TEST PIT SUMMARY

PROJECT	MORRIS VALLEY PIT	**TEST METHOD**	EXCAVATOR / SONIC DRILL / EXCAVATOR
DISTRICT	FRASER VALLEY	**DATE**	2020-04; 2017-03; 2013; 1997

TEST PIT NUMBER	SAMPLE NUMBER	DEPTH (m)		LAYER THICKNESS (m)	FIELD VISUAL IDENTIFICATION									LABORATORY RESULTS														
									OVERSIZE					PIT RUN				CRUSH			DURABILITY							
		From	To		SOIL CLASSIFICATION	FINES	SAND	GRAVEL	75-150mm (%)	150-300mm (%)	>300mm (%)	MAX SIZE (mm)	WATER TABLE (m)	SOIL CLASSIFICATIO	FINES	SAND	GRAVEL	FINES	SAND	GRAVEL	SAND EQUIVALENT	MICRO DEVAL	DEGRADE	SULFATE CONTENT	CHLORIDE CONTENT	MgSO4 %coarse/ %fine	B.R.D. Coarse / fines	ABSORPTION %coarse /%fine
2020 Test Pitting																												
20-1	1002	0.0	5.0	5.0					6	3	3	600		GW	4	40	56				63			0.04	0.009	0/2		
20-2		0.0	1.3	1.3	SM3	35	65	0																				
	1003	1.3	4.5	3.2	SM1	18	64	0						SM2	28	64	8				63							
		4.5	4.8	0.3	GP	2	42	56																				
20-3	1004	0.0	5.7	5.7	GW	1	34	65	12	8	5	340		GW	4	36	60				31							
20-4	1006	0.0	3.7	3.7	GW	1	34	65	7	5	3			GW	1	29	70				88	4		0.05	0.006			
	1005	3.7	5.4	1.7	SM1	18	72	10						SM2	28	62	10											
		5.4	5.7	0.3	GP	2	42	56																				
		5.7	6.5	0.8	SM1	18	72	10																				
20-5		0.0	1.1	1.1	GP	1	41	58	14	9	5		1.1															
20-6		0.0	1.9	1.9	GP	1	41	58	14	9	5											6						
	1008	1.9	2.9	1.0	SP									SM2	29	70	1											
	1009	2.9	5.8	2.9	GP	2	43	55	12	5	3	400		GPGM	5	44	51											
20-7	1010	0.0	5.2	5.2	GP	4	31	65	4	7	3	200		GP	4	43	53				33			0.05	0.006			
20-8		0.0	0.2	0.2	Crush																							
		0.2	1.4	1.2	SM	18	72	10	0	0	0		1.1															
20-9		0.0	0.2	0.2																								
		0.2	4.7	4.5	SP	4	96	0	0	0	0		2.7	SM3	33	67	0				54							
		4.7	5.5	0.8	SP	2	77	21	2	0	0			SPSM	7	72	21											
20-10		0.0	1.0	1.0	GP				15	10	5	500																
		1.0	4.4	3.4	GP	4	26	70	1					GW	3	39	58					4						
	1012	4.4	5.6	1.2	GP	2	44	57	1					GPGM	5	41	54				42						2.732/2.683	0.72/1.59
20-11		0.0	5.2	5.2	GPGM	6	26	68	10	6	7			GPGM	5	31	64											
		5.2	6.4	1.2	GPGM	8	22	70	5	0	0			GP	3	43	54							0.01	<0.005			
20-12		0.0	0.2	0.2	TS																							
		0.2	3.3	3.1	GP	3	27	70	1	1	1			GW	1	29	70											
	1017	3.3	5.4	2.1	GPGM	6	47	57	1	1	0			GP	3	36	61										2.746/2.684	1.02/2.65

TEST PIT SUMMARY

PROJECT	MORRIS VALLEY PIT	**TEST METHOD**	EXCAVATOR / SONIC DRILL / EXCAVATOR
DISTRICT	FRASER VALLEY	**DATE**	2020-04; 2017-03; 2013; 1997

TEST PIT NUMBER	SAMPLE NUMBER	DEPTH (m)		LAYER THICKNESS (m)	FIELD VISUAL IDENTIFICATION									LABORATORY RESULTS														
									OVERSIZE					PIT RUN				CRUSH			DURABILITY							
		From	To		SOIL CLASSIFICATION	FINES	SAND	GRAVEL	75-150mm (%)	150-300mm (%)	>300mm (%)	MAX SIZE (mm)	WATER TABLE (m)	SOIL CLASSIFICATIO	FINES	SAND	GRAVEL	FINES	SAND	GRAVEL	SAND EQUIVALENT	MICRO DEVAL	DEGRADE	SULFATE CONTENT	CHLORIDE CONTENT	MgSO4 %coarse/ %fine	B.R.D. Coarse / fines	ABSORPTION %coarse /%fine
20-13		0.0	0.4	0.4	TS																							
		0.4	1.5	1.1	GP	3	42	55	2	2	1																	
		1.5	4.0	2.5	GPGM	55	38	55	15	8	4			GP	4	35	61											
		4.0	6.2	2.2	GP1	13	35	52	6	2	0			GW	4	35	61											
2017 Sonic Drilling																												
17-1		0.0	6.1	6.1	GP	1	40	59																				
		6.1	7.9	1.8	GM1	15	35	60																				
	31	7.9	10.7	2.8	GP	2	40	58						SPSM	10	51	39											
	32	10.7	11.9	1.2	GPGM	10	40	50						GPGM	8	35	57				28							
		11.9	17.7	5.8	GP	2	48	50																				
		17.7	18.3	0.6	GPGM	10	36	55																				
	33	18.3	19.3	1.0	GP	2	48	50						SPSM	9	47	44					4.9						
	34	19.3	27.3	8.0	GPGM	10	35	55						GPGM	9	45	46				34							
17-2	35	0.0	6.1	6.1	GPGM	6	40	54						GPGM	5	37	58											
		6.1	7.9	1.8	CL	80	20	0																				
		7.9	9.8	1.9	BRX																							
17-3		0.0	0.9	0.9	BLDR																							
		0.9	2.1	1.2	GP	1	35	64																				
	36	2.1	5.2	3.1	GPGM	7	33	60						GPGM	6	39	55											
		5.2	5.8	0.6	GP	1	35	64																				
	37	5.8	14.3	8.5	GPGM	5	35	60						GM1	12	40	48											
		14.3	14.6	0.3	CL	70	15	15																				
		14.6	17.7	3.1	GPGM	5	35	60																				
		17.7	18.3	0.6	GC1	15	35	50																				
		18.3	19.2	0.9	GPGM	10	40	50																				
		19.2	20.4	1.2	SC1	15	60	25																				
	38	20.4	21.3	0.9	GPGM	8	30	62						GPGM	10	33	57				27							
		21.3	23.2	1.9	SP	2	75	23																				
	39	23.2	25.0	1.8	SM	15	70	15						SM2	27	44	29				41							
		25.0	26.2	1.2	BRX																							
17-4		0.0	0.9	0.9	GP	1	45	54																				
		0.9	1.8	0.9	ML	70	30																					
	40	1.8	8.2	6.4	SM1	15	85							ML	0	33	67				57							
	7	8.2	12.5	4.3	GP	2	40	58						GP	4	34	67											
		12.5	14.0	1.5	No Return																							

TEST PIT SUMMARY

PROJECT	MORRIS VALLEY PIT	TEST METHOD	EXCAVATOR / SONIC DRILL / EXCAVATOR
DISTRICT	FRASER VALLEY	DATE	2020-04; 2017-03; 2013; 1997

					FIELD VISUAL IDENTIFICATION									LABORATORY RESULTS														
									OVERSIZE					PIT RUN				CRUSH			DURABILITY							
TEST PIT NUMBER	SAMPLE NUMBER	DEPTH (m) From	DEPTH (m) To	LAYER THICKNESS (m)	SOIL CLASSIFICATION	FINES	SAND	GRAVEL	75-150mm (%)	150-300mm (%)	>300mm (%)	MAX SIZE (mm)	WATER TABLE (m)	SOIL CLASSIFICATIO	FINES	SAND	GRAVEL	FINES	SAND	GRAVEL	SAND EQUIVALENT	MICRO DEVAL	DEGRADE	SULFATE CONTENT	CHLORIDE CONTENT	MgSO4 %coarse/ %fine	B.R.D. Coarse / fines	ABSORPTION %coarse /%fine
		14.0	14.6	0.6	SP	1	85	14																				
		14.6	17.1	2.5	SM1	15	85	0																				
	8	17.1	29.3	12.2	GPGM	5	40	55						GM1	12	33	55											
17-5		0.0	2.4	2.4	GP	1	35	64																				
	9	2.4	3.4	1.0	GPGM	10	40	50						GPGM	8	23	69											
		3.4	4.3	0.9	SP	1	74	15																				
	10	4.3	12.2	7.9	GPGM	10	35	55						GM1	14	36	50											
		12.2	12.8	0.6	ML	55	25	20																				
	21	12.8	29.3	16.5	GPGM	5	35	60						GM1	15	39	40											0.9/3.9
17-6		0.0	3.0	3.0	GP	1	35	64																				
	22	3.0	11.9	8.9	GPGM	10	30	60						GPGM	6	32	62											
		11.9	13.1	1.2	GP	1	35	64																				
		13.1	13.4	0.3	GM1	15	35	50																				
		13.4	27.4	14.0	GP	3	35	62																				
	23	27.4	29.3	1.9	GPGM	10	30	60						SPSM	8	49	43					6.5						
2013 Test Pitting																												
13-1		0.0	0.5	0.5	3/4" CR																							
		0.5	0.8	0.3	TS																							
	271	0.8	5.0	4.2					5	2	1	350		GP	1	34	65											
		5.0	6.0	1.0	GP	2	34	64	7	3	2	450																
13-2		0.0	0.8	0.8	3/4" CR																							
	272	0.8	3.5	2.7					3	1		300		GP	1	40	59											
	990	3.5	6.0	2.5					2	1		300		GP	1	44	55											
13-3		0.0	0.5	0.5	3/4" CR																							
	991	0.5	5.0	4.5					10	5	1	450		GP	2	32	66					4.7						
13-4	992	0.0	5.0	5.0					5	2		300		GP	1	39	60					3.8						
13-5		0.0	2.0	2.0	GP	2	36	62	5	2		200																
		2.0	5.5	3.5	SM2	24	76																					
	993	5.5	6.5	1.0					2			150		GP	4	35	61											
13-6	995	0.0	5.5	5.5					5	2	1	600		GP	2	36	62				67							
13-7		0.0	0.4	0.4	TS																							
		0.4	2.0	1.6	GP	2	34	64	2																			

TEST PIT SUMMARY

PROJECT	MORRIS VALLEY PIT	**TEST METHOD**	EXCAVATOR / SONIC DRILL / EXCAVATOR
DISTRICT	FRASER VALLEY	**DATE**	2020-04; 2017-03; 2013; 1997

					FIELD VISUAL IDENTIFICATION									LABORATORY RESULTS														
									OVERSIZE					PIT RUN				CRUSH			DURABILITY							
TEST PIT NUMBER	SAMPLE NUMBER	DEPTH (m) From	DEPTH (m) To	LAYER THICKNESS (m)	SOIL CLASSIFICATION	FINES	SAND	GRAVEL	75-150mm (%)	150-300mm (%)	>300mm (%)	MAX SIZE (mm)	WATER TABLE (m)	SOIL CLASSIFICATIO	FINES	SAND	GRAVEL	FINES	SAND	GRAVEL	SAND EQUIVALENT	MICRO DEVAL	DEGRADE	SULFATE CONTENT	CHLORIDE CONTENT	MgSO4 %coarse/ %fine	B.R.D. Coarse / fines	ABSORPTION %coarse /%fine
	994	2.0	6.0	4.0					5	2	1	450		GP	3	36	61											
		6.0	6.5	0.5	SM3	32	68																					
13-8		0.0	0.3	0.3	TS																							
	996	0.3	5.5	5.2					5	2	1	450		GP	1	39	60				56						2.71/2.65	0.7/2.0
	997	5.5	6.5	1.0										SM3	39	60	1											
13-9		0.0	0.4	0.4	TS																							
	273	0.4	4	3.6					5	2		300		GP	2	37	61					3.9						
	274	4.0	6.5	2.5					1			150		GPGM	5	25	70											
13-10		0.0	0.3	0.3	TS																							
		0.3	0.8	0.5	SP	2	83	15	3	1		300																
		0.8	2.5	1.7	GP	4	39	60	5	2	1	450																
	998	2.5	5.0	2.5					5	2	1	600		GPGM	8	42	50											
	999	5.0	6.0	1.0					5	2	1	450		GPGM	7	38	55											
13-11		0.0	0.4	0.4	TS																							
	259	0.4	5.0	4.6					8	3	1	450		GP	1	35	64					4.9						
	260	5.0	6.0	1.0					4	2		300		GP	4	32	64											
13-12		0.0	0.4	0.4	TS																							
	257	0.4	1.0	0.6					3			150		GP	2	34	64											
	258	1.0	3.0	2.0					5	2	1	600		GP	4	39	57											
		3.0	6.0	3.0	GP	2	34	64	5	2	1	450																
13-13		0.0	0.4	0.4	TS																							
	255	0.4	2.0	1.6					5	2	1	350		GP	1	25	74					6.1						
	256	2.0	4.5	2.5					7	3	1	600		GP	4	28	68				37						2.71/2.63	0.7/2.1
	253	4.5	5.5	1.0					1			75		GPGM	6	20	74											
	254	5.5	6.5	1.0					2			75		GPGM	8	23	69											
13-14		0.0	0.4	0.4	TS																							
		0.4	2.0	1.6	GPGM	5	40	55	4	2		300																
	275	2.0	6.0	4.0					5	2	1	450		GPGM	6	25	69											
13-15		0.0	0.4	0.4	TS																							
		0.4	1.0	0.6	GPGM	6	40	54	7	3	1	600																
	251	1.0	4.0	3.0					5	2	1	900		GP	4	31	65					4.3						
	252	4.0	6.0	2.0					3	2		300		GP	2	49	49											
	920	6.0	6.5	0.5					3	2		300		GPGM	7	37	56											

TEST PIT SUMMARY

PROJECT	MORRIS VALLEY PIT	**TEST METHOD**	EXCAVATOR / SONIC DRILL / EXCAVATOR
DISTRICT	FRASER VALLEY	**DATE**	2020-04; 2017-03; 2013; 1997

TEST PIT NUMBER	SAMPLE NUMBER	DEPTH (m) From	DEPTH (m) To	LAYER THICKNESS (m)	FIELD VISUAL IDENTIFICATION: SOIL CLASSIFICATION	FINES	SAND	GRAVEL	OVERSIZE: 75-150mm (%)	150-300mm (%)	>300mm (%)	MAX SIZE (mm)	WATER TABLE (m)	LABORATORY RESULTS: PIT RUN: SOIL CLASSIFICATIO	FINES	SAND	GRAVEL	CRUSH: FINES	SAND	GRAVEL	DURABILITY: SAND EQUIVALENT	MICRO DEVAL	DEGRADE	SULFATE CONTENT	CHLORIDE CONTENT	MgSO4 %coarse/ %fine	B.R.D. Coarse / fines	ABSORPTION %coarse /%fine
13-16		0.0	0.4	0.4	TS																							
	921	0.4	6.0	5.6					8	3	2	750		GP	3	31	66											
13-17		0.0	0.4	0.4	TS																							
		0.4	1.5	1.1	GPGM	6	44	50	8	3	2	750																
	922	1.5	4.5	3.0					5	2	1	450		GP	3	33	64					4.5						
	923	4.5	6.0	1.5					1			150		SP	1	56	43											
13-18		0.0	0.4	0.4	TS																							
	924	0.4	4.0	3.6					5	2	1	400		GP	4	29	67											
	925	4.0	6.0	2.0					1			75		SP	1	73	26											
13-19		0.0	0.4	0.4	TS																							
	926	0.4	4.0	3.6					7	3	1	400		GP	3	34	69				58						2.72/2.65	0.7/2.0
	927	4.0	5.5	1.5					1			75		GP	4	44	52											
13-20		0.0	0.4	0.4	TS																							
	928	0.4	3.5	3.1					5	2	1	600		GP	4	32	64											
	929	3.5	6	2.5					1			125		SP	2	64	34											
13-21		0.0	0.3	0.3	GP	4	46	50	3			150																
		0.3	6	5.7	SM3	34	66																					
	276	6.0	6.5	0.5					2	1		200		GP	1	43	56											
13-22		0.0	0.3	0.3	GP	4	46	50	3			150																
		0.3	6	5.7	SM3	34	66																					
		6.0	6.5	0.5	GP	2	42	56	2	1		200																
13-23		0.0	0.4	0.4	TS																							
		0.4	4	3.6	GPGM	10	36	54	8	3	1	450																
	278	4.0	5.5	1.5					5	2	1	350		GP	4	33	63					4.8						
	279	5.5	6.5	1.0					1	1		300		GP	2	45	53											
13-24		0.0	0.3	0.3	TS																							
	932	0.3	1.8	1.5					5	2	1	900		GP	2	31	67					5.1						
	933	1.8	4.5	2.7					3	2	1	600		GP	1	48	51											
	934	4.5	6.5	2.0					2	1	1	450		GPGM	7	32	55											
13-25		0.0	0.4	0.4	TS																							
		0.4	1.5	1.1	GPGM	6	40	54	5	2	10	1200																
	935	1.5	5.5	4.0					3	2	1	900		GPGM	5	43	52											
	938	5.5	6.5	1.0					3	2		300		GPGM	5	31	64											

TEST PIT SUMMARY

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DISTRICT	FRASER VALLEY	**DATE**	2020-04; 2017-03; 2013; 1997

TEST PIT NUMBER	SAMPLE NUMBER	DEPTH (m) From	DEPTH (m) To	LAYER THICKNESS (m)	FIELD VISUAL IDENTIFICATION: SOIL CLASSIFICATION	FIELD: FINES	FIELD: SAND	FIELD: GRAVEL	OVERSIZE: 75-150mm (%)	OVERSIZE: 150-300mm (%)	OVERSIZE: >300mm (%)	OVERSIZE: MAX SIZE (mm)	WATER TABLE (m)	LABORATORY RESULTS: PIT RUN: SOIL CLASSIFICATIO	PIT RUN: FINES	PIT RUN: SAND	PIT RUN: GRAVEL	CRUSH: FINES	CRUSH: SAND	CRUSH: GRAVEL	DURABILITY: SAND EQUIVALENT	MICRO DEVAL	DEGRADE	SULFATE CONTENT	CHLORIDE CONTENT	MgSO4 %coarse/ %fine	B.R.D. Coarse / fines	ABSORPTION %coarse /%fine
13-26		0.0	0.4	0.4	TS																							
	936	0.4	2.5	2.1					3	1		300		GP	1	41	58											
		2.5	4	1.5	GPGM	10	20	70	7	3	1	450																
	937	4.0	6.5	2.5					5	2		300		GP	2	33	65				45	4.8						
1997 Test Pitting																												
97-1		0.0	5.0	5.0					5	2	1	250		GPGM	5	46	49				47		75					
97-2		0.0	0.3	0.3	GP	1	35	64																				
		0.3	0.7	0.4	SP	4	96																					
		0.7	5.2	4.5					7	2	1	300														1.9/9.8		
97-3		0.0	0.5	0.5	GP	1	35	64																				
		0.5	1.7	1.2										SM2	29	71												
		1.7	5.0	3.3	GP	1	35	64	5	2	1	250																
97-4		0.0	1.0	1.0	GM3	35	35	30																				
		1.0	3.7	2.7	GP	1	35	64	5	2	1	250																
		3.7	4.0	0.3	GPGM	10	30	60																				
		4.0	5.2	1.2	SPSM	10	90						4.0															
97-5		0.0	0.2	0.2	SC4	45	35	20																				
		0.2	3.4	3.2	GP	1	35	64	5	2	1	375																
		3.4	5.8	2.4										SM3	33	66	1											
97-6		0.0	0.6	0.6	SC4	45	35	20																				
		0.6	4.0	3.4					4	2	1	250	4.0	GP	2	35	63				26		77					
		4.0	5.2	1.2	SPSM	10	85																					
97-7		0.0	0.4	0.4	SC4	45	35	20																				
		0.4	3.4	3.0	GP	1	35	64	5	3	1	450																
		3.4	4.0	0.6	GPGM	10	20	70					4.0															
		4.0	5.5	1.5	SC3	33	67																					
97-8		0.0	0.4	0.4	SC4	45	35	20																				
		0.4	3.8	3.4	GP	1	35	64	5	3	1	400																
		3.8	4.8	1.0	SPSM	10	90																					
		4.8	5.2	0.4	GP	1	35	64																				
97-9		0.0	0.4	0.4	SC4	45	35	20																				
		0.4	4.5	4.1					5	3	1	325		GP	4	30	66				30		83					
		4.5	4.8	0.3	SPSM	10	90																					

TEST PIT SUMMARY

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DISTRICT	FRASER VALLEY	**DATE**	2020-04; 2017-03; 2013; 1997

					FIELD VISUAL IDENTIFICATION									LABORATORY RESULTS														
									OVERSIZE					PIT RUN				CRUSH			DURABILITY							
TEST PIT NUMBER	SAMPLE NUMBER	DEPTH (m) From	DEPTH (m) To	LAYER THICKNESS (m)	SOIL CLASSIFICATION	FINES	SAND	GRAVEL	75-150mm (%)	150-300mm (%)	>300mm (%)	MAX SIZE (mm)	WATER TABLE (m)	SOIL CLASSIFICATIO	FINES	SAND	GRAVEL	FINES	SAND	GRAVEL	SAND EQUIVALENT	MICRO DEVAL	DEGRADE	SULFATE CONTENT	CHLORIDE CONTENT	MgSO4 %coarse/ %fine	B.R.D. Coarse / fines	ABSORPTION %coarse /%fine
		4.8	5.3	0.5	GPGM	10	30	55																				
		5.3	5.5	0.2	GP?																							
97-10		0.0	0.4	0.4	SC4	45	35	20																				
		0.4	3.3	2.9	GP	4	30	66	5	2	1	300																
		3.3	3.6	0.3	SC3	35	65																					
		3.6	5.2	1.6	GPGM	6	30	64					4.0															
97-11		0.0	0.4	0.4	SC4	45	35	20																				
		0.4	3.8	3.4	GP	1	35	64	7	4	1	500																
		3.8	5.2	1.4					7	4	1	500		GPGM	5	37	58											
97-12		0.0	0.4	0.4	SC4	45	35	20																				
		0.4	1.5	1.1	GP	1	45	54																				
		1.5	5.5	4.0	GPGM	5	41	54	7	3	2	500									24		79					
97-13		0.0	0.4	0.4	SC4	45	35	20																				
		0.4	3.4	3.0					7	4	2	1200		GP	2	35	63				78		83					
		3.4	5.2	1.8	GPGM	10	30	60	7	4	2	1200																
97-14		0.0	0.4	0.4	SC4	45	35	20																				
		0.4	5.5	5.1					5	3	1	400		GP	3	45	52											
97-15		0.0	0.4	0.4	SC4	45	35	20																				
		0.4	1.0	0.6	GP	1	35	64	9	5	3	900																
		1.0	4.5	3.5					9	5	3	900		GPGM	5	36	59				26		86					
		4.5	5.3	0.8	GM1	15	35	50	9	5	3	900																
97-16		0.0	0.4	0.4	SC4	45	35	20																				
		0.4	1.0	0.6	GP	1	35	64	9	5	3	1200																
		1.0	5.2	4.2	GPGM	5	36	59	9	5	3	1200																
97-17		0.0	0.4	0.4	SC4	45	35	20																				
		0.4	5.2	4.8					8	4	1	375		GP	4	34	62				28		82					
97-18		0.0	0.4	0.4	SC4	45	35	20																				
		0.4	5.2	4.8					8	4	1	375		GP	4	34	62											
97-19		0.0	0.4	0.4	GPGM	8	30	62																				
		0.4	5.0	4.6					5	2	1	375		GP	2	36	62				74		80					
97-20		0.0	0.4	0.4	GPGM	8	30	62																				
		0.4	5.0	4.6					5	2	1	375		GP	2	36	62											