	Gravel < 75 mm (%)	ADDITIONAL OVERSIZE			Water Table (m)	Soil Classification	Fines < 0.075 mm (%)	Sand < 4.75 mm (%)	GRAVEL		Sand Equivalent	Micro-Deval % coarse / % fines	Degrade			MgSO ₄ % coarse / % fines	Specific Gravity coarse / fine	Absorption % coarse / % fines
									75 - 300 mm (%)	> 300 mm (%)	Max Size (mm)					< 25 mm (%)	25 - 75 mm (%)								
TP 7	1	0.0	4.5	4.5	SP	4	91	5	0	0		-												24-25	
TP 8	1	0.0	1.8	1.8	GP	3	42	55	7	0	150														
	2	1.8	3.0	1.2	Till							2.9													17-18
TP 9	1	0.0	2.0	2.0	Till																				
TP 9A	-	0.0	0.7	0.7	3/4 Crushed																				Stockpiled Aggregate
	-	0.7	1.5	0.8	OB																				
	-	1.5	2.0	0.5	Silty sand																				
	1	2.0	3.0	1.0	GP	3	29	68	6	0	150	-													19-23 Pit Face
TP 10	-	0.0	0.05	0.05	TS																				
	1	0.05	5.0	4.95	GP	3	45	52	8	0	150	-	GP	2.8	43.9	31.4	21.9								26-27
TP 11	-	0.0	0.07	0.07	TS																				
	1	0.07	4.70	4.63	GP	3	39	58	7	2	400														28-29
TP 12	-	0.0	0.1	0.1	TS																				
	1	0.1	5.0	4.9	GP	4	44	52	8	2	200	-													30-31
TP 13	-	0.0	0.1	0.1	TS																				
	1	0.1	5.0	4.9	GP	3	41	56	6	1	200	-													32-33
TP 14	-	0.0	0.15	0.15	TS																				
	-	0.15	0.35	0.2	OB																				Silty sand & gravel
	1	0.35	4.0	3.65	SP-SM ₁	5	93	2	0	0		4.0													34-35

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									75 - 300 mm (%)	> 300 mm (%)	Max Size (mm)					< 25 mm (%)	25 - 75 mm (%)									
TP 15	-	0.0	0.8	0.8	TS																					
	1	0.08	3.0	2.92	GP	3	38	59	5	0	200	-														
	1	3.0	4.0	1.0	Silty sand Till																				36-37	
TP 16	-	0.0	0.12	0.12	TS																					
	1	0.12	5.0	4.88	GP	3	44	53	7	0	150	-	GP	2.0	47.5	24.0	26.5								38-39	
TP 17	-	0.0	0.1	0.1	TS																					
	-	0.1	0.4	0.3	OB																					Silty sand & gravel
	1	0.4	4.6	4.2	SP	3	49	48	1	0	100	-	SP	2.1	53.1	31.1	13.7								40-41	
TP 18	-	0.0	0.15	0.15	TS																					
	1	0.15	5.0	4.85	GP	3	30	67	15	3	300	-	GP	2.8	38.9	24.6	33.7								42-43	
TP 19	-	0.0	0.1	0.1	TS																					
	1	0.1	4.7	4.6	GW-GM ₁	5	40	55	2	0	150		GW	4.8	34.7	42.1	18.4								44-45	
TP 20	-	0.0	0.5	0.5	Fill																					Silty sand & gravel - wood
	1	0.5	4.0	3.5	GW-GM ₁	5	46	49	6	0	150	4													46-47	
TP 21	-	0.0	0.7	0.7	Fill																					Silty sand & gravel - wood
	1	0.7	5.0	4.3	GW-GM ₁	5	45	50	3	0	150	-													48-49	
TP 22	-	0.0	0.9	0.9	Silt																					
	1	0.9	1.9	1.0	SP	2	78	20	0	0																
	-	1.9	2.4	0.5	Clayey Silt Till																					
TP 22A	1	0.0	3.0	3.0	SP-SM ₁	10	83	7	0	0	20														50-51	Pit Face

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									75 - 300 mm (%)	> 300 mm (%)	Max Size (mm)				Water Table (m)	< 25 mm (%)									25 - 75 mm (%)	
TP 23	-	0.0	0.15	0.15	TS																					
	-	0.15	0.7	0.55	OB	10	28	62	0	0																
	1	0.7	3.0	2.3	GW-GM ₁	5	47	48	0	0																
	2	3.0	4.0	1.0	Clayey Silt Till																			67-68	Pit Face	
TP 24	-	0.0	0.05	0.05	TS																					
	1	0.05	1.7	1.65	SP-SM ₁	8	84	8	0	0																
	-	1.7	3.2	1.5	Clayey Silt Till																			59-60		
TP 25	-	0.0	0.07	0.07	TS																					
	1	0.07	5.0	4.93	GP	3	32	65	8	2	300	-	GW	2.6	33.8	30.0	33.6								53-54	
TP 26	-	0.0	0.15	0.15	TS																					
	-	0.15	0.4	0.25	OB	8	29	63	6	0	200	-														
	1	0.4	5.0	4.6	GP	4	31	65	20	7	400	-	GP	3.5	40.3	25.1	31.1								55-56	
TP 27	-	0.0	0.05	0.05	TS																					
	-	0.05	0.4	0.35	OB	10	26	64	3	0	100	-														
	1	0.4	5.0	4.6	GP	4	34	62	18	4	300	-													57-58	
TP 28	-	0.0	0.07	0.07	TS																					
	-	0.07	0.5	0.43	OB	10	28	62	0	0																
	-	0.5	1.0	0.5	SM ₄	40	58	2	0	0																
	1	1.0	4.0	3.0	SP	2	80	18	0	0															61-62	
TP 29	-	0.0	0.05	0.05	TS																					
	-	0.05	1.2	1.15	SP-SM ₁	10	78	12	0	0																
	1	1.2	4.0	2.8	SP-SM ₁	6	57	37	0	0															Various fine sand seams	
	-	4.0	4.5	0.5	SP-SM ₁	10	80	10	0	0															63-64	

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									75 - 300 mm (%)	> 300 mm (%)	Max Size (mm)				Water Table (m)	< 25 mm (%)								
TP 30	-	0.0	0.15		TS and wood																			
	1	0.15	1.2	1.05	SP-SM ₁	10	85	5	0	0														
	-	1.2	2.4	1.2	Sandy Silt																		65-66	
TP 31	-	0.0	0.15	0.15	TS																			
	1	0.15	1.50	1.35	GP	3	42	55	0	0														
	-	1.50	1.7	0.2	Clayey Silt Till							1.5											69-70	
TP 32	-	0.0	0.1		TS																			
	1	0.1	4.0	3.9	GP	3	32	65	15	0	150													
	-	4.0	4.2	0.2	Clayey Silt Till																		71-72	
TP 33	-	0.0	0.07	0.07	TS																			
	1	0.07	2.0	1.93	GP	4	33	63	6	0	200													
	-	2.0	2.3	0.3	Clayey Silt Till																		73-74	
TP 34	-	0.0	0.05	0.05	TS																			
	1	0.05	5.0	4.95	GP	1	45	54	8	0	200												75-76	

Soil classifications are based on Ministry of Transportation Unified Soil Classification System

Moose Crossing Pit

Date: March 15 to 17, 2006
Datum: WGS-84
Data: Differentially Processed
Accuracy: Within 5 m

Test Pit	Easting	Northing
TP1	5977818	693325
TP1A	5977806	693331
TP2	5977792	693342
TP3	5977748	693338
TP4	5977728	693345
TP5	5977748	693314
TP6	5977768	693318
TP6A	5977774	693310
TP7	5977730	693293
TP8	5977796	693274
TP9	5977811	693204
TP9A	5977802	693195
TP10	5977843	693396
TP11	5977861	693448
TP12	5977868	693485
TP13	5977886	693444
TP14	5977913	693375
TP15	5977912	693441
TP16	5977929	693493
TP17	5977954	693393
TP18	5978123	693332
TP19	5978123	693273
TP20	5978199	693378
TP21	5978221	693315
TP22	5978222	693387
TP22A	5978231	693387
TP23	5978252	693302
TP24	5978221	693172
TP25	5978084	693205
TP26	5977983	693194
TP27	5978024	693223
TP28	5978168	693230
TP29	5978172	693288
TP30	5978218	693223
TP31	5978155	693454
TP32	5978095	693487
TP33	5978104	693550
TP34	5977854	693543