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G9 - 01 - 096

GEOTECHNICAL INVESTIGATION

SHAKWAK RELOCATION PROJECT
ALASKA HWY km 1634.5-1664.5 (SEG.8)

CENTERLINE DRILLING
VOLUME I OF III

GEOTECHNICAL & MATERIAL SERVICES
WHITEHORSE, YUKON

VOLUME I

CONTENTS

FEB. - MAR. 1978 CENTERLINE INVESTIGATION

HOLES 78-8-T1 to

78-8-T138

Drill log summaries only

PROJECT: SHAKWAK SEGMENT 8	HOLE LOCATION:	PLOTTED BY: R.S.	HOLE ELEVATION:	HOLE NO.: T-1	
DATE DRILLED: 28-2-78	DRILL TECHNICIAN: H.R.	SAMPLE IDENTIFICATION DATA		MECHANICAL ANALYSIS	
HOLE DEPTH: 1.65		LABORATORY NUMBER	GRAVEL %	<.074 mm %	UNIFIED CLASSIFICATION
TYPE OF DRILL: BA0-6" AUGERS		SAMPLE TYPE	SAND %	<.005 mm %	
WATER LEVEL:		SAMPLE NUMBER (FIELD)		>.005 mm %	
DEPTH (M)		SAMPLE DEPTH (FT.)	CONSISTENCY LIMITS	DRY DENSITY	STANDARD PENETRATION RESISTANCE
			LIQUID LIMIT %	LBS. CU. FT.	BLOWS
			PLASTIC LIMIT %		
			PLASTICITY INDEX %		
			NATURAL MOISTURE CONTENT %		

SANDY GRAVEL

END HOLE @ 1.65



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: T-3	
DATE DRILLED: 28-2-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.			
HOLE DEPTH 1.50		MECHANICAL ANALYSIS		DRY DENSITY		STANDARD PENETRATION RESISTANCE	
TYPE OF DRILL B40-6" AUGERS		GRAVEL		LBS. CU. FT.		BLOWS / FT.	
WATER LEVEL		SAND		CU. FT.			
DEPTH (M)		PLASTICITY INDEX		%			
SOIL DESCRIPTION		PLASTIC LIMIT		%			
0		LIQUID LIMIT		%			
1		NATURAL MOISTURE CONTENT		%			
2		CONSISTENCY LIMITS		%			
3		PLASTICITY INDEX		%			
4		PLASTIC LIMIT		%			
5		LIQUID LIMIT		%			
		UNIFIED CLASSIFICATION					

SILT TILL

SILT

END HOLE @ 1.50

.3

1.1

T 3

AUGER S552

15.1

24.3

11.0

36.7

52.3



Public Works
Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-4	
DATE DRILLED: 1-3-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.	
HOLE DEPTH 1.50		MECHANICAL ANALYSIS		STANDARD PENETRATION RESISTANCE	
TYPE OF DRILL B40-6" AUGERS		GRAVEL		BLOWS / FT.	
WATER LEVEL		SAND		LIBS / CU.FT.	
DEPTH (M)		PLASTICITY INDEX		UNIFIED CLASSIFICATION	
SOIL DESCRIPTION		PLASTIC LIMIT			
SILT TILL END HOLE @ 1.50		LIQUID LIMIT			
		NATURAL MOISTURE CONTENT			
		CONSISTENCY LIMITS			
		N.R.C. PERMAFROST CLASSIFICATION			
		LABORATORY NUMBER			
		SAMPLE TYPE			
		SAMPLE NUMBER (FIELD)			
		SAMPLE DEPTH (FT.)			

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.:	
DATE DRILLED: 1-3-78		DRILL TECHNICIAN: H. R.		R. S.		T-5	
HOLE DEPTH 1.50		PLASTICITY INDEX		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
TYPE OF DRILL 3/40-6" AUGERS		PLASTIC LIMIT		LIQUID LIMIT		SAND	
WATER LEVEL		NATURAL MOISTURE CONTENT		GRAVEL		CLAY < .005 mm	
SOIL DESCRIPTION		LABORATORY NUMBER		GRAVEL		SILT > .074 mm	
SILTY SAND TILL		T4		PLASTICITY INDEX		SILT > .005 mm	
				10.2		17.9	
END HOLE @ 1.50		AUGER 5575		PLASTIC LIMIT		SAND	
				19.8		1.1	
DEPTH (M)		SAMPLE IDENTIFICATION DATA		GRAVEL		UNIFIED CLASSIFICATION	
0		SAMPLE DEPTH (FT.)		GRAVEL		CL	
1		.3		GRAVEL			
2		1.2		GRAVEL			
3				GRAVEL			
4				GRAVEL			
5				GRAVEL			



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-6	
DATE DRILLED: 1-3-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.	
HOLE DEPTH: 1.50		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
TYPE OF DRILL: B40-6" AUGERS		LIQUID LIMIT		SAND	
WATER LEVEL		PLASTIC LIMIT		GRAVEL	
DEPTH (M)		PLASTICITY INDEX		<.074 mm	
0		NATURAL MOISTURE CONTENT		>.005 mm	
1		%		%	
2		LABORATORY NUMBER		%	
3		SAMPLE TYPE		%	
4		SAMPLE NUMBER (FIELD)		%	
5		SAMPLE DEPTH (FT.)		%	
SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION		STANDARD PENETRATION RESISTANCE	
SILTY SAND TILL				BLOWS / FT.	
END HOLE @ 1.50				LIBS. CU. FT.	
				UNIFIED CLASSIFICATION	



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 1-3-78

DRILL TECHNICIAN: H. R.

PLOTTED BY: R. S.

HOLE ELEVATION:

HOLE NO.: T-7

HOLE DEPTH 1.50
TYPE OF DRILL B40-6" AUGERS
WATER LEVEL _____
DEPTH (M)

SOIL DESCRIPTION

SAND TILL .30

SAND SILT TILL

END HOLE 1.50

DEPTH (M)	N.R.C. PERMAFROST CLASSIFICATION	SAMPLE IDENTIFICATION DATA				NATURAL MOISTURE CONTENT %	CONSISTENCY LIMITS			MECHANICAL ANALYSIS				DRY DENSITY LBS/CU.FT.	STANDARD PENETRATION RESISTANCE BLOWS/FT.	UNIFIED CLASSIFICATION
		SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER		LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %	SAND %	>.005 mm %	>.074 mm %			
0		.3														
1		1.2	T5	AUGER	S553	18.2	26.2	19.3	6.9	.7	26.6	72.7				CL-ML
2																
3																
4																
5																



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-8	
DATE DRILLED: 1-3-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.	
HOLE DEPTH: 1.50		HOLE ELEVATION:		UNIFIED CLASSIFICATION	
TYPE OF DRILL: B40-6" AUGERS		CONSISTENCY LIMITS		STANDARD PENETRATION RESISTANCE	
WATER LEVEL		PLASTIC LIMIT		BLOWS / FT.	
SOIL DESCRIPTION		LIQUID LIMIT		DRY DENSITY	
SAND TILL SILT SAND TILL END HOLE @ 1.50		NATURAL MOISTURE CONTENT		MECHANICAL ANALYSIS	
		%		<.005 mm % <.075 mm % >.005 mm % SAND % GRAVEL %	
N.R.C. PERMAFROST CLASSIFICATION		LABORATORY NUMBER		UNIFIED CLASSIFICATION	
SAND TILL SILT SAND TILL END HOLE @ 1.50		SAMPLE IDENTIFICATION DATA		UNIFIED CLASSIFICATION	
		SAMPLE DEPTH (FT.) .3 .9		SAMPLE NUMBER (FIELD) T 8	
SAMPLE TYPE		PLASTICITY INDEX		UNIFIED CLASSIFICATION	
SAMPLE NUMBER		%		UNIFIED CLASSIFICATION	



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: T-9										
DATE DRILLED: 1-3-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.												
HOLE DEPTH 1.50	TYPE OF DRILL B40-6" AUGERS	WATER LEVEL	SAMPLE IDENTIFICATION DATA				CONSISTENCY LIMITS			MECHANICAL ANALYSIS			DRY DENSITY LBS./CU.FT.	STANDARD PENETRATION RESISTANCE BLOWS/FT.	UNIFIED CLASSIFICATION	
			N.R.C. PERMAFROST CLASSIFICATION	SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER	NATURAL MOISTURE CONTENT %	LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %				SAND %
0	SAND TILL		.3													
1	SILT TILL		1.2	T6	AUGER	5576	11.6	20.6	15.7	4.9	1.4	35.1	63.5			CL-MU
2																
3																
4																
5	END HOLE @ 1.50															



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-10	
DATE DRILLED: 1-3-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.	
HOLE DEPTH: 1.50		MECHANICAL ANALYSIS		STANDARD PENETRATION RESISTANCE	
TYPE OF DRILL: B40-6" AUGERS		GRAVEL		BLOWS / FT.	
WATER LEVEL		SAND		LIBB. / CU. FT.	
DEPTH (M)		PLASTICITY INDEX			
SOIL DESCRIPTION		PLASTIC LIMIT			
		LIQUID LIMIT			
SILTY SAND TILL SILT		NATURAL MOISTURE CONTENT			
		CONSISTENCY LIMITS			
END HOLE @ 1.50		LABORATORY NUMBER			
		SAMPLE TYPE			
		SAMPLE NUMBER (FIELD)			
		SAMPLE DEPTH (FT.)			
		N.R.C. PERMAFROST CLASSIFICATION			
0					
1					
2					
3					
4					
5					



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-11															
DATE DRILLED: 1-3-78		DRILL TECHNICIAN: H. R.		PLOTTED BY: R. S.															
HOLE DEPTH: 1.50		MECHANICAL ANALYSIS		UNIFIED CLASSIFICATION															
TYPE OF DRILL: B40-6" AUGERS		<table border="1"> <tr> <td><.005 mm</td> <td>%</td> </tr> <tr> <td><.074 mm</td> <td>%</td> </tr> <tr> <td>>.005 mm</td> <td>%</td> </tr> <tr> <td>SAND</td> <td>%</td> </tr> <tr> <td>GRAVEL</td> <td>%</td> </tr> </table>		<.005 mm	%	<.074 mm	%	>.005 mm	%	SAND	%	GRAVEL	%	<table border="1"> <tr> <td>STANDARD PENETRATION RESISTANCE</td> <td>BLOWS / FT.</td> </tr> <tr> <td>DRY DENSITY</td> <td>LB / CU. FT.</td> </tr> </table>		STANDARD PENETRATION RESISTANCE	BLOWS / FT.	DRY DENSITY	LB / CU. FT.
<.005 mm	%																		
<.074 mm	%																		
>.005 mm	%																		
SAND	%																		
GRAVEL	%																		
STANDARD PENETRATION RESISTANCE	BLOWS / FT.																		
DRY DENSITY	LB / CU. FT.																		
WATER LEVEL		CONSISTENCY LIMITS		CL															
SOIL DESCRIPTION		<table border="1"> <tr> <td>PLASTIC LIMIT</td> <td>%</td> </tr> <tr> <td>LIQUID LIMIT</td> <td>%</td> </tr> <tr> <td>PLASTICITY INDEX</td> <td>%</td> </tr> </table>		PLASTIC LIMIT	%	LIQUID LIMIT	%	PLASTICITY INDEX	%										
PLASTIC LIMIT	%																		
LIQUID LIMIT	%																		
PLASTICITY INDEX	%																		
DEPTH (M)		NATURAL MOISTURE CONTENT																	
0 SAND		%																	
1 SILT SAND TILL		26.0																	
2		32.7																	
3		22.6																	
4		10.1																	
5		0.3																	
END HOLE @ 1.50		3.3																	
		96.4																	



**MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.**

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: R.S.S.		HOLE ELEVATION:		HOLE NO.: T-12	
DATE DRILLED: 1-3-78		DRILL TECHNICIAN: H.R.		PLOTTED BY:			
HOLE DEPTH 1.50		TYPE OF DRILL B40-6" AUGERS		WATER LEVEL		SOIL DESCRIPTION	
0		SANDY TILL		.45			
1		SILT					
2		END HOLE @ 1.50					
3							
4							
5							

MECHANICAL ANALYSIS	UNIFIED CLASSIFICATION
	STANDARD PENETRATION RESISTANCE
DRY DENSITY	BLOWS/FT.
<.005 mm	LIB. CU.FT.
<.074 mm	
>.005 mm	
SAND	
GRAVEL	
PLASTICITY INDEX	
PLASTIC LIMIT	
LIQUID LIMIT	
NATURAL MOISTURE CONTENT	
LABORATORY NUMBER	
SAMPLE TYPE	
SAMPLE NUMBER (FIELD)	
SAMPLE DEPTH (FT.)	
N.R.C. PERMAFROST CLASSIFICATION	



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: R.S.S.		HOLE ELEVATION:		HOLE NO.: T-13	
DATE DRILLED: 1-3-78		DRILL TECHNICIAN: H.R.S.		PLOTTED BY:			
HOLE DEPTH 1.50		TYPE OF DRILL B40-6" AUGERS		WATER LEVEL		UNIFIED CLASSIFICATION	
DEPTH (M)		SOIL DESCRIPTION		MECHANICAL ANALYSIS		STANDARD PENETRATION RESISTANCE	
0		SILT SAND TILL .30		GRAVEL %		BLOWS / FT.	
1		SILT		SAND %			
2		END HOLE @ 1.50		PLASTICITY INDEX %			
3				PLASTIC LIMIT %			
4				LIQUID LIMIT %			
5				NATURAL MOISTURE CONTENT %			
				CONSISTENCY LIMITS			
				PLASTICITY INDEX %			
				PLASTIC LIMIT %			
				LIQUID LIMIT %			
				LABORATORY NUMBER			
				SAMPLE TYPE			
				SAMPLE NUMBER (FIELD)			
				SAMPLE DEPTH (FT.)			
				N.R.C. PERMAFROST CLASSIFICATION			



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-14	
DATE DRILLED: 1-3-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.	
HOLE DEPTH 1.50		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
TYPE OF DRILL B40-6" AUGERS		LIQUID LIMIT		SAND	
WATER LEVEL		PLASTIC LIMIT		GRAVEL	
DEPTH (M)		PLASTICITY INDEX		SILT	
SOIL DESCRIPTION		NATURAL MOISTURE CONTENT		UNIFIED CLASSIFICATION	
0	SAND TILL	%		%	
1	SILT	%		%	
2		%		%	
3		%		%	
4		%		%	
5		%		%	

END HOLE @ 1.50



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 1-3-78

DRILL TECHNICIAN: H. R.

PLOTTED BY: R. S.

HOLE ELEVATION:

HOLE NO.: T-15

DEPTH (M)	SOIL DESCRIPTION	N.R.C. PERMAFROST CLASSIFICATION	SAMPLE IDENTIFICATION DATA				CONSISTENCY LIMITS			MECHANICAL ANALYSIS				DRY DENSITY LBS./CU. FT.	STANDARD PENETRATION RESISTANCE BLOWS/FT.	UNIFIED CLASSIFICATION	
			SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX (%)	GRAVEL (%)	SAND (%)	<.074 mm (%)	>.005 mm (%)				<.005 mm (%)
0	SILT SAND TILL		.3	T 9	AUGER	5578											
1	SILT TILL		1.1				32.2	18.4	13.8	7.1	14.4	78.5					GL
2																	
3																	
4																	
5																	

SILT SAND TILL .30

SILT TILL

END HOLE @ 1.50



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 1-3-78

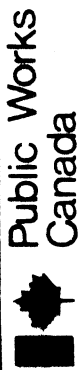
DRILL TECHNICIAN: H.R.

PLOTTED BY: R.S.

HOLE ELEVATION:

HOLE NO.: T-16

DEPTH (M)	SOIL DESCRIPTION	N.R.C. PERMAFROST CLASSIFICATION	SAMPLE IDENTIFICATION DATA				CONSISTENCY LIMITS			MECHANICAL ANALYSIS			DRY DENSITY LBS./CU.FT.	STANDARD PENETRATION RESISTANCE BLOWS/FT.	UNIFIED CLASSIFICATION	
			SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER	LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %	SAND %	<.075 mm %				<.005 mm %
0	SANDY SILT TILL		.3													
1	SILT TILL		1.2	T10	AUGER	S579	16.8	25.8	17.3	8.5	2.1	31.9	66.0		CL	
2	END HOLE @ 1.50															
3																
4																
5																



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: T-17											
DATE DRILLED: 1-3-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.													
HOLE DEPTH 1.50	TYPE OF DRILL B40-6" AUGERS	WATER LEVEL	SAMPLE IDENTIFICATION DATA				CONSISTENCY LIMITS			MECHANICAL ANALYSIS			DRY DENSITY LBS./CU.FT.	STANDARD PENETRATION RESISTANCE BLOWS/FT.	UNIFIED CLASSIFICATION		
			DEPTH (FT.)	NUMBER (FIELD)	TYPE	NUMBER	LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %	SAND %	> 0.075 mm %				< 0.075 mm %	< 0.005 mm %
DEPTH (M)	SOIL DESCRIPTION	N.R.C. PERMAFROST CLASSIFICATION		NATURAL MOISTURE CONTENT %		GRAVEL %		SAND %		PLASTICITY INDEX %		MECHANICAL ANALYSIS					
0	GRAVEL																
0.5	SILT					21.9	2.0	17.7	11.5	21.1	11.5	2.0	17.7	40.2	40.1		CL
1.2	END HOLE @ 1.50																



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-18			
DATE DRILLED: 1-3-78		PLOTTED BY: R.S.		HOLE ELEVATION:			
HOLE DEPTH 1.50		DRILL TECHNICIAN: H.R.					
TYPE OF DRILL B40-6" AUGERS		SAMPLE IDENTIFICATION DATA					
WATER LEVEL		LABORATORY NUMBER					
DEPTH (M.)		SAMPLE TYPE					
		SAMPLE NUMBER (FIELD)					
		SAMPLE DEPTH (FT.)					
		N.R.C. PERMAFROST CLASSIFICATION					
SOIL DESCRIPTION		NATURAL MOISTURE CONTENT					
SILTY GRAVEL END HOLE @ 1.50		%					
		LIQUID LIMIT		%			
		PLASTIC LIMIT		%			
		PLASTICITY INDEX		%			
		GRAVEL		%			
		SAND		%			
		> .005 mm		%			
		< .074 mm		%			
		< .005 mm		%			
		DRY DENSITY		LBBS. CU. FT.			
		STANDARD PENETRATION RESISTANCE		BLOWS FT.			
		UNIFIED CLASSIFICATION		CL			

**Public Works
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**MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.**

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8 HOLE LOCATION: HOLE NO.: T-19

DATE DRILLED: 1-3-78 DRILL TECHNICIAN: H.R. PLOTTED BY: R.S. HOLE ELEVATION:

HOLE DEPTH 1.50
 TYPE OF DRILL B40-6" AUGERS
 WATER LEVEL
 SOIL DESCRIPTION

0	1	2	3	4	5	UNIFIED CLASSIFICATION	STANDARD PENETRATION RESISTANCE BLOWS/FT.	DRY DENSITY LBS./CU.FT.	MECHANICAL ANALYSIS <.005 mm % <.075 mm % >.005 mm % SAND % GRAVEL %	CONSISTENCY LIMITS PLASTICITY INDEX % PLASTIC LIMIT % LIQUID LIMIT %	NATURAL MOISTURE CONTENT %	LABORATORY NUMBER	SAMPLE TYPE	SAMPLE NUMBER (FIELD)	SAMPLE DEPTH (FT.)	N.R.C. PERMAFROST CLASSIFICATION



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: R. S.		HOLE ELEVATION: T.20		HOLE NO.: T.20										
DATE DRILLED: 1-3-78		DRILL TECHNICIAN: H. R.		PLOTTED BY: R. S.												
HOLE DEPTH: 4.30		TYPE OF DRILL: B40-6" AUGERS		WATER LEVEL:												
DEPTH (M)	SOIL DESCRIPTION	SAMPLE IDENTIFICATION DATA		CONSISTENCY LIMITS		MECHANICAL ANALYSIS										
		SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER	NATURAL MOISTURE CONTENT %	LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %	SAND %	> 0.075 mm %	> 0.005 mm %	DRY DENSITY LBS. CU. FT.	STANDARD PENETRATION RESISTANCE BLOWS FT.	UNIFIED CLASSIFICATION
0	GRAVEL	.3	T13	AUGER	S556	14.2	21.2	19.4	2.8	5.2	30.7	64.1				ML
1	GRAVELLY SILT	.9														
2																
3		2.7	T14	AUGER	S557	12.1	25.5			17.1	32.2	50.7				
4		3.3														
5	END HOLE @ 4.30															



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: R.S.S.		HOLE ELEVATION:		HOLE NO.: T-21	
DATE DRILLED: 1-3-78		DRILL TECHNICIAN: H.R.		PLOTTED BY:			
HOLE DEPTH 4.35		TYPE OF DRILL B40-6" AUGERS		WATER LEVEL		SOIL DESCRIPTION	
DEPTH (M.)		GRAVEL		SILTY GRAVEL		GRAVELLY SILT	
0		.30		1.65		2.40	
1							
2							
3		SAND					
4							
5		END HOLE @ 4.35					
UNIFIED CLASSIFICATION		STANDARD PENETRATION RESISTANCE		DRY DENSITY		MECHANICAL ANALYSIS	
ML		BLOWS/FT.		LBS./CU.FT.		<.005 mm % <.074 mm % >.005 mm % SAND % GRAVEL %	
CONSISTENCY LIMITS		NATURAL MOISTURE CONTENT		LABORATORY DATA		MECHANICAL ANALYSIS	
PLASTIC LIMIT % LIQUID LIMIT % PLASTICITY INDEX %		%		SAMPLE DEPTH (FT.) SAMPLE NUMBER (FIELD) SAMPLE TYPE LABORATORY NUMBER		PLASTICITY INDEX % SAND % GRAVEL %	
N.P.		16.5		2.7 3.3 T15 AUGER S558		PLASTICITY INDEX % SAND % GRAVEL %	

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: T-22	
DATE DRILLED: 1-3-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.			
DEPTH (M.)	SOIL DESCRIPTION	SAMPLE IDENTIFICATION DATA		CONSISTENCY LIMITS			UNIFIED CLASSIFICATION
		DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER	NATURAL MOISTURE CONTENT (%)	
					PLASTIC LIMIT (%)	PLASTICITY INDEX (%)	
				GRAVEL (%)	SAND (%)	< 0.075 mm (%)	
				> 0.005 mm (%)	< 0.075 mm (%)	< 0.005 mm (%)	
				DRY DENSITY (LIBS./CU.FT.)	STANDARD PENETRATION RESISTANCE (BLOWS/FT.)		
0	SILT SAND TILL						
1							
1.2		1.2	T16	6.5	26.2	67.3	CI-ML
1.6		1.6					
2	SAND						
2.10							
3	GRAVELLY SAND						
3.55							
4							
4.35	END HOLE @ 4.35						
5							



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PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-23	
DATE DRILLED: 1-3-78	DRILL TECHNICIAN: H.R.	PLOTTED BY: R.S.		HOLE ELEVATION:	
HOLE DEPTH: 4.35					
TYPE OF DRILL: B40-6" AUGERS					
WATER LEVEL					
DEPTH (M)					
SOIL DESCRIPTION					
0	GRAVEL				
1	SILTY GRAVEL				
2	SAND				
3					
4					
5	END HOLE @ 4.35				

UNIFIED CLASSIFICATION	STANDARD PENETRATION RESISTANCE		DRY DENSITY	MECHANICAL ANALYSIS			PLASTICITY INDEX	CONSISTENCY LIMITS		NATURAL MOISTURE CONTENT	SAMPLE IDENTIFICATION DATA			N.R.C. PERMAFROST CLASSIFICATION
	STANDARD PENETRATION RESISTANCE	BLOWS/FT.		<.005 mm	>.074 mm	SAND		GRAVEL	PLASTIC LIMIT		LIQUID LIMIT	SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	
SM				14.6	34.7	29.4	2.13	N.P.		12.5	.3	T17	AUGER S560	
											.9			



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PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-24	
DATE DRILLED: 1-3-78	DRILL TECHNICIAN: H.R.	PLOTTED BY: R.S.		HOLE ELEVATION:	
HOLE DEPTH 4.35	TYPE OF DRILL B40-6" AUGERS				
WATER LEVEL	SOIL DESCRIPTION				
DEPTH (M.)	Silty Gravel .30				
0	Silt Till				
1					
2					
3					
4	SAND 4.20				
5	END HOLE @ 4.35				

UNIFIED CLASSIFICATION	STANDARD PENETRATION RESISTANCE	DRY DENSITY LBS./CU.FT.	BLOWS/FT.	MECHANICAL ANALYSIS				CONSISTENCY LIMITS			NATURAL MOISTURE CONTENT %	SAMPLE IDENTIFICATION DATA				N.R.C. PERMAFROST CLASSIFICATION								
				<.005mm	<.075mm	>.005mm	SAND	GRAVEL	PLASTICITY INDEX	PLASTIC LIMIT		LIQUID LIMIT	SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE		LABORATORY NUMBER							
CL													2.4	T18	AUGER	5581	23.7	36.5	21.9	14.6	3.8	20.3	75.9	
													2.9											

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-25	
DATE DRILLED: 1-3-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.	
HOLE DEPTH 4.35		N.R.C. PERMAFROST CLASSIFICATION		UNIFIED CLASSIFICATION	
TYPE OF DRILL B40-6" AUGERS		SAMPLE IDENTIFICATION DATA		MECHANICAL ANALYSIS	
WATER LEVEL		LABORATORY NUMBER		GRAVEL	
SOIL DESCRIPTION		SAMPLE TYPE		SAND	
DEPTH (M)		SAMPLE NUMBER (FIELD)		PLASTICITY INDEX	
0	GRAVEL	SAMPLE DEPTH (FT.)		PLASTIC LIMIT	
0.30	SILT TILL	.3	T19	23.0	16.2
1		.9	AUGER 5582	23.4	6.8
2				10.2	66.4
2.10	GRAVELLY SILTY SAND				
2.55	SILT				
3					
4					
4.35	END HOLE @ 4.35				
5					

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 1-3-78

DRILL TECHNICIAN: H. R. R. S.

HOLE ELEVATION:

HOLE NO.: T-26

HOLE DEPTH 7.60
TYPE OF DRILL B40-6" AUGERS
WATER LEVEL
DEPTH (M)

M.R.C. PERMAFROST CLASSIFICATION

SAMPLE IDENTIFICATION DATA
SAMPLE DEPTH (FT.)
SAMPLE NUMBER (FIELD)
SAMPLE TYPE
LABORATORY NUMBER

CONSISTENCY LIMITS
LIQUID LIMIT %
PLASTIC LIMIT %
PLASTICITY INDEX %

MECHANICAL ANALYSIS
GRAVEL %
SAND %
<.074 mm %
>.005 mm %
<.005 mm %

DRY DENSITY
LIBS. CU. FT.
STANDARD PENETRATION RESISTANCE
BLOWS FT.
UNIFIED CLASSIFICATION

SOIL DESCRIPTION

GRAVEL .15

SILTY GRAVEL

.3

.9

T20 AUGER S583

11.6 31.8 56.6

8.3

24.0

11.4

15.7

CL

SILT TILL 1.65

SILTY GRAVEL 4.75



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PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-26	
DATE DRILLED: 1-3-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.	
HOLE DEPTH: 7.60		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
TYPE OF DRILL: B40-6" AUGERS		LIQUID LIMIT		SAND	
WATER LEVEL		PLASTIC LIMIT		GRAVEL	
DEPTH (M)		PLASTICITY INDEX		< 0.075 mm	
SOIL DESCRIPTION		NATURAL MOISTURE CONTENT		< 0.075 mm	
SILTY GRAVEL		LABORATORY NUMBER		> 0.075 mm	
		SAMPLE TYPE		STANDARD PENETRATION RESISTANCE	
END HOLE @ 7.60		SAMPLE NUMBER (FIELD)		DRY DENSITY	
		SAMPLE DEPTH (FT.)		UNIFIED CLASSIFICATION	
N.R.C. PERMAFROST CLASSIFICATION		BLWS. / FT.		LBS. / CU. FT.	



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SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

DATE DRILLED: 1-3-78

DRILL TECHNICIAN: H. R.

PLOTTED BY: R. S.

HOLE ELEVATION:

HOLE NO.: T-27

HOLE LOCATION:

HOLE DEPTH 4.35
TYPE OF DRILL B40-6" AUGERS
WATER LEVEL
DEPTH (M) SOIL DESCRIPTION

0 SANDY SILT .15

SILT TILL

END HOLE @ 4.35

DEPTH (M)	N.R.C. PERMAFROST CLASSIFICATION	SAMPLE IDENTIFICATION DATA				CONSISTENCY LIMITS			MECHANICAL ANALYSIS			DRY DENSITY LBS./CU. FT.	STANDARD PENETRATION RESISTANCE BLOWS/FT.	UNIFIED CLASSIFICATION	
		SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER	LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %	SAND %	>.005 mm %				<.074 mm %
.3															
.9		T21	AUGER	5562	23.8	27.5	18.9	8.6	6.0	94.0				CL	

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PROJECT: SHAKWAK SEGMENT 8 HOLE LOCATION: HOLE NO.: T-28

DATE DRILLED: 1-3-78 DRILL TECHNICIAN: H. R. PLOTTED BY: R. S. HOLE ELEVATION:

DEPTH (M)	SOIL DESCRIPTION	SAMPLE IDENTIFICATION DATA				NATURAL MOISTURE CONTENT (%)	CONSISTENCY LIMITS			MECHANICAL ANALYSIS			DRY DENSITY (LBS./CU. FT.)	STANDARD PENETRATION RESISTANCE (BLOWS/FT.)	UNIFIED CLASSIFICATION
		SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER		LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX (%)	GRAVEL (%)	SAND (%)	< .075 mm (%)			
0	SANDY TILL	.6													
0.30	SILT	1.2	T22	AUGER	5563	24.9	30.4	18.2	12.2	.4	9.2	90.4			CL
1.50	SILT TILL														
3.45	SANDY TILL														
4.35	END HOLE @ 4.35														

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: R.S.		HOLE ELEVATION:		HOLE NO.: T-29	
DATE DRILLED: 1-3-78		PLOTTED BY:		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
HOLE DEPTH 4.35		SAMPLE IDENTIFICATION DATA		PLASTIC LIMIT		SAND	
TYPE OF DRILL 3.40-6" AUGERS		LABORATORY NUMBER		LIQUID LIMIT		GRAVEL	
WATER LEVEL		SAMPLE TYPE		PLASTICITY INDEX		DRY DENSITY	
DEPTH (M)		SAMPLE NUMBER (FIELD)		PLASTIC LIMIT		BLOWS / FT.	
SOIL DESCRIPTION		SAMPLE DEPTH (FT.)		NATURAL MOISTURE CONTENT		UNIFIED CLASSIFICATION	
		N.R.C. PERMAFROST CLASSIFICATION		%		%	
				%		%	
0	SANDY TILL	0.3	T23	20.4	11.5	31.6	ML
1		0.9		18.0	2.4	1.1	
2	SILT	2.4		32.2	23.3		CL
3		3.0	T24	22.0	10.2	195%	
4	END HOLE @ 4.35						
5							



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PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO. : T-30											
DATE DRILLED: 2-3-78		DRILL TECHNICIAN: H. R.		PLOTTED BY: R. S.													
HOLE DEPTH 4.35	TYPE OF DRILL B40-6" AUGERS	WATER LEVEL	SOIL DESCRIPTION	SAMPLE IDENTIFICATION DATA				CONSISTENCY LIMITS			MECHANICAL ANALYSIS			DRY DENSITY LBS./CU.FT.	STANDARD PENETRATION RESISTANCE BLOWS/FT.	UNIFIED CLASSIFICATION	
				N.R.C. PERMAFROST CLASSIFICATION	SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER	NATURAL MOISTURE CONTENT %	LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %				SAND %
0			GRAVEL	.3													
1			SILTY GRAVEL	.9	T25	AUGER	S566	10.0	19.7	19.0	.7	8.5	44.8	46.7			SM
2			GRAVELLY SILT														
3				3.3													
4				4.0	T26	AUGER	S561	14.3	25.3	14.5	10.8	9.2	23.4	67.4			CL
5			END HOLE @ 4.35														

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: T-31	
DATE DRILLED: 2-3-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.			
HOLE DEPTH 4.35		TYPE OF DRILL B40-6" AUGERS		WATER LEVEL		SOIL DESCRIPTION	
DEPTH (M.)		GRAVEL		SILT		END HOLE @ 4.35	
0		.30					
1							
2							
3							
4							
5							
UNIFIED CLASSIFICATION		CL-ML					
STANDARD PENETRATION RESISTANCE		BLOWS/FT.					
DRY DENSITY		LBS./CU.FT.					
MECHANICAL ANALYSIS		<.005 mm		%			
		<.075 mm		%			
		>.005 mm		%		83.3	
SAND		%		16.2			
GRAVEL		%		.5			
CONSISTENCY LIMITS		PLASTICITY INDEX		%		4.6	
		PLASTIC LIMIT		%		19.9	
		LIQUID LIMIT		%		24.5	
NATURAL MOISTURE CONTENT		%		22.6			
SAMPLE IDENTIFICATION DATA		LABORATORY NUMBER		S567			
		SAMPLE TYPE		AUGER			
		SAMPLE NUMBER (FIELD)		T27			
		SAMPLE DEPTH (FT.)		.3		1.1	
N.R.C. PERMAFROST CLASSIFICATION							

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: T-32	
DATE DRILLED: 2-3-78		PLOTTED BY: R.S.		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
DRILL TECHNICIAN: H.R.		SAMPLE IDENTIFICATION DATA		PLASTICITY INDEX		GRAVEL	
HOLE DEPTH: 4.35		LABORATORY NUMBER		PLASTIC LIMIT		SAND	
TYPE OF DRILL: B40-6" AUGERS		SAMPLE TYPE		LIQUID LIMIT		V.005 mm	
WATER LEVEL		SAMPLE NUMBER (FIELD)		NATURAL MOISTURE CONTENT		V.074 mm	
DEPTH (M)		SAMPLE DEPTH (FT.)		%		%.005 mm	
SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION		%		D.R.Y. DENSITY	
						LB./CU. FT.	
						BLOWS/FT.	
						UNIFIED CLASSIFICATION	
0	GRAVEL	.3	T28	30.7	25.2		
1	SILT TILL	.9		20.9	9.8		
2		1.8	T29	41.8	28.6		
3		2.4		20.0	21.8		
4							
5							

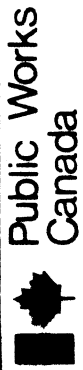
END HOLE @ 4.35



MATERIALS QUALITY CONTROL LABORATORY
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SUBSURFACE TESTING REPORT

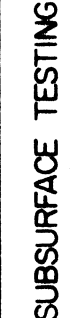
PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: T-33	
DATE DRILLED: 2-3-78		DRILL TECHNICIAN: H. R.		PLOTTED BY: R. S.			
HOLE DEPTH 4.35		TYPE OF DRILL B40-6" AUGERS		WATER LEVEL		UNIFIED CLASSIFICATION	
SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
SANDY GRAVEL				LIQUID LIMIT		SAND	
				PLASTIC LIMIT		GRAVEL	
SAND				PLASTICITY INDEX		SILT	
				NATURAL MOISTURE CONTENT		CLAY	
SILT				LABORATORY NUMBER		STANDARD PENETRATION RESISTANCE	
				SAMPLE TYPE		BLOWS / FT.	
END HOLE @ 4.35				SAMPLE NUMBER (FIELD)		DRY DENSITY	
				SAMPLE DEPTH (FT.)		LBS / CU. FT.	
0		.3		T30			
1		.9		AUGER S661			
2		1.80					
3		2.10					
4							
5							



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PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-34	
DATE DRILLED: 2-3-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.	
HOLE DEPTH: 4.35		TYPE OF DRILL: B40-6" AUGERS		WATER LEVEL: _____	
DEPTH (M.)		SOIL DESCRIPTION		UNIFIED CLASSIFICATION	
0	GRAVEL	_____ .30			
1	SANDY GRAVEL				
2	SILTY SAND	_____ 1.50			
	SILT	_____ 1.95			
3			3.0		
4			3.7		
5	END HOLE @ 4.35				



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PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-35	
DATE DRILLED: 2-3-78		DRILL TECHNICIAN: H. R.		HOLE ELEVATION:	
HOLE DEPTH: 4.35		PLOTTED BY: R. S.		UNIFIED CLASSIFICATION:	
TYPE OF DRILL: B40-6" AUGERS		SAMPLE IDENTIFICATION DATA		STANDARD PENETRATION RESISTANCE	
WATER LEVEL:		LABORATORY NUMBER		BLOWS	
DEPTH (M)		SAMPLE TYPE		PER FT.	
SOIL DESCRIPTION		SAMPLE NUMBER (FIELD)		DRY DENSITY	
GRAVEL ——— .15 SILT SAND TILL SILT TILL ——— 1.20 END HOLE @ 4.35		SAMPLE DEPTH (FT.)		LIBS	
		N.R.C. PERMAFROST CLASSIFICATION		CU.FT.	
		MECHANICAL ANALYSIS			
		GRAVEL		<.005 mm	
		SAND		<.074 mm	
		PLASTICITY INDEX		>.005 mm	
		PLASTIC LIMIT		%	
		LIQUID LIMIT		%	
		NATURAL MOISTURE CONTENT		%	



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PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-36	
DATE DRILLED: 2-3-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.	
HOLE DEPTH: 4.35		MECHANICAL ANALYSIS		UNIFIED CLASSIFICATION	
TYPE OF DRILL: B40-6" AUGERS		GRAVEL		SM	
WATER LEVEL		SAND			
DEPTH (M)		PLASTICITY INDEX			
0		NP			
GRAVEL		LIQUID LIMIT			
.15		PLASTIC LIMIT			
SILTY SAND TILL		NATURAL MOISTURE CONTENT		10.6	
1		CONSISTENCY LIMITS			
GRAVELLY SILT		GRAVEL		5.9	
2		SAND		47.0	
2.10		DRY DENSITY		47.1	
3		STANDARD PENETRATION RESISTANCE			
4		BLOWS/FT.			
5		LIB. CU.FT.			
END HOLE @ 4.35		LABORATORY NUMBER			
		SAMPLE TYPE			
		SAMPLE NUMBER (FIELD)		T32	
		SAMPLE DEPTH (FT.)		.3	
		N.R.C. PERMAFROST CLASSIFICATION			
		SAMPLE IDENTIFICATION DATA			
		HOLE ELEVATION:			

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		R. S.		HOLE ELEVATION:		HOLE NO.: T-37	
DATE DRILLED: 2-3-78		DRILL TECHNICIAN:		H. R.		PLOTTED BY:		R. S.	
HOLE DEPTH: 4.35		TYPE OF DRILL: 8.40-6" AUGERS		WATER LEVEL:		SOIL DESCRIPTION			
DEPTH (M)		GRAVEL		0		GRAVELLY SAND		0.15	
1		GRAVELLY SAND				SILT SAND TILL		1.80	
2		SILT SAND TILL		1.8		GRAVELLY SILT		2.70	
3		GRAVELLY SILT		2.4		END HOLE @ 4.35			
4		END HOLE @ 4.35							
5									

UNIFIED CLASSIFICATION	STANDARD PENETRATION RESISTANCE	BLOWS / FT.	DRY DENSITY	LBS. / CU. FT.	MECHANICAL ANALYSIS			CONSISTENCY LIMITS	PLASTICITY INDEX	PLASTIC LIMIT	LIQUID LIMIT	NATURAL MOISTURE CONTENT	LABORATORY NUMBER	SAMPLE TYPE	SAMPLE NUMBER (FIELD)	SAMPLE DEPTH (FT.)	N.R.C. PERMAFROST CLASSIFICATION
					<.005 mm	<.075 mm	>.005 mm										

Public Works Canada **MATERIALS QUALITY CONTROL LABORATORY** **SUBSURFACE TESTING REPORT**
Whitehorse, Y.T.

PROJECT: SHAKWAK SEGMENT 8 HOLE LOCATION: HOLE NO.: T-38

DATE DRILLED: 2-3-78 DRILL TECHNICIAN: H.R. PLOTTED BY: R.S. HOLE ELEVATION:

DEPTH (M)	SOIL DESCRIPTION	N.R.C. PERMAFROST CLASSIFICATION	SAMPLE IDENTIFICATION DATA				CONSISTENCY LIMITS			MECHANICAL ANALYSIS				DRY DENSITY LBS./CU.FT.	STANDARD PENETRATION RESISTANCE BLOWS/FT.	UNIFIED CLASSIFICATION	
			SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER	NATURAL MOISTURE CONTENT %	LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %	SAND %	<.075 mm %				>.008 mm %
0	GRAVEL		.3														
1	SAND TILL		.9	T34	AUGER	S664	5.0			NP							
1.05	SANDY SILT																
4.35	END HOLE @ 4.35																



**MATERIALS QUALITY CONTROL LABORATORY
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PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: **2-3-78**

DRILL TECHNICIAN:

H. R.

R. S.

HOLE ELEVATION:

HOLE NO.: **T-39**

HOLE DEPTH 4.35
 TYPE OF DRILL B40-6" AUGERS
 WATER LEVEL _____
 SOIL DESCRIPTION

GRAVEL .30
 SILTY SAND .60

SILT

END HOLE @ 4.35

DEPTH (M)	SAMPLE IDENTIFICATION DATA				CONSISTENCY LIMITS			MECHANICAL ANALYSIS			DRY DENSITY	STANDARD PENETRATION RESISTANCE	UNIFIED CLASSIFICATION		
	N. R.C. PERMAFROST CLASSIFICATION	SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER	NATURAL MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX (%)	GRAVEL (%)				SAND (%)	<.075 mm (%)
0															
0.6		T35	AUGER	S665	22.4	27.9	16.1	11.8							
1.2															
1.5															
2.0															
3.0															
4.0															
4.35															
5.0															

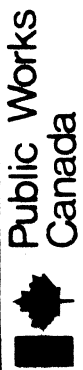


MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-40	
DATE DRILLED: 2-3-78		PLOTTED BY: R.S.		HOLE ELEVATION:	
DRILL TECHNICIAN: H.R.		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
HOLE DEPTH 4.35		LIQUID LIMIT %		<.005 mm %	
TYPE OF DRILL 3.40-6" AUGERS		PLASTIC LIMIT %		<.074 mm %	
WATER LEVEL		PLASTICITY INDEX %		>.005 mm %	
DEPTH (M)		NATURAL MOISTURE CONTENT %		SAND %	
SOIL DESCRIPTION		LABORATORY NUMBER		GRAVEL %	
0	GRAVEL .15	SAMPLE DEPTH (FT.)		UNIFIED CLASSIFICATION	
1	SILT SAND TILL	.3			
2		.9			
3					
4					
5					

END HOLE @ 4.35



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-41	
DATE DRILLED: 2-3-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.	
HOLE DEPTH: 4.35		N.R.C. PERMAFROST CLASSIFICATION:		UNIFIED CLASSIFICATION:	
TYPE OF DRILL: 8.0-6" AUGERS		SAMPLE IDENTIFICATION DATA:		STANDARD PENETRATION RESISTANCE:	
WATER LEVEL:		LABORATORY NUMBER:		BLOWS / FT.:	
DEPTH (M):		SAMPLE TYPE:		DRY DENSITY:	
SOIL DESCRIPTION:		SAMPLE NUMBER (FIELD):		MECHANICAL ANALYSIS:	
0		SAMPLE DEPTH (FT.):		GRAVEL %	
.30		.3		SAND %	
.9		.9		PLASTICITY INDEX %	
1.35		T37 AUGER S667		PLASTIC LIMIT %	
1.35		5.5		LIQUID LIMIT %	
2		NP		NATURAL MOISTURE CONTENT %	
3		5.5		NATURAL MOISTURE CONTENT %	
4		5.5		NATURAL MOISTURE CONTENT %	
5		5.5		NATURAL MOISTURE CONTENT %	
END HOLE @ 4.35		5.5		NATURAL MOISTURE CONTENT %	

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: R. S.		HOLE ELEVATION: T-42		HOLE NO.: T-42		
DATE DRILLED: 2-3-78		PLOTTED BY: H. R.		CONSISTENCY LIMITS		MECHANICAL ANALYSIS		
HOLE DEPTH: 4.35		DRILL TECHNICIAN: H. R.		LIQUID LIMIT	PLASTIC LIMIT	< .075 mm	< .005 mm	
TYPE OF DRILL: B40-6" AUGERS		SAMPLE IDENTIFICATION DATA		%	%	%	%	
WATER LEVEL		SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER	NATURAL MOISTURE CONTENT	GRAVEL	
SOIL DESCRIPTION		(FT.)				%	SAND	
						%	> .006 mm	
						%	> .075 mm	
						%	BLOWS / FT.	
						%	LIQ. CAP.	
						%	STANDARD PENETRATION RESISTANCE	
						%	UNIFIED CLASSIFICATION	
0	SILT SAND Till	.3	T38	AUGER	5670	23.2		CL
1	SILT	.9					95+	
2		2.4						
3		3.0	T39	AUGER	5668	16.9	30.7	17.2
4								13.5
5	END HOLE @ 4.35							



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: R. S.		HOLE ELEVATION: T-43		HOLE NO: T-43	
DATE DRILLED: 2-3-78		DRILL TECHNICIAN: H. R.		PLOTTED BY: R. S.			
HOLE DEPTH 4.35		TYPE OF DRILL B40-6" AUGERS		WATER LEVEL		UNIFIED CLASSIFICATION	
DEPTH (M)		SOIL DESCRIPTION		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
0		SILT SAND TILL .30		LIQUID LIMIT %		SAND %	
1		SILT		PLASTIC LIMIT %		GRAVEL %	
2				PLASTICITY INDEX %		CLAY <.075 mm %	
3				NATURAL MOISTURE CONTENT %		FINE SAND <.005 mm %	
4		END HOLE @ 4.35		LABORATORY DATA		STANDARD PENETRATION RESISTANCE BLOWS/FT.	
5				SAMPLE DEPTH (FT.)		DRY DENSITY LB/ CU. FT.	
				SAMPLE NUMBER (FIELD)			
				SAMPLE TYPE			
				LABORATORY NUMBER			
				T40 Auger 5669			
				.3			
				1.2			
				N.R.C. PERMAFROST CLASSIFICATION			



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-44	
DATE DRILLED: 6-3-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.	
HOLE DEPTH: 4.35		MECHANICAL ANALYSIS		UNIFIED CLASSIFICATION	
TYPE OF DRILL: B40-6" AUGERS		GRAVEL		STANDARD PENETRATION RESISTANCE	
WATER LEVEL		SAND		BLOWS / FT.	
DEPTH (M)		PLASTICITY INDEX		DRY DENSITY	
SOIL DESCRIPTION		CONSISTENCY LIMITS		LBS. / CU. FT.	
SILT SAND TILL		LIQUID LIMIT		%	
SANDY SILT		PLASTIC LIMIT		%	
END HOLE @ 4.35		NATURAL MOISTURE CONTENT		%	
		LABORATORY NUMBER			
		SAMPLE TYPE			
		SAMPLE NUMBER (FIELD)			
		SAMPLE DEPTH (FT.)			
		N.R.C. PERMAFROST CLASSIFICATION			



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: R.S.S.		HOLE ELEVATION:		HOLE NO.: T-45	
DATE DRILLED: 6-3-78		DRILL TECHNICIAN: H.R.		PLOTTED BY:			
HOLE DEPTH 4.35		TYPE OF DRILL 840-6" AUGERS		WATER LEVEL			
DEPTH (M)		SOIL DESCRIPTION					
0	SILT SAND TILL		.30				
1	SILTY SAND						ML
2							
3							
4							
5							

END HOLE @ 4.35



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 6-3-78

DRILL TECHNICIAN: H. R.

PLOTTED BY: R. S.

HOLE ELEVATION:

HOLE NO.: T-46

HOLE DEPTH 4.35
 TYPE OF DRILL B40-6" AUGERS
 WATER LEVEL _____
 SOIL DESCRIPTION _____

N.R.C. PERMAFROST CLASSIFICATION

LABORATORY NUMBER _____
 SAMPLE TYPE _____
 SAMPLE NUMBER (FIELD) _____
 SAMPLE DEPTH (FT.) _____

NATURAL MOISTURE CONTENT %

LIQUID LIMIT %

PLASTIC LIMIT %

PLASTICITY INDEX %

GRAVEL %

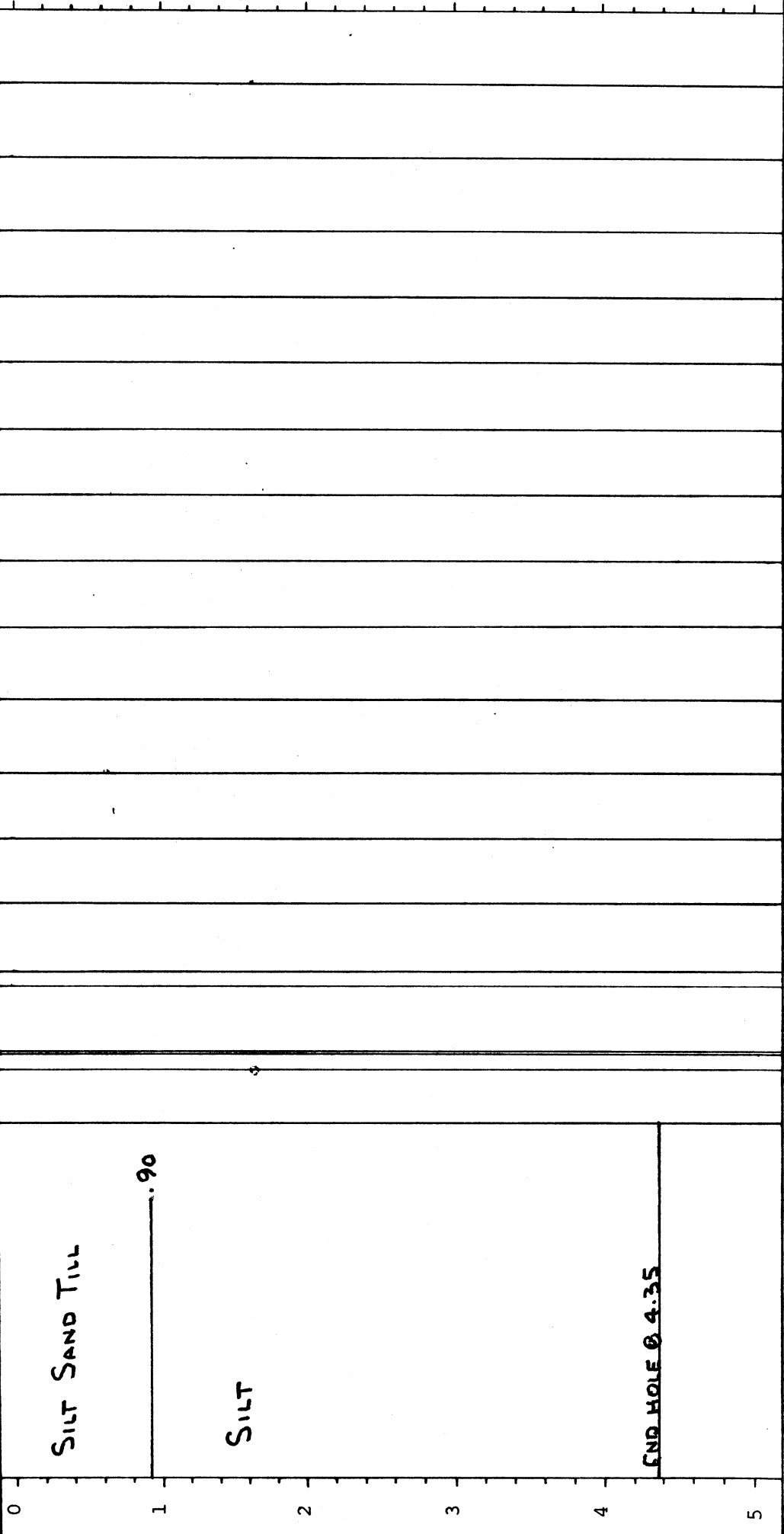
SAND %

MECHANICAL ANALYSIS
 <.075 mm %
 >.005 mm %

DRY DENSITY LBS. CU. FT.

STANDARD PENETRATION RESISTANCE BLOWS FT.

UNIFIED CLASSIFICATION





MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: T-47									
DATE DRILLED: 6-3-78		DRILL TECHNICIAN: H. R.		PLOTTED BY: R. S.											
HOLE DEPTH	SOIL DESCRIPTION	SAMPLE IDENTIFICATION DATA		CONSISTENCY LIMITS		MECHANICAL ANALYSIS		DRY DENSITY	STANDARD PENETRATION RESISTANCE	UNIFIED CLASSIFICATION					
(M)		SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER	NATURAL MOISTURE CONTENT %	LIQUID LIMIT %				PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %	SAND %	< 0.075 mm %
0															
0.75	SAND SILT TILL	0.8	T43	AUGER	ST38	18.3	26.9	16.1	8.8	17.0	83.0				CL
1.4	SILT	1.4													
3.3		3.3	T47	AUGER	ST42	18.1	32.5	18.9	13.6	4.7	8.0	87.3			CL
4.0	END HOLE @ 4.35	4.0													
5															



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WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-48	
DATE DRILLED: 6-3-78		DRILL TECHNICIAN: H. R.		PLOTTED BY: R. S.	
HOLE DEPTH: 4.35		TYPE OF DRILL: B40-6" AUGERS		WATER LEVEL	
DEPTH (M)		SOIL DESCRIPTION		UNIFIED CLASSIFICATION	
0	SILT SAND TILL		.45		
	SILT TILL		.75		
1	SILT			CL	
2					
3					
4					
5	END HOLE @ 4.35				

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: T-49													
DATE DRILLED: 6-3-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.S.															
HOLE DEPTH	TYPE OF DRILL	SAMPLE IDENTIFICATION DATA		CONSISTENCY LIMITS		MECHANICAL ANALYSIS		DRY DENSITY	STANDARD PENETRATION RESISTANCE	UNIFIED CLASSIFICATION									
		WATER LEVEL	SOIL DESCRIPTION	LABORATORY NUMBER	SAMPLE TYPE	LIQUID LIMIT	PLASTIC LIMIT				PLASTICITY INDEX	< .005 mm	< .075 mm	> .005 mm	LIBB. CU. FT.	BLOWS FT.			
DEPTH (M.)				SAMPLE NUMBER (FIELD)	SAMPLE DEPTH (FT.)	%	%	%	%	%	%	%	%						
0			SILT SAND TILL .30		.6														
1			SILT	T45	1.2	27.4	53.6	27.7	25.9	95+									CH
2																			
3			SILTY SAND																
4			CLAYEY SILT																
5			END HOLE @ 4.35																



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WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-50			
DATE DRILLED: 6-3-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.			
HOLE DEPTH	TYPE OF DRILL	WATER LEVEL	MECHANICAL ANALYSIS			STANDARD PENETRATION RESISTANCE	UNIFIED CLASSIFICATION
			GRAVEL	SAND	< 0.075 mm		
DEPTH (M.)	SOIL DESCRIPTION	NATURAL MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX (%)	DRY DENSITY (LBS./CU. FT.)	BLOWS / FT.
0	SILT SAND TILL	16.4	24.4	16.9	7.5	23.5	CL
0.3							
0.9	SILT						
2.40	SILT TILL						
4.35	END HOLE @ 4.35						



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WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-51											
DATE DRILLED: 6-3-78		DRILL TECHNICIAN: H. R.		HOLE ELEVATION:											
HOLE DEPTH: 3.00		PLOTTED BY: R. S.		UNIFIED CLASSIFICATION											
TYPE OF DRILL: B40-6" AUGERS		SAMPLE IDENTIFICATION DATA		STANDARD PENETRATION RESISTANCE											
WATER LEVEL		N.R.C. PERMAFROST CLASSIFICATION		BLOWS / FT.											
DEPTH (M)	SOIL DESCRIPTION	SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER	NATURAL MOISTURE CONTENT	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	GRAVEL	SAND	<.074 mm	<.005 mm	DRY DENSITY	UNIFIED CLASSIFICATION
0	SANDY SILT TILL .30	.3	T48	AUGER	ST43	11.1			NP	0.4	37.6	62.0			ML
1	SILTY SAND TILL ORGANIC .135	.9													
2	SILT TILL														
3	REFUSAL @ 3.00														
4															
5															



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: R. S.		HOLE ELEVATION:		HOLE NO.: T-52	
DATE DRILLED: 6-3-78		DRILL TECHNICIAN: H. R.		PLOTTED BY:			
HOLE DEPTH: 3.30		TYPE OF DRILL: B40-6" AUGERS		WATER LEVEL:			
DEPTH (M.)		SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION			
0		SAND SILT TILL .30					
1		SILT .9					
2		SANDY SILT 2.4					
3		REFUSAL @ 3.30 3.0					
4							
5							

MECHANICAL ANALYSIS	DRY DENSITY		UNIFIED CLASSIFICATION
	LIB. CU. FT.	BLOWS FT.	
<.005 mm	%		CL
<.074 mm	%		
>.005 mm	%		
SAND	%		
GRAVEL	%		SM
PLASTICITY INDEX	%		
PLASTIC LIMIT	%		
LIQUID LIMIT	%		
NATURAL MOISTURE CONTENT	%		

CONSISTENCY LIMITS		GRAVEL	SAND	>.005 mm	<.074 mm	<.005 mm
LIQUID LIMIT	PLASTIC LIMIT					
37.1	20.2	0.7	16.3	83.0		
7.6	NP		56.9	43.1		

SAMPLE IDENTIFICATION DATA		SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER
NATURAL MOISTURE CONTENT	PLASTICITY INDEX				
22.0	16.9	.3	T49	AUGER	ST44
7.6	NP	2.4	T50	AUGER	ST45

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-53	
DATE DRILLED: 6-3-78		DRILL TECHNICIAN: H. R. R. S.		HOLE ELEVATION:	
HOLE DEPTH: 3.00		TYPE OF DRILL: B40-6" AUGERS		WATER LEVEL:	
DEPTH (M.)		SOIL DESCRIPTION		UNIFIED CLASSIFICATION	
0					
1	SILTY SAND TILL	.90			CL
2	SILT	1.5		95+	
3	GRAVELLY SAND	2.55			
4	REEFSAL @ 3.00				
5					



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WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: T-54		
DATE DRILLED: 7-3-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.				
HOLE DEPTH 4.35		TYPE OF DRILL B40-6" AUGERS		WATER LEVEL		SOIL DESCRIPTION		
DEPTH (M.)								
0	SANDY SILT Till							UNIFIED CLASSIFICATION
1								
2	GRAVELLY SANDY SILT							SC
3								
4	END HOLE @ 4.35							
5								



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

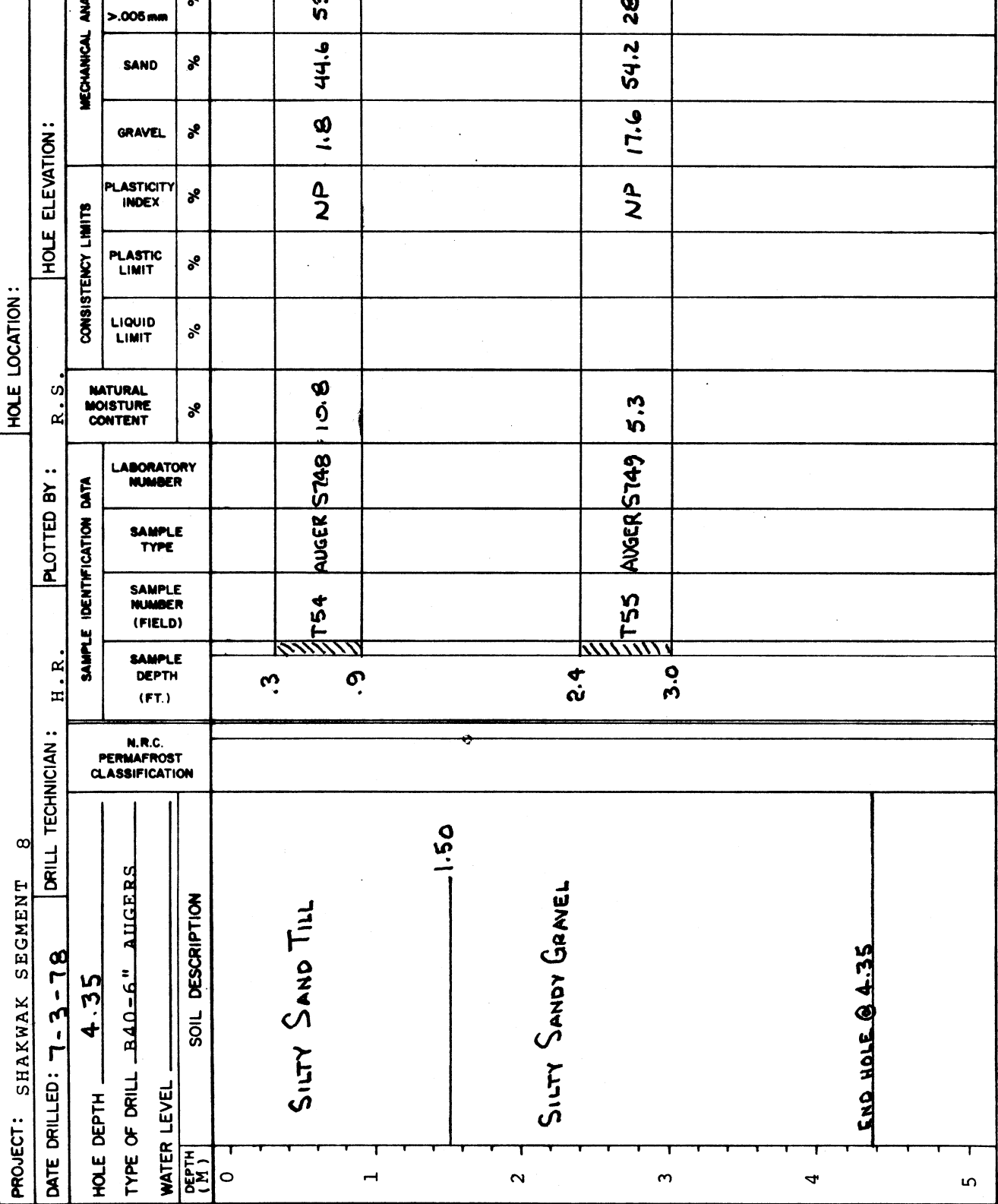
SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-55	
DATE DRILLED: 7-3-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.	
HOLE DEPTH 4.35		MECHANICAL ANALYSIS		UNIFIED CLASSIFICATION	
TYPE OF DRILL B40-6" AUGERS		GRAVEL		STANDARD PENETRATION RESISTANCE	
WATER LEVEL		SAND		DRY DENSITY	
DEPTH (M)		PLASTIC LIMIT		LIB. CU. FT.	
SOIL DESCRIPTION		LIQUID LIMIT		BLOWS FT.	
SILT SAND TILL		PLASTICITY INDEX			
		NATURAL MOISTURE CONTENT			
SILT		CONSISTENCY LIMITS			
		PLASTIC INDEX			
SANDY SILT		LABORATORY DATA			
		SAMPLE IDENTIFICATION DATA			
END HOLE @ 4.35		SAMPLE DEPTH (FT.)			
		SAMPLE NUMBER (FIELD)			
		N.R.C. PERMAFROST CLASSIFICATION			
		SAMPLE TYPE			
		LABORATORY NUMBER			

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: T-56		
DATE DRILLED: 7-3-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.				
HOLE DEPTH: 4.35		TYPE OF DRILL: B40-6" AUGERS		WATER LEVEL		SOIL DESCRIPTION		
DEPTH (M)								
0	SILTY SAND TILL							UNIFIED CLASSIFICATION
1								STANDARD PENETRATION RESISTANCE
2	SILTY SANDY GRAVEL							SM
3								
4								
5								

SAMPLE IDENTIFICATION DATA		CONSISTENCY LIMITS		NATURAL MOISTURE CONTENT		MECHANICAL ANALYSIS		STANDARD PENETRATION RESISTANCE		
DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX (%)	GRAVEL (%)	SAND (%)	<0.075 mm (%)	<0.005 mm (%)
0.3	T54	AUGER	ST48	10.8	NP	NP	1.8	44.6	53.6	
0.9										
2.4	T55	AUGER	ST49	5.3	NP	NP	17.6	54.2	28.2	
3.0										

N.R.C. PERMAFROST CLASSIFICATION





MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: R.S.S.		HOLE ELEVATION:		HOLE NO.: T-57	
DATE DRILLED: 7-3-78		DRILL TECHNICIAN: H.R.R.		PLOTTED BY:			
HOLE DEPTH 1.80		TYPE OF DRILL B40-6" AUGERS		WATER LEVEL		SOIL DESCRIPTION	
DEPTH (M.)		N.R.C. PERMAFROST CLASSIFICATION		SAMPLE IDENTIFICATION DATA		NATURAL MOISTURE CONTENT	
0				LABORATORY NUMBER		%	
1				SAMPLE TYPE		%	
2				SAMPLE NUMBER (FIELD)		%	
3				SAMPLE DEPTH (FT.)		%	
4				.6		%	
5				1.2		%	
		SILTY SANDY GRAVEL		T56 AUGER 5750		12.2	
		END HOLE @ 1.80				12.6	
						35.7	
						39.2	
				13.5		NP	
				GRAVEL		%	
				SAND		%	
				V.005 #		%	
				A.074 #		%	
				A.005 #		%	
				DRY DENSITY		LB./CU.FT.	
				STANDARD PENETRATION RESISTANCE		BLOWS/FT.	
				UNIFIED CLASSIFICATION		SM	



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-58	
DATE DRILLED: 7-3-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.	
HOLE DEPTH: 1.65		MECHANICAL ANALYSIS		UNIFIED CLASSIFICATION	
TYPE OF DRILL: B40-6" AUGERS		GRAVEL		STANDARD PENETRATION RESISTANCE	
WATER LEVEL		SAND		BLOWS / FT.	
DEPTH (M.)		PLASTICITY INDEX		DRY DENSITY	
SOIL DESCRIPTION		PLASTIC LIMIT		LBS / CU.FT.	
SILT SAND TILL		LIQUID LIMIT		ML	
		NATURAL MOISTURE CONTENT			
REFUSAL @ 1.65		N.R.C. PERMAFROST CLASSIFICATION		46.3	
		SAMPLE IDENTIFICATION DATA			
0		SAMPLE DEPTH (FT.)		NP	
1		.6			
2		1.2		46.3	
3					
4				46.3	
5					



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-59	
DATE DRILLED: 1-3-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.	
HOLE DEPTH 4.35		MECHANICAL ANALYSIS		UNIFIED CLASSIFICATION	
TYPE OF DRILL B40-6" AUGERS		GRAVEL %		SM	
WATER LEVEL		SAND %			
DEPTH (M.)		> .006 mm %			
SOIL DESCRIPTION		PLASTIC LIMIT %			
		LIQUID LIMIT %			
SILTY SANDY GRAVEL ORGANIC		PLASTICITY INDEX %		NP	
		NATURAL MOISTURE CONTENT %		8.0	
END HOLE @ 4.35		SAMPLE IDENTIFICATION DATA		DRY DENSITY	
		LABORATORY NUMBER		LIBS. CU. FT.	
0		SAMPLE TYPE		STANDARD PENETRATION RESISTANCE	
1		SAMPLE NUMBER (FIELD)		BLOWS	
2		SAMPLE DEPTH (FT.)		FT.	
3		.3			
4		.9			
5		T58 AUGER S752			
		N.R.C. PERMAFROST CLASSIFICATION			

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-60	
DATE DRILLED: 7-3-78		DRILL TECHNICIAN: H. R.		HOLE ELEVATION: R. S.	
HOLE DEPTH: 4.35		PLOTTED BY:		MECHANICAL ANALYSIS	
TYPE OF DRILL: B40-6" AUGERS		SAMPLE IDENTIFICATION DATA		<.005 mm % <.075 mm % >.005 mm % SAND % GRAVEL %	
WATER LEVEL		SAMPLE DEPTH (FT.) .3 .9		CONSISTENCY LIMITS PLASTIC LIMIT % LIQUID LIMIT % PLASTICITY INDEX %	
SOIL DESCRIPTION		SAMPLE NUMBER (FIELD) T59		NATURAL MOISTURE CONTENT % 12.8	
DEPTH (M)		SAMPLE TYPE AUGER		STANDARD PENETRATION RESISTANCE BLOWS / FT.	
0		SAMPLE DEPTH (FT.) .3 .9		UNIFIED CLASSIFICATION ML	
1		N.R.C. PERMAFROST CLASSIFICATION			
2		SANDY SILT			
3		GRAVELLY SILTY SAND			
4		1.50			
5		END HOLE @ 4.35			



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: R.S.S.		HOLE ELEVATION:		HOLE NO.: T-61	
DATE DRILLED: 7-3-78		DRILL TECHNICIAN: H.R.		PLOTTED BY:			
HOLE DEPTH 4.35		TYPE OF DRILL B40-6" AUGERS		WATER LEVEL		SOIL DESCRIPTION	
0		GRAVEL		.30			
1		SILT SAND TILL		1.50			
2		SILTY SANDY GRAVEL					
3							
4							
5		END HOLE @ 4.35					
UNIFIED CLASSIFICATION		STANDARD PENETRATION RESISTANCE		DRY DENSITY		BLOWS/FT.	
MECHANICAL ANALYSIS		CONSISTENCY LIMITS		NATURAL MOISTURE CONTENT		LABORATORY DATA	
<.005 mm % <.074 mm % >.005 mm % SAND % GRAVEL %		PLASTICITY INDEX % PLASTIC LIMIT % LIQUID LIMIT %		%		SAMPLE DEPTH (FT.) SAMPLE NUMBER (FIELD) SAMPLE TYPE LABORATORY NUMBER	
		NP		8.2		T60 AUGER S754	
						2.4	
						3.0	
						22.1 29.4 48.5	
						ML	



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: R. S.		HOLE ELEVATION: T-62		HOLE NO.: T-62	
DATE DRILLED: 7-3-78		DRILL TECHNICIAN: H. R.		PLOTTED BY: R. S.			
HOLE DEPTH: 4.35		TYPE OF DRILL: B40-6" AUGERS		WATER LEVEL: _____			
DEPTH (M)		SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION			
0	.30	SILTY SAND	.3	T61	AUGER 5755	19.5	26.2
1	2.10	SAND SILT TILL	.9			18.6	7.6
2						3.3	22.6
3						74.1	
4							
5							
END HOLE @ 4.35				UNIFIED CLASSIFICATION: CL			



MATERIALS QUALITY CONTROL LABORATORY

WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: T-63						
DATE DRILLED: 7-3-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.								
HOLE DEPTH 4.35	TYPE OF DRILL B40-6" AUGERS	WATER LEVEL	SOIL DESCRIPTION	CONSISTENCY LIMITS			MECHANICAL ANALYSIS			DRY DENSITY LBS./CU. FT.	STANDARD PENETRATION RESISTANCE BLOWS/FT.	UNIFIED CLASSIFICATION
				LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %	SAND %	<.075 mm %			
DEPTH (M)				NATURAL MOISTURE CONTENT %								
0												
0.3			SANDY SILTY GRAVEL	18.4	NP	11.8	24.7	63.5				ML
0.9												
2.1												
2.7												
3.00			GRAVELLY SAND	9.6	8.1	8.6	29.6	61.8				CL
4.35			END HOLE @ 4.35									



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 7-3-78

DRILL TECHNICIAN: H.R.

R.S.

HOLE ELEVATION:

HOLE NO.: T-64

HOLE DEPTH 5.95
TYPE OF DRILL 8.40-6" AUGERS
WATER LEVEL

SOIL DESCRIPTION

0
1
2
3
4
5

SANDY SILTY GRAVEL

N.R.C. PERMAFROST CLASSIFICATION

SAMPLE IDENTIFICATION DATA

SAMPLE DEPTH (FT.)

SAMPLE NUMBER (FIELD)

SAMPLE TYPE

LABORATORY NUMBER

NATURAL MOISTURE CONTENT

CONSISTENCY LIMITS

LIQUID LIMIT

PLASTIC LIMIT

PLASTICITY INDEX

GRAVEL

SAND

MECHANICAL ANALYSIS

<.074 mm

>.005 mm

<.005 mm

DRY DENSITY

LB/ CU. FT.

STANDARD PENETRATION RESISTANCE

BLOWS / FT.

UNIFIED CLASSIFICATION

.3

.9

12.0

NP

5.9

33.7

60.4

ML



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 7-3-78

DRILL TECHNICIAN: H.R.

PLOTTED BY: R.S.

HOLE ELEVATION:

HOLE NO.: T-64

HOLE DEPTH 5.95
 TYPE OF DRILL B40-6" AUGERS
 WATER LEVEL _____
 SOIL DESCRIPTION

N.R.C.
PERMAFROST
CLASSIFICATION

SAMPLE DEPTH
(FT.)

SAMPLE NUMBER
(FIELD)

SAMPLE TYPE

LABORATORY
NUMBER

NATURAL
MOISTURE
CONTENT

LIQUID
LIMIT

PLASTIC
LIMIT

PLASTICITY
INDEX

GRAVEL

SAND

MECHANICAL ANALYSIS
 <.074 mm
 >.005 mm

<.005 mm

DRY
DENSITY

STANDARD
PENETRATION
RESISTANCE

UNIFIED
CLASSIFICATION

5

SANDY SILTY GRAVEL

END HOLE @ 5.95

6

7

8

9

10



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WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: T-65	
DATE DRILLED: 7-3-78		DRILL TECHNICIAN: H. R.		R. S.		PLOTTED BY:	
HOLE DEPTH 4.35		TYPE OF DRILL 3.40-6" AUGERS		WATER LEVEL		UNIFIED CLASSIFICATION	
DEPTH (M)		SOIL DESCRIPTION		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
0	GRAVEL			LIQUID LIMIT	%	GRAVEL	%
1	GRAVELLY SILT			PLASTIC LIMIT	%	SAND	%
2				PLASTICITY INDEX	%	CLAY < 0.075 mm	%
3	SILT TILL			NATURAL MOISTURE CONTENT	%	CLAY > 0.075 mm	%
4				LABORATORY NUMBER		DRY DENSITY	LB/ CU. FT.
5	END HOLE @ 4.35			SAMPLE TYPE		STANDARD PENETRATION RESISTANCE	BLOWS / FT.

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-66	
DATE DRILLED: 7-3-78		DRILL TECHNICIAN: H.R.R.		PLOTTED BY: R.S.S.	
HOLE DEPTH 4.35		MECHANICAL ANALYSIS		UNIFIED CLASSIFICATION	
TYPE OF DRILL B40-6" AUGERS		GRAVEL %		STANDARD PENETRATION RESISTANCE BLOWS/FT.	
WATER LEVEL		SAND %		DRY DENSITY LB./CU.FT.	
DEPTH (M.)	SOIL DESCRIPTION	CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
		LIQUID LIMIT %		< 0.075 mm %	
		PLASTIC LIMIT %		> 0.075 mm %	
		PLASTICITY INDEX %			
		NATURAL MOISTURE CONTENT %			
		LABORATORY NUMBER			
		SAMPLE TYPE			
		SAMPLE NUMBER (FIELD)			
		SAMPLE DEPTH (FT.)			
		N.R.C. PERMAFROST CLASSIFICATION			

SANDY GRAVEL

GRAVEL 46.9
SAND 37.7
PLASTICITY INDEX NP
NATURAL MOISTURE CONTENT 4.6
UNIFIED CLASSIFICATION G-M

MECHANICAL ANALYSIS
< 0.075 mm 15.4
> 0.075 mm

SAMPLE DEPTH (FT.)
0.6
1.2

END HOLE @ 4.35



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-67	
DATE DRILLED: 7-3-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.	
HOLE DEPTH 3.60		N.R.C. PERMAFROST CLASSIFICATION		UNIFIED CLASSIFICATION	
TYPE OF DRILL B40-6" AUGERS		SOIL DESCRIPTION SANDY GRAVEL		STANDARD PENETRATION RESISTANCE	
WATER LEVEL				DRY DENSITY	
DEPTH (M.)		SAMPLE IDENTIFICATION DATA		MECHANICAL ANALYSIS	
0		SAMPLE DEPTH (FT.)		GRAVEL	
1		1.5		SAND	
2		2.1		PLASTIC LIMIT	
3		T68		PLASTICITY INDEX	
4		AUGER 5762		LIQUID LIMIT	
5				NATURAL MOISTURE CONTENT	
				CONSISTENCY LIMITS	
				PLASTIC LIMIT	
				PLASTICITY INDEX	
				GRAVEL	
				SAND	
				> 0.075 mm	
				> 0.005 mm	
				BLOWS / FT.	
				LIBS. / CU. FT.	
				GP	
				73.2 22.2 4.6	
				NP	
				1.4	
				%	
				%	
				%	
				%	

REFUSAL @ 3.60

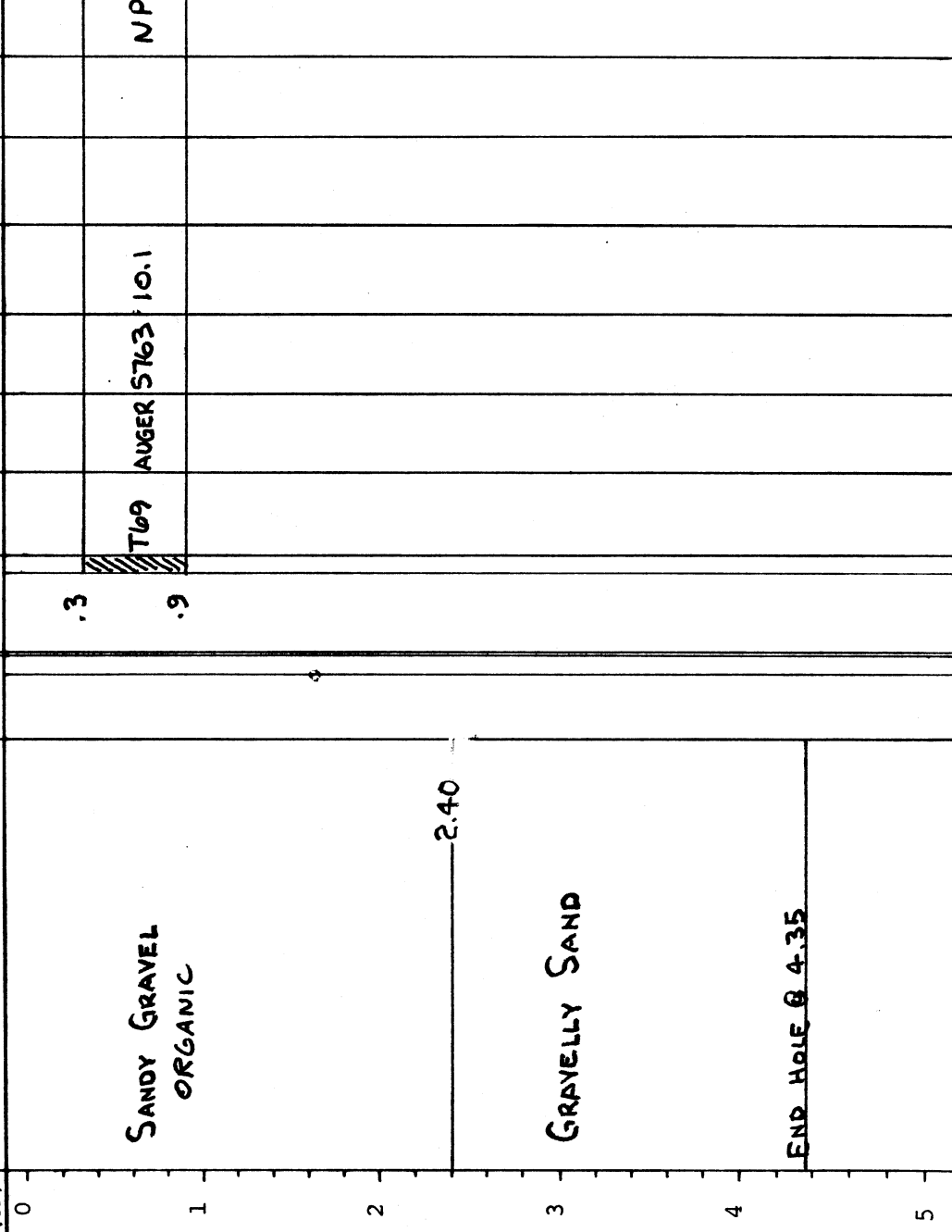


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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-68	
DATE DRILLED: 7-3-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.	
HOLE DEPTH 4.35		MECHANICAL ANALYSIS		UNIFIED CLASSIFICATION	
TYPE OF DRILL B40-6" AUGERS		GRAVEL %		STANDARD PENETRATION RESISTANCE BLOWS/FT.	
WATER LEVEL		SAND %		DRY DENSITY LB./CU.FT.	
DEPTH (M.)		PLASTIC LIMIT %		LIME	
SOIL DESCRIPTION		LIQUID LIMIT %		CU.FT.	
0		PLASTICITY INDEX %			
1		NATURAL MOISTURE CONTENT %			
2		CONSISTENCY LIMITS			
3		LABORATORY NUMBER			
4		SAMPLE TYPE			
5		SAMPLE NUMBER (FIELD)			
		SAMPLE DEPTH (FT.)			
		N.R.C. PERMAFROST CLASSIFICATION			





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WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-69	
DATE DRILLED: 7-3-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.	
HOLE DEPTH 4.35		MECHANICAL ANALYSIS		UNIFIED CLASSIFICATION	
TYPE OF DRILL B40-6" AUGERS		GRAVEL %		STANDARD PENETRATION RESISTANCE BLOWS/FT.	
WATER LEVEL		SAND %		DRY DENSITY LB./CU.FT.	
SOIL DESCRIPTION		PLASTICITY INDEX %		BLOWS/FT.	
0		LIQUID LIMIT %			
.45		PLASTIC LIMIT %			
SAND		NATURAL MOISTURE CONTENT %			
SANDY GRAVEL		CONSISTENCY LIMITS		GRAVEL %	
1		LABORATORY NUMBER		SAND %	
.45		SAMPLE TYPE		46.6	
SANDY GRAVEL		SAMPLE NUMBER (FIELD)		34.9	
2		SAMPLE DEPTH (FT.)		18.5	
.9		SAMPLE DEPTH (FT.)			
SANDY GRAVEL		N.R.C. PERMAFROST CLASSIFICATION			
3		LABORATORY NUMBER			
3.00		SAMPLE TYPE			
SILTY SAND		SAMPLE NUMBER (FIELD)			
4		SAMPLE DEPTH (FT.)			
4.05		SAMPLE DEPTH (FT.)			
GRAVEL		N.R.C. PERMAFROST CLASSIFICATION			
4.35		LABORATORY NUMBER			
END HOLE @ 4.35		SAMPLE TYPE			
5		SAMPLE NUMBER (FIELD)			
		SAMPLE DEPTH (FT.)			



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: T-70										
DATE DRILLED: 8-3-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.												
HOLE DEPTH 4.35		TYPE OF DRILL B40-6" AUGERS		WATER LEVEL												
DEPTH (M)	SOIL DESCRIPTION	SAMPLE IDENTIFICATION DATA		CONSISTENCY LIMITS		MECHANICAL ANALYSIS										
		SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER	NATURAL MOISTURE CONTENT %	LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %	SAND %	<.075 mm %	<.005 mm %	DRY DENSITY LIBS./CU.FT.	STANDARD PENETRATION RESISTANCE BLOWS/FT.	UNIFIED CLASSIFICATION
0	SANDY GRAVEL	.6														
1	SILTY GRAVELLY SAND	1.2	T71	AUGER	S765	5.1			NP	11.2	55.4	33.4				SM
2	SILTY SANDY GRAVEL															
3	GRAVELLY SILTY SAND	2.9	T72	AUGER	S766	2.3			NP	13.7	63.2	23.1				SM
4	END HOLE @ 4.35	3.5														
5																

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: T-71	
DATE DRILLED: 8-3-77		DRILL TECHNICIAN: H. R.		PLOTTED BY: R. S.			
HOLE DEPTH 3.60		TYPE OF DRILL B40-6" AUGERS		WATER LEVEL			
DEPTH (M)		SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION			
0		SILTY GRAVELLY SAND ORGANIC					
1		GRAVEL					
2		END HOLE @ 3.60					
3							
4							
5							

UNIFIED CLASSIFICATION	STANDARD PENETRATION RESISTANCE	BLOWS FT.	DRY DENSITY	LIB. CU. FT.	MECHANICAL ANALYSIS			CONSISTENCY LIMITS			NATURAL MOISTURE CONTENT	SAMPLE IDENTIFICATION DATA			
					<.005 mm	<.075 mm	>.005 mm	GRAVEL	SAND			LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	SAMPLE DEPTH (FT.)
SM					39.2	41.5	19.3	NP			4.1	.3	T73	AUGER	5767
												.9			



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WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: T-72	
DATE DRILLED: 8-3-78		DRILL TECHNICIAN: H. R.		PLOTTED BY: R. S.			
HOLE DEPTH 4.35		TYPE OF DRILL B40-6" AUGERS		WATER LEVEL			
DEPTH (M)		SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION			
0	SAND SILT TILL ORGANIC						
1	1.05						
2	SILTY SANDY GRAVEL						
3							
4							
5	END HOLE @ 4.35						
SAMPLE IDENTIFICATION DATA		CONSISTENCY LIMITS		MECHANICAL ANALYSIS		UNIFIED CLASSIFICATION	
SAMPLE DEPTH (FT.)		LIQUID LIMIT %		GRAVEL %		STANDARD PENETRATION RESISTANCE BLOWS/FT.	
.3		17.2		1.5		ML	
.9		NP		36.2 62.3			
2.1		NP		62.7 25.7 11.6		GP-GM	
2.7		4.1					
LABORATORY NUMBER		PLASTIC LIMIT %		SAND %			
SAMPLE TYPE		PLASTICITY INDEX %		GRAVEL %			
SAMPLE NUMBER (FIELD)		PLASTIC LIMIT %		SAND %			
T74		NP		36.2 62.3			
T75		NP		62.7 25.7 11.6		GP-GM	



**MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.**

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-73	
DATE DRILLED: 8-3-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.	
HOLE DEPTH: 3.45		MECHANICAL ANALYSIS		STANDARD PENETRATION RESISTANCE	
TYPE OF DRILL: 4.0-6" AUGERS		GRAVEL		BLOWS / FT.	
WATER LEVEL		SAND		CU. FT.	
DEPTH (M)	SOIL DESCRIPTION	CONSISTENCY LIMITS		UNIFIED CLASSIFICATION	
		LIQUID LIMIT	PLASTIC LIMIT		
N.R.C. PERMAFROST CLASSIFICATION		PLASTICITY INDEX		GP-GM	
NATURAL MOISTURE CONTENT		GRAVEL			
		SAMPLE IDENTIFICATION DATA		MECHANICAL ANALYSIS	
		LABORATORY NUMBER		SAND	
0		SAMPLE TYPE		SILT	
		SAMPLE NUMBER (FIELD)		SAND	
1		SAMPLE DEPTH (FT.)		GRAVEL	
		.8		SAND	
2		N.R.C. PERMAFROST CLASSIFICATION		PLASTICITY INDEX	
		N.R.C. PERMAFROST CLASSIFICATION		GRAVEL	
3		SAMPLE DEPTH (FT.)		SAND	
		1.4		SAND	
4		N.R.C. PERMAFROST CLASSIFICATION		PLASTICITY INDEX	
		N.R.C. PERMAFROST CLASSIFICATION		GRAVEL	
5		SAMPLE DEPTH (FT.)		SAND	
		END HOLE @ 3.45		SAND	



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: T-74	
DATE DRILLED: 8-3-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.			
HOLE DEPTH 4.35		MECHANICAL ANALYSIS		DRY DENSITY		STANDARD PENETRATION RESISTANCE	
TYPE OF DRILL 840-6" AUGERS		GRAVEL %		LIBS. CU. FT.		BLOWS FT.	
WATER LEVEL		SAND %		%		%	
DEPTH (M.)		PLASTIC LIMIT %		%		%	
SOIL DESCRIPTION		LIQUID LIMIT %		PLASTICITY INDEX %		UNIFIED CLASSIFICATION	
		NATURAL MOISTURE CONTENT %		CONSISTENCY LIMITS			
		SAMPLE DEPTH (FT.)		PLASTIC INDEX			
		SAMPLE NUMBER (FIELD)		PLASTIC LIMIT			
		SAMPLE TYPE		GRAVEL			
		LABORATORY NUMBER		SAND			
		N.R.C. PERMAFROST CLASSIFICATION		SILT			
0							
1	SANDY SILT						
2	SANDY SILTY GRAVEL	1.80	T77	5.9	40.7	53.4	OL
3	SILTY SAND	2.4	AUGER STBT				
4	SANDY GRAVEL						
5	END HOLE @ 4.35						



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: T-75	
DATE DRILLED: 8-3-78		DRILL TECHNICIAN: H. R.		PLOTTED BY: R. S.			
HOLE DEPTH 4.35		N.R.C. PERMAFROST CLASSIFICATION		MECHANICAL ANALYSIS		UNIFIED CLASSIFICATION	
TYPE OF DRILL B40-6" AUGERS		SOIL DESCRIPTION		CONSISTENCY LIMITS		STANDARD PENETRATION RESISTANCE	
WATER LEVEL				PLASTIC LIMIT		BLOWS / FT.	
DEPTH (M)		SAMPLE DEPTH (FT.)		LIQUID LIMIT		DRY DENSITY	
0		.3		%		LIBS. / CU. FT.	
1		.9		%			
2		1.0		%			
3		2.4		%			
4				%			
5				%			
SILT SAND TILL		T78 AUGER ST88		4.8		SM	
SILTY SANDY GRAVEL		T79 AUGER ST89		4.7		GM	
END HOLE @ 4.35							



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: T-76			
DATE DRILLED: 8-3-78		DRILL TECHNICIAN: H. R. S.		PLOTTED BY: R. S.					
HOLE DEPTH 4.35	TYPE OF DRILL B40-6" AUGERS	WATER LEVEL	MECHANICAL ANALYSIS				STANDARD PENETRATION RESISTANCE	UNIFIED CLASSIFICATION	
			GRAVEL	SAND	< 0.075 mm	< 0.005 mm			DRY DENSITY
DEPTH (M)	SOIL DESCRIPTION	N.R.C. PERMAFROST CLASSIFICATION	CONSISTENCY LIMITS			NATURAL MOISTURE CONTENT	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX
			LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX				
			SAMPLE IDENTIFICATION DATA						
			SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER			
0			.3						
1	SILTY SANDY TILL		.9	T80	AUGER	ST90	3.0	SM	
2	SILTY SANDY GRAVEL		2.4						
3			3.0	T81	AUGER	ST91	5.9	GM	
4	END HOLE @ 4.35								
5									



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SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: T-77	
DATE DRILLED: 8-3-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.			
HOLE DEPTH 3.00		TYPE OF DRILL 3/4"-6" AUGERS		WATER LEVEL			
DEPTH (M)		SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION			
0	SILT SAND TILL				NATURAL MOISTURE CONTENT %		
1	SILTY SANDY GRAVEL				LIQUID LIMIT %		
2					PLASTIC LIMIT %		
3	END HOLE @ 3.00				PLASTICITY INDEX %		
4					GRAVEL %		
5					SAND %		
					MECHANICAL ANALYSIS		
					<.005 mm %		
					<.074 mm %		
					>.005 mm %		
					DRY DENSITY LBS./CU. FT.		
					STANDARD PENETRATION RESISTANCE BLOWS/FT.		
					UNIFIED CLASSIFICATION		



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-78														
DATE DRILLED: 8-3-78		DRILL TECHNICIAN: H. R.		HOLE ELEVATION:														
HOLE DEPTH: 3.15		PLOTTED BY: R. S.		UNIFIED CLASSIFICATION														
TYPE OF DRILL: B40-6" AUGERS		SAMPLE IDENTIFICATION DATA		STANDARD PENETRATION RESISTANCE														
WATER LEVEL:		SAMPLE DEPTH (FT.)		BLOWS / FT.														
DEPTH (M)	SOIL DESCRIPTION	SAMPLE NUMBER (FIELD)		GRAVEL %	SAND %	MECHANICAL ANALYSIS	LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	NATURAL MOISTURE CONTENT %	CONSISTENCY LIMITS	PLASTIC LIMIT %	GRAVEL %	SAND %	MECHANICAL ANALYSIS	DRY DENSITY	UNIFIED CLASSIFICATION	
																		<.0075 mm
0	SILT SAND TILL	.8																
1	SILTY SANDY GRAVEL	1.4	T83	74.3	16.6	9.1											SPGM	
2	SILT SAND TILL																	
3	END HOLE @ 3.15																	
4																		
5																		



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SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: T-79	
DATE DRILLED: 8-3-78		DRILL TECHNICIAN: H. R.		PLOTTED BY: R. S.			
HOLE DEPTH DEPTH (M.)	SOIL DESCRIPTION	SAMPLE IDENTIFICATION DATA		CONSISTENCY LIMITS			NATURAL MOISTURE CONTENT %
		SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER	LIQUID LIMIT %	
		N.R.C. PERMAFROST CLASSIFICATION		GRAVEL %	SAND %	<.075 mm >.005 mm %	DRY DENSITY LBS. CU. FT.
		STANDARD PENETRATION RESISTANCE BLOWS / FT.		MECHANICAL ANALYSIS		UNIFIED CLASSIFICATION	
0							
1	SILTY SAND	.3	T84		34.6	65.4	
1.20	SILTY SANDY GRAVEL	.9	AUGER ST93	NIP			
1.80	REUSEAL @ 1.80						
2							
3							
4							
5							



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: R.S.		HOLE ELEVATION:		HOLE NO.: T-80	
DATE DRILLED: 8-3-78		DRILL TECHNICIAN: H.R.		PLOTTED BY:			
HOLE DEPTH 1.50		TYPE OF DRILL B40-6" AUGERS		WATER LEVEL		SOIL DESCRIPTION	
DEPTH (M.)		SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION		SAMPLE IDENTIFICATION DATA	
0		SILTY SAND				LABORATORY NUMBER	
1		SILTY SANDY GRAVEL				SAMPLE TYPE	
2		REFUSAL @ 1.50				SAMPLE NUMBER (FIELD)	
3						SAMPLE DEPTH (FT.)	
4							
5							
				NATURAL MOISTURE CONTENT		CONSISTENCY LIMITS	
				%		LIQUID LIMIT	
				%		PLASTIC LIMIT	
				%		PLASTICITY INDEX	
				%		GRAVEL	
				%		SAND	
				%		>.005 mm	
				%		<.074 mm	
				%		<.005 mm	
				LIB./CU.FT.		DRY DENSITY	
				BLOWS/FT.		STANDARD PENETRATION RESISTANCE	
						UNIFIED CLASSIFICATION	

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: T-81	
DATE DRILLED: 8-3-78		DRILL TECHNICIAN: H. R.		PLOTTED BY: R. S.			
HOLE DEPTH 1.50		TYPE OF DRILL 3.40-6" AUGERS		WATER LEVEL			
DEPTH (M)		SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION			
0		SILTY SAND					
		SILT SAND TILL					
1		SILTY SANDY GRAVEL					
		REFUSAL @ 1.50					
2							
3							
4							
5							
				NATURAL MOISTURE CONTENT			
				LIQUID LIMIT			
				PLASTIC LIMIT			
				PLASTICITY INDEX			
				GRAVEL			
				SAND			
				>.005 mm			
				>.075 mm			
				>.005 mm			
				DRY DENSITY			
				STANDARD PENETRATION RESISTANCE			
				UNIFIED CLASSIFICATION			



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 8-3-78

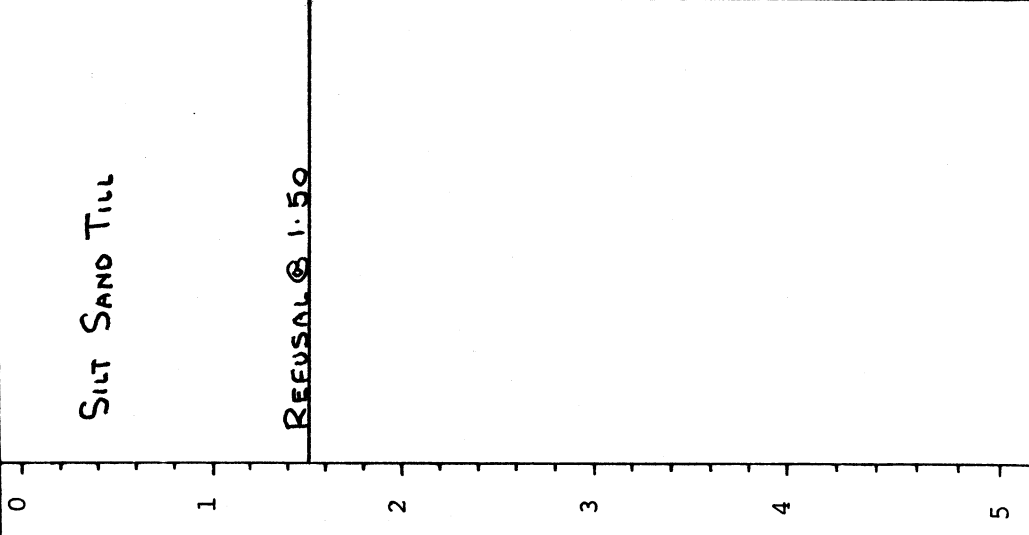
DRILL TECHNICIAN: H.R.

PLOTTED BY: R.S.

HOLE ELEVATION:

HOLE NO.: T-82

HOLE DEPTH 1.50
TYPE OF DRILL B40-6" AUGERS
WATER LEVEL
SOIL DESCRIPTION



N.R.C. PERMAFROST CLASSIFICATION

SAMPLE IDENTIFICATION DATA
SAMPLE DEPTH (FT.) .8 1.4
SAMPLE NUMBER (FIELD) T85
SAMPLE TYPE AUGER
LABORATORY NUMBER S794

NATURAL MOISTURE CONTENT % 1.9

CONSISTENCY LIMITS
LIQUID LIMIT %
PLASTIC LIMIT %
PLASTICITY INDEX % NP

MECHANICAL ANALYSIS
GRAVEL % 51.9
SAND % 31.7
> .075 mm % 16.4
< .005 mm %

DRY DENSITY LBS./CU.FT.
STANDARD PENETRATION RESISTANCE BLOWS/FT.
UNIFIED CLASSIFICATION GM

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: T-83	
DATE DRILLED: 8-3-78		DRILL TECHNICIAN: H. R.		PLOTTED BY: R. S.			
HOLE DEPTH 4.35		N.R.C. PERMAFROST CLASSIFICATION		MECHANICAL ANALYSIS		UNIFIED CLASSIFICATION	
TYPE OF DRILL 3.40-6" AUGERS		SOIL DESCRIPTION		GRAVEL %		STANDARD PENETRATION RESISTANCE	
WATER LEVEL		SANDY SANDY GRAVEL .15		SAND %		BLOWS / FT.	
DEPTH (M)		SANDY GRAVEL		PLASTIC LIMIT %		LBS. / CU. FT.	
0		SANDY GRAVEL		LIQUID LIMIT %			
1		SANDY GRAVEL		PLASTICITY INDEX %		GR-6M	
2		SANDY SILT		NATURAL MOISTURE CONTENT %			
3		SANDY SILTY GRAVEL		LABORATORY NUMBER			
4		END HOLE @ 4.35		SAMPLE TYPE			
5				SAMPLE NUMBER (FIELD)			



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: T-84	
DATE DRILLED: 8-3-78		DRILL TECHNICIAN: H. R.		PLOTTED BY: R. S.			
HOLE DEPTH: 4.35		TYPE OF DRILL: B40-6" AUGERS		WATER LEVEL:			
DEPTH (M)		SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION			
0		SILTY SANDY GRAVEL					
1		SANDY SILT					
2		SILT					
3							
4		END HOLE @ 4.35					
5							

UNIFIED CLASSIFICATION	STANDARD PENETRATION RESISTANCE	DRY DENSITY	MECHANICAL ANALYSIS			CONSISTENCY LIMITS			NATURAL MOISTURE CONTENT	SAMPLE IDENTIFICATION DATA										
			<.075 mm	<.005 mm	%	GRAVEL	SAND	%		PLASTIC LIMIT	PLASTICITY INDEX	%	SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER				
GM											.6	T88	AUGER	5797	5.0	NP	47.6	36.8	15.6	
CL-ML											2.1	T89	AUGER	5798	30.5	6.6	1.2	14.0	84.8	
											2.7									

PROJECT: SHAKWAK SEGMENT 8

DATE DRILLED: 9-3-78

DRILL TECHNICIAN: H. R.

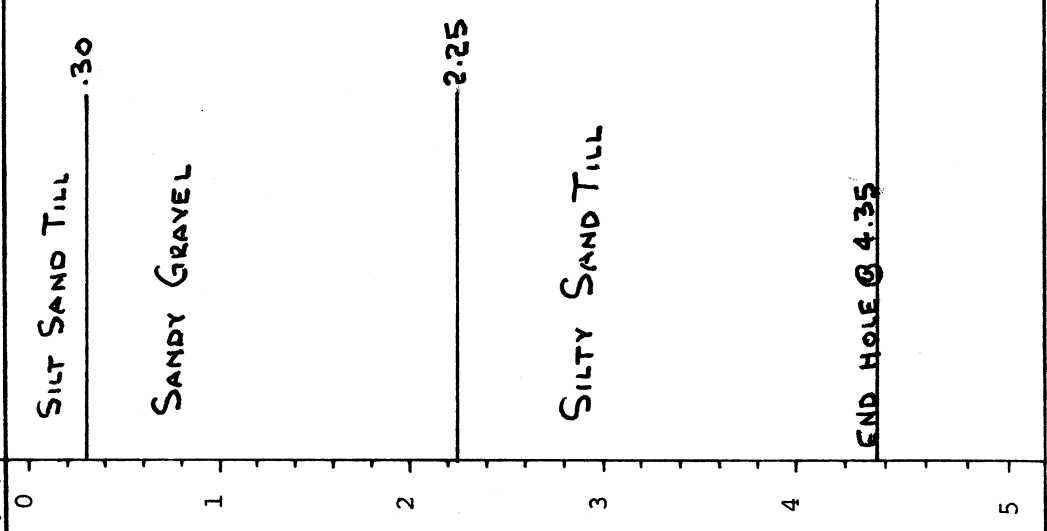
PLOTTED BY: R. S.

HOLE ELEVATION:

HOLE NO.: T-85

HOLE LOCATION:

HOLE DEPTH 4.35
TYPE OF DRILL 8.0-6" AUGERS
WATER LEVEL
DEPTH (M.)
SOIL DESCRIPTION



N.R.C. PERMAFROST CLASSIFICATION

SAMPLE DEPTH (FT.)

SAMPLE NUMBER (FIELD)

SAMPLE TYPE

LABORATORY NUMBER

NATURAL MOISTURE CONTENT %

LIQUID LIMIT %

PLASTIC LIMIT %

PLASTICITY INDEX %

GRAVEL %

SAND %

< 0.075 mm %

< 0.005 mm %

DRY DENSITY LBS. CU. FT.

STANDARD PENETRATION RESISTANCE BLOWS FT.

UNIFIED CLASSIFICATION



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-86	
DATE DRILLED: 9-3-78		DRILL TECHNICIAN: H. R.		PLOTTED BY: R. S.	
HOLE DEPTH: 3.45		TYPE OF DRILL: B40-6" AUGERS		WATER LEVEL: _____	
DEPTH (M)		SOIL DESCRIPTION		UNIFIED CLASSIFICATION	
0					
1	.90	SILT SAND TILL			
2	2.10	SANDY SILT			ML
3	2.70	SANDY SILTY GRAVEL			
4	3.45	SILT SAND TILL			
5		END HOLE @ 3.45			

MECHANICAL ANALYSIS	CONSISTENCY LIMITS	NATURAL MOISTURE CONTENT	SAMPLE IDENTIFICATION DATA		STANDARD PENETRATION RESISTANCE	DRY DENSITY	UNIFIED CLASSIFICATION
			LABORATORY NUMBER	SAMPLE TYPE			
<.005 mm	PLASTIC LIMIT	%	SAMPLE NUMBER (FIELD)	SAMPLE DEPTH (FT.)	BLOWS / FT.	LB/ CU. FT.	
<.074 mm	PLASTICITY INDEX	%					
>.005 mm		%					
SAND		%					
GRAVEL		%					
		%					
		%					
		%					



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 9-3-78

DRILL TECHNICIAN: H.R.

PLOTTED BY: R.S.

HOLE ELEVATION:

HOLE NO.: T-87

DEPTH (M)	SOIL DESCRIPTION	N.R.C. PERMAFROST CLASSIFICATION	SAMPLE IDENTIFICATION DATA				NATURAL MOISTURE CONTENT %	CONSISTENCY LIMITS			MECHANICAL ANALYSIS				DRY DENSITY LBS./CU. FT.	STANDARD PENETRATION RESISTANCE BLOWS/FT.	UNIFIED CLASSIFICATION
			SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER		LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %	SAND %	<.075 mm %	<.005 mm %			
0																	
0.3	SANDY SILT TILL		.3	T92	AUGER	S800	14.8			NP	6.7	36.8	40.5	16.0			OL
0.9	SANDY SILT		.9														
1.50																	
2.10	SILTY SANDY GRAVEL																
4.35	END HOLE @ 4.35																



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 9-3-78

HOLE ELEVATION:

HOLE NO.: T-88

H.R.

R.S.

PLOTTED BY:

HOLE DEPTH 4.05
TYPE OF DRILL 3.40-6" AUGERS
WATER LEVEL

DEPTH (M)
SOIL DESCRIPTION

0	
1	
2	SANDY SILT
3	SILTY SAND ORGANIC
4	SILTY SANDY GRAVEL
5	REFUSAL @ 4.05

N.R.C. PERMAFROST CLASSIFICATION

SAMPLE IDENTIFICATION DATA
SAMPLE DEPTH (FT.)
SAMPLE NUMBER (FIELD)
SAMPLE TYPE
LABORATORY NUMBER

.3

.9

T93

AUGER S801

15.0

NATURAL MOISTURE CONTENT %

CONSISTENCY LIMITS
LIQUID LIMIT %
PLASTIC LIMIT %
PLASTICITY INDEX %

NP

MECHANICAL ANALYSIS
GRAVEL %
SAND %
<.075 mm %
>.005 mm %

2.6

41.2

56.2

DRY DENSITY LB/ CU. FT.
STANDARD PENETRATION RESISTANCE BLOWS/ FT.
UNIFIED CLASSIFICATION

OL



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: T-99	
DATE DRILLED: 9-3-78		DRILL TECHNICIAN: H. R.		PLOTTED BY: R. S.			
HOLE DEPTH 3.30		TYPE OF DRILL 3.40-6" AUGERS		WATER LEVEL			
DEPTH (M)		SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION			
0		SILT SAND TILL					
1		SILTY SANDY GRAVEL					
2		REFUSAL @ 3.30					
3							
4							
5							

UNIFIED CLASSIFICATION	STANDARD PENETRATION RESISTANCE	DRY DENSITY	MECHANICAL ANALYSIS			CONSISTENCY LIMITS			NATURAL MOISTURE CONTENT
			<.074 mm	>.005 mm	<.005 mm	GRAVEL	SAND	PLASTIC LIMIT	
SM			30.2	57.2	12.6	NP		6.0	

LABORATORY NUMBER	SAMPLE TYPE	SAMPLE NUMBER (FIELD)	SAMPLE DEPTH (FT.)
		T94	.3
		AUGER S802	.9

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: T-90		
DATE DRILLED: 9-3-78		PLOTTED BY: R.S.		CONSISTENCY LIMITS		MECHANICAL ANALYSIS		
HOLE DEPTH 2.70		SAMPLE IDENTIFICATION DATA		LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	GRAVEL	
TYPE OF DRILL B40-6" AUGERS		SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER	NATURAL MOISTURE CONTENT	SAND	
WATER LEVEL		N.R.C. PERMAFROST CLASSIFICATION	N.A.				CLAY < 0.005 mm	STANDARD PENETRATION RESISTANCE
DEPTH (M.)			N.A.				CLAY < 0.075 mm	BLOWS / FT.
SOIL DESCRIPTION		UNIFIED CLASSIFICATION		DRY DENSITY		UNIFIED CLASSIFICATION		
0								
0.3	SILTY SAND		T95	AUGER	S803	13.0	41.4	SM
0.9							9.1	
1.5	SILTY SANDY GRAVEL		T96	AUGER	S804	6.2	50.0	GM
2.1							29.4	
2.70	REFUSAL @ 2.70						20.6	
3								
4								
5								



**Public Works
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**MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.**

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 9-3-78

DRILL TECHNICIAN: H. R.

PLOTTED BY: R. S.

HOLE ELEVATION:

HOLE NO.: T-91

HOLE DEPTH 3.00
 TYPE OF DRILL B40-6" AUGERS
 WATER LEVEL _____
 SOIL DESCRIPTION

DEPTH (M)	N.R.C. PERMAFROST CLASSIFICATION	SAMPLE IDENTIFICATION DATA				NATURAL MOISTURE CONTENT %	CONSISTENCY LIMITS			MECHANICAL ANALYSIS				DRY DENSITY LB./CU. FT.	STANDARD PENETRATION RESISTANCE BLOWS/FT.	UNIFIED CLASSIFICATION	
		SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER		LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %	SAND %	> 0.075 mm %	< 0.075 mm %				< 0.005 mm %
0																	
1		.6	T97	AUGER	S805	7.8			NP	21.7	47.6	30.7					SM
2		1.2															
3																	
4																	
5																	

SILTY SANDY GRAVEL
ORGANIC

REFUSAL @ 3.00

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 10-3-78

HOLE ELEVATION:

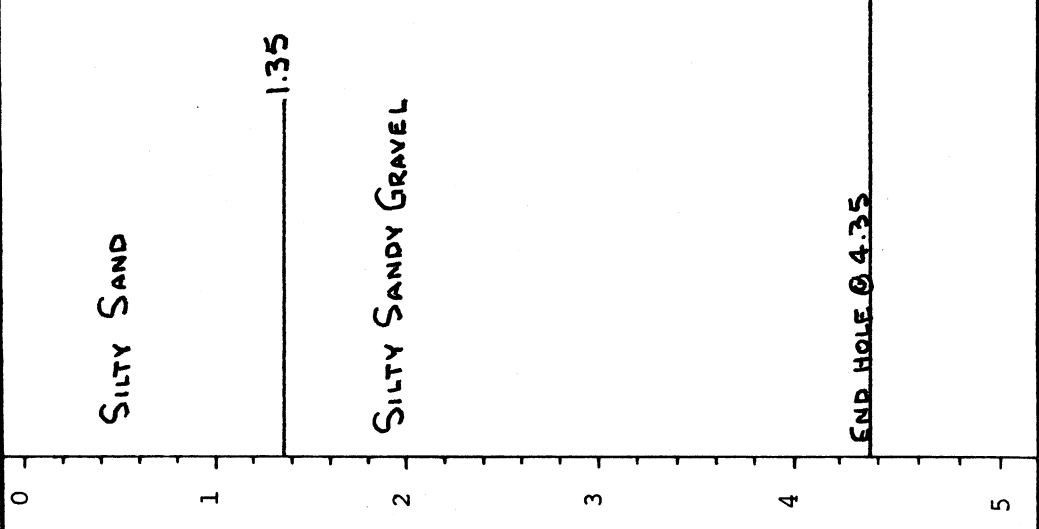
HOLE NO.: T-92

DRILL TECHNICIAN: H.R.

PLOTTED BY: R.S.

HOLE DEPTH 4.35
TYPE OF DRILL B40-6" AUGERS
WATER LEVEL _____

DEPTH (M) SOIL DESCRIPTION



N.R.C. PERMAFROST CLASSIFICATION

SAMPLE IDENTIFICATION DATA
SAMPLE DEPTH (FT.)
SAMPLE NUMBER (FIELD)
SAMPLE TYPE
LABORATORY NUMBER

NATURAL MOISTURE CONTENT %

CONSISTENCY LIMITS
LIQUID LIMIT %
PLASTIC LIMIT %
PLASTICITY INDEX %

MECHANICAL ANALYSIS
GRAVEL %
SAND %
< .075 mm %
> .005 mm %

DRY DENSITY 1.8 LB/ CU. FT.
STANDARD PENETRATION RESISTANCE 58.0 BLOWS/ FT.
UNIFIED CLASSIFICATION ML



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO: T-93	
DATE DRILLED: 10-3-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.			
HOLE DEPTH 3.00		TYPE OF DRILL 3/4" - 6" AUGERS		WATER LEVEL			
DEPTH (M)		SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION			
0	Silty Sand						
1	Silty Sandy Gravel						ML
2							
3	END HOLE @ 3.00						
4							
5							

UNIFIED CLASSIFICATION	STANDARD PENETRATION RESISTANCE	DRY DENSITY	MECHANICAL ANALYSIS			CONSISTENCY LIMITS			NATURAL MOISTURE CONTENT	SAMPLE IDENTIFICATION DATA			
			<.005 mm	<.075 mm	>.005 mm	SAND	GRAVEL	PLASTICITY INDEX		PLASTIC LIMIT	LIQUID LIMIT	SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)
ML									12.1	.8	T99	AUGER	S80T
										1.4			



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-94	
DATE DRILLED: 10-3-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.	
HOLE DEPTH 4.35		MECHANICAL ANALYSIS		UNIFIED CLASSIFICATION	
TYPE OF DRILL B40-6" AUGERS		GRAVEL %		STANDARD PENETRATION RESISTANCE BLOWS/FT.	
WATER LEVEL		SAND %		DRY DENSITY LB./CU.FT.	
DEPTH (M.)		PLASTIC LIMIT %		LIB. CU.FT.	
SOIL DESCRIPTION		LIQUID LIMIT %		BLOWS/FT.	
0		PLASTICITY INDEX %		BLOWS/FT.	
1		NATURAL MOISTURE CONTENT %		BLOWS/FT.	
2		CONSISTENCY LIMITS		BLOWS/FT.	
3		LABORATORY NUMBER		BLOWS/FT.	
4		SAMPLE TYPE		BLOWS/FT.	
5		SAMPLE NUMBER (FIELD)		BLOWS/FT.	
		SAMPLE DEPTH (FT.)		BLOWS/FT.	
		N.R.C. PERMAFROST CLASSIFICATION		BLOWS/FT.	

SILT SAND TILL

1.50

SILTY SANDY GRAVEL

END HOLE @ 4.35

.6

1.2

NP

13.4

45.8

40.8

SM



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-95	
DATE DRILLED: 10-3-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.	
HOLE DEPTH: 1.50		N.R.C. PERMAFROST CLASSIFICATION:		UNIFIED CLASSIFICATION:	
TYPE OF DRILL: B40-6" AUGERS		SOIL DESCRIPTION:		STANDARD PENETRATION RESISTANCE:	
WATER LEVEL:		Silt Sand Till		BLOWS/FT.:	
DEPTH (M):		END HOLE @ 1.50		LIB. CU.FT.:	
0					
1					SM
2					
3					
4					
5					



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 10-3-78

DRILL TECHNICIAN: 8

H. R.

PLOTTED BY:

R. S.

HOLE ELEVATION:

HOLE NO.: T-96

HOLE DEPTH 3.30
TYPE OF DRILL B40-6" AUGERS
WATER LEVEL _____
DEPTH (M) _____
SOIL DESCRIPTION

N.R.C.
PERMAFROST
CLASSIFICATION

LABORATORY NUMBER
SAMPLE TYPE
SAMPLE NUMBER (FIELD)
SAMPLE DEPTH (FT.)

NATURAL MOISTURE CONTENT %

CONSISTENCY LIMITS
LIQUID LIMIT %
PLASTIC LIMIT %
PLASTICITY INDEX %

MECHANICAL ANALYSIS
GRAVEL %
SAND %

< .005 mm %
< .075 mm %
> .006 mm %

DRY DENSITY LIB. CU.FT.

STANDARD PENETRATION RESISTANCE BLOWS FT.

UNIFIED CLASSIFICATION

SILTY SAND

1.05

SANDY GRAVEL

1.1

1.7

3.8

NP

51.1

32.0

11.9

5.0

GW-GM

REFUSAL @ 3.30



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION :

DATE DRILLED: 10-3-78

DRILL TECHNICIAN :

H. R. R.

PLOTTED BY :

R. S. S.

HOLE ELEVATION :

HOLE NO.: T-97

HOLE DEPTH 1.50
TYPE OF DRILL 840-6" AUGERS
WATER LEVEL _____
DEPTH (M) _____
SOIL DESCRIPTION

SILT SAND TILL

REFUSAL @ 1.50

			CONSISTENCY LIMITS			MECHANICAL ANALYSIS			DRY DENSITY	STANDARD PENETRATION RESISTANCE	UNIFIED CLASSIFICATION
			LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	GRAVEL	SAND	< 0.075 mm	< 0.005 mm	LBS. / CU. FT.	BLOWS / FT.
			%	%	%	%	%	%	%		
			32.4	23.1	9.3	0.7	9.2				
			21.9					89.9			CL

N.R.C. PERMAFROST CLASSIFICATION

SAMPLE IDENTIFICATION DATA
SAMPLE DEPTH (FT.)
SAMPLE NUMBER (FIELD)
SAMPLE TYPE
LABORATORY NUMBER

.6

1.2

21.9

32.4

23.1

9.3

0.7

9.2

89.9



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-98	
DATE DRILLED: 13-3-78	DRILL TECHNICIAN: H. R.	PLOTTED BY: R. S.	HOLE ELEVATION:		
HOLE DEPTH 1.20	TYPE OF DRILL B40-6" AUGERS	WATER LEVEL	DEPTH (M)	MECHANICAL ANALYSIS	
				<.005 mm	%
SOIL DESCRIPTION	N.R.C. PERMAFROST CLASSIFICATION	SAMPLE IDENTIFICATION DATA	<.074 mm	%	UNIFIED CLASSIFICATION
			>.005 mm	%	
0	SILT SAND TILL	SAMPLE NUMBER (FIELD)	SAND	%	STANDARD PENETRATION RESISTANCE
			GRAVEL	%	
1	SILTY SANDY GRAVEL REFUSAL @ 1.20	SAMPLE DEPTH (FT.)	PLASTICITY INDEX	%	DRY DENSITY
			PLASTIC LIMIT	%	
2			LIQUID LIMIT	%	BLOWS / FT.
			NATURAL MOISTURE CONTENT	%	
3			CONSISTENCY LIMITS		
4			LABORATORY NUMBER		
5			SAMPLE TYPE		



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 13-3-78

DRILL TECHNICIAN: H.R.

PLOTTED BY: R.S.

HOLE ELEVATION:

HOLE NO.: T-99

HOLE DEPTH 4.35
TYPE OF DRILL 3.40-6" AUGERS
WATER LEVEL
DEPTH (M)
SOIL DESCRIPTION

0 SANDY GRAVEL .15
SILT SAND TILL .60

1 SILTY SANDY GRAVEL

2 SANDY SILT 2.55

4 END HOLE @ 4.35

N.R.C. PERMAFROST CLASSIFICATION

SAMPLE IDENTIFICATION DATA
SAMPLE DEPTH (FT.)
SAMPLE NUMBER (FIELD)
SAMPLE TYPE
LABORATORY NUMBER

NATURAL MOISTURE CONTENT %

CONSISTENCY LIMITS
LIQUID LIMIT %
PLASTIC LIMIT %
PLASTICITY INDEX %

MECHANICAL ANALYSIS
GRAVEL %
SAND %

MECHANICAL ANALYSIS
<.075 mm %
>.005 mm %
<.005 mm %

DRY DENSITY
LIB. CU. FT.

STANDARD PENETRATION RESISTANCE
BLOWS FT.

UNIFIED CLASSIFICATION

DEPTH (M)	DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER	NATURAL MOISTURE CONTENT %	LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %	SAND %	<.075 mm %	>.005 mm %	<.005 mm %	DRY DENSITY LIB. CU. FT.	STANDARD PENETRATION RESISTANCE BLOWS FT.	UNIFIED CLASSIFICATION
0	1.8	T104	AUGER	5841	6.5			NP	31.1	45.8	23.1					SM
1	2.4															
2	3.3															
3	4.0	T105	AUGER	5842	30.0			TRACE	0.6	16.7	82.7					ML
4																
5																



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO: T-100	
DATE DRILLED: 13-3-78		DRILL TECHNICIAN: H. R.		HOLE ELEVATION:	
HOLE DEPTH: 2.25		PLOTTED BY: R. S.		MECHANICAL ANALYSIS	
TYPE OF DRILL: B40-6" AUGERS		SAMPLE IDENTIFICATION DATA		UNIFIED CLASSIFICATION	
WATER LEVEL: _____		LABORATORY NUMBER		STANDARD PENETRATION RESISTANCE	
DEPTH (M)		SAMPLE TYPE		BLOWS / FT.	
SOIL DESCRIPTION		SAMPLE NUMBER (FIELD)		LIBS / CU. FT.	
SANDY GRAVEL .15		SAMPLE DEPTH (FT.)		UNIFIED CLASSIFICATION	
SILTY SANDY GRAVEL		N.R.C. PERMAFROST CLASSIFICATION		UNIFIED CLASSIFICATION	
REFUSAL @ 2.25		CONSISTENCY LIMITS		UNIFIED CLASSIFICATION	
		LIQUID LIMIT		UNIFIED CLASSIFICATION	
		PLASTIC LIMIT		UNIFIED CLASSIFICATION	
		PLASTICITY INDEX		UNIFIED CLASSIFICATION	
		GRAVEL		UNIFIED CLASSIFICATION	
		SAND		UNIFIED CLASSIFICATION	
		>.005 mm		UNIFIED CLASSIFICATION	
		>.074 mm		UNIFIED CLASSIFICATION	
		<.005 mm		UNIFIED CLASSIFICATION	
		NATURAL MOISTURE CONTENT		UNIFIED CLASSIFICATION	



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SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO: T-101		
DATE DRILLED: 13-3-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.		
HOLE DEPTH 2.25		CONSISTENCY LIMITS		MECHANICAL ANALYSIS		
TYPE OF DRILL 3.40-6" AUGERS		LIQUID LIMIT %		<.075 mm %		
WATER LEVEL		PLASTIC LIMIT %		>.005 mm %		
DEPTH (M)		NATURAL MOISTURE CONTENT %		DRY DENSITY LBS. CU. FT.		
0	SANDY GRAVEL .15		GRAVEL %		STANDARD PENETRATION RESISTANCE BLOWS/FT.	
1	SILTY SANDY GRAVEL		SAND %		UNIFIED CLASSIFICATION	
2	REFUSAL @ 2.25		PLASTICITY INDEX		GM	
3			PLASTIC LIMIT			
4			LIQUID LIMIT			
5			LABORATORY NUMBER			
			SAMPLE TYPE			
			SAMPLE NUMBER (FIELD)			
			SAMPLE DEPTH (FT.)			
			N.R.C. PERMAFROST CLASSIFICATION			
			SAMPLE IDENTIFICATION DATA			
			LABORATORY NUMBER			
			SAMPLE TYPE			
			SAMPLE NUMBER (FIELD)			
			SAMPLE DEPTH (FT.)			
			NATURAL MOISTURE CONTENT			
			PLASTICITY INDEX			
			PLASTIC LIMIT			
			LIQUID LIMIT			
			GRAVEL			
			SAND			
			>.075 mm			
			<.075 mm			
			<.005 mm			
			DRY DENSITY			
			STANDARD PENETRATION RESISTANCE			
			UNIFIED CLASSIFICATION			



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WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-102	
DATE DRILLED: 13-3-78		DRILL TECHNICIAN: H. R.		PLOTTED BY: R. S.	
HOLE DEPTH 1.65		TYPE OF DRILL B40-6" AUGERS		WATER LEVEL	
DEPTH (M.)		SOIL DESCRIPTION		UNIFIED CLASSIFICATION	
0		SANDY GRAVEL .15			
1		SILT SAND TILL .90			
1		SILTY SANDY GRAVEL			GP-GM
1.5		REFUSAL @ 1.65			
2					
3					
4					
5					

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: T-103	
DATE DRILLED: 13-3-78		DRILL TECHNICIAN: H. R.		PLOTTED BY: R. S.			
HOLE DEPTH 1.65		TYPE OF DRILL B40-6" AUGERS		WATER LEVEL			
DEPTH (M)		SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION			
0		SILT SAND TILL					
1		SILTY SANDY GRAVEL				GR-GM	
2		END HOLE @ 1.65					
3							
4							
5							



MATERIALS QUALITY CONTROL LABORATORY
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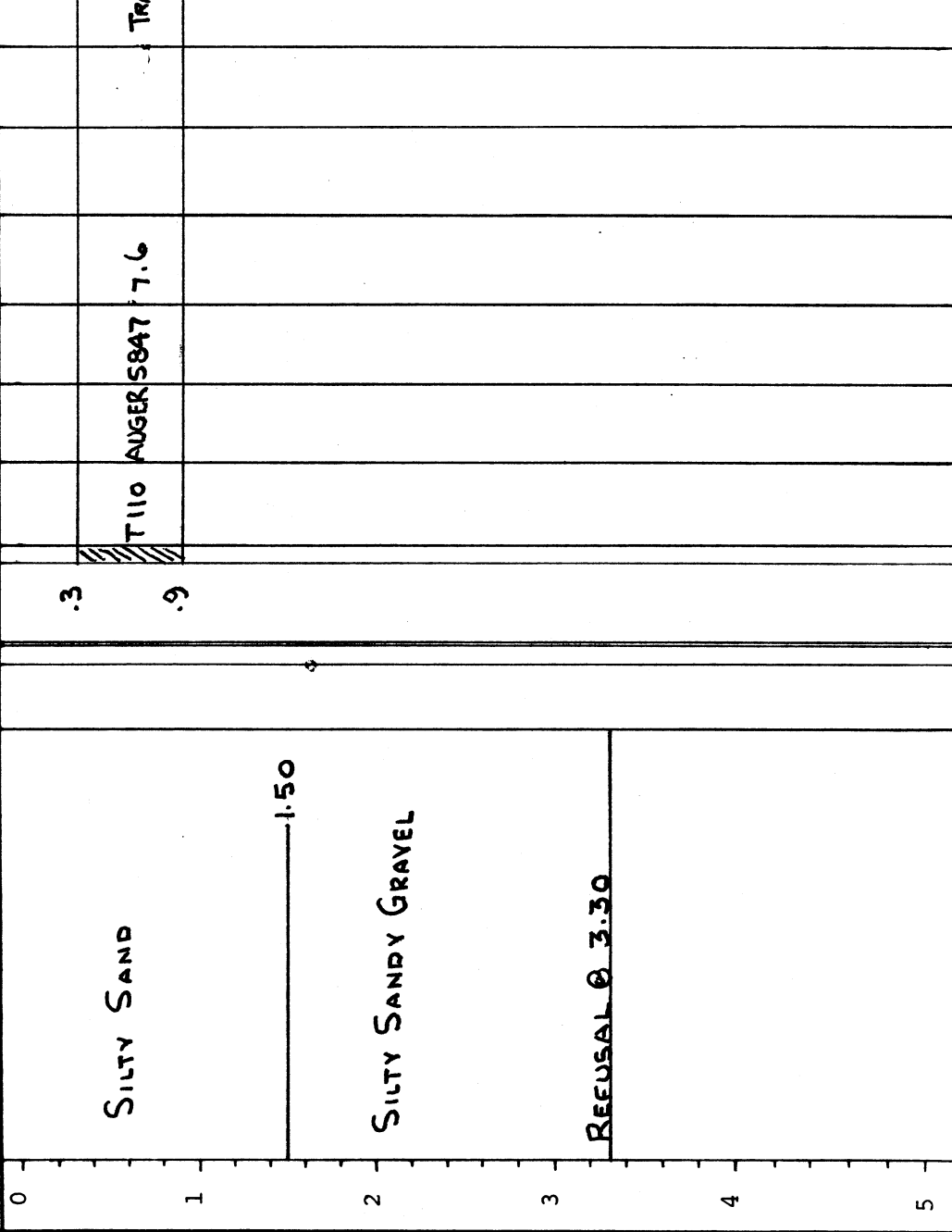
SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8
 DATE DRILLED: 13-3-78
 HOLE DEPTH: 1.65
 TYPE OF DRILL: B40-6" AUGERS
 WATER LEVEL: _____
 SOIL DESCRIPTION: SANDY GRAVEL .75
 SILTY SAND
 REFUSAL @ 1.65

HOLE LOCATION: _____
 R.S.S. _____
 PLOTTED BY: _____
 H.R.R. _____
 HOLE ELEVATION: _____
 HOLE NO.: T-104

DEPTH (M)	N.R.C. PERMAFROST CLASSIFICATION	SAMPLE IDENTIFICATION DATA				NATURAL MOISTURE CONTENT (%)	CONSISTENCY LIMITS			MECHANICAL ANALYSIS				STANDARD PENETRATION RESISTANCE (BLOWS/FT.)	UNIFIED CLASSIFICATION
		SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER		LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX (%)	GRAVEL (%)	SAND (%)	<.075 mm (%)	<.005 mm (%)		
0		.8													
1		1.4	T109	AUGER	SB46	12.9	NP		21.6	38.4	40.0			SM	
2															
3															
4															
5															

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: T-105	
DATE DRILLED: 13-3-78		DRILL TECHNICIAN: H. R.		PLOTTED BY: R. S.			
HOLE DEPTH <u>3.30</u>		TYPE OF DRILL <u>B40-6" AUGERS</u>		WATER LEVEL		SOIL DESCRIPTION	
DEPTH (M.)		SAMPLE IDENTIFICATION DATA		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
		N.R.C. PERMAFROST CLASSIFICATION		LIQUID LIMIT %		SAND %	
		LABORATORY NUMBER		PLASTIC LIMIT %		GRAVEL %	
		SAMPLE TYPE		PLASTICITY INDEX %		CLAY < .075 mm %	
		SAMPLE NUMBER (FIELD)		NATURAL MOISTURE CONTENT %		SILT < .005 mm %	
		SAMPLE DEPTH (FT.)				DRY DENSITY LB./CU. FT.	
						STANDARD PENETRATION RESISTANCE BLOWS/FT.	
						UNIFIED CLASSIFICATION	
0		.3					
1		.9		7.6		SM	
2				TRACE		43.5	
3							
4							
5							





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WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-106	
DATE DRILLED: 13-3-78		DRILL TECHNICIAN: H.R.		HOLE ELEVATION: R.S.	
HOLE DEPTH: 2.70		PLOTTED BY:		MECHANICAL ANALYSIS	
TYPE OF DRILL: 3.0-6" AUGERS		SAMPLE IDENTIFICATION DATA		<.005 mm % <.075 mm % >.005 mm %	
WATER LEVEL: _____		LABORATORY NUMBER		SAND %	
DEPTH (M)		SAMPLE TYPE		GRAVEL %	
0		SAMPLE NUMBER (FIELD)		PLASTICITY INDEX %	
1		SAMPLE DEPTH (FT.)		PLASTIC LIMIT %	
		N.R.C. PERMAFROST CLASSIFICATION		LIQUID LIMIT %	
		NATURAL MOISTURE CONTENT %		UNIFIED CLASSIFICATION	
		STANDARD PENETRATION RESISTANCE BLOWS/FT.		DRY DENSITY LBS./CU. FT.	
		SOIL DESCRIPTION		STANDARD PENETRATION RESISTANCE BLOWS/FT.	
		SILT SAND TILL		DRY DENSITY LBS./CU. FT.	
		SILTY SANDY GRAVEL		STANDARD PENETRATION RESISTANCE BLOWS/FT.	
		REFUSAL @ 2.70		DRY DENSITY LBS./CU. FT.	
		SM		STANDARD PENETRATION RESISTANCE BLOWS/FT.	



MATERIALS QUALITY CONTROL LABORATORY
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SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: T-107	
DATE DRILLED: 14-3-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.			
HOLE DEPTH: 4.35		N.R.C. PERMAFROST CLASSIFICATION:		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
TYPE OF DRILL: B40-6" AUGERS		LABORATORY DATA		PLASTIC LIMIT		SAND	
WATER LEVEL		SAMPLE DEPTH (FT.)		LIQUID LIMIT		GRAVEL	
DEPTH (M)		SAMPLE NUMBER (FIELD)		PLASTICITY INDEX		SILT	
SOIL DESCRIPTION		SAMPLE TYPE		NATURAL MOISTURE CONTENT		CLAY	
0		T112		%		<.005 mm	
SILT SAND TILL		AUGER SB49		%		.074 mm	
1		.6		%		.005 mm	
SANDY SILT TILL		1.2		%		SAND	
2				%		GRAVEL	
SILTY SANDY GRAVEL				%		PLASTICITY INDEX	
3				%		NATURAL MOISTURE CONTENT	
4				%		LABORATORY NUMBER	
5				%		SAMPLE TYPE	
END HOLE @ 4.35				%		SAMPLE NUMBER (FIELD)	
				%		UNIFIED CLASSIFICATION	



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SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: R.S.S.		HOLE ELEVATION:		HOLE NO.: T-108	
DATE DRILLED: 14-3-78		DRILL TECHNICIAN: H.R.		PLOTTED BY:			
HOLE DEPTH 1.80		TYPE OF DRILL B40-6" AUGERS		WATER LEVEL		SOIL DESCRIPTION	
0		1		2		3	
1		2		3		4	
2		3		4		5	
3		4		5			
4		5					
5							
SILT SAND TILL		REFUSAL @ 1.80					
UNIFIED CLASSIFICATION		STANDARD PENETRATION RESISTANCE		DRY DENSITY		MECHANICAL ANALYSIS	
		BLOWS / FT.		LBS. / CU. FT.		<.005 mm % <.075 mm % >.005 mm % SAND % GRAVEL %	
CONSISTENCY LIMITS		PLASTICITY INDEX		PLASTIC LIMIT		LIQUID LIMIT	
NATURAL MOISTURE CONTENT							
SAMPLE IDENTIFICATION DATA		LABORATORY NUMBER		SAMPLE TYPE		SAMPLE NUMBER (FIELD)	
		SAMPLE DEPTH (FT.)					
N.R.C. PERMAFROST CLASSIFICATION							



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SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: T-109						
DATE DRILLED: 14-3-78		DRILL TECHNICIAN: H. R.		PLOTTED BY: R. S.								
HOLE DEPTH 4.35	TYPE OF DRILL B40-6" AUGERS	WATER LEVEL	MECHANICAL ANALYSIS				DRY DENSITY LB./CU. FT.	STANDARD PENETRATION RESISTANCE BLOWS/FT.	UNIFIED CLASSIFICATION			
			GRAVEL	SAND	<.074 mm	>.005 mm				<.005 mm		
DEPTH (M)	SOIL DESCRIPTION	NATURAL MOISTURE CONTENT	CONSISTENCY LIMITS			PLASTICITY INDEX	LABORATORY NUMBER	SAMPLE TYPE	SAMPLE NUMBER (FIELD)	SAMPLE DEPTH (FT.)	N.R.C. PERMAFROST CLASSIFICATION	
			LIQUID LIMIT	PLASTIC LIMIT								
0												
1	SILT SAND TILL _____ .60											
	SILTY SANDY GRAVEL _____ 1.50											
2	SANDY SILTY GRAVEL											
3												
4												
5	END HOLE @ 4.35											



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SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-110	
DATE DRILLED: 14-3-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.	
HOLE DEPTH 2.70		MECHANICAL ANALYSIS		STANDARD PENETRATION RESISTANCE	
TYPE OF DRILL B40-6" AUGERS		GRAVEL %		BLOWS / FT.	
WATER LEVEL		SAND %		LIBS. / CU.FT.	
DEPTH (M)		PLASTIC LIMIT %			
SOIL DESCRIPTION		LIQUID LIMIT %			
0		PLASTICITY INDEX %			
1		NATURAL MOISTURE CONTENT %			
2		CONSISTENCY LIMITS			
3		LABORATORY DATA			
4		SAMPLE IDENTIFICATION DATA			
5		SAMPLE DEPTH (FT.)			
SILT SAND TILL		SAMPLE NUMBER (FIELD)			
SILTY SANDY GRAVEL		SAMPLE TYPE			
END HOLE @ 2.70		LABORATORY NUMBER			
		N.R.C. PERMAFROST CLASSIFICATION			
		1.8			
		2.4			
		T115 AUGER S852			
		5.2			
		NP			
		40.5			
		37.7			
		21.8			
		GM			
		1.35			



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WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-111	
DATE DRILLED: 14-3-78		PLOTTED BY: R.S.		HOLE ELEVATION:	
DRILL TECHNICIAN: H.R.		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
HOLE DEPTH 1.95		LIQUID LIMIT %		SAND %	
TYPE OF DRILL B40-6" AUGERS		PLASTIC LIMIT %		GRAVEL %	
WATER LEVEL		PLASTICITY INDEX %		<.074 mm %	
DEPTH (M)		NATURAL MOISTURE CONTENT %		<.005 mm %	
0		LABORATORY NUMBER		STANDARD PENETRATION RESISTANCE	
1		SAMPLE TYPE		BLOWS / FT.	
2		SAMPLE NUMBER (FIELD)		CL-MC	
3		SAMPLE DEPTH (FT.)			
4		.9			
5		1.5			
N.R.C. PERMAFROST CLASSIFICATION		T116 AUGERS 853			
SOIL DESCRIPTION					
SILTY SAND TILL					
REFUSAL @ 1.95					



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WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: R. S. S.		HOLE ELEVATION:		HOLE NO.: T-112	
DATE DRILLED: 14-3-78		DRILL TECHNICIAN: H. R.		PLOTTED BY:			
HOLE DEPTH: 4.35		TYPE OF DRILL: B40-6" AUGERS		WATER LEVEL:			
DEPTH (M.)		SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION			
0		SILT SAND TILL					
1	1.20	SAND SILT TILL					
2							
3							
4							
5		END HOLE @ 4.35					
				NATURAL MOISTURE CONTENT		%	
				LIQUID LIMIT		%	
				PLASTIC LIMIT		%	
				PLASTICITY INDEX		%	
				GRAVEL		%	
				SAND		%	
				> 0.075 mm		%	
				> 0.075 mm		%	
				> 0.005 mm		%	
				DRY DENSITY		LBS./CU. FT.	
				STANDARD PENETRATION RESISTANCE		BLOWS/FT.	
				UNIFIED CLASSIFICATION		SM	

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-113	
DATE DRILLED: 14-3-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.	
HOLE DEPTH 2.25		MECHANICAL ANALYSIS		STANDARD PENETRATION RESISTANCE	
TYPE OF DRILL B40-6" AUGERS		GRAVEL %		BLOWS / FT.	
WATER LEVEL		SAND %		CU. FT.	
DEPTH (M.)		PLASTIC LIMIT %		UNIFIED CLASSIFICATION	
SOIL DESCRIPTION		LIQUID LIMIT %		SM	
SILT SAND TILL		PLASTICITY INDEX %		41.3	
		NATURAL MOISTURE CONTENT %		8.7	
REFUSAL @ 2.25		CONSISTENCY LIMITS		NP	
		N.R.C. PERMAFROST CLASSIFICATION			
SAMPLE IDENTIFICATION DATA		SAMPLE DEPTH (FT.)		SAMPLE NUMBER	
SAMPLE TYPE		.6		T118 AUGER S855	
SAMPLE NUMBER (FIELD)		1.2			
LABORATORY NUMBER					



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 4-3-78

DRILL TECHNICIAN: H. R.

PLOTTED BY: R. S.

HOLE ELEVATION:

HOLE NO.: T-114

HOLE DEPTH 2.25

TYPE OF DRILL B40-6" AUGERS

WATER LEVEL

SOIL DESCRIPTION

0

SAND TILL

1

2

REFUSAL @ 2.25

3

4

5

N.R.C. PERMAFROST CLASSIFICATION

LABORATORY NUMBER

SAMPLE TYPE

SAMPLE NUMBER (FIELD)

SAMPLE DEPTH (FT.)

.3

.9

8.2

5.8 48.8 45.4

NP

SM

LIQUID LIMIT %

PLASTIC LIMIT %

PLASTICITY INDEX %

GRAVEL %

SAND %

>.005 mm %

>.074 mm %

<.005 mm %

DRY DENSITY LBS./CU.FT.

STANDARD PENETRATION RESISTANCE BLOWS/FT.

UNIFIED CLASSIFICATION



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WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: T-115											
DATE DRILLED: 14-3-78		DRILL TECHNICIAN: H. R.		PLOTTED BY: R. S.													
DEPTH (M.)	SOIL DESCRIPTION	SAMPLE IDENTIFICATION DATA				NATURAL MOISTURE CONTENT %	CONSISTENCY LIMITS			GRAVEL %	MECHANICAL ANALYSIS			DRY DENSITY LBS./CU. FT.	STANDARD PENETRATION RESISTANCE BLOWS/FT.	UNIFIED CLASSIFICATION	
		SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER		LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %		SAND %	<.075 mm %	<.005 mm %				
0		0															
.60	SILTY SANDY GRAVEL	.6	T120	AUGER	S857	7.5				NP	16.0	44.8	39.2				SM
1.8	SILT SANDTILL	1.8															
2.4		2.4	T121	AUGER	S858	10.2				TRACE	16.4	39.8	33.8				SM
3.60	END HOLE @ 3.60																



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 14-3-78

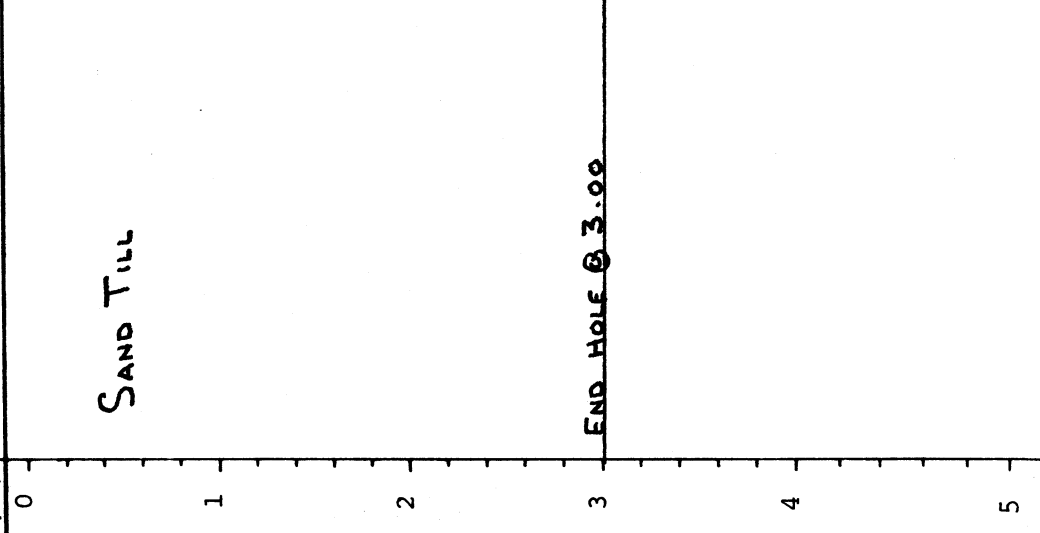
DRILL TECHNICIAN: H. R.

PLOTTED BY: R. S.

HOLE ELEVATION:

HOLE NO.: T-116

HOLE DEPTH 3.00
TYPE OF DRILL B40-6" AUGERS
WATER LEVEL
SOIL DESCRIPTION



N.R.C.
PERMAFROST
CLASSIFICATION

SAMPLE IDENTIFICATION DATA
SAMPLE DEPTH (FT.)
SAMPLE NUMBER (FIELD)
SAMPLE TYPE
LABORATORY NUMBER

NATURAL
MOISTURE
CONTENT

CONSISTENCY LIMITS
LIQUID LIMIT
PLASTIC LIMIT
PLASTICITY INDEX

MECHANICAL ANALYSIS
GRAVEL
SAND
<.075 mm
>.006 mm
<.005 mm

DRY DENSITY
LBS. CU. FT.
STANDARD PENETRATION RESISTANCE
BLOWS FT.
UNIFIED CLASSIFICATION

.6

1.2

5.3

NP

16.9

49.5

33.6

SM



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WHITEHORSE, Y.T.**

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-117	
DATE DRILLED: 14-3-78		DRILL TECHNICIAN: H.R.		HOLE ELEVATION: R.S.	
HOLE DEPTH: 2.40		PLOTTED BY:		MECHANICAL ANALYSIS	
TYPE OF DRILL: 3.40-6" AUGERS		SAMPLE IDENTIFICATION DATA		<.005 mm % <.075 mm % >.005 mm %	
WATER LEVEL		LABORATORY NUMBER		SAND %	
DEPTH (M)		SAMPLE TYPE		GRAVEL %	
0		SAMPLE NUMBER (FIELD)		PLASTICITY INDEX %	
1		SAMPLE DEPTH (FT.)		PLASTIC LIMIT %	
		N.R.C. PERMAFROST CLASSIFICATION		LIQUID LIMIT %	
				NATURAL MOISTURE CONTENT %	
				CONSISTENCY LIMITS	
				PLASTIC LIMIT % LIQUID LIMIT %	
				SAND % GRAVEL %	
				<.005 mm % <.075 mm % >.005 mm %	
				DRY DENSITY LBS. CU. FT. STANDARD PENETRATION RESISTANCE BLOWS FT.	
				UNIFIED CLASSIFICATION	
2				OL	
3					
4					
5					

SILTY SAND TILL

END HOLE @ 2.40



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 15-3-78

DRILL TECHNICIAN: H. R.

PLOTTED BY: R. S.

HOLE ELEVATION:

HOLE NO.: T-118

HOLE DEPTH 2.55
TYPE OF DRILL B40-6" AUGERS
WATER LEVEL
DEPTH (M)

SOIL DESCRIPTION

SILT SAND TILL

1.35

SILTY SANDY GRAVEL

REFUSAL @ 2.55

N.R.C. PERMAFROST CLASSIFICATION

SAMPLE IDENTIFICATION DATA
SAMPLE DEPTH (FT.)
SAMPLE NUMBER (FIELD)
SAMPLE TYPE
LABORATORY NUMBER

0.4

1.2

T-124 AUGER S-916

NATURAL MOISTURE CONTENT %

8.8

CONSISTENCY LIMITS
LIQUID LIMIT %
PLASTIC LIMIT %
PLASTICITY INDEX %

TRACE

MECHANICAL ANALYSIS
GRAVEL %
SAND %

10.3

36.5

DRY DENSITY LBS./CU. FT.
STANDARD PENETRATION RESISTANCE BLOWS/FT.
UNIFIED CLASSIFICATION

ML

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-119	
DATE DRILLED: 15-3-78		PLOTTED BY: R.S.		HOLE ELEVATION:	
DRILL TECHNICIAN: H.R.		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
HOLE DEPTH 4.35		LIQUID LIMIT %		SAND %	
TYPE OF DRILL B40-6" AUGERS		PLASTIC LIMIT %		GRAVEL %	
WATER LEVEL		PLASTICITY INDEX %		CLAY <.075 mm %	
DEPTH (M)		NATURAL MOISTURE CONTENT %		SILT <.005 mm %	
SOIL DESCRIPTION		LABORATORY NUMBER		STANDARD PENETRATION RESISTANCE BLOWS/FT.	
SILT SAND TILL		SAMPLE TYPE		UNIFIED CLASSIFICATION	
SANDY SILTY GRAVEL		SAMPLE NUMBER (FIELD)		SM	
END HOLE @ 4.35		SAMPLE DEPTH (FT.)			
		1.8			
		2.4			
		T-125 AUGER 5-917		NP 17.5 54.8 27.7	
		7.3			
		N.R.C. PERMAFROST CLASSIFICATION			
		1.65			



**Public Works
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**MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.**

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION :

DATE DRILLED: 15-3-78

H.R.R.

PLOTTED BY :

R.S.

HOLE ELEVATION :

HOLE NO.: T-120

HOLE DEPTH 1.65
 TYPE OF DRILL B40-6" AUGERS
 WATER LEVEL _____
 DEPTH (M) _____

SOIL DESCRIPTION

SILT SAND TILL

REFUSAL @ 1.65

N.R.C. PERMAFROST CLASSIFICATION

LABORATORY NUMBER
 SAMPLE TYPE
 SAMPLE NUMBER (FIELD)
 SAMPLE DEPTH (FT.)

0.6
 1.2

4.4

LIQUID LIMIT
 PLASTIC LIMIT
 PLASTICITY INDEX

NP

GRAVEL
 SAND

13.4
 57.1
 29.5

< .075 mm
 > .006 mm
 < .005 mm

DRY DENSITY
 LB./CU. FT.

STANDARD PENETRATION RESISTANCE
 BLOWS/FT.

UNIFIED CLASSIFICATION

SM

0 1 2 3 4 5



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WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-121	
DATE DRILLED: 15-3-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.	
HOLE DEPTH: 2.25		MECHANICAL ANALYSIS		STANDARD PENETRATION RESISTANCE	
TYPE OF DRILL: B40-6" AUGERS		SAND		BLOWS / FT.	
WATER LEVEL		GRAVEL		LBS. / CU. FT.	
DEPTH (M)		PLASTICITY INDEX		UNIFIED CLASSIFICATION	
SOIL DESCRIPTION		PLASTIC LIMIT		ML	
SANDY SILT TILL		LIQUID LIMIT		MECHANICAL ANALYSIS	
		NATURAL MOISTURE CONTENT		SAND	
END HOLE @ 2.25		LABORATORY NUMBER		GRAVEL	
		SAMPLE TYPE		PLASTICITY INDEX	
0		SAMPLE NUMBER (FIELD)		PLASTIC LIMIT	
		SAMPLE DEPTH (FT.)		LIQUID LIMIT	
1		LABORATORY NUMBER		PLASTICITY INDEX	
		SAMPLE TYPE		PLASTIC LIMIT	
2		SAMPLE NUMBER (FIELD)		LIQUID LIMIT	
		SAMPLE DEPTH (FT.)		PLASTICITY INDEX	
3		LABORATORY NUMBER		PLASTIC LIMIT	
		SAMPLE TYPE		LIQUID LIMIT	
4		SAMPLE NUMBER (FIELD)		PLASTICITY INDEX	
		SAMPLE DEPTH (FT.)		PLASTIC LIMIT	
5		LABORATORY NUMBER		LIQUID LIMIT	
		SAMPLE TYPE		PLASTICITY INDEX	



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WHITEHORSE, Y.T.**

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-122	
DATE DRILLED: 15-3-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.	
HOLE DEPTH 4.35		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
TYPE OF DRILL B40-6" AUGERS		LIQUID LIMIT %		SAND %	
WATER LEVEL		PLASTIC LIMIT %		GRAVEL %	
DEPTH (M.)		PLASTICITY INDEX %		< .075 mm %	
SOIL DESCRIPTION		NATURAL MOISTURE CONTENT %		> .005 mm %	
0		LABORATORY NUMBER		UNIFIED CLASSIFICATION	
1		SAMPLE TYPE		STANDARD PENETRATION RESISTANCE	
2		SAMPLE NUMBER (FIELD)		BLOWS / FT.	
3		SAMPLE DEPTH (FT.)		DRY DENSITY	
4		N.R.C. PERMAFROST CLASSIFICATION		LBS / CU. FT.	
5		SAMPLE DEPTH (FT.)		LBS / CU. FT.	

SILT SAND TILL

SILT ORGANIC 1.80

SANDY SILT

SILTY SAND SAT.

END HOLE @ 4.35

0.6

1.2

T128 AUGER 904

7.3

NP 9.5 60.1 30.4

SM



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 15-3-78

DRILL TECHNICIAN: H.R.

PLOTTED BY: R.S.

HOLE ELEVATION:

HOLE NO.: T-123

HOLE DEPTH 2.55
TYPE OF DRILL B40-6" AUGERS
WATER LEVEL
DEPTH (M)
SOIL DESCRIPTION

0 SANDY GRAVEL .15
SILT SAND TILL
REUSAL @ 2.55
1
2
3
4
5

N.R.C. PERMAFROST CLASSIFICATION

SAMPLE IDENTIFICATION DATA
SAMPLE DEPTH (FT.)
SAMPLE NUMBER (FIELD)
SAMPLE TYPE
LABORATORY NUMBER

NATURAL MOISTURE CONTENT %

CONSISTENCY LIMITS
LIQUID LIMIT %
PLASTIC LIMIT %
PLASTICITY INDEX %

MECHANICAL ANALYSIS
GRAVEL %
SAND %
<.074 mm %
>.005 mm %
<.005 mm %

DRY DENSITY LBS. CU. FT.
STANDARD PENETRATION RESISTANCE BLOWS FT.

UNIFIED CLASSIFICATION



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WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: T-124	
DATE DRILLED: 15-3-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.			
HOLE DEPTH: 3.45		TYPE OF DRILL: B40-6" AUGERS		WATER LEVEL:			
DEPTH (M)		SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION			
0							
1			SAND SILT TILL				
2		2.10	ORGANIC SILT				
		2.30					
3			SILT TILL ORGANIC				
			SAT.				
			END HOLE @ 3.45				
4							
5							

UNIFIED CLASSIFICATION	STANDARD PENETRATION RESISTANCE	BLOWS / FT.	DRY DENSITY	LBS. / CU. FT.	MECHANICAL ANALYSIS			PLASTICITY INDEX	PLASTIC LIMIT	LIQUID LIMIT	NATURAL MOISTURE CONTENT	LABORATORY NUMBER	SAMPLE TYPE	SAMPLE NUMBER (FIELD)	SAMPLE DEPTH (FT.)
					<.074 mm	>.005 mm	SAND								
SM					22.2	6.0	58.2	13.6	NP		43.6			T-129 AUGER 5-920	2.4
															3.0

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-125	
DATE DRILLED: 15-3-78		HOLE ELEVATION:		R.S.S.	
DRILL TECHNICIAN:		PLOTTED BY:		R.S.S.	
HOLE DEPTH: 2.10		TYPE OF DRILL: B40-6" AUGERS		WATER LEVEL:	
DEPTH (M.)		SOIL DESCRIPTION		UNIFIED CLASSIFICATION	
0		SILT SAND TILL		ML	
1					
2		REFUSAL @ 2.10			
3					
4					
5					

SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER	NATURAL MOISTURE CONTENT (%)	CONSISTENCY LIMITS			MECHANICAL ANALYSIS			DRY DENSITY (LB./CU. FT.)	STANDARD PENETRATION RESISTANCE (BLOWS/FT.)	UNIFIED CLASSIFICATION
					LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX (%)	GRAVEL (%)	SAND (%)	> 0.075 mm (%)			
0.6													
1.2	T-130	ANGLER	5921	13.3			TRACE	1.4	33.9	64.7			ML



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 15-3-78

DRILL TECHNICIAN: H.R.

PLOTTED BY:

R.S.

HOLE ELEVATION:

HOLE NO.: T-126

HOLE DEPTH 2.40
TYPE OF DRILL B40-6" AUGERS
WATER LEVEL
DEPTH (M.) SOIL DESCRIPTION

0	SILT SAND TILL		N.R.C. PERMAFROST CLASSIFICATION		SAMPLE IDENTIFICATION DATA				NATURAL MOISTURE CONTENT		CONSISTENCY LIMITS			MECHANICAL ANALYSIS			DRY DENSITY	STANDARD PENETRATION RESISTANCE	UNIFIED CLASSIFICATION
1			LABORATORY NUMBER	SAMPLE TYPE	SAMPLE NUMBER (FIELD)	SAMPLE DEPTH (FT.)	PLASTIC LIMIT	LIQUID LIMIT	PLASTICITY INDEX	GRAVEL	SAND	<.075 mm	>.005 mm	<.005 mm	LBS. CU.FT.	BLOWS FT.			
2	REFUSAL @ 2.40																		
3																			
4																			
5																			



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WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 15-3-78

DRILL TECHNICIAN:

H.R.R.

PLOTTED BY:

R.S.

HOLE ELEVATION:

HOLE NO.:

T-127

HOLE DEPTH 1.35
TYPE OF DRILL B40-6" AUGERS
WATER LEVEL _____
DEPTH (M.) _____

SOIL DESCRIPTION

SILT SAND TILL

REFUSAL @ 1.35

N.R.C. PERMAFROST CLASSIFICATION

SAMPLE IDENTIFICATION DATA

LABORATORY NUMBER _____
SAMPLE TYPE _____
SAMPLE NUMBER (FIELD) _____
SAMPLE DEPTH (FT.) _____

NATURAL MOISTURE CONTENT

CONSISTENCY LIMITS
LIQUID LIMIT % _____
PLASTIC LIMIT % _____
PLASTICITY INDEX % _____

GRAVEL % _____

SAND % _____

MECHANICAL ANALYSIS
< .075 mm % _____
> .005 mm % _____

DRY DENSITY

STANDARD PENETRATION RESISTANCE

UNIFIED CLASSIFICATION



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-128	
DATE DRILLED: 15-3-78		DRILL TECHNICIAN: H. R.		HOLE ELEVATION: R. S.	
HOLE DEPTH: 2.10		PLOTTED BY:		MECHANICAL ANALYSIS	
TYPE OF DRILL: B40-6" AUGERS		SAMPLE IDENTIFICATION DATA		UNIFIED CLASSIFICATION	
WATER LEVEL:		LABORATORY NUMBER		STANDARD PENETRATION RESISTANCE	
DEPTH (M)		SAMPLE TYPE		BLOWS / FT.	
SOIL DESCRIPTION		SAMPLE NUMBER (FIELD)		DRY DENSITY	
SILT SAND TILL		SAMPLE DEPTH (FT.)		LBS. / CU. FT.	
REFUSAL @ 2.10		N.R.C. PERMAFROST CLASSIFICATION		MECHANICAL ANALYSIS	
				GRAVEL	
				SAND	
				PLASTICITY INDEX	
				PLASTIC LIMIT	
				LIQUID LIMIT	
				NATURAL MOISTURE CONTENT	
				<.005 mm	
				<.074 mm	
				>.005 mm	



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WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-129	
DATE DRILLED: 15-3-78		DRILL TECHNICIAN: H. R. S.		HOLE ELEVATION:	
HOLE DEPTH: 2.10		PLOTTED BY: R. S.			
TYPE OF DRILL: B.4.0-6" AUGERS		SAMPLE IDENTIFICATION DATA		MECHANICAL ANALYSIS	
WATER LEVEL		LABORATORY NUMBER		SAND	
DEPTH (M)		SAMPLE TYPE		GRAVEL	
SOIL DESCRIPTION		SAMPLE NUMBER (FIELD)		PLASTICITY INDEX	
SILT SAND TILL		SAMPLE DEPTH (FT.)		PLASTIC LIMIT	
		N.R.C. PERMAFROST CLASSIFICATION		LIQUID LIMIT	
		NATURAL MOISTURE CONTENT		CONSISTENCY LIMITS	
0	0.6	T-131	5-922	11.3	NP
1	1.2				
2	1.8	T-132	5-923	9.2	TRACE
3					
4					
5					

REFUSAL @ 2.10



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SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: R.S.		HOLE ELEVATION: T-130		HOLE NO.: T-130	
DATE DRILLED: 15-3-78		DRILL TECHNICIAN: H.R.		PLOTTED BY:			
HOLE DEPTH: 3.00		TYPE OF DRILL: B40-6" AUGERS		WATER LEVEL:			
DEPTH (M.)		SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION			
0		SILT SAND TILL					
1		SAND SILT TILL					
2	1.80	SILT					
3	END HOLE @ 3.00						
4							
5							

SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER	NATURAL MOISTURE CONTENT (%)	CONSISTENCY LIMITS			GRAVEL (%)	SAND (%)	>.005 mm (%)	<.075 mm (%)	<.005 mm (%)	DRY DENSITY (LB./CU.FT.)	STANDARD PENETRATION RESISTANCE (BLOWS/FT.)	UNIFIED CLASSIFICATION
					LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX (%)								
2.1	T-133	ANGEX	S-924	34.5				1.4	24.5	74.1				OL	
2.7															



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WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8
 DATE DRILLED: 16-3-78
 HOLE DEPTH: 3.00
 TYPE OF DRILL: B40-6" AUGERS
 WATER LEVEL: _____
 SOIL DESCRIPTION: SILT SAND TILL
 _____ 1.05
 SAND SILT TILL _____ 1.35
 SILT SAND TILL
 REFUSAL @ 3.00

HOLE LOCATION: _____ HOLE ELEVATION: _____ HOLE NO.: T-131
 PLOTTED BY: R.S.

DEPTH (M)	N.R.C. PERMAFROST CLASSIFICATION	SAMPLE IDENTIFICATION DATA				NATURAL MOISTURE CONTENT %	CONSISTENCY LIMITS			MECHANICAL ANALYSIS				DRY DENSITY LBS./CU. FT.	STANDARD PENETRATION RESISTANCE BLOWS/FT.	UNIFIED CLASSIFICATION
		SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER		LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %	SAND %	> .074 mm %	> .005 mm %			
1.5																
2.1			T-134	AUGER	S-925	5.7	TRACE	11.2	54.7	34.1					SM	
3.00																



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WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: T-132											
DATE DRILLED: 16-3-78		DRILL TECHNICIAN: H. R.		PLOTTED BY: R. S.													
DEPTH (M)	SOIL DESCRIPTION	SAMPLE IDENTIFICATION DATA			CONSISTENCY LIMITS			MECHANICAL ANALYSIS			DRY DENSITY	STANDARD PENETRATION RESISTANCE	UNIFIED CLASSIFICATION				
		SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER	NATURAL MOISTURE CONTENT	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	GRAVEL				SAND	>.005 mm	>.075 mm	>.005 mm
0																	
1	SILT SAND TILL	0.6															SM
1	SILTY SANDY GRAVEL	1.2	T-135	ALGERS	5-976	3.9			NP	16.2	36.0	47.8					
2	REFUSAL @ 1.65																
3																	
4																	
5																	



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: T-133	
DATE DRILLED: 16-3-78		DRILL TECHNICIAN: H. R.		PLOTTED BY: R. S.			
HOLE DEPTH 1.50		TYPE OF DRILL 3.40-6" AUGERS		WATER LEVEL			
DEPTH (M)		SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION			
0	SILT SAND TILL						
1	REFUSAL @ 1.50						
2							
3							
4							
5							

SAMPLE DEPTH (FT.)	SAMPLE IDENTIFICATION DATA			NATURAL MOISTURE CONTENT %	CONSISTENCY LIMITS			MECHANICAL ANALYSIS			DRY DENSITY LBS./CU. FT.	STANDARD PENETRATION RESISTANCE BLOWS/FT.	UNIFIED CLASSIFICATION
	LABORATORY NUMBER	SAMPLE TYPE	SAMPLE NUMBER (FIELD)		LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %	SAND %	<.075 mm %			
0.3													
0.9			T-136 AUGER 5-927	8.2		TRACE	3.4	45.1	51.5				ML



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WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-134	
DATE DRILLED: 16-3-78		DRILL TECHNICIAN: H.R.		HOLE ELEVATION: R.S.	
HOLE DEPTH: 2.10		PLOTTED BY:		MECHANICAL ANALYSIS	
TYPE OF DRILL: B40-6" AUGERS		SAMPLE IDENTIFICATION DATA		<.005 mm % <.075 mm % >.005 mm % SAND % GRAVEL %	
WATER LEVEL		LABORATORY NUMBER		PLASTICITY INDEX %	
DEPTH (M)		SAMPLE TYPE		PLASTIC LIMIT %	
SOIL DESCRIPTION		SAMPLE NUMBER (FIELD)		LIQUID LIMIT %	
SILT SAND TILL .45		SAMPLE DEPTH (FT.)		NATURAL MOISTURE CONTENT %	
SAND SILT TILL		0.6		11.9	
REUSAL 8.2.10		1.2		19.8	
		T.137 AUGER 5-928		4.4	
				15.4	
				2.8	
				33.9	
				63.3	
				CL-ML	
				STANDARD PENETRATION RESISTANCE BLOWS/FT.	
				DRY DENSITY LBS./CU.FT.	
				UNIFIED CLASSIFICATION	

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 16-3-78

DRILL TECHNICIAN: H. R.

PLOTTED BY: R. S.

HOLE ELEVATION:

HOLE NO.: T-135

HOLE DEPTH .90
 TYPE OF DRILL B40-6" AUGERS
 WATER LEVEL _____
 SOIL DESCRIPTION

SILT SAND TILL

REFUSAL @ .90

DEPTH (M)	N.R.C. PERMAFROST CLASSIFICATION	SAMPLE IDENTIFICATION DATA				CONSISTENCY LIMITS			MECHANICAL ANALYSIS			DRY DENSITY LBS. CU. FT.	STANDARD PENETRATION RESISTANCE BLOWS / FT.	UNIFIED CLASSIFICATION	
		SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER	NATURAL MOISTURE CONTENT %	LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %	SAND %				<.075 mm %
0															
1															
2															
3															
4															
5															



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WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: T-136	
DATE DRILLED: 16-3-75		DRILL TECHNICIAN: H.R.		HOLE ELEVATION: R.S.	
HOLE DEPTH: .75		PLOTTED BY:		MECHANICAL ANALYSIS	
TYPE OF DRILL: B40-6" AUGERS		SAMPLE IDENTIFICATION DATA		<.005 mm % <.075 mm % >.005 mm %	
WATER LEVEL		LABORATORY NUMBER		SAND %	
DEPTH (M)		SAMPLE TYPE		GRAVEL %	
SOIL DESCRIPTION		SAMPLE NUMBER (FIELD)		PLASTICITY INDEX %	
SILT SAND TILL		SAMPLE DEPTH (FT.)		PLASTIC LIMIT %	
REFUSAL @ .15		NATURAL MOISTURE CONTENT %		LIQUID LIMIT %	
		N.R.C. PERMAFROST CLASSIFICATION		STANDARD PENETRATION RESISTANCE BLOWS/FT.	
				UNIFIED CLASSIFICATION	

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: T-137								
DATE DRILLED: 16-3-78		DRILL TECHNICIAN: H. R.		PLOTTED BY: R. S.										
HOLE DEPTH 3.60	TYPE OF DRILL B.A.O.-6" AILGERS	WATER LEVEL	SAMPLE IDENTIFICATION DATA		MECHANICAL ANALYSIS									
			N.R.C. PERMAFROST CLASSIFICATION	NATURAL MOISTURE CONTENT	CONSISTENCY LIMITS	GRAVEL	SAND	<.074 mm	<.005 mm	DRY DENSITY	STANDARD PENETRATION RESISTANCE	UNIFIED CLASSIFICATION		
DEPTH (M)	SOIL DESCRIPTION		SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER	%	%	%	%	%	LB/ CU. FT.	BLOWS / FT.	
0	SILT SAND TILL	.45	0.6	T-138	ANGERS	5929								
1	SILTY GRAVELLY SAND	1.50	1.2							NP	3.4	32.1	64.5	ML
2	SILT TILL SOME GRAVEL													
3														
4	REFUSAL @ 3.60													
5														



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 16-3-78

DRILL TECHNICIAN: 8

PLOTTED BY:

R. S.

HOLE ELEVATION:

HOLE NO.: T-138

HOLE DEPTH 1.50
TYPE OF DRILL B40-6" AUGERS
WATER LEVEL
DEPTH (M.) SOIL DESCRIPTION

SILT SAND TILL .30

SILTY SANDY GRAVEL

REFUSAL @ 1.50

N.R.C. PERMAFROST CLASSIFICATION

LABORATORY NUMBER
SAMPLE TYPE
SAMPLE NUMBER (FIELD)
SAMPLE DEPTH (FT.)

0.6
1.2

NATURAL MOISTURE CONTENT %

5.1

CONSISTENCY LIMITS
LIQUID LIMIT %
PLASTIC LIMIT %
PLASTICITY INDEX %

TRACE

MECHANICAL ANALYSIS
GRAVEL %
SAND %
> 0.075 mm %
< 0.075 mm %
< 0.005 mm %

28.9

43.3

19.0

DRY DENSITY LB./CU.FT.
STANDARD PENETRATION RESISTANCE BLOWS/FT.
UNIFIED CLASSIFICATION

SM



Public Works
Canada

Travaux publics
Canada

GR01 - 096

GEOTECHNICAL INVESTIGATION

SHAKWAK RELOCATION PROJECT
ALASKA HWY km 1634.5-1664.5 (SEG.8)

CENTERLINE DRILLING
VOLUME II OF III

GEOTECHNICAL & MATERIAL SERVICES
WHITEHORSE, YUKON

VOLUME II

CONTENTS

MAR. 1978 CENTERLINE INVESTIGATION

HOLES 78-8-N1 to

78-8-N122

Drill log summaries only



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: <u>121</u>	
DATE DRILLED: <u>2-3-78</u>		PLOTTED BY: <u>R.S.</u>		HOLE ELEVATION:	
DRILL TECHNICIAN: <u>J.G.</u>		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
HOLE DEPTH <u>4.60</u>	TYPE OF DRILL <u>B40L-6" AUGERS</u>	WATER LEVEL	SOIL DESCRIPTION <u>Silt Till LIGHT GREY BROWN</u>	PLASTIC LIMIT	< .074 mm
				LIQUID LIMIT	> .005 mm
				NATURAL MOISTURE CONTENT	SAND
DEPTH (M.)				GRAVEL	STANDARD PENETRATION RESISTANCE
0				%	BLAWS / FT.
1				%	
2				%	
3				%	
4				%	
5				%	

HOLE DEPTH: 4.60
TYPE OF DRILL: B40L-6" AUGERS
WATER LEVEL: _____
SOIL DESCRIPTION: Silt Till LIGHT GREY BROWN

DRILL TECHNICIAN: J.G.

PLOTTED BY: R.S.

HOLE NO.: 121

DATE DRILLED: 2-3-78

PROJECT: SHAKWAK SEGMENT 8

DEPTH (M.): 0, 1, 2, 3, 4, 5

SAMPLE IDENTIFICATION DATA

SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER
2.4	N1	AUGER	S645
3.0			
3.7			
4.3	N2	AUGER	S646

UNIFIED CLASSIFICATION

N.R.C. PERMAFROST CLASSIFICATION

MECHANICAL ANALYSIS

CONSISTENCY LIMITS

NATURAL MOISTURE CONTENT

GRAVEL

SAND

PLASTIC LIMIT

LIQUID LIMIT

PLASTICITY INDEX

< .074 mm

> .005 mm

< .005 mm

LBS. / CU. FT.

BLAWS / FT.

%

%

%

%

%



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: 112	
DATE DRILLED: 2-3-78		PLOTTED BY: R.S.		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
DRILL TECHNICIAN: J.G.		SAMPLE IDENTIFICATION DATA		PLASTIC LIMIT		SAND	
		LABORATORY NUMBER		LIQUID LIMIT		GRAVEL	
		SAMPLE TYPE		PLASTICITY INDEX		DRY DENSITY	
		SAMPLE NUMBER (FIELD)		NATURAL MOISTURE CONTENT		STANDARD PENETRATION RESISTANCE	
		SAMPLE DEPTH (FT.)		%		BLOWS / FT.	
		SOIL DESCRIPTION		%			
		N.R.C. PERMAFROST CLASSIFICATION		%			
0							
1		.6	N3	25.2	14.2		
2		1.4	AUGER S647		11.0		
3							
4							
5							

HOLE DEPTH 2.00
 TYPE OF DRILL B40L-6" AUGERS
 WATER LEVEL _____
 DEPTH (M.) _____

SILT TILL
GREY BROWN

END OF HOLE 3.



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: <u>AJ3</u>	
DATE DRILLED: <u>2-3-78</u>		PLOTTED BY: <u>R.S.</u>		HOLE ELEVATION:	
DRILL TECHNICIAN: <u>J.G.</u>		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
HOLE DEPTH <u>4.6</u> TYPE OF DRILL <u>B40J-6" AUGERS</u> WATER LEVEL _____ SOIL DESCRIPTION <u>Silt</u> <u>CLAYEY Silt</u> <u>Silt</u> <u>END HOLE</u>		PLASTIC LIMIT		$< .005 \text{ mm}$ % $< .074 \text{ mm}$ % $> .005 \text{ mm}$ %	
		LIQUID LIMIT		SAND	
N.R.C. PERMAFROST CLASSIFICATION		PLASTICITY INDEX		LBS. CU. FT.	
DEPTH (M.)		GRAVEL		BLOWS FT.	
0		%		%	
1		%		%	
2		%		%	
3		%		%	
4		%		%	
5		%		%	
SAMPLE IDENTIFICATION DATA		NATURAL MOISTURE CONTENT		UNIFIED CLASSIFICATION	
SAMPLE DEPTH (FT.)		%			
.5		22.6			
1.1		36.2			
1.8		27.0			
2.3		37.8			
LABORATORY NUMBER		PLASTIC INDEX			
SAMPLE TYPE		21.5			
SAMPLE NUMBER (FIELD)		14.7			
N 4					
N 5					



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: 125										
DATE DRILLED: 3-3-78		PLOTTED BY: R.S.														
DRILL TECHNICIAN: J.G.																
HOLE DEPTH	TYPE OF DRILL	WATER LEVEL	SOIL DESCRIPTION	SAMPLE IDENTIFICATION DATA				NATURAL MOISTURE CONTENT	CONSISTENCY LIMITS			MECHANICAL ANALYSIS	DRY DENSITY	STANDARD PENETRATION RESISTANCE	UNIFIED CLASSIFICATION	
				DEPTH (FT.)	NUMBER (FIELD)	TYPE	NUMBER		LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX					GRAVEL
0	ROAD SIGN															
.3	SILT TILL															
0.5				N9	AUGER	S653		22.3	34.5	19.4	15.1	3.2	11.1	85.7		CL
1.2																
2.1																
2.7				N10	AUGER	S654		14.5	23.5	17.4	6.1	7.7	19.9	72.4		CL-ML
3	COARSE															
4																
4.35	END HOLE															
5																



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: 107	
DATE DRILLED: 3-3-78		PLOTTED BY: R.S.		HOLE ELEVATION:	
DRILL TECHNICIAN: J.G.		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
HOLE DEPTH <u>4.6</u>		LIQUID LIMIT		SAND	
		PLASTIC LIMIT		GRAVEL	
TYPE OF DRILL <u>B40L-6" AUGERS</u>		PLASTICITY INDEX		SILT	
		GRAVEL		CLAY	
WATER LEVEL _____		NATURAL MOISTURE CONTENT		UNIFIED CLASSIFICATION	
DEPTH (M.)		LABORATORY NUMBER		STANDARD PENETRATION RESISTANCE	
SOIL DESCRIPTION		SAMPLE TYPE		BLOWS / FT.	
<u>Road fill</u>		SAMPLE NUMBER (FIELD)		DRY DENSITY	
		SAMPLE DEPTH (FT.)		LBS. / CU. FT.	
<u>Silt</u>		N13		19.1	
		N14		30.1	
<u>End Hole</u>		N13 AUGER S657		16.0	
		N14 AUGER S658		11.1	
N.R.C. PERMAFROST CLASSIFICATION		GRAVEL		3.1	
N.R.C. PERMAFROST CLASSIFICATION		SAND		11.1	
N.R.C. PERMAFROST CLASSIFICATION		SILT		1.2	
N.R.C. PERMAFROST CLASSIFICATION		CLAY		4.6	



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: 29	
DATE DRILLED: 6-3-78		DRILL TECHNICIAN: J. G.		PLOTTED BY: R. S.	
HOLE DEPTH: 4.6		TYPE OF DRILL: B40L-6" AUGERS		WATER LEVEL:	
DEPTH (M.)		SOIL DESCRIPTION		UNIFIED CLASSIFICATION	
0	Road Fill			CL	
1	Silty Till			CL	
2	CLAYEY			CL	
3	COARSER GRAVEL			CL	
4					
5	END HOLE				

SAMPLE DEPTH (FT.)	SAMPLE IDENTIFICATION DATA				NATURAL MOISTURE CONTENT (%)	CONSISTENCY LIMITS			MECHANICAL ANALYSIS			STANDARD PENETRATION RESISTANCE (BLOWS/FT.)	UNIFIED CLASSIFICATION
	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER			LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX (%)	GRAVEL (%)	SAND (%)	<.075 mm (%)		
.3													
.8	N 17	AUGER	ST02		17.8	33.1	21.2	12.0	18.4	16.9	64.7		CL
1.8													
2.4	N 18	AUGER	ST03		19.9	31.4	16.7	14.7	1.8	15.2	83.0		CL



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: 210	
DATE DRILLED: 6-3-78		DRILL TECHNICIAN: J.G.		PLOTTED BY: R.S.			
HOLE DEPTH: 4.6		TYPE OF DRILL: 3/4" - 6" AUGERS		WATER LEVEL:			
DEPTH (M.):		SOIL DESCRIPTION:		NATURAL MOISTURE CONTENT (%)		UNIFIED CLASSIFICATION	
0		Road Fill					
1		Silt Till					CL
2		CLAYEY					
3							
4							
5							

DEPTH (FT.)	SAMPLE IDENTIFICATION DATA				NATURAL MOISTURE CONTENT (%)	CONSISTENCY LIMITS			MECHANICAL ANALYSIS				DRY DENSITY (LBS./CU. FT.)	STANDARD PENETRATION RESISTANCE (BLOWS/FT.)	UNIFIED CLASSIFICATION
	SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER		LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX (%)	GRAVEL (%)	SAND (%)	>.005 mm (%)	<.074 mm (%)			
.6	N19	AUGER	S704		23.2	30.9	19.1	11.8	3.3	15.1	84.6				
1.1															
2.1	N20	AUGER	S705		28.6	51.1	24.0	27.1			95+				CL
2.6															

DEPTH (M.):		SOIL DESCRIPTION:	
4.6		END HOLE	



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.:	
DATE DRILLED: 6-3-78		DRILL TECHNICIAN: J.G.		R.S.		1011	
HOLE DEPTH: 4.6		TYPE OF DRILL: 40L-6" AUGERS		WATER LEVEL:		DEPTH (M.):	
SOIL DESCRIPTION		SAMPLE IDENTIFICATION DATA		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
ROAD FILL Silt Till		LABORATORY NUMBER		PLASTICITY INDEX		<.005 mm	
		SAMPLE TYPE		PLASTIC LIMIT		<.075 mm	
		SAMPLE NUMBER (FIELD)		LIQUID LIMIT		>.005 mm	
		SAMPLE DEPTH (FT.)		NATURAL MOISTURE CONTENT		SAND	
		N21		%		GRAVEL	
		N22		%		UNIFIED CLASSIFICATION	
		.6		%		CL	
		1.1		%		CL	
		3.0		%		CL	
		3.7		%		CL	
		4.5		%		CL	
		4.6		%		CL	



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: N12	
DATE DRILLED: 06-03-78		PLOTTED BY: R.S.S.		HOLE ELEVATION:	
DRILL TECHNICIAN: J.G.		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
HOLE DEPTH <u>4.6</u>		PLASTIC LIMIT		SAND	
TYPE OF DRILL <u>B40L-6" AUGERS</u>		LIQUID LIMIT		GRAVEL	
WATER LEVEL _____		PLASTIC INDEX		SILT & CLAY	
DEPTH (M.)		NATURAL MOISTURE CONTENT		UNIFIED CLASSIFICATION	
SOIL DESCRIPTION		LABORATORY NUMBER		STANDARD PENETRATION RESISTANCE	
0 <u>Road Fill</u>		SAMPLE TYPE		DRY DENSITY	
1 <u>SANDY SILT</u>		SAMPLE NUMBER (FIELD)		BLOWS / FT.	
2 <u>FINE SAND</u>		SAMPLE DEPTH (FT.)		N23	
3 <u>Highly silty</u>		N.R.C. PERMAFROST CLASSIFICATION		N24	
4 <u>Road Hole</u>		SAMPLE DEPTH (FT.)		N23	
5		SAMPLE DEPTH (FT.)		N24	



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: 2014	
DATE DRILLED: 6-3-78		PLOTTED BY: R. S.		HOLE ELEVATION:	
DRILL TECHNICIAN: J. G.		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
HOLE DEPTH: 4.6		LIQUID LIMIT		SAND	
TYPE OF DRILL: B40L-6" AUGERS		PLASTIC LIMIT		GRAVEL	
WATER LEVEL		PLASTICITY INDEX		SILT	
DEPTH (M.)		NATURAL MOISTURE CONTENT		CLAY	
0	ROAD FILL	%		%	
1	SILT TILL	%		%	
2	COARSE	%		%	
3	SAND TILL	%		%	
4	FINE SAND	%		%	
5	CLEAN	%		%	
	END HOLE	%		%	

SAMPLE DEPTH (FT.)	SAMPLE IDENTIFICATION DATA				UNIFIED CLASSIFICATION
	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER	NATURAL MOISTURE CONTENT	
0.9	N27	AUGER	S675	12.1	CL
1.4				8.8	
3.0	N28	AUGER	S676	6.9	SM
3.7					

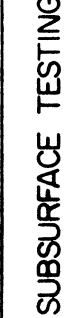
**Public Works
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**MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.**

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: N16	
DATE DRILLED: 6-3-78		PLOTTED BY: R.S.		HOLE ELEVATION:	
DRILL TECHNICIAN: J.G.		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
HOLE DEPTH: 4.6		PLASTIC LIMIT		SAND	
TYPE OF DRILL: 340L-6" AUGERS		LIQUID LIMIT		GRAVEL	
WATER LEVEL		PLASTICITY INDEX		<.005 mm	
DEPTH (M.)		NATURAL MOISTURE CONTENT		>.075 mm	
SOIL DESCRIPTION		LABORATORY NUMBER		>.005 mm	
ROAD FILL		SAMPLE TYPE		SAND	
Silt Till		SAMPLE NUMBER (FIELD)		GRAVEL	
SAND TILL		SAMPLE DEPTH (FT.)		PLASTICITY INDEX	
FINE SAND		1.8		PLASTIC LIMIT	
COARSER		2.4		LIQUID LIMIT	
EVEN HOLE		4.0		NATURAL MOISTURE CONTENT	
		4.3		LABORATORY NUMBER	
				SAMPLE TYPE	
				SAMPLE NUMBER (FIELD)	
				SAMPLE DEPTH (FT.)	
				N.R.C. PERMAFROST CLASSIFICATION	
				UNIFIED CLASSIFICATION	
				STANDARD PENETRATION RESISTANCE	
				DRY DENSITY	
				BLOWS / FT.	

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: N 20	
DATE DRILLED: 7-3-78		PLOTTED BY: R.S.		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
DRILL TECHNICIAN: J.G.		SAMPLE IDENTIFICATION DATA		PLASTIC LIMIT		<.005 mm	
HOLE DEPTH 4.6		LABORATORY NUMBER		PLASTIC INDEX		<.075 mm	
TYPE OF DRILL B40L-6" AUGERS		SAMPLE TYPE		LIQUID LIMIT		>.005 mm	
WATER LEVEL		SAMPLE NUMBER (FIELD)		NATURAL MOISTURE CONTENT		SAND	
DEPTH (M.)		SAMPLE DEPTH (FT.)		GRAVEL		GRAVEL	
SOIL DESCRIPTION		PERMAFROST CLASSIFICATION		PLASTICITY INDEX		STANDARD PENETRATION RESISTANCE	
ICE				NP		BLOWS / FT.	
SAND TILL				NP			
SLIGHTLY HIGHER SILTY				NP			
COARSER ROCK				NP			
SILTY SANDY GRAVEL COARSE				NP			
Egg HOLE				NP			
SM				NP			
SM				NP			



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: 1021	
DATE DRILLED: 7-3-78		PLOTTED BY: R.S.		HOLE ELEVATION:	
DRILL TECHNICIAN: J.G.		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
HOLE DEPTH: 6.35 TYPE OF DRILL: B40L-6" AUGERS WATER LEVEL: _____ SOIL DESCRIPTION: _____ DEPTH (M.): _____		PLASTIC LIMIT		GRAVEL	
		LIQUID LIMIT		SAND	
N.R.C. PERMAFROST CLASSIFICATION		PLASTICITY INDEX		CLAY < 0.075 mm	
ROAD FILL SILT TILL SANDY TILL COARSE GRAVEL END HOLE		NATURAL MOISTURE CONTENT		SILT > 0.075 mm	
		LABORATORY NUMBER		SAND	
SAMPLE IDENTIFICATION DATA		PLASTIC LIMIT		GRAVEL	
SAMPLE DEPTH (FT.)		LIQUID LIMIT		SAND	
SAMPLE NUMBER (FIELD)		PLASTICITY INDEX		GRAVEL	
SAMPLE TYPE		PLASTIC LIMIT		SAND	
N42		LIQUID LIMIT		SAND	
AUGER S690		PLASTICITY INDEX		GRAVEL	
.3		NATURAL MOISTURE CONTENT		SAND	
.9		LABORATORY NUMBER		GRAVEL	
1.7		SAMPLE NUMBER (FIELD)		SAND	
2.3		SAMPLE TYPE		GRAVEL	
		N43		SAND	
		AUGER S691		GRAVEL	
		12.4		SAND	
		21.4		GRAVEL	
		16.3		SAND	
		5.1		GRAVEL	
		20.5		SAND	
		15.6		GRAVEL	
		4.9		SAND	
		40.4		GRAVEL	
		55.5		SAND	
		CL-MC		GRAVEL	



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: 122	
DATE DRILLED: 7-3-78		DRILL TECHNICIAN: J.G.		PLOTTED BY: R.S.	
HOLE DEPTH: 4.6		SOIL DESCRIPTION		UNIFIED CLASSIFICATION	
TYPE OF DRILL: B40L-6" AUGERS		WATER LEVEL		STANDARD PENETRATION RESISTANCE	
DEPTH (M.):		DEPTH (FT.):		BLOWS / FT.	
0	OVERBLOWN	0.15			
	FINE SAND				
	GRAVELY				
1	SILT TILL	1.35			
2	COARSER GRAVEL				
3	LOW CLAY LESS SILT HIGHER SAND	3.75			
4	SAND TINT				
5	END HOLE	4.6			

MECHANICAL ANALYSIS	CONSISTENCY LIMITS		NATURAL MOISTURE CONTENT	SAMPLE IDENTIFICATION DATA		PLASTICITY INDEX	GRAVEL	SAND	MECHANICAL ANALYSIS		DRY DENSITY	STANDARD PENETRATION RESISTANCE	UNIFIED CLASSIFICATION
	PLASTIC LIMIT	LIQUID LIMIT		SAMPLE NUMBER (FIELD)	SAMPLE TYPE				LABORATORY NUMBER	<.005 mm			
				N44	AUGER	S692	8.1						
				N45	AUGER	S693	19.1	26.9	18.4	8.5			

.3
.8
1.7
2.3

N.R.C. PERMAFROST CLASSIFICATION

PROJECT: SHAKWAK SEGMENT B

HOLE LOCATION:

DATE DRILLED: 7-3-78

DRILL TECHNICIAN: J.G.

PLOTTED BY: R.S.

HOLE ELEVATION:

HOLE NO.: D23

HOLE DEPTH 4.6
TYPE OF DRILL B40J-6" AUGERS
WATER LEVEL _____

SOIL DESCRIPTION

N.R.C.
PERMAFROST
CLASSIFICATION

LABORATORY NUMBER
SAMPLE TYPE
SAMPLE NUMBER (FIELD)
SAMPLE DEPTH (FT.)

NATURAL MOISTURE CONTENT %

LIQUID LIMIT %
PLASTIC LIMIT %
PLASTICITY INDEX %

GRAVEL %
SAND %
MECHANICAL ANALYSIS
 $< .075 \text{ mm}$ %
 $> .005 \text{ mm}$ %

DRY DENSITY $\frac{\text{LBS.}}{\text{CU. FT.}}$
STANDARD PENETRATION RESISTANCE
BLOWS $\frac{\text{FT.}}$

UNIFIED CLASSIFICATION

SAMPLE DEPTH (FT.)		SAMPLE IDENTIFICATION DATA				CONSISTENCY LIMITS			MECHANICAL ANALYSIS			DRY DENSITY		STANDARD PENETRATION RESISTANCE		UNIFIED CLASSIFICATION
		LABORATORY NUMBER	SAMPLE TYPE	SAMPLE NUMBER (FIELD)	SAMPLE DEPTH (FT.)	LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %	SAND %	$< .075 \text{ mm}$ %	$> .005 \text{ mm}$ %	$\frac{\text{LBS.}}{\text{CU. FT.}}$	BLOWS $\frac{\text{FT.}}$		
0																
0.9																
1.4		N47	AUGER	S694	24.1	37.9	21.1	16.9								
3.3																
3.8		N48	AUGER	S695	14.6	28.3	16.6	11.7	8.2	20.1	71.7					CL
4.0																
4.6																

ROAD FILL
SANDY TILL

COARSE GRAVEL

SANDY TILL
SANDY TILL



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: <u>N 25</u>	
DATE DRILLED: <u>7-3-78</u>		DRILL TECHNICIAN: <u>J.G.</u>		PLOTTED BY: <u>R.S.</u>			
HOLE DEPTH <u>4.6</u>		TYPE OF DRILL <u>B.O.L.-6" AUGERS</u>		WATER LEVEL _____		SOIL DESCRIPTION	
DEPTH (M.)		N.R.C. PERMAFROST CLASSIFICATION		SAMPLE IDENTIFICATION DATA		NATURAL MOISTURE CONTENT	
0				SAMPLE DEPTH (FT.)		%	
1				SAMPLE NUMBER (FIELD)		LIQUID LIMIT	
2				SAMPLE TYPE		PLASTIC LIMIT	
3				LABORATORY NUMBER		PLASTICITY INDEX	
4				SAMPLE NUMBER (FIELD)		GRAVEL	
5				SAMPLE DEPTH (FT.)		SAND	
				SAMPLE DEPTH (FT.)		MECHANICAL ANALYSIS	
				SAMPLE DEPTH (FT.)		GRAVEL	
				SAMPLE DEPTH (FT.)		SAND	
				SAMPLE DEPTH (FT.)		>.005 mm	
				SAMPLE DEPTH (FT.)		<.074 mm	
				SAMPLE DEPTH (FT.)		<.005 mm	
				SAMPLE DEPTH (FT.)		DRY DENSITY	
				SAMPLE DEPTH (FT.)		LBS. CU. FT.	
				SAMPLE DEPTH (FT.)		STANDARD PENETRATION RESISTANCE	
				SAMPLE DEPTH (FT.)		BLOWS FT.	
				SAMPLE DEPTH (FT.)		UNIFIED CLASSIFICATION	

0	ROAD FILL	1.5	N50	AUGER	S697	28.7	24.6	22.4	2.1								
1	SILT TILL	1.5															
2	SILT TILL	1.8	N51	AUGER	S698	24.2	27.5	19.4	8.1								
3	CLAYEY	2.3															
4	HIGHER MOISTURE	3.7	N52	AUGER	S699	18.8	26.3	17.0	9.3								
5	END HOLE	4.6															



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: N 26									
DATE DRILLED: 7-3-78		PLOTTED BY: R.S.		CONSISTENCY LIMITS		MECHANICAL ANALYSIS									
DRILL TECHNICIAN: J.G.		SAMPLE IDENTIFICATION DATA		LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	GRAVEL	SAND	<.074 mm	>.005 mm	<.005 mm	DRY DENSITY	STANDARD PENETRATION RESISTANCE	UNIFIED CLASSIFICATION	
HOLE DEPTH 4.6		LABORATORY NUMBER		%	%	%	%	%	%	%	%	LBS. CU. FT.	BLOWS FT.		
TYPE OF DRILL B40L-6" AUGERS		SAMPLE TYPE		NATURAL MOISTURE CONTENT		PLASTIC LIMIT		GRAVEL		SAND					
WATER LEVEL		SAMPLE NUMBER (FIELD)		%		PLASTICITY INDEX		SAND		SAND					
DEPTH (M.)		SAMPLE DEPTH (FT.)				PLASTICITY INDEX		GRAVEL		SAND					
0															
	ROAD FILL		N53	8.4	NP	NP	19.9	46.3	33.8					SM	
	SILT TILL														
1		.2													
		.6	AUGER S708												
2															
		2.1													
3															
		2.7													
4															
5															

SOIL DESCRIPTION

ROAD FILL _____ .60

SILT TILL _____

HIERRE SAND _____

SAND TILL _____ 3.6

ESSO HOLE _____ 4.6



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT B		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: 1227										
DATE DRILLED: 7-3-78		DRILL TECHNICIAN: J.G.		PLOTTED BY: R.S.												
DEPTH (M.)	SOIL DESCRIPTION	SAMPLE IDENTIFICATION DATA				CONSISTENCY LIMITS			MECHANICAL ANALYSIS			DRY DENSITY LBS. CU. FT.	STANDARD PENETRATION RESISTANCE BLOWS FT.	UNIFIED CLASSIFICATION		
		SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX (%)	GRAVEL (%)	SAND (%)	> 0.075 mm (%)				> 0.005 mm (%)	
0	Road Fill															
0.50	SAND TILL	.6	N56	AUGER	ST10	20.4	TRACE	1.9	33.4	53.0	11.7				ML	
1.35	SILT TILL	1.2														
4.0	HIGHER SAND	2.0	N57	AUGER	ST11	17.2	17.6	20.6	18.1	61.3					CL	
4.6	END HOLE	2.4														



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:	
DATE DRILLED: 7-3-78	DRILL TECHNICIAN: J.G.	PLOTTED BY: R.S.	HOLE ELEVATION:
HOLE DEPTH: 2.85	HOLE NO.: 1029		
TYPE OF DRILL: 40L-6" AUGERS	MECHANICAL ANALYSIS		
WATER LEVEL: _____	<.005 mm	%	
DEPTH (M.)	<.075 mm	%	
0	>.005 mm	%	
	SAND	%	
	GRAVEL	%	
	PLASTICITY INDEX	%	
	PLASTIC LIMIT	%	
	LIQUID LIMIT	%	
	NATURAL MOISTURE CONTENT	%	
	LABORATORY NUMBER		
	SAMPLE TYPE		
	SAMPLE NUMBER (FIELD)		
	SAMPLE DEPTH (FT.)		
1	1.5		
2	2.1		
3			
4			
5			
N.R.C. PERMAFROST CLASSIFICATION			
SOIL DESCRIPTION			
	ROAD FILL _____ 1.30		
	SILT TILL		
	COARSER GRAVEL		
	EDGE HOLE _____ 2.85		
		UNIFIED CLASSIFICATION	CL
		STANDARD PENETRATION RESISTANCE	
		DRY DENSITY	
		BLOWS / FT.	



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SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: N29	
DATE DRILLED: 7-3-78		PLOTTED BY: R.S.		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
DRILL TECHNICIAN: J.G.		SAMPLE IDENTIFICATION DATA		PLASTIC LIMIT		GRAVEL	
HOLE DEPTH: 4.20		LABORATORY NUMBER		LIQUID LIMIT		SAND	
TYPE OF DRILL: 4.0 I-6" AUGERS		SAMPLE TYPE		PLASTICITY INDEX		< .005 mm	
WATER LEVEL		SAMPLE NUMBER (FIELD)		NATURAL MOISTURE CONTENT		> .075 mm	
DEPTH (M.)		SAMPLE DEPTH (FT.)		%		%	
SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION		%		STANDARD PENETRATION RESISTANCE	
				%		BLOWS / FT.	
0	Road Fill	.6	N59	35.2	19.6	13.0	
1	SAND TILL	1.2				82.3	CL
2	COARSE GRAVEL	1.8	N60	26.8	15.0	36.5	CL
3	GRAVELLY SAND TILL	2.4				53.2	
4	SILT TILL	3.7	N61	25.4	10.4	37.3	SC
5	BRASS HOLE	4.1				49.9	



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: N 30	
DATE DRILLED: 7-3-78		PLOTTED BY: R.S.		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
DRILL TECHNICIAN: J.G.		SAMPLE IDENTIFICATION DATA		PLASTIC LIMIT		GRAVEL	
HOLE DEPTH: 7.46		LABORATORY NUMBER		LIQUID LIMIT		SAND	
TYPE OF DRILL: B40L-6" AUGERS		SAMPLE TYPE		PLASTICITY INDEX		DRY DENSITY	
WATER LEVEL		SAMPLE NUMBER (FIELD)		PLASTICITY INDEX		STANDARD PENETRATION RESISTANCE	
DEPTH (M.)		SAMPLE DEPTH (FT.)		PLASTICITY INDEX		BLOWS / FT.	
SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION		PLASTICITY INDEX		UNIFIED CLASSIFICATION	
0	OVERBURDEN						
0.15	SILT TILL	N62	AUGER	24.0	6.2	26.3	CL-MC
0.9	ORGANIC						
1.7	SANDY TILL	N63	AUGER	16.9	10.3	19.2	GC
2.1	SANDY TILL						
2.40	SANDY SAND						
2.7	SANDY TILL						
3.3	FINE SAND						
3.7		N64	AUGER			35.7	
4.1	END HOLE					3.1	ML



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT B		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: 1031	
DATE DRILLED: 7-3-78		PLOTTED BY: R.S.		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
DRILL TECHNICIAN: J.G.		SAMPLE IDENTIFICATION DATA		PLASTIC LIMIT		GRAVEL	
HOLE DEPTH: 4.6		LABORATORY NUMBER		LIQUID LIMIT		SAND	
TYPE OF DRILL: 40L-6" AUGERS		SAMPLE TYPE		PLASTIC INDEX		< .005 mm	
WATER LEVEL		SAMPLE NUMBER (FIELD)		NATURAL MOISTURE CONTENT		.074 mm	
DEPTH (M.)		SAMPLE DEPTH (FT.)		%		.005 mm	
SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION		%		BLOWS / FT.	
0	SAND TILL						
1	SANDY GRAVEL ORGANIC	1.35	N65 AUGER ST19	NP	18.9	25.7	55.4
2	Silty SAND GREY BLUE	2.25	N66 AUGER ST20	NP	29.4	49.7	15.3 5.6
3	HIGHER SILT	2.6	N67 AUGER ST21	NP	1.6	36.9	61.5
4	LESS SILT HIGHER SAND	3.0					
5	EDGE HOLE						



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WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: U 32	
DATE DRILLED: 7-3-78		PLOTTED BY: R.S.S.		HOLE ELEVATION:	
DRILL TECHNICIAN: J.G.		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
HOLE DEPTH 4.6		LIQUID LIMIT %		SAND %	
TYPE OF DRILL B40L-6" AUGERS		PLASTIC LIMIT %		GRAVEL %	
WATER LEVEL		PLASTICITY INDEX %		SILT & CLAY (<0.075 mm >0.005 mm) %	
DEPTH (M.)		NATURAL MOISTURE CONTENT %		DRY DENSITY (LBS./CU. FT.)	
SOIL DESCRIPTION		LABORATORY NUMBER		STANDARD PENETRATION RESISTANCE (BLOWS/FT.)	
0 ROAD FILL		SAMPLE TYPE		UNIFIED CLASSIFICATION	
.45 SAND GRAVEL MEDIUM ORGANIC		SAMPLE NUMBER (FIELD)		GP-GM	
1		SAMPLE DEPTH (FT.)			
1.5 COARSE		.9			
2		2.1			
3					
4					
4.6 END HOLE					
5					



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WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT B		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: N 33	
DATE DRILLED: 7-3-78		PLOTTED BY: R.S.		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
DRILL TECHNICIAN: J.G.		SAMPLE IDENTIFICATION DATA		PLASTIC LIMIT		GRAVEL	
HOLE DEPTH 4.60		LABORATORY NUMBER		LIQUID LIMIT		SAND	
TYPE OF DRILL 40L-6" AUGERS		SAMPLE TYPE		PLASTIC INDEX		<.005 mm	
WATER LEVEL		SAMPLE NUMBER (FIELD)		PLASTIC LIMIT		>.005 mm	
DEPTH (M.)		SAMPLE DEPTH (FT.)		NATURAL MOISTURE CONTENT		BLOWS / FT.	
SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION		%		%	
0	ROAD FILL						
1	SAND TILL	N69	AUGER S723	23.1	NP	24.6	67.7
2	GRAVELLY SAND TILL						
3	SAND TILL GREY BLUE	N70	AUGER S724	14.4	NP	40.6	48.3
4	SILT TILL GREY BLUE	N71	AUGER S725	17.8	3.7	19.9	73.6
5	END HOLE @ 4.6						



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SUBSURFACE TESTING REPORT

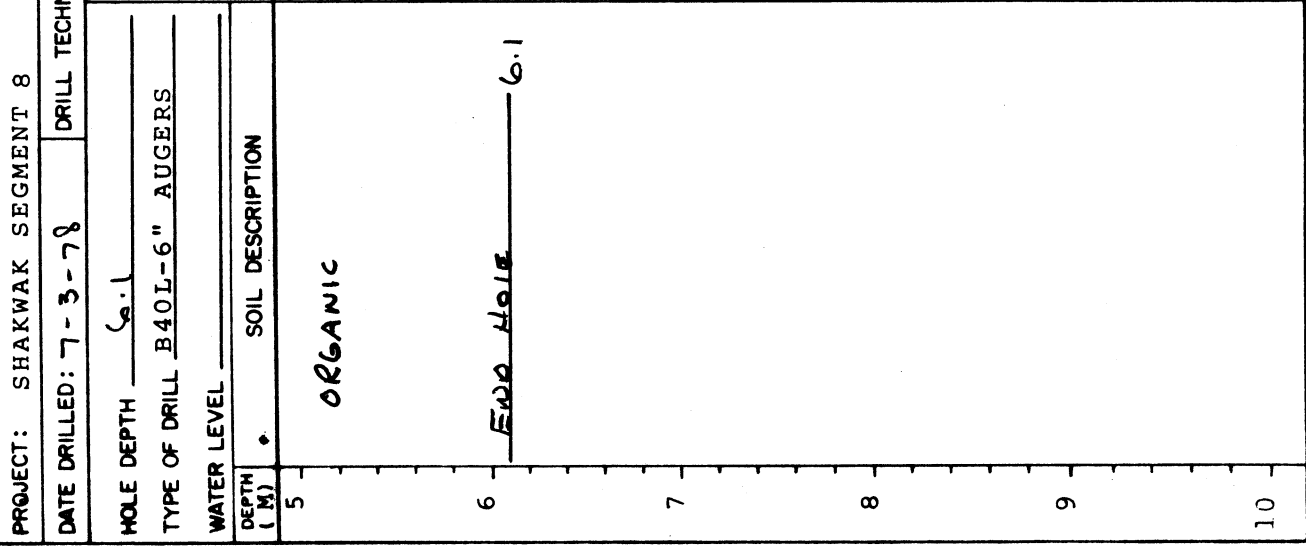
PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:			HOLE ELEVATION:		HOLE NO.: N 34		
DATE DRILLED: 7-3-78		PLOTTED BY: R.S.			CONSISTENCY LIMITS		MECHANICAL ANALYSIS		
DRILL TECHNICIAN: J.G.		SAMPLE IDENTIFICATION DATA		PLASTIC LIMIT		GRAVEL		DRY DENSITY	
HOLE DEPTH 4.20		LABORATORY NUMBER		LIQUID LIMIT		SAND		STANDARD PENETRATION RESISTANCE	
TYPE OF DRILL B40L-6" AUGERS		SAMPLE TYPE		PLASTICITY INDEX		> 0.075 mm		BLOWS	
WATER LEVEL		SAMPLE NUMBER (FIELD)		PLASTICITY INDEX		0.075 - 0.425 mm		/ FT.	
DEPTH (M.)		SAMPLE DEPTH (FT.)		PLASTICITY INDEX		> 0.425 mm			
SOIL DESCRIPTION		NATURAL MOISTURE CONTENT		PLASTICITY INDEX		UNIFIED CLASSIFICATION			
0	Road Fill								
1	SAND TILL (FINE)	1.5	N72 AUGER ST26	NP	2.7	17.3	80.0		ML
2	FINE SAND	2.0							
3	Silty	2.4							
4	END HOLE	3.0	N73 AUGER ST27	NP	20.8	79.2			ML
5		3.7							
		4.2	N74 AUGER ST28	NP	0.1	18.3	81.6		ML



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: 035	
DATE DRILLED: 7-3-78		DRILL TECHNICIAN: J.G.		PLOTTED BY: R.S.	
HOLE DEPTH <u>6.1</u>		MECHANICAL ANALYSIS		UNIFIED CLASSIFICATION	
TYPE OF DRILL <u>B40L-6" AUGERS</u>		GRAVEL %		STANDARD PENETRATION RESISTANCE	
WATER LEVEL _____		SAND %		DRY DENSITY	
SOIL DESCRIPTION		PLASTICITY INDEX		BLOWS/FT.	
		LIQUID LIMIT		LBS./CU.FT.	
N.R.C. PERMAFROST CLASSIFICATION		GRAVEL %		DRY DENSITY	
N.R.C. PERMAFROST CLASSIFICATION		PLASTICITY INDEX		STANDARD PENETRATION RESISTANCE	
N.R.C. PERMAFROST CLASSIFICATION		PLASTIC LIMIT		DRY DENSITY	
N.R.C. PERMAFROST CLASSIFICATION		LIQUID LIMIT		STANDARD PENETRATION RESISTANCE	
N.R.C. PERMAFROST CLASSIFICATION		NATURAL MOISTURE CONTENT		DRY DENSITY	
N.R.C. PERMAFROST CLASSIFICATION		LABORATORY NUMBER		STANDARD PENETRATION RESISTANCE	
N.R.C. PERMAFROST CLASSIFICATION		SAMPLE TYPE		DRY DENSITY	
N.R.C. PERMAFROST CLASSIFICATION		SAMPLE NUMBER (FIELD)		STANDARD PENETRATION RESISTANCE	
N.R.C. PERMAFROST CLASSIFICATION		SAMPLE DEPTH (FT.)		DRY DENSITY	
N.R.C. PERMAFROST CLASSIFICATION		SAMPLE DEPTH (M)		STANDARD PENETRATION RESISTANCE	





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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: A 36	
DATE DRILLED: 8-3-78		PLOTTED BY: R.S.		HOLE ELEVATION:	
DRILL TECHNICIAN: J.G.		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
HOLE DEPTH <u>3.</u>		LIQUID LIMIT		SAND	
		PLASTIC LIMIT		GRAVEL	
TYPE OF DRILL <u>B40L-6" AUGERS</u>		PLASTICITY INDEX		SILT	
		PLASTICITY INDEX		CLAY	
WATER LEVEL		NATURAL MOISTURE CONTENT		STANDARD PENETRATION RESISTANCE	
		%		BLOWS / FT.	
DEPTH (M.)		LABORATORY NUMBER		DRY DENSITY	
		SAMPLE TYPE		LBS. / CU. FT.	
SOIL DESCRIPTION		SAMPLE NUMBER (FIELD)		UNIFIED CLASSIFICATION	
		SAMPLE DEPTH (FT.)		UNIFIED CLASSIFICATION	
0 OVERBURDEN <u>.15</u>		N77		SM	
SAND ORGANIC		AUGER ST31			
GRAVELLY SAND					
ORGANIC					
1					
2					
3					
4					
5					
3.0		END HOLE			



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WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: U 37						
DATE DRILLED: 8-3-78		DRILL TECHNICIAN: J.G.		PLOTTED BY: R.S.								
HOLE DEPTH DEPTH (M.)	SOIL DESCRIPTION	SAMPLE IDENTIFICATION DATA				CONSISTENCY LIMITS		MECHANICAL ANALYSIS		DRY DENSITY LBS./CU. FT.	STANDARD PENETRATION RESISTANCE BLOWS/FT.	UNIFIED CLASSIFICATION
		SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER	LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %			
0	ROAD FILL	.3										
	GRAVELLY SAND	.9	N78	AUGER	ST32		NP	20.5	61.1	18.4		SM
1	FINE											
2	COARSER											
3	SANDY GRAVEL											
4	GRAVELLY SAND											
5	ESS HOLE											



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SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: 7038	
DATE DRILLED: 8-3-78		PLOTTED BY: R.S.		HOLE ELEVATION:	
HOLE DEPTH: 4/6		SAMPLE IDENTIFICATION DATA		MECHANICAL ANALYSIS	
TYPE OF DRILL: B40L-6" AUGERS		LABORATORY NUMBER		$< .005 \text{ mm}$ % $< .074 \text{ mm}$ % $> .005 \text{ mm}$ %	
WATER LEVEL		SAMPLE TYPE		SAND %	
DEPTH (M.)		SAMPLE NUMBER (FIELD)		GRAVEL %	
SOIL DESCRIPTION		SAMPLE DEPTH (FT.)		PLASTICITY INDEX %	
		.2		PLASTIC LIMIT %	
ROAD FILL		.6		LIQUID LIMIT %	
ORGANIC		NT9 AUGER ST33		NATURAL MOISTURE CONTENT %	
GRAVELLY SAND TILL				NP	
SANDY GRAVEL				1.5	
SILTY TILL				42.4	
GRAVELLY SAND TILL				56.1	
		3.7		ML	
SLIGHTLY FIBER GRAVEL					
END HOLE		4.6		NP	
				50.3	
				31.8	
				17.9	
				GM	



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WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: 039	
DATE DRILLED: 8-3-78		DRILL TECHNICIAN: J.G.		PLOTTED BY: R.S.			
HOLE DEPTH: 4.6		TYPE OF DRILL: 4.0 I-6" AUGERS		WATER LEVEL			
DEPTH (M.)		SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION			
0	OVERBURDEN	.15	GRAVELLY SAND				
	GRAVEL COARSE	.60					
1			FINE				
2							
3			SANDY GRAVEL MED - COARSE				
4		3.7					
5		4.6					
				LABORATORY IDENTIFICATION DATA			
				SAMPLE DEPTH (FT.)			
				SAMPLE NUMBER (FIELD)		N81	
				SAMPLE TYPE		AUGER	
				LABORATORY NUMBER		S772	
				NATURAL MOISTURE CONTENT		2.4	
				LIQUID LIMIT			
				PLASTIC LIMIT			
				PLASTICITY INDEX		NP	
				CONSISTENCY LIMITS			
				GRAVEL		70.9	
				SAND		20.7	
				>.005 mm		8.4	
				<.075 mm			
				<.005 mm			
				DRY DENSITY			
				STANDARD PENETRATION RESISTANCE			
				UNIFIED CLASSIFICATION		GP-6M	

END HOLE 4.6

SANDY GRAVEL
MED - COARSE

OVERBURDEN .15
GRAVELLY SAND .60

FINE

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: N40	
DATE DRILLED: 8-3-78		DRILL TECHNICIAN: J.G.		PLOTTED BY: R.S.			
HOLE DEPTH: 4.6		TYPE OF DRILL: 4.0 I.D. - 6" AUGERS		WATER LEVEL:			
DEPTH (M.)		SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION			
0		Road Fill					
1	.60	GRAVELLY SAND Till					
2	1.5	SANDY GRAVEL MED - COARSE					
3	2.25	GRAVELLY SAND Till					
4		FINE					
5	4.6	End Hole					

SAMPLE DEPTH (FT.)	SAMPLE IDENTIFICATION DATA				NATURAL MOISTURE CONTENT %	CONSISTENCY LIMITS			MECHANICAL ANALYSIS				DRY DENSITY LBS./CU. FT.	STANDARD PENETRATION RESISTANCE BLOWS/FT.	UNIFIED CLASSIFICATION
	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER			LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %	SAND %	>.005 mm %	<.074 mm %			
.6	N82	AUGER	ST70		2.6				35.9	47.8	11.4	4.9			SM
1.2															
3.8	N83	AUGER	ST71		4.9				36.9	42.4	20.7				SM
4.6															

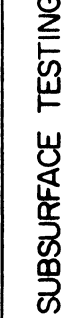


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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: <u>NJ 42</u>	
DATE DRILLED: <u>8-3-78</u>		PLOTTED BY: <u>R.S.</u>		HOLE ELEVATION:	
DRILL TECHNICIAN: <u>J.G.</u>		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
HOLE DEPTH <u>4.35</u>		PLASTIC LIMIT		<.075 mm % >.075 mm % SAND % GRAVEL %	
TYPE OF DRILL <u>B40L-6" AUGERS</u>		LIQUID LIMIT		<.005 mm % >.005 mm %	
WATER LEVEL		PLASTICITY INDEX		DRY DENSITY	
DEPTH (M.)		NATURAL MOISTURE CONTENT		LBS. CU. FT.	
SOIL DESCRIPTION		LABORATORY NUMBER		BLOWS FT.	
<u>GRAVELLY SAND</u> <u>TILL</u> <u>ORGANIC</u>		<u>N86</u> <u>AUGER ST75</u>		<u>47.0</u> <u>42.4</u> <u>10.6</u> <u>NP</u>	
<u>COARSER</u>		<u>3.6</u>		<u>GP-GM</u>	
<u>SANDY GRAVEL</u> <u>(COARSE)</u>		<u>3.6</u>			
<u>END HOLE</u>		<u>4.35</u>			



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: 1043	
DATE DRILLED: 8-3-78		PLOTTED BY: R.S.		HOLE ELEVATION:	
DRILL TECHNICIAN: J.G.		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
HOLE DEPTH: 4.2		PLASTIC LIMIT		SAND	
TYPE OF DRILL: 40L-6" AUGERS		LIQUID LIMIT		GRAVEL	
WATER LEVEL		PLASTICITY INDEX		<.074 mm	
DEPTH (M.)		NATURAL MOISTURE CONTENT		>.005 mm	
SOIL DESCRIPTION		LABORATORY NUMBER		DRY DENSITY	
OVER BURDEN .15		SAMPLE TYPE		STANDARD PENETRATION RESISTANCE	
SILTY SILT .30		SAMPLE NUMBER (FIELD)		BLOWS / FT.	
SANDY GRAVEL SAND .45		SAMPLE DEPTH (FT.)			
(COARSE)		N.R.C. PERMAFROST CLASSIFICATION			
FINER GRAVEL					
COARSER					
END HOLE 4.2					



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: R 44	
DATE DRILLED: 8-3-78		PLOTTED BY: R.S.		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
DRILL TECHNICIAN: J.G.		SAMPLE IDENTIFICATION DATA		PLASTIC LIMIT		GRAVEL	
HOLE DEPTH: 4.2		LABORATORY NUMBER		PLASTIC INDEX		SAND	
TYPE OF DRILL: 40 L-6" AUGERS		SAMPLE TYPE		LIQUID LIMIT		DRY DENSITY	
WATER LEVEL		SAMPLE NUMBER (FIELD)		NATURAL MOISTURE CONTENT		STANDARD PENETRATION RESISTANCE	
DEPTH (M.)		SAMPLE DEPTH (FT.)		PERCENT		BLOWS / FT.	
SOIL DESCRIPTION		UNIFIED CLASSIFICATION		PERCENT		PERCENT	
0	OVERBURDEN SILT ORGANIC						
1	SAND Till (FINE)	N87	AUGER S776	NP	21.1	31.0	47.9
2	LESS SILT	N88	AUGER S777	NP	3.2	23.6	73.2
3	GRAVELLY Silty SAND ORGANIC	N89	AUGER S778	NP	49.3	23.0	27.7
4	END HOLE						
5							



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 8-3-78

PLOTTED BY: R.S.

HOLE ELEVATION:

HOLE NO.: 1045

HOLE DEPTH 2.4
TYPE OF DRILL B40L-6" AUGERS
WATER LEVEL _____
DEPTH (M.) _____

N.R.C. PERMAFROST CLASSIFICATION

SOIL DESCRIPTION

0 ROAD FILL
SAND TILL 1.00
GRAVELLY SAND 2.1
END HOLE REFUSAL 2.4

SAMPLE DEPTH (FT.)	SAMPLE IDENTIFICATION DATA				NATURAL MOISTURE CONTENT %	CONSISTENCY LIMITS			MECHANICAL ANALYSIS			DRY DENSITY LBS. CU. FT.	STANDARD PENETRATION RESISTANCE BLOWS FT.	UNIFIED CLASSIFICATION
	LABORATORY NUMBER	SAMPLE TYPE	SAMPLE NUMBER (FIELD)	SAMPLE DEPTH (FT.)		PLASTIC LIMIT %	PLASTICITY INDEX %	LIQUID LIMIT %	GRAVEL %	SAND %	< 0.075 mm %			
.2														
.6	N90	AUGER	ST79	4.2		NP		6.6	62.0	31.4				SM
.9														
1.5	N91	AUGER	ST80	2.2		NP		14.4	63.7	13.3	8.6			SM

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 8-3-78

DRILL TECHNICIAN: J.G.

PLOTTED BY: R.S.

HOLE ELEVATION:

HOLE NO.: 2046

HOLE DEPTH 2.55
 TYPE OF DRILL B40L-6" AUGERS
 WATER LEVEL _____
 SOIL DESCRIPTION

0 ROAD FILL
GRAVELLY SAND .45
COARSE
GRAVEL
END HOLE 2.55

N.R.C. PERMAFROST CLASSIFICATION

SAMPLE IDENTIFICATION DATA

SAMPLE DEPTH (FT.)
 SAMPLE NUMBER (FIELD)
 SAMPLE TYPE
 LABORATORY NUMBER

.9

N92

AUGER

1.8

NP
62.3 29.2 8.5

1.5

NATURAL MOISTURE CONTENT

LIQUID LIMIT
 PLASTIC LIMIT
 PLASTICITY INDEX

GRAVEL

SAND

>.005 mm
 <.075 mm
 <.005 mm

MECHANICAL ANALYSIS

DRY DENSITY

STANDARD PENETRATION RESISTANCE

UNIFIED CLASSIFICATION

GP6M



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WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: 047	
DATE DRILLED: 8-3-78		PLOTTED BY: R.S.		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
DRILL TECHNICIAN: J.G.		SAMPLE IDENTIFICATION DATA		PLASTIC LIMIT		GRAVEL	
HOLE DEPTH: 2.4		LABORATORY NUMBER		PLASTIC INDEX		SAND	
TYPE OF DRILL: 3/4" - 6" AUGERS		SAMPLE TYPE		LIQUID LIMIT		<.005 mm	
WATER LEVEL		SAMPLE NUMBER (FIELD)		NATURAL MOISTURE CONTENT		>.005 mm	
DEPTH (M.)		SAMPLE DEPTH (FT.)		PERMAFROST CLASSIFICATION		BLOWS / FT.	
0	ROAD FILL						
	SAND TILL	.6					
1	COARSE GRAVEL	1.1	N93	NP	17.1	50.9	32.0
2	GRAVELLY SAND		AUGER 5782				
	SAND GRAVEL						
	END HOLE						
3							
4							
5							



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SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: 1048	
DATE DRILLED: 8-3-78		DRILL TECHNICIAN: J.G.		PLOTTED BY: R.S.			
HOLE DEPTH: 2.85		TYPE OF DRILL: B40L-6" AUGERS		WATER LEVEL:		UNIFIED CLASSIFICATION	
DEPTH (M.):		SOIL DESCRIPTION		MECHANICAL ANALYSIS		STANDARD PENETRATION RESISTANCE	
0		ROAD FILL		<.005mm % <.075mm % >.005mm % SAND % GRAVEL %		BLOWS / FT.	
1		SAND TILL		PLASTICITY INDEX % PLASTIC LIMIT % LIQUID LIMIT %			
2		COARSE		NATURAL MOISTURE CONTENT %			
3		END HOLE TESTS		SAMPLE IDENTIFICATION DATA SAMPLE DEPTH (FT.) SAMPLE NUMBER (FIELD) SAMPLE TYPE LABORATORY NUMBER			
4				N.R.C. PERMAFROST CLASSIFICATION			
5				N94 AUGER S783 1.1 1.5 NP 30.6 54.0 15.4 1.7 SM			

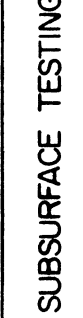


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SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: <u>N 49</u>	
DATE DRILLED: <u>8-3-78</u>		DRILL TECHNICIAN: <u>J.G.</u>		PLOTTED BY: <u>R.S.</u>			
HOLE DEPTH: <u>3.</u>		N.R.C. PERMAFROST CLASSIFICATION		SAMPLE IDENTIFICATION DATA		NATURAL MOISTURE CONTENT	
TYPE OF DRILL: <u>B40L-6" AUGERS</u>				LABORATORY NUMBER		PLASTIC LIMIT	
WATER LEVEL				SAMPLE TYPE		PLASTICITY INDEX	
DEPTH (M.)				SAMPLE NUMBER (FIELD)		GRAVEL	
SOIL DESCRIPTION				SAMPLE DEPTH (FT.)		SAND	
0		Road Fill		.9		%	
.3		SANDY TILL		1.5		%	
1		COARSER				%	
1.65		GRAVELLY SANDY TILL				%	
2						%	
3		END HOLE				%	
3		LOST BIT				%	
4						%	
5						%	



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SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT B		HOLE LOCATION:		HOLE NO.: NS0	
DATE DRILLED: 8-3-78		PLOTTED BY: R.S.		HOLE ELEVATION:	
DRILL TECHNICIAN: J.G.		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
HOLE DEPTH <u>3.6</u> TYPE OF DRILL <u>B40L-6" AUGERS</u> WATER LEVEL _____ N.R.C. PERMAFROST CLASSIFICATION _____		PLASTIC LIMIT		$< .005 \text{ mm}$ % $> .075 \text{ mm}$ % $> .005 \text{ mm}$ %	
		LIQUID LIMIT		SAND	
SOIL DESCRIPTION		PLASTICITY INDEX		GRAVEL	
<u>ROAD FILL</u> <u>SANDY SILT</u> <u>FINE</u> <u>COARSE</u>		PLASTIC INDEX <u>NP</u>		SAND <u>48.9</u> GRAVEL <u>28.3</u>	
DEPTH (M.)		NATURAL MOISTURE CONTENT		DRY DENSITY	
<u>0</u> <u>1</u> <u>2</u> <u>3</u> <u>4</u> <u>5</u>		% <u>6.4</u>		$\frac{\text{LBS.}}{\text{CU. FT.}}$ <u>SM</u>	
SAMPLE IDENTIFICATION DATA		LABORATORY NUMBER		STANDARD PENETRATION RESISTANCE	
SAMPLE DEPTH (FT.) <u>1.8</u> <u>2.6</u>		<u>NR95A</u> <u>AUGER ST85</u>		$\frac{\text{BLOWS}}{\text{FT.}}$	
<u>3.6</u> <u>2.85</u> <u>3.6</u>		<u>285</u>			



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: N51	
DATE DRILLED: 8-3-78		DRILL TECHNICIAN: J.G.		PLOTTED BY: R.S.	
HOLE DEPTH: 4.60		MECHANICAL ANALYSIS		STANDARD PENETRATION RESISTANCE	
TYPE OF DRILL: B40L-6" AUGERS		SAND		BLOWS / FT.	
WATER LEVEL		GRAVEL		LBS. / CU. FT.	
DEPTH (M.)		PLASTICITY INDEX		DRY DENSITY	
SOIL DESCRIPTION		PLASTIC LIMIT		LBS. / CU. FT.	
0		LIQUID LIMIT		LBS. / CU. FT.	
Road Fill		NATURAL MOISTURE CONTENT		DRY DENSITY	
.30		%		LBS. / CU. FT.	
1		LABORATORY NUMBER		DRY DENSITY	
SAND Till		SAMPLE TYPE		LBS. / CU. FT.	
2		SAMPLE NUMBER (FIELD)		DRY DENSITY	
3		SAMPLE DEPTH (FT.)		LBS. / CU. FT.	
4		N97		DRY DENSITY	
4.60		N98		LBS. / CU. FT.	
END HOLE @ 4.60		N99		DRY DENSITY	
5		N100		LBS. / CU. FT.	



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SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: 252	
DATE DRILLED: 8-8-78		DRILL TECHNICIAN: J.G.		PLOTTED BY: R.S.			
HOLE DEPTH: 1.5		N.R.C. PERMAFROST CLASSIFICATION:		MECHANICAL ANALYSIS		STANDARD PENETRATION RESISTANCE	
TYPE OF DRILL: B40L-6" AUGERS		LABORATORY NUMBER:		SAND		BLOWS	
WATER LEVEL:		SAMPLE TYPE:		GRAVEL		FT.	
SOIL DESCRIPTION:		SAMPLE NUMBER (FIELD):		PLASTICITY INDEX		LBS. CU. FT.	
ROAD FILL SANDY TILL		SAMPLE DEPTH (FT.):		PLASTIC LIMIT		UNIFIED CLASSIFICATION	
		.3		LIQUID LIMIT		SM	
EDGE HOLE REFUSAL		.9		N.P.			
				3.6			
		N99		35.3			
		AUGER S813					



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SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: MS3	
DATE DRILLED: 8-3-78		PLOTTED BY: R.S.		MECHANICAL ANALYSIS		DRY DENSITY	
HOLE DEPTH: 3.		SAMPLE IDENTIFICATION DATA		GRAVEL		LBS. / CU. FT.	
TYPE OF DRILL: B40L-6" AUGERS		LABORATORY NUMBER		SAND		BLOWS / FT.	
WATER LEVEL		SAMPLE TYPE		PLASTICITY INDEX			
DEPTH (M.)		SAMPLE NUMBER (FIELD)		PLASTIC LIMIT			
SOIL DESCRIPTION		SAMPLE DEPTH (FT.)		LIQUID LIMIT			
0		.9		NATURAL MOISTURE CONTENT			
ROAD FILL		1.5		%			
SAND TILL		N100 AUGER SB14		PLASTIC INDEX			
.50		4.0		%			
1		NP		PLASTIC LIMIT			
2		6.1		%			
3		60.8		%			
4		33.1		%			
5		SM		%			
COARSE				%			
3.				%			
END HOLE				%			
HACO DRILLING				%			



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WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 8-3-78

DRILL TECHNICIAN: J.G.

PLOTTED BY: R.S.

HOLE ELEVATION:

HOLE NO.: 1054

DEPTH (M.)	SOIL DESCRIPTION	N.R.C. PERMAFROST CLASSIFICATION	SAMPLE IDENTIFICATION DATA				NATURAL MOISTURE CONTENT %	CONSISTENCY LIMITS			MECHANICAL ANALYSIS				DRY DENSITY LBS./CU. FT.	STANDARD PENETRATION RESISTANCE BLOWS/FT.	UNIFIED CLASSIFICATION
			SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER		LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %	SAND %	>.005 mm %	<.074 mm %			
0	ROAD FILL																
1	GRAVELLY SAND TILL		1.5	N101	AUGER SB15		41.6			NP	0.8	10.5	88.7				OL
2	SAND		1.8														
	SILT TILL		2.1														
	GRAVEL SAND TILL		2.6	N102	AUGER SB16		15.8			NP	13.3	44.4	42.3				SM
3	LESS SILT																
4	HIGHER SILT COARSE GRAVEL																
5	END HOLE																

4.6
401-6" AUGERS
4.5
1.05
1.35
1.95
2.55
4.6



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**MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.**

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 8-3-78

DRILL TECHNICIAN: J.G.G.

PLOTTED BY: R.S.

HOLE ELEVATION:

HOLE NO.: N55

DEPTH (M.)	SOIL DESCRIPTION	N.R.C. PERMAFROST CLASSIFICATION	SAMPLE IDENTIFICATION DATA				CONSISTENCY LIMITS			MECHANICAL ANALYSIS			DRY DENSITY LBS./CU. FT.	STANDARD PENETRATION RESISTANCE BLOWS/FT.	UNIFIED CLASSIFICATION	
			SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER	LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %	SAND %	<074mm %				<005mm %
0	ROAD FILL															
	SAND TILL															
1	GRAVELLY SAND TILL															
			1.5	N103	AUGER SB17			1.8	NP			36.0	13.4			GM
			2.1													
2																
3																
4																
5																

2.4
HOLE REFUSAL



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WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: N 56	
DATE DRILLED: 8-3-78		PLOTTED BY: R.S.		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
DRILL TECHNICIAN: J.G.		SAMPLE IDENTIFICATION DATA		PLASTIC LIMIT		GRAVEL	
HOLE DEPTH: 2.85		LABORATORY NUMBER		LIQUID LIMIT		SAND	
TYPE OF DRILL: B40L-6" AUGERS		SAMPLE TYPE		PLASTICITY INDEX		<.074 mm	
WATER LEVEL		SAMPLE NUMBER (FIELD)		PLASTICITY INDEX		>.005 mm	
DEPTH (M.)		SAMPLE DEPTH (FT.)		PLASTICITY INDEX		DRY DENSITY	
SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION		PLASTICITY INDEX		STANDARD PENETRATION RESISTANCE	
				PLASTICITY INDEX		BLOWS / FT.	
				PLASTICITY INDEX			
0	ROAD FILL						
	SAND TILL						
1		.6	N104	NP	9.9	54.2	35.9
	COARSE GRAD	1.2	AUGER SB19				
	FINE GR						
2		2.3					
3		2.85	N105	NP	22.8	53.2	24.0
	END HOLE REFUSAL		AUGER SB18				
4							
5							



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WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: NJS7	
DATE DRILLED: 8-3-78		PLOTTED BY: R.S.		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
DRILL TECHNICIAN: J.G.		SAMPLE IDENTIFICATION DATA		PLASTICITY INDEX		GRAVEL	
HOLE DEPTH: 4.6		LABORATORY NUMBER		PLASTIC LIMIT		SAND	
TYPE OF DRILL: B40L-6" AUGERS		SAMPLE TYPE		LIQUID LIMIT		<.074mm	
WATER LEVEL		SAMPLE NUMBER (FIELD)		NATURAL MOISTURE CONTENT		>.005mm	
DEPTH (M.)		SAMPLE DEPTH (FT.)		PLASTIC INDEX		DRY DENSITY	
SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION		PLASTIC LIMIT		LBS. CU. FT.	
STANDARD PENETRATION RESISTANCE		UNIFIED CLASSIFICATION		PLASTIC INDEX		BLOWS FT.	
0	ROAD FILL						
1	SAND TILL HIGHER SILT	.6	N106 AUGER SB20	NP	17.0	35.7	16.1
2	COARSE GRAVEL	1.1					
3	FINE	2.4					
4	FAIRLY CONSISTENT	3.0	N107 AUGER SB21	TRACE	8.8	37.2	54.0
5	END HOLE						



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WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: NS3											
DATE DRILLED: 9-3-78		DRILL TECHNICIAN: J.G.		PLOTTED BY: R.S.													
HOLE DEPTH 4.32	TYPE OF DRILL B40L-6" AUGERS	WATER LEVEL	SOIL DESCRIPTION	SAMPLE IDENTIFICATION DATA			CONSISTENCY LIMITS			MECHANICAL ANALYSIS			DRY DENSITY LBS./CU. FT.	STANDARD PENETRATION RESISTANCE BLOWS/FT.	UNIFIED CLASSIFICATION		
				N.R.C. PERMAFROST CLASSIFICATION	SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER	LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %				SAND %	>.005mm %
0			ROAD FILL														
1			SANDY TILL	.8	N108	AUGER SB22											OL
2			LESS SILT COARSE ROCK	1.2													
3			SANDY GRAVEL GRAVELLY SAND	3.3													
4			EMO HOLE	4.0	N109	AUGER SB23											GM
5																	



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SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT B HOLE LOCATION: HOLE ELEVATION: PLOTTED BY: R. S. HOLE NO.: 1259

DATE DRILLED: 9-03-78 DRILL TECHNICIAN: J.G.G.

HOLE DEPTH: 1.8 TYPE OF DRILL: B40I-6" AUGERS MECHANICAL ANALYSIS: SAND 46.9% GRAVEL 24.2% PLASTICITY INDEX NP PLASTIC LIMIT % LIQUID LIMIT % NATURAL MOISTURE CONTENT 5.5

WATER LEVEL: SOIL DESCRIPTION: REFUSAL GRAVELLY SANDY TILL COARSER END HOLE

DEPTH (M.)	SAMPLE DEPTH (FT.)	SAMPLE IDENTIFICATION DATA				CONSISTENCY LIMITS	MECHANICAL ANALYSIS			DRY DENSITY LBS./CU. FT.	STANDARD PENETRATION RESISTANCE BLOWS/FT.	UNIFIED CLASSIFICATION
		SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER	N.R.C. PERMAFROST CLASSIFICATION		GRAVEL	SAND	<.074mm			
0												
0.30	0.8	N110	AUGER	5824								SM
1.8	1.4											

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: N 60	
DATE DRILLED: 10-3-78		DRILL TECHNICIAN: J.G.		PLOTTED BY: R.S.	
HOLE DEPTH: 3.		MECHANICAL ANALYSIS		UNIFIED CLASSIFICATION	
TYPE OF DRILL: B40L-6" AUGERS		< .005 mm % < .075 mm % > .005 mm % SAND % GRAVEL %		STANDARD PENETRATION RESISTANCE BLOWS / FT.	
WATER LEVEL		CONSISTENCY LIMITS		DRY DENSITY LBS. / CU. FT.	
DEPTH (M.)		PLASTIC LIMIT % LIQUID LIMIT % PLASTICITY INDEX %		< .005 mm % < .075 mm % > .005 mm % SAND % GRAVEL %	
SOIL DESCRIPTION		NATURAL MOISTURE CONTENT %		UNIFIED CLASSIFICATION	
0 ROAD FILL		4.9		GM	
1 GRAVELLY SAND TILL .6					
COARSE					
2 SANDY GRAVEL 1.65					
MED - COARSE					
3 FINE SAND 3.00					
4					
5					

SAMPLE IDENTIFICATION DATA

SAMPLE DEPTH (FT.)

SAMPLE NUMBER (FIELD)

SAMPLE TYPE

LABORATORY NUMBER

N.R.C. PERMAFROST CLASSIFICATION

0

1

2

3

4

5

9

1.5

NIII

AUGER SB25

4.9

NP

47.3

33.5

19.2

GM



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WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT R HOLE LOCATION: HOLE NO.: N 61

DATE DRILLED: 10-3-78 DRILL TECHNICIAN: J.G. PLOTTED BY: R.S. HOLE ELEVATION:

DEPTH (M.)	SOIL DESCRIPTION	N.R.C. PERMAFROST CLASSIFICATION	SAMPLE IDENTIFICATION DATA				CONSISTENCY LIMITS			MECHANICAL ANALYSIS			DRY DENSITY LBS. CU. FT.	STANDARD PENETRATION RESISTANCE BLOWS FT.	UNIFIED CLASSIFICATION
			SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER	LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %	SAND %	> 0.075 mm %			

0	ROAD FILL															
1	SAND TILL		.6	N112	AUGER SB26											SM
			1.1													
2	GRADELY SAND TILL		1.70													
			1.95	N113	AUGER SB27											SM
4	END HOLE		3.7													
			4.2	N114	AUGER SB28											SM
5																

1.35

1.95

COARSER
HESS
SILT

4.2



Public Works
Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 10-3-78

DRILL TECHNICIAN: J.G.

PLOTTED BY: R.S.

HOLE ELEVATION:

HOLE NO.: N 63

HOLE DEPTH 4

TYPE OF DRILL B40J-6" AUGERS

WATER LEVEL _____

SOIL DESCRIPTION

0 ROAD FILL _____ .30
SAND TILL
COARSER
1 End Hole _____ 1.2

N.R.C.
PERMAFROST
CLASSIFICATION

SAMPLE IDENTIFICATION DATA

SAMPLE DEPTH (FT.)

SAMPLE NUMBER (FIELD)

SAMPLE TYPE

LABORATORY NUMBER

NATURAL MOISTURE CONTENT

LIQUID LIMIT

PLASTIC LIMIT

PLASTICITY INDEX

GRAVEL

SAND

MECHANICAL ANALYSIS

<.075 mm

<.075 mm

>.005 mm

DRY DENSITY

STANDARD PENETRATION RESISTANCE

UNIFIED CLASSIFICATION

DEPTH (M.) 0 1 2 3 4 5

FORM NO. CC 104

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 10-3-78

DRILL TECHNICIAN: J.G.

PLOTTED BY: R.S.

HOLE ELEVATION:

HOLE NO.: N 64

HOLE DEPTH 1.5
TYPE OF DRILL B.O.L.-6" AUGERS
WATER LEVEL _____
DEPTH (M.) _____
SOIL DESCRIPTION

N.R.C. PERMAFROST CLASSIFICATION

DEPTH (M.)	SAMPLE DEPTH (FT.)	SAMPLE IDENTIFICATION DATA				NATURAL MOISTURE CONTENT (%)	CONSISTENCY LIMITS			MECHANICAL ANALYSIS				DRY DENSITY (LBS. CU. FT.)	STANDARD PENETRATION RESISTANCE (BLOWS / FT.)	UNIFIED CLASSIFICATION	
		SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER	PLASTIC LIMIT (%)		LIQUID LIMIT (%)	PLASTICITY INDEX (%)	GRAVEL (%)	SAND (%)	>.005 mm (%)	<.074 mm (%)	<.005 mm (%)				
0																	
	.60																
	1.05	N116	AUGER	5830		6.0				NP	9.1	61.8	16.5	12.6			SM
1																	
2																	
3																	
4																	
5																	

ROAD FILL
SILT TILL _____ .45
SANDY TILL _____ .6
GRAVELLY SAND _____ 1.05
TILL _____
END HOLE _____ 1.5

PROJECT: SHAKWAK SEGMENT B

DATE DRILLED: 10-3-78

DRILL TECHNICIAN: J.G.

PLOTTED BY: R.S.

HOLE LOCATION:

HOLE ELEVATION:

HOLE NO.: 2065

DEPTH (M.)	SOIL DESCRIPTION	SAMPLE IDENTIFICATION DATA				NATURAL MOISTURE CONTENT %	CONSISTENCY LIMITS			MECHANICAL ANALYSIS				STANDARD PENETRATION RESISTANCE BLOWS / FT.	UNIFIED CLASSIFICATION	
		SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER		LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %	SAND %	< .005 mm				GM
												< .075 mm	> .005 mm			
0	ROAD FILL															
0.3	GRAVELLY SAND TILL	1.1	N117	AUGER	5831							28.8	36.2			
0.9	SAND TILL	1.5														
1.65	COARSE ROCK GRAVELLY SAND TILL															
2.85	SANDY GRAVEL M20	4.0	N118	AUGER	5832	12.7						22.5	66.1	11.4		
4.6	FINE HIERER SAND FILL	4.6														



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: N 67	
DATE DRILLED: 10-3-78		PLOTTED BY: R.S.		HOLE ELEVATION:	
DRILL TECHNICIAN: J.G.		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
HOLE DEPTH: 1.65		LIQUID LIMIT		SAND	
TYPE OF DRILL: B40L-6" AUGERS		PLASTIC LIMIT		GRAVEL	
WATER LEVEL		PLASTICITY INDEX		SILT	
DEPTH (M.)		NATURAL MOISTURE CONTENT		CLAY	
SOIL DESCRIPTION		LABORATORY NUMBER		STANDARD PENETRATION RESISTANCE	
0 - ROAD FILL		SAMPLE TYPE		BLOWS / FT.	
1 - SANDY SILT		SAMPLE NUMBER (FIELD)		LBS. / CU. FT.	
2 - SLIGHTLY HIGH SILT		SAMPLE DEPTH (FT.)		UNIFIED CLASSIFICATION	
3 - COARSE SAND		N121		SM	
4 - SANDY SILT		.8			
5 - FINE SAND		1.4			
6 - SANDY SILT		1.65			
7 - SANDY SILT					
8 - SANDY SILT					
9 - SANDY SILT					
10 - SANDY SILT					
11 - SANDY SILT					
12 - SANDY SILT					
13 - SANDY SILT					
14 - SANDY SILT					
15 - SANDY SILT					
16 - SANDY SILT					
17 - SANDY SILT					
18 - SANDY SILT					
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40 - SANDY SILT					
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42 - SANDY SILT					
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94 - SANDY SILT					
95 - SANDY SILT					
96 - SANDY SILT					
97 - SANDY SILT					
98 - SANDY SILT					
99 - SANDY SILT					
100 - SANDY SILT					

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: N 68																	
DATE DRILLED: 10-3-78		PLOTTED BY: R.S.		HOLE ELEVATION:																	
DRILL TECHNICIAN: J.G.		CONSISTENCY LIMITS		MECHANICAL ANALYSIS																	
HOLE DEPTH 4.6	TYPE OF DRILL B40L-6" AUGERS	WATER LEVEL	DEPTH (M.)	N.R.C. PERMAFROST CLASSIFICATION	SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER	NATURAL MOISTURE CONTENT %	LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %	SAND %	>.005 mm %	>.074 mm %	>.005 mm %	DRY DENSITY LBS. CU. FT.	STANDARD PENETRATION RESISTANCE BLOWS FT.	UNIFIED CLASSIFICATION	
																					SOIL DESCRIPTION
0	ROAD FILL																				
1	SANDY TILL COARSER		.6			N122	AUGER	S036	5.0			NP	16.7	54.4	28.7						SM
2	SANDY GRAVEL MED-COARSE		1.2																		
3	SANDY TILL HIGHER FINER SAND		3.3																		
4			3.8			N123	AUGER	S037	12.1			NP	7.8	54.3	37.9						SM
5	END OF HOLE		4.6																		



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: N169	
DATE DRILLED: 10-3-78		DRILL TECHNICIAN: J.G.		PLOTTED BY: R.S.	
HOLE DEPTH: 3		MECHANICAL ANALYSIS		STANDARD PENETRATION RESISTANCE	
TYPE OF DRILL: B40J-6" AUGERS		< .074 mm > .005 mm SAND GRAVEL		BLOWS FT.	
WATER LEVEL		CONSISTENCY LIMITS		DRY DENSITY	
DEPTH (M.)		LIQUID LIMIT PLASTIC LIMIT PLASTICITY INDEX		LBS. CU. FT.	
SOIL DESCRIPTION		NATURAL MOISTURE CONTENT		UNIFIED CLASSIFICATION	
ROAD FILL GRAVELLY SAND TILL COARSE SANDY GRAVEL MED - COARSE Egg Hole		%		GR-GM	
N.R.C. PERMAFROST CLASSIFICATION		LABORATORY DATA		MECHANICAL ANALYSIS	
		SAMPLE DEPTH (FT.) SAMPLE NUMBER (FIELD) SAMPLE TYPE LABORATORY NUMBER		< .005 mm < .074 mm > .005 mm SAND GRAVEL	
		2.4 3.0 N124 AUGER SB38 NP 52.1 39.0 8.9			



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 10-3-78

PLOTTED BY: R.S.

HOLE ELEVATION:

HOLE NO.: 70

DRILL TECHNICIAN: J.G.

HOLE DEPTH 3.
TYPE OF DRILL B401-6" AUGERS
WATER LEVEL _____
DEPTH (M.) _____

SOIL DESCRIPTION

ROAD FILL

COARSE

GRAVELLY SAND TILL 1.5

FINE

HIGHER SAND LESS GRAVEL

EARTH HOLE 3.

SAMPLE DEPTH (FT.)	SAMPLE IDENTIFICATION DATA				NATURAL MOISTURE CONTENT (%)	CONSISTENCY LIMITS			MECHANICAL ANALYSIS			DRY DENSITY (LBS. CU. FT.)	STANDARD PENETRATION RESISTANCE (BLOWS FT.)	UNIFIED CLASSIFICATION	
	LABORATORY NUMBER	SAMPLE TYPE	SAMPLE NUMBER (FIELD)	SAMPLE DEPTH (FT.)		LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX (%)	GRAVEL (%)	SAND (%)	>.005 mm (%)				<.075 mm (%)
0															
0.6															
1.1			N125	AUGER	5839	6.1		NP	8.9	35.1	56.0			ML	
2.4															
3.0			N126	AUGER	5840	2.1		NP	28.7	54.0	11.3	6.0		SM	

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: U71	
DATE DRILLED: 13-3-78		PLOTTED BY: R.S.		HOLE ELEVATION:	
HOLE DEPTH: 4.6		MECHANICAL ANALYSIS		STANDARD PENETRATION RESISTANCE	
TYPE OF DRILL: B40L-6" AUGERS		SAND		BLOWS	
WATER LEVEL		GRAVEL		FT.	
DEPTH (M.)		PLASTIC LIMIT		DRY DENSITY	
SOIL DESCRIPTION		PLASTICITY INDEX		LBS. CU. FT.	
ROAD FILL BROWN		LIQUID LIMIT		UNIFIED CLASSIFICATION	
SAND TILL		NATURAL MOISTURE CONTENT		SM	
ORGANIC HIGH SILT		LABORATORY NUMBER		.	
GRAVELLY SAND TILL		SAMPLE TYPE		SM	
ORGANIC		SAMPLE NUMBER (FIELD)			
COARSE GRAVEL		SAMPLE DEPTH (FT.)			
HIGH SAND - GRAVEL		N127			
END HOLE		N128			
		N129			
		N130			
		N131			
		N132			
		N133			
		N134			
		N135			
		N136			
		N137			
		N138			
		N139			
		N140			
		N141			
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		N190			
		N191			
		N192			
		N193			
		N194			
		N195			
		N196			
		N197			
		N198			
		N199			
		N200			

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: N 72												
DATE DRILLED: 13-03-78		DRILL TECHNICIAN: J. G.		PLOTTED BY: R. S.														
HOLE DEPTH 4.6	TYPE OF DRILL B40L-6" AUGERS	WATER LEVEL	SOIL DESCRIPTION	SAMPLE IDENTIFICATION DATA				CONSISTENCY LIMITS			MECHANICAL ANALYSIS				DRY DENSITY LBS. CU. FT.	STANDARD PENETRATION RESISTANCE BLOWS FT.	UNIFIED CLASSIFICATION	
				DEPTH (FT.)	NUMBER (FIELD)	TYPE	NUMBER	LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %	SAND %	>.005 mm %	>.074 mm %				<.005 mm %
0			ROAD FILL															
1			SIIT TILL	.8	N129	AUGER	S863	34.0										ML
2			HIGHER SAND	1.4														.
3			SAND TILL	2.1														SC-SM
4			HIGHER SIIT	2.7	N130	AUGER	S864	12.3	22.5	17.3	5.2	14.1	38.0	47.9				
5			COARSER GRAVEL															
			FEED HOLE															

PROJECT: SHAKWAK SEGMENT B

HOLE LOCATION:

DATE DRILLED: 13-3-78

DRILL TECHNICIAN: J.G.

PLOTTED BY: R.S.

HOLE ELEVATION:

HOLE NO.: 73

DEPTH (M.)	SOIL DESCRIPTION	N.R.C. PERMAFROST CLASSIFICATION	SAMPLE IDENTIFICATION DATA				NATURAL MOISTURE CONTENT %	CONSISTENCY LIMITS			MECHANICAL ANALYSIS			DRY DENSITY LBS./CU. FT.	STANDARD PENETRATION RESISTANCE BLOWS/FT.	UNIFIED CLASSIFICATION
			SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER		LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %	SAND %	< 0.075 mm %			
0	ROAD FILL															
1	SAND TILL															
2	SILT TILL															
	SAND TILL															
3	SILT TILL GREY		2.4	N131	AUGER	S865	9.1			NP			24.8	43.7	31.5	SM
			3.0													
			3.2													
			3.7	N132	AUGER	S866	23.6	30.9	26.3	4.6	2.3	23.4	74.3			CL-ML
4	BROWN															
5	ERA HOLE															

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: 074	
DATE DRILLED: 13-3-78		DRILL TECHNICIAN: J.G.		PLOTTED BY: R.S.			
HOLE DEPTH: 9		MECHANICAL ANALYSIS		DRY DENSITY		STANDARD PENETRATION RESISTANCE	
TYPE OF DRILL: B40L-6" AUGERS		<input type="checkbox"/> <.005 mm <input type="checkbox"/> <.075 mm <input type="checkbox"/> >.005 mm <input type="checkbox"/> SAND <input type="checkbox"/> GRAVEL		LBS. / CU. FT. BLOWS / FT.			
WATER LEVEL		CONSISTENCY LIMITS		UNIFIED CLASSIFICATION			
DEPTH (M.)		LIQUID LIMIT PLASTIC LIMIT PLASTICITY INDEX					
SOIL DESCRIPTION		NATURAL MOISTURE CONTENT					
ROAD FILL (SAND TILL) HIGHLY GRAVEL END HOLE @ 9.9 @ 9.9		SAMPLE IDENTIFICATION DATA SAMPLE DEPTH (FT.) SAMPLE NUMBER (FIELD) SAMPLE TYPE LABORATORY NUMBER					
N.R.C. PERMAFROST CLASSIFICATION							



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: <u>N 75</u>	
DATE DRILLED: <u>13-03-78</u>		PLOTTED BY: <u>R. S.</u>		HOLE ELEVATION:	
DRILL TECHNICIAN: <u>J. G.</u>		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
SAMPLE IDENTIFICATION DATA SAMPLE DEPTH (FT.) SAMPLE NUMBER (FIELD) SAMPLE TYPE LABORATORY NUMBER		LIQUID LIMIT		SAND	
		PLASTIC LIMIT		GRAVEL	
		PLASTICITY INDEX		<.074 mm	
		NATURAL MOISTURE CONTENT		>.005 mm	
N.R.C. PERMAFROST CLASSIFICATION		PLASTICITY INDEX		UNIFIED CLASSIFICATION	
HOLE DEPTH <u>3.</u>		PLASTIC LIMIT		STANDARD PENETRATION RESISTANCE	
TYPE OF DRILL <u>B40J-6" AUGERS</u>		LIQUID LIMIT		BLOWS / FT.	
WATER LEVEL _____		PLASTICITY INDEX		LBS. / CU. FT.	
DEPTH (M.)		PLASTIC LIMIT		DRY DENSITY	
SOIL DESCRIPTION		PLASTICITY INDEX		DRY DENSITY	
<u>SANDY GRAVEL</u>		PLASTICITY INDEX		DRY DENSITY	
<u>GRAVEL COARSE</u>		PLASTICITY INDEX		DRY DENSITY	
<u>EDGE HOLE 3.</u>		PLASTICITY INDEX		DRY DENSITY	
0		PLASTICITY INDEX		DRY DENSITY	
1		PLASTICITY INDEX		DRY DENSITY	
2		PLASTICITY INDEX		DRY DENSITY	
3		PLASTICITY INDEX		DRY DENSITY	
4		PLASTICITY INDEX		DRY DENSITY	
5		PLASTICITY INDEX		DRY DENSITY	

PROJECT: SHAKWAK SEGMENT B		HOLE LOCATION:		HOLE NO.: N 77	
DATE DRILLED: 13-03-78		PLOTTED BY: R.S.		HOLE ELEVATION:	
HOLE DEPTH: 4.6		SAMPLE IDENTIFICATION DATA		MECHANICAL ANALYSIS	
TYPE OF DRILL: 401-6" AUGERS		LABORATORY NUMBER		$< .005 \text{ mm}$ % $> .075 \text{ mm}$ % $> .005 \text{ mm}$ %	
WATER LEVEL:		SAMPLE TYPE		SAND %	
DEPTH (M.):		SAMPLE NUMBER (FIELD)		GRAVEL %	
SOIL DESCRIPTION		SAMPLE DEPTH (FT.)		PLASTIC LIMIT %	
0				LIQUID LIMIT %	
1		.9		NATURAL MOISTURE CONTENT %	
2		1.5		CONSISTENCY LIMITS	
3		2.0		PLASTIC INDEX %	
4		2.55		PLASTICITY INDEX %	
5				STANDARD PENETRATION RESISTANCE	
				UNIFIED CLASSIFICATION	
				LBS. CU. FT.	
				BLOWS FT.	
				GM	
				SM	

ROAD FILL
COARSER

GRAVELLY SAND
SANDY GRAVEL

SILTY TILL
1.65

HIGHER
SAND

GRAVELLY SAND TILL
2.55

FINER

END HOLE
4.6



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: 1079	
DATE DRILLED: 13-3-78		DRILL TECHNICIAN: J.G.		PLOTTED BY: R.S.	
HOLE DEPTH: 4.6		MECHANICAL ANALYSIS		STANDARD PENETRATION RESISTANCE	
TYPE OF DRILL: 4.0 I.D. - 6" AUGERS		<.005 mm % <.074 mm % >.005 mm %		BLOWS / FT.	
WATER LEVEL		SAND %		LBS. / CU. FT.	
DEPTH (M.)		GRAVEL %			
		PLASTICITY INDEX %			
		PLASTIC LIMIT %			
		LIQUID LIMIT %			
		NATURAL MOISTURE CONTENT %			
		CONSISTENCY LIMITS			
		LABORATORY NUMBER			
		SAMPLE TYPE			
		SAMPLE NUMBER (FIELD)			
		SAMPLE DEPTH (FT.)			
		N.R.C. PERMAFROST CLASSIFICATION			
SOIL DESCRIPTION		2.1		2.9	
ROAD FILL		N139		AUGER SBT3	
SLIGHTLY COARSE				3.9	
GRAVELLY SAND					
SANDY GRAVEL					
MED COARSE FINE					
GRAVELLY SAND TILL					
COARSE					
HIGHER SAND					
SLIGHTLY FINE					
END HOLE					
				NP	
				27.2 49.7 23.1	
				SM	



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		PLOTTED BY: R. S.		HOLE ELEVATION:		HOLE NO.: 7080											
DATE DRILLED: 14-3-78		DRILL TECHNICIAN: J. G.		HOLE LOCATION:													
HOLE DEPTH	TYPE OF DRILL	WATER LEVEL	SOIL DESCRIPTION	SAMPLE IDENTIFICATION DATA		CONSISTENCY LIMITS		MECHANICAL ANALYSIS		DRY DENSITY	STANDARD PENETRATION RESISTANCE	UNIFIED CLASSIFICATION					
(M.)	4.6" AUGERS			SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX (%)	GRAVEL (%)	SAND (%)	< 0.075 mm (%)	< 0.005 mm (%)	LBS. CU. FT.	BLOWS / FT.	
0			ROAD FILL														
1			SIGHTLY HIGHER SILT FINER	0.9	N140	AUGER	S874			NP	11.4	50.5	30.1				SM
2				1.5													
3				1.8													
4				2.3	N141	AUGER	S875			TRACE	7.2	47.9	44.9				SM
5				3.0													
6				3.8	N142	AUGER	S876			5.6	10.0	37.0	53.9				CL-ML
7																	
8																	
9																	
10																	

HOLE DEPTH 4.6
 TYPE OF DRILL 4.6" AUGERS
 WATER LEVEL
 SOIL DESCRIPTION
 ROAD FILL
 SLIGHTLY HIGHER SILT
 FINER
 SILT TILL
 COARSER
 GRAVELLY SAND
 TILL
 END HOLE
 4.6
 4.0
 4.6



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: 1281	
DATE DRILLED: 14-3-78		PLOTTED BY: R.S.		HOLE ELEVATION:	
DRILL TECHNICIAN: J.G.		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
HOLE DEPTH: 4.6		PLASTIC LIMIT		SAND	
TYPE OF DRILL: B40L-6" AUGERS		LIQUID LIMIT		GRAVEL	
WATER LEVEL		PLASTICITY INDEX		PLASTICITY INDEX	
DEPTH (M.)		NATURAL MOISTURE CONTENT		PLASTICITY INDEX	
SOIL DESCRIPTION		LABORATORY NUMBER		PLASTICITY INDEX	
0		SAMPLE TYPE		PLASTICITY INDEX	
1		SAMPLE NUMBER (FIELD)		PLASTICITY INDEX	
2		SAMPLE DEPTH (FT.)		PLASTICITY INDEX	
3		SAMPLE DEPTH (FT.)		PLASTICITY INDEX	
4		SAMPLE DEPTH (FT.)		PLASTICITY INDEX	
5		SAMPLE DEPTH (FT.)		PLASTICITY INDEX	
N.R.C. PERMAFROST CLASSIFICATION		LABORATORY NUMBER		PLASTICITY INDEX	
ROAD FILL		N143		PLASTICITY INDEX	
SANDY TILL		N144		PLASTICITY INDEX	
SLIGHTLY COARSE GRAVEL				PLASTICITY INDEX	
FINE				PLASTICITY INDEX	
COARSER				PLASTICITY INDEX	
HIGHER SAND				PLASTICITY INDEX	
LESS SILT				PLASTICITY INDEX	
END HOLE 4.6				PLASTICITY INDEX	
UNIFIED CLASSIFICATION		DRY DENSITY		STANDARD PENETRATION RESISTANCE	
SM		LBS. CU. FT.		BLOWS FT.	
SM					



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: 083	
DATE DRILLED: 14-3-78		PLOTTED BY: R.S.		HOLE ELEVATION:	
HOLE DEPTH: 1.65		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
TYPE OF DRILL: B40L-6" AUGERS		LIQUID LIMIT		SAND	
WATER LEVEL		PLASTIC LIMIT		GRAVEL	
DEPTH (M.)		PLASTICITY INDEX		SILT & CLAY ANALYSIS	
SOIL DESCRIPTION		NATURAL MOISTURE CONTENT		<.005 mm	
ROADS FILL COARSER END HOLE 1.65		%		%	
		LABORATORY NUMBER		%	
0		SAMPLE IDENTIFICATION DATA		%	
1		SAMPLE DEPTH (FT.)		%	
2		N147		%	
3		AUGER		%	
4		S981		%	
5		S981		%	
		DENSITY		UNIFIED CLASSIFICATION	
		LBS. CU. FT.		SM	
		BLOWS FT.			



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: 1084	
DATE DRILLED: 14-3-78		DRILL TECHNICIAN: J.G.		PLOTTED BY: R.S.			
HOLE DEPTH 3.1		N.R.C. PERMAFROST CLASSIFICATION		SAMPLE IDENTIFICATION DATA		NATURAL MOISTURE CONTENT	
TYPE OF DRILL B40I-6" AUGERS				LABORATORY NUMBER		%	
WATER LEVEL				SAMPLE TYPE		PLASTIC LIMIT	
DEPTH (M.)				SAMPLE NUMBER (FIELD)		PLASTICITY INDEX	
SOIL DESCRIPTION				SAMPLE DEPTH (FT.)		LIQUID LIMIT	
0	OVER BURDEN .15			2.1		SAND	
	SANDY GRAVEL .3			3.0		GRAVEL	
	ORGANIC SILT					MECHANICAL ANALYSIS	
1	SILT TILL BROWN .9					<.005 mm	
	SANDY GRAVEL 1.35					<.075 mm	
						>.005 mm	
						SAND	
						GRAVEL	
						PLASTICITY INDEX	
						PLASTIC LIMIT	
						LIQUID LIMIT	
						DRY DENSITY	
						STANDARD PENETRATION RESISTANCE	
						UNIFIED CLASSIFICATION	
3	END HOLE 3.					GM	



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8			HOLE LOCATION:			HOLE ELEVATION:			HOLE NO.: <u>N185</u>			
DATE DRILLED: <u>14-3-78</u>			PLOTTED BY: <u>R.S.</u>			MECHANICAL ANALYSIS			STANDARD PENETRATION RESISTANCE			
HOLE DEPTH: <u>4.6</u>			SAMPLE IDENTIFICATION DATA			CONSISTENCY LIMITS			DRY DENSITY			
TYPE OF DRILL: <u>B40L-6" AUGERS</u>			LABORATORY NUMBER			PLASTICITY INDEX			LBS. CU. FT.			
WATER LEVEL: _____			SAMPLE TYPE			PLASTIC LIMIT			BLOWS FT.			
DEPTH (M.)			SAMPLE NUMBER (FIELD)			LIQUID LIMIT			UNIFIED CLASSIFICATION			
SOIL DESCRIPTION			SAMPLE DEPTH (FT.)			NATURAL MOISTURE CONTENT						
0	ROAD FILL											
1	SANDY TILL HIGHER SILT			<u>1.1</u>	<u>N149</u>	<u>21.9</u>	<u>17.7</u>	<u>4.2</u>	<u>48.7</u>	<u>45.5</u>		<u>SC-SM</u>
2				<u>1.5</u>	<u>AUGER S883</u>							
3	COARSE GRAVELLY SAND TILL											
4				<u>4.0</u>				<u>TRACE</u>	<u>17.6</u>	<u>45.4</u>	<u>37.0</u>	
5	END HOLE			<u>4.6</u>	<u>N150</u>	<u>7.7</u>			<u>45.4</u>	<u>37.0</u>		<u>SM</u>
					<u>AUGER S884</u>							



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 14-3-78

DRILL TECHNICIAN: J. G.

PLOTTED BY: R. S.

HOLE ELEVATION:

HOLE NO.: 1087

DEPTH (M.)	SOIL DESCRIPTION	N.R.C. PERMAFROST CLASSIFICATION	SAMPLE IDENTIFICATION DATA				NATURAL MOISTURE CONTENT %	CONSISTENCY LIMITS			MECHANICAL ANALYSIS				DRY DENSITY LBS. CU. FT.	STANDARD PENETRATION RESISTANCE BLOWS FT.	UNIFIED CLASSIFICATION
			SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER		LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %	SAND %	<.075 mm %	>.005 mm %			
0	ROAD FILL																
0.9	GRAVELLY SANDY TILL COARSEX		0.9	N152	AUGER	S886	6.8			NP	10.6	49.9	39.5				SM
1.4	GRAVELLY SANDY TILL		1.4														
1.8	FINEX GRAVEL		1.8														
2.6	HIGHER SILT		2.6	N153	AUGER	S887	3.7	19.0	15.8	3.2	44.9	35.3	19.8				GM
4.0	GRAVELLY SILT TILL		4.0														
4.4	HIGHER SILT END HOLE		4.4	N154	AUGER	S888	6.7	24.0	16.3	7.7	18.4	38.2	43.4				SC



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT B		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: 1088	
DATE DRILLED: 14-03-78		PLOTTED BY: R.S.		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
DRILL TECHNICIAN: J.G.		LABORATORY DATA		PLASTIC LIMIT		< 0.075 mm	
HOLE DEPTH: 4.6		SAMPLE NUMBER (FIELD)		LIQUID LIMIT		> 0.075 mm	
TYPE OF DRILL: 401-6" AUGERS		SAMPLE TYPE		PLASTICITY INDEX		SAND	
WATER LEVEL		N155		%		GRAVEL	
SOIL DESCRIPTION		N156		%		%	
DEPTH (M.)		DEPTH (FT.)		NATURAL MOISTURE CONTENT		STANDARD PENETRATION RESISTANCE	
				%		BLOWS / FT.	
0 ROAD FILL		.9		11.2			
GRAVELLY SANDY SILT		1.5		NP			
LESS SILT				49.9			
HIGHER SILT		3.3		11.6			
END HOLE 4.6		4.0		6.5			
				47.9			
				28.9			
				1.8			
				19.6			
				8.9			
				17.8			
				1.8			
				28.9			
				6.5			
				47.9			
				16.7			
				SM			
				SM			



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: 1089										
DATE DRILLED: 14-03-78		DRILL TECHNICIAN: J.G.G.		PLOTTED BY: R.S.												
DEPTH (M.)	SOIL DESCRIPTION	SAMPLE IDENTIFICATION DATA				CONSISTENCY LIMITS			MECHANICAL ANALYSIS			DRY DENSITY LBS. CU. FT.	STANDARD PENETRATION RESISTANCE BLOWS / FT.	UNIFIED CLASSIFICATION		
		SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER	NATURAL MOISTURE CONTENT %	LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %	SAND %				> .075 mm %	< .005 mm %
0	ROAD FILL															
1	SAND TILL COARSE SLIGHTLY HIGHER MOISTURE	1.2	N157	AUGER	S091	11.2	20.2	16.8	3.4	13.4	45.9	40.7				SM
2		2.3														
3	LESS COARSE GRAVEL SLIGHTLY LESS	2.7	N158	AUGER	S092	16.2			NP	4.0	49.3	45.9				SM
4		3.3														
5	END OF HOLE	3.7	N159	AUGER	S093	11.0			TRACE	36.7	29.7	33.6				GM



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: 1090	
DATE DRILLED: 14-3-78		PLOTTED BY: R.S.		HOLE ELEVATION:	
HOLE DEPTH: 4.6		MECHANICAL ANALYSIS		DRY DENSITY	
TYPE OF DRILL: B40L-6" AUGERS		<.005 mm % <.074 mm % >.005 mm %		LBS. / CU. FT.	
WATER LEVEL		SAND		BLOWS / FT.	
DEPTH (M.)		GRAVEL			
SOIL DESCRIPTION		PLASTICITY INDEX			
0 ROAD FILL		PLASTIC LIMIT			
1 SAND TILL (BROWN) 1.45		LIQUID LIMIT			
GRAVELLY SAND TILL 1.20		NATURAL MOISTURE CONTENT			
HIGH BROWN SAND TILL		LABORATORY NUMBER			
2 HIGER SILT		SAMPLE TYPE			
3 SLIGHTLY LESS GRAVEL		SAMPLE NUMBER (FIELD)			
4		SAMPLE DEPTH (FT.)			
5		N.R.C. PERMAFROST CLASSIFICATION			
END HOLE 4.6		N160 AUGER 5894			
		N161 AUGER 5895			
		UNIFIED CLASSIFICATION		SM	
				SM	

PROJECT: SHAKWAK SEGMENT B		HOLE LOCATION:		HOLE NO.: R91	
DATE DRILLED: 14-03-78		PLOTTED BY: R.S.		HOLE ELEVATION:	
DRILL TECHNICIAN: J.G.		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
HOLE DEPTH _____ TYPE OF DRILL B40I-6" AUGERS WATER LEVEL _____ SOIL DESCRIPTION		LIQUID LIMIT		SAND	
		PLASTIC LIMIT		GRAVEL	
NATURAL MOISTURE CONTENT		PLASTICITY INDEX		<.005 mm	
%		%		%	
LABORATORY NUMBER		PLASTIC LIMIT		<.074 mm	
SAMPLE TYPE		%		%	
SAMPLE NUMBER (FIELD)		LIQUID LIMIT		>.005 mm	
SAMPLE DEPTH (FT.)		%		%	
.9		19.1		49.1	
1.5		14.8		48.6	
N.R.C. PERMAFROST CLASSIFICATION		6.4		2.3	
ROAD FILLO		4.3		49.1	
SAND TILL		%		%	
Eros Hole		%		%	
3.3		%		%	
3.0		%		%	
UNIFIED CLASSIFICATION		STANDARD PENETRATION RESISTANCE		DRY DENSITY	
Sc-SM		BLOWS / FT.		LBS. / CU. FT.	

PROJECT: **SHAKWAK SEGMENT 8**

HOLE LOCATION:

DATE DRILLED: **15-03-78**

DRILL TECHNICIAN: **J.G.**

PLOTTED BY: **R.S.**

HOLE ELEVATION:

HOLE NO.: **092**

HOLE DEPTH 1.8

TYPE OF DRILL B40J-6" AUGERS

WATER LEVEL _____

DEPTH (M.) _____

SOIL DESCRIPTION

ROAD FILL

1.5

GRAVELLY SAND TILL

1.8

END HOLE

N.R.C. PERMAFROST CLASSIFICATION

SAMPLE DEPTH (FT.)

SAMPLE NUMBER (FIELD)

SAMPLE TYPE

LABORATORY NUMBER

NATURAL MOISTURE CONTENT

LIQUID LIMIT

PLASTIC LIMIT

PLASTICITY INDEX

GRAVEL

SAND

MECHANICAL ANALYSIS

<.005 mm

<.075 mm

>.005 mm

DRY DENSITY

STANDARD PENETRATION RESISTANCE

UNIFIED CLASSIFICATION

.8

1.2

N163

AUGER SB97

6.3

19.6

14.4

5.2

4.9

48.9

46.2

SC-SM

Public Works Canada **MATERIALS QUALITY CONTROL LABORATORY** **SUBSURFACE TESTING REPORT**
Whitehorse, Y.T.

PROJECT: SHAKWAK SEGMENT 8 HOLE LOCATION: HOLE NO.: R94
 DATE DRILLED: 15-03-78 DRILL TECHNICIAN: J.G. PLOTTED BY: R.S. HOLE ELEVATION:

DEPTH (M.)	SOIL DESCRIPTION	N.R.C. PERMAFROST CLASSIFICATION	SAMPLE IDENTIFICATION DATA				NATURAL MOISTURE CONTENT (%)	CONSISTENCY LIMITS			MECHANICAL ANALYSIS				DRY DENSITY (LBS. CU. FT.)	STANDARD PENETRATION RESISTANCE (BLOWS FT.)	UNIFIED CLASSIFICATION
			SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER		LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX (%)	GRAVEL (%)	SAND (%)	<0.075 mm (%)	<0.005 mm (%)			
0	Road Fill																
1	GRAVELLY SANDY TILL																
2	COARSER		2.1	N165	AUGER	S899	9.0			TRACE	12.6	40.8	46.6				SM
3			2.6														
4			4.0														
5			4.6	N166	AUGER	S900	4.1	21.1	16.7	4.4	47.8	30.2	16.9	5.1			GS-GM

0
1
2
3
4
5



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: 1095						
DATE DRILLED: 15-03-78		DRILL TECHNICIAN: J.G.		PLOTTED BY: R.S.								
HOLE DEPTH	TYPE OF DRILL	SAMPLE IDENTIFICATION DATA				CONSISTENCY LIMITS		MECHANICAL ANALYSIS		DRY DENSITY	STANDARD PENETRATION RESISTANCE	UNIFIED CLASSIFICATION
		DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	GRAVEL			
DEPTH (M.)	SOIL DESCRIPTION	N.R.C. PERMAFROST CLASSIFICATION		NATURAL MOISTURE CONTENT								
0	ROAD FILL											
1	GRAVELLY SAND COARSE			N167 AUGER S901		NP		13.3 45.2 41.5				SM
2												
3	SANDY GRAVEL MED COARSE											
4	END HOLE											
5												

HOLE DEPTH 2.85
 TYPE OF DRILL B401-6" AUGERS
 WATER LEVEL _____
 SOIL DESCRIPTION
ROAD FILL
GRAVELLY SAND
COARSE
SANDY GRAVEL
MED COARSE
END HOLE

.6
1.2

1.2
2.85



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: N97	
DATE DRILLED: 15-03-78		PLOTTED BY: R.S.		HOLE ELEVATION:	
DRILL TECHNICIAN: J.G.		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
HOLE DEPTH 1.65		LIQUID LIMIT %		SAND %	
TYPE OF DRILL B40L-6" AUGERS		PLASTIC LIMIT %		GRAVEL %	
WATER LEVEL		PLASTICITY INDEX %		SILT & CLAY (<0.075 mm) %	
DEPTH (M.)		NATURAL MOISTURE CONTENT %		UNIFIED CLASSIFICATION	
SOIL DESCRIPTION		LABORATORY DATA		STANDARD PENETRATION RESISTANCE (BLOWS/FT.)	
ROAD FILL		SAMPLE DEPTH (FT.)		DRY DENSITY (LBS./CU. FT.)	
SAND TILL		SAMPLE NUMBER (FIELD)		DRAINAGE CLASSIFICATION	
END HOLE		SAMPLE TYPE		PERCENTAGE OF FINE MATERIAL (>0.075 mm)	
0		N-169 AUGER 903		PERCENTAGE OF SAND	
1		0.3		PERCENTAGE OF GRAVEL	
2		0.8		PERCENTAGE OF PLASTICITY	
3				PERCENTAGE OF NATURAL MOISTURE	
4				PERCENTAGE OF LABORATORY DATA	
5				PERCENTAGE OF MECHANICAL ANALYSIS	



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: 298	
DATE DRILLED: 15-03-28		PLOTTED BY: R.S.		HOLE ELEVATION:	
DRILL TECHNICIAN: J.G.		MECHANICAL ANALYSIS		STANDARD PENETRATION RESISTANCE	
HOLE DEPTH: 4.35		GRAVEL		BLOWS / FT.	
TYPE OF DRILL: B40I-6" AUGERS		SAND		LBS. / CU. FT.	
WATER LEVEL		PLASTIC LIMIT		DRY DENSITY	
DEPTH (M.):		LIQUID LIMIT		LBS. / CU. FT.	
SOIL DESCRIPTION		PLASTICITY INDEX		DRY DENSITY	
ROAD FILL		PLASTICITY INDEX		LBS. / CU. FT.	
SANDS TILL		PLASTICITY INDEX		LBS. / CU. FT.	
SLIGHTLY COARSER		PLASTICITY INDEX		LBS. / CU. FT.	
GRADELY SAND TILL		PLASTICITY INDEX		LBS. / CU. FT.	
END HOLE		PLASTICITY INDEX		LBS. / CU. FT.	
1.20		PLASTICITY INDEX		LBS. / CU. FT.	
1.8		PLASTICITY INDEX		LBS. / CU. FT.	
2.3		PLASTICITY INDEX		LBS. / CU. FT.	
3.5		PLASTICITY INDEX		LBS. / CU. FT.	
4.1		PLASTICITY INDEX		LBS. / CU. FT.	
4.35		PLASTICITY INDEX		LBS. / CU. FT.	
UNIFIED CLASSIFICATION		PLASTICITY INDEX		LBS. / CU. FT.	
SM		PLASTICITY INDEX		LBS. / CU. FT.	
SM		PLASTICITY INDEX		LBS. / CU. FT.	



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: N 100	
DATE DRILLED: 15-03-78		PLOTTED BY: R.S.		HOLE ELEVATION:	
HOLE DEPTH: 4.6		SAMPLE IDENTIFICATION DATA		MECHANICAL ANALYSIS	
TYPE OF DRILL: B40L-6" AUGERS		LABORATORY NUMBER		$<.005\text{ mm}$ % $<.074\text{ mm}$ % $>.005\text{ mm}$ %	
WATER LEVEL		SAMPLE TYPE		SAND %	
DEPTH (M.)		SAMPLE NUMBER (FIELD)		GRAVEL %	
SOIL DESCRIPTION		SAMPLE DEPTH (FT.)		PLASTICITY INDEX %	
		0.9		PLASTIC LIMIT %	
ROAD FILL		1.5		LIQUID LIMIT %	
GRAVELLY SAND TILL HIGH MOISTURE		1.8		NATURAL MOISTURE CONTENT %	
HIGHER SILT		2.6		CONSISTENCY LIMITS	
SANDS TILL BLUE GREY				PLASTIC INDEX % PLASTIC LIMIT % LIQUID LIMIT %	
SLIGHTLY COARSER LESS MOISTURE				SAND % GRAVEL %	
GREY				PLASTICITY INDEX % PLASTIC LIMIT % LIQUID LIMIT %	
END HOLE 4.6				STANDARD PENETRATION RESISTANCE BLOWS / FT.	
				DRY DENSITY LBS. / CU. FT.	
				UNIFIED CLASSIFICATION	

PROJECT: SHAKWAK SEGMENT B		HOLE LOCATION:		HOLE NO.: N2101	
DATE DRILLED: 15-03-78		PLOTTED BY: R.S.		HOLE ELEVATION:	
DRILL TECHNICIAN: J.G.		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
HOLE DEPTH: 4.6		PLASTIC LIMIT		<.074 mm	
TYPE OF DRILL: 40L-6" AUGERS		LIQUID LIMIT		>.005 mm	
WATER LEVEL		PLASTICITY INDEX		SAND	
DEPTH (M.)		GRAVEL		GRAVEL	
SOIL DESCRIPTION		NATURAL MOISTURE CONTENT		DRY DENSITY	
0 OVER BUIDED .15		%		LBS. / CU. FT.	
GRAVELLY SAND TILL		14.4		BLOWS / FT.	
1 HIGHER SILT 1.05		N-175		29.9	
SAND TILL		ANGER 5-932		59.0	
GREY - BLUE		1.1		11.1	
HIGHER SILT		1.5		NP	
HIGHER MOISTURE		2.3		2.7	
END HOLE 4.6		N-176		40.8	
		ANGER 5-933		18.0	
		2.7		16.8	
				14.1	
				2.7	
				SM	
				SM	



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT B

HOLE LOCATION:

DATE DRILLED: 15-03-78

DRILL TECHNICIAN: J.G.

PLOTTED BY: R.S.

HOLE ELEVATION:

HOLE NO.: 102 R

HOLE DEPTH 4.6
TYPE OF DRILL B.O.L.-6" AUGERS
WATER LEVEL
DEPTH (M.)

N.R.C. PERMAFROST CLASSIFICATION

SOIL DESCRIPTION
ROAD FILL
SANDY TILL
BROWN
SANDY TILL
GREY
LESS
SILT
ROAD FILL

LABORATORY NUMBER
SAMPLE TYPE
SAMPLE NUMBER (FIELD)
SAMPLE DEPTH (FT.)

NATURAL MOISTURE CONTENT
LIQUID LIMIT
PLASTIC LIMIT
PLASTICITY INDEX

MECHANICAL ANALYSIS
GRAVEL
SAND
>.005 mm
<.075 mm
<.005 mm

DRY DENSITY
STANDARD PENETRATION RESISTANCE
UNIFIED CLASSIFICATION

DEPTH (M.)	SAMPLE IDENTIFICATION DATA				CONSISTENCY LIMITS			MECHANICAL ANALYSIS			DRY DENSITY LBS./CU. FT.	STANDARD PENETRATION RESISTANCE BLOWS/FT.	UNIFIED CLASSIFICATION		
	SOIL DESCRIPTION	LABORATORY NUMBER	SAMPLE TYPE	SAMPLE NUMBER (FIELD)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX (%)	GRAVEL (%)	SAND (%)	>.005 mm (%)				<.075 mm (%)	<.005 mm (%)
0	ROAD FILL														
1	SANDY TILL BROWN														
1.35	SANDY TILL GREY														
1.7															
2.3				N-177 AUGER	909										ML
3.0															
3.7				N-178 AUGER	910										SM
4.6	LESS SILT ROAD FILL														



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 15-03-78

DRILL TECHNICIAN: J.G.

PLOTTED BY: R.S.

HOLE ELEVATION:

HOLE NO.: N103

HOLE DEPTH 4.6
TYPE OF DRILL B40L-6" AUGERS
WATER LEVEL _____
DEPTH (M.) _____

DEPTH (M.)	SAMPLE DEPTH (FT.)	SAMPLE IDENTIFICATION DATA				NATURAL MOISTURE CONTENT %	CONSISTENCY LIMITS			MECHANICAL ANALYSIS			DRY DENSITY LBS. CU. FT.	STANDARD PENETRATION RESISTANCE BLOWS FT.	UNIFIED CLASSIFICATION	
		LABORATORY NUMBER	SAMPLE TYPE	SAMPLE NUMBER (FIELD)	LABORATORY NUMBER		PLASTIC LIMIT %	LIQUID LIMIT %	PLASTICITY INDEX %	GRAVEL %	SAND %	<0.075 mm %				<0.005 mm %
0																
1	0.9															
1.5	1.5			N-179 AUGER	911	5.4										SM
2	2.0															
2.4	2.4			N-180 AUGER	5934	12.3										SM

ROAD FILL
SANDY SILT

HIGHER MOISTURE
HIGHER SILT

SLIGHTLY HIGHER MOISTURE
END HOLE 4.6



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT B		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: 104 R										
DATE DRILLED: 15-03-78		DRILL TECHNICIAN: J.G.G.		PLOTTED BY: R.S.												
DEPTH (M.)	SOIL DESCRIPTION	SAMPLE IDENTIFICATION DATA				CONSISTENCY LIMITS			MECHANICAL ANALYSIS			DRY DENSITY LBS./CU. FT.	STANDARD PENETRATION RESISTANCE BLOWS/FT.	UNIFIED CLASSIFICATION		
		SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER	NATURAL MOISTURE CONTENT %	LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %	SAND %				<.075 mm %	<.005 mm %
0	OVER BURDEN ORGANIC SILT BLACK															
1	SILT Till DARK GREY	1.2	N-181	Auger	S-935	14.4	22.1	18.2	3.9	8.7	26.9	64.4				ML
2	SAND Till GREY HIGH MOISTURE	1.7														
3	COARSE GRAVEL	2.3	N-182	Auger	912	11.4			TRACE	14.9	36.8	48.3				SM
4		2.7														
5	END HOLE	4.6														

HOLE DEPTH 4.6
TYPE OF DRILL 40L-6" AUGERS
WATER LEVEL
DEPTH (M.)

SOIL DESCRIPTION

OVER BURDEN
ORGANIC SILT
BLACK

SILT Till
DARK GREY

SAND Till
GREY
HIGH MOISTURE

COARSE GRAVEL

END HOLE 4.6



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		PLOTTED BY: R. S.		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO. <i>71105</i>	
DATE DRILLED:		DRILL TECHNICIAN: J. G.		CONSISTENCY LIMITS		MECHANICAL ANALYSIS		STANDARD PENETRATION RESISTANCE	
HOLE DEPTH		SAMPLE IDENTIFICATION DATA		PLASTICITY INDEX		GRAVEL		DRY DENSITY	
TYPE OF DRILL		SAMPLE NUMBER		PLASTIC LIMIT		SAND		LBS. CU. FT.	
WATER LEVEL		SAMPLE TYPE		LIQUID LIMIT		GRAVEL		BLOWS FT.	
DEPTH (M.)		SAMPLE NUMBER (FIELD)		NATURAL MOISTURE CONTENT		PLASTICITY INDEX		UNIFIED CLASSIFICATION	
SOIL DESCRIPTION		SAMPLE DEPTH (FT.)		LABORATORY NUMBER		> 0.075 mm			
		N.R.C. PERMAFROST CLASSIFICATION				< 0.075 mm			
						< 0.005 mm			
0	ROAD FILL								
1	SANDY SILT HIGHER MOISTURE HIGHER SILT	1.1	N183 AUGER	NP	13.6	42.0	44.4		SM
2	LESS GRAVEL COARSE	1.5	N-184 AUGER	TRACE	12.0	46.2	41.8		SM
3		1.8							
4	SLIGHTLY LESS SILT LESS COARSE GRAVEL	2.3	N185 AUGER	NP	10.7	46.0	43.3		SM
5	FINE SILT 4.6	3.8							
		4.1							

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: N106	
DATE DRILLED: 15-03-78		DRILL TECHNICIAN: J. G.		PLOTTED BY: R. S.	
HOLE DEPTH: 4.6		MECHANICAL ANALYSIS		STANDARD PENETRATION RESISTANCE	
TYPE OF DRILL: B40L-6" AUGERS		GRAVEL		BLOWS / FT.	
WATER LEVEL		SAND		LBS. / CU. FT.	
DEPTH (M.)		PLASTIC LIMIT		UNIFIED CLASSIFICATION	
SOIL DESCRIPTION		LIQUID LIMIT		DRY DENSITY	
0 ROAD FILL		PLASTICITY INDEX		A.005 mm	
1 SAND TILL		NATURAL MOISTURE CONTENT		A.075 mm	
2 LESS GRAVEL		LABORATORY NUMBER		V.005 mm	
3 HIGHER MOISTURE		SAMPLE TYPE		SAND	
4 HIGHER SILT		SAMPLE NUMBER (FIELD)		GRAVEL	
5 END HOLE		SAMPLE DEPTH (FT.)		PLASTIC INDEX	
		1.8		LIQUID LIMIT	
		2.3		PLASTIC LIMIT	
		3.3		PLASTICITY INDEX	
		4.0		NATURAL MOISTURE CONTENT	
		N186		GRAVEL	
		N187		SAND	
		S-915		SAND	
		S-937		GRAVEL	
		10.8		PLASTIC LIMIT	
		18.2		PLASTICITY INDEX	
		14.5		NATURAL MOISTURE CONTENT	
		3.7		GRAVEL	
		47.4		SAND	
		49.1		GRAVEL	
		3.5		PLASTIC LIMIT	
		29.8		PLASTICITY INDEX	
		33.1		NATURAL MOISTURE CONTENT	
		37.1		GRAVEL	
		SM		SAND	
		SM		GRAVEL	



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: N100	
DATE DRILLED: 16-3-78		PLOTTED BY: R.S.		HOLE ELEVATION:	
HOLE DEPTH: 2.25		SAMPLE IDENTIFICATION DATA		MECHANICAL ANALYSIS	
TYPE OF DRILL: B40L-6" AUGERS		LABORATORY NUMBER		<.005 mm % <.075 mm % >.005 mm %	
WATER LEVEL		SAMPLE TYPE		SAND %	
DEPTH (M.)		SAMPLE NUMBER (FIELD)		GRAVEL %	
SOIL DESCRIPTION		SAMPLE DEPTH (FT.)		PLASTICITY INDEX %	
Road Fill SILTY GRAVELLY SAND 25 SAND TILL REFUSAL @ 2.25		0.9		PLASTIC LIMIT %	
		1.4		LIQUID LIMIT %	
N.R.C. PERMAFROST CLASSIFICATION		N-191 AUGER 594		NP	
		11.1		NATURAL MOISTURE CONTENT %	
				CONSISTENCY LIMITS	
				UNIFIED CLASSIFICATION	
				STANDARD PENETRATION RESISTANCE	
				BLOWS / FT.	
				LBS. / CU. FT.	
				DRY DENSITY	
				SM	



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:			HOLE ELEVATION: N 110												
DATE DRILLED: 16-3-78		PLOTTED BY: R.S.															
HOLE DEPTH: 3.60		SAMPLE IDENTIFICATION DATA		CONSISTENCY LIMITS		MECHANICAL ANALYSIS		DRY DENSITY	STANDARD PENETRATION RESISTANCE	UNIFIED CLASSIFICATION							
TYPE OF DRILL: B40L-6" AUGERS		SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER	NATURAL MOISTURE CONTENT	LIQUID LIMIT				PLASTIC LIMIT	PLASTICITY INDEX	GRAVEL	SAND	> .005 mm	> .074 mm	> .005 mm
WATER LEVEL		N.R.C. PERMAFROST CLASSIFICATION															
SOIL DESCRIPTION		0.2	N-193	Auger	S-943	19.1	28.4	17.2	5.2	20.1	79.9						CL-ML
Silt Till		0.5															
SAND Till		0.9							TRACE	25.1	35.2						SM
		1.4															
		2.9							TRACE	31.7	30.2						GM
REFUSAL @ 3.60		3.3															



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: N 111	
DATE DRILLED: 16-3-78		PLOTTED BY: R.S.		HOLE ELEVATION:	
DRILL TECHNICIAN: J.G.		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
HOLE DEPTH: 4.60		PLASTIC LIMIT		SAND	
TYPE OF DRILL: B40L-6" AUGERS		LIQUID LIMIT		GRAVEL	
WATER LEVEL		PLASTICITY INDEX		<.075 mm	
DEPTH (M.)		NATURAL MOISTURE CONTENT		>.005 mm	
SOIL DESCRIPTION		LABORATORY NUMBER		DRY DENSITY	
SAND TILL		SAMPLE IDENTIFICATION DATA		STANDARD PENETRATION RESISTANCE	
		UNIFIED CLASSIFICATION		BLOWS / FT.	
0		SAMPLE DEPTH (FT.)		UNIFIED CLASSIFICATION	
1		0.9		Sc-SM	
2		1.4			
3		3.0			
4		3.5		Sc-SM	
5					
END HOLE @ 4.60					



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

DATE DRILLED: 16-3-78

HOLE DEPTH: 4.60

TYPE OF DRILL: B40L-6" AUGERS

WATER LEVEL: _____

DEPTH (M.): _____

SOIL DESCRIPTION: _____

Road Fill _____ .45

Silty Sand Till

END HOLE @ 4.60

DRILL TECHNICIAN: J. G. _____

PLOTTED BY: R. S. _____

HOLE LOCATION: _____

HOLE NO.: N112

HOLE ELEVATION: _____

DEPTH (M.)	SAMPLE IDENTIFICATION DATA				NATURAL MOISTURE CONTENT (%)	CONSISTENCY LIMITS			MECHANICAL ANALYSIS				DRY DENSITY (LBS./CU. FT.)	STANDARD PENETRATION RESISTANCE (BLOWS/FT.)	UNIFIED CLASSIFICATION
	SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER		LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX (%)	GRAVEL (%)	SAND (%)	>.005mm (%)	<.074mm (%)			
	.6														
	1.1	N198	AUGER	5948	15.1	21.7	19.2	2.5	5.9	39.6	54.5				ML
	1.8														
	2.3	N199	AUGER	5949	12.5	18.9	15.0	3.9	6.3	41.3	52.4				ML



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: N 113	
DATE DRILLED: 16.9.78		PLOTTED BY: R. S.		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
DRILL TECHNICIAN: J. G.		SAMPLE IDENTIFICATION DATA		PLASTICITY INDEX		GRAVEL	
HOLE DEPTH: 4.60		LABORATORY NUMBER		PLASTIC LIMIT		SAND	
TYPE OF DRILL: B40L-6" AUGERS		SAMPLE TYPE		LIQUID LIMIT		<.074 mm	
WATER LEVEL		SAMPLE NUMBER (FIELD)		PLASTIC INDEX		>.005 mm	
DEPTH (M.)		SAMPLE DEPTH (FT.)		NATURAL MOISTURE CONTENT		STANDARD PENETRATION RESISTANCE	
SOIL DESCRIPTION		UNIFIED CLASSIFICATION		DRY DENSITY		BLOWS / FT.	
0	ROAD FILL						
1	GRAVELLY SILTY SAND	1.1	N200 Auger S950	NP	1.2	34.5	19.4
	SILT TILL	1.5	N201 Auger S951	5.2	4.7	22.6	CL-ML
2		2.0		25.0			
3	SAND TILL	3.0					
4		3.8	N202 Auger S952	NP	8.8	44.3	46.9
5	END HOLE @ 4.60						

Public Works Canada		MATERIALS QUALITY CONTROL LABORATORY WHITEHORSE, Y.T.				SUBSURFACE TESTING REPORT			
PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.:			
DATE DRILLED:		DRILL TECHNICIAN: J. G.		PLOTTED BY: R. S.		HOLE NO.:			
HOLE DEPTH _____ TYPE OF DRILL B40L-6" AUGERS WATER LEVEL _____ SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION		SAMPLE IDENTIFICATION DATA		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
DEPTH (M.)		SAMPLE DEPTH (FT.)		SAMPLE NUMBER (FIELD)		SAMPLE TYPE		LABORATORY NUMBER	
0		9.0		N203		AUGER		S953	
1		1.4		N204		AUGER		S954	
2		1.8		N204		AUGER		S954	
3		2.3		N204		AUGER		S954	
4		2.3		N204		AUGER		S954	
5		2.3		N204		AUGER		S954	
SOIL DESCRIPTION		UNIFIED CLASSIFICATION		STANDARD PENETRATION RESISTANCE (BLOWS/FT.)		DRY DENSITY (LBS./CU. FT.)		MECHANICAL ANALYSIS (%): $A_{0.075}$ mm, $A_{0.005}$ mm, SAND, GRAVEL	
SILT TILL ORGANIC .45		CL		.		.		.	
SILT TILL		CL		.		.		.	
SAND TILL		ML		.		.		.	
END HOLE @ 4.60		

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: N115	
DATE DRILLED:		PLOTTED BY: R.S.		HOLE ELEVATION:	
DRILL TECHNICIAN: J.G.		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
HOLE DEPTH _____		LIQUID LIMIT _____ %		<.074 mm _____ %	
TYPE OF DRILL B40L-6" AUGERS		PLASTIC LIMIT _____ %		<.005 mm _____ %	
WATER LEVEL _____		PLASTICITY INDEX _____ %		DRY DENSITY _____ LBS./CU. FT.	
DEPTH (M.) _____		NATURAL MOISTURE CONTENT _____ %		STANDARD PENETRATION RESISTANCE _____ BLOWS/FT.	
SOIL DESCRIPTION		SAMPLE IDENTIFICATION DATA		UNIFIED CLASSIFICATION	
SILT TILL ORGANIC .45		SAMPLE DEPTH (FT.)		SM	
		SAMPLE NUMBER (FIELD)			
SAND TILL		SAMPLE TYPE		5C-SM	
		LABORATORY NUMBER			
END HOLE @ 4.60		N205 AUGER S955		27.7	
		N206 AUGER S956		20.2	
		.6		43.7	
		1.2		19.2	
		3.0		14.2	
		3.7		5.0	



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: N116	
DATE DRILLED: 16-3-78		DRILL TECHNICIAN: J.G.		PLOTTED BY: R.S.	
HOLE DEPTH: 3.00		MECHANICAL ANALYSIS		STANDARD PENETRATION RESISTANCE	
TYPE OF DRILL: B40I-6" AUGERS		SAND		BLOWS / FT.	
WATER LEVEL		GRAVEL		LBS. / CU. FT.	
DEPTH (M.)		PLASTIC LIMIT			
SOIL DESCRIPTION		LIQUID LIMIT			
ICE		PLASTICITY INDEX			
ORGANIC SILT		CONSISTENCY LIMITS			
SAND TILL		NATURAL MOISTURE CONTENT			
END HOLE @ 3.00		LABORATORY NUMBER			
		SAMPLE TYPE			
		SAMPLE NUMBER (FIELD)			
		SAMPLE DEPTH (FT.)			
		UNIFIED CLASSIFICATION			

0 ICE .30

1 ORGANIC SILT .135

2 SAND TILL

3 END HOLE @ 3.00

1.5

2.0

N207 AUGER S957

12.3

NP

16.3

39.0

44.7

SM

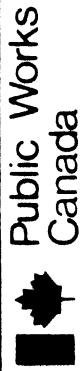


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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: N117	
DATE DRILLED: 16-3-78		PLOTTED BY: R.S.		HOLE ELEVATION:	
DRILL TECHNICIAN: J.G.		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
HOLE DEPTH 3.15		PLASTIC LIMIT		SAND	
TYPE OF DRILL B40J-6" AUGERS		LIQUID LIMIT		GRAVEL	
WATER LEVEL		PLASTICITY INDEX		SAND	
DEPTH (M.)		PLASTICITY INDEX		GRAVEL	
SOIL DESCRIPTION		PLASTICITY INDEX		SAND	
0		PLASTICITY INDEX		GRAVEL	
1		PLASTICITY INDEX		SAND	
2		PLASTICITY INDEX		GRAVEL	
3		PLASTICITY INDEX		SAND	
4		PLASTICITY INDEX		GRAVEL	
5		PLASTICITY INDEX		SAND	
SAND TILL		PLASTICITY INDEX		GRAVEL	
REFUSAL @ 3.15		PLASTICITY INDEX		SAND	
N.C. PERMAFROST CLASSIFICATION		PLASTICITY INDEX		GRAVEL	
SAMPLE DEPTH (FT.)		PLASTICITY INDEX		SAND	
.2		PLASTICITY INDEX		GRAVEL	
.8		PLASTICITY INDEX		SAND	
2.4		PLASTICITY INDEX		GRAVEL	
3.0		PLASTICITY INDEX		SAND	
SAMPLE NUMBER (FIELD)		PLASTICITY INDEX		GRAVEL	
N208		PLASTICITY INDEX		SAND	
N209		PLASTICITY INDEX		GRAVEL	
SAMPLE TYPE		PLASTICITY INDEX		SAND	
AUGER		PLASTICITY INDEX		GRAVEL	
LABORATORY NUMBER		PLASTICITY INDEX		SAND	
S958		PLASTICITY INDEX		GRAVEL	
S959		PLASTICITY INDEX		SAND	
NATURAL MOISTURE CONTENT		PLASTICITY INDEX		GRAVEL	
7.1		PLASTICITY INDEX		SAND	
5.2		PLASTICITY INDEX		GRAVEL	
UNIFIED CLASSIFICATION		PLASTICITY INDEX		SAND	
SM		PLASTICITY INDEX		GRAVEL	
SM		PLASTICITY INDEX		SAND	
STANDARD PENETRATION RESISTANCE		PLASTICITY INDEX		GRAVEL	
BLOWS / FT.		PLASTICITY INDEX		SAND	
DRY DENSITY		PLASTICITY INDEX		GRAVEL	
LBS. / CU. FT.		PLASTICITY INDEX		SAND	
<.005 mm		PLASTICITY INDEX		GRAVEL	
%		PLASTICITY INDEX		SAND	
<.075 mm		PLASTICITY INDEX		GRAVEL	
%		PLASTICITY INDEX		SAND	
>.005 mm		PLASTICITY INDEX		GRAVEL	
%		PLASTICITY INDEX		SAND	



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: N118	
DATE DRILLED: 10-3-78		PLOTTED BY: R.S.		HOLE ELEVATION:	
DRILL TECHNICIAN: J.G.		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
HOLE DEPTH 3.30		LIQUID LIMIT		SAND	
TYPE OF DRILL 40L-6" AUGERS		PLASTIC LIMIT		GRAVEL	
WATER LEVEL		PLASTICITY INDEX		<.005 mm	
DEPTH (M.)		PLASTICITY INDEX		<.074 mm	
SOIL DESCRIPTION		PLASTICITY INDEX		>.005 mm	
0		PLASTICITY INDEX		SAND	
1		PLASTICITY INDEX		GRAVEL	
2		PLASTICITY INDEX		PLASTICITY INDEX	
3		PLASTICITY INDEX		PLASTICITY INDEX	
4		PLASTICITY INDEX		PLASTICITY INDEX	
5		PLASTICITY INDEX		PLASTICITY INDEX	

SAND TILL

GRAVELLY SAND TILL

REFUSAL @ 3.30

.9

1.5

2.4

3.0

N210 AUGER S960

N211 AUGER S961

7.4

7.5

NP

NP

41.3 27.8 15.2

39.3 44.9

SM

SM



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: N119	
DATE DRILLED: 16-3-78		DRILL TECHNICIAN: J.G.		PLOTTED BY: R.S.	
HOLE DEPTH: 3.00		MECHANICAL ANALYSIS		UNIFIED CLASSIFICATION	
TYPE OF DRILL: B40L-6" AUGERS		<.005 mm % <.074 mm % >.005 mm % SAND % GRAVEL %		STANDARD PENETRATION RESISTANCE BLOWS / FT.	
WATER LEVEL		CONSISTENCY LIMITS		DRY DENSITY LBS. / CU. FT.	
DEPTH (M.)		LIQUID LIMIT % PLASTIC LIMIT % PLASTICITY INDEX %			
SOIL DESCRIPTION		NATURAL MOISTURE CONTENT %			
0		SAMPLE IDENTIFICATION DATA			
1		SAMPLE DEPTH (FT.) SAMPLE NUMBER (FIELD) SAMPLE TYPE LABORATORY NUMBER			
2		.8 N212 AUGER 5962			
3		1.2 REFUSAL @ 3.00			
4		SILT TILL		CL-ML	
5		SAND TILL			
		N.R.C. PERMAFROST CLASSIFICATION			
		1.80			



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: N120	
DATE DRILLED: 16-3-78		PLOTTED BY: R.S.		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
HOLE DEPTH: 4.60		DRILL TECHNICIAN: J.G.		PLASTIC LIMIT	PLASTICITY INDEX	GRAVEL	SAND
TYPE OF DRILL: 40J-6" AUGERS		SAMPLE IDENTIFICATION DATA		LIQUID LIMIT	NATURAL MOISTURE CONTENT	< 0.075 mm	< 0.005 mm
WATER LEVEL		SAMPLE NUMBER (FIELD)	SAMPLE TYPE	%	%	%	%
DEPTH (M.)		SAMPLE DEPTH (FT.)	LABORATORY NUMBER	%	%	%	%
SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION		STANDARD PENETRATION RESISTANCE		UNIFIED CLASSIFICATION	
				BLOWS / FT.			
				LBS. / CU. FT.			
0	ORGANIC SILT						
1	SAND TILL	N213	AUGER	NP	4.3	39.9	55.8
2	SILT TILL	N214	AUGER	5.9	10.8	25.3	63.9
3				15.1	21.0		
4							
5	END HOLE @ 4.60						CL-ML



Public Works
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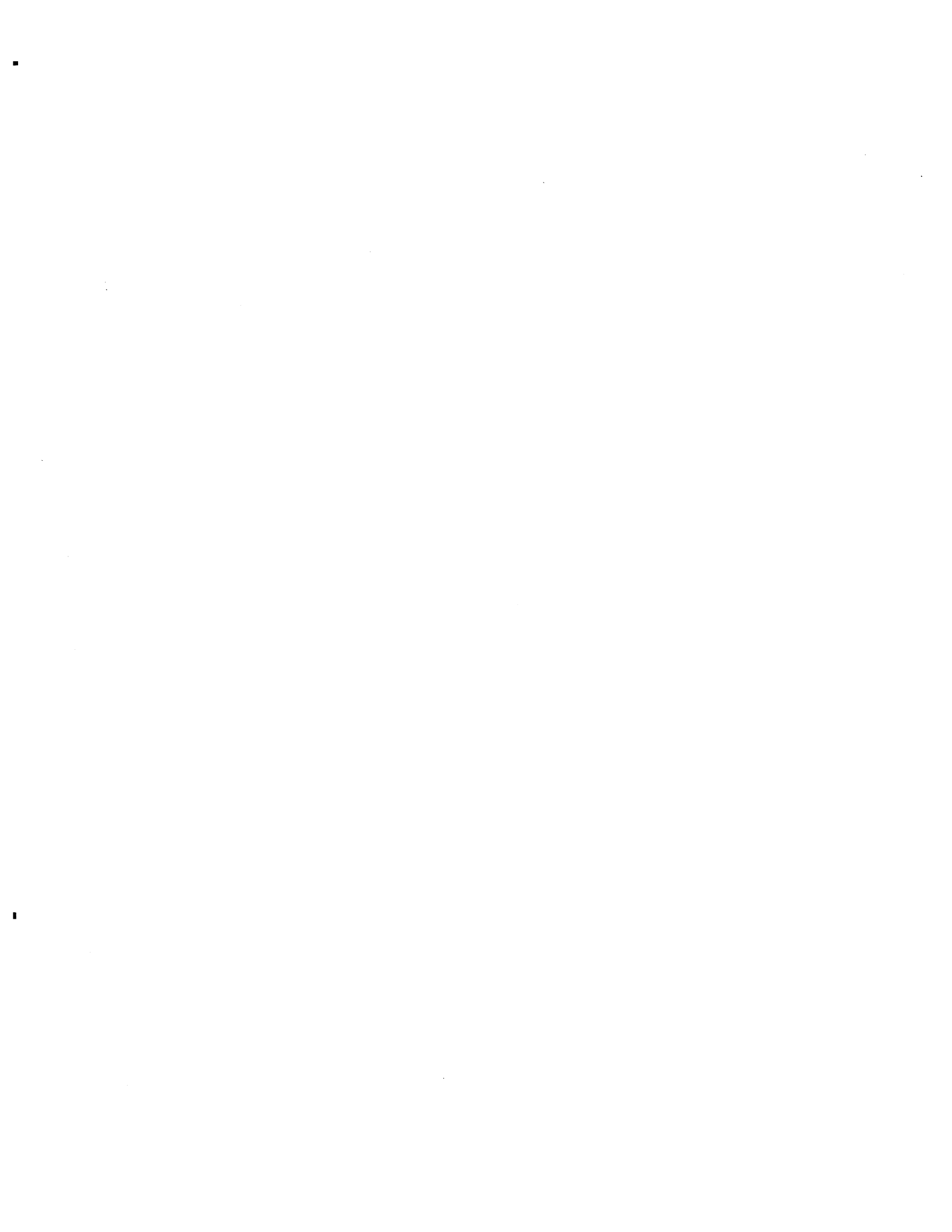
MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: N121	
DATE DRILLED: 16-3-78		PLOTTED BY: R.S.		HOLE ELEVATION:	
DRILL TECHNICIAN: J.G.		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
HOLE DEPTH: 2.25		LIQUID LIMIT		SAND	
TYPE OF DRILL: 40L-6" AUGERS		PLASTIC LIMIT		GRAVEL	
WATER LEVEL		PLASTICITY INDEX		<.005 mm	
DEPTH (M.)		NATURAL MOISTURE CONTENT		<.074 mm	
0		%		>.005 mm	
1		%		%	
2		%		%	
3		%		%	
4		%		%	
5		%		%	
SOIL DESCRIPTION		LABORATORY NUMBER		STANDARD PENETRATION RESISTANCE	
ROAD FILL		S965		BLOWS / FT.	
GRAVELLY SILTY SAND		SAMPLE TYPE		LBS. / CU. FT.	
GRAVELLY SAND TILL		AUGER		SM	
RECUSSAL @ 3.25		S965			
		SAMPLE NUMBER (FIELD)			
		N215			
		SAMPLE DEPTH (FT.)			
		.8			
		1.5			
		N.R.C. PERMAFROST CLASSIFICATION			

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: N122	
DATE DRILLED: 16-3-78		PLOTTED BY: R.S.		HOLE ELEVATION:	
HOLE DEPTH: 3.00		SAMPLE IDENTIFICATION DATA		MECHANICAL ANALYSIS	
TYPE OF DRILL: B40L-6" AUGERS		LABORATORY NUMBER		GRAVEL %	
WATER LEVEL _____		SAMPLE TYPE		SAND %	
DEPTH (M.)		SAMPLE NUMBER (FIELD)		PLASTICITY INDEX %	
		SAMPLE DEPTH (FT.)		PLASTIC LIMIT %	
				LIQUID LIMIT %	
				NATURAL MOISTURE CONTENT %	
				CONSISTENCY LIMITS	
				PLASTICITY INDEX %	
				GRAVEL %	
				SAND %	
				<074mm %	
				<005mm %	
				DRY DENSITY LBS. CU.FT.	
				STANDARD PENETRATION RESISTANCE BLOWS FT.	
				UNIFIED CLASSIFICATION	

0	OVER BURDEN	0.20
1	GRAVEL	
2	GRAVELLY SAND TILL	1.65
3	END HOLE @ 3.00	
4		
5		





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GEOTECHNICAL INVESTIGATION

SHAKWAK RELOCATION PROJECT
ALASKA HWY km 1634.5-1664.5 (SEG.8)

CENTERLINE DRILLING
VOLUME III OF III

GEOTECHNICAL & MATERIAL SERVICES
WHITEHORSE, YUKON

VOLUME III

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PROJECT: SHAKWAY SEGMENT 8

HOLE LOCATION:

DATE DRILLED: **13-4-78**

DRILL TECHNICIAN: H. R.

PLOTTED BY: R. S.

HOLE ELEVATION:

HOLE NO.: **C-1**

DEPTH (M)	SOIL DESCRIPTION	N.R.C. PERMAFROST CLASSIFICATION	SAMPLE IDENTIFICATION DATA				CONSISTENCY LIMITS			MECHANICAL ANALYSIS				DRY DENSITY LBS./CU. FT.	STANDARD PENETRATION RESISTANCE BLOWS/FT.	UNIFIED CLASSIFICATION	
			LABORATORY NUMBER	SAMPLE TYPE	SAMPLE NUMBER (FIELD)	SAMPLE DEPTH (FT.)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX (%)	GRAVEL (%)	SAND (%)	>.074 mm (%)	>.005 mm (%)				<.005 mm (%)
0	ORGANIC SILT																
0.10																	
0.50																	
2.40	SILTY SANDY GRAVEL						2.4										
3.30	SILT SAND TILL						3.3										
4.00	GRAVELLY SILTY SAND END HOLE @ 4.60																
4.60																	

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: C-2	
DATE DRILLED: 13-4-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.	
HOLE DEPTH 6.10		MECHANICAL ANALYSIS		STANDARD PENETRATION RESISTANCE	
TYPE OF DRILL B30 6" AUGERS		SAND		BLOWS FT.	
WATER LEVEL		GRAVEL		CU. FT.	
DEPTH (M.)		PLASTICITY INDEX			
		PLASTIC LIMIT			
		LIQUID LIMIT			
		NATURAL MOISTURE CONTENT			
		CONSISTENCY LIMITS			
		LABORATORY NUMBER			
		SAMPLE TYPE			
		SAMPLE NUMBER (FIELD)			
		SAMPLE DEPTH (FT.)			
		N.R.C. PERMAFROST CLASSIFICATION			
		UNIFIED CLASSIFICATION			

CLAYEY SILT

.60

SILTY SANDY GRAVEL

1.5

2.4

C 2 AUGER S1107 4.2

N.P. 43.5 35.0 21.5

GM



Public Works
Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 13-4-78

DRILL TECHNICIAN: H.R.S.

PLOTTED BY: R.S.S.

HOLE ELEVATION:

HOLE NO.: C-2

HOLE DEPTH 6.10
TYPE OF DRILL B30-6" AUGERS
WATER LEVEL
DEPTH (M)

SOIL DESCRIPTION

SILTY SANDY GRAVEL

END HOLE @ 6.10

N.R.C.
PERMAFROST
CLASSIFICATION

LABORATORY NUMBER
SAMPLE TYPE
SAMPLE NUMBER (FIELD)
SAMPLE DEPTH (FT.)

NATURAL MOISTURE CONTENT %

CONSISTENCY LIMITS
LIQUID LIMIT %
PLASTIC LIMIT %
PLASTICITY INDEX %

MECHANICAL ANALYSIS
GRAVEL %
SAND %

< .005 mm %
< .074 mm %
> .005 mm %

DRY DENSITY LBS./CU. FT.

STANDARD PENETRATION RESISTANCE BLOWS/FT.

UNIFIED CLASSIFICATION

5 6 7 8 9 10

PROJECT: SHAKWAY SEGMENT 8		HOLE LOCATION:		HOLE NO.: C-3	
DATE DRILLED: 13-4-78		DRILL TECHNICIAN: H. R.		PLOTTED BY: R. S.	
HOLE DEPTH: 4.00		TYPE OF DRILL: B30 6" AUGERS		WATER LEVEL:	
DEPTH (M.)		SOIL DESCRIPTION		UNIFIED CLASSIFICATION	
0	CLAYEY SILT				
1	SILTY SANDY GRAVEL	1.80			
2	SILTY SANDY GRAVEL TILL	1.80			SC SM
3					
4	REFUSAL @ 4.00				
5					

SAMPLE DEPTH (FT.)	SAMPLE IDENTIFICATION DATA			NATURAL MOISTURE CONTENT (%)	CONSISTENCY LIMITS			MECHANICAL ANALYSIS			DRY DENSITY (LBS./CU.FT.)	STANDARD PENETRATION RESISTANCE (BLOWS/FT.)
	LABORATORY NUMBER	SAMPLE TYPE	SAMPLE NUMBER (FIELD)		LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX (%)	GRAVEL (%)	SAND (%)	> 0.075 mm (%)		
1.5												
2.4			C 3	8.4	19.9	14.6	5.3	19.4	33.1	47.5		



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 13-4-78

DRILL TECHNICIAN: H.R.R.

PLOTTED BY: R.S.

HOLE ELEVATION:

HOLE NO.: C-4

HOLE DEPTH 4.60
TYPE OF DRILL B30 6" AUGERS
WATER LEVEL _____
DEPTH (M) _____
SOIL DESCRIPTION

DEPTH (M)	N.R.C. PERMAFROST CLASSIFICATION	SAMPLE IDENTIFICATION DATA				NATURAL MOISTURE CONTENT (%)	CONSISTENCY LIMITS			MECHANICAL ANALYSIS			DRY DENSITY (LBS./CU. FT.)	STANDARD PENETRATION RESISTANCE (BLOWS/FT.)	UNIFIED CLASSIFICATION	
		SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER		LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX (%)	GRAVEL (%)	SAND (%)	> .075 mm (%)				< .075 mm (%)
0																
1.50		1.5	C4	AUGER S1109	3.3											
2.4		2.4														SM
4.60																

SILTY SANDY GRAVEL TILL

SAND

END HOLE @ 4.60



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAY SEGMENT 8		HOLE LOCATION:		HOLE NO.: C-5	
DATE DRILLED: 13-4-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.	
HOLE DEPTH: 4.60		TYPE OF DRILL: B30 6" AUGERS		WATER LEVEL:	
DEPTH (M.)		SOIL DESCRIPTION		UNIFIED CLASSIFICATION	
0	ORGANIC	.10			
1	CLAYEY SILT	1.10			
2	CLAYEY GRAVELLY SILT	2.1		CL	
3	GRAVELLY SAND	3.00			
4	END HOLE @ 4.60				
5					



**Public Works
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**MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.**

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 13-4-78

DRILL TECHNICIAN: H. R.

PLOTTED BY: R. S.

HOLE ELEVATION:

HOLE NO.: C-6

HOLE DEPTH 4.60
TYPE OF DRILL B20 6" AUGERS
WATER LEVEL _____
DEPTH (M.) _____
SOIL DESCRIPTION _____

N.R.C. PERMAFROST CLASSIFICATION

SAMPLE IDENTIFICATION DATA
SAMPLE DEPTH (FT.) _____
SAMPLE NUMBER (FIELD) C6
SAMPLE TYPE AUGER S111
LABORATORY NUMBER _____

NATURAL MOISTURE CONTENT %

LIQUID LIMIT %

PLASTIC LIMIT %

PLASTICITY INDEX %

GRAVEL %

SAND %

> 0.075 mm %

> 0.005 mm %

DRY DENSITY LBS./CU. FT.

STANDARD PENETRATION RESISTANCE BLOWS/FT.

UNIFIED CLASSIFICATION

0																					
1																					
2																					
3																					
4																					
5																					

SILTY SANDY TILL

1.80

SILTY GRAVELLY SAND

2.4

3.0

5.3

N.P.

2.5

67.0

30.5

SM

END HOLE @ 4.60



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAY SEGMENT 8		HOLE LOCATION:		HOLE NO.: C-7	
DATE DRILLED: 13-4-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.	
HOLE DEPTH: 4.60		MECHANICAL ANALYSIS		UNIFIED CLASSIFICATION	
TYPE OF DRILL: B30 6" AUGERS		SAND		STANDARD PENETRATION RESISTANCE	
WATER LEVEL		GRAVEL		BLOWS / FT.	
DEPTH (M.)		PLASTICITY INDEX		DRY DENSITY	
SOIL DESCRIPTION		PLASTIC LIMIT		LBS. / CU. FT.	
SILT		LIQUID LIMIT		%	
SILTY SANDY GRAVEL		NATURAL MOISTURE CONTENT		%	
SILTY SAND		CONSISTENCY LIMITS		%	
END HOLE @ 4.60		LABORATORY DATA		%	
		SAMPLE IDENTIFICATION DATA		%	
		LABORATORY NUMBER		%	
		SAMPLE TYPE		%	
		SAMPLE NUMBER (FIELD)		%	
		SAMPLE DEPTH (FT.)		%	
		N.R.C. PERMAFROST CLASSIFICATION		%	
		C7		N.P.	
		2.4		8.2	
		3.0		60.2	
				31.6	
				SM	



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: C-8	
DATE DRILLED: 13-4-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.	
HOLE DEPTH: 4.60		MECHANICAL ANALYSIS		UNIFIED CLASSIFICATION	
TYPE OF DRILL: B30 6" AUGERS		< 0.075 mm > 0.075 mm SAND GRAVEL		STANDARD PENETRATION RESISTANCE BLOWS / FT.	
WATER LEVEL		LIQUID LIMIT PLASTIC LIMIT PLASTICITY INDEX		DRY DENSITY LBS. / CU. FT.	
DEPTH (M.)		NATURAL MOISTURE CONTENT %		SOIL DESCRIPTION	
0		SAMPLE IDENTIFICATION DATA SAMPLE DEPTH (FT.) SAMPLE NUMBER (FIELD) SAMPLE TYPE LABORATORY NUMBER		CONSISTENCY LIMITS LIQUID LIMIT PLASTIC LIMIT PLASTICITY INDEX	
1		1.5 C8 AUGER S1113 6.4 21.1 15.3 5.8 42.0 22.3 35.7 GC-GM		GRAVEL SAND > 0.075 mm < 0.075 mm	
2		2.1 (Hatched area)		PLASTICITY INDEX PLASTIC LIMIT LIQUID LIMIT	
3		2.90		DRY DENSITY STANDARD PENETRATION RESISTANCE	
4		4.60		UNIFIED CLASSIFICATION	
5		END HOLE @ 4.60		SOIL DESCRIPTION	



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: C-9	
DATE DRILLED: 13-9-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.			
HOLE DEPTH: 4.60		TYPE OF DRILL: B30 6" AUGERS		WATER LEVEL:			
DEPTH (M)		SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION			
0		ORGANIC	.20				
		SILT	.80				
1		SAND SILT					
2	1.2						
	2.1						
3		SILTY SANDY GRAVEL	2.10				
4							
5		END HOLE @ 4.60					

MECHANICAL ANALYSIS	UNIFIED CLASSIFICATION	STANDARD PENETRATION RESISTANCE	
		DRY DENSITY	BLOWS / FT.
<.005 mm		LBS. / CU. FT.	
<.074 mm			
>.005 mm			
SAND			
GRAVEL			
PLASTICITY INDEX			
PLASTIC LIMIT			
LIQUID LIMIT			
NATURAL MOISTURE CONTENT			



MATERIALS QUALITY CONTROL LABORATORY

WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAZ SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 13-4-78

DRILL TECHNICIAN: H.R.

PLOTTED BY: R.S.

HOLE ELEVATION:

HOLE NO.: C-10

HOLE DEPTH 4.60
 TYPE OF DRILL B20 6" AUGERS
 WATER LEVEL _____
 SOIL DESCRIPTION _____

N.R.C. PERMAFROST CLASSIFICATION

SAMPLE IDENTIFICATION DATA

SAMPLE DEPTH (FT.)	
SAMPLE NUMBER (FIELD)	
SAMPLE TYPE	
LABORATORY NUMBER	

CONSISTENCY LIMITS

LIQUID LIMIT	%	
PLASTIC LIMIT	%	
PLASTICITY INDEX	%	

MECHANICAL ANALYSIS

GRAVEL	%	
SAND	%	
> .005 mm	%	
< .074 mm	%	
< .005 mm	%	

DRY DENSITY

LBS. CU. FT.	
STANDARD PENETRATION RESISTANCE	
BLOWS FT.	

UNIFIED CLASSIFICATION

0 ORGANIC .20

SANDY SILT

26.1

5.4

94.6

ML

END HOLE @ 4.60

PROJECT: SHAKWAY SEGMENT 8		HOLE LOCATION:		HOLE NO.: C-12	
DATE DRILLED: 17-4-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.	
HOLE DEPTH: 4.60		TYPE OF DRILL: B20 6" AUGERS		WATER LEVEL:	
DEPTH (M)		SOIL DESCRIPTION		UNIFIED CLASSIFICATION	
0	ORGANIC	.10		ML	
1	SAND	.3			
2	SILTY SAND	.9			
3					
4	SILTY SANDY GRAVEL	1.80			
5	END HOLE @ 4.60	4.00			



Public Works
Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 17-4-78

DRILL TECHNICIAN: H.R.R.

PLOTTED BY: R.S.

HOLE ELEVATION:

HOLE NO.: C-13

HOLE DEPTH 4.40
TYPE OF DRILL B20 6" AUGERS
WATER LEVEL _____
DEPTH (M) _____

SOIL DESCRIPTION

0 ORGANIC _____ .20
SANDY SILT
1 SILTY SANDY GRAVEL _____ .90

END HOLE @ 4.40

N.R.C. PERMAFROST CLASSIFICATION

NATURAL MOISTURE CONTENT %

CONSISTENCY LIMITS
LIQUID LIMIT %
PLASTIC LIMIT %
PLASTICITY INDEX %

MECHANICAL ANALYSIS
GRAVEL %
SAND %

MECHANICAL ANALYSIS
<.074 mm %
>.005 mm %
<.005 mm %

DRY DENSITY
LBS./CU. FT.

STANDARD PENETRATION RESISTANCE
BLOWS/FT.

UNIFIED CLASSIFICATION

DEPTH (M)	SAMPLE DEPTH (FT.)	SAMPLE IDENTIFICATION DATA				NATURAL MOISTURE CONTENT %	CONSISTENCY LIMITS			MECHANICAL ANALYSIS			DRY DENSITY LBS./CU. FT.	STANDARD PENETRATION RESISTANCE BLOWS/FT.	UNIFIED CLASSIFICATION	
		SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER			LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %	SAND %	<.074 mm %				>.005 mm %
1.5	1.5	C13	AUGER S1144	3.4												
2.1	2.1															
3.0	3.0															
3.7	3.7	C14	AUGER S1145	15.4												
4.4	4.4															

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: C-14	
DATE DRILLED: 17-4-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.	
HOLE DEPTH: 4.40		TYPE OF DRILL: B20 6" AUGERS		WATER LEVEL: _____	
DEPTH (M)		SOIL DESCRIPTION		UNIFIED CLASSIFICATION	
0	ORGANIC				
1	SILTY SANDY GRAVEL				
2	1.5	C15 AUGER S1146	GRAVEL 42.5	SAND 37.2	GM
3	2.4		PLASTICITY INDEX TRACE		
4					
5					

END HOLE @ 4.40



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8
 DATE DRILLED: 19-4-78
 HOLE LOCATION: R.S.
 DRILL TECHNICIAN: H.R.
 PLOTTED BY: R.S.
 HOLE ELEVATION: C-15
 HOLE NO.: C-15

DEPTH (M.)	SOIL DESCRIPTION	SAMPLE IDENTIFICATION DATA				NATURAL MOISTURE CONTENT (%)	CONSISTENCY LIMITS			MECHANICAL ANALYSIS				DRY DENSITY (LBS./CU. FT.)	STANDARD PENETRATION RESISTANCE (BLOWS/FT.)	UNIFIED CLASSIFICATION
		SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER		LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX (%)	GRAVEL (%)	SAND (%)	<.074 mm (%)	>.005 mm (%)			
0	SILTY SAND GRAVEL	.6	C16	AUGER	S1147	2.3	N.P.	51.4	36.4	12.2					GM	
1.5																
3.20	REFUSAL @ 3.20															



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAY SEGMENT 8		HOLE LOCATION:		HOLE NO.: C-16	
DATE DRILLED: 19-4-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.	
HOLE DEPTH: 4.60		N.R.C. PERMAFROST CLASSIFICATION:		UNIFIED CLASSIFICATION:	
TYPE OF DRILL: B20 6" AUGERS		SAMPLE IDENTIFICATION DATA:		STANDARD PENETRATION RESISTANCE:	
WATER LEVEL:		LABORATORY NUMBER:		BLOWS/FT.	
DEPTH (M.):		SAMPLE TYPE:		DRY DENSITY:	
SOIL DESCRIPTION:		SAMPLE NUMBER (FIELD):		LBS./CU.FT.	
SILTY SANDY GRAVEL		SAMPLE DEPTH (FT.):		MECHANICAL ANALYSIS:	
		GRAVEL %		SAND %	
0		NATURAL MOISTURE CONTENT %		PLASTICITY INDEX %	
		PLASTIC LIMIT %		LIQUID LIMIT %	
1		GRAVEL %		SAND %	
		PLASTICITY INDEX %		LIQUID LIMIT %	
2		GRAVEL %		SAND %	
		PLASTICITY INDEX %		LIQUID LIMIT %	
3		GRAVEL %		SAND %	
		PLASTICITY INDEX %		LIQUID LIMIT %	
4		GRAVEL %		SAND %	
		PLASTICITY INDEX %		LIQUID LIMIT %	
5		GRAVEL %		SAND %	
		PLASTICITY INDEX %		LIQUID LIMIT %	

SILTY SANDY GRAVEL

.9
1.8

C17 AUGER S1148

N.P. 74.4 18.0 7.6

GP-GM

END HOLE @ 4.60



Public Works
Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 19-4-78

DRILL TECHNICIAN: H.R.

PLOTTED BY: R.S.

HOLE ELEVATION:

HOLE NO.: C-18

HOLE DEPTH 4.40
TYPE OF DRILL B30 6" AUGERS
WATER LEVEL _____
DEPTH (M) _____
SOIL DESCRIPTION

SILTY SANDY GRAVEL

N.R.C. PERMAFROST CLASSIFICATION

NATURAL MOISTURE CONTENT %

LIQUID LIMIT %

PLASTIC LIMIT %

PLASTICITY INDEX %

GRAVEL %

SAND %

MECHANICAL ANALYSIS
 < 0.075 mm %
 > 0.075 mm %
 < 0.005 mm %

DRY DENSITY LBS./CU. FT.

STANDARD PENETRATION RESISTANCE BLOWS/FT.

UNIFIED CLASSIFICATION

0 1 2 3 4 5

1.5

2.4

C19

AUGER SI150

2.3

TRACE

84.9

8.4

4.8

1.9

GP-6M

END HOLE @ 4.40



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: C-20	
DATE DRILLED: 21-4-78		DRILL TECHNICIAN: H.R.R.		PLOTTED BY: R.S.			
HOLE DEPTH 4.40		TYPE OF DRILL B20 6" AUGERS		WATER LEVEL			
DEPTH (M)		SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION			
0		ORGANIC	.20				
1		SILTY SANDY GRAVEL					
2		SILTY SAND	1.60				
		ORGANIC TRACES	2.00				
		SILTY SANDY GRAVEL					
4		END HOLE @ 4.40					

SAMPLE DEPTH (FT.)	SAMPLE IDENTIFICATION DATA				NATURAL MOISTURE CONTENT	CONSISTENCY LIMITS				MECHANICAL ANALYSIS			DRY DENSITY	STANDARD PENETRATION RESISTANCE	UNIFIED CLASSIFICATION
	LABORATORY NUMBER	SAMPLE TYPE	SAMPLE NUMBER (FIELD)	SAMPLE DEPTH (FT.)		LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	GRAVEL	SAND	<.074 mm	<.005 mm			
1.5															
2.4			C20	AUGER S1151	12.2										GM

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: C-21	
DATE DRILLED: 21-4-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.	
HOLE DEPTH: 4.40		MECHANICAL ANALYSIS		UNIFIED CLASSIFICATION	
TYPE OF DRILL: B30 6" AUGERS		GRAVEL		STANDARD PENETRATION RESISTANCE	
WATER LEVEL		SAND		BLOWS / FT.	
DEPTH (M)		PLASTIC LIMIT		LBS. / CU. FT.	
SOIL DESCRIPTION		LIQUID LIMIT		DRY DENSITY	
		PLASTICITY INDEX			
SAND		NATURAL MOISTURE CONTENT		GRAVEL	
		PLASTIC LIMIT			
Silty SANDY GRAVEL		LABORATORY NUMBER		GRAVEL	
		SAMPLE TYPE			
END HOLE @ 4.40		SAMPLE NUMBER (FIELD)		GRAVEL	
		SAMPLE DEPTH (FT.)			
N.R.C. PERMAFROST CLASSIFICATION		PLASTICITY INDEX		GRAVEL	
N.R.C. PERMAFROST CLASSIFICATION		PLASTIC LIMIT			
N.R.C. PERMAFROST CLASSIFICATION		LIQUID LIMIT		GRAVEL	
N.R.C. PERMAFROST CLASSIFICATION		NATURAL MOISTURE CONTENT			

SAND

1.40

Silty SANDY GRAVEL

END HOLE @ 4.40

1.5

2.4

C21 AUGER S1152 30.7

N.P. 51.1 32.9 16.0

GM



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: C-22	
DATE DRILLED: 25-4-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.			
HOLE DEPTH: 4.60		TYPE OF DRILL: B20 6" AUGERS		WATER LEVEL:			
SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION		SAMPLE IDENTIFICATION DATA		NATURAL MOISTURE CONTENT	
0				LABORATORY NUMBER		%	
.10				SAMPLE TYPE		%	
.60				SAMPLE NUMBER (FIELD)		%	
1.20				SAMPLE DEPTH (FT.)		%	
SILTY SANDY GRAVEL				2.1		2.1	
				3.0		3.0	
END HOLE @ 4.60				C22 AUGER S1153		5.2	
				N.P.		77.2	
				10.5		12.3	
				GM			



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 25-4-78

DRILL TECHNICIAN: H. R.

PLOTTED BY: R. S.

HOLE ELEVATION:

HOLE NO.: C-24

HOLE DEPTH 5.90
TYPE OF DRILL B20 6" AUGERS
WATER LEVEL _____
SOIL DESCRIPTION

SILT _____ .20

SILTY SANDY GRAVEL

N.R.C. PERMAFROST CLASSIFICATION

NATURAL MOISTURE CONTENT %

CONSISTENCY LIMITS
LIQUID LIMIT %
PLASTIC LIMIT %
PLASTICITY INDEX %

MECHANICAL ANALYSIS
GRAVEL %
SAND %

MECHANICAL ANALYSIS
<.074 mm %
>.005 mm %
<.005 mm %

DRY DENSITY LBS. CU. FT.
STANDARD PENETRATION RESISTANCE BLOWS FT.

UNIFIED CLASSIFICATION

DEPTH (M.)	SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER	NATURAL MOISTURE CONTENT %	CONSISTENCY LIMITS			MECHANICAL ANALYSIS			DRY DENSITY LBS. CU. FT.	STANDARD PENETRATION RESISTANCE BLOWS FT.	UNIFIED CLASSIFICATION	
						LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %	SAND %	<.074 mm %				>.005 mm %
0															
0.9	.9	C24	AUGER	SI155	2.2			N.P.	73.4	21.4	5.2				GP-6M
1.8	1.8														
2															
3															
4															
5															



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 25-4-78

DRILL TECHNICIAN: H. R.

PLOTTED BY: R. S.

HOLE ELEVATION:

HOLE NO.: C-24

HOLE DEPTH 5.90
TYPE OF DRILL B30-6" AUGERS
WATER LEVEL

N.R.C.
PERMAFROST
CLASSIFICATION

DEPTH (M)	SAMPLE IDENTIFICATION DATA				NATURAL MOISTURE CONTENT %	CONSISTENCY LIMITS			MECHANICAL ANALYSIS			DRY DENSITY LBS. CU. FT.	STANDARD PENETRATION RESISTANCE BLOWS FT.	UNIFIED CLASSIFICATION
	SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER		LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %	SAND %	<.074 mm %			
5														
6														
7														
8														
9														
10														

SOIL DESCRIPTION

SILTY SANDY GRAVEL

END HOLE @ 5.90



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: **25-9-78**

DRILL TECHNICIAN: H.R.R.

PLOTTED BY: R.S.

HOLE ELEVATION:

HOLE NO.: **C-25**

HOLE DEPTH **4.40**
TYPE OF DRILL **B30 6" AUGERS**
WATER LEVEL _____
DEPTH (M') _____

SOIL DESCRIPTION

SILTY SANDY GRAVEL

N.R.C. PERMAFROST CLASSIFICATION

SAMPLE IDENTIFICATION DATA
SAMPLE DEPTH (FT.)
SAMPLE NUMBER (FIELD)
SAMPLE TYPE
LABORATORY NUMBER

NATURAL MOISTURE CONTENT %

CONSISTENCY LIMITS
LIQUID LIMIT %
PLASTIC LIMIT %
PLASTICITY INDEX %

GRAVEL %
SAND %

MECHANICAL ANALYSIS
> 0.075 mm %
< 0.075 mm %
< 0.005 mm %

DRY DENSITY **LBS./CU. FT.**

STANDARD PENETRATION RESISTANCE **BLOWS/FT.**

UNIFIED CLASSIFICATION

C25 AUGER S1156 4.8

N.P. 39.6 46.5 13.9

SM

END HOLE @ 4.40



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 25-4-78

DRILL TECHNICIAN: H. R.

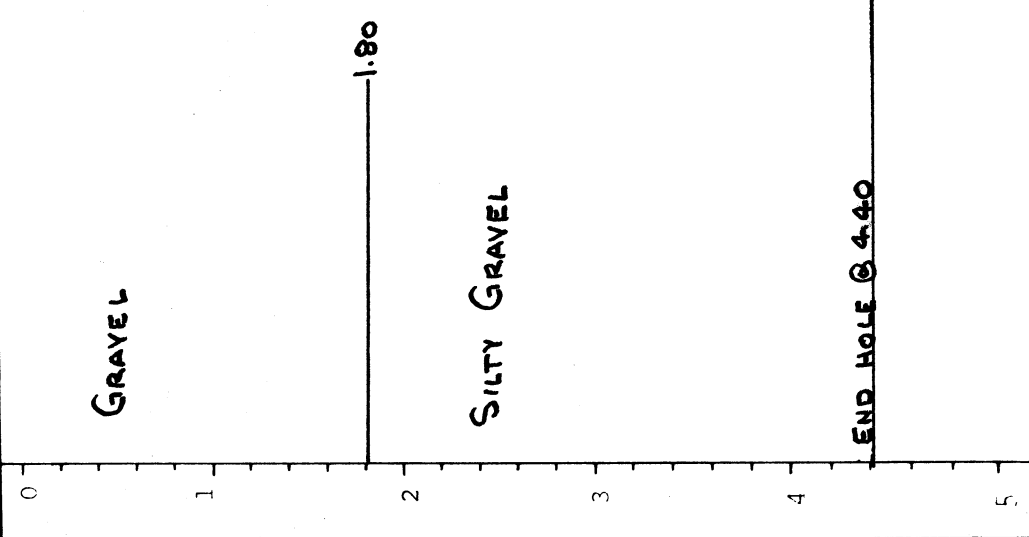
PLOTTED BY: R. S.

HOLE ELEVATION:

HOLE NO.: C-27

HOLE DEPTH 4.40
TYPE OF DRILL B30 6" AUGERS
WATER LEVEL _____
DEPTH (M) _____

SOIL DESCRIPTION



N.R.C. PERMAFROST CLASSIFICATION

SAMPLE IDENTIFICATION DATA

SAMPLE DEPTH (FT.)

SAMPLE NUMBER (FIELD)

SAMPLE TYPE

LABORATORY NUMBER

NATURAL MOISTURE CONTENT %

CONSISTENCY LIMITS

LIQUID LIMIT %

PLASTIC LIMIT %

PLASTICITY INDEX %

MECHANICAL ANALYSIS

GRAVEL %

SAND %

<.074 mm %

>.005 mm %

<.005 mm %

DRY DENSITY LBS. CU.FT.

STANDARD PENETRATION RESISTANCE BLOWS FT.

UNIFIED CLASSIFICATION

2.4	3.0	C27 AUGERS1158	11.9	25.4	22.0	3.4	38.9	29.2	31.9	GM
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Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 26-4-78

DRILL TECHNICIAN: H.R.

PLOTTED BY: R.S.

HOLE ELEVATION:

HOLE NO.: C-29

HOLE DEPTH 3.20
TYPE OF DRILL B30 6" AUGERS
WATER LEVEL

SOIL DESCRIPTION

SILTY SANDY GRAVEL

REFUSAL @ 3.2

N.R.C. PERMAFROST CLASSIFICATION

LABORATORY NUMBER
SAMPLE TYPE
SAMPLE NUMBER (FIELD)
SAMPLE DEPTH (FT.)

NATURAL MOISTURE CONTENT %

LIQUID LIMIT %
PLASTIC LIMIT %
PLASTICITY INDEX %

GRAVEL %

SAND %

<.074 mm %
>.005 mm %

<.005 mm %

DRY DENSITY LBS. CU.FT.
STANDARD PENETRATION RESISTANCE BLOWS FT.

UNIFIED CLASSIFICATION

GM

10.6

18.1

24.3

47.0

3.9

15.8

19.7

7.2

C29 AUGER S1160

.6

1.5



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 20-4-78

DRILL TECHNICIAN: H.R.R.

PLOTTED BY: R.S.

HOLE ELEVATION:

HOLE NO.: C-30

HOLE DEPTH 4.40
TYPE OF DRILL B20 6" AUGERS
WATER LEVEL _____
DEPTH (M) _____
SOIL DESCRIPTION

N.R.C. PERMAFROST CLASSIFICATION

SAMPLE DEPTH (FT.)	SAMPLE IDENTIFICATION DATA				NATURAL MOISTURE CONTENT %	CONSISTENCY LIMITS			MECHANICAL ANALYSIS			DRY DENSITY LBS./CU.FT.	STANDARD PENETRATION RESISTANCE BLOWS/FT.	UNIFIED CLASSIFICATION
	LABORATORY NUMBER	SAMPLE TYPE	SAMPLE NUMBER (FIELD)	SAMPLE DEPTH (FT.)		LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %	SAND %	> 0.075 mm %			
.3														
1.2			C30	AUGER S1161	10.0	19.3	16.4	2.9	21.2	29.3	49.5			SM

SILT TILL

SILT TILL

END HOLE @ 4.40



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAZ SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 26-9-78

DRILL TECHNICIAN: H.R.

PLOTTED BY: R.S.

HOLE ELEVATION:

HOLE NO.: C-31

HOLE DEPTH 4.40
TYPE OF DRILL B30 6" AUGERS
WATER LEVEL _____
SOIL DESCRIPTION

N.R.C. PERMAFROST CLASSIFICATION

NATURAL MOISTURE CONTENT %
LIQUID LIMIT %
PLASTIC LIMIT %
PLASTICITY INDEX %

MECHANICAL ANALYSIS
GRAVEL %
SAND %
< .074 mm %
> .005 mm %
< .005 mm %

DRY DENSITY LBS. CU. FT.
STANDARD PENETRATION RESISTANCE BLOWS FT.

UNIFIED CLASSIFICATION

0 ORGANIC .10

SANDY SILTY GRAVEL

.3
1.2

18.1 15.6 2.5 48.0 24.1 27.9

GM

2.30

SAND SILT TILL

END HOLE @ 4.40



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: C-32	
DATE DRILLED: 26-4-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.			
HOLE DEPTH 4.40		TYPE OF DRILL B30 6" AUGERS		WATER LEVEL		UNIFIED CLASSIFICATION	
DEPTH (M.)		SOIL DESCRIPTION		NATURAL MOISTURE CONTENT		STANDARD PENETRATION RESISTANCE	
0		ORGANIC .10		%		BLOWS / FT.	
1		SILTY SANDY GRAVEL		18.9		35.9	
2				4.1		29.7	
3				14.8		34.4	
4				6.6			
5				6.6			
		END HOLE @ 4.40					



Public Works
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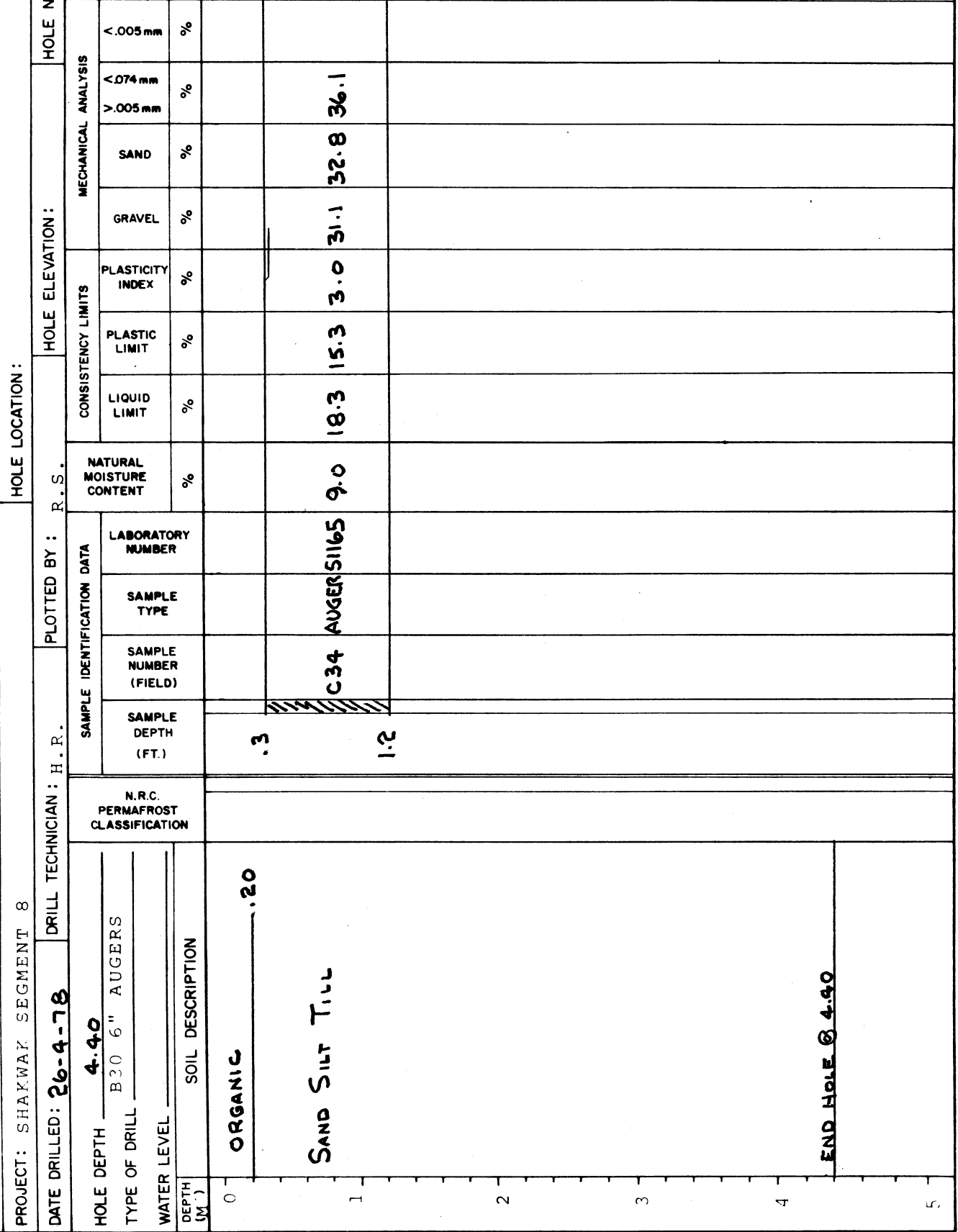
MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: C-33	
DATE DRILLED: 26-4-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.			
HOLE DEPTH	4.40	LABORATORY DATA		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
TYPE OF DRILL	B30 6" AUGERS	SAMPLE NUMBER		LIQUID LIMIT	%	< 0.075 mm	%
WATER LEVEL		SAMPLE TYPE		PLASTIC LIMIT	%	> 0.075 mm	%
DEPTH (M.)		SAMPLE NUMBER (FIELD)		NATURAL MOISTURE CONTENT	%	SAND	%
0		SAMPLE DEPTH (FT.)				GRAVEL	%
1			.3				
2			1.2				
3							
4							
5							
SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION		PLASTICITY INDEX		STANDARD PENETRATION RESISTANCE	
ORGANIC _____ .10				5.1		BLOWS / FT.	
SILTY SANDY GRAVEL				20.2			
Silt Till				15.1			
_____ .18				5.1			
END HOLE @ 4.40				20.2			
				16.9			
				35.9			
				47.2			
						SC-SM	

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: C-34	
DATE DRILLED: 26-4-78		DRILL TECHNICIAN: H.R.R.		PLOTTED BY: R.S.			
HOLE DEPTH: 4.40		TYPE OF DRILL: B30 6" AUGERS		WATER LEVEL:			
DEPTH (M.)		SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION			
0		ORGANIC					
1		SAND SILT TILL					
2							
3							
4							
5							

MECHANICAL ANALYSIS	CONSISTENCY LIMITS		NATURAL MOISTURE CONTENT	SAMPLE IDENTIFICATION DATA		DRY DENSITY	STANDARD PENETRATION RESISTANCE	UNIFIED CLASSIFICATION
	LIQUID LIMIT	PLASTIC LIMIT		PLASTICITY INDEX	GRAVEL			
	18.3	15.3	3.0	31.1	32.8	36.1		SM





Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 26-4-78

DRILL TECHNICIAN: H. R.

PLOTTED BY: R. S.

HOLE ELEVATION:

HOLE NO.: C-35

HOLE DEPTH 3.70
TYPE OF DRILL B30 6" AUGERS
WATER LEVEL

DEPTH (M) SOIL DESCRIPTION

0
1
2
3
4
5

ORGANIC

SILTY SANDY GRAVEL

.80

N.R.C. PERMAFROST CLASSIFICATION

LABORATORY NUMBER
SAMPLE TYPE
SAMPLE NUMBER (FIELD)
SAMPLE DEPTH (FT.)

NATURAL MOISTURE CONTENT %

CONSISTENCY LIMITS
LIQUID LIMIT %
PLASTIC LIMIT %
PLASTICITY INDEX %

GRAVEL %
SAND %

MECHANICAL ANALYSIS
<.074 mm %
>.005 mm %
<.005 mm %

DRY DENSITY LBS. CU. FT.
STANDARD PENETRATION RESISTANCE BLOWS FT.

UNIFIED CLASSIFICATION

.9

2.1

C35 AUGER S1166 13.4

TRACE

38.6 29.6 31.8

GM

REFUSAL @ 3.70

PROJECT: SHAKWAK SEGMENT 8
 DATE DRILLED: 17-5-78
 DRILL TECHNICIAN: H.R.R.
 PLOTTED BY: R.S.S.
 HOLE LOCATION:
 HOLE ELEVATION:
 HOLE NO.: C1M

DEPTH (M)	SOIL DESCRIPTION	N.R.C. PERMAFROST CLASSIFICATION	SAMPLE IDENTIFICATION DATA				NATURAL MOISTURE CONTENT (%)	CONSISTENCY LIMITS			MECHANICAL ANALYSIS			DRY DENSITY (LBS./CU.FT.)	STANDARD PENETRATION RESISTANCE (BLOWS/FT.)	UNIFIED CLASSIFICATION
			SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER		LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX (%)	GRAVEL (%)	SAND (%)	> 0.075 mm (%)			
0.3	SANDY SILTY GRAVEL		0.3													
1.2	SILT SAND TILL		1.2	C1M AUG. 1198			19.6	TRACE	5.0	10.7	53.7	30.6				ML
3.0	END HOLE															

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO: C2M	
DATE DRILLED: 17-5-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.	
HOLE DEPTH: 3.8		TYPE OF DRILL: B30 6" AUGERS		HOLE ELEVATION:	
WATER LEVEL		SOIL DESCRIPTION		MECHANICAL ANALYSIS	
DEPTH (M)		SOIL DESCRIPTION		UNIFIED CLASSIFICATION	
0		SANDY SILTY GRAVEL 0.3			
1		GRAVEL SILT SAND TILL			
2					
3					
4		END HOLE 3.8			
5					

SAMPLE DEPTH (FT.)	SAMPLE IDENTIFICATION DATA				NATURAL MOISTURE CONTENT %	CONSISTENCY LIMITS			MECHANICAL ANALYSIS			DRY DENSITY (LBS./CU. FT.)	STANDARD PENETRATION RESISTANCE (BLOWS/FT.)	UNIFIED CLASSIFICATION	
	LABORATORY NUMBER	SAMPLE TYPE	SAMPLE NUMBER (FIELD)	SAMPLE DEPTH (FT.)		LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %	SAND %	<.074 mm %				>.005 mm %
0.6															
1.5					13.3	24.7	13.9	10.8	4.4	33.4	33.5	28.7			CL

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 17-5-78

DRILL TECHNICIAN: H. R.

PLOTTED BY: R. S.

HOLE ELEVATION:

HOLE NO.: C 3 M

HOLE DEPTH _____
TYPE OF DRILL B30 6" AUGERS
WATER LEVEL _____
SOIL DESCRIPTION

0
1
2
3
4
5

SILTY SANDY GRAVEL — 0.5

CLAYEY SILT-SAND TILL

END HOLE — 3.0

N.R.C. PERMAFROST CLASSIFICATION

LABORATORY NUMBER
SAMPLE TYPE
SAMPLE NUMBER (FIELD)
SAMPLE DEPTH (FT.)

NATURAL MOISTURE CONTENT %

CONSISTENCY LIMITS
LIQUID LIMIT %
PLASTIC LIMIT %
PLASTICITY INDEX %

GRAVEL %
SAND %

MECHANICAL ANALYSIS
<.074 mm %
>.005 mm %
<.005 mm %

DRY DENSITY LBS. CU. FT.

STANDARD PENETRATION RESISTANCE BLOWS FT.

UNIFIED CLASSIFICATION

13.7 25.3 15.5 9.8 13.5 15.1 43.6 27.8

C 3 M

CL

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: R.S.S.		HOLE ELEVATION:		HOLE NO.: C4M	
DATE DRILLED: 17-5-78		DRILL TECHNICIAN: H.R.		PLOTTED BY:			
HOLE DEPTH: 4.0		TYPE OF DRILL: B30 6" AUGERS		WATER LEVEL:			
DEPTH (M.)		SOIL DESCRIPTION		UNIFIED CLASSIFICATION		STANDARD PENETRATION RESISTANCE	
0		SILTY SANDY GRAVEL — 0.5				BLOWS / FT.	
1		CLAYEY SILT				DRY DENSITY	
2		SILT-SANDY TILL — 1.8				LBS. / CU. FT.	
3						MECHANICAL ANALYSIS	
4		END HOLE — 4.0				GRAVEL	
5						SAND	
						PLASTICITY INDEX	
						PLASTIC LIMIT	
						LIQUID LIMIT	
						NATURAL MOISTURE CONTENT	
						CONSISTENCY LIMITS	
						LABORATORY NUMBER	
						SAMPLE TYPE	
						SAMPLE NUMBER (FIELD)	
						SAMPLE DEPTH (FT.)	
				2.7		C4M AUG. 1201	
				3.7		12.6 25.2 14.4 10.7 6.8 26.7 35.3 31.2	
						CL	



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.:		C5M	
DATE DRILLED: 18-5-78		DRILL TECHNICIAN: H.R.R.		PLOTTED BY: R.S.S.		HOLE ELEVATION:	
HOLE DEPTH: 4.0		TYPE OF DRILL: B30 6" AUGERS		WATER LEVEL:		UNIFIED CLASSIFICATION:	
DEPTH (M):		SOIL DESCRIPTION:		NATURAL MOISTURE CONTENT:		STANDARD PENETRATION RESISTANCE:	
0		SILTY SANDY GRAVEL		%		BLOWS/FT.	
0.5		SILTY SAND		%		CU. FT.	
1.8		SILTY CLAY TILL		%		SM	
4.0		END HOLE		%			
5				%			

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: R.S.S.		HOLE ELEVATION:		HOLE NO.: C6M	
DATE DRILLED: 18-5-78		DRILL TECHNICIAN: H.R.R.		PLOTTED BY:			
HOLE DEPTH	4.0	LABORATORY NUMBER		MECHANICAL ANALYSIS		UNIFIED CLASSIFICATION	
TYPE OF DRILL	B30 6" AUGERS	SAMPLE IDENTIFICATION DATA		GRAVEL		STANDARD PENETRATION RESISTANCE	
WATER LEVEL		SAMPLE TYPE		SAND		BLOWS / FT.	
DEPTH (M)		SAMPLE NUMBER (FIELD)		PLASTICITY INDEX		LBS. / CU. FT.	
		SAMPLE DEPTH (FT.)		PLASTIC LIMIT			
		N.R.C. PERMAFROST CLASSIFICATION		LIQUID LIMIT			
0				NATURAL MOISTURE CONTENT			
1	SILTY SANDY GRAVEL			%			
	0.5			%			
2	SAND			%			
	2.1			%			
3	CLAYEY SILT TILL			%			
				%			
4	END HOLE			%			
	4.0			%			
5				%			

2.7
3.7

C6M AUG. 1203 27.1 20.5 6.6 10.2 42.6 33.6

CL-ML

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: R.S.		HOLE ELEVATION:		HOLE NO.: C7M	
DATE DRILLED: 18-5-78		DRILL TECHNICIAN: H.R.		PLOTTED BY:			
HOLE DEPTH: 4.3		TYPE OF DRILL: B30 6" AUGERS		WATER LEVEL:			
DEPTH (M.)		SOIL DESCRIPTION		UNIFIED CLASSIFICATION		STANDARD PENETRATION RESISTANCE	
0		SANDY GRAVEL — 0.5		CL		BLOWS/FT.	
1		SILTY SAND — 1.1					
2		CLAY SILT TILL					
3							
4							
5		END HOLE — 4.3					



Public Works
Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 18-5-78

DRILL TECHNICIAN: H. R.

PLOTTED BY: R. S.

HOLE ELEVATION:

HOLE NO.: C8M

HOLE DEPTH 4.3
TYPE OF DRILL B30 6" AUGERS
WATER LEVEL _____
DEPTH (M) _____
SOIL DESCRIPTION

N.R.C. PERMAFROST CLASSIFICATION

SAMPLE IDENTIFICATION DATA

SAMPLE DEPTH (FT.)

SAMPLE NUMBER (FIELD)

SAMPLE TYPE

LABORATORY NUMBER

NATURAL MOISTURE CONTENT %

LIQUID LIMIT %

PLASTIC LIMIT %

PLASTICITY INDEX %

GRAVEL %

SAND %

> 0.075 mm %

> 0.005 mm %

DRY DENSITY LBS./CU. FT.

STANDARD PENETRATION RESISTANCE BLOWS/FT.

UNIFIED CLASSIFICATION

SANDY GRAVEL 0.3

SAND

1.4

CLAYEY SILT

1.8

SANDY SILT TILL

2.7

3.7

37.4

42.7

16.7

3.2

3.9

21.9

25.8

21.9

1205

C8M Avg.

ML

4.3

END HOLE

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE NO.: C9M	
DATE DRILLED: 18-5-78		DRILL TECHNICIAN: H.R.		HOLE ELEVATION:	
HOLE DEPTH: 4.3		PLOTTED BY: R.S.		UNIFIED CLASSIFICATION	
TYPE OF DRILL: B30 6" AUGERS		SAMPLE IDENTIFICATION DATA		STANDARD PENETRATION RESISTANCE	
WATER LEVEL		LABORATORY NUMBER		BLOWS / FT.	
DEPTH (M)		SAMPLE TYPE		LBS. / CU. FT.	
SOIL DESCRIPTION		SAMPLE NUMBER (FIELD)		MECHANICAL ANALYSIS	
SANDY GRAVEL 0.3		C9MAUG 1206		<.005 mm % <.074 mm % >.005 mm % SAND % GRAVEL %	
SAND 1.2		1.2		PLASTICITY INDEX %	
CLAYEY SILT 2.1		2.1		PLASTIC LIMIT %	
SILT TILL				LIQUID LIMIT %	
END HOLE 4.3				NATURAL MOISTURE CONTENT %	
				CONSISTENCY LIMITS	
				LIQUID LIMIT % PLASTIC LIMIT %	
				N.R.C. PERMAFROST CLASSIFICATION	

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: R. S.		HOLE ELEVATION:		HOLE NO.: C10M	
DATE DRILLED: 18-5-78		DRILL TECHNICIAN: H. R.		PLOTTED BY:			
HOLE DEPTH: 4.3		TYPE OF DRILL: B20 6" AUGERS		WATER LEVEL:			
DEPTH (M)		SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION			
0	SANDY GRAVEL — 0.3						
1	GRAVELY SAND						
2	SILT TILL						
4.3	ENDO HOLE — 4.3						
5							

MECHANICAL ANALYSIS	CONSISTENCY LIMITS		NATURAL MOISTURE CONTENT	SAMPLE IDENTIFICATION DATA				UNIFIED CLASSIFICATION
	GRAVEL	SAND		> 0.075 mm	< 0.075 mm	< 0.005 mm	LABORATORY NUMBER	
	%	%	%	%	%	%	%	
	4.4	64.1	17.7	13.8	N.P.	9.1		SM

STANDARD PENETRATION RESISTANCE	BLOWS / FT.	DRY DENSITY	LBS. / CU. FT.

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 18-5-78

DRILL TECHNICIAN: H. R.

PLOTTED BY: R. S.

HOLE ELEVATION:

HOLE NO.: C 11 M

HOLE DEPTH 4.3
TYPE OF DRILL B30 6" AUGERS
WATER LEVEL _____
DEPTH (M) _____

SOIL DESCRIPTION

SANDY GRAVEL 0.3

SAND

1.4

CLAYEY SILT 1.8

SANDY SILT TILL

4.3

END HOLE

DEPTH (M)	N.R.C. PERMAFROST CLASSIFICATION	SAMPLE IDENTIFICATION DATA				NATURAL MOISTURE CONTENT %	CONSISTENCY LIMITS			MECHANICAL ANALYSIS			DRY DENSITY LBS./CU. FT.	STANDARD PENETRATION RESISTANCE BLOWS/FT.	UNIFIED CLASSIFICATION	
		SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER		LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %	SAND %	<.074 mm %				>.005 mm %
0																
0.3																
1.4																
1.8																
2.7																
3.7																
4.3																
4.3																

C11M AUG. 1229 15.6 25.6 16.9 8.6 10.8 24.0 35.6 29.6 CL

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.:		C 12 M	
DATE DRILLED: 18-5-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.					
HOLE DEPTH: 4.3		TYPE OF DRILL: B30 6" AUGERS		WATER LEVEL:					
DEPTH (M.)		SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION		SAMPLE IDENTIFICATION DATA		CONSISTENCY LIMITS	
0		SANDY GRAVEL 0.2				LABORATORY NUMBER		GRAVEL %	
1		SAND 0.9				SAMPLE TYPE		PLASTICITY INDEX %	
		SANDY CLAYEY SILT 1.8				SAMPLE NUMBER (FIELD)		PLASTIC LIMIT %	
						C 12 M		LIQUID LIMIT %	
						Aug. 1218		NATURAL MOISTURE CONTENT %	
						0.9		SAND %	
						1.8		SILT %	
								CLAY %	
								UNIFIED CLASSIFICATION	
								CL	
								STANDARD PENETRATION RESISTANCE	
								BLOWS / FT.	
								DRY DENSITY	
								LBS. / CU. FT.	
								MECHANICAL ANALYSIS	
								< .005 mm %	
								< .075 mm %	
								> .005 mm %	
								END HOLE 4.3	



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 18-5-78

DRILL TECHNICIAN: H. R.

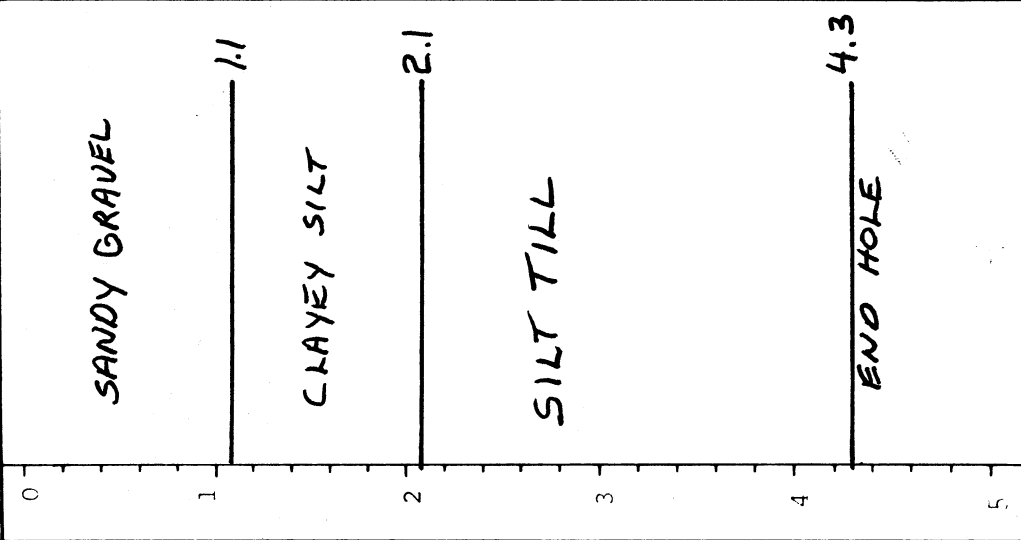
PLOTTED BY: R. S.

HOLE ELEVATION:

HOLE NO.: C 13 / M

HOLE DEPTH: 4.3
TYPE OF DRILL: B30 6" AUGERS
WATER LEVEL: _____
DEPTH (M.): _____

SOIL DESCRIPTION



N.R.C. PERMAFROST CLASSIFICATION

SAMPLE IDENTIFICATION DATA
SAMPLE DEPTH (FT.)
SAMPLE NUMBER (FIELD)
SAMPLE TYPE
LABORATORY NUMBER

NATURAL MOISTURE CONTENT %
CONSISTENCY LIMITS
LIQUID LIMIT %
PLASTIC LIMIT %
PLASTICITY INDEX %

MECHANICAL ANALYSIS
GRAVEL %
SAND %
< 0.075 mm %
< 0.005 mm %

DRY DENSITY LBS./CU. FT.
STANDARD PENETRATION RESISTANCE BLOWS/FT.
UNIFIED CLASSIFICATION

1.2	C13 AUG. 1226 M	29.4	52.8	15.8	37.0	27.9	72.1	CL
2.1								



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: R.S.S.		HOLE ELEVATION:		HOLE NO.: C14M	
DATE DRILLED: 18-5-78		DRILL TECHNICIAN: H.R.		PLOTTED BY:			
HOLE DEPTH: 3.3		TYPE OF DRILL: B20 6" AUGERS		WATER LEVEL:			
DEPTH (M.)		SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION		SAMPLE IDENTIFICATION DATA	
0							
1	SANDY GRAVEL	0.6	CLAYEY SILT	0.9			
2	SILT		TILL		1.2	C14M	AUG. 1227
3	SANDY SILTY GRAVEL TILL				2.1		
4	REFUSAL						
5							
				UNIFIED CLASSIFICATION		CL	
				STANDARD PENETRATION RESISTANCE		BLOWS/FT.	
				DRY DENSITY		LBS./CU. FT.	
				MECHANICAL ANALYSIS			
				<.074 mm		%	
				>.005 mm		%	
				SAND		%	
				GRAVEL		%	
				PLASTICITY INDEX		%	
				PLASTIC LIMIT		%	
				LIQUID LIMIT		%	
				NATURAL MOISTURE CONTENT		%	



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 18-5-78

DRILL TECHNICIAN: H.R.

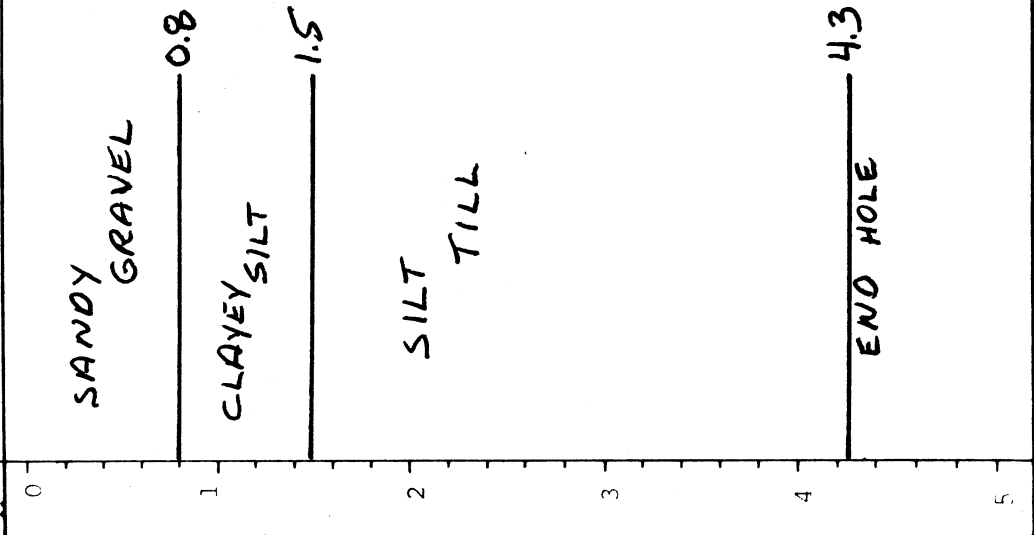
PLOTTED BY: R.S.

HOLE ELEVATION:

HOLE NO.: C15M

HOLE DEPTH 4.3
TYPE OF DRILL B20 6" AUGERS
WATER LEVEL _____
DEPTH (M) _____

SOIL DESCRIPTION



N.R.C. PERMAFROST CLASSIFICATION

SAMPLE DEPTH (FT.)

SAMPLE NUMBER (FIELD)

SAMPLE TYPE

LABORATORY NUMBER

NATURAL MOISTURE CONTENT %

LIQUID LIMIT %

PLASTIC LIMIT %

PLASTICITY INDEX %

GRAVEL %

SAND %

MECHANICAL ANALYSIS
 < 0.075 mm %
 < 0.005 mm %

DRY DENSITY LBS. / CU. FT.

STANDARD PENETRATION RESISTANCE BLOWS / FT.

UNIFIED CLASSIFICATION

1.5	C15 AUG. 1219	52.9	22.5	30.4	20.0	80.0	CL
2.4	M						



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: R. S.		HOLE ELEVATION:		HOLE NO.: C 16 M	
DATE DRILLED: 18-5-78		DRILL TECHNICIAN: H. R.		PLOTTED BY:			
HOLE DEPTH: 4.0		TYPE OF DRILL: B20 6" AUGERS		WATER LEVEL:			
DEPTH (M)		SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION			
0	SANDY GRAVEL						
1	1.2						
2	SANDY SILT						CL
3							
4	4.0		END HOLE				
5							



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 18-5-78

DRILL TECHNICIAN: H. R.

PLOTTED BY: R. S.

HOLE ELEVATION:

HOLE NO.: C19M

DEPTH (M)	SOIL DESCRIPTION	N.R.C. PERMAFROST CLASSIFICATION	SAMPLE IDENTIFICATION DATA				NATURAL MOISTURE CONTENT %	CONSISTENCY LIMITS			MECHANICAL ANALYSIS				DRY DENSITY LBS./CU. FT.	STANDARD PENETRATION RESISTANCE BLOWS/FT.	UNIFIED CLASSIFICATION
			LABORATORY NUMBER	SAMPLE TYPE	SAMPLE NUMBER (FIELD)	SAMPLE DEPTH (FT.)		LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %	SAND %	> 0.075 mm %	< 0.075 mm %			
0	SANDY GRAVEL																
0.6																	
1	SAND																
1.4																	
2	SANDY SILT																
2.1			2.1														
3	SILTY SAND																
3.0			3.0														
4	END HOLE																
4.0																	
5																	

C19 AUG. 1241 M

N.P.

10.8

30.6

59.7

9.7

ML



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 18-5-78

DRILL TECHNICIAN: H.R.

PLOTTED BY: R.S.

HOLE ELEVATION:

HOLE NO.: C 20 (M)

DEPTH (M)	SOIL DESCRIPTION	N.R.C. PERMAFROST CLASSIFICATION	SAMPLE IDENTIFICATION DATA				NATURAL MOISTURE CONTENT %	CONSISTENCY LIMITS			MECHANICAL ANALYSIS				DRY DENSITY LBS. CU.FT.	STANDARD PENETRATION RESISTANCE BLOWS FT.	UNIFIED CLASSIFICATION
			SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER		LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %	SAND %	<.074 mm %	>.005 mm %			
0																	
0.6	SANDY GRAVEL		0.6	C20 AUG. M	AUG.	1236	28.6	47.7	21.5	26.2	25.0	75.0					CL
1.2	SANDY SILT		1.2														
3.3	SILTY SANDY GRAVEL																
3.3	END HOLE																



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.:		C21 M	
DATE DRILLED: 18-5-78		DRILL TECHNICIAN: H. R.		PLOTTED BY: R. S.					
HOLE DEPTH: 2.7		TYPE OF DRILL: B30 6" AUGERS		WATER LEVEL:		SOIL DESCRIPTION:			
DEPTH (M.):		SOIL DESCRIPTION:		N.R.C. PERMAFROST CLASSIFICATION:		SAMPLE IDENTIFICATION DATA:			
0		SANDY GRAVEL				SAMPLE DEPTH (FT.):			
1		SANDY SILT TILL				1.5			
2		SILTY SANDY GRAVEL				2.1			
3		REFUSAL							
4									
5									
				NATURAL MOISTURE CONTENT		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
				%		LIQUID LIMIT		GRAVEL	
				%		PLASTIC LIMIT		SAND	
				%		PLASTICITY INDEX		V 005 mm	
				%				V 074 mm	
				%				V 005 mm	
				%				DRY DENSITY	
				%				LBS. CU. FT.	
				%				STANDARD PENETRATION RESISTANCE	
				%				BLOWS / FT.	
				%				UNIFIED CLASSIFICATION	
				%				CL-ML	



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 18-5-78

DRILL TECHNICIAN: H.R.

PLOTTED BY: R.S.

HOLE ELEVATION:

HOLE NO.: C 22 M

HOLE DEPTH 5.5
TYPE OF DRILL B20 6" AUGERS
WATER LEVEL _____
DEPTH (M) _____

SOIL DESCRIPTION

0 SANDY GRAVEL — 0.4
1 SAND
2 GRAVELY SAND — 2.1

N.R.C. PERMAFROST CLASSIFICATION

NATURAL MOISTURE CONTENT %

CONSISTENCY LIMITS
LIQUID LIMIT %
PLASTIC LIMIT %
PLASTICITY INDEX %

MECHANICAL ANALYSIS
GRAVEL %
SAND %

MECHANICAL ANALYSIS
<.074 mm %
>.005 mm %
<.005 mm %

DRY DENSITY
LBS. CU. FT.

STANDARD PENETRATION RESISTANCE
BLOWS FT.

UNIFIED CLASSIFICATION

0.6
1.5

C22 M
AUG. 12/17

7.3

N.P.

1.2

62.5

28.6

7.7

SM

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: R.S.		HOLE ELEVATION:		HOLE NO.: C 22 M	
DATE DRILLED: 18-5-78		DRILL TECHNICIAN: H.R.		PLOTTED BY:			
HOLE DEPTH: 5.5		TYPE OF DRILL: B40-6" AUGERS		WATER LEVEL:		UNIFIED CLASSIFICATION:	
DEPTH (M.):		SOIL DESCRIPTION:		MECHANICAL ANALYSIS:		STANDARD PENETRATION RESISTANCE:	
5		END HOLE 5.5		<.005 mm % <.075 mm % >.005 mm % SAND % GRAVEL %		DRY DENSITY: LBS. CU. FT. BLOWS: FT.	
6				CONSISTENCY LIMITS: PLASTICITY INDEX % PLASTIC LIMIT % LIQUID LIMIT %			
7				NATURAL MOISTURE CONTENT %			
8				SAMPLE IDENTIFICATION DATA: LABORATORY NUMBER SAMPLE TYPE SAMPLE NUMBER (FIELD) SAMPLE DEPTH (FT.)			
9				N.R.C. PERMAFROST CLASSIFICATION			
10							



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 18-5-78

R.S.S.

HOLE ELEVATION:

HOLE NO.: C 23 M

PLOTTED BY:

HOLE DEPTH 4.0
TYPE OF DRILL B30 6" AUGERS
WATER LEVEL

DEPTH (M.) SOIL DESCRIPTION

0 SANDY GRAVEL 0.5
1 SAND 1.8
2 GRAVELY SAND 4.0
3
4 END HOLE 4.0
5

N.R.C. PERMAFROST CLASSIFICATION

H.R.

DRILL TECHNICIAN:

R.S.S.

HOLE ELEVATION:

HOLE NO.: C 23 M

PLOTTED BY:

LABORATORY NUMBER
SAMPLE TYPE
SAMPLE NUMBER (FIELD)
SAMPLE DEPTH (FT.)

NATURAL MOISTURE CONTENT %

LIQUID LIMIT %
PLASTIC LIMIT %
PLASTICITY INDEX %

GRAVEL %
SAND %

> .005 mm %
< .074 mm %
< .005 mm %

MECHANICAL ANALYSIS

STANDARD PENETRATION RESISTANCE BLOWS / FT.

UNIFIED CLASSIFICATION

1.8
2.7

C23 M

AUG. 1259

5.5

N.P.

21.9 59.4 13.8 4.9

SM



Public Works
Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 18-5-78

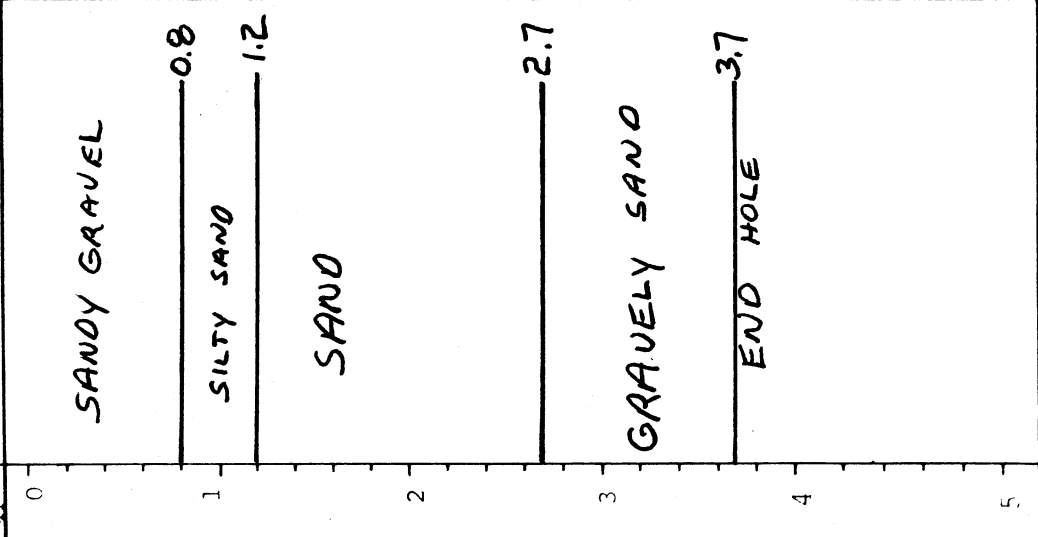
DRILL TECHNICIAN: H. R.

R. S.

HOLE ELEVATION:

HOLE NO: C-24M

HOLE DEPTH 3.7
TYPE OF DRILL B20 6" AUGERS
WATER LEVEL
DEPTH (M.) SOIL DESCRIPTION



N.R.C. PERMAFROST CLASSIFICATION

SAMPLE IDENTIFICATION DATA

LABORATORY NUMBER

SAMPLE TYPE

SAMPLE NUMBER (FIELD)

SAMPLE DEPTH (FT.)

NATURAL MOISTURE CONTENT

LIQUID LIMIT

PLASTIC LIMIT

PLASTICITY INDEX

GRAVEL

SAND

MECHANICAL ANALYSIS

DRY DENSITY

STANDARD PENETRATION RESISTANCE

UNIFIED CLASSIFICATION

DEPTH (FT.)	SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER	NATURAL MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX (%)	GRAVEL (%)	SAND (%)	MECHANICAL ANALYSIS	DRY DENSITY (LBS. CU. FT.)	STANDARD PENETRATION RESISTANCE (BLOWS FT.)	UNIFIED CLASSIFICATION
1.5		C24 M	AUG.	1228	5.3					70.7	<.074 mm: 20.3, >.005 mm: 5.8			SM
2.4														



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: C25 M	
DATE DRILLED: 18-5-78		DRILL TECHNICIAN: H. R.		PLOTTED BY: R. S.			
HOLE DEPTH: 3.7		TYPE OF DRILL: B40-6" AUGERS		WATER LEVEL:			
DEPTH (M)		SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION		UNIFIED CLASSIFICATION	
0		SANDY GRAVEL 0.3					
1		SAND SILT TILL 1.1					
2		SILTY SANDY GRAVEL					
3							
4		END HOLE 3.7					
5							



Public Works
Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 18-5-78

DRILL TECHNICIAN: H.R.

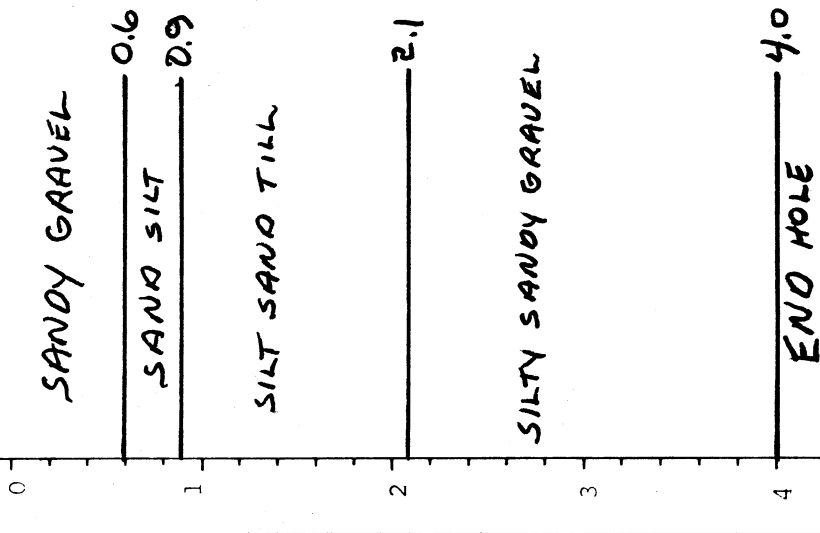
PLOTTED BY: R.S.

HOLE ELEVATION:

HOLE NO.: C26 M

HOLE DEPTH 4.0
TYPE OF DRILL B30 6" AUGERS
WATER LEVEL

DEPTH (M) SOIL DESCRIPTION



N.R.C. PERMAFROST CLASSIFICATION

NATURAL MOISTURE CONTENT %

LIQUID LIMIT %

PLASTIC LIMIT %

PLASTICITY INDEX %

GRAVEL %

SAND %

MECHANICAL ANALYSIS
>.074 mm %
<.005 mm %

DRY DENSITY LBS./CU. FT.

STANDARD PENETRATION RESISTANCE BLOWS/FT.

UNIFIED CLASSIFICATION

CES AVG. 1230 M

25.6 37.8 20.8 17.0 29.8 21.9 6.0 42.3

GC



Public Works
Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 19-5-78

DRILL TECHNICIAN: H. R.

PLOTTED BY: R. S.

HOLE ELEVATION:

HOLE NO.: C-27M

DEPTH (M)	SOIL DESCRIPTION	N.R.C. PERMAFROST CLASSIFICATION	SAMPLE IDENTIFICATION DATA				NATURAL MOISTURE CONTENT %	CONSISTENCY LIMITS			MECHANICAL ANALYSIS				DRY DENSITY LBS./CU. FT.	STANDARD PENETRATION RESISTANCE BLOWS/FT.	UNIFIED CLASSIFICATION
			SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER		LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %	SAND %	<.074 mm %	>.005 mm %			
0	SANDY GRAVEL																
0.2	SAND																
1.1	SANDY SILT																
1.4	GRAVELLY SILTY SAND																
1.5			1.5	C26	AUG.												
2.4			2.4	M													CL
3.3	END HOLE																

L

Public Works Canada		MATERIALS QUALITY CONTROL LABORATORY WHITEHORSE, Y.T.		SUBSURFACE TESTING REPORT						
PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: C 28 M				
DATE DRILLED: 19-5-78		DRILL TECHNICIAN: H. R.		PLOTTED BY: R. S.						
HOLE DEPTH 3.7	TYPE OF DRILL B30 6" AUGERS	WATER LEVEL	SOIL DESCRIPTION	N.R.C. PERMAFROST CLASSIFICATION	SAMPLE IDENTIFICATION DATA	CONSISTENCY LIMITS	MECHANICAL ANALYSIS	DRY DENSITY	STANDARD PENETRATION RESISTANCE	UNIFIED CLASSIFICATION
0	0.3		SILTY SANDY GRAVEL		LABORATORY NUMBER	LIQUID LIMIT	GRAVEL	<.005mm	BLOWS / FT.	
1	0.8		SILTY SAND		SAMPLE TYPE	PLASTIC LIMIT	SAND	<.074mm	LBS. / CU. FT.	
2	1.8		SILTY SAND TILL		SAMPLE NUMBER (FIELD)	PLASTICITY INDEX	GRAVEL	>.005mm		CL-M/IL
3			SILTY SAND TILL		SAMPLE DEPTH (FT.)	%	SAND			
4	3.7		END HOLE		0.9	%	GRAVEL			
5					1.8	%	SAND			
					C27 AUG. 1234 M	%	SAND			
					10.5	%	GRAVEL			
					21.1	%	SAND			
					15.7	%	GRAVEL			
					5.4	%	SAND			
					11.3	%	GRAVEL			
					30.0	%	SAND			
					34.1	%	GRAVEL			
					24.6	%	SAND			



Public Works
Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: R. S.		HOLE ELEVATION: C 29 M	
DATE DRILLED: 19-5-78		PLOTTED BY: H. R.		HOLE NO.: C 29 M	
DRILL TECHNICIAN: 8		H. R.		R. S.	
HOLE DEPTH: 3.7		LABORATORY NUMBER		UNIFIED CLASSIFICATION	
TYPE OF DRILL: B40-6" AUGERS		SAMPLE TYPE		STANDARD PENETRATION RESISTANCE	
WATER LEVEL		SAMPLE NUMBER (FIELD)		BLOWS / FT.	
DEPTH (M)		SAMPLE DEPTH (FT.)		DRY DENSITY	
SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION		MECHANICAL ANALYSIS	
SILTY SANDY GRAVEL 0.3		0.6		<.005 mm % <.075 mm % >.005 mm % SAND % GRAVEL %	
GRAVELLY SANDY SILT		1.2		PLASTICITY INDEX % PLASTIC LIMIT % LIQUID LIMIT % NATURAL MOISTURE CONTENT %	
END HOLE 3.7				C 28 AUG. 1232 M 16.4 28.9 16.5 12.4 7.8 16.5 38.8 36.9 C L	



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: R. S.		HOLE ELEVATION: C 30 M		HOLE NO: C 30 M	
DATE DRILLED: 19-5-78		DRILL TECHNICIAN: H. R.		PLOTTED BY:			
HOLE DEPTH: 4.3		TYPE OF DRILL: B40-6" AUGERS		WATER LEVEL:			
DEPTH (M.)		SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION			
0		SILTY SANDY GRAVEL					
		SILT SANDY GRAVEL		0.3			
1		SILT SANDY TILL		1.1			
		CLAY SILT TILL		1.8			
2		SANDY SILTY GRAVEL		2.1			
3							
4		END HOLE		4.3			
5							

UNIFIED CLASSIFICATION	STANDARD PENETRATION RESISTANCE	BLOWS / FT.	DRY DENSITY	LBS. / CU. FT.	MECHANICAL ANALYSIS			PLASTICITY INDEX	PLASTIC LIMIT	LIQUID LIMIT	NATURAL MOISTURE CONTENT	LABORATORY NUMBER	SAMPLE TYPE	SAMPLE NUMBER (FIELD)	SAMPLE DEPTH (FT.)
					< .005 mm	< .075 mm	> .005 mm								
CL															



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION:		HOLE ELEVATION:		HOLE NO.: C31M	
DATE DRILLED: 19-5-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.			
HOLE DEPTH: 3.7		TYPE OF DRILL: B40-6" AUGERS		WATER LEVEL:			
DEPTH (M)		SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION		UNIFIED CLASSIFICATION	
0		SILTY SANDY GRAVEL					
	0.3	SILTY SAND					
	0.9	SAND SILT				ML	
	3.7	END HOLE					
SAMPLE IDENTIFICATION DATA				MECHANICAL ANALYSIS			
SAMPLE DEPTH (FT.)		SAMPLE NUMBER (FIELD)		GRAVEL		SAND	
0.9		C30 M		%		%	
1.5		Aug. 1235		%		20.3	
				%		55.9	
				%		23.8	
CONSISTENCY LIMITS				PLASTICITY INDEX			
LIQUID LIMIT		PLASTIC LIMIT		%		%	
%		%		N.P.			
NATURAL MOISTURE CONTENT				N.P.			
%		%		26.3			

Public Works Canada MATERIALS QUALITY CONTROL LABORATORY WHITEHORSE, Y.T. SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8 HOLE LOCATION: R.S. HOLE ELEVATION: C32 M HOLE NO.: C32 M

DATE DRILLED: 19-5-78 DRILL TECHNICIAN: H.R. PLOTTED BY: R.S.

HOLE DEPTH 3.3	SOIL DESCRIPTION	UNIFIED CLASSIFICATION	STANDARD PENETRATION RESISTANCE BLOWS / FT.	DRY DENSITY LBS. / CU. FT.	MECHANICAL ANALYSIS <.005 mm % <.075 mm % >.005 mm %	CONSISTENCY LIMITS LIQUID LIMIT % PLASTIC LIMIT % PLASTICITY INDEX %	NATURAL MOISTURE CONTENT %	LABORATORY NUMBER	SAMPLE TYPE	SAMPLE NUMBER (FIELD)	SAMPLE DEPTH (FT.)	N.R.C. PERMAFROST CLASSIFICATION
TYPE OF DRILL B40-6" AUGERS												
WATER LEVEL												
DEPTH (M.)												

0	SILTY SANDY GRAVEL											
0.3												
0.6												
1.5												
1	SILTY SANDY GRAVEL TILL											
2												
3												
3.3												
4												
5												

SILTY SANDY GRAVEL 0.3

SILTY SANDY GRAVEL TILL

END HOLE 3.3

8.8

16.7

33.8

40.7

2.7

14.3

17.0

6.1

C31

AUG.

1231

M

0.6

1.5

GM



**Public Works
Canada**

**MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.**

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8

HOLE LOCATION:

DATE DRILLED: 19-5-78

DRILL TECHNICIAN: H.R.

PLOTTED BY: R.S.

HOLE ELEVATION:

HOLE NO.: C 34M

HOLE DEPTH (M)	SOIL DESCRIPTION	N.R.C. PERMAFROST CLASSIFICATION	SAMPLE IDENTIFICATION DATA				CONSISTENCY LIMITS			MECHANICAL ANALYSIS				STANDARD PENETRATION RESISTANCE BLOWS / FT.	UNIFIED CLASSIFICATION	
			SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER	LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX %	GRAVEL %	SAND %	>.005 mm %	<.074 mm %			<.005 mm %
0	SILTY SANDY GRAVEL 0.3															
1.1	SANDY SILT		1.1	C33M	AUG	1225										
1.5			1.5													
1.8																
3.0	REFUSAL															

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: R.S.S.		HOLE ELEVATION:		HOLE NO.: C35M	
DATE DRILLED: 19-5-78		DRILL TECHNICIAN: H.R.		PLOTTED BY:			
HOLE DEPTH: 2.7		TYPE OF DRILL: B40-6" AUGERS		WATER LEVEL:			
DEPTH (M.)		SOIL DESCRIPTION		N.R.C. PERMAFROST CLASSIFICATION			
0		SILTY SANDY GRAVEL 0.3					
1		SILTY SANDY GRAVEL					
2	1.2			C34 AVG. 1233		SC-SM	
	2.1			M			
3		REFUSAL 2.7					
4							
5							



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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: 1635+200		HOLE NO.: TH-8-302	
DATE DRILLED: 31-8-78		DRILL TECHNICIAN: H. R.		PLOTTED BY: R. S.	
HOLE DEPTH: 0.9		MECHANICAL ANALYSIS		UNIFIED CLASSIFICATION	
TYPE OF DRILL: B40-6" AUGERS		<.005 mm % <.075 mm % >.005 mm %		DRY DENSITY LBS. / CU. FT. BLOWS / FT.	
WATER LEVEL		SAND %		GRAVEL %	
SOIL DESCRIPTION		GRAVEL %		GRAVEL %	
ROAD SURFACE 0.2		PLASTICITY INDEX %		PLASTICITY INDEX %	
SILTY GRAVEL 0.9		PLASTIC LIMIT %		PLASTIC LIMIT %	
REFUSAL		LIQUID LIMIT %		LIQUID LIMIT %	
DEPTH (M)		NATURAL MOISTURE CONTENT %		NATURAL MOISTURE CONTENT %	
0	0.0	LABORATORY NUMBER		LABORATORY NUMBER	
1	0.9	SAMPLE TYPE		SAMPLE TYPE	
2		SAMPLE NUMBER (FIELD)		SAMPLE NUMBER (FIELD)	
3		SAMPLE DEPTH (FT.)		SAMPLE DEPTH (FT.)	
4		N.R.C. PERMAFROST CLASSIFICATION		N.R.C. PERMAFROST CLASSIFICATION	
5					

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: 1635+600		HOLE NO.: TH-8-304	
DATE DRILLED: 31-8-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.	
HOLE DEPTH: 0.6		MECHANICAL ANALYSIS		UNIFIED CLASSIFICATION	
TYPE OF DRILL: B40-6" AUGERS		GRAVEL %		STANDARD PENETRATION RESISTANCE	
WATER LEVEL		SAND %		DRY DENSITY	
DEPTH (M)		PLASTICITY INDEX %		LBS. CU. FT.	
SOIL DESCRIPTION		PLASTIC LIMIT %		BLOWS FT.	
ROAD SURFACE 0.2 SILTY SAND 0.6 END HOLE		LIQUID LIMIT %		40.4	
		NATURAL MOISTURE CONTENT %			
N.R.C. PERMAFROST CLASSIFICATION		CONSISTENCY LIMITS		ML	
SAMPLE IDENTIFICATION DATA		GRAVEL %			
SAMPLE DEPTH (FT.)		PLASTIC LIMIT %		19.7	
SAMPLE NUMBER (FIELD)		LIQUID LIMIT %			
SAMPLE TYPE		PLASTICITY INDEX %		40.4	
LABORATORY NUMBER		GRAVEL %			
		SAND %		40.2	
		PLASTICITY INDEX %			
		PLASTIC LIMIT %		N.P.	
		LIQUID LIMIT %			
		NATURAL MOISTURE CONTENT %		10.5	
		GRAVEL %			
		SAND %		19.7	
		PLASTICITY INDEX %			
		PLASTIC LIMIT %		40.4	
		LIQUID LIMIT %			
		NATURAL MOISTURE CONTENT %		40.4	
		GRAVEL %			
		SAND %		19.7	
		PLASTICITY INDEX %			
		PLASTIC LIMIT %		40.4	
		LIQUID LIMIT %			
		NATURAL MOISTURE CONTENT %		40.4	
		GRAVEL %			
		SAND %		19.7	
		PLASTICITY INDEX %			
		PLASTIC LIMIT %		40.4	
		LIQUID LIMIT %			
		NATURAL MOISTURE CONTENT %		40.4	
		GRAVEL %			
		SAND %		19.7	
		PLASTICITY INDEX %			
		PLASTIC LIMIT %		40.4	
		LIQUID LIMIT %			
		NATURAL MOISTURE CONTENT %		40.4	
		GRAVEL %			
		SAND %		19.7	
		PLASTICITY INDEX %			
		PLASTIC LIMIT %		40.4	
		LIQUID LIMIT %			
		NATURAL MOISTURE CONTENT %		40.4	
		GRAVEL %			
		SAND %		19.7	
		PLASTICITY INDEX %			
		PLASTIC LIMIT %		40.4	
		LIQUID LIMIT %			
		NATURAL MOISTURE CONTENT %		40.4	
		GRAVEL %			
		SAND %		19.7	
		PLASTICITY INDEX %			
		PLASTIC LIMIT %		40.4	
		LIQUID LIMIT %			
		NATURAL MOISTURE CONTENT %		40.4	
		GRAVEL %			
		SAND %		19.7	
		PLASTICITY INDEX %			
		PLASTIC LIMIT %		40.4	
		LIQUID LIMIT %			
		NATURAL MOISTURE CONTENT %		40.4	
		GRAVEL %			
		SAND %		19.7	
		PLASTICITY INDEX %			
		PLASTIC LIMIT %		40.4	
		LIQUID LIMIT %			
		NATURAL MOISTURE CONTENT %		40.4	
		GRAVEL %			
		SAND %		19.7	
		PLASTICITY INDEX %			
		PLASTIC LIMIT %		40.4	
		LIQUID LIMIT %			
		NATURAL MOISTURE CONTENT %		40.4	
		GRAVEL %			
		SAND %		19.7	
		PLASTICITY INDEX %			
		PLASTIC LIMIT %		40.4	
		LIQUID LIMIT %			
		NATURAL MOISTURE CONTENT %		40.4	
		GRAVEL %			
		SAND %		19.7	
		PLASTICITY INDEX %			
		PLASTIC LIMIT %		40.4	
		LIQUID LIMIT %			
		NATURAL MOISTURE CONTENT %		40.4	
		GRAVEL %			
		SAND %		19.7	
		PLASTICITY INDEX %			
		PLASTIC LIMIT %		40.4	
		LIQUID LIMIT %			
		NATURAL MOISTURE CONTENT %		40.4	
		GRAVEL %			
		SAND %		19.7	
		PLASTICITY INDEX %			
		PLASTIC LIMIT %		40.4	
		LIQUID LIMIT %			
		NATURAL MOISTURE CONTENT %		40.4	
		GRAVEL %			
		SAND %		19.7	
		PLASTICITY INDEX %			
		PLASTIC LIMIT %		40.4	
		LIQUID LIMIT %			
		NATURAL MOISTURE CONTENT %		40.4	
		GRAVEL %			
		SAND %		19.7	
		PLASTICITY INDEX %			
		PLASTIC LIMIT %		40.4	
		LIQUID LIMIT %			
		NATURAL MOISTURE CONTENT %		40.4	
		GRAVEL %			
		SAND %		19.7	
		PLASTICITY INDEX %			
		PLASTIC LIMIT %		40.4	
		LIQUID LIMIT %			
		NATURAL MOISTURE CONTENT %		40.4	
		GRAVEL %			
		SAND %		19.7	
		PLASTICITY INDEX %			
		PLASTIC LIMIT %		40.4	
		LIQUID LIMIT %			
		NATURAL MOISTURE CONTENT %		40.4	
		GRAVEL %			
		SAND %		19.7	
		PLASTICITY INDEX %			
		PLASTIC LIMIT %		40.4	
		LIQUID LIMIT %			
		NATURAL MOISTURE CONTENT %		40.4	
		GRAVEL %			
		SAND %		19.7	
		PLASTICITY INDEX %			
		PLASTIC LIMIT %		40.4	
		LIQUID LIMIT %			
		NATURAL MOISTURE CONTENT %		40.4	
		GRAVEL %			
		SAND %		19.7	
		PLASTICITY INDEX %			
		PLASTIC LIMIT %		40.4	
		LIQUID LIMIT %			
		NATURAL MOISTURE CONTENT %		40.4	
		GRAVEL %			
		SAND %		19.7	
		PLASTICITY INDEX %			
		PLASTIC LIMIT %		40.4	
		LIQUID LIMIT %			
		NATURAL MOISTURE CONTENT %		40.4	
		GRAVEL %			
		SAND %		19.7	
		PLASTICITY INDEX %			
		PLASTIC LIMIT %		40.4	
		LIQUID LIMIT %			
		NATURAL MOISTURE CONTENT %		40.4	
		GRAVEL %			
		SAND %		19.7	
		PLASTICITY INDEX %			
		PLASTIC LIMIT %		40.4	
		LIQUID LIMIT %			
		NATURAL MOISTURE CONTENT %		40.4	
		GRAVEL %			
		SAND %		19.7	
		PLASTICITY INDEX %			
		PLASTIC LIMIT %		40.4	
		LIQUID LIMIT %			
		NATURAL MOISTURE CONTENT %		40.4	
		GRAVEL %			
		SAND %		19.7	
		PLASTICITY INDEX %			
		PLASTIC LIMIT %		40.4	
		LIQUID LIMIT %			
		NATURAL MOISTURE CONTENT %		40.4	
		GRAVEL %			
		SAND %		19.7	
		PLASTICITY INDEX %			
		PLASTIC LIMIT %		40.4	
		LIQUID LIMIT %			
		NATURAL MOISTURE CONTENT %		40.4	
		GRAVEL %			
		SAND %		19.7	
		PLASTICITY INDEX %			
		PLASTIC LIMIT %		40.4	
		LIQUID LIMIT %			
		NATURAL MOISTURE CONTENT %		40.4	
		GRAVEL %			
		SAND %		19.7	
		PLASTICITY INDEX %			
		PLASTIC LIMIT %		40.4	
		LIQUID LIMIT %			
		NATURAL MOISTURE CONTENT %		40.4	
		GRAVEL %			
		SAND %		19.7	
		PLASTICITY INDEX %			
		PLASTIC LIMIT %		40.4	
		LIQUID LIMIT %			
		NATURAL MOISTURE CONTENT %		40.4	
		GRAVEL %			
		SAND %		19.7	
		PLASTICITY INDEX %			
		PLASTIC LIMIT %		40.4	
		LIQUID LIMIT %			
		NATURAL MOISTURE CONTENT %		40.4	
		GRAVEL %			
		SAND %		19.7	
		PLASTICITY INDEX %			
		PLASTIC LIMIT %		40.4	
		LIQUID LIMIT %			
		NATURAL MOISTURE CONTENT %		40.4	
		GRAVEL %			
		SAND %		19.7	
		PLASTICITY INDEX %			
		PLASTIC LIMIT %		40.4	
		LIQUID LIMIT %			
		NATURAL MOISTURE CONTENT %		40.4	
		GRAVEL %			
		SAND %		19.7	
		PLASTICITY INDEX %			
		PLASTIC LIMIT %		40.4	
		LIQUID LIMIT %			
		NATURAL MOISTURE CONTENT %		40.4	
		GRAVEL %			
		SAND %		19.7	
		PLASTICITY INDEX %			
		PLASTIC LIMIT %		40.4	
		LIQUID LIMIT %			
		NATURAL MOISTURE CONTENT %		40.4	
		GRAVEL %			
		SAND %		19.7	
		PLASTICITY INDEX %			
		PLASTIC LIMIT %		40.4	
		LIQUID LIMIT %			
		NATURAL MOISTURE CONTENT %		40.4	
		GRAVEL %			
		SAND %		19.7	
		PLASTICITY INDEX %			
		PLASTIC LIMIT %		40.4	
		LIQUID LIMIT %			
		NATURAL MOISTURE CONTENT %		40.4	
		GRAVEL %			
		SAND %		19.7	
		PLASTICITY INDEX %			
		PLASTIC LIMIT %		40.4	
		LIQUID LIMIT %			
		NATURAL MOISTURE CONTENT %		40.4	
		GRAVEL %			
		SAND %		19.7	
		PLASTICITY INDEX %			
		PLASTIC LIMIT %		40.4	
		LIQUID LIMIT %			
		NATURAL MOISTURE CONTENT %		40.4	
		GRAVEL %			
		SAND %		19.7	
		PLASTICITY INDEX %			
		PLASTIC LIMIT %		40.4	
		LIQUID LIMIT %			
		NATURAL MOISTURE CONTENT %		40.4	
		GRAVEL %			
		SAND %		19.7	
		PLASTICITY INDEX %			
		PLASTIC LIMIT %		40.4	
		LIQUID LIMIT %			



MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: 1636+00		HOLE NO.: TH-B-307	
DATE DRILLED: 31-8-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.	
HOLE DEPTH: 0.9		MECHANICAL ANALYSIS		UNIFIED CLASSIFICATION	
TYPE OF DRILL: B40-6" AUGERS		SAND		STANDARD PENETRATION RESISTANCE	
WATER LEVEL		GRAVEL		BLOWS / FT.	
DEPTH (M.)		PLASTICITY INDEX		DRY DENSITY	
SOIL DESCRIPTION		PLASTIC LIMIT		LBS. / CU. FT.	
ROAD SURFACE 0.2		LIQUID LIMIT		%	
GRAVELY SAND		NATURAL MOISTURE CONTENT		%	
END HOLE 0.9		N.R. 16.3		%	
		CONSISTENCY LIMITS		MECHANICAL ANALYSIS	
		PLASTIC LIMIT		<.075 mm	
		LIQUID LIMIT		>.005 mm	
		NATURAL MOISTURE CONTENT		SAND	
		%		%	
		PLASTICITY INDEX		GRAVEL	
		%		%	
		N.R.		2.7	
		N.R.		76.9	
		16.3		7.5	
		0.2			
		0.5			
		7			
		AVG. 1284			
		LABORATORY NUMBER			
		SAMPLE TYPE			
		SAMPLE NUMBER (FIELD)			
		SAMPLE DEPTH (FT.)			
		N.R.C. PERMAFROST CLASSIFICATION			



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: 1636 + 400		HOLE NO.: TH-8-308	
DATE DRILLED: 31-8-78		DRILL TECHNICIAN: H.R.		PLOTTED BY: R.S.	
HOLE DEPTH: 0.6		HOLE ELEVATION:		UNIFIED CLASSIFICATION	
TYPE OF DRILL: B40-6" AUGERS		CONSISTENCY LIMITS		STANDARD PENETRATION RESISTANCE	
WATER LEVEL:		LIQUID LIMIT		BLOWS/FT.	
SOIL DESCRIPTION		PLASTIC LIMIT		DRY DENSITY	
ROAD SURFACE 0.2 SILTY GRAVELLY SAND 0.6 END HOLE		NATURAL MOISTURE CONTENT		MECHANICAL ANALYSIS	
		%		SAND	
		LABORATORY NUMBER		GRAVEL	
		SAMPLE TYPE		PLASTICITY INDEX	
		SAMPLE NUMBER (FIELD)		%	
SAMPLE DEPTH (FT.)		%		%	
0.2		%		%	
0.5		%		%	
N.R.C. PERMAFROST CLASSIFICATION		%		%	
0		%		%	
1		%		%	
2		%		%	
3		%		%	
4		%		%	
5		%		%	



Public Works
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MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: 1637+000		HOLE NO.: TH-8-311	
DATE DRILLED: 31-8-78		DRILL TECHNICIAN: H. R.		PLOTTED BY: R. S.	
HOLE DEPTH: 1.2		TYPE OF DRILL: B40-6" AUGERS		WATER LEVEL: _____	
WATER LEVEL: _____		SOIL DESCRIPTION		UNIFIED CLASSIFICATION	
ROAD SURFACE 0.2		SILTY GRAVEL		SM	
END HOLE 1.2					
DEPTH (M.)		N.R.C. PERMAFROST CLASSIFICATION		STANDARD PENETRATION RESISTANCE	
0				BLOWS / FT.	
1				DRY DENSITY	
2				LIB. CU. FT.	
3				MECHANICAL ANALYSIS	
4				<.005 mm % <.075 mm % >.005 mm % SAND % GRAVEL %	
5				CONSISTENCY LIMITS LIQUID LIMIT % PLASTIC LIMIT % PLASTICITY INDEX %	
		SAMPLE IDENTIFICATION DATA SAMPLE DEPTH (FT.) SAMPLE NUMBER (FIELD) SAMPLE TYPE LABORATORY NUMBER		NATURAL MOISTURE CONTENT % TRACK 28.2 53.7 10.7 7.4	
		0.3			
		1.2			



Public Works
Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: 1638+560		HOLE NO.: TH-8-318	
DATE DRILLED: 31-8-78		DRILL TECHNICIAN: J.G.		PLOTTED BY: R.S.	
HOLE DEPTH: 0.8		MECHANICAL ANALYSIS		UNIFIED CLASSIFICATION	
TYPE OF DRILL: 3/4" - 6" AUGERS		GRAVEL		STANDARD PENETRATION RESISTANCE	
WATER LEVEL		SAND		BLOWS / FT.	
DEPTH (M.)		PLASTICITY INDEX		DRY DENSITY	
SOIL DESCRIPTION		PLASTIC LIMIT		LBS. / CU. FT.	
ROAD SURFACE 0.2		LIQUID LIMIT		MECHANICAL ANALYSIS	
SILTY GRAVELY SAND		NATURAL MOISTURE CONTENT		<.005 mm <.075 mm >.005 mm	
END HOLE 0.8		LABORATORY NUMBER		%	
		SAMPLE TYPE		%	
		SAMPLE NUMBER (FIELD)		%	
		SAMPLE DEPTH (FT.)		%	
		N.R.C. PERMAFROST CLASSIFICATION		%	
		0.3		19.4	
		0.6		13.7	
		18 AUG. 1975		5.7	
				27.6	
				32.9	
				24.8	
				14.7	
				SC-5M	



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MATERIALS QUALITY CONTROL LABORATORY
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SUBSURFACE TESTING REPORT

PROJECT: SHAKWAK SEGMENT 8 HOLE LOCATION: 1639+030 HOLE NO.: TH-8-320

DATE DRILLED: 31-8-78 DRILL TECHNICIAN: J.G. PLOTTED BY: R.S. HOLE ELEVATION:

DEPTH (M.)	SOIL DESCRIPTION	N.R.C. PERMAFROST CLASSIFICATION	SAMPLE IDENTIFICATION DATA				CONSISTENCY LIMITS			MECHANICAL ANALYSIS			DRY DENSITY LBS./CU. FT.	STANDARD PENETRATION RESISTANCE BLOWS/FT.	UNIFIED CLASSIFICATION	
			SAMPLE DEPTH (FT.)	SAMPLE NUMBER (FIELD)	SAMPLE TYPE	LABORATORY NUMBER	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX (%)	GRAVEL (%)	SAND (%)	< 0.075 mm (%)				< 0.005 mm (%)
0	ROAD SURFACE 0.2		0.3													
1	SILTY GRAVEL 0.9 END HOLE		0.9	20	AUG. 12 1973			N.P.	31.9	49.4	12.0	6.7			SM	
2																
3																
4																
5																

PROJECT: SHAKWAK SEGMENT 8		HOLE LOCATION: 1639+280		HOLE NO.: TH-8-321	
DATE DRILLED: 3/8-78		DRILL TECHNICIAN: J.G.		PLOTTED BY: R.S.	
HOLE DEPTH: 0.9		HOLE ELEVATION:		UNIFIED CLASSIFICATION	
TYPE OF DRILL: B40L-6" AUGERS		MECHANICAL ANALYSIS		STANDARD PENETRATION RESISTANCE	
WATER LEVEL:		SAND		BLOWS / FT.	
DEPTH (M.):		GRAVEL		LBS. / CU. FT.	
SOIL DESCRIPTION ROAD SURFACE 0.2 SANDY SILT END HOLE 0.9		PLASTICITY LIMIT		PLASTICITY INDEX	
		LIQUID LIMIT		TRACE 5.3	
N.R.C. PERMAFROST CLASSIFICATION		PLASTIC LIMIT		TRACE 5.3	
SAMPLE IDENTIFICATION DATA		GRAVEL		TRACE 5.3	
SAMPLE DEPTH (FT.)		SAND		16.7	
0.3		PLASTIC INDEX		57.3	
0.9		PLASTIC LIMIT		20.7	
21		LIQUID LIMIT		ML	
AUG. 1998		NATURAL MOISTURE CONTENT		18.0	
LABORATORY NUMBER		GRAVEL		16.7	
SAMPLE TYPE		SAND		57.3	
SAMPLE NUMBER (FIELD)		PLASTICITY INDEX		TRACE 5.3	
21		LIQUID LIMIT		16.7	
AUG. 1998		NATURAL MOISTURE CONTENT		18.0	
LABORATORY NUMBER		GRAVEL		16.7	
SAMPLE TYPE		SAND		57.3	
SAMPLE NUMBER (FIELD)		PLASTICITY INDEX		TRACE 5.3	
21		PLASTIC LIMIT		16.7	
AUG. 1998		LIQUID LIMIT		57.3	
LABORATORY NUMBER		NATURAL MOISTURE CONTENT		18.0	

