

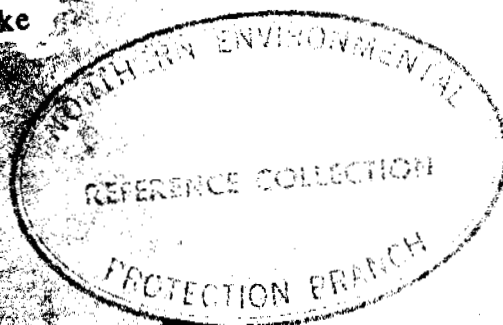
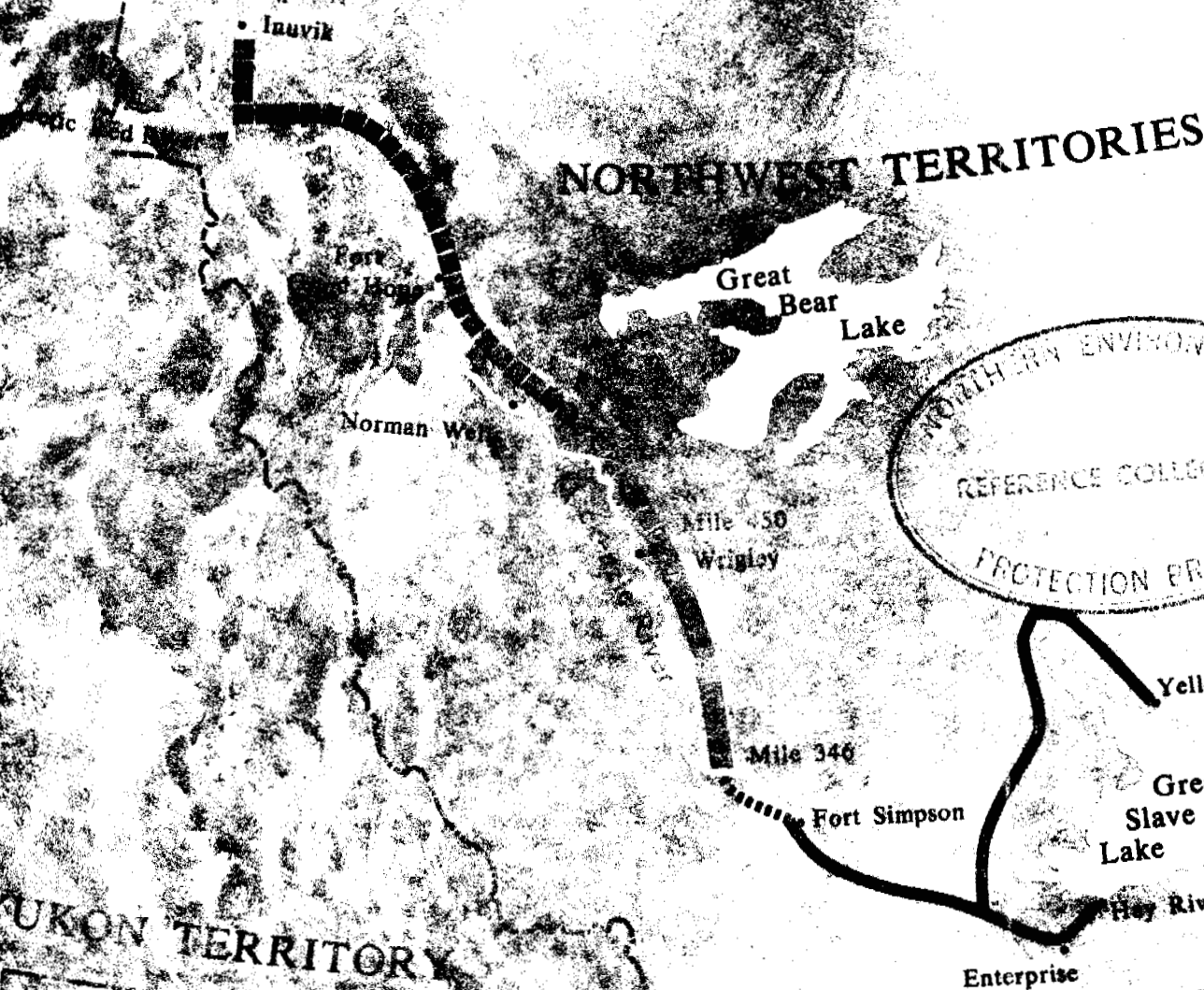
BEAUFORT SEA

BANKS ISLAND

VICTORIA ISLAND

DEPARTMENT OF PUBLIC WORKS MACKENZIE HIGHWAY MILE 346 - 450 GEOTECHNICAL INVESTIGATION

MACKENZIE BAY



YUKON TERRITORY

BRITISH COLUMBIA

ALBERTA



VOLUME 2
CENTRALINE BOREHOLE LOGS
MILES 346 TO 372



ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA						DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN		FIELD ENG		DATE DRILLED 7/3/93		AIRPHOTO NO: A22768-99		CHAINAGE See Remarks		OFFSET		TEST HOLE					
CKD		TECH R.G.		RIG 2		SURFACE DRAINAGE GOOD		VEGETATION A		ELEV		MILE 346		B,C,S S		NUMBER X	
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS	
										CLAY %	SILT %	SAND %	GRAVEL %				
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)							
										PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+							
2	1				CL	DARK BROWN CLAY AND SILT			2							LOCATED ON SHORE OF MACKENZIE RIVER, 400 FT SOUTH OF WHERE CENTER LINE IS SHOWN TO MEET THE MACKENZIE RIVER ON THE AIR PHOTO MOSAICS	
6	P		50	25	CL		F	N _{bn}	6		48	52	0	0			
10	2				CL				10		45	55	0	0			
12	P		15	12	CL				12								
14	3								14								
16	P		90	9	ML	SILT WITH SOME CLAY AND A TRACE OF SAND UP			16		23	75	2	0			
18						BROWN GREY			18								
20	4								20		12	84	4	0			
22	P		0	8	ML				22								
24									24								

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA							DRILL HOLE REPORT						DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN:			FIELD ENG.		DATE DRILLED		AIRPHOTO NO: A22768-99				CHAINAGE See Remarks				OFFSET				TEST HOLE			
CKD			TECH R.G.		RIG 2		SURFACE DRAINAGE GOOD				VEGETATION A				ELEV							
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (PCF)	DRY DENSITY (PCF)	REMARKS						
										CLAY %	SILT %	SAND %	GRAVEL %									
	5	T	100		ML					○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME) PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+												
2									2													
4							UP		4													
6	6	T	100		ML				6													
END OF HOLE AT 31.5'									8													
10									10													
12									12													
14									14													
16									16													
18									18													
20									20													
22									22													
24									24													

[illegible]

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY					
DWN:		FIELD ENG:		DATE DRILLED: 7/3/73		AIRPHOTO NO: A22768-99		CHAINAGE See Remarks		OFFSET	
CKD:		TECH: R.G.		RIG: 2		SURFACE DRAINAGE GOOD		VEGETATION A		ELEV	
DEPTH (FEET)		SAMPLE NUMBER		SAMPLE TYPE		% RECOVERY		PENETRATION RESISTANCE		UNIFIED SOIL SYMBOL	
SOIL DESCRIPTION		LIMITS OF FROZEN GROUND		ICE DESCRIPTION		DEPTH (FEET)		GRAIN-SIZE ANALYSIS		TEST HOLE	
										MILE B,C,S NUMBER	
										346 S Y	
										REMARKS	
CLAYEY SILT AND SAND WITH A TRACE OF GRAVEL		NF									
END OF HOLE AT 31.5'											

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG.		DATE DRILLED 7/3/73		AIRPHOTO NO. A22768-99		CHAINAGE 46+15		OFFSET		TEST HOLE				
CKD		TECH. R.S.		RIG 1		SURFACE DRAINAGE GOOD		VEGETATION A		ELEV						
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
					Pt	PEAT		V _x								
2	1				ML	GREY SILT WITH SOME CLAY AND A TRACE OF SAND			2							
4									4							
6									6							
8	2				ML		F	N _{bn}	8							
10									10							
12	3				ML				12							
14									14							
16									16							
18	4				ML				18							
20						END OF HOLE AT 20'			20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
OWN:		FIELD ENG:		DATE DRILLED: 7/3/73		AIRPHOTO NO: A22768-99		CHAINAGE: 38+25		OFFSET:		TEST HOLE				
CKD:		TECH: R.S.		RIG: I		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV:		MILE: 347 B,C,S: C NUMBER: B				
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
2	1				ML	SILT WITH SOME CLAY AND A TRACE OF SAND	F	N _{bn}	2							
4							UP		4							
6									6							
8	2				ML	--- BROWN --- GREY			8							
10									10							
12	3				ML		F	N _{bn}	12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

[illegible]

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY			
DWN:		FIELD ENG:		DATE DRILLED: 7/3/73		AIRPHOTO NO: A22768-99		CHAINAGE: 28+50		OFFSET:	
CKD:		TECH: R.S.		RIG: 1		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV:	
DEPTH (FEET)		SAMPLE NUMBER		SAMPLE TYPE		% RECOVERY		PENETRATION RESISTANCE		UNIFIED SOIL SYMBOL	
SOIL DESCRIPTION		LIMITS OF FROZEN GROUND		ICE DESCRIPTION		DEPTH (FEET)		O = WATER CONTENT (% OF DRY WEIGHT) Δ = ICE CONTENT (% OF SAMPLE VOLUME)		GRAIN-SIZE ANALYSIS	
								PLASTIC LIMIT 20 40 60 80 100 100+		LIQUID LIMIT 80 100 100+	
								CLAY %		SILT %	
								SAND %		GRAVEL %	
								WET DENSITY (P.C.F.)		DRY DENSITY (P.C.F.)	
								MILE		B,C,S	
								347		C	
								NUMBER		D	
								REMARKS			
Pt		PEAT		F		V _x					
ML		SILT WITH SOME CLAY AND A TRACE OF SAND		UF							
ML											
ML											
END OF HOLE AT 15'											

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG		DATE DRILLED 7/5/71		AIRPHOTO NO: A22768-99		CHAINAGE 20+00		OFFSET		TEST HOLE				
CKD:		TECH R.S.		RIG 1		SURFACE DRAINAGE GOOD		VEGETATION A		ELEV		MILE B,C,S NUMBER				
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY	SILT	SAND	GRAVEL			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT 20 40 60 80 100 100+ LIQUID LIMIT						
2					Pt	PEAT	F	V _x	2							
4	1				ML	SILT WITH SOME CLAY AND A TRACE OF SAND			4							
6							UF		6							
8	2				ML				8							
10									10							
12	3				ML				12							
14									14							
16									16							
18	4				ML				18							
20						END OF HOLE AT 20'			20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN		FIELD ENG		DATE DRILLED 6/3/73		AERPHOTO NO: A22768-99		CHAINAGE 14+50		OFFSET		TEST HOLE									
CKD		TECH: W.R.		RIG 1		SURFACE DRAINAGE GOOD		VEGETATION: A B		ELEV		MILE 347		B,C,S S		NUMBER F					
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (PCF)	DRY DENSITY (PCF)	REMARKS					
										CLAY %	SILT %	SAND %	GRAVEL %								
2	I				ML	BROWN SILT AND SAND WITH A TRACE OF CLAY			2	8	46	46	0								
4									4												
6	P		0	82					6												
8	2				SM	BROWN FINE SAND WITH SOME SILT AND A TRACE OF CLAY	F	N _{bn}	8	3	14	83	0								
10	3	P	90	32	CL	BROWN SILT AND CLAY			10												
12									12												
14									14												
16									16												
18	4	P	90	51	CL		N _F		18	48	52	0	0								
20	5					END OF HOLE AT 20'			20	46	53	1	0								
22									22												
24									24												

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT										DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN:		FIELD ENG		DATE DRILLED		AIRPHOTO NO		CHAINAGE		OFFSET		TEST HOLE																	
CKD		TECH		W.R.		RIG		SURFACE DRAINAGE		GOOD		VEGETATION		A B		ELEV													
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS													
										CLAY	SILT	SAND	GRAVEL																
2	1				ML	BROWN SILT WITH SOME CLAY AND SAND			2	20	60	20	0																
4					CL				4																				
6	2	P	90	68			F	N _{bn}	6	7	26	67	0																
8	3				SM	BROWN SAND WITH SOME SILT AND A TRACE OF CLAY			8																				
10					SM			V _x	10																				
12	4							N _f	12																				
14	5	P	90	54	CL	GREY SILT AND CLAY		V _x	14	47	52	1	0																
16	6	T			CL		UP		16	25	74	1	0																
18									18																				
20	7				CL				20																				
22									22																				
24	8	P		38	ML				24																				

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG		DATE DRILLED 7/3/73		AIRPHOTO NO: A22768-99		CHAINAGE 10+00		OFFSET		TEST HOLE				
CKD		TECH W.R.		RIG 1		SURFACE DRAINAGE		VEGETATION		ELEV		MILE B.C.S NUMBER				
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY	SILT	SAND	GRAVEL			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT 40 LIQUID LIMIT 60						
2	9	T			ML	GREY SILT WITH SOME CLAY AND A TRACE OF SAND	F	Non	2	21	78	1	0			
6	10				ML		UF		6	15	84	1	0			
10		P		26	ML				10							
12	11	T							12	11	87	2	0			
14	12				ML				14							
16						END OF HOLE AT 40'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN		FIELD ENG		DATE DRILLED 6/3/73		AIRPHOTO NO. A22768-101		CHAINAGE 92+45		OFFSET		TEST HOLE				
CKD		TECH W.R.		RIG 1		SURFACE DRAINAGE GOOD		VEGETATION A B D		ELEV.		MILE B,C,S NUMBER				
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (PCF)	DRY DENSITY (PCF)	REMARKS
										CLAY	SILT	SAND	GRAVEL			
									○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)							
									PLASTIC LIMIT 20 40 60 80 100 100+ LIQUID LIMIT 20 40 60 80 100 100+							
2	1				ML	SANDY SILT WITH SOME CLAY AND A TRACE OF GRAVEL			2							
4									4							
6									6							
8									8							
10						--- BROWN GREY	F	N _{bn}	10							
12	2				ML				12							
14									14							
16									16							
18									18							
20									20							
22	3				ML				22							
24							UF		24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
OWN		FIELD ENG		DATE DRILLED 6/3/73		AIRPHOTO NO. A22768-101		CHAINAGE 92+45		OFFSET		TEST HOLE				
CKD		TECH W.R.		RIS 1		SURFACE DRAINAGE GOOD		VEGETATION A B D		ELEV		MILE 348 B,C,S C NUMBER A				
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
2					ML		UF		2							
4									4							
6						END OF HOLE AT 30'			6							
8									8							
10									10							
12									12							
14									14							
16									16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT										DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN:		FIELD ENG:		DATE DRILLED: 6/3/73		AIRPHOTO NO: A22768-101		CHAINAGE: 85+35		OFFSET:		TEST HOLE																	
CKD:		TECH: M.H.R.		RIG: 1		SURFACE DRAINAGE: FAIR		VEGETATION: A B		ELEV:		MILE: 348		S,C,S: C		NUMBER: B													
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS													
										CLAY %	SILT %	SAND %	GRAVEL %																
2					Pt	PEAT		V _x	2																				
4	1				SW	SILTY SAND WITH SOME GRAVEL	F	N _{bn}	4																				
6									6																				
8	2				CL	BROWN CLAYEY SILT	UF		8																				
10									10																				
12	3				CL				12																				
14									14																				
16						END OF HOLE AT 15'			16																				
18									18																				
20									20																				
22									22																				
24									24																				

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA		DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY	
DW#	FIELD ENG.	DATE DRILLED	AIRPHOTO NO.	CHAINAGE	OFFSET
CND	TECH	RIG	SURFACE DRAINAGE	VEGETATION	ELEV.
6/3/73		2	FAIR	A B	
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL
SOIL DESCRIPTION		LIMITS OF FROZEN GROUND	ICE DESCRIPTION		DEPTH (FEET)
			○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)		
			PLASTIC LIMIT LIQUID LIMIT 40 60 80 100 100+		
			GRAIN-SIZE ANALYSIS		
			CLAY SILT SAND GRAVEL % % % %		
			WET DENSITY (P.C.F.)		
			DRY DENSITY (P.C.F.)		
			TEST HOLE		
			MILE		B,C,S
			348		C
			NUMBER		C
			REMARKS		
2	1				PEAT
4					CL
6					
8	2				BROWN CLAYEY SILT
10					CL
12					
14	3				CL
16					END OF HOLE AT 15'
18					
20					
22					
24					

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA						DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY							
DWN:		FIELD ENG:		DATE DRILLED: 6/3/73		AIRPHOTO NO: A22768-99		CHAINAGE: 65+00		OFFSET:					
CKD:		TECH M.H.R.		RIG 2		SURFACE DRAINAGE POOR		VEGETATION: A B		ELEV:		TEST HOLE			
												MILE B.C.S NUMBER			
												348 C D			
												REMARKS			
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)
										CLAY	SILT	SAND	GRAVEL		
										%	%	%	%		
										O = WATER CONTENT (% OF DRY WEIGHT) Δ = ICE CONTENT (% OF SAMPLE VOLUME)					
										PLASTIC LIMIT LIQUID LIMIT					
										20 40 60 80 100 100+					
2					Pt	PEAT		V _x	2						
4	1				NL	BROWN SILT & ORGANIC	F	N _{bn}	4	35	64	1	0		
6						GREY CLAYEY SILT			6						
8	2				CL		UF		8	42	58	0	0		
10									10						
12	3				CL				12	35	55	0	0		
14									14						
16						END OF HOLE AT 15'			16						
18									18						
20									20						
22									22						
24									24						

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY			
DWN:		FIELD ENG:		DATE DRILLED 6/3/13		AIRPHOTO NO: A22768-99		CHAINAGE 59+50		OFFSET	
CKD:		TECH M.H.R.		RIG 2		SURFACE DRAINAGE FAIR		VEGETATION: A		ELEV	

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)		GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	TEST HOLE		
												CLAY %	SILT %	SAND %	GRAVEL %			MILE	B,C,S	NUMBER
																		348	C	E
										REMARKS										

PEAT

BROWN CLAYEY SILT, INCREASING CLAY CONTENT WITH DEPTH

END OF HOLE AT 15'

PLASTIC LIMIT 20 40 60 80 100 100+

LIQUID LIMIT 80 100 100+

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA							DRILL HOLE REPORT						DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY																						
DWN:		FIELD ENG:		DATE DRILLED: 7/3/73		AIRPHOTO NO: A22768-99		CHAINAGE: 56+00		OFFSET:																									
CKD:		TECH: R.S.		RIG: 1		SURFACE DRAINAGE GOOD		VEGETATION: A		ELEV:		TEST HOLE																							
DEPTH (FEET)		SAMPLE NUMBER		SAMPLE TYPE		% RECOVERY		PENETRATION RESISTANCE		UNIFIED SOIL SYMBOL		SOIL DESCRIPTION		LIMITS OF FROZEN GROUND		ICE DESCRIPTION		DEPTH (FEET)		O - WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)		GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)		DRY DENSITY (P.C.F.)		MILE		B,C,S		NUMBER	
																						CLAY % SILT % SAND % GRAVEL %								348		S		F	
																																		REMARKS	
2		1								ML		SILT WITH SOME CLAY, SAND AND ORGANIC MATTER				Vx		2																	
4																		4																	
6																		6																	
8		2								ML				F		Nbn		8																	
10																		10																	
12																		12																	
14		3								ML								14																	
16																		16																	
18		4										ML						18																	
20																		20																	
22																		22																	
24																		24																	
												END OF HOLE AT 20'																							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DOWN:		FIELD ENG:		DATE DRILLED:		AIRPHOTO NO: A22768-99		CHAINAGE: 55+50		OFFSET:		TEST HOLE											
CKD:		TECH: M.H.R.		RIG: 2		SURFACE DRAINAGE: FAIR-GOOD		VEGETATION: A		ELEV:		MILE: 348		B,C,S: C		NUMBER: F-1							
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS							
										CLAY %	SILT %	SAND %	GRAVEL %										
2	1				ML	GREY SANDY SILT WITH SOME CLAY			2														
4									4														
6									6														
8	2				ML		F	N _{bn}	8														
10									10														
12	3				ML				12														
14									14														
16						END OF HOLE AT 15'			16														
18									18														
20									20														
22									22														
24									24														

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA 7/3/73				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG:	DATE DRILLED:	AIRPHOTO NO:	CHAINAGE:	OFFSET:		TEST HOLE								
CKD:	TECH:	R.S.	RIG:	SURFACE DRAINAGE:	GOOD	VEGETATION:	A	ELEV:								
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (PCF)	DRY DENSITY (PCF)	REMARKS
										CLAY	SILT	SAND	GRAVEL			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										20	40	60	80	100	100+	
2					Pt	PEAT		V _x	2							
4	1				ML	CLAYEY SILT			4							
6						BROWN GREY	F	N _{bn}	6							
8	2				ML				8							
10									10							
12	3				ML				12							
14									14							
16	4				ML				16							
18									18							
20						END OF HOLE AT 20'			20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA						DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY							
OWNER:		FIELD ENG:		DATE DRILLED: 5/3/73		AIRPHOTO NO: A22768-101		CHAINAGE: 164+00		OFFSET:							
CKD:		TECH: M.H.R.		RIG: 2		SURFACE DRAINAGE: FAIR		VEGETATION: B		ELEV: 314		TEST HOLE					
												MILE		B,C,S	NUMBER		
												349		C	A		
REMARKS																	
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)		
										CLAY %	SILT %	SAND %	GRAVEL %				
2	1				ML	BROWN SILT AND SAND WITH SOME CLAY AND A TRACE OF GRAVEL			2	13	40	32	15				
4									4								
6									6								
8	2				ML			N _{bn}	8	22	38	30	10				
10									10								
12									12								
14	3				ML				14								
16						END OF HOLE AT 15'			16								
18									18								
20									20								
22									22								
24									24								

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY					
DWN:		FIELD ENG:		DATE DRILLED: 5/3/73		AIRPHOTO NO: A22768-101		CHAINAGE: 158+00		OFFSET:		TEST HOLE	
CKD:		TECH: M.H.R.		RIG: 2		SURFACE DRAINAGE: PAIR		VEGETATION: A		ELEV: 311			

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN SOUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (PCF)	DRY DENSITY (PCF)	REMARKS	
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)							
										CLAY	SILT	SAND	GRAVEL				
										PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+	%	%	%	%			
2	1				ML	BROWN SILT AND SAND WITH A TRACE OF CLAY			2								
4									4								
6							F		6								
8	2				ML				8								
10							UF		10								
12	3								12								
14									14								
16						END OF HOLE AT 15'			16								
18									18								
20									20								
22									22								
24									24								

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
OWN:		FIELD ENG.		DATE DRILLED: 6/3/73		AIRPHOTO NO: A22768-101		CHAINAGE: 153+00		OFFSET:		ELEV: 305		TEST HOLE							
CKD		TECH: W.R.		RIG: 1		SURFACE DRAINAGE: GOOD		VEGETATION: A B													
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS					
										CLAY %	SILT %	SAND %	GRAVEL %								
2	1				SM	BROWN SILTY SAND TILL WITH SOME CLAY AND A TRACE OF GRAVEL	F	Nbn	2												
4											4										
6	2				SM						6										
8											8										
10											10										
12											12										
14											14										
16											16										
18											18										
20											20										
22								22													
24						END OF HOLE AT 15'			24												

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG	DATE DRILLED 6/3	AIRPHOTO NO. A22768-101	CHAINAGE 148 + 15	OFFSET		TEST HOLE								
CKD	TECH	W.R.	RIG 1	SURFACE DRAINAGE GOOD	VEGETATION A B D	ELEV 296										
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
2	1				ML	BROWN SANDY SILT TILL WITH SOME CLAY AND A TRACE OF GRAVEL			2							
4									4	20	60	20	0			
6							F	N _{bn}	6							
8									8							
10									10							
12	2				ML				12							
14									14	25	35	34	6			
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN		FIELD ENG		DATE DRILLED 6/3/78		AIRPHOTO NO A22768-101		CHAINAGE 137+50		OFFSET		TEST HOLE				
CKD		TECH M.H.R.		RIG 2		SURFACE DRAINAGE PAIR		VEGETATION A B		ELEV 272		MILE B,C,S NUMBER				
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
2					Pt	PEAT		V _x	2							
4	1				ML	BROWN SILT WITH SOME CLAY AND SAND			4							
6							F	N _{bn}	6							
8	2				ML				8							
10									10							
12	3				ML				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG.		DATE DRILLED 6/3/73		AERIAL PHOTO NO: A22768-101		CHAINAGE 122+83		OFFSET		TEST HOLE				
CKD		TECH: M.H.R.		RIG 2		SURFACE DRAINAGE POOR		VEGETATION A B		ELEV 232						
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
					Pt	PEAT		V _x		○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
2	1				ML	BROWN SANDY SILT TILL WITH SOME CLAY AND A TRACE OF GRAVEL			2							
4									4							
6									6							
8	2				ML		F	N _{bn}	8							
10									10							
12	3				ML	TILL AS ABOVE, FINER GRAINED			12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

[illegible]

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG		DATE DRILLED 6/3/73		AIRPHOTO NO: A22768-101		CHAINAGE 99+10		OFFSET		TEST HOLE				
CKD		TECH		WR		RIG 1		SURFACE DRAINAGE GOOD		VEGETATION: A B E		ELEV		MILE 349 B,C,S C NUMBER J		
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
2	1				ML	BROWN SILTY SAND TILL WITH SOME CLAY AND A TRACE OF GRAVEL			2							
4									4							
6									6							
8									8							
10									10							
12	2				ML				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG:	DATE DRILLED: 3/3/73	AIRPHOTO NO: A22768-102	CHAINAGE: 203 + 00	OFFSET:		TEST HOLE								
CKD:		TECH: M.H.R.	RIG: 2	SURFACE DRAINAGE: POOR - FAIR		VEGETATION: AB		ELEV: 384								
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+						
2	1				GM	BROWN SILTY SAND AND GRAVEL TILL WITH A TRACE OF CLAY			2		7	24	36	33		
4									4							
5									5							
6					ML	BROWN CLAYEY SILT AND SAND TILL WITH A TRACE OF GRAVEL		N _{bn}	6							
8	2						F		8		22	39	31	8		
10									10							
12					ML				12							
14	3								14		24	33	35	8		
15						END OF HOLE AT 15'			15							
16									16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG		DATE DRILLED 5/3/13		AIRPHOTO NO. A22768-102		CHAINAGE 193 + 00		OFFSET		TEST HOLE				
CKD		TECH M.H.R.		RIG 2		SURFACE DRAINAGE FAIR		VEGETATION AB.		ELEV 365		MILE B,C,S NUMBER				
												350 C B				
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT 20 40 60 80 100 100+ LIQUID LIMIT 80 100 100+						
2	1				SW	REDDISH BROWN SAND WITH A TRACE OF SILT.			2							
4									4							
6									6							
8	2				SW		F	V _s	8							
10									10							
12									12							
14	3				SW				14							
15									15							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG:		DATE DRILLED 5/3/78		AERIAL PHOTO NO: A22768-102		CHAINAGE 180 + 00		OFFSET:		TEST HOLE				
CKD:		TECH: M.H.R.		RIG: 2		SURFACE DRAINAGE POOR		VEGETATION: B		ELEV 339		MILE B,C,S NUMBER				
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY	SILT	SAND	GRAVEL			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT 40 LIQUID LIMIT 80 100 100+						
2	1				ML	BROWN SANDY SILT TILL WITH SOME CLAY AND A TRACE OF GRAVEL			2							
4									4							
5									5							
6									6							
8	2				ML		F	N _{bn}	8							
10									10							
12	3				ML				12							
14									14							
15						END OF HOLE AT 15'			15							
16									16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA						DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY							
OWN:		FIELD ENG.		DATE DRILLED 5/3/79		AIRPHOTO NO: A22768-102		CHAINAGE 172 + 00 (Approx.)		OFFSET		TEST HOLE					
CKD		TECH M.H.R.		RIG 2		SURFACE DRAINAGE POOR		VEGETATION B		ELEV 328		MILE 350		B,C,S C		NUMBER D	
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS	
										CLAY %	SILT %	SAND %	GRAVEL %				
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)							
										PLASTIC LIMIT ——— LIQUID LIMIT 20 40 60 80 100 100+							
2	1				CL	BROWN SANDY AND CLAYEY SILT TILL WITH A TRACE OF GRAVEL AND A FEW COBBLES AND SMALL BOULDERS		N _{bn}	2		22	55	19	4			
4									4								
5									6								
6									8		22	44	29	5			
8	2				CL		F		10								
10									12								
12	3				CL				14								
14									16		22	41	30	7			
15						END OF HOLE AT 15'			18								
16									20								
18									22								
20									24								
22																	
24																	

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA 5/3/73		DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY												
DWN:	FIELD ENG:	DATE DRILLED:	AIRPHOTO NO:	CHAINAGE:	OFFSET:	TEST HOLE										
CKD	TECH: M.H.R.	RIG: 2	SURFACE DRAINAGE: FAIR	VEGETATION: AB.	ELEV: 323											
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+						
2	1				GM	BROWN GRAVELLY SILT AND SAND TILL WITH SOME CLAY.			2		12	30	33	25		
4									4							
5									5							
6						BROWN CLAYEY AND SANDY SILT TILL WITH A TRACE OF GRAVEL			6							
8	2				CL		F	N _{bn}	8		20	43	28	9		
10									10							
12	3				CL				12		22	41	28	9		
14									14							
15						END OF HOLE AT 15'			15							
16									16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
OWN:		FIELD ENG		DATE DRILLED		AIRPHOTO NO:		CHAINAGE		OFFSET		TEST HOLE				
CKD		TECH		RIG		SURFACE DRAINAGE		VEGETATION		ELEV		MILE				
		W.R.		1		GOOD		A B D		434		351 C A				
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY	SILT	SAND	GRAVEL			
										○ = WATER CONTENT (% OF DRY WEIGHT)						
										△ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT	LIQUID LIMIT					
										20	40	60	80	100	100+	
										%	%	%	%			
2	1				ML	BROWN SILT WITH SOME CLAY AND A TRACE OF SAND.			2			13	81	6	0	
4									4							
6									6							
8	2				ML	GREY SILT TILL WITH SOME SAND AND CLAY AND A TRACE OF GRAVEL.	F	N _{bn}	8			22	45	29	4	
10									10							
12	3				ML				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG		DATE DRILLED: 5/3/73		AIRPHOTO NO: A22768-104		CHAINAGE 243+00		OFFSET		TEST HOLE				
CKD		TECH: W.R.		RIG: 1		SURFACE DRAINAGE: GOOD		VEGETATION: A B		ELEV: 432						
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
2	1				ML	BROWN SILT WITH SOME CLAY AND SAND.			2							
4					ML				4							
6									6							
8	2				ML	SANDY SILT TILL WITH SOME CLAY AND A TRACE OF GRAVEL.			8							
10									10							
12									12							
14									14							
16						BROWN GREY			16							
18	3				ML				18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG:		DATE DRILLED		AIRPHOTO NO.		CHAINAGE		OFFSET		TEST HOLE				
CKD		TECH		RIG		SURFACE DRAINAGE		VEGETATION		ELEV		MILE B,C,S NUMBER				
		W.R..		1.		GOOD		A B		432		351. C B				
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT ——— LIQUID LIMIT 20 40 60 80 100 100+						
2	4				ML		F	N _f	2							
4									4							
6									6							
8									8							
10									10							
12									12							
14									14							
16									16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY						
DWN:		FIELD ENG:		DATE DRILLED: 5/3/78		AIRPHOTO NO: A22768-104		CHAINAGE: 238+00		OFFSET:		TEST HOLE		
CKD:		TECH: W.R.		RIG: 1		SURFACE DRAINAGE: GOOD		VEGETATION: A B D		ELEV: 429		TEST HOLE		
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GRINDING	DEPTH (FEET)	GRAIN-SIZE ANALYSIS		WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS	
									CLAY %	SILT %				
									○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)					
									PLASTIC LIMIT 20 40 60 80 100 100+ LIQUID LIMIT 80 100 100+					
2	1				ML	BROWN SANDY SILT TILL WITH SOME CLAY AND OCCASIONAL GRAVEL		2						
4								4						
6								6						
8	2				ML			8						
10								10						
12								12						
14	3				ML			14						
16						END OF HOLE AT 15'		16						
18								18						
20								20						
22								22						
24								24						

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY					
DWN:		FIELD ENG:		DATE DRILLED: 5/3/78		AIRPHOTO NO: A22768-104		CHAINAGE: 226+00		OFFSET:		TEST HOLE	
CKD:		TECH: W.R..		RIG: 1.		SURFACE DRAINAGE: GOOD		VEGETATION: A B		ELEV: 414			
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	DEPTH (FEET)	GRAIN-SIZE ANALYSIS		WET DENSITY (PCF)	DRY DENSITY (PCF)	REMARKS
									CLAY %	SILT %			
						BROWN SILT .							
2	1				ML	BROWN AND GREY SANDY SILT TILL WITH SOME CLAY AND A TRACE OF GRAVEL .		2					
4								4					
6								6					
8								8					
10								10					
12	2				ML			12	21	46	26	7	
14								14					
16						END OF HOLE AT 15'		16					
18								18					
20								20					
22								22					
24								24					

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA 5/3/73				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY														
DWN:		FIELD ENG		DATE DRILLED		AIRPHOTO NO A22768-104		CHAINAGE		OFFSET		TEST HOLE										
CKD		TECH		W.R.		RIG		SURFACE DRAINAGE		VEGETATION		ELEV										
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS						WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	MILE	B,C,S	NUMBER		
														CLAY	SILT						SAND	GRAVEL
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)												
										PLASTIC LIMIT 40 LIQUID LIMIT 80												
2	1				SM	BROWN SILT AND FINE SAND			2													
4					ML	BROWN SILT AND SAND TILL WITH SOME CLAY AND A TRACE OF GRAVEL		Nbn	4													
6									6													
8									8													
10									10													
12									12													
14	2				ML				14													
16									16													
18									18													
20									20													
22									22													
24									24													
						END OF HOLE AT 15'																

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT										DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN		FIELD ENG		DATE DRILLED		AIRPHOTO NO		CHAINAGE		OFFSET		TEST HOLE																	
CKD		TECH		R.G.		RIG		SURFACE DRAINAGE		FAIR		VEGETATION		A		ELEV		479		MILE		B.C.S		NUMBER					
DEPTH (FEET)		SAMPLE NUMBER		SAMPLE TYPE		% RECOVERY		PENETRATION RESISTANCE		UNIFIED SOIL SYMBOL		SOIL DESCRIPTION		LIMITS OF FROZEN GROUND		ICE DESCRIPTION		DEPTH (FEET)		GRAIN-SIZE ANALYSIS		WET DENSITY (P.C.F.)		DRY DENSITY (P.C.F.)		REMARKS			
																				CLAY		SILT		SAND		GRAVEL			
																				%		%		%		%			
2		1								Pt		PEAT				Vx		2		19		70		11		0			
4										ML		BROWN SILT WITH SOME CLAY AND A TRACE OF SAND						4											
6																		6											
8		2								ML				F		Nbn		8		19		72		7		2			
10																		10											
12		3								CL		DARK BROWN CLAYEY SILT TILL WITH SOME SAND AND A TRACE OF GRAVEL.						12		32		40		23		5			
14																		14											
16												END OF HOLE AT 15'						16											
18																		18											
20																		20											
22																		22											
24																		24											

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY							
DWN		FIELD ENG		DATE DRILLED		AIRPHOTO NO		CHANGING		OFFSET		TEST HOLE			
CKD		TECH		R.G.		RIG		SURFACE DRAINAGE		VEGETATION		ELEV			
				5/3/73		A22768-106		292+00				483			
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (PCF)	DRY DENSITY (PCF)	REMARKS
									CLAY	SILT	SAND	GRAVEL			
									○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
									PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+						
2	1				ML	SANDY SILT TILL WITH SOME CLAY AND A TRACE OF GRAVEL.		2							
4								4							
6								6							
8	2				ML			8							
10								10							
12								12							
14	3				ML	BROWN GREY.		14							
16								16							
18								18							
20								20							
22								22							
24								24							
END OF HOLE AT 15'															

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA		DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY												
DWN	FIELD ENG	DATE DRILLED 5/3/78	AIRPHOTO NO. A22768-106	CHAINAGE 284+00	OFFSET		TEST HOLE									
CKD	TECH R.F.	RIG 2	SURFACE DRAINAGE FAIR	VEGETATION A	ELEV 471											
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT 40 LIQUID LIMIT 80 100 100+						
2	1				ML	BROWN SANDY SILT TILL WITH SOME CLAY AND A TRACE OF GRAVEL.			2							
4									4							
6									6							
8	2				ML		F	N _{bn}	8							
10									10							
12									12							
14	3				ML				14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG.		DATE DRILLED		AIRPHOTO NO.		CHAINAGE		OFFSET		TEST HOLE				
CKD		TECH		R.S.		RIG		SURFACE DRAINAGE		VEGETATION		ELEV		MILE B.C.S. NUMBER		
				5/3/72		A22768-104		274+00				466		352 C D.		
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY	SILT	SAND	GRAVEL			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+						
2	1				SM	BROWN FINE SILTY SAND			2							
4					CL	CLAYEY AND SANDY SILT WITH A TRACE OF GRAVEL			4	22	41	32	5			
6									6							
8	2				CL		F	N _{bn}	8	20	40	31	9			
10									10							
12	3				CL				12	31	40	27	2			
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG.		DATE DRILLED 5/3/77		AIRPHOTO NO. A22768-104		CHAINAGE 266+00		OFFSET		TEST HOLE				
CKD		TECH. R.S.		RIG 1		SURFACE DRAINAGE GOOD		VEGETATION A		ELEV. 455		MILE B,C,S NUMBER				
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
2	1				CL	BROWN CLAYEY AND SANDY SILT TILL WITH A TRACE OF GRAVEL.		Nbn	2							
4									4							
6									6							
8	2				CL				8							
10									10							
12	3				ML	SANDY SILT TILL WITH SOME CLAY AND A TRACE OF GRAVEL.			12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

○ = WATER CONTENT (% OF DRY WEIGHT)

△ = ICE CONTENT (% OF SAMPLE VOLUME)

PLASTIC LIMIT

LIQUID LIMIT

20 40 60 80 100 100+

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA						DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY							
DWN:		FIELD ENG:		DATE DRILLED: 5/3/73		AIRPHOTO NO: A22768-104		CHAINAGE: 259+00		OFFSET:							
CKD:		TECH R.S.		RIG: 1		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV: 445		TEST HOLE					
												MILE		B,C,S	NUMBER		
												352		C	F		
REMARKS																	
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)				GRAIN-SIZE ANALYSIS			
										PLASTIC LIMIT		LIQUID LIMIT					
										20	40	60	80	100	100+		
										%	%	%	%	WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)		
2	1				SM	BROWN FINE SILTY SAND			2								
4					SM	SILTY SAND WITH GRAVEL AND A TRACE OF CLAY		N _{bn}	4								
6									6								
8	2				SM				8								
10									10								
12						SANDY SILT TILL WITH SOME CLAY AND A TRACE OF GRAVEL AND OF COBBLES			12								
14	3				ML				14								
16						END OF HOLE AT 15'			16								
18									18								
20									20								
22									22								
24									24								

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG		DATE DRILLED 5/3/73		AIRPHOTO NO: A22768-108		CHAINAGE 358+00		OFFSET		TEST HOLE				
CKD:		TECH R.S.		RIG 1		SURFACE DRAINAGE GOOD		VEGETATION A		ELEV 536		MILE 353 B,C,S C NUMBER A				
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (PCF)	DRY DENSITY (PCF)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT 20 40 60 80 100 100+ LIQUID LIMIT 80 100 100+						
2	1				Pt	PEAT		V _x	2							
4					ML	SAND AND SILT TILL WITH SOME CLAY AND GRAVEL.			4							
6									6							
8	2				ML				8							
10							F	N _{DN}	10							
12	3				ML	BROWN GREY			12							
14									14							
16									16							
18	4				ML				18							
20									20							
22						END OF HOLE AT 20'			22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT										DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN:		FIELD ENG:		DATE DRILLED: 5/3/73		AIRPHOTO NO: A22768+108		CHAINAGE: 355+00		OFFSET:		TEST HOLE																	
CKD:		TECH: R.S.		RIG: 1		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV: 537		MILE: 353		B,C,S: C		NUMBER: B													
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS													
										CLAY %	SILT %	SAND %	GRAVEL %																
2	1				Pt	PEAT		V _x	2																				
4					ML	SANDY SILT TILL WITH SOME CLAY AND A TRACE OF GRAVEL			4																				
6									6																				
8	2				ML		F	N _{bn}	8																				
10									10																				
12									12																				
14	3				ML				14																				
16									16																				
18	4				ML				18																				
20						END OF HOLE AT 20'			20																				
22									22																				
24									24																				

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA		DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY												
DWN:	FIELD ENG:	DATE DRILLED: 5/3/73	AIRPHOTO NO: A22768-106	CHAINAGE: 343+50	OFFSET:		TEST HOLE									
CKD:	TECH: R.S..	RIG: 1.	SURFACE DRAINAGE: GOOD	VEGETATION: A	ELEV: 529											
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT 40 60 80 100 100+						
2	1				PT	PEAT		V _x	2							
4					ML	SANDY SILT TILL WITH SOME CLAY AND A TRACE OF GRAVEL			4							
6							F.	N _{bn}	6							
8	2				ML				8							
10						BROWN GREY			10							
12									12							
14	3				ML				14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

[illegible]

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA						DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY							
DWN:		FIELD ENG:		DATE DRILLED 5/3/79		AIRPHOTO NO A22768-106.		CHAINAGE 322+00		OFFSET		TEST HOLE					
CKD		TECH R.G.		RIG 2		SURFACE DRAINAGE FAIR		VEGETATION A		ELEV 509.							
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (PCF)	DRY DENSITY (PCF)	REMARKS	
										CLAY %	SILT %	SAND %	GRAVEL %				
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)							
										PLASTIC LIMIT	LIQUID LIMIT						
										20	40	60	80	100	100+		
2	1				ML	BROWN SANDY SILT TILL WITH SOME CLAY AND A TRACE OF GRAVEL		Nbn	2								
4									4								
6									6								
8	2				ML				8								
10									10								
12	3				ML				12								
14									14								
16						END OF HOLE AT 15'			16								
18									18								
20									20								
22									22								
24									24								

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG:	DATE DRILLED: 5/3/77		AIRPHOTO NO: A22768-106	CHAINAGE: 310+00		OFFSET:								
CKD:	TECH: R.G.	RIG: 2	SURFACE DRAINAGE: FAIR		VEGETATION: A		ELEV: 491		TEST HOLE							
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNITED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT 20 40 60 80 100 100+ LIQUID LIMIT 80 100 100+						
2	1				ML	BROWN SANDY SILT TILL WITH SOME CLAY AND A TRACE OF GRAVEL.			2							
4									4							
6									6							
8	2				ML			N _{bn}	8							
10									10							
12	3				ML				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY					
DWN:		FIELD ENG:		DATE DRILLED: 5/3/73		AIRPHOTO NO: A22771-5		CHAINAGE: 390+00		OFFSET:		TEST HOLE	
CKD:		TECH: R.G.		RIG: 2		SURFACE DRAINAGE: FAIR		VEGETATION: A		ELEV: 548			

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY	SILT	SAND	GRAVEL			
										%	%	%	%			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+						
2	1				ML	BROWN SANDY SILT TILL WITH SOME CLAY AND A TRACE OF GRAVEL			2							
4									4							
6									6							
8	2				ML			N _{bn}	8							
10									10							
12									12							
14	3				ML				14							
						GREY SHALE BEDROCK										
16									16							
18									18							
20									20							
22									22							
24									24							
						END OF HOLE AT 15'										

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT					DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY				
DWN:		FIELD ENG:		DATE DRILLED: 5/3/73		AIRPHOTO NO: A22771-5		CHAINAGE: 375+00		OFFSET:		TEST HOLE							
CKD:		TECH: R.G.		RIG: 2		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV: 544									
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS			
										CLAY %	SILT %	SAND %	GRAVEL %						
2	1				Pt	PEAT		V _x	2										
4					ML	BROWN SILT WITH SOME CLAY AND A TRACE OF SAND			4										
6									6										
8	2				SM	BROWN SILTY SAND TILL WITH MINOR CLAY AND GRAVEL	F	N _{dn}	8										
10									10										
12	3				SM				12										
14									14										
16						END OF HOLE AT 15'			16										
18									18										
20									20										
22									22										
24									24										

○ = WATER CONTENT (% OF DRY WEIGHT)
△ = ICE CONTENT (% OF SAMPLE VOLUME)

PLASTIC LIMIT 40 60 80 100 100+
LIQUID LIMIT

17	79	4	0
11	36	47	6
12	28	55	5

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
OWN:		FIELD ENG:		DATE DRILLED: 5/3/13		AERIAL PHOTO NO: A22771-5		CHAINAGE: 366+00		OFFSET:		TEST HOLE				
CKD:		TECH: R.S.		RIG: 1		SURFACE DRAINAGE: FAIR		VEGETATION: B		ELEV: 542						
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
2	1				Pt	PEAT		V _x	2							
4									4							
6									6							
8	2				ML	BROWN SANDY SILT WITH SOME CLAY AND A TRACE OF GRAVEL	F	N _{bn}	8							
10									10							
12	3				ML				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG:		DATE DRILLED: 4/3/73		AIRPHOTO NO: A22771-6		CHAINAGE: 473 + 00		OFFSET:		TEST HOLE				
CKD:		TECH: M.H.R.		RIG: 2		SURFACE DRAINAGE: FAIR		VEGETATION: AB		ELEV: 575		MILE B,C,S NUMBER				
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
2	1				SM	SILTY SAND TILL WITH SOME CLAY AND TRACES OF GRAVEL, COBBLES AND SMALL BOULDERS.			2							
4									4							
6									6							
8	2				SM				8							
10									10							
12	3				SM				12							
14									14							
16	4				SM				16							
18									18							
20						END OF HOLE AT 20'			20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG:		DATE DRILLED: 4/3/		AIRPHOTO NO: A22771-6.		CHAINAGE: 470 + 00.		OFFSET:		TEST HOLE				
CKD:		TECH: W. R.		RIG: 1.		SURFACE DRAINAGE: FAIR.		VEGETATION: BF.		ELEV: 589.		MILE B.C.S. NUMBER				
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
2	1				SM	BROWN SANDY SILT TILL WITH SOME CLAY AND A TRACE OF GRAVEL.			2	10	53	33	4			
4									4							
5									5							
6									6							
8									8							
10									10							
12	2				SM				12	18	59	21	2			
14									14							
15									15							
16									16							
18	3				SM				18	8	39	41	12			
20						END OF HOLE AT 20'			20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY				
DWN:		FIELD ENG:		DATE DRILLED: 4/3/74		AIRPHOTO NO: A22771-6		CHAINAGE: 444 + 00		OFFSET:		ELEV: 566		TEST HOLE		
CKD:		TECH: W.R.		RIG: 1		SURFACE DRAINAGE: FAIR		VEGETATION: BF								
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS		WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	MILE	B,C,S	NUMBER
										CLAY %	SILT %					
2	1				Pt	PEAT	F	V _x	2							
4					ML	BROWN SILT WITH SOME CLAY AND A TRACE OF SAND.	UF	N _{bn}	4							
5									5							
6									6							
7									7							
8									8							
10					SP	LIGHT BROWN SAND WITH A TRACE OF SILT AND FINE GRAVEL	F	N _f	10							
12	2								12							
14									14							
15						END OF HOLE AT 15'			15							
16									16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG:		DATE DRILLED: 5/3/78		AIRPHOTO NO: A22771-6		CHAINAGE: 442 + 00		OFFSET:		TEST HOLE				
CKD:		TECH: R.G.		RIG: 2		SURFACE DRAINAGE: FAIR		VEGETATION: A		ELEV: 569						
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+						
2	1				SM	BROWN SILTY SAND TILL WITH SOME CLAY AND A TRACE OF GRAVEL.			2							
4									4							
5									5							
6									6							
8	2				SM				8							
10									10							
12	3				SM				12							
14									14							
15						END OF HOLE AT 15'			15							
16									16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
OWN:		FIELD ENG:		DATE DRILLED: 5/3/77		AERIAL PHOTO NO: A22771-6.		CHAINAGE: 439 + 00.		OFFSET:		TEST HOLE					
CKD:		TECH: R.G.		RIG: 2.		SURFACE DRAINAGE: FAIR.		VEGETATION: A.		ELEV: 568.							
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS	
										CLAY %	SILT %	SAND %	GRAVEL %				
2	1				SM	DARK BROWN SILTY SAND TILL WITH SOME CLAY AND A TRACE OF GRAVEL WITH A FEW COBBLES AND SMALL BOULDERS.			2								
4										4							
6										6							
8	2				SM				8								
10							F.	N _{bn}	10								
12	3				SM				12								
14									14								
15						SHALE FROM 14.5' to 15'			15								
16						END OF HOLE AT 15'			16								
18									18								
20									20								
22									22								
24									24								

[illegible]

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT										DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN:		FIELD ENG.		DATE DRILLED 5/3/71		AIR PHOTO NO: A22771-6.		CHAINAGE 428 + 00		OFFSET:		TEST HOLE																	
CKD:		TECH: R.G.		RIG: 1		SURFACE DRAINAGE: FAIR		VEGETATION: B		ELEV: 560		MILE		B,C,S		NUMBER													
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS													
										CLAY %	SILT %	SAND %	GRAVEL %																
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)																			
										PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+																			
2	1				Pt.	PEAT		Vx	2																				
4					ML	BROWN SILT WITH SOME CLAY AND SAND AND A TRACE OF GRAVEL			4																				
5									5																				
6									6																				
8	2				ML	BROWN SANDY SILT TILL WITH SOME CLAY AND A TRACE OF GRAVEL	F.	N _{bn}	8																				
10									10																				
12	3				ML				12																				
14									14																				
15						END OF HOLE AT 15'			15																				
16									16																				
18									18																				
20									20																				
22									22																				
24									24																				

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA		DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY												
DWN:	FIELD ENG:	DATE DRILLED 5/3/78	AIRPHOTO NO: A22771-6	CHAINAGE 417 + 00	OFFSET		TEST HOLE									
CKD:	TECH R.S.	RIG 1	SURFACE DRAINAGE GOOD	VEGETATION B	ELEV 560											
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
2	1				SM	BROWN SILTY SAND WITH SOME CLAY AND A TRACE OF GRAVEL.			2							
4									4							
5									5							
6									6							
8	2				ML	BROWN SANDY SILT TILL WITH SOME CLAY AND A TRACE OF BOULDERS	F.	N _{bn}	8							
10									10							
12	3				ML				12							
14									14							
15						END OF HOLE AT 15'			15							
16									16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA 4/3/73				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN:		FIELD ENG:		DATE DRILLED:		AIRPHOTO NO: A22771-8		CHAINAGE 508+50		OFFSET:		TEST HOLE					
CKD:		TECH: W.R.		RIG: 1		SURFACE DRAINAGE: POOR		VEGETATION: B E		ELEV 622							
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS	
										CLAY %	SILT %	SAND %	GRAVEL %				
						6" PEAT											
2	1				ML	SAND AND SILT TILL WITH SOME CLAY AND TRACES OF GRAVEL AND COBBLES.	F.	V _x	2		6	28	53	13			
4										4							
6	2				ML		UF			6							
8										8	17	38	45	0			
10									10								
12						BROWN GREY	F.	N _f	12								
14	3				ML				14	14	38	44	4				
16									16								
18									18								
20	4				SM				20	12	25	57	6				
22									22								
24									24								

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA						DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG.		DATE DRILLED		AIRPHOTO NO.		CHAINAGE		OFFSET		ELEV.		TEST HOLE		
CKD:		TECH.		RIG		SURFACE DRAINAGE		VEGETATION						MILE B,C,S NUMBER		
		W.R.-		I .		POOR .		B E .				622.		356. C A		
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND.	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY	SILT	SAND	GRAVEL			
										%	%	%	%			
2	5	/			ML		F	N _f	2							
4									4							
6						END OF HOLE AT 30'			6							
8									8							
10									10							
12									12							
14									14							
16									16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA		DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY												
DWN:		FIELD ENG:		DATE DRILLED: 4/3/78		AIRPHOTO NO: A22771-8		CHAINAGE: 507+30		OFFSET:		TEST HOLE				
CKD:		TECH: W.R.		RIG: 1		SURFACE DRAINAGE: GOOD		VEGETATION: A B D		ELEV: 622						
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT ——— LIQUID LIMIT 20 40 60 80 100 100+						
2	1				ML	SILT AND SAND TILL WITH SOME CLAY AND A TRACE OF GRAVEL		N _{bn}	2							
4									4							
6									6							
8	2				ML				8							
10						--- BROWN --- GREY			10							
12									12							
14	3				ML				14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA		DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY												
DWN:	FIELD ENG:	DATE DRILLED: 4/3/73	AIRPHOTO NO: A22771-8	CHAINAGE: 502+30	OFFSET:		TEST HOLE									
CKD:	TECH: W.R.	RIG: 1	SURFACE DRAINAGE: FAIR	VEGETATION: B E	ELEV: 612											
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+						
2					Pt.	PEAT		V x	2							
4	1				ML	SILT AND SAND TILL WITH SOME CLAY AND A TRACE OF GRAVEL BROWN --- GREY		N _{bn}	4							
6									6							
8	2				ML				8							
10									10							
12	3				ML				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT										DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN:		FIELD ENG:		DATE DRILLED: 4/3/73		AIRPHOTO NO: A22771-8		CHAINAGE: 495+00		OFFSET:		TEST HOLE																	
CKD:		TECH: W.R.		RIG: 1		SURFACE DRAINAGE: FAIR		VEGETATION: B D.		ELEV: 613																			
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS													
										CLAY %	SILT %	SAND %	GRAVEL %																
2	1				ML	SILT AND SAND TILL WITH SOME CLAY AND A TRACE OF GRAVEL.	F.	N _{bn}	2	15	42	40	3																
4																													
6																													
8	2				ML																								
10																													
12																													
14																													
16																													
18																													
20																													
22																													
24																													
26																													
28																													
30																													
15	END OF HOLE AT 15'								15	19	43	36	2																

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN:		FIELD ENG:		DATE DRILLED: 4/3/73		AIRPHOTO NO: A22771-6 -		CHAINAGE: 487+00 -		OFFSET:		TEST HOLE					
CKD:		TECH: W.R.		RIG: 1 -		SURFACE DRAINAGE: FAIR -		VEGETATION: B E -		ELEV: 588 -							
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.A.)	DRY DENSITY (P.C.F.)	REMARKS	
										CLAY %	SILT %	SAND %	GRAVEL %				
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)							
										PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+							
2	1				ML	SILT AND SAND TILL WITH SOME CLAY AND A TRACE OF GRAVEL --- BROWN --- GREY	F	V _x	2								
4								N _{bn}	4								
6									6								
8									8								
10									10								
12	2				ML				12								
14									14								
16						END OF HOLE AT 15'			16								
18									18								
20									20								
22									22								
24									24								

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG		DATE DRILLED 4/3/73		AIRPHOTO NO A22771-6.		CHAINAGE 477+00		OFFSET		TEST HOLE				
CKD:		TECH W.R.		RIG 1		SURFACE DRAINAGE FAIR		VEGETATION B D E		ELEV 591-		MILE 356. B,C,S C. NUMBER F.				
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
2	1				ML	BROWN SILT AND SAND TILL WITH SOME CLAY AND A TRACE OF GRAVEL			2							
4									4							
6									6							
8									8							
10									10							
12	2				ML				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG.	DATE DRILLED	AIRPHOTO NO.	CHAINAGE	OFFSET		TEST HOLE								
CKD		TECH	RIG	SURFACE DRAINAGE		VEGETATION		ELEV								
		M.H.R.	2.	FAIR.		B.		662								
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+						
2	1.				SM	BROWN SANDY SILT TILL WITH MINOR CLAY AND GRAVEL			2	8	33	44	15			
4									4							
6									6							
8	2.				SM		F	N _{bn}	8							
10									10							
12	3.				SM				12							
14									14	8	30	47	15			
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG.		DATE DRILLED: 4/3/73		AIRPHOTO NO. A22782-72		CHAINAGE: 550+20		OFFSET:		TEST HOLE				
CKD:		TECH: M.H.R.		RIG: 2		SURFACE DRAINAGE: POOR		VEGETATION: B		ELEV: 658		MILE: 357. B,C,S: C. NUMBER: B				
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
2	1				Pt	REDDISH BROWN PEAT			2							
4								V _x	4							
6								N _f	6							
8	2				Pt				8							
10									10							
12	3				Pt				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN:		FIELD ENG:		DATE DRILLED 4/3/73		AIRPHOTO NO: A22782-72 -		CHAINAGE: 535+00 -		OFFSET:					
CKD:		TECH: M.H.R.		RIG: 2.		SURFACE DRAINAGE: FAIR -		VEGETATION: A B.		ELEV: 650 -					
										TEST HOLE					
										MILE B,C,S NUMBER					
										357. C. C.					
										REMARKS					
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)
										CLAY	SILT	SAND	GRAVEL		
										%	%	%	%		
2	1				ML	GREYISH BROWN SANDY SILT TILL WITH SOME CLAY AND A TRACE OF GRAVEL.			2						
4									4						
6									6						
8	2				ML				8						
10									10						
12	3				ML				12						
14									14						
16						END OF HOLE AT 15'			16						
18									18						
20									20						
22									22						
24									24						

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
OWN:		FIELD ENG:		DATE DRILLED: 4/3/73		AIRPHOTO NO: A22782-72		CHAINAGE: 528+00-		OFFSET:		TEST HOLE				
CKD:		TECH: M.H.R.		RIG: 2		SURFACE DRAINAGE: FAIR		VEGETATION: A B		ELEV: 644						
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
2	1				SM	BROWN SILT AND SAND TILL WITH SOME CLAY AND A TRACE OF GRAVEL.			2	15	29	49	7			
4									4							
6									6							
8	2				ML		F	N _{bn}	8							
10									10	26	37	35	2			
12									12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG		DATE DRILLED 4/3/73		AIRPHOTO NO A22782-72		CHAINAGE 523+00		OFFSET		TEST HOLE				
CKD:		TECH M.H.R.		RIG 2		SURFACE DRAINAGE FAIR		VEGETATION A B		ELEV 634		MILE B,C,S NUMBER				
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
						PEAT		V _x		○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME) PLASTIC LIMIT 40 LIQUID LIMIT 60						
2	1				ML	BROWN CLAYEY SILT TILL WITH SAND AND A TRACE OF GRAVEL		N _{bn}	2							
4									4							
6	2				ML				6							
8									8							
10									10							
12	3				ML				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG.		DATE DRILLED 4/3/78		AIRPHOTO NO: A22782-71		CHAINAGE 619+00		OFFSET		TEST HOLE				
CKD		TECH: W.R.		RIG: 1		SURFACE DRAINAGE: GOOD		VEGETATION: A B E		ELEV 673		MILE B,C,S NUMBER				
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME) PLASTIC LIMIT 20 40 60 80 100 100+ LIQUID LIMIT																
2	1				ML	PEAT			2	11	42	44	3			
4						SILT AND SAND TILL WITH SOME CLAY AND A TRACE OF GRAVEL			4							
6									6							
8									8							
10						BROWN GREY			10							
12	2				ML				12	18	36	39	7			
14									14							
16									16	18	36	42	4			
18	3				ML				18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT										DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN:		FIELD ENG:		DATE DRILLED: 4/3/73		AIRPHOTO NO: A22782-71		CHAINAGE: 619+00		OFFSET:		TEST HOLE																	
CKD:		TECH: W.R.		RIG: 1		SURFACE DRAINAGE: GOOD		VEGETATION: A B E		ELEV: 673		MILE: 358		B,C,S: C		NUMBER: A													
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS													
										CLAY %	SILT %	SAND %	GRAVEL %																
2	4				ML			UF	2																				
4									4																				
6						END OF HOLE AT 30'			6																				
8									8																				
10									10																				
12									12																				
14									14																				
16									16																				
18									18																				
20									20																				
22									22																				
24									24																				

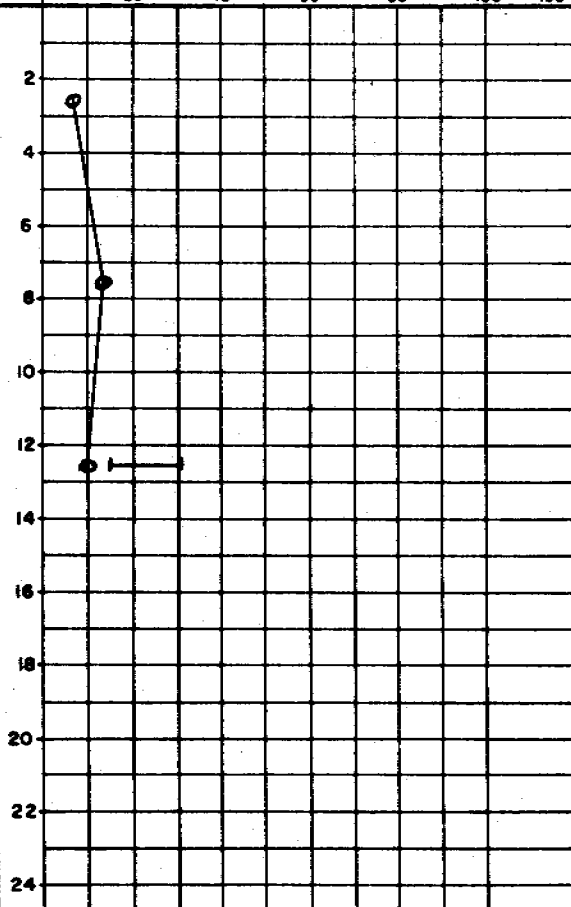
ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA		DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY												
DWN:	FIELD ENG:	DATE DRILLED: 4/3/73	AIRPHOTO NO: A22782-72	CHAINAGE: 610+50.	OFFSET:		TEST HOLE									
CKD:	TECH: M.H.R.	RIG: 2	SURFACE DRAINAGE: FAIR	VEGETATION: B	ELEV: 669											
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT 20 40 60 80 100 100+ LIQUID LIMIT 80 100 100+						
2	1				ML	BROWN SANDY SILT TILL WITH SOME CLAY AND A TRACE OF GRAVEL	F	N _{bn}	2							
4									4							
6									6							
8	2				ML				8							
10									10							
12	3				ML				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
OWN:		FIELD ENG:		DATE DRILLED: 4/3/73		AIRPHOTO NO: A22782-71 •		CHAINAGE: •593+00		OFFSET:		TEST HOLE				
CKD:		TECH: M.H.R.		RIG: 2 •		SURFACE DRAINAGE: FAIR •		VEGETATION: B •		ELEV: 667 •						
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
2	1				ML	BROWN SILT AND SAND TILL WITH SOME CLAY AND A TRACE OF GRAVEL	F.	Vp	2							
4							UF		4							
6									6							
8	2				ML				8							
10									10							
12	3				ML				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY				
DWN:		FIELD ENG:		DATE DRILLED: 4/3/73		AIRPHOTO NO: A22782-71		CHAINAGE: 586+00		OFFSET:		TEST HOLE				
CKD:		TECH: M.H.R.		RIG: 2		SURFACE DRAINAGE: FAIR		VEGETATION: B		ELEV: 667		MILE: 358. B.C.S. NUMBER: C.				
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
2	1				ML	BROWN SILT AND SAND TILL WITH SOME CLAY AND A TRACE OF GRAVEL	F	V _r	2							
4									4							
6									6							
8	2				SM		UF		8							
10									10							
12	3				ML				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

○ = WATER CONTENT (% OF DRY WEIGHT)
△ = ICE CONTENT (% OF SAMPLE VOLUME)

PLASTIC LIMIT 20 40 60 80 100 100+



12	33	43	12
22	37	34	7

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY				
OWN:		FIELD ENG:		DATE DRILLED: 4/3/73		AERPHOTO NO: A22782-71		CHAINAGE: 579+00		OFFSET:		TEST HOLE				
CKD:		TECH: M.H.R.		RIG: 2		SURFACE DRAINAGE: FAIR		VEGETATION: B		ELEV: 668						
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+						
2					Pt.	PEAT			2							
4	1				ML	BROWN SANDY SILT TILL WITH SOME CLAY AND A TRACE OF GRAVEL			4							
6									6							
8	2				ML				8							
10									10							
12	3				ML				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG:		DATE DRILLED: 4/3/73		AIRPHOTO NO: A22782-71		CHAINAGE: 570+00		OFFSET:		TEST HOLE				
CKD:		TECH: M.H.R.		RIG: 2		SURFACE DRAINAGE: FAIR		VEGETATION: A B		ELEV: 670		MILE: 358, B,C,S: C, NUMBER: F				
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
2	1				ML	BROWN SANDY SILT TILL WITH SOME CLAY AND A TRACE OF GRAVEL.	F	V _r	2							
4									4							
6									6							
8	2				ML				8							
10									10							
12	3				ML				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN:		FIELD ENG.		DATE DRILLED: 4/3/73		AIRPHOTO NO: A22782-70		CHAINAGE: 671+20		OFFSET		TEST HOLE									
CKD:		TECH: R.G.		RIG: 2		SURFACE DRAINAGE: FAIR		VEGETATION: B		ELEV: 691		MILE: 359		B,C,S: C		NUMBER: A					
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS					
										CLAY %	SILT %	SAND %	GRAVEL %								
2	1				SM	BROWN SILTY SAND TILL WITH SOME CLAY AND GRAVEL			2	10	32	46	12								
4									4												
6	2				ML	BROWN SILT AND SAND TILL WITH SOME CLAY AND A TRACE OF GRAVEL	F.	N _{bn}	6	15	38	43	4								
8									8												
10									10												
12	3				ML				12	20	38	38	4								
14									14												
16						END OF HOLE AT 15'			16												
18									18												
20									20												
22									22												
24									24												

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG:		DATE DRILLED: 4/3/73		AIRPHOTO NO: A22782-70		CHAINAGE: 661+00		OFFSET:		TEST HOLE						
CKD:		TECH: R.G.		RIG: 2		SURFACE DRAINAGE: FAIR		VEGETATION: A		ELEV: 694								
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS		
										CLAY %	SILT %	SAND %	GRAVEL %					
2	1				ML	BROWN SILT AND SAND TILL WITH SOME CLAY AND A TRACE OF GRAVEL	F	N _{bn}	2									
4									4									
6	2				ML				6									
8									8									
10									10									
12	3				ML				12									
14									14									
16						END OF HOLE AT 15'			16									
18									18									
20									20									
22									22									
24									24									

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG:		DATE DRILLED: 4/3/79		AIRPHOTO NO: A22782-68		CHAINAGE: 729+00		OFFSET:		TEST HOLE				
CKD:		TECH: R.S.		RIG: 1		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV: 668						
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+						
2	1				ML	BROWN SILT AND SAND TILL WITH SOME CLAY AND A TRACE OF GRAVEL COBBLES AND SMALL BOULDERS			2							
4									4							
6									6							
8	2				ML		F	N _{bn}	8	21	37	30	12			
10									10							
12	3				ML				12	23	38	34	5			
14									14							
16	4				ML				16							
18									18							
20						END OF HOLE AT 20'			20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA						DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY							
DWN:		FIELD ENG:		DATE DRILLED: 4/3/79		AIRPHOTO NO: A22782-68		CHAINAGE: 720+20		OFFSET:		TEST HOLE					
CKD:		TECH R.S.		RIG 1		SURFACE DRAINAGE FAIR		VEGETATION: B		ELEV 670							
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS	
										CLAY %	SILT %	SAND %	GRAVEL %				
						BROWN SILT AND SAND TILL WITH SOME CLAY AND A TRACE OF GRAVEL	F	N _{bn}									
2	1				ML				2								
4									4								
6									6								
8	2				ML				8								
10									10								
12	3				ML				12								
14									14								
16						END OF HOLE AT 15'			16								
18									18								
20									20								
22									22								
24									24								

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY											
DWN:		FIELD ENG:		DATE DRILLED: 4/3/73		AIRPHOTO NO: A22782-68		CHAINAGE: 708+00		OFFSET:		TEST HOLE							
CKD:		TECH: R.G.		RIG: 2		SURFACE DRAINAGE: FAIR		VEGETATION: A		ELEV: 683									
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS			
										CLAY %	SILT %	SAND %	GRAVEL %						
2	1				ML	BROWN SANDY SILT TILL WITH SOME CLAY AND A TRACE OF GRAVEL	F	N _{bn}	2	○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME) PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+									
4												4							
6	2				ML							6							
8									8										
10									10										
12	3				ML				12										
14									14										
16						END OF HOLE AT 15'			16										
18									18										
20									20										
22									22										
24									24										

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG:	DATE DRILLED	AIRPHOTO NO:	CHAINAGE	OFFSET		TEST HOLE								
CKD:		TECH: R.G.	RIG: 2	SURFACE DRAINAGE: FAIR		VEGETATION: A		ELEV: 685								
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
2	1				ML	BROWN SILT AND SAND TILL WITH SOME CLAY AND A TRACE OF GRAVEL			2	14	42	43	1			
4									4							
6									6							
8	2				ML		F	N _{bn}	8	13	35	45	7			
10									10							
12	3				ML				12	13	30	40	17			
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY			
DWN:		FIELD ENG		DATE DRILLED: 4/3/73		AIRPHOTO NO: A22782-68		CHAINAGE: 696+00		OFFSET	
CKD		TECH: R.G.		RIG: 2		SURFACE DRAINAGE: FAIR		VEGETATION: A		ELEV: 681	

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS					WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	TEST HOLE		
										CLAY	SILT	SAND	GRAVEL	MILE			B,C,S	NUMBER	
																			%

○ = WATER CONTENT (% OF DRY WEIGHT)
△ = ICE CONTENT (% OF SAMPLE VOLUME)

PLASTIC LIMIT 40 LIQUID LIMIT 80

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG:		DATE DRILLED: 4/3/73		AIRPHOTO NO: A22782-68		CHAINAGE: 693+50		OFFSET:		TEST HOLE				
CKD:		TECH: R.G.		RIG: 2		SURFACE DRAINAGE: FAIR		VEGETATION: B		ELEV: 681						
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
2	1				ML	BROWN SILT AND SAND TILL WITH SOME CLAY AND A TRACE OF GRAVEL	F	N _{bn}	2							
4									4							
6	2				ML				6							
8									8							
10									10							
12	3				ML				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN:		FIELD ENG.	DATE DRILLED	AIRPHOTO NO.	CHAINAGE	OFFSET		TEST HOLE							
CKD	TECH	R.G.	RIG	SURFACE DRAINAGE	FAIR	VEGETATION	A	ELEV	685						
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS	WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS		
										CLAY	SILT	SAND	GRAVEL		
										%	%	%	%		
2	1				ML	SILT AND SAND TILL WITH SOME CLAY AND A TRACE OF GRAVEL			2						
4									4						
6									6						
8	2				ML				8						
10									10						
12	3				ML	BROWN GREY			12						
14									14						
16						END OF HOLE AT 15'			16						
18									18						
20									20						
22									22						
24									24						

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG.	DATE DRILLED	AIRPHOTO NO:	CHAINAGE	OFFSET		TEST HOLE								
CKD:		TECH: R.G.	RIG: 2	SURFACE DRAINAGE FAIR		VEGETATION: A		ELEV. 661								
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY	SILT	SAND	GRAVEL			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+						
2	1				ML	BROWN SILT AND SAND TILL WITH SOME CLAY AND A TRACE OF GRAVEL	F	N _{dn}	2							
4									4							
6									6							
8	2				ML				8							
10									10							
12	3				ML				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG:		DATE DRILLED: 4/3/73		AIRPHOTO NO: A22782-67		CHAINAGE: 761+00		OFFSET:		TEST HOLE				
CKD:		TECH: R.S.		RIG: 1		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV: 665						
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+						
2	1				SM	BROWN SILT AND SAND TILL WITH SOME CLAY AND GRAVEL	F	N _{bn}	2	9	39	45	7			
4									4							
6									6							
8	2				SM				8	8	35	46	11			
10									10							
12	3				ML				12	19	38	39	4			
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG:		DATE DRILLED: 4/3/73		AIRPHOTO NO: A22782-67		CHAINAGE: 753+20		OFFSET:		TEST HOLE						
CKD:		TECH: R.S.		RIG: 1		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV: 666								
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS		
										CLAY %	SILT %	SAND %	GRAVEL %					
2	1				ML	BROWN SANDY SILT TILL WITH SOME CLAY AND TRACES OF GRAVEL, COBBLES AND SMALL BOULDERS	F	N _{bn}	2	○								
4									4									
6									6									
8	2				ML				8	○								
10									10									
12	3				ML				12	○								
14									14									
16						END OF HOLE AT 15'			16									
18									18									
20									20									
22									22									
24									24									

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
OWN:		FIELD ENG		DATE DRILLED		AIRPHOTO NO.		CHAINAGE		OFFSET		TEST HOLE				
CKD		TECH: R.S.		RIG: 1		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV: 666						
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY	SILT	SAND	GRAVEL			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+						
2	1				ML	BROWN SILT AND SAND TILL WITH SOME CLAY AND A TRACE OF GRAVEL			2							
4									4							
6									6							
8	2				ML		F	Nbn	8							
10									10							
12	3				ML				12							
14									14							
16	4				ML				16							
18									18							
20						END OF HOLE AT 20'			20							
22									22							
24									24							

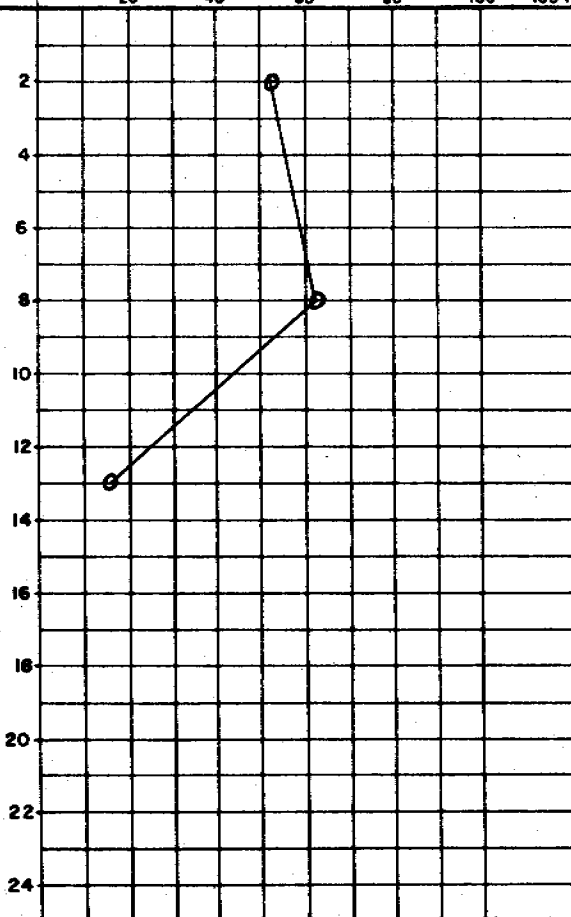
ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN:		FIELD ENG:		DATE DRILLED		AIRPHOTO NO		CHAINAGE		OFFSET		TEST HOLE					
CKD		TECH: R.S.		RIG: 1		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV: 668							
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS	
										CLAY %	SILT %	SAND %	GRAVEL %				
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)							
										PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+							
2	1				ML	BROWN SILT AND SAND TILL WITH SOME CLAY AND A TRACE OF GRAVEL	F	N _{brl}	2								
4																	
6																	
8	2				ML				8								
10																	
12																	
14	3				ML				14								
16																	
18																	
20									20								
22									22								
24									24								
END OF HOLE AT 15'																	

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG:		DATE DRILLED: 3/3/73		AIRPHOTO NO: A22782-65		CHAINAGE: 820+00		OFFSET:		TEST HOLE						
CKD:		TECH: R.G.		RIG: 2		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV: 628								
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS		
										CLAY %	SILT %	SAND %	GRAVEL %					
2	1				SM	BROWN SILTY SAND TILL WITH SOME CLAY AND GRAVEL	F	N _{dn}	2					14	27	45	14	
4									12	39	40	9						
6									8	33	41	18						
8	2				SM				8									
10																		
12																		
14	3				SM				14									
16																		
18																		
20						END OF HOLE AT 15'			20									
22																		
24																		

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG:		DATE DRILLED: 4/3/77		AIRPHOTO NO: A22782-65		CHAINAGE: 816+00		OFFSET:		TEST HOLE		
CKD:		TECH: R.S.		RIG: 1		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV: 603				
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS		WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %			
2	1				Pt	PEAT	F	V _x	2					
4									4					
6									6					
8	2				Pt				8					
10							UF		10					
12	3				ML	SILT AND SAND TILL WITH SOME CLAY AND A TRACE OF GRAVEL			12					
14									14					
16									16					
18	4				ML				18					
20						END OF HOLE AT 20'			20					
22									22					
24									24					

○ = WATER CONTENT (% OF DRY WEIGHT)
△ = ICE CONTENT (% OF SAMPLE VOLUME)

PLASTIC LIMIT 40 60 80 100 100+
LIQUID LIMIT 80 100 100+



ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG:		DATE DRILLED: 4/3/73		AIRPHOTO NO: A22782-65		CHAINAGE: 813+00		OFFSET:		TEST HOLE				
CKD:		TECH: R.G.		RIG: 2		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV: 629						
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+						
2	1				SW	BROWN SAND WITH SOME SILT AND GRAVEL			2	2	11	68	19			
4									4							
6									6							
8	2				SM	BROWN SILTY SAND TILL WITH SOME CLAY AND MINOR GRAVEL	F	N _{bn}	8	10	27	54	9			
10									10							
12	3				SM				12	12	26	53	9			
14									14							
16									16							
18	4				SM				18	12	22	60	6			
20									20							
22						END OF HOLE AT 20'			22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA						DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY							
DWN:		FIELD ENG:		DATE DRILLED: 4/3/73		AIRPHOTO NO: A22782-65		CHAINAGE: 804+10		OFFSET:		TEST HOLE					
CKD:		TECH: R.G.		RIG: 2		SURFACE DRAINAGE: FAIR		VEGETATION: B		ELEV: 639		MILE: 362		B,C,S: C		NUMBER: D	
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS	
										CLAY %	SILT %	SAND %	GRAVEL %				
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)							
										PLASTIC LIMIT ——— LIQUID LIMIT 20 40 60 80 100 100+							
2	1				ML	BROWN SILT AND SAND TILL WITH SOME CLAY AND GRAVEL	F	N _{bn}	2	9	39	41	11				
4									4								
6									6								
8	2				SM				8	10	32	39	19				
10									10								
12	3				ML				12	12	38	35	15				
14									14								
16						END OF HOLE AT 15'			16								
18									18								
20									20								
22									22								
24									24								

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY											
DWN:		FIELD ENG:		DATE DRILLED: 3/3/72		AIRPHOTO NO: A22782-64		CHAINAGE: 885+00		OFFSET:		TEST HOLE					
CKD:		TECH: R.S.		RIG: 1		SURFACE DRAINAGE: FAIR		VEGETATION: B		ELEV: 605							
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS	
										CLAY %	SILT %	SAND %	GRAVEL %				
2	1				SM	BROWN SILTY SAND TILL WITH SOME GRAVEL AND TRACES OF CLAY, COBBLES AND SMALL BOULDERS	F		2	7	31	44	18				
4									4								
6	2				SM				6								
8									8	7	35	50	8				
10									10								
12	3				SM				12								
14									14	1136	38	15					
16						END OF HOLE AT 15'			16								
18									18								
20									20								
22									22								
24									24								

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA		DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY														
DWN:	FIELD ENG:	DATE DRILLED: 3/3/73	AIRPHOTO NO: A22782-64	CHAINAGE: 878+50	OFFSET:		TEST HOLE											
CKD:	TECH: R.S.	RIG: 1	SURFACE DRAINAGE: GOOD	VEGETATION: A	ELEV: 586													
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS		
										CLAY	SILT	SAND	GRAVEL					
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)								
										PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+								
2					Pt	PEAT		V _x	2									
4	1				ML	BROWN SILT AND SAND TILL WITH SOME CLAY AND TRACES OF GRAVEL, COBBLES AND SMALL BOULDERS	F	N _{bn}	4									
6					ML				6									
8	2				ML				8									
10					ML				10									
12	3				ML				12									
14									14									
16						END OF HOLE AT 15'			16									
18									18									
20									20									
22									22									
24									24									

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA						DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY							
DWN:		FIELD ENG:		DATE DRILLED:		AIRPHOTO NO: A22782-64		CHAINAGE		877+00		OFFSET:		TEST HOLE			
CKD:		TECH R.G.		RIG 2		SURFACE DRAINAGE		GOOD		VEGETATION: A		ELEV 606					
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS	
										CLAY %	SILT %	SAND %	GRAVEL %				
						BROWN SILT AND SAND TILL WITH SOME CLAY AND A TRACE OF GRAVEL AND OF COBBLES	F	N _{bn}		○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)							
2	1				ML				2								
4									4								
6									6								
8	2				ML				8								
10									10								
12	3				ML				12								
14									14								
16						END OF HOLE AT 15'			16								
18									18								
20									20								
22									22								
24									24								

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA		DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY														
DWN:	FIELD ENG:	DATE DRILLED: 3/3/72	AIRPHOTO NO: A22782-64	CHAINAGE: 866+00	OFFSET:		TEST HOLE											
CKD:	TECH: R.G.	RIG: 2	SURFACE DRAINAGE: FAIR	VEGETATION: A	ELEV: 614													
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS		
										CLAY %	SILT %	SAND %	GRAVEL %					
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)								
										PLASTIC LIMIT 40 LIQUID LIMIT 80								
2	1				ML	BROWN SILT AND SAND TILL WITH SOME CLAY AND GRAVEL	F	N _{bn}	2									
4									4									
6									6									
8	2				SM				8									
10									10									
12	3				ML				12									
14									14									
16						END OF HOLE AT 15'			16									
18									18									
20									20									
22									22									
24									24									

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY			
DWN:		FIELD ENG:		DATE DRILLED: 3/3/73		AIRPHOTO NO: A22782-64		CHAINAGE: 841+00		OFFSET:	
CKD:		TECH: R.G.		RIG: 2		SURFACE DRAINAGE: FAIR		VEGETATION: B		ELEV. 618	

TEST HOLE		
MILE	B,C,S	NUMBER
363	C	E
REMARKS		

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)			
										CLAY	SILT	SAND	GRAVEL					
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)								
										PLASTIC LIMIT ——— LIQUID LIMIT 20 40 60 80 100 100+								
										%	%	%	%					
2	1				ML	BROWN SILT AND SAND TILL WITH SOME CLAY AND TRACES OF GRAVEL AND COBBLES	F	N _{bn}	2									
4											4							
6											6							
8	2				ML				8									
10									10									
12	3				ML				12									
14									14									
16						END OF HOLE AT 15'			16									
18									18									
20									20									
22									22									
24									24									

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA 3/3/73										DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY				
DWN:		FIELD ENG:		DATE DRILLED:		AIRPHOTO NO: A22782-62		CHAINAGE: 936+00		OFFSET:		TEST HOLE				
CKD:		TECH: R.G.		RIG: 2		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV: 611		MILE B,C,S NUMBER				
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY	SILT	SAND	GRAVEL			
2	1				SP	BROWN SAND WITH TRACES OF SILT, CLAY AND FINE GRAVEL			2	3	9	87	1			
4									4							
6									6							
8	2				SM	BROWN SILTY SAND TILL WITH TRACES OF CLAY GRAVEL AND COBBLES	F	N _{dn}	8	4	37	47	12			
10									10							
12									12							
14	3				SM				14	3	38	53	6			
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT										DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN:		FIELD ENG:		DATE DRILLED: 3/3/73		AIRPHOTO NO: A22782-62		CHAINAGE: 932+00		OFFSET:		TEST HOLE																	
CKD:		TECH: R.G.		RIG: 2		SURFACE DRAINAGE: GOOD				VEGETATION: A				ELEV: 607		MILE: 364		B,C,S: C		NUMBER: B									
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS		WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS															
										CLAY %	SILT %				SAND %	GRAVEL %													
2	1				SP	LIGHT BROWN SAND WITH TRACES OF CLAY AND SILT	F	N _{bn}	2																				
4									4																				
6									6																				
8	2				SP				8																				
10									10																				
12	3				SP	BROWN SILTY SAND TILL WITH TRACES OF CLAY GRAVEL AND COBBLES	UF		12																				
14									14																				
16						END OF HOLE AT 15'			16																				
18									18																				
20									20																				
22									22																				
24									24																				

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG:		DATE DRILLED: 3/3/72		AIRPHOTO NO: A22782-62		CHAINAGE: 928+00		OFFSET:		TEST HOLE				
CKD:		TECH: R.G.		RIG: 2		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV: 608						
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
2	1				SP	BROWN SAND WITH TRACES OF SILT AND CLAY		N _{bn}	2							
4									4							
6									6							
8	2				SP		F	N _f	8							
10									10							
12	3				SP	SILTY SAND TILL WITH TRACES OF CLAY AND GRAVEL - BROWN - GREY		N _{bn}	12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA						DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG:		DATE DRILLED: 3/3/73		AIRPHOTO NO: A22782-62		CHAINAGE: 924+00		OFFSET:		TEST HOLE				
CKD:		TECH: R.S.		RIG: 1		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV: 606						
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT ——— LIQUID LIMIT 20 40 60 80 100 100+						
2	1				SM	SAND WITH SOME SILT AND TRACES OF CLAY AND FINE GRAVEL			2							
4																
6																
8	2				SM		F	N _{bn}	8		2	26	71	1		
10																
12	3				SM				12							
14																
16																
18	4				SM				18		2	24	73	1		
20						END OF HOLE AT 20'			20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG:		DATE DRILLED 3/3/73		AIRPHOTO NO: A22782-62		CHAINAGE 921+00		OFFSET:		TEST HOLE				
CKD:		TECH: R.S.		RIG: 1		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV: 610						
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
2	1				SM	SILTY SAND WITH TRACES OF CLAY AND GRAVEL		N _{bn}	2							HOLE CAVING IN BADLY AT 10 FT.
4									4							
6	2				SM		F		6							
8									8							
10						END OF HOLE AT 10'			10							
12									12							
14									14							
16									16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN:		FIELD ENG:		DATE DRILLED: 3/3/73		AIRPHOTO NO: A22782-62		CHAINAGE: 916+00		OFFSET:		TEST HOLE					
CKD:		TECH: R.G.		RIG: 2		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV: 614							
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS	
										CLAY	SILT	SAND	GRAVEL				
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						MILE 364 B,C,S C NUMBER F	
										PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+							
2	1				SW	LIGHT BROWN COARSE SAND			2								
4									4								
6						BROWN SILTY SAND	F	N _{bn}	6								
8	2				SW				8								
10						END OF HOLE AT 9'			10								
12									12								
14									14								
16									16								
18									18								
20									20								
22									22								
24									24								

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA					DRILL HOLE REPORT			DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY						
DWN:		FIELD ENG:		DATE DRILLED: 3/3/73		AIRPHOTO NO: A22782-62		CHAINAGE: 913+00		OFFSET:		TEST HOLE		
CKD:		TECH: R.G.		RIG: 2		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV: 612				
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS		WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %			
2	1				ML	BROWN SILT AND SAND TILL WITH SOME CLAY AND A TRACE OF GRAVEL			2					
4									4					
6									6					
8	2				ML		F	N _{bn}	8					
10									10					
12	3				ML				12					
14									14					
16						END OF HOLE AT 15'			16					
18									18					
20									20					
22									22					
24									24					

○ = WATER CONTENT (% OF DRY WEIGHT)
 △ = ICE CONTENT (% OF SAMPLE VOLUME)

PLASTIC LIMIT 20 40 60 80 100 100+
 LIQUID LIMIT

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG:		DATE DRILLED: 3/3/73		AIRPHOTO NO: A22782-62		CHAINAGE: 908+15		OFFSET:						
CKD:		TECH: R.S.		RIG: 1		SURFACE DRAINAGE: Pair		VEGETATION: B		ELEV: 597						
TEST HOLE		MILE		B,C,S		NUMBER		REMARKS								
364		C		H												
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	
										CLAY %	SILT %	SAND %	GRAVEL %			
2					Pt	PEAT		V _x	2							
4									4							
6						BROWN SILTY SAND			6							
8	2				SM		F	N _{bn}	8							
10									10							
12						GREY SILT AND SAND			12							
14	3				ML				14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY					
DWN:		FIELD ENG		DATE DRILLED 3/3/73		AIRPHOTO NO: A22782-62		CHAINAGE 900+00		OFFSET		TEST HOLE	
CKD:		TECH: R.S.		RIG: 1		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV: 598			

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY	SILT	SAND	GRAVEL			
										%	%	%	%			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+						
2	1				SM	SILTY SAND WITH A TRACE OF GRAVEL			2							
4									4							
6									6							
8	2						F	N _{bn}	8							
10						SILT AND SAND TILL WITH SOME CLAY AND A TRACE OF GRAVEL			10							
12	3								12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA						DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY											
DWN:		FIELD ENG:		DATE DRILLED: 7/3/73		AIRPHOTO NO: A22782-61		CHAINAGE: 997+00		OFFSET:											
CKD:		TECH: W.R.		RIG: 1		SURFACE DRAINAGE: GOOD		VEGETATION: A B		ELEV: 602		TEST HOLE									
												MILE		B,C,S		NUMBER					
												365		C		A					
																REMARKS					
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)				GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)		
										PLASTIC LIMIT	LIQUID LIMIT										
										20	40	60	80	100	100+	%	%	%	%		
2	1				ML	BROWN SANDY SILT TILL WITH A TRACE OF CLAY AND GRAVEL	F	N _{bn}	2							5	49	43	3		
4									4												
6									6												
8	2				ML				8												
10									10												
12									12							7	61	28	4		
14	3				ML				14												
16									16												
18									18												
20									20												
22									22												
24									24												

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY					
DWN:		FIELD ENG:		DATE DRILLED: 3/3/73		AIRPHOTO NO: A22782-61		CHAINAGE: 994+00		OFFSET:		TEST HOLE	
CKD:		TECH: R.S.		RIG: 1		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV: 587			

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+						
2	1				ML	SANDY SILT TILL WITH SOME CLAY AND A TRACE OF GRAVEL	F	N _{dn}	2							
4									4							
6	2				ML				6							
8									8							
10									10							
12	3				ML				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG:	DATE DRILLED: 3/3/73	AIRPHOTO NO: A22782-61	CHAINAGE: 988+20	OFFSET:		TEST HOLE								
CKD:		TECH: R.S.	RIG: 1	SURFACE DRAINAGE: GOOD	VEGETATION: A	ELEV: 602										
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT 20 40 60 80 100 100+						
2	1				SM	SILT AND SAND WITH A TRACE OF CLAY AND GRAVEL			2							
4									4							
6									6							
8	2				SM		F	N _{bn}	8							
10									10							
12	3				SM				12							
14									14							
16									16							
18	4				SM				18							
20									20							
22						END OF HOLE AT 20'			22							
24									24							

[illegible]

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG:		DATE DRILLED: 3/3/73		AIRPHOTO NO: A22782-61		CHAINAGE: 976+80		OFFSET:		TEST HOLE				
CKD:		TECH: R.S.		RIG: 1		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV: 586						
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+						
2	1				ML	SILT AND SAND WITH A TRACE OF CLAY AND GRAVEL			2							
4									4							
6									6							
8	2				ML		F	N _{bn}	8							
10									10							
12	3				ML				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG	DATE DRILLED	AIRPHOTO NO	CHAINAGE	OFFSET		TEST HOLE								
CKD		TECH	RIG	SURFACE DRAINAGE		VEGETATION		ELEV								
		R.S.	1	GOOD		A		595								
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY	SILT	SAND	GRAVEL			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+						
2	1				SM	BROWN SILTY SAND TILL WITH SOME GRAVEL			2							
4									4							
6									6							
8	2				SM		F	N _{bn}	8							
10									10							
12	3				SM				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
OWN:		FIELD ENG		DATE DRILLED		AIRPHOTO NO		CHAINAGE		OFFSET		TEST HOLE				
CKD		TECH R.S.		RIG		SURFACE DRAINAGE		VEGETATION		ELEV		MILE B,C,S NUMBER				
				3/3/73		A22782-61		961+50				365 C G				
				1		GOOD		A		595		REMARKS				
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	
										CLAY	SILT	SAND	GRAVEL			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+						
2	1				SW	FINE SAND WITH SOME GRAVEL			2							
4									4							
6	2				SW	SILTY SAND TILL WITH A TRACE OF CLAY AND GRAVEL			6							
8									8							
10									10							
12	3				SM				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY												
DWN:		FIELD ENG:		DATE DRILLED: 3/3/73		AIRPHOTO NO: A22782-61		CHAINAGE: 949+50		OFFSET:										
CKD:		TECH: R.G.		RIG: 2		SURFACE DRAINAGE: FAIR		VEGETATION: B		ELEV: 602										
										TEST HOLE										
										<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:33%;">MILE</td> <td style="width:33%;">B,C,S</td> <td style="width:33%;">NUMBER</td> </tr> <tr> <td>365</td> <td>C</td> <td>H</td> </tr> </table>		MILE	B,C,S	NUMBER	365	C	H			
MILE	B,C,S	NUMBER																		
365	C	H																		
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)				GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+				CLAY %	SILT %	SAND %	GRAVEL %			
2	1				SM	BROWN SILT AND SAND TILL WITH A TRACE OF CLAY AND GRAVEL			2											
4								4												
6							F	N _{bn}	6											
8	2				SM				8											
10									10											
12	3				SM				12											
14									14											
16						END OF HOLE AT 15'			16											
18									18											
20									20											
22									22											
24									24											

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA		DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY												
DWN:	FIELD ENG	DATE DRILLED 3/3/73	AIRPHOTO NO. A22782-61	CHAINAGE 946+50	OFFSET		TEST HOLE									
CKD:	TECH R.G.	RIG 2	SURFACE DRAINAGE FAIR	VEGETATION: A	ELEV: 604											
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT 20 40 60 80 100 100+ LIQUID LIMIT 80 100 100+						
2	1				SM	BROWN SILTY SAND TILL WITH A TRACE OF GRAVEL AND CLAY			2							
4									4							
6									6							
8	2				SM		F	N _{bn}	8							
10									10							
12	3				SM				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
OWN:		FIELD ENG:		DATE DRILLED: 3/3/73		AIRPHOTO NO: A22782-61		CHAINAGE: 946+00		OFFSET:		TEST HOLE				
CKD:		TECH: R.G.		RIG: 2		SURFACE DRAINAGE: GOOD		VEGETATION: A B		ELEV: 604						
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
2	1				SM	BROWN SILTY SAND TILL WITH A TRACE OF CLAY AND SOME GRAVEL			2							
4									4							
6									6							
8	2				SM		F	N _{bn}	8							
10									10							
12	3				SM				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA						DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY																					
DWN:		FIELD ENG		DATE DRILLED 2/3/72		AIRPHOTO NO. A22771-24		CHAINAGE 1052+00		OFFSET																					
CKD:		TECH M.H.R.		RIG 2		SURFACE DRAINAGE FAIR		VEGETATION A		ELEV 595		TEST HOLE																			
												MILE 366		B,C,S C		NUMBER A															
DEPTH (FEET)		SAMPLE NUMBER		SAMPLE TYPE		% RECOVERY		PENETRATION RESISTANCE		UNIFIED SOIL SYMBOL		SOIL DESCRIPTION		LIMITS OF FROZEN GROUND		ICE DESCRIPTION		DEPTH (FEET)		PLASTIC LIMIT		LIQUID LIMIT		GRAIN-SIZE ANALYSIS		WET DENSITY (P.C.F.)		DRY DENSITY (P.C.F.)		REMARKS	
2		1								SM		BROWN SILT AND SAND TILL WITH A TRACE OF CLAY AND GRAVEL						2		4		39		48		9					
4																		4													
6																		6													
8		2								ML				F		N _{bn}		8		7		45		39		9					
10																		10													
12		3								SM								12		6		43		41		10					
14																		14													
16												END OF HOLE AT 15'						16													
18																		18													
20																		20													
22																		22													
24																		24													

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG.	DATE DRILLED	AIRPHOTO NO	CHAINAGE	OFFSET		TEST HOLE								
CKD:		TECH: W.R.	RIG: 1	SURFACE DRAINAGE: GOOD		VEGETATION: A B		ELEV: 601								
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME) PLASTIC LIMIT 20 40 60 80 100 100+ LIQUID LIMIT 80 100 100+ 20 40 60 80 100 100+																
2	1				SM	SILT AND SAND TILL WITH A TRACE OF CLAY AND GRAVEL			2							
4									4							
6									6							
8									8							
10							F	N _{bn}	10							
12	2				SM				12							
14									14							
16									16							
18	3				SM				18							
20						BROWN GREY			20							
22	4				SM				22							
24							UF		24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT					DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN:		FIELD ENG.		DATE DRILLED: 2/3/73		AIRPHOTO NO: A22771-24		CHAINAGE: 1046+00		OFFSET:		TEST HOLE												
CKD:		TECH: W.R.		RIG: 1		SURFACE DRAINAGE: GOOD		VEGETATION: A B		ELEV: 601		MILE: 366		B,C,S: C		NUMBER: B								
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS								
										CLAY %	SILT %	SAND %	GRAVEL %											
2	5				SM		UF		2															
4									4															
6						END OF HOLE AT 30'			6															
8									8															
10									10															
12									12															
14									14															
16									16															
18									18															
20									20															
22									22															
24									24															

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG	DATE DRILLED	AIRPHOTO NO	CHAINAGE	OFFSET		TEST HOLE								
CKD		TECH	RIG	SURFACE DRAINAGE		VEGETATION		ELEV								
		W. R.	1	GOOD		A B		615								
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY	SILT	SAND	GRAVEL			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+						
2					SM	BROWN SILTY SAND			2							
4	1				ML	BROWN AND GREY SILT AND SAND TILL WITH A TRACE OF CLAY AND GRAVEL	F	N _{bn}	4							
6									6							
8	2				ML				8							
10									10							
12	3				ML				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA						DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY							
DWN:		FIELD ENG		DATE DRILLED		AIRPHOTO NO.		CHAINAGE		OFFSET		TEST HOLE					
CKD		TECH W.R.		RIG 1		SURFACE DRAINAGE POOR		VEGETATION B E		ELEV 626							
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS	
										CLAY %	SILT %	SAND %	GRAVEL %				
					SM	BROWN SILTY SAND											
2	1				ML	GREY SILT AND SAND TILL WITH A TRACE OF CLAY AND GRAVEL	F	N _{bn}	2	7	52	37	4				
4									4								
6									6								
8									8								
10									10								
12	2				SM				12	6	40	50	4				
14									14								
16						END OF HOLE AT 15'			16								
18									18								
20									20								
22									22								
24									24								

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG		DATE DRILLED 2/3/73		AIRPHOTO NO A22771-22		CHAINAGE 1016+00		OFFSET		TEST HOLE				
CKD		TECH W.R.		RIG 2		SURFACE DRAINAGE FAIR		VEGETATION A B		ELEV 620						
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
					SM	BROWN SILTY SAND										
2									2							
4	1				ML	GREY SILT AND SAND TILL WITH A TRACE OF CLAY AND GRAVEL			4							
6									6							
8	2				ML				8							
10									10							
12	3				ML				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA 2/3/73				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG	DATE DRILLED	AIRPHOTO NO. A22771-22	CHAINAGE	1008+00	OFFSET									
CKD		TECH W.R.	RIG 1	SURFACE DRAINAGE GOOD		VEGETATION A B	ELEV: 596									
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY	SILT	SAND	GRAVEL			
										○ = WATER CONTENT (% OF DRY WEIGHT)						
										△ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT 20 40 60 80 100 100+						
2	1				Pt	BLACK PEAT	F	V _x	2							
4					ML	BROWN AND GREY SILT AND SAND TILL WITH A TRACE OF CLAY AND GRAVEL	UF		4							
6	2				ML				6							
8									8							
10									10							
12	3				SM		F	N _{bn}	12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT										DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DOWN:		FIELD ENG.		DATE DRILLED		AIRPHOTO NO.		CHAINAGE		OFFSET		TEST HOLE																	
CKD:		TECH.		RIG		SURFACE DRAINAGE		GOOD		VEGETATION		ELEV.		MILE		B,C,S		NUMBER											
		R.G.		2						A		559		367		C		A											
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS													
										CLAY %	SILT %	SAND %	GRAVEL %																
2	1				SM	BROWN SILT AND SAND TILL WITH A TRACE OF CLAY AND GRAVEL			2	4	44	46	6																
4									4																				
6	2				SM		F	N _{bn}	6																				
8									8	7	42	49	2																
10									10																				
12	3				SM	BROWN SILTY SAND TILL WITH SOME GRAVEL AND A TRACE OF CLAY			12	3	27	51	19																
14									14																				
16									16																				
18									18																				
20									20																				
22									22																				
24									24																				

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG:	DATE DRILLED	AIRPHOTO NO	CHAINAGE	OFFSET		TEST HOLE								
CKD:		TECH: R.G.	RIG: 2	SURFACE DRAINAGE	GOOD	VEGETATION	A	ELEV	562							
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
2	1				ML	BROWN SILT AND SAND TILL WITH A TRACE OF CLAY AND GRAVEL			2							
4									4							
6									6							
8	2				ML		F	N _{bn}	8							
10									10							
12	3				ML				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG.		DATE DRILLED 2/3/73		AIRPHOTO NO: A22771-24		CHAINAGE 1102+00		OFFSET:		TEST HOLE				
CKD:		TECH: W.R.		RIG: 1		SURFACE DRAINAGE GOOD		VEGETATION: A B		ELEV: 572						
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY	SILT	SAND	GRAVEL			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+						
2	1				SM	GREY SILTY SAND TILL WITH A TRACE OF CLAY AND GRAVEL			2							
4									4							
6									6							
8	2				SM		F	N _{bn}	8							
10									10							
12	3				SM				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA		DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY												
DWN:	FIELD ENG	DATE DRILLED	AIRPHOTO NO	CHAINAGE	OFFSET:	TEST HOLE										
CKD	TECH R.G.	RIG 2	2/3/73	A22771-24	1096+00	ELEV 575	MILE	B,C,S	NUMBER							
		SURFACE DRAINAGE FAIR		VEGETATION A												
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	OR DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT 20 40 60 80 100 100+						
2	1				SM	BROWN SILT AND SAND TILL WITH A TRACE OF CLAY AND GRAVEL			2	8	32	57	3			
4									4							
6	2				SM				6							
8									8							
10									10							
12	3				SM				12	11	48	38	3			
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT										DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN:		FIELD ENG.		DATE DRILLED 2/3/73		AIRPHOTO NO. A22771-24		CHAINAGE 1082+00		OFFSET		ELEV 583		TEST HOLE		MILE		B,C,S		NUMBER									
CKD		TECH: W.R.		RIG 1		SURFACE DRAINAGE GOOD		VEGETATION A B E								367		C		E									
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS		WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS															
										CLAY %	SILT %																		
2					Pt	PEAT			2																				
4	1				ML	SILT AND SAND TILL WITH A TRACE OF CLAY AND GRAVEL		V _x	4																				
6						BROWN GREY			6																				
8	2				ML		F	N _{bn}	8																				
10									10																				
12	3				ML				12																				
14									14																				
16						END OF HOLE AT 15'			16																				
18									18																				
20									20																				
22									22																				
24									24																				

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG		DATE DRILLED 2/3/73		AIRPHOTO NO A22771-24		CHAINAGE 1079+00		OFFSET		TEST HOLE				
CKD		TECH W.R.		RIG 1		SURFACE DRAINAGE GOOD		VEGETATION: A B		ELEV. 586						
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
2	1				Pt	PEAT		V _x	2							
4					SM	SILT AND SAND TILL WITH A TRACE OF CLAY AND GRAVEL			4							
6									6							
8	2				SM			N _{bn}	8							
10									10							
12	3				SM	BROWN GREY			12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG:	DATE DRILLED	AIRPHOTO NO:	CHAINAGE:	OFFSET:		TEST HOLE								
CKD:	TECH:	W.R.	RIG	1	SURFACE DRAINAGE	FAIR	VEGETATION	A B	ELEV							
								579								
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (PCF)	DRY DENSITY (PCF)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+						
2	1				ML	BROWN AND GREY SANDY SILT TILL WITH A TRACE OF CLAY AND GRAVEL	F	N _{bn}	2		6	51	32	11		
4																
6	2				ML				6		11	50	37	2		
8							UF									
10																
12	3				ML				12		6	56	36	2		
14																
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA		DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY												
DWN:	FIELD ENG	DATE DRILLED: 2/3/73	AIRPHOTO NO: A22771-24	CHAINAGE 1061+00	OFFSET	ELEV: 595										
CKD:	TECH: M.H.R.	RIG: 2	SURFACE DRAINAGE: FAIR	VEGETATION: A	ELEV: 595		TEST HOLE									
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
2	1				ML	BROWN SILT AND SAND TILL WITH A TRACE OF CLAY AND GRAVEL			2							
4									4							
6									6							
8	2				ML			N _{bn}	8							
10									10							
12	3				ML				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG		DATE DRILLED		AIRPHOTO NO		CHAINAGE		OFFSET		TEST HOLE				
CKD:		TECH R.G.		RIG 2		SURFACE DRAINAGE		GOOD		VEGETATION A		ELEV 575				
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+						
2	1				SM	BROWN SILT AND SAND TILL WITH A TRACE OF CLAY AND GRAVEL			2		24	51	23			
4									4		43	48	5			
6									6							
8	2				SM				8		43	48	5			
10									10							
12	3				ML				12		8	46	39	7		
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY					
DWN:		FIELD ENG:		DATE DRILLED: 2/3/73		AIRPHOTO NO: A23037-43		CHAINAGE: 1146+00		OFFSET:		TEST HOLE	
CKD:		TECH: R.S.		RIG: 1		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV: 585			

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+						
2					SM	BROWN SILTY SAND			2							
4	1				SM	BROWN SILT AND SAND TILL WITH A TRACE OF CLAY AND GRAVEL	F	N _{bn}	4							
6									6							
8	2				SM				8							
10									10							
12	3				SM				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA		DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY	
DWN:		FIELD ENG:	DATE DRILLED: 2/3/73	AIRPHOTO NO. A23037-43	CHAINAGE: 1143+00
CKD:	TECH: R.S.	RIG: 1	SURFACE DRAINAGE: GOOD		VEGETATION: A
					OFFSET:
					ELEV: 575
					TEST HOLE
					MILE: 368
					B,C,S: C
					NUMBER: C
					REMARKS

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	
										CLAY %	SILT %	SAND %	GRAVEL %			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT 20 40 60 80 100 100+ LIQUID LIMIT 60 80 100 100+						
2					Pt	PEAT		V _x	2							
4	1				ML	SILT AND SAND TILL WITH A TRACE OF CLAY AND GRAVEL			4							
6									6							
8	2				ML		F	N _{bn}	8							
10									10							
12	3				ML	---BROWN-GREY			12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA		DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:	FIELD ENG:	DATE DRILLED: 2/3/73	REF: A23037-44	CHAINAGE: 1137+00	OFFSET:									
CKD:	TECH: R.S.	RIG: 1	SURFACE DRAINAGE: GOOD	VEGETATION: A	ELEV: 583									
					TEST HOLE									
					MILE: 368									
					B,C,S: C									
					NUMBER: D									
					REMARKS:									
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	ICE DESCRIPTION	DEPTH (FEET)	WATER CONTENT (% OF DRY WEIGHT)	ICE CONTENT (% OF SAMPLE VOLUME)	GRAIN-SIZE ANALYSIS	WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
											CLAY	SILT	SAND	GRAVEL
											%	%	%	%
2	1				SW	BROWN SAND WITH SOME SILT AND A TRACE OF CLAY AND FINE GRAVEL		2	4		25	64	7	
4								4						
6								6						
8	2				SW		N _{bn}	8	2		10	75	13	
10								10						
12	3				SW			12	5		29	63	3	
14								14						
16								16						
18	4				SW			18	4		32	59	5	
20						END OF HOLE AT 20'		20						
22								22						
24								24						

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY					
OWN:		FIELD ENG:		DATE DRILLED: 2/3/78		AIRPHOTO NO. A23037-44		CHAINAGE: 1130+00		OFFSET:		TEST HOLE	
CKD:		TECH: R.S.		RIG: 1		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV: 574			

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (PCF)	DRY DENSITY (PCF)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
					Pt	PEAT		V _x								
2	1				SM	SILTY SAND WITH A TRACE OF CLAY AND FINE GRAVEL			2							
4									4							
6									6							
8	2				SM		F	N _{pn}	8							
10									10							
12	3				SM				12							
14									14							
16	4				SM				16							
18									18							
20						END OF HOLE AT 20'			20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT										DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN:		FIELD ENG.		DATE DRILLED		PROJECT NO		CHAINAGE		OFFSET		TEST HOLE																	
CKD:		TECH		R.S.		RIG		SURFACE DRAINAGE		GOOD		VEGETATION		A		ELEV		574		MILE		B,C,S		NUMBER					
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS													
										CLAY	SILT	SAND	GRAVEL																
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)																			
										PLASTIC LIMIT ——— LIQUID LIMIT 20 40 60 80 100 100+																			
2	1				SM	BROWN SILTY SAND WITH A TRACE OF CLAY AND FINE GRAVEL			2																				
4									4																				
6									6																				
8	2				SM			N _{bn}	8																				
10									10																				
12	3				SM				12																				
14									14																				
16						END OF HOLE AT 15'			16																				
18									18																				
20									20																				
22									22																				
24									24																				

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG	DATE DRILLED	AIRPHOTO NO	CHAINAGE	OFFSET		TEST HOLE								
CKD:		TECH: R.G.	RIG: 2	SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV: 567								
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+						
2	1				ML	BROWN SILT AND SAND TILL WITH A TRACE OF CLAY AND GRAVEL			2							
4									4							
6									6							
8	2				ML		F	N _{bn}	8							
10									10							
12	3				ML				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY												
DWN:		FIELD ENG	DATE DRILLED 2/3/73	AIRPHOTO NO. A23037-44	CHAINAGE 1113+00	OFFSET		TEST HOLE										
CKD	TECH R.G.	RIG 2	SURFACE DRAINAGE FAIR		VEGETATION A	ELEV 570												
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS		
										CLAY %	SILT %	SAND %	GRAVEL %					
2	1				SM	BROWN SILTY SAND TILL WITH A TRACE OF CLAY AND GRAVEL	F	Nbn	2									
4											4							
6	2				SM						6							
8									8									
10									10									
12	3				SM				12									
14									14									
16						END OF HOLE AT 15'			16									
18									18									
20									20									
22									22									
24									24									

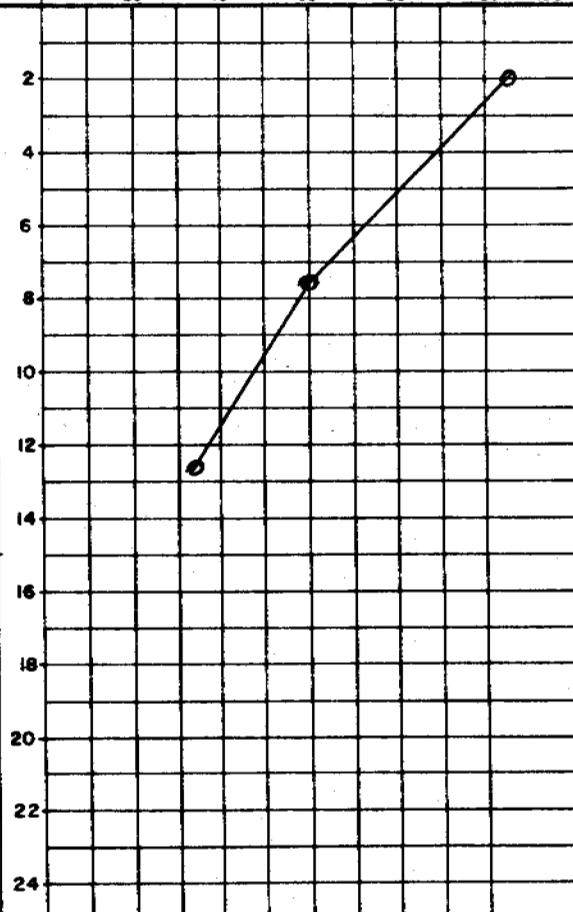
ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG		DATE DRILLED 2/3/73		AIRPHOTO NO A23037-42		CHAINAGE 1179+00		OFFSET		TEST HOLE				
CKD		TECH R.G.		RIG 2		SURFACE DRAINAGE FAIR		VEGETATION A		ELEV 569		MILE B,C,S NUMBER				
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
2	1				ML	BROWN SILT AND SAND TILL WITH A TRACE OF CLAY AND GRAVEL			2							
4									4							
6	2				ML		F	N _{DN}	6							
8									8							
10									10							
12	3				ML				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN:		FIELD ENG	DATE DRILLED	AIRPHOTO NO	CHAINAGE	OFFSET		TEST HOLE							
CKD:	TECH	R.S.	RIG	1	SURFACE DRAINAGE	GOOD	VEGETATION	A	ELEV	575					
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS	WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	MILE	B,C,S	NUMBER
										CLAY	SILT	SAND	GRAVEL		
										%	%	%	%		
2	1				SP	BROWN SAND WITH SOME GRAVEL AND A TRACE OF SILT		N _{bn}	2	1	5	88	6		
4									4						
6									6						
8	2				SP			N _f	8	0	2	94	4		
10									10						
12	3				SM	SILT AND SAND TILL WITH A TRACE OF CLAY AND GRAVEL. THE SILT TO SAND RATIO INCREASES WITH DEPTH		N _{bn}	12	6	32	58	4		
14									14						
16									16						
18	4				ML				18	10	42	45	3		
20									20						
22	5				ML				22	8	45	43	4		
24						END OF HOLE AT 25'			24						

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG:		DATE DRILLED: 2/3/73		AIRPHOTO NO: A23037+43		CHAINAGE: 1165+00		OFFSET:		TEST HOLE				
CKD:		TECH: R.S.		RIG: 1		SURFACE DRAINAGE: POOR		VEGETATION: A		ELEV: 556						
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
2	1				Pt	PEAT		Nbn	2							
4									4							
6									6							
8	2				Pt				8							
10									10							
12									12							
14	3				CL	CLAYEY SILT WITH SOME SAND		V _x	14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

○ = WATER CONTENT (% OF DRY WEIGHT)
 △ = ICE CONTENT (% OF SAMPLE VOLUME)

PLASTIC LIMIT 20 40 60 80 100 100+
 LIQUID LIMIT



ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG		DATE DRILLED 2/3/73		AIRPHOTO NO: A23037-43		CHAINAGE 1159+20		OFFSET		TEST HOLE				
CKD:		TECH R.S.		RIG 1		SURFACE DRAINAGE GOOD		VEGETATION A		ELEV 572						
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
2	1				SW	BROWN SAND WITH SOME GRAVEL AND A TRACE OF SILT		N _{bn}	2							
4								N _f	4							
6									6							
8	2				SW		F		8							
10									10							
12	3				SM	SILTY SAND TILL WITH A TRACE OF CLAY AND GRAVEL		N _{bn}	12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG		DATE DRILLED: 1/3/73		CHAINAGE: A23037-40		CHAINAGE: 1253+00		OFFSET				
CKD:		TECH: W.R.		RIG: 1		SURFACE DRAINAGE: FAIR		VEGETATION: A B D E		ELEV: 510				
TEST HOLE														
MILE: 370 B,C,S: C NUMBER: A														
REMARKS														
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF PROZIN BORING	DEPTH (FEET)	WATER CONTENT (%)	ICE CONTENT (%)	GRAIN-SIZE ANALYSIS	WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	
											CLAY %	SILT %	SAND %	GRAVEL %
2	1				SP	GREY SAND WITH A TRACE OF SILT		2	9	88	1			
6	2				SM	GREY SILTY SAND WITH A TRACE OF CLAY		6	33	64	0			
12	3				SM			12	35	62	0			
15						END OF HOLE AT 15'								

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY					
DWN:		FIELD ENG		DATE DRILLED 1/3/73		AERIAL PHOTO NO A23037-40		CHAINAGE 1246+50		OFFSET	
CKD		TECH W.R.		RIG 1		SURFACE DRAINAGE FAIR		VEGETATION B D		ELEV 516	
DEPTH (FEET)		SAMPLE NUMBER		SAMPLE TYPE		% RECOVERY		PENETRATION RESISTANCE		UNIFIED SOIL SYMBOL	
SOIL DESCRIPTION		LIMITS OF PROZIN GROUND		ICE DESCRIPTION		DEPTH (FEET)		GRAIN-SIZE ANALYSIS		WET DENSITY (P.C.F.)	
								CLAY SILT SAND GRAVEL		DRY DENSITY (P.C.F.)	
								% % % %			
2		1		SM		PEAT					
4		2		SM		SILTY SAND WITH A TRACE OF CLAY AND GRAVEL					
6		3		SM		BROWN GREY					
8		4		SM							
10											
12											
14											
16											
18											
20											
22											
24											

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG:		DATE DRILLED		AIRPHOTO NO:		CHAINAGE		OFFSET		TEST HOLE				
CKD:		TECH:		RIG:		SURFACE DRAINAGE		VEGETATION		ELEV:		MILE B,C,S NUMBER				
		W.R.		1		FAIR		B D		516		370 C B				
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (PCF)	DRY DENSITY (PCF)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT 40 LIQUID LIMIT 60 20 40 60 80 100 100+						
2	5				SM		F	N _{bn}	2	○						
4									4							
6						END OF HOLE AT 30'			6							
8									8							
10									10							
12									12							
14									14							
16									16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA						DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY							
DWN:		FIELD ENG:		DATE DRILLED: 1/3/73		AIRPHOTO NO: A23037-41		CHAINAGE: 1240+00		OFFSET:		TEST HOLE					
CKD:		TECH: W.R.		RIG: 1		SURFACE DRAINAGE: FAIR		VEGETATION: A B D		ELEV: 529							
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS	
										CLAY %	SILT %	SAND %	GRAVEL %				
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)							
										PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+							
2	1				SP	BROWN SAND WITH A TRACE OF SILT AND GRAVEL	N _{bn}		2								
4									4								
6							F	N _f	6								
8	2				SP				8								
10									10								
12	3				SP		UF		12								
14									14								
16						END OF HOLE AT 15'			16								
18									18								
20									20								
22									22								
24									24								

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY					
DWN:		FIELD ENG		DATE DRILLED: 1/3/75		APP: MC A23037-41		CHAINAGE: 1234+00		OFFSET:	
CKD:		TECH: W.R.		RIG: 1		SURFACE DRAINAGE: FAIR		VEGETATION: B D E		ELEV: 527	
DEPTH (FEET)		SAMPLE NUMBER		SAMPLE TYPE		% RECOVERY		PENETRATION RESISTANCE		UNIFIED SOIL SYMBOL	
SOIL DESCRIPTION		ICE DESCRIPTION		LIMIT OF FRICTION UNIFORMITY		DEPTH (FEET)		GRAIN-SIZE ANALYSIS		TEST HOLE	
										MILE B,C,S NUMBER	
										370 C D	
										REMARKS	
Pt		PEAT									
2	1	SW	SILTY SAND WITH A TRACE OF CLAY AND GRAVEL	BROWN GREY	V _x	2					
4						4					
6						6					
8	2	SW			N _{bn}	8	3	23	68	6	
10						10					
12						12					
14	3	ML	GREY SILT WITH A TRACE OF CLAY SAND AND GRAVEL		V _x	14	7	85	6	2	
16						16					
18						18					
20						20					
22						22					
24						24					
		END OF HOLE AT 15'									

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG:		DATE DRILLED: 2/3/73		AIRPHOTO NO: A23037-41		CHAINAGE: 1231+50		OFFSET:		TEST HOLE				
CKD:		TECH: R.S.		RIG: 1		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV: 534						
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY	SILT	SAND	GRAVEL			
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
										PLASTIC LIMIT 20 40 60 80 100 100+						
2					SM	BROWN SILTY SAND			2							
4	1				SM	BROWN AND GREY SILTY SAND TILL WITH A TRACE OF CLAY AND GRAVEL			4							
6							F	N _{bn}	6							
8	2				SM				8							
10									10							
12	3				SM				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT										DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN:		FIELD ENG:		DATE DRILLED: 2/3/73		AIRPHOTO NO: A23037-41		CHAINAGE: 1226+00		OFFSET:		TEST HOLE																	
CKD:		TECH: R.S.		RIG: 1		SURFACE DRAINAGE: FAIR		VEGETATION: B		ELEV: 542																			
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS		WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS															
										CLAY %	SILT %																		
2	1				SM	BROWN SILTY SAND TRACE OF GRAVEL	F	N _{bn}	2	○																			
4					SM	SILTY SAND TILL WITH A TRACE OF CLAY AND GRAVEL			4																				
6																													
8	2				SM				8	○																			
10	3				SM				10																				
12																													
14																													
16						END OF HOLE AT 15'			16																				
18									18																				
20									20																				
22									22																				
24									24																				

[illegible]

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG:		DATE DRILLED: 2/3/73		AIRPHOTO NO: A23037-41		CHAINAGE: 1201+00		OFFSET:		TEST HOLE				
CKD:		TECH: R.G.		RIG: 2		SURFACE DRAINAGE: GOOD		VEGETATION: A		ELEV: 558						
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
2	1				ML	BROWN SILT AND SAND TILL WITH A TRACE OF CLAY AND GRAVEL			2							
4									4							
6	2				ML		F	N _{bn}	6							
8									8							
10									10							
12	3				ML				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT										DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN:		FIELD ENG:		DATE DRILLED: 1/3/73		AIRPHOTO NO: A22777-178		CHAINAGE: 1310+00		OFFSET:		TEST HOLE																	
CKD:		TECH: W.R.		RIG: 1		SURFACE DRAINAGE: GOOD		VEGETATION: A B D		ELEV: 417																			
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS													
										CLAY %	SILT %	SAND %	GRAVEL %																
2	1				ML	SANDY SILT TILL WITH A TRACE OF CLAY AND GRAVEL			2																				
4									4																				
6									6																				
8	2				ML				8																				
10									10																				
12									12																				
14						BROWN GREY			14																				
16	3				ML				16																				
18									18																				
20									20																				
22									22																				
24	4				ML				24																				

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG:	DATE DRILLED: 1/3/73	AIRPHOTO NO: A22777-178	CHAINAGE: 1310+00	OFFSET:		TEST HOLE								
CKD:		TECH: W.R.	RIG: 1	SURFACE DRAINAGE: GOOD	VEGETATION: A B D E	ELEV: 417										
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
2	5				ML		F	N _{DN}	2							
4									4							
6						END OF HOLE AT 30'			6							
8									8							
10									10							
12									12							
14									14							
16									16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT										DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN:		FIELD ENG:		DATE DRILLED		APP-CTO NO		CHAINAGE		OFFSET		TEST HOLE																	
CKD:		TECH:		W.R.		RIG:		SURFACE DRAINAGE:		GOOD		VEGETATION:		A B D E		ELEV		439		MILE		B,C,S		NUMBER					
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (PCF)	DRY DENSITY (PCF)	REMARKS													
										CLAY	SILT	SAND	GRAVEL																
										○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)																			
										PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+																			
2					SM	BROWN SILTY SAND		N _{bn}	2																				
4	1				SW	SAND WITH SOME GRAVEL AND A TRACE OF SILT			4																				
6						BROWN GREY		N _f	6																				
8	2				SW				8																				
10									10																				
12	3				SM	GREY SILTY SAND WITH SOME GRAVEL		N _{bn}	12																				
14									14																				
16						END OF HOLE AT 15'			16																				
18									18																				
20									20																				
22									22																				
24									24																				

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY					
OWN:		FIELD ENG:		DATE DRILLED: 1/3/73		AIRPHOTO NO: A22777-178		CHAINAGE: 1293+00		OFFSET:		TEST HOLE	
CKD:		TECH: W.R.		RIG: 1		SURFACE DRAINAGE: GOOD		VEGETATION: A B D		ELEV: 431			

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	TEST HOLE		
										CLAY %	SILT %	SAND %	GRAVEL %			MILE	B,C,S	NUMBER
					SM	BROWN SILTY SAND												
2									2									
4	1				SM	GREY SAND WITH SOME SILT AND A TRACE OF GRAVEL			4									
6									6									
8	2								8									
10					SM				10									
12									12									
14									14									
16						END OF HOLE AT 15'			16									
18									18									
20									20									
22									22									
24									24									

○ = WATER CONTENT (% OF DRY WEIGHT)
△ = ICE CONTENT (% OF SAMPLE VOLUME)

PLASTIC LIMIT 40 LIQUID LIMIT 80

20 40 60 80 100 100+

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT										DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN:		FIELD ENG:		DATE DRILLED: 1/3/73		AIRPHOTO NO: A22777-178		CHAINAGE: 1288+00		OFFSET:		TEST HOLE																	
CKD:		TECH: W.R.		RIG: 1		SURFACE DRAINAGE: FAIR		VEGETATION: A B D		ELEV: 425		MILE		B,C,S		NUMBER													
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS													
										CLAY %	SILT %	SAND %	GRAVEL %																
					SM	PEAT																							
					ML	BROWN SILTY SAND																							
2									2																				
4	1					GREY AND BROWN SANDY SILT WITH A TRACE OF CLAY AND GRAVEL	F	N _{bn}	4																				
6									6																				
8	2						UF		8																				
10									10																				
12	3						F	V _x	12																				
14							UF		14																				
16						END OF HOLE AT 15'			16																				
18									18																				
20									20																				
22									22																				
24									24																				

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
OWN:		FIELD ENG:		DATE DRILLED: 1/3/77		APP-DTG NO: A22777-178		CHAINAGE: 1283+00		OFFSET:		TEST HOLE				
CKD:		TECH: W.R.		RIG: 1		SURFACE DRAINAGE: GOOD		VEGETATION: A B D		ELEV: 447						
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (PCF)	DRY DENSITY (PCF)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
						BROWN SILTY SAND										
2	1				SP	GREY BROWN SAND WITH A TRACE OF SILT			2							
4									4							
6									6							
8	2				SM	GREY SILTY SAND TILL WITH A TRACE OF GRAVEL AND CLAY		N _{bn}	8							
10									10							
12	3				SM				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA										DRILL HOLE REPORT										DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY									
DWN:			FIELD ENG:			DATE DRILLED: 1/2/73			AIR PHOTO NO: A22777-178			CHAINAGE: 1280+00			OFFSET:			TEST HOLE											
CKD:			TECH: W.R.			RIG: 1			SURFACE DRAINAGE: GOOD			VEGETATION: A B D E			ELEV 472			MILE: 371 S, NUMBER: G											
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS													
										CLAY %	SILT %	SAND %	GRAVEL %																
2	1				SM	BROWN SILTY SAND			2																				
4					SM	GREY SILTY SAND TILL WITH A TRACE OF CLAY AND GRAVEL			4																				
6									6																				
8	2				SM				8																				
10									10																				
12									12																				
14									14																				
16									16																				
18	3				SM				18																				
20									20																				
22	4				SM				22																				
24									24																				

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG:		DATE DRILLED: 1/3/78		AIRPHOTO NO: A22777-178		CHAINAGE: 1278+50		OFFSET:		TEST HOLE				
CKD:		TECH: W.R.		RIG: 1		SURFACE DRAINAGE: GOOD		VEGETATION: A B D		ELEV: 465						
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
2	1				SW	GREY SAND TILL WITH SOME SILT AND GRAVEL AND A TRACE OF CLAY			2		2	16	71	11		
4									4							
6									6							
8									8							
10					SW		F	N _{bn}	10							
12									12							
14	2				SM	GREYISH BROWN SILT AND SAND TILL WITH SOME GRAVEL AND A TRACE OF CLAY			14							
16									16							
18									18		3	42	47	8		
20								N _f	20							
22									22							
24						END OF HOLE AT 25'			24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY												
OWN:		FIELD ENG:		DATE DRILLED: 1/3/73		AIRPHOTO NO: A22777-178		CHAINAGE: 1271+00		OFFSET:		TEST HOLE						
CKD:		TECH: W.R.		RIG: 1		SURFACE DRAINAGE: FAIR		VEGETATION: A B		ELEV: 467								
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS		
										CLAY %	SILT %	SAND %	GRAVEL %					
2	1				ML	GREY AND BROWN SILT AND SAND TILL WITH A TRACE OF CLAY AND GRAVEL	F	N _{dn}	2									
4									4									
6									6									
8	2				ML				8									
10									10									
12									12									
14	3				ML				14									
16						END OF HOLE AT 15'			16									
18									18									
20									20									
22									22									
24									24									

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG:	DATE DRILLED: 1/3/73	AIRPHOTO NO: A22777-178	CHAINAGE: 1298+50 (Approx)	OFFSET:		TEST HOLE								
CKD:		TECH: W.R.	RIG: 1	SURFACE DRAINAGE: GOOD	VEGETATION: A B D	ELEV: 422										
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
					SM	BROWN SILTY SAND				○ = WATER CONTENT (% OF DRY WEIGHT) △ = ICE CONTENT (% OF SAMPLE VOLUME)						
2	1				ML	GREY SILT AND SAND TILL WITH A TRACE OF CLAY AND GRAVEL			2							
4									4							
6									6							
8	2				ML				8							
10									10							
12	3				ML				12							
14									14							
16						END OF HOLE AT 15'			16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA						DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY							
DOWN:		FIELD ENG:		DATE DRILLED: 1/3/73		AIRPHOTO NO: A22777-178		CHAINAGE: 1265+50		OFFSET:		TEST HOLE					
CKD:		TECH: W.R.		RIG: 1		SURFACE DRAINAGE: FAIR		VEGETATION: B E		ELEV: 459							
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS	
										CLAY %	SILT %	SAND %	GRAVEL %				
					Pt	PEAT											
2								V _x	2								
4	1				SM	GREY SILT AND SAND TILL WITH A TRACE OF CLAY AND GRAVEL			4								
6									6								
8	2				ML		F	N _{dn}	8								
10									10								
12	3				ML				12								
14									14								
16						END OF HOLE AT 15'			16								
18									18								
20									20								
22									22								
24									24								

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT		DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG:		DATE DRILLED: 1/3/77		AIRPHOTO NO: A22777-177		CHAINAGE: 1360 + 00		OFFSET:		TEST HOLE				
CKD:		TECH: R.S.		RIG: 1		SURFACE DRAINAGE: GOOD		VEGETATION: C		ELEV: 346						
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
1					Pt	PEAT		V _x								
2	1				GW	SAND AND GRAVEL WITH SOME SILT		N _f	2							
4									4							
5																
6									6							
8	2				ML	SILT AND SAND TILL WITH SOME CLAY AND GRAVEL	F		8	18	38	37	7			
10						BROWN GREY		N _{bn}	10							
12	3				ML				12	16	37	37	10			
14									14							
15									15							
16	4				ML				16							
18									18	15	41	37	7			
20						END OF HOLE AT 20'			20							
22									22							
24									24							

DWN:	CMD	FIELD ENG:	DATE DRILLED	AIRPHOTO NO.	CHAINAGE	OFFSET									
							TEST HOLE								
		TECH:	RIG:	SURFACE DRAINAGE:	VEGETATION:	ELEV.	MILE	B,C,S	NUMBER						
		% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE							CLAY %	SILT %	SAND %	GRAVEL %			
								PLASTIC LIMIT LIQUID LIMIT 20 40 60 80 100 100+							
									$\circ = \text{WATER CONTENT (\% OF DRY WEIGHT)}$ $\Delta = \text{ICE CONTENT (\% OF SAMPLE VOLUME)}$						
1	-	/	-	SM	BROWN SILTY SAND	N _{bn}	- - -								
2	1	/	-	SW	BROWN GRAVELLY SAND WITH A TRACE OF SILT	F	N _f	2	0	2	86	12			
4		/	-					4							
6		/	-					6							
8	2	/	-	SW				8	0	3	76	21			
10		/	-		END OF HOLE AT 10'			10							
12								12							
14								14							
16								16							
18								18							
20								20							
22								22							
24								24							

[illegible]

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG:		DATE DRILLED: 1/3/78		AIRPHOTO NO: A22777-177		CHAINAGE: 1351+ 00		OFFSET:		TEST HOLE				
CKD:		TECH: R.S.		RIG: 1		SURFACE DRAINAGE: FAIR		VEGETATION: A		ELEV 358		MILE B,C,S NUMBER				
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
2	1				SM	BROWN SAND WITH SOME SILT AND TRACES OF CLAY AND GRAVEL			2							
4									4							
5									5							
6									6							
8	2				SM		F	N _{bn}	8							
10									10							
12	3				ML	SAND AND SILT TILL WITH SOME CLAY AND A TRACE OF GRAVEL			12							
14									14							
15									15							
16									16							
18	4				ML				18							
20									20							
22	5				ML				22							
24								N _f	24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY										
DWN:		FIELD ENG:		DATE DRILLED: 1/1/73		AIRPHOTO NO: A22777-177		CHAINAGE: 1344 + 00		OFFSET:		TEST HOLE						
CKD:		TECH: W.R.		RIG: 1		SURFACE DRAINAGE: FAIR		VEGETATION: BE		ELEV 369								
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (PCF)	DRY DENSITY (PCF)	REMARKS		
										CLAY %	SILT %	SAND %	GRAVEL %					
2	1				ML	GREY SANDY SILT TILL WITH SOME CLAY AND A TRACE OF GRAVEL	F	N _{bn}	2									
4									4									
5									5									
6					ML				6									
8	2								8									
10									10									
12	3				ML				12									
14									14									
15						END OF HOLE AT 15'			15									
16									16									
18									18									
20									20									
22									22									
24									24									

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY								
DWN:		FIELD ENG:		DATE DRILLED 1/3/77		AIRPHOTO NO: A22777-177		CHAINAGE: 1334 + 00		OFFSET:		TEST HOLE				
CKD:		TECH: W.R.		RIG: 1		SURFACE DRAINAGE: FAIR		VEGETATION: ABD		ELEV: 381		MILE B.C.S NUMBER				
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS				WET DENSITY (PCF)	DRY DENSITY (PCF)	REMARKS
										CLAY %	SILT %	SAND %	GRAVEL %			
1	-	-	-	-	SM	BROWN SILTY SAND										
2					ML	GREY SANDY SILT TILL WITH SOME GRAVEL AND A TRACE OF CLAY			2							
4	1								4							
6									6							
8									8							
10									10							
12	2				ML				12							
14									14							
15						END OF HOLE AT 15'			15							
16									16							
18									18							
20									20							
22									22							
24									24							

ACRES CONSULTING SERVICES LIMITED CALGARY, ALBERTA				DRILL HOLE REPORT				DEPARTMENT OF PUBLIC WORKS, CANADA MACKENZIE HIGHWAY							
DWN:		FIELD ENG:		DATE DRILLED: 1/3/78		AIR PHOTO NO: A22777-178		CHAINAGE: 1319 + 00		OFFSET:		TEST HOLE			
CKD:		TECH: W.R.		RIG: 1		SURFACE DRAINAGE: FAIR		VEGETATION: BDE		ELEV: 399		MILE B,C,S NUMBER			
												372 C H			
												REMARKS			
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN SIZE ANALYSIS				WET DENSITY (P.C.F.)	DRY DENSITY (P.C.F.)
										CLAY	SILT	SAND	GRAVEL		
										%	%	%	%		
2	1				SW	BROWN SAND WITH SOME GRAVEL			2						
3									3						
4					ML	GREY SANDY SILT WITH SOME CLAY AND GRAVEL			4						
6									6						
8	2				ML		F	N _{bn}	8						
10									10						
12					ML				12						
14									14						
15									15						
16						END OF HOLE AT 15'			16						
18									18						
20									20						
22									22						
24									24						